

**2022 ANNUAL GROUNDWATER
MONITORING REPORT
WESTSIDE BASIN
SAN FRANCISCO AND SAN MATEO COUNTIES,
CALIFORNIA**

**Prepared By:
San Francisco Public Utilities Commission**

**In Cooperation with the City of Daly City, the City of San Bruno, and the
California Water Service Company (South San Francisco District)**

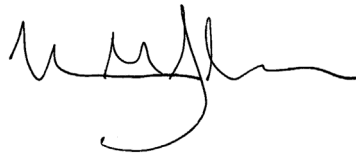
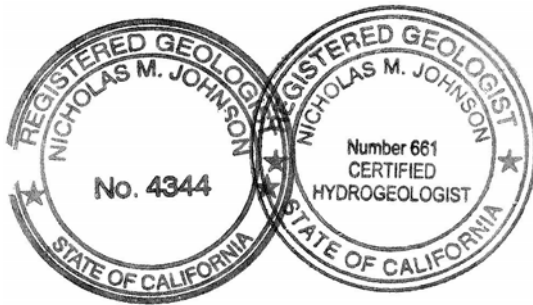
April 2023



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The Westside Basin Annual Groundwater Monitoring Report for 2022 was prepared by the San Francisco Public Utilities Commission in cooperation with the City of Daly City, the City of San Bruno, and the California Water Service Company (South San Francisco District). This report summarizes the results of water level elevation monitoring, general groundwater quality sampling and analysis, and additional groundwater-related field activities conducted within the Westside Basin in 2022.



Nicholas Johnson
P.G. No. 4344 (Exp. 11/24)
C.Hg. No. 661 (Exp. 11/24)



Christopher Lyles
P.G. No. 9341 (Exp. 04/25)



Obiajulu Nzewi
P.G. No. 8466 (Exp. 06/24)

Electronic Distribution:

cc:

Tom Francis, BAWSCA
Ross Moilan, Cal Water
Mike Utz, Cal Water
Joshua Cosgrove, City of Daly City
Gregory Krauss, City of Daly City
Matt Lee, City of San Bruno
Hae Won Ritchie, City of San Bruno
Steven Salazar, City of San Bruno
John Fio, EKI
Matthew Dachowski, LMGC
Will Halligan, LSCE

Robert Maddow, Esq.
Troy Flanagan, Olympic Club
Kimberlee West, RWQCB
Corey Chrisman, SFDPH
Eurich Santiago, SFDPH
June Weintraub, SFDPH
Taylor Andersen, SFGC
Alan R. Wong, SFPUC
Andrew DeGraca, SFPUC
Roselle Ferrer, SFPUC
Weldon Ng, SFPUC

Dan Mauer, SFRPD
Dave Iribarne, SFRPD
Eric Andersen, SFRPD
Charles Ice, SMCEH
Jacob Madden, SMCEH
Cheryl Prowell, SWRCB
Eric Lacy, SWRCB
Marco Pacheco, SWRCB
Vladimir Rakhimov, SWRCB
Brian Dossey, Town of Colma
Jason Gurdak, Valley Water

EXECUTIVE SUMMARY

This report presents the results of the 2022 groundwater monitoring program for the Westside Groundwater Basin (Westside Basin or Basin) in San Francisco and San Mateo counties, California for calendar year (CY) 2022. The San Francisco Public Utilities Commission (SFPUC) prepared this report in cooperation with the City of Daly City (Daly City), the City of San Bruno (San Bruno), and the California Water Service Company (Cal Water).

The Westside Basin as designated by the California Department of Water Resources has an on-shore area of approximately 40 square miles that extends from Golden Gate Park in San Francisco to the City of Burlingame in San Mateo County. The Basin is an important source of municipal and irrigation water supply for the communities and businesses that overlie it. The North Westside Basin refers to the portion of the Basin in San Francisco and the South Westside Basin refers to the portion of the Basin in San Mateo County.

As classified by the United States Drought Monitor, the San Francisco Peninsula experienced “severe drought” conditions during the entire 2022 calendar year (USDA, 2022). Precipitation at the San Francisco Downtown gauge was 19.05 inches during water year (WY) 2022 (October 2021 through September 2022) and 15.85 inches for the 2022 CY. The average annual precipitation at this station for the preceding 30 CYs (1992-2021) is 23.06 inches (NOAA, 2022).

During 2022, SFPUC measured and recorded groundwater levels in 101 monitoring wells throughout the Westside Basin. Measurements were taken quarterly in 33 wells, semi-annually in 5 wells, and continuously in 63 wells using pressure transducers and data loggers. Additionally, SFPUC and the partner agencies conducted water quality sampling in 71 monitoring wells in the spring and fall and at 13 production wells in the spring.

The first storage period of the Regional Groundwater Storage and Recovery (GSR) Project began in 2016 and ended June 30, 2021. During this time, partner agencies received 30,377 acre-feet of SFPUC surface water in-lieu of groundwater pumping. Since then, the GSR project has been in a hold period, during which partner agencies pump up to their designated quantities.

Based on a combination of metered and estimated pumping, total groundwater pumping from the Westside Basin was approximately 7,907 acre-feet in 2022, a 28 percent increase compared to 2021, and 125 percent of the annual average of 6,320 acre-feet for the preceding 10 years (2012-2021).

Compared to 2021, 2022 municipal pumping decreased by 88 percent in the North Westside Basin and increased by 90 percent in the South Westside Basin. 2022 was the fifth full year of operation for the San Francisco Groundwater Supply (SFGW) Project and the first full calendar

year of hold-period pumping under the GSR Project. Cal Water had limited ability to pump during 2022 because of a treatment plant upgrade.

Recycled water from the North San Mateo County Sanitation District was largely available for golf course irrigation during 2022. Total recycled water use at the Lake Merced Golf Club, Olympic Club, and San Francisco Golf Club was 571 acre-feet in 2022, slightly greater than an average of 564 acre-feet during 2009-2018 when recycled water was similarly available. With the increased use of recycled water during 2022 compared to the 2009-2018 period, there was a corresponding decrease in the amount of groundwater pumping reported by these Lake Merced area golf courses.

Groundwater levels in most North Westside Basin monitoring wells were generally stable during 2022. In the South Westside Basin, annual high and low groundwater levels in the Primary Production Aquifer generally decreased in 2022 compared to 2021. Declines were less pronounced in South San Francisco (Cal Water service area).

To manage Lake Merced water levels, SFPUC continues to work with local stakeholders and regulatory agencies to implement a multi-pronged approach. The interim target lake level is 14 to 16 feet North American Vertical Datum of 1988 (NAVD88). The seasonal low and high water-level elevations of Lake Merced's South Lake were slightly higher in 2022 than 2021 and remain within or above the interim target lake level range.

Groundwater monitoring continues to provide no definitive indication of saltwater intrusion in the Westside Basin except in proximity to San Francisco Bay. Monitoring wells near the bay at San Francisco Airport and in Burlingame continue to encounter sub-sea level groundwater elevations and elevated and/or increasing chloride concentrations in some zones.

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ACRONYMS AND ABBREVIATIONS

af	acre-feet
afy	acre-feet per year
Bay	San Francisco Bay
bgs	below ground surface
CASGEM	California Statewide Groundwater Elevation Monitoring Program
San Francisco	City and County of San Francisco
Daly City	City of Daly City
DWR	California Department of Water Resources
°F	degrees Fahrenheit
San Bruno	City of San Bruno
Cal Water	California Water Service Company
CY	calendar year
EIR	Environmental Impact Report
feet NAVD88	elevation in feet relative to North American Vertical Datum 1988
GMP	groundwater management plan
GSR	Regional Groundwater Storage and Recovery Project
LSCE	Luhdorff and Scalmanini Consulting Engineers
MCL	maximum contaminant level

mgd	million gallons per day
mg/L	milligrams per liter
NAVD88	North American Vertical Datum, 1988
NSMCSD	North San Mateo County Sanitation District
RGSR	Regional Groundwater Storage and Recovery Project
SFGW	San Francisco Groundwater Supply Project
SFGW-SWW	San Francisco Groundwater Supply Project, South Windmill Well
SFPUC	San Francisco Public Utilities Commission
SFRPD	San Francisco Recreation & Parks Department
SMCEHSA	San Mateo County Environmental Health Services Agency
SMCL	secondary drinking water standard
SWBVCGMA	South Westside Basin Voluntary Cooperative Groundwater Monitoring Association
TDS	total dissolved solids
Westside Basin or Basin	Westside Groundwater Basin
WQD	SFPUC Water Quality Division
WY	water year (e.g., WY 2022 is October 1, 2021 through September 30, 2022)
USDA	United States Department of Agriculture

1.0 INTRODUCTION

This report presents the results of the 2022 annual groundwater monitoring program for the Westside Groundwater Basin (Westside Basin or Basin) in San Francisco and San Mateo counties, California. The San Francisco Public Utilities Commission (SFPUC) prepared this report in cooperation with the City of Daly City (Daly City), the City of San Bruno (San Bruno), and the California Water Service Company (Cal Water).

The Westside Basin extends from Golden Gate Park within the City and County of San Francisco (San Francisco) to the City of Burlingame in San Mateo County. The California Department of Water Resources (DWR) has designated it as basin number 2-35. The Basin is an important supply of municipal and irrigation water for the communities and businesses that overlie it. The northern and southern portions of the Westside Basin on either side of the San Francisco–San Mateo county line are referred to as the North and South Westside Basins, respectively (Figure 1).

Annual monitoring of the Westside Basin began in 2000 and was coordinated by the San Mateo County Environmental Health Services Agency (SMCEHSA, 2000). In 2004, SFPUC assumed implementation of the monitoring program in coordination with Daly City, San Bruno, and Cal Water. The monitoring program addresses planning elements in the 2005 *Final Draft North Westside Groundwater Basin Management Plan* (SFPUC, 2005) and the *South Westside basin Groundwater Management Plan* (San Bruno and others, 2012).

In 2006, SFPUC prepared the report *Hydrogeologic Conditions in the Westside Basin–2005* (Luhdorff and Scalmanini Consulting Engineers [LSCE], 2006) in cooperation with Daly City, San Bruno, and Cal Water. It summarized the basin hydrogeology and provided an overview of historical, current, and planned activities related to groundwater as of 2005. Since 2007, the SFPUC Water Resources Division has prepared the Westside Basin annual groundwater monitoring report.

This annual report summarizes 2022 groundwater levels, pumping, and water quality within the Westside Basin in relation to the historical record. Additionally, it provides the water level record for Lake Merced in relation to groundwater conditions. The report is intended for public education and as a resource for SFPUC and cooperating agencies. The 2022 Westside Basin annual groundwater monitoring report can be accessed at:

<https://sfpuc.org/programs/water-supply-planning/groundwater>

SFPUC, Daly City, San Bruno, and Cal Water plan to continue coordinating the execution and reporting of this comprehensive monitoring program.

Unless stated otherwise, elevations provided in this document are in reference to the North American Vertical Datum of 1988 (NAVD88), which is locally 3.2 feet below mean sea level. San Francisco City Datum is equivalent to an elevation of 11.37 feet NAVD88. References to “sea level” in this document are equivalent to zero elevation NAVD88.

Annual data presented herein are for CYs unless specified as WYs. For example, WY 2022 was from October 1, 2021 to September 30, 2022. Drought periods are generally expressed in water years. Water years are useful for parsing wet and dry seasons whereas calendar years are useful for bracketing the typically spring-to-autumn period of relatively high-water demand and groundwater pumping for irrigation.

1.1 Planned and Ongoing Projects

The following projects are being planned or are occurring concurrent with the groundwater monitoring program.

San Francisco Groundwater Supply Project

The SFPUC San Francisco Groundwater Supply (SFGW) project provides a new, local source of water for San Francisco that improves water supply reliability during system maintenance, drought, and emergencies. When fully implemented, the SFGW Project will provide up to 4 million gallons per day (mgd), on average, from wells in the North Westside Basin.

Groundwater produced from the SFGW wells is blended with water from SFPUC’s Regional Water System before entering the municipal drinking water system.

Phase I test wells were constructed between 2007 and 2011 at the South and West Sunset Playgrounds, the Lake Merced Pump Station, and the Central Pump Station in Golden Gate Park. The project’s Final Environmental Impact Report (EIR) was certified in December 2013 and SFPUC approved the project for the remaining construction and implementation in January 2014. Construction of the pump stations for the four Phase I wells began in March 2015. Municipal groundwater production from the Lake Merced Pump Station well began in 2017 and from the South and West Sunset wells in early 2018. Production from the Golden Gate Park Central Pump Station well for park irrigation also began in early 2018. Production from the South and West Sunset wells was suspended following the detection in mid-2018 and mid-2021, respectively, of an industrial solvent in the raw groundwater. SFPUC is evaluating treatment options.

Phase II of the SFGW project began in late 2017 and involved rehabilitating two existing irrigation wells in Golden Gate Park and reconstructing their pump stations. Work on the North Lake well station was completed in March 2019 and work on the South Windmill well was completed in July 2020. The Phase II wells are being used for Golden Gate Park irrigation until

completion of the Westside Recycled Water Project in 2025 at which time they will be connected to the municipal drinking water system.

Recycled Water Projects

The Harding Park Recycled Water Project was completed in the fall of 2012. The project uses recycled water from the North San Mateo County Sanitation District (NSMCSD), a subsidiary of Daly City, to irrigate Harding Park and Fleming golf courses in San Francisco. SFPUC partnered with NSMCSD to construct a new pump station, distribution piping, and storage tank. The project replaces the use of potable water from SFPUC's Regional Water System for golf course irrigation.

NSMCSD also supplies recycled water to three other golf courses near Lake Merced: Lake Merced Golf Club, Olympic Club, and San Francisco Golf Club.

The Westside Recycled Water Project includes the construction of a new recycled water treatment plant, storage reservoir, pump station, and associated pipelines to replace surface water and groundwater currently used to irrigate Golden Gate Park and Lincoln Park Golf Course in the Lobos basin. The EIR for the project was completed and certified in September 2015. Construction of the recycled water pipeline began in early 2017 and was completed in July 2018. Construction of the treatment facility began in late 2017, and pump station construction began in mid-2019. Recycled water system start-up testing is anticipated for approximately fall 2023 with fully energized operations anticipated by fall 2025.

Plans are under way to supply the San Francisco Zoo and the Colma cemeteries with recycled water for irrigation in the place of groundwater.

Regional Groundwater Storage and Recovery Project

In cooperation with its Partner Agencies: Daly City, San Bruno, and Cal Water, SFPUC is establishing a dry-year groundwater supply for its Regional Water System through implementation of the Regional Groundwater Storage and Recovery (GSR) Project in the South Westside Basin. The Partner Agencies currently supply potable water to their retail customers through a combination of groundwater pumped from the South Westside Basin and surface water purchased from SFPUC. The GSR Project will provide supplemental SFPUC surface water to the Partner Agencies during normal and wet years. During these years, the Partner Agencies will reduce their groundwater pumping by a comparable amount, increasing the amount of groundwater retained in storage (referred to as "in-lieu recharge").

During a period of normal and wet years, the volume of groundwater in the South Westside Basin will increase due to natural recharge and reduced groundwater pumping by the Partner Agencies, increasing storage by up to 60,500 acre-feet (af) (about 20 billion gallons). During a period of dry or drought years, SFPUC's GSR project wells will pump the stored groundwater

while Partner Agency wells will withdraw their agreed-upon portion of the basin yield as needed to supplement other supplies. This new water supply will increase the Regional Water System's available water supply during a multi-year drought.

The 2002-2005 Pilot In-Lieu Recharge Demonstration Program evaluated the feasibility of GSR in the South Westside Basin and indicated that GSR could be a viable dry-year water supply project (LSCE, 2005).

The GSR Project was approved in 2014, began construction in spring 2015, and has completed initial startup, testing and commissioning with completion anticipated in 2026. In addition, a new capital improvement project, "The Regional Groundwater Treatment Project" is being implemented to evaluate additional centralized treatment options for some of the GSR wells. The GSR project began in-lieu water deliveries to the Partner Agencies during the storage phase running from May 2016 (Daly City) and June 2016 (San Bruno and Cal Water) through June 2021 (Daly City, San Bruno, and Cal Water). Starting July 1, 2021 and continuing through CY 2022, the GSR project has been in a hold period, with Partner Agencies pumping groundwater at volumes up to their designated quantities. A minor amount of groundwater pumping occurred at GSR wells during start-up testing as well as ongoing monthly exercising and maintenance.

Westside Basin Groundwater-Flow Model

Development of the Westside Basin Groundwater Flow Model began in 2002 with funding from a California State Assembly Bill 303 grant (Daly City, 2003). Subsequent model updates and improvements have been funded by SFPUC and the Partner Agencies for the GSR Project (HydroFocus, 2007, 2009, 2011, 2017). SFPUC and the Partner Agencies have used the model to evaluate potential changes in groundwater conditions as a result of future activities and management practices. Model simulations supported the EIRs for the SFGW and GSR projects (Kennedy-Jenks, 2012). The model was used more recently to evaluate the expected performance of the GSR project (SFPUC, 2020). The model will continue to be updated and refined as new data are collected and analyzed.

South Westside Basin Groundwater Management Plan

The 2012 *South Westside Basin Groundwater Management Plan* (GMP) provides a framework for regional groundwater management that sustains the beneficial uses of the groundwater resource in the South Westside Basin (San Bruno and others, 2012). Development of the plan was led by San Bruno and funded by a grant from DWR. The plan's objectives include informing the public of the importance, challenges, and opportunities of groundwater management in the South Westside Basin and developing consensus among stakeholders on issues and solutions related to groundwater. Additionally, the plan's objectives include building relationships among stakeholders within the South Westside Basin and local and state agencies

and supporting programs and actions to ensure the long-term sustainability of the groundwater resource. The plan provides recommendations for managing groundwater levels, protecting groundwater quality, and avoiding land surface subsidence.

North Westside Basin Groundwater Management Plan

SFPUC developed draft groundwater management plans for the North Westside Basin in 2005 and 2016. The recent plan was developed to guide implementation of the SFGW Project and sustainably manage the groundwater resource within the northern portion of the Basin. The plan summarizes the Basin hydrogeology, defines measurable objectives and actions for avoiding saltwater intrusion, land subsidence, and impacts to interconnected surface water, while protecting groundwater yield and quality. The plan also provides for public outreach, stakeholder involvement, and coordination with the management of the South Westside Basin. A draft plan was completed in 2016 and an update will be completed in 2024. Because DWR classified the Westside Basin as very low priority in 2019, submission of a Westside Basin groundwater sustainability plan to DWR is not currently required under the 2014 California Sustainable Groundwater Management Act.

1.2 Municipal Water Agencies

Approximately 2.7 million people rely on water supplied by SFPUC to meet their daily water needs. SFPUC is the retail water supplier for domestic, commercial, and institutional customers in San Francisco, which includes the North Westside Basin, and for a number of retail accounts outside the city. In addition, SFPUC provides water to 27 wholesale customers in San Mateo, Alameda, and Santa Clara counties under contractual agreement. Approximately two-thirds of the SFPUC water supply are delivered to the wholesale customers and one-third is delivered to retail customers.

The SFPUC Regional Water System draws approximately 85% of its water from runoff collected in Hetch Hetchy Reservoir in the upper Tuolumne River watershed within Yosemite National Park. This water is conveyed by gravity to Bay Area reservoirs and water users through a 167-mile aqueduct. The remainder of the water supply is derived from local runoff collected in reservoirs in the Alameda Creek and Peninsula watersheds in Alameda and San Mateo counties.

Water supply systems within the South Westside Basin are operated and managed by the Daly City Department of Water and Wastewater Resources, the Water Division of the San Bruno Public Services Department, and Cal Water (an investor-owned water utility) for South San Francisco District, which includes Colma, and a small portion of Daly City. These systems are supplied by groundwater pumped from the South Westside Basin and contracted water deliveries from the SFPUC Regional Water System. Since the 1990s, SFPUC and its Partner

Agencies in the South Westside Basin have worked cooperatively to monitor and manage groundwater and coordinate projects.

1.3 California Groundwater Elevation Monitoring Program

DWR established the California Statewide Groundwater Elevation Monitoring Program (CASGEM) in 2009 in accordance with Senate Bill X7-6. It requires designated responsible parties to monitor seasonal groundwater elevations in basins within their jurisdiction and submit these data to DWR. SFPUC is the designated CASGEM entity for monitoring and reporting groundwater elevations in the North Westside Basin and six other small groundwater basins within San Francisco: Lobos, Marina, Downtown San Francisco, Islais Valley, South San Francisco, and Visitacion Valley. The potential groundwater supply from these other small basins is relatively minor and unused, except for springs in Lobos Basin that supply water for the Presidio.

In the spring and fall of 2022, SFPUC measured groundwater levels in all 11 of the North Westside Basin monitoring wells. During fall of 2022, SFPUC measured the groundwater level at the Islais Valley monitoring well. All of these data were entered into the DWR CASGEM system in accordance with State requirements.

Daly City, San Bruno, and Cal Water formed the South Westside Basin Voluntary Cooperative Groundwater Monitoring Association (SWBVCGMA) to address CASGEM requirements for their service areas in the South Westside Basin, and DWR designated SWBVCGMA as the monitoring entity for these areas in 2012. The CASGEM monitoring plan for SWBVCGMA identifies eight wells for monitoring.

2.0 WESTSIDE BASIN CLIMATE, HYDROLOGY, AND HYDROGEOLOGY

2.1 Climate

San Francisco has a Mediterranean climate with cool dry summers and mild wet winters. Based on meteorological data collected between 1914 and 2015, San Francisco's annual average daily high and low air temperatures are approximately 64 and 51 degrees Fahrenheit (°F), respectively. Temperatures range seasonally from a monthly average daily low of about 45°F in December and January to a monthly average daily high of about 70°F in September and October.

Since the early 1900s, San Francisco's mean annual precipitation has been approximately 21 inches, nearly all of which occurs as rainfall. On average, about 85 percent of annual precipitation occurs between November and March. December, January, and February are the wettest months, with rainfall averaging approximately 4 inches per month. May through September are the driest months, with average monthly rainfall of less than one-half inch.

Portions of the Westside Basin in close proximity to the Pacific Ocean have a distinct maritime Mediterranean climate influenced by wind, fog, and precipitation. In summer and fall, locations adjacent to the ocean, such as Lake Merced, are often foggy with cool temperatures in the 50s and 60s degrees Fahrenheit.

As classified by the United States Drought Monitor, the San Francisco Peninsula experienced "severe drought" conditions during all of the 2022 CY (USDA, 2022).

Precipitation at the San Francisco Downtown gauge was 19.05 inches during WY 2022 (October 2021 through September 2022) and 15.85 inches for the 2022 CY. The average annual (CY) precipitation at this station for the preceding 30 years (1992-2021) is 23.06 inches (NOAA, 2022).

2.2 Hydrogeology

The Westside Basin has a land surface area of approximately 40 square miles in San Francisco and San Mateo counties (Figure 1). DWR designates it as groundwater basin number 2-35. The Westside Basin borders four other small groundwater basins located wholly or partially within San Francisco: the Lobos Basin to the north (DWR basin 2-38); the Downtown, Islais Valley, and Visitacion Valley groundwater basins to the east (basins 2-40, 2-33, and 2-32); and the San Mateo Plain subbasin of the Santa Clara Valley basin to the south (basin 2-9.03).

As defined by Phillips and others (1993), the Westside Basin's northern boundary extends approximately four miles inland from Lands End north of Ocean Beach in San Francisco along a mostly buried bedrock ridge north and through Golden Gate Park. Continuing clockwise around

the Basin, its northeastern boundary encompasses the panhandle of Golden Gate Park and extends five miles south through Twin Peaks and Mount Davidson to the San Francisco-San Mateo county line about a mile east of Lake Merced. The eastern Basin boundary in San Mateo County extends six miles along the southern flank of San Bruno Mountain to San Francisco Bay, and then five miles along the bay shore from South San Francisco to Burlingame. A buried bedrock ridge and a thick accumulation of Bay Mud appears to separate the basin from San Francisco Bay in the San Bruno area. The 1.6-mile southeastern boundary is defined by a bedrock high separating the Westside Basin from the San Mateo Plain Subbasin. The Basin's southwestern boundary follows the Serra Fault zone from Hillsborough twelve miles northwest to the Pacific Ocean. The Basin's onshore western boundary follows the coast for about six miles from Daly City north along Ocean Beach. In the subsurface, the Basin's western boundary is offshore and may follow one or more branches of the San Andreas fault system that extends offshore northwest of Lake Merced. The 2.2-mile county-line boundary between the North and South Westside Basin does not have hydrogeological significance other than influencing the distribution of municipal groundwater pumping.

The Westside Basin contains two primary water-bearing geologic units, the weakly consolidated upper Merced Formation of early Pleistocene age and the unconsolidated Colma Formation of late Pleistocene age. These generally sandy units are underlain and bounded by low-permeability rock including the Franciscan and Great Valley complexes of Late Jurassic and Cretaceous age (basement rock) and the structurally deformed middle and lower units of the Merced Formation. Minor surficial units include late Quaternary dune sands, Holocene alluvium along existing and former stream channels, hillslope deposits, and both engineered and non-engineered artificial fill. These surficial deposits may directly overlie basement rock in areas where the Basin boundary is delineated along drainage divides. The total thickness of the basin's water-bearing units ranges from about 300 feet near Golden Gate Park to 700 feet or more in portions of the South Westside Basin (Figure 2).

Three aquifer zones are recognized in the Westside Basin, the Shallow, Primary Production, and Deep aquifers (LSCE, 2010). The Shallow Aquifer extends 50 to 120 feet below the water table within surficial deposits and the Colma and upper Merced formations. This shallow water-table zone occurs above the "-100-foot clay" and other clayey aquitards beneath portions of the Sunset District and Lake Merced areas. A shallow water-table zone is less well defined in the South Westside Basin due to predominantly fine-grained deposits at shallow depths and partially dewatered shallow zones.

The roughly 300-foot thick Primary Production Aquifer occurs within the upper Merced Formation below the -100-foot clay aquitard (where present) and above the W-clay aquitard, or its equivalent, from the Sunset District through Daly City to Colma. The Primary Production Aquifer is subdivided vertically by discontinuous aquitards, including the X- and Y-clays extending between the Sunset District and Daly City, and an aquitard that separates shallow

and deep aquifer zones beneath South San Francisco. The Primary Production Aquifer becomes overlain by fine-grained Bay Sediments near and southeast of San Bruno.

The Deep Aquifer is up to 200 feet thick and occurs within the upper Merced Formation beneath the W-clay, or its equivalent, from the Sunset District to Colma.

Groundwater in the vicinity of Lake Merced and north to Golden Gate Park is encountered at relatively shallow depths, ranging from approximately 5 to 60 feet below ground surface (bgs). Lake Merced is incised into the Colma Formation and is in hydraulic continuity with the Shallow Aquifer. Within the pumping depressions of the South Westside Basin, depths to groundwater within the Primary Production and Deep aquifers can exceed 200 feet bgs. Groundwater movement is restricted along the southwestern boundary of the South Westside Basin by a low-permeability boundary formed along the Serra Fault zone.

2.3 Surface Water Hydrology

Lake Merced

Until the early 1900s, Lake Merced was a natural lake fed by local runoff and springflow, and drained by a stream discharging from the northwestern end of the lake. The stream flowed to the ocean through the present-day location of the San Francisco Zoo and Sloat Boulevard. The springs were primarily along the eastern side and beneath the southern portion of the lake, resulting in primarily south-to-north flow through the lake.

Today, Lake Merced consists of four lakes (North, East, South, and Impound lakes) and has no channelized inflow or outflow. A narrow channel connects North Lake and East Lake and equalizes their water surface elevations. A conduit between North Lake and South Lake allows water to flow between the lakes when the elevation in either lake is at least approximately 3.35 feet San Francisco City datum (14.72 feet NAVD88). When lake levels are below that elevation, these two lakes are separated and typically exhibit different water surface elevations. South Lake and Impound Lake are separated below an elevation of approximately 4.26 feet San Francisco City datum (15.63 feet NAVD88) by a levee that contains the Ingleside combined sewer pipeline and serves as the foundation of an elevated pedestrian walkway. Water flows freely beneath the pedestrian walkway and connects both lakes when the level of either lake is above this levee. Under current and recent conditions, the flow of water through the four lakes is generally north to south.

Beginning with the construction of the Vista Grande Canal and Tunnel by Spring Valley Water Works in 1897, urbanization of the Lake Merced watershed has diverted storm runoff away from the lake to help maintain the lake's water quality. Additionally, urbanization has impeded springflow into the lake as a result of emplaced fill, reduced groundwater recharge to the Shallow Aquifer, and downward hydraulic gradients caused by pumping from the underlying

aquifers. As a result, lake levels have become more sensitive to seasonal and climatic variability.

Pine Lake

Pine Lake is a relatively shallow, 3.4-acre freshwater lake located in the westernmost portion of Stern Grove and Pine Lake Park, about 0.5 mile northeast of Lake Merced. Pine Lake (also known as Laguna Puerca) is one of San Francisco's few natural lakes. Like Lake Merced, Pine Lake is incised into the upper portion of the Shallow Aquifer.

The San Francisco Recreation & Parks Department (SFRPD) completed an improvement program for Stern Grove and Pine Lake Park in 2007. Since then, lake levels have been maintained at about 31.5 feet San Francisco City datum (42.9 feet NAVD88) by augmenting the lake with groundwater pumped from a previously inactive well (Stern Grove well) approximately 1,500 feet east of Pine Lake. According to SFRPD staff, the lake level is maintained by pumping groundwater into the lake for 2 to 3 days in summer and 1 day in winter. As a result, the recent average lake level is about 4 feet higher than in 2007 and about 7 feet higher than in 2004, with a typical depth of about 11.5 feet.

Golden Gate Park Lakes

Golden Gate Park has 13 small lakes and ponds that were constructed or substantially altered by the park's development. Five of the lakes (Elk Glen, Middle, South, Mallard, and North lakes) are believed to have been natural and fed by groundwater, whereas the other lakes and ponds may or may not have coincided with pre-existing natural surface water features. The lake levels are currently maintained by groundwater pumped from SFGW project wells.

3.0 HISTORICAL AND RECENT GROUNDWATER USE

Groundwater pumped from the Westside Basin has been used as a water supply since at least the early 1900s (Bartell, 1913a). Table 1 and Figure 3 summarize the historical record of municipal groundwater pumping from the Westside Basin since 1949. Table 2 and Figure 4 summarize the record of groundwater pumping for park, golf course, and cemetery irrigation. A brief summary of municipal and irrigation water use follows.

San Francisco

By the early 1900s, wells drilled to the north, east, and south of Lake Merced were supplying irrigation and potable water pumped from the Westside Basin. The Spring Valley Water Company operated two wells near the outlet of Lake Merced that pumped about 0.1 mgd, or about 100 acre-feet per year (afy) (Bartell, 1913b). Total groundwater pumpage from the Lake Merced area, the Sunset District, and Golden Gate Park averaged about 0.4 mgd (400 to 500 afy). In addition, approximately 3 mgd were diverted from spring-fed Lake Merced for potable and emergency use until 1932.

During the early 1930s the San Francisco Board of Public Works installed production wells with a combined capacity of about 6.5 mgd (7,300 afy) in the Sunset District to serve as a drought emergency water supply (San Francisco Water Department, 1994). These wells produced an average of 5 mgd (5,600 afy) between 1930 and 1935. Use of these wells ended once Tuolumne River water from Hetch Hetchy Reservoir became available to San Francisco in the mid-1930s (San Francisco Water Department, 1961).

As described in Section 1.1, SFPUC installed four new municipal water supply wells from 2007 to 2011 as part of the SFGW Project, and in 2020 completed the retrofit of two Golden Gate Park irrigation wells for either irrigation or municipal potable use. Production from the Lake Merced well began in 2017 and intermittent production from the South Sunset, West Sunset, and Golden Gate Central wells began in 2018. Intermittent production from the South Windmill and North Lake wells began in 2021. The SFGW Project contributed approximately 67 af to the municipal water supply in 2022. The three SFGW wells in Golden Gate Park will continue to provide about 1.1 mgd for park irrigation until a reliable recycled water supply is available.

Daly City Service Area

Local groundwater use by Daly City increased from about 1,500 afy in 1950 to 5,000 afy in 1970 coinciding with post-war development (Kirker, Chapman & Associates, 1972). Between 1970 and 2014, Daly City's groundwater use ranged from approximately 3,000 to 5,000 afy, except during the 2002-2005 Pilot In-Lieu Recharge Demonstration Program (Section 1.1) when pumping was reduced to approximately 700 to 2,700 afy. Daly City pumping declined

substantially from May 2016 through June 2021 as a result of SFPUC in-lieu surface water deliveries during the recent GSR project storage period. From July 2021 through April 2023, Daly City has resumed pumping up to its designated quantity during the current GSR project hold period. Daly City currently has the following six production wells, although not all were pumped in 2022: Jefferson, Junipero Serra, Sullivan, Vale, DC-4, and Westlake. Daly City groundwater production was 2,355 af in 2022.

South San Francisco District

Municipal groundwater pumping by Cal Water for its South San Francisco District declined from about 2,200 afy in the 1950s to approximately 1,100 afy in 2002 (Figure 3). From 2003 to 2008, groundwater pumping in South San Francisco was temporarily discontinued as part of the Pilot In-Lieu Recharge Demonstration Program, during which SFPUC surface water supplies temporarily replaced the use of groundwater. From 2008 to 2015, groundwater pumping by Cal Water for South San Francisco steadily increased from approximately 200 to 1,300 afy. Cal Water groundwater pumping declined substantially from June 2016 through June 2021 as a result of SFPUC in-lieu surface water deliveries during the recent GSR project storage period. From July 2021 through April 2023, Cal Water had the ability to pump up to its designated quantity but has been unable to do so as it was waiting for its treatment plant to come online. Cal Water currently has six production wells, SS-19 through SS-24, although not all were pumped in 2022. Cal Water groundwater production for South San Francisco was 34 af in 2022.

San Bruno Service Area

Municipal groundwater pumping by San Bruno was approximately 2,000 afy from the 1950s through the mid-1980s, then varied between 1,000 and 3,000 afy through 2002 (Figure 3). From 2002 to 2005, San Bruno reduced its pumping to approximately 550 to 1,200 afy during the Pilot In-Lieu Recharge Demonstration Program, after which its pumping ranged between approximately 1,600 to 2,400 afy through 2015. San Bruno's groundwater pumping declined substantially from June 2016 through June 2021 as a result of SFPUC in-lieu surface water deliveries during the recent GSR storage period. From July 2021 through April 2023, San Bruno resumed pumping up to its designated quantity during the current GSR hold period. San Bruno currently has four production wells, SB-16, -17, -18, and -20, although not all were pumped in 2022. San Bruno groundwater production was approximately 2,314 af in 2022.

Irrigation and Other Non-Potable Use

Westside Basin groundwater use for irrigation and other non-potable uses at Golden Gate Park, the San Francisco Zoo, Lake Merced area golf courses, and Colma cemeteries is summarized below and in Tables 1 and 2 and Figure 4. The estimated annual groundwater use by each of these is discussed in Sections 4.6 through 4.9.

- **Golden Gate Park:** Golden Gate Park historically and currently uses groundwater pumped from wells within the park for irrigation and maintenance of lake levels. Recently, three wells have been relied upon for irrigation—South Windmill Replacement, North Lake, and Golden Gate Central wells. SFPUC operates and maintains these wells under the SFGW project and documents flowmeter readings at each well. Groundwater pumping for Golden Gate Park was 1,362 af in 2022.
- **San Francisco Zoo:** The San Francisco Zoo historically and currently uses groundwater for irrigation and to fill various zoo exhibits. Its groundwater pumping has been metered since 2005. The San Francisco Zoo well is operated and maintained by SFRPD, while SFPUC regularly records the flowmeter readings from the well. Groundwater pumping for San Francisco Zoo was 158 af in 2022.
- **Golf Courses:** There are seven golf courses in the Westside Basin that have used groundwater for irrigation: Harding Park Golf Course, Lake Merced Golf Club, Olympic Club Golf Course, San Francisco Golf Club, California Golf Club, Golden Gate Park Golf Course, and Green Hills Country Club. In 2004, the NSMCSD Wastewater Treatment Plant began serving recycled water for irrigating three golf courses (Lake Merced Golf Club, Olympic Club Golf Course, and San Francisco Golf Club) following the plant's addition of tertiary treatment and the construction of a distribution system to these golf courses. In 2012, recycled water was made available to Harding Park from NSMCSD for irrigation. The Golden Gate Park Golf Course will begin receiving recycled water from the Westside Recycled Water Project beginning approximately fall 2025.

Metered groundwater pumping and recycled water use are reported by Lake Merced Golf Club (partial), Olympic Club Golf Course, and San Francisco Golf Club (Table 2). The estimates of annual groundwater use presented in Table 2 and Figure 4 for the California Golf Club are from LSCE (2005) for 1960-2005, Carollo Engineers (2008) for 2006-2010, and HydroFocus (2011) for 2011-present. Groundwater pumping for golf course irrigation was approximately 753 af in 2022 (excluding irrigation for the Golden Gate Park Golf Course, which is included with the park's total groundwater use).

- **Cemeteries:** The Westside Basin includes about 600 acres of cemetery property within and near Colma that historically and currently have pumped groundwater for irrigation. Estimates of cemetery annual groundwater use presented in Table 1 and Figure 4 are from LSCE (2005) for 1960-2005, Carollo Engineers (2008) for 2006-2010, and Hydro focus (2011) for 2011-present. Golden Gate National Cemetery has not been irrigated with groundwater since the 1960s (Boone, Cook and Associates, 1987). Total groundwater pumping for cemetery irrigation was approximately 859 af in 2022.

4.0 2022 GROUNDWATER USE

In 2022, groundwater pumping in the Westside Basin supplied municipal water for Daly City, South San Francisco (Cal Water), San Bruno, and San Francisco. Additionally, groundwater was pumped by the GSR project for testing of project wells and non-potable water was pumped for irrigation and other uses by Golden Gate Park, Pine Lake, San Francisco Zoo, golf courses, and cemeteries. Westside Basin groundwater pumping is described below and summarized in Tables 1 and 2 and Figures 3 and 4.

4.1 City of Daly City

Groundwater pumping by Daly City for municipal use during the 2022 CY totaled 2,355 af.

4.2 California Water Service Company (South San Francisco District)

Groundwater pumping by Cal Water for municipal use during the 2022 CY totaled 34 af.

4.3 City of San Bruno

Groundwater pumping by San Bruno for municipal use during the 2022 CY totaled 2,314 af.

4.4 City and County of San Francisco

Groundwater pumping by SFPUC for municipal use during the 2022 CY totaled 67 af.

4.5 Regional Groundwater Storage and Recovery Project

Groundwater pumping by the GSR project for testing of project wells during the 2022 CY totaled 0.07 af.

4.6 Golden Gate Park and Pine Lake

Metered groundwater pumping for irrigation and other non-potable uses in Golden Gate Park during the 2022 CY totaled approximately 1,362 af.

In addition, SFRPD estimates that approximately 5 afy of groundwater pumping from the Stern Grove well is needed to maintain the level of Pine Lake.

4.7 San Francisco Zoo

Metered groundwater pumping at the San Francisco Zoo during the 2022 CY totaled 158 af.

4.8 Golf Courses

Metered groundwater pumping by Lake Merced Golf Club, Olympic Club Golf Course, and San Francisco Golf Club during the 2022 CY totaled approximately 382 af (Table 1 and 2). Lake Merced Golf Club 2022 groundwater use is estimated for five of the months due to issues with recently installed equipment. Because recycled water was widely available for use during 2022, groundwater pumping for Lake Merced area golf courses decreased compared to 2021.

Groundwater pumping by California Golf Club and Green Hills Country Club is unmetered but estimated to average 237 and 134 afy, respectively (HydroFocus, 2011; Table 1).

Total groundwater use for irrigating Westside Basin golf courses in 2022 is estimated to be 753 af.

4.9 Cemeteries

Groundwater pumping for irrigating the Colma cemeteries is unmetered but estimated to average 859 afy (HydroFocus, 2011; Table 1).

4.10 Summary

As summarized in Table 1, groundwater production from the Westside Basin totaled approximately 7,907 af in 2022. Municipal groundwater use by San Francisco, Daly City, San Bruno, and California Water Service Company (South San Francisco) was 4,769 af in 2022. The three metered golf clubs in the Lake Merced area used 382 af of pumped groundwater and 571 af of recycled water during 2022.

The total metered use of Westside Basin groundwater in 2022 was approximately 6,672 af. Metered usage includes municipal pumping for San Francisco, Daly City, San Bruno, and Cal Water (South San Francisco), GSR well testing, and non-potable use for Golden Gate Park, San Francisco Zoo, Lake Merced Golf Club, Olympic Club Golf Course, and San Francisco Golf Club. Average annual non-metered groundwater pumping in the Westside Basin is estimated to be approximately 1,235 afy (HydroFocus, 2011) and includes California Golf Club, Green Hills Country Club, Pine Lake filling, and cemeteries.

This report does not estimate groundwater pumping for domestic use, remediation, or construction dewatering. These uses may be assumed to be relatively small compared to most of the uses inventoried above.

5.0 MONITORING PROGRAM OVERVIEW

The Westside Basin monitoring program consists of quarterly or more frequent groundwater and lake level gauging and annual, semi-annual (spring and fall), or more frequent groundwater sampling for selected water quality parameters. These data support an ongoing evaluation of general groundwater conditions and water quality within the aquifer system, with particular emphasis on lake-aquifer interactions and the potential for saltwater intrusion. Program data extend as far back as 1996 and provide a baseline for evaluating the implementation of the SFGW, GSR, and other projects.

The groundwater elevation monitoring network consists of 101 individual wells at 41 locations (Table 3, Figure 5). The network consists of dedicated monitoring wells and 4 inactive production wells. The monitored wells are subdivided into coastal, lake-aquifer, Bay side, and general North and South Westside Basin monitoring networks. Table 4 lists a subset of 44 of these wells used to construct groundwater elevation contours for the Shallow and Primary Production aquifers. As shown in Table 5, measurements are collected manually on a quarterly or semi-annual basis for some wells, and continually using electronic pressure transducers and data loggers for other wells. Groundwater elevation hydrographs relative to the NAVD88 datum are provided for selected wells in Figures 11 through 14 and 16 through 21, and for all monitored wells in Appendix A. The program also includes continuous monitoring of the water surface elevation of Lake Merced's South Lake using a pressure transducer installed in a stilling well.

The groundwater quality monitoring network consists of 87 individual wells at 42 locations (Table 6, Figure 6). The network consists of dedicated monitoring wells except for 15 active or occasionally active production wells. These wells are subdivided into separate coastal, Bay side, and general basin monitoring networks. Samples are collected annually and semi-annually as indicated in Table 7. Recent and historical groundwater quality monitoring results are presented and discussed in Section 7. The laboratory analytical reports are provided in Appendix B.

SFPUC's Water Quality Division (WQD) has led the fieldwork for the groundwater quality monitoring program since fall 2014. WQD's sampling protocols and field procedures for this program are presented in the *Westside Basin Groundwater Monitoring Manual of Procedures* (SFPUC, 2014; Appendix C).

Samples collected to assess general groundwater quality are analyzed for some or all of the following constituents:

- General minerals: total alkalinity, calcium, magnesium, sodium, potassium, chloride, and sulfate.

- Nitrate.
- General parameters: specific conductance, pH, total dissolved solids (TDS), and hardness (as CaCO_3).

6.0 GROUNDWATER AND LAKE LEVEL MONITORING

Figures 7 and 8 present 2022 spring and fall estimated groundwater elevation contours for the Shallow Aquifer, and Figures 9 and 10 present 2022 spring and fall estimated groundwater elevation contours for the Primary Production Aquifer. The estimated groundwater elevation contours are based on 2022 groundwater level data for the monitoring wells listed in Table 4.

The following sections discuss the 2022 groundwater level monitoring results for the coastal, lake-aquifer, South Westside Basin, and Bay side monitoring networks.

6.1 Coastal Groundwater Level Monitoring

The coastal groundwater level monitoring network consists of 26 individual wells at 11 locations along the coastal zone from Golden Gate Park south to Daly City (Table 3, Figure 5).

Monitoring well clusters are located in western Golden Gate Park; along the Old Great Highway near Kirkham, Ortega, and Taraval streets; and at San Francisco Zoo, Fort Funston, and Thornton Beach.

Figures 11, 12, 13, and 14 present groundwater elevation hydrographs for the period of record for the Kirkham, Ortega, Taraval, and Zoo monitoring well clusters, respectively. These plots include chloride concentrations monitored at these same wells as discussed in Section 7.1.

Groundwater elevations in both the Shallow and Primary Production Aquifer coastal monitoring wells were above sea level in 2022.

Table 8 compares 2021 and 2022 annual low groundwater levels for selected coastal monitoring wells. Compared to 2021, annual low groundwater levels in the Shallow Aquifer were higher in 2022 at all wells. Annual high groundwater levels in the Shallow Aquifer during 2022 were generally the same as in 2021 with the exception of the South Windmill MW57 and South Windmill MW140 wells, where annual highs declined year over year, likely due to irrigation pumping at the adjacent South Windmill Replacement irrigation well (SFGW-SWW).

Annual low groundwater levels in monitoring wells completed in the Primary Production Aquifer were higher in 2022 compared to 2021. Annual low groundwater levels monitored in the Deep Aquifer by Taraval MW530 (Figure 13d) and Zoo MW565 (Figure 14c) declined from the prior year, although levels remain well above their 2013 annual lows. The 2013 annual low is used for comparison purposes because groundwater levels were at a 14-year low that year prior to the recent GSR storage period.

Groundwater elevations monitored in South Windmill MW140, SF-1, and SWM-3 remained above sea level during 2022 and were similar to the prior year (see hydrographs in Appendix A). Water level declines in these wells from 2020 to 2021 coincided with resumed pumping from the nearby SFGW-SWW well beginning in June 2020 after 18 months of in-operation during

refurbishment. During 2022, it appears that groundwater levels in this area had adjusted to SFGW-SWW pumping.

Groundwater elevations measured in monitoring wells at Fort Funston and Thornton Beach continue to be generally stable and consistently above sea level (Appendix A). Groundwater conditions at these locations appear to be hydraulically separate from the Basin further inland as a result of low-permeability, deformed geologic strata along the Serra fault thrust zone (LSCE, 2004).

6.2 Lake Merced and Lake-Aquifer Level Monitoring

The level of Lake Merced is monitored at South Lake and groundwater levels are monitored in a network of 20 dedicated monitoring wells at 10 locations surrounding the lake complex using a combination of continuous and periodic monitoring (Table 3, Figure 5).

SFPUC is working with local stakeholders and regulatory agencies to implement a multi-pronged approach to manage lake levels. This includes adding regional system water to stabilize lake levels, last done in 2005, and establishing an interim target lake level elevation range between 14 and 16 feet NAVD88.

Figure 15 presents the 1997-2022 lake level hydrograph for Lake Merced's South Lake. South Lake water surface elevations ranged from approximately 15.78 to 16.94 feet NAVD88 in 2022 and generally were within or above the established interim lake level range. Seasonal high and low lake levels were slightly higher in 2022 than 2021, and the 2022 seasonal low level was approximately 4.5 feet above the 2002 seasonal low. The 2002 seasonal low is used for comparison because lake levels were then at a 24-year low prior to the GSR Pilot In-Lieu Recharge Demonstration Program and the availability of recycled water for irrigating Lake Merced Area golf courses. South and Impound lakes were interconnected during 2022 because the level of South Lake did not fall below 15.63 feet NAVD88 (4.26 feet San Francisco City datum).

Groundwater elevations in the Shallow Aquifer surrounding Lake Merced ranged from 15.36 feet NAVD88 in monitoring well LMMW-1S to 28.01 feet NAVD88 in LMMW-7SS during spring 2022. During fall 2022, groundwater elevations ranged from 14.63 feet NAVD88 in LMMW-1S to 27.52 feet NAVD88 in LMMW-7SS.

Groundwater elevations in the Primary Production Aquifer in the vicinity of Lake Merced ranged from -5.61 feet NAVD88 in monitoring well LMMW-3D to 13.56 feet NAVD88 in LMMW-2D during spring 2022. During fall 2022, groundwater elevations in the Primary Production Aquifer in the vicinity of Lake Merced ranged from 0.33 feet NAVD88 in LMMW-3D to 13.98 feet NAVD88 in LMMW-2D.

Figure 16 presents groundwater level hydrographs for a pair of monitoring wells near the western shore of South Lake, one screened in the Shallow Aquifer (LMMW-1S) and one in the Primary Production Aquifer (LMMW-1D). Groundwater levels measured in LMMW-1S during 2022 generally remained above levels recorded during the WY 2012-2015 drought. Groundwater elevations in LMMW-1D began a rising trend in 2016, surpassing high levels observed in 2011, then declined from 2019 through 2021 coinciding with increased local pumping. Recycled water was available for irrigating Lake Merced area golf courses for most of 2022, which resulted in decreased local pumping and upward trending water levels. Water levels in both monitoring wells remain substantially above low levels measured in 2002, with recent recoveries following the resumption of normal recycled water use by area golf courses in lieu of groundwater pumping.

Groundwater levels in the Primary Production Aquifer measured in monitoring well LMMW-3D near the southwestern shore of Impound Lake (see hydrograph in Appendix A) had been rising since 2016, coinciding with the start of the 2016-2021 GSR storage period. Seasonal highs at this location have exceeded sea level each year since 2017. A groundwater level decline began in 2019 and continued through 2021, coinciding with (a) increased pumping locally by golf courses when recycled water was largely unavailable from the NSMCSD from approximately September 2019 to September 2020 and (b) the resumption of pumping by GSR partner agencies in July 2021 following the end of the GSR storage period. Groundwater levels appear to have stabilized during 2022 coinciding with the continued availability of recycled water for golf course irrigation.

6.3 South Westside Basin Groundwater Level Monitoring

The groundwater level monitoring network in the South Westside Basin consists of 53 wells at 19 locations along the Basin axis between Daly City and Burlingame (Table 3, Figure 5). One of these wells (LMMW-6D) is also included in the Lake-Aquifer monitoring network, and seven of these wells at 3 locations comprise the Bay side monitoring program described in Section 6.4.

This network includes a total of ten monitoring well clusters and one single monitoring well installed in Daly City, Colma, South San Francisco, San Bruno, and Millbrae by SFPUC from 2007 to 2012 (Kennedy/Jenks, 2009, 2010a, 2012), and four inactive production wells (DC-1, DC-8, SS 1-02, and SB-12). Monitoring records for nine of these wells extend back to 2000. Prior to fall 2015, the network included an additional monitoring well cluster (CUP-3A) that was subsequently destroyed to accommodate the construction of a GSR production well.

Figures 17, 18, and 19 present groundwater level hydrographs for monitoring well DC-1 Westlake in Daly City, SS1-02 in South San Francisco, and SB-12 in San Bruno. Appendix A provides hydrographs for all network wells.

Groundwater levels in all South Westside Basin monitoring wells representative of the Primary Production Aquifer were below sea level in 2022, ranging from -12.20 (LMMW-6D) to -167.42 (SB-12 Elm Avenue) feet NAVD88 during the spring monitoring event, and from -6.72 feet to -170.71 feet NAVD88 for these same two wells during the fall monitoring event.

Annual high and low groundwater levels in the Primary Production Aquifer generally decreased in 2022 compared to 2021 throughout the South Westside Basin. These declines coincided with continued pumping by the GSR Partner Agencies at or near their designated quantities following the end of the GSR storage period in July 2021. Declines were less pronounced in South San Francisco (Cal Water service area) where Cal Water had limited ability to pump its designated quantity until completion of a treatment plant upgrade.

Groundwater levels in shallower zones rose or were stable within the South Westside Basin.

6.4 Bay Side Groundwater Level Monitoring

San Bruno has conducted groundwater level monitoring since 2006 in two well clusters installed along the San Francisco Bay side (Bay side) of the Westside Basin: Burlingame-S, -M, and -D and SFO-S and SFO-D at San Francisco Airport (Figure 5; WRIME, 2007a). San Bruno monitors these wells on a semi-annual basis in accordance with the *San Bruno Saltwater Intrusion Monitoring Wells: Sampling Plan* (WRIME, 2007b). Figures 20 and 21 present groundwater level hydrographs for the Burlingame and SFO monitoring well clusters, respectively.

In March 2022, groundwater elevations in the Burlingame-S, -M, and -D monitoring wells were 2.42, -1.01, and -5.84 feet NAVD88, respectively, and groundwater elevations in SFO-S and SFO-D were 1.59 and -26.17 feet NAVD88, respectively. In July 2022, groundwater elevations in Burlingame-S, -M, and -D were 1.62, -1.21, and -6.04 feet NAVD88, respectively, and groundwater elevations in SFO-S and SFO-D were 1.79 and -26.27 feet NAVD88, respectively. Consistent with previous years, 2022 groundwater levels in SFO-S were above sea level and levels in SFO-D were below sea level. Levels in SFO-D increased approximately 8 feet from 2016 to early 2021, before declining approximately 2 feet in late 2021, whereas levels have stabilized during 2022. Levels in Burlingame-S and -M have fluctuated within 4 feet of sea level since the wells were installed in 2006 while exhibiting an overall gradual decline within that range. Levels in Burlingame-D have consistently been below sea level since installation and also exhibit a gradual decline over the entirety of the dataset. In August 2021, the groundwater elevation in Burlingame-M and Burlingame-D reached all-time lows of -3.96 and -8.24 feet NAVD88, respectively, with levels recovering in 2022 to more typical elevations.

7.0 GROUNDWATER QUALITY MONITORING

Wells included in the groundwater quality monitoring network are listed in Table 6 and located on the map in Figure 6. The network consists of 72 dedicated monitoring wells clustered at 27 locations, and 15 production wells. These wells are subdivided into separate groups for monitoring groundwater quality conditions along the coast; in the Sunset District and Lake Merced area; in the South Westside Basin; and in proximity to San Francisco Bay. Samples are typically collected annually and semi-annually as indicated in Table 7.

Water quality monitoring results for sampled raw (untreated) groundwater are presented in Tables 9 and 10 in comparison to the maximum contaminant level (MCL) and secondary maximum contaminant levels (SMCL) for each water quality constituent or parameter, if established. Primary MCLs are regulatory benchmarks for drinking water developed to protect human health. SMCLs are benchmarks developed to protect the aesthetic quality of drinking water (e.g., taste, odor, and appearance). Although the monitoring well water quality results are compared to drinking water standards, many of the monitoring wells are not physically representative of the locations or depths of existing potable production wells. Furthermore, much of the groundwater produced for potable use is blended with surface water before serving. Laboratory analytical reports are provided in Appendix B.

7.1 Coastal Groundwater Quality Monitoring

The coastal groundwater quality monitoring network consists of 21 wells at 9 locations along the coastal zone from Golden Gate Park south to San Francisco Zoo (Table 6, Figure 6). Monitoring well clusters are located in western Golden Gate Park; along the Old Great Highway near Kirkham, Ortega, and Taraval streets; and at the San Francisco Zoo. The network is configured to detect indications of potential saltwater intrusion along the Pacific Ocean coast. Groundwater samples from these wells are analyzed for specific conductance, TDS, and chloride. Table 9 presents groundwater quality monitoring results for the coastal network. Measured chloride concentrations are plotted on the groundwater level hydrographs provided in Figures 11 through 16.

In 2022, chloride concentrations in all monitored coastal groundwater wells ranged from 23 milligrams per liter (mg/L) for monitoring wells Ortega MW265 and Ortega MW400 to 191 mg/L for USGS South Windmill MW57. Coastal monitoring wells screened between 100 and 140 feet bgs (Kirkham MW130, Ortega MW125, and Taraval MW145) had chloride concentrations between 31 mg/L and 42 mg/L.

Chloride and TDS concentrations and values of specific conductance for the coastal monitoring wells were generally within historical ranges during 2022. Measured chloride concentrations were below the recommended California SMCL of 250 mg/L.

7.2 Sunset District and Lake Merced Area Groundwater Quality Monitoring

The groundwater quality monitoring network in the Sunset District and Lake Merced area consists of 7 individual wells at 4 separate locations (Table 6, Figure 6). Table 10 presents historical and recent groundwater quality monitoring results for these wells.

Groundwater sampled from monitoring well LMMW-1S has had elevated concentrations of chloride since samples were first collected in 2009. The spring and fall 2022 samples had chloride concentrations of 126 and 398 mg/L, respectively. The fall sample had the highest chloride concentration since 2009 but was similar to historical concentrations frequently above the recommended SMCL of 250 mg/L. Nitrate was detected at 2.1 and 48.8 mg/L in the spring and fall samples, respectively. The fall sample was above the 45-mg/L MCL for nitrate. Concentrations of nitrate are highly variable in samples from this well and periodically exceed the MCL.

Groundwater sampled from LMMW-1D has been near or above the MCL for nitrate since 2010. Nitrate was detected at 43.7 mg/L in spring and 46.2 mg/L during fall sampling, with the fall sample just above the 45-mg/L MCL for nitrate, similar to prior years.

Among the remaining wells in this group, 2022 chloride concentrations ranged between 39 mg/L (West Sunset Playground monitoring well, spring and fall) and 248 mg/L (LMMW-2S, spring), while nitrate concentrations ranged from below detection to 32.5 mg/L (LMMW-2S, fall).

7.3 South Westside Basin Groundwater Quality Monitoring

The groundwater quality monitoring network in the South Westside Basin consists of 59 wells at 29 locations, 15 of which are active or occasionally active production wells (Table 6, Figure 6). Records for the dedicated monitoring wells extend back to the years they were installed, 2003-2012, whereas some production well records extend back to the mid-1970s for Daly City, the late 1950s for Cal Water, and 2000 for San Bruno. Table 10 presents historical and current groundwater quality monitoring results for these wells. Five wells at 2 locations comprise the Bay side monitoring program and are discussed separately in Section 7.3.5.

During 2022, chloride concentrations in groundwater sampled from the South Westside Basin (excluding the Bay side monitoring wells) were below the recommended SMCL and ranged from 38 mg/L (MW-M1, spring) to 207 mg/L (CUP-44-1 MW580, spring). TDS concentrations ranged from 214 mg/L (CUP-23 MW440, fall) to a maximum of 1,090 mg/L (CUP-44-1 MW580, fall), above the recommended SMCL of 500 mg/L. Nitrate concentrations were below the MCL in all but three wells (PARK PLAZA MW195, CUP-10A MW160, and CUP-23 MW600) during the 2022 sampling events. Figure 22 is a plot of nitrate concentrations for six production wells monitored in the South Westside Basin.

The following sections discuss the results of groundwater quality monitoring in the Daly City, Colma, South San Francisco, San Bruno, and Millbrae areas.

7.3.1 Daly City

During 2022, detected concentrations of nitrate in groundwater sampled from wells in the Daly City area ranged from 11.6 mg/L for the JEFFERSON (spring) production well to 48.8 mg/L for monitoring well PARK PLAZA MW195 (fall, Table 10). Nitrate concentrations from CUP-10A MW160 (45.3 mg/L, spring) and PARK PLAZA MW195 (48.8 mg/L, fall) exceeded the primary MCL of 45 mg/L.

Figure 23 presents time-series plots of chloride and TDS concentrations and specific conductance in groundwater sampled from the DC-2 Westlake production well. TDS concentrations were generally above the 500-mg/L SMCL in samples collected from 2001-2014, after which they were below the SMCL through 2021, before recently climbing above the SMCL during 2022. Chloride concentrations ranged from 50 mg/L (DC-JUNIPERO SERRA, spring) to 187 mg/L (CUP-10A-MW710, fall), below the recommended SMCL of 250 mg/L. Production wells DC-4 and Vale were out of service in 2022 and could not be sampled.

7.3.2 Colma

Groundwater is used for cemetery irrigation in the Colma area. Currently, groundwater is not pumped for municipal use in Colma. As part of the proposed GSR project, monitoring well clusters CUP-18 and CUP-19 were installed in the Colma area. During 2022, TDS concentrations ranged between 413 mg/L (CUP-18 MW230, spring) and 491 mg/L (CUP-18 MW595, fall). Chloride concentrations ranged from 96 mg/L (CUP-19 MW690, spring) to 123 mg/L (CUP-18 MW595, fall), below the recommended SMCL of 250 mg/L. Detected nitrate concentrations ranged from 8.5 mg/L (CUP-19 MW475, fall) to 27.5 mg/L (CUP-19 MW690, spring), below the primary MCL of 45 mg/L (Table 10).

7.3.3 South San Francisco

During 2022, wells sampled in the South San Francisco area had TDS concentrations ranging from 214 mg/L (CUP-23 MW440, fall) to 829 mg/L (CUP-31 MW595, spring), with 13 of 25 wells above the recommended SMCL of 500 mg/L during the spring event, and with 9 of 19 wells above the recommended SMCL during the fall event. Chloride concentrations ranged from 39 mg/L (CUP-31A MW480, fall) to 196 mg/L (CUP-22A MW290, fall), and were below the recommended SMCL of 250 mg/L (Table 10). Detected nitrate concentrations ranged from 0.4 mg/L (CUP-36-1 MW585, fall) to 87 mg/L (CUP-23 MW600, spring and fall). Nitrate concentrations exceeded the 45-mg/L primary MCL in the CUP-23 MW600 well during both the spring and fall events (both at 87 mg/L), whereas all other concentrations were below the MCL. During 2021, nitrate concentrations in groundwater sampled from CUP-23 MW230 dropped to just below the MCL for the first time since the well was first sampled in 2010, and continued to

remain below the MCL in 2022. Groundwater sampled from CUP-23 MW600 first exceeded the MCL for nitrate in 2015 and continues to do so through 2022.

Figure 24 presents time-series plots of chloride, TDS, and specific conductance for groundwater sampled from Cal Water well SS1-21. TDS concentrations and specific conductance have consistently exceeded the recommended SMCLs.

7.3.4 San Bruno and Millbrae

During 2022, groundwater quality in the San Bruno and Millbrae areas was monitored in the CUP-44-1 nested well group, monitoring well MW-M1, and four San Bruno production wells (SB-16, -17, -18, and -20). TDS concentrations ranged from 236 mg/L (MW-M1, spring) to 1,090 mg/L (CUP-44-1 MW580, fall), with all of the four CUP-44-1 nested wells (MW190, MW300, MW460, and MW580) above the recommended SMCL of 500 mg/L (spring and fall). Detected chloride concentrations were below the SMCL of 250 mg/L and ranged from 38 mg/L (MW-M1, spring) to 207 mg/L (CUP-44-1 MW580, spring). Detected nitrate concentrations were below the primary MCL of 45 mg/L and ranged from 0.3 mg/L (SB-16, spring) to 28.1 mg/L (CUP-44-1 MW300, spring).

Figure 25 presents a time-series plot for San Bruno production well SB-20 (Lions Field Park). Chloride, TDS, and specific conductance have been consistently below their respective SMCLs in this well since 2004.

7.3.5 Bay Side

As part of the City of San Bruno's Bay side monitoring program, the SFO and Burlingame well clusters were sampled in March and August 2022 (Table 10). Figures 20 and 21 provide plots of 2022 and historical chloride concentrations for the Burlingame and SFO wells superimposed on their respective 2006-2022 groundwater level hydrographs.

During the 2022 sampling events, chloride concentrations exceeded the upper SMCL of 600 mg/L in groundwater samples from Bay side monitoring well SFO-S (11,000 mg/L, spring and fall), wells SFO-D (1,600 mg/L, spring), and Burlingame-S (1,300 mg/L spring and 1,100 mg/L fall). Chloride concentrations at Burlingame-M (35 mg/L spring and 150 mg/l fall) and Burlingame-D (43 mg/L spring and 41 mg/L fall) were below the recommended SMCL of 250 mg/L. Nitrate was not detected in any of the Bay side monitoring wells sampled in either the spring or fall of 2022.

8.0 SUMMARY OF PROPOSED ACTIVITIES FOR 2023

8.1 Groundwater Monitoring Program

In 2023, SFPUC, in cooperation with its partner agencies, will assess general groundwater conditions throughout the Westside Basin through continued implementation of the groundwater monitoring and reporting program documented in this report. This program remains consistent with recommendations made in the report on hydrogeologic conditions in 2005 (LSCE, 2006) and will continue to be updated and evaluated.

8.2 Coastal Groundwater Monitoring

SFPUC will ensure groundwater measurements are recorded daily to quarterly (Table 5) and conduct semi-annual (spring and fall) sampling of coastal groundwater quality (TDS, specific conductance, and chloride; Table 7).

8.3 Lake Merced

SFPUC will continue the Lake Merced groundwater and lake-level monitoring program in accordance with the recommendations of the 2005 annual report. Groundwater measurements will be recorded daily to quarterly, consistent with the current program (Table 5).

8.4 CASGEM

SFPUC and the South Westside Basin Voluntary Cooperative Groundwater Monitoring Association (SWBVCGMA) will continue to participate in the CASGEM Program. SFPUC will continue collecting groundwater elevations for the North Westside Basin and reporting these data to DWR. SWBVCGMA will continue collecting South Westside Basin groundwater elevations and reporting these data to DWR.

8.5 General Basin Conditions and GSR Project

SFPUC will continue to monitor water levels and general water quality of key wells in the Westside Basin (Tables 5 and 7). The general water quality and water level monitoring network will document the Basin's response to initial testing and operation of the GSR project.

8.6 Bay Side Monitoring

The City of San Bruno will continue to monitor its Bay side monitoring wells in the southeastern portion of the Westside Basin on a semi-annual basis, in general accordance with the Westside Basin monitoring program, and transmit these data to SFPUC for inclusion in the annual groundwater monitoring report.

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TABLES

**Table 1
Westside Basin Annual Groundwater Pumping**

Calendar Year	North Westside Basin Municipal and Irrigation			South Westside Basin Municipal				Golf Course Irrigation			Cemeteries	Approximate Total
	Golden Gate Park	Zoo	City of San Francisco	Daly City	South San Francisco (Cal Water)	San Bruno	Regional Groundwater Storage and Recovery Project	Lake Merced Area ¹	California Golf Club	Green Hills Country Club		
	acre-feet per year											
1960s	1,100 ²	60 ²	0	5,000 ²	2,000 ²	1,900-2,400	-	2,235 ²	665 ^{2,4}	- ⁷	2,400 ^{2,4}	15,400-15,900
2005	1,100 ²	400	0	736	0	1,700	-	45	120-150 ^{2,4}	- ⁷	1,400-2,400 ^{2,4}	5,500-6,500
2006	1,100 ²	350	0	862	0	1,955	-	85	206 ^{2,5}	- ⁷	787 ^{2,5}	5,300
2007	909 ³	616	0	2,603	0	2,350	-	88	206 ^{2,5}	- ⁷	787 ^{2,5}	7,560
2008	1,280	260	0	3,564	206	2,097	-	122	206 ^{2,5}	- ⁷	787 ^{2,5}	8,520
2009	1,072	170	0	1,667	380	2,379	-	113	206 ^{2,5}	- ⁷	787 ^{2,5}	6,770
2010	1,061	195	0	1,743	453	2,364	-	96	206 ^{2,5}	- ⁷	787 ^{2,5}	6,900
2011	1,027 ³	404	0	2,699	515	2,129	-	76	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	8,080
2012	971	368	0	3,772	606	1,596	-	104	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	8,650
2013	1,212 ³	439 ³	0	3,351	995	2,198	-	102	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	9,530
2014	1,213 ³	459	0	3,452	1,028	2,025	-	149	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	9,560
2015	1,300 ³	270	0	1,980	1,312	2,164	-	200	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	8,460
2016	1,188	171	0	941	528	937	-	112	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	5,107
2017	1,184	234	17	62	0.4	303	-	129	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	3,160
2018	1,439	238	234	59	35	333	-	174	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	3,747 ⁸
2019	1,420	244	296	56	31	277	-	494	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	4,053 ⁸
2020	1,494	211	581	51	52	311	-	817	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	4,752 ⁸
2021	1,253	209	564	1,167	101	1,076	131 ⁹	448 ²	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	6,184 ⁸
2022	1,362	158	67	2,355	34	2,314	0.07 ⁹	382 ²	237 ^{2,6}	134 ^{2,6}	859 ^{2,6}	7,907 ⁸

Notes:

Groundwater pumping data based on metered readings except where otherwise indicated.

¹ Lake Merced Golf Course, Olympic Club Golf Course, and San Francisco Golf Club.

² Estimated.

³ Due to occasional resetting of flowmeters, some readings are estimated.

⁴ Irrigation estimates from LSCE (2005).

⁵ Irrigation estimates from Carollo (2008).

⁶ Irrigation estimates updated based on the HydroFocus Groundwater Model (2011).

⁷ Not available.

⁸ This total includes the estimated 5 acre-feet of water pumped to fill Pine Lake.

⁹ Pumping from Regional Groundwater and Storage Recovery Project wells for testing purposes.

Table 2
Water Use for Golf Course Irrigation near Lake Merced, 2005-2022

Calendar Year	Actual Water Use (acre-feet per year) ¹											
	Lake Merced Golf Club			Olympic Club Golf Course			San Francisco Golf Club			Total		
	Re-cycled	Ground-water	Total	Re-cycled	Ground-water	Total	Re-cycled	Ground-water	Total	Re-cycled	Ground-water	Total
2005	91	5	95	275	3	278	107	37	144	473	45	517
2006 ²	--	--	--	--	--	--	--	--	--	457	85	542
2007	100	37	137	370	2	372	150	49	199	620	88	708
2008	78	31	109	352	30	382	164	61	225	594	122	716
2009	102	31	133	354	20	374	147	62	209	603	113	716
2010	96	33	129	316	10	326	123	53	176	535	96	631
2011	43	18	61	284	20	304	132	38	170	459	76	535
2012	88	37	125	262	20	282	141	47	188	491	104	595
2013	78	32	110	384	13	397	179	57	236	641	102	743
2014	52	18	70	323	74	397	211	57	268	586	149	735
2015	85	30	115	299	123	422	187	47	234	571	200	771
2016	102	51	153	329	23	352	174	38	212	605	112	717
2017 ³	79	54	133	350	28	378	141	47	188	570	129	699
2018	85	56	141	290	71	361	204	47	252	579	174	753
2019	60	89	149	81	320	402	90	85	174	230	494	725
2020	0	172	172	60	409	469	1	237	237	61	817	878
2021 ^{4,5}	84	88	172	186	248	434	123	112	235	394	448	841
2022 ⁶	71	147	218	338	132	470	162	103	265	571	382	953
Average	76	55	131	285	91	376	143	69	213	502	208	710
Minimum	0	5	61	60	2	278	1	37	144	61	45	517
Maximum	102	172	218	384	409	470	211	237	268	641	817	953

Notes:

¹ Water use data provided by golf courses. Metered values except where indicated.

² Total recycled and groundwater use for 2006 are estimated.

³ San Francisco Golf Club groundwater use data adjusted during preparation of this report.

⁴ Lake Merced Golf Club estimated its 2021 groundwater use due to equipment replacement.

⁵ San Francisco Golf Club revised its reported groundwater production.

⁶ Lake Merced Golf Club 2022 groundwater use is estimated.

**Table 3
Groundwater Elevation Monitoring Network Wells**

Coastal Monitoring Network^a	GGP NWM-3
	GGP SWM-3
	GGP Soccer Field SF-1
	GGP North Lake Road NL-1
	USGS South Windmill MW57, 140
	Kirkham MW130, 255, 385, 435
	Ortega MW125, 265, 400, 475
	Taraval MW145, 240, 400, 530
	Zoo MW275, 450, 565
	Fort Funston-S, M
	Thornton Beach MW225, 360, 670
Lake-Aquifer Monitoring Network^b	LMMW-1D, 1S
	LMMW-2D, 2S, 2SS
	LMMW-3D, 3S, 3SS
	LMMW-4S, 4SS
	LMMW-5S, 5SS
	LMMW-7SS
	LMMW-8SS
	LMMW-9S ^c
	Lake Merced Pump Station MW155, 270, 440, 575
North Westside Basin General Monitoring Network	West Sunset Playground
	Central Pump Station MW190, 270
South Westside Basin General Monitoring Network^a	LMMW-6D
	DC-1 (Westlake 1)
	DC-8
	Park Plaza MW135, 195, 460, 620
	SSFLP MW120, 220, 440, 520
	CUP-10A MW160, 250, 500, 710
	CUP-18 MW230, 425, 490, 595
	CUP-19 MW180, 475, 600, 690
	CUP-22A MW140, 290, 440, 545
	CUP-23 MW230, 440, 515, 600
	CUP-31A MW145, 280, 480, 595
	CUP-36-1 MW160, 270, 455, 585
	CUP-44-1 MW190, 300, 460, 580
	SS 1-02
	SB-12 Elm Avenue
CUP MW-M1	
Bay Side Monitoring Network^a	UAL13C, 13D
	SFO-S, D
	Burlingame-S, M, D

Notes:

^a Wells are listed approximately from north to south.

^b Includes LMMW-6D listed with the southern Westside Basin.

^c LMMW-9SS was destroyed in 2018 and was replaced with LMMW-9S in late 2019.

Table 4
Wells Used to Construct Groundwater Elevation Contours

Shallow Aquifer	Primary Production Aquifer
South Windmill MW57	GGP Soccer Field SF-1
Kirkham MW130	GGP North Lake Road NL-1
Ortega MW125	GGP NWM-3
Taraval MW145	GGP SWM-3
LMMW-1S	Kirkham MW255
LMMW-2S	Ortega MW265
LMMW-3S	West Sunset Playground
LMMW-4S	Taraval MW240
LMMW-5S	Central Pump Station MW270
LMMW-7SS	Zoo MW275
SFO-S	LMMW-1D
Burlingame-S	LMMW-2D
	LMMW-3D
	LMMW-6D
	Lake Merced Pump Station MW270
	DC-1 (Westlake 1)
	DC-8
	Park Plaza MW460
	CUP-10A MW500
	CUP-18 MW425
	CUP-19 MW475
	CUP-22A MW440
	CUP-23 MW440
	CUP-31A MW480
	CUP-36-1 MW455
	SSFLP MW440
	CUP-44-1 MW460
	SB-12 Elm Avenue
	CUP MW-M1
	SFO-D
	Burlingame-D

Notes:
Wells are listed approximately north to south.

Table 5
Groundwater Level Monitoring Frequency

Well Name	Frequency ¹
Coastal Monitoring Network	
USGS South Windmill MW57	C
USGS South Windmill MW140	C
GGP Soccer Field SF-1	C
GGP North Lake Road NL-1	C
GGP SWM-3	C
GGP NWM-3	C
Kirkham MW130	C
Kirkham MW255	C
Kirkham MW385	C
Kirkham MW435	C
Ortega MW125	C
Ortega MW265	C
Ortega MW400	C
Ortega MW475	C
Taraval MW145	C
Taraval MW240	C
Taraval MW400	C
Taraval MW530	C
Zoo MW275	C
Zoo MW450	C
Zoo MW565	C
Fort Funston-S	Q
Fort Funston-M	Q
Thornton Beach MW225	Q
Thornton Beach MW360	Q
Thornton Beach MW670	Q
Lake-Aquifer Monitoring Network	
LMMW-1D	C
LMMW-1S	C
LMMW-2D	C
LMMW-2S	Q
LMMW-2SS	Q
LMMW-3D	C
LMMW-3S	Q
LMMW-3SS	C
LMMW-4S	C
LMMW-4SS	Q
LMMW-5S	C
LMMW-5SS	C
LMMW-6D	C
LMMW-7SS	Q
LMMW-8SS	Q
LMMW-9S ²	C
Lake Merced Pump Station MW155	Q
Lake Merced Pump Station MW270	C
Lake Merced Pump Station MW440	C
Lake Merced Pump Station MW575	Q

Well Name	Frequency ¹
Bay Side Monitoring Network	
SFO-S and D ³	S
Burlingame-S, M, and D ³	S
UAL13C	Q
UAL13D	Q
North Westside Basin General Monitoring Network	
West Sunset Playground	Q
Central Pump Station MW190	Q
Central Pump Station MW270	Q
South Westside Basin General Monitoring Network	
DC-1 (Westlake 1)	C
Park Plaza MW460, MW620	C
Park Plaza MW135, MW195	Q
South San Francisco Linear Park 120, 440	C
South San Francisco Linear Park 220, 520	Q
DC-8	C
SS 1-02	C
SB-12 Elm Avenue	C
CUP-10A MW500, MW710	C
CUP-10A MW160, MW250	Q
CUP-18 MW490	Q
CUP-18 MW230, MW425, MW660	C
CUP-19 MW180	Q
CUP-19 MW475, MW600, MW690	C
CUP-22A MW140, MW290	Q
CUP-22A MW440, MW545	C
CUP-23 MW230	Q
CUP-23 MW440, MW515, MW600	C
CUP-31A MW480, MW595	C
CUP-31A MW145, MW280	Q
CUP-36-1 MW160, MW270	Q
CUP-36-1 MW455, MW585	C
CUP-44-1 MW190, MW580	Q
CUP-44-1 MW300, MW460	C
CUP-MW-M1	Q

Notes:

¹Frequency:

C - Continuous water level monitoring

Q - Quarterly water level monitoring

S - Semi-annual water level monitoring (Spring and Fall)

² LMMW-9SS was destroyed in 2018 and was replaced with LMMW-9S in late 2019.

³ Monitoring conducted by City of San Bruno

**Table 6
Groundwater Quality Monitoring Network Wells**

Coastal Monitoring^a	GGP North Lake Road NL-1
	GGP NWM-3
	GGP Soccer Field SF-1
	GGP SWM-3
	USGS South Windmill MW57, 140
	Kirkham MW130, 255, 385, 435
	Ortega MW125, 265, 400, 475
	Taraval MW145, 240, 400, 530
	Zoo MW275, 450, 565
Sunset District and Lake Merced Area Groundwater Quality Monitoring	West Sunset Playground
	LMMW-1S, 1D
	LMMW-2S, 2D
	LMMW-3S, 3D
South Westside Basin Monitoring^a	LMMW-6D
	Jefferson
	Park Plaza MW195, 460, 620
	DC-2 Westlake
	Junipero Serra
	DC-4
	Vale
	Sullivan
	CUP-10A MW160, 250, 500, 710
	CUP-18 MW230, 425, 490, 595
	CUP-19 MW475, 600, 690
	CUP-22A MW290, 440, 545
	CUP-23 MW230, 440, 515, 600
	CUP-31A MW145, 280, 480, 595
	SS 1-19,-20,-21,-22,-23
	CUP-36-1 MW160, 270, 455, 585
	SSFLP MW120, 220, 440, 520
	CUP-44-1 MW190, 300, 460, 580
	SB 16 Forest Lane
	SB 17 Corporation Yard
	SB 18 City Park
SB 20 Lions Field Park	
CUP MW-M1	
Bay Side Monitoring	SFO - S, D
	Burlingame - S, M, D

Notes:

^a Wells are listed approximately from north to south.

Table 7
Groundwater Quality Monitoring Frequency and Analyses

Well Name	Frequency¹	Analytes
Coastal Monitoring		
GGP North Lake Road NL-1	S	Chloride, total dissolved solids (TDS), specific conductance
GGP NWM-3	S	
GGP Soccer Field SF-1	S	
GGP SWM-3	S	
USGS South Windmill MW57, 140	S	
Kirkham MW130, 255, 385, 435	S	
Ortega MW125, 265, 400, 475	S	
Taraval MW145, 240, 400, 530	S	
Zoo MW275, 450, 565	S	
General Basin Monitoring		
West Sunset Playground	S	General parameters and minerals: total alkalinity, pH, specific conductance, TDS, hardness, calcium, magnesium, sodium, potassium, chloride, sulfate, and nitrate.
LMMW-1S, 1D	S	
LMMW-2S, 2D	S	
LMMW-3S, 3D	S	
LMMW-6D	S	
Park Plaza MW195, 460, 620	S	
DC-2 Westlake	A	
DC-4	A	
Jefferson	A	
Vale	A	
CUP-10A MW160, 250 ² , 500, 710	S	
CUP-18 MW230, 425, 490, 595	S	
CUP-19 MW475, 600, 690	S	
CUP-22A MW290, 440, 545	S	
CUP-23 MW230, 440, 515, 600	S	
CUP-31A MW145, 280, 480, 595	S	
SS 1-15	A	
SS 1-19	A	
SS 1-20	A	
SS 1-21	A	
SS 1-22	A	
SS 1-23	A	
SSFLP MW120, 220, 440, 520	S	
CUP-36-1 MW160, 270, 455, 585	S	
CUP-44-1 MW190, 300, 460, 580	S	
SB 16 Forest Ln	A	
SB 17 Corporation Yard	A	
SB 18 City Park	A	
SB-20 Lions Field Park	A	
CUP-MW-M1	S	
Bay Side Monitoring³		
SFO-S, D	S	General parameters and minerals: total alkalinity, pH, specific conductance, TDS, hardness, calcium, magnesium, sodium, potassium, chloride, sulfate, nitrate, bromide, boron, and orthophosphate.
Burlingame-S, M, and D	S	

Notes

¹ A - Annual water quality sampling (Spring), S - Semi-annual water quality sampling (Spring and Fall)

² Well CUP-10A MW250 has been dry since 2012.

³ Monitoring conducted by City of San Bruno.

Table 8
Comparison of Annual Low Groundwater Elevations for Selected Coastal Monitoring Wells

Monitoring Well (hydrograph figure number)	Aquifer ¹			Change in Groundwater Elevation (feet) ²
		2021	2022	
South Windmill MW57	S	7.49 (April)	9.73 (June)	2.24
South Windmill MW140	S	-0.31 (April)	2.72 (May)	3.03
Kirkham MW130 (Figure 11a)	S	7.48 (April)	9.17 (July)	1.69
Kirkham MW255 (Figure 11b)	PP	7.65 (April)	9.46 (July)	1.81
Kirkham MW385 (Figure 11c)	PP	7.41 (April)	8.99 (July)	1.58
Kirkham MW435 (Figure 11d)	PP	4.64 (October)	5.41 (July)	0.77
Ortega MW125 (Figure 12a)	S	7.88 (July)	8.78 (June)	0.90
Ortega MW265 (Figure 12b)	PP	9.77 (October)	11.20 (July)	1.43
Ortega MW400 (Figure 12c)	PP	10.10 (October)	11.56 (July)	1.46
Ortega MW475 (Figure 12d)	PP	2.58 (October)	2.63 (August)	0.05
Taraval MW145 (Figure 13a)	S	7.61 (July)	8.38 (June)	0.77
Taraval MW240 (Figure 13b)	PP	9.56 (February)	11.46 (January)	1.90
Taraval MW400 (Figure 13c)	PP	9.19 (January)	10.81 (June)	1.62
Taraval MW530 (Figure 13d)	D	0.41 (November)	0.26 (August)	-0.15
Zoo MW275 (Figure 14a)	PP	4.44 (July)	5.53 (May)	1.09
Zoo MW450 (Figure 14b)	PP	2.80 (August)	4.7 (April)	1.90
Zoo MW565 (Figure 14c)	D	-1.92 (November)	-2.54 (October)	-0.62

¹ S = Shallow aquifer; PP = Primary Production aquifer; D = Deep aquifer.

² A negative number indicates a decrease in annual low groundwater elevation from the previous year.

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH	
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE	
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE	
SF#34 - GRT HWY/KIRKHAM MW130	Apr-04	28.5	23.3	27.4	1.92	--	28	32.0	27.7**	445	308	160	8.04	
	Oct-04	30.8	27.5	26.8	1.51	128	33	34.6	28.9	465	233	180	7.90	
	Apr-05	26.1	26.6	24.7	1.20	120	35	34.0	31.0	457	284	168	7.99	
	Nov-05	--	--	--	--	122	--	--	--	469	218	180	8.01	
	May-06	--	--	--	--	--	36	--	--	466	240	--	--	
	Oct-06	--	--	--	--	--	34	--	--	468	260	--	--	
	May-07	--	--	--	--	--	34	--	--	478	278	--	--	
	Oct-07	--	--	--	--	--	34	--	--	413	255	--	--	
	Apr-08	--	--	--	--	--	34	--	--	459	278	--	--	
	Sep-08	--	--	--	--	--	33	--	--	437	257	--	--	
	Apr-09	--	--	--	--	--	36	--	--	444	257	--	--	
	Nov-09	--	--	--	--	--	32	--	--	416	260	--	--	
	Apr-10	--	--	--	--	--	32	--	--	423	248	--	--	
	Nov-10	--	--	--	--	--	33	--	--	420	238	--	--	
	May-11	--	--	--	--	--	36	--	--	407	241	--	--	
	Nov-11	--	--	--	--	--	98	32	--	--	386	250	142	8.06
	Apr-12	--	--	--	--	--	--	34	--	--	390	228	--	--
	Nov-12	--	--	--	--	--	--	35	--	--	379	237	--	--
	Apr-13	--	--	--	--	--	--	32	--	--	377	242	--	--
	Oct-13	--	--	--	--	--	--	29	--	--	349	168*	--	--
	Apr-14	--	--	--	--	--	--	30	--	--	389	207	--	--
	Oct-14	--	--	--	--	--	--	30	--	--	347	197	--	--
	Apr-15	--	--	--	--	--	--	30	--	--	352	201	--	--
Oct-15	--	--	--	--	--	--	31	--	--	340	212	--	--	
Apr-16	--	--	--	--	--	--	30	--	--	342	186	--	--	
Oct-16	--	--	--	--	--	--	31	--	--	352	268*	--	--	
Apr-17	--	--	--	--	--	--	30	--	--	359	216	--	--	
Oct-17	--	--	--	--	--	--	32	--	--	363	236	--	--	
Apr-18	--	--	--	--	--	--	33	--	--	384	206	--	--	
Oct-18	--	--	--	--	--	--	33	--	--	384	223	--	--	
Apr-19	--	--	--	--	--	--	34	--	--	398	202	--	--	
Oct-19	--	--	--	--	--	--	34	--	--	398	260	--	--	
Oct-20	--	--	--	--	--	--	33	--	--	397	234	--	--	
Apr-21	--	--	--	--	--	--	31	--	--	397	247	--	--	
Nov-21	--	--	--	--	--	--	33	--	--	404	225	--	--	
Apr-22	--	--	--	--	--	--	33	--	--	410	219	--	--	
Oct-22	--	--	--	--	--	--	31	--	--	418	225	--	--	

**Table 9
Coastal Monitoring Network Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#35 - GRT HWY/KIRKHAM MW255	Apr-04	26.3	29.2	21.3	1.33	--	33	29.0	26.4**	476	316	200	7.95
	Oct-04	29.4	30.2	23.6	1.43	132	34	29.1	26.1	460	241	184	7.90
	Apr-05	28.5	31.5	22.2	1.37	134	36	32.0	28.0	477	297	192	7.89
	Nov-05	--	--	--	--	132	37	--	--	471	217	206	7.95
	May-06	--	--	--	--	--	37	--	--	462	320	--	--
	Oct-06	--	--	--	--	--	36	--	--	472	270	--	--
	May-07	--	--	--	--	--	--	--	--	473	280	--	--
	Oct-07	--	--	--	--	--	35	--	--	425	249	--	--
	Apr-08	--	--	--	--	--	36	--	--	444	260	--	--
	Sep-08	--	--	--	--	--	38	--	--	441	261	--	--
	Apr-09	--	--	--	--	--	39	--	--	455	284	--	--
	Nov-09	--	--	--	--	--	37	--	--	443	254	--	--
	Apr-10	--	--	--	--	--	36	--	--	462	299	--	--
	Nov-10	--	--	--	--	--	38	--	--	476	287	--	--
	May-11	--	--	--	--	--	40	--	--	482	268	--	--
	Nov-11	--	--	--	--	124	39	--	--	467	260	180	7.86
	Apr-12	--	--	--	--	--	42	--	--	476	271	--	--
	Nov-12	--	--	--	--	--	43	--	--	482	304	--	--
	Apr-13	--	--	--	--	--	40	--	--	494	292	--	--
	Oct-13	--	--	--	--	--	37	--	--	454	228	--	--
	Apr-14	--	--	--	--	--	39	--	--	539	283	--	--
	Oct-14	--	--	--	--	--	38	--	--	457	250	--	--
	Apr-15	--	--	--	--	--	40	--	--	476	263	--	--
Oct-15	--	--	--	--	--	37	--	--	439	254	--	--	
Apr-16	--	--	--	--	--	39	--	--	466	259	--	--	
Oct-16	--	--	--	--	--	36	--	--	436	254	--	--	
Apr-17	--	--	--	--	--	37	--	--	468	270	--	--	
Oct-17	--	--	--	--	--	36	--	--	433	240	--	--	
Apr-18	--	--	--	--	--	38	--	--	476	288	--	--	
Oct-18	--	--	--	--	--	35	--	--	440	245	--	--	
Apr-19	--	--	--	--	--	40	--	--	496	281	--	--	
Oct-19	--	--	--	--	--	41	--	--	496	299	--	--	
Oct-20	--	--	--	--	--	41	--	--	495	288	--	--	
Apr-21	--	--	--	--	--	39	--	--	496	306	--	--	
Nov-21	--	--	--	--	--	40	--	--	500	262	--	--	
Apr-22	--	--	--	--	--	39	--	--	497	256	--	--	
Oct-22	--	--	--	--	--	38	--	--	503	270	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#36 - GRT HWY/KIRKHAM MW385	Apr-04	53.4	7.21	24.7	4.83	--	28	72.0	<1.3**	466	362	175	8.05
	Oct-04	60.4	7.38	28.1	4.94	116	33	63.7	1.3	454	257	168	8.10
	May-05	54.4	7.54	24.8	5.04	124	34	57.0	<0.3	451	303	160	8.16
	Nov-05	--	--	--	--	116	35	--	--	446	229	160	8.16
	May-06	--	--	--	--	--	36	--	--	450	290	--	--
	Oct-06	--	--	--	--	--	34	--	--	451	290	--	--
	May-07	--	--	--	--	--	--	--	--	452	286	--	--
	Oct-07	--	--	--	--	--	35	--	--	437	277	--	--
	Apr-08	--	--	--	--	--	36	--	--	450	288	--	--
	Sep-08	--	--	--	--	--	35	--	--	441	280	--	--
	Apr-09	--	--	--	--	--	38	--	--	464	262	--	--
	Nov-09	--	--	--	--	--	35	--	--	462	284	--	--
	Apr-10	--	--	--	--	--	34	--	--	457	282	--	--
	Nov-10	--	--	--	--	--	38	--	--	482	298	--	--
	May-11	--	--	--	--	--	40	--	--	467	302	--	--
	Nov-11	--	--	--	--	120	37	--	--	458	300	164	8.09
	Apr-12	--	--	--	--	--	39	--	--	457	290	--	--
	Nov-12	--	--	--	--	--	40	--	--	460	290	--	--
	Apr-13	--	--	--	--	--	37	--	--	462	302	--	--
	Oct-13	--	--	--	--	--	35	--	--	462	273	--	--
	Apr-14	--	--	--	--	--	35	--	--	504	288	--	--
	Oct-14	--	--	--	--	--	36	--	--	462	284	--	--
	Apr-15	--	--	--	--	--	36	--	--	465	285	--	--
	Oct-15	--	--	--	--	--	37	--	--	458	288	--	--
Apr-16	--	--	--	--	--	35	--	--	460	263	--	--	
Oct-16	--	--	--	--	--	35	--	--	463	258	--	--	
Apr-17	--	--	--	--	--	35	--	--	466	303	--	--	
Oct-17	--	--	--	--	--	36	--	--	459	277	--	--	
Apr-18	--	--	--	--	--	37	--	--	463	256	--	--	
Oct-18	--	--	--	--	--	35	--	--	457	284	--	--	
Apr-19	--	--	--	--	--	37	--	--	464	261	--	--	
Oct-19	--	--	--	--	--	37	--	--	460	292	--	--	
Oct-20	--	--	--	--	--	38	--	--	467	271	--	--	
Apr-21	--	--	--	--	--	35	--	--	464	276	--	--	
Nov-21	--	--	--	--	--	30	--	--	434	255	--	--	
Apr-22	--	--	--	--	--	36	--	--	468	263	--	--	
Oct-22	--	--	--	--	--	35	--	--	476	273	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#37 - GRT HWY/KIRKHAM MW435	Apr-04	44.7	4.08	32.9	7.20	--	25	60.0	<1.3**	445	322	130	8.12
	Oct-04	49.5	4.03	37.6	7.50	116	29	60.8	<0.2	449	253	131	8.20
	May-05	46.7	3.90	35.0	7.43	112	30	60.0	<0.3	447	294	132	8.18
	Nov-05	--	--	--	--	110	31	--	--	441	229	134	8.21
	May-06	--	--	--	--	--	37	--	--	442	280	--	--
	Oct-06	--	--	--	--	--	31	--	--	446	270	--	--
	May-07	--	--	--	--	--	--	--	--	444	296	--	--
	Oct-07	--	--	--	--	--	32	--	--	425	265	--	--
	Apr-08	--	--	--	--	--	31	--	--	442	280	--	--
	Sep-08	--	--	--	--	--	31	--	--	434	268	--	--
	Apr-09	--	--	--	--	--	34	--	--	452	266	--	--
	Nov-09	--	--	--	--	--	32	--	--	447	277	--	--
	Apr-10	--	--	--	--	--	30	--	--	446	288	--	--
	Nov-10	--	--	--	--	--	32	--	--	466	288	--	--
	May-11	--	--	--	--	--	33	--	--	450	281	--	--
	Nov-11	--	--	--	--	114	31	--	--	442	280	126	8.05
	Apr-12	--	--	--	--	--	33	--	--	437	272	--	--
	Nov-12	--	--	--	--	--	34	--	--	438	268	--	--
	Apr-13	--	--	--	--	--	30	--	--	438	269	--	--
	Oct-13	--	--	--	--	--	29	--	--	439	252	--	--
	Apr-14	--	--	--	--	--	29	--	--	478	261	--	--
	Oct-14	--	--	--	--	--	29	--	--	437	278	--	--
	Apr-15	--	--	--	--	--	30	--	--	438	272	--	--
Oct-15	--	--	--	--	--	30	--	--	431	260	--	--	
Apr-16	--	--	--	--	--	29	--	--	434	249	--	--	
Oct-16	--	--	--	--	--	28	--	--	435	189*	--	--	
Apr-17	--	--	--	--	--	28	--	--	436	266	--	--	
Oct-17	--	--	--	--	--	29	--	--	430	254	--	--	
Apr-18	--	--	--	--	--	29	--	--	431	252	--	--	
Oct-18	--	--	--	--	--	29	--	--	430	265	--	--	
Apr-19	--	--	--	--	--	30	--	--	436	243	--	--	
Oct-19	--	--	--	--	--	30	--	--	427	281	--	--	
Oct-20	--	--	--	--	--	30	--	--	433	265	--	--	
Apr-21	--	--	--	--	--	28	--	--	431	260	--	--	
Nov-21	--	--	--	--	--	36	--	--	467	285	--	--	
Apr-22	--	--	--	--	--	29	--	--	434	260	--	--	
Oct-22	--	--	--	--	--	28	--	--	442	256	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#30 - GRT HWY/ORTEGA MW125	Apr-04	26.5	21.2	28.0	1.45	--	25	38.0	23.8**	426	344	145	7.93
	Oct-04	27.3	22.7	25.8	1.15	108	28	34.6	22.0	405	216	146	7.90
	May-05	26.5	22.5	25.2	1.24	108	29	--	--	412	245	146	7.89
	Nov-05	--	--	--	--	102	31	--	--	416	220	150	7.84
	May-06	--	--	--	--	--	31	--	--	417	250	--	--
	Oct-06	--	--	--	--	--	32	--	--	446	260	--	--
	May-07	--	--	--	--	--	34	--	--	459	269	--	--
	Oct-07	--	--	--	--	--	29	--	--	438	255	--	--
	Apr-08	--	--	--	--	--	35	--	--	447	383*	--	--
	Oct-08	--	--	--	--	--	30	--	--	450	252	--	--
	Apr-09	--	--	--	--	--	32	--	--	458	274	--	--
	Nov-09	--	--	--	--	--	30	--	--	430	251	--	--
	Apr-10	--	--	--	--	--	31	--	--	438	251	--	--
	Nov-10	--	--	--	--	--	35	--	--	463	260	--	--
	May-11	--	--	--	--	--	36	--	--	456	260	--	--
	Oct-11	--	--	--	--	112	33	--	--	464	260	172	7.82
	Apr-12	--	--	--	--	--	35	--	--	464	275	--	--
	Nov-12	--	--	--	--	--	37	--	--	463	273	--	--
	Apr-13	--	--	--	--	--	34	--	--	478	247	--	--
	Oct-13	--	--	--	--	--	32	--	--	466	236	--	--
	Apr-14	--	--	--	--	--	31	--	--	517	254	--	--
	Oct-14	--	--	--	--	--	30	--	--	442	246	--	--
Apr-15	--	--	--	--	--	30	--	--	437	245	--	--	
Oct-15	--	--	--	--	--	30	--	--	405	243	--	--	
Apr-16	--	--	--	--	--	30	--	--	433	251	--	--	
Oct-16	--	--	--	--	--	26	--	--	349	214	--	--	
Apr-17	--	--	--	--	--	30	--	--	448	256	--	--	
Oct-17	--	--	--	--	--	31	--	--	440	235	--	--	
Apr-18	--	--	--	--	--	33	--	--	478	261	--	--	
Oct-18	--	--	--	--	--	33	--	--	481	261	--	--	
Apr-19	--	--	--	--	--	34	--	--	484	268	--	--	
Oct-19	--	--	--	--	--	32	--	--	455	277	--	--	
Oct-20	--	--	--	--	--	34	--	--	467	280	--	--	
Apr-21	--	--	--	--	--	33	--	--	469	269	--	--	
Nov-21	--	--	--	--	--	33	--	--	473	266	--	--	
Apr-22	--	--	--	--	--	32	--	--	467	264	--	--	
Oct-22	--	--	--	--	--	32	--	--	462	254	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#31 - GRT HWY/ORTEGA MW265	Apr-04	14.0	12.0	20.0	1.04	--	15	15.0	5.7**	269	216	90	8.13
	Oct-04	15.8	12.8	22.7	1.14	82	21	9.4	5.5	260	131	86	8.10
	May-05	13.5	12.4	19.9	0.89	80	19	--	--	1,392*	--	82	8.03
	Nov-05	--	--	--	--	--	24	--	--	257	177	--	--
	May-06	--	--	--	--	--	25	--	--	257	160	--	--
	Oct-06	--	--	--	--	--	31	--	--	429	250	--	--
	May-07	--	--	--	--	--	30	--	--	418	240	--	--
	Oct-07	--	--	--	--	--	31	--	--	448	262	--	--
	Apr-08	--	--	--	--	--	31	--	--	439	332*	--	--
	Sep-08	--	--	--	--	--	31	--	--	439	282	--	--
	Apr-09	--	--	--	--	--	30	--	--	388	232	--	--
	Nov-09	--	--	--	--	--	30	--	--	430	243	--	--
	Apr-10	--	--	--	--	--	24	--	--	282	169	--	--
	Nov-10	--	--	--	--	--	24	--	--	270	158	--	--
	May-11	--	--	--	--	--	27	--	--	271	284	--	--
	Oct-11	--	--	--	--	102	30	--	--	410	240	142	7.90
	Apr-12	--	--	--	--	--	25	--	--	259	163	--	--
	Nov-12	--	--	--	--	--	33	--	--	394	256	--	--
	Apr-13	--	--	--	--	--	25	--	--	281	138	--	--
	Oct-13	--	--	--	--	--	29	--	--	395	195	--	--
	Apr-14	--	--	--	--	--	28	--	--	404	194	--	--
	Oct-14	--	--	--	--	--	27	--	--	376	222	--	--
	Apr-15	--	--	--	--	--	27	--	--	374	210	--	--
Oct-15	--	--	--	--	--	27	--	--	358	222	--	--	
Apr-16	--	--	--	--	--	26	--	--	338	196	--	--	
Oct-16	--	--	--	--	--	29	--	--	417	183	--	--	
Apr-17	--	--	--	--	--	22	--	--	274	149	--	--	
Oct-17	--	--	--	--	--	27	--	--	348	180	--	--	
Apr-18	--	--	--	--	--	23	--	--	267	157	--	--	
Oct-18	--	--	--	--	--	27	--	--	342	189	--	--	
Apr-19	--	--	--	--	--	23	--	--	256	142	--	--	
Oct-19	--	--	--	--	--	24	--	--	258	172	--	--	
Oct-20	--	--	--	--	--	24	--	--	260	152	--	--	
Apr-21	--	--	--	--	--	23	--	--	259	146	--	--	
Nov-21	--	--	--	--	--	24	--	--	262	155	--	--	
Apr-22	--	--	--	--	--	24	--	--	260	154	--	--	
Oct-22	--	--	--	--	--	23	--	--	268	143	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#32 - GRT HWY/ORTEGA MW400	Apr-04	15.2	11.8	23.1	1.47	--	20	10.0	5.3**	277	230	100	8.11
	Oct-04	17.0	12.7	23.3	1.31	92	22	13.5	5.8	277	146	88	8.20
	Apr-05	16.4	13.5	21.8	1.28	88	24	8.7	6.4	272	156	88	8.22
	Nov-05	--	--	--	--	--	25	--	--	273	176	--	--
	May-06	--	--	--	--	--	24	--	--	272	180	--	--
	Oct-06	--	--	--	--	--	24	--	--	272	160	--	--
	May-07	--	--	--	--	--	24	--	--	276	171	--	--
	Oct-07	--	--	--	--	--	23	--	--	271	170	--	--
	Apr-08	--	--	--	--	--	19	--	--	273	174	--	--
	Sep-08	--	--	--	--	--	24	--	--	268	216	--	--
	Apr-09	--	--	--	--	--	20	--	--	272	168	--	--
	Nov-09	--	--	--	--	--	25	--	--	275	166	--	--
	Apr-10	--	--	--	--	--	24	--	--	274	164	--	--
	Nov-10	--	--	--	--	--	24	--	--	278	208	--	--
	May-11	--	--	--	--	--	27	--	--	279	220	--	--
	Oct-11	--	--	--	--	84	26	--	--	272	160	86	8.04
	Apr-12	--	--	--	--	--	25	--	--	270	163	--	--
	Nov-12	--	--	--	--	--	29	--	--	270	165	--	--
	Apr-13	--	--	--	--	--	25	--	--	272	159	--	--
	Oct-13	--	--	--	--	--	25	--	--	271	129	--	--
	Apr-14	--	--	--	--	--	24	--	--	297	135	--	--
	Oct-14	--	--	--	--	--	24	--	--	270	155	--	--
	May-15	--	--	--	--	--	24	--	--	270	153	--	--
	Oct-15	--	--	--	--	--	25	--	--	266	175	--	--
Apr-16	--	--	--	--	--	24	--	--	272	130	--	--	
Oct-16	--	--	--	--	--	23	--	--	273	130	--	--	
Apr-17	--	--	--	--	--	23	--	--	273	155	--	--	
Oct-17	--	--	--	--	--	24	--	--	272	155	--	--	
Apr-18	--	--	--	--	--	24	--	--	272	154	--	--	
Oct-18	--	--	--	--	--	25	--	--	273	151 ^a	--	--	
Apr-19	--	--	--	--	--	25	--	--	273	162	--	--	
Oct-19	--	--	--	--	--	25	--	--	275	183	--	--	
Oct-20	--	--	--	--	--	25	--	--	271	157	--	--	
Apr-21	--	--	--	--	--	23	--	--	271	144	--	--	
Nov-21	--	--	--	--	--	23	--	--	272	153	--	--	
Apr-22	--	--	--	--	--	23	--	--	270	150	--	--	
Oct-22	--	--	--	--	--	23	--	--	277	152	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#33 - GRT HWY/ORTEGA MW475	Apr-04	12.7	2.29	40.9	2.89	--	20	15.0	<1.3**	283	240	45	8.33
	Oct-04	13.7	1.75	45.6	3.43	80	27	14.2	<0.2	276	129	37	8.70
	Apr-05	13.5	1.80	43.1	2.87	78	30	13.0	<0.3	280	159	44	8.39
	Nov-05	--	--	--	--	76	30	--	--	280	136	42	7.67
	May-06	--	--	--	--	--	30	--	--	278	180	--	--
	Oct-06	--	--	--	--	--	28	--	--	283	160	--	--
	May-07	--	--	--	--	--	29	--	--	285	172	--	--
	Oct-07	--	--	--	--	--	29	--	--	279	184	--	--
	Apr-08	--	--	--	--	--	30	--	--	286	178	--	--
	Sep-08	--	--	--	--	--	31	--	--	283	168	--	--
	Apr-09	--	--	--	--	--	30	--	--	289	170	--	--
	Nov-09	--	--	--	--	--	30	--	--	292	168	--	--
	Apr-10	--	--	--	--	--	29	--	--	289	181	--	--
	Nov-10	--	--	--	--	--	32	--	--	304	203	--	--
	May-11	--	--	--	--	--	33	--	--	297	172	--	--
	Oct-11	--	--	--	--	82	31	--	--	289	160	42	8.23
	Apr-12	--	--	--	--	--	31	--	--	288	194	--	--
	Nov-12	--	--	--	--	--	33	--	--	290	179	--	--
	Apr-13	--	--	--	--	--	30	--	--	293	166	--	--
	Oct-13	--	--	--	--	--	30	--	--	293	140	--	--
	Apr-14	--	--	--	--	--	28	--	--	320	169	--	--
	Oct-14	--	--	--	--	--	30	--	--	293	152	--	--
	May-15	--	--	--	--	--	29	--	--	293	141	--	--
Oct-15	--	--	--	--	--	29	--	--	284	176	--	--	
Apr-16	--	--	--	--	--	29	--	--	297	136	--	--	
Oct-16	--	--	--	--	--	28	--	--	293	139	--	--	
Apr-17	--	--	--	--	--	27	--	--	295	146	--	--	
Oct-17	--	--	--	--	--	29	--	--	294	166	--	--	
Apr-18	--	--	--	--	--	29	--	--	295	144	--	--	
Oct-18	--	--	--	--	--	29	--	--	294	162	--	--	
Apr-19	--	--	--	--	--	30	--	--	295	168	--	--	
Oct-19	--	--	--	--	--	30	--	--	297	162	--	--	
Oct-20	--	--	--	--	--	30	--	--	296	165	--	--	
Apr-21	--	--	--	--	--	28	--	--	294	149	--	--	
Nov-21	--	--	--	--	--	29	--	--	296	174	--	--	
Apr-22	--	--	--	--	--	28	--	--	296	162	--	--	
Oct-22	--	--	--	--	--	29	--	--	304	164	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH	
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE	
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE	
SF#26 - GRT HWY/TARAVAL MW145	Apr-04	28.0	25.2	29.5	2.02	--	30	23.0	37.0**	473	360	170	7.96	
	Oct-04	30.6	25.9	30.3	1.78	132	35	25.2	35.8	478	277	171	7.90	
	Apr-05	29.6	26.1	29.0	1.62	132	35	25.0	36.0	478	295	172	7.88	
	Nov-05	--	--	--	--	--	36	--	--	486	317	--	--	
	May-06	--	--	--	--	--	38	--	--	502	320	--	--	
	Oct-06	--	--	--	--	--	36	--	--	489	300	--	--	
	May-07	--	--	--	--	--	26*	--	--	507	302	--	--	
	Oct-07	--	--	--	--	--	37	--	--	497	305	--	--	
	Apr-08	--	--	--	--	--	37	--	--	495	306	--	--	
	Sep-08	--	--	--	--	--	37	--	--	481	281	--	--	
	Apr-09	--	--	--	--	--	41	--	--	477	271	--	--	
	Nov-09	--	--	--	--	--	38	--	--	464	274	--	--	
	Apr-10	--	--	--	--	--	38	--	--	460	277	--	--	
	Nov-10	--	--	--	--	--	38	--	--	471	263	--	--	
	Jun-11	--	--	--	--	--	38	--	--	483	310	--	--	
	Nov-11	--	--	--	--	--	116	40	--	--	470	280	162	7.38
	May-12	--	--	--	--	--	--	43	--	--	457	273	--	--
	Nov-12	--	--	--	--	--	--	46	--	--	449	260	--	--
	Apr-13	--	--	--	--	--	--	41	--	--	454	263	--	--
	Oct-13	--	--	--	--	--	--	40	--	--	444	238	--	--
	May-14	--	--	--	--	--	--	39	--	--	454	238	--	--
	Nov-14	--	--	--	--	--	--	34	--	--	383	236	--	--
	Apr-15	--	--	--	--	--	--	42	--	--	454	219	--	--
	Nov-15	--	--	--	--	--	--	41	--	--	452	139*	--	--
May-16	--	--	--	--	--	--	41	--	--	457	267	--	--	
Oct-16	--	--	--	--	--	--	39	--	--	457	265	--	--	
Apr-17	--	--	--	--	--	--	39	--	--	460	272	--	--	
Oct-17	--	--	--	--	--	--	43	--	--	468	275	--	--	
Apr-18	--	--	--	--	--	--	41	--	--	466	272	--	--	
Nov-18	--	--	--	--	--	--	42	--	--	440	260	--	--	
Apr-19	--	--	--	--	--	--	42	--	--	465	253	--	--	
Oct-19	--	--	--	--	--	--	43	--	--	460	269	--	--	
Oct-20	--	--	--	--	--	--	42	--	--	475	279	--	--	
Apr-21	--	--	--	--	--	--	42	--	--	475	277	--	--	
Nov-21	--	--	--	--	--	--	34	--	--	382	204	--	--	
Apr-22	--	--	--	--	--	--	42	--	--	475	251	--	--	
Oct-22	--	--	--	--	--	--	42	--	--	477	242	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH	
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE	
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE	
SF#27 - GRT HWY/TARAVAL MW240	Apr-04	21.6	19.5	22.2	1.88	--	25	17.0	11.0**	371	276	150	7.95	
	Oct-04	21.6	19.8	23.9	1.67	104	32	19.6	11.3	367	196	130	7.70	
	Apr-05	22.1	21.0	23.1	1.68	104	36	20.0	13.0	369	243	132	7.80	
	Nov-05	--	--	--	--	--	34	--	--	380	230	--	--	
	May-06	--	--	--	--	--	36	--	--	368	240	--	--	
	Oct-06	--	--	--	--	--	33	--	--	366	230	--	--	
	May-07	--	--	--	--	--	35	--	--	373	214	--	--	
	Oct-07	--	--	--	--	--	36	--	--	370	229	--	--	
	Apr-08	--	--	--	--	--	36	--	--	374	226	--	--	
	Sep-08	--	--	--	--	--	34	--	--	375	207	--	--	
	Apr-09	--	--	--	--	--	39	--	--	388	229	--	--	
	Nov-09	--	--	--	--	--	35	--	--	386	217	--	--	
	Apr-10	--	--	--	--	--	35	--	--	386	235	--	--	
	Nov-10	--	--	--	--	--	33	--	--	389	225	--	--	
	Jun-11	--	--	--	--	--	34	--	--	385	249	--	--	
	Nov-11	--	--	--	--	--	108	35	--	--	379	200	138	7.45
	May-12	--	--	--	--	--	--	37	--	--	377	256	--	--
	Nov-12	--	--	--	--	--	--	39	--	--	380	221	--	--
	Apr-13	--	--	--	--	--	--	35	--	--	380	230	--	--
	Oct-13	--	--	--	--	--	--	34	--	--	383	214	--	--
	May-14	--	--	--	--	--	--	34	--	--	385	196	--	--
	Nov-14	--	--	--	--	--	--	42	--	--	446	266	--	--
	Apr-15	--	--	--	--	--	--	34	--	--	383	169	--	--
Nov-15	--	--	--	--	--	--	34	--	--	379	177	--	--	
May-16	--	--	--	--	--	--	33	--	--	378	217	--	--	
Oct-16	--	--	--	--	--	--	33	--	--	383	206	--	--	
Apr-17	--	--	--	--	--	--	33	--	--	381	221	--	--	
Oct-17	--	--	--	--	--	--	34	--	--	381	212	--	--	
Apr-18	--	--	--	--	--	--	34	--	--	384	225	--	--	
Nov-18	--	--	--	--	--	--	33	--	--	374	207	--	--	
Apr-19	--	--	--	--	--	--	34	--	--	379	209	--	--	
Oct-19	--	--	--	--	--	--	34	--	--	381	219	--	--	
Oct-20	--	--	--	--	--	--	34	--	--	380	233	--	--	
Apr-21	--	--	--	--	--	--	33	--	--	380	204	--	--	
Nov-21	--	--	--	--	--	--	42	--	--	493	257	--	--	
Apr-22	--	--	--	--	--	--	32	--	--	378	204	--	--	
Oct-22	--	--	--	--	--	--	32	--	--	391	206	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#28 - GRT HWY/TARAVAL MW400	Apr-04	17.6	14.7	20.4	1.72	--	20	28.0	<1.3**	313	248	140	8.16
	Oct-04	18.6	15.1	23.1	1.62	88	26	24.6	<0.2	310	162	104	8.10
	May-05	18.9	16.3	22.3	1.47	92	28	--	--	308	--	104	8.28
	Nov-05	--	--	--	--	--	28	--	--	311	193	--	--
	May-06	--	--	--	--	--	28	--	--	304	200	--	--
	Oct-06	--	--	--	--	--	27	--	--	309	180	--	--
	May-07	--	--	--	--	--	28	--	--	311	376*	--	--
	Oct-07	--	--	--	--	--	28	--	--	306	172	--	--
	Apr-08	--	--	--	--	--	28	--	--	306	213	--	--
	Sep-08	--	--	--	--	--	27	--	--	297	173	--	--
	Apr-09	--	--	--	--	--	29	--	--	311	183	--	--
	Nov-09	--	--	--	--	--	28	--	--	309	172	--	--
	Apr-10	--	--	--	--	--	28	--	--	309	188	--	--
	Nov-10	--	--	--	--	--	28	--	--	310	179	--	--
	Jun-11	--	--	--	--	--	28	--	--	319	206	--	--
	Nov-11	--	--	--	--	88	28	--	--	311	190	104	7.49
	May-12	--	--	--	--	--	29	--	--	312	215	--	--
	Nov-12	--	--	--	--	--	31	--	--	309	185	--	--
	Apr-13	--	--	--	--	--	29	--	--	324	195	--	--
	Oct-13	--	--	--	--	--	28	--	--	327	471*	--	--
	May-14	--	--	--	--	--	30	--	--	328	162	--	--
	Nov-14	--	--	--	--	--	29	--	--	327	195	--	--
	Apr-15	--	--	--	--	--	27	--	--	322	86*	--	--
	Nov-15	--	--	--	--	--	29	--	--	312	142	--	--
May-16	--	--	--	--	--	28	--	--	319	169	--	--	
Oct-16	--	--	--	--	--	28	--	--	317	162	--	--	
Apr-17	--	--	--	--	--	28	--	--	320	179	--	--	
Oct-17	--	--	--	--	--	29	--	--	322	172	--	--	
Apr-18	--	--	--	--	--	30	--	--	320	172	--	--	
Nov-18	--	--	--	--	--	29	--	--	318	172 ^a	--	--	
Apr-19	--	--	--	--	--	30	--	--	342	187	--	--	
Oct-19	--	--	--	--	--	31	--	--	329	176	--	--	
Oct-20	--	--	--	--	--	29	--	--	316	168	--	--	
Apr-21	--	--	--	--	--	28	--	--	319	166	--	--	
Nov-21	--	--	--	--	--	29	--	--	313	159	--	--	
Apr-22	--	--	--	--	--	28	--	--	319	171	--	--	
Oct-22	--	--	--	--	--	28	--	--	322	165	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH	
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE	
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE	
SF#29 - GRT HWY/TARAVAL MW530	Apr-04	11.1	5.33	48.8	2.45	--	15	9.0	<1.3**	321	254	60	8.35	
	Oct-04	0.08*	<0.02*	<0.01*	<0.35*	119	23	8.5	<0.2	323	188	48	8.30	
	May-05	12.3	5.54	53.5	2.29	120	20	--	--	322	208	60	8.43	
	Nov-05	--	--	--	--	--	26	--	--	322	207	--	--	
	May-06	--	--	--	--	--	26	--	--	324	190	--	--	
	Oct-06	--	--	--	--	--	25	--	--	321	200	--	--	
	May-07	--	--	--	--	--	26	--	--	330	197	--	--	
	Oct-07	--	--	--	--	--	26	--	--	324	192	--	--	
	Apr-08	--	--	--	--	--	27	--	--	329	205	--	--	
	Sep-08	--	--	--	--	--	26	--	--	319	186	--	--	
	Apr-09	--	--	--	--	--	28	--	--	330	192	--	--	
	Nov-09	--	--	--	--	--	26	--	--	331	178	--	--	
	Apr-10	--	--	--	--	--	26	--	--	330	209	--	--	
	Nov-10	--	--	--	--	--	24	--	--	332	185	--	--	
	Jun-11	--	--	--	--	--	24	--	--	336	192	--	--	
	Nov-11	--	--	--	--	--	132	26	--	--	340	220	56	7.62
	May-12	--	--	--	--	--	--	27	--	--	337	185	--	--
	Nov-12	--	--	--	--	--	--	30	--	--	343	202	--	--
	Apr-13	--	--	--	--	--	--	26	--	--	349	210	--	--
	Oct-13	--	--	--	--	--	--	25	--	--	345	195	--	--
	May-14	--	--	--	--	--	--	25	--	--	347	170	--	--
	Nov-14	--	--	--	--	--	--	25	--	--	342	196	--	--
	Apr-15	--	--	--	--	--	--	25	--	--	346	181	--	--
Nov-15	--	--	--	--	--	--	26	--	--	365	162	--	--	
May-16	--	--	--	--	--	--	25	--	--	353	183	--	--	
Oct-16	--	--	--	--	--	--	25	--	--	352	141	--	--	
Apr-17	--	--	--	--	--	--	24	--	--	369	181	--	--	
Oct-17	--	--	--	--	--	--	25	--	--	366	197	--	--	
Apr-18	--	--	--	--	--	--	25	--	--	348	186	--	--	
Nov-18	--	--	--	--	--	--	25	--	--	356	192	--	--	
Apr-19	--	--	--	--	--	--	26	--	--	357	186	--	--	
Oct-19	--	--	--	--	--	--	27	--	--	353	192	--	--	
Oct-20	--	--	--	--	--	--	25	--	--	358	192	--	--	
Apr-21	--	--	--	--	--	--	24	--	--	357	187	--	--	
Nov-21	--	--	--	--	--	--	25	--	--	367	186	--	--	
Apr-22	--	--	--	--	--	--	24	--	--	374	209	--	--	
Oct-22	--	--	--	--	--	--	25	--	--	368	193	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#42 - ZOO MW275	Apr-04	17.9	0.77*	97.6*	3.06	--	60	45.0*	3.6**	530	360	44	10.20
	Nov-04	24.1	15.0	45.5	5.07	110	60	12.2	<0.2	431	250	114	8.90
	May-05	21.1	18.8	35.9	4.89	118	68	7.0	<0.3	446	526*	158	8.32
	Nov-05	--	--	--	--	--	71	--	--	463	309	--	--
	May-06	--	--	--	--	--	70	--	--	459	260	--	--
	Nov-06	20.2	20.9	34.1	4.5	116	66	5.3	<0.3	453	240	132	7.95
	May-07	--	--	--	--	--	75	--	--	455	242	--	--
	Oct-07	18.8	20.3	33.9	4.5	116	65	4.6	<0.3	453	246	130	7.86
	May-08	--	--	--	--	--	64	--	--	456	245	--	--
	Sep-08	--	--	--	--	--	69	--	--	467	248	--	--
	Apr-09	--	--	--	--	--	68	--	--	461	246	--	--
	Nov-09	--	--	--	--	--	68	--	--	475	260	--	--
	Apr-10	--	--	--	--	--	42*	--	--	486	237	--	--
	Nov-10	--	--	--	--	--	41*	--	--	493	290	--	--
	May-11	--	--	--	--	--	44*	--	--	486	314	--	--
	Oct-11	--	--	--	--	120	69	--	--	458	240	140	7.46
	May-12	--	--	--	--	--	122*	--	--	468	265	--	--
	Nov-12	--	--	--	--	--	74	--	--	468	269	--	--
	Apr-13	--	--	--	--	--	71	--	--	475	254	--	--
	Oct-13	--	--	--	--	--	69	--	--	474	247	--	--
	May-14	--	--	--	--	--	68	--	--	476	248	--	--
	Nov-14	--	--	--	--	--	70	--	--	484	267	--	--
	Apr-15	--	--	--	--	--	72	--	--	484	232	--	--
Nov-15	--	--	--	--	--	75	--	--	491	249	--	--	
May-16	--	--	--	--	--	72	--	--	495	246	--	--	
Nov-16	--	--	--	--	--	71	--	--	499	256	--	--	
Apr-17	--	--	--	--	--	70	--	--	497	269	--	--	
Oct-17	--	--	--	--	--	74	--	--	500	252	--	--	
Apr-18	--	--	--	--	--	74	--	--	495	235	--	--	
Nov-18	--	--	--	--	--	73	--	--	501	241	--	--	
Apr-19	--	--	--	--	--	76	--	--	498	267	--	--	
Oct-19	--	--	--	--	--	75	--	--	519	269	--	--	
Oct-20	--	--	--	--	--	73	--	--	518	298	--	--	
Apr-21	--	--	--	--	--	75	--	--	520	286	--	--	
Nov-21	--	--	--	--	--	76	--	--	526	289	--	--	
May-22	--	--	--	--	--	73	--	--	525	262	--	--	
Oct-22	--	--	--	--	--	73	--	--	536	257	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#43 - ZOO MW450	Apr-04	23.9	24.8	43.1	2.75	--	47	19.0	32.6**	469	360	138	8.63
	Nov-04	24.6	24.9	45.0	2.82	132	43	18.6	39.5	495	298	164	8.40
	May-05	23.2	26.1	41.7	2.86	122	44	19.0	41.0	491	295	138	8.44
	Nov-05	--	--	--	--	--	44	--	--	504	293	--	--
	May-06	--	--	--	--	--	45	--	--	488	300	--	--
	Nov-06	21.9	27.0	41.6	2.7	154	44	19.6	37.8	488	280	128	8.32
	May-07	--	--	--	--	--	45	--	--	483	280	--	--
	Oct-07	18.9	24.1	37.2	2.1	126	42	17.8	30.0	472	290	140	8.22
	May-08	--	--	--	--	--	42	--	--	474	301	--	--
	Sep-08	--	--	--	--	--	43	--	--	478	283	--	--
	Apr-09	--	--	--	--	--	43	--	--	479	274	--	--
	Nov-09	--	--	--	--	--	43	--	--	486	293	--	--
	Apr-10	--	--	--	--	--	34*	--	--	474	211*	--	--
	Nov-10	--	--	--	--	--	67*	--	--	478	261	--	--
	May-11	--	--	--	--	--	72*	--	--	478	277	--	--
	Oct-11	--	--	--	--	132	44	--	--	479	270	154	7.01
	May-12	--	--	--	--	--	128*	--	--	473	468	--	--
	Nov-12	--	--	--	--	--	47	--	--	478	302	--	--
	Apr-13	--	--	--	--	--	43	--	--	482	293	--	--
	Oct-13	--	--	--	--	--	41	--	--	478	274	--	--
	May-14	--	--	--	--	--	42	--	--	481	274	--	--
	Nov-14	--	--	--	--	--	43	--	--	494	291	--	--
	Apr-15	--	--	--	--	--	44	--	--	501	265	--	--
Nov-15	--	--	--	--	--	46	--	--	499	278	--	--	
May-16	--	--	--	--	--	43	--	--	501	292	--	--	
Nov-16	--	--	--	--	--	43	--	--	504	286	--	--	
Apr-17	--	--	--	--	--	42	--	--	507	293	--	--	
Oct-17	--	--	--	--	--	44	--	--	505	282	--	--	
Apr-18	--	--	--	--	--	45	--	--	511	297	--	--	
Nov-18	--	--	--	--	--	45	--	--	507	267	--	--	
Apr-19	--	--	--	--	--	47	--	--	517	300	--	--	
Oct-19	--	--	--	--	--	47	--	--	531	282	--	--	
Oct-20	--	--	--	--	--	47	--	--	522	309	--	--	
Apr-21	--	--	--	--	--	47	--	--	530	307	--	--	
Nov-21	--	--	--	--	--	49	--	--	539	298	--	--	
May-22	--	--	--	--	--	48	--	--	555	307	--	--	
Oct-22	--	--	--	--	--	49	--	--	571	316	--	--	

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#45 - ZOO MW565	Apr-04	30.5	10.3	71.6	4.09	--	53	82*	<1.3**	510	380	100	8.31
	May-05	27.6	10.0	63.3	3.56	170	52	7.6	<0.3	505	313	104	8.25
	Nov-05	--	--	--	--	--	53	--	--	507	323	--	--
	May-06	--	--	--	--	--	53	--	--	498	300	--	--
	Nov-06	27.3	10.4	69.7	3.3	162	53	7.4	<0.3	503	280	104	8.21
	May-07	--	--	--	--	--	60	--	--	503	281	--	--
	Oct-07	25.1	9.9	65.6	2.6	170	52	6.9	<0.3	502	295	102	8.25
	May-08	--	--	--	--	--	52	--	--	494	272	--	--
	Oct-08	--	--	--	--	--	51	--	--	494	262	--	--
	Apr-09	--	--	--	--	--	53	--	--	504	282	--	--
	Nov-09	--	--	--	--	--	53	--	--	506	304	--	--
	Apr-10	--	--	--	--	--	54	--	--	503	232	--	--
	Nov-10	--	--	--	--	--	52	--	--	510	283	--	--
	May-11	--	--	--	--	--	54	--	--	517	330	--	--
	Oct-11	--	--	--	--	150	52	--	--	449	240	76	8.04
	May-12	--	--	--	--	--	57	--	--	443	246	--	--
	Nov-12	--	--	--	--	--	57	--	--	433	244	--	--
	Apr-13	--	--	--	--	--	52	--	--	438	241	--	--
	Oct-13	--	--	--	--	--	50	--	--	436	218	--	--
	May-14	--	--	--	--	--	50	--	--	434	223	--	--
	Nov-14	--	--	--	--	--	51	--	--	431	230	--	--
	Apr-15	--	--	--	--	--	52	--	--	430	199	--	--
Nov-15	--	--	--	--	--	51	--	--	423	199	--	--	
May-16	--	--	--	--	--	50	--	--	429	206	--	--	
Nov-16	--	--	--	--	--	50	--	--	427	187	--	--	
Apr-17	--	--	--	--	--	48	--	--	424	186	--	--	
Oct-17	--	--	--	--	--	48	--	--	426	224	--	--	
Apr-18	--	--	--	--	--	50	--	--	421	209	--	--	
Nov-18	--	--	--	--	--	50	--	--	423	195	--	--	
Apr-19	--	--	--	--	--	50	--	--	422	214	--	--	
Oct-19	--	--	--	--	--	50	--	--	427	194	--	--	
Oct-20	--	--	--	--	--	48	--	--	417	222	--	--	
Apr-21	--	--	--	--	--	48	--	--	420	216	--	--	
Nov-21	--	--	--	--	--	48	--	--	423	211	--	--	
May-22	--	--	--	--	--	46	--	--	419	208	--	--	
Oct-22	--	--	--	--	--	46	--	--	428	205	--	--	
SF#57 - USGS South Windmill MW57	May-06	--	--	--	--	--	115	--	--	963	--	--	--

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#57 - USGS South Windmill MW57 (continued)	Oct-07	--	--	--	--	--	140	53	41	1,104	600	--	--
	May-08	--	--	--	--	--	150	--	--	1,183	653	--	--
	Sep-08	--	--	--	--	--	178	--	--	1,228	701	--	--
	Apr-09	--	--	--	--	--	178	--	--	1,253	684	--	--
	Nov-09	--	--	--	--	--	193	--	--	1,277	666	--	--
	Apr-10	--	--	--	--	--	176	--	--	1,281	705	--	--
	Nov-10	--	--	--	--	--	151	--	--	1,240	663	--	--
	May-11	--	--	--	--	--	157	--	--	1,201	667	--	--
	Nov-11	--	--	--	--	284	154	--	--	1,217	690	408	7.0
	Apr-12	--	--	--	--	--	168	--	--	1,206	662	--	--
	Nov-12	--	--	--	--	--	180	--	--	1,237	686	--	--
	Apr-13	--	--	--	--	--	170	--	--	1,287	718	--	--
	Oct-13	--	--	--	--	--	173	--	--	1,288	713	--	--
	Apr-14	--	--	--	--	--	218	--	--	1,580	765	--	--
	Oct-14	--	--	--	--	--	182	--	--	1,310	746	--	--
	Apr-15	--	--	--	--	--	188	--	--	1,310	669	--	--
	Oct-15	--	--	--	--	--	196	--	--	1,360	750	--	--
	Apr-16	--	--	--	--	--	204	--	--	1,420	773	--	--
	Oct-16	--	--	--	--	--	191	--	--	1,380	725	--	--
	Apr-17	--	--	--	--	--	215	--	--	1,450	826	--	--
	Oct-17	--	--	--	--	--	190	--	--	1,280	707	--	--
	Apr-18	--	--	--	--	--	182	--	--	1,300	718	--	--
Oct-18	--	--	--	--	--	168	--	--	1,230	680	--	--	
Apr-19	--	--	--	--	--	159	--	--	1,230	658	--	--	
Oct-19	--	--	--	--	--	140	--	--	1,110	665	--	--	
Oct-20	--	--	--	--	--	163	--	--	1,090	593	--	--	
Apr-21	--	--	--	--	--	155	--	--	1,160	645	--	--	
Oct-21	--	--	--	--	--	175	--	--	1,240	644	--	--	
Mar-22	--	--	--	--	--	185	--	--	1,250	637	--	--	
Oct-22	--	--	--	--	--	191	--	--	1,290	686	--	--	
SF#58 - USGS South Windmill MW140	May-06	--	--	--	--	--	57	--	--	605	--	--	--
	Oct-07	--	--	--	--	--	48	39	31	596	330	--	--
	May-08	--	--	--	--	--	57	--	--	636	350	--	--
	Sep-08	--	--	--	--	--	61	--	--	658	359	--	--
	Apr-09	--	--	--	--	--	67	--	--	703	382	--	--
	Nov-09	--	--	--	--	--	70	--	--	744	431	--	--
	Apr-10	--	--	--	--	--	65	--	--	720	400	--	--

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#58 - USGS South Windmill MW140 (continued)	Nov-10	--	--	--	--	--	61	--	--	739	412	--	--
	May-11	--	--	--	--	--	60	--	--	693	490*	--	--
	Nov-11	--	--	--	--	202	59	--	--	704	410	176	7.72
	Apr-12	--	--	--	--	--	54	--	--	637	361	--	--
	Nov-12	--	--	--	--	--	66	--	--	715	399	--	--
	Apr-13	--	--	--	--	--	57	--	--	689	371	--	--
	Oct-13	--	--	--	--	--	60	--	--	736	393	--	--
	Apr-14	--	--	--	--	--	60	--	--	790	382	--	--
	Oct-14	--	--	--	--	--	58	--	--	735	418	--	--
	Apr-15	--	--	--	--	--	67	--	--	773	414	--	--
	Oct-15	--	--	--	--	--	55	--	--	720	394	--	--
	Apr-16	--	--	--	--	--	59	--	--	753	401	--	--
	Apr-16	--	--	--	--	--	59	--	--	753	401	--	--
	Apr-17	--	--	--	--	--	55	--	--	741	391	--	--
	Oct-17	--	--	--	--	--	51	--	--	725	367	--	--
	Apr-18	--	--	--	--	--	46	--	--	665	361	--	--
	Oct-18	--	--	--	--	--	54	--	--	737	412	--	--
	Apr-19	--	--	--	--	--	46	--	--	638	325	--	--
	Oct-19	--	--	--	--	--	46	--	--	610	394	--	--
	Oct-20	--	--	--	--	--	71	--	--	707	377	--	--
Apr-21	--	--	--	--	--	64	--	--	740	414	--	--	
Oct-21	--	--	--	--	--	63	--	--	733	381	--	--	
Mar-22	--	--	--	--	--	61	--	--	715	370	--	--	
Oct-22	--	--	--	--	--	63	--	--	749	388	--	--	
SF#69 - GGP NWM-3	Mar-13	26.2	32.0	26.0	3.10	147	52	34.2	20.3	537	295	210	7.31
	Oct-13	31.0	37.0	30.0	4.09	165	52	49.0	4.8**	598	309	225	7.11
	May-14	30.6	34.1	26.1	4.15	160	52	39.1	10.7	573	294	214	7.11
	Nov-14	31.0	34.8	25.7	4.19	158	54	39.4	0.9*	562	286	216	7.14
	Apr-15	30.8	35.3	28.1	4.28	171	55	39.3	<0.3	576	303	221	7.08
	Nov-15	31.4	34.0	28.8	3.91	175	50	37.3	<0.3	554	292	211	7.14
	May-16	--	--	--	--	--	50	--	<0.3	553	296	--	--
	Jul-16	--	--	--	--	--	52	--	--	564	296	--	--
	Oct-16	--	--	--	--	--	50	--	--	564	267	--	--
	Jan-17	--	--	--	--	--	44	--	--	490	243	--	--
	Apr-17	--	--	--	--	--	45	--	--	562	304	--	--
	Oct-17	--	--	--	--	--	41	--	--	448	249	--	--
	May-18	--	--	--	--	--	42	--	--	442	211	--	--

Table 9
Coastal Monitoring Network Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#69 - GGP NWM-3 (continued)	Nov-18	--	--	--	--	--	42	--	--	442	237	--	--
	Apr-19	--	--	--	--	--	42	--	--	417	234	--	--
	Oct-19	--	--	--	--	--	40	--	--	417	231	--	--
	Oct-20	--	--	--	--	--	39	--	--	413	232	--	--
	Apr-21	--	--	--	--	--	39	--	--	437	243	--	--
	Nov-21	--	--	--	--	--	41	--	--	446	236	--	--
	Apr-22	--	--	--	--	--	38	--	--	409	216	--	--
	Oct-22	--	--	--	--	--	39	--	--	434	232	--	--
SF#70 - GGP SWM-3	Mar-13	26.9	32.7	25.5	0.96	152	42	41.8	32.4	552	336	221	7.67
	Oct-13	33.2	40.5	29.9	1.77	175	52	42.0	29.9	636	345	252	7.50
	May-14	30.3	34.6	25.1	1.48	150	43	39.2	31.1	569	300	220	7.49
	Nov-14	33.1	40.1	25.9	1.65	163	47	43.2	30.8	601	317	243	7.51
	Apr-15	33.1	40.1	26.5	1.60	177	52	41.5	28.9	621	349	252	7.46
	Nov-15	35.2	41.3	29.1	1.67	175	52	41.8	29.0	623	349	248	7.47
	Apr-16	--	--	--	--	--	42	--	31.4	544	299	--	--
	Jul-16	--	--	--	--	--	54	--	--	632	333	--	--
	Oct-16	--	--	--	--	--	52	--	--	638	339	--	--
	Jan-17	--	--	--	--	--	43	--	--	563	326	--	--
	Apr-17	--	--	--	--	--	42	--	--	552	307	--	--
	Oct-17	--	--	--	--	--	46	--	--	578	320	--	--
	May-18	--	--	--	--	--	41	--	--	536	324	--	--
	Oct-18	--	--	--	--	--	43	--	--	549	285	--	--
	Apr-19	--	--	--	--	--	40	--	--	487	255	--	--
	Oct-19	--	--	--	--	--	40	--	--	482	283	--	--
	Oct-20	--	--	--	--	--	48	--	--	470	296	--	--
	Apr-21	--	--	--	--	--	39	--	--	477	271	--	--
Oct-21	--	--	--	--	--	39	--	--	487	270	--	--	
Mar-22	--	--	--	--	--	39	--	--	466	253	--	--	
Oct-22	--	--	--	--	--	39	--	--	491	265	--	--	
SF#67 - GGP Soccer Field SF-1	Oct-12	23.5	33.5	28.1	3.21	185	46	38.7	10.9	530	305	202	7.32
	May-13	23.1	35.0	30.0	3.19	174	40	36.0	9.7**	528	280	194	7.47
	Oct-13	22.3	31.6	29.5	3.06	175	41	27.0	2.5**	528	260	191	7.39
	May-14	24.6	33.0	28.1	3.16	176	41	27.8	2.7	531	252	195	7.42
	Nov-14	26.4	34.9	26.0	2.23	166	39	43.2	11.9	535	283	207	7.40
	Apr-15	24.9	35.3	28.9	3.20	190	42	26.3	1.4	534	278	201	7.34
	Nov-15	25.5	34.3	27.8	2.38	169	41	35.7	7.6	530	292	201	7.35
	Apr-16	--	--	--	--	--	39	--	4.1	530	286	--	--

Table 9
Coastal Monitoring Network Groundwater Quality


Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L)	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#67 - GGP Soccer Field SF-1 (continued)	Jul-16	--	--	--	--	--	41	--	--	533	277	--	--
	Oct-16	--	--	--	--	--	40	--	--	540	261	--	--
	Jan-17	--	--	--	--	--	39	--	--	531	283	--	--
	Apr-17	--	--	--	--	--	38	--	--	539	286	--	--
	Oct-17	--	--	--	--	--	42	--	--	540	284	--	--
	May-18	--	--	--	--	--	40	--	--	524	283	--	--
	Nov-18	--	--	--	--	--	41	--	--	532	236	--	--
	Apr-19	--	--	--	--	--	44	--	--	541	290	--	--
	Oct-19	--	--	--	--	--	43	--	--	559	292	--	--
	Oct-20	--	--	--	--	--	41	--	--	555	291	--	--
	Apr-21	--	--	--	--	--	40	--	--	550	288	--	--
	Nov-21	--	--	--	--	--	41	--	--	550	287	--	--
	Apr-22	--	--	--	--	--	39	--	--	549	278	--	--
Oct-22	--	--	--	--	--	41	--	--	562	284	--	--	
SF#68 - GGP North Lake Road NL-1	Oct-12	27.9	35.0	26.9	3.43	159	47	33.4	42.3	565	328	218	7.21
	May-13	27.0	37.9	29.6	2.90	150	43	40.0	21.1**	549	296	205	7.18
	Oct-13	33.0	41.8	28.9	2.87	165	52	44.0	31.7**	636	326	246	7.19
	May-14	35.2	35.7	24.8	2.54	154	46	36.4	23.1	563	300	42*	7.21
	Nov-14	27.3	31.4	22.6	2.36	136	31	27.2	42.6	493	273	183	7.22
	Apr-15	35.4	32.4	23.1	2.46	143	36	28.8	29.2	499	270	190	7.22
	Oct-15	43.6	32.3	24.6	2.33	143	37	30.0	33.4	505	293	198	7.18
	Apr-16	--	--	--	--	--	33	--	41.4	485	262	--	--
	Jul-16	--	--	--	--	--	33	--	--	480	264	--	--
	Oct-16	--	--	--	--	--	39	--	--	519	291	--	--
	Jan-17	--	--	--	--	--	48	--	--	598	320	--	--
	Apr-17	--	--	--	--	--	38	--	--	506	292	--	--
	Oct-17	--	--	--	--	--	28	--	--	459	254	--	--
	May-18	--	--	--	--	--	29	--	--	444	224	--	--
	Nov-18	--	--	--	--	--	26	--	--	425	243	--	--
	Apr-19	--	--	--	--	--	34	--	--	426	253	--	--
	Oct-19	--	--	--	--	--	27	--	--	409	234	--	--
	Oct-20	--	--	--	--	--	26	--	--	411	242	--	--
	Apr-21	--	--	--	--	--	27	--	--	431	266	--	--
Nov-21	--	--	--	--	--	31	--	--	451	264	--	--	
Apr-22	--	--	--	--	--	30	--	--	443	242	--	--	
Oct-22	--	--	--	--	--	42	--	--	502	272	--	--	

Table 9

Coastal Monitoring Network Groundwater Quality

Notes

^a = Anomalous primary sample results in 2018 were replaced with the corresponding duplicate result where available, as these results more closely resembled the historical concentrations.

 = Shaded cell indicates data collected in 2022

* = Anomalous or questionable result

** = Nitrate as NO₃ is a calculated value: [NO₃] = 4.4 x [Nitrate as N]; for these results, Laboratory reported Nitrate as Nitrogen rather than Nitrate as Nitrate concentration. Beginning in the Spring of 2016, the lab began reporting all Nitrate results as Nitrate as Nitrogen, and therefore from this point forward all results have been corrected and are no longer being marked by an **.

-- = Not analyzed

mg/L = Milligrams per liter

µmhos/cm = Micromhos per centimeter

= **Bold** font indicates a result that exceeds an MCL

NE = Not established

MCL¹ = Maximum Contaminant Level; values for MCLs are provided where they have been established for particular constituents. MCLs are drinking water standards that public water systems must achieve. They are not intended to regulate groundwater from monitoring wells or untreated water from production wells, because after withdrawal groundwater may be disinfected, filtered, blended, exposed to the atmosphere, and/or otherwise treated before being delivered to consumers. However, MCLs are used for comparison in this report to provide context for evaluating the quality of untreated groundwater. Primary MCLs are regulatory benchmarks for protecting human health. Secondary MCLs are benchmarks to protect the aesthetic quality of drinking water and are based on effects such as taste, odor, or appearance.

Secondary MCL² = 250/500/600: Recommended/Upper/Short Term

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#02 - EDGEWOOD SCHOOL	May-02	--	--	--	--	103	30	36.0	46.0	445	--	169	7.50
	Nov-02	--	--	--	--	144	30	36.0	49.0	452	227	164	7.30
	Jul-03	24.8	25.6	24.5	1.35	110	33	37.0	51.0	450	235	180	7.20
	Apr-04	24.5	25.0	24.5	1.37	--	--	--	--	--	--	--	--
	Nov-04	11.1*	0.254*	26.5	0.28*	108	29	34.5	47.9	446	312	166	7.50
SF#03 - ELK GLEN 2	Apr-00	30.4	32.8	24.2	ND	138	38	48.8	49.2	526	364	211	7.65
	Apr-01	--	--	--	--	140	41	52.0	55.0	580	330	236	7.62
	Dec-01	34.9	37.3	27.6	1.08	140	40	50.8	48.9	580	360	230	7.74
	Apr-04	34.4	38.5	26.9	1.11	--	43	52.0	52.8	583	412	240	7.61
	Nov-04	38.9	39.5	30.9	1.18	143	40	56.0	51.2	590	374	235	7.80
	May-05	34.4	37.2	26.1	0.77	150	39	55.0	51.0	590	362	210	7.63
SF#07 - LMMW-1S	Nov-05	--	--	--	--	--	--	--	--	--	--	--	--
	Apr-09	58.4	89.7	90.6	2.67	340	235	114	10.7	1,488	859	590	7.09
	Nov-09	73.0	110	130	2.80	310	393	122	41.0	1,936	1,035	700	6.74
	Apr-10	52.9	78.4	76.1	2.31	342	129	77.0	<0.3*	1,170	657	454	6.88
	Nov-10	57.2	83.6	111	3.20	276	253	120	39.0	1,584	860	528	6.61
	May-11	51.9	81.5	84.2	3.10	296	172	82.5	19.1	1,274	696	464	6.92
	Oct-11	51.5	80.5	146	2.63	264	260	73.1	56.4	1,558	870	448	6.68
	Apr-12	40.7	66.1	70.7	1.91	268	144	61.9	13.7	1,068	461	394	6.81
	Nov-12	67.0	107	159	3.82	368	386	108	29.9	1,936	1,046	616	--
	Apr-13	60.1	90.5	124	3.84	355	295	72.2	17.8	1,658	820	576	--
	Oct-13	64.3	110	188	3.03	280	374	97.0	38.0	2,059	1,054	582	--
	Apr-14	58.5	88.9	131	2.86	324	258	69.8	16.2	1,740	841	530	--
	Oct-14	59.0	85.8	136	2.73	337	262	66.0	11.4	1,600	848	503	--
	Apr-15	49.3	75.3	93.4	2.52	361	161	42.7	6.24	1,240	632	414	--
	Oct-15	51.4	75.5	110	2.56	384	209	47.1	6.78	1,350	756	461	--
	Apr-16	43.4	65.5	72.5	2.38	372	110	24.4	<0.3*	1,060	541	389	--
	Oct-16	56.6	88.3	141	2.63	316	273	63.0	21.6	1,629	828	518	6.78
	Apr-17	43.3	66.7	107	3.07	288	192	48.2	36.1	1,280	714	420	6.78
	Oct-17	39.4	68.8	130	2.43	194	211	54.6	88.8	1,290	686	395	6.59
	Apr-18	26.4	40.4	66	1.72	106	111	30.5	99.0	818	459	239	6.55
	Oct-18	56.0	81.7	163	2.64	266	275	69.1	80.1	1,720	939	490	6.61
Apr-19	27.1	39.1	55	1.55	180	102	28.8	26.8	762	416	242	7.89*	
Oct-19	62.5	93.3	185	3.02	310	372	81.4	93.3	1,950	1,030	526	6.75	
Oct-20	71.8	105.0	182	2.84	271	367	95.0	48.4	2,120	1,160	646	6.70	
Apr-21	65.1	93.1	133	3.16	340	314	71.1	24.8	1,810	1,020	559	6.77	
Oct-21	63.4	95.5	141	3.20	364	311	64.0	23.4	1,750	911	585	6.75	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#07 - LMMW-1S (continued)	Mar-22	45.0	65.9	82	2.87	372	126	20.5	2.1	1,090	565	390	6.84
	Oct-22	70.0	105.0	181	3.23	306	398	84.9	48.8	2,080	1,074	621	6.57
SF#63 - LMMW-1D	Apr-10	32.3	47.7	50.8	3.33	160	104	28.0	48.7	780	438	266	7.93
	Nov-10	27.6	42.2	44.1	3.10	162	106	27.0	48.0	781	431	264	7.85
	May-11	30.0	47.4	48.2	3.20	158	109	28.9	48.3	778	512	272	7.94
	Oct-11	33.8	46.8	48.7	3.22	160	105	28.1	45.5	771	440	270	7.88
	Apr-12	29.6	46.7	49.1	2.91	161	110	29.3	49.8	787	589	271	7.91
	Nov-12	36.2	58.0	58.9	3.40	170	110	28.8	48.0	775	444	263	--
	Apr-13	29.4	46.0	47.2	3.76	164	108	25.4	43.3	781	435	276	--
	Oct-13	33.8	52.6	52.0	3.10	129	76	29.0	50.0	832	423	245	--
	Apr-14	31.0	46.1	45.2	2.98	154	102	27.6	46.6	851	410	265	--
	Oct-14	29.9	43.5	45.0	2.82	154	104	28.0	44.4	775	405	266	--
	Apr-15	29.5	47.3	45.9	2.74	160	104	27.8	46.1	790	440	268	--
	Oct-15	32.8	48.5	48.4	2.96	178	116	28.5	48.2	794	482	284	--
	Apr-16	31.4	47.7	46.8	2.77	148	94	28.9	49.3	807	458	284	--
	Oct-16	30.7	49.4	45.8	2.65	165	104	28.0	48.4	831	410	277	7.92
	Apr-17	28.8	46.9	44.5	3.07	175	101	27.2	46.6	774	426	270	7.93
	Oct-17	39.1	70.4	68.3	3.90	166	108	27.7	48.0	794	423	280	7.95
	Apr-18	30.7	46.6	51.8	2.83	157	104	28.5	47.1	779	397	274	7.88
	Oct-18	32.8	46.6	50.9	2.76	154	103	31.1	45.8	781	448	282	7.82
	Apr-19	30.5	43.9	50.9	2.68	157	104	26.8	44.9	775	396	266	7.97
	Oct-19	31.7	47.6	52.4	3.02	169	109	28.6	47.5	809	427	279	7.92
	Oct-20	31.3	45.6	48.0	2.91	137	92	29.0	44.4	791	465	238	7.91
	Apr-21	32.2	44.3	47.2	2.95	160	102	27.6	45.8	795	445	257	7.84
	Oct-21	30.6	45.3	46.6	3.22	167	109	28.2	46.2	786	431	269	7.80
	Mar-22	32.3	47.4	46.1	3.37	167	107	28.4	43.7	796	423	277	7.84
	Oct-22	32.4	46.1	49.3	3.10	161	102	28.7	46.2	809	426	283	7.84
SF#09 - LMMW-2S	Apr-09	38.3	33.7	45.2	2.94	170	105	26.0	7.5	710	377	250	7.38
	Nov-09	36.0	36.0	44.0	2.50	170	111	34.0	7.6	756	375	258	7.45
	Apr-10	42.8	29.7	77.3	2.82	252	75	30.0	5.3	806	446	260	7.43
	Nov-10	42.9	31.4	71.5	3.20	262	89	33.0	6.9	836	468	272	7.57
	May-11	44.0	35.0	78.1	3.30	248	93	33.6	5.1	834	507	262	7.54
	Oct-11	45.6	35.8	76.9	2.90	262	90	31.9	4.0	839	460	262	7.47
	Apr-12	39.9	31.7	74.1	2.64	248	93	33.9	5.0	817	464	253	7.43
	Nov-12	41.6	33.4	73.4	2.96	269	101	29.4	3.0	800	441	241	--
	Apr-13	41.8	34.3	71.5	3.18	275	81	28.3	5.2	807	470	257	--
	Oct-13	42.5	35.4	72.1	2.63	209	60	26.0	<0.44*	818	396	245	--

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#09 - LMMW-2S (continued)	Apr-14	43.6	34.5	77.3	2.61	260	81	30.4	4.9	890	464	241	--
	Oct-14	44.2	34.2	71.6	2.37	247	84	32.0	4.4	831	465	259	--
	May-15	42.7	35.8	70.2	2.26	252	91	34.0	4.8	845	439	240	--
	Oct-15	44.3	38.1	75.7	2.45	252	96	33.3	4.6	840	478	258	--
	Apr-16	41.5	36.6	69.0	2.17	250	96	34.0	6.6	852	447	258	--
	Oct-16	38.9	37.4	69.3	1.98	248	100	35.0	8.4	862	450	265	7.63
	Apr-17	40.8	39.5	72.7	2.59	264	99	32.8	5.6	869	455	276	7.51
	Oct-17	49.4	52.3	102.0	2.82	252	120	36.5	9.9	940	492	291	7.55
	Apr-18	48.3	45.8	95.5	2.65	246	141	42.0	12.5	1,010	539	314	7.55
	Oct-18	54.5	49.0	96.8	2.62	206	143	44.5	17.4	1,120	592	341	7.55
	Apr-19	57.0	51.3	99.5	2.55	251	204	49.2	24.6	1,220	632	357	7.87
	Oct-19	59.3	55.1	105.0	2.95	266	218	51.5	24.7	1,240	689	405	7.51
	Oct-20	63.5	62.2	116.0	2.92	229	203	62.0	29.5	1,350	752	447	7.53
	Apr-21	67.8	63.8	98.8	3.03	249	233	65.8	32.6	1,390	770	423	7.50
	Oct-21	68.6	66.7	110.0	3.32	264	248	70.1	32.4	1,410	772	458	7.38
Mar-22	70.4	69.8	120.0	3.33	254	248	68.8	30.0	1,440	767	464	7.43	
Oct-22	68.5	67.7	115.0	2.91	250	245	69.0	32.5	1,440	769	458	7.39	
SF#08 - LMMW-2D	Apr-09	46.3	30.1	72.2	3.38	280	78	26.0	4.9	811	433	258	7.50
	Nov-09	45.0	31.0	70.0	3.00	262	80	32.0	5.1	814	456	250	7.50
	Apr-10	37.3	36.4	49.0	3.03	162	109	31.5	6.9	760	397	260	7.43
	Nov-10	35.8	36.9	44.3	3.50	182	114	32.0	2.1	773	440	262	7.45
	May-11	39.4	43.0	51.0	3.50	178	112	33.2	7.5	784	460	266	7.57
	Oct-11	42.8	46.6	52.7	3.60	190	116	32.8	6.9	791	430	270	7.57
	Apr-12	37.5	41.6	52.5	2.70	181	119	36.5	6.0	808	434	281	7.49
	Nov-12	39.2	46.8	52.9	3.38	204	133	34.4	7.5	804	421	278	--
	Apr-13	41.7	45.0	52.3	3.73	198	124	32.4	7.9	829	441	296	--
	Oct-13	43.2	47.4	55.4	2.88	139	85	36.0	6.0	850	396	242	--
	Apr-14	43.3	45.5	56.5	2.69	184	124	38.9	8.3	946	448	290	--
	Oct-14	44.0	46.1	53.1	2.54	199	132	41.0	8.8	884	474	300	--
	May-15	47.0	49.2	53.1	2.55	170	107	40.0	10.5	884	453	287	--
	Oct-15	48.5	50.7	58.5	2.63	204	136	42.5	10.5	904	512	323	--
	Apr-16	43.6	48.2	53.9	2.60	201	136	44.0	11.4	912	472	322	--
	Oct-16	44.1	50.6	56.6	2.38	201	133	44.0	11.4	922	433	319	7.65
	Apr-17	44.0	49.5	54.8	2.91	208	135	44.5	11.6	938	473	337	7.65
	Oct-17	45.5	56.0	65.6	2.77	203	139	44.2	11.7	934	466	336	7.62
Apr-18	48.5	54.0	62.3	2.62	199	138	45.3	12.9	932	485	337	7.68	
Oct-18	50.0	51.6	59.9	2.68	237	175	45.0	12.5	946	472	341	7.71	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#08 - LMMW-2D (continued)	Apr-19	48.1	50.1	58.7	2.46	211	145	48.0	12.0	962	506	331	8.00
	Oct-19	49.0	50.8	62.6	2.83	213	150	49.8	13.2	966	530	374	7.67
	Oct-20	47.9	50.7	61.0	2.64	180	127	49.0	14.1	940	537	327	7.62
	Apr-21	48.9	48.2	54.5	2.78	201	131	45.9	13.9	937	524	322	7.54
	Oct-21	46.1	50.7	63.7	2.87	216	138	48.4	15.0	951	492	356	7.49
	Mar-22	46.6	51.5	57.3	2.98	211	135	46.7	14.3	938	476	332	7.57
	Oct-22	47.8	49.1	60.4	2.72	209	133	47.2	14.7	941	477	333	7.55
SF#65 - LMMW-2SS	Apr-12	28.2	48.9	77.5	0.59	166	154	61.1	25.3	958	553	285	6.70
SF#11 - LMMW-3S	Apr-04	45.5	53.3	59.1	1.87	--	--	--	--	--	--	--	--
	Nov-04	42.8	45.4	61.2	2.09	264	66	55.7	<0.2	769	403	276	7.20
	Apr-05	41.1	46.0	54.2	1.47	282	51	61.0	0.3	773	469	294	7.23
	Nov-05	48.8	2.16*	45.2	60.5*	243	52	90.0	0.3	770	499	294	7.27
	May-06	28.7	34.2	46.2	1.53	192	44	57.0	<0.3	622	380	222	7.34
	May-07	31.3	36.0	52.4	1.79	270	30	12.9	<0.3	612	342	270	7.20
	May-08	49.5	57.2	49.5	2.27	368	54	3.8	<0.3	850	494	186	7.13
	Apr-09	57.3	63.6	38.3	1.83	434	56	0.8	<0.3	917	518	232	7.27
	Nov-09	48.0	55.0	33.0	1.90	340	55	1.2	<0.3	798	444	400*	7.13
	Apr-10	53.5	57.6	35.8	1.20	300	45	0.8	<0.3	847	465	400	7.07
	Nov-10	54.4	57.3	32.0	1.80	402	66	1.2	<0.88	899	518	406	7.10
	May-11	56.8	65.2	32.0	2.40	372	64	3.5	<0.3	892	479	428	7.20
	Oct-11	51.2	56.2	32.1	2.06	332	50	8.5	<0.3	761	420	340	7.15
	Apr-12	47.3	44.6	47.6	2.84	355	83	1.1	<0.3	897	480	284	6.66
	Nov-12	44.5	52.9	26.1	2.14	260	59	35.2	<0.3	703	443	311	--
	Apr-13	52.4	58.0	25.7	2.68	325	54	32.0	<0.3	786	465	380	--
	Oct-13	27.0*	31.1*	44.8*	--	183*	67*	10*	<0.44	592*	291*	184*	7.61*
	Apr-14	51.6	56.5	33.2	4.00	323	48	20.2	<0.3	857	433	345	--
	Oct-14	55.3	59.2	30.4	1.99	386	50	10.0	<0.88	852	462	406	--
	Apr-15	51.0	60.2	38.2	2.00	375	50	13.5	<0.3	855	463	381	--
Oct-15	70.3	72.5	38.0	2.23	472	60	3.7	<0.3	985	538	474	--	
Apr-16	62.7	70.5	30.3	2.32	432	56	2.5	<0.88	951	506	450	--	
Oct-16	48.5	56.6	45.3	2.02	321	60	27.0	<0.88	794	424	348	--	
Apr-17	55.2	62.9	41.7	2.85	390	63	14.4	<0.308	933	486	387	--	
Oct-17	53.6	66.3	49.5	2.63	431	58	4.5	<0.308	950	486	425	--	
Apr-18	57.6	62.1	52.1	2.40	400	56	3.5	<0.308	884	485	393	7.19 ^a	
Oct-18	59.8	61.4	44.0	2.41	403	63	4.2	<0.308	886	466	411	7.05	
Apr-19	57.3	58.5	39.8	2.50	400	63	4.7	<0.308	886	482	401	--	
Oct-19	56.4	60.8	37.8	2.68	372	62	8.1	<0.308	867	464	391	7.22	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#11 - LMMW-3S (continued)	Oct-20	56.4	60.5	37.4	2.60	376	58	7.4	<0.308	871	481	391	7.14
	Apr-21	64.5	64.8	37.6	2.88	445	66	5.2	<0.176	950	526	435	7.09
	Oct-21	72.9	76.5	36.8	3.46	484	80	0.7	<0.176	1,080	586	507	6.98
	Mar-22	78.1	82.1	40.0	3.70	507	82	<0.5	<0.176	1,130	605	542	6.84
	Oct-22	72.4	77.4	40.0	3.62	472	79	0.6	<0.176	1,080	573	504	6.89
SF#10 - LMMW-3D	Apr-04	32.9	36.2	43.5	1.96	--	70	14.0	<0.3	591	340	210	7.58
	Oct-04	31.2	32.9	44.5	2.06	176	76	14.0	<0.2	601	287	200	7.60
	Apr-05	29.6	32.9	43.2	1.86	184	82	15.0	<0.3	605	355	206	7.63
	Nov-05	35.9	35.9	31.5	47.2*	182	82	14.4	<0.3	612	383	--	7.62
	May-06	29.4	30.6	43.2	1.99	178	75	14.0	<0.3	598	340	208	7.62
	May-07	30.3	33.7	45.7	2.00	190	80	13.3	<0.3	608	333	220	7.55
	May-08	29.5	32.0	42.9	2.21	180	76	11.9	<0.3	597	331	210	7.60
	Apr-09	27.7	30.6	44.3	1.74	162	75	11.8	<0.3	594	355	190	7.69
	Nov-09	28.0	31.0	42.0	1.90	180	80	13.0	<0.3	589	353	210	7.67
	Apr-10	27.8	29.1	42.3	0.72	180	70	12.3	<0.3	598	332	180	7.52
	Nov-10	25.7	28.5	39.4	2.20	186	75	13.0	<0.88	602	319	202	7.70
	May-11	27.6	31.4	43.8	2.00	180	73	12.8	<0.3	595	343	224	7.60
	Oct-11	31.7	31.9	44.9	1.96	178	71	12.4	<0.3	592	310	196	7.52
	Apr-12	25.9	29.8	44.1	1.95	182	74	12.5	<0.3	585	292	198	7.62
	Nov-12	26.6	30.2	43.0	2.04	201	75	11.6	<0.3	589	322	193	--
	Apr-13	26.7	30.2	41.9	2.19	188	71	12.5	<0.3	592	333	204	--
	Oct-13	42.9*	54.0*	30.0*	1.98	259*	50*	48*	<0.44	740*	391*	318*	7.28
	Apr-14	28.4	30.0	43.7	1.97	175	68	10.5	<0.3	640	313	193	--
	Oct-14	27.8	29.1	40.2	1.82	184	70	9.8	<0.88	588	313	197	--
	Apr-15	26.3	31.2	41.6	1.77	180	68	9.9	<0.3	581	314	192	--
	Oct-15	29.7	30.8	43.3	1.96	181	70	10.0	<0.3	576	318	195	--
	Apr-16	27.4	29.8	38.3	1.80	180	68	10.0	<0.88	590	304	195	--
	Oct-16	28.0	32.4	42.4	1.89	185	68	9.5	<0.88	588	287	196	7.63
Apr-17	25.9	31.0	42.0	2.19	179	64	9.7	<0.308	590	296	191	7.62	
Oct-17	24.8	31.0	45.2	1.86	184	70	9.2	<0.308	584	289	191	7.54	
Apr-18	29.4	32.0	51.6	1.92	183	67	9.9	<0.308	587	309	198	7.59	
Oct-18	27.8	29.8	46.4	1.91	189	74	9.7	<0.308	584	297	205	7.52	
Apr-19	28.5	29.5	47.3	1.77	188	69	10.0	<0.308	593	313	196	7.93*	
Oct-19	27.9	30.6	47.9	2.05	193	70	9.9	<0.308	585	317	199	7.62	
Oct-20	28.3	31.1	45.7	2.00	188	70	10.0	<0.44	595	314	199	7.58	
Apr-21	29.0	29.5	43.2	2.04	184	65	9.1	<0.176	583	311	185	7.51	
Oct-21	27.5	29.8	43.1	2.10	190	68	8.2	<0.176	593	305	198	7.51	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#10 - LMMW-3D (continued)	Mar-22	28.2	30.3	43.7	2.16	189	67	8.4	<0.176	590	301	195	7.36
	Oct-22	28.8	30.3	45.3	2.10	188	66	8.3	<0.176	604	297	194	7.45
SF#12 - LMMW-4S	May-14	36.3	41.3	48.7	1.55	204	54	50.5	52.8	763	440	266	--
SF#13 - LMMW-4SS	Apr-04	36.1	42.8	30.9	1.57	--	--	--	--	--	--	--	--
	Oct-04	38.1	40.2	35.1	1.77	194	55	44.5	<0.2	624	464	244	7.30
	May-14	70.8	71.3	53.8	2.23	480	61	43.7	16.9	1,150	610	510	--
SF#15 - LMMW-6D	Apr-04	31.8	34.1	42.9	1.64	--	50	31.0	34.8	564	380	200	7.89
	Nov-04	26.5	27.6	28.3	1.41	130	45	35.5	43.0	521	321	160	8.10
	Apr-05	30.2	30.4	40.4	1.58	140	55	30.0	32.0	560	350	194	7.95
	Nov-05	32.1	2.02*	29.2	42.5*	126	56	36.0	44.0	561	384	--	8.03
	May-06	27.8	27.8	38.7	1.67	130	54	37.0	45.0	560	350	212	8.06
	May-07	26.4	26.9	39.0	1.17	112	50	32.0	55.0	535	312	176	8.12
	May-08	27.7	28.4	39.1	1.70	118	55	33.0	49.0	549	310	178	7.95
	Apr-09	24.9	26.8	39.2	1.54	134	57	29.9	36.0	562	323	192	8.06
	Nov-09	27.0	27.0	37.0	1.70	120	53	34.0	43.8	558	301	180	7.95
	Apr-10	28.3	29.4	40.5	0.09	134	53	31.7	41.9	572	317	186	7.96
	Nov-10	23.6	25.2	31.2	1.60	122	52	28.0	47.0	578	331	182	8.10
	May-11	26.3	29.1	38.5	1.73	104	54	29.5	45.0	569	303	182	7.98
	Oct-11	29.9	30.4	40.8	1.68	136	55	29.3	40.8	572	320	192	--
	Apr-12	26.4	30.3	40.1	1.56	148	58	31.1	40.0	595	315	201	7.89
	Nov-12	28.6	31.7	41.0	1.87	155	63	28.0	33.6	608	349	197	--
	Apr-13	28.4	31.7	40.2	2.20	156	55	28.4	40.1	606	346	212	--
	Oct-13	28.3	29.3	39.7	1.61	154	59	28.0	34.3	592	351	199	7.90
	Apr-14	29.9	31.0	40.2	1.76	148	54	29.3	34.7	645	334	199	--
	Oct-14	28.5	28.7	37.5	1.61	144	52	31.0	42.2	580	338	197	--
	Apr-15	28.8	34.0	39.7	1.60	163	54	27.4	34.1	610	331	205	--
	Oct-15	28.5	28.9	39.6	1.73	137	53	31.7	38.8	564	333	187	--
	Apr-16	27.6	29.9	36.5	1.63	146	52	32.0	37.8	584	328	193	--
	Oct-16	26.1	29.5	39.2	1.52	131	49	34.0	41.8	557	295	188	7.95
	Apr-17	26.4	29.7	37.7	1.88	138	47	31.2	36.5	580	307	183	7.90
	Oct-17	27.9	29.6	38.2	1.68	144	51	29.5	38.3	579	326	198	7.89
	Apr-18	27.0	28.6	42.1	1.57	132	50	34.6	41.8	556	308	189	7.96
	Oct-18	27.6	28.1	42.1	1.61	142	48	27.2	33.0	563	321	192	7.88
	Apr-19	27.8	28.2	41.2	1.63	140	51	31.8	38.9	567	312	188	8.04
	Oct-19	30.8	31.3	43.4	1.82	174	58	26.1	21.9	599	328	211	7.90
	Oct-20	37.4	39.5	48.0	2.04	227	62	29.0	23.3	705	397	258	7.80
	Apr-21	30.5	30.6	42.8	1.85	166	51	30.5	35.3	606	342	195	7.77

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#15 - LMMW-6D (continued)	Oct-21	28.3	28.9	39.6	1.86	146	48	34.4	46.2	582	328	193	7.80
	Mar-22	38.0	39.6	45.5	2.16	228	64	28.7	16.7	718	376	260	7.70
	Oct-22	31.2	32.3	41.7	1.85	165	54	31.4	27.9	624	318	209	7.74
SF#16 - LMMW-7SS	Apr-04	44.0	48.5	54.9	1.18	--	--	--	--	--	--	--	--
	Oct-04	43.7	42.6	59.1	1.50	240	46	45.7	50.9	737	456	260	7.70
	Nov-09	42.0	42.0	53.0	1.50	240	43	47.0	52.0	769	496	282	7.58
	Apr-12	38.9	42.9	52.5	1.09	246	44	45.3	44.4	750	444	278	7.54
SF#17 - (NE) WINDMILL	Nov-02	--	--	--	--	168	48	39.0	28.0	574	265	212	7.50
	Jul-03	28.6	36.2	30.6	1.65	180	48	33.0	28.0	575	273	230	7.40
SF#18 - NEW GG PARK (N) LAKE	Nov-04	28.6	35.1	35.1	1.44	158	42	31.1	21.4	530	337	198	7.50
	May-05	24.9	30.4	26.6	0.70	146	41	27.0	25.0	500	289	178	7.69
	Nov-07	27.4	32.2	24.7	1.10	128	44	28.0	31.0	496	290	200	7.52
	Apr-09	23.1	28.6	24.8	1.07	140	44	24.0	28.0	494	298	194	7.79
	Mar-13	24.5	29.8	25.6	0.96	138	42	25.3	29.9	507	297	196	7.55
SF#19 - NEW GG PARK (S) WINDMILL	Nov-04	35.2	40.3	31.8	1.74	162	42	49.0	37.4	598	373	240	7.80
	May-05	25.5	34.5	25.5	1.16	146	42	42.0	20.0	525	311	230	8.04
	Nov-05	--	--	--	--	140	41	--	--	565	358	240	7.76
	Dec-05	28.9	35.8	27.0	1.50	--	--	--	--	--	--	--	--
	Jun-07	--	--	--	--	148	--	--	--	--	--	--	--
	Apr-09	28.4	32.5	27.6	1.41	150	46	40.0	31.0	558	316	224	7.87
	Aug-13	30.5	36.2	27.7	1.40	152	44	40.0	31.0	573	332	216	7.65
SF#20 - (NW) WINDMILL	May-02	--	--	--	--	171	44	37.0	28.0	573	--	219	7.50
	Nov-02	--	--	--	--	120	41	12.0	20.0	415	181	144	8.00
	Jul-03	20.0	24.3	24.6	1.34	130	43	11.0	18.0	414	164	160	7.90
SF#22 - OLYMPIC CLUB #8	May-02	--	--	--	--	189	84	30.5	16.1	685	--	--	8.10
	Apr-04	38.5	39.7	46.0	1.95	--	--	--	--	--	--	--	--
SF#23 - PINE LAKE PROD WELL	Oct-04	32.7	33.4	36.4	1.09	144	35	37.0	65.0	565	336	244	7.20
SF#25 - (S) WINDMILL	May-02	--	--	--	--	133	41	28.0	36.0	476	--	185	7.70
	Nov-02	--	--	--	--	120	40	28.0	38.0	474	202	184	7.70
	Jul-03	25.5	28.6	24.5	1.49	150	43	22.0	36.0	486	202	190	7.80
	Apr-04	24.4	27.7	23.9	1.11	--	40	24.0	37.8	455	330	180	7.70
	Nov-04	29.6	31.0	29.9	1.69	128	37	31.4	36.7	489	312	185	7.70
SF#41 - WEST SUNSET PLAYGROUND	May-04	15.2	16.4	21.7	0.85	--	20	24.0	14.1	317	266	130	8.70
	May-05	16.3	17.0	22.9	1.01	80	26	27.0	16.0	326	205	112	8.59
	May-06	15.0	16.6	21.2	0.73	76	29	28.0	17.0	322	210	110	8.57
	May-07	17.3	16.5	22.2	0.88	75	30	26.7	17.5	317	185	107	8.52
	May-08	18.9	20.2	24.8	1.07	88	29	29.3	22.4	355	210	122	8.37

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#41 - WEST SUNSET PLAYGROUND (continued)	Apr-09	18.5	19.3	24.9	1.09	96	32	29.7	22.4	382	241	140	8.50
	Nov-09	19.0	19.0	23.0	1.00	94	31	31.6	21.1	380	230	128	8.30
	Apr-10	20.6	20.2	24.5	1.13	96	26	31.3	23.5	397	226	136	8.27
	Nov-10	17.2	18.1	21.5	1.10	100	30	31.0	20.0	382	228	134	8.54
	Jun-11	16.6	18.3	22.2	1.10	92	28	30.7	19.6	385	213	128	--
	Oct-11	14.4	12.7	21.6	1.02	66	26	22.4	0.60	264	150	84	7.90
	May-12	13.2	12.9	21.6	1.05	68	68*	22.0	0.72	264	186	79	--
	Oct-12	12.2	12.4	20.4	0.89	69	31	22.7	0.87	268	166	80	--
	Apr-13	13.0	12.1	21.3	1.34	70	26	22.4	0.66	265	125	82	8.50
	Oct-13	12.5	12.0	20.6	0.95	69	25	22.0	0.90	273	137	81	8.56
	May-14	12.9	12.0	18.8	0.92	71	25	21.4	0.58	270	122	390*	8.73
	Nov-14	13.2	12.6	18.4	0.97	71	26	21.6	0.45	268	140	81	8.85
	Apr-15	13.1	13.3	19.2	0.97	74	25	21.5	0.51	270	123	81	8.79
	Oct-15	13.7	12.9	20.2	0.98	77	26	23.0	0.16	269	142	82	8.67
	May-16	11.9	12.3	20.8	0.95	72	25	21.6	0.55	270	143	81	8.84
	Nov-16	11.3	11.7	17.5	1.14	70	24	22.0	<0.44	263	132	79	8.52
	May-17	12.3	11.7	19.6	0.94	71	24	22.4	<0.308	271	138	84	8.75
	Oct-17	11.1	11.9	21.8	0.83	66	24	22.2	0.40	263	143	80	8.85
	May-18	14.1	19.8	30.2	1.74	99	38	19.0	<0.308	351	170	112	8.28
	Nov-18	18.4	26.7	43.7	1.97	126	59	35.1	<0.308	515	245	152	7.12
Apr-19	17.9	30.4	36.2	1.26	142	41	43.8	<0.308	496	228	176	8.44	
Oct-19	23.1	37.5	35.2	1.20	162	42	51.5	10.91	562	305	214	8.13	
Oct-20	31.0	40.0	34.4	1.23	183	42	50.2	26.05	620	350	245	7.97	
Apr-21	24.4	34.7	32.4	1.21	158	40	83.3	33.09	548	297	197	8.26	
Nov-21	25.3	37.8	33.3	1.26	168	41	47.5	18.57	572	289	193	8.06	
May-22	11.7	25.0	33.0	1.28	113	39	31.2	<0.176	415	192	135	8.18	
Oct-22	10.8	25.0	31.7	1.16	113	39	32.2	<0.176	426	190	130	8.31	
SF#24 - (S) SUNSET PLAYGROUND	Apr-04	31.1	33.1	36.9	1.31	--	50	27.0	12.8	576	394	200	7.34
	May-05	30.8	33.0	37.8	1.35	164	21	34.0	21.0	560	343	204	7.41
	May-06	28.8	31.6	35.6	1.18	154	54	38.0	30.0	584	360	212	7.39
SF#52 - CENTRAL PUMP ST MW190	May-05	44.2	43.2	46.9	1.81	270	47	47.0	19.0	750	433	300	7.59
	Oct-07	42.9	45.1	43.2	1.27	270	40	40.0	19.4	719	425	290	7.57
	Sep-08	45.4	45.9	43.2	1.40	260	40	45.0	22.0	707	382	294	7.56
SF#53 - CENTRAL PUMP ST MW270	May-05	29.0	21.9	48.2	1.52	168	72	8.7	<0.3	548	296	160	7.96
	Oct-07	28.5	23.1	44.0	1.32	170	70	8.6	<0.3	555	282	170	7.85
	Sep-08	32.2	24.0	45.9	1.60	174	69	10.7	<0.3	554	314	174	7.89
SF#46 - LK MERCED PUMP ST MW155	May-05	26.9	24.1	36.2	1.79	108	--	--	--	480	297	164	7.84

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#46 - LK MERCED PUMP ST MW155 (continued)	Nov-05	26.4	25.0	35.9	1.80	102	39	47.0	49.0	--	353	7.83	7.51
	May-06	26.1	24.8	69.7*	3.26	100	39	47.0	48.0	503	310	182	7.81
	May-07	27.6	26.0	37.3	1.78	113	38	43.4	49.0	--	309	180	7.70
SF#47 - LK MERCED PUMP ST MW270	May-05	22.1	15.7	74.6	1.92	140	--	--	--	550	353	114	7.58
	Dec-05	22.6	16.2	55.6	0.69	114	41	35.0	27.0	510	335	132	--
	May-06	25.0	18.0	51.3	1.35	134	50	35.0	24.0	505	310	140	7.54
	May-07	27.2	20.3	42.1	1.87	118	40	34.1	37.0	--	293	150	7.60
SF#48 - LK MERCED PUMP ST MW440	May-05	19.5	20.8	32.6	1.90	112	--	--	--	400	242	132	8.14
	Dec-05	18.3	20.2	28.7	0.51	100	50	7.5	18.0	416	264	130	8.23
	May-06	19.4	21.8	30.7	1.17	110	52	7.6	19.9	421	250	138	8.18
	May-07	20.1	22.1	31.3	1.67	115	49	8.0	21.0	--	232	140	8.10
SF#49 - LK MERCED PUMP ST MW575	May-05	48.2	29.2	88.6	3.90	214	102	102	<0.3	860	531	240	7.75
	Nov-05	48.5	30.1	88.6	4.01	208	104	83.0	<0.3	--	1,120*	NS	7.80
	May-06	49.2	29.9	87.0	3.50	200	106	85.0	<0.3	861	490	238	7.80
	May-07	50.7	28.5	90.4	3.97	211	105	81.5	<0.3	--	517	250	7.80
SF #71 - PARK PLAZA MW195	Apr-13	104	83.7	84.2	6.03	417	142	195	36.1	1,519	915	656	7.16
	Nov-13	98.8	73.5	84.0	4.61	388	145	160	31.2	1,479	215*	594	7.14
	May-14	111	86.5	73.4	4.45	367	151	179	31.6	1,500	859	614	7.16
	Oct-14	110	85.6	112	5.53	441	146	190	24.5	1,610	961	633	7.03
	May-15	112	86.3	78.8	4.11	328	150	190	36.5	1,560	865	689	7.15
	Dec-15	101	89.6	78.9	4.14	370	166	177	39.3	1,530	958	646	7.15
	May-16	112	88.1	80.9	4.22	389	160	195	41.6	1,580	959	680	7.09
	Nov-16	110	92.7	79.1	4.13	389	144	256*	48.4	1,660	1,010	709	7.07
	May-17	127	92.9	107.0	4.69	446	146	236	47.1	1,690	1,060	715	7.02
	Nov-17	106	84.5	128.0	4.40	462	145	225	45.8	1,730	1,060	640	7.04
	May-18	104	83.7	171.0	4.64	491	107	228	45.3	1,670	988	549	7.13
	Nov-18	106	72.6	138.0	4.32	495	101	213	42.0	1,630	965	598	7.04
	May-19	103	77.4	131.0	3.94	514	97	209	41.9	1,590	941	578	7.34
	Nov-19	103	82.0	87.8	4.08	443	99	194	37.6	1,530	907	627	7.13
	Nov-20	104	80.3	86.8	3.98	449	118	145	34.8	1,460	827	638	7.92
	May-21	99	79.7	85.8	4.09	448	118	129	32.6	1,420	828	579	6.98
Dec-21	90	76.5	83.7	4.54	409	131	118	34.1	1,380	760	561	7.29	
May-22	93	76.4	82.7	4.41	371	132	118	40.5	1,360	761^c	545	7.05	
Nov-22	96	73.4	79.4	4.27	331	159	130	48.8	1,400	784	545	7.08	
SF#50 - PARK PLAZA MW460	Apr-05	51.0	52.9	50.0	2.25	274	66	49.0	41.0	847	557	338	7.47
	Nov-05	52.6	1.78*	47.6	49.5*	248	72	41.0	37.0	--	526	--	7.65
	May-06	39.5	43.6	39.5	2.14	218	65	36.0	33.0	733	430	282	7.71

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#50 - PARK PLAZA MW460 (continued)	May-07	48.9	47.5	47.7	1.87	260	60	39.5	34.0	794	453	312	7.67
	May-08	42.0	43.8	45.3	1.73	230	70	39.9	26.5	730	420	290	7.47
	Apr-09	56.3	57.2	54.1	2.06	316	74	70.0	28.0	965	555	356	7.50
	Nov-09	49.0	51.0	48.0	1.90	270	67	63.0	28.0	862	500	344	7.50
	Apr-10	47.0	51.6	47.6	2.74	270	62	66.6	28.3	865	464	338	7.41
	Dec-10	32.9	34.9	40.8	1.50	198	61	41.0	27.0	712	442	242	7.50
	May-11	37.7	41.4	40.3	2.00	256	65	55.0	26.8	842	501	332	--
	Nov-11	53.4	56.6	55.0	2.00	286	64	91.5	28.3	933	560	372	7.06
	May-12	49.6	51.8	56.0	1.85	263	70	85.4	33.5	898	538	353	--
	Nov-12	49.6	53.6	54.5	2.34	278	71	63.5	32.9	887	512	334	7.32
	Apr-13	64.5*	69.6*	55.2	2.77	396*	33*	68.5	34.8	1,078	618	468*	7.33
	Nov-13	49.6	54.5	51.7	2.01	293	65	62.0	32.1	912	162*	347	7.28
	May-14	59.8	59.5	50.8	1.94	323	65	62.5	33.3	969	519	383	7.30
	Oct-14	48.6	49.2	44.9	1.85	248	66	60.3	32.4	838	425	310	7.25
	May-15	49.5	50.1	48.6	1.82	236	60	64.0	33.4	859	445	298	7.29
	Dec-15	38.0	45.6	46.3	1.77	217	66	58.9	31.0	771	483	288	7.25
	May-16	41.7	44.5	45.0	1.83	223	65	61.5	29.7	794	443	309	7.22
	Nov-16	28.7	33.4	36.6	1.76	165	68	39.3	26.0	656	341	232	7.35
	May-17	36.9	39.3	44.4	1.71	201	59	49.7	22.8	712	414	256	7.33
	Nov-17	28.9	33.7	39.1	1.48	185	63	35.7	24.6	662	363	234	7.31
	May-18	36.0	39.9	53.2	1.62	194	62	42.9	25.0	684	346	252	7.33
	Nov-18	38.3	36.4	45.1	1.61	187	59	48.4	24.4	702	395	248	7.30
May-19	37.4	38.5	49.3	1.57	197	62	55.2	25.7	695	389	255	7.52	
Nov-19	40.3	41.8	46.7	1.84	213	62	57.5	25.8	736	404	278	7.42	
Nov-20	44.8	45.5	50.8	1.91	230	68	63.1	24.3	794	449	301	7.26	
May-21	41.5	42.1	47.0	1.99	223	62	55.3	24.0	757	434	271	7.26	
Dec-21	48.7	49.3	51.7	2.17	277	65	70.3	27.4	865	472	338	7.36	
May-22	50.7	53.1	55.3	2.28	288	61	65.0	26.0	878	484	330	7.13	
Nov-22	55.0	54.3	57.7	2.27	307	65	68.2	30.2	926	502	356	7.10	
SF#51 - PARK PLAZA MW620	May-05	44.0	41.3	62.1	2.95	208	125	44.0	<0.3	853	250*	176	7.70
	Nov-05	52.0	2.18*	52.6	69.4*	236	142	44.0	<0.3	--	579	--	7.88
	May-06	42.4	44.2	54.3	3.28	218	119	43.0	<0.3	819	490	282	7.89
	May-07	53.1	47.3	63.3	3.02	242	130	41.7	0.3	919	509	329	7.81
	Jun-08	63.2	53.4	68.4	3.08	290	155	43.0	0.6	1,042	592	410	7.79
	Apr-09	58.7	52.6	70.1	3.08	284	143	42.0	0.6	1,044	615	356	7.86
	Nov-09	56.0	51.0	66.0	3.00	274	138	45.0	0.5	1,018	585	360	7.85
Apr-10	60.2	56.4	73.5	3.07	280	143	42.0	0.35	1,061	585	350	7.73	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SF#51 - PARK PLAZA MW620 (continued)	Dec-10	55.1	48.8	63.7	3.10	274	139	42.0	<0.88	1,043	568	358	7.90
	May-11	49.6	47.0	58.1	3.30	280	148	38.3	0.47	1,078	603	400	--
	Nov-11	58.6	55.1	68.8	3.19	294	145	38.2	0.9	1,062	610	388	7.40
	May-12	60.6	55.7	70.4	3.37	300	156	39.2	0.57	1,079	618	396	--
	Nov-12	35.7	33.0	52.8	3.17	188	88	42.5	0.30	704	418	223	6.64
	Apr-13	30.1	28.3	46.3	2.84	160	75	38.8	0.39	620	368	201	7.26
	Nov-13	31.4	28.7	47.2	2.32	164	75	45.0	<0.44	632	357	207	7.39
	May-14	35.3	30.0	43.5	2.23	157	71	47.7	0.306	644	343	207	7.30
	Oct-14	36.8	32.0	42.2	2.23	164	74	54.8	0.346	656	376	216	7.62
	May-15	36.9	33.0	44.9	2.16	172	71	63.0	<0.2	679	365	216	7.76
	Dec-15	32.4	33.7	44.6	2.25	166	76	61.4	<0.3	671	405	225	7.82
	May-16	35.1	31.4	42.6	2.34	164	76	63.3	<0.308	679	369	231	7.79
	Nov-16	31.9	30.7	40.7	2.17	164	77	62.1	<0.308	682	358	237	7.90
	May-17	37.1	32.9	45.5	2.18	163	78	56.3	<0.308	677	396	229	7.83
	Nov-17	35.6	35.4	49.1	2.17	164	84	58.2	<0.308	698	397	235	7.84
	May-18	37.9	35.4	56.3	2.10	163	85	58.5	<0.308	700	348	241	7.81
	Nov-18	39.3	32.9	47.5	2.11	157	81	56.8	<0.308	700	377	235	7.79
	May-19	38.3	32.6	53.4	1.94	162	84	59.3	<0.308	686	375	229	7.89
	Nov-19	36.5	32.0	47.8	2.44	160	82	62.1	<0.308	688	372	231	7.93
	Nov-20	38.2	33.6	50.1	2.31	165	86	59.4	<0.308	693	380	242	7.65
	May-21	38.3	32.9	47.9	2.42	163	80	59.2	<0.176	699	381	229	7.66
	Dec-21	38.7	33.4	48.1	2.59	171	83	59.8	<0.176	706	369	245	7.89
	May-22	38.4	34.4	49.8	2.55	195	90	62.5	<0.176	702	373	224	7.69
	Nov-22	38.6	32.9	48.3	2.39	172	82	62.8	<0.176	704	377	233	7.78
Elk Glen Monitoring Well	May-14	55.9	65.4	57.4	1.30	217	81	58.0	37.9	846	456	331	--
CUP-10A MW160	May-10	58.8	60.6	69.7	1.95	252	128	99.0	35.0	1,149	691	428	6.87
	Oct-10	57.0	56.4	68.5	1.10	256	133	99.0	23.0	1,158	679	412	6.86
	Jun-11	60.4	65.1	72.7	1.54	250	137	99.1	37.1	1,149	688	424	6.92
	Nov-11	60.2	62.3	73.2	1.44	260	129	84.4	38.5	1,108	640	408	6.83
	May-12	61.7	59.7	73.7	1.80	273	136	56.5	41.4	1,080	621	393	6.85
	Nov-12	60.1	62.3	75.9	1.59	278	147	64.2	42.4	1,100	632	377	6.89
	Apr-13	65.3	59.9	45.6	1.61	283	130	72.1	45.7	1,123	640	416	6.90
	Nov-13	61.2	59.2	74.0	1.26	274	130	62.0	41.4	1,112	628	392	6.88
	May-14	56.7	59.8	69.0	1.32	271	125	62.8	44.7	1,110	606	396	6.87
	Oct-14	61.0	58.5	72.1	1.31	275	125	63.0	47.2	1,110	618	391	6.84
	May-15	60.0	59.7	70.1	1.23	258	115	63.4	49.1	1,110	538	397	6.87
	Dec-15	55.4	59.2	71.3	1.31	368*	195*	59.4	50.5	1,080	621	390	6.88

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-10A MW160 (continued)	May-16	55.2	56.0	63.9	1.15	263	120	58.5	51.9	1,090	628	818	6.83
	Nov-16	52.5	58.0	64.5	1.08	270	124	63.7	51.5	1,090	630	396	6.85
	May-17	58.7	55.3	67.2	1.14	236	99	51.5	54.6	1,080	628	315	6.80
	Nov-17	51.8	52.8	63.6	1.05	264	129	49.4	52.8	1,080	608	391	6.86
	May-18	59.2	61.1	75.0	1.17	270	133	49.9	53.7	1,080	627	399	6.87
	Nov-18	61.2	57.0	70.3	1.21	305	148	49.6	52.4	1,100	603	451	6.83
	May-19	58.7	61.7	72.9	1.28	268	131	49.8	52.4	1,100	557	384	7.30
	Nov-19	59.4	60.0	73.6	1.35	262	128	49.6	51.9	1,110	632	379	6.92
	Nov-20	60.7	61.4	75.5	1.32	279	131	53.6	51.0	1,110	622	406	6.79
	May-21	61.5	58.0	72.3	1.40	285	127	52.0	47.1	1,090	650	398	6.78
	Nov-21	61.2	60.1	69.1	1.42	292	129	54.3	48.8	1,110	614	417	6.74
	May-22	64.0	63.1	75.1	1.50	296	126	54.6	45.3	1,110	637	414	6.79
Nov-22	63.8	62.1	72.1	1.51	301	129	55.7	44.0	1,110	628	406	6.72	
CUP-10A MW250	May-10	44.7	48.3	54.5	2.83	252	128	81.0	48.0	1,102	647	436	6.89
	Oct-10	57.1	58.1	71.7	1.45	264	132	76.0	36.0	1,119	654	398	6.90
	Jun-11	56.4	60.6	69.6	2.13	274	136	78.1	38.2	1,117	697	406	6.96
	Nov-11	59.7	60.8	72.6	1.43	262	130	75.7	38.9	1,096	640	396	6.90
CUP-10A MW500	May-10	41.3	34.5	108	2.42	212	110	68.0	36.0	1,012	598	132	7.48
	Oct-10	51.0	48.2	79.7	0.74	250	122	77.0	38.0	1,079	637	332	7.25
	Jun-11	56.5	57.6	73.0	1.93	242	131	76.2	38.1	1,116	649	382	7.01
	Nov-11	58.7	60.8	70.1	1.54	264	130	76.5	39.2	1,098	630	398	6.88
	May-12	61.7	62.6	72.7	1.42	249	136	126*	39.4	1,158	694	439	6.66
	Nov-12	62.9	66.7	73.1	1.50	255	143	122*	39.4	1,149	707	407	6.69
	Apr-13	63.4	65.4	76.1	1.81	263	130	130	42.6	1,141	681	444	6.78
	Nov-13	63.1	62.6	74.7	1.46	253	123	110	37.8	1,134	669	404	6.77
	May-14	63.6	58.9	65.7	1.31	244	117	105	39.6	1,110	642	404	6.74
	Oct-14	61.8	62.5	63.9	1.29	252	119	104	40.5	1,100	661	403	6.70
	May-15	59.3	59.7	64.6	1.25	220	104	96.3	41.2	1,100	658	381	6.69
	Nov-16	51.5	58.4	65.8	1.16	247	124	113	43.5	1,090	650	415	6.69
	May-17	56.5	56.2	63.8	1.21	204	98	88	43.9	1,090	602	325	6.67
	Nov-17	58.0	60.9	66.2	1.23	247	127	82	42.9	1,090	635	406	6.72
	May-18	60.4	62.7	72.5	1.30	248	127	83.2	44.4	1,090	625	401	6.73
	Nov-18	61.2	56.6	68.3	1.21	284	144	81	43.9	1,090	607	451	6.68
	May-19	61.8	58.3	65.8	1.17	246	125	81	43.5	1,080	664	398	6.74
	Nov-19	60.6	59.9	70.1	1.38	240	123	80	42.7	1,100	665	393	6.76
Nov-20	61.8	62.9	73.5	1.33	251	134	83	44.0	1,100	630	409	6.70	
May-21	61.6	60.2	72.0	1.50	249	132	77	41.6	1,090	663	392	6.64	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-10A MW500 (continued)	Nov-21	61.1	60.5	68.0	1.47	263	141	77	41.5	1,120	625	422	6.63
	May-22	61.1	64.0	73.5	1.49	268	138	75	38.5	1,120	640	408	6.61
	Nov-22	61.6	62.8	70.7	1.39	279	139	75	38.5	1,120	653	404	6.61
CUP-10A MW710	May-12	69.8	46.0	91.5	4.05	210	189	120	<0.3	1,192	689	389	6.92
	Nov-12	72.3	50.6	88.4	4.31	198	189	139	<0.3	1,183	694	370	7.09
	Apr-13	72.3	50.6	86.8	5.61	211	188	137	<0.3	1,205	665	417	7.10
	Nov-13	60.9	52.8	59.2*	1.93*	209	184	110	<0.22	1,208	654	393	7.18
	May-14	77.3	46.9	81.5	3.97	199	179	116	<0.3	1,200	680	390	7.03
	Oct-14	78.0	49.8	85.8	3.89	211	185	115	<0.3	1,210	623	386	6.78
	May-15	74.4	49.7	82.2	3.74	224	189	117	<0.3	1,200	642	332	7.13
	Dec-15	69.6	48.9	91.7	3.62	220	128*	97.8	<0.3	1,210	672	388	7.27
	May-16	72.8	50.0	87.8	3.99	226	190	93.9	<0.308	1,220	625	415	7.20
	Nov-16	67.0	50.3	91.5	3.84	230	193	99.4	<0.308	1,220	649	392	7.09
	May-17	70.7	47.1	87.9	3.50	191	151	93.4	<0.308	1,210	658	318	7.12
	Nov-17	70.2	49.5	89.8	3.72	226	193	87.5	<0.308	1,210	662	395	7.20
	May-18	72.3	50.3	98.7	3.67	227	192	91.2	<0.308	1,220	633	391	7.05
	Nov-18	77.0	48.4	89.6	3.68	249	209	89.8	<0.308	1,210	648	441	7.20
	May-19	77.7	46.4	89.6	3.52	220	185	89.4	<0.308	1,210	628	385	7.27
	Nov-19	72.1	47.3	83.2	3.96	220	187	88.9	<0.308	1,210	653	373	7.26
	Nov-20	72.2	48.9	95.3	4.09	228	192	88.8	<0.308	1,190	662	384	7.10
	May-21	72.6	46.6	94.7	4.15	230	183	86.5	<0.176	1,190	681	368	7.11
	Nov-21	70.1	47.2	91.9	4.36	236	188	93.9	<0.176	1,180	651	385	7.12
	May-22	72.1	49.1	97.1	4.51	238	185	86.3	<0.176	1,180	650	383	7.04
	Nov-22	71.5	47.1	92.5	3.95	275	187	85.9	<0.176	1,180	657	366	7.15
CUP-18 MW230	May-10	33.7	32.1	59.9	1.62	178	90	38.0	7.4	726	419	210	6.70
	Oct-10	32.6	30.3	61.9	2.21	166	91	37.0	7.3	719	411	202	6.71
	Jun-11	30.3	30.2	59.3	2.18	166	92	38.0	8.8	722	412	208	6.72
	Oct-11	36.4	32.3	63.2	1.89	174	95	37.2	10.2	725	410	214	6.46
	May-12	31.6	31.0	61.2	1.68	176	100	38.3	10.6	731	428	222	6.61
	Nov-12	32.5	32.1	63.0	1.82	172	101	37.3	10.7	733	432	212	6.49
	Apr-13	32.2	30.9	59.2	1.97	181	98	40.7	11.1	740	423	228	6.67
	Nov-13	36.5	32.2	65.0	1.78	173	96	36.0	10.1	743	426	214	6.56
	May-14	35.2	31.2	58.1	1.64	168	95	35.1	10.3	735	401	218	6.47
	Oct-14	35.7	32.7	56.6	1.62	170	99	36.1	11.0	740	399	297	6.27
	May-15	35.9	32.2	60.3	1.61	174	100	35.0	10.7	748	408	226	6.21
	Dec-15	32.2	32.9	61.5	1.72	166	100	36.9	11.6	735	412	219	6.25
	May-16	36.4	32.1	56.8	1.66	165	99	36.9	10.4	744	414	226	6.07

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-18 MW230 (continued)	Nov-16	32.2	30.9	53.3	1.54	163	105	36.0	11.4	747	399	222	6.13
	May-17	38.1	30.4	56.3	1.77	168	100	37.0	11.8	758	425	228	6.02
	Nov-17	30.9	31.9	60.7	1.50	163	106	35.6	11.1	747	423	226	6.05
	May-18	35.5	32.6	64.3	1.64	157	103	36.1	11.6	758	412	224	5.89
	Nov-18	37.4	31.5	62.3	1.64	166	111	35.7	11.2	757	386	236	5.87
	May-19	36.4	31.2	62.0	1.50	159	108	37.0	11.8	765	365	216	6.04
	Nov-19	35.8	31.4	62.1	1.76	151	108	36.7	12.0	775	436	222	5.94
	Nov-20	36.6	32.9	64.2	1.81	164	113	36.5	11.3	769	433	233	5.95
	May-21	36.4	32.3	65.1	1.83	152	106	36.6	11.1	768	444	213	5.97
	Nov-21	37.1	32.7	66.0	1.96	167	116	36.9	10.9	778	421	237	5.94
	Apr-22	37.4	34.6	68.7	2.04	170	108	36.7	10.5	775	413	231	6.70
Nov-22	37.4	33.8	63.4	1.76	174	115	36.8	10.6	788	449	232	6.62	
CUP-18 MW425	May-10	31.1	32.0	49.4	1.17	180	91	37.7	7.9	726	418	234	6.64
	Oct-10	32.7	30.6	60.7	1.53	184	96	37.8	8.4	737	421	220	6.74
	Jun-11	30.5	30.1	57.4	2.00	174	96	37.8	10.4	733	358	212	6.70
	Oct-11	35.9	32.0	62.4	1.91	170	95	37.2	10.5	726	410	216	6.58
	May-12	31.9	30.5	60.7	1.62	173	100	38.2	10.9	732	421	222	6.53
	Nov-12	33.3	32.2	63.7	1.83	172	103	38.0	11.3	733	418	212	6.62
	Apr-13	33.7	31.6	61.7	2.15	180	100	40.7	11.5	739	413	227	6.68
	Nov-13	36.1	32.0	63.4	1.82	172	96	36.0	10.6	742	422	221	6.64
	May-14	34.4	30.6	57.8	1.65	169	95	35.6	10.7	735	398	216	6.68
	Oct-14	36.6	32.8	55.6	1.64	169	98	36.7	11.2	739	396	266	6.74
	May-15	34.4	32.4	57.0	1.60	175	100	35.8	10.8	745	640*	223	6.65
	Dec-15	32.3	32.5	61.7	1.72	168	102	36.9	11.7	734	400	221	6.71
	May-16	36.1	32.4	58.9	1.69	170	99	37.4	10.6	745	406	224	6.58
	Nov-16	31.9	31.7	55.9	1.61	164	102	36.0	11.4	749	416	222	6.61
	May-17	36.1	29.6	54.3	1.71	159	97	35.6	11.8	753	416	221	6.51
	Nov-17	33.1	32.0	61.2	1.60	166	107	35.1	11.4	754	417	223	6.62
	May-18	35.8	32.9	65.5	1.66	165	105	35.8	11.6	756	410	229	6.58
	Nov-18	36.7	30.1	63.2	1.66	172	108	37.9	11.8	760	423	230	6.60
	May-19	36.0	31.1	61.2	1.50	165	105	36.7	11.6	764	356	225	6.54
	Nov-19	35.4	32.5	62.9	1.81	162	104	36.2	11.4	772	425	227	6.65
Nov-20	36.6	32.4	63.4	1.72	171	112	36.6	11.2	771	438	227	6.58	
May-21	36.7	32.5	65.9	1.91	159	105	36.8	11.3	765	400	215	6.61	
Nov-21	36.2	32.3	65.2	2.01	174	116	37.5	11.0	777	407	234	6.59	
Apr-22	37.1	33.8	68.0	1.98	171	108	36.7	10.3	776	419	231	6.75	
Nov-22	36.7	33.7	63.6	1.74	177	116	36.8	10.4	781	427	232	6.64	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-18 MW490	May-10	26.7	26.0	49.7	1.43	142	90	31.0	2.3	639	363	176	6.76
	Oct-10	28.2	24.5	54.3	1.87	135	89	27.0	6.3	633	353	172	7.12
	Jun-11	26.9	24.6	52.7	1.99	132	90	28.7	9.4	635	369	184	6.87
	Nov-11	33.5	31.4	63.1	1.91	172	96	39.1	9.6	722	410	214	6.78
	May-12	31.1	29.2	60.5	1.63	172	100	39.6	9.9	728	420	218	6.63
	Nov-12	32.8	31.5	64.3	1.95	172	103	38.8	10.6	731	424	212	6.67
	Apr-13	33.3	31.8	63.7	2.24	177	99	41.3	11.4	734	428	224	6.73
	Nov-13	35.2	30.8	62.1	1.75	170	95	37.0	10.1	740	412	220	6.75
	May-14	34.2	32.0	57.5	1.71	168	95	36.1	10.4	737	400	217	6.75
	Oct-14	36.5	32.0	61.4	1.76	172	98	37.5	10.6	744	404	224	6.68
	May-15	35.3	31.9	58.4	1.60	176	100	34.6	10.4	745	389	224	6.74
	Dec-15	32.8	33.0	57.8	1.77	170	103	37.2	11.4	739	412	220	6.69
	May-16	35.6	31.8	55.0	1.70	167	98	38.0	10.6	746	416	226	6.67
	Nov-16	30.6	31.4	58.6	1.74	170	104	40.0	10.7	752	422	225	6.71
	May-17	38.1	32.0	58.1	1.78	163	99	36.7	11.3	750	428	221	6.58
	Nov-17	30.0	30.0	57.9	1.46	163	107	34.9	10.9	747	411	223	6.66
	May-18	36.3	33.2	66.2	1.74	159	103	37.8	12.1	748	421	225	6.65
	Nov-18	37.3	32.5	62.1	1.69	175	110	36.7	11.1	755	380	235	6.67
	May-19	35.0	31.8	61.6	1.79	165	108	37.7	11.5	760	359	228	6.80
	Nov-19	35.7	32.6	64.0	1.89	164	107	35.5	11.5	764	412	224	6.78
Nov-20	36.6	33.2	65.5	1.73	173	112	37.5	11.1	772	440	224	6.69	
May-21	36.1	32.0	64.9	1.94	157	105	36.9	11.0	767	440	213	6.66	
Nov-21	36.7	32.5	65.1	2.02	173	114	38.0	10.9	775	422	235	6.64	
Apr-22	37.8	34.3	68.2	2.06	169	107	36.7	10.1	777	424	230	6.76	
Nov-22	38.4	33.8	66.2	1.93	175	112	37.5	9.9	782	444	231	6.68	
CUP-18 MW595	Apr-13	69.5	57.0	77.0	4.57	271	172	97.9	<0.3	1,176	643	437	7.21
	Nov-13	78.9	59.7	75.0	3.59	265	172	98.0	<0.22	1,233	674	448	7.21
	May-14	74.2	56.5	72.8	3.56	252	166	101	<0.3	1,210	699	428	7.23
	Oct-14	84.7	70.3	73.0	3.59	269	182	116	<0.3	1,290	735	482	7.04
	May-15	80.3	61.4	72.4	3.44	269	178	106	<0.3	1,260	642	482	7.17
	Dec-15	53.7	43.7	59.7	2.98	209	121	67.4	<0.3	908	486	331	7.02
	May-16	47.6	34.8	51.3	2.87	208	95	51.6	<0.308	802	433	281	7.12
	Nov-16	49.1	42.1	51.6	2.91	218	112	66.9	<3.08	894	495	331	7.19
	May-17	42.7	28.4	41.7	2.56	176	80	33.6	<0.308	676	334	221	6.90
	Nov-17	56.1	45.6	58.6	2.58	217	126	75.1	<0.308	943	509	344	7.03
	May-18	44.6	35.0	54.9	2.50	195	80	39.7	0.33	723	380	251	7.23
Nov-18	60.8	47.8	59.2	2.98	226	124	76.3	<0.308	930	478	349	6.98	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-18 MW595 (continued)	May-19	42.2	34.9	54.7	2.91	190	85	41.5	1.1	729	395	249	7.10
	Nov-19	55.8	47.9	58.2	3.17	211	124	73.8	8.8	972	525	337	7.29
	Nov-20	57.1	47.5	60.0	2.78	207	118	71.3	18.0	916	490	341	7.08
	May-21	48.3	40.5	66.2	2.39	183	123	58.2	9.9	907	517	276	6.72
	Nov-21	41.4	37.2	64.9	2.31	187	119	46.8	15.4	828	456	262	6.57
	Apr-22	41.3	36.9	70.1	2.14	176	116	44.0	10.1	828	447	255	6.64
	Nov-22	44.1	37.2	66.8	2.06	184	123	48.7	9.5	853	491	261	6.60
CUP-19 MW475	May-10	32.4	35.2	46.8	1.87	154	99	36.8	0.5	691	367	248	7.88
	Oct-10	31.8	31.3	47.8	2.20	152	99	35.6	1.2	680	383	212	7.97
	May-11	30.5	30.0	47.8	2.68	136	100	32.9	2.1	665	397	214	7.99
	Oct-11	36.0	32.0	45.8	2.59	138	96	33.4	4.2	648	370	208	7.30
	May-12	35.3	34.0	47.3	2.46	133	109	49.5	6.4	703	373	233	7.25
	Nov-12	39.0	38.1	47.0	2.70	142	110	64.0	9.0	752	434	249	7.35
	Apr-13	39.9	38.6	48.9	3.26	145	110	64.5	7.8	771	435	268	7.30
	Nov-13	39.6	37.0	48.6	2.53	160	105	58.0	1.8	759	418	257	7.38
	May-14	36.9	33.9	44.1	2.36	151	97	42.6	0.6	709	406	236	7.41
	Nov-14	37.4	35.1	43.3	2.32	149	97	39.1	0.7	685	389	301	7.41
	May-15	35.8	34.7	43.9	2.15	172	106	33.8	0.3	690	281	210	7.19
	Nov-15	34.2	35.2	46.1	2.32	143	100	44.3	2.4	695	382	88.6*	7.36
	May-16	34.5	33.5	41.9	2.40	148	99	38.7	0.8	688	364	233	7.33
	Nov-16	30.6	32.1	40.2	2.21	154	101	42.0	1.1	885*	391	237	7.33
	May-17	37.9	32.1	38.3	2.15	150	98	41.5	2.1	703	359	234	7.18
	Nov-17	30.7	31.0	38.1	1.98	121	84	37.0	1.8	699	399	190	7.38
	May-18	38.0	36.3	50.3	2.27	148	102	38.1	1.4	699	389	239	7.33
	Nov-18	38.8	35.6	48.3	2.30	153	107	46.2	4.1	730	402	253	7.22
	Apr-19	39.3	33.6	47.1	2.21	148	103	40.4	2.4	701	375	235	7.86*
	Nov-19	38.8	34.6	47.5	2.51	147	106	40.0	3.2	714	404	242	7.59
Oct-20	40.4	38.2	48.1	2.48	137	110	46.6	6.2	746	431	259	7.23	
May-21	41.3	38.6	46.6	2.58	141	109	55.5	10.4	788	475	240	7.15	
Nov-21	42.5	40.5	50.2	2.72	154	116	62.1	10.6	800	430	268	7.26	
May-22	45.3	41.1	53.7	2.85	158	112	58.8	8.9	790	440	273	6.99	
	Oct-22	42.6	37.8	52.5	2.61	153	115	61.6	8.5	801	430	261	7.28
CUP-19 MW600	May-10	46.8	41.7	56.8	2.15	256	95	18.5	<0.3	802	436	284	7.86
	Oct-10	44.3	37.7	57.0	2.61	260	95	15.5	<0.3	812	444	274	7.94
	May-11	44.6	39.4	55.5	3.03	256	95	11.7	<0.3	817	470	288	8.04
	Oct-11	51.3	39.8	57.5	2.80	276	92	11.0	<0.3	803	460	286	7.48
	May-12	49.7	39.2	58.1	2.57	292	94	4.1	<0.3	816	427	295	7.40

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-19 MW600 (continued)	Nov-12	48.0	39.7	57.8	2.56	273	108	16.3	<0.3	822	459	274	7.47
	Apr-13	52.6	40.8	59.6	3.55	298	94	7.4	<0.3	830	440	305	7.52
	Nov-13	52.2	39.8	57.3	2.56	297	91	3.1	<0.44	832	432	299	7.51
	May-14	51.1	39.9	54.0	2.47	290	87	3.5	<0.3	826	440	294	7.45
	Nov-14	51.0	40.3	54.3	2.35	260	95	15.0	<0.3	827	430	279	7.51
	May-15	50.5	42.0	51.7	2.23	294	94	7.5	<0.3	829	434	288	7.27
	Nov-15	46.1	39.4	54.4	2.35	238	100	26.6	<0.3	800	450	283	7.48
	May-16	47.5	38.5	52.7	2.30	261	97	19.3	<0.308	827	457	300	7.48
	Nov-16	42.4	41.4	51.1	2.21	244	103	33.4	<0.308	822	455	301	7.36
	May-17	46.3	35.4	46.8	2.29	159	101	64.1	<0.308	784	444	263	7.13
	Nov-17	37.9	33.4	46.5	1.87	162	86	43.3	<0.308	811	430	222	7.39
	May-18	45.7	37.8	58.3	2.27	158	106	62.1	<0.308	783	426	270	7.31
	Nov-18	44.4	35.6	52.8	2.18	165	109	57.0	<0.308	778	379	263	7.17
	Apr-19	44.1	34.8	56.2	2.23	159	108	59.2	<0.308	772	395	257	7.30
	Nov-19	46.9	39.5	57.4	2.85	191	108	46.5	0.52	804	436	272	7.45
	Oct-20	48.6	41.2	57.2	2.49	239	99	18.5	<0.308	824	434	297	7.36
	May-21	45.5	39.0	55.6	2.60	213	99	34.6	2.62	812	438	252	7.40
Nov-21	46.8	39.7	55.4	2.60	226	104	34.3	0.74	827	426	283	7.23	
May-22	50.9	42.0	58.0	2.74	273	97	17.1	<0.176	834	444	303	7.39	
Oct-22	49.4	38.9	57.5	2.51	267	100	16.2	<0.176	842	433	291	7.40	
CUP-19 MW690	May-10	81.5	57.4	63.8	3.00	232	160	155	<0.3	1,229	715	448	7.35
	Oct-10	82.4	56.8	74.3	3.58	232	154	150	<1.1	1,233	738	440	7.48
	May-11	82.6	58.9	73.3	3.71	226	165	153	<0.3	1,229	752	448	7.52
	Oct-11	79.8	59.8	74.0	3.63	242	160	151	<0.3	1,223	720	456	7.17
	May-12	83.6	55.3	71.2	2.76	240	167	150	<0.3	1,224	724	442	7.10
	Nov-12	80.5	57.7	73.0	3.37	235	167	150	<0.3	1,175	691	415	7.27
	Apr-13	84.9	58.2	74.7	3.84	245	158	127	<0.3	1,206	--	453	7.23
	Nov-13	77.7	53.0	71.9	2.95	277	144	140	<0.22	1,145	658	422	7.26
	May-14	73.3	50.3	64.8	2.73	221	130	132	<0.3	1,100	647	396	7.22
	Nov-14	64.9	43.4	58.5	2.41	192	110	110	<0.3	950	568	329	7.29
	May-15	58.4	40.4	53.8	2.16	202	115	102	<0.3	891	540	289	7.14
	Nov-15	49.6	36.5	48.2	1.99	148	103	87.1	6.1	800	454	280	7.23
	May-16	53.5	37.5	47.5	1.91	148	101	99.3	7.7	825	437	298	7.17
	Nov-16	51.0	39.7	48.8	1.92	160	105	111	3.3	848	455	314	7.31
May-17	63.6	39.0	47.2	2.07	156	100	100	8.5	845	469	297	7.21	
Nov-17	49.7	36.6	47.0	1.79	119	84	91	12.7	826	468	233	7.27	
May-18	55.7	37.7	56.2	1.99	146	100	89.4	21.6	820	426	293	7.26	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-19 MW690 (continued)	Nov-18	54.9	35.2	50.9	1.91	152	102	83.3	18.3	804	453	288	7.09
	Apr-19	56.8	34.4	52.5	1.84	148	100	81.3	19.3	791	429	283	7.47
	Nov-19	56.4	35.2	53.2	2.16	149	101	80.2	17.5	793	438	272	7.32
	Oct-20	53.2	36.2	52.1	1.93	142	99	71.9	20.2	793	434	268	7.28
	May-21	50.1	33.5	47.1	2.01	145	93	68.2	22.1	791	457	247	7.17
	Nov-21	50.4	35.6	48.9	2.25	158	100	65.0	24.7	784	415	274	7.24
	May-22	51.0	36.9	50.3	2.50	158	96	60.6	27.5	779	430	274	7.18
Oct-22	46.4	34.9	48.9	2.28	153	101	61.1	27.1	790	425	269	7.18	
CUP-22A MW290	May-10	54.0	43.3	56.3	2.52	196	106	63.8	32.7	903	537	318	7.08
	Oct-10	49.4	37.6	55.1	2.12	201	99	45.0	45.0	862	465	288	7.38
	May-11	49.3	40.4	54.1	2.76	190	100	47.0	40.5	859	501	300	7.56
	Oct-11	53.5	40.7	55.5	2.69	206	99	50.7	38.0	871	530	316	7.19
	May-12	51.7	39.5	56.4	2.14	208	106	51.5	38.1	880	492	312	7.13
	Nov-12	52.9	43.9	57.5	2.57	219	110	55.2	39.1	880	513	292	7.15
	Apr-13	54.0	42.4	57.8	2.54	218	102	51.0	33.9	887	465	320	7.19
	Nov-13	53.7	42.4	59.1	2.52	211	100	56.0	35.2	900	492	314	7.18
	May-14	52.6	41.3	52.9	2.23	210	99	57.6	35.6	904	499	317	7.23
	Oct-14	59.2	44.6	53.1	2.30	216	103	60.0	37.0	922	502	334	7.13
	May-15	59.9	45.4	54.2	2.29	219	100	58.1	35.6	934	522	328	7.18
	Nov-15	54.7	46.8	59.8	2.46	221	103	61.9	36.8	922	543	324	7.19
	May-16	56.7	45.2	57.4	2.44	222	101	66.2	36.2	943	523	346	7.11
	Nov-16	50.9	45.9	58.1	2.25	234	104	65.3	36.7	941	517	356	6.89
	May-17	65.4	44.2	55.6	2.64	242	98	58.7	39.4	924	528	337	7.24
	Nov-17	53.1	42.9	54.4	2.18	185	81	55.2	37.3	923	520	266	7.19
	May-18	61.6	48.6	64.8	2.53	225	95	52.1	38.5	911	527	347	7.20
	Oct-18	57.3	43.1	56.9	2.24	233	97	53.5	38.5	914	482	332	7.18
	Apr-19	58.9	41.8	61.4	2.17	223	92	48.7	40.7	903	494	312	7.38
	Nov-19	60.0	45.5	63.7	2.54	232	98	61.8	46.6	918	534	327	7.40
Oct-20	57.6	45.1	62.1	2.52	236	98	49.2	37.8	908	496	327	7.30	
May-21	56.8	44.3	61.9	2.62	230	90	45.8	38.0	897	496	304	7.21	
Nov-21	57.0	43.5	58.9	2.77	250	98	49.1	38.7	916	489	334	7.12	
May-22	58.8	46.0	62.2	2.88	251	93	48.8	37.4	915	502	334	7.24	
Oct-22	59.1	45.2	61.6	2.67	245	196	52.8	37.2	929	517	326	7.14	
CUP-22A MW440	May-10	29.6	9.73	43.7	1.67	102	71	6.8	1.4	441	270	114	8.49
	Oct-10	24.0	12.3	39.8	1.70	103	67	6.4	1.6	456	252	114	8.47
	May-11	25.9	11.7	39.3	2.40	100	73	5.7	1.5	454	288	120	8.54
	Nov-11	24.6	14.7	40.2	2.00	100	73	7.9	0.8	458	290	126	7.51

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-22A MW440 (continued)	May-12	29.1	10.8	39.8	1.75	117	73	6.3	1.5	468	269	129	7.54
	Nov-12	62.3	38.2	57.2	3.09	233	110	59.1	31.1	892	504	306	7.58
	Apr-13	65.0	40.1	59.3	3.07	228	98	55.4	29.0	909	544	324	7.57
	Nov-13	59.5	41.7	58.1	2.77	228	100	59.0	29.9	911	507	322	7.44
	May-14	58.7	40.8	53.3	2.47	224	97	61.2	29.5	908	504	322	7.49
	Oct-14	62.3	44.5	53.8	2.52	222	99	62.9	30.6	914	515	327	9.43*
	May-15	60.8	45.0	53.9	2.51	226	98	58.5	29.2	921	503	332	7.30
	Nov-15	56.8	46.5	58.9	2.54	229	101	65.1	33.1	927	525	331	7.41
	May-16	59.4	45.1	53.8	2.66	229	99	67.2	33.0	942	534	347	7.34
	Nov-16	49.6	43.0	53.7	2.28	233	100	67.5	28.3	917	634*	341	7.33
	May-17	27.4	18.0	35.3	1.62	129	63	12.4	2.6	498	228	149	7.41
	Nov-17	48.4	39.6	52.2	2.07	175	76	52.4	26.8	857	482	244	7.39
	May-18	43.2	34.2	59.9	2.12	174	80	33.4	16.5	692	403	235	7.33
	Oct-18	57.5	42.1	57.4	2.29	237	97	52.8	32.0	905	458	330	7.33
	Apr-19	32.9	23.7	48.1	1.82	141	71	17.8	7.4	550	304	181	7.34
	Nov-19	53.5	40.2	60.4	2.58	216	93	57.1	35.6	850	431	301	7.41
	Oct-20	54.1	42.9	59.2	2.56	231	95	50.3	32.3	886	506	315	7.32
	May-21	31.2	26.9	46.8	2.12	148	73	20.4	10.5	591	306	185	7.38
Nov-21	54.6	43.2	58.7	2.83	245	98	52.0	31.5	895	484	317	7.30	
May-22	56.4	45.4	60.2	2.91	247	94	50.5	32.1	900	499	328	7.36	
Oct-22	56.1	42.9	59.0	2.54	235	96	51.4	30.6	906	517	313	7.02	
CUP-22A MW545	May-10	65.4	54.6	72.2	2.18	246	106	76.0	24.0	994	575	332	6.89
	Oct-10	58.4	43.7	70.8	2.60	254	108	76.0	24.0	1,011	586	342	6.93
	May-11	59.7	47.7	70.1	3.44	238	116	86.6	22.0	1,035	639	372	7.06
	Nov-11	62.4	47.7	75.3	3.03	254	110	87.2	21.9	1,032	620	356	6.80
	May-12	63.2	48.4	73.6	2.94	254	123	91.5	21.4	1,051	617	369	6.76
	Nov-12	63.5	50.7	78.0	3.09	261	130	100	20.9	1,063	635	348	6.75
	Apr-13	68.0	49.8	78.5	3.17	267	116	87.3	18.3	1,058	654	370	6.81
	Nov-13	61.1	47.1	79.9	2.88	271	113	90.0	19.4	1,067	602	356	6.76
	May-14	62.6	47.0	72.3	2.72	261	110	94.7	20.4	1,060	605	366	6.80
	Oct-14	68.0	50.0	76.8	2.76	259	112	93.1	20.3	1,070	612	367	6.77
	May-15	66.2	49.4	74.2	2.68	279	110	3.56*	0.82*	1,090	654	340	6.69
	Nov-15	62.9	51.2	80.2	3.03	268	117	96.0	19.5	1,080	626	379	6.78
	May-16	63.3	51.0	79.3	2.87	282	107	94.4	21.2	1,080	620	383	6.70
	Nov-16	60.0	51.8	81.6	2.63	292	116	106	16.7	1,120	635	400	6.71
May-17	72.6	47.7	73.0	3.05	302	111	102	18.9	1,120	654	398	6.75	
Nov-17	64.8	48.9	79.6	2.63	236	95	105	18.0	1,120	649	318	6.72	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-22A MW545 (continued)	May-18	69.0	52.1	86.2	2.91	299	110	95	20.1	1,120	668	404	6.73
	Oct-18	71.6	50.7	81.5	2.91	309	110	91	19.6	1,120	659	405	6.67
	Apr-19	72.4	49.1	80.8	2.74	304	108	98	22.3	1,110	656	386	6.81
	Nov-19	74.7	52.8	81.7	3.25	305	110	116	27.3	1,120	656	394	6.81
	Oct-20	68.8	51.7	82.1	3.16	299	107	93	24.1	1,100	646	388	6.70
	May-21	67.0	49.8	83.7	3.20	307	102	87	23.5	1,080	628	384	6.65
	Nov-21	70.6	53.3	84.3	3.55	322	103	92	22.6	1,110	614	388	6.56
	May-22	67.3	51.6	81.1	3.30	310	103	88	24.7	1,080	607	386	6.70
Oct-22	69.9	51.9	86.2	3.12	306	104	90	23.1	1,100	635	377	6.60	
CUP-23 MW230	Oct-10	52.7	48.4	55.9	1.97	258	84	45.8	59.1	933	539	334	7.18
	May-11	51.7	49.1	55.4	2.23	258	88	40.5	61.7	935	538	344	7.17
	Oct-11	55.4	51.5	56.4	1.98	264	87	41.3	61.9	936	560	348	7.12
	May-12	55.9	51.3	56.5	1.82	272	93	41.1	61.5	957	498	363	7.04
	Nov-12	57.0	52.8	57.5	2.57	284	104	38.6	55.7	965	574	350	7.07
	Apr-13	60.6	53.2	59.7	2.07	286	86	38.6	53.1	979	532	368	7.10
	Nov-13	76.0*	48.4	97.6*	4.33*	290	85	41.0	52.8	984	526	371	7.16
	May-14	58.7	51.8	54.7	1.80	290	85	40.7	55.6	977	549	379	7.12
	Oct-14	61.5	53.6	55.5	1.85	282	83	41.0	55.7	982	557	383	7.28
	May-15	58.7	56.1	53.7	1.86	291	82	39.3	51.9	982	546	370	7.10
	Nov-15	58.0	55.6	57.2	1.77	294	83	41.8	51.9	973	532	378	7.16
	May-16	61.0	55.7	56.2	1.89	294	82	42.8	52.4	988	508	392	7.08
	Nov-16	56.5	54.6	58.1	1.73	300	82	43.7	51.5	996	557	384	7.13
	Apr-17	67.3	54.6	54.9	1.96	320	84	43.1	51.5	1,000	587	427	7.14
	Nov-17	58.7	53.2	56.0	1.81	258	69	43.9	49.7	1,000	544	323	7.14
	May-18	69.0	62.3	64.0	1.87	314	83	47.2	49.3	1,020	597	405	7.06
	Oct-18	64.2	55.7	58.9	1.84	326	87	43.2	48.8	1,010	574	408	7.07
	May-19	66.2	57.1	59.7	1.61	326	86	46.3	48.4	1,010	564	395	7.23
	Nov-19	62.4	57.4	59.1	2.11	310	85	44.6	48.0	1,030	568	403	6.18
	Oct-20	65.2	58.0	61.0	2.06	309	86	43.1	46.2	1,010	563	391	7.16
May-21	64.1	56.7	62.0	2.14	321	85	42.4	43.8	1,010	565	386	7.18	
Nov-21	62.9	56.1	59.2	2.21	321	86	42.8	44.9	1,010	541	398	7.08	
May-22	65.9	57.2	61.4	2.18	329	87	41.0	41.8	1,010	551	403	7.09	
Oct-22	62.1	54.2	60.8	1.99	311	91	39.9	41.2	1,010	531	380	7.11	
CUP-23 MW440	Oct-10	29.5	30.2	39.2	2.64	156	63	26.6	19.3	611	321	201	7.96
	May-11	31.2	33.8	40.3	2.54	168	70	35.3	25.4	647	378	228	7.85
	Oct-11	37.6	34.9	41.3	2.29	166	68	38.4	26.0	653	400	236	7.42
	May-12	39.0	39.5	43.9	2.04	182	78	45.2	37.9	734	413	267	7.04

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-23 MW440 (continued)	Nov-12	40.2	44.2	46.5	2.38	186	79	47.4	40.1	757	428	268	7.38
	Apr-13	43.3	43.7	46.6	2.52	201	78	44.5	35.7	783	427	288	7.48
	Nov-13	42.4	41.7	46.3	2.31	190	76	45.0	44.0	781	418	281	7.53
	May-14	42.4	41.7	43.9	2.16	192	76	44.5	46.7	790	425	286	7.43
	Oct-14	42.9	41.9	43.0	2.16	192	77	43.5	47.4	796	434	287	7.57
	May-15	43.2	45.1	42.6	2.06	204	80	46.2	40.0	797	410	297	7.41
	Nov-15	54.9*	63.9*	54.3*	2.32	240*	84	58.6*	132*	1040*	605*	404*	7.36
	May-16	39.4	44.6	44.0	2.06	214	69	40.5	51.9	797	443	305	7.61
	Nov-16	32.0	37.3	41.0	1.72	188	66	34.9	33.7	701	372	254	7.54
	Apr-17	35.6	34.6	39.4	1.84	170	60	24.2	19.8	617	311	213	7.38
	Nov-17	34.6	38.4	40.4	1.65	201	69	34.8	31.0	749	384	270	7.56
	May-18	28.0	30.4	43.4	1.57	145	59	18.3	16.9	543	306	185	7.46
	Oct-18	34.9	34.8	44.9	1.84	182	69	29.1	24.8	668	361	242	7.56
	May-19	27.4	27.4	40.5	1.55	149	60	16.6	13.9	547	281	185	7.67
	Nov-19	25.1	25.8	39.0	1.72	137	59	16.6	15.1	516	286	170	7.61
	Oct-20	21.5	22.8	35.1	1.71	121	57	10.3	5.0	457	261	149	7.96
	May-21	19.2	20.2	32.1	1.68	114	54	8.5	1.9	425	224	128	7.90
Nov-21	28.2	29.8	39.5	2.02	156	63	20.4	16.9	568	299	195	7.82	
May-22	19.6	19.9	32.6	1.70	114	54	7.3	1.5	426	226	132	7.86	
Oct-22	19.3	19.2	32.9	1.63	115	56	6.6	0.8	434	214	126	7.97	
CUP-23 MW515	Oct-10	41.0	28.9	66.9	2.62	310	64	2.4	<0.88	773	430	235	7.57
	May-11	40.6	29.2	67.0	4.20	300	68	<0.5	<0.3	765	446	230	7.55
	Oct-11	44.3	30.5	70.1	3.79	292	67	0.7	<0.3	750	430	290	7.23
	May-12	42.7	31.9	65.2	3.17	304	68	1.0	<0.3	759	421	246	7.20
	Nov-12	38.6	28.1	68.2	3.56	272	71	1.5	<0.3	717	406	208	7.37
	Apr-13	42.9	30.5	64.1	3.87	302	64	1.5	<0.3	748	414	241	7.30
	Nov-13	41.2	27.6	67.1	3.49	275	63	2.6	<0.44	716	397	217	7.39
	May-14	39.9	29.8	60.0	3.41	282	61	2.8	<0.3	724	380	229	7.30
	Oct-14	39.4	26.9	58.9	3.13	258	62	4.3	<0.3	699	373	212	7.31
	May-15	37.9	28.1	55.8	3.07	258	62	5.9	<0.3	693	380	209	7.18
	Nov-15	32.0	23.8	56.2	2.98	220	64	9.2	<0.3	641	328	181	7.42
	May-16	31.0	22.0	51.7	3.06	171	64	24.6*	<0.308	598	308	195	7.24
	Nov-16	33.3	26.4	43.7	2.66	166	71	4.7	<0.308	649	328	207	7.25
	Apr-17	54.0	33.8	54.5	3.73	169	72	57.5	<0.308	696	364	225	7.25
Nov-17	39.4	28.7	48.1	3.14	183	70	44.5	<0.308	667	371	220	7.35	
May-18	42.2	29.8	57.7	3.17	167	70	51.1	<0.308	659	356	213	7.31	
Oct-18	47.3	33.7	50.4	2.76	200	72	68.2	<0.308	758	429	274	7.25	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-23 MW515 (continued)	May-19	38.9	27.0	51.9	2.51	184	71	37.8	<0.308	653	335	208	7.44
	Nov-19	40.4	27.2	49.8	2.97	171	71	43.2	<0.308	654	338	212	7.37
	Oct-20	40.5	28.3	47.1	2.97	166	70	46.9	<0.308	652	360	218	7.22
	May-21	40.6	27.6	46.5	3.08	171	69	45.3	<0.176	651	346	201	7.05
	Nov-21	43.0	29.2	47.5	3.27	195	69	41.0	<0.176	675	348	236	7.08
	May-22	46.6	31.7	51.4	3.36	225	68	29.3	<0.176	695	374	242	7.18
	Oct-22	42.6	27.4	47.0	2.94	179	71	45.7	<0.176	679	333	217	7.16
CUP-23 MW600	Oct-10	25.3	18.5	40.4	2.00	122	63	23.0	41.0	577	322	164	7.74
	May-11	30.8	23.6	40.2	2.84	124	65	23.7	44.9	585	332	184	7.66
	Oct-11	34.2	24.2	42.3	2.86	128	64	31.9	31.3	573	340	190	7.16
	May-12	33.6	25.1	41.6	2.38	133	68	29.6	27.7	575	321	167	7.01
	Nov-12	31.6	24.6	39.2	2.42	130	67	29.1	36.1	578	324	182	7.13
	Apr-13	34.6	26.1	--	2.39	136	65	28.0	28.7	588	311	197	7.16
	Nov-13	35.8	25.9	38.4	2.41	131	62	28.0	37.0	594	316	196	7.16
	May-14	36.9	27.0	35.5	2.28	137	64	30.1	33.6	601	332	202	7.16
	Oct-14	37.9	27.6	35.5	2.22	136	64	29.1	40.3	608	343	203	7.24
	May-15	38.8	29.5	35.2	2.21	139	64	29.7	44.9	620	357	211	7.15
	Nov-15	57.6*	46.5*	60.1*	2.50	135	66	28.3	48.8	617	342	206	6.94
	May-16	56.0	43.2	45.6	2.74	175	78	48.3	122	892	528	339	7.13
	Nov-16	53.2	44.8	47.1	2.63	184	78	57.3	114	919	537	338	7.16
	Apr-17	61.9	41.5	45.2	2.76	182	76	53.0	108	891	476	328	7.22
	Nov-17	44.4	47.0	45.6	1.97	190	79	47.3	106	900	508	326	7.38
	May-18	50.7	52.0	59.3	2.22	180	76	46.1	106	873	510	320	7.30
	Oct-18	49.6	49.9	49.8	2.22	193	77	48.5	101	887	501	336	7.33
	May-19	44.8	45.1	51.7	1.85	176	76	43.7	99	824	476	292	7.20
	Nov-19	44.5	45.7	51.2	2.15	181	76	43.1	88	839	446	303	7.45
	Oct-20	43.8	46.1	48.9	2.17	174	75	41.4	88	827	503	299	7.46
May-21	42.5	44.4	45.9	2.18	179	71	39.0	84	807	450	279	6.94	
Nov-21	44.8	46.1	47.2	2.45	193	76	48.7	87	832	447	320	7.22	
May-22	45.3	46.3	48.2	2.35	189	72	41.4	87	822	460	304	6.90	
	Oct-22	44.3	44.5	49.1	2.18	185	75	41.6	87	835	457	295	6.81
CUP-31A MW145	Apr-12	61.8	60.5	84.8	3.43	458	61	71.1	2.9	1,096	637	426	6.85
	Oct-12	74.5	70.2	93.2	4.07	418	66	74.6	3.3	1,074	657	383	6.76
	Apr-13	68.6	60.9	83.3	3.56	470	53	67.0	1.5	1,093	603	440	6.79
	Nov-13	<1*	60.8	86.7	3.24	462	53	65.0	4.4	1,095	614	409	6.80
	May-14	61.6	61.5	76.4	3.14	455	51	60.6	6.9	1,080	601	423	6.82
	May-15	68.7	47.6	72.7	3.07	436	52	56.4	5.4	1,070	648	412	6.80

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-31A MW145 (continued)	Nov-15	63.5	62.4	82.1	3.18	457	53	65.2	6.6	1,070	623	381	6.79
	May-16	66.0	62.5	74.8	2.85	275*	48	84.8*	9.4*	816*	484*	287*	7.01*
	Nov-16	60.0	62.1	74.6	3.22	447	45	58.3	5.9	1,060	605	421	6.83
	Apr-17	71.3	60.3	73.3	3.42	448	48	61.8	4.0	1,050	600	427	6.77
	Nov-17	59.9	56.6	74.6	2.78	453	49	70.5	3.9	1,060	607	431	6.82
	May-18	69.8	65.8	86.5	3.05	439	46	70.0	6.6	1,080	602	429	6.84
	Nov-18	71.7	61.1	79.1	3.38	332	50	78.8*	19.14*	937	530	356	6.98
	May-19	66.3	57.9	76.0	3.45	460	49	56.7	8.5	1,040	582	415	8.03*
	Nov-19	67.2	57.0	70.5	3.60	432	46	55.3	7.5	1,030	578	412	6.87
	Nov-20	66.3	56.8	73.7	3.41	440	46	48.1	9.2	1,020	560	402	6.79
	May-21	66.3	55.6	74.8	3.48	442	47	47.3	6.8	1,050	605	392	6.79
	Dec-21	65.0	56.0	73.1	3.66	452	46	48.7	6.2	1,030	570	404	6.77
May-22	67.9	59.1	79.1	3.84	478	46	52.5	4.4	1,020	576	408	6.68	
Nov-22	69.8	59.8	79.4	4.03	452	46	53.6	4.7	1,030	584	402	6.68	
CUP-31A MW280	May-12	56.3	45.4	85.1	3.40	320	76	95.2	9.5	1,007	584	339	7.03
	Oct-12	51.1	47.6	71.9	3.47	321	67	89.8	8.9	960	594	342	6.92
	Apr-13	52.7	47.0	74.8	3.14	327	55	83.1	6.9	933	523	337	7.09
	Nov-13	49.4	44.8	76.8	2.83	300	51	87.0	7.0	890	499	304	7.03
	May-14	47.7	42.3	67.1	2.60	300	47	86.1	8.8	874	507	309	7.06
	May-15	46.9	43.6	66.1	2.49	285	47	78.8	8.3	852	520	283	7.00
	Nov-15	42.4	41.3	69.7	2.43	291	51	79.7	8.9	820	483	292	7.11
	May-16	43.1	40.0	69.8	2.37	458*	50	84.1	9.3	1,070*	610*	439*	6.77*
	Nov-16	47.9	49.4	79.4	3.08	307	47	91.0	12.8	902	540	331	7.06
	Apr-17	60.6	50.2	71.1	3.20	345	51	85.2	18.6	945	527	357	6.98
	Nov-17	48.1	47.1	68.5	2.30	343	51	79.9	16.8	948	538	364	6.99
	May-18	56.8	55.2	79.5	2.77	329	50	84.0	21.1	949	549	355	6.97
	Nov-18	59.7	49.6	68.8	2.62	463	47	54.2*	6.16*	1,070	599	421	6.84
	May-19	56.0	48.7	69.2	2.37	342	52	83.1	21	895	537	347	7.80*
	Nov-19	52.8	48.5	67.7	2.80	309	46	77.8	19	917	546	340	7.02
	Nov-20	53.6	47.3	70.3	2.67	336	51	159.0	40	905	531	336	6.98
	May-21	52.3	46.4	71.5	2.90	312	46	73.3	22	899	528	317	6.96
Dec-21	50.7	46.0	69.8	3.09	315	48	78.5	20	895	505	325	6.94	
May-22	50.4	48.2	74.0	3.17	328	47	76.5	20	883	517	333	6.87	
Nov-22	51.3	44.2	69.9	2.90	311	47	75.4	18	881	505	310	6.90	
CUP-31A MW480	May-12	39.3	52.4	69.5	12.4	460	36	2.6	<0.3	940	542	319	7.21
	Oct-12	36.3	50.4	66.5	14.1	407	45	2.8	<0.3	885	513	280	6.64
	Apr-13	34.6	46.1	62.0	12.3	424	34	3.1	<0.3	867	450	293	7.27

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-31A MW480 (continued)	Nov-13	36.3	48.6	62.5	12.3	444	31	1.5	<0.44	898	470	295	7.27
	May-14	33.9	46.1	56.4	11.4	398	34	3.7	<0.3	846	456	283	7.34
	May-15	36.5	48.3	56.5	8.86	408	35	2.0	<0.3	860	485	277	7.33
	Nov-15	33.9	49.0	62.2	11.8	441	30	<0.5	<0.3	865	488	299	7.30
	May-16	31.5	42.5	55.5	10.1	371	36	2.6	<0.308	790	433	266	7.35
	Nov-16	31.1	41.4	53.0	10.3	328	38	4.0	<0.308	762	419	252	7.46
	Apr-17	35.1	41.1	52.3	9.7	361	40	2.0	<0.308	768	390	256	7.36
	Nov-17	29.5	41.6	54.1	9.6	371	40	<0.5	<0.308	752	414	257	7.42
	May-18	32.0	44.9	60.9	10.0	348	37	<0.5	<0.88	769	416	261	7.40
	Nov-18	33.4	41.4	56.9	9.9	347	39	<0.5	<0.308	763	391	257	7.37
	May-19	32.4	40.4	57.2	9.4	373	39	<0.5	<0.308	758	399	247	7.48
	Nov-19	30.1	39.7	52.9	10.4	337	39	<0.5	<0.308	753	400	243	7.45
	Nov-20	31.4	39.3	53.6	10.4	349	42	<0.5	<0.308	749	391	247	7.39
	May-21	30.7	39.6	54.2	11.1	329	37	<0.5	<0.176	758	409	232	7.37
	Dec-21	32.8	41.1	55.4	12.5	362	37	<0.5	<0.176	775	402	254	7.36
May-22	30.4	40.0	53.9	10.8	321	45	2.5	<0.176	737	377	241	7.34	
Nov-22	32.5	39.8	54.9	11.1	348	39	<0.5	<0.176	762	403	244	7.29	
CUP-31A MW595	May-12	112	73.6	127	4.60	207	246	324	<0.3	1,713	1,112	556	7.07
	Oct-12	94.5	67.5	111	7.51	283	163	263	<0.3	1,410	946	442	6.86
	Apr-13	114	71.7	124	3.19	217	232	291	<0.3	1,708	1,048	595	7.22
	Nov-13	108	70.0	151	5.03	210	233	330	<0.22	1,742	1,110	590	7.25
	May-14	113	71.7	132	4.46	208	230	353	<0.3	1,720	1,060	574	7.22
	May-15	113	74.6	127	4.30	203	224	305	<0.3	1,710	1,090	596	7.24
	Nov-15	104	76.0	133	4.37	232	248	328	<0.3	1,690	1,080	651	7.25
	May-16	101	75.1	144	4.59	207	228	344	<0.308	1,680	1,090	599	7.21
	Nov-16	98.9	70.3	119	4.82	225	195	259	<0.308	1,500	932	532	7.17
	Apr-17	109.0	71.0	109	5.48	242	187	228	<0.308	1,430	891	539	7.25
	Nov-17	95.9	61.8	101	3.95	234	183	209	<0.308	1,400	861	507	7.23
	May-18	97	56.7	102	3.92	256	161	180	<1.1	1,280	792	459	7.24
	Nov-18	98.8	50.1	92	3.95	243	158	170	<0.308	1,280	761	450	7.25
	May-19	96.8	47.9	88	3.61	264	160	170	<0.308	1,210	748	441	7.40
	Nov-19	94.9	48.8	82	4.34	243	155	175	<0.308	1,260	760	447	7.30
	Nov-20	103.0	50.5	93	4.21	257	183	187	<0.308	1,300	792	511	7.13
	May-21	90.3	45.8	89	4.59	257	134	143	<0.176	1,190	718	404	7.22
Dec-21	90.8	51.3	86	4.67	235	170	192	<0.176	1,310	783	465	7.10	
May-22	104.0	55.3	98	5.34	240	170	212	<0.176	1,350	829	470	7.10	
Nov-22	106.0	50.2	97	4.58	235	177	202	<0.176	1,370	825	466	7.11	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-36-1 MW160	May-10	64.0	38.7	95.6	1.74	212	110	127	26.3	1,063	652	336	6.95
	Oct-10	66.0	34.0	94.2	2.94	216	112	119	25.4	1,044	650	314	7.07
	May-11	64.5	34.2	91.0	2.85	206	118	128	29.4	1,060	645	314	7.11
	Nov-11	64.3	33.8	90.6	2.69	216	107	125	24.0	1,020	660	312	6.99
	May-12	62.2	33.0	91.3	2.41	206	114	128	26.4	1,026	636	297	5.94*
	Nov-12	63.7	34.1	92.1	2.72	230	122	126	23.2	1,029	609	303	7.04
	Apr-13	67.5	35.6	92.0	2.88	221	106	115	22.8	1,036	606	309	7.00
	Oct-13	53.9	28.9	90.0	2.26	218	103	120	23.8	1,035	622	304	6.98
	May-14	66.7	32.9	89.8	2.37	212	97	120	24.2	1,030	598	295	7.02
	Oct-14	62.9	31.8	90.2	2.34	223	102	121	24.6	1,030	621	315	7.06
	May-15	68.7	35.4	87.6	2.28	223	98	119	23.4	1,020	584	305	7.06
	Nov-15	62.1	33.7	87.0	2.30	224	99	125	23.4	1,010	595	307	7.04
	May-16	63.7	33.3	92.4	2.34	225	96	124	22.0	1,000	581	302	6.97
	Nov-16	58.0	33.9	93.2	2.47	223	95	131	22.1	1,000	613	285	7.01
	Apr-17	72.0	33.5	87.5	2.58	240	95	125	24.2	1,010	609	313	6.93
	Oct-17	65.6	34.2	92.6	2.46	180	79	112	26.4	1,000	609	257	6.97
	May-18	69.6	35.9	101.0	2.41	224	94	117	31.5	1,000	590	307	6.89
	Oct-18	69.8	34.7	95.8	2.42	219	92	114	34.6	1,000	614	289	6.97
	Apr-19	64.3	31.1	86.9	2.30	234	105	114	37.0	999	620	301	7.07
	Oct-19	67.3	33.0	93.3	2.56	232	100	115	41.7	1,010	603	327	7.03
Oct-20	65.6	34.4	95.8	2.52	239	108	105	41.6	1,010	629	292	6.97	
Apr-21	66.4	32.4	94.8	2.62	224	93	104	41.1	997	613	293	6.97	
Nov-21	65.6	32.6	90.6	2.79	230	96	108	40.7	1,000	595	312	6.87	
May-22	65.3	33.6	95.2	2.80	234	93	108	37.0	989	602	304	6.97	
Oct-22	64.4	31.4	92.8	2.56	232	93	110	35.4	1,000	594	302	6.93	
CUP-36-1 MW270	May-10	31.6	30.7	48.2	1.58	138	118	21.8	7.6	726	408	214	7.63
	Oct-10	34.1	31.2	56.9	2.57	148	119	21.4	7.9	743	434	214	7.70
	May-11	34.2	31.5	55.9	2.70	144	133	23.6	9.0	756	422	230	7.75
	Nov-11	37.2	32.7	64.8	2.44	124	147	25.2	20.5	803	520	226	7.23
	May-12	34.8	31.3	64.8	2.07	106	151	25.8	24.9	817	488	210	5.66*
	Nov-12	35.0	31.9	60.6	2.39	142	138	24.4	12.3	768	430	222	7.33
	Apr-13	37.7	34.2	60.3	2.47	142	131	24.3	12.2	775	435	227	7.33
	Oct-13	36.2	31.6	62.9	2.27	139	126	23.0	11.4	765	440	216	7.24
	May-14	36.7	30.7	55.4	2.19	137	124	23.4	11.2	760	382	220	7.36
	Oct-14	34.7	30.0	55.7	2.08	135	128	24.4	13.0	770	427	221	7.32
	May-15	38.8	34.1	55.9	2.17	141	127	23.7	12.3	770	452	219	7.34
	Nov-15	35.6	33.1	63.4	2.08	145	131	26.1	12.5	763	434	232	7.41

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-36-1 MW270 (continued)	May-16	36.2	32.7	61.6	1.95	140	132	27.8	14.6	788	412	236	7.29
	Nov-16	33.6	32.8	60.3	2.36	140	124	27.9	11.7	760	496	229	7.31
	Apr-17	38.5	30.3	54.1	2.34	145	115	24.5	9.2	743	456	218	7.26
	Oct-17	34.3	30.7	57.0	2.13	142	116	23.9	7.4	726	435	210	7.33
	May-18	37.0	33.3	62.3	2.16	144	117	24.9	7.6	729	411	220	7.32
	Oct-18	35.1	30.3	55.6	2.08	140	114	24.8	7.3	726	419	219	7.38
	Apr-19	34.2	28.9	53.7	2.08	142	119	23.8	8.1	726	420	222	7.40
	Oct-19	34.9	30.3	60.9	2.20	141	124	24.3	7.8	708	432	220	7.35
	Oct-20	35.4	32.0	58.5	2.29	142	127	24.0	7.0	717	459	230	7.41
	Apr-21	34.9	29.7	57.1	2.34	135	117	22.9	7.1	710	438	199	7.28
	Nov-21	34.3	30.3	56.7	2.57	138	123	22.3	7.2	711	377	210	7.27
	May-22	34.9	29.9	57.6	2.52	136	116	22.2	7.7	708	394	211	7.41
Oct-22	34.7	29.1	56.1	2.32	136	119	21.7	7.4	719	389	212	7.34	
CUP-36-1 MW455	May-10	38.1	25.0	62.3	4.43	220	81	0.6	<0.3	691	361	192	7.51
	Oct-10	36.5	22.6	58.8	4.90	224	86	<0.5	<0.3	687	373	198	7.74
	May-11	38.0	23.3	60.2	5.47	212	89	<0.5	<0.3	696	355	200	7.75
	Nov-11	38.1	24.0	59.6	4.95	222	84	<0.5	<0.3	672	360	194	7.42
	May-12	37.5	22.6	59.0	4.29	216	91	<0.5	<0.3	693	363	194	7.18
	Nov-12	37.5	23.2	59.0	4.80	229	89	<0.5	<0.3	681	349	191	7.28
	Apr-13	39.3	24.0	59.0	5.10	221	84	0.5	<0.3	693	344	194	7.37
	Oct-13	36.1	21.6	59.6	4.56	221	88	<0.25	<0.44	709	356	193	7.34
	May-14	40.9	22.8	56.9	4.59	214	84	0.7	<0.3	700	334	193	7.37
	Oct-14	37.8	22.5	54.8	4.50	219	83	<0.5	<0.3	691	353	199	7.34
	May-15	41.2	25.2	55.8	4.48	220	81	<0.5	<0.3	677	342	193	6.98
	Nov-15	37.7	24.7	61.6	4.57	224	90	<0.5	<0.3	705	333	205	7.30
	May-16	37.3	23.5	58.4	4.34	218	88	<0.5	<0.308	716	326	204	7.23
	Nov-16	35.1	23.9	58.8	4.85	222	83	<0.5	<0.308	683	354	199	7.41
	Apr-17	42.4	23.2	55.1	4.59	219	78	<0.5	<0.308	692	392	200	7.27
	Oct-17	39.0	23.6	56.7	4.52	216	79	<0.5	<0.308	684	366	165	7.31
	May-18	40.8	24.4	61.3	4.63	223	84	<0.5	<0.308	689	333	203	7.26
	Oct-18	40.6	22.7	57.2	4.36	217	82	<0.5	<0.308	691	344	199	7.06
	Apr-19	39.4	22.7	56.0	4.53	230	88	<0.5	<0.308	698	351	200	7.76
	Oct-19	41.2	24.0	63.6	4.73	232	89	<0.5	<0.308	694	335	202	7.37
Oct-20	39.8	24.9	62.5	4.73	220	88	<0.5	<0.308	685	362	198	7.22	
Apr-21	40.5	23.7	60.1	4.73	214	79	<0.5	<0.176	692	337	188	7.30	
Nov-21	40.9	23.3	58.5	5.30	227	88	<0.5	<0.176	705	345	202	7.05	
May-22	40.8	24.6	60.6	5.46	225	83	<0.5	<0.176	691	341	202	7.32	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-36-1 MW455 (continued)	Oct-22	40.1	23.1	60.2	4.86	228	86	<0.5	<0.176	708	325	202	7.10
CUP-36-1 MW585	May-10	121	56.1	77.1	3.30	216	186	206	<0.3	1,363	814	512	7.20
	Oct-10	121	53.6	79.0	4.28	216	197	210	<0.3	1,387	826	524	7.27
	May-11	95.0	43.8	75.9	4.17	204	157	167	0.66	1,184	752	444	7.40
	Nov-11	102	49.7	82.2	4.29	218	168	184	<0.3	1,257	780	456	7.22
	May-12	90.3	51.9	83.3	3.53	200	154	200	0.9	1,246	792	436	7.04
	Nov-12	102	61.1	83.5	3.99	225	205	213	<0.3	1,379	861	501	7.10
	Apr-13	96.7	66.3	91.3	4.52	230	174	187	0.57	1,354	779	501	7.13
	Oct-13	101	68.8	104	4.34	232	191	260	<0.22	1,509	914	553	7.09
	May-14	111	68.0	92.3	4.09	229	190	267	<0.3	1,530	944	580	7.17
	Oct-14	114	71.9	93.8	4.15	242	206	284	<0.3	1,590	994	611	7.08
	May-15	99.9	63.7	96.5	4.11	241	207	285	<0.3	1,610	993	633	7.09
	Nov-15	117	79.6	98.7	4.19	254	226	313	<0.3	1,630	1,040	708	7.13
	May-16	109	73.9	98.4	3.84	235	203	298	<0.308	1,600	979	629	7.13
	Nov-16	92.3	67.3	78.2	4.02	224	183	217	<0.308	1,370	842	527	7.07
	Apr-17	56.7*	32.0*	54.2*	3.11*	202	93.3*	36.8*	<0.308	778*	345*	253*	7.12
	Oct-17	49.0*	30.3*	54.9*	2.72*	191	93.4*	29.8*	<0.308	751*	417*	243*	7.13
	May-18	52.6	30.2	65.5	2.79	194	97	31.3	<0.308	735	406	247	7.10
	Oct-18	78.4	39.9	65.7	3.05	192	131	106	<0.308	1,020	605	365	7.03
	Apr-19	76.4	39.9	64.8	3.13	216	139	122	<0.308	1,030	637	382	7.25
	Oct-19	99.2	49.3	74.0	3.49	226	168	180	<0.308	1,180	702	485	7.14
	Oct-20	63.8	31.9	61.8	3.02	195	110	72	<3.08	848	508	295	7.15
	Apr-21	62.7	29.3	58.2	3.00	195	104	55	<0.176	818	473	266	7.10
	Nov-21	56.6	27.1	55.4	3.09	194	102	44	<0.176	772	417	262	6.98
	May-22	61.5	29.5	59.0	3.21	199	95	53	<0.176	787	434	271	7.02
	Oct-22	42.7	18.9	45.0	2.44	152	74	31	0.4	620	328	195	7.03
CUP-44-1 MW190	May-10	51.9	33.6	57.7	1.75	238	69	60.6	34.8	842	485	292	6.66
	Oct-10	48.9	29.9	55.2	1.26	232	70	59.0	33.0	849	493	290	6.77
	Jun-11	47.8	36.3	112	1.63	226	98	90.8	53.2	1,042	617	266	6.61
	Oct-11	57.6	36.8	86.2	1.62	256	85	76.1	37.5	937	560	290	6.55
	May-12	49.4	32.6	94.2	1.11	237	90	82.0	40.5	956	533	263	6.49
	Nov-12	51.3	36.5	95.3	1.55	270	106	82.8	37.9	992	582	276	6.58
	May-13	53.2	38.7	102	1.57	261	92	78.5	36.9	1,000	562	287	6.51
	Oct-13	52.9	35.8	108	1.47	252	86	83.0	37.8	979	566	278	6.56
	May-14	51.6	33.0	97.7	1.37	246	93	91.2	40.0	1,030	565	266	6.56
	Oct-14	45.4	32.2	112	1.29	255	96	95.8	43.3	1,030	607	273	6.58
	May-15	50.1	34.9	--	1.24	258	95	92.7	41.3	1,030	619	256	6.52

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-44-1 MW190 (continued)	Nov-15	47.7	34.0	109	1.23	251	90	96.0	42.2	1,010	611	260	6.50
	May-16	47.6	33.1	97.8	1.29	241	87	96.0	39.2	984	577	267	6.53
	Nov-16	45.2	33.7	110	1.34	248	87	98.4	37.4	965	612	265	6.52
	Apr-17	46.8	34.1	119	1.56	264	91	96.5	38.7	1,020	613	265	6.58
	Oct-17	46.0	34.2	123	1.25	276	101	98.7	35.2	1,040	594	256	6.46
	Apr-18	47.9	34.1	121	1.30	257	95	103.0	33.7	1,040	614	271	6.51
	Oct-18	49.8	33.1	120	1.26	259	96	96.2	30.6	1,040	599	267	6.48
	Apr-19	47.8	32.1	114	1.27	263	98	98.7	30.2	1,040	604	260	6.62
	Oct-19	50.7	34.5	125	1.46	258	98	103.0	30.2	1,050	599	265	6.62
	Oct-20	48.3	34.5	112	1.39	248	102	98.9	30.1	1,050	614	266	6.51
	Apr-21	49.2	33.6	124	1.53	254	100	97.3	29.0	1,040	627	257	6.51
	Nov-21	49.4	34.2	113	1.61	251	98	99.1	29.3	1,040	595	259	6.47
	Apr-22	48.0	34.1	117	1.55	273	96	99.0	27.7	1,040	598	263	6.40
Oct-22	48.2	33.2	120	1.46	261	92	101.0	27.1	1,050	617	258	6.46	
CUP-44-1 MW300	May-10	52.5	35.2	91.4	2.03	258	84	80.6	36.8	978	564	290	6.57
	Oct-10	46.5	29.9	84.2	1.18	250	86	82.0	38.0	978	538	278	6.67
	Jun-11	50.1	35.2	101	1.81	236	96	88.8	39.9	1,026	617	278	6.74
	Oct-11	53.4	37.0	112	1.73	258	100	92.1	40.4	1,045	620	282	6.50
	May-12	34.7*	22.1*	72.9*	1.51	163*	64*	68.5*	29.6*	687*	372*	177*	6.43
	Nov-12	47.1	34.7	109	1.72	265	113	95.0	40.1	1,031	597	266	6.55
	May-13	52.6	36.9	114	1.70	263	100	88.9	38.1	1,060	599	279	6.45
	Oct-13	48.4	34.3	131	1.59	261	98	94.0	40.0	1,066	598	268	6.48
	May-14	51.3	33.1	107	1.48	252	96	97.4	39.9	1,060	590	272	6.57
	Oct-14	47.5	31.9	112	1.41	245	92	96.0	40.6	1,040	601	263	9.46*
	May-15	49.5	34.2	82.6	1.28	262	95	92.2	38.8	1,040	607	267	6.62
	Nov-15	47.6	34.1	109	1.35	259	92	100	40.0	1,030	630	263	6.50
	May-16	45.5	31.5	105	1.24	242	87	97.0	38.3	998	581	262	6.49
	Nov-16	22.9*	15.9*	53.3*	1.62	120*	40.8*	45.7*	15.0*	481*	442	124*	6.19
	Apr-17	45.3	32.8	116	1.78	254	88	94.4	36.3	987	577	256	6.56
	Oct-17	42.6	30.6	109	1.18	261	94	96.9	35.1	1,030	600	265	6.48
	Apr-18	49.5	35.0	123	1.35	262	98	102.0	32.6	1,060	610	277	6.49
	Oct-18	49.7	33.7	119	1.29	259	96	98.5	31.3	1,040	594	269	6.50
	Apr-19	49.2	32.3	113	1.41	267	99	103.0	30.7	1,040	611	265	6.60
	Oct-19	49.9	34.3	121	1.47	252	96	102.0	29.5	1,020	584	259	6.58
Oct-20	50.1	34.5	112	1.42	253	102	100.0	29.6	1,050	605	267	6.51	
Apr-21	50.2	33.8	127	1.59	261	100	101.0	29.7	1,060	636	270	6.47	
Nov-21	51.0	34.0	112	1.69	272	98	102.0	29.5	1,060	561	268	6.46	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-44-1 MW300 (continued)	Apr-22	51.0	35.9	122	1.71	271	95	102.0	28.1	1,050	603	272	6.41
	Oct-22	49.7	33.2	124	1.50	268	93	104.0	27.3	1,060	617	263	6.43
CUP-44-1 MW460	May-10	55.4	46.6	62.9	3.39	168	134	118	2.1	1,026	618	336	6.98
	Oct-10	49.5	40.4	57.6	2.57	172	131	110	2.0	990	569	336	7.06
	Jun-11	53.1	47.2	62.0	3.62	164	136	119	1.9	988	599	338	7.04
	Oct-11	59.0	50.0	65.6	3.49	180	135	117	2.6	988	650	342	6.85
	May-12	55.8	44.8	60.3	2.50	169	135	116	2.1	974	561	339	6.79
	Nov-12	53.6	47.4	64.1	3.23	178	146	113	2.4	968	560	319	6.89
	May-13	57.2	50.7	64.1	3.28	177	136	103	2.3	968	527	345	6.79
	Oct-13	58.2	48.0	66.7	4.03	231	117	86	12.3	1,006	590	352	6.89
	May-14	58.0	46.6	59.9	3.10	180	127	106	5.7	982	536	348	6.91
	Oct-14	54.9	46.3	60.2	3.03	220	117	86	11.5	1,000	577	363	6.89
	May-15	57.4	49.4	58.8	2.85	225	120	83.6	12.6	993	549	352	6.91
	Nov-15	54.4	48.2	60.3	2.96	226	124	84.7	12.8	977	569	385	6.90
	May-16	58.6	48.8	60.5	2.97	215	119	96.0	11.9	978	567	365	6.87
	Nov-16	49.0	46.5	59.6	3.07	176	127	109	5.0	942	562	333	6.85
	Apr-17	48.7	44.2	61.0	3.47	185	119	98	6.9	909	521	310	6.95
	Oct-17	48.9	44.2	62.2	2.71	166	127	98	5.6	917	507	325	6.86
	Apr-18	52.6	45.1	65.5	2.93	165	121	96.5	8.7	891	505	306	6.91
	Oct-18	48.7	38.3	58.9	2.66	162	118	81	11.1	847	466	286	6.91
	Apr-19	46.3	37.6	57.4	2.65	157	115	82	12.8	844	484	281	7.59*
	Oct-19	49.0	40.5	66.2	2.97	155	113	82	13.4	832	472	277	7.03
	Oct-20	49.1	41.8	63.6	3.05	157	116	90	10.9	867	509	289	6.92
	Apr-21	47.1	39.6	61.0	2.94	160	110	87	11.9	843	516	273	6.89
	Nov-21	60.4	38.3	62.7	5.66	174	132	100	5.2	932	514	308	6.76
	Apr-22	54.2	45.8	66.2	3.49	176	128	103	5.5	946	522	327	6.88
	Oct-22	53.9	43.7	64.5	3.29	166	128	104	3.5	954	528	319	6.63
CUP-44-1 MW580	May-10	94.9	80.2	89.3	4.86	252	85	293	<0.3	1,576	992	608	7.53
	Oct-10	89.7	72.5	90.0	4.06	252	174	300	<2.2	1,582	1,074	610	7.55
	Jun-11	102	90.3	96.8	6.02	244	183	336	<0.3	1,618	1,054	624	7.53
	Oct-11	98.8	94.2	101	6.07	264	182	340	<0.3	1,629	1,100	644	7.11
	May-12	25.1*	15.4*	19.2*	2.25*	83*	33*	47.6*	0.5*	375*	207*	132*	6.97*
	Nov-12	97.6	84.9	92.3	5.77	264	192	320	<0.3	1,565	996	603	7.24
	May-13	104	99.1	102	6.47	263	184	299	<0.3	1,621	1,012	635	7.19
	Oct-13	102	79.3	109	5.33	254	180	350	<0.22	1,654	1,086	640	7.19
	May-14	110	93.6	94.3	5.31	250	180	354	<0.3	1,670	1,070	670	7.31
	Oct-14	98.6	80.9	98.7	5.00	259	186	360	<0.3	1,660	1,090	662	7.29

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
CUP-44-1 MW580 (continued)	May-15	--	94.9	96.6	5.03	262	184	357	<0.3	1,700	1,080	666	7.33
	Nov-15	104	91.5	101	5.38	276	194	362	<0.3	1,680	1,130	664	7.26
	May-16	101	93.3	95.3	4.99	257	180	380	<1.1	1,680	1,130	681	7.34
	Nov-16	97.8	93.4	108	5.47	265	184	386	<0.308	1,660	1,120	679	7.26
	Apr-17	105	95.7	106	6.82	264	177	362	<0.308	1,660	1,110	672	7.25
	Oct-17	97.9	84.6	99	4.44	265	190	347	<0.308	1,660	1,090	687	7.25
	Apr-18	116	100.0	113	5.42	253	184	366	<0.308	1,660	1,070	692	7.26
	Oct-18	111	90.4	100	5.04	258	189	366	<0.308	1,670	1,090	684	7.22
	Apr-19	111	90.9	103	5.20	276	204	397	<0.308	1,710	1,130	716	7.40
	Oct-19	113	97.5	108	5.48	258	194	391	<0.308	1,680	1,090	737	7.35
	Oct-20	113	94.7	103	5.65	256	192	342	<0.308	1,670	1,100	672	7.00
	Apr-21	114	90.7	111	5.72	258	188	373	<0.176	1,660	1,120	647	7.19
	Nov-21	112	91.6	101	6.41	265	189	384	<0.176	1,700	1,060	673	7.41
	Apr-22	111	97.7	108	6.11	288	207	379	<0.176	1,700	1,070	715	7.38
Oct-22	112	92.1	118	5.83	259	192	306	<0.176	1,740	1,090	674	7.37	
MW-M1	May-10	25.5	18.9	30.1	2.20	110	51	21.0	11.8	465	260	140	6.73
	Oct-10	23.1	16.4	28.1	1.64	110	56	22.0	12.0	475	272	152	6.87
	Jun-11	25.5	19.4	31.8	2.19	110	55	22.3	12.6	475	291	148	6.91
	Oct-11	29.7	19.0	31.4	1.93	112	53	20.7	13.1	456	290	148	6.77
	May-12	25.6	19.4	32.1	1.71	115	59	23.7	13.0	477	477*	156	6.76
	Nov-12	26.9	20.1	32.7	2.11	134	59	25.2	13.7	478	278	150	6.85
	May-13	29.1	21.4	32.2	2.14	119	57	22.2	12.0	484	258	160	6.71
	Oct-13	26.0	19.0	30.7	1.94	115	55	25.0	13.6	487	258	154	6.77
	May-14	28.8	20.0	29.3	1.97	111	54	24.2	13.2	480	236	152	6.76
	Nov-14	29.8	21.5	29.6	1.83	114	55	25.2	14.0	489	294	156	6.80
	Apr-15	29.8	22.0	31.5	1.90	42.8*	40	23.6	14.4	485	253	160	6.70
	Oct-15	27.8	20.2	31.5	1.88	114	54	25.0	15.0	474	292	153	6.79
	May-16	24.6	18.1	26.3	1.36	108	46	16.4	18.9	437	206	147	6.78
	Nov-16	25.2	19.4	27.3	1.53	114	36	22.5	22.6	435	238	146	6.79
	Apr-17	26.6	18.0	24.6	1.50	114	38	17.8	23.5	434	251	145	6.68
	Oct-17	23.0	17.5	27.9	1.30	118	38	19.4	22.5	433	234	148	6.83
	May-18	27.0	20.8	33.8	1.49	118	37	20.5	22.0	437	247	152	6.78
	Nov-18	29.2	18.6	30.6	1.48	115	36	20.2	21.6	437	232	149	6.82
	Apr-19	27.0	19.4	31.2	1.54	120	38	21.1	22.8	442	254	150	7.61*
	Oct-19	27.4	19.5	31.1	1.65	122	40	21.3	20.7	446	261	150	7.04
Oct-20	28.0	19.8	32.1	1.70	116	37	21.1	22.5	442	265	149	6.92	
Apr-21	27.4	19.2	36.6	2.02	133	45	31.1	16.0	466	257	141	6.89	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
MW-M1 (continued)	Nov-21	27.5	18.7	28.8	1.76	118	38	19.3	25.6	439	228	152	6.77
	May-22	27.5	19.2	30.2	1.84	115	38	18.4	25.1	438	236	148	6.78
	Oct-22	29.0	19.2	31.5	1.84	111	51	22.9	16.6	480	258	145	6.69
DC#01 - A ST	Apr-00	24.8	27.6	37.8	2.19	113	72	20.6	53.5	540	280	176	8.10
	Apr-01	--	--	--	--	110	73	17.0	57.0	500	300	170	8.20
	Oct-01	28.4	27.4	40.7	1.85	110	72	17.0	63.0	560	340	190	8.13
	Apr-03	33.0	32.0	44.0	1.60	111	84	22.0	25.0	609	370	--	7.70
	Nov-04	37.6	34.2	47.1	2.22	96	77	22.4	85.5	675	402	216	8.10
	May-05	40.0	40.1	46.1	2.18	92	70	31.0	33.0	775	--	254	8.03
	May-06	42.0	44.6	39.5	3.16	92	91	30.0	137	748	--	252	7.96
	Jun-07	37.7	41.0	43.1	2.23	100	85	33.0	140	779	466	250	7.91
	Apr-08	42.2	38.9	49.0	2.06	92	92	29.7	131	765	445	260	7.97
DC#03 - DC-4	Feb-81	22.0	23.0	42.0	--	107	60	11.0	--	--	170	--	9.10
	Jan-83	26.0	24.0	48.0	1.50	72	62	10.0	--	--	360	--	7.10
	Apr-85	25.0	23.0	38.0	--	116	64	14.0	40.0	--	234	--	7.80
	Jul-88	26.0	23.0	--	38.0	128	66	16.0	45.0	--	--	--	--
	Apr-00	27.1	32.5	42.2	1.83	126	65	32.3	42.2	474	324	202	8.12
	Nov-04	30.4	30.6	45.7	1.52	126	53	30.5	49.7	566	386	186	8.00
	May-05	28.1	29.1	39.1	1.59	150	59	31.0	49.0	570	--	188	8.03
	May-06	29.6	33.9	36.5	2.21	122	57	34.0	54.0	569	--	194	8.05
	Jun-07	27.7	31.1	37.6	1.85	130	80*	36.0	59.0	596	358	220	7.98
	Apr-09	26.6	27.5	37.6	1.50	130	57	32.4	56.0	602	327	198	7.98
	Apr-10	30.3	30.6	41.1	1.57	126	60	36.5	66.7	641	365	212	7.90
	May-11	30.4	32.7	41.6	2.26	124	59	36.5	65.6	634	378	208	7.98
	Apr-12	28.7	30.8	41.8	1.71	128	64	38.6	69.6	642	361	213	8.00
	May-13	29.4	30.7	38.5	1.60	131	55	34.0	61.6	612	369	202	8.04
	Jun-14	32.6	32.7	39.2	1.64	131	58	38.3	63.6	642	378	215	7.99
	Oct-14	37.0	34.0	40.2	1.53	146	58	42.0	74.8	684	404	241	7.80
	Apr-15	31.3	29.1	37.6	1.46	136	57	32.1	57.1	609	326	208	7.93
DC#06 - JEFFERSON	Apr-00	21.1	21.5	32.4	1.71	114	56	10.9	11.6	427	240	141	8.10
	Apr-01	--	--	--	--	110	56	11.0	11.0	390	230	150	8.10
	Oct-01	20.9	21.5	36.3	1.84	110	55	11.3	10.6	430	250	140	8.14
	Apr-03	20.0	20.0	35.0	1.60	138	60	9.7	1.8	393	230	--	7.52
	Nov-04	21.3	20.1	39.7	2.20	114	51	8.7	4.9	422	294	144	8.20
	May-05	20.3	20.9	34.2	1.82	110	56	9.2	7.9	420	--	128	8.12
	May-06	20.1	23.0	20.2	3.00	112	57	10.1	9.2	424	--	158	8.14
	Jun-07	18.4	20.7	31.7	1.90	110	80	10.3	9.4	427	253	140	8.09

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
DC#06 - JEFFERSON (continued)	Apr-08	20.1	21.4	35.3	1.74	106	56	10.0	10.0	430	258	156	8.12
	Apr-09	17.9	19.6	31.5	1.79	112	58	11.0	10.0	442	252	134	8.04
	Apr-10	18.6	19.3	32.7	1.30	134	55	10.8	9.3	442	268	156	7.93
	May-11	18.9	20.4	33.7	1.90	108	58	11.3	10.2	445	128*	136	8.14
	Apr-12	18.8	20.8	34.0	1.71	109	59	12.3	10.9	446	266	136	8.11
	May-13	20.3	22.0	33.7	1.89	111	57	14.0	12.3	459	257	139	8.17
	Jun-14	20.7	22.1	31.4	1.63	111	58	15.0	12.6	468	258	145	8.14
	Oct-14	22.2	21.2	31.0	1.65	114	61	15.0	12.3	473	260	150	8.14
	Jun-16	21.9	23.5	31.5	1.62	113	59	17.3	14.0	486	249	153	8.16
	Apr-17	18.7	21.7	31.8	1.83	110	58	12.6	11.0	466	265	141	8.02
	Apr-18	21.8	22.4	39.9	1.81	107	61	12.2	10.2	461	240	142	8.17
	Apr-19	20.9	20.8	36.7	1.62	108	62	11.6	10.5	455	256	139	8.17
	May-20	20.4	20.7	33.4	1.93	110	63	11.8	10.9	456	265	146	8.08
Apr-22	21.3	21.7	34.4	2.04	112	59	13.4	11.6	461	243	142	8.02	
DC#10 - VALE	Apr-00	24.5	27.0	37.8	2.68	122	66	25.8	33.4	619	286	172	8.14
	Apr-01	--	--	--	--	120	70	23.0	33.0	490	270	170	8.00
	Oct-01	28.1	26.5	41.1	2.01	120	75	24.8	35.9	540	330	180	8.14
	Oct-02	29.0	26.0	40.0	2.70	120	69	34.0	41.0	510	330	--	8.20
	Nov-04	31.4	30.1	46.6	2.16	128	63	28.8	30.7	567	364	190	8.20
	May-05	28.2	29.3	38.6	1.83	126	97*	29.0	--	570	--	186	8.11
	May-06	26.5	30.6	34.1	2.33	124	64	37.0	39.0	573	--	194	8.20
	Jun-07	26.1	28.5	37.8	2.14	130	65	29.0	33.0	567	339	210	8.10
	Apr-08	29.3	29.3	41.6	2.07	128	69	27.4	32.2	570	341	192	8.11
	Apr-09	25.8	25.9	37.3	1.92	120	67	26.0	34.8	577	310	182	8.06
	Apr-10	26.4	25.3	38.3	0.79	122	67	27.7	35.7	580	338	184	7.95
	May-11	26.8	27.7	39.5	2.36	118	66	28.5	36.3	580	346	186	8.15
	Apr-12	26.2	26.3	40.3	1.86	120	68	28.8	38.7	581	329	186	8.07
	May-13	28.5	29.7	41.0	2.16	125	67	30.0	39.6	592	322	184	8.12
	Jun-14	29.2	28.7	38.3	2.00	121	66	29.7	39.6	595	774*	191	8.11
Oct-14	30.5	27.9	39.6	1.95	126	70	31.0	38.7	603	348	198	8.08	
Apr-15	30.9	28.9	37.8	1.86	129	70	29.8	39.5	602	340	195	8.12	
Jun-16	30.3	29.9	37.3	1.92	126	66	33.1	39.9	605	332	202	8.13	
DC#11 - DC-2 (WESTLAKE)	Nov-74	33.0	35.0	55.0	2.00	194	73	38.0	71.0	--	412	--	7.60
	Sep-81	36.0	35.0	47.0	--	158	75	35.0	--	--	260	--	7.90
	Jan-83	36.0	34.0	36.0	1.60	119	70	36.0	--	--	260	--	7.20
	Apr-85	39.0	39.0	51.0	--	173	81	44.0	73.0	--	344	--	7.60
	Apr-01	--	--	--	--	170	180	92.0	28.0	820	530	320	7.80

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
DC#11 - DC-2 (WESTLAKE) (continued)	Oct-01	49.0	48.9	71.1	2.81	170	120	96.7	27.3	910	570	--	7.70
	Apr-03	37.0	43.0	58.0	1.80	224	100	69.0	23.0	725	460	--	7.20
	May-05	23.2	26.2	38.1	1.58	114	48	26.0	41.0	490	--	160	8.22
	May-06	40.5	44.6	56.9	1.77	186	96	72.0	30.0	830	--	302	7.59
	Jun-07	37.7	46.6	55.0	2.43	190	105	78.0	29.0	855	--	330	7.55
	Apr-08	50.7	47.6	68.5	2.87	176	122	107	24.1	950	577	320	7.64
	Apr-09	47.8	42.2	65.5	2.87	174	120	113	19.9	976	572	320	7.58
	Apr-10	49.3	46.7	74.3	2.97	196	121	110	20.5	978	600	318	7.53
	May-11	48.9	47.2	69.9	3.24	174	122	112	21.6	968	582	318	7.67
	Apr-12	49.0	45.5	72.2	3.05	172	126	116	20.5	984	584	322	7.68
	May-13	50.8	47.0	69.7	3.51	176	124	120	19.4	979	551	312	7.69
	Jun-14	49.1	43.7	67.7	3.09	165	121	114	18.6	974	741*	317	7.70
	Oct-14	55.0	42.8	71.0	3.29	168	128	120	16.7	990	574	324	7.65
	Jun-16	41.0	43.7	55.2	2.16	177	99	89.0	17.8	864	470	293	7.59
	Apr-17	38.1	46.2	57.1	2.28	188	92	68.9	31.1	861	487	287	7.49
Apr-21	44.0	45.6	56.5	2.18	205	88	68.1	36.5	869	494	290	7.55	
Apr-22	57.0	46.8	76.7	4.11	175	122	130.0	15.4	998	563	328	7.53	
DC-JUNIPERO SERRA	Jun-14	21.0	23.8	32.5	1.44	110	49	25.9	37.2	504	273	157	8.21
	Apr-19	22.1	23.1	36.8	1.37	111	50	25.6	37.4	488	281	158	8.30
	Apr-21	24.2	24.8	35.7	1.67	117	48	28.1	37.3	514	284	160	8.07
	Apr-22	24.0	24.8	36.4	1.81	113	50	26.9	36.2	506	269	160	8.11
DC#13 - SULLIVAN	May-20	29.7	30.0	41.1	1.89	140	60	34.6	47.5	606	364	210	8.06
	Apr-21	29.5	29.2	39.8	1.79	136	57	32.1	45.8	594	341	192	8.02
SSFLP 120	Oct-07	70.0	50.0	110	3.70	192	180	57.0	--	1,160	690	380	8.20
	May-08	67.3	47.4	92.0	3.53	284	176	54.0	<0.3	1,133	665	372	7.22
	Sep-08	65.7	47.8	90.5	2.84	306	168	57.0	<0.3	1,117	662	362	7.11
	Apr-09	60.5	44.8	85.6	2.89	272	170	51.5	<0.3	1,124	626	288	7.19
	Nov-09	64.0	48.0	90.0	2.90	250	173	53.0	<0.3	1,154	665	360	7.25
	Dec-10	66.0	45.7	91.5	3.50	292	173	49.0	<1.1	1,211	626	386	7.30
	May-11	60.0	46.1	87.8	3.00	294	173	51.6	0.37	1,202	668	390	7.20
	Nov-11	59.6	44.9	89.7	3.79	244	156	62.1	<0.3	1,056	630	322	7.14
	May-12	59.7	44.3	91.6	2.71	268	163	61.9	<0.3	1,097	623	354	7.13
	Nov-12	58.0	43.9	87.0	3.31	271	161	64.7	<0.3	1,092	622	321	7.15
	Apr-13	63.5	43.9	--	3.24	274	152	57.1	<0.3	1,097	629	352	7.13
	Nov-13	61.1	45.3	97.2	3.14	272	149	58.0	<0.22	1,101	616	345	7.01
	May-14	62.1	42.7	85.8	2.85	262	142	61.1	<0.3	1,100	598	338	7.05
Oct-14	61.9	42.9	86.2	2.87	269	144	71.8	<0.3	1,090	622	357	7.13	

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SSFLP 120 (continued)	May-15	60.9	45.8	83.0	2.99	268	139	64.3	<0.3	1,090	615	354	7.17
	Nov-15	58.7	45.6	86.0	3.14	273	146	61.7	<0.3	1,090	644	355	7.17
	May-16	60.8	44.7	89.1	2.87	271	138	65.9	<0.3	1,090	588	383	7.13
	Nov-16	54.8	46.5	92.2	3.08	271	135	69.0	<0.308	1,080	626	345	7.11
	Apr-17	68.3	44.0	85.0	3.19	292	145	64.7	<0.308	1,070	590	348	6.97
	Nov-17	61.8	45.9	97.8	2.86	226	116	61.2	<0.308	1,090	630	280	7.18
	May-18	66.7	47.7	96.5	3.08	290	144	63.7	<0.308	1,080	605	362	7.06
	Oct-18	64.5	42.5	88.4	2.83	279	138	63.5	<0.308	1,070	603	347	7.16
	Apr-19	63.4	42.9	88.4	2.80	282	137	66.7	<0.308	768*	617	343	8.14
	Nov-19	65.1	45.2	94.3	3.07	284	139	68.3	<0.308	1,100	607	346	7.20
	Oct-20	61.5	44.5	92.1	3.21	265	131	66.4	<0.308	1,070	608	338	7.05
	Apr-21	63.3	43.7	90.8	3.33	274	132	62.5	<0.176	1,050	611	322	7.09
	Nov-21	63.5	44.1	89.7	3.56	290	135	66.0	<0.176	1,060	599	89.9	7.15
	May-22	64.4	45.3	94.1	3.53	293	131	65.7	<0.176	1,070	601	346	7.06
Oct-22	61.2	43.6	95.4	3.23	277	136	65.5	<0.176	1,070	594	333	7.06	
SSFLP 220	Oct-07	35.0	29.0	54.0	2.40	150	100	20.0	--	643	366	210	8.20
	May-08	34.0	29.0	48.8	2.28	156	102	20.0	0.4	640	416	206	7.59
	Sep-08	34.6	30.6	49.6	2.40	146	104	20.0	0.5	639	395	220	7.51
	Apr-09	31.1	27.5	46.0	2.09	146	101	19.9	0.5	655	357	200	7.56
	Nov-09	32.0	28.0	47.0	2.10	146	100	20.0	0.6	658	350	200	7.56
	Dec-10	32.1	26.9	47.0	1.70	146	100	18.0	<0.88	681	376	208	7.60
	May-11	27.9	25.7	43.9	2.20	142	104	20.2	0.8	661	369	204	7.50
	Nov-11	33.3	27.2	51.6	2.02	140	106	19.2	2.2	642	390	192	7.13
	May-12	29.0	25.7	52.7	2.02	136	111	19.1	2.6	647	368	198	7.18
	Nov-12	29.9	27.2	53.4	2.26	135	108	20.1	2.6	645	358	184	7.19
	Apr-13	31.9	28.8	52.2	2.33	136	104	18.1	2.6	651	393	191	7.22
	Nov-13	31.2	26.9	52.4	2.19	134	103	18.0	2.5	648	366	172	7.17
	May-14	30.3	25.6	47.7	1.96	131	101	19.5	2.8	651	389	184	7.29
	Oct-14	31.6	26.1	47.5	2.00	132	102	19.6	2.8	647	310	190	7.20
	May-15	31.9	27.8	47.7	1.99	131	100	18.3	3.1	649	372	186	7.14
	Nov-15	29.2	26.6	49.5	1.96	136	107	19.8	2.9	645	371	191	7.33
	May-16	29.3	27.1	48.8	1.90	141	103	19.9	3.1	644	386	203	7.17
	Nov-16	27.7	28.4	52.0	2.21	131	100	22.7	3.1	647	381	184	7.15
Apr-17	40.7*	31.8*	58.1*	2.60*	133	99	19.2	3.1	643	366	258*	7.16	
Nov-17	29.2	27.1	52.5	1.95	108	85	18.4	3.0	645	353	149*	7.18	
May-18	32.9	28.4	60.8	2.12	133	104	19.2	3.3	647	395	192	7.17	
Oct-18	31.8	25.9	51.2	1.92	130	101	18.8	3.3	645	355	187	7.16	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SSFLP 220 (continued)	Apr-19	30.6	25.2	50.1	1.92	128	101	21.5	3.4	1060*	376	191	7.98
	Nov-19	31.2	26.5	54.5	2.22	128	102	20.2	3.3	650	268	182	7.21
	Oct-20	30.6	28.1	54.8	2.24	128	103	19.6	3.4	649	370	188	7.12
	Apr-21	31.0	26.4	53.5	2.22	131	101	19.4	3.4	644	360	178	7.10
	Nov-21	30.9	25.8	50.2	2.36	138	107	20.1	3.7	647	350	193	7.17
	May-22	31.6	27.0	53.7	2.45	131	98	19.0	3.6	649	361	190	7.12
	Oct-22	30.9	25.9	54.0	2.27	130	103	20.2	3.7	659	334	180	7.07
SSFLP 440	Oct-07	28.0	19.0	66.0	4.80	192	65	<1.0	--	571	310	150	8.30
	Jun-08	26.3	18.5	60.3	4.59	206	63	<0.5	<0.3	583	295	150	7.89
	Sep-08	27.7	19.8	64.9	5.13	206	62	<0.5	<0.3	577	317	148	7.82
	Apr-09	24.4	17.0	59.6	4.63	200	61	<0.5	<0.3	590	299	142	7.91
	Nov-09	26.0	18.0	60.0	4.40	206	61	<0.5	<0.3	594	304	140	7.92
	Dec-10	24.7	16.5	57.6	4.90	210	63	<0.5	<0.88	614	296	142	8.00
	May-11	21.1	15.1	51.2	5.00	194	65	<0.5	<0.3	600	301	150	7.90
	Nov-11	30.0	18.7	62.4	4.97	204	64	<0.5	<0.3	586	310	146	7.42
	May-12	26.1	20.4	60.3	4.97	210	72	<0.5	<0.3	608	305	160	7.38
	Nov-12	25.6	18.8	61.5	5.25	207	67	<0.5	<0.3	594	245	143	7.49
	Apr-13	26.9	20.3	59.2	5.62	211	63	<0.5	<0.3	597	303	150	7.47
	Nov-13	27.6	23.4	58.5	5.38	212	68	<0.25	<0.44	618	290	184	7.44
	May-14	28.1	24.0	51.0	4.91	212	70	<0.5	<0.3	635	328	174	7.49
	Oct-14	28.1	22.0	52.0	5.00	207	65	<0.5	<0.3	602	297	162	7.34
	May-15	29.0	24.4	53.2	5.05	209	67	<0.5	<0.3	620	260	168	7.45
	Nov-15	26.9	24.0	54.1	5.09	210	71	<0.5	<0.3	623	298	174	7.21
	May-16	26.7	24.0	55.3	4.86	234	77	<0.5	<0.308	629	320	177	7.35
	Nov-16	22.5	21.2	58.1	5.54	202	60	<0.5	<0.308	594	296	151	7.32
	Apr-17	32.2	23.0	61.6	6.22	201	58	<0.5	<0.308	586	277	197	7.20
	Nov-17	25.1	22.2	57.8	4.95	166	53	<0.5	<0.308	596	285	123	7.49
May-18	23.5	18.9	60.7	4.54	209	62	<0.5	<0.308	589	276	154	7.50	
Oct-18	27.9	20.8	55.9	5.06	207	63	<0.5	<0.308	599	299	157	7.53	
Apr-19	26.0	19.5	55.6	4.90	209	63	0.51	<0.308	629	303	151	8.12	
Nov-19	27.7	21.9	59.6	5.18	208	64	<0.5	<0.308	612	356	163	7.53	
Oct-20	28.2	25.6	59.0	5.66	205	67	<0.5	<0.308	624	306	174	7.44	
Apr-21	28.0	23.6	57.1	5.49	204	61	<0.5	<0.176	604	304	154	7.44	
Nov-21	27.3	22.0	55.5	5.79	220	66	<0.5	<0.176	604	299	165	7.49	
	May-22	28.1	23.5	58.8	6.18	211	61	<0.5	<0.176	613	313	172	7.48
	Oct-22	27.8	22.6	56.0	5.66	210	63	<0.5	<0.176	623	306	160	7.50
SSFLP 520	Oct-07	47.0	18.0	110	3.90	<2.0	110	66.0	--	822	490	190	8.30

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SSFLP 520 (continued)	Jun-08	44.5	18.3	102	4.00	198	107	66.0	<0.3	842	486	182	7.61
	Sep-08	47.0	18.4	105	4.18	208	103	65.0	<0.3	833	483	186	7.57
	Apr-09	41.1	16.4	90.3	3.66	194	106	62.0	<0.3	848	450	186	7.62
	Nov-09	44.0	17.0	93.0	3.50	200	107	67.0	<0.3	853	462	190	7.67
	Dec-10	44.5	16.2	93.7	3.60	196	106	59.0	<0.88	881	473	192	7.70
	May-11	36.8	14.7	79.5	4.00	186	107	62.7	<0.3	855	483	194	7.80
	Nov-11	44.3	17.1	93.4	3.93	202	99	51.8	<0.3	799	440	182	7.35
	May-12	41.9	17.1	93.7	3.87	207	106	52.5	<0.3	816	461	187	7.21
	Nov-12	40.9	17.6	93.5	4.26	210	96	52.0	<0.3	795	447	174	7.36
	Apr-13	43.2	18.1	91.7	4.20	214	93	40.4	<0.3	789	427	177	7.32
	Nov-13	43.3	17.4	96.5	3.84	219	92	45.0	<0.44	801	417	182	7.24
	May-14	42.7	16.9	85.9	3.56	208	86	47.0	<0.3	634*	438	179	7.32
	Oct-14	43.6	17.5	90.4	3.62	214	89	53.6	<0.3	794	440	182	7.27
	May-15	43.9	17.8	86.2	3.49	215	87	45.4	<0.3	783	425	175	7.25
	Nov-15	41.4	17.6	88.1	3.64	216	95	44.3	<0.3	793	368*	187	7.22
	May-16	40.1	16.8	90.1	3.30	205	92	48.7	<0.308	796	446	175	7.05
	Nov-16	39.6	17.2	94.6	3.70	198	94	52.6	<0.308	801	435	174	7.25
	Apr-17	45.1	16.2	88.8	3.90	199	90	44.2	<0.308	772	431	152	7.08
	Nov-17	36.4	14.7	82.2	3.11	160	76	40.6	<0.308	758	415	135	6.95
	May-18	43.8	16.7	98.1	3.64	202	95	40.6	<0.308	772	398	177	7.26
Oct-18	43.3	15.1	87.1	3.25	194	89	40.6	<0.308	765	419	171	7.32	
Apr-19	41.2	14.8	87.9	3.29	197	92	43.0	<0.308	583	421	167	7.47	
Nov-19	42.8	15.2	95.4	3.44	192	91	44.4	<0.308	773	384	164	7.29	
Oct-20	41.7	15.8	95.2	3.86	197	94	42.0	<0.308	763	408	168	7.24	
Apr-21	41.3	15.1	88.9	3.70	191	85	40.5	<0.176	753	412	155	7.35	
Nov-21	42.7	14.8	88.7	3.98	200	92	45.0	<0.176	770	409	169	7.25	
May-22	42.9	15.5	96.2	4.14	195	88	45.8	<0.176	772	426	171	7.24	
Oct-22	41.7	14.2	93.2	3.72	195	90	44.5	<0.176	780	418	161	7.25	
SS#05 - SS 1-14	Feb-58	57.0	54.0	69.0	3.60	280	128	89.0	13.0	--	--	--	7.75
	Feb-60	55.0	46.0	69.0	3.60	261	120	82.0	16.0	--	--	--	7.65
	Feb-62	52.0	52.0	72.0	5.40	271	126	89.0	16.0	--	--	--	8.50
	Feb-64	58.0	44.0	78.0	2.10	273	125	79.0	14.0	--	--	--	7.83
	Feb-66	54.0	46.0	77.0	4.20	268	122	86.0	16.0	--	--	--	7.90
	Feb-68	60.0	52.0	81.0	3.90	327	131	87.0	12.0	--	--	--	7.75
	Aug-70	42.0	59.0	70.0	4.00	283	124	77.0	14.0	--	--	--	7.78
	Jun-72	58.0	53.0	76.0	3.20	298	127	87.0	28.0	1,028	624	--	7.70
Sep-74	55.0	55.0	66.0	2.40	299	125	74.0	30.0	--	--	--	7.60	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SS#05 - SS 1-14 (continued)	Apr-76	54.0	52.0	70.0	3.90	277	125	69.0	30.0	--	--	--	7.40
	Apr-78	48.0	54.0	66.0	2.60	274	122	63.0	37.0	--	--	--	7.51
	Aug-80	57.0	48.0	66.0	2.50	276	111	65.0	31.0	--	--	--	7.66
	Dec-82	45.0	50.0	72.0	2.50	260	112	68.0	30.0	--	--	--	7.59
	Nov-84	--	--	--	--	--	--	--	37.0	--	--	--	--
	Nov-86	48.0	52.0	72.0	2.60	280	122	72	33.0	980	581	--	--
	Sep-87	47.0	50.0	70.0	3.00	274	112	71	30.0	--	--	--	7.77
	Aug-90	46.0	52.0	69.0	2.70	256	117	59	35.0	950	549	--	7.60
	Apr-00	12.0	69.0	83.0	3.00	360	120	98	53.0	1,181	694	448	7.55
	Apr-01	--	--	--	--	310	120	83	120	930	600	370	7.60
	Oct-01	65.8	78.0	88.8	2.51	310	130	130	60.0	1,200	770	470	7.43
	Oct-02	58.1	60.6	80.9	2.90	260	120	86.0	38.0	1,100	590	--	7.70
	May-04	1.34*	1.68*	1.09*	6.83	--	120	140	70.4	1,339	800	540	7.47
	Oct-04	78.8	87.5	80.4	2.45	360	117	142	77.0	1,367	919	495	7.40
	Apr-05	82.5	92.8	92.8	2.67	380	128	149	81.0	1,259	--	550	7.40
May-06	82.7	91.0	86.3	2.92	386	126	145	82.0	1,436	--	560	7.50	
Jun-07	86.6	100	95.3	3.02	420	125	157	80.0	1,473	894	600	7.35	
May-11	57.0	70.1	74.1	2.60	276	129	91.1	36.4	1,149	635	414	7.70	
SS#06 - SS 1-15	May-13	63.8	62.8	74.6	3.29	287	114	100	23.3	1,099	642	400	7.46
	Oct-14	74.9	64.4	76.7	2.98	183*	110	120	11.0	1,210	732	479	7.33
	Apr-15	62.5	58.2	72.2	2.68	315	124	91	21.0	1,080	595	348	7.44
	May-16	59.1	55.2	68.9	2.67	278	111	97	21.9	1,060	622	397	7.38
SS#08 - SS 1-19	May-08	49.4	60.4	72.3	2.12	252	93	82	47.0	993	587	342	7.31
	Apr-09	51.8	60.6	66.2	2.43	276	131	87	27.0	1,138	643	420	7.58
	Apr-10	53.7	68.9	76.1	2.76	324	128	86	31.6	1,143	651	266	7.54
	May-13	57.1	68.5	71.8	2.72	299	130	88	33.4	1,138	638	424	7.65
	Oct-14	59.0	63.5	67.3	2.43	146*	128	88	31.7	1,120	648	427	7.72
	Apr-15	58.5	65.8	67.9	2.42	245	108	83.8	32.2	1,110	618	462	7.68
	May-16	56.5	62.4	64.8	2.27	270	120	82.7	29.1	1,080	618	412	7.63
	Apr-18	53.0	59.8	69.6	2.26	280	94	85.6	32.4	1,010	574	390	7.12
	Apr-19	53.2	60.4	67.1	2.19	270	130	74.1	14.7	1,050	586	394	7.50
	Jun-20	53.7	62.4	64.1	2.30	287	104	79.7	21.0	1,030	602	387	7.35
	May-21	52.3	58.6	71.1	2.38	272	106	77.6	18.2	1,010	578	363	7.27
Apr-22	52.9	62.0	69.7	2.63	273	116	73.1	14.8	1,020	550	380	7.46	
SS#09 - SS 1-20	May-08	44.8	49.3	73.6	3.18	210	82	93	35.0	863	517	296	7.30
	May-13	89.4	49.6	79.0	5.73	225	157	190	6.2	1,232	730	421	7.48
	Jun-14	87.4	48.7	87.1	4.90	209	151	197	9.9	1,280	756	438	7.45

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SS#09 - SS 1-20 (continued)	Oct-14	89.5	46.8	87.4	5.08	107*	150	190	7.0	1,240	758	428	7.56
	Apr-15	86.5	50.6	86.8	4.54	228	160	185	9.6	1,230	724	401	7.46
	Apr-19	41.6	41.8	61.6	1.62	225	70	89	29.5	826	480	289	7.39
	Jun-20	40.7	43.5	58.3	1.95	226	63	88	29.5	829	493	291	7.17
	May-21	41.2	42.1	64.4	1.99	219	62	87	29.6	816	488	273	7.09
	Apr-22	43.5	44.7	64.9	2.46	217	62	91	32.3	829	467	283	7.10
SS#10 - SS 1-21	May-89	102	38.0	113	5.00	291	156	184	--	1,242	771	--	7.40
	Oct-02	122	40.7	101	5.80	230	160	200	1.8	1,300	780	--	7.50
	May-04	1.52	1.41	1.28	1.66	--	165	220	<0.3	1,363	980	470	7.43
	Oct-04	36.2	33.1	88.0	8.74	306	71	6.5	<0.2	943	548	266	7.70
	Apr-05	129	47.2	105	4.88	250	186	241	<0.3	1,408	--	500	7.41
	May-06	125	49.6	91.3	5.92	228	182	248	<0.3	1,429	--	510	7.57
	Jun-07	118	44.7	92.3	5.14	220	190	246	<0.3	1,437	929	530	7.30
	Apr-09	97.3	35.7	89.8	4.35	218	147	168	<0.3	1,208	747	396	7.40
	Apr-10	102	33.9	88.0	4.51	226	143	163	<0.3	1,195	724	388	7.35
	May-11	97.4	36.8	90.1	5.40	198	148	176	<0.3	1,234	759	410	7.50
	Apr-12	103	38.7	90.3	4.47	214	156	181	<0.3	1,246	763	398	7.33
	May-13	111	41.4	87.6	5.04	233	162	200	<0.22	1,295	753	432	7.44
	Jun-14	103	38.7	94.5	4.48	218	153	190	<0.3	1,280	778	433	7.49
	Apr-15	109	41.8	91.1	4.31	195	136	196	<0.3	1,290	798	489	7.46
	Apr-18	123	46.2	98.8	4.98	222	180	238	<0.308	1,390	854	502	7.43
	Apr-19	112	39.2	88.2	4.46	241	172	202	<0.308	1,290	805	454	7.38
May-21	105	37.9	90.4	4.97	223	143	186	<0.176	1,220	772	409	7.35	
Apr-22	91	33.3	84.0	4.57	226	117	143	<0.176	1,070	632	356	7.42	
SS#15 - SS 1-22	Jun-14	95.1	39.5	87.9	4.65	228	146	185	2.0	1,260	563	420	7.49
	Apr-15	98.0	40.6	85.9	4.40	240	151	162	1.4	1,200	732	191*	7.46
	May-16	113.0	42.9	87.9	4.90	226	160	209	1.2	1,310	823	461	7.42
	Apr-18	100	42.7	90.6	5.34	240	150	185	2.2	1,240	744	438	7.47
	Apr-19	105	41.0	87.4	4.75	248	171	197	2.4	1,300	783	460	7.63
	Jun-20	102	40.3	85.2	5.18	234	150	177	2.7	1,240	769	434	7.47
	May-21	104	39.8	94.1	5.38	236	146	171	2.8	1,220	746	408	7.40
	Apr-22	104	40.1	93.0	5.20	243	138	165	3.2	1,200	707	410	7.40
SS#16 - SS 1-23	Jun-14	75.4	34.5	72.9	4.68	214	118	111	0.9	1,020	575	330	7.52
	May-16	91.2	36.3	69.3	4.59	214	132	142	0.9	1,080	628	379	7.44
	Apr-18	90.3	45.6	83.2	5.65	240	141	167	1.4	1,200	727	436	7.53
	Apr-19	91.8	37.3	77.0	4.49	238	134	146	2.6	1,130	668	395	7.83
	Jun-20	86.0	38.2	72.5	5.03	235	123	135	3.0	1,110	664	381	7.51

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SS#16 - SS 1-23 (continued)	May-21	85.2	40.3	87.7	5.89	253	124	142	3.2	1,120	666	371	7.48
	Apr-22	82.1	35.3	78.3	4.90	246	103	110	3.7	1,010	564	338	7.46
SS#17 - SS 1-24	May-21	65.9	54.6	78.3	6.44	293	107	127	<0.176	1,120	635	387	7.36
	Apr-22	95.3	52.7	83.5	5.58	270	132	164	<0.176	1,210	707	448	7.38
Burlingame-S ³	Nov-06	64	37	530	7.0	190	220	600	<0.44	--	1,400	--	--
	Apr-07	30	18	97	2.5	170	110	160	1.8	1,100	610*	--	7.20
	Aug-07	49	32	480	4.5	260	270	520	1.5	2,600	1,500	--	7.40
	Feb-08	53	37	590	5.1	230	280	490	1.1	2,200	1,400	--	7.20
	Aug-08	38.3	26	309	3.68	236	327	511	<0.44	2,420	1,540	--	7.16
	Feb-09	53.8	37.6	469	4.94	314	518	601	<0.44	2,840	1,760	--	7.45
	Oct-09	42.4	28.3	309	3.76	277	425	480	<0.44	2,550	1,630	--	7.09
	Mar-10	56	42	540	8.1	330	500	350	<0.88	2,900	1,400	--	7.39
	Aug-10	59	42	480	5.6	150	430	320	<0.88	2,600	1,300	--	7.42
	Mar-11	58	38	490	5.1	320	580	290	<1.76	2,900	1,500	--	7.50
	Aug-11	61	44	420	5.5	320	580	270	<0.88	2,800	1,500	--	7.30
	Mar-12	66	47	460	6.1	300	670	220	<0.88	2,900	1,600	--	7.60
	Aug-12	35*	20*	130*	2.9*	170*	130*	77*	1.6	570*	510*	--	7.55
	Mar-13	71	50	550	6.4	340	700	230	<0.88	2,800	2,800	--	7.53
	Aug-13	73	55	530	6.6	360	810	170	<1.76	3,400	2,000	--	7.26
	Mar-14	72	52	490	6.4	150*	780	210	<0.88	2,800	1,900	--	7.34
	Aug-14	100	82	520	12	230	1,000	91	<1.76	3,900	2,100	--	7.47
	Mar-15	87	64	560	7.4	360	880	150	<0.88	3,400	2,100	--	7.56
	Aug-15	57	40	380	5	300	600	190	<0.88	2,500	1,500	--	7.33
	Mar-16	82	68	520	7.2	370	940	100	<1.76	3,700	2,200	--	7.33
	Aug-16	99	76	590	8.9	430	1,100	66	<1.76	4,400	2,500	--	7.29
	Mar-17	100	80	680	8.4	420	1,200	60	<4.4	4,400	2,400	--	7.36
	Aug-17	100	84	660	8.5	440	1,200	52	<0.88	4,100	2,300	--	7.29
	Mar-18	110	88	660	8.9	440	1,300	51	<4.4	4,500	2,500	--	7.19
	Aug-18	94	79	560	7.0	440	1,100	21*	<1.76	4,200	2,500	--	7.27
	Mar-19	110	91	690	9.2	420	1,200	43	<1.76	4,300	2,400	--	7.39
	Aug-19	110	81	610	8.2	440	1,200	47	<4.4	4,100	2,300	--	7.53
	May-20	100	79	600	8.7	430	1,200	44	<4.4	4,300	2,400	--	7.60
	Aug-20	100	85	640	9.0	430	1,200	43	<4.4	4,300	2,300	--	7.41
	Apr-21	110	88	700	9.5	430	1,200	35	<4.4	4,300	2,400	--	7.24
	Aug-21	110	96	730	8.3	430	1,300	35	<1.76	4,100	2,400	--	7.30
	Mar-22	110	97	710	8.6	440	1,300	31	<4.4	4,400	2,400	--	7.33
	Aug-22	97	84	670	7.8	420	1,100	35	<4.4	4,000	2,300	--	7.48

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
Burlingame-M ³	Nov-06	37	24	77	4.5	220	140	220	<0.44	--	1,200	--	--
	Apr-07	34	23	84	3.3	200	110	68	<0.44	870	480	--	7.20
	Aug-07	27	16	96	3.1	200	74	47	<0.44	760	420	--	7.40
	Feb-08	28	16	76	3.0	170	67	46	<0.44	660	400	--	7.20
	Aug-08	29.6	17.0	65	2.59	163	67	41	<0.44	614	363	--	6.96
	Feb-09	33.5	19.1	62	2.59	172	79	38.5	<0.44	611	350	--	7.03
	Oct-09	32.3	18.9	58	2.53	160	74	36.3	<0.44	570	337	--	7.22
	Mar-10	28	18	58	3.4	160	67	31	<0.44	590	310	--	7.33
	Aug-10	33	19	51	2.5	180	63	29	<0.88	570	320	--	7.39
	Mar-11	28	16	42	2.0	180	66	27	<0.88	550	310	--	7.37
	Aug-11	28	19	45	2.1	330	66	25	<0.88	540	310	--	7.12
	Mar-12	31	21	54	2.4	150	68	--	<0.88	540	310	--	7.34
	Aug-12	31	20	53	2.4	150	71	25	<0.88	350	310	--	7.53
	Mar-13	33	20	55	2.4	150	79	24	<0.88	510	340	--	7.62
	Aug-13	30	17	47	2.2	140	73	25	<0.88	560	370	--	7.20
	Mar-14	31	20	70	2.4	64*	72	24	<0.88	480	330	--	7.23
	Aug-14	33	20	56	2.4	140	67	24	<0.88	570	330	--	7.29
	Mar-15	33	21	58	2.4	140	92	23	<0.88	580	400	--	7.51
	Aug-15	20	11	32	1.8	110	49	18	1.5	390	230	--	7.19
	Mar-16	35	23	61	2.3	160	120*	22	<0.88	710	400	--	7.24
	Aug-16	38	24	68	2.6	140	130*	20	<0.88	740	428	--	7.18
	Mar-17	30	19	58	2.4	140	90	20	<0.88	600	320	--	7.24
	Aug-17	30	20	52	2.5	160	78	23	<0.88	530	330	--	7.31
	Mar-18	34	21	57	2.5	140	100	20	<0.88	610	330	--	7.06
	Aug-18	40	27	77	2.3	160	130	6.4*	<1.76	780	480	--	7.28
	Mar-19	20	8.6	30	2.7	66	48	7.5	<0.88	310	90	--	6.97
	Aug-19	17	5.7	19	2.6	54	32	5.9	<0.88	230	86	--	6.96
	May-20	24	12.0	41	2.8	84	70	9.0	<0.88	410	220	--	7.10
	Aug-20	19	7.3	24	2.5	59	45	7.1	<0.88	280	160	--	6.96
	Apr-21	29	16.0	52	2.8	95	89	9.2	<0.88	510	330	--	7.01
	Aug-21	30	17.0	54	2.8	98	94	10.0	<0.88	490	310	--	7.02
	Mar-22	18	6.0	23	2.9	54	35	6.0	<0.88	250	130	--	6.88
	Aug-22	41	26.0	81	2.9	140	150	14	<0.88	770	410	--	7.38
Burlingame-D ³	Nov-06	61	42	230	12	190	140	140	<0.44	--	820	--	--
	Apr-07	24	17	120	5	220	94	69	<0.44	860	520	--	7.20
	Aug-07	26	17	83	4	230	78	36	<0.44	680	400	--	7.30
	Feb-08	32	18	61	3	200	45	26	<0.44	580	350	--	7.20

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
Burlingame-D ³ (continued)	Aug-08	30.3	17.2	53.1	2.53	195	42	22.7	<0.44	525	332	--	6.96
	Feb-09	37.0	19.0	54.6	2.57	193	47	25	<0.44	531	303	--	6.99
	Oct-09	34.5	16.7	49.0	2.22	189	44	23.3	<0.44	519	310	--	7.16
	Mar-10	38	23	51	6.9	180	46	24	<0.88	530	280	--	7.57
	Aug-10	38	18	47	2.3	260	41	24	3.5	540	300	--	7.64
	Mar-11	32	14	47	1.7	180	44	24	<0.88	550	310	--	7.37
	Aug-11	34	16	44	1.8	180	43	24	<0.88	540	310	--	7.12
	Mar-12	37	18	51	--	180	41	24	<0.88	510	290	--	7.61
	Aug-12	37	18	49	2.0	180	40	23	<0.88	330	300	--	7.74
	Mar-13	35	15	51	1.9	180	47	25	<0.88	470	310	--	7.68
	Aug-13	35	16	49	1.8	180	42	24	<0.88	510	320	--	7.50
	Mar-14	36	16	67	1.9	76*	43	23	<0.88	440	310	--	7.52
	Aug-14	35	16	47	1.8	170	38	22	<0.88	530	300	--	7.64
	Mar-15	36	16	52	1.8	170	43	23	<0.88	470	320	--	7.75
	Aug-15	32	14	43	1.6	180	42	24	<0.88	500	280	--	7.49
	Mar-16	34	16	45	1.7	180	45	23	<0.88	500	290	--	7.54
	Aug-16	33	14	50	1.9	160	32	23	<0.88	500	300	--	7.47
	Mar-17	33	15	49	1.9	160	43	21	<0.88	500	280	--	7.56
	Aug-17	33	15	44	1.8	180	50	22	<0.88	470	300	--	7.58
	Mar-18	36	16	47	1.7	170	48	22	<0.88	500	270	--	7.39
Aug-18	34	15	48	1.9	160	18*	7.7*	<1.76	490	280	--	7.57	
Mar-19	33	14	43	2.1	140	41	17	<0.88	430	260	--	7.52	
Aug-19	37	16	46	1.9	160	43	20	<0.88	450	270	--	7.68	
May-20	35	15	51	1.8	160	42	20	<0.88	480	16,000*	--	7.64	
Aug-20	38	16	44	1.8	160	43	22	<0.88	490	260	--	7.56	
Apr-21	33	13	42	1.9	140	34	16	<0.88	430	250	--	7.51	
Aug-21	37	16	48	1.8	160	41	21	<0.88	430	300	--	7.57	
Mar-22	40	17	50	1.8	180	43	21	<0.88	530	300	--	7.51	
Aug-22	38	17	49	1.9	160	41	21	<0.88	500	300	--	7.79	
SFO-D ³	Nov-06	26	19	140	6.6	210	440	88	<0.44	--	1,100	--	--
	Apr-07	40	29	180	9.5	260	270	50	<0.44	1,400	720	--	7.50
	Aug-07	57	38	190	8.9	260	540	120	<0.44	2,700	1,400	--	7.70
	Feb-08	110	84	530*	13	210	260	39	<0.44	1,300	730	--	7.50
	Aug-08	40.3	29.6	121	7.39	195	473	50.8	<0.44	1,970	1,040	--	7.43
	Feb-09	54.9	40.8	196	9.00	297	2,210*	179*	<0.44	5,310*	3,000	--	7.47
	Oct-09	45.5	31.9	131	7.70	230	498	61	<0.44	2,040	1,150	--	7.35
Mar-10	49	36	150	9.5	220	240	40	<0.88	1,300	580	--	7.37	

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SFO-D ³ (continued)	Aug-10	72	55	320	11	220	550	60	<0.88	2,300	1,100	--	7.43
	Mar-11	57	42	260	7.8	220	520	59	<1.8	2,200	1,200	--	7.45
	Aug-11	51	40	170	8.2	200	350	45	<22	1,600	960	--	7.26
	Mar-12	67	52	250	9.4	240	440	54	<0.88	1,800	980	--	7.39
	Aug-12	72	58	300	9.6	230	580	61	<0.88	2,200	1,200	--	7.67
	Mar-13	100	86	540	11	240	1,100	96	<0.88	3,600	2,200	--	7.75
	Aug-13	69	54	290	9.9	240	720	80	<0.88	2,300	1,300	--	7.32
	Mar-14	100	87	520	10	220	1,100	93	<0.88	3,200	2,100	--	7.55
	Aug-14	92	68	640	8.0	420*	1,100	110	<1.76	4,300	2,400	--	7.42
	Mar-15	85	70	390	12.0	220	760	66	<0.88	2,500	1,600	--	7.76
	Aug-15	110	96	560	11.0	240	1,200	130	<1.76	4,100	2,300	--	7.53
	Mar-16	60	47	230	9	570	470	49	<0.88	2,000	1,200	--	7.35
	Aug-16	88	76	440	10	230	880	83	<1.76	3,300	1,800	--	7.73
	Mar-17	120	110	830	13	260	1,500	140	<0.88	5,500	3,200	--	7.53
	Aug-17	80	66	360	12	230	710	57	<0.88	2,600	1,500	--	7.59
	Mar-18	130	120	660	13	260	1,500	140	<4.4	5,100	2,800	--	7.51
	Aug-18	100	90	490	10	240	1,200	46	<1.76	4,200	2,400	--	7.45
	Mar-19	120	110	630	12	250	1,300	110	<1.76	4,600	2,500	--	7.47
	Aug-19	120	100	570	12	240	1,200	110	<4.4	4,100	2,300	--	7.63
	May-20	110	98	550	13	250	1,300	110	<4.4	4,500	2,500	--	7.64
Aug-20	140	120	630	13	260	1,400	130	<4.4	4,800	2,700	--	7.59	
Apr-21	110	97	580	12	240	1,100	97	<4.4	4,100	2,300	--	7.37	
Aug-21	89	75	410	11	230	770	75	<1.76	2,700	1,700	--	7.34	
Mar-22	140	130	770	14	260	1,600	140	<4.4	5,200	2,900	--	7.53	
Aug-22	61	44	210	10	230	360	37	<0.88	1,600	970	--	7.47	
SFO-S ³	Nov-06	330	390	3,600	64	620	8,400	1,100	33.4	--	16,000	--	7.00
	Apr-07	320	370	4,200	57	73	9,300	1,200	<2.2	28,000	17,000	--	7.00
	Aug-07	350	470	5,100	62	740	9,200	740	<2.2	38,000	16,000	--	8.20
	Feb-08	370	490	5,300	64	660	9,600	670	<2.2	34,000	16,000	--	7.00
	Aug-08	439	439	4,770	59	620	10,500	716	<4.4	29,400	21,200	--	7.15
	Feb-09	497	630	4,980	77.3	673	12,400	830	<2.2	31,400	17,800	--	7.51
	Oct-09	487	618	4,850	62.8	744	9,990	663	<0.88	27,500	15,400	--	7.11
	Mar-10	530	630	4,900	93	680	9,800	640	<4.4	2,900*	1,200*	--	7.08
	Aug-10	490	640	4,500	63	680	10,000	660	<0.88	27,000	11,000	--	7.16
	Mar-11	500	600	5,000	76	690	14,000	680	<4.4	27,000	15,000	--	7.17
	Aug-11	390	510	4,300	61	680	9,600	700	<0.88	26,000	15,000	--	7.02
	Mar-12	530	400	5,200	67	680	9,900	670	<4.4	26,000	15,000	--	7.16

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SFO-S ³ (continued)	Aug-12	550	700	5,000	79	680	9,800	650	<0.88	27,000	18,000	--	7.36
	Mar-13	460	580	4,800	75	680	10,000	720	<8.8	25,000	17,000	--	7.32
	Aug-13	450	550	5,100	69	600	9,700	740	<4.4	26,000	17,000	--	6.98
	Mar-14	520	650	5,500	72	640	9,300	680	<1.76	18,000	17,000	--	7.15
	Aug-14	450	550	5,400	72	660	9,900	730	<1.76	27,000	18,000	--	7.23
	Mar-15	550	680	5,200	77	660	9,300	680	<0.88	27,000	17,000	--	7.82
	Aug-15	450	560	4,500	64	660	9,700	710	<4.4	26,000	19,000	--	7.09
	Mar-16	490	590	4,500	76	660	10,000	730	<17.6	28,000	16,000	--	7.16
	Aug-16	500	640	4,600	79	650	9,400	630	<8.8	38,000	4,200*	--	7.15
	Mar-17	460	580	5,300	77	650	10,000	700	<4.4	28,000	15,000	--	7.10
	Aug-17	480	590	2,000*	83	620	10,000	660	<8.8	27,000	14,000	--	7.40
	Mar-18	490	590	4,600	97	670	9,600	720	<17.6	27,000	19,000	--	7.14
	Aug-18	530	700	4,600	100	660	10,000	690	<1.76	38,000	18,000	--	7.14
	Mar-19	510	610	4,200	91	660	10,000	700	<88.0	850*	18,000	--	7.17
	Aug-19	540	640	4,800	81	660	10,000	730	<17.6	26,000	18,000	--	7.21
	May-20	530	630	4,400	76	600	11,000	750	<44.4	28,000	280*	--	7.25
	Aug-20	520	620	4,700	98	650	11,000	730	<176	28,000	20,000	--	7.23
Apr-21	540	640	5,100	76	610	9,800	720	<17.6	28,000	23,000	--	7.10	
Aug-21	560	680	5,500	92	640	10,000	780	<13.2	26,000	19,000	--	7.19	
Mar-22	580	720	5,400	74	660	11,000	750	<1.76	28,000	18,000	--	7.22	
Aug-22	530	620	5,300	77	540	11,000	780	<8.8	28,000	20,000	--	7.29	
SB#05 - SB 16 FOREST LN	Apr-09	50.3	34.8	51.0	2.92	180	110	77.0	0.3	856	484	302	7.38
	May-10	60.3	45.8	58.6	2.60	186	105	80.0	0.3	866	519	290	7.27
	May-11	38.5	27.5	39.7	3.54	178	114	83.8	0.4	876	536	290	7.40
	May-13	59.9	42.2	57.4	3.57	191	115	82.1	<0.3	899	477	322	7.34
	Apr-14	59.5	39.6	57.6	3.12	186	112	88.4	0.3	964	478	308	7.34
	Oct-14	57.8	40.1	54.1	3.07	189	114	86.9	0.3	888	513	318	7.34
	Apr-15	59.9	41.5	56.7	2.98	183	111	85.3	0.4	903	294*	332	7.39
	Apr-16	52.6	38.6	53.3	2.92	185	113	88.4	0.4	904	513	325	7.39
	Apr-18	60.2	42.1	58.9	3.09	187	115	92.2	<0.308	886	493	329	7.33
	Apr-19	58.1	38.8	56.2	2.72	185	114	61.4*	<0.308	888	503	312	7.39
	Jul-20	62.4	41.3	57.6	3.33	187	114	92.8	<0.308	891	510	321	7.31
	May-21	60.8	41.6	56.8	3.26	187	112	90.4	<0.176	911	494	62	7.30
Apr-22	62.4	42.1	58.8	3.74	189	115	92.3	0.3	896	504	324	7.31	
SB#06 - SB 17 CORPORATION YARD	Apr-00	34.0	21.0	46.0	4.00	152	66	29.0	3.5	510	290	172	7.60
	Apr-01	--	--	--	--	160	59	27.0	3.9	480	300	170	7.77
	Oct-01	34.1	21.0	48.8	3.35	160	58	27.3	3.8	530	280	170	7.67

Table 10
General Basin Groundwater Quality

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL ¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL ^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SB#06 - SB 17 CORPORATION YARD (continued)	Oct-02	33.4	22.1	48.5	3.30	160	61	28.0	4.0	540	270	--	7.60
	May-04	0.62*	0.36*	0.76*	2.89	--	58	23.0	1.4	518	340	136	7.57
	Nov-04	33.1	21.8	48.4	2.25	140	57	30.8	3.5	514	304	158	7.50
	May-05	32.8	20.4	45.5	3.37	150	56	25.0	5.4	521	319	158	7.58
	May-06	31.9	19.7	40.1	3.42	152	55	26.0	5.0	523	--	162	7.60
	Jun-07	30.3	19.1	43.1	3.47	150	55	25.0	5.5	525	295	160	7.50
	Apr-08	31.5	20.2	43.5	3.25	152	57	23.7	5.5	520	300	160	7.57
	May-10	29.6	19.9	43.3	2.55	140	55	24.0	5.6	524	292	158	7.39
	May-11	29.5	18.9	44.1	3.69	144	56	24.2	5.9	526	305	166	7.54
	Apr-12	29.2	19.2	44.1	3.22	148	58	23.4	6.1	518	281	154	7.48
	May-13	29.4	19.5	42.8	3.52	150	55	22.2	5.6	527	269	159	7.55
	Apr-14	32.1	18.9	45.0	3.45	145	53	23.1	5.9	571	278	151	7.64
	Oct-14	29.1	20.8	37.9	2.53	143	58	23.5	5.7	520	293	158	7.59
	Apr-15	32.3	19.3	44.7	3.16	152	58	23.4	6.5	741*	506*	159	7.84
	May-16	27.6	19.0	37.1	2.22	127	55	24.2	3.8	499	282	146	7.17
	Apr-17	32.7	17.8	38.3	3.33	149	51	21.0	8.6	518	295	126	7.50
	Apr-18	31.6	19.3	50.0	3.42	152	54	22.0	8.2	516	281	158	7.54
	Apr-19	31.2	18.1	48.8	3.24	150	55	21.3	7.4	527	292	151	7.69
Aug-20	30.2	19.6	42.3	2.96	145	54	22.6	7.7	515	264	154	7.45	
May-21	31.2	18.5	43.9	3.54	145	51	24.6	8.2	516	276	145	7.48	
Apr-22	32.1	19.3	44.7	3.94	150	54	22.9	7.2	521	288	158	7.51	
SB#07 - SB 18 CITY PARK	May-13	29.7	23.8	42.9	3.62	138	71	24.4	7.0	560	290	173	7.46
	Apr-14	31.2	22.8	43.2	3.24	133	69	27.9	7.2	613	288	170	7.45
	Oct-14	31.1	23.0	39.3	3.17	138	71	28.0	7.5	564	313	175	7.42
	Apr-15	32.7	24.7	43.4	3.12	137	74	28.6	7.5	580	304	181	7.45
	Apr-16	30.6	22.8	40.7	3.19	136	70	31.4	7.5	583	315	175	7.47
	Apr-17	32.6	23.3	40.3	3.50	144	56	29.8	5.8	547	294	170	7.41
	Apr-18	29.8	23.3	48.8	3.43	143	59	29.7	6.2	537	297	170	7.43
	May-19	30.4	20.5	47.0	2.74	140	62	28.3	7.4	549	295	161	7.65
	May-20	29.6	21.0	42.2	3.26	143	58	30.7	7.4	523	289	164	7.35
May-21	29.5	20.2	40.1	3.13	132	54	26.9	7.3	519	274	148	7.29	
Apr-22	32.3	22.6	43.1	3.61	137	64	30.4	7.0	545	287	167	7.33	
SB#08 - SB 20 LIONS FIELD PARK	Nov-04	51.0	36.8	81.5	3.52	232	84	70.1	1.6	829	488	260	7.80
	May-05	47.0	36.1	72.8	3.93	220	89	62.0	1.4	786	464	256	7.74
	May-06	41.5	32.7	67.3	3.73	210	86	58.0	1.3	777	--	244	7.66
	Jun-07	43.2	30.3	70.8	3.90	220	95	60.0	1.4	769	432	240	7.55
	Apr-08	40.2	32.2	63.9	4.67	202	84	53.6	1.4	750	432	94*	7.68

**Table 10
General Basin Groundwater Quality**

Well	Sample Date	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Total Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as NO ₃) (mg/L) ^b	Specific Conductance (µmhos/cm)	Total Dissolved Solids (mg/L)	Hardness (as CaCO ₃) (mg/L)	pH
	Primary MCL¹	NE	NE	NE	NE	NE	NE	NE	45	NE	NE	NE	NE
	Secondary MCL^{1,2}	NE	NE	NE	NE	NE	250/500/600	250/500/600	NE	900/1,600/2,200	500/1,000/1,500	NE	NE
SB#08 - SB 20 LIONS FIELD PARK (continued)	Apr-09	37.2	27.8	60.5	3.69	200	83	51.0	1.4	750	419	226	7.58
	May-10	38.7	32.7	55.8	3.06	200	80	50.6	1.5	743	427	220	7.84
	May-11	41.3	31.9	66.9	3.82	188	83	54.4	1.5	740	438	220	7.69
	Apr-12	38.6	29.9	63.6	3.39	196	87	52.4	1.4	732	405	219	7.62
	May-13	39.0	30.8	59.8	4.13	198	83	46.8	1.4	737	381	227	7.65
	Apr-14	41.1	29.0	62.9	3.74	189	80	49.5	1.4	790	381	212	7.66
	Oct-14	39.1	29.0	57.2	3.52	193	81	49.4	1.5	721	389	222	7.66
	Apr-15	40.4	29.8	61.2	3.40	197	84	48.6	1.5	734	403	224	7.65
	Apr-16	38.8	28.1	58.0	3.36	187	80	49.3	1.5	730	376	215	7.69
	Apr-17	50.0	27.4	43.5	3.06	182	80	52.9	0.8	737	418	247	7.46
	Apr-18	39.9	29.3	63.8	3.58	190	80	47.6	1.3	710	376	222	7.61
	May-19	41.2	28.1	63.1	3.20	194	85	49.3	1.2	728	376	216	7.69
	May-20	40.9	27.2	56.1	3.69	195	82	51.4	1.2	719	408	224	7.65
	May-21	40.6	29.3	62.2	3.94	187	77	48.8	1.3	721	374	210	7.60
Apr-22	41.5	30.0	63.3	4.24	194	82	50.5	1.2	722	390	225	7.68	

Notes

^a = Duplicate result used as the primary sample was inadvertently not analyzed for the indicated parameter.

^b = Beginning in the Spring of 2016, the lab began reporting all Nitrate results as Nitrate as Nitrogen. All data presented herein are presented as Nitrate as NO₃. Where Nitrate as

^c = Duplicate result used as the primary sample result was anomalously low.

NO₃ is a calculated value: [NO₃] = 4.4 x [Nitrate as N].

= Shaded cell indicates data collected in 2022

mg/L = milligrams per liter

µmhos/cm = Micromhos per centimeter

-- = Not analyzed

ND = Non-detectable concentration. Detection limit not known.

* = Anomalous or questionable result

= **Bold** font indicates a result that exceeds the maximum contaminant level (MCL) and/or the secondary maximum contaminant level (SMCL)

NE = Not established

MCL¹ = Maximum Contaminant Level; values for MCLs are provided where they have been established for particular constituents. MCLs are drinking water standards that public water systems must achieve. They are not intended to regulate groundwater from monitoring wells or untreated water from production wells, because after withdrawal groundwater may be disinfected, filtered, blended, exposed to the atmosphere, and/or otherwise treated before being delivered to consumers. However, MCLs are used for comparison in this report to provide context for evaluating the quality of untreated groundwater. Primary MCLs are regulatory benchmarks for protecting human health. Secondary MCLs are benchmarks to protect the aesthetic quality of drinking water and are based on effects such as taste, odor, or appearance.

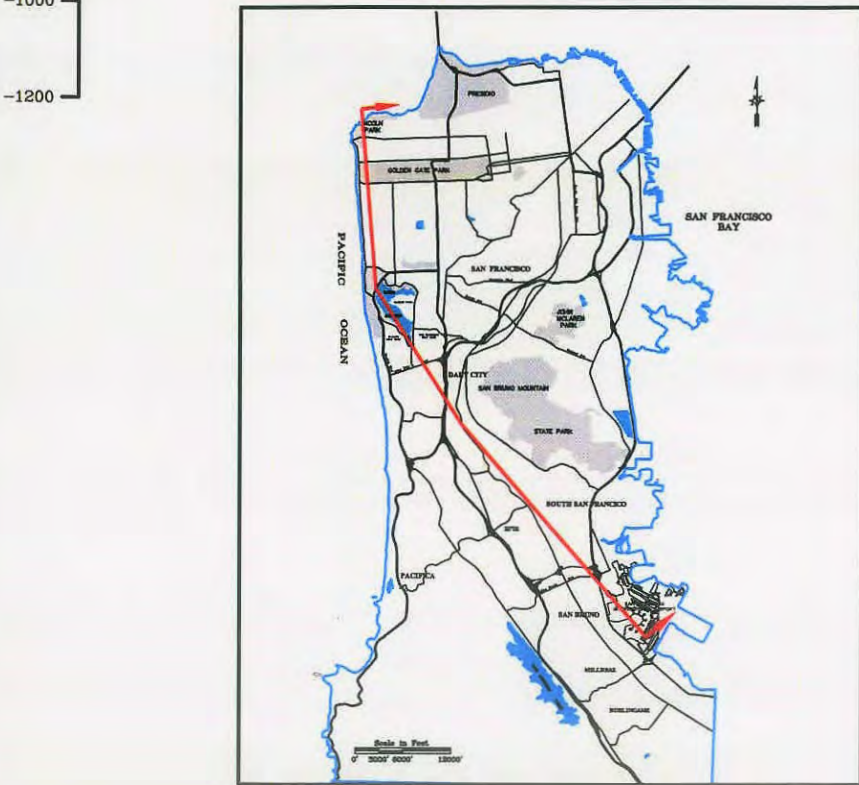
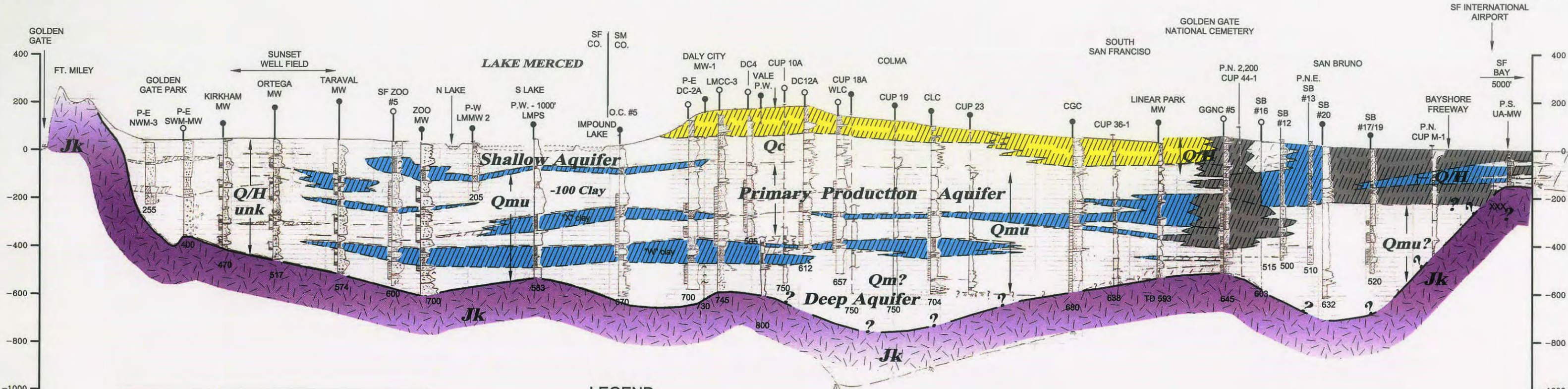
Secondary MCL² = 250/500/600: Recommended/Upper/Short Term

SFO-S³ = Data provided by the City of San Bruno

FIGURES

NORTH

SOUTH



Cross Section Location Map

LEGEND

WELL PROFILES	
E-Log #13	Drill Log #21
Well Identification	
PW - Production Well	
TH - Test Hole	
MW - Monitoring Well	
TW - Test Well	
Seal	
Clay w/Sand	
Sand/Gravel Screen/Intake	
Clay	
Bedrock at Borehole or From:	
Philips; 1993	
Bonilla; 1964	
647 Total Depth	647
P.N. - Projected North	
P.W. - Projected West	
P.E. - Projected East	
P.N.E. - Projected Northeast	
● -Elog Reviewed	
○ -Elog Not Reviewed	

CROSS-SECTION LEGEND

	"Blue" Clay
	Blue & Gray Clays with Sand & Clay, and Sand Beds
	Clay & Sand Red & Brown Soil Zone
	Sand, Sand & Gravel or Sandy Gravel
	Bedrock

STRATIGRAPHIC UNITS*

Q/H	Bay Clays
Q/H unk	Unknown Correlation
Qc	Colma Formation
Qmu	Upper Merced Formation
Qm?	Older Merced Formation - Middle, Lower
Jk	Franciscan Bedrock

* SURFICIAL UNITS NOT SHOWN

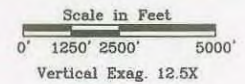
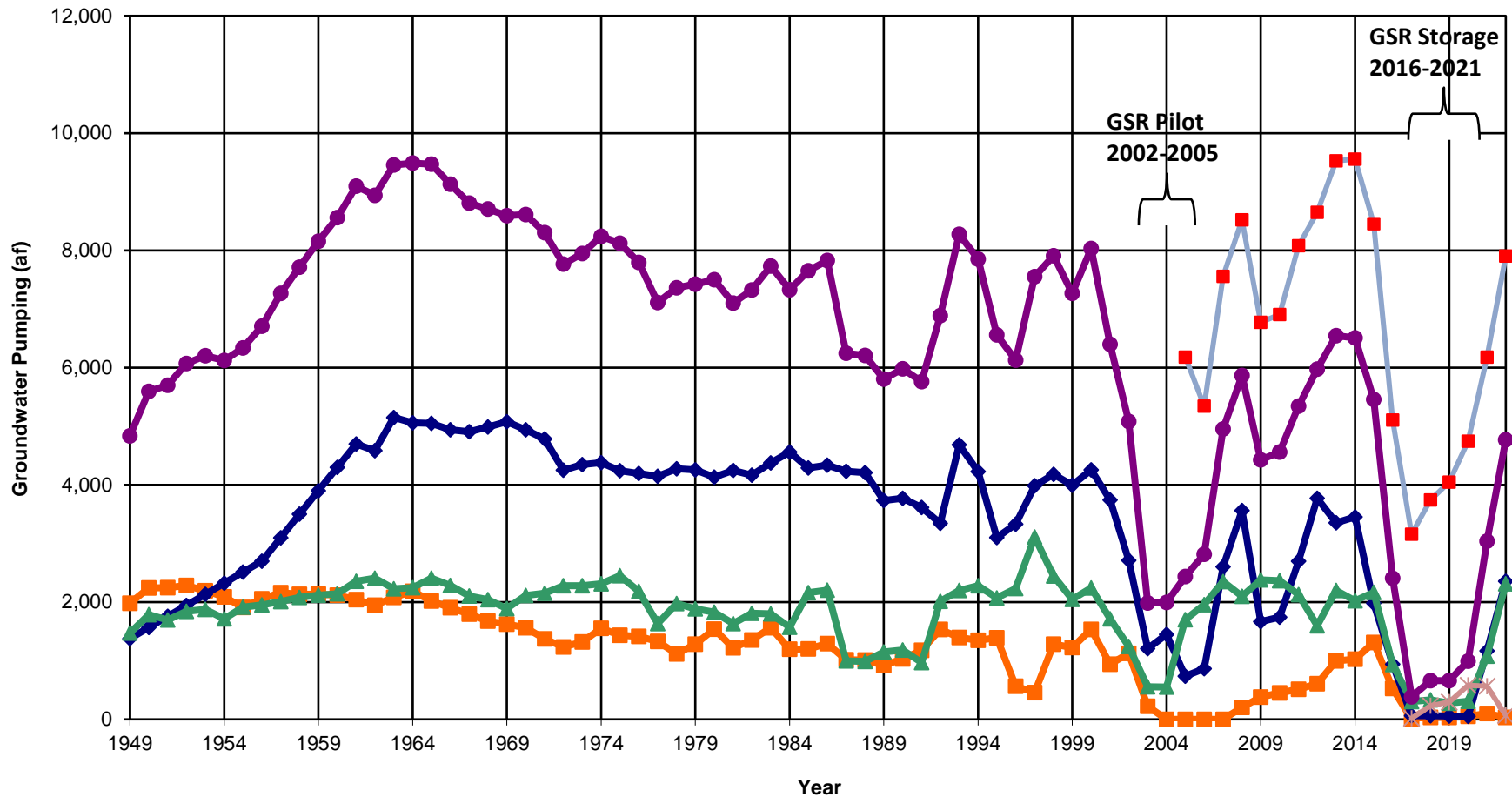


Figure 2

Figure 3
Westside Basin Groundwater Pumping
1949-2022



The 2002-2005 Pilot In-Lieu Recharge Demonstration Program evaluated the feasibility of GSR in the South Westside Basin (LSCE, 2005). The GSR project began in-lieu water deliveries to the Partner Agencies and was in a storage phase from May 2016 through June 2021. The GSR project has been in a hold period since July 2021. Approximately 0.07 acre-feet of pumping for testing of GSR wells is included in the total municipal pumping value presented here.

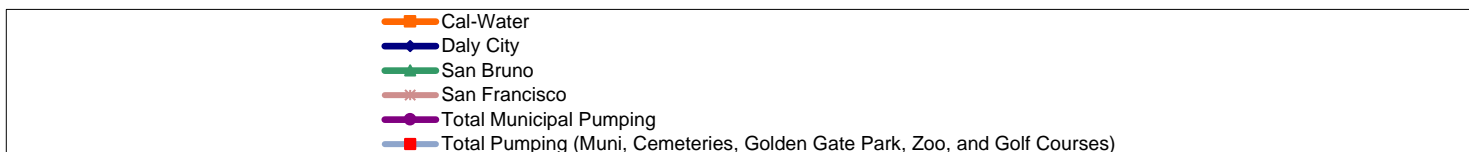
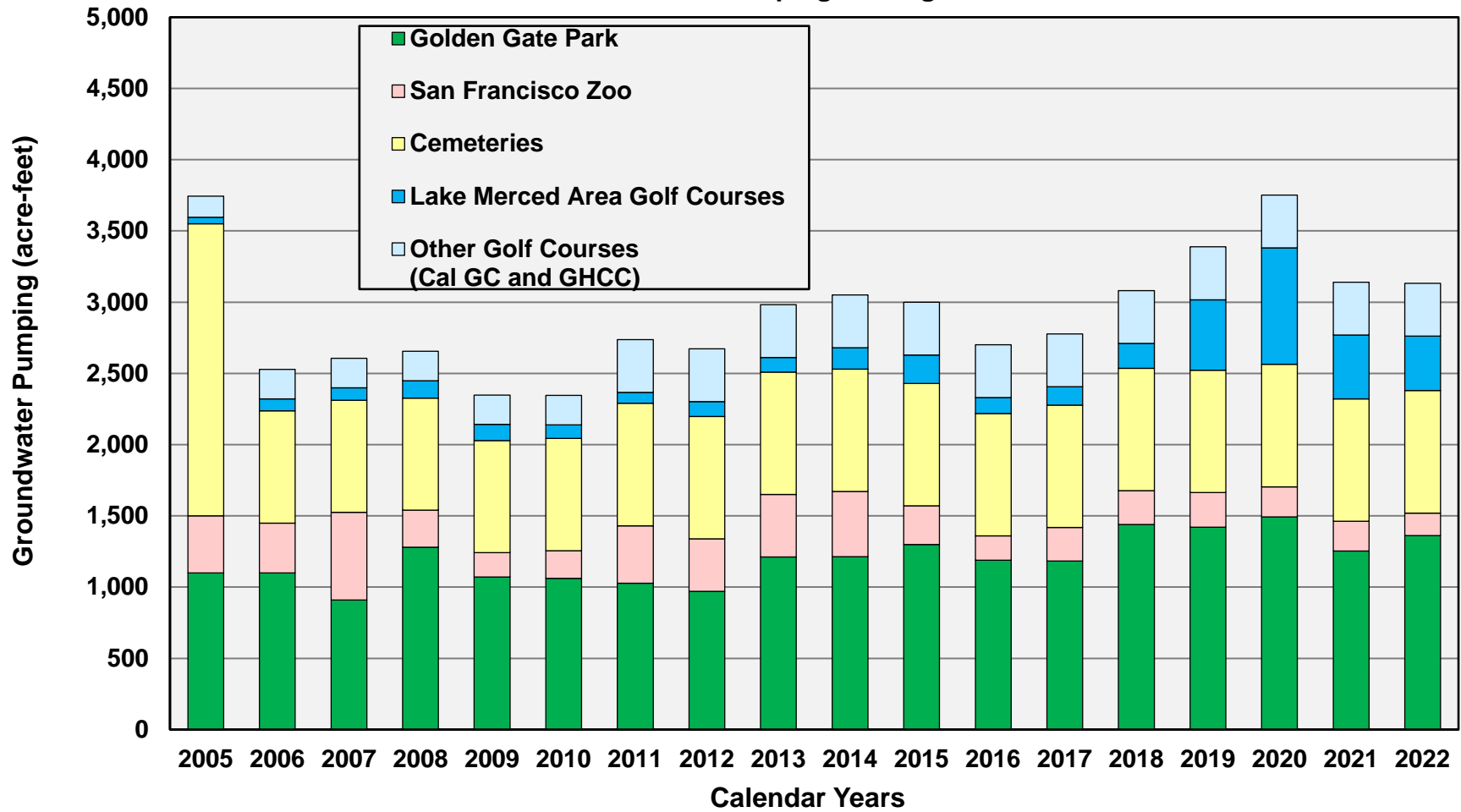
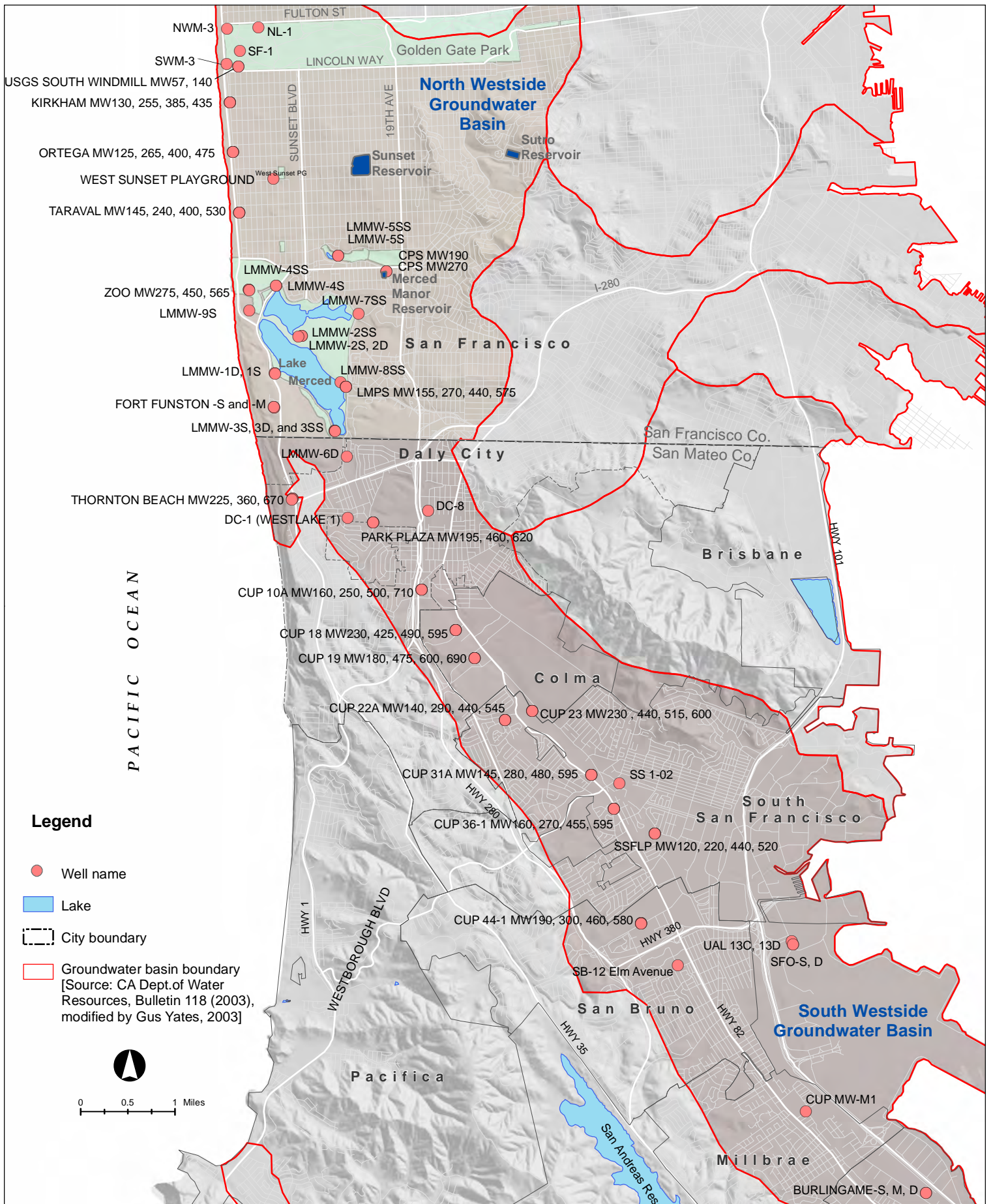


Figure 4
Westside Basin Groundwater Pumping for Irrigation 2005-2022



Cemetery and other golf course irrigation values are estimates derived from LSCE (2005) for 2005, Carollo (2008) for 2006-2010, and HydroFocus Groundwater Model (2011) for 2011-2022.



Legend

- Well name
- Lake
- City boundary
- Groundwater basin boundary
[Source: CA Dept. of Water Resources, Bulletin 118 (2003), modified by Gus Yates, 2003]

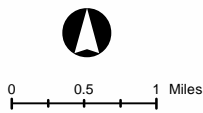


Figure 5
Well Location Map
Groundwater Elevation Monitoring Network

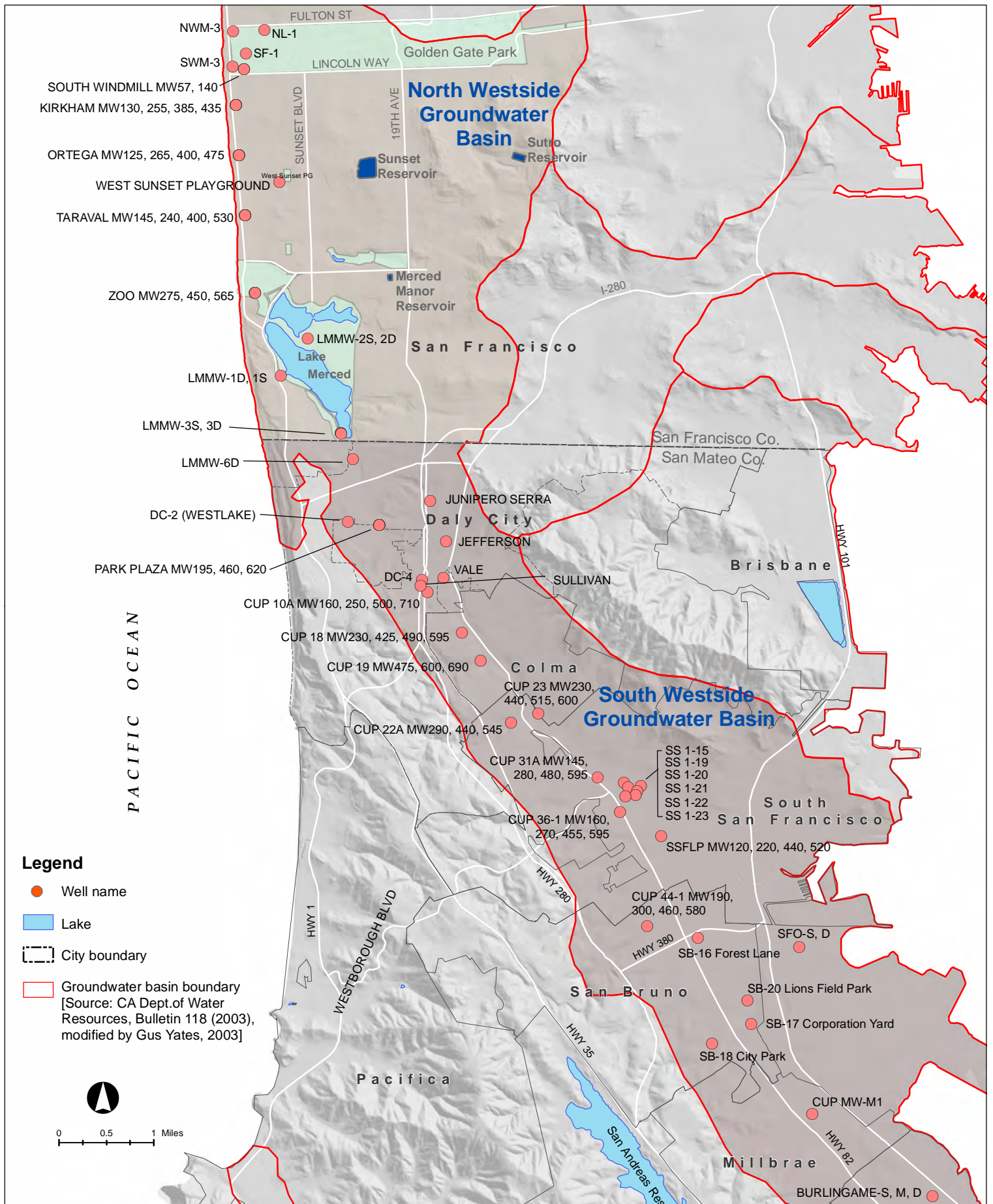


Figure 6
Well Location Map
Groundwater Quality Monitoring Network

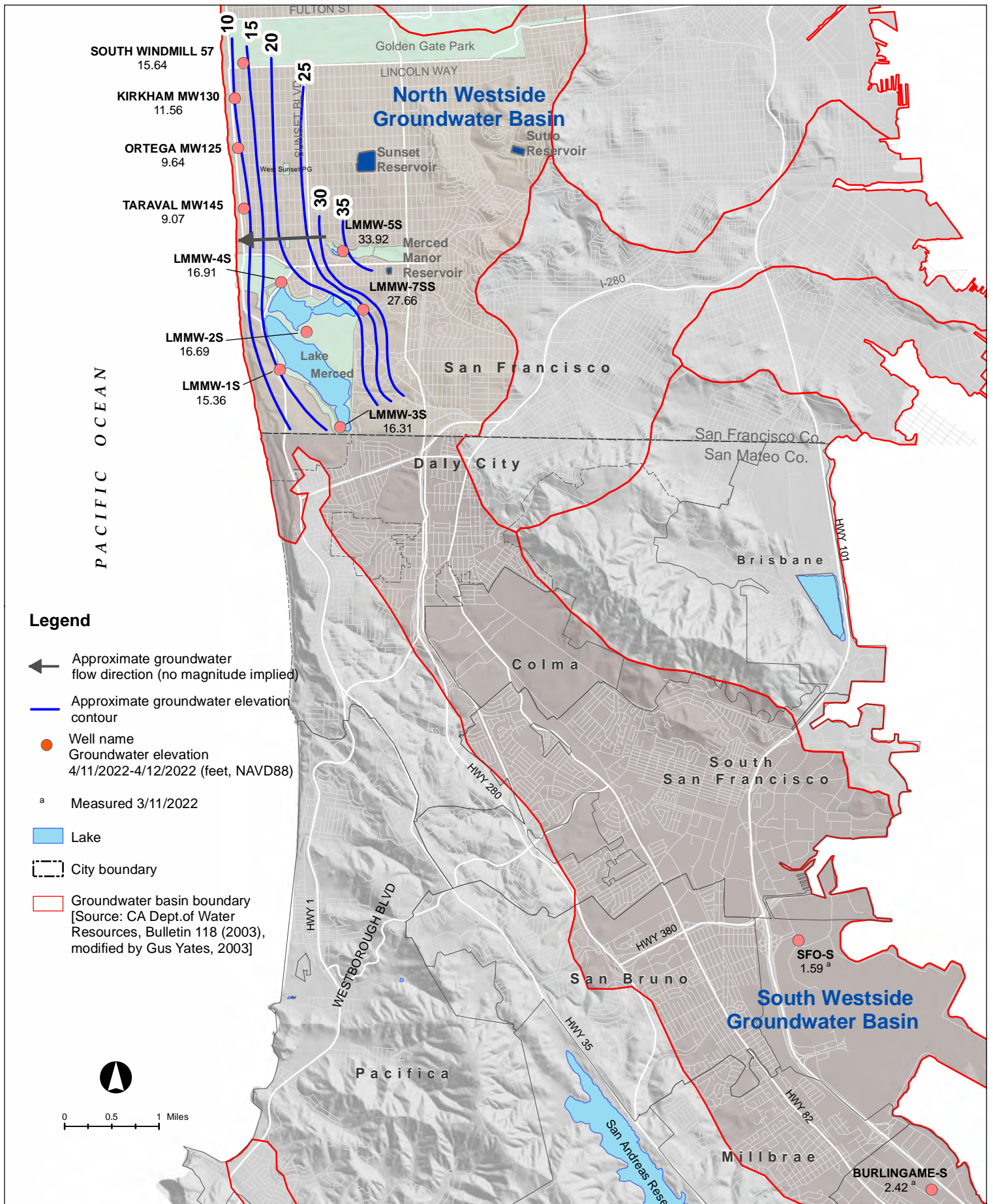


Figure 7
Groundwater Elevation Contours
Shallow Aquifer, Spring 2022

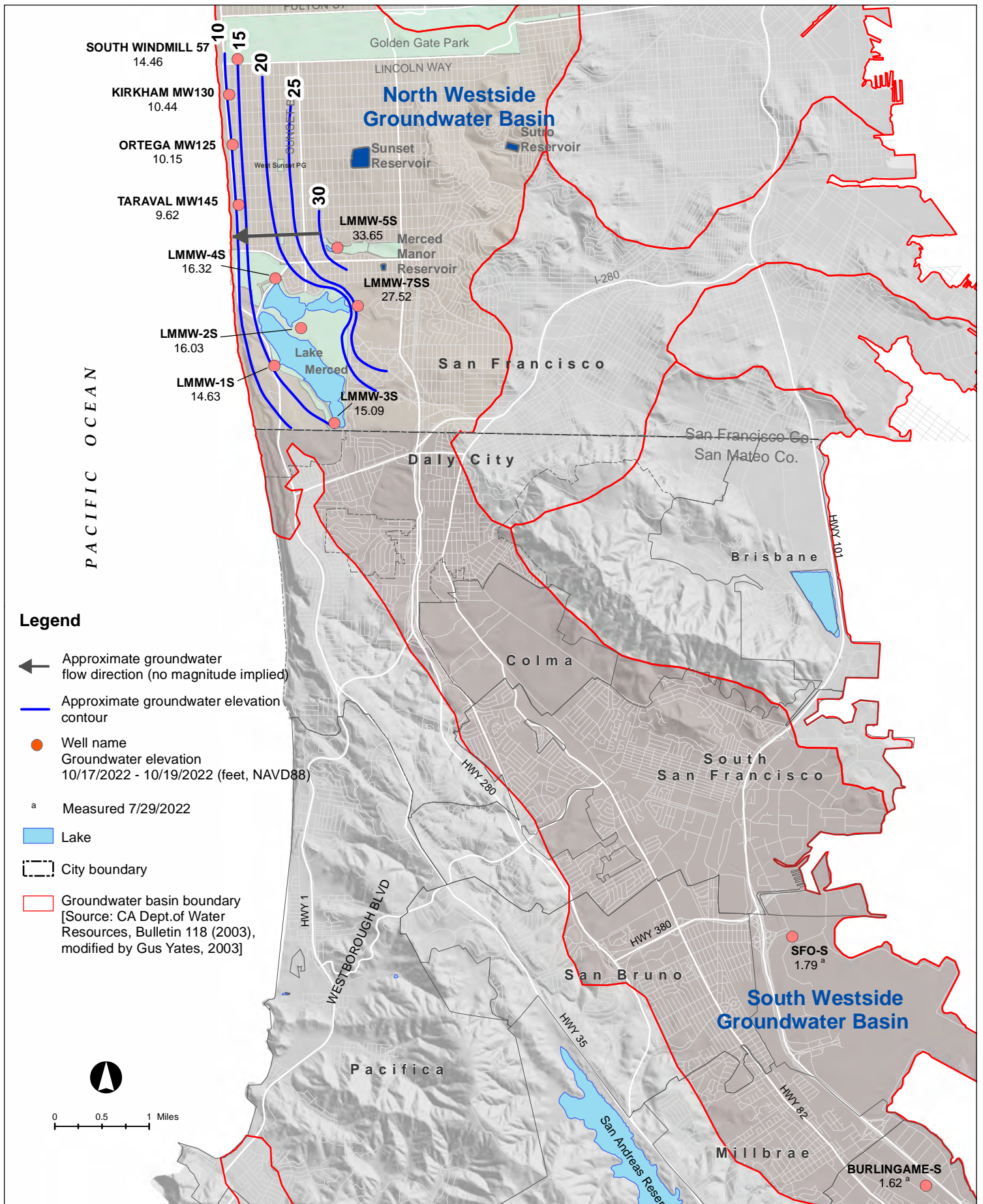


Figure 8
Groundwater Elevation Contours
Shallow Aquifer, Fall 2022

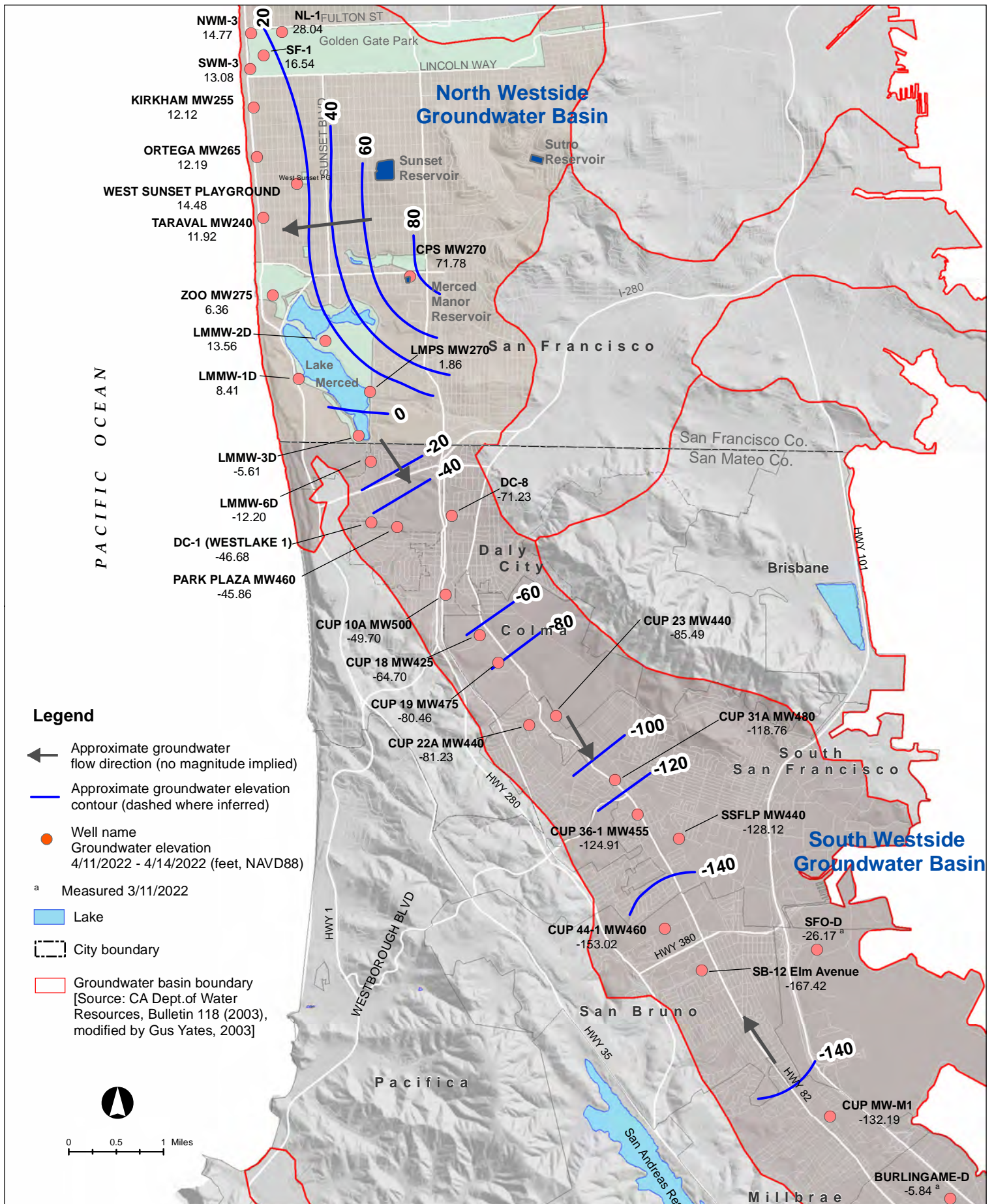


Figure 9
Groundwater Elevation Contours
Primary Production Aquifer, Spring 2022

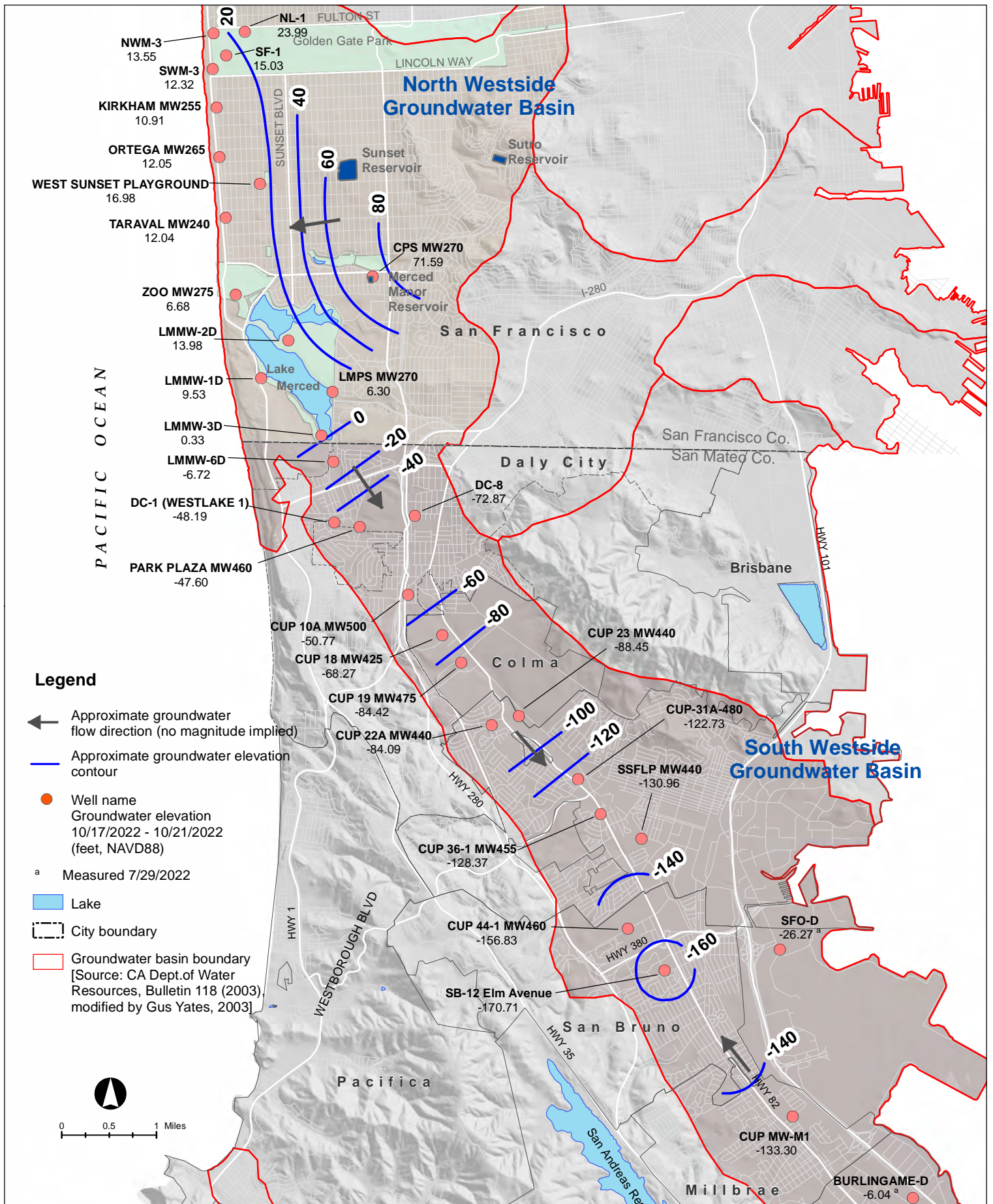


Figure 10
Groundwater Elevation Contours
Primary Production Aquifer, Fall 2022

Figure 11a Kirkham 130

Groundwater Elevation and Chloride Concentration Hydrograph

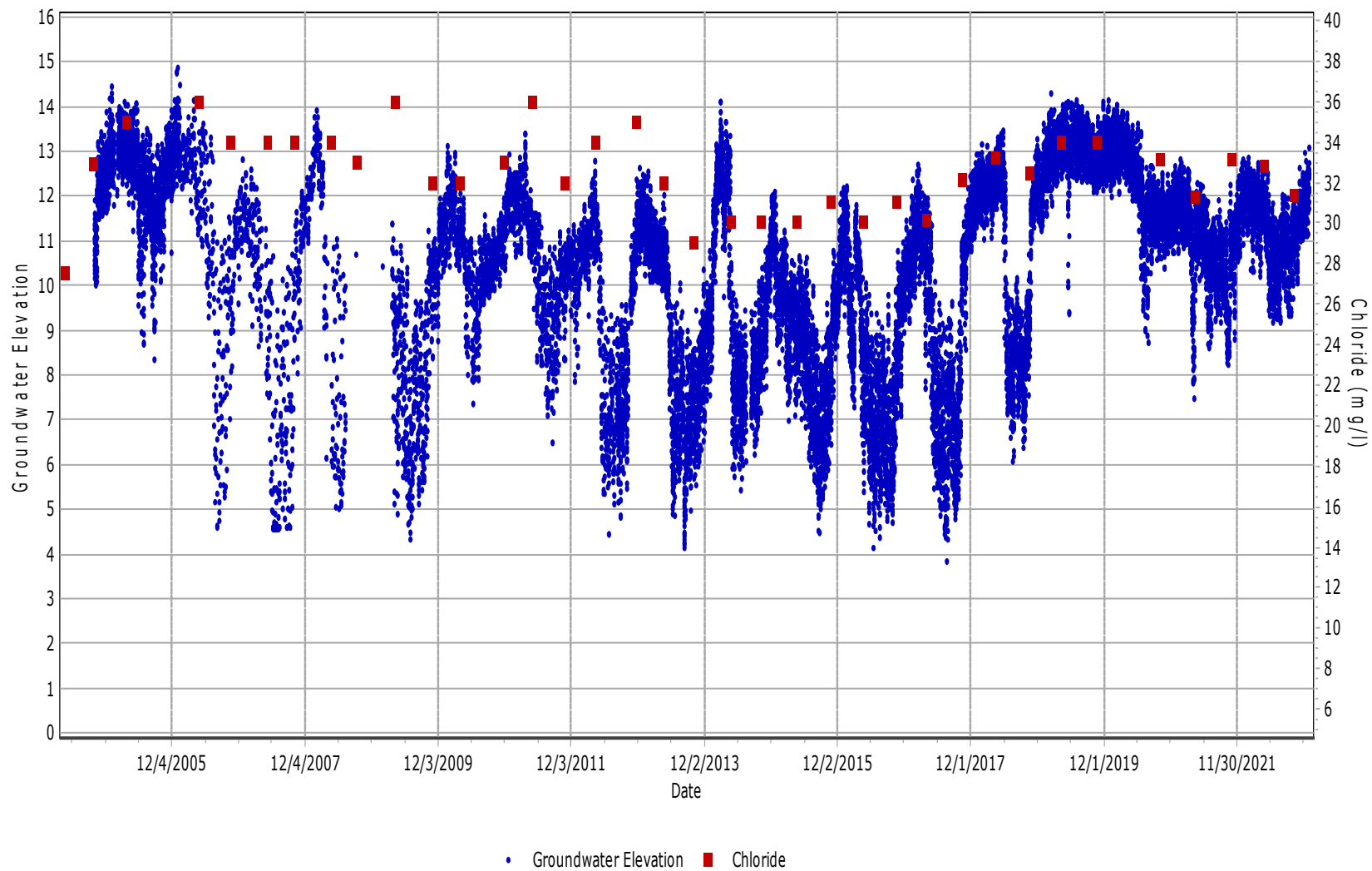


Figure 11b Kirkham 255

Groundwater Elevation and Chloride Concentration Hydrograph

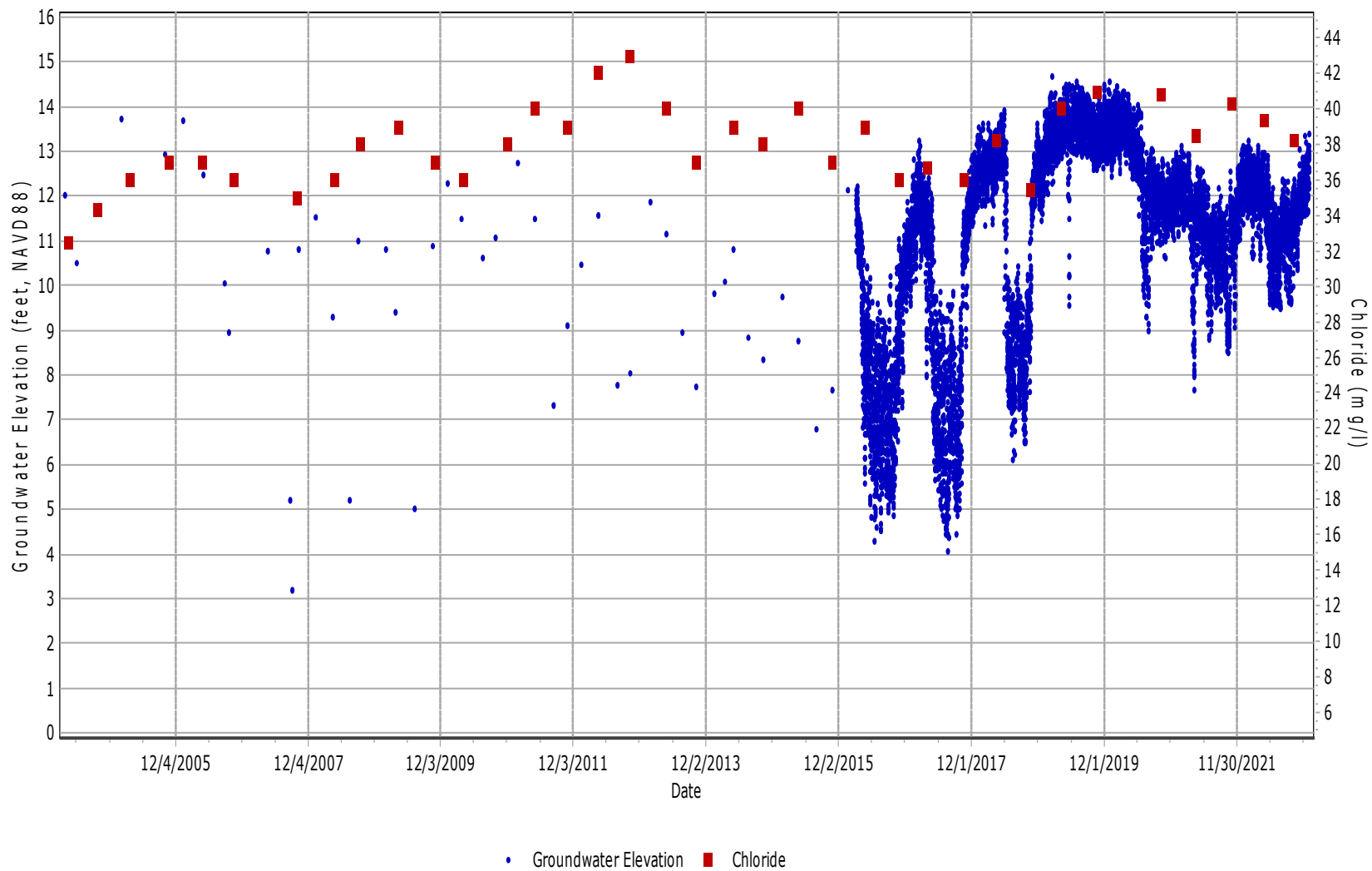


Figure 11c Kirkham 385

Groundwater Elevation and Chloride Concentration Hydrograph

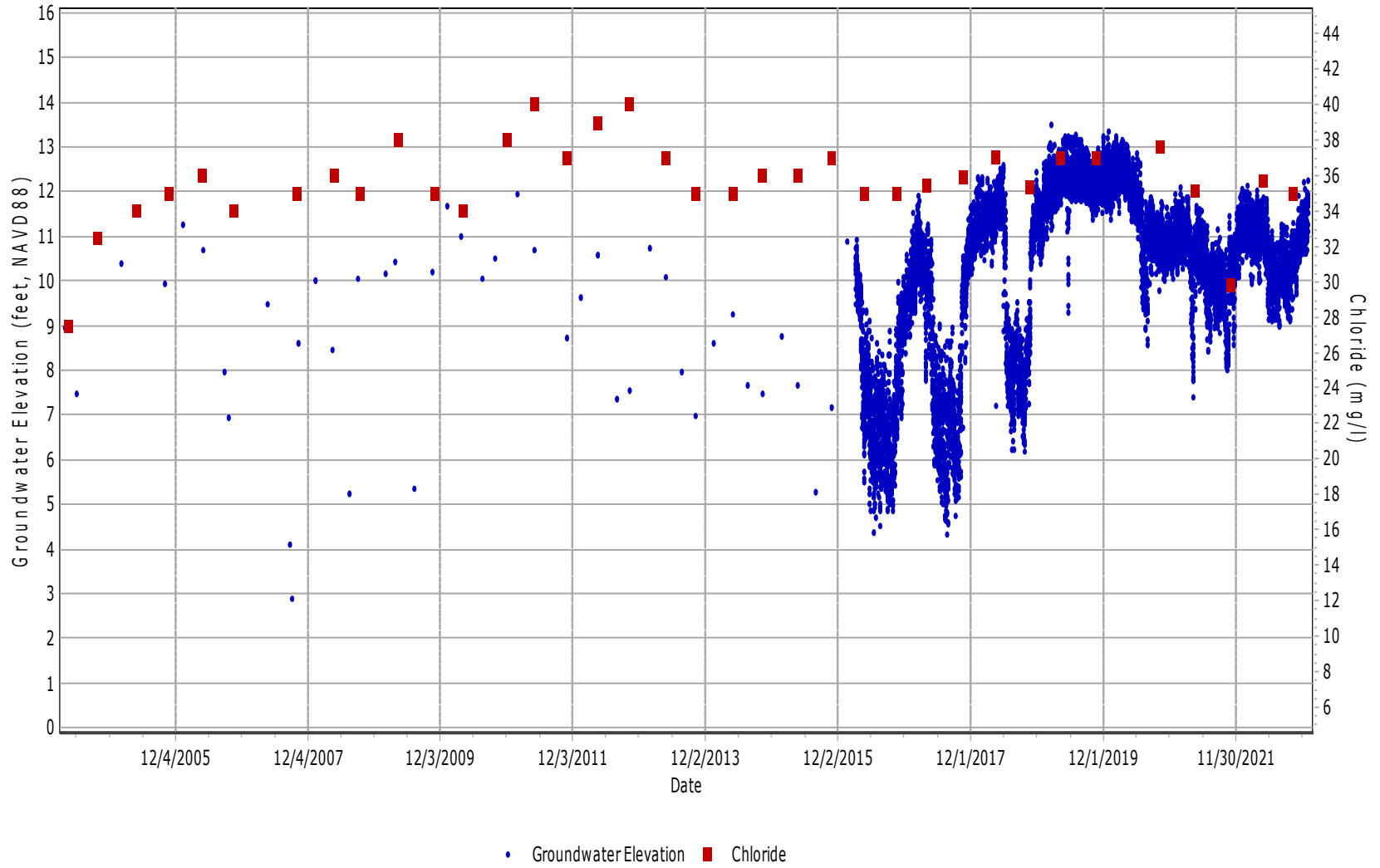


Figure 11d Kirkham 435

Groundwater Elevation and Chloride Concentration Hydrograph

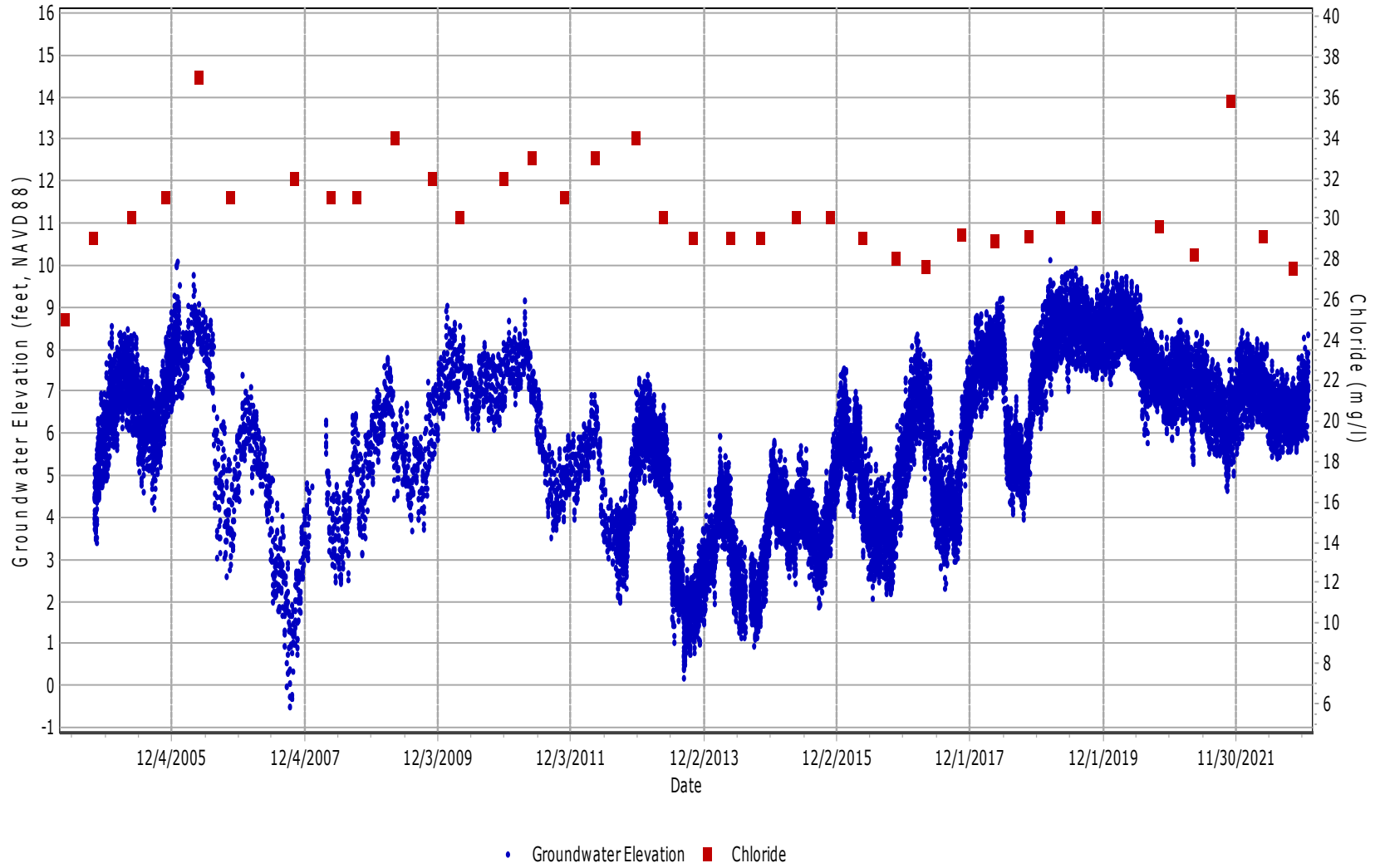


Figure 12a Ortega 125

Groundwater Elevation and Chloride Concentration Hydrograph

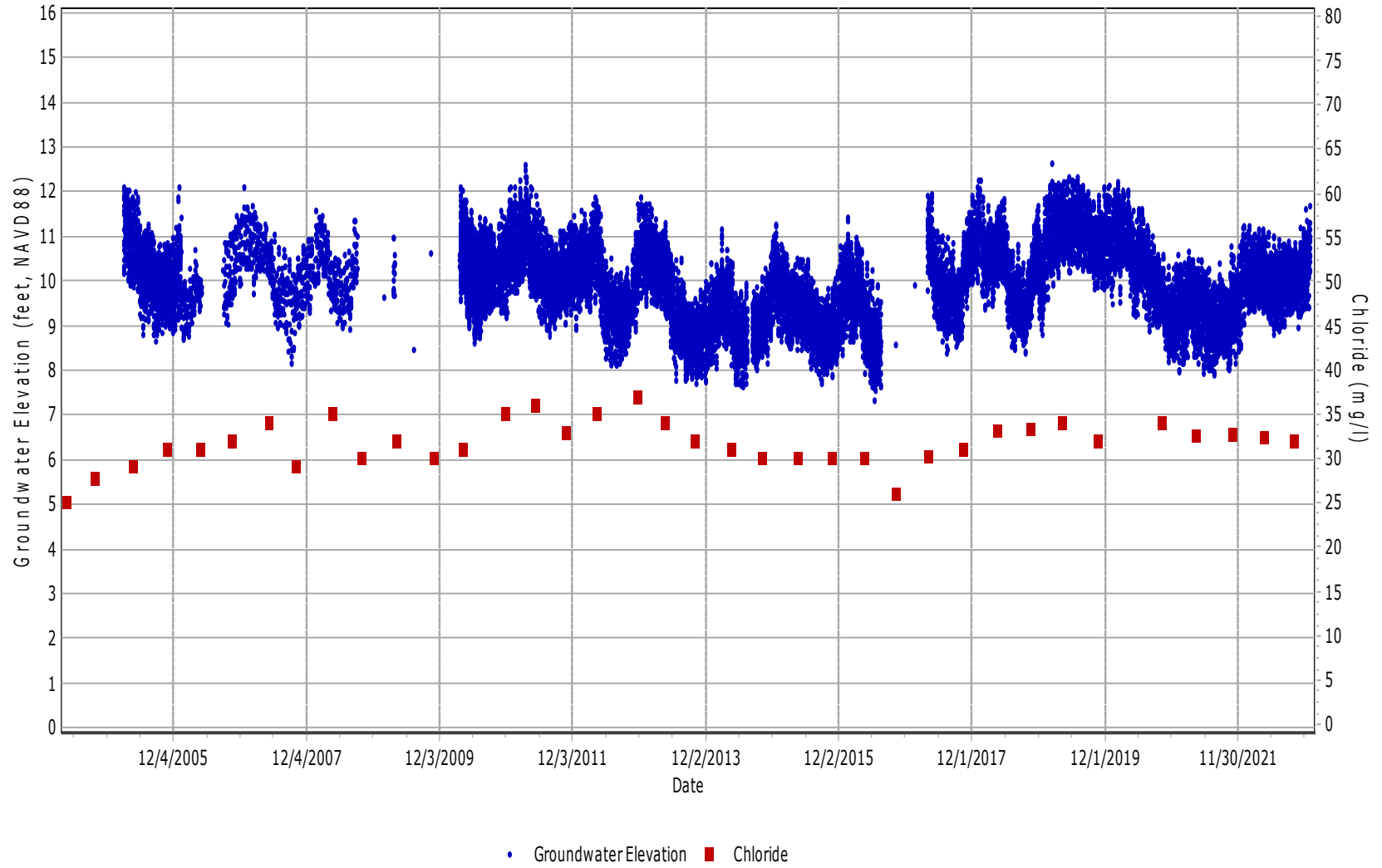


Figure 12b Ortega 265

Groundwater Elevation and Chloride Concentration Hydrograph

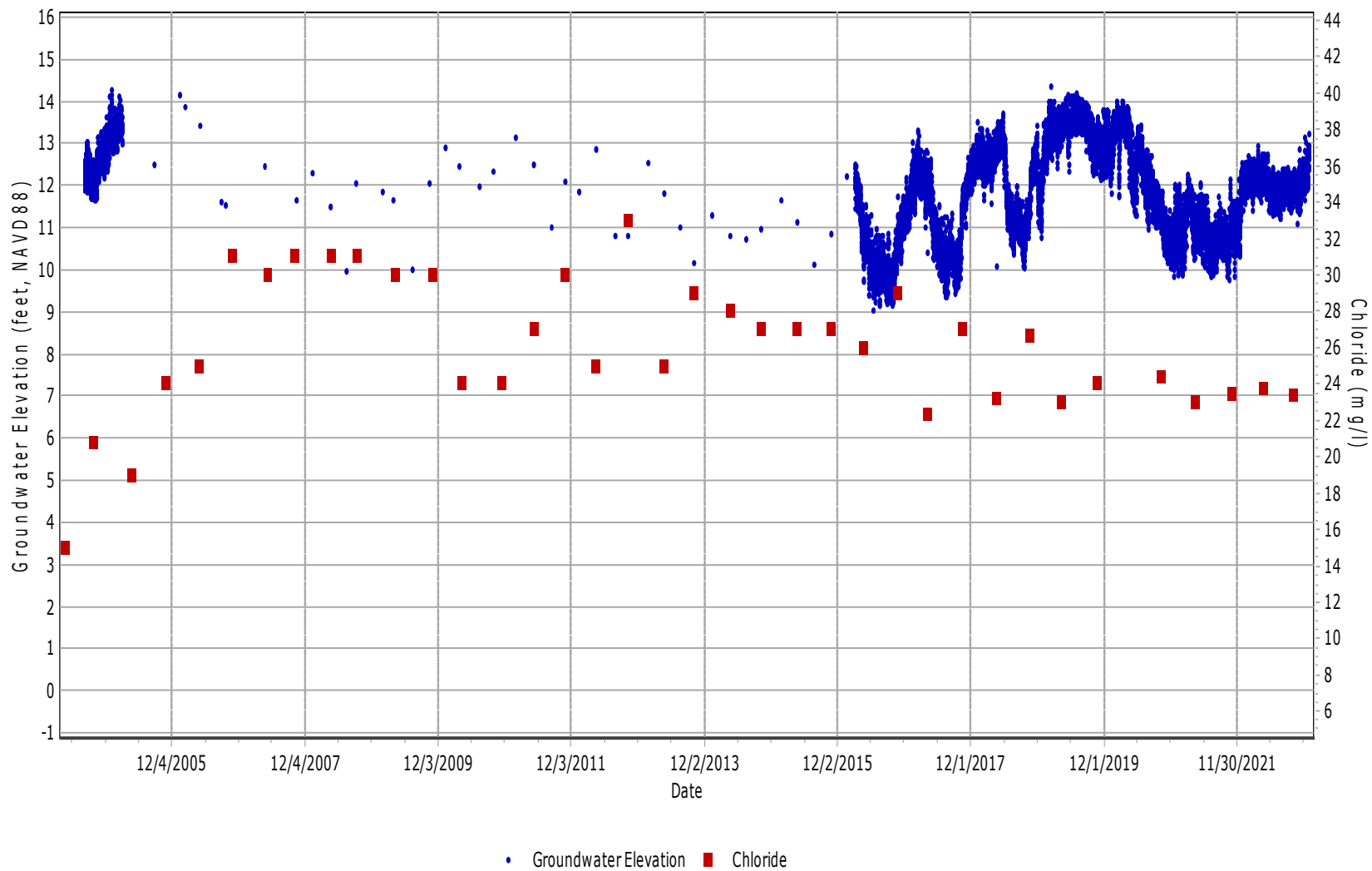


Figure 12c Ortega 400

Groundwater Elevation and Chloride Concentration Hydrograph

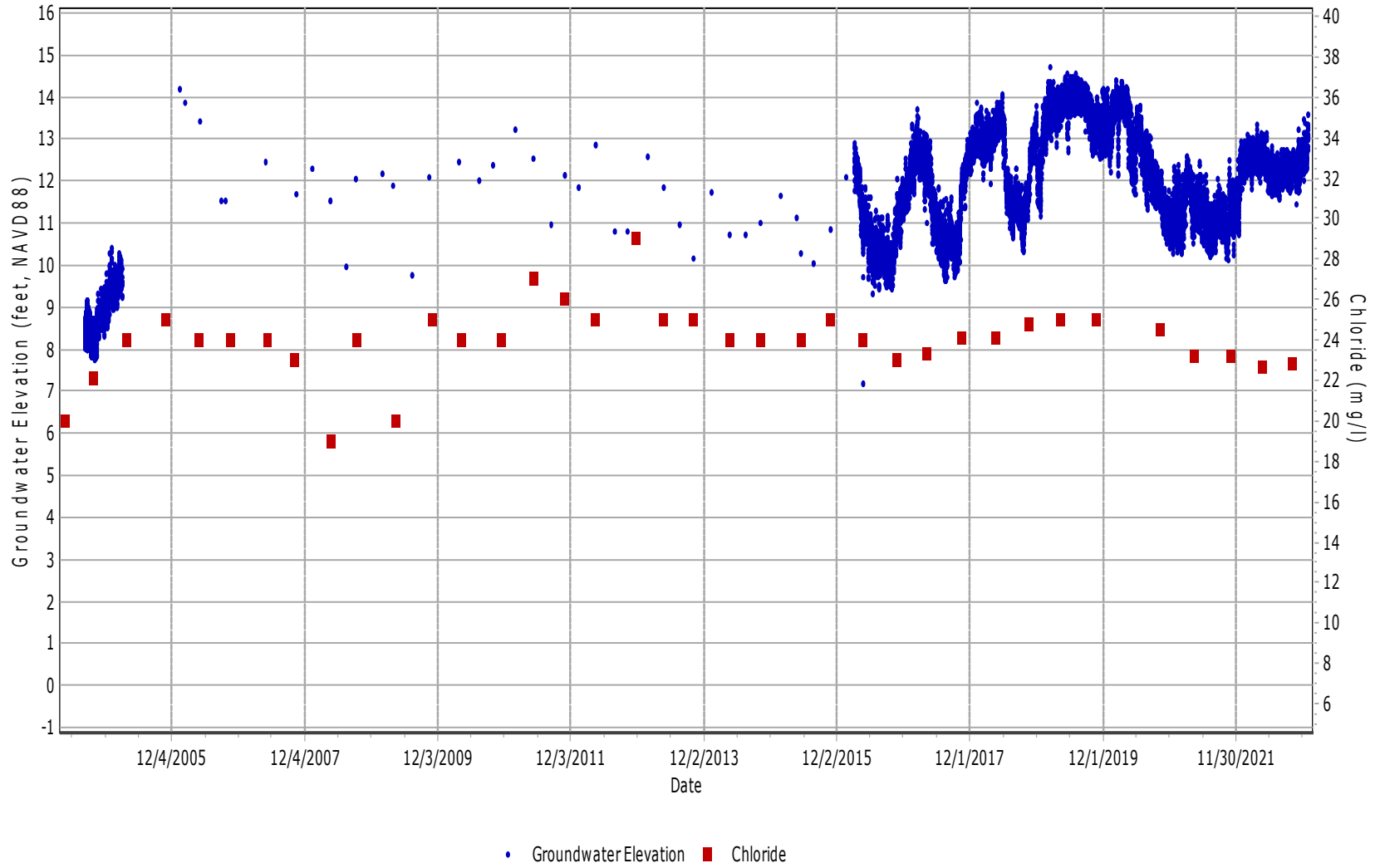


Figure 12d Ortega 475

Groundwater Elevation and Chloride Concentration Hydrograph

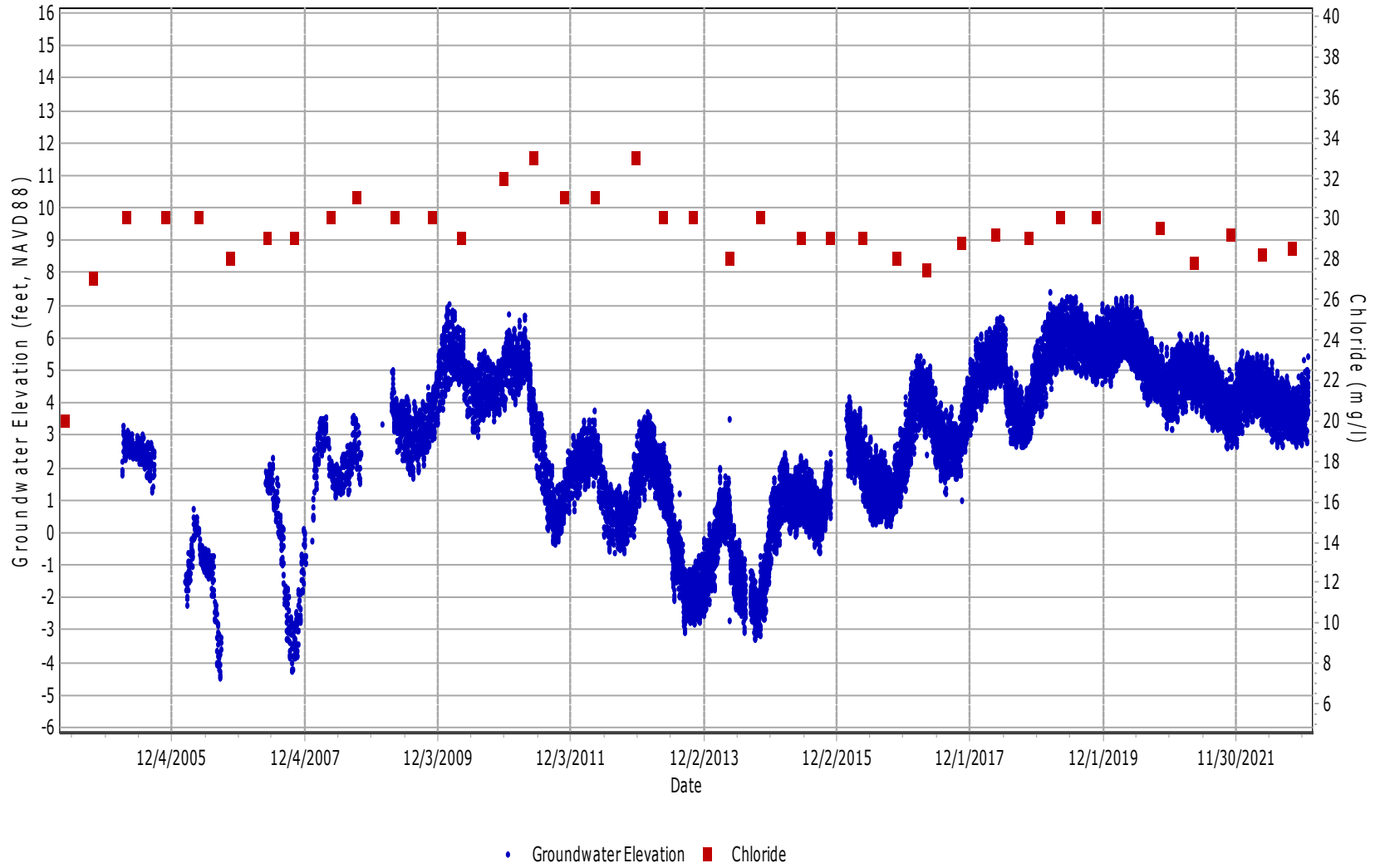


Figure 13a Taraval 145

Groundwater Elevation and Chloride Concentration Hydrograph

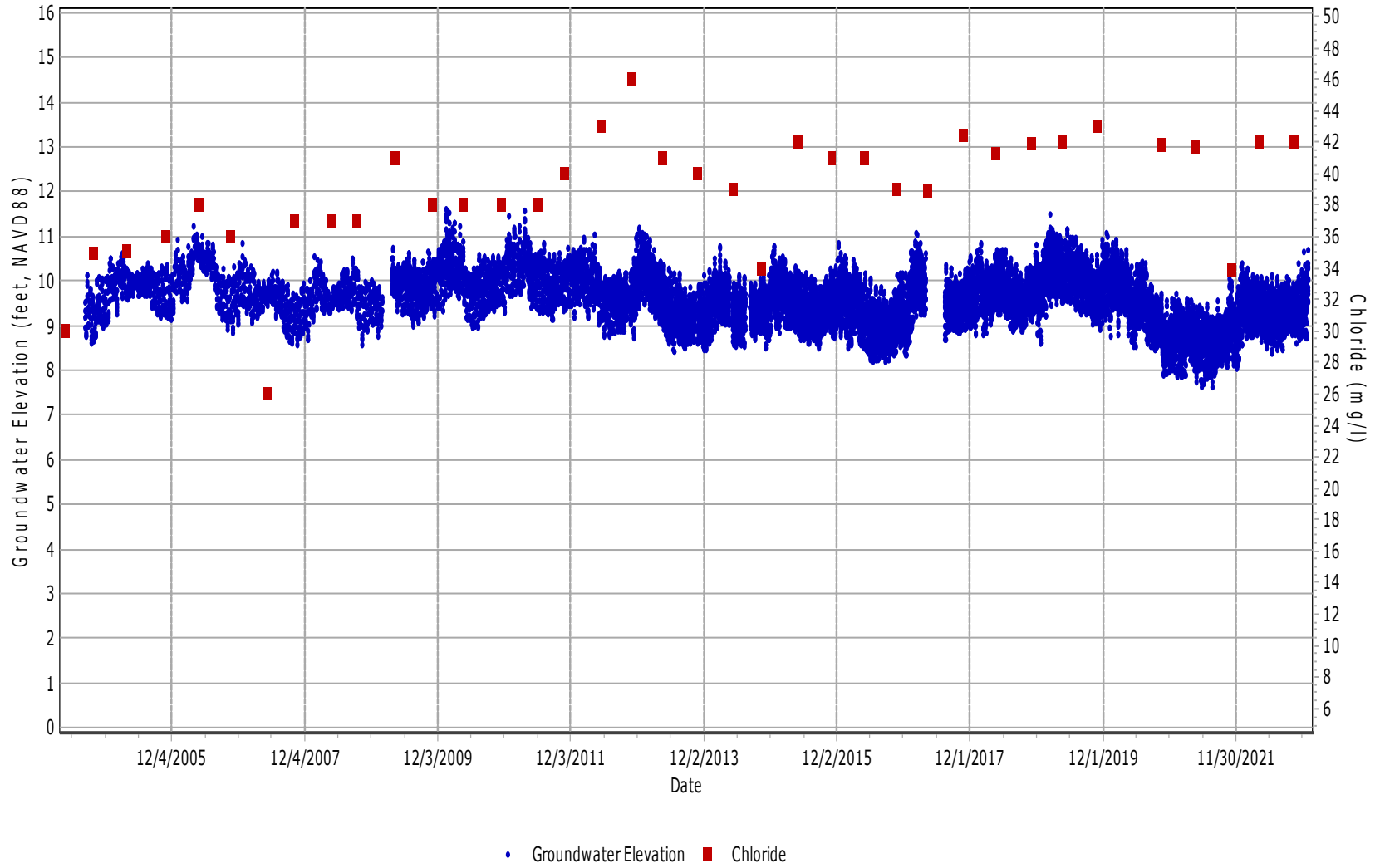


Figure 13b Taraval 240

Groundwater Elevation and Chloride Concentration Hydrograph

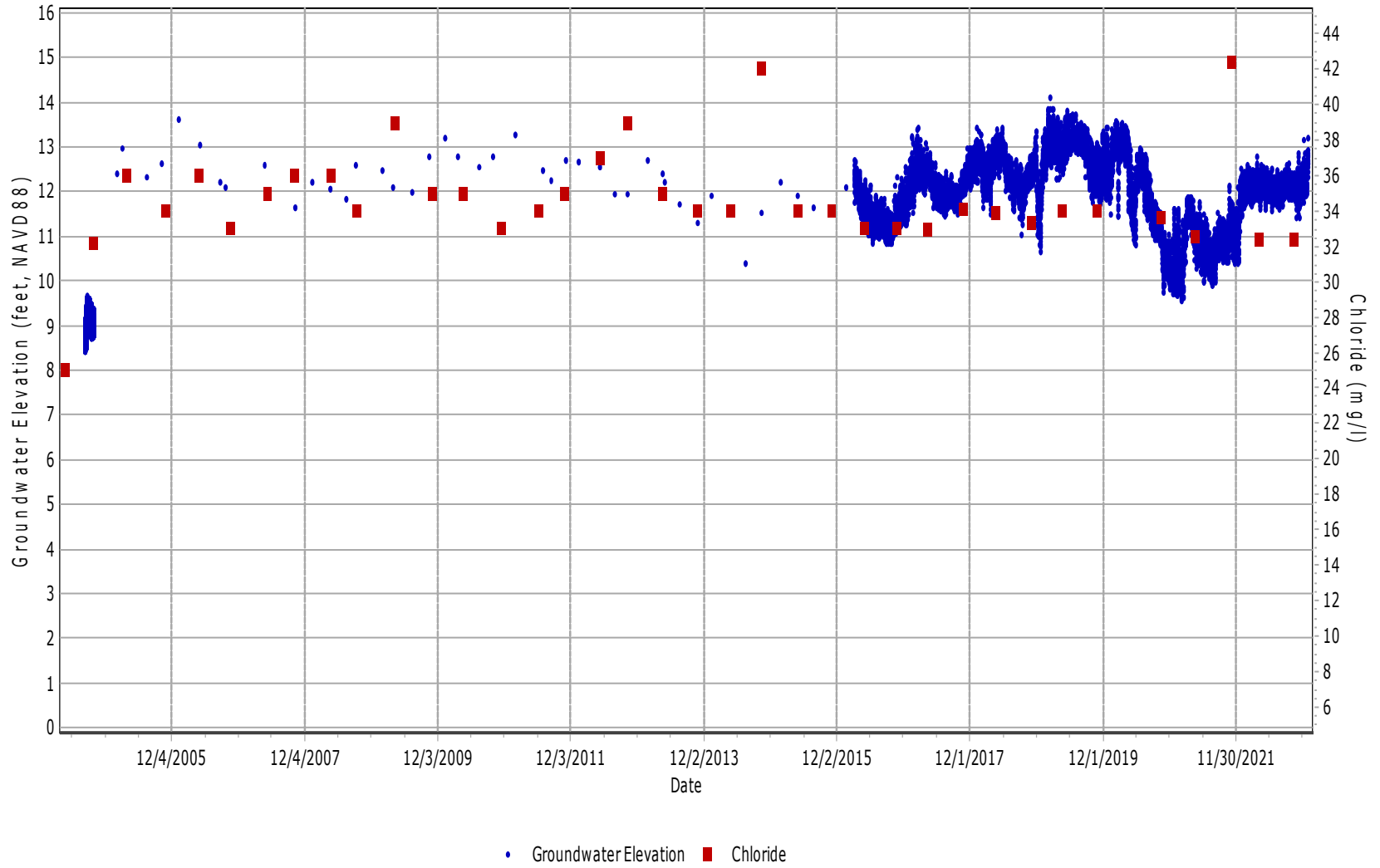


Figure 13c Taraval 400

Groundwater Elevation and Chloride Concentration Hydrograph

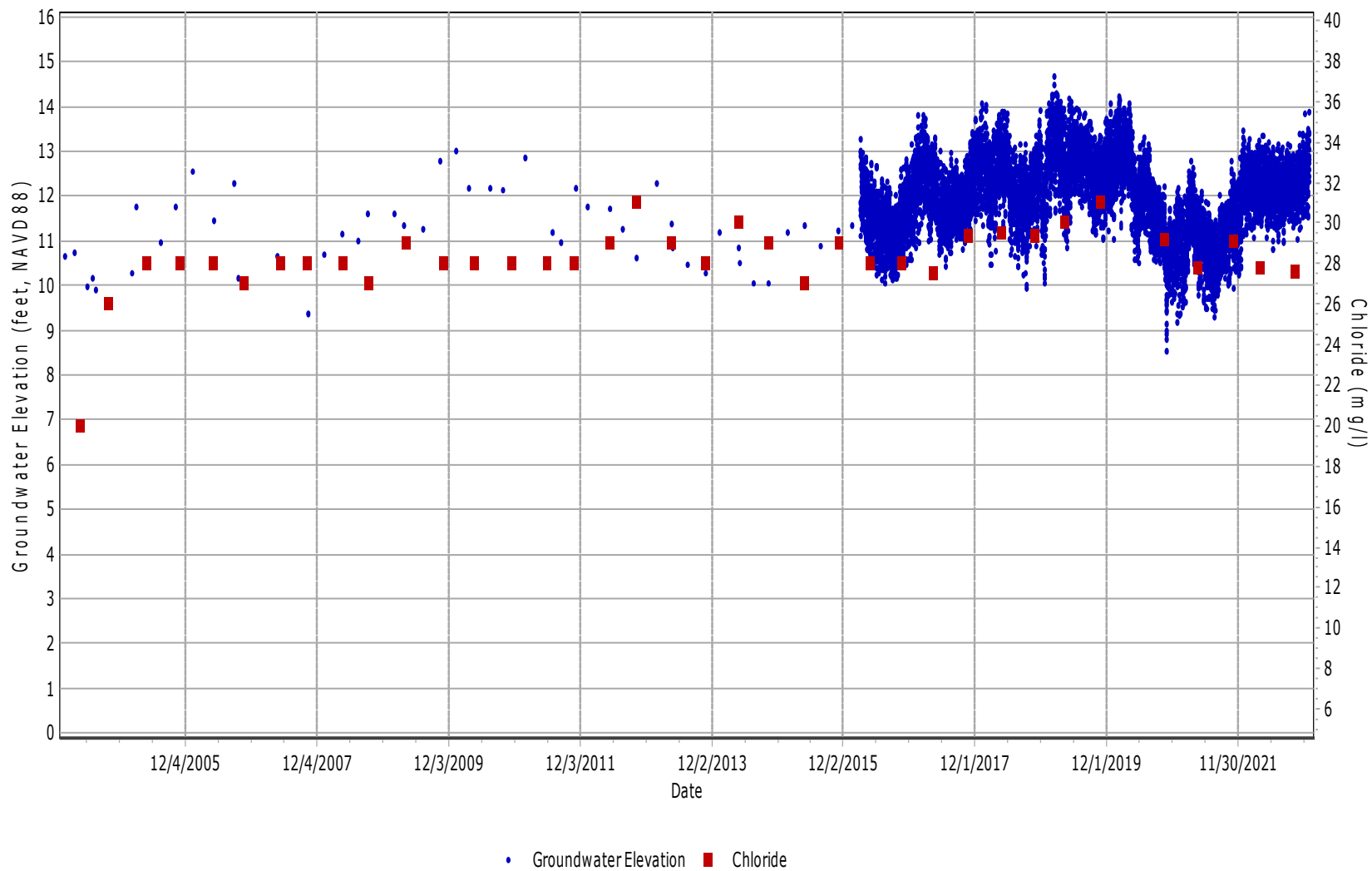


Figure 13d Taraval 530

Groundwater Elevation and Chloride Concentration Hydrograph

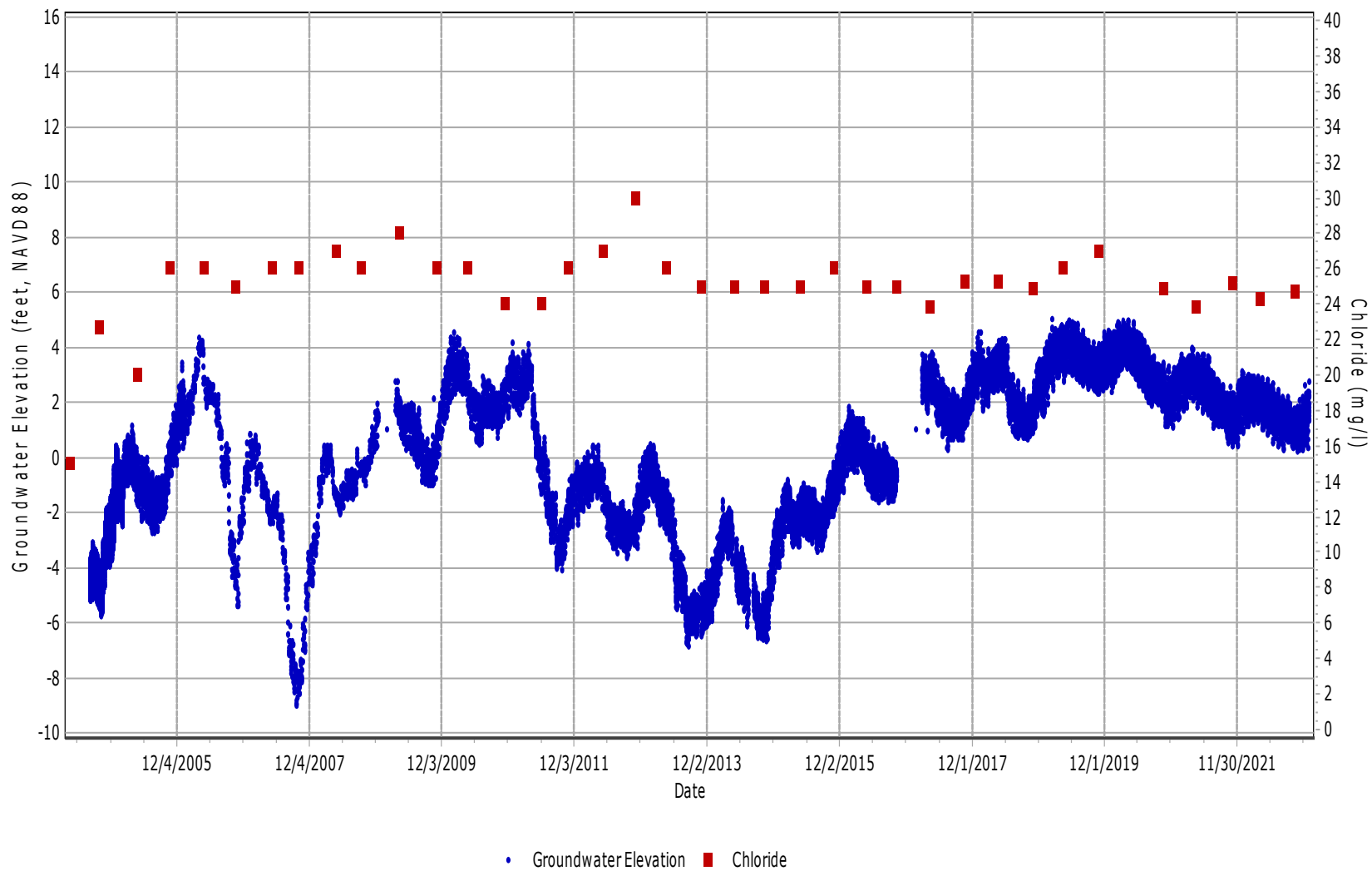


Figure 14a Zoo 275

Groundwater Elevation and Chloride Concentration Hydrograph

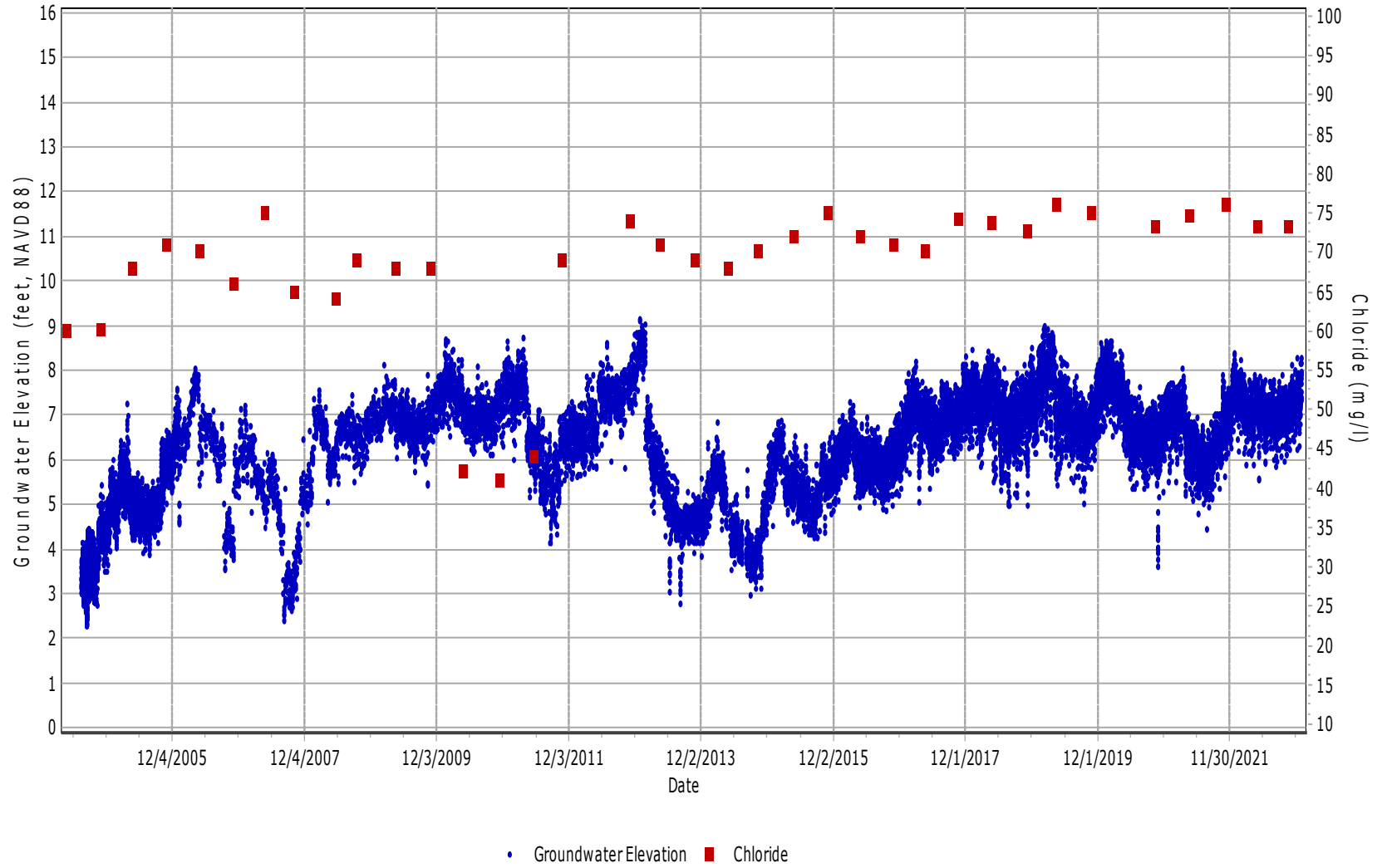


Figure 14b Zoo 450

Groundwater Elevation and Chloride Concentration Hydrograph

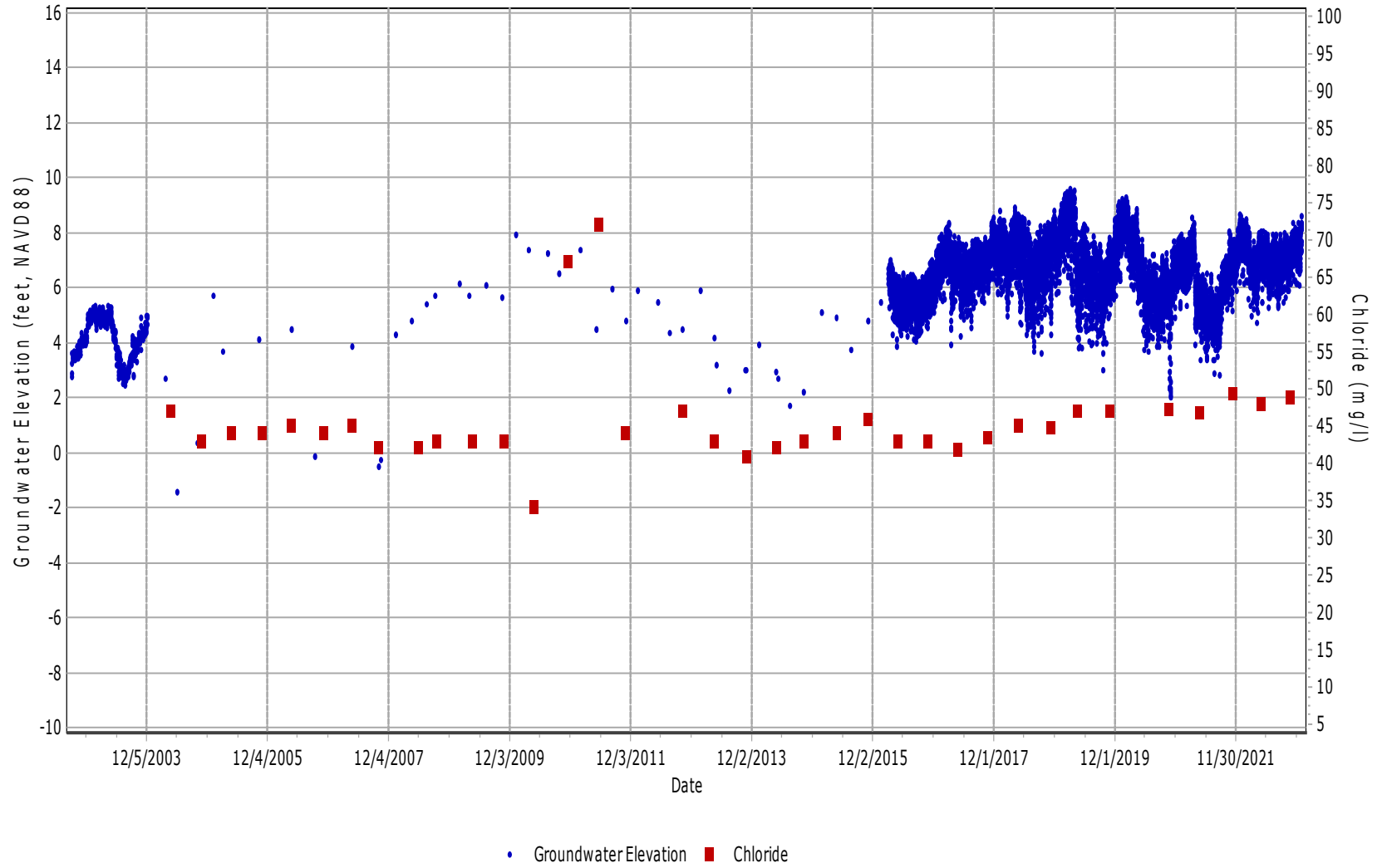


Figure 14c Zoo 565

Groundwater Elevation and Chloride Concentration Hydrograph

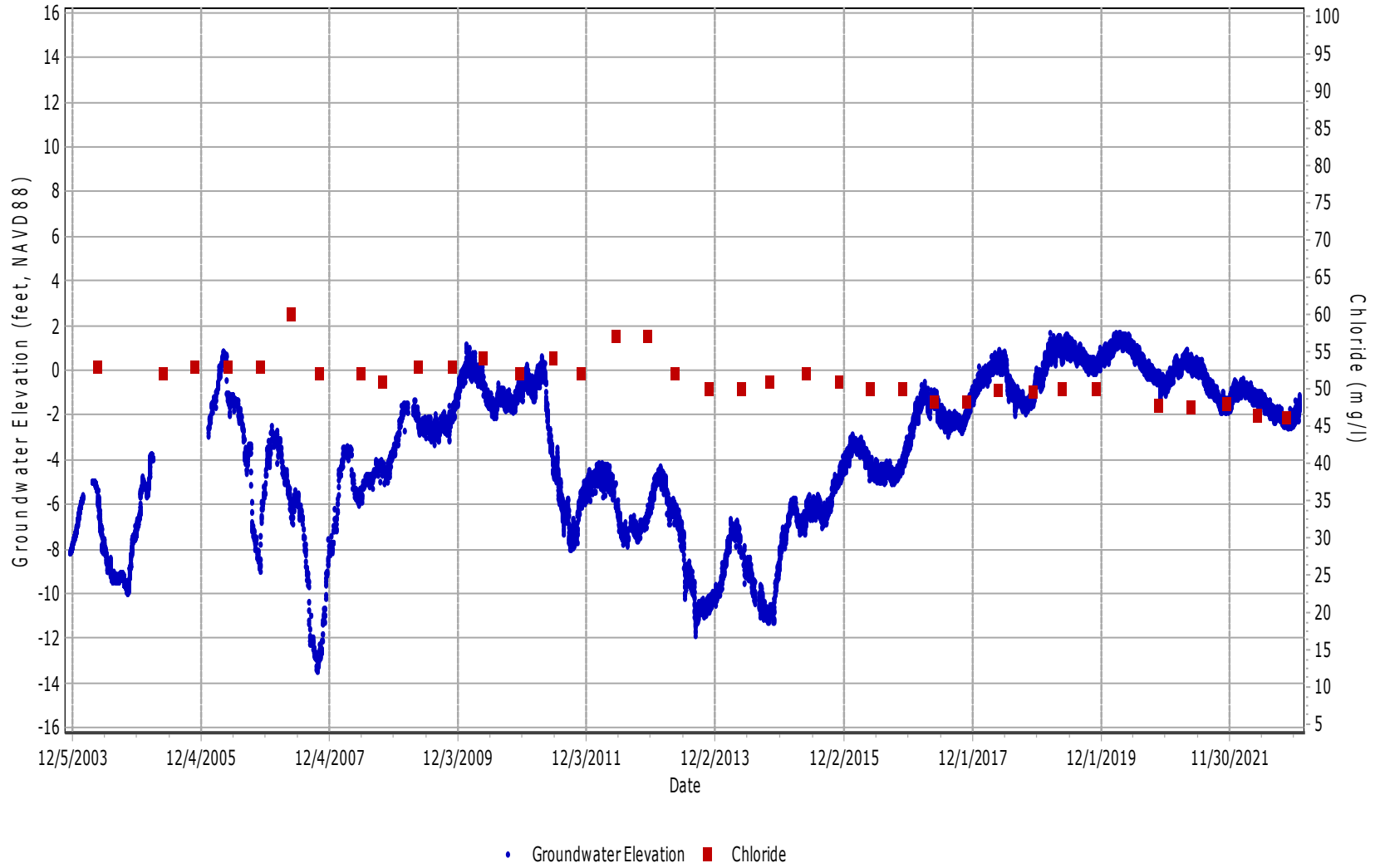


Figure 15 Lake Merced Surface Elevation

Lake Merced Water Surface Elevation, South Lake

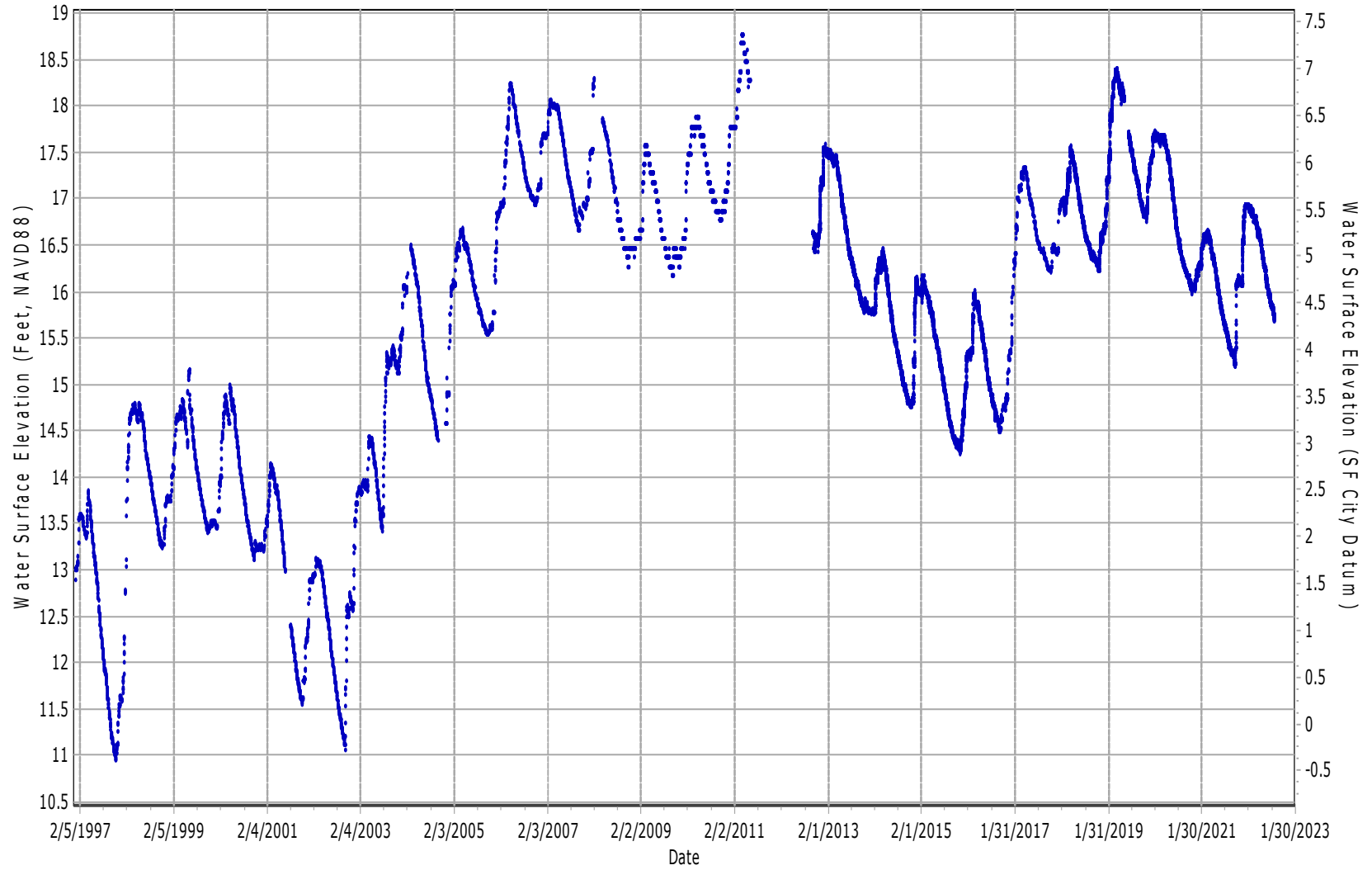


Figure 16

LMMW-1S & LMMW-1D

Groundwater Elevation Hydrograph: Shallow and Primary Production Aquifers

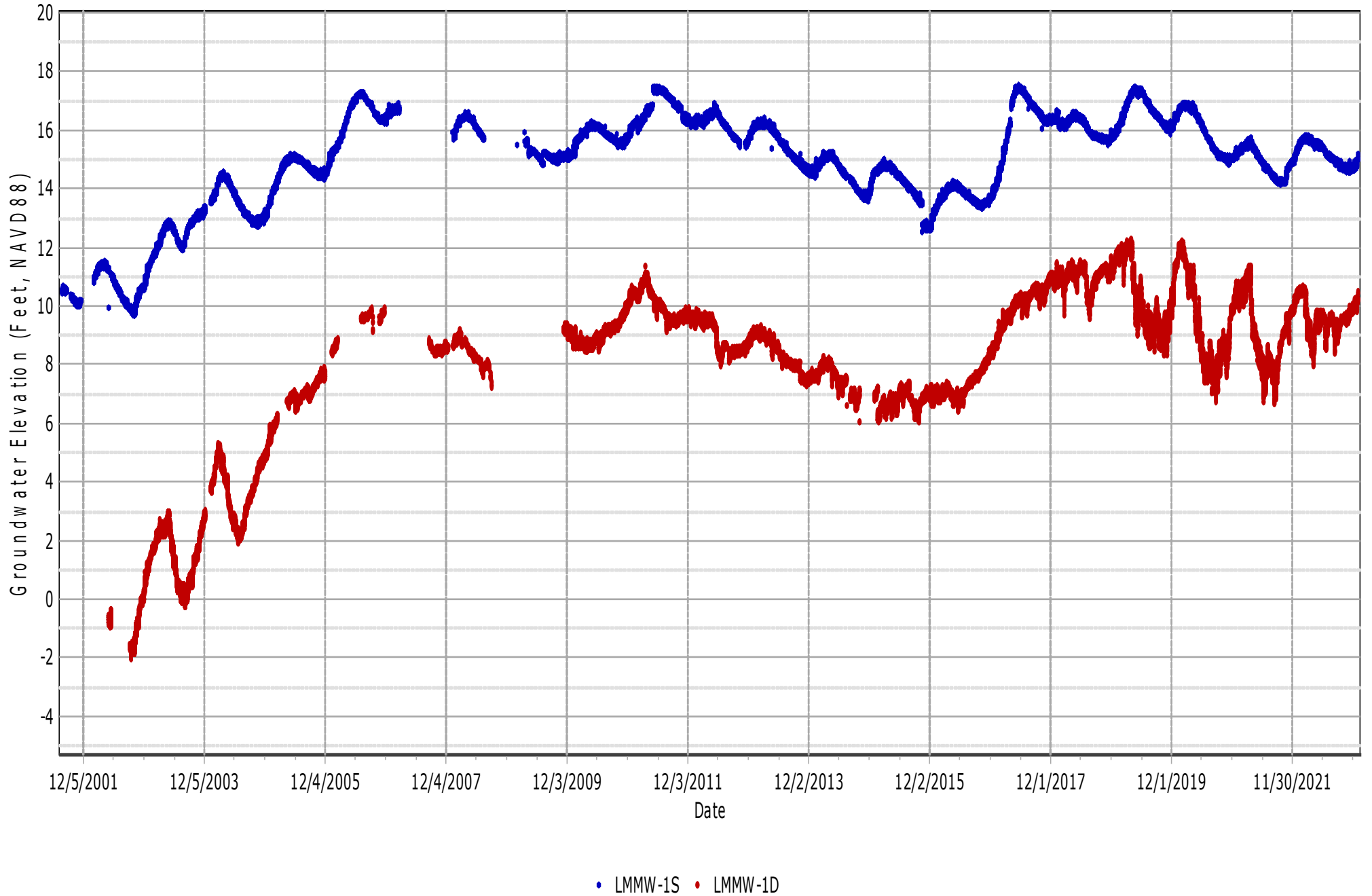


Figure 17 DC-01 (WESTLAKE 1)

Groundwater Elevation Hydrograph - Primary Production Aquifer

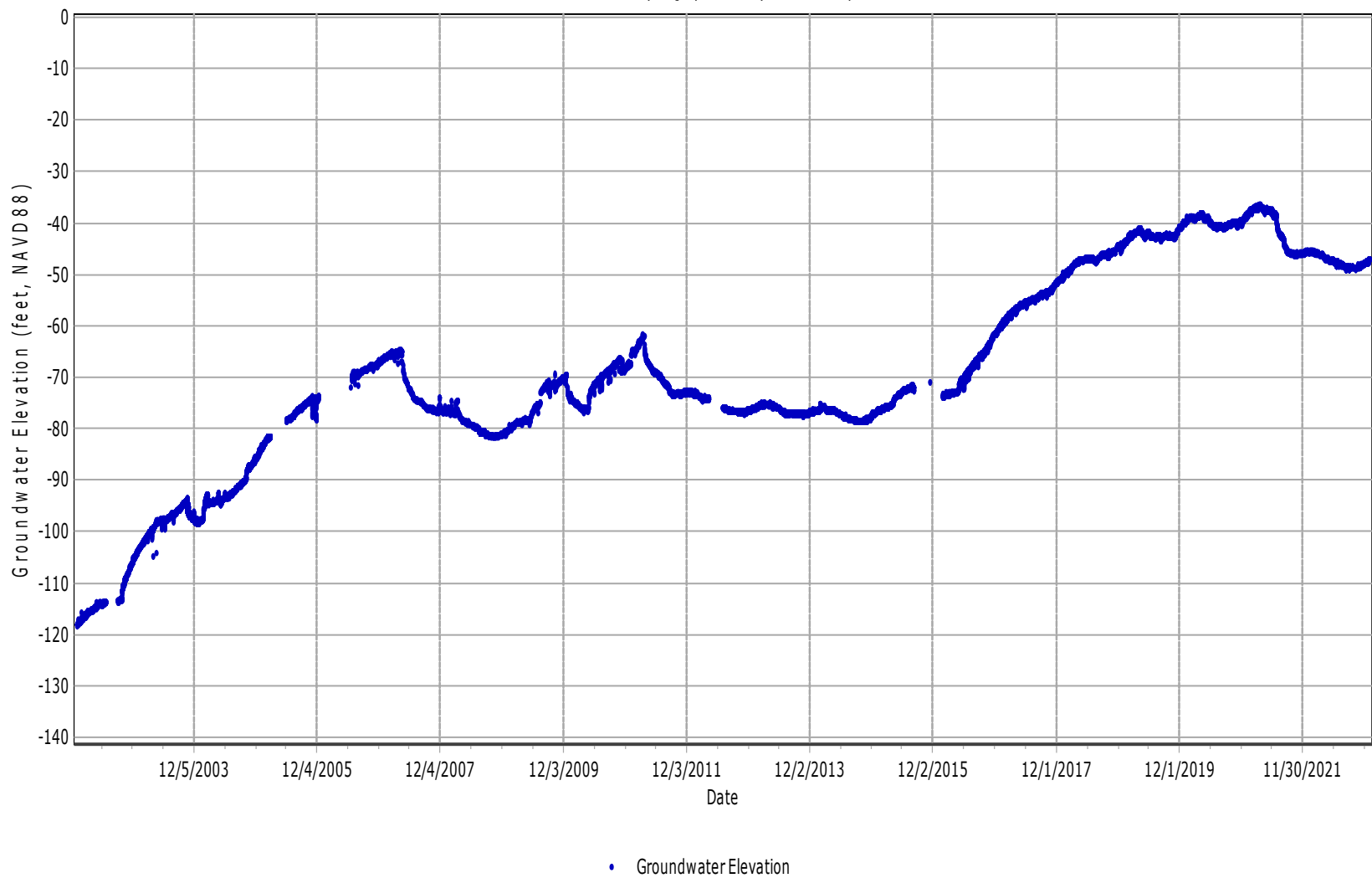


Figure 18 CAL. WATER SERV. SS1-02

Groundwater Elevation Hydrograph - Primary Production Aquifer

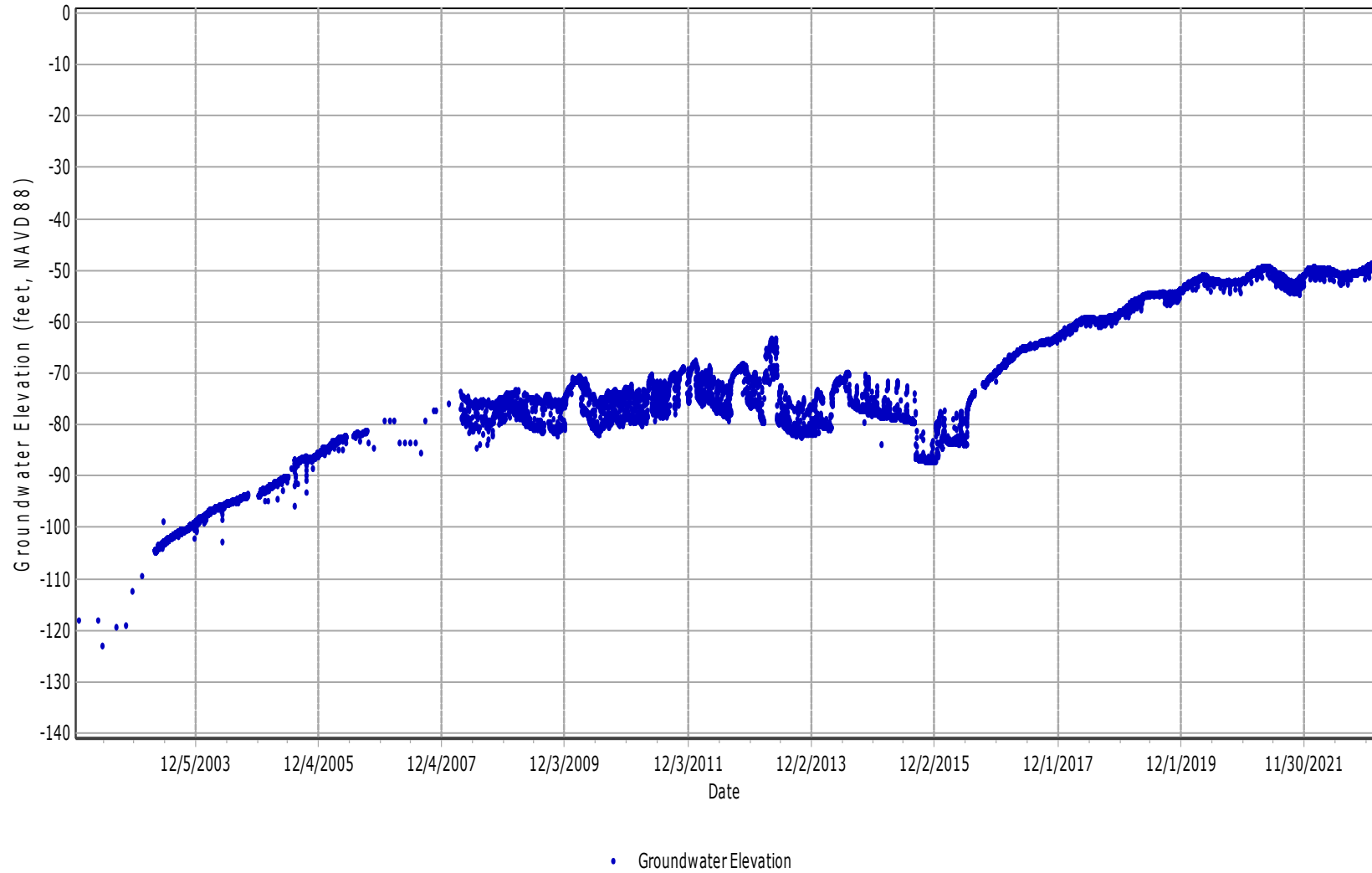


Figure 19 SB-12 ELM AVENUE

Groundwater Elevation Hydrograph - Primary Production Aquifer

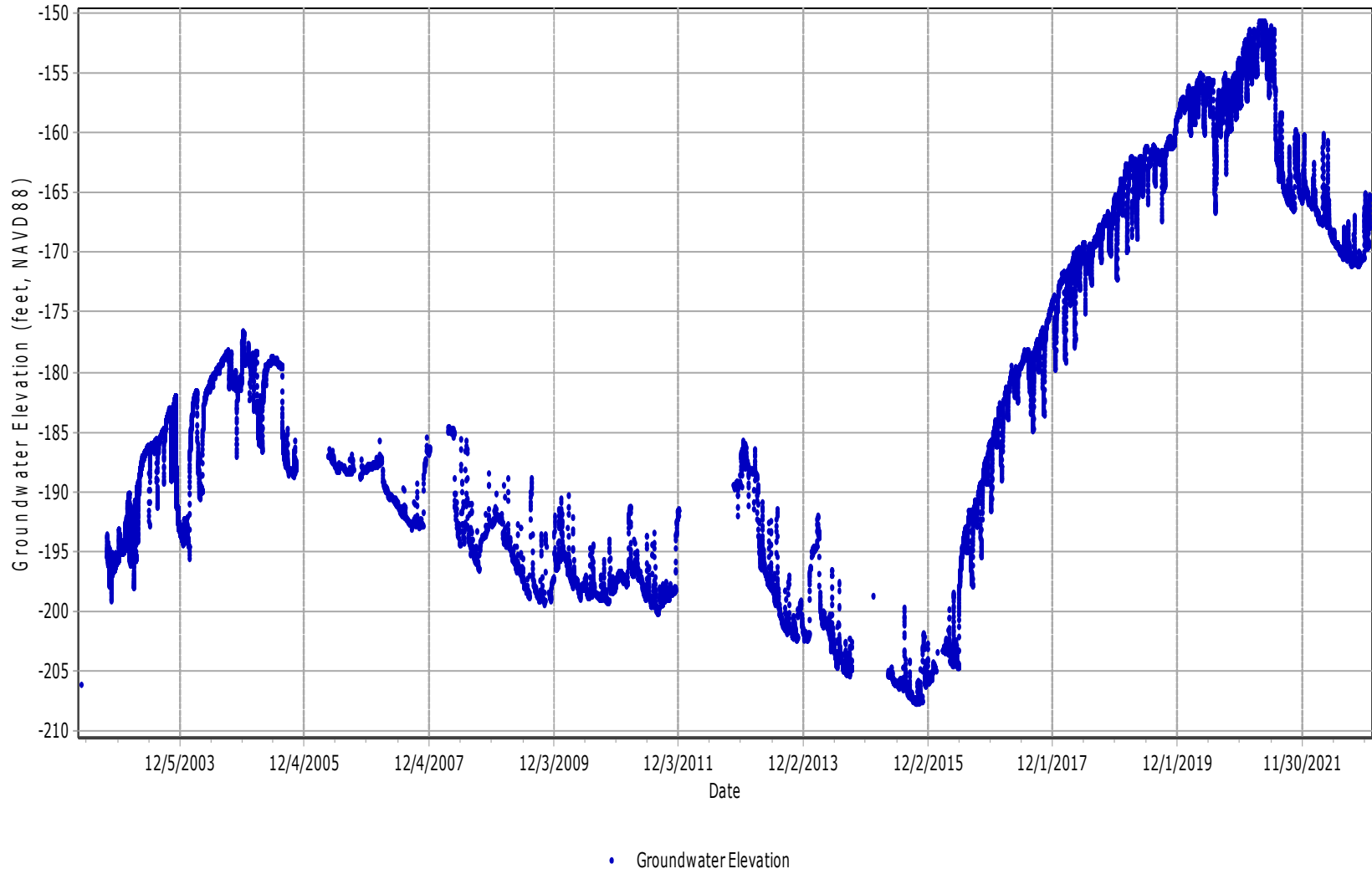


Figure 20a Burlingame S

Groundwater Elevation and Chloride Concentration Hydrograph

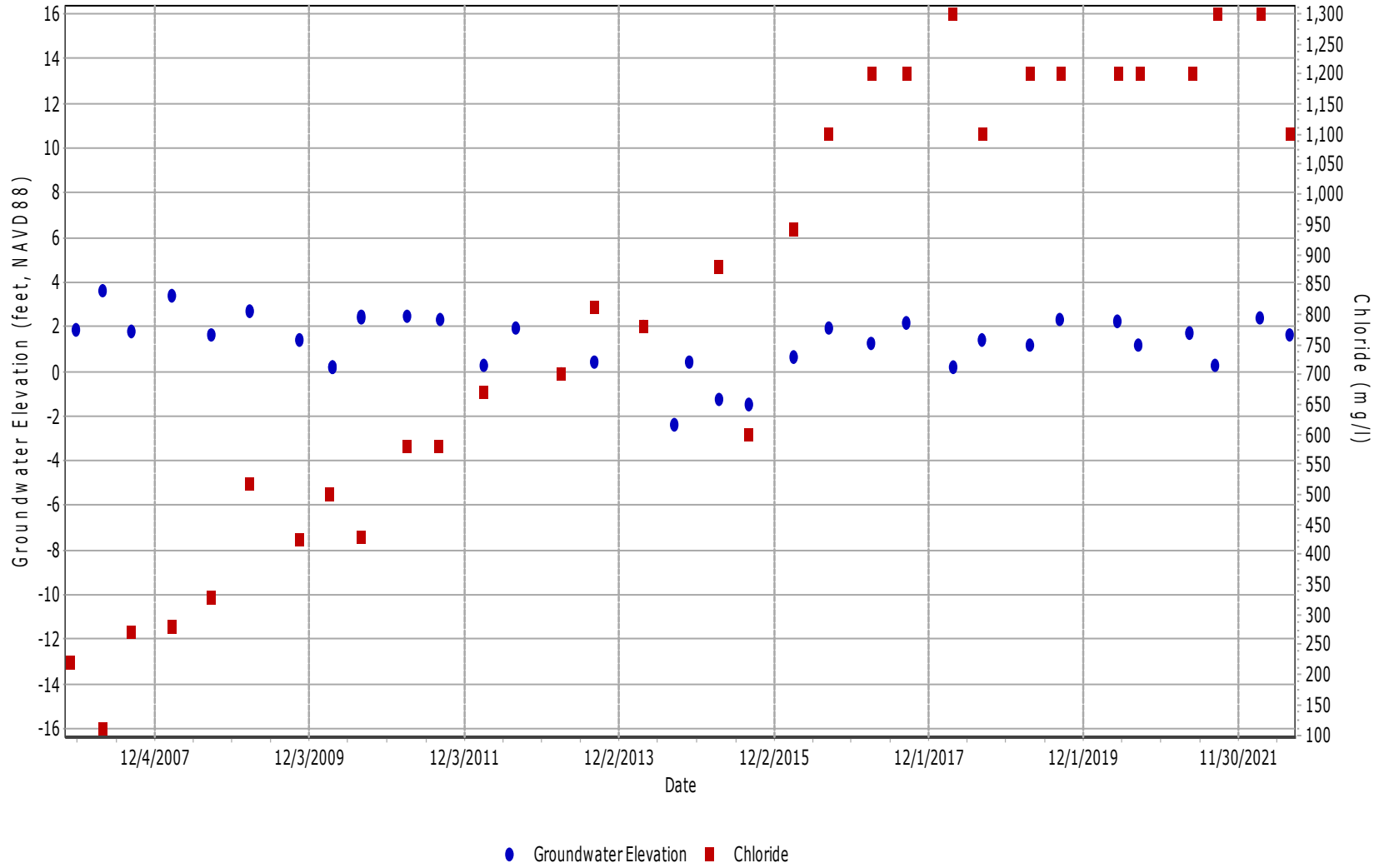


Figure 20b Burlingame M

Groundwater Elevation and Chloride Concentration Hydrograph

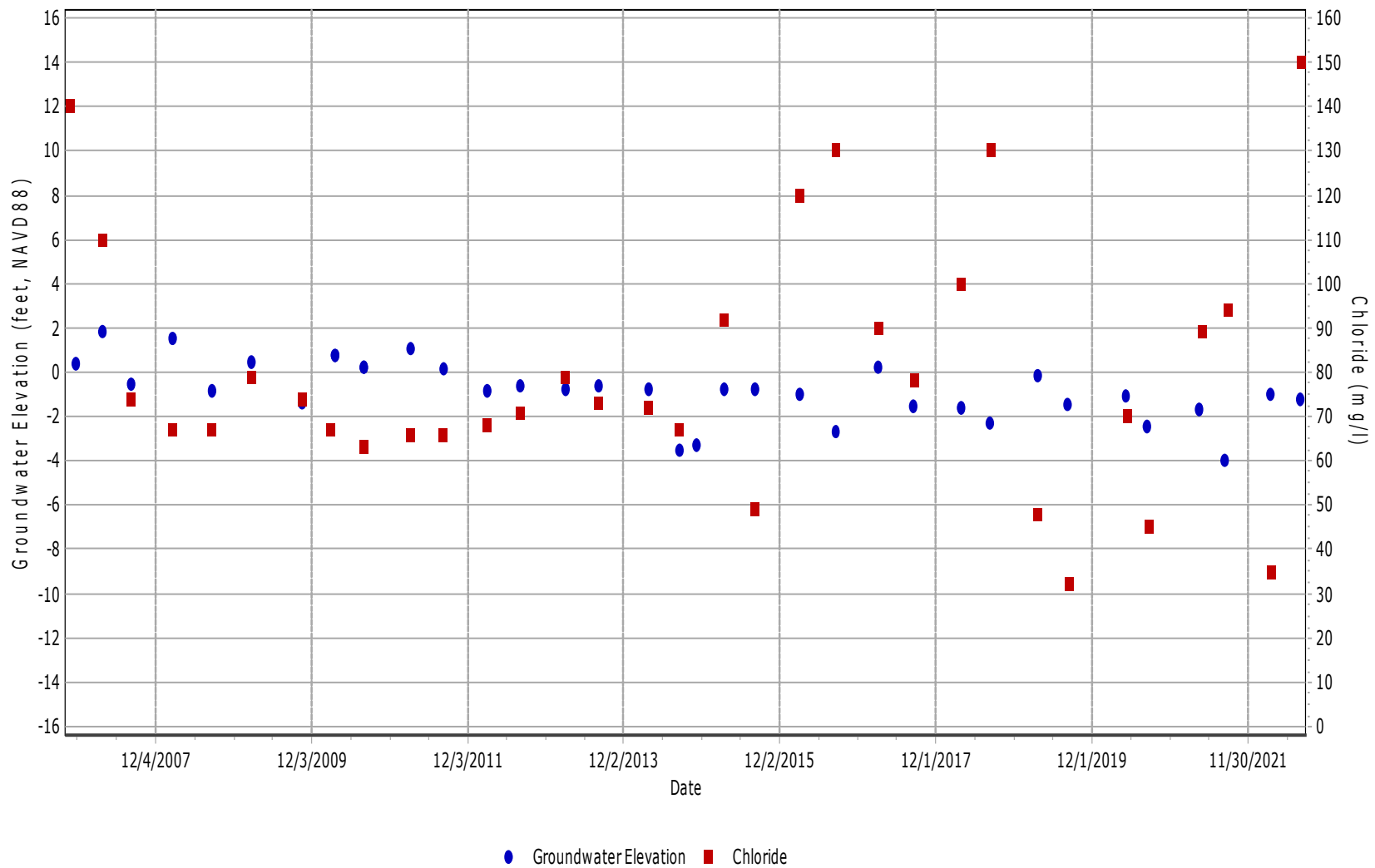


Figure 20c Burlingame D

Groundwater Elevation and Chloride Concentration Hydrograph

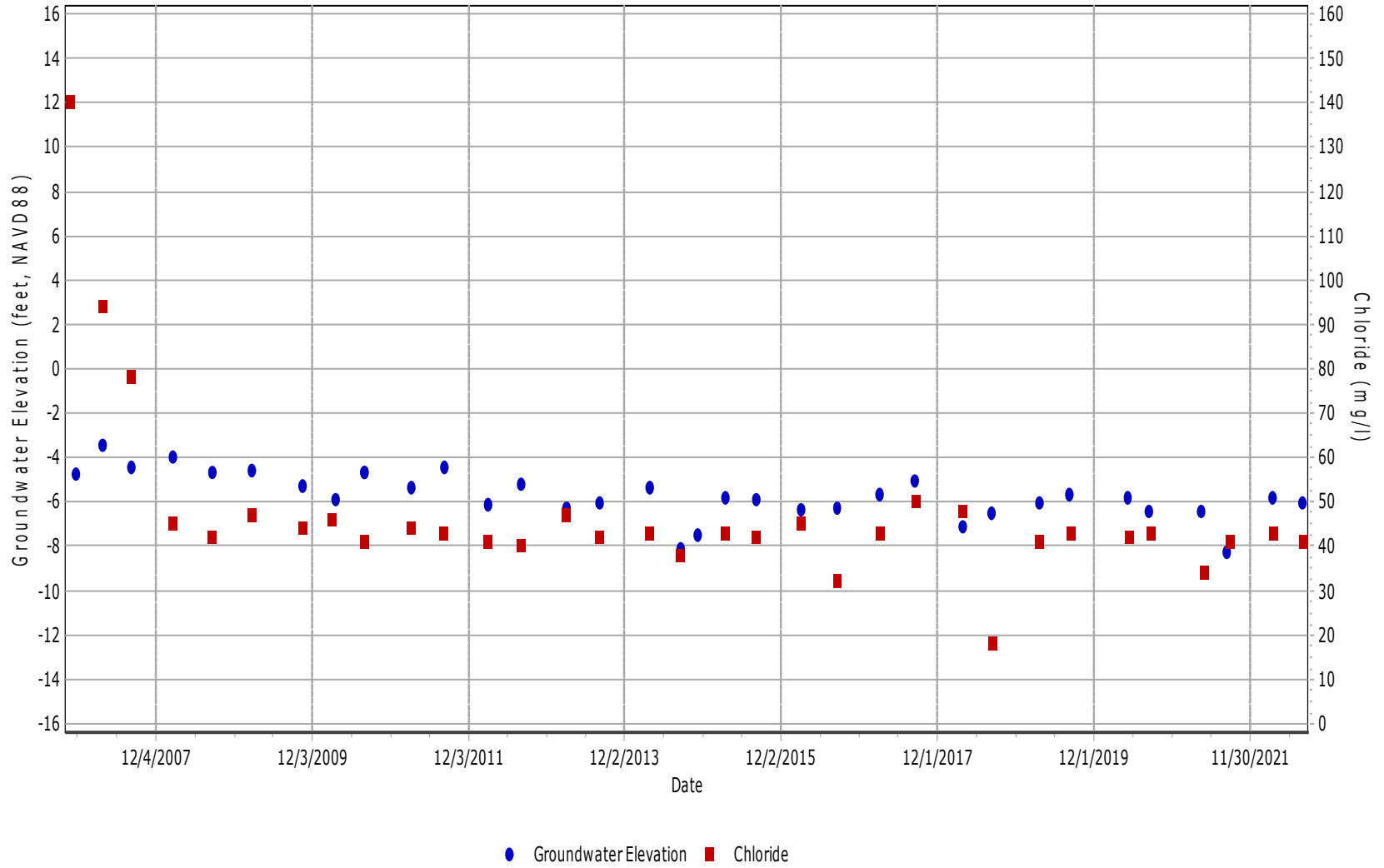


Figure 21a SFO S

Groundwater Elevation and Chloride Concentration Hydrograph

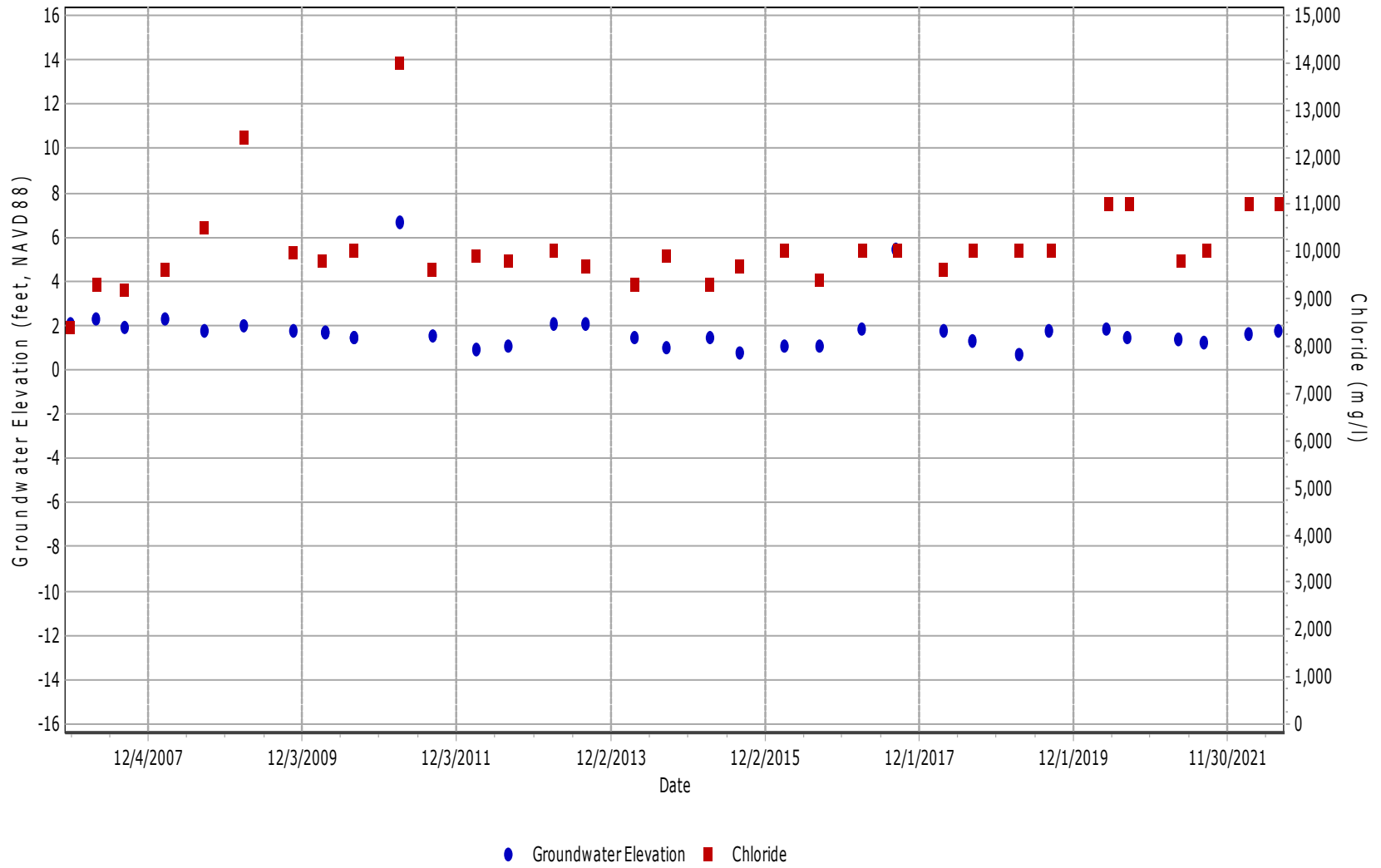


Figure 21b SFO D

Groundwater Elevation and Chloride Concentration Hydrograph

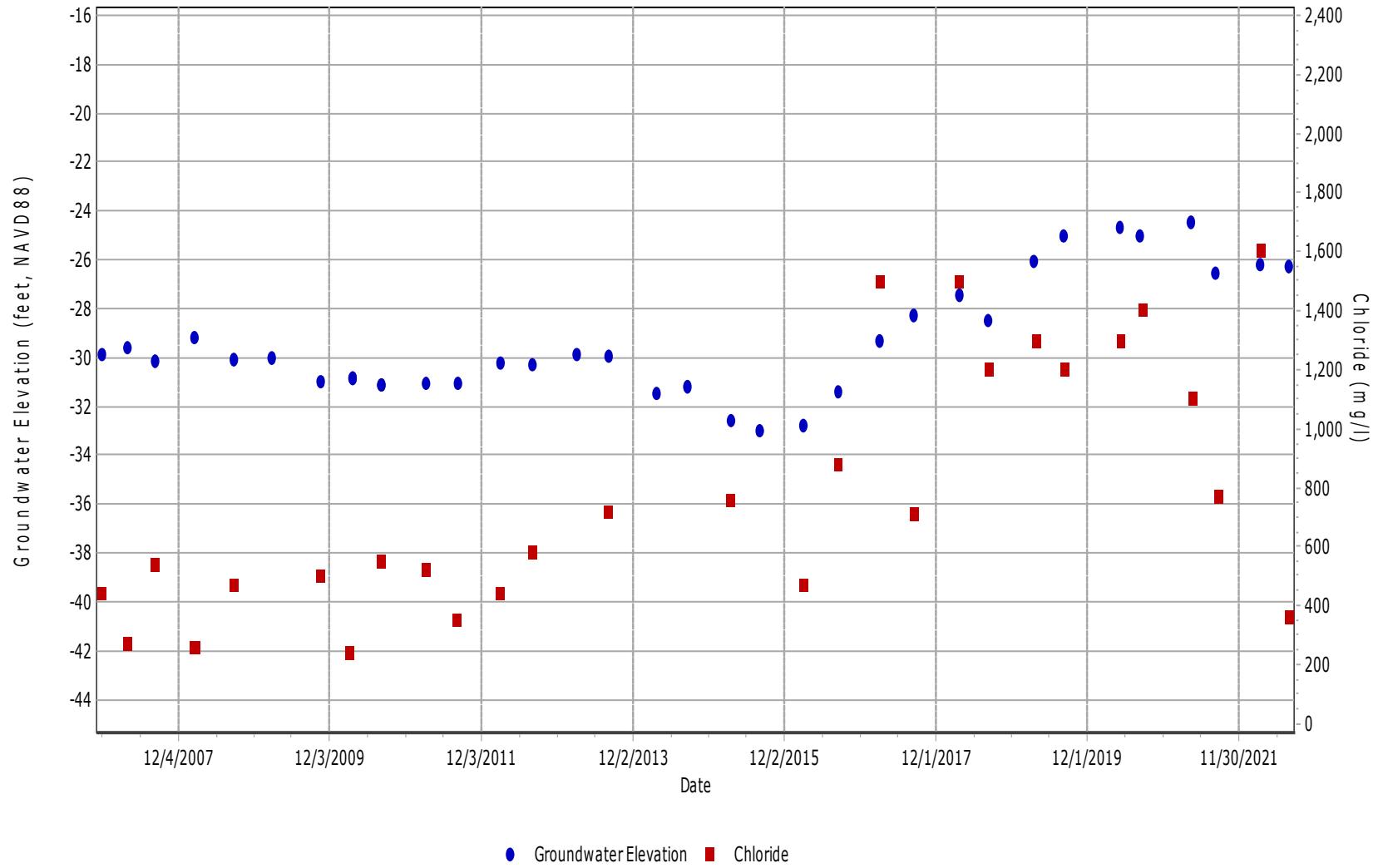
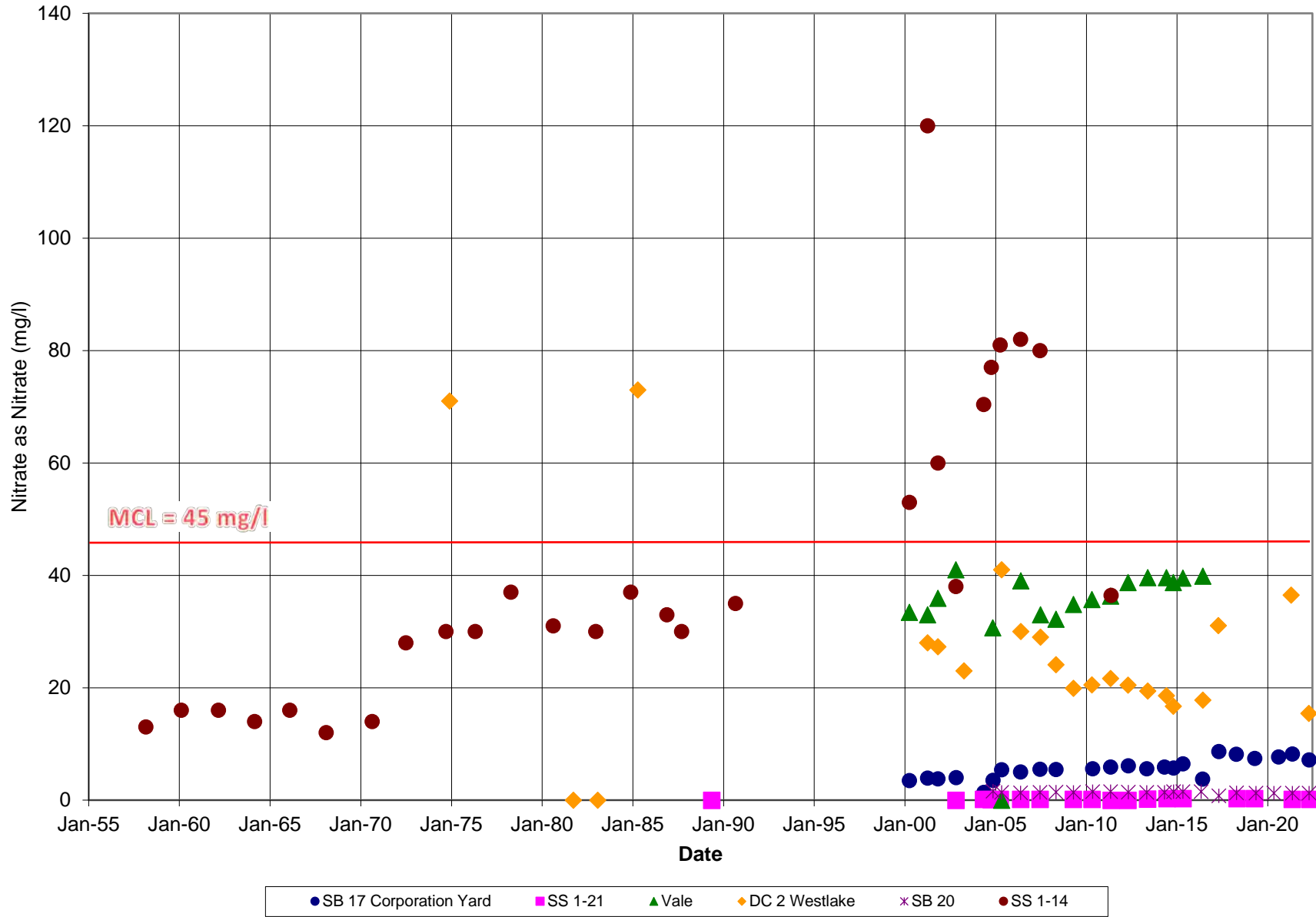


Figure 22
Nitrate Concentrations in Southern Westside Basin Groundwater, 1957-2022



Note: Well SS 1-14 was offline from 2007-2011, and permanently taken out of service in 2015. Vale has been offline since 2018.

Figure 23
Long-Term Water Quality, Daly City Westlake DC-2

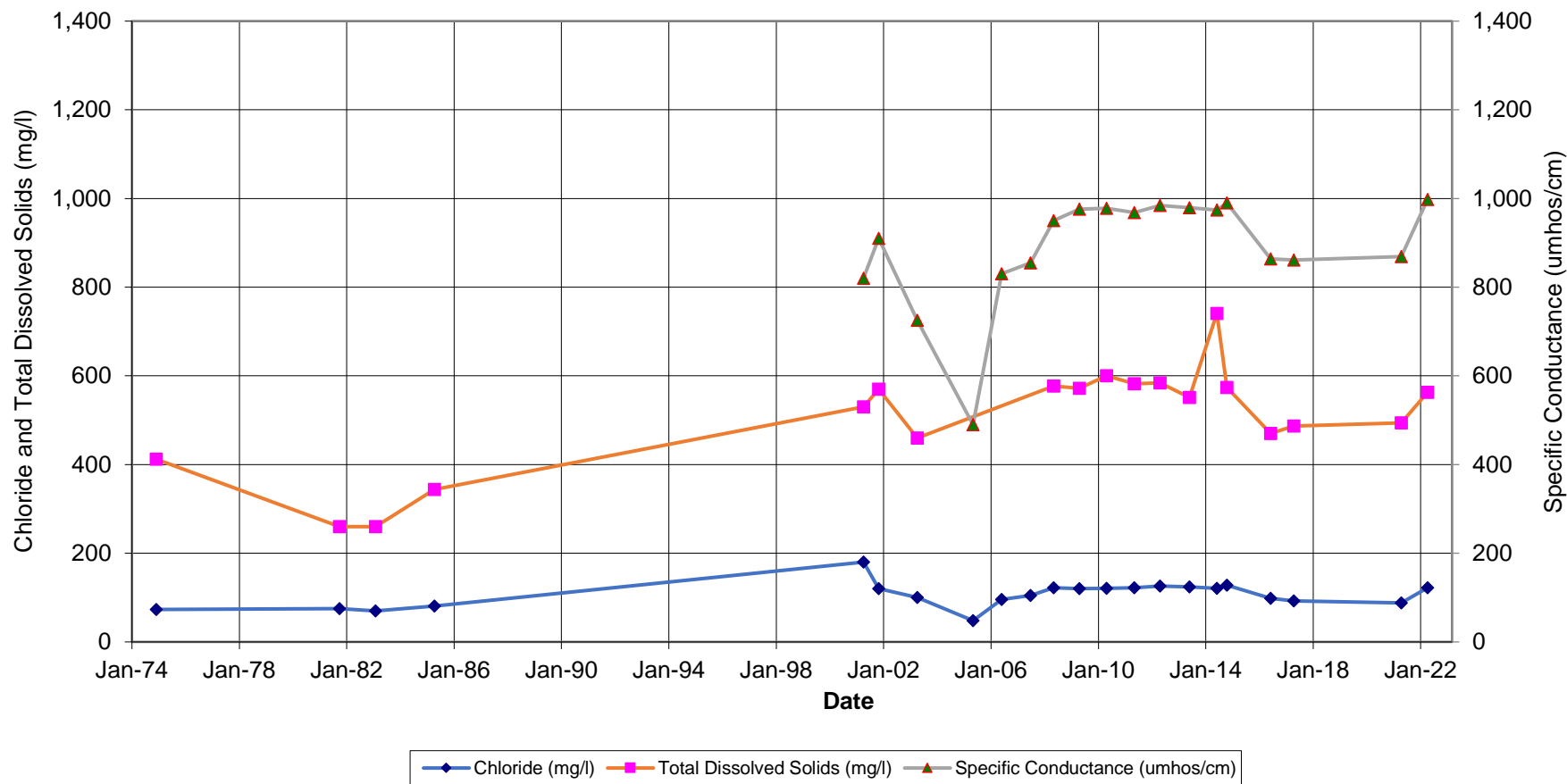


Figure 24
Long-Term Water Quality, Cal Water SS 1-21

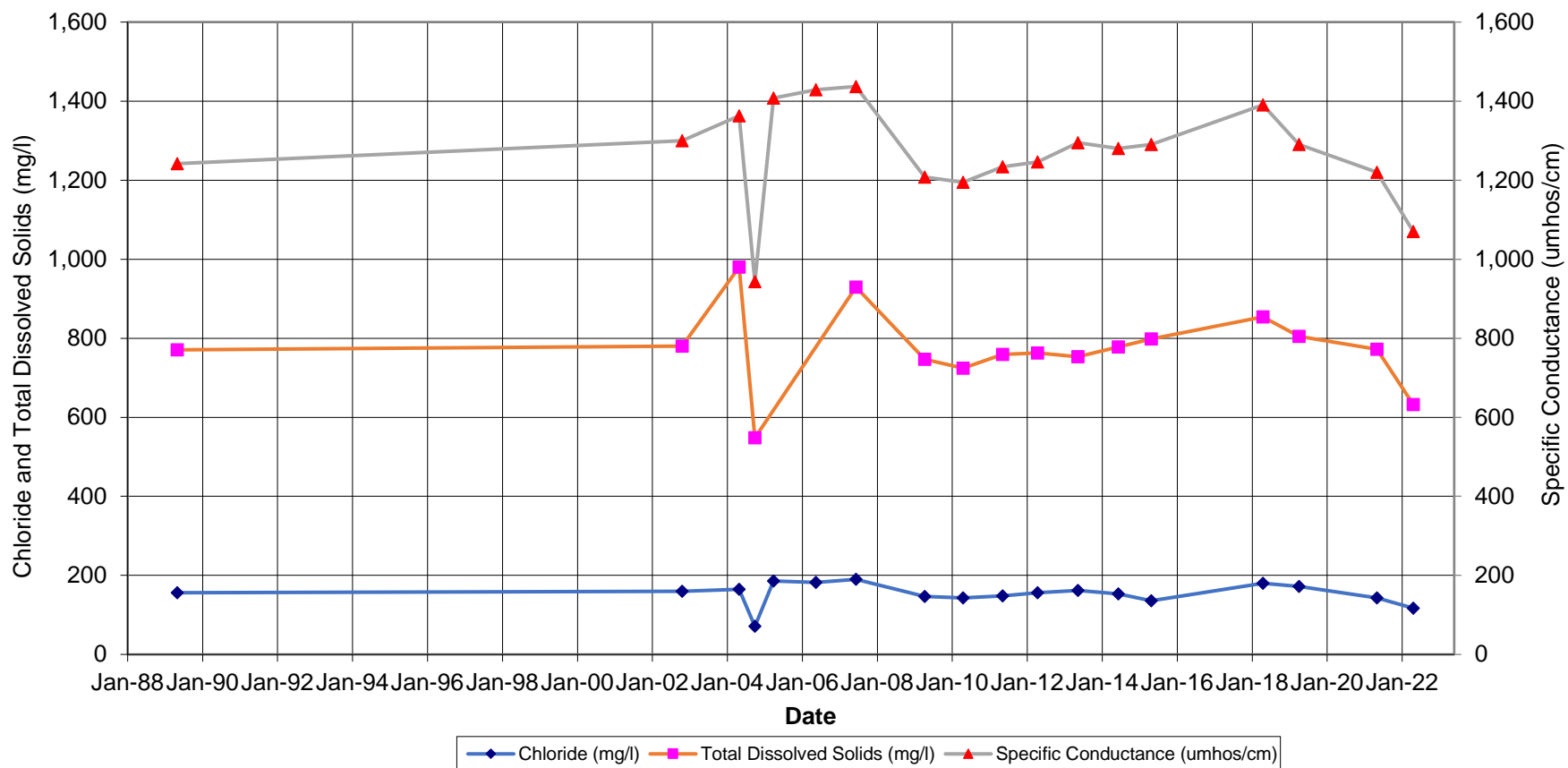
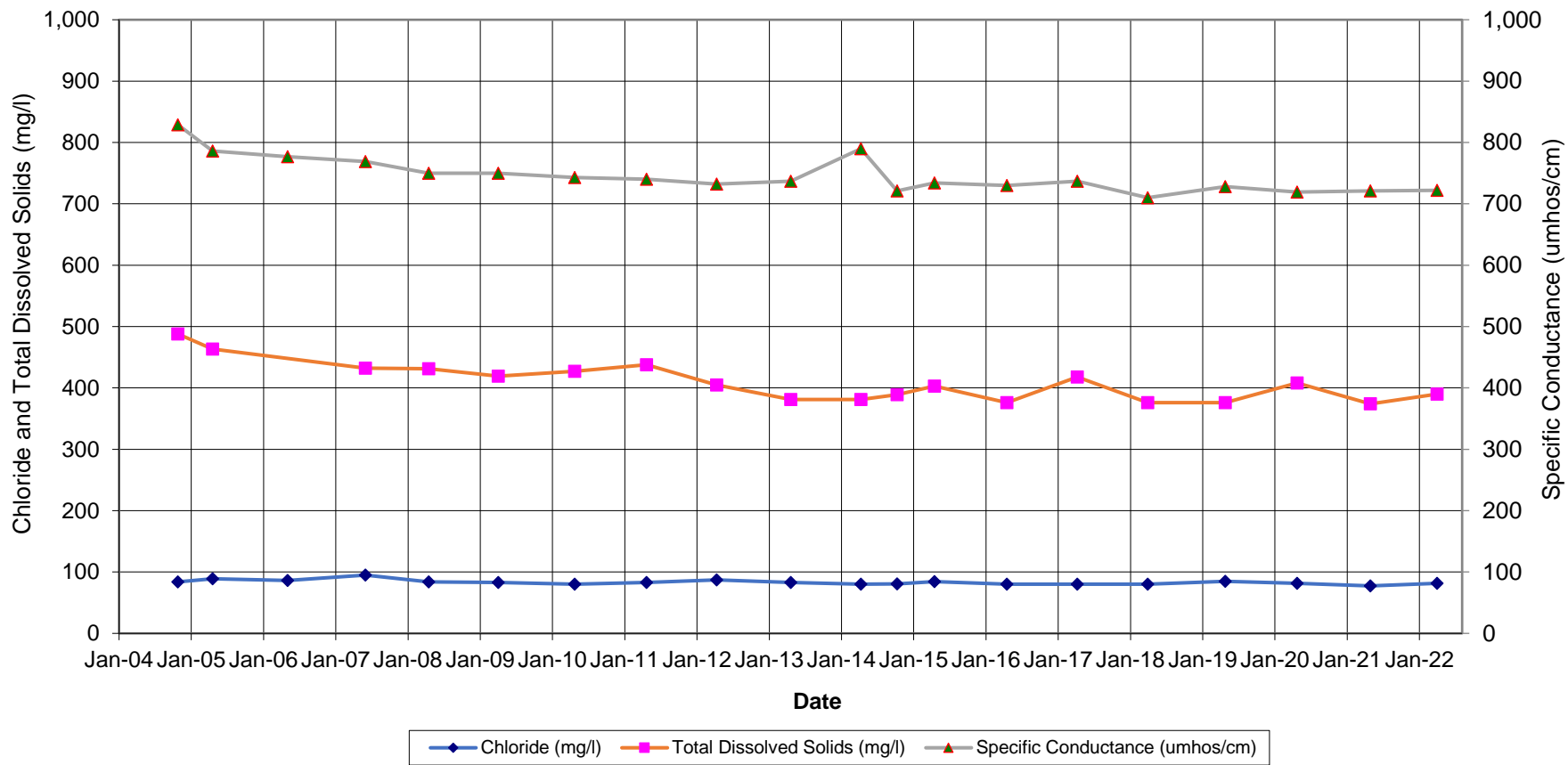
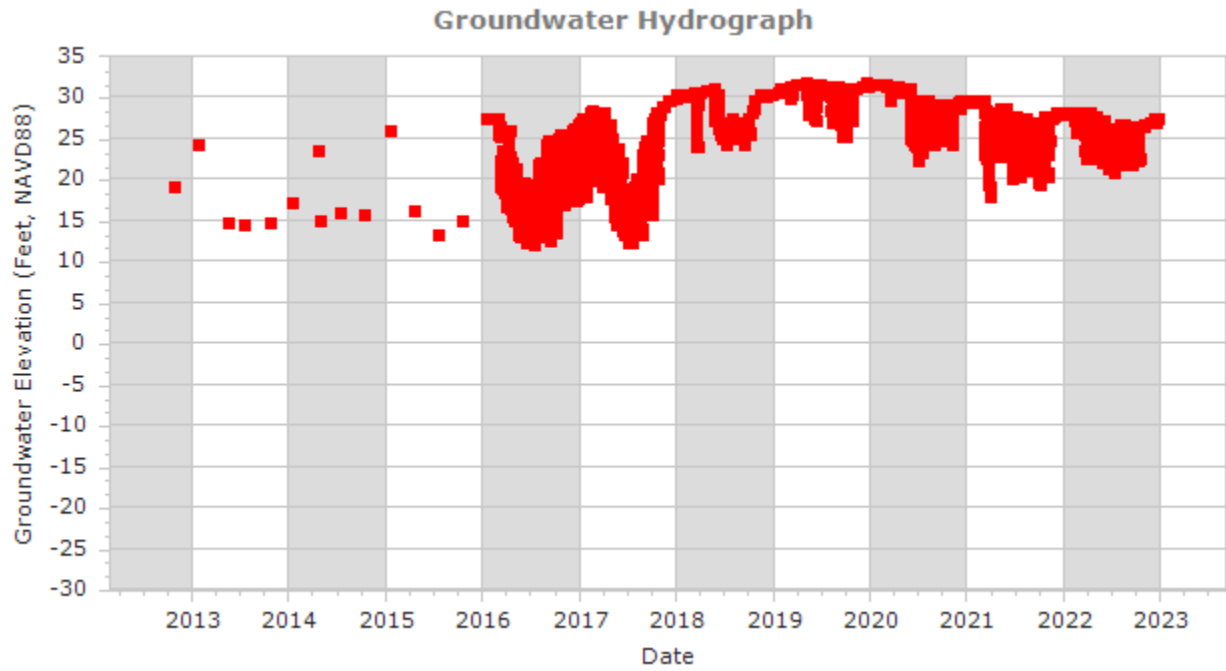


Figure 25
Long-Term Water Quality, San Bruno SB-20
Lions Field Park

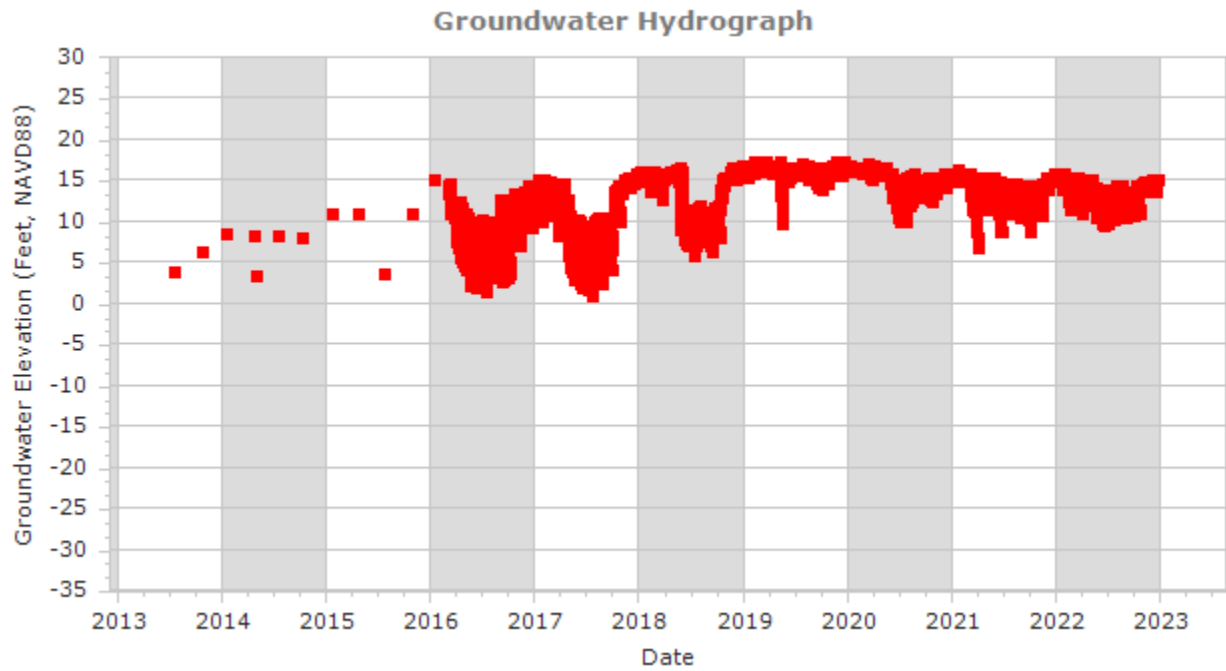


APPENDIX A
Groundwater Elevation Hydrographs

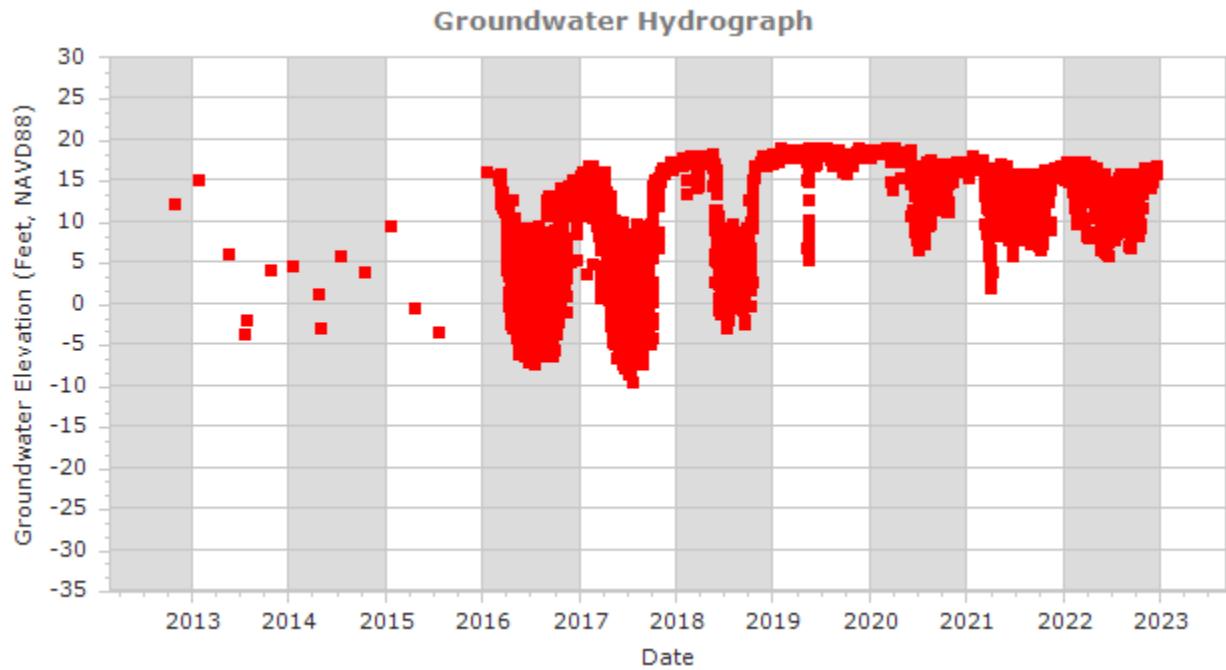
Station Name: NL-1



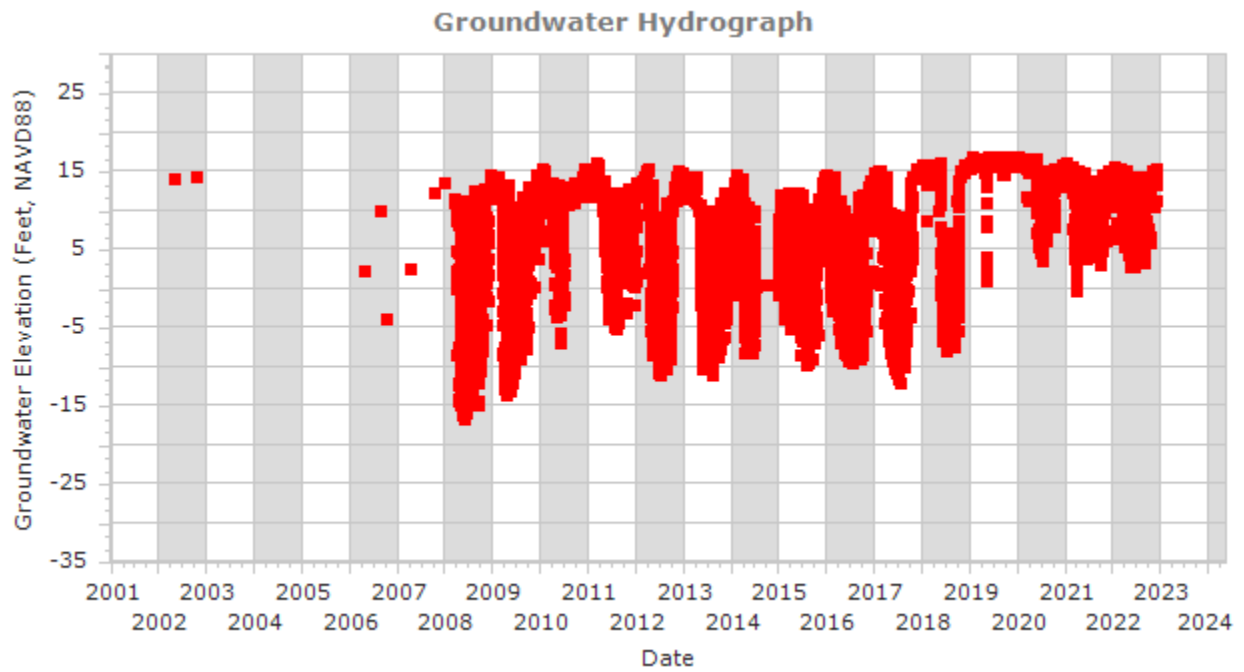
Station Name: NWM-3



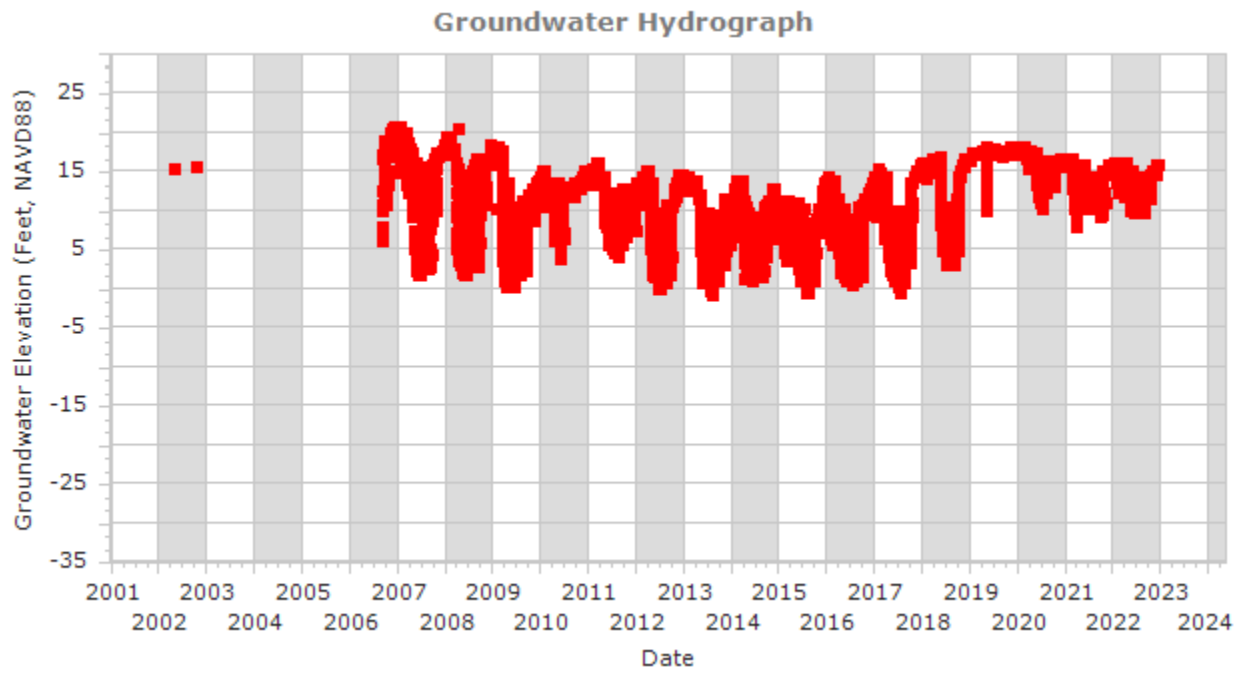
Station Name: SF-1



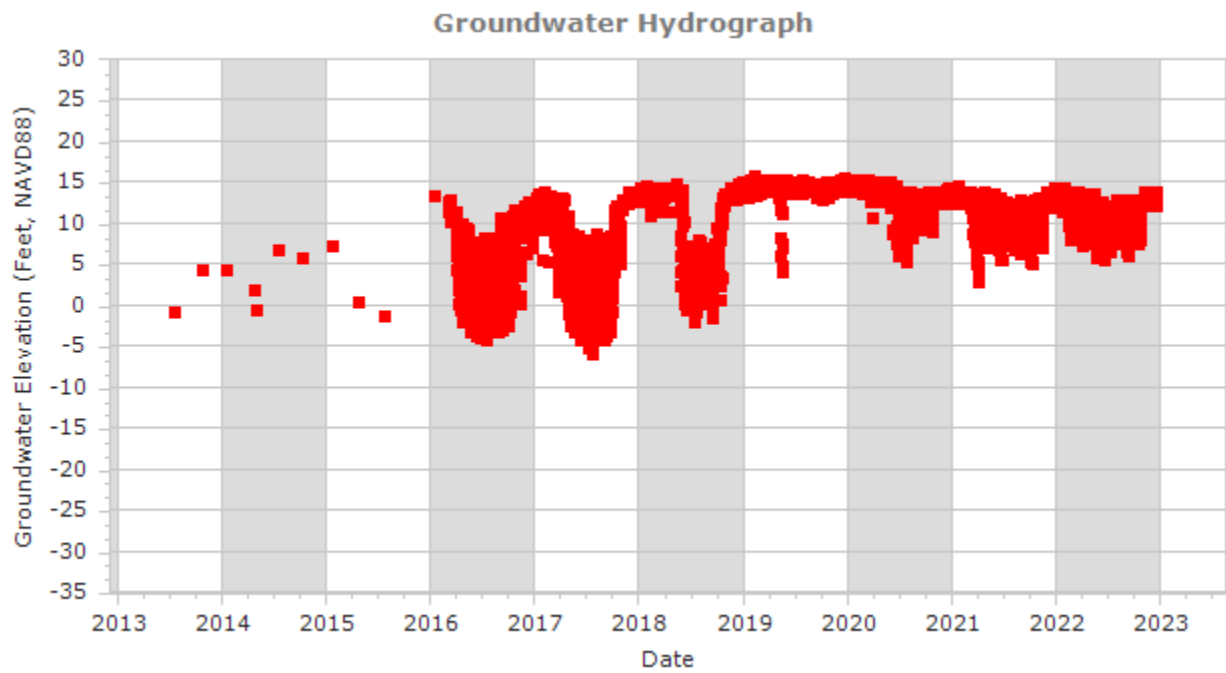
Station Name: South Windmill 140



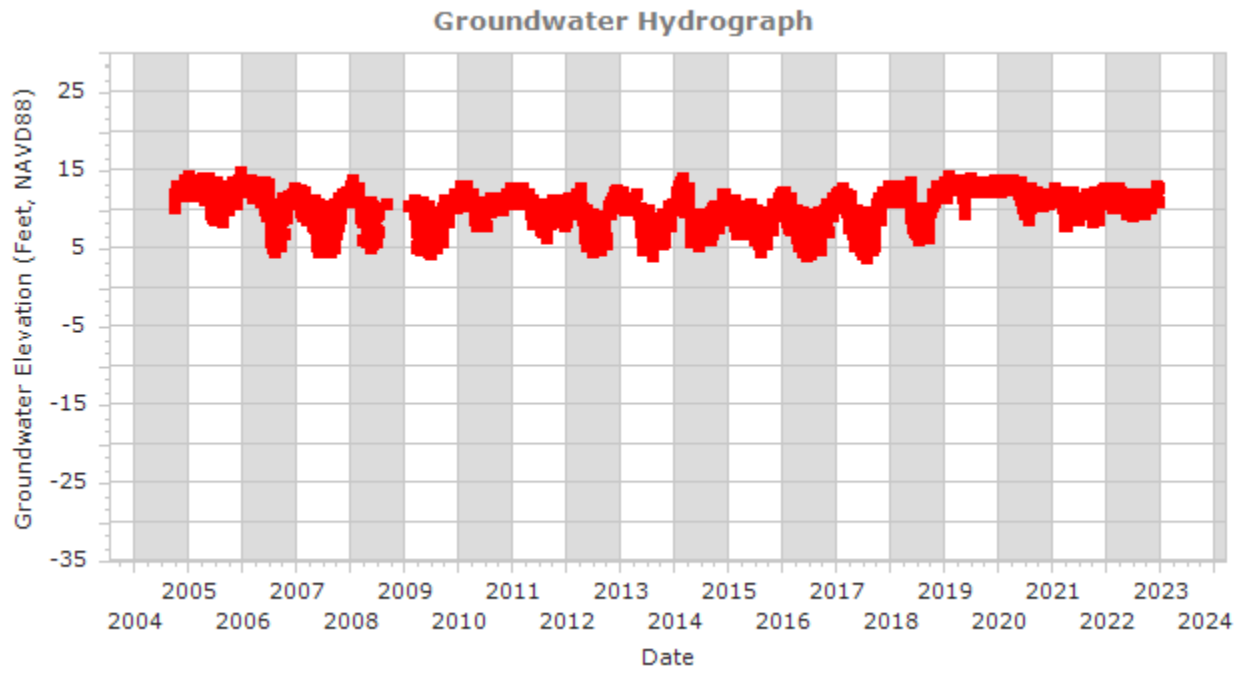
Station Name: South Windmill 57



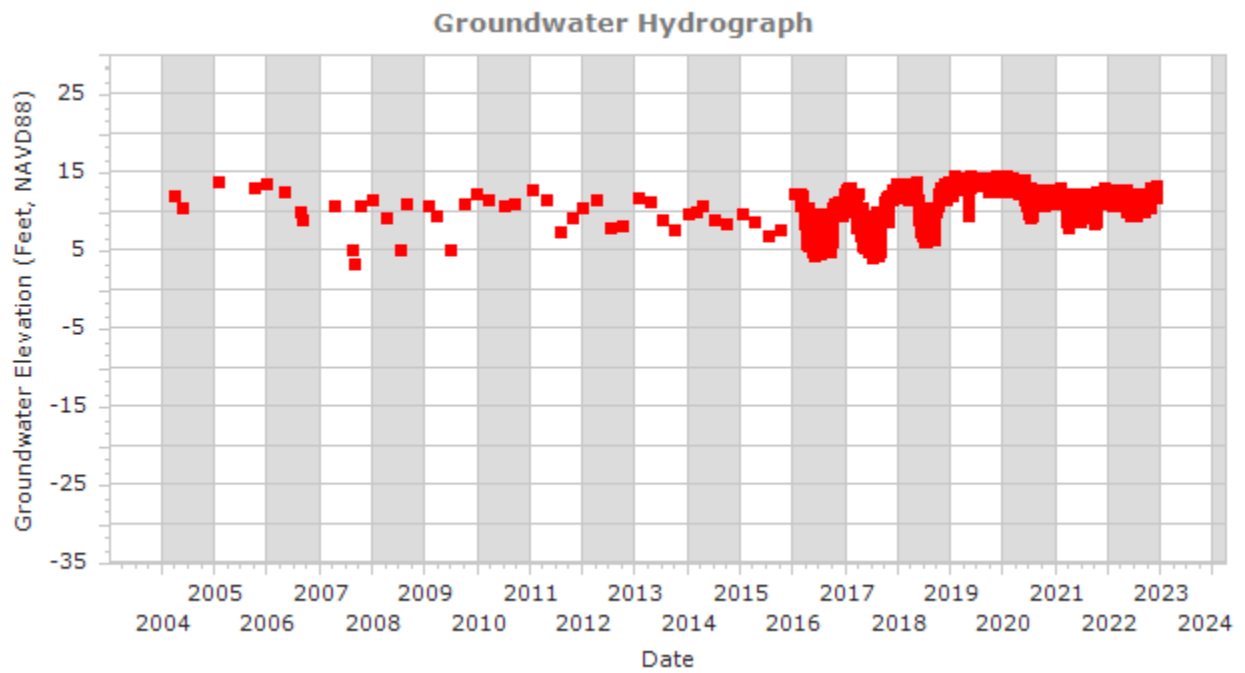
Station Name: SWM-3



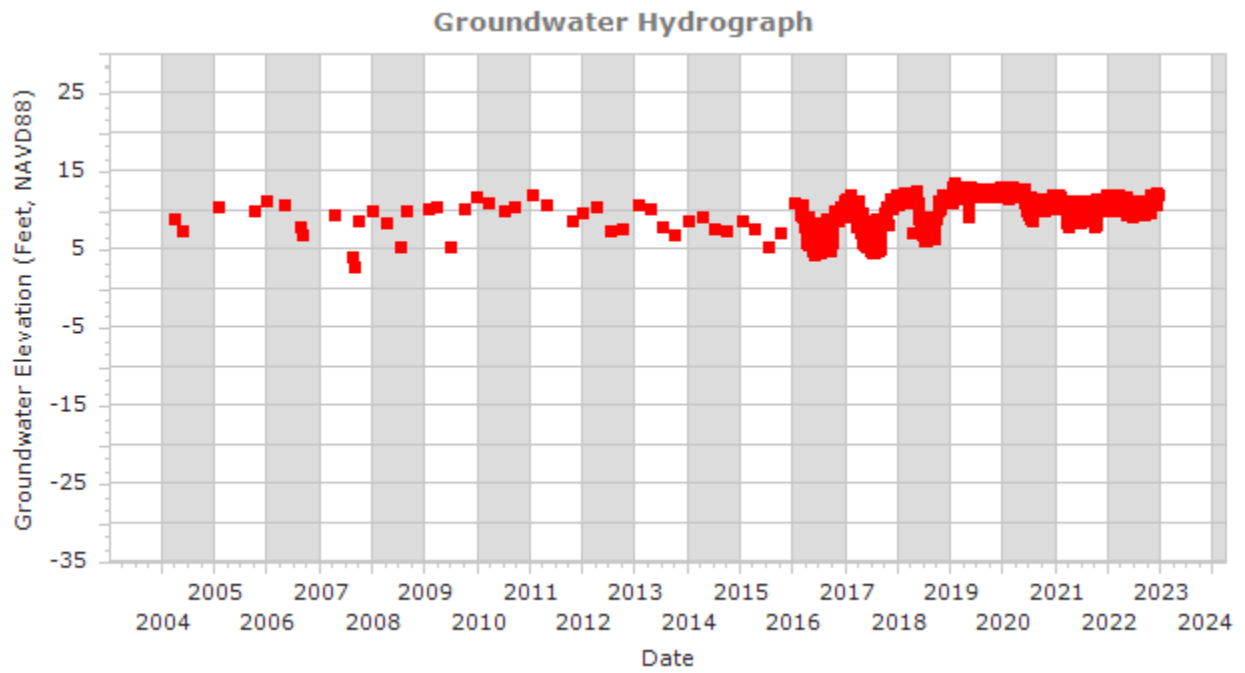
Station Name: KIRKHAM MW130



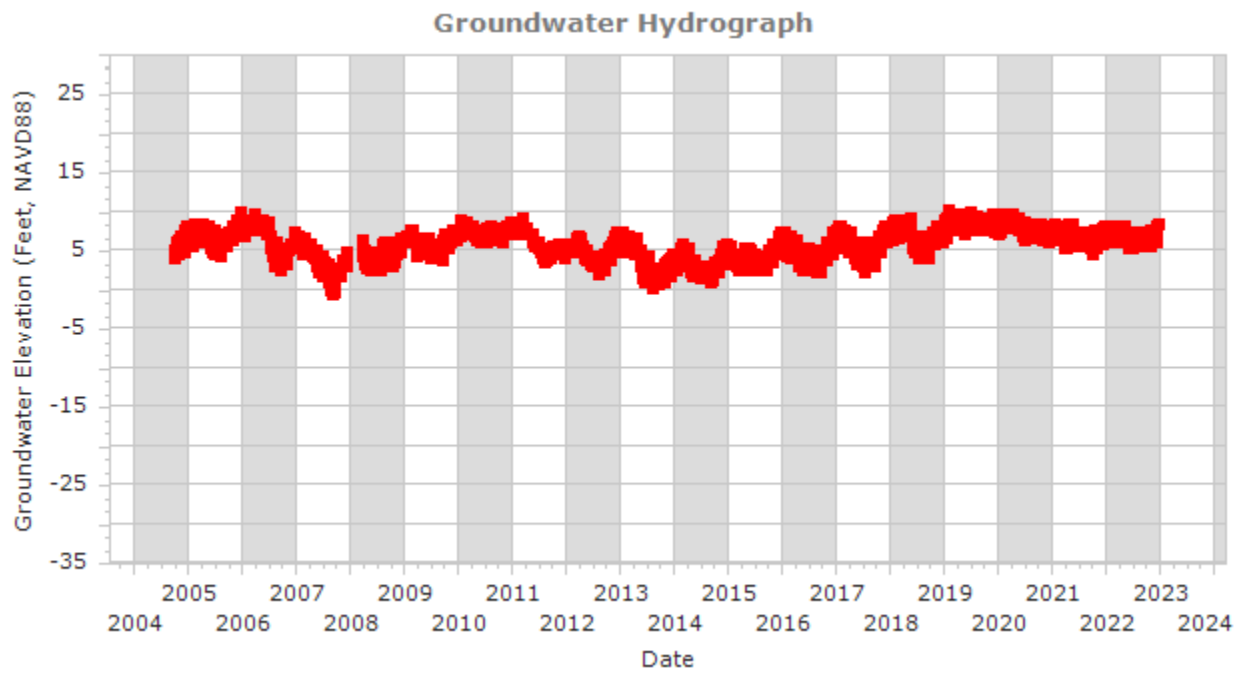
Station Name: KIRKHAM MW255



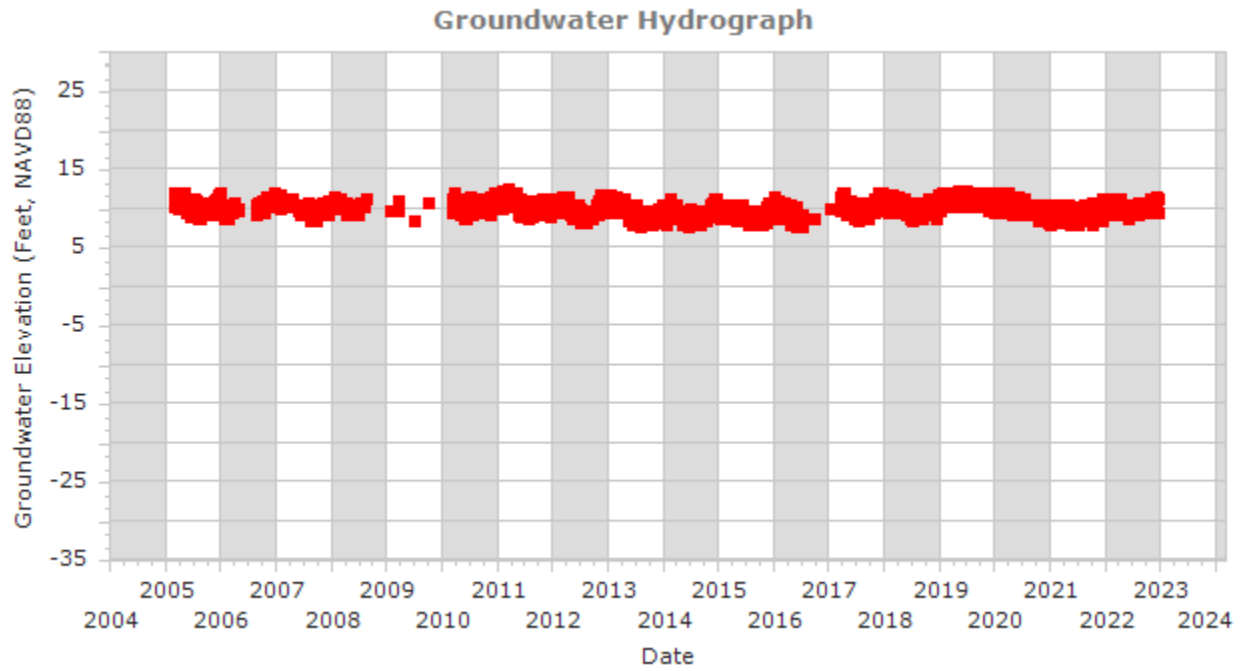
Station Name: KIRKHAM MW385



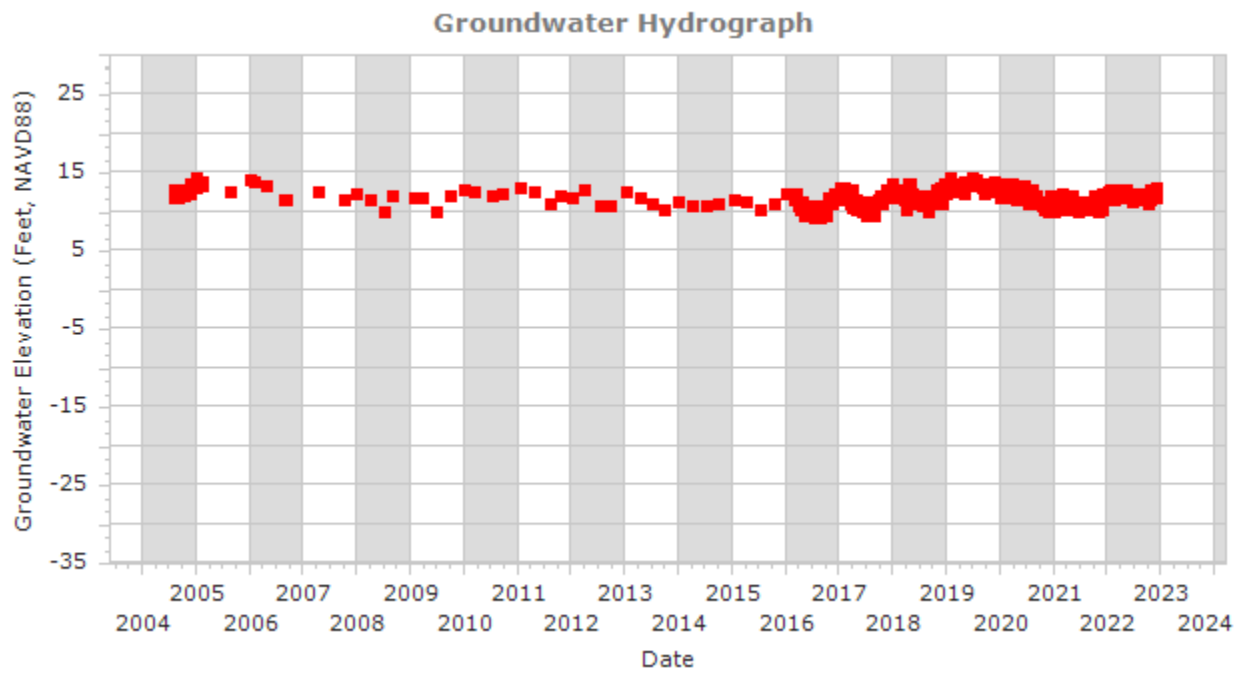
Station Name: KIRKHAM MW435



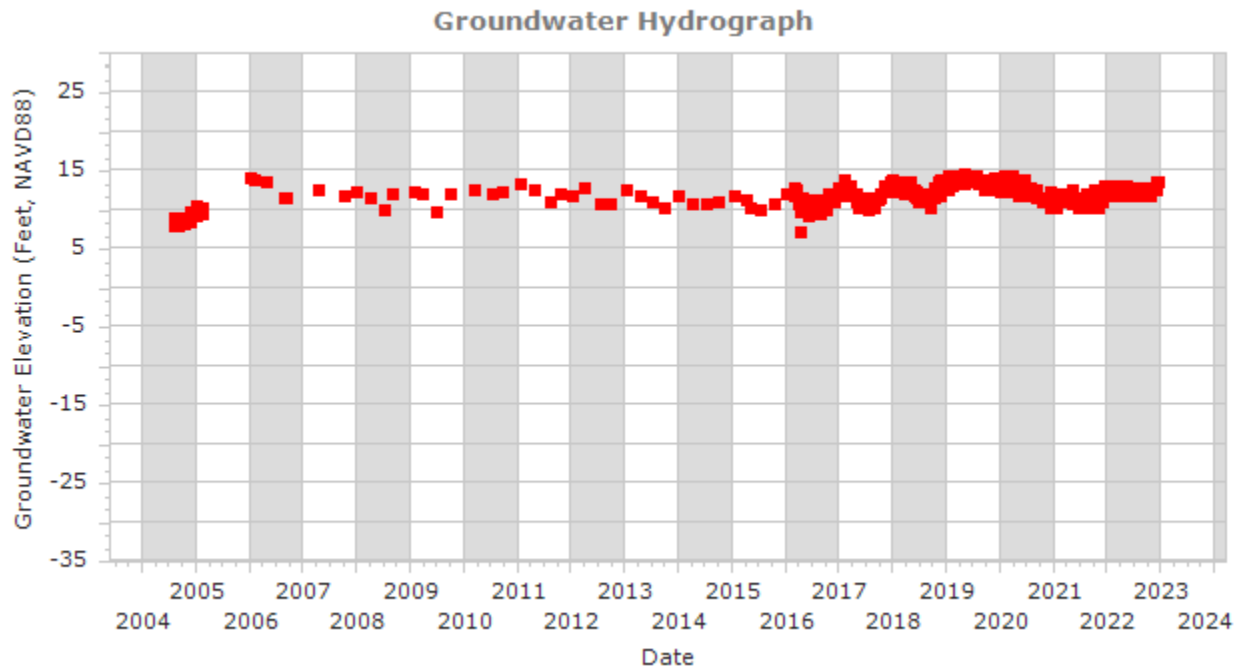
Station Name: ORTEGA MW120



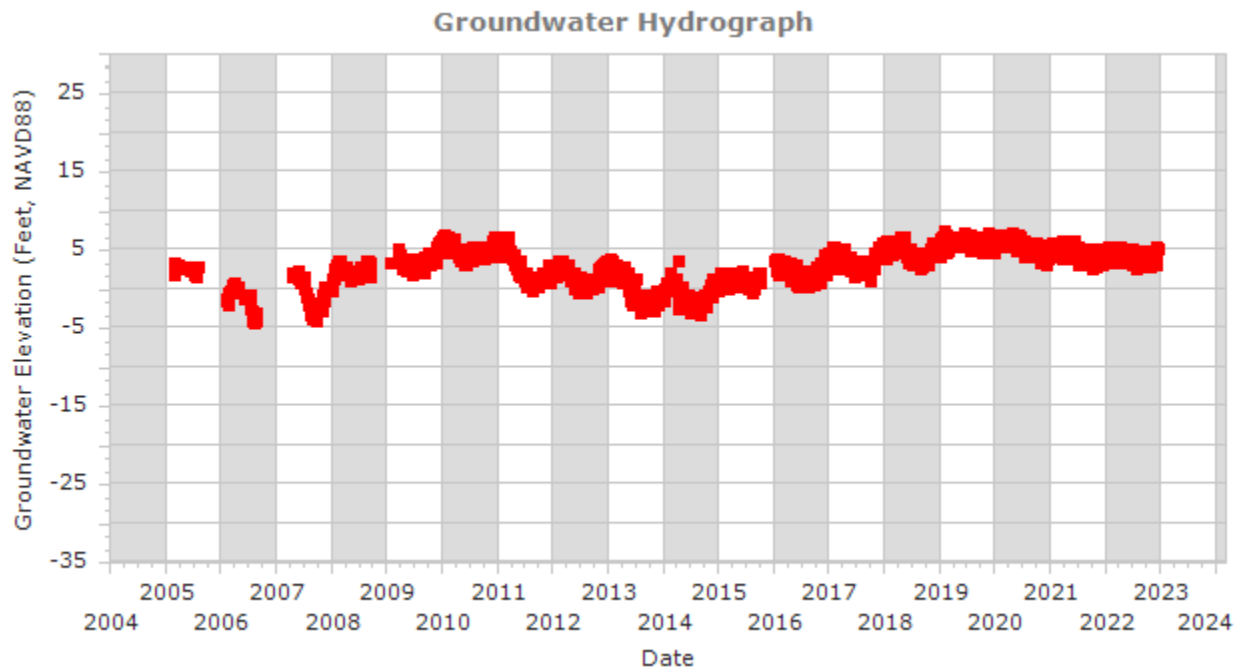
Station Name: ORTEGA MW265



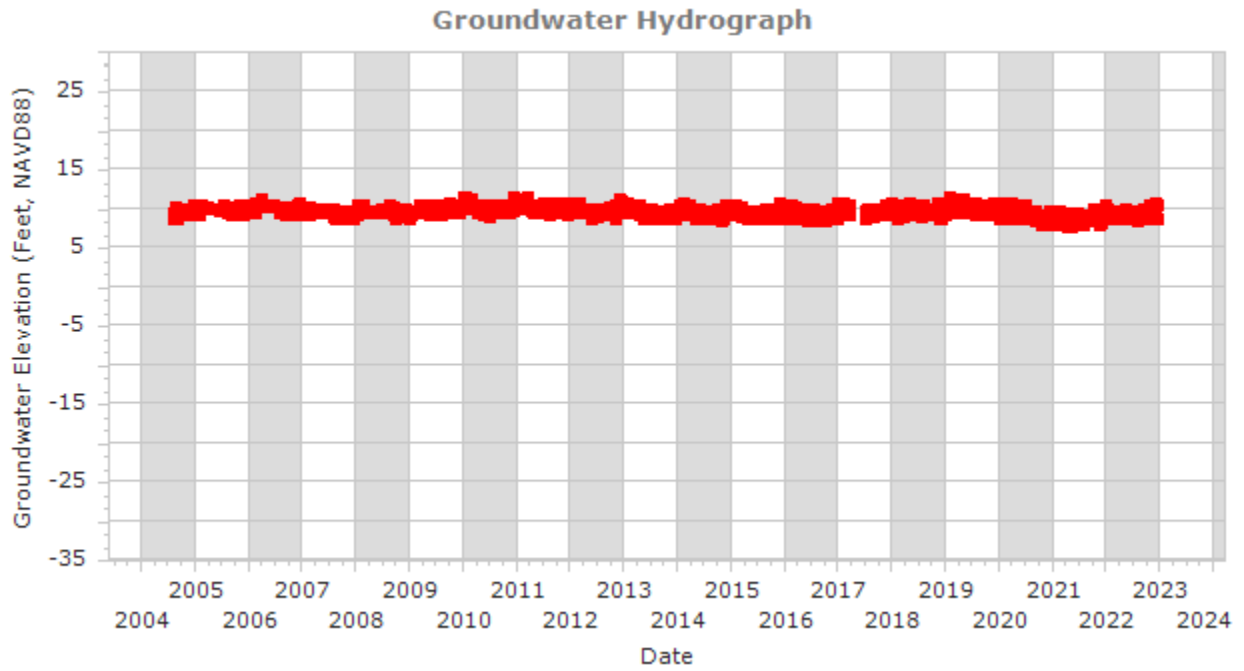
Station Name: ORTEGA MW400



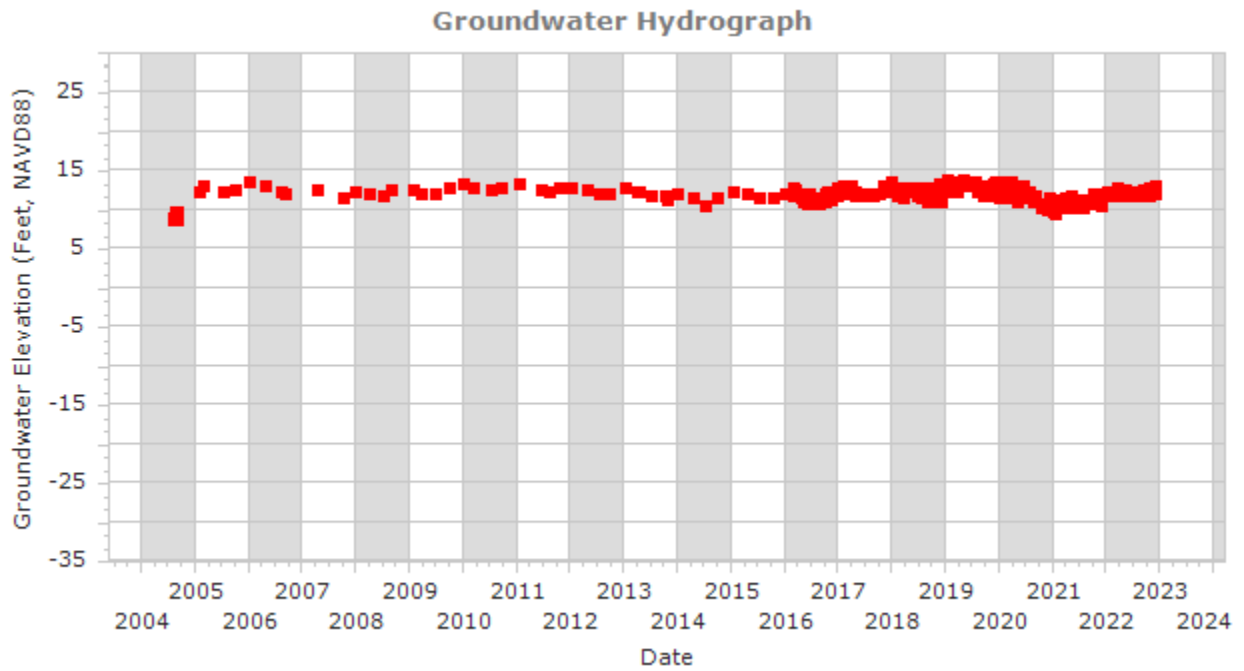
Station Name: ORTEGA MW475



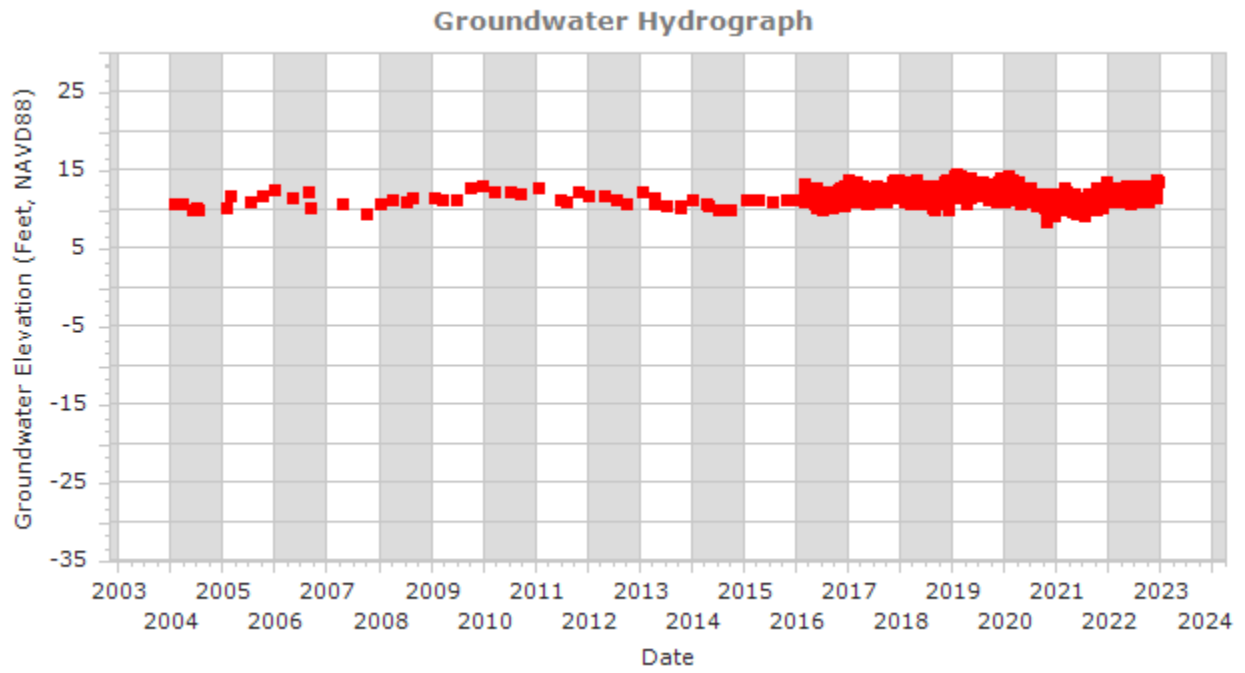
Station Name: TARAVAL MW145



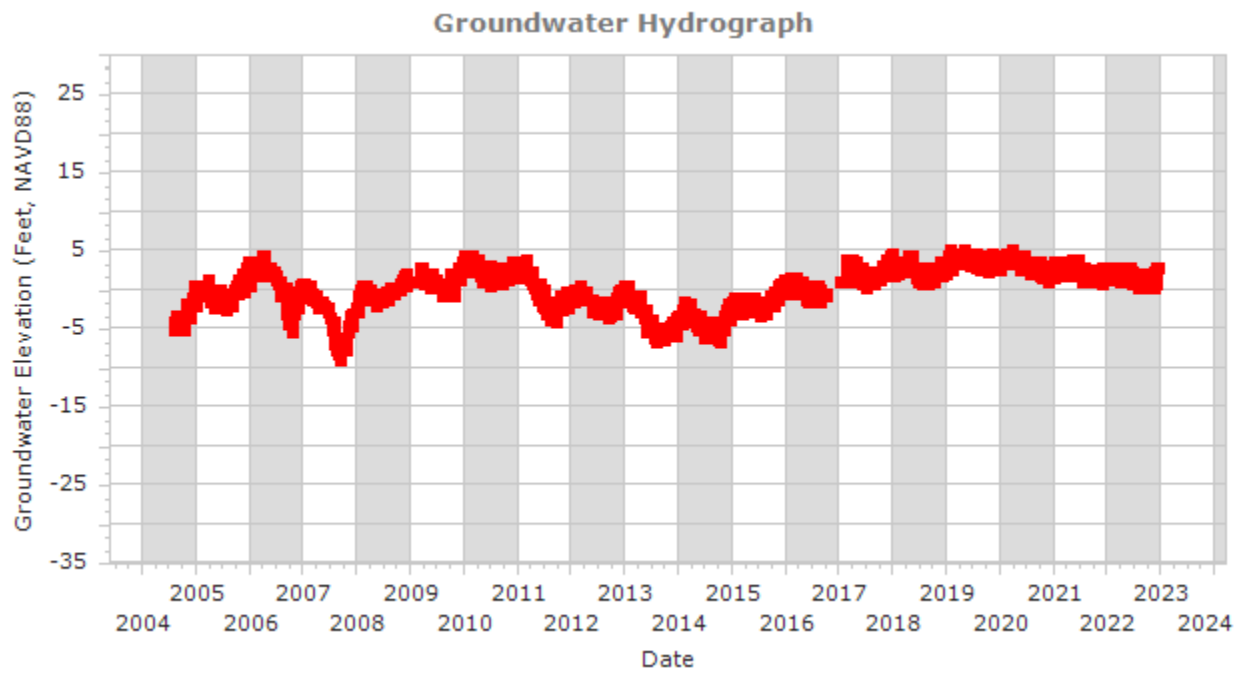
Station Name: TARAVAL MW240



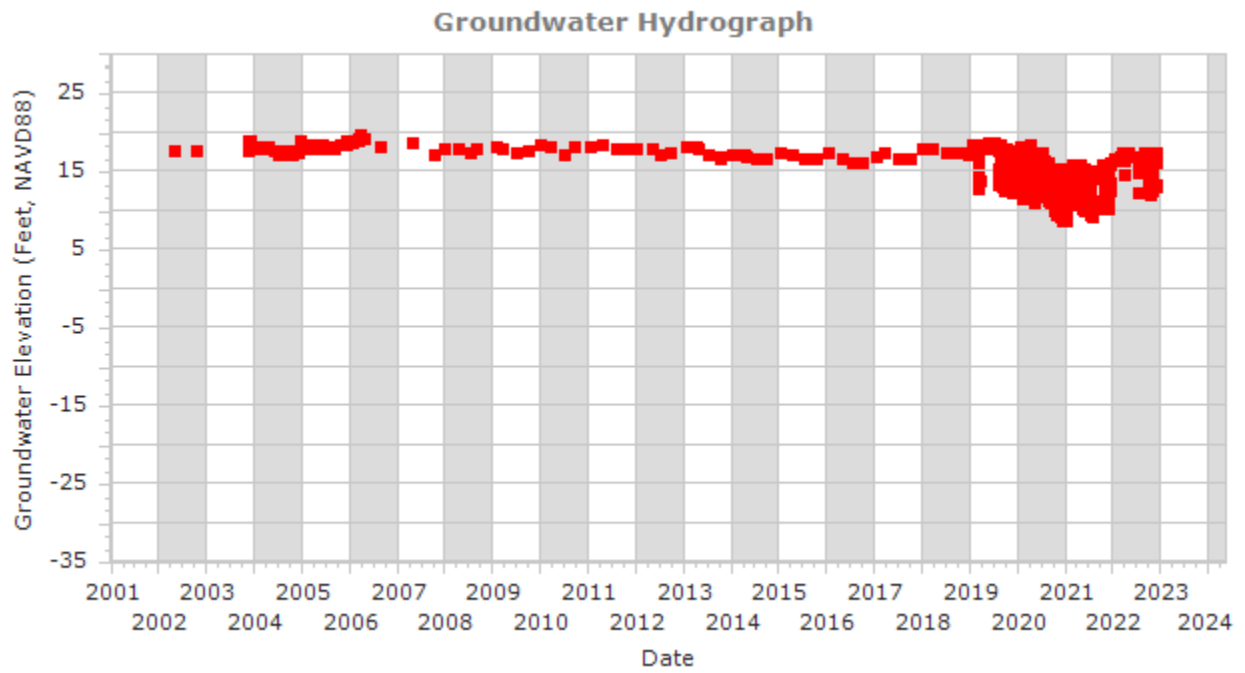
Station Name: TARAVAL MW400



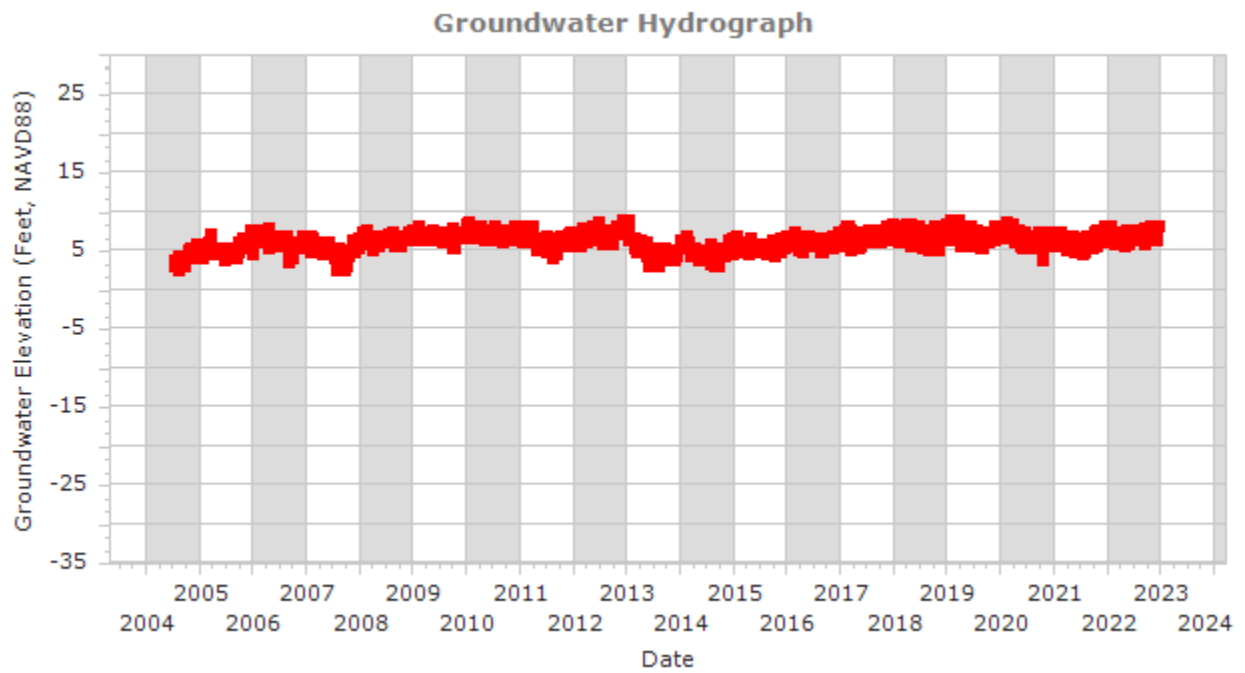
Station Name: TARAVAL MW530



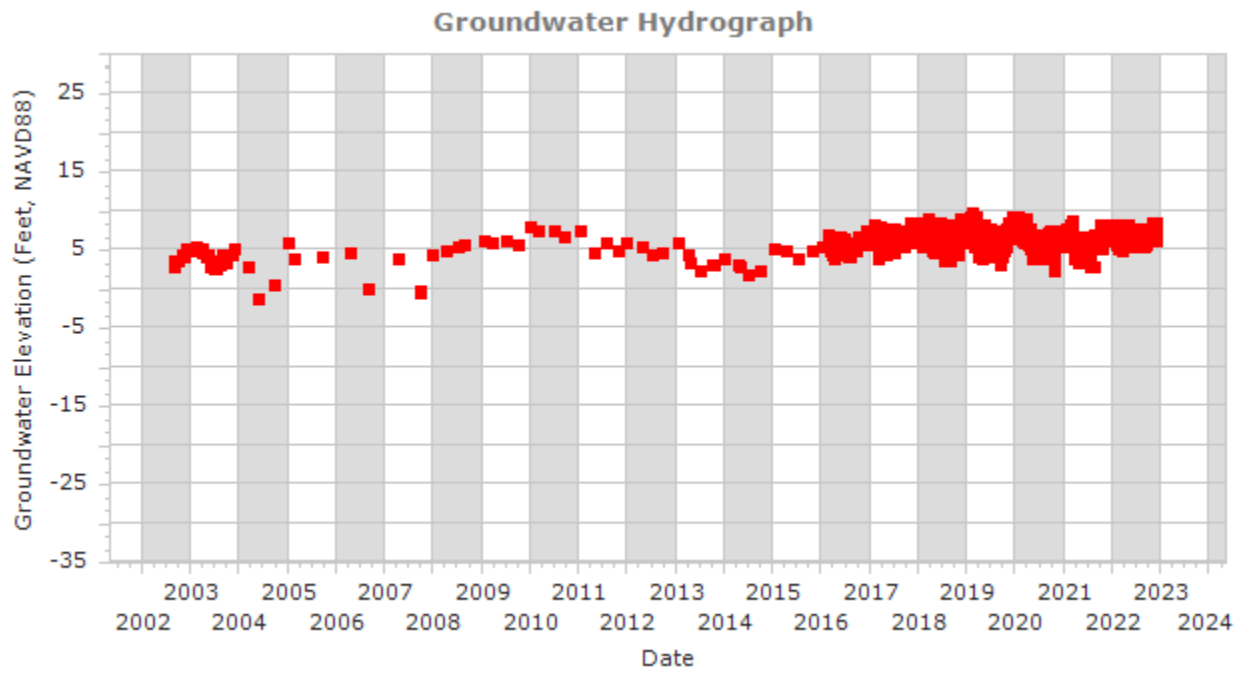
Station Name: WEST SUNSET PLAYGROUND



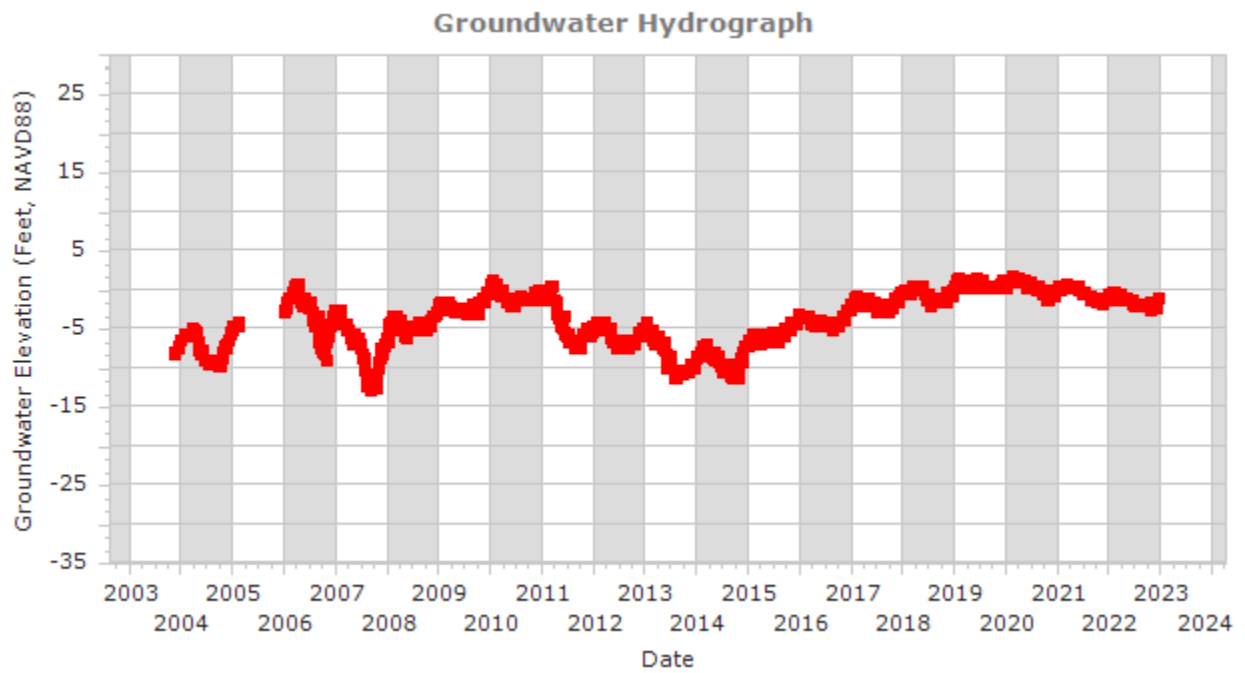
Station Name: ZOO MW275



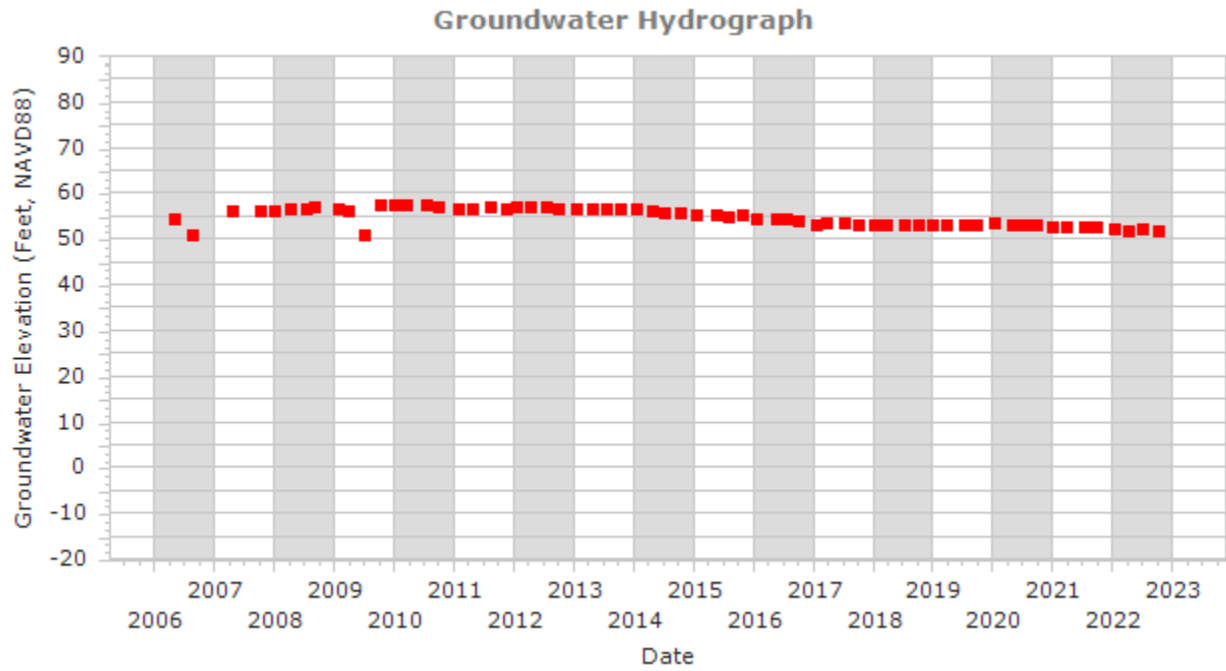
Station Name: ZOO MW450



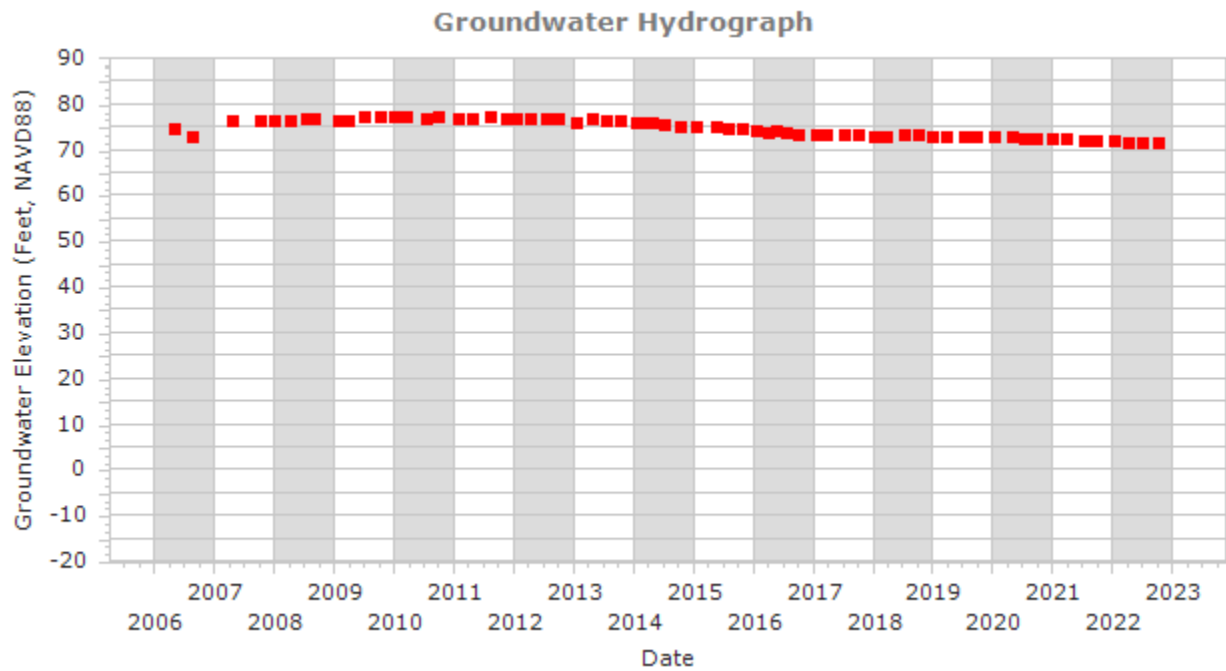
Station Name: ZOO MW565



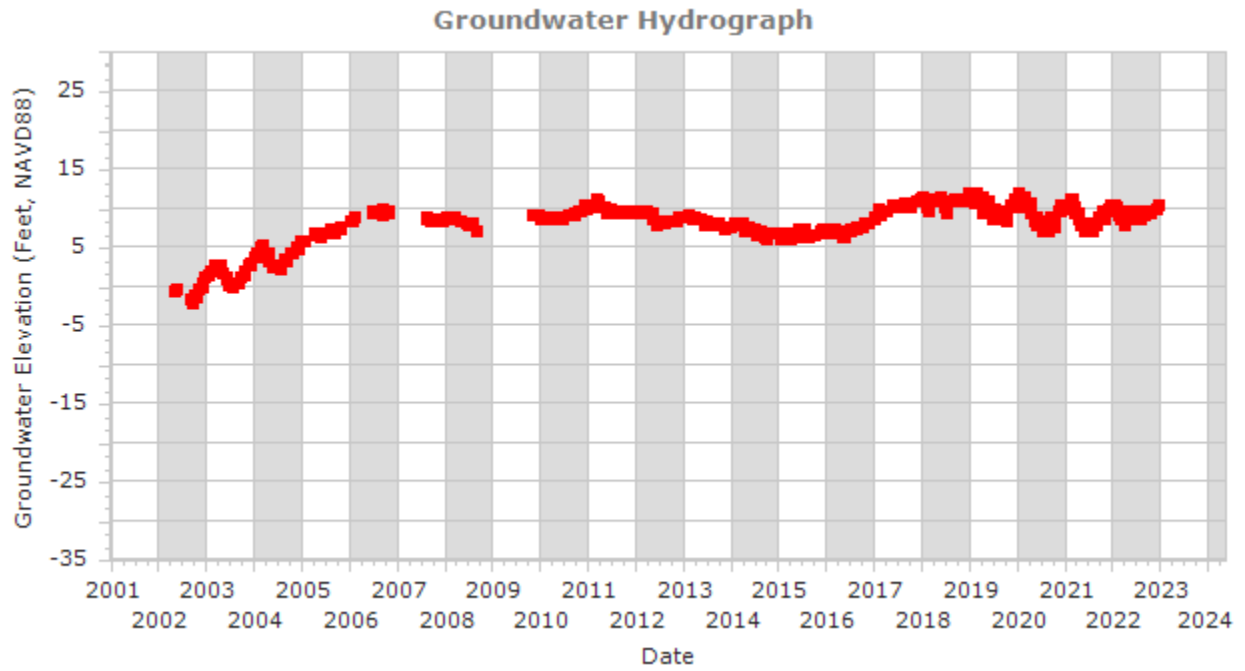
Station Name: CENTRAL PUMP 190



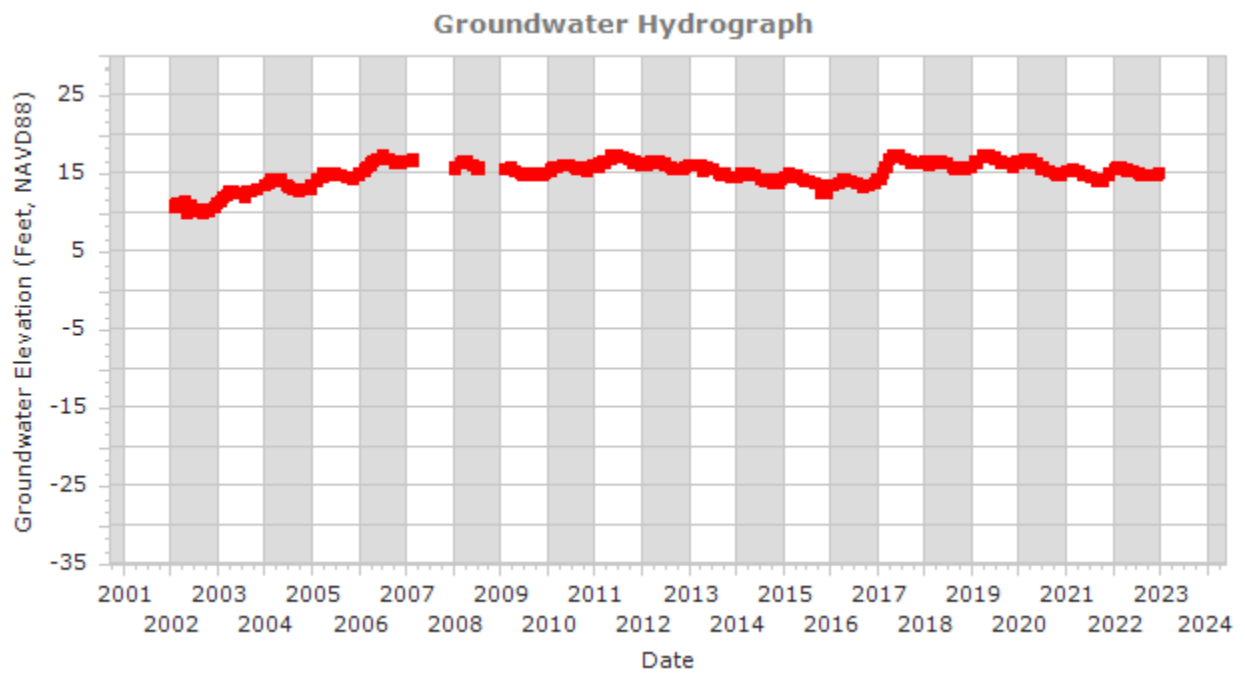
Station Name: CENTRAL PUMP 270



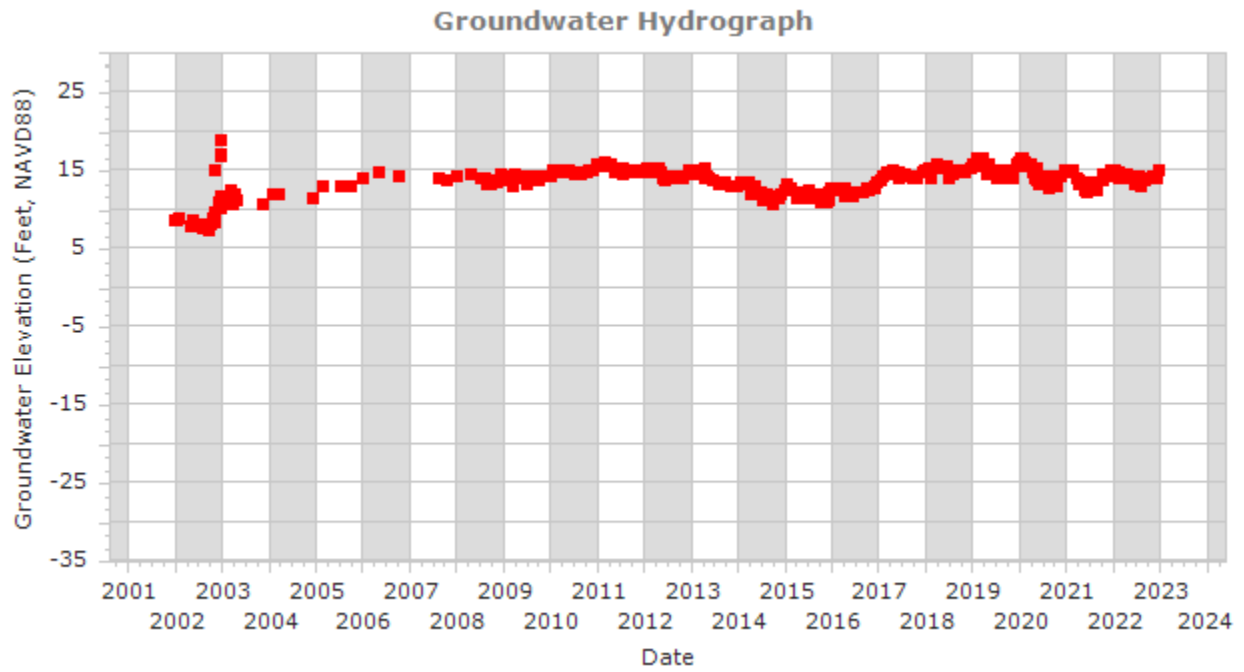
Station Name: LMMW-1D



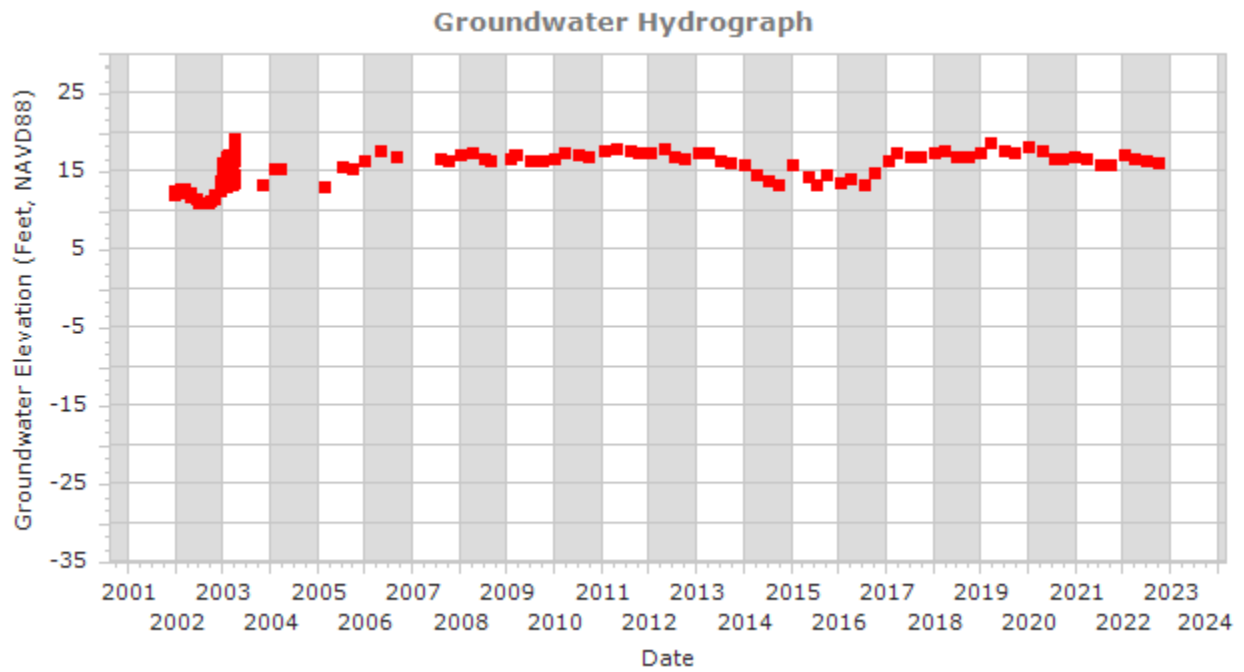
Station Name: LMMW-1S



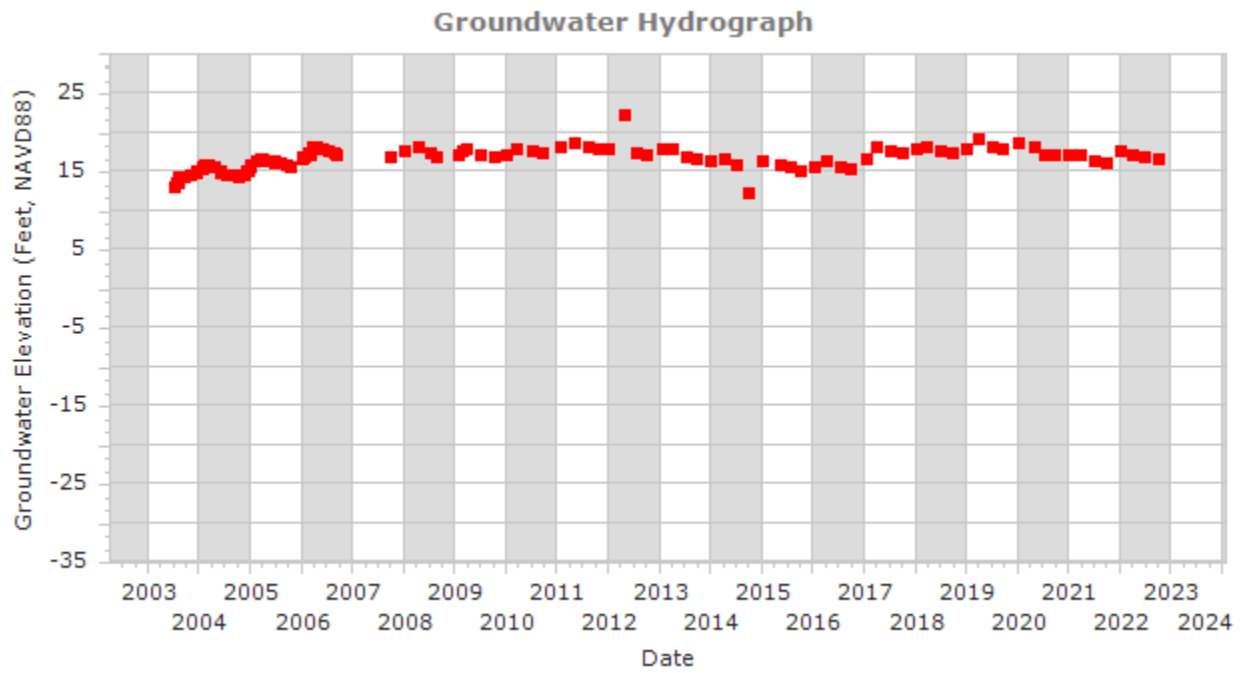
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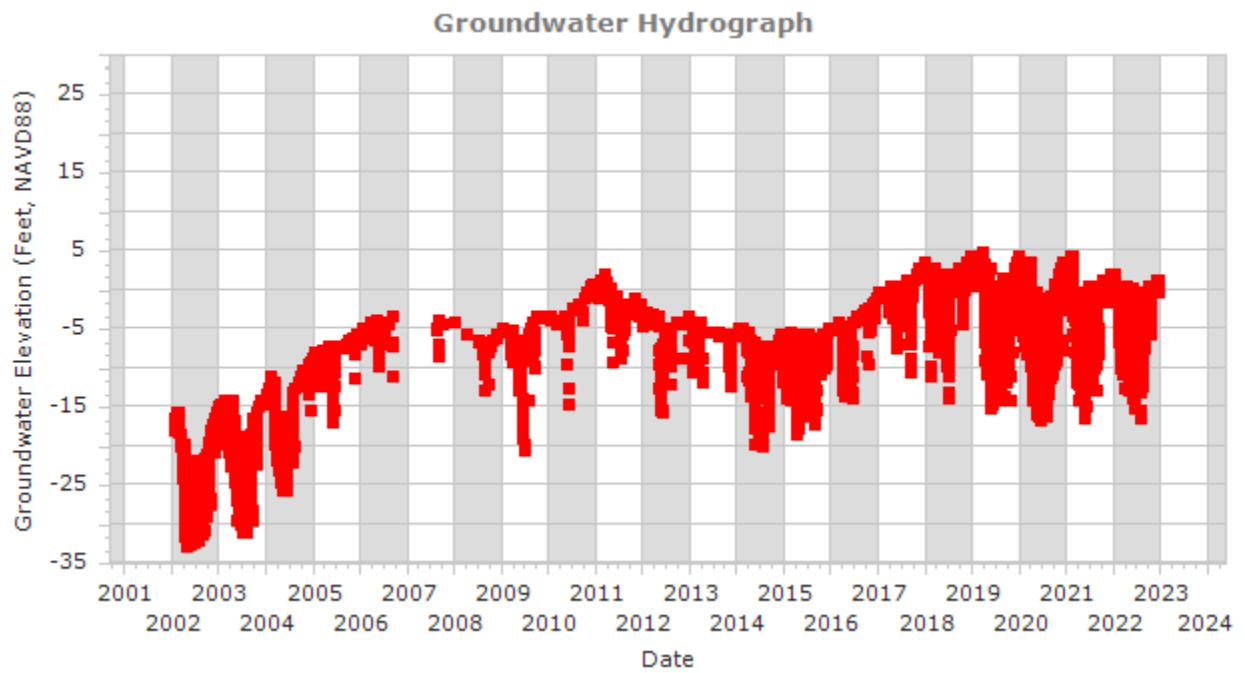
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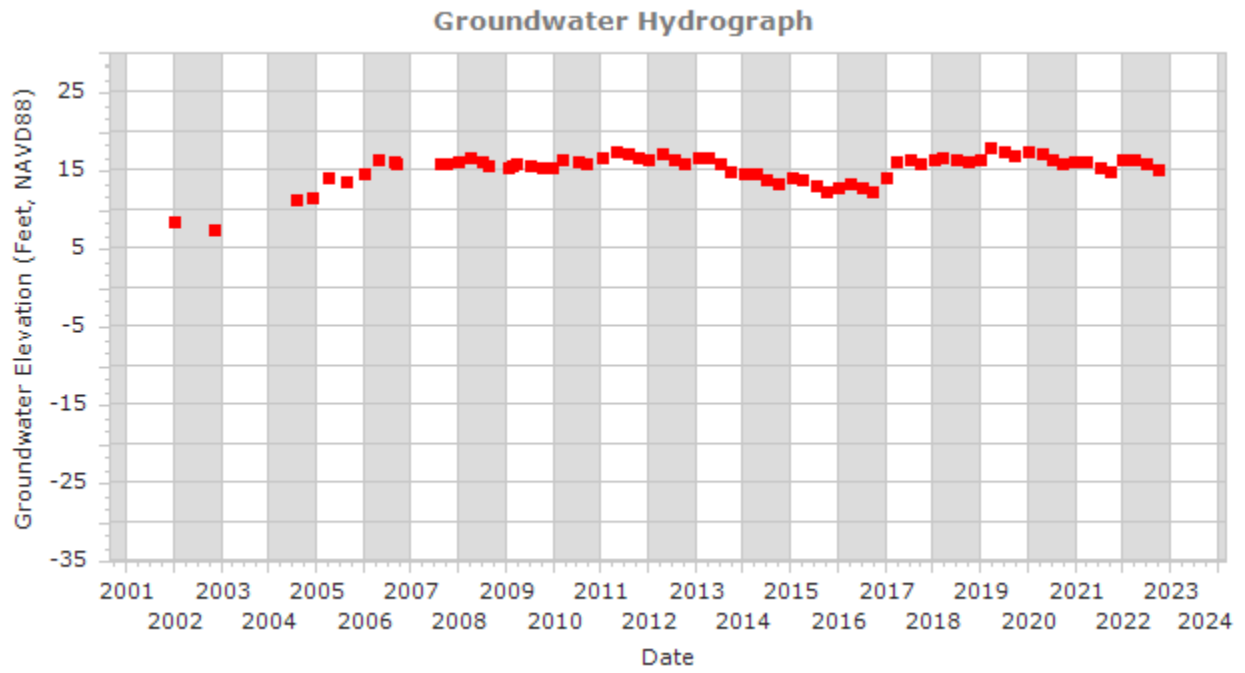
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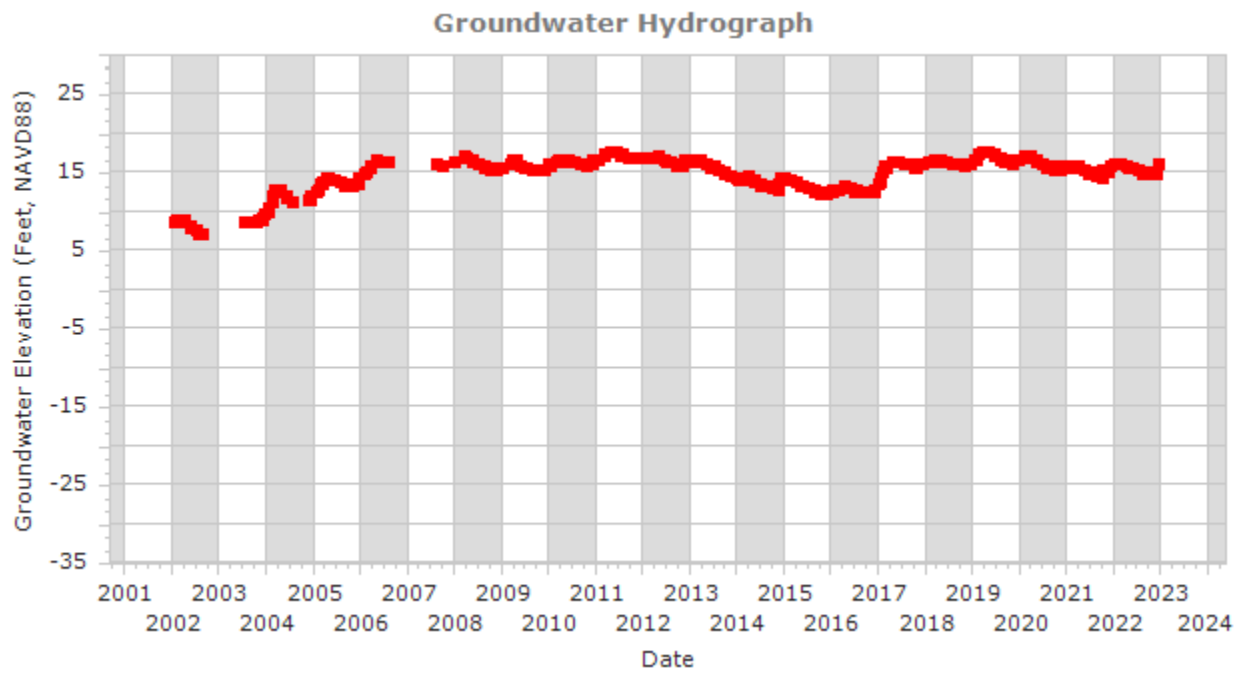
Station Name: LMMW-3D



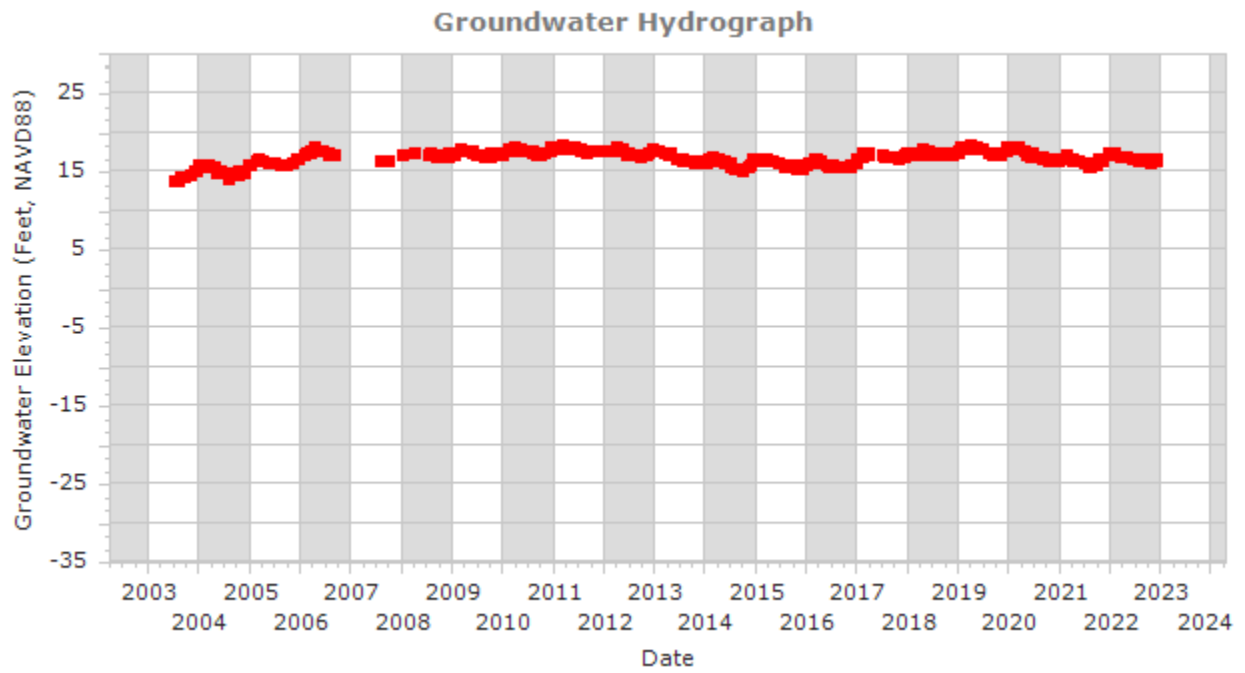
Station Name: LMMW-3S



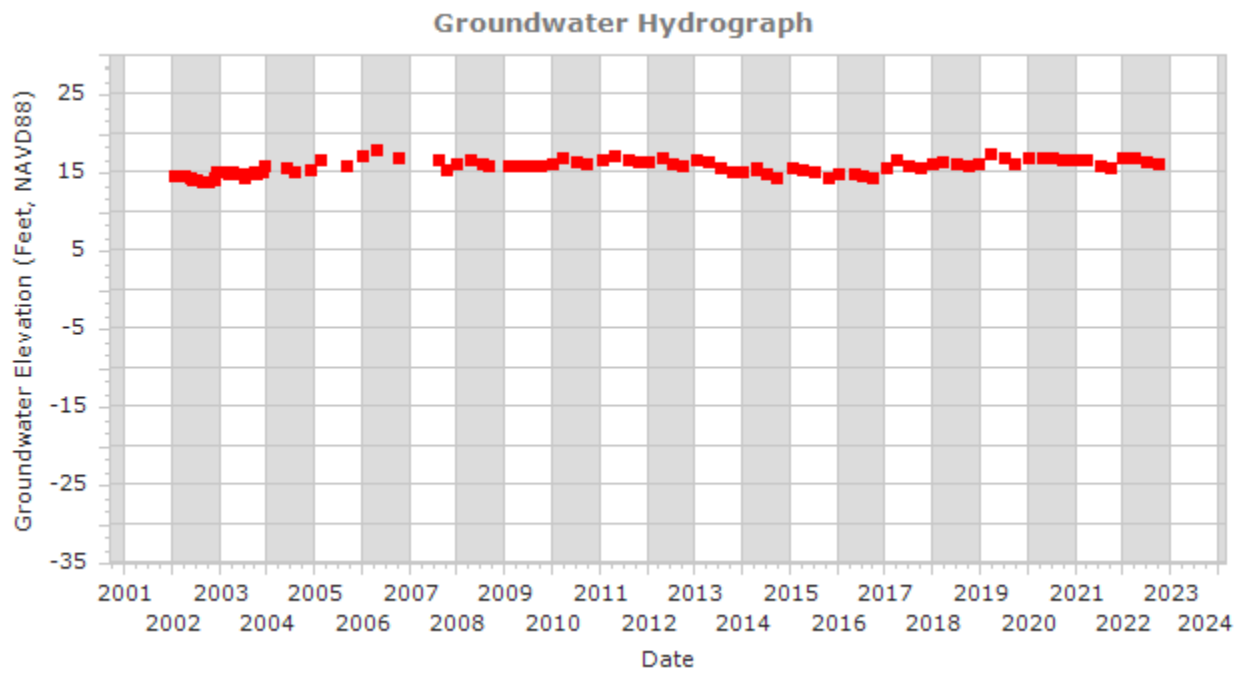
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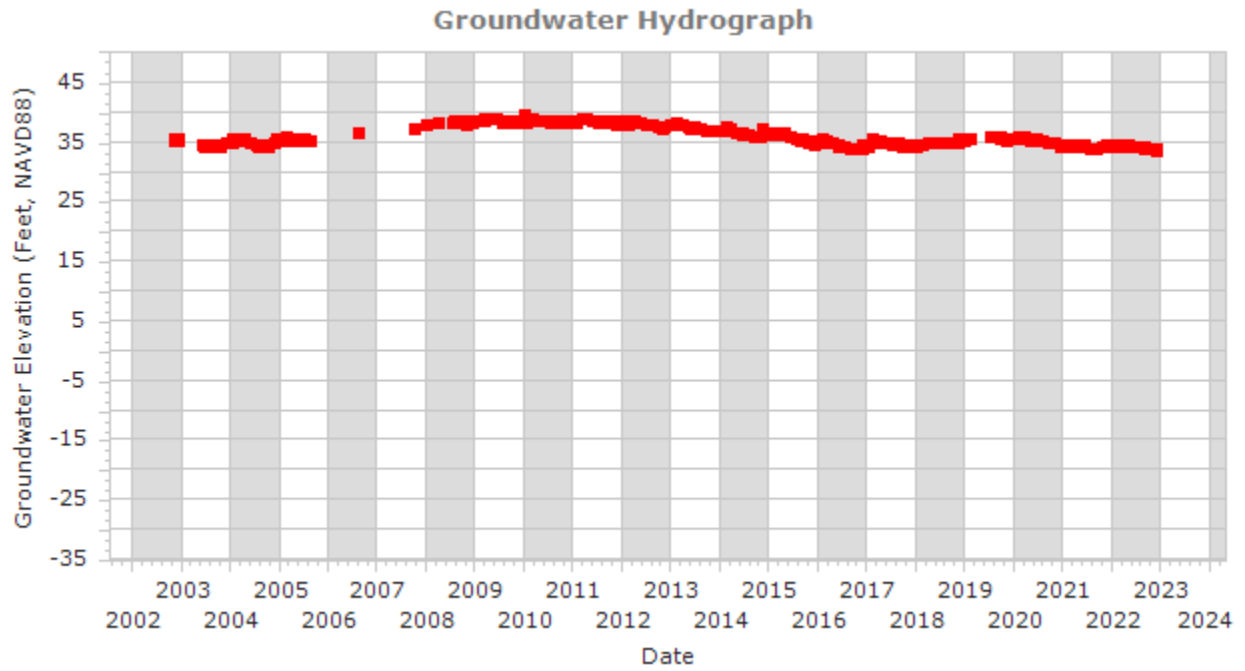
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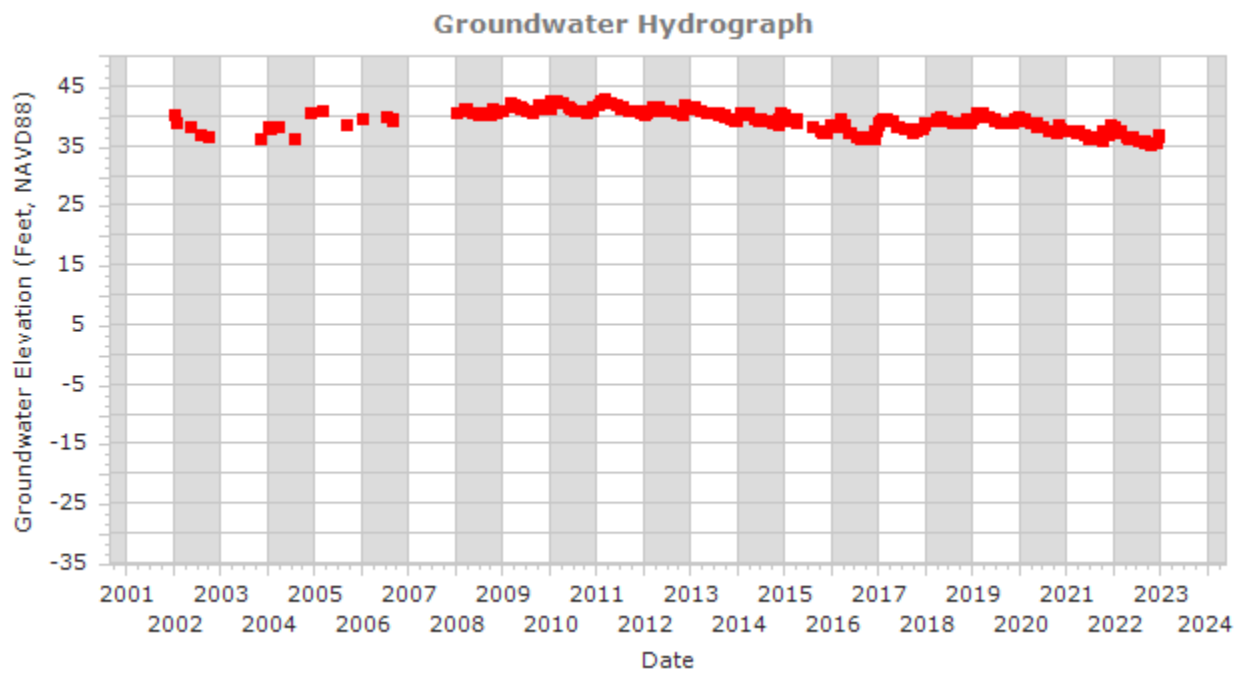
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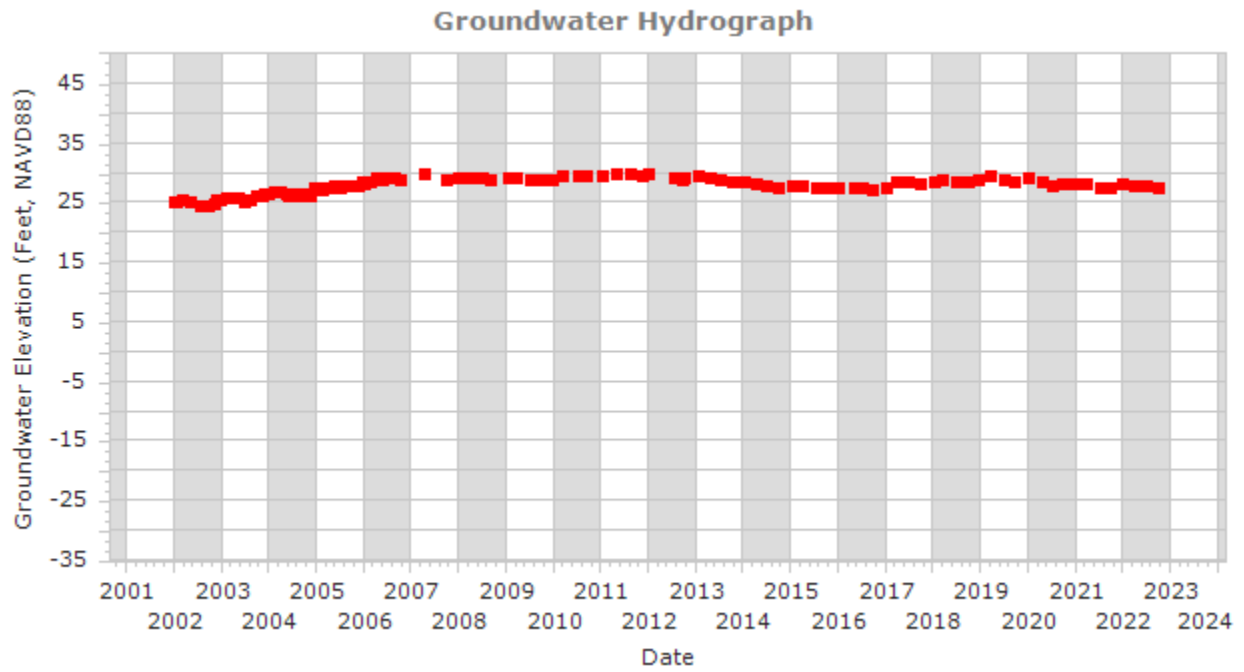
Station Name: LMMW-5S



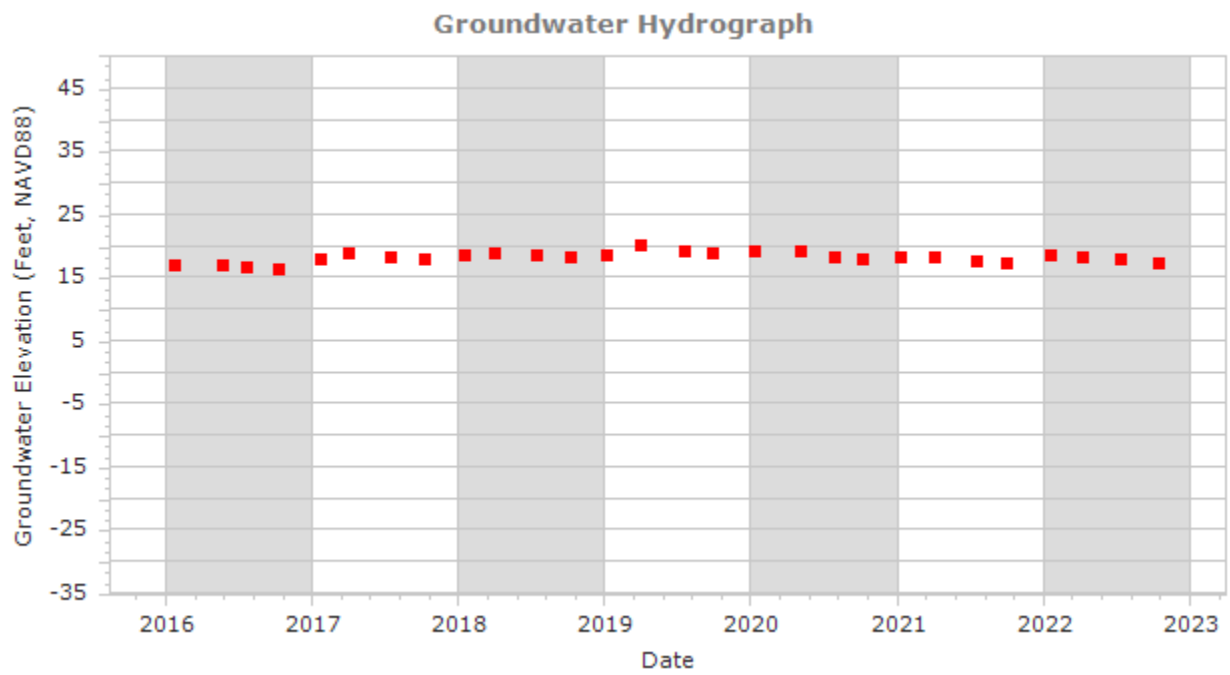
Station Name: LMMW-5SS



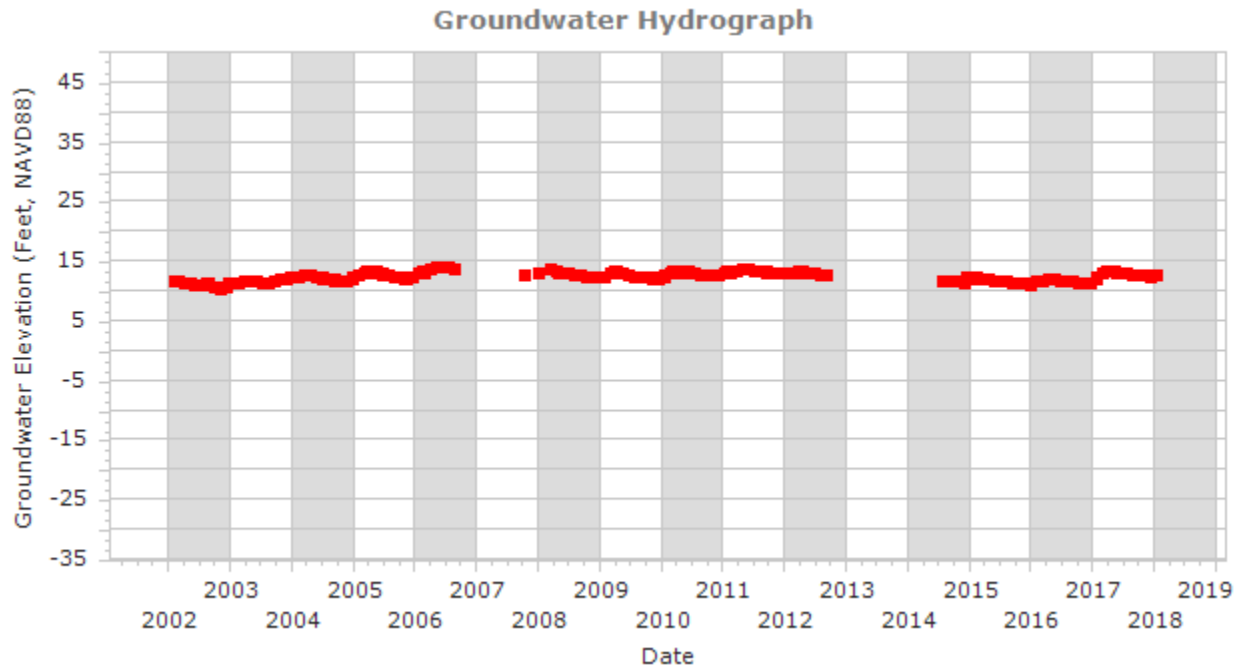
Station Name: LMMW-7SS



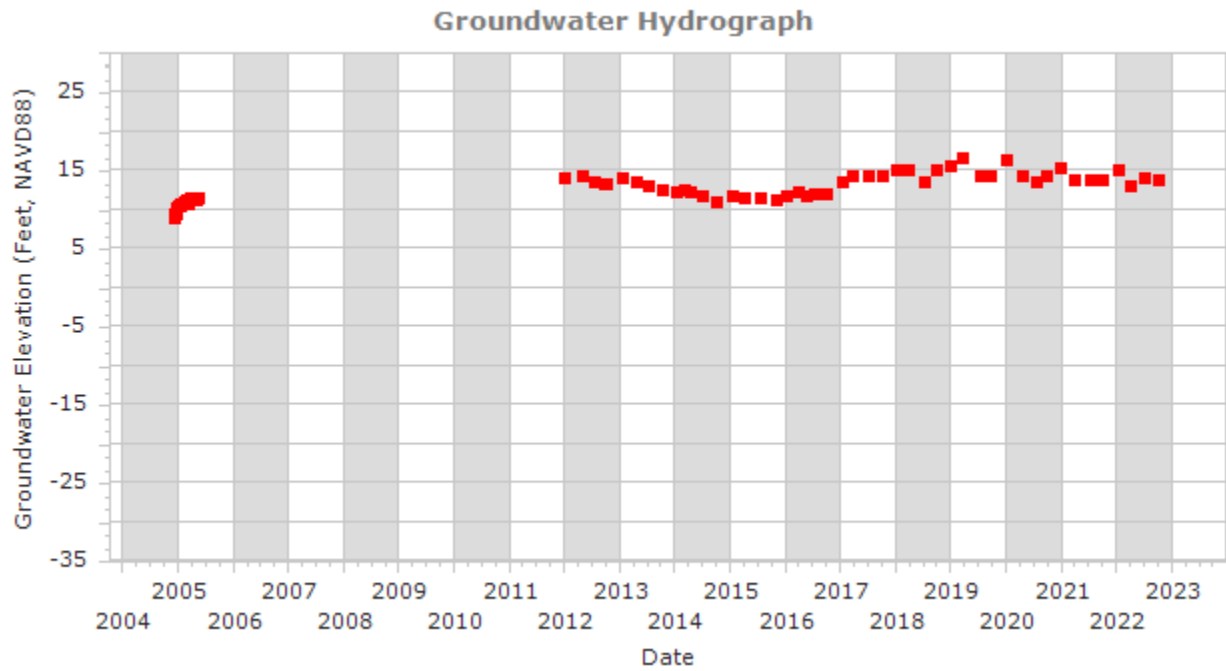
Station Name: LMMW-8SS



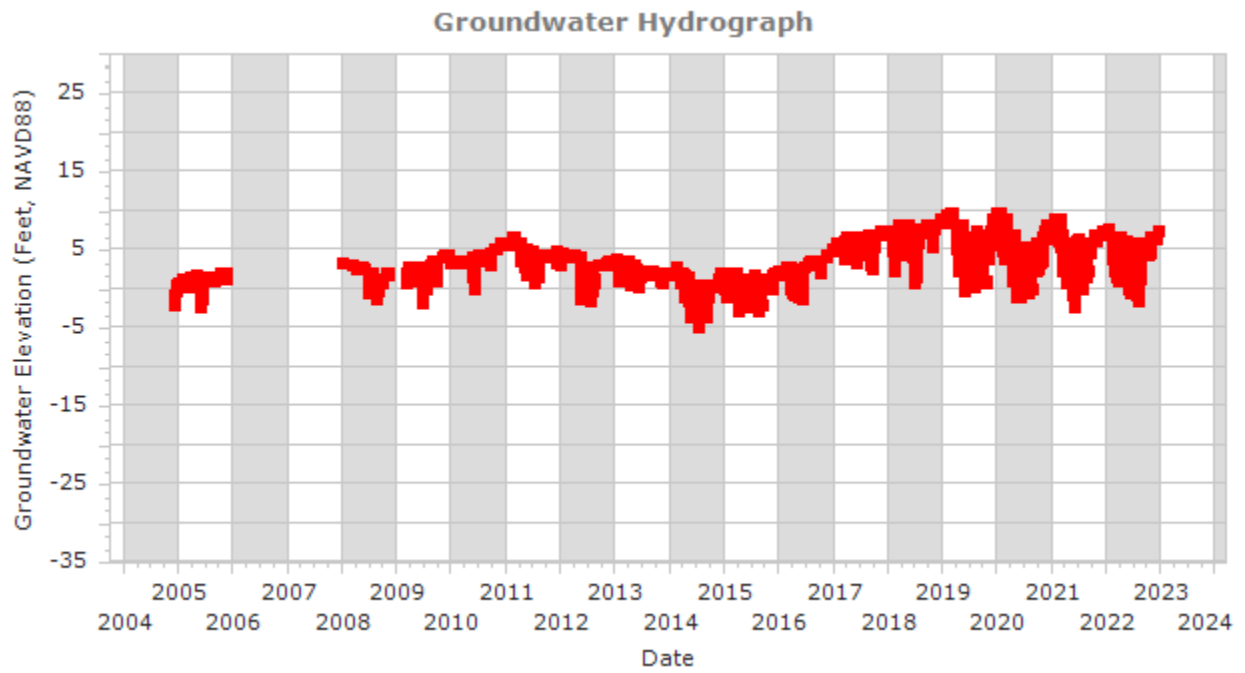
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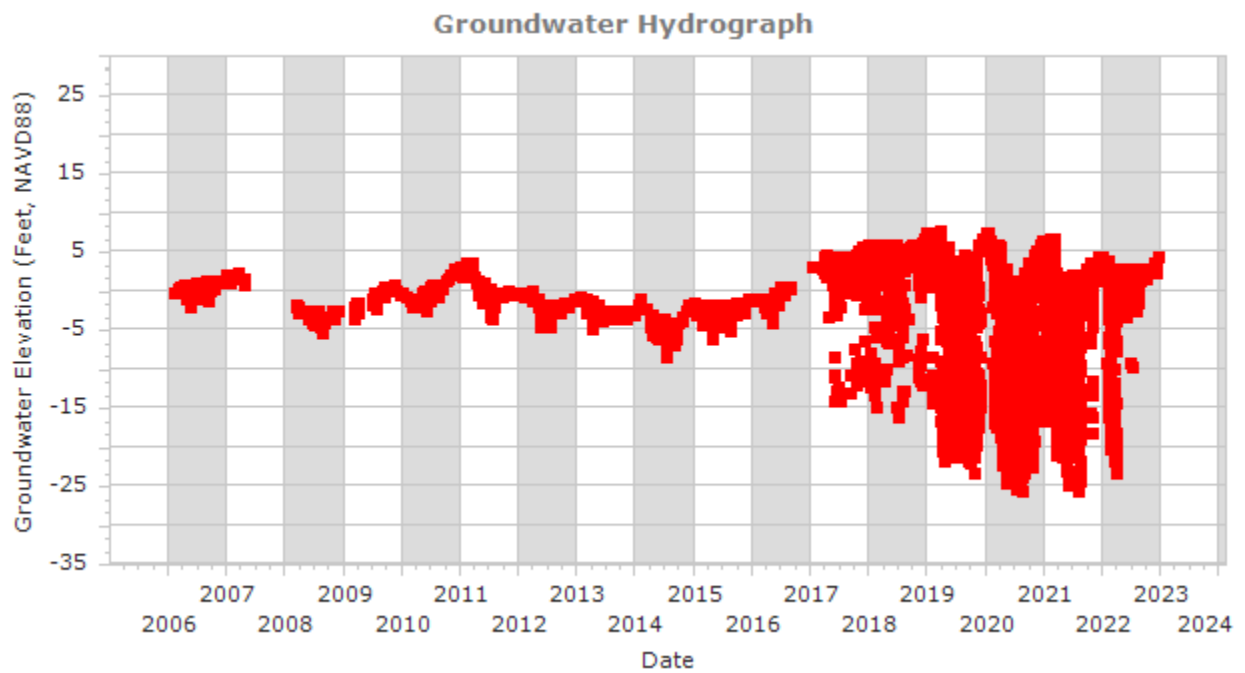
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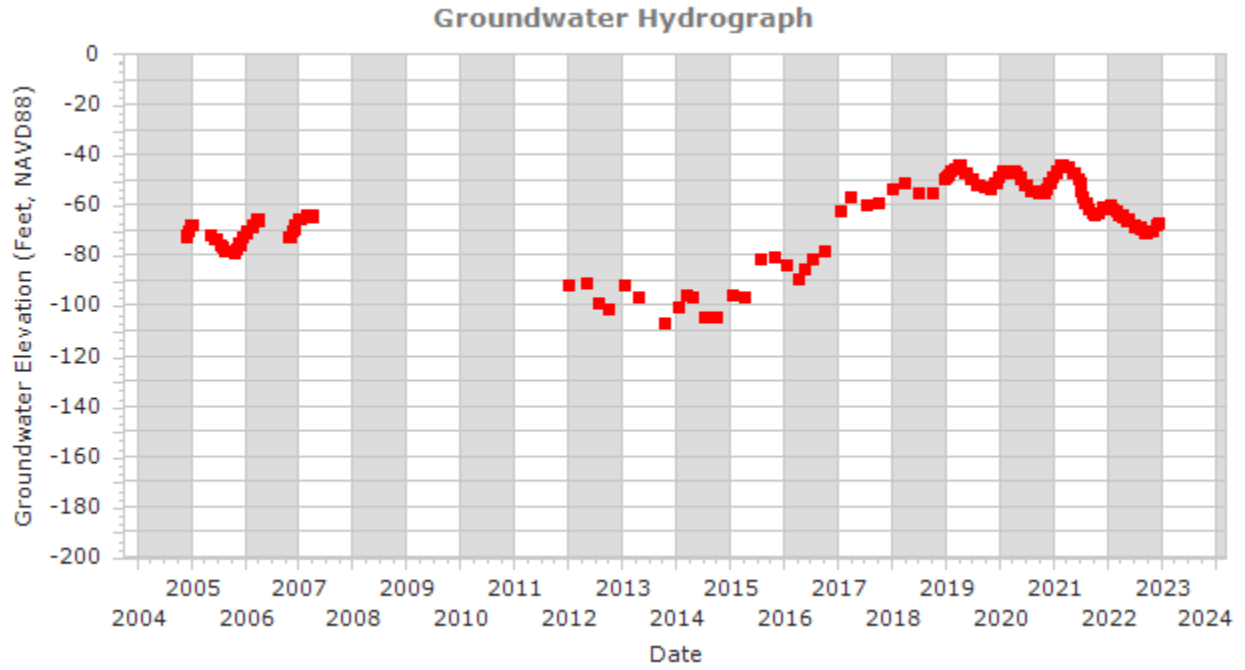
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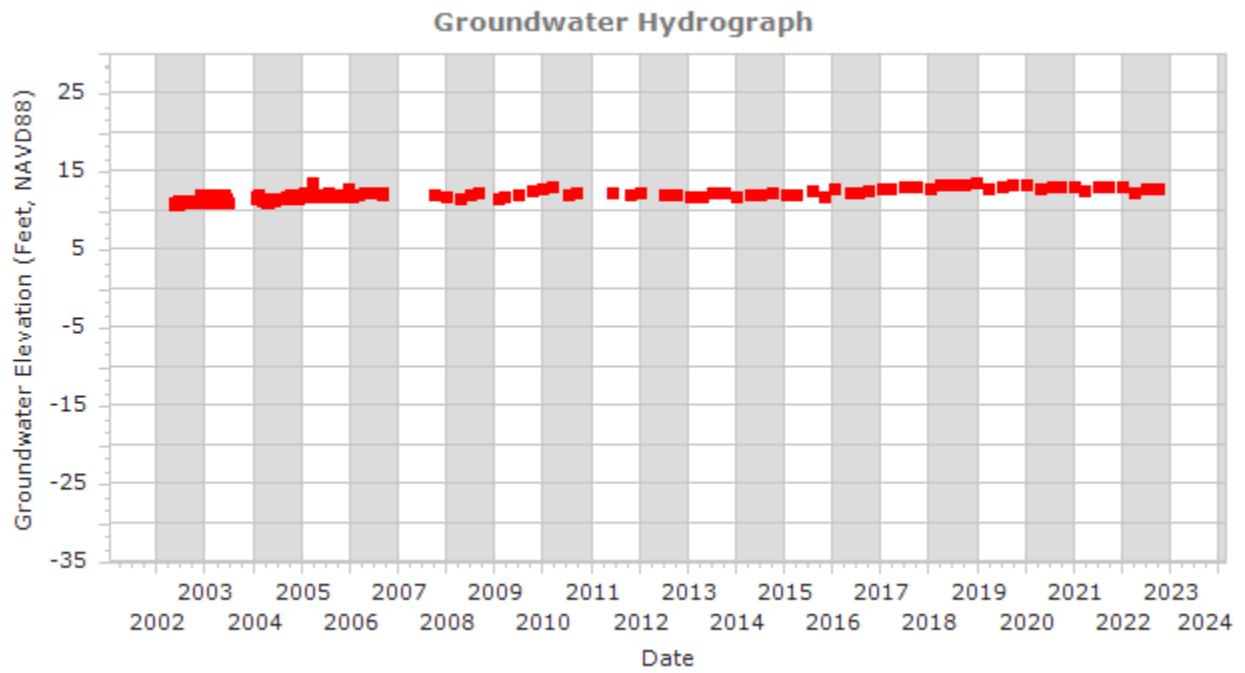
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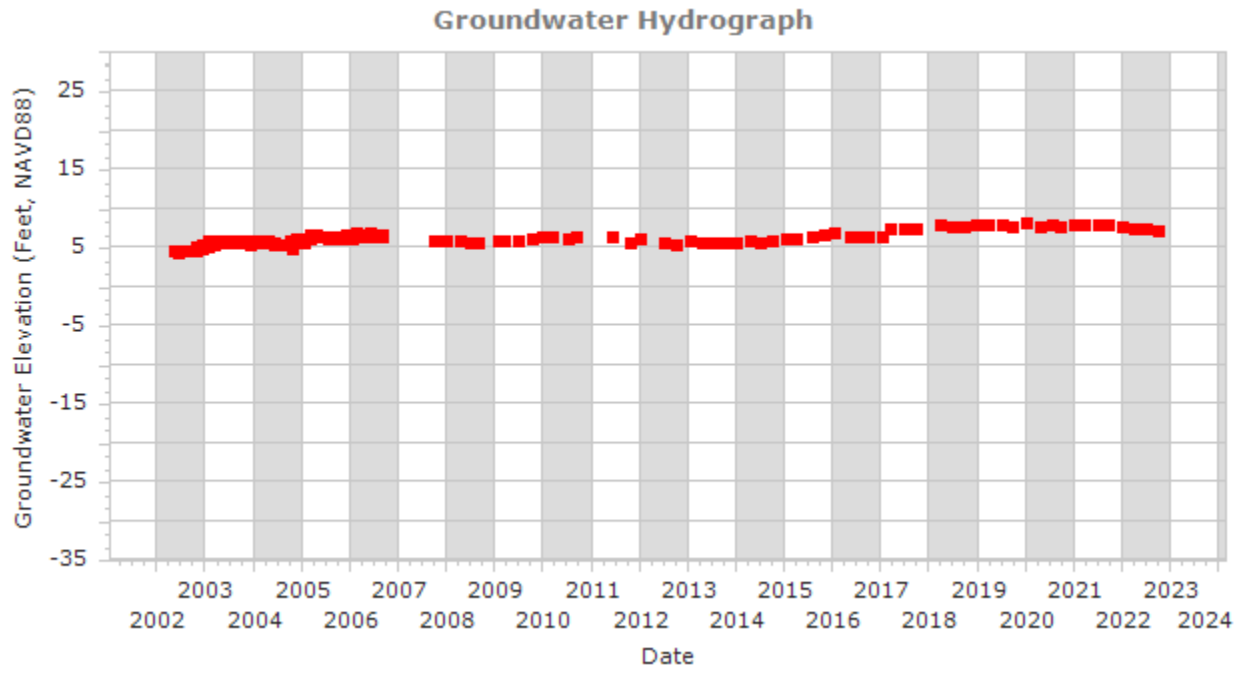
Station Name: LMPS 575



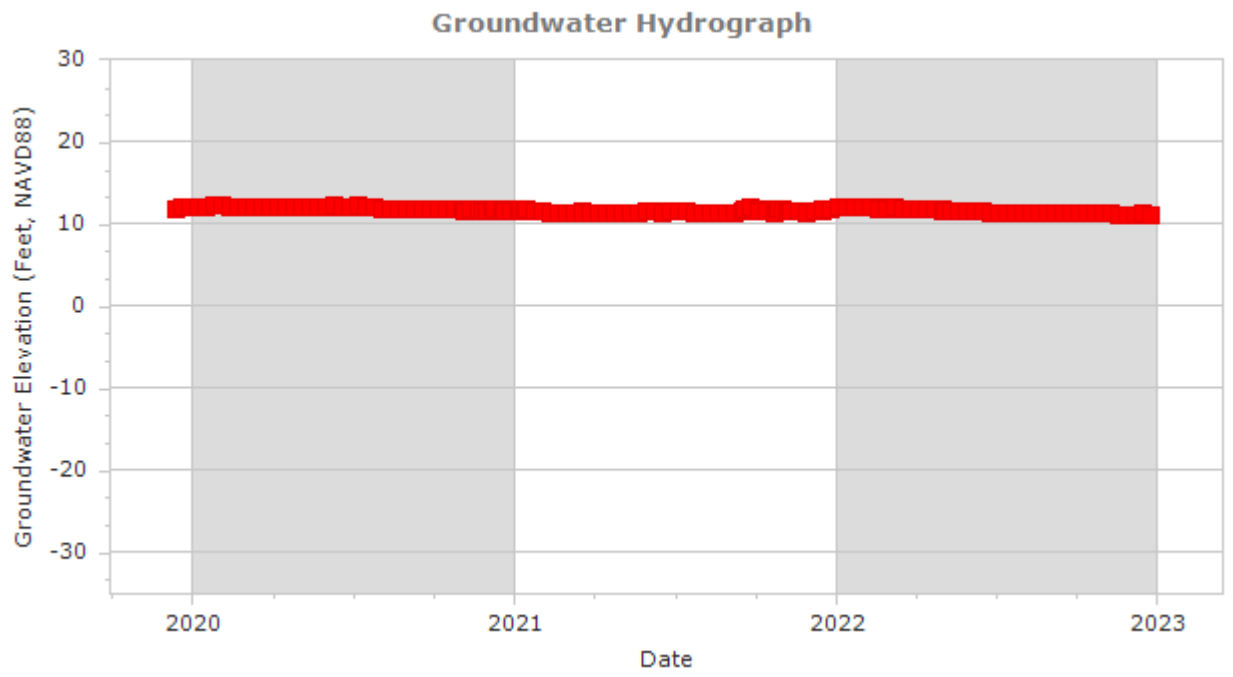
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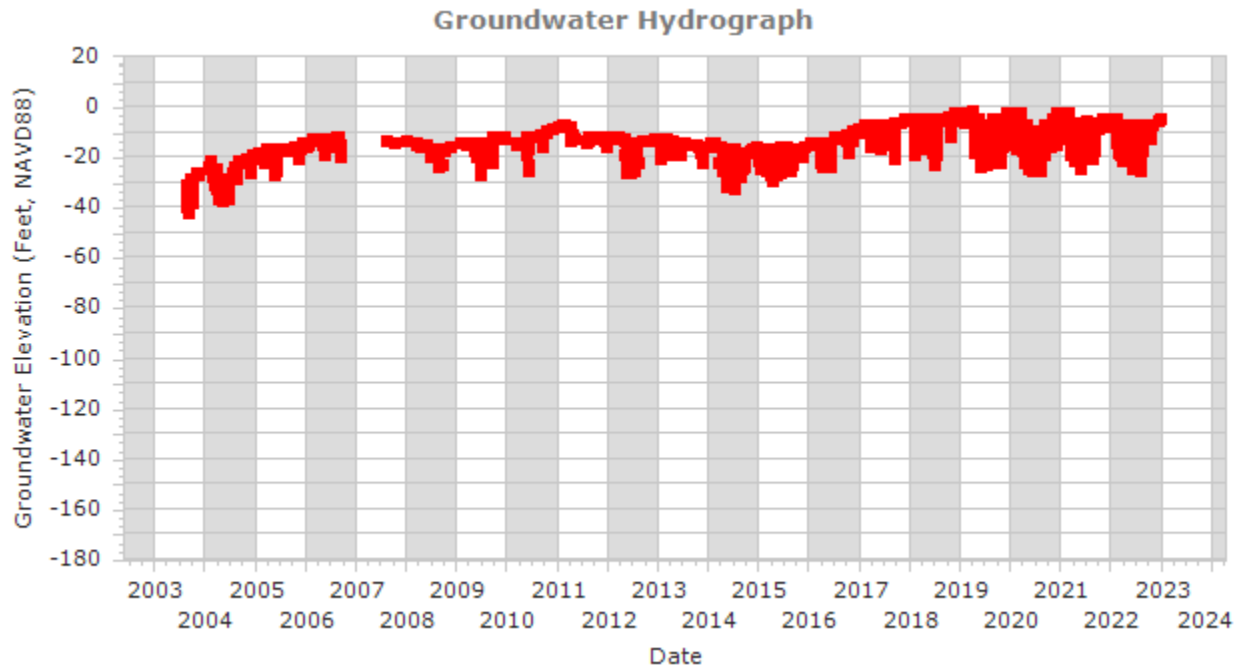
Station Name: FORT FUNSTON-S



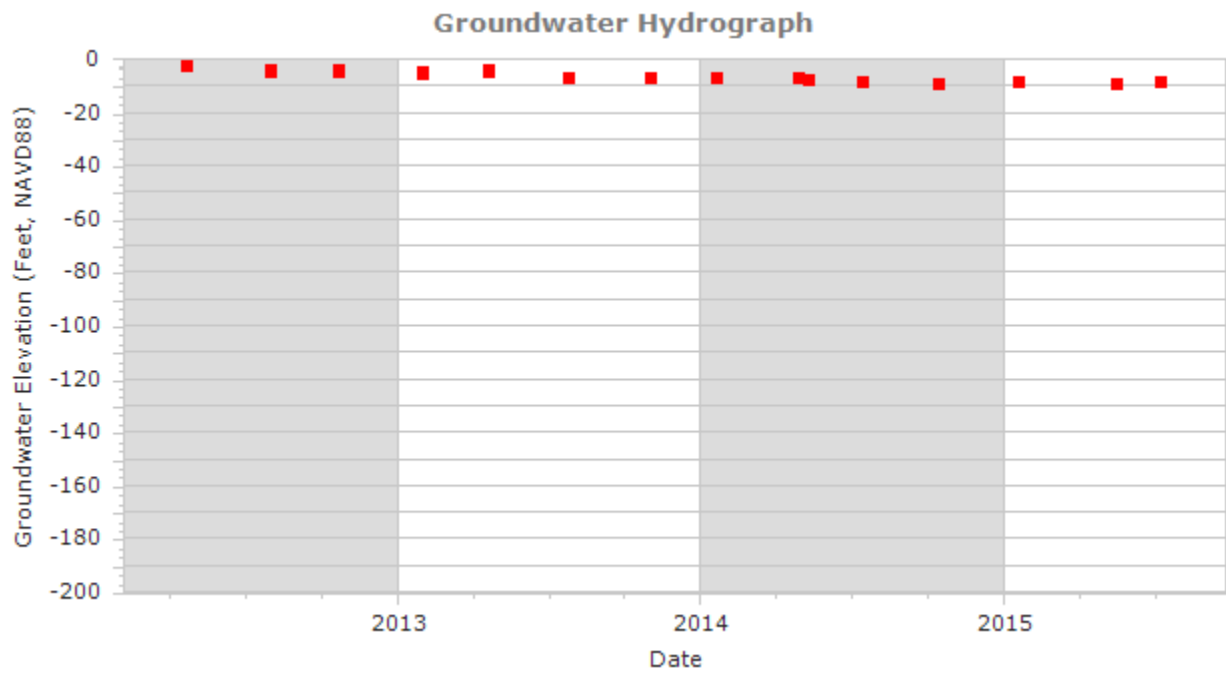
Station Name: LMMW-9S



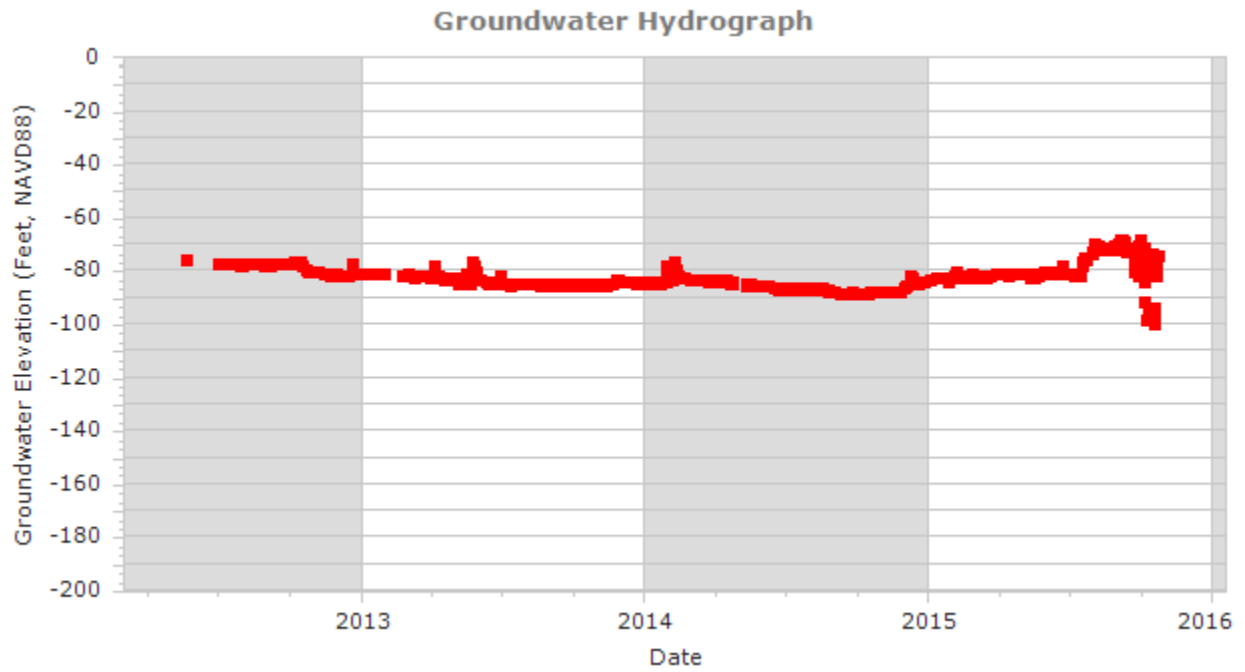
Station Name: LMMW-6D



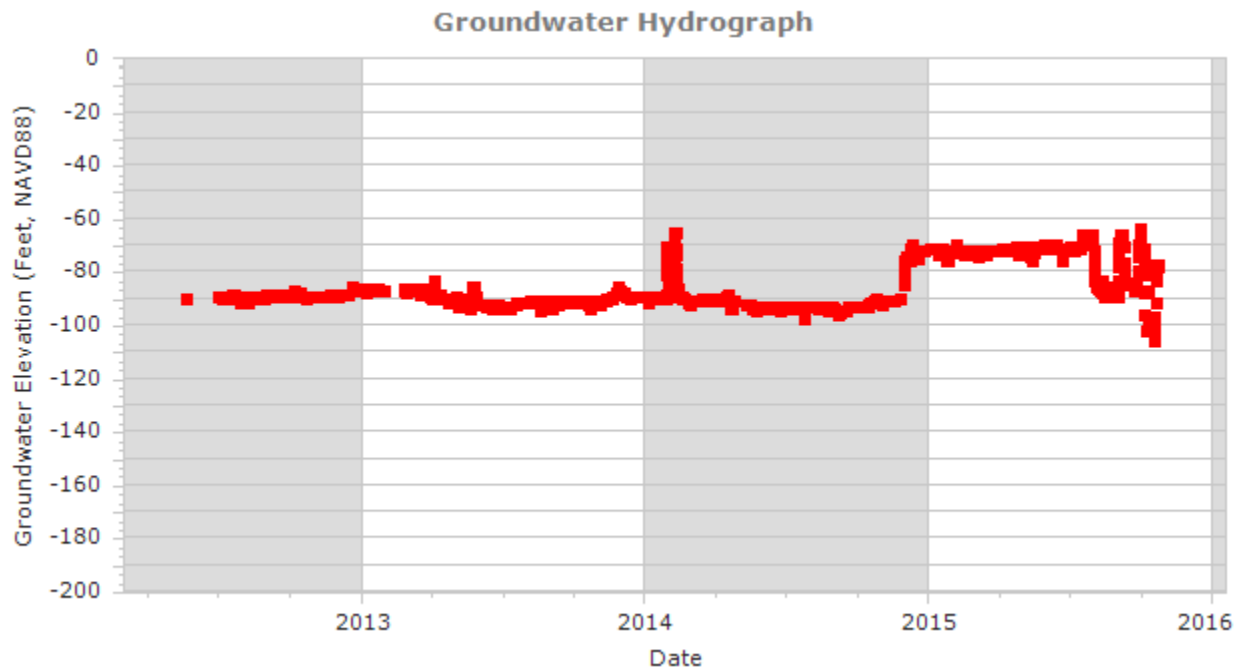
Station Name: MW-CUP-3A-240



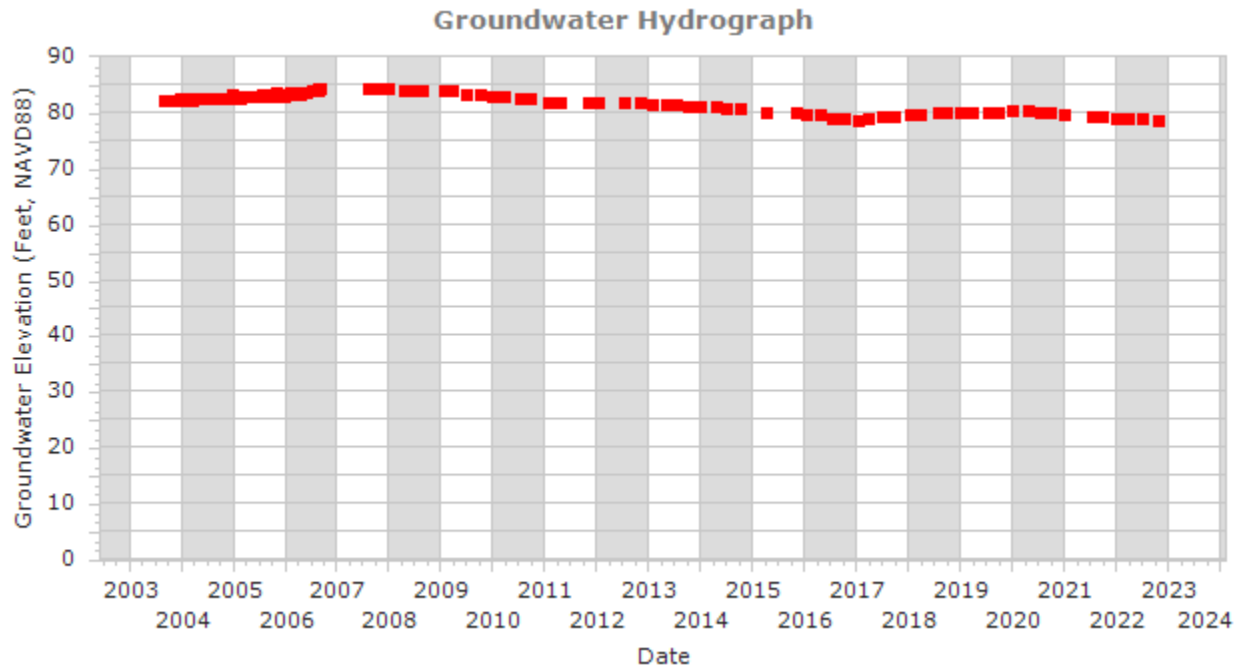
Station Name: MW-CUP-3A-450



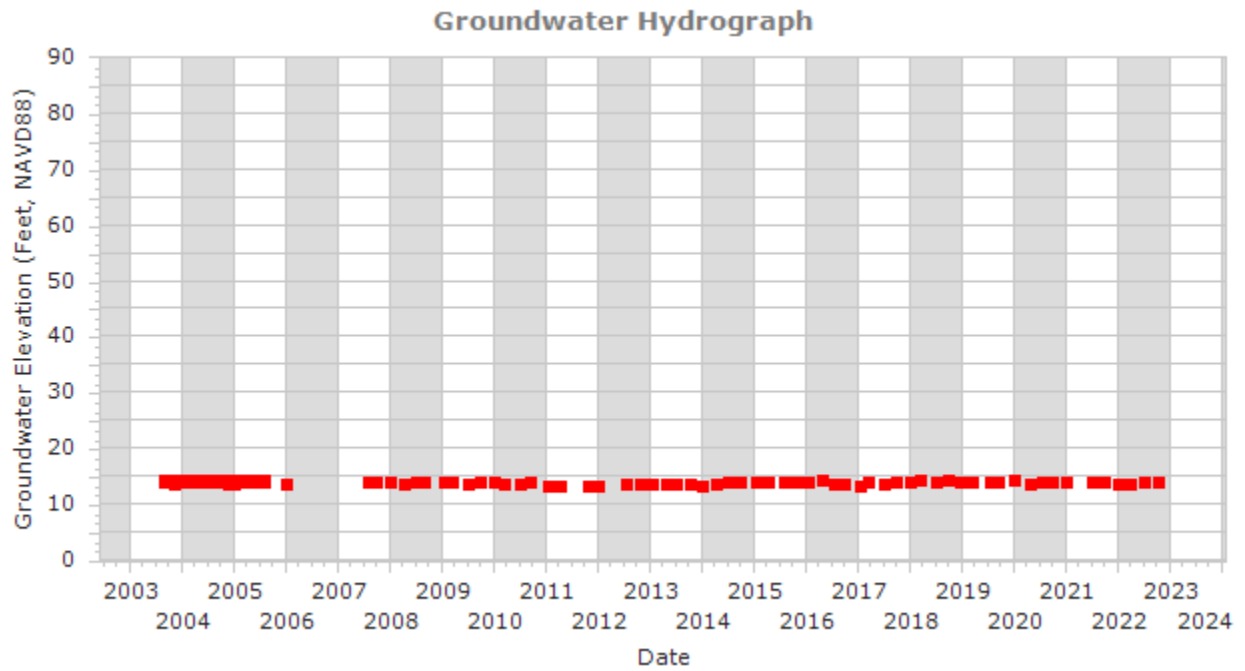
Station Name: MW-CUP-3A-580



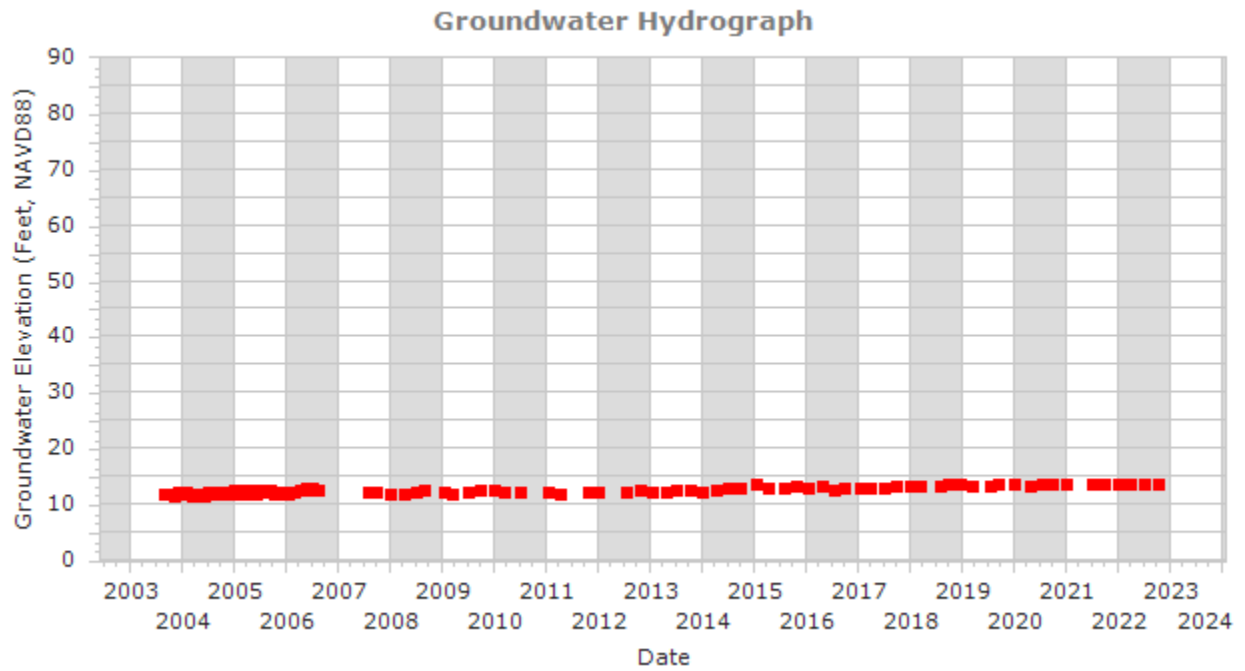
Station Name: THORNTON BEACH MW225



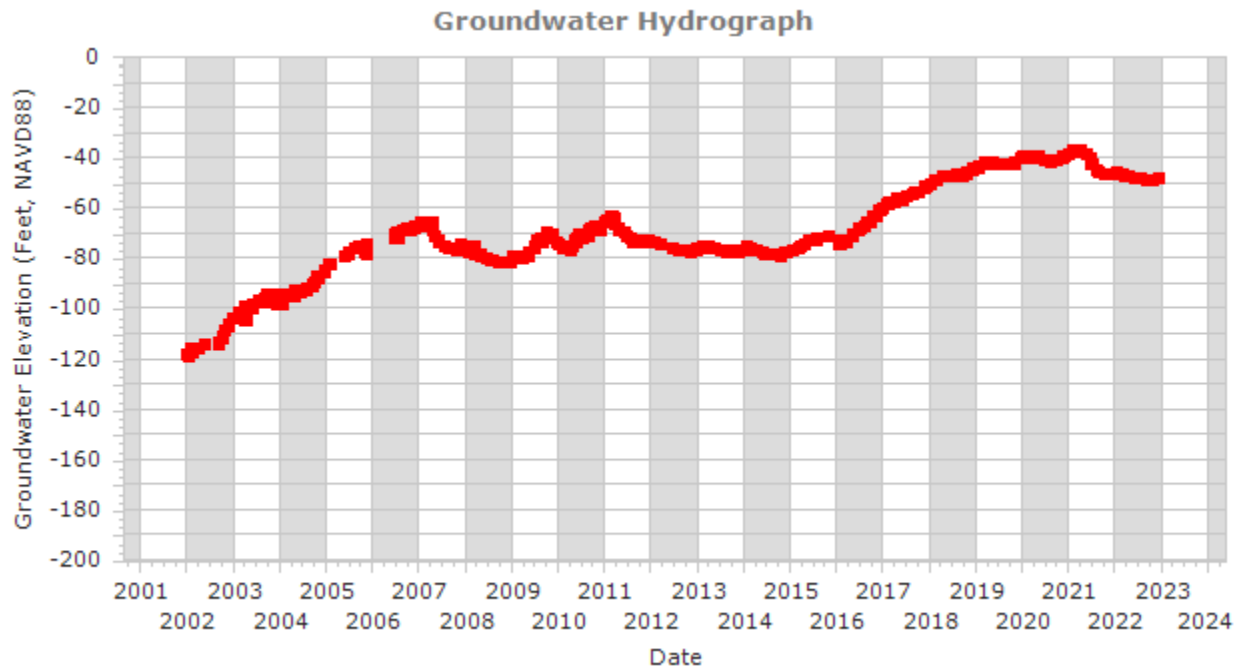
Station Name: THORNTON BEACH MW360



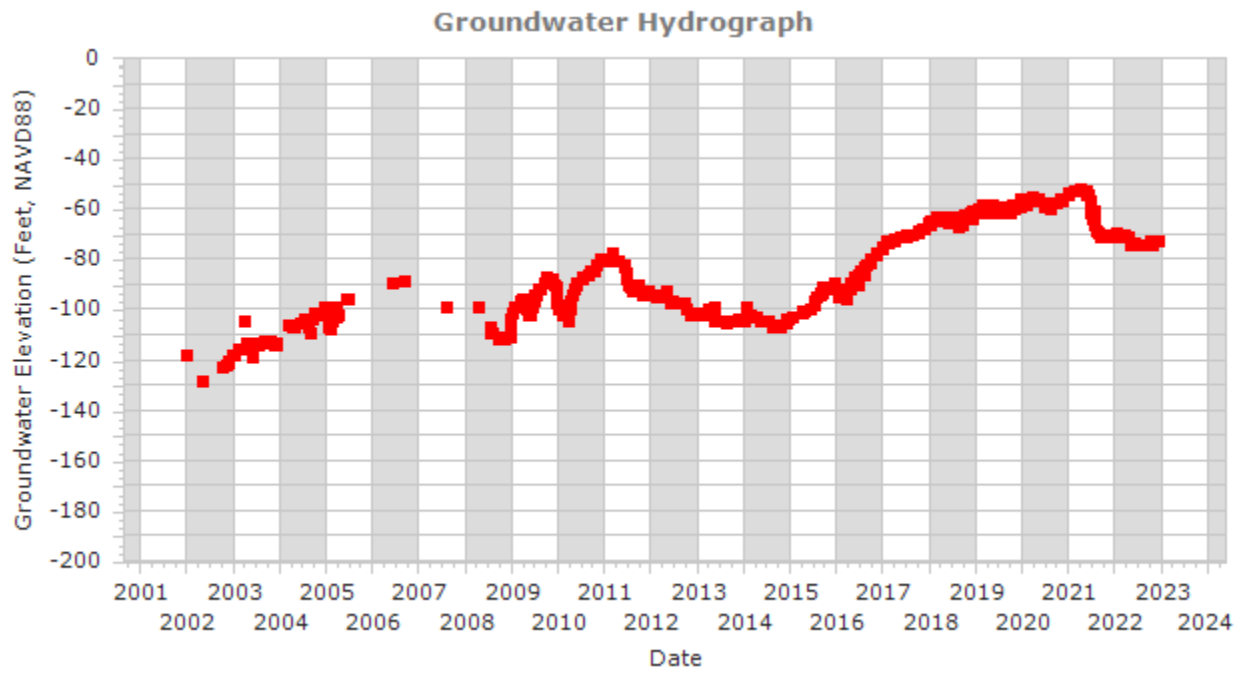
Station Name: THORNTON BEACH MW670



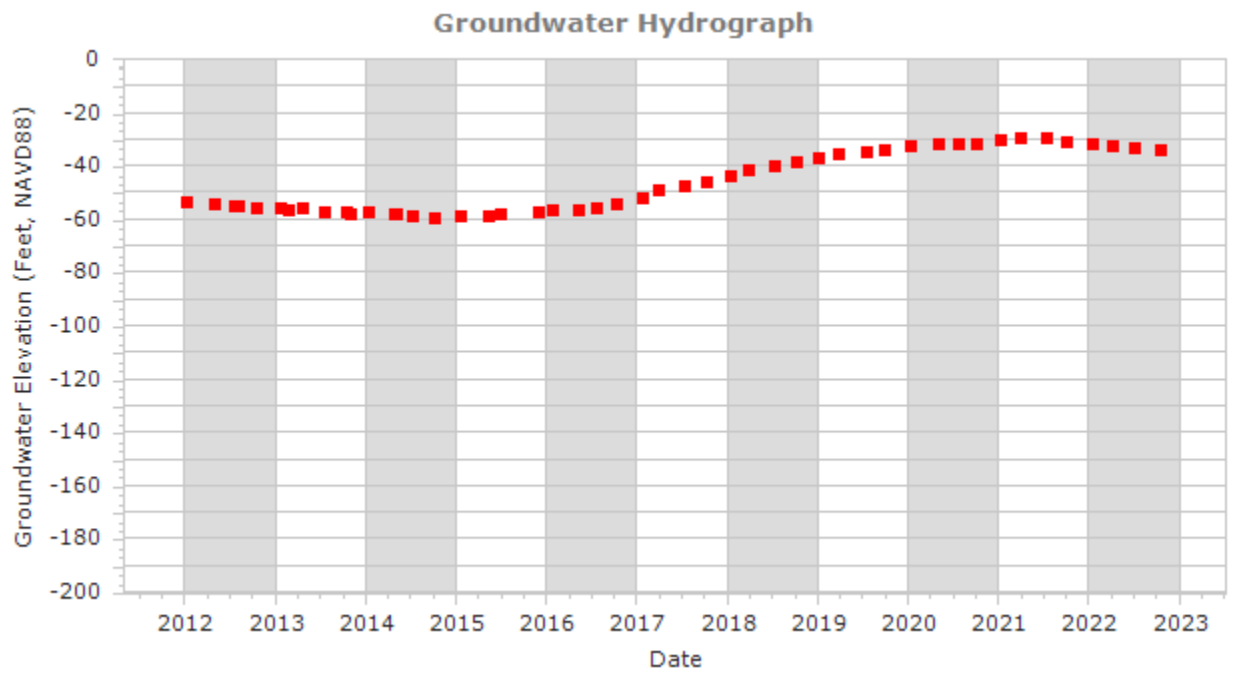
Station Name: DC-01 (WESTLAKE 1)



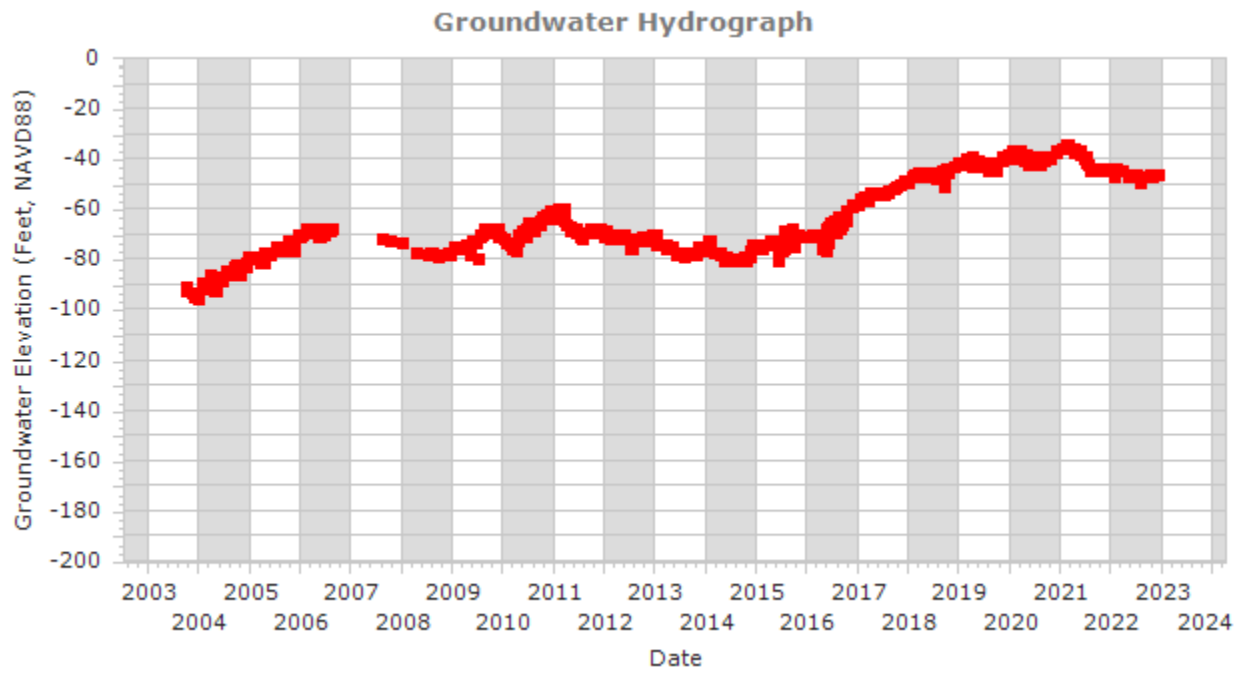
Station Name: DC-08



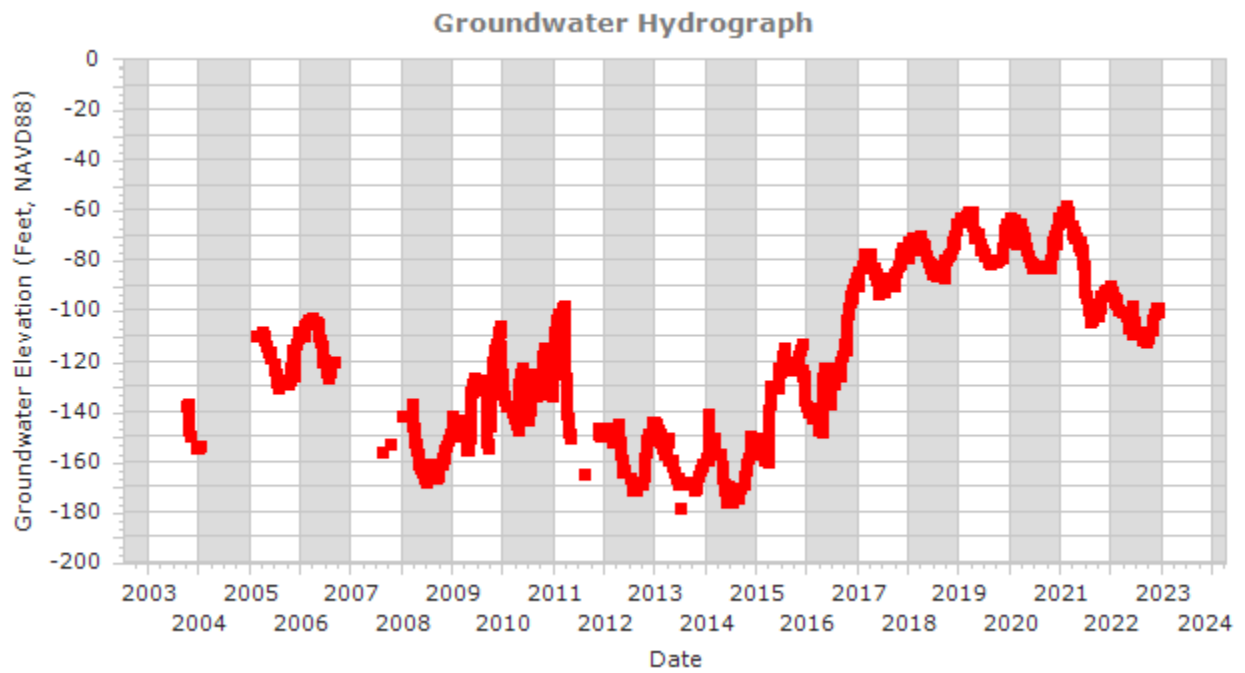
Station Name: PARK PLAZA MW195



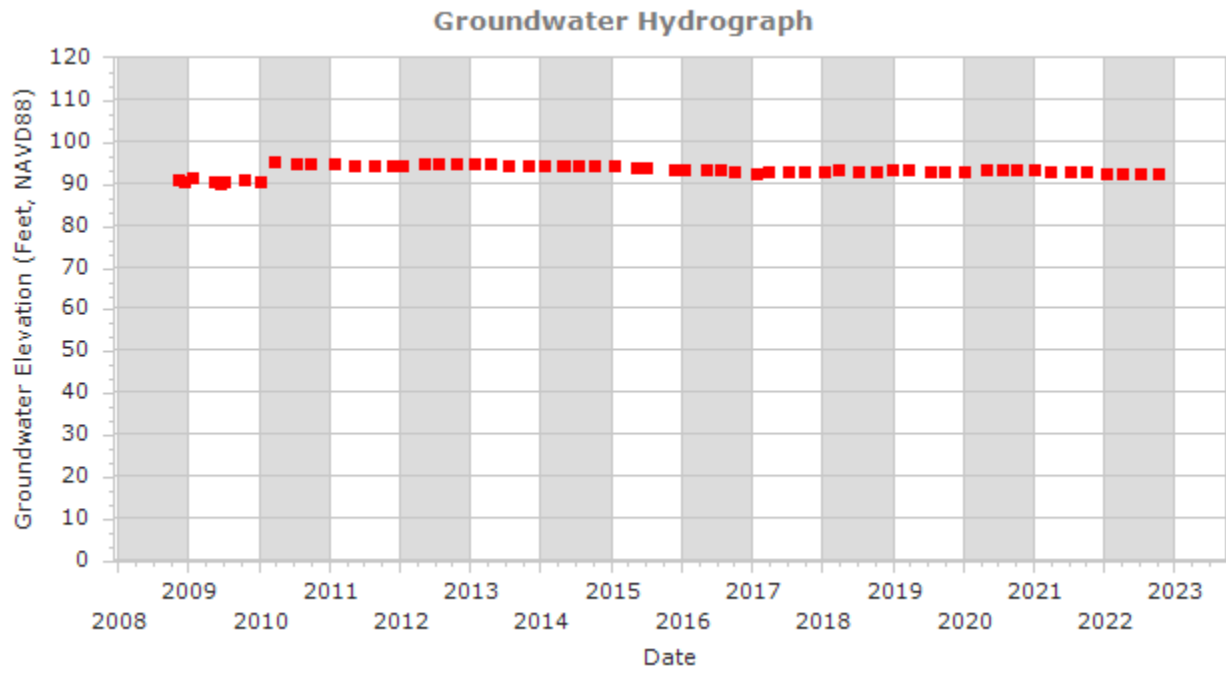
Station Name: PARK PLAZA MW460



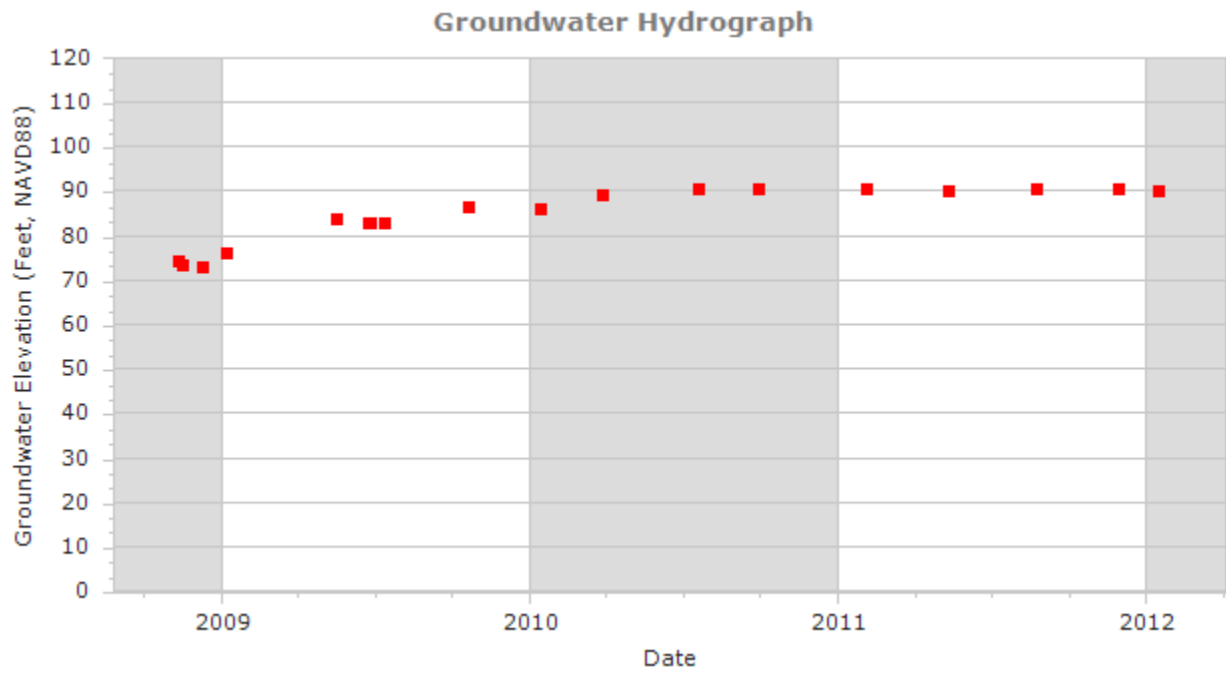
Station Name: PARK PLAZA MW620



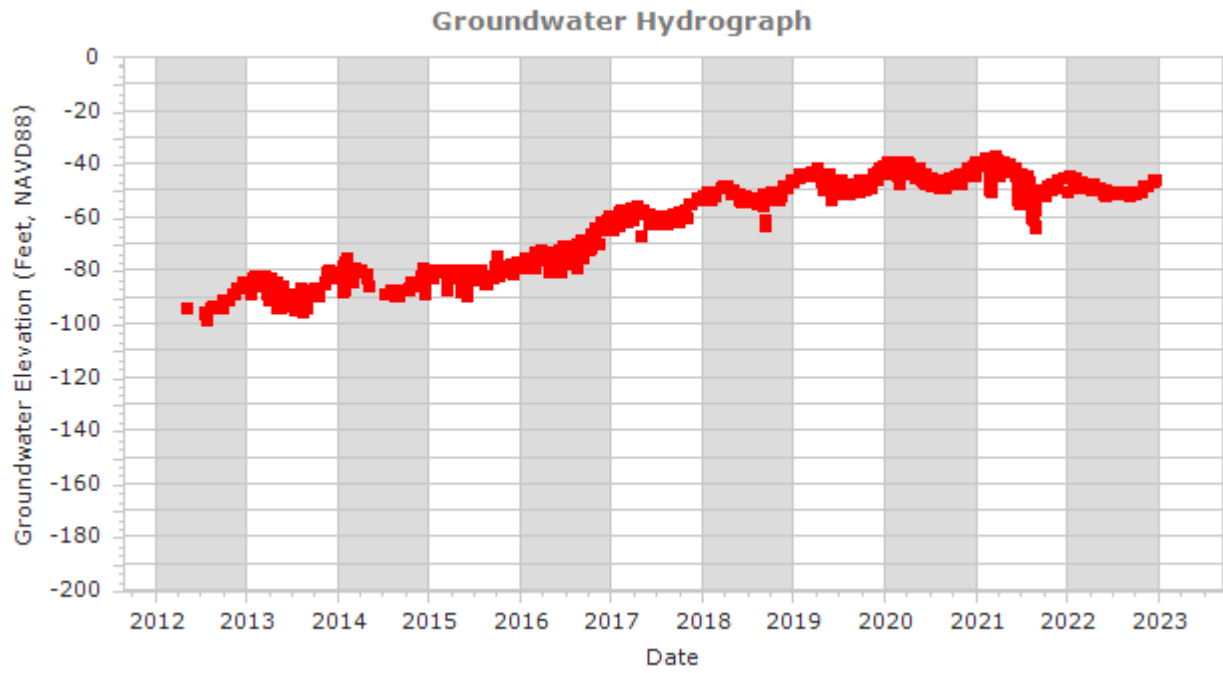
Station Name: MW-CUP-10A-160



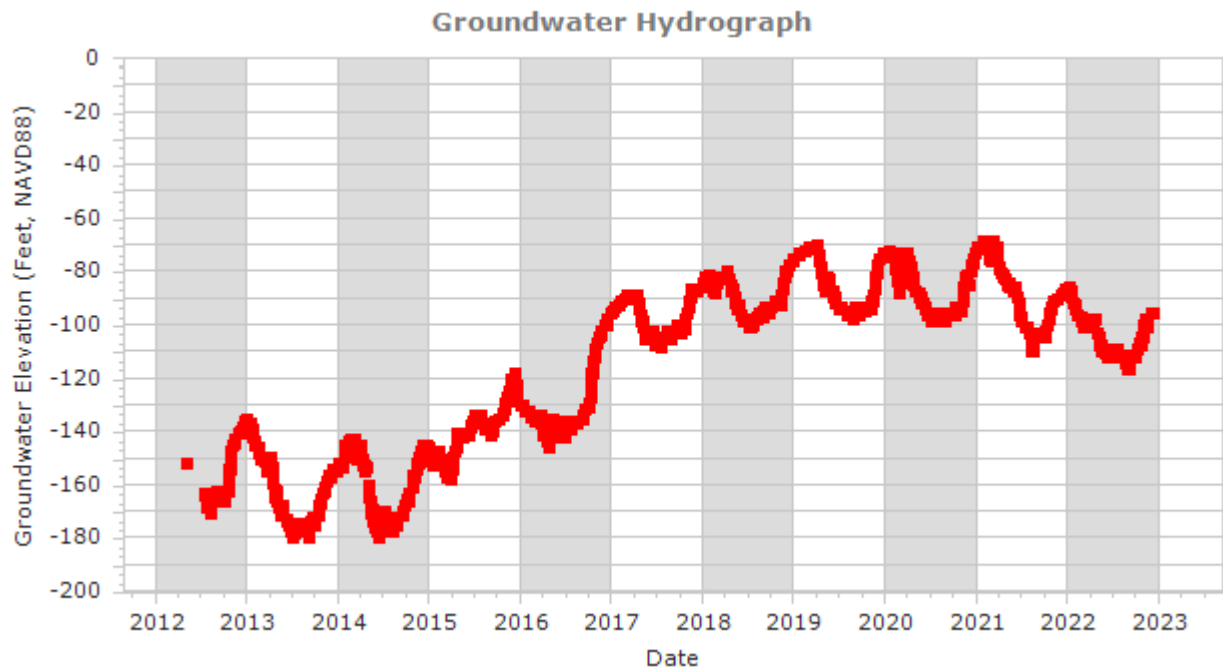
Station Name: MW-CUP-10A-250



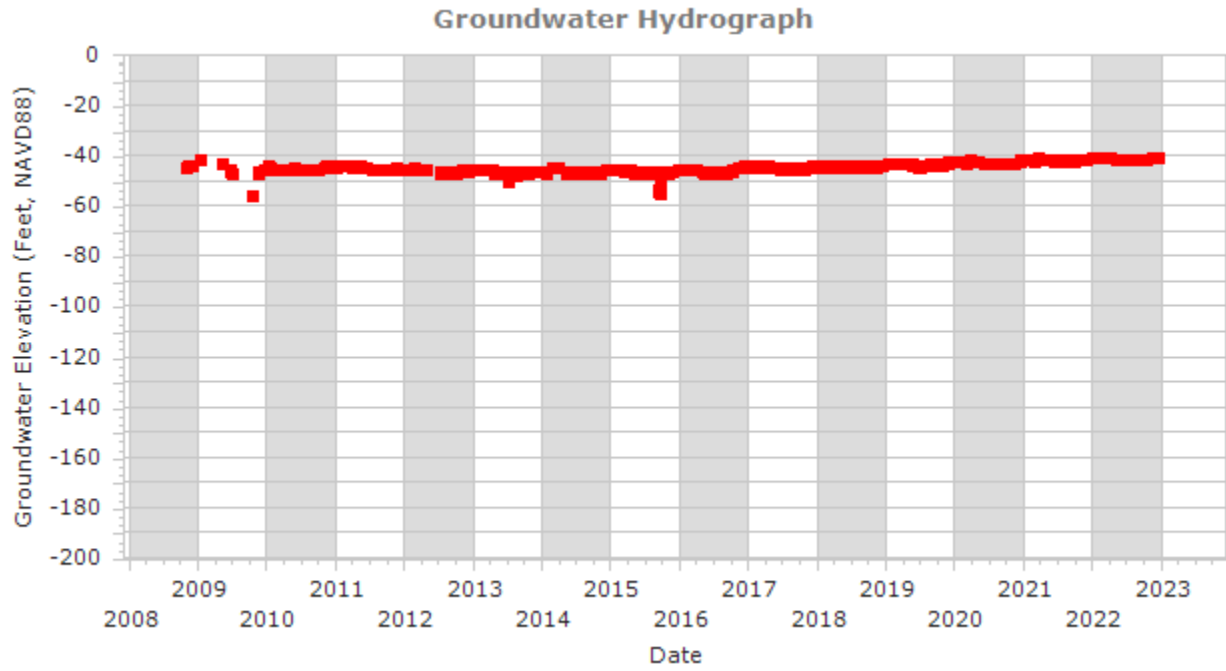
Station Name: MW-CUP-10A-500



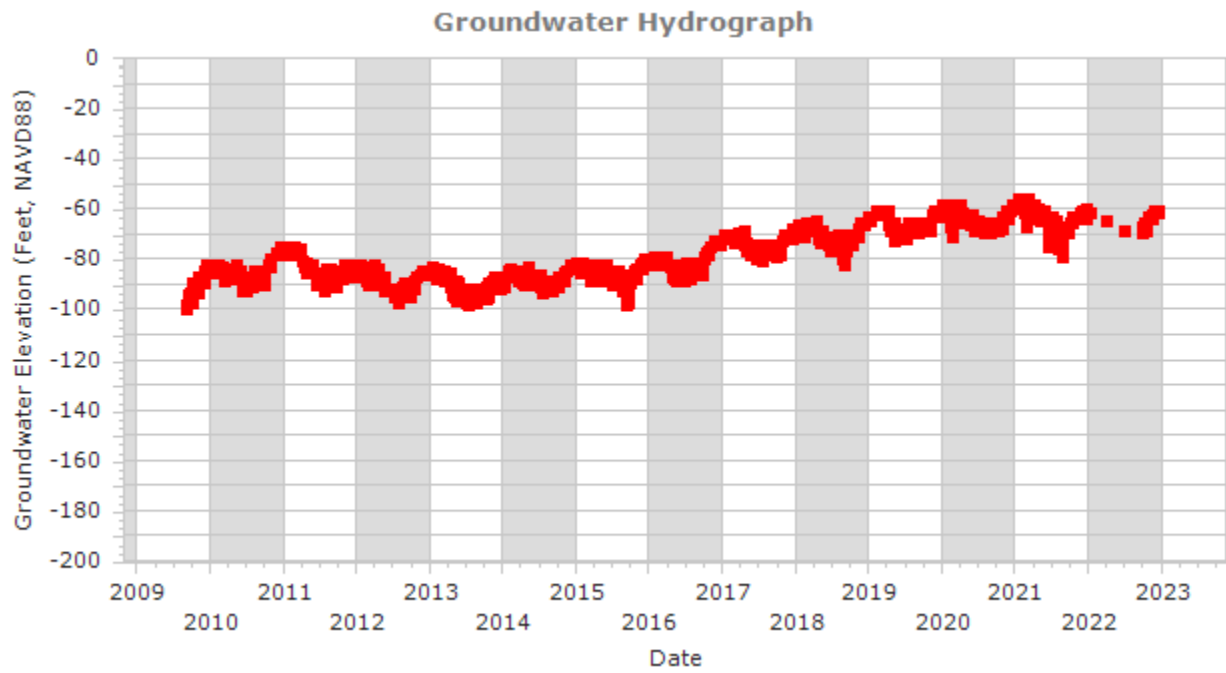
Station Name: MW-CUP-10A-710



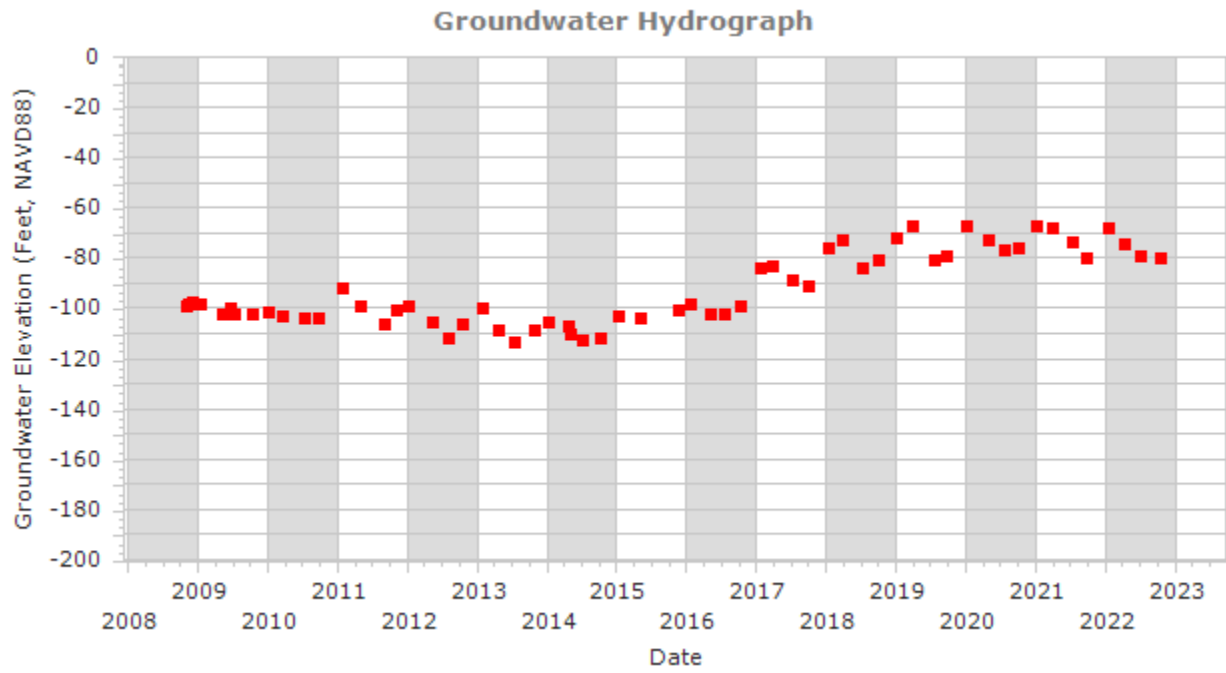
Station Name: MW-CUP-18-230



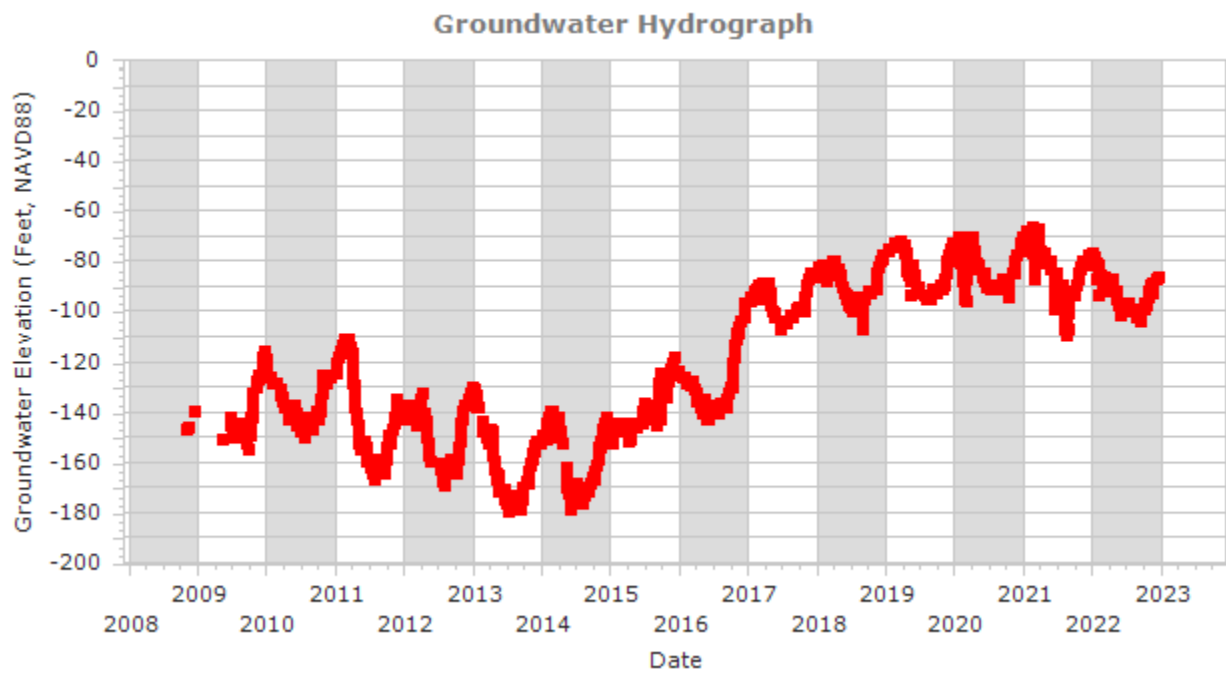
Station Name: MW-CUP-18-425



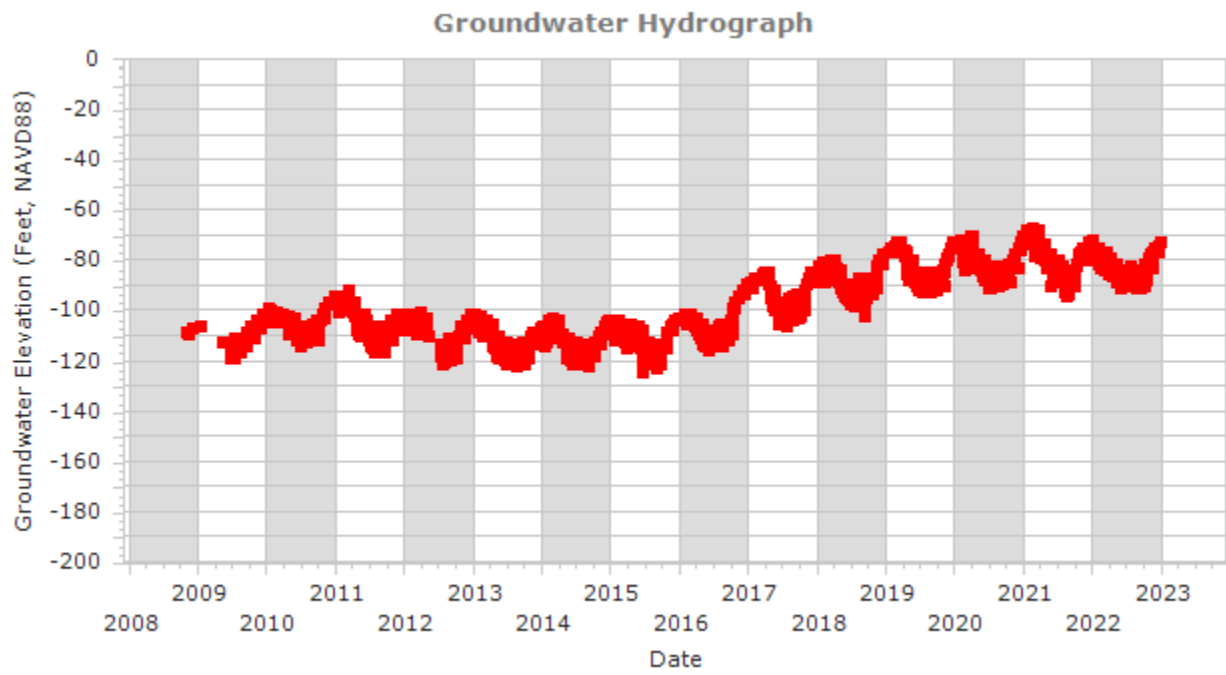
Station Name: MW-CUP-18-490



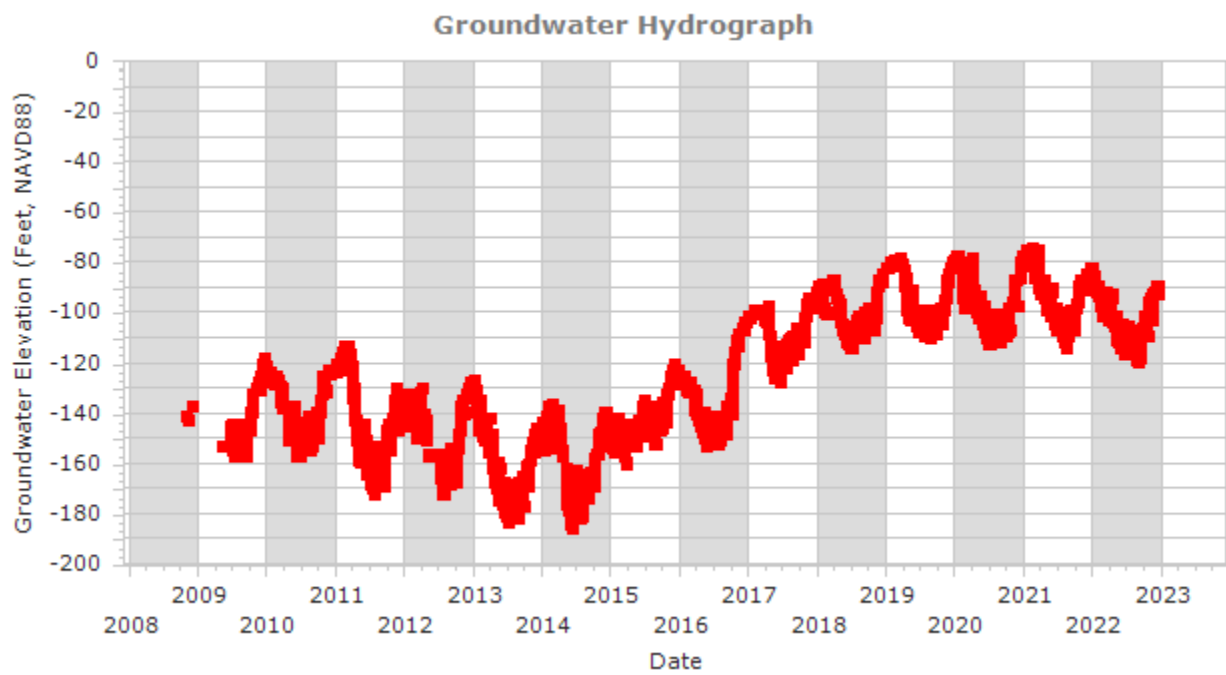
Station Name: MW-CUP-18-660



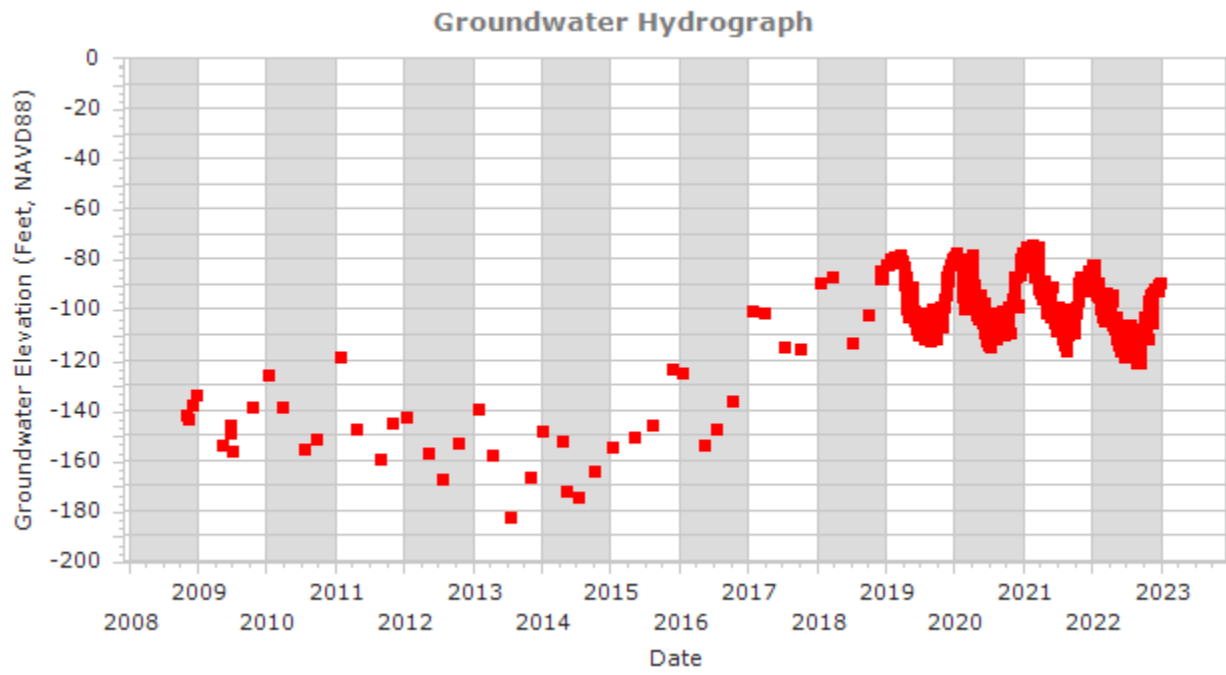
Station Name: MW-CUP-19-475



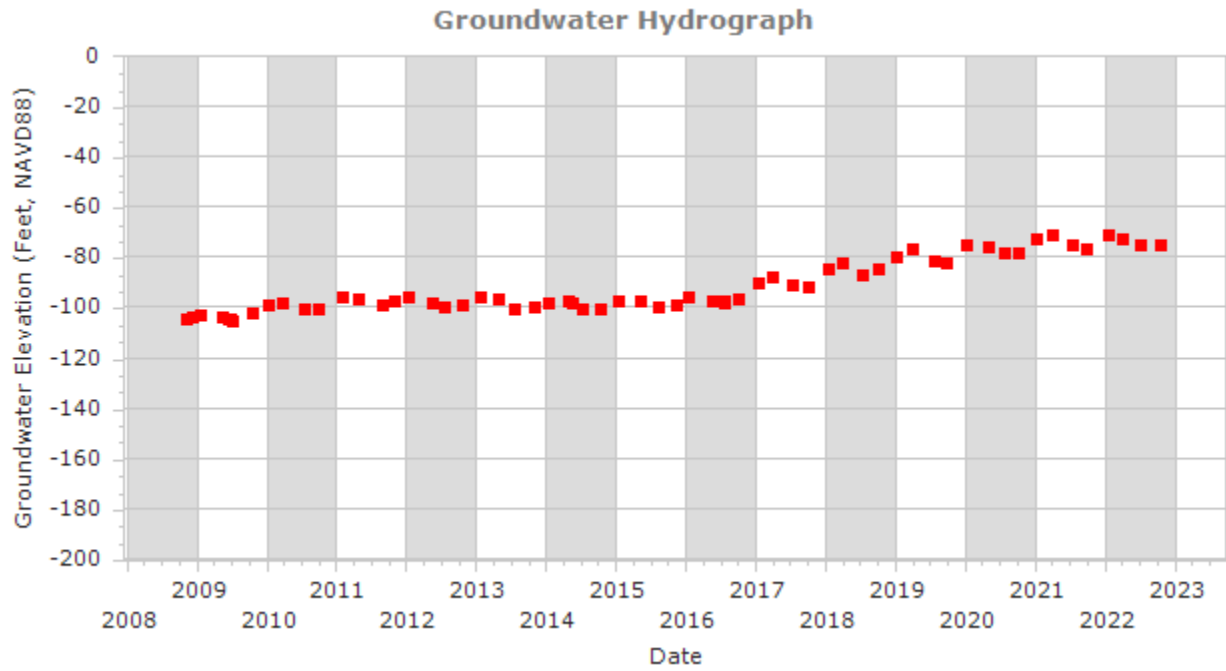
Station Name: MW-CUP-19-600



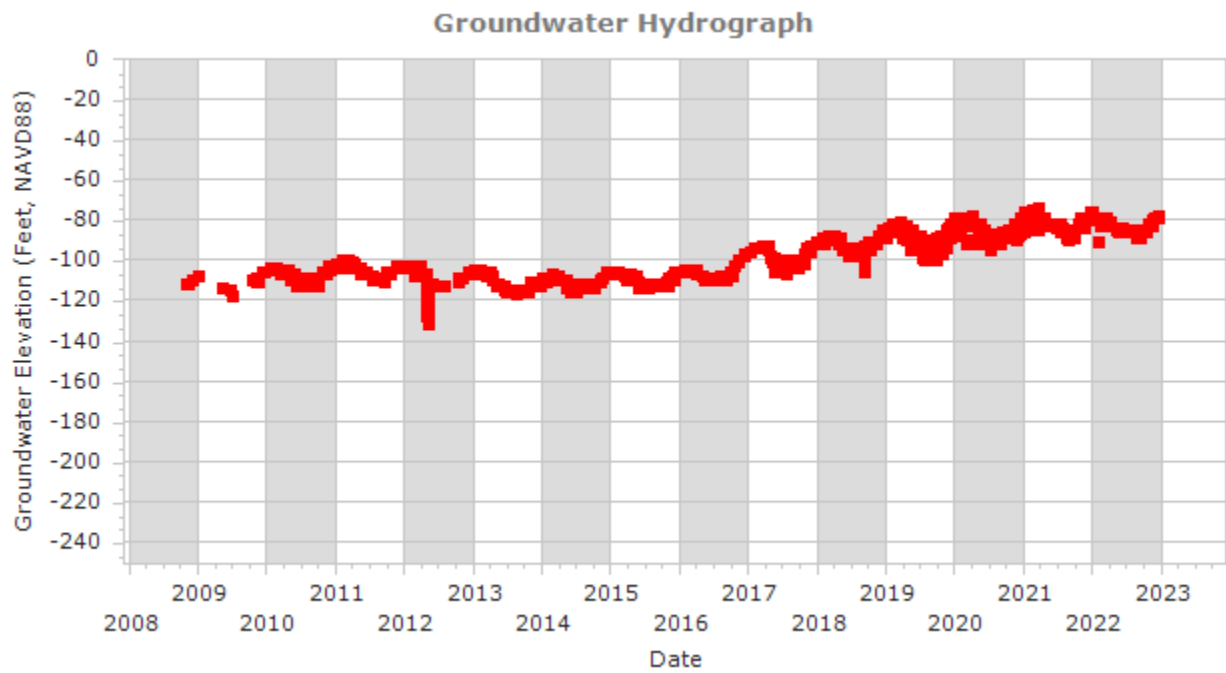
Station Name: MW-CUP-19-690



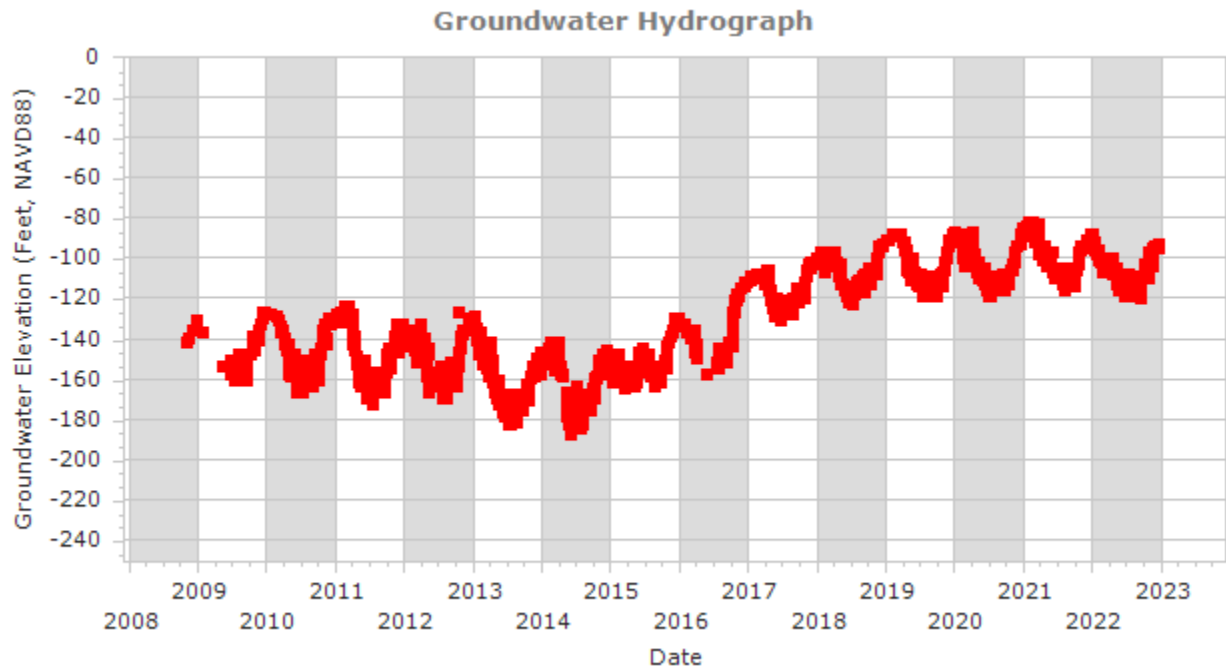
Station Name: MW-CUP-22A-290



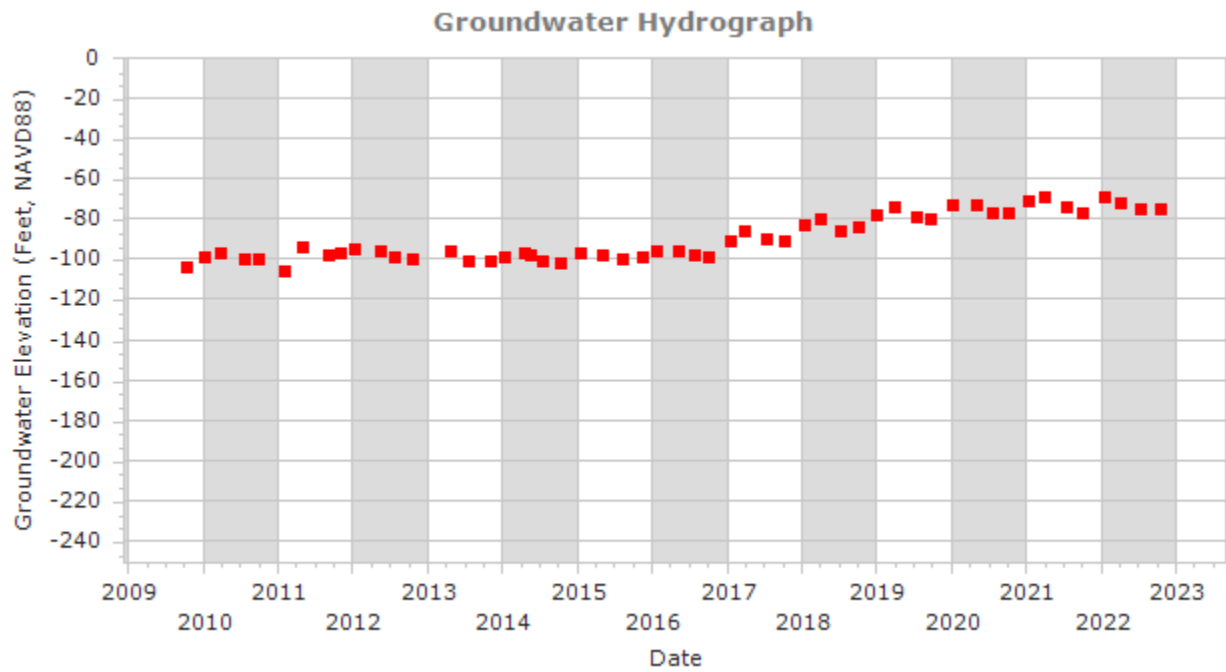
Station Name: MW-CUP-22A-440



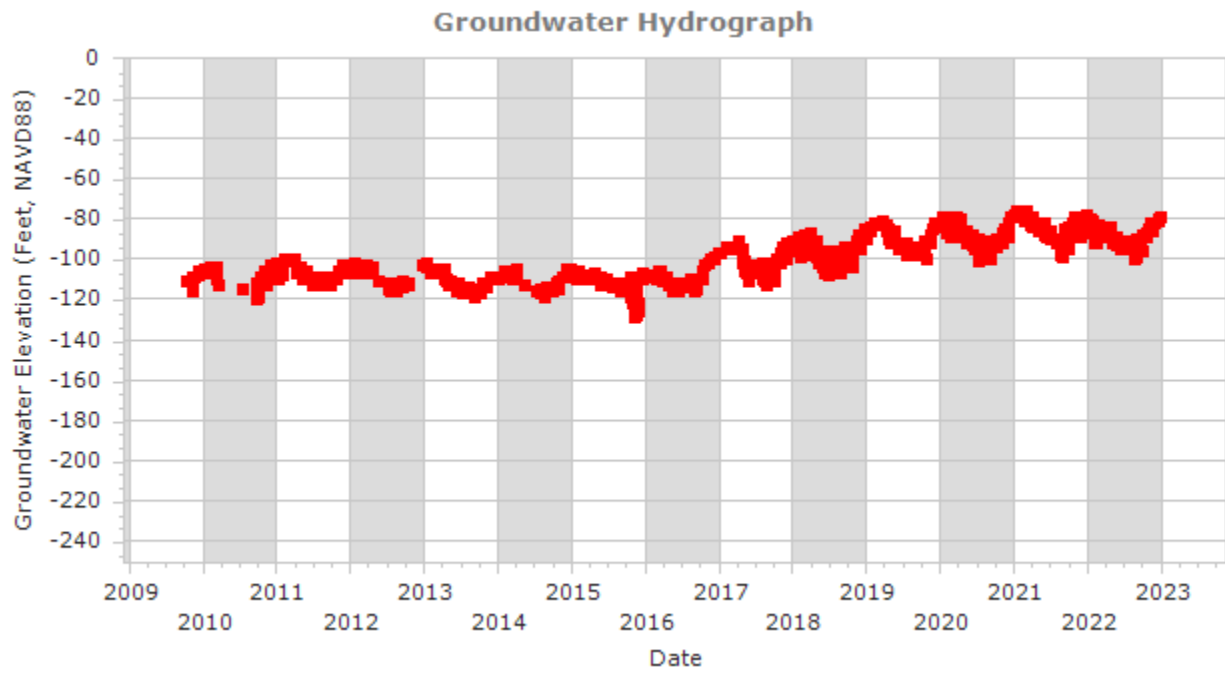
Station Name: MW-CUP-22A-545



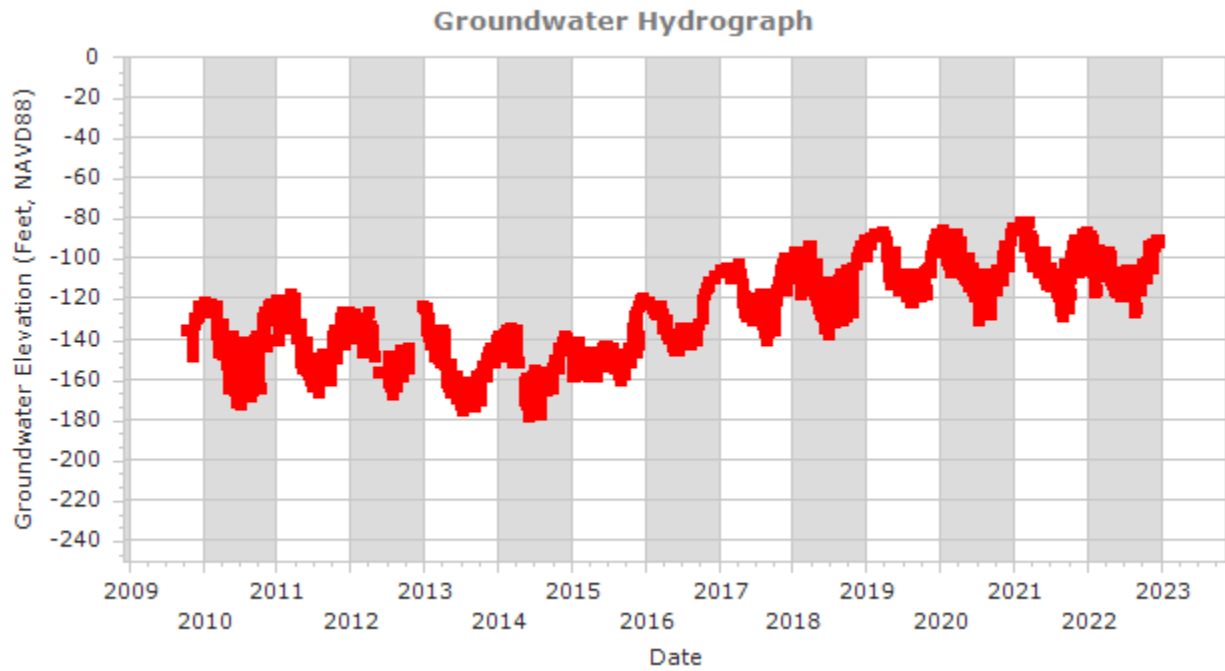
Station Name: MW-CUP-23-230



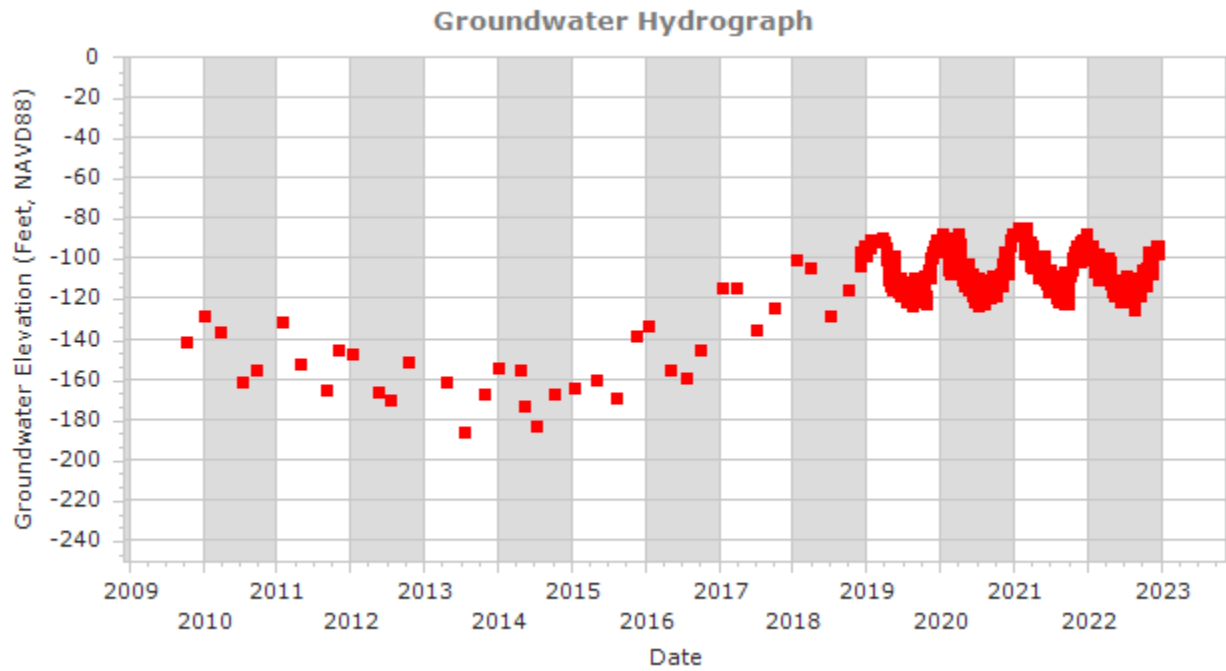
Station Name: MW-CUP-23-440



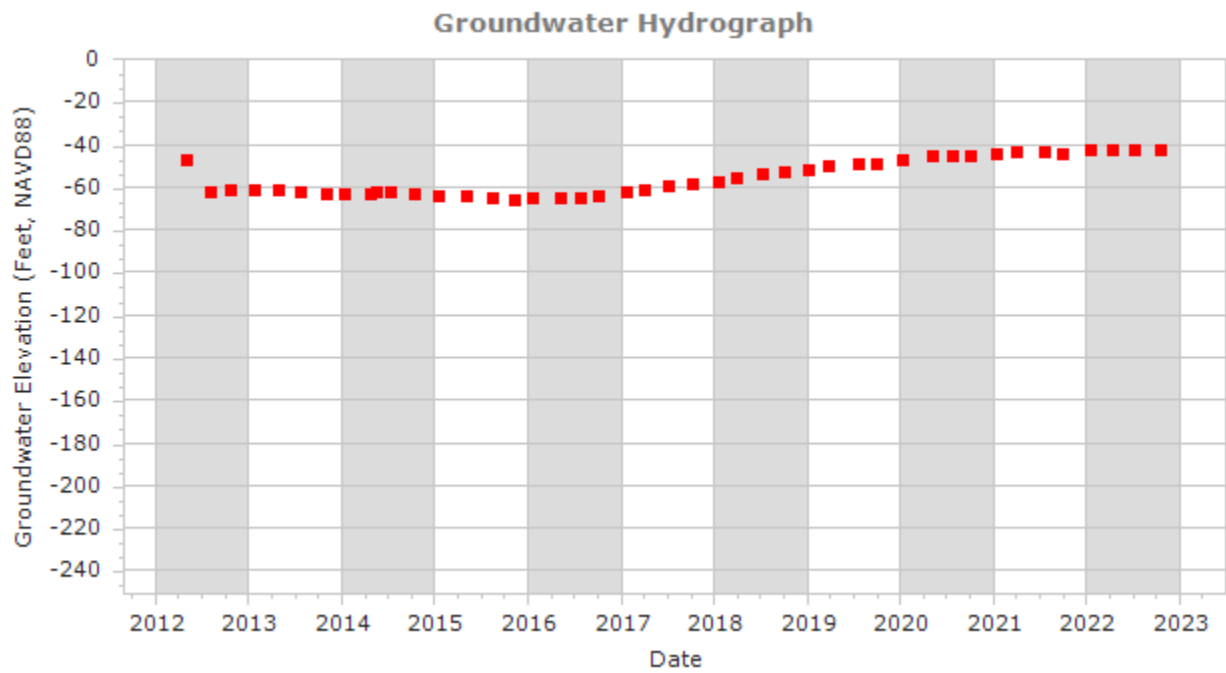
Station Name: MW-CUP-23-515



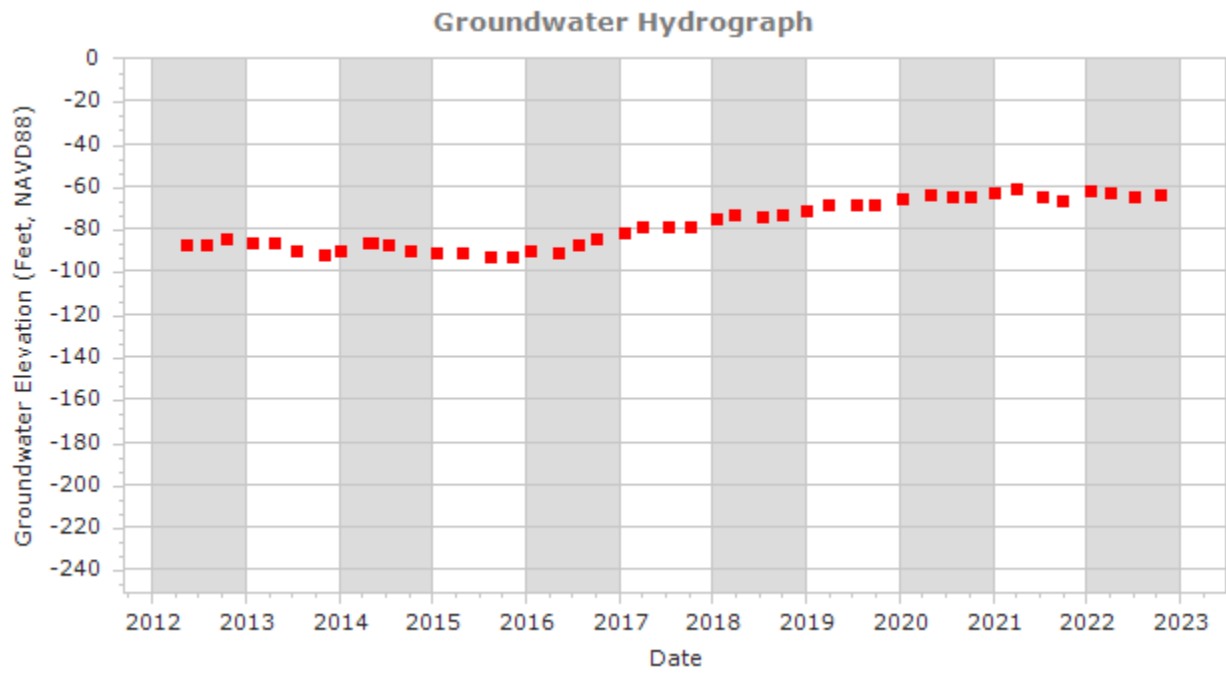
Station Name: MW-CUP-23-600



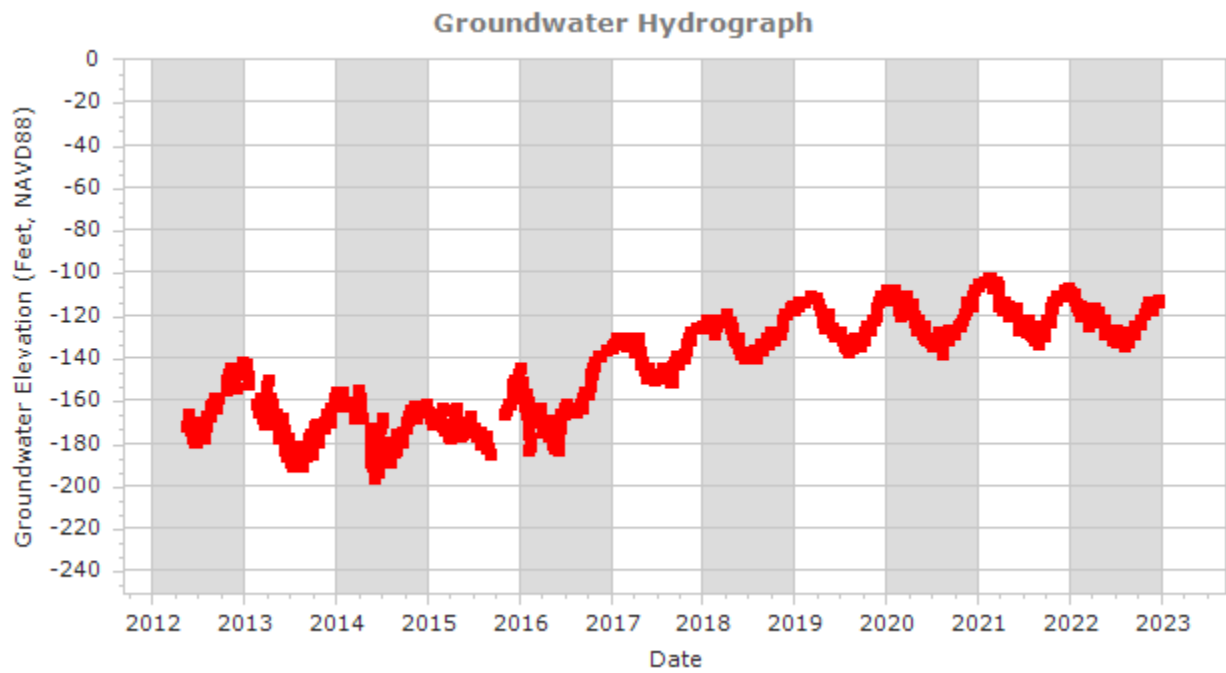
Station Name: MW-CUP-31-145



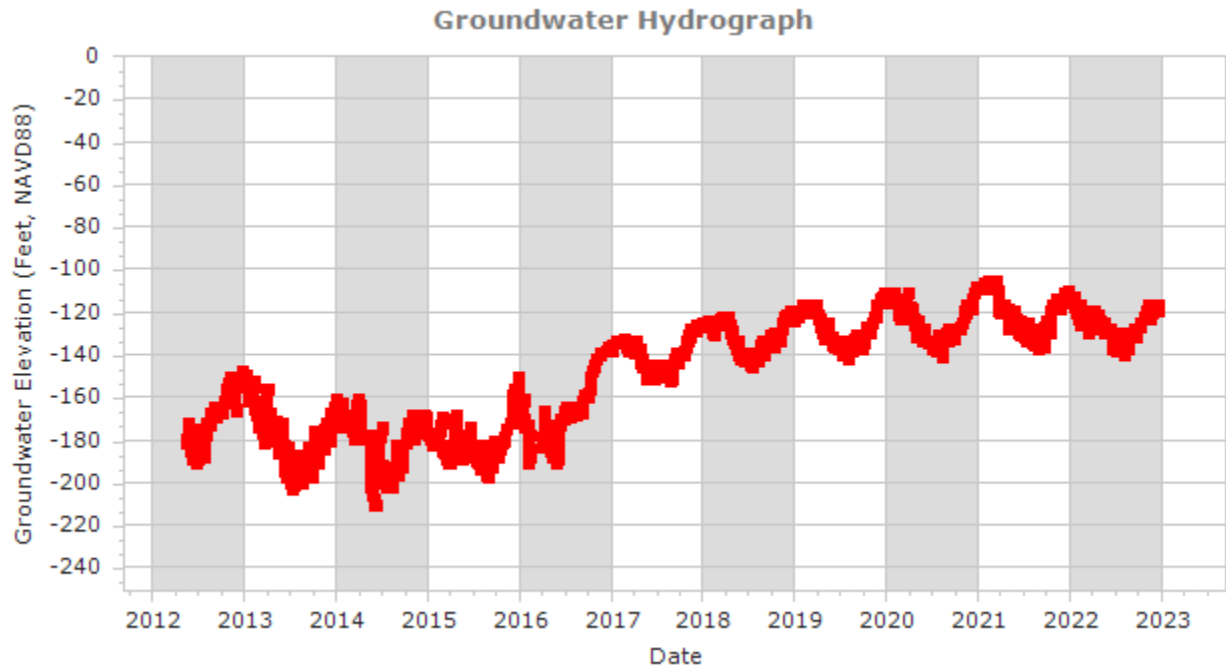
Station Name: MW-CUP-31-280



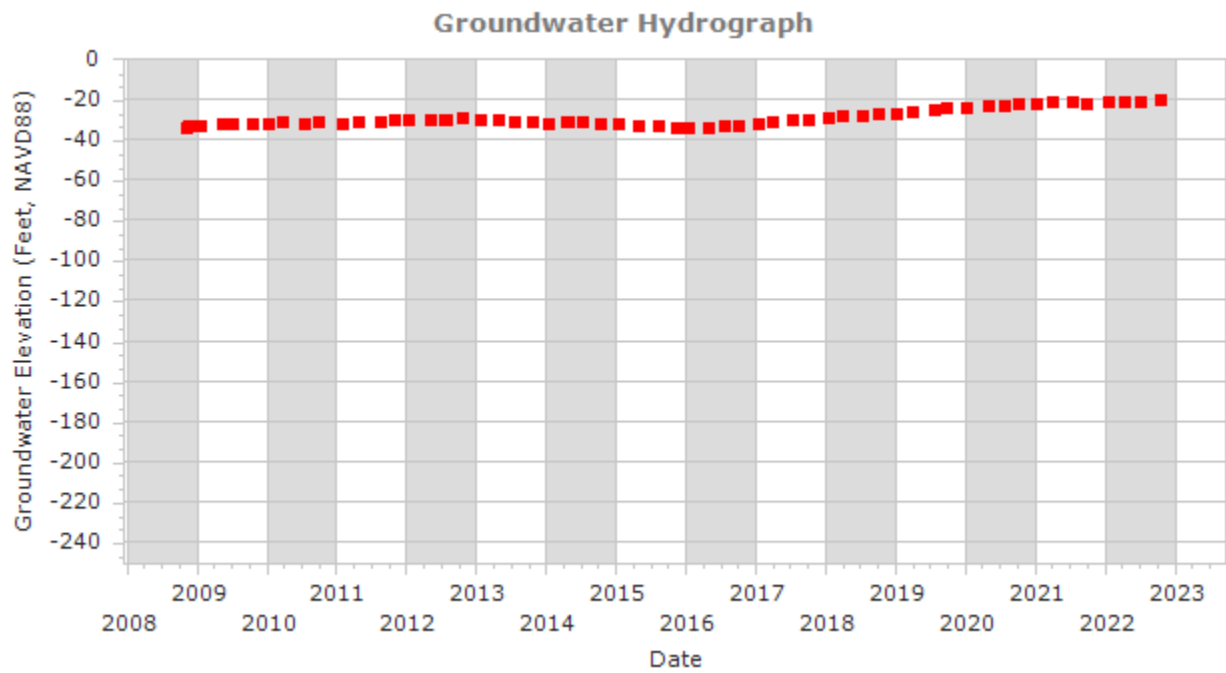
Station Name: MW-CUP-31-480



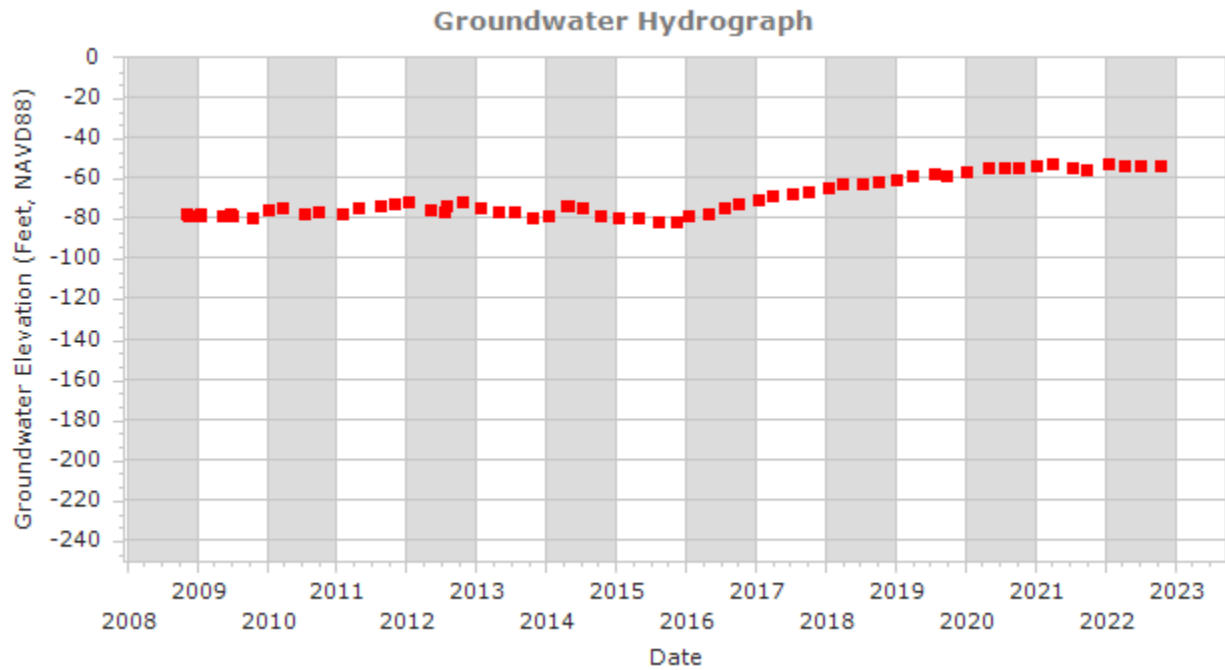
Station Name: MW-CUP-31-595



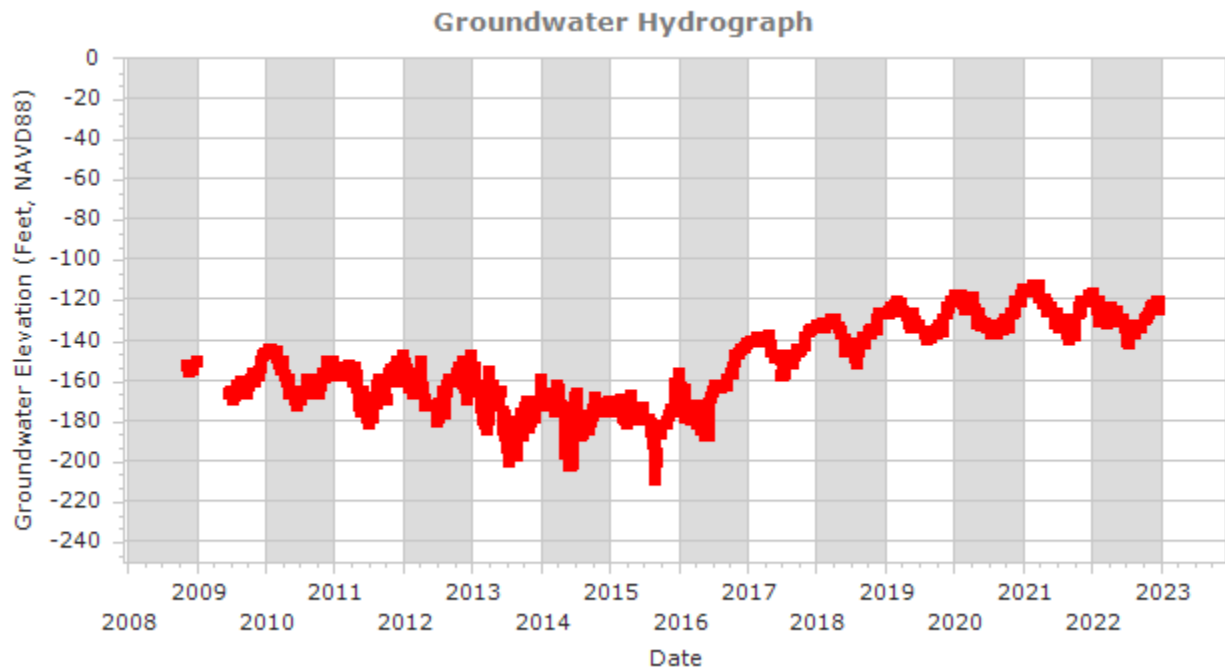
Station Name: MW-CUP-36-1-160



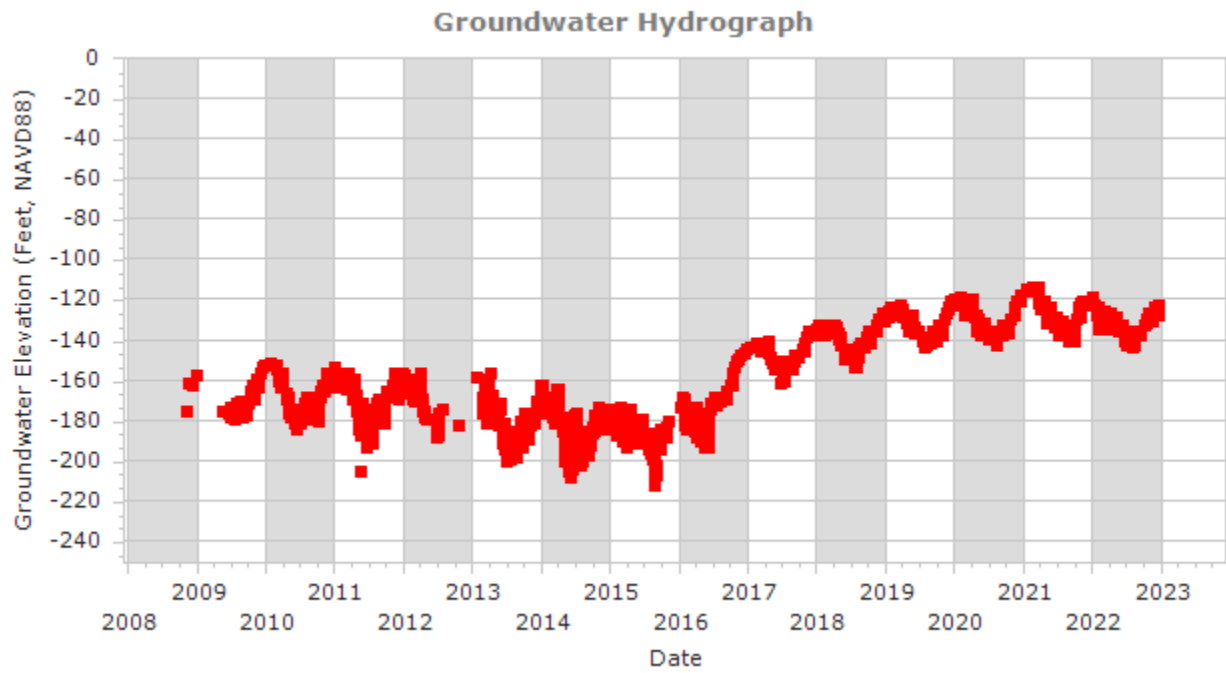
Station Name: MW-CUP-36-1-270



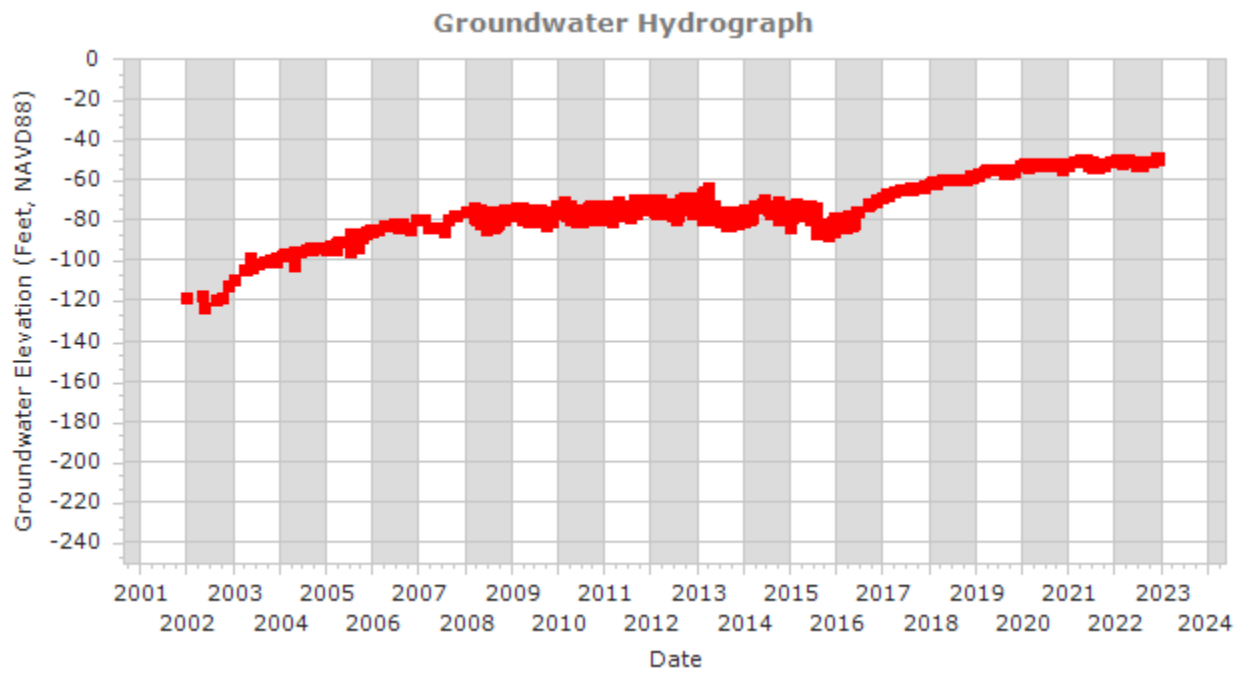
Station Name: MW-CUP-36-1-455



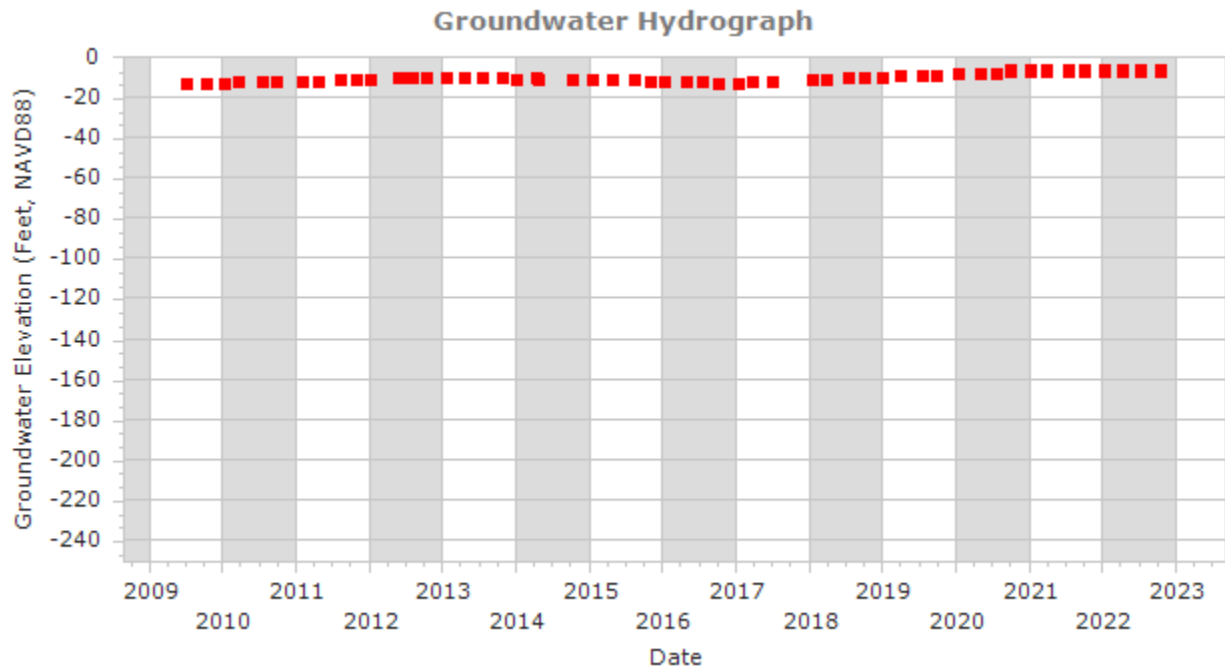
Station Name: MW-CUP-36-1-585



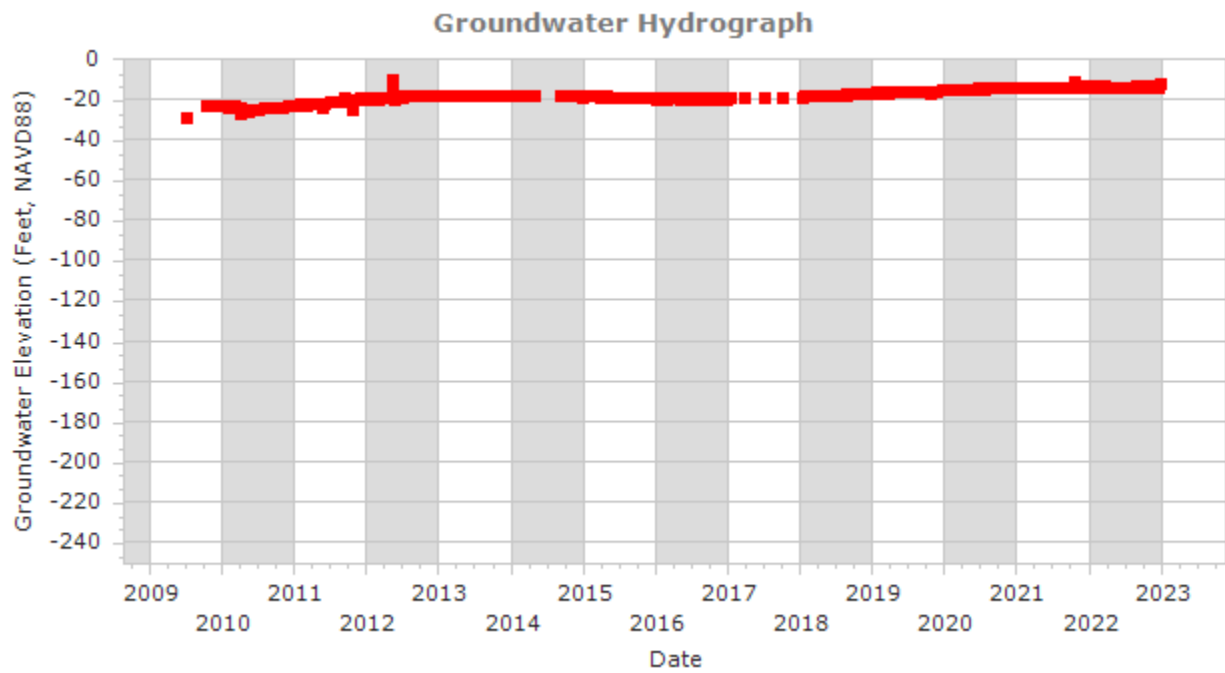
Station Name: CAL. WATER SERV. SS1-02



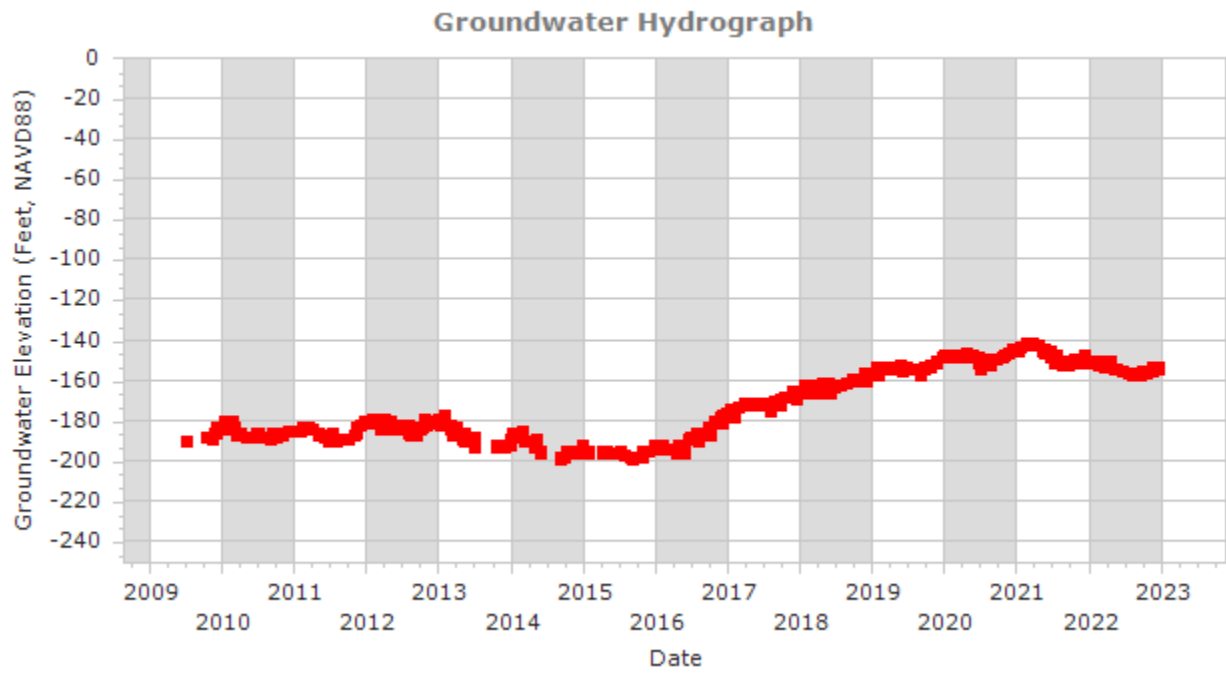
Station Name: MW-CUP-44-1-190



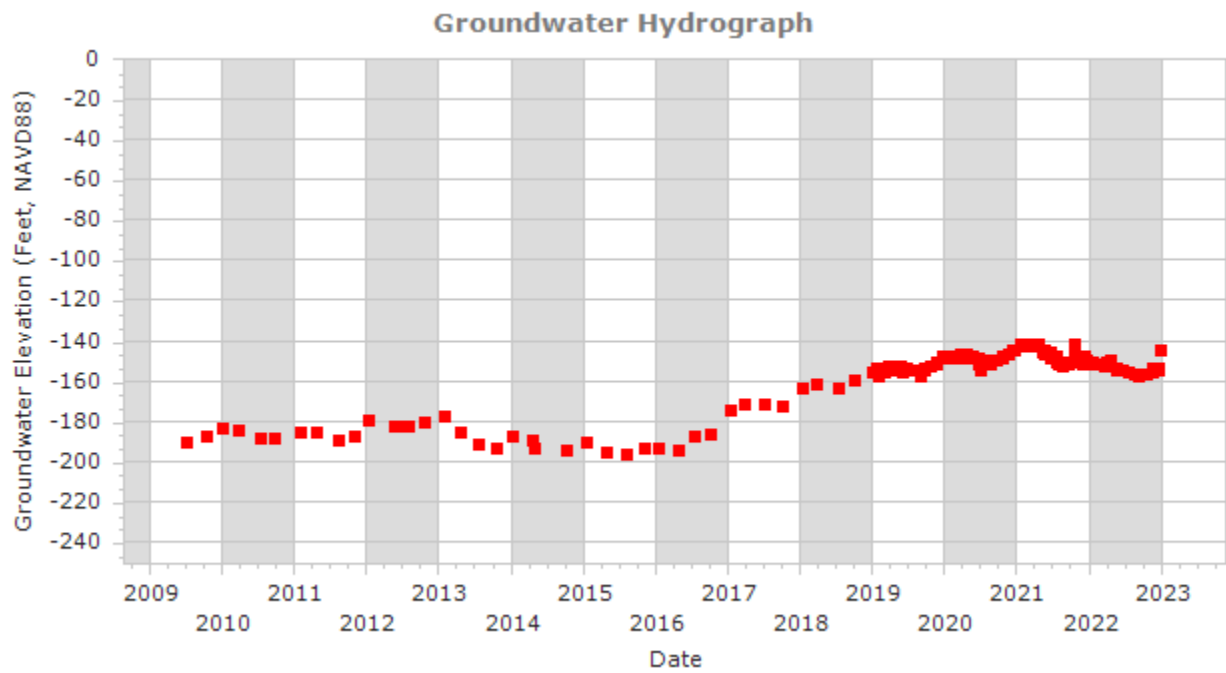
Station Name: MW-CUP-44-1-300



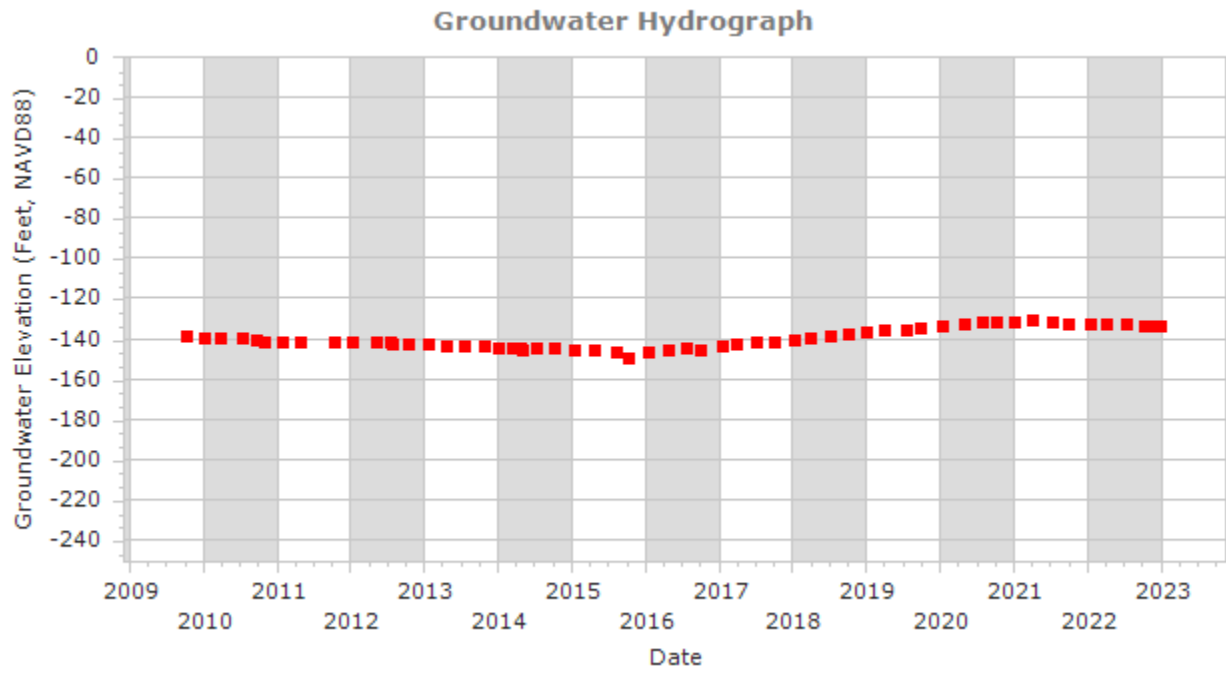
Station Name: MW-CUP-44-1-460



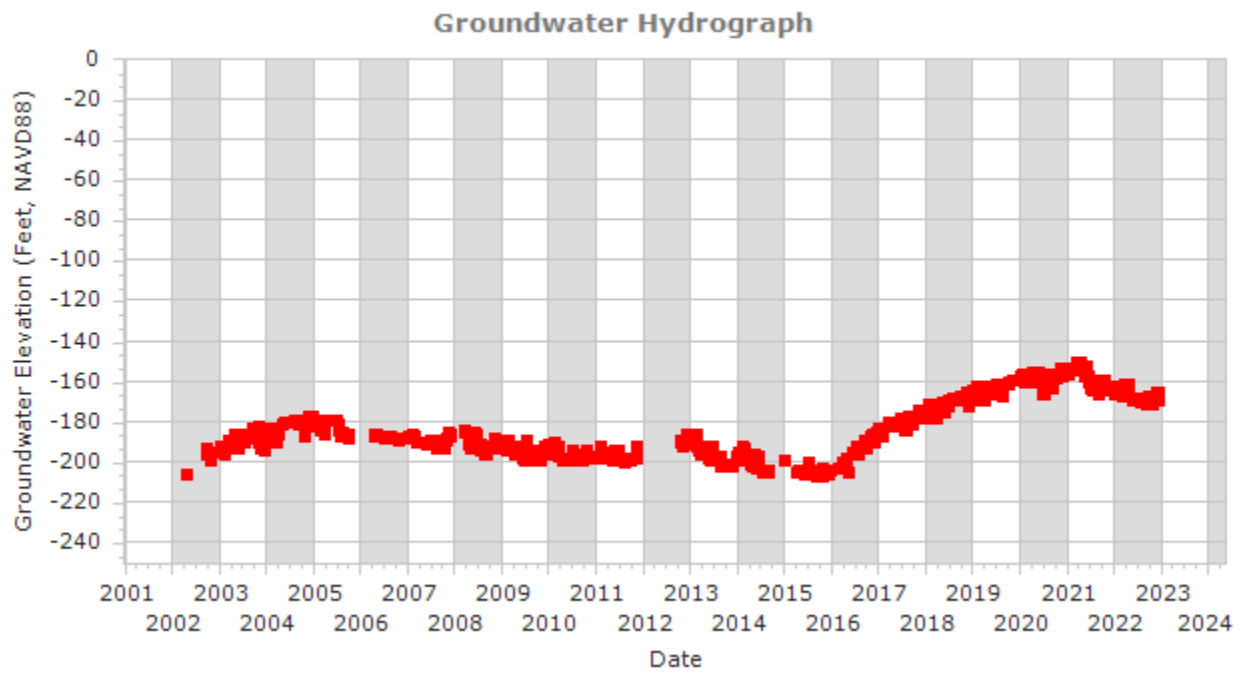
Station Name: MW-CUP-44-1-580



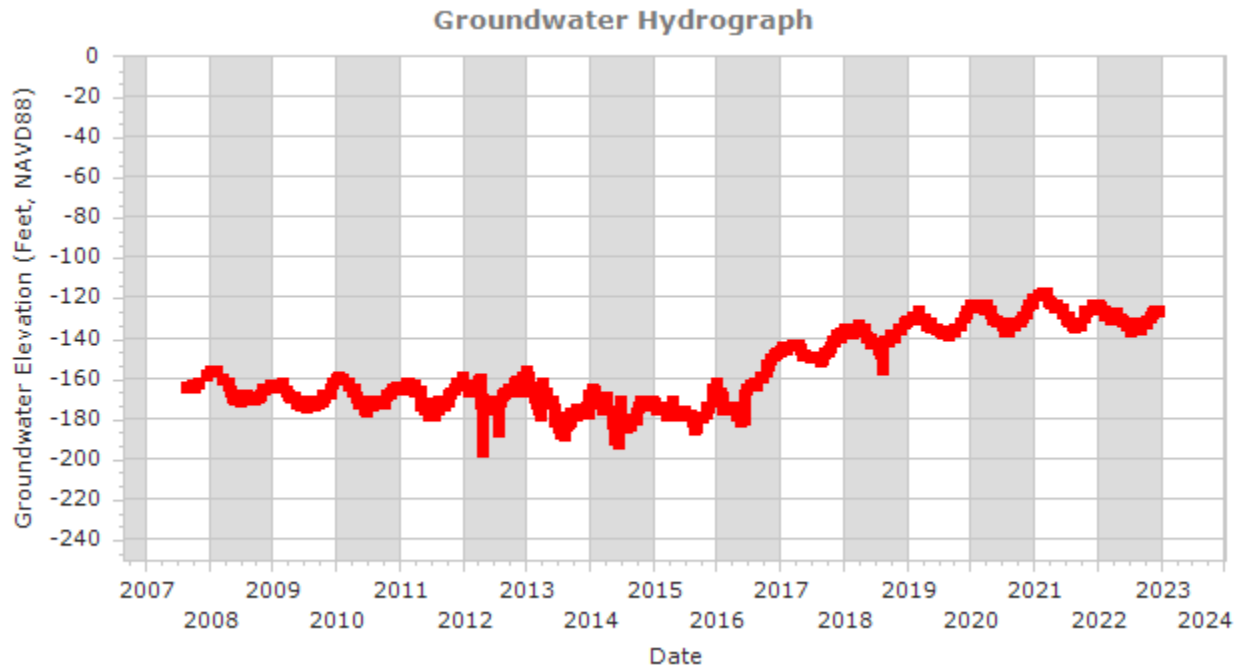
Station Name: MW-M1



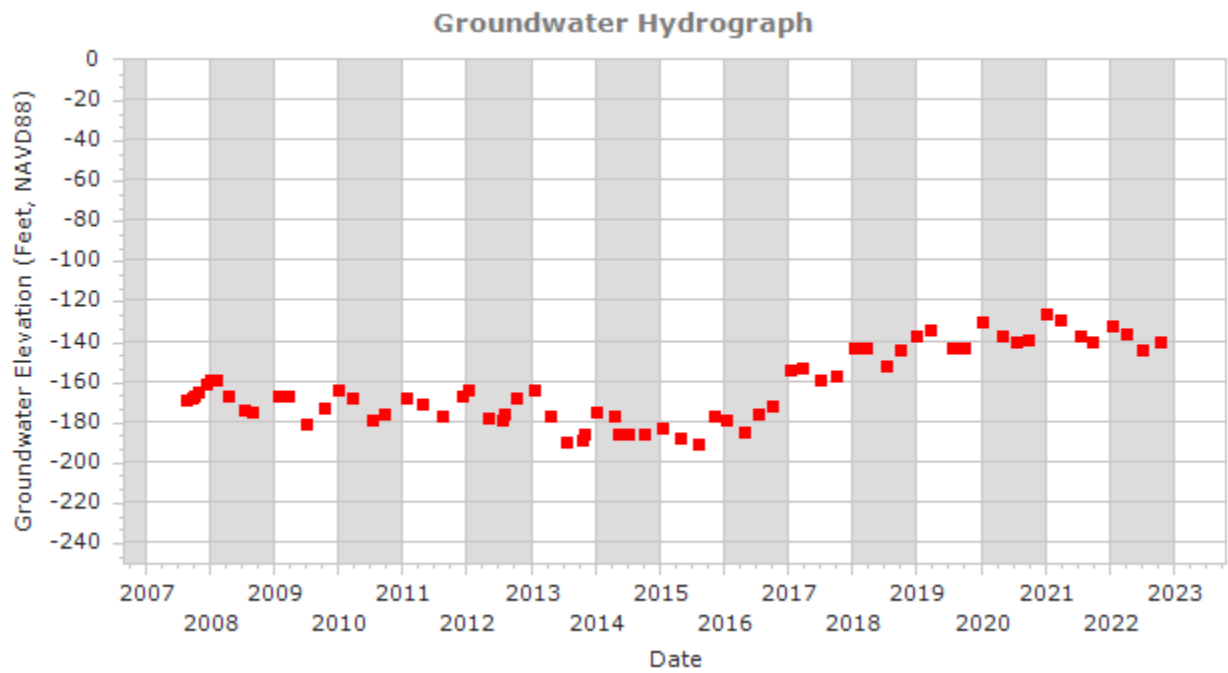
Station Name: SB-12 ELM AVENUE



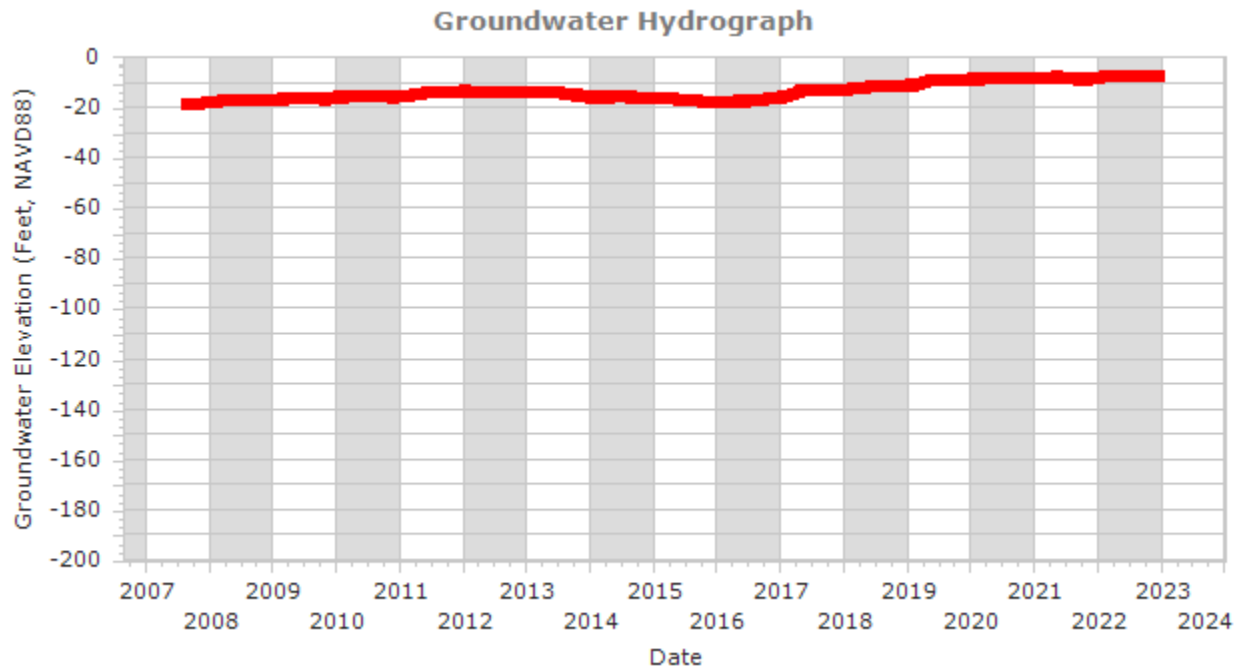
Station Name: SSFLP MW440



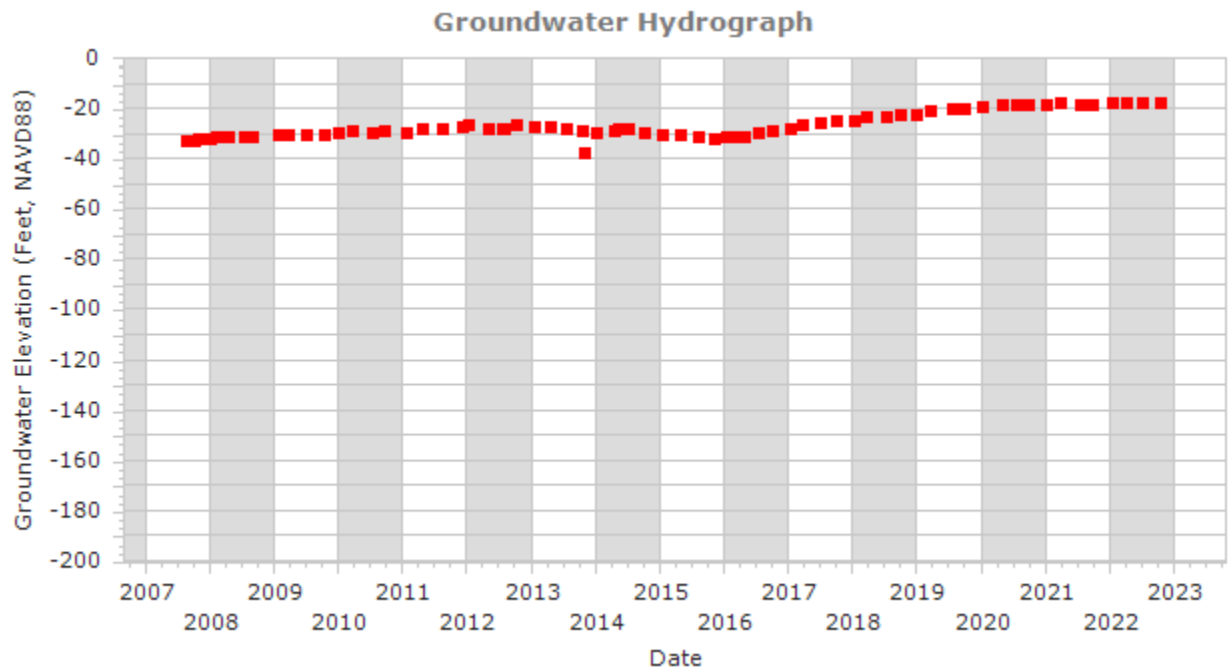
Station Name: SSFLP MW520



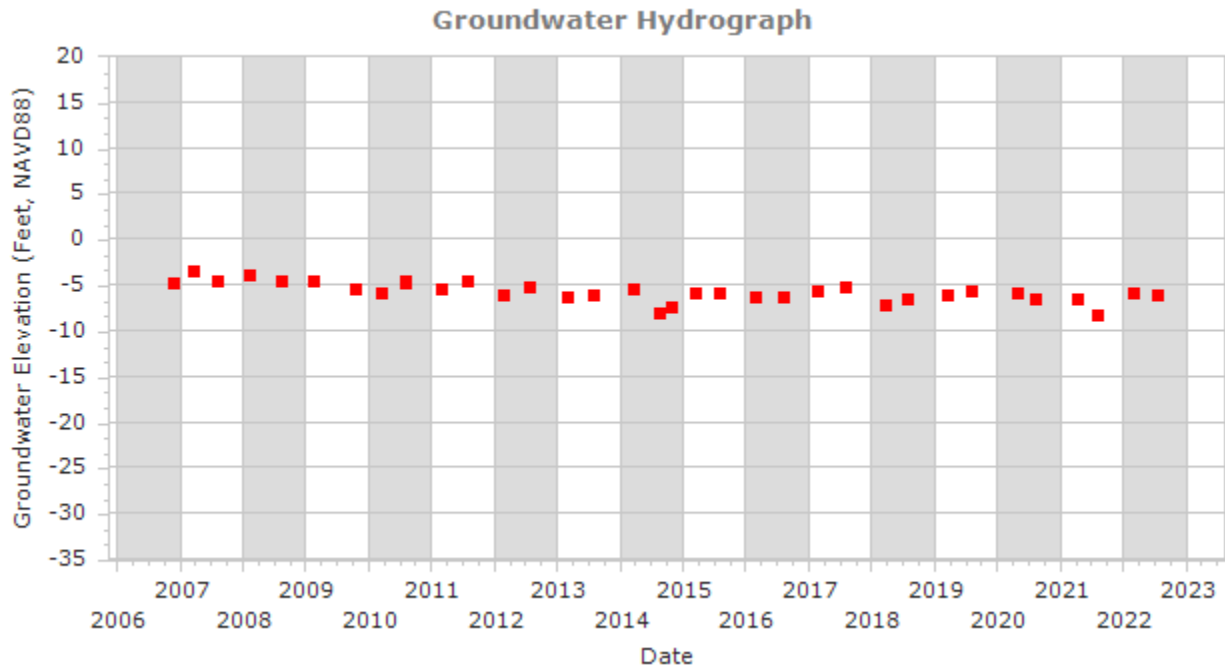
Station Name: SSFLP MW120



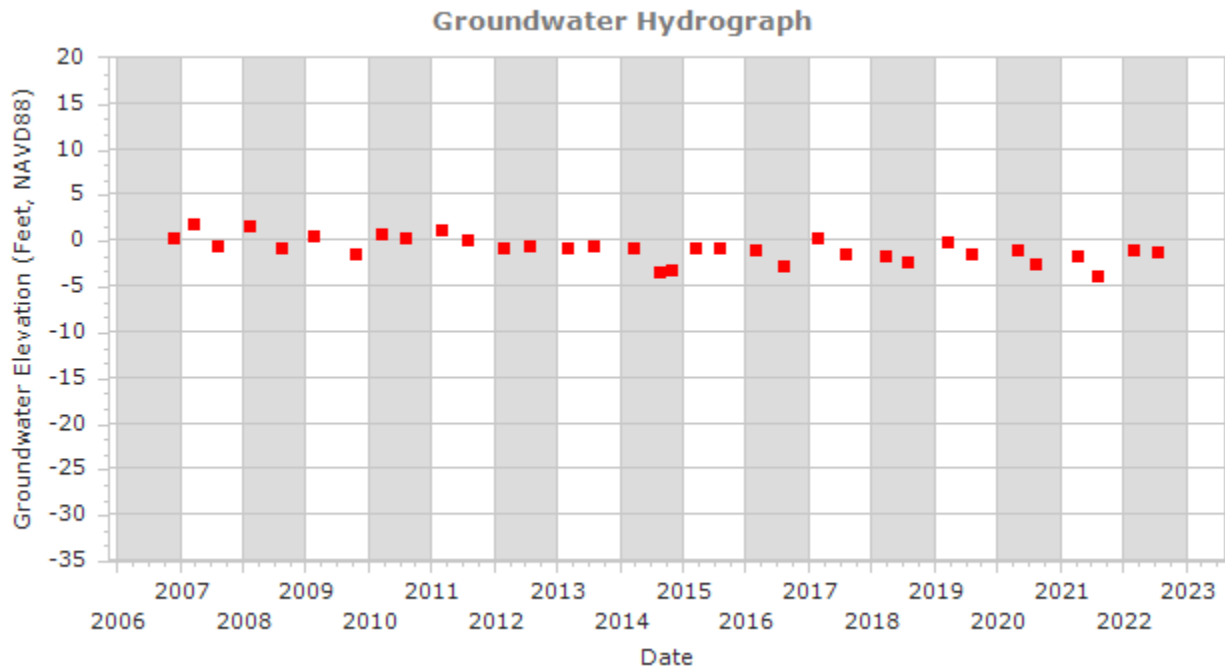
Station Name: SSFLP MW220



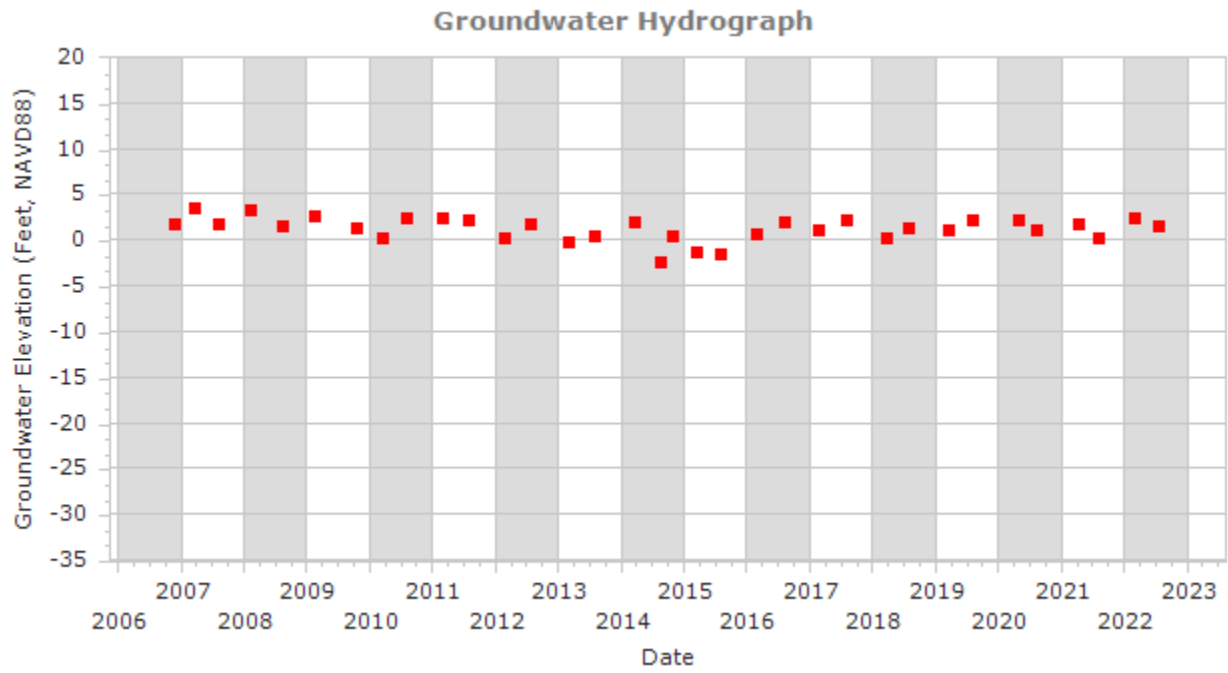
Station Name: Burlingame D



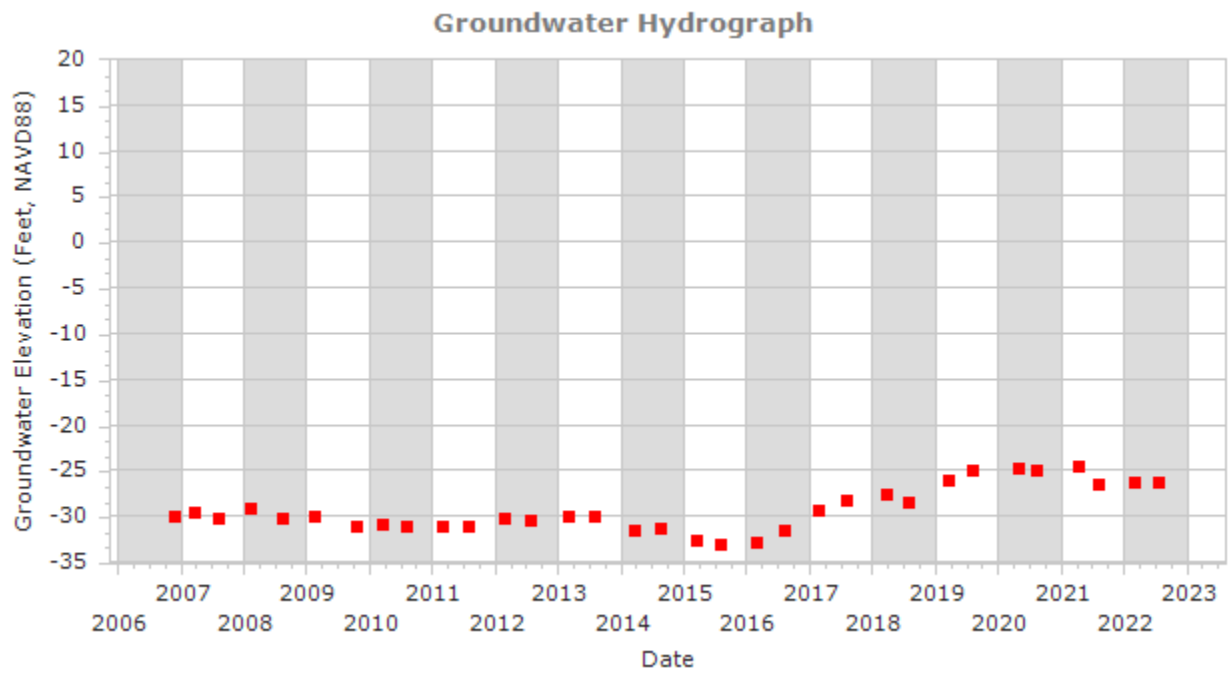
Station Name: Burlingame M



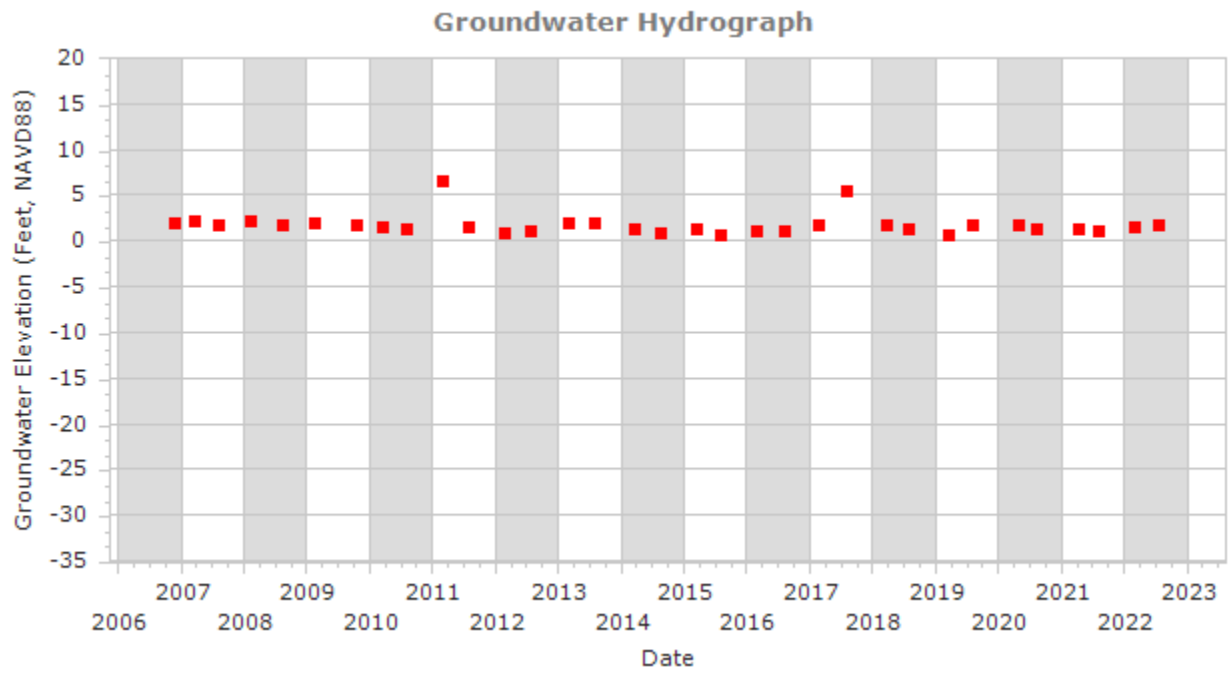
Station Name: Burlingame S



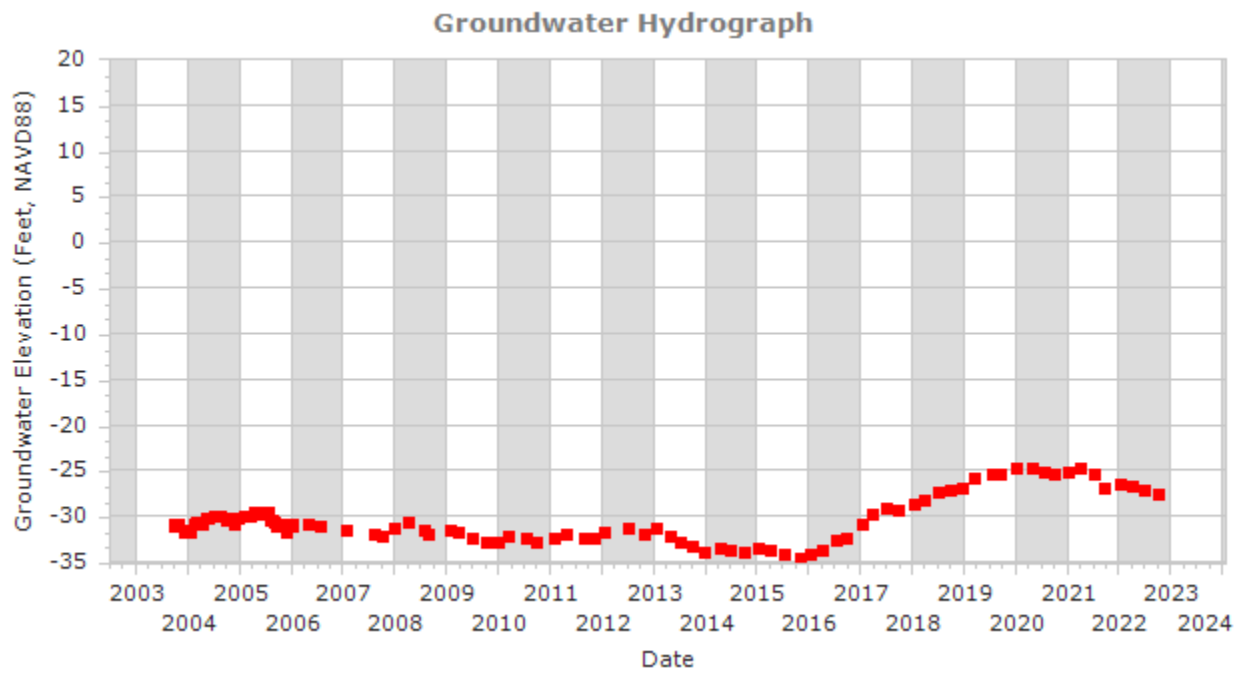
Station Name: SFO-D



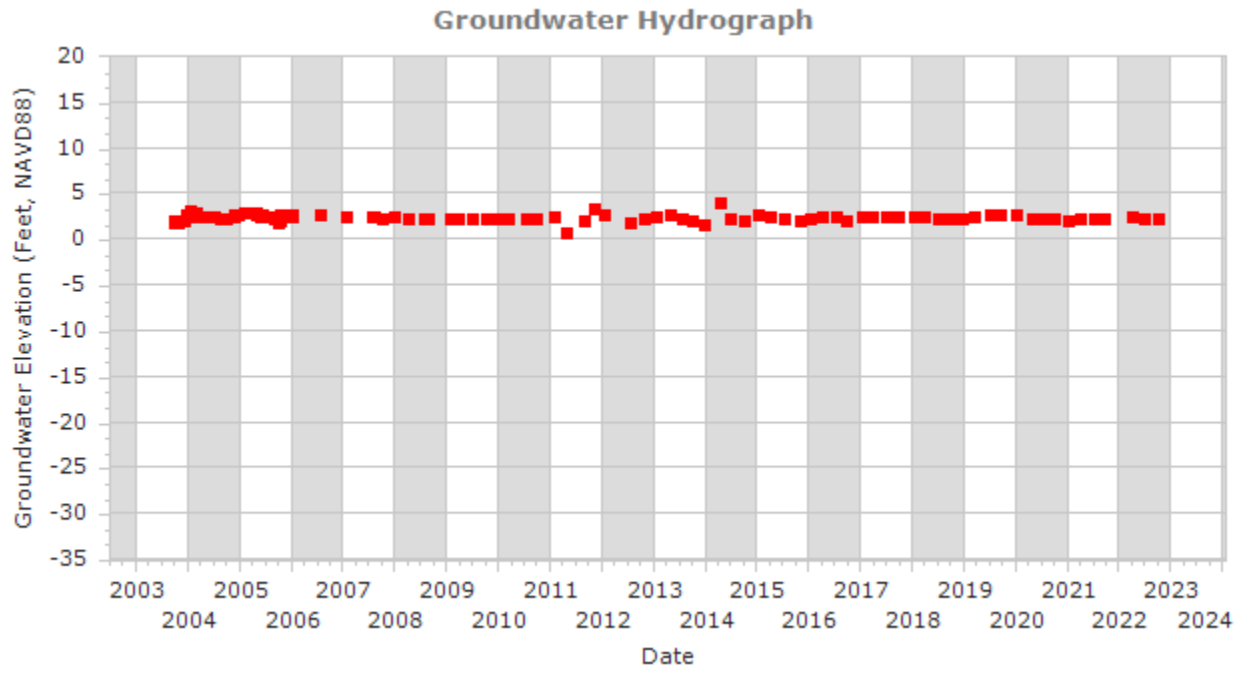
Station Name: SFO-S



Station Name: UAL MW13C



Station Name: UAL MW13D



APPENDIX B
Laboratory Analytical Results

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291679

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_San Bruno

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

Lab Sample#: 2291679-01 **Sample Source:** WSB_SB05_SB16 **External ID:**

Date Collected: 04/13/2022 09:30AM **Date Received:** 04/13/2022 10:08AM **Sample Matrix:** Aqueous **Location Desc:** SB#05 - SB 16 Foest Ln

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	92.3	mg/L	1	5	04/13/2022	2041957 PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	62.4	mg/L	0.04	1	04/21/2022	2042167 BTRINH	
Magnesium, Mg	42.1	mg/L	0.007	0.2	04/21/2022	2042167 BTRINH	
Potassium, K	3.74	mg/L	0.04	0.2	04/21/2022	2042167 BTRINH	
Sodium, Na	58.8	mg/L	0.02	1	04/21/2022	2042167 BTRINH	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	189	mg/L	1.19	6	04/13/2022	2041949 ALEE	

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	115	mg/L		6	04/13/2022	2041950 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	896	µmhos/cm		1	04/13/2022	2041970 ABALALIO	

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	324	mg/L	0.948	6	04/13/2022	2041947 ALEE	

MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.31	pH			04/13/2022	2041967 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	504	mg/L	13.2	20	04/15/2022	2042004 ALEE	>MCL

Lab Sample#: 2291679-01A **Sample Source:** WSB_SB05_SB16 **External ID:**

Date Collected: 04/13/2022 09:30AM **Date Received:** 04/13/2022 10:08AM **Sample Matrix:** Aqueous **Location Desc:** SB#05 - SB 16 Foest Ln

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	0.0625	mg/L	0.034	0.04	04/13/2022	2041957 PWARNER	

Lab Sample#: 2291679-02 **Sample Source:** WSB_SB06_SB17 **External ID:**

Date Collected: 04/13/2022 08:42AM **Date Received:** 04/13/2022 10:08AM **Sample Matrix:** Aqueous **Location Desc:** SB#06 - SB 17 Corp Yard

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	22.9	mg/L	0.2	1	04/13/2022	2041957 PWARNER	
Nitrate as N	1.63	mg/L	0.068	0.08	04/13/2022	2041957 PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	32.1	mg/L	0.04	1	04/21/2022	2042167 BTRINH	
Magnesium, Mg	19.3	mg/L	0.007	0.2	04/21/2022	2042167 BTRINH	
Potassium, K	3.94	mg/L	0.04	0.2	04/21/2022	2042167 BTRINH	
Sodium, Na	44.7	mg/L	0.02	1	04/21/2022	2042167 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2291679

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/13/2022

Routine: WSB_San Bruno

Sampling Team: Field

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	150	mg/L	0.593	3	04/13/2022	2041949 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	53.9	mg/L		3	04/13/2022	2041950 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	521	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	158	mg/L	0.474	3	04/13/2022	2041947 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.51	pH			04/13/2022	2041967 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	288	mg/L	13.2	20	04/15/2022	2042004 ALEE	

Lab Sample#: 2291679-03 Sample Source: WSB_SB07_SB18 External ID:

Date Collected: 04/13/2022 09:15AM Date Received: 04/13/2022 10:08AM Sample Matrix: Aqueous Location Desc: SB#07 - SB 18 City Park

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	30.4	mg/L	0.2	1	04/13/2022	2041957 PWARNER	
Nitrate as N	1.58	mg/L	0.068	0.08	04/13/2022	2041957 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	32.3	mg/L	0.04	1	04/21/2022	2042167 BTRINH	
Magnesium, Mg	22.6	mg/L	0.007	0.2	04/21/2022	2042167 BTRINH	
Potassium, K	3.61	mg/L	0.04	0.2	04/21/2022	2042167 BTRINH	
Sodium, Na	43.1	mg/L	0.02	1	04/21/2022	2042167 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	137	mg/L	0.593	3	04/13/2022	2041949 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	63.7	mg/L		3	04/13/2022	2041950 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	545	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	167	mg/L	0.474	3	04/13/2022	2041947 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.33	pH			04/13/2022	2041967 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	287	mg/L	13.2	20	04/15/2022	2042004 ALEE	

Lab Sample#: 2291679-04 Sample Source: WSB_SB08_SB20 External ID:

Date Collected: 04/13/2022 09:45AM Date Received: 04/13/2022 10:08AM Sample Matrix: Aqueous Location Desc: SB#08 - SB 20 Lyons Field Park

Test/Analyte

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291679

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_San Bruno

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	50.5	mg/L	0.5	2.5	04/13/2022	2041957 PWARNER	
Nitrate as N	0.28	mg/L	0.17	0.2	04/13/2022	2041957 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	41.5	mg/L	0.04	1	04/21/2022	2042167 BTRINH	
Magnesium, Mg	30	mg/L	0.007	0.2	04/21/2022	2042167 BTRINH	
Sodium, Na	63.3	mg/L	0.02	1	04/21/2022	2042167 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	194	mg/L	1.19	6	04/13/2022	2041949 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	81.7	mg/L		6	04/13/2022	2041950 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance	722	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	225	mg/L	0.948	6	04/13/2022	2041947 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7.68	pH			04/13/2022	2041967 ABALALIO	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	390	mg/L	13.2	20	04/15/2022	2042004 ALEE	

Lab Sample#: 2291679-04A **Sample Source:** WSB_SB08_SB20 **External ID:**

Date Collected: 04/13/2022 09:45AM **Date Received:** 04/13/2022 10:08AM **Sample Matrix:** Aqueous **Location Desc:** SB08 - SB 20 Lyons Field Park

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Potassium, K	4.24	mg/L	0.08	0.4	04/19/2022	2042167 BTRINH	

Lab Sample#: 2291679-05 **Sample Source:** WSB_SB_DUP **External ID:**

Date Collected: 04/13/2022 08:45AM **Date Received:** 04/13/2022 10:08AM **Sample Matrix:** Aqueous **Location Desc:**

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	22.8	mg/L	0.2	1	04/13/2022	2041957 PWARNER	
Nitrate as N	1.63	mg/L	0.068	0.08	04/13/2022	2041957 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	32.1	mg/L	0.04	1	04/21/2022	2042167 BTRINH	
Magnesium, Mg	19	mg/L	0.007	0.2	04/21/2022	2042167 BTRINH	
Potassium, K	3.85	mg/L	0.04	0.2	04/21/2022	2042167 BTRINH	
Sodium, Na	44.3	mg/L	0.02	1	04/21/2022	2042167 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	150	mg/L	0.593	3	04/13/2022	2041949 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	54	mg/L		3	04/13/2022	2041950 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291679

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_San Bruno

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	522	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	157	mg/L	0.474	3	04/13/2022	2041947 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	7.55	pH			04/13/2022	2041967 ABALALIO	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	290	mg/L	13.2	20	04/15/2022	2042004 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291679

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_San Bruno

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

QC list for Run#: 2041947 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299825-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2299825-02	MRL_CK	Hardness, Total, as CaCO3		2.97	mg/L	99				
QC2299825-03	LCS	Hardness, Total, as CaCO3		43.1	mg/L	108			3	
QC2299825-04	LCS	Hardness, Total, as CaCO3		43.4	mg/L	108			3	
QC2299825-05	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2299825-06	DUP of 2292667-04	Hardness, Total, as CaCO3	15.4	14.8	mg/L		3	0.474	3	Splt# 2292667-04 (15.4mg/L)

QC list for Run#: 2041949 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299827-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2299827-02	MRL_CK	Alkalinity		3.77	mg/L	126				
QC2299827-03	LCS	Alkalinity		40.5	mg/L	101			3	
QC2299827-06	LCS	Alkalinity		40.2	mg/L	101			3	
QC2299827-07	SPKD of 2292667-04	Alkalinity	17.8	57.4	mg/L	99	0		3	Splt# 2292667-04 (17.8mg/L)
QC2299827-08	SPK of 2292667-04	Alkalinity	17.8	57.5	mg/L	99			3	Splt# 2292667-04 (17.8mg/L)

QC list for Run#: 2041950 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299828-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2299828-02	MRL_CK	Chloride		2.88	mg/L	96				
QC2299828-03	LCS	Chloride		39.2	mg/L	98			3	
QC2299828-04	SPK of 2292667-04	Chloride	5.75	45.5	mg/L	99			3	Splt# 2292667-04 (5.75mg/L)
QC2299828-05										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291679

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/13/2022

Routine: WSB_San Bruno

Sampling Team: Field

SPKD of 2292667-04	Chloride	5.75	46	mg/L	101	0	3	Splt# 2292667-04 (5.75mg/L)
QC2299828-07	LCS	Chloride	39.1	mg/L	97		3	

QC list for Run#: 2041957 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299832-01	MRL_CK	Sulfate		0.484	mg/L	96				
	MRL_CK	Nitrate as N		0.04	mg/L	100				
QC2299832-02	CCV	Sulfate		2.36	mg/L	94				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2299832-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299832-04	LCS	Sulfate		4.79	mg/L	95				
	LCS	Nitrate as N		0.386	mg/L	96				
QC2299832-05	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299832-06	SPK of 2291679-02	Sulfate	22.9	28.4	mg/L	109				Splt# 2291679-02 (22.9mg/L)
	SPK of 2291679-02	Nitrate as N	1.63	2.08	mg/L	110				Splt# 2291679-02 (1.63mg/L)
QC2299832-07	SPKD of 2291679-02	Sulfate	22.9	28.4	mg/L	109	0			Splt# 2291679-02 (22.9mg/L)
	SPKD of 2291679-02	Nitrate as N	1.63	2.09	mg/L	113	0			Splt# 2291679-02 (1.63mg/L)
QC2299832-08	CCV	Sulfate		2.37	mg/L	94				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2299832-09	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299832-10	DUP of 2291679-03	Sulfate	30.4	30.2	mg/L		0	0.2	1	Splt# 2291679-03 (30.4mg/L)
	DUP of 2291679-03	Nitrate as N	1.58	1.56	mg/L		0	0.068	0.08	Splt# 2291679-03 (1.58mg/L)

QC list for Run#: 2041967 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299839-01										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291679

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/13/2022

Routine: WSB_San Bruno

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2299839-02	ICV	pH	9.03	pH	99				
DUP of 2292548-01		pH	8.45	pH	0				Splt# 2292548-01 (8.45pH)
QC2299839-03	CCV	pH	10.1	pH	100				
QC2299839-04	CCV	pH	10.1	pH	100				

QC list for Run#: 2041970 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299842-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2299842-02	MRL_CK	Specific Conductance	9.75		µmhos/cm	97				
QC2299842-03	CCV	Specific Conductance	100		µmhos/cm	100				
QC2299842-06	DUP of 2292548-01	Specific Conductance	23.9	23.9	µmhos/cm	0		1		Splt# 2292548-01 (23.9µmhos/cm)
QC2299842-07	DUP of 2292622-05	Specific Conductance	817	815	µmhos/cm	0		1		Splt# 2292622-05 (817µmhos/cm)
QC2299842-08	LCS	Specific Conductance	152		µmhos/cm	103			1	

QC list for Run#: 2042004 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299871-01	DUP of 2291679-05	Total Dissolved Solids	290	286	mg/L		1	13.2	20	Splt# 2291679-05 (290mg/L)
QC2299871-02	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2299871-03	LCS	Total Dissolved Solids	102		mg/L	107		13.2	20	

QC list for Run#: 2042167 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299962-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	
QC2299962-02	LCS	Calcium, Ca	1.89		mg/L	94		0.04	1	
	LCS	Magnesium, Mg	2.01		mg/L	100		0.007	0.2	
	LCS	Potassium, K	2.12		mg/L	106		0.04	0.2	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291679

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_San Bruno

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

Sample ID	Parameter	Unit	Value 1	Value 2	Unit	Value 3	Value 4	Value 5	Value 6	Value 7	Value 8	Notes
LCS	Sodium, Na	mg/L	2.05		mg/L	102		0.02		1		
QC2299962-03												
DUP of 2291681-01	Calcium, Ca	mg/L	21.3	21.5	mg/L		1	0.04		1		Splt# 2291681-01 (21.3mg/L)
DUP of 2291681-01	Magnesium, Mg	mg/L	21.7	21.6	mg/L		0	0.007		0.2		Splt# 2291681-01 (21.7mg/L)
DUP of 2291681-01	Potassium, K	mg/L	2.04	1.93	mg/L		5	0.04		0.2		Splt# 2291681-01 (2.04mg/L)
DUP of 2291681-01	Sodium, Na	mg/L	34.4	33.9	mg/L		1	0.02		1		Splt# 2291681-01 (34.4mg/L)
QC2299962-04												
SPK of 2291681-01	Calcium, Ca	mg/L	21.3	23.4	mg/L	104		0.04		1		Splt# 2291681-01 (21.3mg/L)
SPK of 2291681-01	Magnesium, Mg	mg/L	21.7	23.3	mg/L	80		0.007		0.2		Splt# 2291681-01 (21.7mg/L)
SPK of 2291681-01	Potassium, K	mg/L	2.04	4.15	mg/L	105		0.04		0.2		Splt# 2291681-01 (2.04mg/L)
SPK of 2291681-01	Sodium, Na	mg/L	34.4	35.7	mg/L	64		0.02		1		Splt# 2291681-01 (34.4mg/L)
QC2299962-05												
SPKD of 2291681-01	Calcium, Ca	mg/L	21.3	24	mg/L	137	2	0.04		1		Splt# 2291681-01 (21.3mg/L)
SPKD of 2291681-01	Magnesium, Mg	mg/L	21.7	24.2	mg/L	125	3	0.007		0.2		Splt# 2291681-01 (21.7mg/L)
SPKD of 2291681-01	Potassium, K	mg/L	2.04	4.41	mg/L	118	5	0.04		0.2		Splt# 2291681-01 (2.04mg/L)
SPKD of 2291681-01	Sodium, Na	mg/L	34.4	36.7	mg/L	115	2	0.02		1		Splt# 2291681-01 (34.4mg/L)
QC2299962-06												
MRL_CK	Calcium, Ca	mg/L	<1		mg/L	N/A		0.04		1		
MRL_CK	Magnesium, Mg	mg/L	<0.2		mg/L	N/A		0.007		0.2		
MRL_CK	Potassium, K	mg/L	0.259		mg/L	103		0.04		0.2		
MRL_CK	Sodium, Na	mg/L	<1		mg/L	N/A		0.02		1		
QC2299990-01												
ICV	Potassium, K	mg/L	2.06		mg/L	103		0.03		0.2		
QC2299990-02												
ICV	Calcium, Ca	mg/L	9.81		mg/L	98		0.05		1		
ICV	Magnesium, Mg	mg/L	9.84		mg/L	97		0.01		0.2		
ICV	Sodium, Na	mg/L	10.5		mg/L	105		0.002		1		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291681

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_Daly City

Scheduled Sample Date: 04/06/2022

Sampling Team: Field

Lab Sample#: 2291681-01 **Sample Source:** WSB_DC06_JEFF **External ID:**

Date Collected: 04/06/2022 09:15AM **Date Received:** 04/06/2022 11:03AM **Sample Matrix:** Aqueous **Location Desc:** DC#06 - Jefferson

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	13.4	mg/L	1	5	04/06/2022	2041599 PWARNER	
Nitrate as N	2.63	mg/L	0.34	0.4	04/06/2022	2041599 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	21.3	mg/L	0.04	1	04/21/2022	2042167 BTRINH	
Magnesium, Mg	21.7	mg/L	0.007	0.2	04/21/2022	2042167 BTRINH	
Potassium, K	2.04	mg/L	0.04	0.2	04/21/2022	2042167 BTRINH	
Sodium, Na	34.4	mg/L	0.02	1	04/21/2022	2042167 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	112	mg/L	0.593	3	04/06/2022	2041601 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	58.5	mg/L		3	04/06/2022	2041602 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance	461	µmhos/cm		1	04/06/2022	2041590 DCARDONA	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	142	mg/L	0.474	3	04/06/2022	2041604 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	8.02	pH			04/06/2022	2041594 DCARDONA	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	243	mg/L	13.2	20	04/10/2022	2041656 DCARDONA	

Lab Sample#: 2291681-02 **Sample Source:** WSB_DC11_DC2 **External ID:**

Date Collected: 04/06/2022 07:05AM **Date Received:** 04/06/2022 11:03AM **Sample Matrix:** Aqueous **Location Desc:** DC#11 - Westlake

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	130	mg/L	1	5	04/06/2022	2041599 PWARNER	
Nitrate as N	3.51	mg/L	0.34	0.4	04/06/2022	2041599 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	57	mg/L	0.04	1	04/21/2022	2042167 BTRINH	
Magnesium, Mg	46.8	mg/L	0.007	0.2	04/21/2022	2042167 BTRINH	
Potassium, K	4.11	mg/L	0.04	0.2	04/21/2022	2042167 BTRINH	
Sodium, Na	76.7	mg/L	0.02	1	04/21/2022	2042167 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	175	mg/L	0.593	3	04/06/2022	2041601 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	122	mg/L		3	04/06/2022	2041602 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2291681

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/06/2022

Routine: WSB_Daly City

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	998	µmhos/cm		1	04/06/2022	2041590 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	328	mg/L	0.474	3	04/06/2022	2041604 ABALALIO	result @ 1x reported
MBP_PH(SM 4500-H+ B)							
pH	7.53	pH			04/06/2022	2041594 DCARDONA	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	563	mg/L	13.2	20	04/10/2022	2041656 DCARDONA	>MCL

Lab Sample#: 2291681-03 Sample Source: WSB_DC12_JS External ID:

Date Collected: 04/06/2022 08:40AM Date Received: 04/06/2022 11:03AM Sample Matrix: Aqueous Location Desc: DC#12 - Junipero Serra

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	26.9	mg/L	1	5	04/06/2022	2041599 PWARNER	
Nitrate as N	8.22	mg/L	0.34	0.4	04/06/2022	2041599 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	24	mg/L	0.04	1	04/21/2022	2042167 BTRINH	
Magnesium, Mg	24.8	mg/L	0.007	0.2	04/21/2022	2042167 BTRINH	
Potassium, K	1.81	mg/L	0.04	0.2	04/21/2022	2042167 BTRINH	
Sodium, Na	36.4	mg/L	0.02	1	04/21/2022	2042167 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	113	mg/L	0.593	3	04/06/2022	2041601 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	50.1	mg/L		3	04/06/2022	2041602 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance	506	µmhos/cm		1	04/06/2022	2041590 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	160	mg/L	0.474	3	04/06/2022	2041604 ABALALIO	
MBP_PH(SM 4500-H+ B)							
pH	8.11	pH			04/06/2022	2041594 DCARDONA	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	269	mg/L	13.2	20	04/10/2022	2041656 DCARDONA	

Lab Sample#: 2291681-05 Sample Source: WSB_DC_DUP External ID:

Date Collected: 04/06/2022 09:25AM Date Received: 04/06/2022 11:03AM Sample Matrix: Aqueous Location Desc:

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	13.2	mg/L	1	5	04/06/2022	2041599 PWARNER	
Nitrate as N	2.57	mg/L	0.34	0.4	04/06/2022	2041599 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	21.7	mg/L	0.04	1	04/21/2022	2042167 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291681

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/06/2022

Routine: WSB_Daly City

Sampling Team: Field

<i>Magnesium, Mg</i>	22.3	mg/L	0.007	0.2	04/21/2022	2042167	BTRINH	
<i>Potassium, K</i>	2	mg/L	0.04	0.2	04/21/2022	2042167	BTRINH	
<i>Sodium, Na</i>	33.8	mg/L	0.02	1	04/21/2022	2042167	BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Alkalinity</i>	112	mg/L	0.593	3	04/06/2022	2041601	ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Chloride</i>	58.7	mg/L		3	04/06/2022	2041602	ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Specific Conductance</i>	462	µmhos/cm		1	04/06/2022	2041590	DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Hardness, Total, as CaCO3</i>	142	mg/L	0.474	3	04/06/2022	2041604	ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>pH</i>	8.03	pH			04/06/2022	2041594	DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Total Dissolved Solids</i>	242	mg/L	13.2	20	04/10/2022	2041656	DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291681

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_Daly City

Scheduled Sample Date: 04/06/2022

Sampling Team: Field

QC list for Run#: 2041590 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299571-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2299571-02	MRL CK	Specific Conductance	9.56		µmhos/cm	95				
QC2299571-03	CCV	Specific Conductance	99.4		µmhos/cm	99				
QC2299571-04	ICV	Specific Conductance	151		µmhos/cm	103				
QC2299571-05	LCS	Specific Conductance	999		µmhos/cm	99			1	
QC2299571-06	DUP of 2291774-04	Specific Conductance	49.2	49.1	µmhos/cm		0		1	Splt# 2291774-04 (49.2µmhos/cm)
QC2299571-07	DUP of 2291774-05	Specific Conductance	48.4	48.4	µmhos/cm		0		1	Splt# 2291774-05 (48.4µmhos/cm)
QC2299571-09	LCS	Specific Conductance	151		µmhos/cm	103			1	

QC list for Run#: 2041594 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299574-01	ICV	pH	8.97		pH	99				
QC2299574-02	DUP of 2291774-04	pH	9.13	9.16	pH		0			Splt# 2291774-04 (9.13pH)
QC2299574-03	CCV	pH	10		pH	100				
QC2299574-04	CCV	pH	10		pH	100				
QC2299574-06	CAL	pH	10		pH	100				
QC2299574-07	CAL	pH	7		pH	100				
QC2299574-08	CAL	pH	4.01		pH	100				

QC list for Run#: 2041599 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299578-01	MRL CK	Sulfate	0.504		mg/L	101				
	MRL CK	Nitrate as N	0.0405		mg/L	102				
QC2299578-02	CCV	Sulfate	2.38		mg/L	95				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291681

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/06/2022

Routine: WSB_Daly City

Sampling Team: Field

Sample ID	CCV	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2299578-03	CCV	Nitrate as N	0.194	mg/L	97				
	BLK	Sulfate	<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	
QC2299578-04	LCS	Sulfate	4.82	mg/L	96				
	LCS	Nitrate as N	0.392	mg/L	98				
QC2299578-05	BLK	Sulfate	<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	
QC2299578-06	SPK of 2291681-01	Sulfate	13.4	37.3 mg/L	96				Splt# 2291681-01 (13.4mg/L)
	SPK of 2291681-01	Nitrate as N	2.63	4.65 mg/L	102				Splt# 2291681-01 (2.63mg/L)
QC2299578-07	SPKD of 2291681-01	Sulfate	13.4	36.8 mg/L	94	1			Splt# 2291681-01 (13.4mg/L)
	SPKD of 2291681-01	Nitrate as N	2.63	4.57 mg/L	98	1			Splt# 2291681-01 (2.63mg/L)
QC2299578-08	CCV	Sulfate	2.38	mg/L	95				
	CCV	Nitrate as N	0.193	mg/L	96				
QC2299578-09	BLK	Sulfate	<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	
QC2299578-10	DUP of 2291758-01	Sulfate	22.8	22.7 mg/L	N/A		1	5	Splt# 2291758-01 (22.8mg/L)
	DUP of 2291758-01	Nitrate as N	8.03	8.01 mg/L	0		0.34	0.4	Splt# 2291758-01 (8.03mg/L)

QC list for Run#: 2041601 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299579-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2299579-02	MRL CK	Alkalinity	3.82		mg/L	127				
QC2299579-03	LCS	Alkalinity	40.3		mg/L	101			3	
QC2299579-05	LCS	Alkalinity	40.2		mg/L	101			3	
QC2299579-06	SPK of 2291681-01	Alkalinity	112	152	mg/L	100			3	Splt# 2291681-01 (112mg/L)
QC2299579-07	SPKD of 2291681-01	Alkalinity	112	151	mg/L	99	0		3	Splt# 2291681-01 (112mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291681

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_Daly City

Scheduled Sample Date: 04/06/2022

Sampling Team: Field

QC list for Run#: 2041602 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299580-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2299580-02	MRL_CK	Chloride		2.96	mg/L	98				
QC2299580-03	LCS	Chloride		39.5	mg/L	98			3	
QC2299580-04	SPK of 2291681-01	Chloride	58.5	97.4	mg/L	97			3	Splt# 2291681-01 (58.5mg/L)
QC2299580-05	SPKD of 2291681-01	Chloride	58.5	97.4	mg/L	97	0		3	Splt# 2291681-01 (58.5mg/L)
QC2299580-07	LCS	Chloride		39.3	mg/L	98			3	

QC list for Run#: 2041604 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299581-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2299581-02	MRL_CK	Hardness, Total, as CaCO3		2.7	mg/L	90				
QC2299581-03	LCS	Hardness, Total, as CaCO3		43	mg/L	107			3	
QC2299581-04	DUP of 2291681-01	Hardness, Total, as CaCO3	142	141	mg/L		0	0.474	3	Splt# 2291681-01 (142mg/L)
QC2299581-05	LCS	Hardness, Total, as CaCO3		43.1	mg/L	108			3	

QC list for Run#: 2041656 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299615-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2299615-02	LCS	Total Dissolved Solids		95	mg/L	100		13.2	20	
QC2299615-03	DUP of 2292456-01	Total Dissolved Solids	49	48	mg/L		2	13.2	20	Splt# 2292456-01 (49mg/L)

QC list for Run#: 2042167 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299962-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2291681

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_Daly City

Scheduled Sample Date: 04/06/2022

Sampling Team: Field

Sample ID	Parameter	Result	Unit	Method	Flow	Temp	Time	Notes
QC2299962-02	BLK Sodium, Na	<1	mg/L				0.02	1
LCS	Calcium, Ca	1.89	mg/L	94			0.04	1
LCS	Magnesium, Mg	2.01	mg/L	100			0.007	0.2
LCS	Potassium, K	2.12	mg/L	106			0.04	0.2
LCS	Sodium, Na	2.05	mg/L	102			0.02	1
QC2299962-03	DUP of 2291681-01	21.3	21.5	mg/L	1		0.04	1 Splt# 2291681-01 (21.3mg/L)
DUP of 2291681-01	Magnesium, Mg	21.7	21.6	mg/L	0		0.007	0.2 Splt# 2291681-01 (21.7mg/L)
DUP of 2291681-01	Potassium, K	2.04	1.93	mg/L	5		0.04	0.2 Splt# 2291681-01 (2.04mg/L)
DUP of 2291681-01	Sodium, Na	34.4	33.9	mg/L	1		0.02	1 Splt# 2291681-01 (34.4mg/L)
QC2299962-04	SPK of 2291681-01	21.3	23.4	mg/L	104		0.04	1 Splt# 2291681-01 (21.3mg/L)
SPK of 2291681-01	Magnesium, Mg	21.7	23.3	mg/L	80		0.007	0.2 Splt# 2291681-01 (21.7mg/L)
SPK of 2291681-01	Potassium, K	2.04	4.15	mg/L	105		0.04	0.2 Splt# 2291681-01 (2.04mg/L)
SPK of 2291681-01	Sodium, Na	34.4	35.7	mg/L	64		0.02	1 Splt# 2291681-01 (34.4mg/L)
QC2299962-05	SPKD of 2291681-01	21.3	24	mg/L	137	2	0.04	1 Splt# 2291681-01 (21.3mg/L)
SPKD of 2291681-01	Magnesium, Mg	21.7	24.2	mg/L	125	3	0.007	0.2 Splt# 2291681-01 (21.7mg/L)
SPKD of 2291681-01	Potassium, K	2.04	4.41	mg/L	118	5	0.04	0.2 Splt# 2291681-01 (2.04mg/L)
SPKD of 2291681-01	Sodium, Na	34.4	36.7	mg/L	115	2	0.02	1 Splt# 2291681-01 (34.4mg/L)
QC2299962-06	MRL_CK	<1	mg/L	N/A			0.04	1
MRL_CK	Magnesium, Mg	<0.2	mg/L	N/A			0.007	0.2
MRL_CK	Potassium, K	0.259	mg/L	103			0.04	0.2
MRL_CK	Sodium, Na	<1	mg/L	N/A			0.02	1
QC2299990-01	ICV	2.06	mg/L	103			0.03	0.2
QC2299990-02	ICV	9.81	mg/L	98			0.05	1
ICV	Magnesium, Mg	9.84	mg/L	97			0.01	0.2
ICV	Sodium, Na	10.5	mg/L	105			0.002	1

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SSF-CalWater

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

Lab Sample#: 2292254-01 **Sample Source:** WSB_SS08_1-19 **External ID:**

Date Collected: 04/26/2022 11:35AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#08 - SS 1-19

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	73.1	mg/L	1	5	04/26/2022	2042566 PWARNER	
Nitrate as N	3.37	mg/L	0.34	0.4	04/26/2022	2042566 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	52.9	mg/L	0.04	1	05/09/2022	2042950 BTRINH	
Magnesium, Mg	62	mg/L	0.007	0.2	05/09/2022	2042950 BTRINH	
Potassium, K	2.63	mg/L	0.04	0.2	05/09/2022	2042950 BTRINH	
Sodium, Na	69.7	mg/L	0.02	1	05/09/2022	2042950 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	273	mg/L	1.19	6	04/26/2022	2042582 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	116	mg/L		6	04/26/2022	2042583 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance	1020	µmhos/cm		1	04/26/2022	2042594 DCARDONA	>MCL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	7.46	pH			04/26/2022	2042596 DCARDONA	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	550	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	>MCL

Lab Sample#: 2292254-01A **Sample Source:** WSB_SS08_1-19 **External ID:**

Date Collected: 04/26/2022 11:35AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#08 - SS 1-19

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	380	mg/L	4.74	30	04/27/2022	2042633 ABALALIO	

Lab Sample#: 2292254-02 **Sample Source:** WSB_SS09_1-20 **External ID:**

Date Collected: 04/26/2022 01:10PM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#09 - SS 1-20

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	90.6	mg/L	1	5	04/26/2022	2042566 PWARNER	
Nitrate as N	7.33	mg/L	0.34	0.4	04/26/2022	2042566 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	43.5	mg/L	0.04	1	05/09/2022	2042950 BTRINH	
Magnesium, Mg	44.7	mg/L	0.007	0.2	05/09/2022	2042950 BTRINH	
Potassium, K	2.46	mg/L	0.04	0.2	05/09/2022	2042950 BTRINH	
Sodium, Na	64.9	mg/L	0.02	1	05/09/2022	2042950 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	217	mg/L	1.19	6	04/26/2022	2042582 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SSF-CalWater

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	62	mg/L		6	04/26/2022	2042583 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	829	µmhos/cm		1	04/26/2022	2042594 DCARDONA	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.1	pH			04/26/2022	2042596 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	467	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

Lab Sample#: 2292254-02A **Sample Source:** WSB_SS09_1-20 **External ID:**

Date Collected: 04/26/2022 01:10PM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#09 - SS 1-20

Test/Analyte

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	283	mg/L	4.74	30	04/27/2022	2042633 ABALALIO	

Lab Sample#: 2292254-03 **Sample Source:** WSB_SS10_1-21 **External ID:**

Date Collected: 04/26/2022 11:50AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#10 - SS 1-21

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	143	mg/L	2	10	04/26/2022	2042566 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	91.4	mg/L	0.04	1	05/09/2022	2042950 BTRINH	
Magnesium, Mg	33.3	mg/L	0.007	0.2	05/09/2022	2042950 BTRINH	
Sodium, Na	84	mg/L	0.02	1	05/09/2022	2042950 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	226	mg/L	1.19	6	04/26/2022	2042582 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	117	mg/L		6	04/26/2022	2042583 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	1070	µmhos/cm		1	04/26/2022	2042594 DCARDONA	>MCL
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.42	pH			04/26/2022	2042596 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	632	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	>MCL

Lab Sample#: 2292254-03A **Sample Source:** WSB_SS10_1-21 **External ID:**

Date Collected: 04/26/2022 11:50AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#10 - SS 1-21

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Nitrate as N	<0.04	mg/L	0.034	0.04	04/26/2022	2042566 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/26/2022

Routine: WSB_SSF-CalWater

Sampling Team: Field

Lab Sample#: 2292254-03B Sample Source: WSB_SS10_1-21 External ID:

Date Collected: 04/26/2022 11:50AM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SS#10 - SS 1-21

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	356	mg/L	4.74	30	04/27/2022	2042633 ABALALIO	

Lab Sample#: 2292254-03C Sample Source: WSB_SS10_1-21 External ID:

Date Collected: 04/26/2022 11:50AM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SS#10 - SS 1-21

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Potassium, K	4.57	mg/L	0.16	0.8	05/09/2022	2042950 BTRINH	

Lab Sample#: 2292254-04 Sample Source: WSB_SS15_1-22 External ID:

Date Collected: 04/26/2022 11:20AM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SS#15 - SS 1-22

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	165	mg/L	2	10	04/26/2022	2042566 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	104	mg/L	0.04	1	05/09/2022	2042950 BTRINH	
Magnesium, Mg	40.1	mg/L	0.007	0.2	05/09/2022	2042950 BTRINH	
Sodium, Na	93	mg/L	0.02	1	05/09/2022	2042950 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	243	mg/L	1.19	6	04/26/2022	2042582 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	138	mg/L		6	04/26/2022	2042583 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance	1200	µmhos/cm		1	04/26/2022	2042594 DCARDONA	>MCL
MBP_PH(SM 4500-H+ B)							
pH	7.4	pH			04/26/2022	2042596 DCARDONA	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	707	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	>MCL

Lab Sample#: 2292254-04A Sample Source: WSB_SS15_1-22 External ID:

Date Collected: 04/26/2022 11:20AM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SS#15 - SS 1-22

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	0.727	mg/L	0.034	0.04	04/26/2022	2042566 PWARNER	

Lab Sample#: 2292254-04B Sample Source: WSB_SS15_1-22 External ID:

Date Collected: 04/26/2022 11:20AM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SS#15 - SS 1-22

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SSF-CalWater

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

<i>Hardness, Total, as CaCO3</i>	410	mg/L	4.74	30	04/27/2022	2042633	ABALALIO
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Lab Sample#: 2292254-04C **Sample Source:** WSB_SS15_1-22 **External ID:**

Date Collected: 04/26/2022 11:20AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#15 - SS 1-22

Test/Analyte

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Potassium, K</i>	5.2	mg/L	0.16	0.8	05/09/2022	2042950 BTRINH	

Lab Sample#: 2292254-05 **Sample Source:** WSB_SS16_1-23 **External ID:**

Date Collected: 04/26/2022 11:10AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#16 - SS 1-23

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Sulfate</i>	110	mg/L	2	10	04/26/2022	2042566 PWARNER	

SEM_200.7_DW(EPA 200.7)

	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Calcium, Ca</i>	82.1	mg/L	0.04	1	05/09/2022	2042950 BTRINH	
<i>Magnesium, Mg</i>	35.3	mg/L	0.007	0.2	05/09/2022	2042950 BTRINH	
<i>Sodium, Na</i>	78.3	mg/L	0.02	1	05/09/2022	2042950 BTRINH	

MBP_ALK(SM 2320 B)

	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Alkalinity</i>	246	mg/L	1.19	6	04/26/2022	2042582 ABALALIO	

MBP_CHLORIDE(SM 4500-CL- D)

	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Chloride</i>	103	mg/L		6	04/26/2022	2042583 ABALALIO	

MBP_COND(SM 2510 B)

	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Specific Conductance</i>	1010	µmhos/cm		1	04/26/2022	2042594 DCARDONA	>MCL

MBP_PH(SM 4500-H+ B)

	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>pH</i>	7.46	pH			04/26/2022	2042596 DCARDONA	

MBP_TDS(SM 2540 C)

	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Total Dissolved Solids</i>	564	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	>MCL

Lab Sample#: 2292254-05A **Sample Source:** WSB_SS16_1-23 **External ID:**

Date Collected: 04/26/2022 11:10AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#16 - SS 1-23

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Nitrate as N</i>	0.839	mg/L	0.034	0.04	04/26/2022	2042566 PWARNER	

Lab Sample#: 2292254-05B **Sample Source:** WSB_SS16_1-23 **External ID:**

Date Collected: 04/26/2022 11:10AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#16 - SS 1-23

Test/Analyte

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Hardness, Total, as CaCO3</i>	338	mg/L	4.74	30	04/27/2022	2042633 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/26/2022

Routine: WSB_SSF-CalWater

Sampling Team: Field

Lab Sample#: 2292254-05C Sample Source: WSB_SS16_1-23 External ID:

Date Collected: 04/26/2022 11:10AM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SS#16 - SS 1-23

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Potassium, K	4.9	mg/L	0.16	0.8	05/09/2022	2042950 BTRINH	

Lab Sample#: 2292254-06 Sample Source: WSB_SS17_1-24 External ID:

Date Collected: 04/26/2022 12:50PM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SSF 1-24

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	164	mg/L	2	10	04/26/2022	2042566 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	95.3	mg/L	0.04	1	05/09/2022	2042950 BTRINH	
Magnesium, Mg	52.7	mg/L	0.007	0.2	05/09/2022	2042950 BTRINH	
Sodium, Na	83.5	mg/L	0.02	1	05/09/2022	2042950 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	270	mg/L	1.19	6	04/26/2022	2042582 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	132	mg/L		6	04/26/2022	2042583 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance	1210	µmhos/cm		1	04/26/2022	2042594 DCARDONA	>MCL
MBP_PH(SM 4500-H+ B)							
pH	7.38	pH			04/26/2022	2042596 DCARDONA	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	707	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	>MCL

Lab Sample#: 2292254-06A Sample Source: WSB_SS17_1-24 External ID:

Date Collected: 04/26/2022 12:50PM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SSF 1-24

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	04/26/2022	2042566 PWARNER	

Lab Sample#: 2292254-06B Sample Source: WSB_SS17_1-24 External ID:

Date Collected: 04/26/2022 12:50PM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SSF 1-24

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	448	mg/L	4.74	30	04/27/2022	2042633 ABALALIO	

Lab Sample#: 2292254-06C Sample Source: WSB_SS17_1-24 External ID:

Date Collected: 04/26/2022 12:50PM Date Received: 04/26/2022 01:45PM Sample Matrix: Aqueous Location Desc: SSF 1-24

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SSF-CalWater

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

Potassium, K	5.58	mg/L	0.16	0.8	05/09/2022	2042950	BTRINH
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Lab Sample#: 2292254-07 **Sample Source:** WSB_SS_DUP **External ID:**

Date Collected: 04/26/2022 11:35AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#08 - SS 1-19

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	75.3	mg/L	1	5	04/26/2022	2042566 PWARNER	
Nitrate as N	3.44	mg/L	0.34	0.4	04/26/2022	2042566 PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	53.8	mg/L	0.04	1	05/09/2022	2042950 BTRINH	
Magnesium, Mg	62	mg/L	0.007	0.2	05/09/2022	2042950 BTRINH	
Potassium, K	2.66	mg/L	0.04	0.2	05/09/2022	2042950 BTRINH	
Sodium, Na	70.9	mg/L	0.02	1	05/09/2022	2042950 BTRINH	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	273	mg/L	1.19	6	04/26/2022	2042582 ABALALIO	

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	116	mg/L		6	04/26/2022	2042583 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	1020	µmhos/cm		1	04/26/2022	2042594 DCARDONA	>MCL

MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.42	pH			04/26/2022	2042596 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	555	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	>MCL

Lab Sample#: 2292254-07A **Sample Source:** WSB_SS_DUP **External ID:**

Date Collected: 04/26/2022 11:35AM **Date Received:** 04/26/2022 01:45PM **Sample Matrix:** Aqueous **Location Desc:** SS#08 - SS 1-19

Test/Analyte

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	377	mg/L	4.74	30	04/27/2022	2042633 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SSF-CalWater

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

QC list for Run#: 2042566 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200268-01	MRL_CK	Chloride		0.517	mg/L	103				
	MRL_CK	Sulfate		0.514	mg/L	103				
	MRL_CK	Nitrate as N		0.0407	mg/L	102				
QC2200268-02	CCV	Chloride		2.44	mg/L	97				
	CCV	Sulfate		2.38	mg/L	95				
	CCV	Nitrate as N		0.191	mg/L	95				
QC2200268-03	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200268-04	LCS	Chloride		5.04	mg/L	101				
	LCS	Sulfate		4.82	mg/L	96				
	LCS	Nitrate as N		0.383	mg/L	96				
QC2200268-05	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200268-06	SPK of 2292943-01	Chloride	4.79	7.4	mg/L	105				Splt# 2292943-01 (4.79mg/L)
	SPK of 2292943-01	Sulfate	1.96	4.28	mg/L	93				Splt# 2292943-01 (1.96mg/L)
	SPK of 2292943-01	Nitrate as N	0.0728	0.249	mg/L	89				Splt# 2292943-01 (0.0728mg/L)
QC2200268-07	SPKD of 2292943-01	Chloride	4.79	7.42	mg/L	106	0			Splt# 2292943-01 (4.79mg/L)
	SPKD of 2292943-01	Sulfate	1.96	4.31	mg/L	94	0			Splt# 2292943-01 (1.96mg/L)
	SPKD of 2292943-01	Nitrate as N	0.0728	0.261	mg/L	95	4			Splt# 2292943-01 (0.0728mg/L)
QC2200268-08	CCV	Chloride		2.44	mg/L	97				
	CCV	Sulfate		2.38	mg/L	95				
	CCV	Nitrate as N		0.193	mg/L	96				
QC2200268-09	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200268-10										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/26/2022

Routine: WSB_SSF-CalWater

Sampling Team: Field

Sample ID	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
DUP of 2292943-02	Chloride		9.07	mg/L	0	0.2	1		Splt# 2292943-02 (9.07mg/L)
DUP of 2292943-02	Sulfate		7.56	mg/L	0	0.1	0.5		Splt# 2292943-02 (7.56mg/L)
DUP of 2292943-02	Nitrate as N		0.064	mg/L	0	0.034	0.04		Splt# 2292943-02 (0.064mg/L)
QC2200268-11	CCV	Sulfate		mg/L	95				
	CCV	Nitrate as N		mg/L	97				
QC2200268-12	BLK	Sulfate		mg/L			0.1	0.5	
	BLK	Nitrate as N		mg/L			0.034	0.04	

QC list for Run#: 2042582 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200277-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2200277-02	MRL CK	Alkalinity		3.98	mg/L	133				
QC2200277-03	LCS	Alkalinity		40.6	mg/L	101			3	
QC2200277-04	DUP of 2292361-03	Alkalinity	12.3	12.2	mg/L		0	0.593	3	Splt# 2292361-03 (12.3mg/L)
QC2200277-06	LCS	Alkalinity		40.4	mg/L	101			3	
QC2200277-07	SPK of 2292359-03	Alkalinity	22.1	62.1	mg/L	99			3	Splt# 2292359-03 (22.1mg/L)
QC2200277-08	SPKD of 2292359-03	Alkalinity	22.1	62	mg/L	99	0		3	Splt# 2292359-03 (22.1mg/L)

QC list for Run#: 2042583 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200279-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2200279-02	MRL CK	Chloride		2.85	mg/L	95				
QC2200279-03	LCS	Chloride		39	mg/L	97			3	
QC2200279-04	SPK of 2292359-03	Chloride	6.28	45.5	mg/L	98			3	Splt# 2292359-03 (6.28mg/L)
QC2200279-05	SPKD of 2292359-03	Chloride	6.28	45.5	mg/L	98	0		3	Splt# 2292359-03 (6.28mg/L)
QC2200279-06										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SSF-CalWater

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

DUP of 2292361-03	Chloride	4.06	4	mg/L	1	3	Splt# 2292361-03 (4.06mg/L)
QC2200279-07	LCS	Chloride	38.8	mg/L	97	3	

QC list for Run#: 2042588 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200282-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2200282-02	MRL_CK	Hardness, Total, as CaCO3	2.66		mg/L	88				
QC2200282-03	LCS	Hardness, Total, as CaCO3	42.8		mg/L	107			3	
QC2200282-04	LCS	Hardness, Total, as CaCO3	42.7		mg/L	107			3	
QC2200282-05	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2200282-06	DUP of 2292359-03	Hardness, Total, as CaCO3	19.4	19.2	mg/L		1	0.474	3	Splt# 2292359-03 (19.4mg/L)
QC2200282-07	DUP of 2292361-03	Hardness, Total, as CaCO3	9.23	9.04	mg/L		2	0.474	3	Splt# 2292361-03 (9.23mg/L)
QC2200282-08	LCS	Hardness, Total, as CaCO3	42.8		mg/L	107			3	

QC list for Run#: 2042594 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200284-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2200284-02	MRL_CK	Specific Conductance	9.58		µmhos/cm	95				
QC2200284-03	CCV	Specific Conductance	100		µmhos/cm	100				
QC2200284-06	DUP of 2292359-03	Specific Conductance	84.6	84.4	µmhos/cm		0		1	Splt# 2292359-03 (84.6µmhos/cm)
QC2200284-07	DUP of 2292860-01	Specific Conductance	27	27.1	µmhos/cm		0		1	Splt# 2292860-01 (27µmhos/cm)
QC2200284-08	LCS	Specific Conductance	151		µmhos/cm	103			1	

QC list for Run#: 2042596 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200286-01	ICV	pH	9.01		pH	99				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SSF-CalWater

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

QC2200286-02	DUP of 2292359-03	pH	9.15	9.18	pH	0				Splt# 2292359-03 (9.15pH)
QC2200286-03	CCV	pH		10.1	pH	100				
QC2200286-04	CCV	pH		10.1	pH	100				

QC list for Run#: 2042633 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200318-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200318-02	MRL_CK	Hardness, Total, as CaCO3		2.65	mg/L	88				
QC2200318-03	LCS	Hardness, Total, as CaCO3		42.8	mg/L	107			3	
QC2200318-04	DUP of 2292254-01A	Hardness, Total, as CaCO3	380	377	mg/L		0	4.74	30	Splt# 2292254-01A (380mg/L)
QC2200318-05	LCS	Hardness, Total, as CaCO3		42.8	mg/L	107			3	

QC list for Run#: 2042704 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200362-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2200362-02	LCS	Total Dissolved Solids		96	mg/L	101		13.2	20	
QC2200362-03	DUP of 2292943-01	Total Dissolved Solids	33	29	mg/L		12	13.2	20	Splt# 2292943-01 (33mg/L)

QC list for Run#: 2042950 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200448-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2200448-02	LCS	Calcium, Ca		1.93	mg/L	96		0.04	1	
	LCS	Magnesium, Mg		1.99	mg/L	99		0.007	0.2	
	LCS	Potassium, K		2.03	mg/L	102		0.04	0.2	
	LCS	Sodium, Na		1.96	mg/L	98		0.02	1	
QC2200448-03	DUP of 2292254-01	Calcium, Ca	52.9	53.6	mg/L		1	0.04	1	Splt# 2292254-01 (52.9mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292254

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SSF-CalWater

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

DUP of 2292254-01	Magnesium, Mg	62	61.6	mg/L	0	0.007	0.2	Splt# 2292254-01 (62mg/L)	
DUP of 2292254-01	Potassium, K	2.63	2.62	mg/L	0	0.04	0.2	Splt# 2292254-01 (2.63mg/L)	
DUP of 2292254-01	Sodium, Na	69.7	68.7	mg/L	1	0.02	1	Splt# 2292254-01 (69.7mg/L)	
QC2200448-04									
SPK of 2292254-01	Calcium, Ca	52.9	55.1	mg/L	110	0.04	1	Splt# 2292254-01 (52.9mg/L)	
SPK of 2292254-01	Magnesium, Mg	62	62.8	mg/L	40	0.007	0.2	Splt# 2292254-01 (62mg/L)	
SPK of 2292254-01	Potassium, K	2.63	4.85	mg/L	111	0.04	0.2	Splt# 2292254-01 (2.63mg/L)	
SPK of 2292254-01	Sodium, Na	69.7	71.1	mg/L	68	0.02	1	Splt# 2292254-01 (69.7mg/L)	
QC2200448-05									
SPKD of 2292254-01	Calcium, Ca	52.9	55.2	mg/L	114	0	0.04	1	Splt# 2292254-01 (52.9mg/L)
SPKD of 2292254-01	Magnesium, Mg	62	62.2	mg/L	11	0	0.007	0.2	Splt# 2292254-01 (62mg/L)
SPKD of 2292254-01	Potassium, K	2.63	4.84	mg/L	111	0	0.04	0.2	Splt# 2292254-01 (2.63mg/L)
SPKD of 2292254-01	Sodium, Na	69.7	70.4	mg/L	32	1	0.02	1	Splt# 2292254-01 (69.7mg/L)
QC2200448-06									
MRL_CHK	Calcium, Ca		<1	mg/L	N/A	0.04	1		
MRL_CHK	Magnesium, Mg		<0.2	mg/L	N/A	0.007	0.2		
MRL_CHK	Potassium, K		0.245	mg/L	98	0.04	0.2		
MRL_CHK	Sodium, Na		<1	mg/L	N/A	0.02	1		
QC2200539-01									
ICV	Potassium, K		1.98	mg/L	99	0.03	0.2		
QC2200539-02									
ICV	Calcium, Ca		10	mg/L	101	0.05	1		
ICV	Magnesium, Mg		9.91	mg/L	97	0.01	0.2		
ICV	Sodium, Na		10.2	mg/L	102	0.002	1		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292255

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 04/28/2022

Sampling Team: Field

Lab Sample#: 2292255-01 Sample Source: WSB_SF34_KIR130 External ID:

Date Collected: 04/28/2022 12:10PM Date Received: 04/28/2022 01:54PM Sample Matrix: Aqueous Location Desc: SF#34 - GRT HWY/KIRKHAM MW130

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	32.8	mg/L		3	04/28/2022	2042710 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	410	µmhos/cm		1	04/28/2022	2042715 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	219	mg/L	13.2	20	05/03/2022	2042837 ABALALIO	

Lab Sample#: 2292255-02 Sample Source: WSB_SF35_KIR255 External ID:

Date Collected: 04/28/2022 11:49AM Date Received: 04/28/2022 01:54PM Sample Matrix: Aqueous Location Desc: SF#35 - GRT HWY/KIRKHAM MW255

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	39.4	mg/L		3	04/28/2022	2042710 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	497	µmhos/cm		1	04/28/2022	2042715 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	256	mg/L	13.2	20	05/03/2022	2042837 ABALALIO	

Lab Sample#: 2292255-03 Sample Source: WSB_SF36_KIR385 External ID:

Date Collected: 04/28/2022 11:33AM Date Received: 04/28/2022 01:54PM Sample Matrix: Aqueous Location Desc: SF#36 - GRT HWY/KIRKHAM MW385

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	35.7	mg/L		3	04/28/2022	2042710 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	468	µmhos/cm		1	04/28/2022	2042715 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	263	mg/L	13.2	20	05/03/2022	2042837 ABALALIO	

Lab Sample#: 2292255-04 Sample Source: WSB_SF37_KIR435 External ID:

Date Collected: 04/28/2022 10:56AM Date Received: 04/28/2022 01:54PM Sample Matrix: Aqueous Location Desc: SF#37 - GRT HWY/KIRKHAM MW435

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	29.1	mg/L		3	04/28/2022	2042710 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	434	µmhos/cm		1	04/28/2022	2042715 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	260	mg/L	13.2	20	05/03/2022	2042837 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292255

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 04/28/2022

Sampling Team: Field

Lab Sample#: 2292255-05 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 04/28/2022 11:51AM **Date Received:** 04/28/2022 01:54PM **Sample Matrix:** Aqueous **Location Desc:** SF#35 - GRT HWY/KIRKHAM MW255

Test/Analyte

<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	39	mg/L		3	04/28/2022	2042710 ALEE	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance	495	µmhos/cm		1	04/28/2022	2042715 ABALALIO	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	259	mg/L	13.2	20	05/03/2022	2042837 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292255

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/28/2022

Routine: WSB_SFPUC

Sampling Team: Field

QC list for Run#: 2042710 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200365-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2200365-02	MRL_CK	Chloride		2.82	mg/L	94				
QC2200365-03	LCS	Chloride		38.4	mg/L	96			3	
QC2200365-04	SPK of 2292348-02	Chloride	8.42	47.3	mg/L	97			3	Splt# 2292348-02 (8.42mg/L)
QC2200365-05	SPKD of 2292348-02	Chloride	8.42	47.4	mg/L	97	0		3	Splt# 2292348-02 (8.42mg/L)
QC2200365-07	LCS	Chloride		38.7	mg/L	96			3	

QC list for Run#: 2042715 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200370-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2200370-02	MRL_CK	Specific Conductance		9.59	µmhos/cm	95				
QC2200370-03	CCV	Specific Conductance		99.9	µmhos/cm	99				
QC2200370-04	ICV	Specific Conductance		151	µmhos/cm	103				
QC2200370-05	LCS	Specific Conductance		1000	µmhos/cm	100			1	
QC2200370-06	DUP of 2292348-01	Specific Conductance	87.4	87.5	µmhos/cm		0		1	Splt# 2292348-01 (87.4µmhos/cm)
QC2200370-07	DUP of 2292342-03	Specific Conductance	140	142	µmhos/cm		0		1	Splt# 2292342-03 (140µmhos/cm)
QC2200370-08	LCS	Specific Conductance		151	µmhos/cm	103			1	

QC list for Run#: 2042837 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200462-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2200462-03	DUP of 2292255-01	Total Dissolved Solids	219	220	mg/L		0	13.2	20	Splt# 2292255-01 (219mg/L)
QC2200462-04	LCS	Total Dissolved Solids		94	mg/L	98		13.2	20	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292255

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 04/28/2022

Sampling Team: Field

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292256

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 04/27/2022

Sampling Team: Field

Lab Sample#: **2292256-01** Sample Source: WSB_SF30_ORT125 External ID:

Date Collected: 04/27/2022 10:47AM Date Received: 04/27/2022 01:29PM Sample Matrix: Aqueous Location Desc: SF#30 - GRT HWY/ORTEGA MW125

Test/Analyte							
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	32.3	mg/L		3	04/27/2022	2042653 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	467	µmhos/cm		1	04/27/2022	2042658 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	264	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

Lab Sample#: **2292256-02** Sample Source: WSB_SF31_ORT265 External ID:

Date Collected: 04/27/2022 10:56AM Date Received: 04/27/2022 01:29PM Sample Matrix: Aqueous Location Desc: SF#31 - GRT HWY/ORTEGA MW265

Test/Analyte							
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	23.8	mg/L		3	04/27/2022	2042653 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	260	µmhos/cm		1	04/27/2022	2042658 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	154	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

Lab Sample#: **2292256-03** Sample Source: WSB_SF32_ORT400 External ID:

Date Collected: 04/27/2022 09:57AM Date Received: 04/27/2022 01:29PM Sample Matrix: Aqueous Location Desc: SF#32 - GRT HWY/ORTEGA MW400

Test/Analyte							
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	22.7	mg/L		3	04/27/2022	2042653 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	270	µmhos/cm		1	04/27/2022	2042658 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	150	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

Lab Sample#: **2292256-04** Sample Source: WSB_SF33_ORT475 External ID:

Date Collected: 04/27/2022 09:56AM Date Received: 04/27/2022 01:29PM Sample Matrix: Aqueous Location Desc: SF#33 - GRT HWY/ORTEGA MW475

Test/Analyte							
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	28.2	mg/L		3	04/27/2022	2042653 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	296	µmhos/cm		1	04/27/2022	2042658 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	162	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292256

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 04/27/2022

Sampling Team: Field

Lab Sample#: 2292256-05 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 04/27/2022 10:48AM **Date Received:** 04/27/2022 01:29PM **Sample Matrix:** Aqueous **Location Desc:** SF#30 - GRT HWY/ORTEGA MW125

Test/Analyte

<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	32.4	mg/L		3	04/27/2022	2042653 DCARDONA	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance	468	µmhos/cm		1	04/27/2022	2042658 ABALALIO	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	257	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292256

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 04/27/2022

Sampling Team: Field

QC list for Run#: 2042653 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200326-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2200326-02	MRL_CK	Chloride		2.89	mg/L	96				
QC2200326-03	LCS	Chloride		39	mg/L	97			3	
QC2200326-04	SPK of 2292256-01	Chloride	32.3	71.1	mg/L	97			3	Splt# 2292256-01 (32.3mg/L)
QC2200326-05	SPKD of 2292256-01	Chloride	32.3	71.1	mg/L	97	0		3	Splt# 2292256-01 (32.3mg/L)
QC2200326-07	LCS	Chloride		38.9	mg/L	97			3	

QC list for Run#: 2042658 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200332-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2200332-02	MRL_CK	Specific Conductance		9.57	µmhos/cm	95				
QC2200332-03	CCV	Specific Conductance		99.8	µmhos/cm	99				
QC2200332-06	DUP of 2292256-01	Specific Conductance	467	465	µmhos/cm		0		1	Splt# 2292256-01 (467µmhos/cm)
QC2200332-07	LCS	Specific Conductance		151	µmhos/cm	103			1	

QC list for Run#: 2042704 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200362-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2200362-02	LCS	Total Dissolved Solids		96	mg/L	101		13.2	20	
QC2200362-03	DUP of 2292943-01	Total Dissolved Solids	33	29	mg/L		12	13.2	20	Splt# 2292943-01 (33mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292257

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

Lab Sample#: **2292257-01** Sample Source: WSB_SF_DUP External ID:

Date Collected: 04/26/2022 10:10AM Date Received: 04/26/2022 01:29PM Sample Matrix: Aqueous Location Desc: WSB_SF69, GGP NWM-3

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	38.3	mg/L		3	04/26/2022	2042587 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	415	µmhos/cm		1	04/26/2022	2042595 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	220	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

Lab Sample#: **2292257-02** Sample Source: WSB_SF67_GGPSF1 External ID:

Date Collected: 04/26/2022 09:12AM Date Received: 04/26/2022 01:29PM Sample Matrix: Aqueous Location Desc: WSB_SF67, GGP SOCCER FIELD SF-1

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	39.3	mg/L		3	04/26/2022	2042587 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	549	µmhos/cm		1	04/26/2022	2042595 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	278	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

Lab Sample#: **2292257-03** Sample Source: WSB_SF68_GGPNL1 External ID:

Date Collected: 04/26/2022 11:46AM Date Received: 04/26/2022 01:29PM Sample Matrix: Aqueous Location Desc: WSB_SF68, GGP NORTH LAKE ROAD NL-1

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	30	mg/L		3	04/26/2022	2042587 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	443	µmhos/cm		1	04/26/2022	2042595 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	242	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

Lab Sample#: **2292257-04** Sample Source: WSB_SF69_NWM3 External ID:

Date Collected: 04/26/2022 10:03AM Date Received: 04/26/2022 01:29PM Sample Matrix: Aqueous Location Desc: WSB_SF69, GGP NWM-3

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	37.8	mg/L		3	04/26/2022	2042587 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	409	µmhos/cm		1	04/26/2022	2042595 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	216	mg/L	13.2	20	05/01/2022	2042704 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292257

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/26/2022

Sampling Team: Field

QC list for Run#: 2042587 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200281-03	LCS	Chloride		39	mg/L	97			3	
QC2200281-04	SPK of 2292257-02	Chloride	39.3	78.5	mg/L	98			3	Splt# 2292257-02 (39.3mg/L)
QC2200281-05	SPKD of 2292257-02	Chloride	39.3	78.4	mg/L	97	0		3	Splt# 2292257-02 (39.3mg/L)
QC2200281-07	LCS	Chloride		38.9	mg/L	97			3	

QC list for Run#: 2042595 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200285-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2200285-02	MRL_CK	Specific Conductance		9.57	µmhos/cm	95				
QC2200285-03	CCV	Specific Conductance		99.8	µmhos/cm	99				
QC2200285-06	DUP of 2292257-01	Specific Conductance	415	418	µmhos/cm		0		1	Splt# 2292257-01 (415µmhos/cm)
QC2200285-07	LCS	Specific Conductance		152	µmhos/cm	103			1	

QC list for Run#: 2042704 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200362-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2200362-02	LCS	Total Dissolved Solids		96	mg/L	101		13.2	20	
QC2200362-03	DUP of 2292943-01	Total Dissolved Solids	33	29	mg/L		12	13.2	20	Splt# 2292943-01 (33mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

Lab Sample#: 2292258-01 **Sample Source:** WSB_SF41_WSPLAY **External ID:**

Date Collected: 05/05/2022 09:42AM **Date Received:** 05/05/2022 12:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	31.2	mg/L	1	5	05/05/2022	2043032 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	11.7	mg/L	0.04	1	05/11/2022	2043346 BTRINH	
Magnesium, Mg	25	mg/L	0.007	0.2	05/11/2022	2043346 BTRINH	
Potassium, K	1.28	mg/L	0.04	0.2	05/11/2022	2043346 BTRINH	
Sodium, Na	33	mg/L	0.02	1	05/11/2022	2043346 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	113	mg/L	0.593	3	05/05/2022	2043073 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	39	mg/L		3	05/05/2022	2043074 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance	415	µmhos/cm		1	05/05/2022	2043080 DCARDONA	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	8.18	pH			05/05/2022	2043084 DCARDONA	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	192	mg/L	13.2	20	05/09/2022	2043058 ALEE	

Lab Sample#: 2292258-01A **Sample Source:** WSB_SF41_WSPLAY **External ID:**

Date Collected: 05/05/2022 09:42AM **Date Received:** 05/05/2022 12:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	135	mg/L	2.37	15	05/05/2022	2043089 ABALALIO	

Lab Sample#: 2292258-01B **Sample Source:** WSB_SF41_WSPLAY **External ID:**

Date Collected: 05/05/2022 09:42AM **Date Received:** 05/05/2022 12:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	05/06/2022	2043133 DREGGIO	

Lab Sample#: 2292258-02 **Sample Source:** WSB_SF_DUP_FULL **External ID:**

Date Collected: 05/05/2022 10:00AM **Date Received:** 05/05/2022 12:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	31.2	mg/L	1	5	05/05/2022	2043032 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	12.2	mg/L	0.04	1	05/11/2022	2043346 BTRINH	
Magnesium, Mg	25.4	mg/L	0.007	0.2	05/11/2022	2043346 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

Potassium, K	1.24	mg/L	0.04	0.2	05/11/2022	2043346	BTRINH	
Sodium, Na	33.2	mg/L	0.02	1	05/11/2022	2043346	BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Alkalinity	112	mg/L	0.593	3	05/05/2022	2043073	ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Chloride	38.9	mg/L		3	05/05/2022	2043074	ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Specific Conductance	415	µmhos/cm		1	05/05/2022	2043080	DCARDONA	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
pH	8.12	pH			05/05/2022	2043084	DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Total Dissolved Solids	179	mg/L	13.2	20	05/09/2022	2043058	ALEE	

Lab Sample#: 2292258-02A **Sample Source:** WSB_SF_DUP_FULL **External ID:**

Date Collected: 05/05/2022 10:00AM **Date Received:** 05/05/2022 12:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Hardness, Total, as CaCO3	134	mg/L	2.37	15	05/05/2022	2043089	ABALALIO	

Lab Sample#: 2292258-02B **Sample Source:** WSB_SF_DUP_FULL **External ID:**

Date Collected: 05/05/2022 10:00AM **Date Received:** 05/05/2022 12:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Nitrate as N	<0.04	mg/L	0.034	0.04	05/06/2022	2043133	DREGGIO	

Lab Sample#: 2292258-03 **Sample Source:** WSB_SB-M-1 **External ID:**

Date Collected: 05/05/2022 11:28AM **Date Received:** 05/05/2022 12:10PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-M-1, MILLBRAE CORP. YARD, tem

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Sulfate	18.4	mg/L	1	5	05/05/2022	2043032	PWARNER	
Nitrate as N	5.71	mg/L	0.34	0.4	05/05/2022	2043032	PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Calcium, Ca	27.5	mg/L	0.04	1	05/11/2022	2043346	BTRINH	
Magnesium, Mg	19.2	mg/L	0.007	0.2	05/11/2022	2043346	BTRINH	
Potassium, K	1.84	mg/L	0.04	0.2	05/11/2022	2043346	BTRINH	
Sodium, Na	30.2	mg/L	0.02	1	05/11/2022	2043346	BTRINH	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Alkalinity	115	mg/L	0.593	3	05/05/2022	2043073	ABALALIO	

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Chloride	37.5	mg/L		3	05/05/2022	2043074	ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Specific Conductance</i>	438	µmhos/cm		1	05/05/2022	2043080 DCARDONA	
<i>MBP_PH(SM 4500-H+ B)</i>							
<i>pH</i>	6.78	pH			05/05/2022	2043084 DCARDONA	
<i>MBP_TDS(SM 2540 C)</i>							
<i>Total Dissolved Solids</i>	236	mg/L	13.2	20	05/09/2022	2043058 ALEE	
Lab Sample#: 2292258-03A Sample Source: WSB_SB-M-1 External ID:							
Date Collected: 05/05/2022 11:28AM Date Received: 05/05/2022 12:10PM Sample Matrix: Aqueous Location Desc: GSR_SB_CUP-M-1, MILLBRAE CORP. YARD, tem							
Test/Analyte							
<i>MBP_HARDNESS_T(SM 2340 C)</i>							
<i>Hardness, Total, as CaCO3</i>	148	mg/L	2.37	15	05/05/2022	2043089 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

QC list for Run#: 2043032 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200599-01	MRL_CK	Sulfate		0.512	mg/L	102				
	MRL_CK	Nitrate as N		0.0408	mg/L	102				
QC2200599-02	CCV	Sulfate		2.36	mg/L	94				
	CCV	Nitrate as N		0.19	mg/L	95				
QC2200599-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200599-04	LCS	Sulfate		4.79	mg/L	95				
	LCS	Nitrate as N		0.379	mg/L	95				
QC2200599-06	SPK of 2292946-03	Sulfate	<0.5	2.37	mg/L	95				Splt# 2292946-03 (<0.5mg/L)
	SPK of 2292946-03	Nitrate as N	<0.04	0.185	mg/L	93				Splt# 2292946-03 (<0.04mg/L)
QC2200599-07	SPKD of 2292946-03	Sulfate	<0.5	2.37	mg/L	95	0			Splt# 2292946-03 (<0.5mg/L)
	SPKD of 2292946-03	Nitrate as N	<0.04	0.184	mg/L	93	0			Splt# 2292946-03 (<0.04mg/L)
QC2200599-08	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200599-09	CCV	Sulfate		2.34	mg/L	93				
	CCV	Nitrate as N		0.191	mg/L	95				
QC2200599-10	CCV	Sulfate		2.36	mg/L	94				
	CCV	Nitrate as N		0.19	mg/L	95				
QC2200599-11	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200599-12	DUP of 2292532-07	Sulfate	3.33	9.34	mg/L		94	0.1	0.5	Splt# 2292532-07 (3.33mg/L)
	DUP of 2292532-07	Nitrate as N	0.0785	0.0424	mg/L		59	0.034	0.04	Splt# 2292532-07 (0.0785mg/L)

QC list for Run#: 2043058 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200620-01										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

Sample ID	Name	Analyte	Parent	Current	Units	% Rec	RPD	MDL	MRL	Flag/Comments
DUP of 2292946-05	Total Dissolved Solids		424	420	mg/L		0	13.2	20	Splt# 2292946-05 (424mg/L)
QC2200620-02	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2200620-03	LCS	Total Dissolved Solids		90	mg/L	94		13.2	20	

QC list for Run#: 2043073 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200629-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2200629-02	MRL CK	Alkalinity		4	mg/L	133				
QC2200629-03	LCS	Alkalinity		41	mg/L	103			3	
QC2200629-05	LCS	Alkalinity		40.4	mg/L	101			3	
QC2200629-06	SPK of 2292526-01	Alkalinity	15.5	54.9	mg/L	98			3	Splt# 2292526-01 (15.5mg/L)
QC2200629-07	SPKD of 2292526-01	Alkalinity	15.5	54.8	mg/L	98	0		3	Splt# 2292526-01 (15.5mg/L)

QC list for Run#: 2043074 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200630-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2200630-02	MRL CK	Chloride		2.77	mg/L	92				
QC2200630-03	LCS	Chloride		39.1	mg/L	97			3	
QC2200630-04	SPK of 2292526-01	Chloride	4.74	44.7	mg/L	100			3	Splt# 2292526-01 (4.74mg/L)
QC2200630-05	SPKD of 2292526-01	Chloride	4.74	43.7	mg/L	97	2		3	Splt# 2292526-01 (4.74mg/L)
QC2200630-07	LCS	Chloride		39	mg/L	97			3	

QC list for Run#: 2043075 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200631-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200631-02	MRL CK	Hardness, Total, as CaCO3		3.29	mg/L	110				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

QC2200631-03	LCS	Hardness, Total, as CaCO3	43	mg/L	107			3	
QC2200631-04	DUP of 2292526-01	Hardness, Total, as CaCO3	12	11.9	mg/L	1	0.474	3	Splt# 2292526-01 (12mg/L)
QC2200631-05	LCS	Hardness, Total, as CaCO3	43.2	mg/L	108			3	

QC list for Run#: 2043080 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200634-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2200634-02	MRL_CK	Specific Conductance	9.61		µmhos/cm	96				
QC2200634-03	CCV	Specific Conductance	99.3		µmhos/cm	99				
QC2200634-04	ICV	Specific Conductance	151		µmhos/cm	102				
QC2200634-05	LCS	Specific Conductance	1420		µmhos/cm	100			1	
QC2200634-06	DUP of 2292526-01	Specific Conductance	59.5	59.7	µmhos/cm	0			1	Splt# 2292526-01 (59.5µmhos/cm)
QC2200634-07	DUP of 2292526-02	Specific Conductance	64.7	64.4	µmhos/cm	0			1	Splt# 2292526-02 (64.7µmhos/cm)
QC2200634-08	LCS	Specific Conductance	151		µmhos/cm	103			1	

QC list for Run#: 2043084 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200637-04	ICV	pH	9.01		pH	99				
QC2200637-05	DUP of 2292526-01	pH	9.32	9.36	pH	0				Splt# 2292526-01 (9.32pH)
QC2200637-06	CCV	pH	9.02		pH	99				
QC2200637-07	CCV	pH	9.01		pH	99				

QC list for Run#: 2043089 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200639-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2200639-02	MRL_CK	Hardness, Total, as CaCO3	2.81		mg/L	93				
QC2200639-03										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

QC2200639-04	LCS	Hardness, Total, as CaCO3	43.1	mg/L	108				3
DUP of 2292258-01A		Hardness, Total, as CaCO3	135	134	mg/L	0	2.37	15	Splt# 2292258-01A (135mg/L)
QC2200639-05	LCS	Hardness, Total, as CaCO3	43.1	mg/L	108				3

QC list for Run#: 2043133 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200599-12A	DUP of 2292532-07A	Sulfate	1.09	1.1	mg/L		0	0.1	0.5	Splt# 2292532-07A (1.09mg/L)
	DUP of 2292532-07A	Nitrate as N	0.0522	0.0512	mg/L		1	0.034	0.04	Splt# 2292532-07A (0.0522mg/L)
QC2200670-01	MRL_CK	Sulfate		0.517	mg/L		103			
	MRL_CK	Nitrate as N		0.0403	mg/L		101			
QC2200670-02	CCV	Sulfate		2.33	mg/L		93			
	CCV	Nitrate as N		0.189	mg/L		94			
QC2200670-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200670-04	LCS	Sulfate		4.77	mg/L		95			
	LCS	Nitrate as N		0.382	mg/L		96			
QC2200670-06	SPK of 2292518-01	Sulfate	3.59	6.03	mg/L		98			Splt# 2292518-01 (3.59mg/L)
	SPK of 2292518-01	Nitrate as N	0.0742	0.265	mg/L		96			Splt# 2292518-01 (0.0742mg/L)
QC2200670-07	SPKD of 2292518-01	Sulfate	3.59	6.02	mg/L		97	0		Splt# 2292518-01 (3.59mg/L)
	SPKD of 2292518-01	Nitrate as N	0.0742	0.267	mg/L		97	0		Splt# 2292518-01 (0.0742mg/L)
QC2200670-08	CCV	Sulfate		2.35	mg/L		94			
	CCV	Nitrate as N		0.19	mg/L		95			
QC2200670-09	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200670-10	DUP of 2292518-03	Sulfate	11.5	11.5	mg/L		0	0.1	0.5	Splt# 2292518-03 (11.5mg/L)
	DUP of 2292518-03	Nitrate as N	<0.04	<0.04	mg/L		N/A	0.034	0.04	Splt# 2292518-03 (<0.04mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

QC list for Run#: 2043346 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200795-01										
	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2200795-02										
	LCS	Calcium, Ca		1.89	mg/L	94		0.04	1	
	LCS	Magnesium, Mg		1.95	mg/L	97		0.007	0.2	
	LCS	Potassium, K		2.12	mg/L	106		0.04	0.2	
	LCS	Sodium, Na		2	mg/L	99		0.02	1	
QC2200795-03										
	DUP of 2292946-01	Calcium, Ca	65.3	66.8	mg/L		2	0.04	1	Splt# 2292946-01 (65.3mg/L)
	DUP of 2292946-01	Magnesium, Mg	33.6	33.2	mg/L		1	0.007	0.2	Splt# 2292946-01 (33.6mg/L)
	DUP of 2292946-01	Potassium, K	2.8	2.81	mg/L		0	0.04	0.2	Splt# 2292946-01 (2.8mg/L)
	DUP of 2292946-01	Sodium, Na	95.2	93.3	mg/L		2	0.02	1	Splt# 2292946-01 (95.2mg/L)
QC2200795-04										
	SPK of 2292946-01	Calcium, Ca	65.3	68.3	mg/L	148		0.04	1	Splt# 2292946-01 (65.3mg/L)
	SPK of 2292946-01	Magnesium, Mg	33.6	35.7	mg/L	104		0.007	0.2	Splt# 2292946-01 (33.6mg/L)
	SPK of 2292946-01	Potassium, K	2.8	5.15	mg/L	117		0.04	0.2	Splt# 2292946-01 (2.8mg/L)
	SPK of 2292946-01	Sodium, Na	95.2	96.2	mg/L	51		0.02	1	Splt# 2292946-01 (95.2mg/L)
QC2200795-05										
	SPKD of 2292946-01	Calcium, Ca	65.3	69.8	mg/L	223	2	0.04	1	Splt# 2292946-01 (65.3mg/L)
	SPKD of 2292946-01	Magnesium, Mg	33.6	36.2	mg/L	129	1	0.007	0.2	Splt# 2292946-01 (33.6mg/L)
	SPKD of 2292946-01	Potassium, K	2.8	5.18	mg/L	119	0	0.04	0.2	Splt# 2292946-01 (2.8mg/L)
	SPKD of 2292946-01	Sodium, Na	95.2	98.7	mg/L	175	2	0.02	1	Splt# 2292946-01 (95.2mg/L)
QC2200795-06										
	MRL_CK	Calcium, Ca		<1	mg/L	N/A		0.04	1	
	MRL_CK	Magnesium, Mg		<0.2	mg/L	N/A		0.007	0.2	
	MRL_CK	Potassium, K		0.291	mg/L	116		0.04	0.2	
	MRL_CK	Sodium, Na		<1	mg/L	N/A		0.02	1	
QC2200834-01										
	ICV	Potassium, K		2.05	mg/L	102		0.03	0.2	
QC2200834-02										
	ICV	Calcium, Ca		9.92	mg/L	99		0.05	1	
	ICV	Magnesium, Mg		9.89	mg/L	97		0.01	0.2	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292258

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/05/2022

Sampling Team: Field

ICV	Sodium, Na	10.4	mg/L	104	0.002	1
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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292259

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/06/2022

Sampling Team: Field

Lab Sample#: 2292259-01 Sample Source: WSB_SF26_TAR145 External ID:

Date Collected: 04/06/2022 10:39AM Date Received: 04/06/2022 02:00PM Sample Matrix: Aqueous Location Desc: SF#26 - GRT HWY/TARAVAL MW145

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	42	mg/L		3	04/06/2022	2041602 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	475	µmhos/cm		1	04/06/2022	2041605 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	251	mg/L	13.2	20	04/10/2022	2041656 DCARDONA	

Lab Sample#: 2292259-02 Sample Source: WSB_SF27_TAR240 External ID:

Date Collected: 04/06/2022 10:27AM Date Received: 04/06/2022 02:00PM Sample Matrix: Aqueous Location Desc: SF#27 - GRT HWY/TARAVAL MW240

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	32.4	mg/L		3	04/06/2022	2041602 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	378	µmhos/cm		1	04/06/2022	2041605 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	204	mg/L	13.2	20	04/10/2022	2041656 DCARDONA	

Lab Sample#: 2292259-03 Sample Source: WSB_SF28_TAR400 External ID:

Date Collected: 04/06/2022 11:29AM Date Received: 04/06/2022 02:00PM Sample Matrix: Aqueous Location Desc: SF#28 - GRT HWY/TARAVAL MW400

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	27.8	mg/L		3	04/06/2022	2041602 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	319	µmhos/cm		1	04/06/2022	2041605 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	171	mg/L	13.2	20	04/10/2022	2041656 DCARDONA	

Lab Sample#: 2292259-04 Sample Source: WSB_SF29_TAR530 External ID:

Date Collected: 04/06/2022 11:25AM Date Received: 04/06/2022 02:00PM Sample Matrix: Aqueous Location Desc: SF#29 - GRT HWY/TARAVAL MW530

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	24.3	mg/L		3	04/06/2022	2041602 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	374	µmhos/cm		1	04/06/2022	2041605 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	209	mg/L	13.2	20	04/10/2022	2041656 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292259

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/06/2022

Sampling Team: Field

Lab Sample#: 2292259-05 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 04/06/2022 10:49AM **Date Received:** 04/06/2022 02:00PM **Sample Matrix:** Aqueous **Location Desc:** SF#26 - GRT HWY/TARAVAL MW145

Test/Analyte

<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	41.9	mg/L		3	04/06/2022	2041602 ABALALIO	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance	480	µmhos/cm		1	04/06/2022	2041605 DCARDONA	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	253	mg/L	13.2	20	04/10/2022	2041656 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292259

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/06/2022

Sampling Team: Field

QC list for Run#: 2041602 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299580-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2299580-02	MRL_CK	Chloride		2.96	mg/L	98				
QC2299580-03	LCS	Chloride		39.5	mg/L	98			3	
QC2299580-04	SPK of 2291681-01	Chloride	58.5	97.4	mg/L	97			3	Splt# 2291681-01 (58.5mg/L)
QC2299580-05	SPKD of 2291681-01	Chloride	58.5	97.4	mg/L	97	0		3	Splt# 2291681-01 (58.5mg/L)
QC2299580-07	LCS	Chloride		39.3	mg/L	98			3	

QC list for Run#: 2041605 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299582-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2299582-02	MRL_CK	Specific Conductance		9.61	µmhos/cm	96				
QC2299582-03	CCV	Specific Conductance		99.5	µmhos/cm	99				
QC2299582-06	DUP of 2292259-01	Specific Conductance	475	475	µmhos/cm		0		1	Splt# 2292259-01 (475µmhos/cm)
QC2299582-07	LCS	Specific Conductance		152	µmhos/cm	103			1	

QC list for Run#: 2041656 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299615-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2299615-02	LCS	Total Dissolved Solids		95	mg/L	100		13.2	20	
QC2299615-03	DUP of 2292456-01	Total Dissolved Solids	49	48	mg/L		2	13.2	20	Splt# 2292456-01 (49mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

Lab Sample#: **2292260-01** Sample Source: WSB_SB-44-1-190 External ID:
Date Collected: 04/19/2022 10:48AM Date Received: 04/19/2022 01:03PM Sample Matrix: Aqueous Location Desc: GSR_SB_CUP-44-1-190, GG NATIONAL CEMETE

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	99	mg/L	1	5	04/19/2022	2042229 PWARNER	
Nitrate as N	6.29	mg/L	0.34	0.4	04/19/2022	2042229 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	48	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	34.1	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	1.55	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	273	mg/L	1.19	6	04/19/2022	2042228 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	95.8	mg/L		6	04/19/2022	2042233 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance	1040	µmhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	263	mg/L	0.948	6	04/19/2022	2042249 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	6.4	pH			04/19/2022	2042236 DCARDONA	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	598	mg/L	13.2	20	04/22/2022	2042361 ABALALIO	>MCL

Lab Sample#: **2292260-01A** Sample Source: WSB_SB-44-1-190 External ID:
Date Collected: 04/19/2022 10:48AM Date Received: 04/19/2022 01:03PM Sample Matrix: Aqueous Location Desc: GSR_SB_CUP-44-1-190, GG NATIONAL CEMETE

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Sodium, Na	117	mg/L	0.08	4	04/27/2022	2042514 BTRINH	

Lab Sample#: **2292260-02** Sample Source: WSB_SB-44-1-300 External ID:
Date Collected: 04/19/2022 11:15AM Date Received: 04/19/2022 01:03PM Sample Matrix: Aqueous Location Desc: GSR_SB_CUP-44-1-300, GG NATIONAL CEMETE

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	102	mg/L	1	5	04/19/2022	2042229 PWARNER	
Nitrate as N	6.39	mg/L	0.34	0.4	04/19/2022	2042229 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	51	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	35.9	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	1.71	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	271	mg/L	1.19	6	04/19/2022	2042228 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	94.7	mg/L		6	04/19/2022	2042233 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	1050	µmhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	272	mg/L	0.948	6	04/19/2022	2042249 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.41	pH			04/19/2022	2042236 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	603	mg/L	13.2	20	04/22/2022	2042361 ABALALIO	>MCL

Lab Sample#: 2292260-02A **Sample Source:** WSB_SB-44-1-300 **External ID:**

Date Collected: 04/19/2022 11:15AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-300, GG NATIONAL CEMETE

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sodium, Na	122	mg/L	0.08	4	04/27/2022	2042514 BTRINH	

Lab Sample#: 2292260-03 **Sample Source:** WSB_SB-44-1-460 **External ID:**

Date Collected: 04/19/2022 10:01AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-460, GG NATIONAL CEMETE

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	103	mg/L	1	5	04/19/2022	2042229 PWARNER	
Nitrate as N	1.25	mg/L	0.34	0.4	04/19/2022	2042229 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	54.2	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	45.8	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	3.49	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
Sodium, Na	66.2	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	176	mg/L	1.19	6	04/19/2022	2042228 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	128	mg/L		6	04/19/2022	2042233 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	946	µmhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	327	mg/L	0.948	6	04/19/2022	2042249 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.88	pH			04/19/2022	2042236 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

Lab Sample#:	2292260-04	Sample Source:	WSB_SB-44-1-580	External ID:					
Date Collected:	04/19/2022 09:50AM	Date Received:	04/19/2022 01:03PM	Sample Matrix:	Aqueous	Location Desc:	GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE		
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments		
Total Dissolved Solids									
	522	mg/L	13.2	20	04/22/2022	2042361	ABALALIO	>MCL	
SEM_200.7_DW(EPA 200.7)									
Calcium, Ca	111	mg/L	0.04	1	04/27/2022	2042514	BTRINH		
Magnesium, Mg	97.7	mg/L	0.007	0.2	04/27/2022	2042514	BTRINH		
MBP_ALK(SM 2320 B)									
Alkalinity	288	mg/L	2.96	15	04/19/2022	2042228	ALEE		
MBP_CHLORIDE(SM 4500-CL- D)									
Chloride	207	mg/L		15	04/19/2022	2042233	ALEE		
MBP_COND(SM 2510 B)									
Specific Conductance	1700	umhos/cm		1	04/19/2022	2042234	DCARDONA	>MCL	
MBP_HARDNESS_T(SM 2340 C)									
Hardness, Total, as CaCO3	715	mg/L	2.37	15	04/19/2022	2042249	ALEE		
MBP_PH(SM 4500-H+ B)									
pH	7.38	pH			04/19/2022	2042236	DCARDONA		
Lab Sample#: 2292260-04A									
Sample Source: WSB_SB-44-1-580									
External ID:									
Date Collected: 04/19/2022 09:50AM									
Date Received: 04/19/2022 01:03PM									
Sample Matrix: Aqueous									
Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE									
Test/Analyte									
MBI_IC_ANIONS_A(EPA 300.0 (A))									
Nitrate as N	<0.04	mg/L	0.034	0.04	04/19/2022	2042229	PWARNER		
Lab Sample#: 2292260-04B									
Sample Source: WSB_SB-44-1-580									
External ID:									
Date Collected: 04/19/2022 09:50AM									
Date Received: 04/19/2022 01:03PM									
Sample Matrix: Aqueous									
Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE									
Test/Analyte									
MBP_TDS(SM 2540 C)									
Total Dissolved Solids	1070	mg/L	26.4	40	04/22/2022	2042361	ABALALIO	>MCL; result reported @ 2x, i	
Lab Sample#: 2292260-04C									
Sample Source: WSB_SB-44-1-580									
External ID:									
Date Collected: 04/19/2022 09:50AM									
Date Received: 04/19/2022 01:03PM									
Sample Matrix: Aqueous									
Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE									
Test/Analyte									
SEM_200.7_DW(EPA 200.7)									
Potassium, K	6.11	mg/L	0.12	0.6	04/27/2022	2042514	BTRINH		
Lab Sample#: 2292260-04D									
Sample Source: WSB_SB-44-1-580									
External ID:									
Date Collected: 04/19/2022 09:50AM									
Date Received: 04/19/2022 01:03PM									
Sample Matrix: Aqueous									
Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE									
Test/Analyte									
SEM_200.7_DW(EPA 200.7)									
Sodium, Na	108	mg/L	0.08	4	04/27/2022	2042514	BTRINH		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

Lab Sample#: 2292260-05 **Sample Source:** WSB_SB_DUP **External ID:**
Date Collected: 04/19/2022 10:29AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-460, GG NATIONAL CEMETE

Test/Analyte

<u>Test/Analyte</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	103	mg/L	1	5	04/19/2022	2042229 PWARNER	
Nitrate as N	1.27	mg/L	0.34	0.4	04/19/2022	2042229 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	54.6	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	46.4	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	3.59	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
Sodium, Na	65.6	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	174	mg/L	1.19	6	04/19/2022	2042228 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	127	mg/L		6	04/19/2022	2042233 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance	945	µmhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	331	mg/L	0.948	6	04/19/2022	2042249 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	6.84	pH			04/19/2022	2042236 DCARDONA	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	518	mg/L	13.2	20	04/22/2022	2042361 ABALALIO	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

QC list for Run#: 2042228 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200032-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2200032-02	MRL_CK	Alkalinity	3.7		mg/L	123				
QC2200032-03	LCS	Alkalinity	40.3		mg/L	101			3	
QC2200032-04	DUP of 2292086-03	Alkalinity	20.3	20.4	mg/L		0	0.593	3	Splt# 2292086-03 (20.3mg/L)
QC2200032-06	LCS	Alkalinity	40.5		mg/L	101			3	
QC2200032-07	SPKD of 2292767-02	Alkalinity	32.9	73.7	mg/L	102	0		3	Splt# 2292767-02 (32.9mg/L)
QC2200032-08	SPK of 2292767-02	Alkalinity	32.9	73.1	mg/L	100			3	Splt# 2292767-02 (32.9mg/L)

QC list for Run#: 2042229 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200035-01	MRL_CK	Sulfate	0.516		mg/L	103				
	MRL_CK	Nitrate as N	0.0412		mg/L	103				
QC2200035-02	CCV	Sulfate	2.35		mg/L	94				
	CCV	Nitrate as N	0.192		mg/L	96				
QC2200035-03	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2200035-04	LCS	Sulfate	4.79		mg/L	95				
	LCS	Nitrate as N	0.383		mg/L	96				
QC2200035-05	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2200035-06	SPK of 2292781-01	Sulfate	7.19	9.65	mg/L	99				Splt# 2292781-01 (7.19mg/L)
	SPK of 2292781-01	Nitrate as N	0.103	0.293	mg/L	96				Splt# 2292781-01 (0.103mg/L)
QC2200035-07	SPKD of 2292781-01	Sulfate	7.19	9.71	mg/L	101	0			Splt# 2292781-01 (7.19mg/L)
	SPKD of 2292781-01	Nitrate as N	0.103	0.296	mg/L	97	1			Splt# 2292781-01 (0.103mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

QC2200035-08	CCV	Sulfate	2.36	mg/L	94					
	CCV	Nitrate as N	0.191	mg/L	96					
QC2200035-09	BLK	Sulfate	<0.5	mg/L			0.1	0.5		
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04		
QC2200035-10	DUP of 2292781-02	Sulfate	6.74	6.76	mg/L	0	0.1	0.5	Splt# 2292781-02 (6.74mg/L)	
	DUP of 2292781-02	Nitrate as N	0.0994	0.1	mg/L	0	0.034	0.04	Splt# 2292781-02 (0.0994mg/L)	

QC list for Run#: 2042233 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200036-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2200036-02	MRL_CK	Chloride	2.74		mg/L	91				
QC2200036-03	LCS	Chloride	38.5		mg/L	96			3	
QC2200036-04	SPK of 2292767-02	Chloride	11.1	49.6	mg/L	96			3	Splt# 2292767-02 (11.1mg/L)
QC2200036-05	SPKD of 2292767-02	Chloride	11.1	49.9	mg/L	96	0		3	Splt# 2292767-02 (11.1mg/L)
QC2200036-06	DUP of 2292086-03	Chloride	6.28	6.03	mg/L		4		3	Splt# 2292086-03 (6.28mg/L)
QC2200036-07	LCS	Chloride	38.5		mg/L	96			3	

QC list for Run#: 2042234 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200037-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2200037-02	MRL_CK	Specific Conductance	9.76		µmhos/cm	97				
QC2200037-03	CCV	Specific Conductance	100		µmhos/cm	100				
QC2200037-04	ICV	Specific Conductance	152		µmhos/cm	103				
QC2200037-05	LCS	Specific Conductance	1000		µmhos/cm	100			1	
QC2200037-06	DUP of 2292086-03	Specific Conductance	78.5	78.8	µmhos/cm		0		1	Splt# 2292086-03 (78.5µmhos/cm)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

QC2200037-07	DUP of 2292091-04	Specific Conductance	92.2	91.9	µmhos/cm	0	1	Splt# 2292091-04 (92.2µmhos/cm)
QC2200037-09	LCS	Specific Conductance		152	µmhos/cm	103	1	

QC list for Run#: 2042236 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200038-01	ICV	pH		8.98	pH	99				
QC2200038-02	DUP of 2292086-03	pH	9.08	9.12	pH		0			Splt# 2292086-03 (9.08pH)
QC2200038-03	CCV	pH		10.1	pH	100				
QC2200038-04	CCV	pH		10.1	pH	100				
QC2200038-06	CAL	pH		10.1	pH	101				
QC2200038-07	CAL	pH		7.01	pH	100				
QC2200038-08	CAL	pH		4.01	pH	100				

QC list for Run#: 2042249 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200047-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200047-02	MRL_CK	Hardness, Total, as CaCO3		2.91	mg/L	97				
QC2200047-03	LCS	Hardness, Total, as CaCO3		43	mg/L	107			3	
QC2200047-04	LCS	Hardness, Total, as CaCO3		42.9	mg/L	107			3	
QC2200047-05	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200047-06	DUP of 2292086-03	Hardness, Total, as CaCO3	17.7	17.5	mg/L		0	0.474	3	Splt# 2292086-03 (17.7mg/L)
QC2200047-07	DUP of 2292767-02	Hardness, Total, as CaCO3	39.8	39.1	mg/L		1	0.474	3	Splt# 2292767-02 (39.8mg/L)
QC2200047-08	LCS	Hardness, Total, as CaCO3		43.3	mg/L	108			3	

QC list for Run#: 2042361 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

Sample ID	Sample Type	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2200126-01	BLK	Total Dissolved Solids	<20	mg/L			13.2	20	
QC2200126-02	DUP of 2292781-02	Total Dissolved Solids	43	41	mg/L	4	13.2	20	Splt# 2292781-02 (43mg/L)
QC2200126-03	LCS	Total Dissolved Solids	98	103	mg/L		13.2	20	

QC list for Run#: 2042514 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200201-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	
QC2200201-02	LCS	Calcium, Ca	1.85		mg/L	92		0.04	1	
	LCS	Magnesium, Mg	1.92		mg/L	96		0.007	0.2	
	LCS	Potassium, K	2.12		mg/L	106		0.04	0.2	
	LCS	Sodium, Na	2.07		mg/L	104		0.02	1	
QC2200201-03	DUP of 2292622-01	Calcium, Ca	37.4	38.1	mg/L		1	0.04	1	Splt# 2292622-01 (37.4mg/L)
	DUP of 2292622-01	Magnesium, Mg	34.6	33.9	mg/L		2	0.007	0.2	Splt# 2292622-01 (34.6mg/L)
	DUP of 2292622-01	Potassium, K	2.04	2	mg/L		2	0.04	0.2	Splt# 2292622-01 (2.04mg/L)
	DUP of 2292622-01	Sodium, Na	68.7	67.3	mg/L		2	0.02	1	Splt# 2292622-01 (68.7mg/L)
QC2200201-04	SPK of 2292622-01	Calcium, Ca	37.4	39.1	mg/L	83		0.04	1	Splt# 2292622-01 (37.4mg/L)
	SPK of 2292622-01	Magnesium, Mg	34.6	35.3	mg/L	34		0.007	0.2	Splt# 2292622-01 (34.6mg/L)
	SPK of 2292622-01	Potassium, K	2.04	4.33	mg/L	115		0.04	0.2	Splt# 2292622-01 (2.04mg/L)
	SPK of 2292622-01	Sodium, Na	68.7	69.3	mg/L	27		0.02	1	Splt# 2292622-01 (68.7mg/L)
QC2200201-05	SPKD of 2292622-01	Calcium, Ca	37.4	40	mg/L	130	2	0.04	1	Splt# 2292622-01 (37.4mg/L)
	SPKD of 2292622-01	Magnesium, Mg	34.6	36.1	mg/L	75	2	0.007	0.2	Splt# 2292622-01 (34.6mg/L)
	SPKD of 2292622-01	Potassium, K	2.04	4.35	mg/L	116	0	0.04	0.2	Splt# 2292622-01 (2.04mg/L)
	SPKD of 2292622-01	Sodium, Na	68.7	69.8	mg/L	52	0	0.02	1	Splt# 2292622-01 (68.7mg/L)
QC2200201-06	MRL_CK	Calcium, Ca	<1		mg/L	N/A		0.04	1	
	MRL_CK	Magnesium, Mg	<0.2		mg/L	N/A		0.007	0.2	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

	MRL_CK	Potassium, K	0.264	mg/L	106	0.04	0.2
	MRL_CK	Sodium, Na	<1	mg/L	N/A	0.02	1
QC2200229-01							
	ICV	Potassium, K	2.1	mg/L	105	0.03	0.2
QC2200229-02							
	ICV	Calcium, Ca	9.98	mg/L	100	0.05	1
	ICV	Magnesium, Mg	9.75	mg/L	96	0.01	0.2
	ICV	Sodium, Na	10.3	mg/L	103	0.002	1

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

MILLBRAE 1449

Water Quality Laboratory

SEWPCP 1721

FOLDER ID: 2292622

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

Lab Sample#:	2292622-01	Sample Source:	WSB_CAL-18-230		External ID:		
Date Collected:	04/13/2022 11:39AM	Date Received:	04/13/2022 01:55PM	Sample Matrix:	Aqueous	Location Desc:	GSR_CAL_CUP-18-230, ROW AT COLMA BLVD
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	36.7	mg/L	1	5	04/14/2022	2042030 DREGGIO	
Nitrate as N	2.39	mg/L	0.34	0.4	04/14/2022	2042030 DREGGIO	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	37.4	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	34.6	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	2.04	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
Sodium, Na	68.7	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	170	mg/L	0.593	3	04/13/2022	2041964 DCARDONA	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	108	mg/L		3	04/13/2022	2041966 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	775	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	231	mg/L	0.474	3	04/13/2022	2041968 DCARDONA	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.7	pH			04/13/2022	2041967 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	413	mg/L	13.2	20	04/15/2022	2042004 ALEE	

Lab Sample#:	2292622-02	Sample Source:	WSB_CAL-18-425		External ID:		
Date Collected:	04/13/2022 11:07AM	Date Received:	04/13/2022 01:55PM	Sample Matrix:	Aqueous	Location Desc:	GSR_CAL_CUP-18-425, ROW AT COLMA BLVD
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	36.7	mg/L	1	5	04/14/2022	2042030 DREGGIO	
Nitrate as N	2.34	mg/L	0.34	0.4	04/14/2022	2042030 DREGGIO	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	37.1	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	33.8	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	1.98	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
Sodium, Na	68	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	171	mg/L	0.593	3	04/13/2022	2041964 DCARDONA	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	108	mg/L		3	04/13/2022	2041966 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292622

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Specific Conductance</i>	776	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
<i>MBP_HARDNESS_T(SM 2340 C)</i>							
<i>Hardness, Total, as CaCO3</i>	231	mg/L	0.474	3	04/13/2022	2041968 DCARDONA	
<i>MBP_PH(SM 4500-H+ B)</i>							
<i>pH</i>	6.75	pH			04/13/2022	2041967 ABALALIO	
<i>MBP_TDS(SM 2540 C)</i>							
<i>Total Dissolved Solids</i>	419	mg/L	13.2	20	04/15/2022	2042004 ALEE	

Lab Sample#: 2292622-03 **Sample Source:** WSB_CAL-18-490 **External ID:**

Date Collected: 04/13/2022 09:49AM **Date Received:** 04/13/2022 01:55PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-18-490, ROW AT COLMA BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>							
<i>Sulfate</i>	36.7	mg/L	1	5	04/14/2022	2042030 DREGGIO	
<i>Nitrate as N</i>	2.3	mg/L	0.34	0.4	04/14/2022	2042030 DREGGIO	
<i>SEM_200.7_DW(EPA 200.7)</i>							
<i>Calcium, Ca</i>	37.8	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
<i>Magnesium, Mg</i>	34.3	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
<i>Potassium, K</i>	2.06	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
<i>Sodium, Na</i>	68.2	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
<i>MBP_ALK(SM 2320 B)</i>							
<i>Alkalinity</i>	169	mg/L	0.593	3	04/13/2022	2041964 DCARDONA	
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>							
<i>Chloride</i>	107	mg/L		3	04/13/2022	2041966 DCARDONA	
<i>MBP_COND(SM 2510 B)</i>							
<i>Specific Conductance</i>	777	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
<i>MBP_HARDNESS_T(SM 2340 C)</i>							
<i>Hardness, Total, as CaCO3</i>	230	mg/L	0.474	3	04/13/2022	2041968 DCARDONA	
<i>MBP_PH(SM 4500-H+ B)</i>							
<i>pH</i>	6.76	pH			04/13/2022	2041967 ABALALIO	
<i>MBP_TDS(SM 2540 C)</i>							
<i>Total Dissolved Solids</i>	424	mg/L	13.2	20	04/15/2022	2042004 ALEE	

Lab Sample#: 2292622-04 **Sample Source:** WSB_CAL-18-595 **External ID:**

Date Collected: 04/13/2022 09:49AM **Date Received:** 04/13/2022 01:55PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-18-595, ROW AT COLMA BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>							
<i>Sulfate</i>	44	mg/L	1	5	04/14/2022	2042030 DREGGIO	
<i>Nitrate as N</i>	2.3	mg/L	0.34	0.4	04/14/2022	2042030 DREGGIO	
<i>SEM_200.7_DW(EPA 200.7)</i>							
<i>Calcium, Ca</i>	41.3	mg/L	0.04	1	04/27/2022	2042514 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292622

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Magnesium, Mg	36.9	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	2.14	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
Sodium, Na	70.1	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	176	mg/L	0.593	3	04/13/2022	2041964 DCARDONA	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	116	mg/L		3	04/13/2022	2041966 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	828	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	255	mg/L	0.474	3	04/13/2022	2041968 DCARDONA	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.64	pH			04/13/2022	2041967 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	447	mg/L	13.2	20	04/15/2022	2042004 ALEE	

Lab Sample#: 2292622-05 **Sample Source:** WSB_CAL_DUP **External ID:**

Date Collected: 04/13/2022 10:31AM **Date Received:** 04/13/2022 01:55PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-18-595, ROW AT COLMA BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	45.2	mg/L	1	5	04/14/2022	2042030 DREGGIO	
Nitrate as N	2.25	mg/L	0.34	0.4	04/14/2022	2042030 DREGGIO	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	41.6	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	37.1	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	2.22	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
Sodium, Na	70.3	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	175	mg/L	0.593	3	04/13/2022	2041964 DCARDONA	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	114	mg/L		3	04/13/2022	2041966 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	817	µmhos/cm		1	04/13/2022	2041970 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	248	mg/L	0.474	3	04/13/2022	2041968 DCARDONA	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.43	pH			04/13/2022	2041967 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	450	mg/L	13.2	20	04/15/2022	2042004 ALEE	

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Water Quality Laboratory

FOLDER ID: 2292622

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

QC list for Run#: 2041964 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299836-03	LCS	Alkalinity		39.9	mg/L	99			3	
QC2299836-04	DUP of 2292622-01	Alkalinity	170	172	mg/L		0	0.593	3	Splt# 2292622-01 (170mg/L)
QC2299836-05	LCS	Alkalinity		40.4	mg/L	101			3	

QC list for Run#: 2041966 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299837-03	LCS	Chloride		39.4	mg/L	98			3	
QC2299837-04	SPK of 2292622-01	Chloride	108	148	mg/L	100			3	Splt# 2292622-01 (108mg/L)
QC2299837-05	SPKD of 2292622-01	Chloride	108	148	mg/L	100	0		3	Splt# 2292622-01 (108mg/L)
QC2299837-07	LCS	Chloride		39.1	mg/L	97			3	

QC list for Run#: 2041967 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299839-01	ICV	pH		9.03	pH	99				
QC2299839-02	DUP of 2292548-01	pH	8.45	8.45	pH		0			Splt# 2292548-01 (8.45pH)
QC2299839-03	CCV	pH		10.1	pH	100				
QC2299839-04	CCV	pH		10.1	pH	100				

QC list for Run#: 2041968 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299840-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2299840-03	LCS	Hardness, Total, as CaCO3		43	mg/L	107			3	
QC2299840-04	DUP of 2292622-01	Hardness, Total, as CaCO3	231	232	mg/L		0	0.474	3	Splt# 2292622-01 (231mg/L)
QC2299840-05	LCS	Hardness, Total, as CaCO3		43.2	mg/L	108			3	

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Water Quality Laboratory

FOLDER ID: 2292622

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

QC list for Run#: 2041970 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299842-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2299842-02	MRL_CHK	Specific Conductance		9.75	µmhos/cm	97				
QC2299842-03	CCV	Specific Conductance		100	µmhos/cm	100				
QC2299842-06	DUP of 2292548-01	Specific Conductance	23.9	23.9	µmhos/cm		0		1	Splt# 2292548-01 (23.9µmhos/cm)
QC2299842-07	DUP of 2292622-05	Specific Conductance	817	815	µmhos/cm		0		1	Splt# 2292622-05 (817µmhos/cm)
QC2299842-08	LCS	Specific Conductance		152	µmhos/cm	103			1	

QC list for Run#: 2042004 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299871-01	DUP of 2291679-05	Total Dissolved Solids	290	286	mg/L		1	13.2	20	Splt# 2291679-05 (290mg/L)
QC2299871-02	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2299871-03	LCS	Total Dissolved Solids		102	mg/L	107		13.2	20	

QC list for Run#: 2042030 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299887-01	MRL_CHK	Sulfate		0.516	mg/L	103				
	MRL_CHK	Nitrate as N		0.0424	mg/L	106				
QC2299887-02	CCV	Sulfate		2.37	mg/L	94				
	CCV	Nitrate as N		0.191	mg/L	95				
QC2299887-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299887-04	LCS	Sulfate		4.82	mg/L	96				
	LCS	Nitrate as N		0.388	mg/L	97				
QC2299887-05	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299887-06										

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Water Quality Laboratory

FOLDER ID: 2292622

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

Sample ID	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
SPK of 2292622-01	Sulfate		36.7	59.4 mg/L	91				Splt# 2292622-01 (36.7mg/L)
SPK of 2292622-01	Nitrate as N		2.39	4.26 mg/L	94				Splt# 2292622-01 (2.39mg/L)
QC2299887-07									
SPKD of 2292622-01	Sulfate		36.7	60.7 mg/L	96	2			Splt# 2292622-01 (36.7mg/L)
SPKD of 2292622-01	Nitrate as N		2.39	4.3 mg/L	96	0			Splt# 2292622-01 (2.39mg/L)
QC2299887-08									
CCV	Sulfate			2.38 mg/L	95				
CCV	Nitrate as N			0.194 mg/L	97				
QC2299887-09									
BLK	Sulfate			<0.5 mg/L			0.1	0.5	
BLK	Nitrate as N			<0.04 mg/L			0.034	0.04	
QC2299887-10									
DUP of 2292622-02	Sulfate		36.7	36.2 mg/L		N/A	1	5	Splt# 2292622-02 (36.7mg/L)
DUP of 2292622-02	Nitrate as N		2.34	2.3 mg/L		N/A	0.34	0.4	Splt# 2292622-02 (2.34mg/L)

QC list for Run#: 2042514 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200201-01										
BLK	Calcium, Ca			<1	mg/L			0.04	1	
BLK	Magnesium, Mg			<0.2	mg/L			0.007	0.2	
BLK	Potassium, K			<0.2	mg/L			0.04	0.2	
BLK	Sodium, Na			<1	mg/L			0.02	1	
QC2200201-02										
LCS	Calcium, Ca			1.85	mg/L	92		0.04	1	
LCS	Magnesium, Mg			1.92	mg/L	96		0.007	0.2	
LCS	Potassium, K			2.12	mg/L	106		0.04	0.2	
LCS	Sodium, Na			2.07	mg/L	104		0.02	1	
QC2200201-03										
DUP of 2292622-01	Calcium, Ca			37.4	38.1 mg/L		1	0.04	1	Splt# 2292622-01 (37.4mg/L)
DUP of 2292622-01	Magnesium, Mg			34.6	33.9 mg/L		2	0.007	0.2	Splt# 2292622-01 (34.6mg/L)
DUP of 2292622-01	Potassium, K			2.04	2 mg/L		2	0.04	0.2	Splt# 2292622-01 (2.04mg/L)
DUP of 2292622-01	Sodium, Na			68.7	67.3 mg/L		2	0.02	1	Splt# 2292622-01 (68.7mg/L)
QC2200201-04										
SPK of 2292622-01	Calcium, Ca			37.4	39.1 mg/L	83		0.04	1	Splt# 2292622-01 (37.4mg/L)
SPK of 2292622-01	Magnesium, Mg			34.6	35.3 mg/L	34		0.007	0.2	Splt# 2292622-01 (34.6mg/L)
SPK of 2292622-01	Potassium, K			2.04	4.33 mg/L	115		0.04	0.2	Splt# 2292622-01 (2.04mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292622

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 04/13/2022

Sampling Team: Field

SPK of 2292622-01	Sodium, Na	68.7	69.3	mg/L	27	0.02	1	Splt# 2292622-01 (68.7mg/L)
QC2200201-05								
SPKD of 2292622-01	Calcium, Ca	37.4	40	mg/L	130	2	0.04	1
SPKD of 2292622-01	Magnesium, Mg	34.6	36.1	mg/L	75	2	0.007	0.2
SPKD of 2292622-01	Potassium, K	2.04	4.35	mg/L	116	0	0.04	0.2
SPKD of 2292622-01	Sodium, Na	68.7	69.8	mg/L	52	0	0.02	1
QC2200201-06								
MRL_CK	Calcium, Ca		<1	mg/L	N/A	0.04	1	
MRL_CK	Magnesium, Mg		<0.2	mg/L	N/A	0.007	0.2	
MRL_CK	Potassium, K		0.264	mg/L	106	0.04	0.2	
MRL_CK	Sodium, Na		<1	mg/L	N/A	0.02	1	
QC2200229-01								
ICV	Potassium, K		2.1	mg/L	105	0.03	0.2	
QC2200229-02								
ICV	Calcium, Ca		9.98	mg/L	100	0.05	1	
ICV	Magnesium, Mg		9.75	mg/L	96	0.01	0.2	
ICV	Sodium, Na		10.3	mg/L	103	0.002	1	

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Water Quality Laboratory

FOLDER ID: 2292945

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/03/2022

Sampling Team: Field

Lab Sample#: 2292945-01 **Sample Source:** WSB_SF42_ZOO275 **External ID:**

Date Collected: 05/03/2022 09:24AM **Date Received:** 05/03/2022 10:50AM **Sample Matrix:** Aqueous **Location Desc:** SF#42 - ZOO MW275

<u>Test/Analyte</u>							
<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	73.4	mg/L		3	05/03/2022	2042944 ABALALIO	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance	525	µmhos/cm		1	05/03/2022	2042930 DCARDONA	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	262	mg/L	13.2	20	05/09/2022	2043058 ALEE	

Lab Sample#: 2292945-02 **Sample Source:** WSB_SF43_ZOO450 **External ID:**

Date Collected: 05/03/2022 09:23AM **Date Received:** 05/03/2022 10:50AM **Sample Matrix:** Aqueous **Location Desc:** SF#43 - ZOO MW450

<u>Test/Analyte</u>							
<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	48	mg/L		3	05/03/2022	2042944 ABALALIO	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance	555	µmhos/cm		1	05/03/2022	2042930 DCARDONA	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	307	mg/L	13.2	20	05/09/2022	2043058 ALEE	

Lab Sample#: 2292945-03 **Sample Source:** WSB_SF45_ZOO565 **External ID:**

Date Collected: 05/03/2022 10:03AM **Date Received:** 05/03/2022 10:50AM **Sample Matrix:** Aqueous **Location Desc:** SF#45 - ZOO MW565

<u>Test/Analyte</u>							
<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	46.4	mg/L		3	05/03/2022	2042944 ABALALIO	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance	419	µmhos/cm		1	05/03/2022	2042930 DCARDONA	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	208	mg/L	13.2	20	05/09/2022	2043058 ALEE	

Lab Sample#: 2292945-04 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 05/03/2022 09:30AM **Date Received:** 05/03/2022 10:50AM **Sample Matrix:** Aqueous **Location Desc:** SF#42 - ZOO MW275

<u>Test/Analyte</u>							
<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	74	mg/L		3	05/03/2022	2042944 ABALALIO	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance	525	µmhos/cm		1	05/03/2022	2042930 DCARDONA	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	264	mg/L	13.2	20	05/09/2022	2043058 ALEE	

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Water Quality Laboratory

FOLDER ID: 2292945

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/03/2022

Sampling Team: Field

QC list for Run#: 2042930 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200528-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2200528-02	MRL_CK	Specific Conductance		9.6	µmhos/cm	96				
QC2200528-03	CCV	Specific Conductance		99.7	µmhos/cm	99				
QC2200528-06	DUP of 2292542-01	Specific Conductance	50.3	50.4	µmhos/cm	0		1		Splt# 2292542-01 (50.3µmhos/cm)
QC2200528-07	DUP of 2293155-02	Specific Conductance	87.5	87.4	µmhos/cm	0		1		Splt# 2293155-02 (87.5µmhos/cm)
QC2200528-08	LCS	Specific Conductance		151	µmhos/cm	103			1	

QC list for Run#: 2042944 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200536-03	LCS	Chloride		38.9	mg/L	97			3	
QC2200536-04	SPK of 2293036-01	Chloride	<3	39.7	mg/L	99			3	Splt# 2293036-01 (<3mg/L)
QC2200536-05	SPKD of 2293036-01	Chloride	<3	39.7	mg/L	99	0		3	Splt# 2293036-01 (<3mg/L)
QC2200536-07	LCS	Chloride		38.8	mg/L	97			3	

QC list for Run#: 2043058 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200620-01	DUP of 2292946-05	Total Dissolved Solids	424	420	mg/L	0		13.2	20	Splt# 2292946-05 (424mg/L)
QC2200620-02	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2200620-03	LCS	Total Dissolved Solids		90	mg/L	94		13.2	20	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292946

Client: SF_PUC_PLANNING
Project: WESTSIDE_BASIN
Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/04/2022
Sampling Team:

Lab Sample#: 2292946-01 **Sample Source:** WSB_SS-36-1-160 **External ID:**

Date Collected: 05/04/2022 10:39AM **Date Received:** 05/04/2022 11:33AM **Sample Matrix:** Aqueous **Location Desc:** GSR_SS_CUP-36-1-160, ROW AT FUNERAL HOM

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	108	mg/L	1	5	05/05/2022	2043032 PWARNER	
Nitrate as N	8.42	mg/L	0.34	0.4	05/05/2022	2043032 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	65.3	mg/L	0.04	1	05/11/2022	2043346 BTRINH	
Magnesium, Mg	33.6	mg/L	0.007	0.2	05/11/2022	2043346 BTRINH	
Potassium, K	2.8	mg/L	0.04	0.2	05/11/2022	2043346 BTRINH	
Sodium, Na	95.2	mg/L	0.02	1	05/11/2022	2043346 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	234	mg/L	1.19	6	05/04/2022	2042985 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	93.2	mg/L		6	05/04/2022	2042986 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance	989	µmhos/cm		1	05/04/2022	2043006 ABALALIO	>MCL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	6.97	pH			05/04/2022	2043013 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	602	mg/L	13.2	20	05/09/2022	2043058 ALEE	>MCL

Lab Sample#: 2292946-01B **Sample Source:** WSB_SS-36-1-160 **External ID:**

Date Collected: 05/04/2022 10:39AM **Date Received:** 05/04/2022 11:33AM **Sample Matrix:** Aqueous **Location Desc:** GSR_SS_CUP-36-1-160, ROW AT FUNERAL HOM

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	304	mg/L	2.37	15	05/05/2022	2043089 ABALALIO	

Lab Sample#: 2292946-02 **Sample Source:** WSB_SS-36-1-270 **External ID:**

Date Collected: 05/04/2022 10:04AM **Date Received:** 05/04/2022 11:33AM **Sample Matrix:** Aqueous **Location Desc:** GSR_SS_CUP-36-1-270, ROW AT FUNERAL HOM

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	22.2	mg/L	0.5	2.5	05/05/2022	2043032 PWARNER	
Nitrate as N	1.74	mg/L	0.17	0.2	05/05/2022	2043032 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	34.9	mg/L	0.04	1	05/11/2022	2043346 BTRINH	
Magnesium, Mg	29.9	mg/L	0.007	0.2	05/11/2022	2043346 BTRINH	
Potassium, K	2.52	mg/L	0.04	0.2	05/11/2022	2043346 BTRINH	
Sodium, Na	57.6	mg/L	0.02	1	05/11/2022	2043346 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	136	mg/L	1.19	6	05/04/2022	2042985 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292946

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/04/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team:

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	116	mg/L		6	05/04/2022	2042986 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	708	µmhos/cm		1	05/04/2022	2043006 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	211	mg/L	2.37	15	05/04/2022	2042987 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.41	pH			05/04/2022	2043013 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	394	mg/L	13.2	20	05/09/2022	2043058 ALEE	

Lab Sample#: 2292946-03 Sample Source: WSB_SS-36-1-455 External ID:

Date Collected: 05/04/2022 09:17AM Date Received: 05/04/2022 11:33AM Sample Matrix: Aqueous Location Desc: GSR_SS_CUP-36-1-455, ROW AT FUNERAL HOM

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Fluoride	<0.1	mg/L	0.02	0.1	05/05/2022	2043032 PWARNER	
Sulfate	<0.5	mg/L	0.1	0.5	05/05/2022	2043032 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	05/05/2022	2043032 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	40.8	mg/L	0.04	1	05/11/2022	2043346 BTRINH	
Magnesium, Mg	24.6	mg/L	0.007	0.2	05/11/2022	2043346 BTRINH	
Potassium, K	5.46	mg/L	0.04	0.2	05/11/2022	2043346 BTRINH	
Sodium, Na	60.6	mg/L	0.02	1	05/11/2022	2043346 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	225	mg/L	1.19	6	05/04/2022	2042985 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	82.5	mg/L		6	05/04/2022	2042986 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	691	µmhos/cm		1	05/04/2022	2043006 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.32	pH			05/04/2022	2043013 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	341	mg/L	13.2	20	05/09/2022	2043058 ALEE	

Lab Sample#: 2292946-03B Sample Source: WSB_SS-36-1-455 External ID:

Date Collected: 05/04/2022 09:17AM Date Received: 05/04/2022 11:33AM Sample Matrix: Aqueous Location Desc: GSR_SS_CUP-36-1-455, ROW AT FUNERAL HOM

Test/Analyte

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	202	mg/L	2.37	15	05/05/2022	2043089 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292946

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/04/2022

Sampling Team:

Lab Sample#: 2292946-04 **Sample Source:** WSB_SS-36-1-585 **External ID:**
Date Collected: 05/04/2022 09:23AM **Date Received:** 05/04/2022 11:33AM **Sample Matrix:** Aqueous **Location Desc:** GSR_SS_CUP-36-1-585, ROW AT FUNERAL HON

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	52.9	mg/L	1	5	05/05/2022	2043032 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	61.5	mg/L	0.04	1	05/11/2022	2043346 BTRINH	
Magnesium, Mg	29.5	mg/L	0.007	0.2	05/11/2022	2043346 BTRINH	
Potassium, K	3.21	mg/L	0.04	0.2	05/11/2022	2043346 BTRINH	
Sodium, Na	59	mg/L	0.02	1	05/11/2022	2043346 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	199	mg/L	1.19	6	05/04/2022	2042985 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	94.7	mg/L		6	05/04/2022	2042986 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance	787	µmhos/cm		1	05/04/2022	2043006 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	271	mg/L	2.37	15	05/04/2022	2042987 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	7.02	pH			05/04/2022	2043013 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	434	mg/L	13.2	20	05/09/2022	2043058 ALEE	

Lab Sample#: 2292946-04A **Sample Source:** WSB_SS-36-1-585 **External ID:**
Date Collected: 05/04/2022 09:23AM **Date Received:** 05/04/2022 11:33AM **Sample Matrix:** Aqueous **Location Desc:** GSR_SS_CUP-36-1-585, ROW AT FUNERAL HON

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	05/05/2022	2043032 PWARNER	

Lab Sample#: 2292946-05 **Sample Source:** WSB_SS_DUP **External ID:**
Date Collected: 05/04/2022 09:49AM **Date Received:** 05/04/2022 11:33AM **Sample Matrix:** Aqueous **Location Desc:** GSR_SS_CUP-36-1-585, ROW AT FUNERAL HON

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	52.8	mg/L	1	5	05/05/2022	2043032 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	62.3	mg/L	0.04	1	05/11/2022	2043346 BTRINH	
Magnesium, Mg	29.1	mg/L	0.007	0.2	05/11/2022	2043346 BTRINH	
Potassium, K	3.33	mg/L	0.04	0.2	05/11/2022	2043346 BTRINH	
Sodium, Na	59.1	mg/L	0.02	1	05/11/2022	2043346 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292946

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/04/2022

Sampling Team:

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	203	mg/L	1.19	6	05/04/2022	2042985 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	97.4	mg/L		6	05/04/2022	2042986 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance	787	µmhos/cm		1	05/04/2022	2043006 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	271	mg/L	2.37	15	05/04/2022	2042987 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7	pH			05/04/2022	2043013 ABALALIO	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	424	mg/L	13.2	20	05/09/2022	2043058 ALEE	

Lab Sample#: 2292946-05A **Sample Source:** WSB_SS_DUP **External ID:**

Date Collected: 05/04/2022 09:49AM **Date Received:** 05/04/2022 11:33AM **Sample Matrix:** Aqueous **Location Desc:** GSR_SS_CUP-36-1-585, ROW AT FUNERAL HOM

Test/Analyte

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	05/05/2022	2043032 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292946

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/04/2022

Sampling Team:

QC list for Run#: 2042985 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200566-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2200566-02	MRL_CK	Alkalinity	3.71		mg/L	124				
QC2200566-03	LCS	Alkalinity	40.5		mg/L	101			3	
QC2200566-04	DUP of 2292946-05	Alkalinity	203	202	mg/L		0	1.19	6	Splt# 2292946-05 (203mg/L)
QC2200566-05	LCS	Alkalinity	42.4		mg/L	106			3	

QC list for Run#: 2042986 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200567-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2200567-02	MRL_CK	Chloride	2.74		mg/L	91				
QC2200567-03	LCS	Chloride	38.6		mg/L	96			3	
QC2200567-07	LCS	Chloride	38.9		mg/L	97			3	
QC2200567-08	SPKD of 2292946-05	Chloride	97.4	173	mg/L	95	0		6	Splt# 2292946-05 (97.4mg/L)
QC2200567-09	SPK of 2292946-05	Chloride	97.4	173	mg/L	94			6	Splt# 2292946-05 (97.4mg/L)

QC list for Run#: 2042987 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200568-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2200568-02	MRL_CK	Hardness, Total, as CaCO3	2.99		mg/L	99				
QC2200568-03	LCS	Hardness, Total, as CaCO3	42.8		mg/L	107			3	
QC2200568-04	DUP of 2292946-05	Hardness, Total, as CaCO3	271	269	mg/L		0	2.37	15	Splt# 2292946-05 (271mg/L)
QC2200568-05	LCS	Hardness, Total, as CaCO3	43.4		mg/L	108			3	

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Water Quality Laboratory

FOLDER ID: 2292946

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/04/2022

Sampling Team:

QC list for Run#: 2043006 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200576-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2200576-02	MRL_CK	Specific Conductance		9.57	µmhos/cm	95				
QC2200576-03	CCV	Specific Conductance		99.2	µmhos/cm	99				
QC2200576-06	DUP of 2292946-01	Specific Conductance	989	990	µmhos/cm		0		1	Splt# 2292946-01 (989µmhos/cm)
QC2200576-07	LCS	Specific Conductance		150	µmhos/cm	102			1	

QC list for Run#: 2043013 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200581-04	ICV	pH		9.03	pH	99				
QC2200581-05	DUP of 2292946-01	pH	6.97	7	pH		0			Splt# 2292946-01 (6.97pH)
QC2200581-06	CCV	pH		9.03	pH	99				

QC list for Run#: 2043032 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200599-01	MRL_CK	Fluoride		0.101	mg/L	101				
	MRL_CK	Sulfate		0.512	mg/L	102				
	MRL_CK	Nitrate as N		0.0408	mg/L	102				
QC2200599-02	CCV	Fluoride		0.524	mg/L	105				
	CCV	Sulfate		2.36	mg/L	94				
	CCV	Nitrate as N		0.19	mg/L	95				
QC2200599-03	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200599-04	LCS	Fluoride		1.01	mg/L	101				
	LCS	Sulfate		4.79	mg/L	95				
	LCS	Nitrate as N		0.379	mg/L	95				
QC2200599-06	SPK of 2292946-03	Fluoride	<0.1	0.529	mg/L	107				Splt# 2292946-03 (<0.1mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292946

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/04/2022

Sampling Team:

Sample ID	Parameter	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
SPK of 2292946-03	Sulfate	<0.5	2.37 mg/L	95				Splt# 2292946-03 (<0.5mg/L)
SPK of 2292946-03	Nitrate as N	<0.04	0.185 mg/L	93				Splt# 2292946-03 (<0.04mg/L)
QC2200599-07								
SPKD of 2292946-03	Fluoride	<0.1	0.522 mg/L	105	1			Splt# 2292946-03 (<0.1mg/L)
SPKD of 2292946-03	Sulfate	<0.5	2.37 mg/L	95	0			Splt# 2292946-03 (<0.5mg/L)
SPKD of 2292946-03	Nitrate as N	<0.04	0.184 mg/L	93	0			Splt# 2292946-03 (<0.04mg/L)
QC2200599-08								
BLK	Fluoride		<0.1 mg/L			0.02	0.1	
BLK	Sulfate		<0.5 mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04 mg/L			0.034	0.04	
QC2200599-09								
CCV	Fluoride		0.511 mg/L	102				
CCV	Sulfate		2.34 mg/L	93				
CCV	Nitrate as N		0.191 mg/L	95				
QC2200599-10								
CCV	Fluoride		0.52 mg/L	104				
CCV	Sulfate		2.36 mg/L	94				
CCV	Nitrate as N		0.19 mg/L	95				
QC2200599-11								
BLK	Fluoride		<0.1 mg/L			0.02	0.1	
BLK	Sulfate		<0.5 mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04 mg/L			0.034	0.04	
QC2200599-12								
DUP of 2292532-07	Fluoride	0.693	0.671 mg/L	3		0.02	0.1	Splt# 2292532-07 (0.693mg/L)
DUP of 2292532-07	Sulfate	3.33	9.34 mg/L	94		0.1	0.5	Splt# 2292532-07 (3.33mg/L)
DUP of 2292532-07	Nitrate as N	0.0785	0.0424 mg/L	59		0.034	0.04	Splt# 2292532-07 (0.0785mg/L)
QC2200599-13								
CCV	Fluoride		0.509 mg/L	102				
QC2200599-14								
BLK	Fluoride		<0.1 mg/L			0.02	0.1	

QC list for Run#: 2043058 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200620-01	DUP of 2292946-05	Total Dissolved Solids	424	420	mg/L		0	13.2	20	Splt# 2292946-05 (424mg/L)
QC2200620-02	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2200620-03	LCS	Total Dissolved Solids		90	mg/L	94		13.2	20	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292946

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/04/2022

Sampling Team:

QC list for Run#: 2043075 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200631-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200631-02	MRL_CK	Hardness, Total, as CaCO3		3.29	mg/L	110				
QC2200631-03	LCS	Hardness, Total, as CaCO3		43	mg/L	107			3	
QC2200631-04	DUP of 2292526-01	Hardness, Total, as CaCO3	12	11.9	mg/L		1	0.474	3	Splt# 2292526-01 (12mg/L)
QC2200631-05	LCS	Hardness, Total, as CaCO3		43.2	mg/L	108			3	

QC list for Run#: 2043089 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200639-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200639-02	MRL_CK	Hardness, Total, as CaCO3		2.81	mg/L	93				
QC2200639-03	LCS	Hardness, Total, as CaCO3		43.1	mg/L	108			3	
QC2200639-04	DUP of 2292258-01A	Hardness, Total, as CaCO3	135	134	mg/L		0	2.37	15	Splt# 2292258-01A (135mg/L)
QC2200639-05	LCS	Hardness, Total, as CaCO3		43.1	mg/L	108			3	

QC list for Run#: 2043346 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200795-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2200795-02	LCS	Calcium, Ca		1.89	mg/L	94		0.04	1	
	LCS	Magnesium, Mg		1.95	mg/L	97		0.007	0.2	
	LCS	Potassium, K		2.12	mg/L	106		0.04	0.2	
	LCS	Sodium, Na		2	mg/L	99		0.02	1	
QC2200795-03	DUP of 2292946-01	Calcium, Ca	65.3	66.8	mg/L		2	0.04	1	Splt# 2292946-01 (65.3mg/L)
	DUP of 2292946-01	Magnesium, Mg	33.6	33.2	mg/L		1	0.007	0.2	Splt# 2292946-01 (33.6mg/L)
	DUP of 2292946-01	Potassium, K	2.8	2.81	mg/L		0	0.04	0.2	Splt# 2292946-01 (2.8mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292946

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/04/2022

Sampling Team:

DUP of 2292946-01	Sodium, Na	95.2	93.3	mg/L	2	0.02	1	Splt# 2292946-01 (95.2mg/L)	
QC2200795-04									
SPK of 2292946-01	Calcium, Ca	65.3	68.3	mg/L	148	0.04	1	Splt# 2292946-01 (65.3mg/L)	
SPK of 2292946-01	Magnesium, Mg	33.6	35.7	mg/L	104	0.007	0.2	Splt# 2292946-01 (33.6mg/L)	
SPK of 2292946-01	Potassium, K	2.8	5.15	mg/L	117	0.04	0.2	Splt# 2292946-01 (2.8mg/L)	
SPK of 2292946-01	Sodium, Na	95.2	96.2	mg/L	51	0.02	1	Splt# 2292946-01 (95.2mg/L)	
QC2200795-05									
SPKD of 2292946-01	Calcium, Ca	65.3	69.8	mg/L	223	2	0.04	1	Splt# 2292946-01 (65.3mg/L)
SPKD of 2292946-01	Magnesium, Mg	33.6	36.2	mg/L	129	1	0.007	0.2	Splt# 2292946-01 (33.6mg/L)
SPKD of 2292946-01	Potassium, K	2.8	5.18	mg/L	119	0	0.04	0.2	Splt# 2292946-01 (2.8mg/L)
SPKD of 2292946-01	Sodium, Na	95.2	98.7	mg/L	175	2	0.02	1	Splt# 2292946-01 (95.2mg/L)
QC2200795-06									
MRL_CK	Calcium, Ca		<1	mg/L	N/A	0.04	1		
MRL_CK	Magnesium, Mg		<0.2	mg/L	N/A	0.007	0.2		
MRL_CK	Potassium, K		0.291	mg/L	116	0.04	0.2		
MRL_CK	Sodium, Na		<1	mg/L	N/A	0.02	1		
QC2200834-01									
ICV	Potassium, K		2.05	mg/L	102	0.03	0.2		
QC2200834-02									
ICV	Calcium, Ca		9.92	mg/L	99	0.05	1		
ICV	Magnesium, Mg		9.89	mg/L	97	0.01	0.2		
ICV	Sodium, Na		10.4	mg/L	104	0.002	1		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

Lab Sample#: 2292982-01 Sample Source: WSB_SS11SSLP120 External ID:

Date Collected: 05/10/2022 10:21AM Date Received: 05/10/2022 12:35PM Sample Matrix: Aqueous Location Desc: SS#11 - SS LINEAR PARK MW-120

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	65.7	mg/L	0.5	2.5	05/10/2022	2043260 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	64.4	mg/L	0.04	1	05/17/2022	2043570 BTRINH	
Magnesium, Mg	45.3	mg/L	0.007	0.2	05/17/2022	2043570 BTRINH	
Potassium, K	3.53	mg/L	0.04	0.2	05/17/2022	2043570 BTRINH	
Sodium, Na	94.1	mg/L	0.02	1	05/17/2022	2043570 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	293	mg/L	2.96	15	05/10/2022	2043291 DCARDONA	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	131	mg/L		15	05/10/2022	2043295 DCARDONA	
MBP_COND(SM 2510 B)							
Specific Conductance	1070	µmhos/cm		1	05/10/2022	2043290 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	346	mg/L	2.37	15	05/10/2022	2043308 DCARDONA	
MBP_PH(SM 4500-H+ B)							
pH	7.06	pH			05/10/2022	2043289 ABALALIO	
Temperature (°C)	17.2	°C			05/10/2022	2043289 ABALALIO	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	601	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	>MCL

Lab Sample#: 2292982-01A Sample Source: WSB_SS11SSLP120 External ID:

Date Collected: 05/10/2022 10:21AM Date Received: 05/10/2022 12:35PM Sample Matrix: Aqueous Location Desc: SS#11 - SS LINEAR PARK MW-120

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	05/10/2022	2043260 PWARNER	

Lab Sample#: 2292982-02 Sample Source: WSB_SS12SSLP220 External ID:

Date Collected: 05/10/2022 10:41AM Date Received: 05/10/2022 12:35PM Sample Matrix: Aqueous Location Desc: SS#12 - SS LINEAR PARK MW-220

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	19	mg/L	0.5	2.5	05/10/2022	2043260 PWARNER	
Nitrate as N	0.815	mg/L	0.17	0.2	05/10/2022	2043260 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	31.6	mg/L	0.04	1	05/17/2022	2043570 BTRINH	
Magnesium, Mg	27	mg/L	0.007	0.2	05/17/2022	2043570 BTRINH	
Potassium, K	2.45	mg/L	0.04	0.2	05/17/2022	2043570 BTRINH	
Sodium, Na	53.7	mg/L	0.02	1	05/17/2022	2043570 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	131	mg/L	1.19	6	05/10/2022	2043291 DCARDONA	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	98.2	mg/L		6	05/10/2022	2043295 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	649	µmhos/cm		1	05/10/2022	2043290 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.12	pH			05/10/2022	2043289 ABALALIO	
Temperature (°C)	17.3	°C			05/10/2022	2043289 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	361	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

Lab Sample#: 2292982-02A Sample Source: WSB_SS12SSLP220 External ID:

Date Collected: 05/10/2022 10:41AM Date Received: 05/10/2022 12:35PM Sample Matrix: Aqueous Location Desc: SS#12 - SS LINEAR PARK MW-220

Test/Analyte

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	190	mg/L	2.37	15	05/12/2022	2043361 ALEE	

Lab Sample#: 2292982-03 Sample Source: WSB_SS13SSLP440 External ID:

Date Collected: 05/10/2022 09:34AM Date Received: 05/10/2022 12:35PM Sample Matrix: Aqueous Location Desc: SS#13 - SS LINEAR PARK MW-440

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	<0.5	mg/L	0.1	0.5	05/10/2022	2043260 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	05/10/2022	2043260 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	28.1	mg/L	0.04	1	05/17/2022	2043570 BTRINH	
Magnesium, Mg	23.5	mg/L	0.007	0.2	05/17/2022	2043570 BTRINH	
Potassium, K	6.18	mg/L	0.04	0.2	05/17/2022	2043570 BTRINH	
Sodium, Na	58.8	mg/L	0.02	1	05/17/2022	2043570 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	211	mg/L	1.19	6	05/10/2022	2043291 DCARDONA	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	61.3	mg/L		6	05/10/2022	2043295 DCARDONA	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	613	µmhos/cm		1	05/10/2022	2043290 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.48	pH			05/10/2022	2043289 ABALALIO	
Temperature (°C)	17.4	°C			05/10/2022	2043289 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	313	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

Lab Sample#: 2292982-03A **Sample Source:** WSB_SS13SSLP440 **External ID:**

Date Collected: 05/10/2022 09:34AM **Date Received:** 05/10/2022 12:35PM **Sample Matrix:** Aqueous **Location Desc:** SS#13 - SS LINEAR PARK MW-440

Test/Analyte

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	172	mg/L	2.37	15	05/12/2022	2043361 ALEE	

Lab Sample#: 2292982-04 **Sample Source:** WSB_SS14SSLP520 **External ID:**

Date Collected: 05/10/2022 09:37AM **Date Received:** 05/10/2022 12:35PM **Sample Matrix:** Aqueous **Location Desc:** SS#14 - SS LINEAR PARK MW-520

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	45.8	mg/L	0.5	2.5	05/10/2022	2043260 PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	42.9	mg/L	0.04	1	05/17/2022	2043570 BTRINH	
Magnesium, Mg	15.5	mg/L	0.007	0.2	05/17/2022	2043570 BTRINH	
Potassium, K	4.14	mg/L	0.04	0.2	05/17/2022	2043570 BTRINH	
Sodium, Na	96.2	mg/L	0.02	1	05/17/2022	2043570 BTRINH	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	195	mg/L	1.19	6	05/10/2022	2043291 DCARDONA	

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	87.8	mg/L		6	05/10/2022	2043295 DCARDONA	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	772	µmhos/cm		1	05/10/2022	2043290 ABALALIO	

MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.24	pH			05/10/2022	2043289 ABALALIO	
Temperature (°C)	17.6	°C			05/10/2022	2043289 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	426	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

Lab Sample#: 2292982-04A **Sample Source:** WSB_SS14SSLP520 **External ID:**

Date Collected: 05/10/2022 09:37AM **Date Received:** 05/10/2022 12:35PM **Sample Matrix:** Aqueous **Location Desc:** SS#14 - SS LINEAR PARK MW-520

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Nitrate as N	<0.04	mg/L	0.034	0.04	05/10/2022	2043260 PWARNER	

Lab Sample#: 2292982-04B **Sample Source:** WSB_SS14SSLP520 **External ID:**

Date Collected: 05/10/2022 09:37AM **Date Received:** 05/10/2022 12:35PM **Sample Matrix:** Aqueous **Location Desc:** SS#14 - SS LINEAR PARK MW-520

Test/Analyte

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	171	mg/L	2.37	15	05/12/2022	2043361 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

Lab Sample#: 2292982-05 **Sample Source:** WSB_SS_DUP **External ID:**

Date Collected: 05/10/2022 09:55AM **Date Received:** 05/10/2022 12:35PM **Sample Matrix:** Aqueous **Location Desc:** SS#14 - SS LINEAR PARK MW-520

<u>Test/Analyte</u>								
<u>MBI_IC_ANIONS_A(EPA 300.0 (A))</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
Sulfate	47	mg/L	0.5	2.5	05/10/2022	2043260	PWARNER	
<u>SEM_200.7_DW(EPA 200.7)</u>								
Calcium, Ca	43	mg/L	0.04	1	05/17/2022	2043570	BTRINH	
Magnesium, Mg	15.6	mg/L	0.007	0.2	05/17/2022	2043570	BTRINH	
Potassium, K	4.08	mg/L	0.04	0.2	05/17/2022	2043570	BTRINH	
Sodium, Na	95.9	mg/L	0.02	1	05/17/2022	2043570	BTRINH	
<u>MBP_ALK(SM 2320 B)</u>								
Alkalinity	194	mg/L	1.19	6	05/10/2022	2043291	DCARDONA	
<u>MBP_CHLORIDE(SM 4500-CL- D)</u>								
Chloride	88.2	mg/L		6	05/10/2022	2043295	DCARDONA	
<u>MBP_COND(SM 2510 B)</u>								
Specific Conductance	777	µmhos/cm		1	05/10/2022	2043290	ABALALIO	
<u>MBP_PH(SM 4500-H+ B)</u>								
pH	7.22	pH			05/10/2022	2043289	ABALALIO	
Temperature (°C)	17.7	°C			05/10/2022	2043289	ABALALIO	
<u>MBP_TDS(SM 2540 C)</u>								
Total Dissolved Solids	429	mg/L	13.2	20	05/13/2022	2043428	ABALALIO	

Lab Sample#: 2292982-05A **Sample Source:** WSB_SS_DUP **External ID:**

Date Collected: 05/10/2022 09:55AM **Date Received:** 05/10/2022 12:35PM **Sample Matrix:** Aqueous **Location Desc:** SS#14 - SS LINEAR PARK MW-520

<u>Test/Analyte</u>								
<u>MBI_IC_ANIONS_A(EPA 300.0 (A))</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
Nitrate as N	<0.04	mg/L	0.034	0.04	05/10/2022	2043260	PWARNER	

Lab Sample#: 2292982-05B **Sample Source:** WSB_SS_DUP **External ID:**

Date Collected: 05/10/2022 09:55AM **Date Received:** 05/10/2022 12:35PM **Sample Matrix:** Aqueous **Location Desc:** SS#14 - SS LINEAR PARK MW-520

<u>Test/Analyte</u>								
<u>MBP_HARDNESS_T(SM 2340 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
Hardness, Total, as CaCO3	172	mg/L	2.37	15	05/12/2022	2043361	ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

QC list for Run#: 2043260 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200770-01	MRL_CK	Chloride		0.511	mg/L	102				
	MRL_CK	Sulfate		0.513	mg/L	103				
	MRL_CK	Nitrate as N		0.0403	mg/L	101				
QC2200770-02	CCV	Chloride		2.42	mg/L	96				
	CCV	Sulfate		2.38	mg/L	95				
	CCV	Nitrate as N		0.191	mg/L	96				
QC2200770-03	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200770-04	LCS	Chloride		5.01	mg/L	100				
	LCS	Sulfate		4.82	mg/L	96				
	LCS	Nitrate as N		0.382	mg/L	96				
QC2200770-05	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200770-06	SPK of 2292656-01	Chloride	3.94	6.59	mg/L	107				Splt# 2292656-01 (3.94mg/L)
	SPK of 2292656-01	Sulfate	1.2	3.57	mg/L	95				Splt# 2292656-01 (1.2mg/L)
	SPK of 2292656-01	Nitrate as N	0.0522	0.243	mg/L	96				Splt# 2292656-01 (0.0522mg/L)
QC2200770-07	SPKD of 2292656-01	Chloride	3.94	6.62	mg/L	108	0			Splt# 2292656-01 (3.94mg/L)
	SPKD of 2292656-01	Sulfate	1.2	3.58	mg/L	95	0			Splt# 2292656-01 (1.2mg/L)
	SPKD of 2292656-01	Nitrate as N	0.0522	0.243	mg/L	96	0			Splt# 2292656-01 (0.0522mg/L)
QC2200770-08	CCV	Chloride		2.42	mg/L	96				
	CCV	Sulfate		2.36	mg/L	94				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2200770-09	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200770-10										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

Sample ID	Parameter	Unit	Result	MDL	RPD	MRL	Flag/Comments
DUP of 2292655-03	Chloride	mg/L	11.5	11.4	0	0.2	1 Splt# 2292655-03 (11.5mg/L)
DUP of 2292655-03	Sulfate	mg/L	14.2	14.2	0	0.1	0.5 Splt# 2292655-03 (14.2mg/L)
DUP of 2292655-03	Nitrate as N	mg/L	<0.04	<0.04	N/A	0.034	0.04 Splt# 2292655-03 (<0.04mg/L)
QC2200770-11							
MDL	Chloride	mg/L	0.295		118		
MDL	Sulfate	mg/L	0.295		118		
MDL	Nitrate as N	mg/L	0.0213		107		
QC2200770-12							
MDL	Chloride	mg/L	0.292		117		
MDL	Sulfate	mg/L	0.293		117		
MDL	Nitrate as N	mg/L	0.0214		107		
QC2200770-13							
MDL	Chloride	mg/L	0.29		116		
MDL	Sulfate	mg/L	0.304		122		
MDL	Nitrate as N	mg/L	0.021		105		
QC2200770-14							
CCV	Sulfate	mg/L	2.37		94		
CCV	Nitrate as N	mg/L	0.192		96		
QC2200770-15							
BLK	Sulfate	mg/L	<0.5			0.1	0.5
BLK	Nitrate as N	mg/L	<0.04			0.034	0.04
QC2200770-16							
CCV	Chloride	mg/L	2.42		96		
CCV	Sulfate	mg/L	2.37		94		
CCV	Nitrate as N	mg/L	0.192		96		
QC2200770-17							
BLK	Chloride	mg/L	<1			0.2	1
BLK	Sulfate	mg/L	<0.5			0.1	0.5
BLK	Nitrate as N	mg/L	<0.04			0.034	0.04

QC list for Run#: 2043289 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200792-01										
CAL		pH		4	pH	100				
CAL		Temperature (°C)		19.4	°C					
QC2200792-02										
CAL		pH		7.02	pH	100				
CAL		Temperature (°C)		19.2	°C					
QC2200792-03										
CAL		pH		10.1	pH	101				
CAL		Temperature (°C)		19.3	°C					

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

Sample ID	Parameter	Value	Unit	Quality	Notes
QC2200792-04	ICV pH	9.03	pH	99	
	ICV Temperature (°C)	19.5	°C		
QC2200792-05	DUP of 2292657-03 pH	9.17	pH	0	Splt# 2292657-03 (9.17pH)
	DUP of 2292657-03 Temperature (°C)	15.8	°C		Splt# 2292657-03 (15.8°C)
QC2200792-06	CCV pH	9.03	pH	99	
	CCV Temperature (°C)	19.3	°C		
QC2200792-07	CCV pH	9.03	pH	99	
	CCV Temperature (°C)	19.2	°C		

QC list for Run#: 2043290 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200790-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2200790-02	MRL_CK	Specific Conductance	9.71		µmhos/cm	97				
QC2200790-03	CCV	Specific Conductance	99.8		µmhos/cm	99				
QC2200790-04	ICV	Specific Conductance	152		µmhos/cm	103				
QC2200790-05	LCS	Specific Conductance	1430		µmhos/cm	101			1	
QC2200790-06	DUP of 2292657-03	Specific Conductance	73.7	73.7	µmhos/cm	0			1	Splt# 2292657-03 (73.7µmhos/cm)
QC2200790-07	DUP of 2293320-01	Specific Conductance	55.8	55.7	µmhos/cm	0			1	Splt# 2293320-01 (55.8µmhos/cm)
QC2200790-09	LCS	Specific Conductance	152		µmhos/cm	104			1	

QC list for Run#: 2043291 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200791-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2200791-02	MRL_CK	Alkalinity	3.81		mg/L	127				
QC2200791-03	LCS	Alkalinity	40.7		mg/L	102			3	
QC2200791-05	DUP of 2292665-01	Alkalinity	9.76	9.9	mg/L	1		0.593	3	Splt# 2292665-01 (9.76mg/L)
QC2200791-06										

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Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2200791-07	LCS	Alkalinity	40.3	mg/L	101			3	
SPKD of 2292657-03		Alkalinity	19.8	58.8	mg/L	97	0	3	Splt# 2292657-03 (19.8mg/L)
QC2200791-08	SPK of 2292657-03	Alkalinity	19.8	59	mg/L	97		3	Splt# 2292657-03 (19.8mg/L)

QC list for Run#: 2043295 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200794-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2200794-02	MRL_CHK	Chloride	2.73		mg/L	91				
QC2200794-03	LCS	Chloride	39		mg/L	97			3	
QC2200794-04	SPK of 2292657-03	Chloride	6.04	45.5	mg/L	98			3	Splt# 2292657-03 (6.04mg/L)
QC2200794-05	SPKD of 2292657-03	Chloride	6.04	45.4	mg/L	98	0		3	Splt# 2292657-03 (6.04mg/L)
QC2200794-06	DUP of 2292665-01	Chloride	<3	<3	mg/L		N/A		3	Splt# 2292665-01 (<3mg/L)
QC2200794-07	LCS	Chloride	39		mg/L	97			3	

QC list for Run#: 2043308 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200803-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2200803-02	MRL_CHK	Hardness, Total, as CaCO3	3.1		mg/L	103				
QC2200803-03	LCS	Hardness, Total, as CaCO3	43.3		mg/L	108			3	
QC2200803-04	LCS	Hardness, Total, as CaCO3	43.1		mg/L	108			3	
QC2200803-05	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2200803-06	DUP of 2292657-03	Hardness, Total, as CaCO3	16.3	16.2	mg/L		0	0.474	3	Splt# 2292657-03 (16.3mg/L)
QC2200803-07	DUP of 2292665-01	Hardness, Total, as CaCO3	8.55	8.47	mg/L		0	0.474	3	Splt# 2292665-01 (8.55mg/L)
QC2200803-08	LCS	Hardness, Total, as CaCO3	22.2		mg/L	55			3	

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Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

QC list for Run#: 2043361 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200846-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200846-02	MRL_CK	Hardness, Total, as CaCO3		3.05	mg/L	102				
QC2200846-03	LCS	Hardness, Total, as CaCO3		44.2	mg/L	110			3	
QC2200846-04	LCS	Hardness, Total, as CaCO3		43.9	mg/L	110			3	
QC2200846-06	DUP of 2292665-01A	Hardness, Total, as CaCO3	8.7	8.51	mg/L		2	0.474	3	Splt# 2292665-01A (8.7mg/L)
QC2200846-08	LCS	Hardness, Total, as CaCO3		45	mg/L	112			3	

QC list for Run#: 2043428 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200889-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2200889-02	DUP of 2293334-02	Total Dissolved Solids	58	56	mg/L		3	13.2	20	Splt# 2293334-02 (58mg/L)
QC2200889-03	LCS	Total Dissolved Solids		106	mg/L	112		13.2	20	

QC list for Run#: 2043570 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200902-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2200902-02	LCS	Calcium, Ca		1.82	mg/L	91		0.04	1	
	LCS	Magnesium, Mg		1.97	mg/L	98		0.007	0.2	
	LCS	Potassium, K		2.06	mg/L	103		0.04	0.2	
	LCS	Sodium, Na		2.04	mg/L	102		0.02	1	
QC2200902-03	DUP of 2292982-01	Calcium, Ca	64.4	64.7	mg/L		0	0.04	1	Splt# 2292982-01 (64.4mg/L)
	DUP of 2292982-01	Magnesium, Mg	45.3	45.1	mg/L		0	0.007	0.2	Splt# 2292982-01 (45.3mg/L)
	DUP of 2292982-01	Potassium, K	3.53	3.55	mg/L		0	0.04	0.2	Splt# 2292982-01 (3.53mg/L)
	DUP of 2292982-01	Sodium, Na	94.1	93.4	mg/L		0	0.02	1	Splt# 2292982-01 (94.1mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292982

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/10/2022

Sampling Team: Field

Sample ID	Parameter	Unit	Value	Method	Result	Conc	Flow	Temp	Depth	Notes
QC2200902-04										
SPK of 2292982-01	Calcium, Ca	mg/L	64.4	65	33	0.04	1			Splt# 2292982-01 (64.4mg/L)
SPK of 2292982-01	Magnesium, Mg	mg/L	45.3	46.4	55	0.007	0.2			Splt# 2292982-01 (45.3mg/L)
SPK of 2292982-01	Potassium, K	mg/L	3.53	5.87	117	0.04	0.2			Splt# 2292982-01 (3.53mg/L)
SPK of 2292982-01	Sodium, Na	mg/L	94.1	94.5	21	0.02	1			Splt# 2292982-01 (94.1mg/L)
QC2200902-05										
SPKD of 2292982-01	Calcium, Ca	mg/L	64.4	66.2	91	1	0.04	1		Splt# 2292982-01 (64.4mg/L)
SPKD of 2292982-01	Magnesium, Mg	mg/L	45.3	46.3	51	0	0.007	0.2		Splt# 2292982-01 (45.3mg/L)
SPKD of 2292982-01	Potassium, K	mg/L	3.53	5.85	116	0	0.04	0.2		Splt# 2292982-01 (3.53mg/L)
SPKD of 2292982-01	Sodium, Na	mg/L	94.1	96.2	107	1	0.02	1		Splt# 2292982-01 (94.1mg/L)
QC2200902-06										
MRL_CK	Calcium, Ca	mg/L	<1		N/A	0.04	1			
MRL_CK	Magnesium, Mg	mg/L	<0.2		N/A	0.007	0.2			
MRL_CK	Potassium, K	mg/L	0.24		95	0.04	0.2			
MRL_CK	Sodium, Na	mg/L	<1		N/A	0.02	1			
QC2200988-01										
ICV	Potassium, K	mg/L	1.99		99	0.03	0.2			
QC2200988-02										
ICV	Calcium, Ca	mg/L	10.1		101	0.05	1			
ICV	Magnesium, Mg	mg/L	9.82		97	0.01	0.2			
ICV	Sodium, Na	mg/L	10.3		103	0.002	1			

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/11/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#:	2292983-01	Sample Source:	WSB_CM-23-230	External ID:	
Date Collected:	05/11/2022 11:39AM	Date Received:	05/11/2022 01:47PM	Sample Matrix:	Aqueous
				Location Desc:	GSR_CM_CUP-23-230, TREASURE ISLAND TRAIL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	41	mg/L	1	5	05/12/2022	2043412 PWARNER	
Nitrate as N	9.51	mg/L	0.34	0.4	05/12/2022	2043412 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	65.9	mg/L	0.04	1	05/24/2022	2043899 BTRINH	
Magnesium, Mg	57.2	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH	
Potassium, K	2.18	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH	
Sodium, Na	61.4	mg/L	0.02	1	05/24/2022	2043899 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	329	mg/L	2.96	15	05/11/2022	2043374 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	86.8	mg/L		15	05/11/2022	2043377 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance	1010	µmhos/cm		1	05/11/2022	2043381 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	403	mg/L	4.74	30	05/12/2022	2043437 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7.09	pH			05/11/2022	2043385 DCARDONA	
Temperature (°C)	18.8	°C			05/11/2022	2043385 DCARDONA	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	551	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	>MCL

Lab Sample#:	2292983-02	Sample Source:	WSB_CM-23-440	External ID:	
Date Collected:	05/11/2022 10:48AM	Date Received:	05/11/2022 01:47PM	Sample Matrix:	Aqueous
				Location Desc:	GSR_CM_CUP-23-440, TREASURE ISLAND TRAIL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	7.34	mg/L	0.5	2.5	05/12/2022	2043412 PWARNER	
Nitrate as N	0.342	mg/L	0.17	0.2	05/12/2022	2043412 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	19.6	mg/L	0.04	1	05/24/2022	2043899 BTRINH	
Magnesium, Mg	19.9	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH	
Potassium, K	1.7	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH	
Sodium, Na	32.6	mg/L	0.02	1	05/24/2022	2043899 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	114	mg/L	0.593	3	05/11/2022	2043374 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	54.2	mg/L		3	05/11/2022	2043377 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/11/2022

Sampling Team: Field

<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	426	µmhos/cm		1	05/11/2022	2043381 DCARDONA	
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	132	mg/L	2.37	15	05/12/2022	2043437 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	7.86	pH			05/11/2022	2043385 DCARDONA	
<i>Temperature (°C)</i>	18.1	°C			05/11/2022	2043385 DCARDONA	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	226	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

Lab Sample#: 2292983-03 **Sample Source:** WSB_CM-23-515 **External ID:**
Date Collected: 05/11/2022 09:31AM **Date Received:** 05/11/2022 01:47PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CM_CUP-23-515, TREASURE ISLAND TRAIL

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Sulfate</i>	29.3	mg/L	1	5	05/12/2022	2043412 PWARNER	
<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Calcium, Ca</i>	46.6	mg/L	0.04	1	05/24/2022	2043899 BTRINH	
<i>Magnesium, Mg</i>	31.7	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH	
<i>Potassium, K</i>	3.36	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH	
<i>Sodium, Na</i>	51.4	mg/L	0.02	1	05/24/2022	2043899 BTRINH	
<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Alkalinity</i>	225	mg/L	1.19	6	05/11/2022	2043374 ABALALIO	
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Chloride</i>	67.5	mg/L		6	05/11/2022	2043377 ABALALIO	
<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	695	µmhos/cm		1	05/11/2022	2043381 DCARDONA	
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	242	mg/L	2.37	15	05/12/2022	2043437 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	7.18	pH			05/11/2022	2043385 DCARDONA	
<i>Temperature (°C)</i>	16.7	°C			05/11/2022	2043385 DCARDONA	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	374	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

Lab Sample#: 2292983-03A **Sample Source:** WSB_CM-23-515 **External ID:**
Date Collected: 05/11/2022 09:31AM **Date Received:** 05/11/2022 01:47PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CM_CUP-23-515, TREASURE ISLAND TRAIL

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Nitrate as N</i>	<0.04	mg/L	0.034	0.04	05/12/2022	2043412 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/11/2022

Sampling Team: Field

Lab Sample#: 2292983-04 **Sample Source:** WSB_CM-23-600 **External ID:**

Date Collected: 05/11/2022 12:05PM **Date Received:** 05/11/2022 01:47PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CM_CUP-23-600, TREASURE ISLAND TRAIL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	41.4	mg/L	2	10	05/12/2022	2043412 PWARNER	
Nitrate as N	19.8	mg/L	0.68	0.8	05/12/2022	2043412 PWARNER	>MCL

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	45.3	mg/L	0.04	1	05/24/2022	2043899 BTRINH	
Magnesium, Mg	46.3	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH	
Potassium, K	2.35	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH	
Sodium, Na	48.2	mg/L	0.02	1	05/24/2022	2043899 BTRINH	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	189	mg/L	2.96	15	05/11/2022	2043374 ABALALIO	

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	71.8	mg/L		15	05/11/2022	2043377 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	822	µmhos/cm		1	05/11/2022	2043381 DCARDONA	

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	304	mg/L	2.37	15	05/12/2022	2043437 ALEE	

MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.9	pH			05/11/2022	2043385 DCARDONA	
Temperature (°C)	18.5	°C			05/11/2022	2043385 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	460	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

Lab Sample#: 2292983-05 **Sample Source:** WSB_CM_DUP **External ID:**

Date Collected: 05/11/2022 09:48AM **Date Received:** 05/11/2022 01:47PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CM_CUP-23-515, TREASURE ISLAND TRAIL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	30.6	mg/L	1	5	05/12/2022	2043412 PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	45.8	mg/L	0.04	1	05/24/2022	2043899 BTRINH	
Magnesium, Mg	31	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH	
Potassium, K	3.38	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH	
Sodium, Na	50.7	mg/L	0.02	1	05/24/2022	2043899 BTRINH	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	219	mg/L	1.19	6	05/11/2022	2043374 ABALALIO	

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	67.9	mg/L		6	05/11/2022	2043377 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/11/2022

Sampling Team: Field

Specific Conductance	693	µmhos/cm	1	05/11/2022	2043381	DCARDONA	
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	239	mg/L	2.37	15	05/12/2022	2043437 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	7.14	pH			05/11/2022	2043385 DCARDONA	
<i>Temperature (°C)</i>	18	°C			05/11/2022	2043385 DCARDONA	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	365	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	
Lab Sample#: 2292983-05A Sample Source: WSB_CM_DUP External ID:							
Date Collected: 05/11/2022 09:48AM Date Received: 05/11/2022 01:47PM Sample Matrix: Aqueous Location Desc: GSR_CM_CUP-23-515, TREASURE ISLAND TRAIL							
<u>Test/Analyte</u>							
<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Nitrate as N</i>	<0.04	mg/L	0.034	0.04	05/12/2022	2043412 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/11/2022

Sampling Team: Field

QC list for Run#: 2043374 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200854-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2200854-02	MRL_CK	Alkalinity		4.02	mg/L	134				
QC2200854-03	LCS	Alkalinity		40.6	mg/L	102			3	
QC2200854-06	LCS	Alkalinity		40.6	mg/L	101			3	
QC2200854-07	SPK of 2293321-01	Alkalinity	24.5	64.7	mg/L	100			3	Splt# 2293321-01 (24.5mg/L)
QC2200854-08	SPKD of 2293321-01	Alkalinity	24.5	64.6	mg/L	100	0		3	Splt# 2293321-01 (24.5mg/L)

QC list for Run#: 2043377 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200855-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2200855-02	MRL_CK	Chloride		2.75	mg/L	91				
QC2200855-03	LCS	Chloride		39	mg/L	97			3	
QC2200855-04	SPK of 2293321-01	Chloride	8.65	47.6	mg/L	97			3	Splt# 2293321-01 (8.65mg/L)
QC2200855-05	SPKD of 2293321-01	Chloride	8.65	47.6	mg/L	97	0		3	Splt# 2293321-01 (8.65mg/L)
QC2200855-07	LCS	Chloride		39	mg/L	97			3	

QC list for Run#: 2043381 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200857-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2200857-02	MRL_CK	Specific Conductance		9.67	µmhos/cm	96				
QC2200857-03	CCV	Specific Conductance		99.5	µmhos/cm	99				
QC2200857-06	DUP of 2293321-01	Specific Conductance	102	102	µmhos/cm		0		1	Splt# 2293321-01 (102µmhos/cm)
QC2200857-08										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/11/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

LCS Specific Conductance 152 μmhos/cm 103 1

QC list for Run#: 2043385 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200859-04	ICV	pH		9.02	pH	99				
	ICV	Temperature (°C)		19.8	°C					
QC2200859-05	DUP of 2293321-01	pH	9.08	9.13	pH		0			Splt# 2293321-01 (9.08pH)
	DUP of 2293321-01	Temperature (°C)	18.2	18.2	°C					Splt# 2293321-01 (18.2°C)
QC2200859-06	CCV	pH		9.01	pH	99				
	CCV	Temperature (°C)		19.9	°C					
QC2200859-07	CCV	pH		9.01	pH	99				
	CCV	Temperature (°C)		19.8	°C					

QC list for Run#: 2043412 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200877-01	MRL_CK	Fluoride		0.107	mg/L	107				
	MRL_CK	Bromide, Br-		0.0447	mg/L	89				
	MRL_CK	Sulfate		0.516	mg/L	103				
	MRL_CK	Nitrate as N		0.0398	mg/L	100				
QC2200877-02	CCV	Fluoride		0.478	mg/L	95				
	CCV	Bromide, Br-		0.242	mg/L	96				
	CCV	Sulfate		2.37	mg/L	94				
	CCV	Nitrate as N		0.193	mg/L	97				
QC2200877-03	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Bromide, Br-		<0.05	mg/L			0.03	0.05	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200877-04	LCS	Fluoride		0.968	mg/L	96				
	LCS	Bromide, Br-		0.49	mg/L	98				
	LCS	Sulfate		4.79	mg/L	95				
	LCS	Nitrate as N		0.387	mg/L	97				
QC2200877-06	SPK of 2293325-01	Fluoride	0.556	1.04	mg/L	98				Splt# 2293325-01 (0.556mg/L)
	SPK of 2293325-01	Bromide, Br-	<0.05	0.255	mg/L	103				Splt# 2293325-01 (<0.05mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/11/2022

Sampling Team: Field

Sample ID	Parameter	Result 1	Result 2	Unit	Value	Value	Value	Value	Notes
SPK of 2293325-01	Sulfate	54.1	56.9	mg/L	111				Splt# 2293325-01 (54.1mg/L) parent over range, results not meaningful
SPK of 2293325-01	Nitrate as N	0.382	0.583	mg/L	102				Splt# 2293325-01 (0.382mg/L)
QC2200877-07									
SPKD of 2293325-01	Fluoride	0.556	1.05	mg/L	99	0			Splt# 2293325-01 (0.556mg/L)
SPKD of 2293325-01	Bromide, Br-	<0.05	0.25	mg/L	101	1			Splt# 2293325-01 (<0.05mg/L)
SPKD of 2293325-01	Sulfate	54.1	57.1	mg/L	120	0			Splt# 2293325-01 (54.1mg/L) Parent over range, results not meaningful
SPKD of 2293325-01	Nitrate as N	0.382	0.587	mg/L	104	0			Splt# 2293325-01 (0.382mg/L)
QC2200877-08									
BLK	Fluoride		<0.1	mg/L			0.02	0.1	
BLK	Bromide, Br-		<0.05	mg/L			0.03	0.05	
BLK	Sulfate		<0.5	mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200877-09									
CCV	Fluoride		0.487	mg/L					97
CCV	Bromide, Br-		0.247	mg/L					98
CCV	Sulfate		2.37	mg/L					94
CCV	Nitrate as N		0.193	mg/L					96
QC2200877-10									
CCV	Fluoride		0.484	mg/L					96
CCV	Bromide, Br-		0.244	mg/L					97
CCV	Sulfate		2.37	mg/L					94
CCV	Nitrate as N		0.194	mg/L					97
QC2200877-11									
BLK	Fluoride		<0.1	mg/L			0.02	0.1	
BLK	Bromide, Br-		<0.05	mg/L			0.03	0.05	
BLK	Sulfate		<0.5	mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200877-12									
DUP of 2292983-03	Fluoride	<1	<1	mg/L		N/A	0.2	1	Splt# 2292983-03 (<1mg/L)
DUP of 2292983-03	Bromide, Br-	<0.5	<0.5	mg/L		N/A	0.3	0.5	Splt# 2292983-03 (<0.5mg/L)
DUP of 2292983-03	Sulfate	29.3	29.1	mg/L		N/A	1	5	Splt# 2292983-03 (29.3mg/L)
DUP of 2292983-03	Nitrate as N	<0.4	<0.4	mg/L		N/A	0.34	0.4	Splt# 2292983-03 (<0.4mg/L)
QC2200877-15									
CCV	Fluoride		0.476	mg/L					95
CCV	Bromide, Br-		0.246	mg/L					98
CCV	Sulfate		2.37	mg/L					94

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/11/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2200877-16	CCV	Nitrate as N	0.195	mg/L	97				
	BLK	Fluoride	<0.1	mg/L			0.02	0.1	
	BLK	Bromide, Br-	<0.05	mg/L			0.03	0.05	
	BLK	Sulfate	<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	

QC list for Run#: 2043428 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200889-01	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2200889-02	DUP of 2293334-02	Total Dissolved Solids	58	56	mg/L		3	13.2	20	Splt# 2293334-02 (58mg/L)
QC2200889-03	LCS	Total Dissolved Solids	106		mg/L	112		13.2	20	

QC list for Run#: 2043437 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200893-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2200893-02	MRL_CK	Hardness, Total, as CaCO3	3.24		mg/L	108				
QC2200893-03	LCS	Hardness, Total, as CaCO3	43.3		mg/L	108			3	
QC2200893-04	LCS	Hardness, Total, as CaCO3	43.2		mg/L	108			3	
QC2200893-05	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2200893-06	DUP of 2293321-01	Hardness, Total, as CaCO3	22.3	22.1	mg/L		0	0.474	3	Splt# 2293321-01 (22.3mg/L)
QC2200893-07	DUP of 2292831-01	Hardness, Total, as CaCO3	<3	<3	mg/L		N/A	0.474	3	Splt# 2292831-01 (<3mg/L)
QC2200893-08	LCS	Hardness, Total, as CaCO3	43.5		mg/L	109			3	

QC list for Run#: 2043899 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201142-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	
QC2201142-02	LCS	Calcium, Ca	1.87		mg/L	93		0.04	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292983

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/11/2022

Sampling Team: Field

Sample ID	Parameter	Result 1	Result 2	Unit	Count	Conc	Vol	Notes
LCS	Magnesium, Mg	1.99		mg/L	99	0.007	0.2	
LCS	Potassium, K	2.06		mg/L	103	0.04	0.2	
LCS	Sodium, Na	1.99		mg/L	99	0.02	1	
QC2201142-03								
DUP of 2292983-01	Calcium, Ca	65.9	64.2	mg/L	2	0.04	1	Splt# 2292983-01 (65.9mg/L)
DUP of 2292983-01	Magnesium, Mg	57.2	56.5	mg/L	1	0.007	0.2	Splt# 2292983-01 (57.2mg/L)
DUP of 2292983-01	Potassium, K	2.18	2.11	mg/L	3	0.04	0.2	Splt# 2292983-01 (2.18mg/L)
DUP of 2292983-01	Sodium, Na	61.4	60.7	mg/L	1	0.02	1	Splt# 2292983-01 (61.4mg/L)
QC2201142-04								
SPK of 2292983-01	Calcium, Ca	65.9	67.1	mg/L	57	0.04	1	Splt# 2292983-01 (65.9mg/L)
SPK of 2292983-01	Magnesium, Mg	57.2	59.3	mg/L	106	0.007	0.2	Splt# 2292983-01 (57.2mg/L)
SPK of 2292983-01	Potassium, K	2.18	4.37	mg/L	110	0.04	0.2	Splt# 2292983-01 (2.18mg/L)
SPK of 2292983-01	Sodium, Na	61.4	61.7	mg/L	16	0.02	1	Splt# 2292983-01 (61.4mg/L)
QC2201142-05								
SPKD of 2292983-01	Calcium, Ca	65.9	66.6	mg/L	34	0	0.04	1 Splt# 2292983-01 (65.9mg/L)
SPKD of 2292983-01	Magnesium, Mg	57.2	59.5	mg/L	114	0	0.007	0.2 Splt# 2292983-01 (57.2mg/L)
SPKD of 2292983-01	Potassium, K	2.18	4.35	mg/L	109	0	0.04	0.2 Splt# 2292983-01 (2.18mg/L)
SPKD of 2292983-01	Sodium, Na	61.4	63	mg/L	82	2	0.02	1 Splt# 2292983-01 (61.4mg/L)
QC2201142-06								
MRL CK	Calcium, Ca	<1		mg/L	N/A	0.04	1	
MRL CK	Magnesium, Mg	<0.2		mg/L	N/A	0.007	0.2	
MRL CK	Potassium, K	0.227		mg/L	90	0.04	0.2	
MRL CK	Sodium, Na	<1		mg/L	N/A	0.02	1	
QC2201237-01								
ICV	Potassium, K	2.02		mg/L	101	0.03	0.2	
QC2201237-02								
ICV	Calcium, Ca	10.3		mg/L	103	0.05	1	
ICV	Magnesium, Mg	9.82		mg/L	97	0.01	0.2	
ICV	Sodium, Na	10		mg/L	100	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292984

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/12/2022

Sampling Team: Field

Lab Sample#:	2292984-01	Sample Source:	WSB_CAL_DUP	External ID:					
Date Collected:	05/12/2022 10:13AM	Date Received:	05/12/2022 12:01PM	Sample Matrix:	Aqueous	Location Desc:	GSR_CAL_CUP-19-475, ROW AT SERRAMONTE		
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments		
MBI_IC_ANIONS_A(EPA 300.0 (A))									
Sulfate	63.2	mg/L	0.5	2.5	05/12/2022	2043412 PWARNER			
Nitrate as N	2.07	mg/L	0.17	0.2	05/12/2022	2043412 PWARNER			
SEM_200.7_DW(EPA 200.7)									
Calcium, Ca	42.7	mg/L	0.04	1	05/24/2022	2043899 BTRINH			
Magnesium, Mg	39.7	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH			
Potassium, K	2.75	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH			
Sodium, Na	52.9	mg/L	0.02	1	05/24/2022	2043899 BTRINH			
MBP_ALK(SM 2320 B)									
Alkalinity	157	mg/L	2.96	15	05/12/2022	2043442 ALEE			
MBP_CHLORIDE(SM 4500-CL- D)									
Chloride	113	mg/L		15	05/12/2022	2043443 ALEE			
MBP_COND(SM 2510 B)									
Specific Conductance	789	µmhos/cm		1	05/12/2022	2043434 PWARNER			
MBP_HARDNESS_T(SM 2340 C)									
Hardness, Total, as CaCO3	271	mg/L	2.37	15	05/12/2022	2043437 ALEE			
MBP_PH(SM 4500-H+ B)									
pH	7.04	pH			05/12/2022	2043438 PWARNER			
Temperature (°C)	18.7	°C			05/12/2022	2043438 PWARNER			
MBP_TDS(SM 2540 C)									
Total Dissolved Solids	435	mg/L	13.2	20	05/13/2022	2043428 ABALALIO			

Lab Sample#:	2292984-02	Sample Source:	WSB_CAL-19-475	External ID:					
Date Collected:	05/12/2022 09:51AM	Date Received:	05/12/2022 12:01PM	Sample Matrix:	Aqueous	Location Desc:	GSR_CAL_CUP-19-475, ROW AT SERRAMONTE		
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments		
MBI_IC_ANIONS_A(EPA 300.0 (A))									
Sulfate	58.8	mg/L	0.5	2.5	05/12/2022	2043412 PWARNER			
Nitrate as N	2.02	mg/L	0.17	0.2	05/12/2022	2043412 PWARNER			
SEM_200.7_DW(EPA 200.7)									
Calcium, Ca	45.3	mg/L	0.04	1	05/24/2022	2043899 BTRINH			
Magnesium, Mg	41.1	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH			
Potassium, K	2.85	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH			
Sodium, Na	53.7	mg/L	0.02	1	05/24/2022	2043899 BTRINH			
MBP_ALK(SM 2320 B)									
Alkalinity	158	mg/L	2.96	15	05/12/2022	2043442 ALEE			
MBP_CHLORIDE(SM 4500-CL- D)									
Chloride	112	mg/L		15	05/12/2022	2043443 ALEE			

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292984

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/12/2022

Sampling Team: Field

<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	790	µmhos/cm		1	05/12/2022	2043434 PWARNER	
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	273	mg/L	2.37	15	05/12/2022	2043437 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	6.99	pH			05/12/2022	2043438 PWARNER	
<i>Temperature (°C)</i>	18.7	°C			05/12/2022	2043438 PWARNER	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	440	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

Lab Sample#: 2292984-03 **Sample Source:** WSB_CAL-19-600 **External ID:**

Date Collected: 05/12/2022 11:00AM **Date Received:** 05/12/2022 12:01PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-19-600, ROW AT SERRAMONTE

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Sulfate</i>	17.1	mg/L	1	5	05/12/2022	2043412 PWARNER	
<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Calcium, Ca</i>	50.9	mg/L	0.04	1	05/24/2022	2043899 BTRINH	
<i>Magnesium, Mg</i>	42	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH	
<i>Potassium, K</i>	2.74	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH	
<i>Sodium, Na</i>	58	mg/L	0.02	1	05/24/2022	2043899 BTRINH	
<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Alkalinity</i>	273	mg/L	2.96	15	05/12/2022	2043442 ALEE	
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Chloride</i>	97.2	mg/L		15	05/12/2022	2043443 ALEE	
<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	834	µmhos/cm		1	05/12/2022	2043434 PWARNER	
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	303	mg/L	2.37	15	05/12/2022	2043437 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	7.39	pH			05/12/2022	2043438 PWARNER	
<i>Temperature (°C)</i>	18.6	°C			05/12/2022	2043438 PWARNER	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	444	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

Lab Sample#: 2292984-03A **Sample Source:** WSB_CAL-19-600 **External ID:**

Date Collected: 05/12/2022 11:00AM **Date Received:** 05/12/2022 12:01PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-19-600, ROW AT SERRAMONTE

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Nitrate as N</i>	<0.04	mg/L	0.034	0.04	05/12/2022	2043412 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292984

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/12/2022

Sampling Team: Field

Lab Sample#: 2292984-04 **Sample Source:** WSB_CAL-19-690 **External ID:**

Date Collected: 05/12/2022 09:40AM **Date Received:** 05/12/2022 12:01PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-19-690, ROW AT SERRAMONTE

Test/Analyte

<u>Test/Analyte</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	60.6	mg/L	1	5	05/12/2022	2043412 PWARNER	
Nitrate as N	6.25	mg/L	0.34	0.4	05/12/2022	2043412 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	51	mg/L	0.04	1	05/24/2022	2043899 BTRINH	
Magnesium, Mg	36.9	mg/L	0.007	0.2	05/24/2022	2043899 BTRINH	
Potassium, K	2.5	mg/L	0.04	0.2	05/24/2022	2043899 BTRINH	
Sodium, Na	50.3	mg/L	0.02	1	05/24/2022	2043899 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	158	mg/L	2.96	15	05/12/2022	2043442 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	96.4	mg/L		15	05/12/2022	2043443 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance	779	µmhos/cm		1	05/12/2022	2043434 PWARNER	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	274	mg/L	2.37	15	05/12/2022	2043437 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7.18	pH			05/12/2022	2043438 PWARNER	
Temperature (°C)	18.3	°C			05/12/2022	2043438 PWARNER	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	430	mg/L	13.2	20	05/13/2022	2043428 ABALALIO	

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Water Quality Laboratory

FOLDER ID: 2292984

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/12/2022

Sampling Team: Field

QC list for Run#: 2043412 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200877-01	MRL_CK	Sulfate		0.516	mg/L	103				
	MRL_CK	Nitrate as N		0.0398	mg/L	100				
QC2200877-02	CCV	Sulfate		2.37	mg/L	94				
	CCV	Nitrate as N		0.193	mg/L	97				
QC2200877-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200877-04	LCS	Sulfate		4.79	mg/L	95				
	LCS	Nitrate as N		0.387	mg/L	97				
QC2200877-06	SPK of 2293325-01	Sulfate	54.1	56.9	mg/L	111				Splt# 2293325-01 (54.1mg/L) parent over range, results not meaningful
	SPK of 2293325-01	Nitrate as N	0.382	0.583	mg/L	102				Splt# 2293325-01 (0.382mg/L)
QC2200877-07	SPKD of 2293325-01	Sulfate	54.1	57.1	mg/L	120	0			Splt# 2293325-01 (54.1mg/L) Parent over range, results not meaningful
	SPKD of 2293325-01	Nitrate as N	0.382	0.587	mg/L	104	0			Splt# 2293325-01 (0.382mg/L)
QC2200877-08	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200877-09	CCV	Sulfate		2.37	mg/L	94				
	CCV	Nitrate as N		0.193	mg/L	96				
QC2200877-10	CCV	Sulfate		2.37	mg/L	94				
	CCV	Nitrate as N		0.194	mg/L	97				
QC2200877-11	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2200877-12	DUP of 2292983-03	Sulfate	29.3	29.1	mg/L		N/A	1	5	Splt# 2292983-03 (29.3mg/L)
	DUP of 2292983-03	Nitrate as N	<0.4	<0.4	mg/L		N/A	0.34	0.4	Splt# 2292983-03 (<0.4mg/L)
QC2200877-15	CCV	Sulfate		2.37	mg/L	94				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292984

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/12/2022

Routine: WSB_SFPUC+Consult.B

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
CCV	Nitrate as N		0.195	mg/L	97				
QC2200877-16									
BLK	Sulfate		<0.5	mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	

QC list for Run#: 2043428 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200889-01										
BLK	Total Dissolved Solids		<20	mg/L			13.2	20		
QC2200889-02										
DUP of 2293334-02	Total Dissolved Solids		58	56	mg/L		3	13.2	20	Splt# 2293334-02 (58mg/L)
QC2200889-03										
LCS	Total Dissolved Solids		106	mg/L	112		13.2	20		

QC list for Run#: 2043434 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200891-01										
BLK	Specific Conductance		<1	µmhos/cm				1		
QC2200891-02										
MRL_CK	Specific Conductance		9.78	µmhos/cm	97					
QC2200891-03										
CCV	Specific Conductance		100	µmhos/cm	100					
QC2200891-04										
ICV	Specific Conductance		153	µmhos/cm	104					
QC2200891-05										
LCS	Specific Conductance		986	µmhos/cm	98			1		
QC2200891-06										
DUP of 2292828-06	Specific Conductance		73.5	73	µmhos/cm		0	1		Splt# 2292828-06 (73.5µmhos/cm)
QC2200891-07										
DUP of 2292831-02	Specific Conductance		54.1	54.1	µmhos/cm		0	1		Splt# 2292831-02 (54.1µmhos/cm)
QC2200891-08										
LCS	Specific Conductance		154	µmhos/cm	105			1		

QC list for Run#: 2043437 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200893-01										
BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3		
QC2200893-02										
MRL_CK	Hardness, Total, as CaCO3		3.24	mg/L	108					
QC2200893-03										
LCS	Hardness, Total, as CaCO3		43.3	mg/L	108			3		
QC2200893-04										
LCS	Hardness, Total, as CaCO3		43.2	mg/L	108			3		
QC2200893-05										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292984

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/12/2022

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2200893-06	BLK	Hardness, Total, as CaCO3	<3	mg/L			0.474	3	
DUP of 2293321-01		Hardness, Total, as CaCO3	22.3	22.1	mg/L	0	0.474	3	Splt# 2293321-01 (22.3mg/L)
QC2200893-07	DUP of 2292831-01	Hardness, Total, as CaCO3	<3	<3	mg/L	N/A	0.474	3	Splt# 2292831-01 (<3mg/L)
QC2200893-08	LCS	Hardness, Total, as CaCO3	43.5	mg/L	109			3	

QC list for Run#: 2043438 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200894-01	CAL	pH		4.01	pH	100				
	CAL	Temperature (°C)		19.9	°C					
QC2200894-02	CAL	pH		7.01	pH	100				
	CAL	Temperature (°C)		19.9	°C					
QC2200894-03	CAL	pH		10.1	pH	101				
	CAL	Temperature (°C)		19.9	°C					
QC2200894-04	ICV	pH		9	pH	99				
	ICV	Temperature (°C)		20	°C					
QC2200894-05	DUP of 2292984-01	pH	7.04	7.05	pH		0			Splt# 2292984-01 (7.04pH)
	DUP of 2292984-01	Temperature (°C)	18.7	18.7	°C					Splt# 2292984-01 (18.7°C)
QC2200894-06	CCV	pH		9.03	pH	99				
	CCV	Temperature (°C)		19.6	°C					
QC2200894-08	CCV	pH		9.03	pH	99				
	CCV	Temperature (°C)		19.5	°C					

QC list for Run#: 2043442 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200898-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2200898-02	MRL_CK	Alkalinity		3.96	mg/L	132				
QC2200898-03	LCS	Alkalinity		40.6	mg/L	101			3	
QC2200898-05	LCS	Alkalinity		40.8	mg/L	102			3	
QC2200898-06										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292984

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/12/2022

Routine: WSB_SFPUC+Consult.B

Sampling Team: Field

SPKD of 2292831-01	Alkalinity	15.7	54.6	mg/L	97	0	3	Splt# 2292831-01 (15.7mg/L)
QC2200898-07								
SPK of 2292831-01	Alkalinity	15.7	54.6	mg/L	97		3	Splt# 2292831-01 (15.7mg/L)

QC list for Run#: 2043443 and Test: MBP_CHLORIDE (SM 4500-CL-D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200900-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2200900-02	MRL_CK	Chloride		2.75	mg/L	91				
QC2200900-03	LCS	Chloride		38.8	mg/L	97			3	
QC2200900-04	SPK of 2292831-01	Chloride	5.34	44.8	mg/L	98			3	Splt# 2292831-01 (5.34mg/L)
QC2200900-05	SPKD of 2292831-01	Chloride	5.34	44.3	mg/L	97	1		3	Splt# 2292831-01 (5.34mg/L)
QC2200900-07	LCS	Chloride		38.6	mg/L	96			3	

QC list for Run#: 2043899 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201142-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2201142-02	LCS	Calcium, Ca		1.87	mg/L	93		0.04	1	
	LCS	Magnesium, Mg		1.99	mg/L	99		0.007	0.2	
	LCS	Potassium, K		2.06	mg/L	103		0.04	0.2	
	LCS	Sodium, Na		1.99	mg/L	99		0.02	1	
QC2201142-03	DUP of 2292983-01	Calcium, Ca	65.9	64.2	mg/L		2	0.04	1	Splt# 2292983-01 (65.9mg/L)
	DUP of 2292983-01	Magnesium, Mg	57.2	56.5	mg/L		1	0.007	0.2	Splt# 2292983-01 (57.2mg/L)
	DUP of 2292983-01	Potassium, K	2.18	2.11	mg/L		3	0.04	0.2	Splt# 2292983-01 (2.18mg/L)
	DUP of 2292983-01	Sodium, Na	61.4	60.7	mg/L		1	0.02	1	Splt# 2292983-01 (61.4mg/L)
QC2201142-04	SPK of 2292983-01	Calcium, Ca	65.9	67.1	mg/L	57		0.04	1	Splt# 2292983-01 (65.9mg/L)
	SPK of 2292983-01	Magnesium, Mg	57.2	59.3	mg/L	106		0.007	0.2	Splt# 2292983-01 (57.2mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292984

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 05/12/2022

Sampling Team: Field

SPK of 2292983-01	Potassium, K	2.18	4.37	mg/L	110	0.04	0.2	Splt# 2292983-01 (2.18mg/L)
SPK of 2292983-01	Sodium, Na	61.4	61.7	mg/L	16	0.02	1	Splt# 2292983-01 (61.4mg/L)
QC2201142-05								
SPKD of 2292983-01	Calcium, Ca	65.9	66.6	mg/L	34	0	0.04	1
SPKD of 2292983-01	Magnesium, Mg	57.2	59.5	mg/L	114	0	0.007	0.2
SPKD of 2292983-01	Potassium, K	2.18	4.35	mg/L	109	0	0.04	0.2
SPKD of 2292983-01	Sodium, Na	61.4	63	mg/L	82	2	0.02	1
QC2201142-06								
MRL_CHK	Calcium, Ca		<1	mg/L	N/A	0.04	1	
MRL_CHK	Magnesium, Mg		<0.2	mg/L	N/A	0.007	0.2	
MRL_CHK	Potassium, K		0.227	mg/L	90	0.04	0.2	
MRL_CHK	Sodium, Na		<1	mg/L	N/A	0.02	1	
QC2201237-01								
ICV	Potassium, K		2.02	mg/L	101	0.03	0.2	
QC2201237-02								
ICV	Calcium, Ca		10.3	mg/L	103	0.05	1	
ICV	Magnesium, Mg		9.82	mg/L	97	0.01	0.2	
ICV	Sodium, Na		10	mg/L	100	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292985

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/17/2022

Sampling Team: Field

Lab Sample#: 2292985-01 Sample Source: WSB_CAL-22A-290 External ID:

Date Collected: 05/17/2022 10:55AM Date Received: 05/17/2022 01:29PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-22A-290, ROW AT HICKEY BL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	48.8	mg/L	1	5	05/17/2022	2043624 PWARNER	
Nitrate as N	8.5	mg/L	0.34	0.4	05/17/2022	2043624 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	58.8	mg/L	0.04	1	06/01/2022	2044249 BTRINH	
Magnesium, Mg	46	mg/L	0.007	0.2	06/01/2022	2044249 BTRINH	
Potassium, K	2.88	mg/L	0.04	0.2	06/01/2022	2044249 BTRINH	
Sodium, Na	62.2	mg/L	0.02	1	06/01/2022	2044249 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	251	mg/L	2.96	15	05/17/2022	2043633 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	93.3	mg/L		15	05/17/2022	2043640 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance	915	µmhos/cm		1	05/17/2022	2043643 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	334	mg/L	2.37	15	05/17/2022	2043641 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7.24	pH			05/17/2022	2043647 ABALALIO	
Temperature (°C)	19.1	°C			05/17/2022	2043647 ABALALIO	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	502	mg/L	13.2	20	05/20/2022	2043757 ALEE	>MCL

Lab Sample#: 2292985-02 Sample Source: WSB_CAL-22A-440 External ID:

Date Collected: 05/17/2022 10:13AM Date Received: 05/17/2022 01:29PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-22A-440, ROW AT HICKEY BL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	50.5	mg/L	1	5	05/17/2022	2043624 PWARNER	
Nitrate as N	7.3	mg/L	0.34	0.4	05/17/2022	2043624 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	56.4	mg/L	0.04	1	06/01/2022	2044249 BTRINH	
Magnesium, Mg	45.4	mg/L	0.007	0.2	06/01/2022	2044249 BTRINH	
Potassium, K	2.91	mg/L	0.04	0.2	06/01/2022	2044249 BTRINH	
Sodium, Na	60.2	mg/L	0.02	1	06/01/2022	2044249 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	247	mg/L	2.96	15	05/17/2022	2043633 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	93.5	mg/L		15	05/17/2022	2043640 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292985

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/17/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	900	µmhos/cm		1	05/17/2022	2043643 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	328	mg/L	2.37	15	05/17/2022	2043641 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.36	pH			05/17/2022	2043647 ABALALIO	
Temperature (°C)	18.7	°C			05/17/2022	2043647 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	499	mg/L	13.2	20	05/20/2022	2043757 ALEE	

Lab Sample#: 2292985-03 Sample Source: WSB_CAL-22A-545 External ID:

Date Collected: 05/17/2022 09:53AM Date Received: 05/17/2022 01:29PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-22A-545, ROW AT HICKEY BL

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	87.7	mg/L	1	5	05/17/2022	2043624 PWARNER	
Nitrate as N	5.61	mg/L	0.34	0.4	05/17/2022	2043624 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	67.3	mg/L	0.04	1	06/01/2022	2044249 BTRINH	
Magnesium, Mg	51.6	mg/L	0.007	0.2	06/01/2022	2044249 BTRINH	
Potassium, K	3.3	mg/L	0.04	0.2	06/01/2022	2044249 BTRINH	
Sodium, Na	81.1	mg/L	0.02	1	06/01/2022	2044249 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	310	mg/L	2.96	15	05/17/2022	2043633 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	103	mg/L		15	05/17/2022	2043640 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	1080	µmhos/cm		1	05/17/2022	2043643 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	386	mg/L	2.37	15	05/17/2022	2043641 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.7	pH			05/17/2022	2043647 ABALALIO	
Temperature (°C)	18.6	°C			05/17/2022	2043647 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	607	mg/L	13.2	20	05/20/2022	2043757 ALEE	>MCL

Lab Sample#: 2292985-04 Sample Source: WSB_CAL_DUP External ID:

Date Collected: 05/17/2022 10:11AM Date Received: 05/17/2022 01:29PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-22A-545, ROW AT HICKEY BL

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	87	mg/L	1	5	05/17/2022	2043624 PWARNER	
Nitrate as N	5.57	mg/L	0.34	0.4	05/17/2022	2043624 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292985

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/17/2022

Sampling Team: Field

<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Calcium, Ca</i>	69.5	mg/L	0.04	1	06/01/2022	2044249 BTRINH	
<i>Magnesium, Mg</i>	51.8	mg/L	0.007	0.2	06/01/2022	2044249 BTRINH	
<i>Potassium, K</i>	3.49	mg/L	0.04	0.2	06/01/2022	2044249 BTRINH	
<i>Sodium, Na</i>	84.5	mg/L	0.02	1	06/01/2022	2044249 BTRINH	
<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Alkalinity</i>	310	mg/L	2.96	15	05/17/2022	2043633 ALEE	
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Chloride</i>	102	mg/L		15	05/17/2022	2043640 ALEE	
<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	1080	µmhos/cm		1	05/17/2022	2043643 ABALALIO	>MCL
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	386	mg/L	2.37	15	05/17/2022	2043641 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	6.75	pH			05/17/2022	2043647 ABALALIO	
<i>Temperature (°C)</i>	18.8	°C			05/17/2022	2043647 ABALALIO	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	616	mg/L	13.2	20	05/20/2022	2043757 ALEE	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292985

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/17/2022

Sampling Team: Field

QC list for Run#: **2043624** and Test: **MBI_IC_ANIONS_A (EPA 300.0 (A))**

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201034-01	MRL_CK	Sulfate		0.508	mg/L	102				
	MRL_CK	Nitrate as N		0.0378	mg/L	94				
QC2201034-02	CCV	Sulfate		2.34	mg/L	93				
	CCV	Nitrate as N		0.189	mg/L	95				
QC2201034-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201034-04	LCS	Sulfate		4.75	mg/L	94				
	LCS	Nitrate as N		0.381	mg/L	95				
QC2201034-05	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201034-06	SPK of 2292837-04	Sulfate	1.1	3.35	mg/L	90				Splt# 2292837-04 (1.1mg/L)
	SPK of 2292837-04	Nitrate as N	0.0708	0.273	mg/L	102				Splt# 2292837-04 (0.0708mg/L)
QC2201034-07	SPKD of 2292837-04	Sulfate	1.1	3.37	mg/L	91	r: No Parent			Splt# 2292837-04 (1.1mg/L)
	SPKD of 2292837-04	Nitrate as N	0.0708	0.277	mg/L	104	1			Splt# 2292837-04 (0.0708mg/L)
QC2201034-08	CCV	Sulfate		2.35	mg/L	94				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2201034-09	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201034-10	DUP of 2293414-01	Sulfate	1.66	1.66	mg/L		0	0.1	0.5	Splt# 2293414-01 (1.66mg/L)
	DUP of 2293414-01	Nitrate as N	0.0559	0.0556	mg/L		0	0.034	0.04	Splt# 2293414-01 (0.0559mg/L)
QC2201034-11	CCV	Sulfate		2.36	mg/L	94				
	CCV	Nitrate as N		0.191	mg/L	95				
QC2201034-12	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	

QC list for Run#: **2043633** and Test: **MBP_ALK (SM 2320 B)**

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292985

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/17/2022

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2201038-01	BLK	Alkalinity	<3	mg/L			0.593	3	
QC2201038-02	MRL_CK	Alkalinity	3.94	mg/L	131				
QC2201038-03	LCS	Alkalinity	40.4	mg/L	101				
QC2201038-04	DUP of 2292845-03	Alkalinity	17.1	17.5	mg/L	2	0.593	3	Splt# 2292845-03 (17.1mg/L)
QC2201038-06	LCS	Alkalinity	39.6	mg/L	99				
QC2201038-07	SPKD of 2292850-07	Alkalinity	13.5	51.6	mg/L	95	1	3	Splt# 2292850-07 (13.5mg/L)
QC2201038-08	SPK of 2292850-07	Alkalinity	13.5	52.2	mg/L	96		3	Splt# 2292850-07 (13.5mg/L)

QC list for Run#: 2043640 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201039-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2201039-02	MRL_CK	Chloride	2.8		mg/L	93				
QC2201039-03	LCS	Chloride	38.3		mg/L	95			3	
QC2201039-04	SPK of 2292850-07	Chloride	4.1	43.4	mg/L	98			3	Splt# 2292850-07 (4.1mg/L)
QC2201039-05	SPKD of 2292850-07	Chloride	4.1	43.3	mg/L	98	0		3	Splt# 2292850-07 (4.1mg/L)
QC2201039-07	LCS	Chloride	38.5		mg/L	96			3	
QC2201039-08	DUP of 2292845-03	Chloride	5.82	5.78	mg/L		0		3	Splt# 2292845-03 (5.82mg/L)

QC list for Run#: 2043641 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201040-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2201040-02	MRL_CK	Hardness, Total, as CaCO3	3.12		mg/L	104				
QC2201040-03	LCS	Hardness, Total, as CaCO3	43.3		mg/L	108			3	
QC2201040-04	LCS	Hardness, Total, as CaCO3	43.1		mg/L	108			3	
QC2201040-05										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292985

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/17/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2201040-06	BLK	Hardness, Total, as CaCO3	<3	mg/L			0.474	3	
DUP of 2292845-03		Hardness, Total, as CaCO3	14.5	14.5	mg/L	0	0.474	3	Splt# 2292845-03 (14.5mg/L)
QC2201040-07	DUP of 2292850-07	Hardness, Total, as CaCO3	10.2	9.96	mg/L	2	0.474	3	Splt# 2292850-07 (10.2mg/L)
QC2201040-08	LCS	Hardness, Total, as CaCO3	43.2	mg/L	108			3	

QC list for Run#: 2043643 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201047-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2201047-02	MRL_CK	Specific Conductance	9.68		µmhos/cm	96				
QC2201047-03	CCV	Specific Conductance	99.9		µmhos/cm	99				
QC2201047-06	DUP of 2292850-01	Specific Conductance	49.9	49.9	µmhos/cm		0		1	Splt# 2292850-01 (49.9µmhos/cm)
QC2201047-07	DUP of 2293414-02	Specific Conductance	94.5	94.4	µmhos/cm		0		1	Splt# 2293414-02 (94.5µmhos/cm)
QC2201047-08	LCS	Specific Conductance	152		µmhos/cm	103			1	

QC list for Run#: 2043647 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201045-04	ICV	pH	9.03		pH	99				
	ICV	Temperature (°C)	21		°C					
QC2201045-05	DUP of 2292850-01	pH	9.46	9.49	pH		0			Splt# 2292850-01 (9.46pH)
	DUP of 2292850-01	Temperature (°C)	18.1	17.7	°C					Splt# 2292850-01 (18.1°C)
QC2201045-06	CCV	pH	9.03		pH	99				
	CCV	Temperature (°C)	21		°C					
QC2201045-07	CCV	pH	9.02		pH	99				
	CCV	Temperature (°C)	20.9		°C					

QC list for Run#: 2043757 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201124-01	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2201124-02										

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SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2292985

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/17/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

LCS	Total Dissolved Solids	88	mg/L	92	13.2	20	
QC2201124-03							
DUP of 2293414-02	Total Dissolved Solids	35	34	mg/L	2	13.2	20 Splt# 2293414-02 (35mg/L)

QC list for Run#: 2044249 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201375-01										
BLK	Calcium, Ca		<1		mg/L			0.04	1	
BLK	Magnesium, Mg		<0.2		mg/L			0.007	0.2	
BLK	Potassium, K		<0.2		mg/L			0.04	0.2	
BLK	Sodium, Na		<1		mg/L			0.02	1	
QC2201375-02										
LCS	Calcium, Ca		1.83		mg/L	91		0.04	1	
LCS	Magnesium, Mg		1.96		mg/L	97		0.007	0.2	
LCS	Potassium, K		2.02		mg/L	101		0.04	0.2	
LCS	Sodium, Na		1.96		mg/L	97		0.02	1	
QC2201375-03										
DUP of 2292985-01	Calcium, Ca		58.8	59.1	mg/L		0	0.04	1	Splt# 2292985-01 (58.8mg/L)
DUP of 2292985-01	Magnesium, Mg		46	45.9	mg/L		0	0.007	0.2	Splt# 2292985-01 (46mg/L)
DUP of 2292985-01	Potassium, K		2.88	2.8	mg/L		2	0.04	0.2	Splt# 2292985-01 (2.88mg/L)
DUP of 2292985-01	Sodium, Na		62.2	61.1	mg/L		1	0.02	1	Splt# 2292985-01 (62.2mg/L)
QC2201375-04										
SPK of 2292985-01	Calcium, Ca		58.8	61.3	mg/L	122		0.04	1	Splt# 2292985-01 (58.8mg/L)
SPK of 2292985-01	Magnesium, Mg		46	47.2	mg/L	57		0.007	0.2	Splt# 2292985-01 (46mg/L)
SPK of 2292985-01	Potassium, K		2.88	5	mg/L	106		0.04	0.2	Splt# 2292985-01 (2.88mg/L)
SPK of 2292985-01	Sodium, Na		62.2	62.9	mg/L	37		0.02	1	Splt# 2292985-01 (62.2mg/L)
QC2201375-05										
SPKD of 2292985-01	Calcium, Ca		58.8	61.5	mg/L	134	0	0.04	1	Splt# 2292985-01 (58.8mg/L)
SPKD of 2292985-01	Magnesium, Mg		46	47.7	mg/L	83	1	0.007	0.2	Splt# 2292985-01 (46mg/L)
SPKD of 2292985-01	Potassium, K		2.88	5.18	mg/L	115	3	0.04	0.2	Splt# 2292985-01 (2.88mg/L)
SPKD of 2292985-01	Sodium, Na		62.2	63.9	mg/L	86	1	0.02	1	Splt# 2292985-01 (62.2mg/L)
QC2201375-06										
MRL_CK	Calcium, Ca		<1		mg/L	N/A		0.04	1	
MRL_CK	Magnesium, Mg		<0.2		mg/L	N/A		0.007	0.2	
MRL_CK	Potassium, K		0.253		mg/L	101		0.04	0.2	
MRL_CK	Sodium, Na		<1		mg/L	N/A		0.02	1	
QC2201498-01										
ICV	Potassium, K		2		mg/L	99		0.03	0.2	
QC2201498-02										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292985

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/17/2022

Sampling Team: Field

ICV	Calcium, Ca	9.96	mg/L	99	0.05	1
ICV	Magnesium, Mg	9.89	mg/L	97	0.01	0.2
ICV	Sodium, Na	10.3	mg/L	103	0.002	1

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

Lab Sample#:	2292986-01	Sample Source:	WSB_DC-10A-160	External ID:	
Date Collected:	05/18/2022 09:18AM	Date Received:	05/18/2022 11:20AM	Sample Matrix:	Aqueous
				Location Desc:	GSR_DC_CUP-10A-160, ROW AT SERRA BOWL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	54.6	mg/L	1	5	05/18/2022	2043695 PWARNER	
Nitrate as N	10.3	mg/L	0.34	0.4	05/18/2022	2043695 PWARNER	>MCL
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	64	mg/L	0.04	1	06/01/2022	2044249 BTRINH	
Magnesium, Mg	63.1	mg/L	0.007	0.2	06/01/2022	2044249 BTRINH	
Potassium, K	1.5	mg/L	0.04	0.2	06/01/2022	2044249 BTRINH	
Sodium, Na	75.1	mg/L	0.02	1	06/01/2022	2044249 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	296	mg/L	2.96	15	05/18/2022	2043700 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	126	mg/L		15	05/18/2022	2043707 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance	1110	µmhos/cm		1	05/18/2022	2043704 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	414	mg/L	2.37	15	05/18/2022	2043709 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	6.79	pH			05/18/2022	2043701 ABALALIO	
Temperature (°C)	21.3	°C			05/18/2022	2043701 ABALALIO	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	637	mg/L	13.2	20	05/20/2022	2043757 ALEE	>MCL

Lab Sample#:	2292986-03	Sample Source:	WSB_DC-10A-500	External ID:	
Date Collected:	05/18/2022 09:24AM	Date Received:	05/18/2022 11:20AM	Sample Matrix:	Aqueous
				Location Desc:	GSR_DC_CUP-10A-500 ROW AT SERRA BOWL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	74.7	mg/L	1	5	05/18/2022	2043695 PWARNER	
Nitrate as N	8.74	mg/L	0.34	0.4	05/18/2022	2043695 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	61.1	mg/L	0.04	1	06/01/2022	2044249 BTRINH	
Magnesium, Mg	64	mg/L	0.007	0.2	06/01/2022	2044249 BTRINH	
Potassium, K	1.49	mg/L	0.04	0.2	06/01/2022	2044249 BTRINH	
Sodium, Na	73.5	mg/L	0.02	1	06/01/2022	2044249 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	268	mg/L	2.96	15	05/18/2022	2043700 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	138	mg/L		15	05/18/2022	2043707 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	1120	µmhos/cm		1	05/18/2022	2043704 ABALALIO	>MCL
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	6.61	pH			05/18/2022	2043701 ABALALIO	
<i>Temperature (°C)</i>	21.5	°C			05/18/2022	2043701 ABALALIO	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	640	mg/L	13.2	20	05/20/2022	2043757 ALEE	>MCL

Lab Sample#: 2292986-03A **Sample Source:** WSB_DC-10A-500 **External ID:**

Date Collected: 05/18/2022 09:24AM **Date Received:** 05/18/2022 11:20AM **Sample Matrix:** Aqueous **Location Desc:** GSR_DC_CUP-10A-500 ROW AT SERRA BOWL

Test/Analyte

<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	408	mg/L	2.37	15	05/19/2022	2043758 PWARNER	

Lab Sample#: 2292986-04 **Sample Source:** WSB_DC-10A-710 **External ID:**

Date Collected: 05/18/2022 10:13AM **Date Received:** 05/18/2022 11:20AM **Sample Matrix:** Aqueous **Location Desc:** GSR_DC_CUP-10A-710 ROW AT SERRA BOWL

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Sulfate</i>	86.3	mg/L	1	5	05/18/2022	2043695 PWARNER	
<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Calcium, Ca</i>	72.1	mg/L	0.04	1	06/01/2022	2044249 BTRINH	
<i>Magnesium, Mg</i>	49.1	mg/L	0.007	0.2	06/01/2022	2044249 BTRINH	
<i>Potassium, K</i>	4.51	mg/L	0.04	0.2	06/01/2022	2044249 BTRINH	
<i>Sodium, Na</i>	97.1	mg/L	0.02	1	06/01/2022	2044249 BTRINH	
<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Alkalinity</i>	238	mg/L	2.96	15	05/18/2022	2043700 ALEE	
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Chloride</i>	185	mg/L		15	05/18/2022	2043707 ALEE	
<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	1180	µmhos/cm		1	05/18/2022	2043704 ABALALIO	>MCL
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	383	mg/L	2.37	15	05/18/2022	2043709 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	7.04	pH			05/18/2022	2043701 ABALALIO	
<i>Temperature (°C)</i>	21.4	°C			05/18/2022	2043701 ABALALIO	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	650	mg/L	13.2	20	05/20/2022	2043757 ALEE	>MCL

Lab Sample#: 2292986-04A **Sample Source:** WSB_DC-10A-710 **External ID:**

Date Collected: 05/18/2022 10:13AM **Date Received:** 05/18/2022 11:20AM **Sample Matrix:** Aqueous **Location Desc:** GSR_DC_CUP-10A-710 ROW AT SERRA BOWL

Test/Analyte

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Nitrate as N	<0.04	mg/L	0.034	0.04	05/18/2022	2043695 PWARNER	

Lab Sample#: 2292986-05 **Sample Source:** WSB_DC_DUP **External ID:**

Date Collected: 05/18/2022 09:52AM **Date Received:** 05/18/2022 11:20AM **Sample Matrix:** Aqueous **Location Desc:** GSR_DC_CUP-10A-500 ROW AT SERRA BOWL

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Sulfate	76.6	mg/L	1	5	05/18/2022	2043695 PWARNER	
Nitrate as N	8.97	mg/L	0.34	0.4	05/18/2022	2043695 PWARNER	

<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Calcium, Ca	62.6	mg/L	0.04	1	06/01/2022	2044249 BTRINH	
Magnesium, Mg	63.8	mg/L	0.007	0.2	06/01/2022	2044249 BTRINH	
Potassium, K	1.53	mg/L	0.04	0.2	06/01/2022	2044249 BTRINH	
Sodium, Na	72.6	mg/L	0.02	1	06/01/2022	2044249 BTRINH	

<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Alkalinity	268	mg/L	2.96	15	05/18/2022	2043700 ALEE	

<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	137	mg/L		15	05/18/2022	2043707 ALEE	

<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance	1120	µmhos/cm		1	05/18/2022	2043704 ABALALIO	>MCL

<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Hardness, Total, as CaCO3	420	mg/L	2.37	15	05/18/2022	2043709 ALEE	

<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
pH	6.63	pH			05/18/2022	2043701 ABALALIO	
Temperature (°C)	21.7	°C			05/18/2022	2043701 ABALALIO	

<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	632	mg/L	13.2	20	05/20/2022	2043757 ALEE	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

QC list for Run#: 2043695 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201082-01										
	MRL_CK	Fluoride		0.101	mg/L	101				
	MRL_CK	Chloride		0.516	mg/L	103				
	MRL_CK	Nitrite as N		0.0399	mg/L	99				
	MRL_CK	Bromide, Br-		0.049	mg/L	98				
	MRL_CK	Phosphate ortho		0.299	mg/L	99				
	MRL_CK	Sulfate		0.512	mg/L	102				
	MRL_CK	Nitrate as N		0.0404	mg/L	101				
QC2201082-02										
	CCV	Fluoride		0.475	mg/L	95				
	CCV	Chloride		2.42	mg/L	96				
	CCV	Nitrite as N		0.196	mg/L	98				
	CCV	Bromide, Br-		0.246	mg/L	98				
	CCV	Phosphate ortho		1.4	mg/L	93				
	CCV	Sulfate		2.36	mg/L	94				
	CCV	Nitrate as N		0.194	mg/L	97				
QC2201082-03										
	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Nitrite as N		<0.04	mg/L			0.02	0.04	
	BLK	Bromide, Br-		<0.05	mg/L			0.03	0.05	
	BLK	Phosphate ortho		<0.3	mg/L			0.1	0.3	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201082-04										
	LCS	Fluoride		1.02	mg/L	102				
	LCS	Chloride		5.01	mg/L	100				
	LCS	Nitrite as N		0.387	mg/L	96				
	LCS	Bromide, Br-		0.492	mg/L	98				
	LCS	Phosphate ortho		2.85	mg/L	95				
	LCS	Sulfate		4.78	mg/L	95				
	LCS	Nitrate as N		0.386	mg/L	97				
QC2201082-06										
	SPK of 2292823-04	Fluoride	0.704	1.21	mg/L	102				Splt# 2292823-04 (0.704mg/L)
	SPK of 2292823-04	Chloride	5.21	7.91	mg/L	109				Splt# 2292823-04 (5.21mg/L)
	SPK of 2292823-04	Nitrite as N	<0.04	0.204	mg/L	103				Splt# 2292823-04 (<0.04mg/L)
	SPK of 2292823-04	Bromide, Br-	<0.05	0.246	mg/L	99				Splt# 2292823-04 (<0.05mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

SPK of 2292823-04	Phosphate ortho	<0.3	1.49	mg/L	99			Splt# 2292823-04 (<0.3mg/L)
SPK of 2292823-04	Sulfate	2.09	4.54	mg/L	98			Splt# 2292823-04 (2.09mg/L)
SPK of 2292823-04	Nitrate as N	0.07	0.265	mg/L	98			Splt# 2292823-04 (0.07mg/L)
QC2201082-07								
SPKD of 2292823-04	Fluoride	0.704	1.22	mg/L	103	0		Splt# 2292823-04 (0.704mg/L)
SPKD of 2292823-04	Chloride	5.21	7.92	mg/L	109	0		Splt# 2292823-04 (5.21mg/L)
SPKD of 2292823-04	Nitrite as N	<0.04	0.205	mg/L	104	0		Splt# 2292823-04 (<0.04mg/L)
SPKD of 2292823-04	Bromide, Br-	<0.05	0.254	mg/L	102	3		Splt# 2292823-04 (<0.05mg/L)
SPKD of 2292823-04	Phosphate ortho	<0.3	1.48	mg/L	99	0		Splt# 2292823-04 (<0.3mg/L)
SPKD of 2292823-04	Sulfate	2.09	4.54	mg/L	98	0		Splt# 2292823-04 (2.09mg/L)
SPKD of 2292823-04	Nitrate as N	0.07	0.266	mg/L	99	0		Splt# 2292823-04 (0.07mg/L)
QC2201082-08								
CCV	Fluoride		0.481	mg/L	96			
CCV	Chloride		2.43	mg/L	97			
CCV	Nitrite as N		0.198	mg/L	99			
CCV	Bromide, Br-		0.244	mg/L	97			
CCV	Phosphate ortho		1.44	mg/L	96			
CCV	Sulfate		2.37	mg/L	94			
CCV	Nitrate as N		0.193	mg/L	97			
QC2201082-09								
BLK	Fluoride	<0.1		mg/L		0.02	0.1	
BLK	Chloride	<1		mg/L		0.2	1	
BLK	Nitrite as N	<0.04		mg/L		0.02	0.04	
BLK	Bromide, Br-	<0.05		mg/L		0.03	0.05	
BLK	Phosphate ortho	<0.3		mg/L		0.1	0.3	
BLK	Sulfate	<0.5		mg/L		0.1	0.5	
BLK	Nitrate as N	<0.04		mg/L		0.034	0.04	
QC2201082-10								
DUP of 2292986-01	Fluoride	<1	<1	mg/L	N/A	0.2	1	Splt# 2292986-01 (<1mg/L)
DUP of 2292986-01	Chloride	131	132	mg/L	0	2	10	Splt# 2292986-01 (131mg/L)
DUP of 2292986-01	Nitrite as N	<0.4	<0.4	mg/L	N/A	0.2	0.4	Splt# 2292986-01 (<0.4mg/L)
DUP of 2292986-01	Bromide, Br-	<0.5	<0.5	mg/L	N/A	0.3	0.5	Splt# 2292986-01 (<0.5mg/L)
DUP of 2292986-01	Phosphate ortho	<3	<3	mg/L	N/A	1	3	Splt# 2292986-01 (<3mg/L)
DUP of 2292986-01	Sulfate	54.6	54.8	mg/L	0	1	5	Splt# 2292986-01 (54.6mg/L)
DUP of 2292986-01	Nitrate as N	10.3	10.4	mg/L	0	0.34	0.4	Splt# 2292986-01 (10.3mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

QC2201082-11

MDL	Fluoride	0.0568	mg/L	114
MDL	Chloride	0.294	mg/L	117
MDL	Nitrite as N	0.0217	mg/L	109
MDL	Bromide, Br-	0.0239	mg/L	95
MDL	Phosphate ortho	0.149	mg/L	99
MDL	Sulfate	0.293	mg/L	117
MDL	Nitrate as N	0.0224	mg/L	113

QC2201082-12

MDL	Fluoride	0.0541	mg/L	108
MDL	Chloride	0.292	mg/L	117
MDL	Nitrite as N	0.0219	mg/L	110
MDL	Bromide, Br-	0.0204	mg/L	81
MDL	Phosphate ortho	0.166	mg/L	111
MDL	Sulfate	0.293	mg/L	117
MDL	Nitrate as N	0.0225	mg/L	113

QC2201082-13

CCV	Fluoride	0.483	mg/L	96
CCV	Chloride	2.43	mg/L	97
CCV	Nitrite as N	0.194	mg/L	97
CCV	Bromide, Br-	0.251	mg/L	100
CCV	Phosphate ortho	1.44	mg/L	95
CCV	Sulfate	2.36	mg/L	94
CCV	Nitrate as N	0.194	mg/L	97

QC2201082-14

BLK	Fluoride	<0.1	mg/L	0.02	0.1
BLK	Chloride	<1	mg/L	0.2	1
BLK	Nitrite as N	<0.04	mg/L	0.02	0.04
BLK	Bromide, Br-	<0.05	mg/L	0.03	0.05
BLK	Phosphate ortho	<0.3	mg/L	0.1	0.3
BLK	Sulfate	<0.5	mg/L	0.1	0.5
BLK	Nitrate as N	<0.04	mg/L	0.034	0.04

QC2201082-15

BLK	Fluoride	<0.1	mg/L	0.02	0.1
BLK	Chloride	<1	mg/L	0.2	1
BLK	Nitrite as N	<0.04	mg/L	0.02	0.04
BLK	Bromide, Br-	<0.05	mg/L	0.03	0.05
BLK	Phosphate ortho	<0.3	mg/L	0.1	0.3
BLK	Sulfate	<0.5	mg/L	0.1	0.5
BLK	Nitrate as N	<0.04	mg/L	0.034	0.04

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

QC list for Run#: 2043700 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201088-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2201088-02	MRL_CK	Alkalinity	3.82		mg/L	127				
QC2201088-03	LCS	Alkalinity	39.9		mg/L	99			3	
QC2201088-04	DUP of 2292986-05	Alkalinity	268	265	mg/L		1	2.96	15	Splt# 2292986-05 (268mg/L)
QC2201088-05	LCS	Alkalinity	39.3		mg/L	98			3	

QC list for Run#: 2043701 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201083-01	CAL	pH	4.01		pH	100				
	CAL	Temperature (°C)	22.1		°C					
QC2201083-02	CAL	pH	7.01		pH	100				
	CAL	Temperature (°C)	21.9		°C					
QC2201083-03	CAL	pH	10		pH	100				
	CAL	Temperature (°C)	21.8		°C					
QC2201083-04	ICV	pH	9.02		pH	100				
	ICV	Temperature (°C)	22.9		°C					
QC2201083-05	DUP of 2292823-04	pH	9.37	9.4	pH		0			Splt# 2292823-04 (9.37pH)
	DUP of 2292823-04	Temperature (°C)	18.4	18.1	°C					Splt# 2292823-04 (18.4°C)
QC2201083-06	CCV	pH	9.01		pH	100				
	CCV	Temperature (°C)	22.6		°C					
QC2201083-07	CCV	pH	9		pH	99				
	CCV	Temperature (°C)	22.4		°C					

QC list for Run#: 2043704 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201085-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2201085-02	MRL_CK	Specific Conductance	9.64		µmhos/cm	96				

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Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

Sample ID	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2201085-03	CCV	Specific Conductance	99.6	µmhos/cm	99				
QC2201085-04	ICV	Specific Conductance	151	µmhos/cm	103				
QC2201085-05	LCS	Specific Conductance	979	µmhos/cm	97			1	
QC2201085-06	DUP of 2292823-04	Specific Conductance	60.4	60.5	µmhos/cm	0		1	Splt# 2292823-04 (60.4µmhos/cm)
QC2201085-07	DUP of 2292823-05	Specific Conductance	134	134	µmhos/cm	0		1	Splt# 2292823-05 (134µmhos/cm)
QC2201085-09	LCS	Specific Conductance	151	µmhos/cm	103			1	

QC list for Run#: 2043707 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201089-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2201089-02	MRL CK	Chloride	2.78		mg/L	92				
QC2201089-03	LCS	Chloride	38		mg/L	94			3	
QC2201089-04	SPK of 2292986-05	Chloride	137	330	mg/L	96			15	Splt# 2292986-05 (137mg/L)
QC2201089-05	SPKD of 2292986-05	Chloride	137	330	mg/L	96	0		15	Splt# 2292986-05 (137mg/L)
QC2201089-07	LCS	Chloride	38.2		mg/L	95			3	

QC list for Run#: 2043709 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201090-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	1.35ml buffer
QC2201090-02	MRL CK	Hardness, Total, as CaCO3	3.07		mg/L	102				
QC2201090-03	LCS	Hardness, Total, as CaCO3	43.3		mg/L	108			3	
QC2201090-04	DUP of 2292986-05	Hardness, Total, as CaCO3	420	417	mg/L		0	2.37	15	Splt# 2292986-05 (420mg/L)
QC2201090-05	LCS	Hardness, Total, as CaCO3	43.5		mg/L	109			3	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/18/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

QC list for Run#: 2043757 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201124-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2201124-02	LCS	Total Dissolved Solids		88	mg/L	92		13.2	20	
QC2201124-03	DUP of 2293414-02	Total Dissolved Solids	35	34	mg/L		2	13.2	20	Splt# 2293414-02 (35mg/L)

QC list for Run#: 2043758 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201125-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2201125-02	MRL CK	Hardness, Total, as CaCO3		3.01	mg/L	100				
QC2201125-04	DUP of 2292961-02	Hardness, Total, as CaCO3	11	10.9	mg/L		0	0.474	3	Splt# 2292961-02 (11mg/L)
QC2201125-05	LCS	Hardness, Total, as CaCO3		43.2	mg/L	108			3	

QC list for Run#: 2044249 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201375-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2201375-02	LCS	Calcium, Ca		1.83	mg/L	91		0.04	1	
	LCS	Magnesium, Mg		1.96	mg/L	97		0.007	0.2	
	LCS	Potassium, K		2.02	mg/L	101		0.04	0.2	
	LCS	Sodium, Na		1.96	mg/L	97		0.02	1	
QC2201375-03	DUP of 2292985-01	Calcium, Ca	58.8	59.1	mg/L		0	0.04	1	Splt# 2292985-01 (58.8mg/L)
	DUP of 2292985-01	Magnesium, Mg	46	45.9	mg/L		0	0.007	0.2	Splt# 2292985-01 (46mg/L)
	DUP of 2292985-01	Potassium, K	2.88	2.8	mg/L		2	0.04	0.2	Splt# 2292985-01 (2.88mg/L)
	DUP of 2292985-01	Sodium, Na	62.2	61.1	mg/L		1	0.02	1	Splt# 2292985-01 (62.2mg/L)
QC2201375-04	SPK of 2292985-01	Calcium, Ca	58.8	61.3	mg/L	122		0.04	1	Splt# 2292985-01 (58.8mg/L)
	SPK of 2292985-01	Magnesium, Mg	46	47.2	mg/L	57		0.007	0.2	Splt# 2292985-01 (46mg/L)
	SPK of 2292985-01	Potassium, K	2.88	5	mg/L	106		0.04	0.2	Splt# 2292985-01 (2.88mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292986

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/18/2022

Sampling Team: Field

SPK of 2292985-01	Sodium, Na	62.2	62.9	mg/L	37	0.02	1	Splt# 2292985-01 (62.2mg/L)
QC2201375-05								
SPKD of 2292985-01	Calcium, Ca	58.8	61.5	mg/L	134	0	0.04	Splt# 2292985-01 (58.8mg/L)
SPKD of 2292985-01	Magnesium, Mg	46	47.7	mg/L	83	1	0.007	Splt# 2292985-01 (46mg/L)
SPKD of 2292985-01	Potassium, K	2.88	5.18	mg/L	115	3	0.04	Splt# 2292985-01 (2.88mg/L)
SPKD of 2292985-01	Sodium, Na	62.2	63.9	mg/L	86	1	0.02	Splt# 2292985-01 (62.2mg/L)
QC2201375-06								
MRL CK	Calcium, Ca		<1	mg/L	N/A		0.04	1
MRL CK	Magnesium, Mg		<0.2	mg/L	N/A		0.007	0.2
MRL CK	Potassium, K		0.253	mg/L	101		0.04	0.2
MRL CK	Sodium, Na		<1	mg/L	N/A		0.02	1
QC2201498-01								
ICV	Potassium, K		2	mg/L	99		0.03	0.2
QC2201498-02								
ICV	Calcium, Ca		9.96	mg/L	99		0.05	1
ICV	Magnesium, Mg		9.89	mg/L	97		0.01	0.2
ICV	Sodium, Na		10.3	mg/L	103		0.002	1

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292987

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#: 2292987-01 Sample Source: WSB_SF71_PP195 External ID:

Date Collected: 05/19/2022 10:02AM Date Received: 05/19/2022 11:41AM Sample Matrix: Aqueous Location Desc: SF #71 - PARK PLAZA MW195

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	118	mg/L	1	5	05/19/2022	2043773 PWARNER	
Nitrate as N	9.2	mg/L	0.34	0.4	05/19/2022	2043773 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	92.9	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
Magnesium, Mg	76.4	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
Potassium, K	4.41	mg/L	0.04	0.2	06/03/2022	2044390 BTRINH	
Sodium, Na	82.7	mg/L	0.02	1	06/03/2022	2044390 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	371	mg/L	11.9	60	05/19/2022	2043761 PWARNER	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	132	mg/L		60	05/19/2022	2043763 PWARNER	
MBP_COND(SM 2510 B)							
Specific Conductance	1360	µmhos/cm		1	05/19/2022	2043767 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	545	mg/L	9.48	60	05/19/2022	2043758 PWARNER	
MBP_PH(SM 4500-H+ B)							
pH	7.05	pH			05/19/2022	2043768 ABALALIO	
Temperature (°C)	19.8	°C			05/19/2022	2043768 ABALALIO	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	90	mg/L	13.2	20	05/20/2022	2043757 ALEE	

Lab Sample#: 2292987-02 Sample Source: WSB_SF50_PP460 External ID:

Date Collected: 05/19/2022 09:00AM Date Received: 05/19/2022 11:41AM Sample Matrix: Aqueous Location Desc: SF#50 - PARK PLAZA MW460

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	65	mg/L	1	5	05/19/2022	2043773 PWARNER	
Nitrate as N	5.91	mg/L	0.34	0.4	05/19/2022	2043773 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	50.7	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
Magnesium, Mg	53.1	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
Potassium, K	2.28	mg/L	0.04	0.2	06/03/2022	2044390 BTRINH	
Sodium, Na	55.3	mg/L	0.02	1	06/03/2022	2044390 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	288	mg/L	5.93	30	05/19/2022	2043761 PWARNER	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	60.6	mg/L		30	05/19/2022	2043763 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292987

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	878	µmhos/cm		1	05/19/2022	2043767 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	330	mg/L	4.74	30	05/19/2022	2043758 PWARNER	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.13	pH			05/19/2022	2043768 ABALALIO	
Temperature (°C)	19.1	°C			05/19/2022	2043768 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	484	mg/L	13.2	20	05/20/2022	2043757 ALEE	

Lab Sample#: 2292987-03 Sample Source: WSB_SF51_PP620 External ID:
 Date Collected: 05/19/2022 09:24AM Date Received: 05/19/2022 11:41AM Sample Matrix: Aqueous Location Desc: SF#51 - PARK PLAZA MW620

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	62.5	mg/L	0.5	2.5	05/19/2022	2043773 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	38.4	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
Magnesium, Mg	34.4	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
Potassium, K	2.55	mg/L	0.04	0.2	06/03/2022	2044390 BTRINH	
Sodium, Na	49.8	mg/L	0.02	1	06/03/2022	2044390 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	195	mg/L	5.93	30	05/19/2022	2043761 PWARNER	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	89.6	mg/L		30	05/19/2022	2043763 PWARNER	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	702	µmhos/cm		1	05/19/2022	2043767 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	224	mg/L	4.74	30	05/19/2022	2043758 PWARNER	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.69	pH			05/19/2022	2043768 ABALALIO	
Temperature (°C)	19.3	°C			05/19/2022	2043768 ABALALIO	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	373	mg/L	13.2	20	05/20/2022	2043757 ALEE	

Lab Sample#: 2292987-03A Sample Source: WSB_SF51_PP620 External ID:
 Date Collected: 05/19/2022 09:24AM Date Received: 05/19/2022 11:41AM Sample Matrix: Aqueous Location Desc: SF#51 - PARK PLAZA MW620

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	05/20/2022	2043826 DREGGIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292987

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/19/2022

Sampling Team: Field

Lab Sample#: 2292987-04	Sample Source: WSB_SF_DUP	External ID:
Date Collected: 05/19/2022 10:22AM	Date Received: 05/19/2022 11:41AM	Sample Matrix: Aqueous
		Location Desc: SF #71 - PARK PLAZA MW195

Test/Analyte

<u>Test/Analyte</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	117	mg/L	1	5	05/19/2022	2043773 PWARNER	
Nitrate as N	9.25	mg/L	0.34	0.4	05/19/2022	2043773 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	92.4	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
Magnesium, Mg	77.3	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
Potassium, K	4.56	mg/L	0.04	0.2	06/03/2022	2044390 BTRINH	
Sodium, Na	83.9	mg/L	0.02	1	06/03/2022	2044390 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	372	mg/L	11.9	60	05/19/2022	2043761 PWARNER	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	138	mg/L		60	05/19/2022	2043763 PWARNER	
MBP_COND(SM 2510 B)							
Specific Conductance	1350	µmhos/cm		1	05/19/2022	2043767 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	740	mg/L	9.48	60	05/19/2022	2043758 PWARNER	
MBP_PH(SM 4500-H+ B)							
pH	7.09	pH			05/19/2022	2043768 ABALALIO	
Temperature (°C)	19.4	°C			05/19/2022	2043768 ABALALIO	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	761	mg/L	13.2	20	05/20/2022	2043757 ALEE	>MCL

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Water Quality Laboratory

FOLDER ID: 2292987

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/19/2022

Sampling Team: Field

QC list for Run#: 2043757 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201124-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2201124-02	LCS	Total Dissolved Solids		88	mg/L	92		13.2	20	
QC2201124-03	DUP of 2293414-02	Total Dissolved Solids	35	34	mg/L		2	13.2	20	Splt# 2293414-02 (35mg/L)

QC list for Run#: 2043758 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201125-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2201125-02	MRL CK	Hardness, Total, as CaCO3		3.01	mg/L	100				
QC2201125-04	DUP of 2292961-02	Hardness, Total, as CaCO3	11	10.9	mg/L		0	0.474	3	Splt# 2292961-02 (11mg/L)
QC2201125-05	LCS	Hardness, Total, as CaCO3		43.2	mg/L	108			3	

QC list for Run#: 2043761 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201128-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2201128-02	MRL CK	Alkalinity		4.03	mg/L	134				
QC2201128-04	DUP of 2292961-02	Alkalinity	13.9	13.1	mg/L		6	0.593	3	Splt# 2292961-02 (13.9mg/L)
QC2201128-05	LCS	Alkalinity		39.6	mg/L	99			3	

QC list for Run#: 2043763 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201130-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2201130-02	MRL CK	Chloride		2.74	mg/L	91				
QC2201130-04	SPK of 2292961-02	Chloride	4.57	42.8	mg/L	95			3	Splt# 2292961-02 (4.57mg/L)
QC2201130-05	SPKD of 2292961-02	Chloride	4.57	43	mg/L	96	0		3	Splt# 2292961-02 (4.57mg/L)
QC2201130-07	LCS	Chloride		38.7	mg/L	96			3	

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FOLDER ID: 2292987

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Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/19/2022

Sampling Team: Field

QC list for Run#: 2043767 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201133-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2201133-02	MRL_CK	Specific Conductance	9.6		µmhos/cm	96				
QC2201133-03	CCV	Specific Conductance	99.8		µmhos/cm	99				
QC2201133-04	ICV	Specific Conductance	152		µmhos/cm	103				
QC2201133-05	LCS	Specific Conductance	980		µmhos/cm	98			1	
QC2201133-06	DUP of 2292961-01	Specific Conductance	57.7	58.2	µmhos/cm		0		1	Split# 2292961-01 (57.7µmhos/cm)
QC2201133-07	DUP of 2292955-03	Specific Conductance	145	146	µmhos/cm		0		1	Split# 2292955-03 (145µmhos/cm)
QC2201133-08	LCS	Specific Conductance	152		µmhos/cm	103			1	

QC list for Run#: 2043768 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201134-01	CAL	pH	4.01		pH	100				
	CAL	Temperature (°C)	20.7		°C					
QC2201134-02	CAL	pH	7.01		pH	100				
	CAL	Temperature (°C)	20.6		°C					
QC2201134-03	CAL	pH	10.1		pH	101				
	CAL	Temperature (°C)	20.7		°C					
QC2201134-04	ICV	pH	9		pH	99				
	ICV	Temperature (°C)	21.1		°C					
QC2201134-05	DUP of 2292961-01	pH	9.3	9.3	pH		0			Split# 2292961-01 (9.3pH)
	DUP of 2292961-01	Temperature (°C)	17.8	17.9	°C					Split# 2292961-01 (17.8°C)
QC2201134-06	CCV	pH	9.01		pH	99				
	CCV	Temperature (°C)	20.9		°C					
QC2201134-07	CCV	pH	9.01		pH	99				
	CCV	Temperature (°C)	20.9		°C					

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FOLDER ID: 2292987

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/19/2022

Sampling Team: Field

QC list for Run#: 2043773 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201139-01										
	MRL_CK	Fluoride		0.101	mg/L	101				
	MRL_CK	Sulfate		0.513	mg/L	103				
	MRL_CK	Nitrate as N		0.0393	mg/L	98				
QC2201139-02										
	CCV	Fluoride		0.481	mg/L	96				
	CCV	Sulfate		2.36	mg/L	94				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2201139-03										
	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201139-04										
	LCS	Fluoride		1	mg/L	100				
	LCS	Sulfate		4.78	mg/L	95				
	LCS	Nitrate as N		0.387	mg/L	97				
QC2201139-06										
	SPK of 2292955-01	Fluoride	0.7	1.2	mg/L	102				Splt# 2292955-01 (0.7mg/L)
	SPK of 2292955-01	Sulfate	2.77	5.18	mg/L	97				Splt# 2292955-01 (2.77mg/L)
	SPK of 2292955-01	Nitrate as N	0.0744	0.269	mg/L	98				Splt# 2292955-01 (0.0744mg/L)
QC2201139-07										
	SPKD of 2292955-01	Fluoride	0.7	1.2	mg/L	101	0			Splt# 2292955-01 (0.7mg/L)
	SPKD of 2292955-01	Sulfate	2.77	5.19	mg/L	97	0			Splt# 2292955-01 (2.77mg/L)
	SPKD of 2292955-01	Nitrate as N	0.0744	0.273	mg/L	101	1			Splt# 2292955-01 (0.0744mg/L)
QC2201139-08										
	CCV	Fluoride		0.48	mg/L	95				
	CCV	Sulfate		2.35	mg/L	94				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2201139-09										
	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201139-10										
	DUP of 2292987-02	Fluoride	<1	<1	mg/L		N/A	0.2	1	Splt# 2292987-02 (<1mg/L)
	DUP of 2292987-02	Sulfate	65	65.6	mg/L		0	1	5	Splt# 2292987-02 (65mg/L)
	DUP of 2292987-02	Nitrate as N	5.91	6.02	mg/L		1	0.34	0.4	Splt# 2292987-02 (5.91mg/L)

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Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292987

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

QC list for Run#: 2043826 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201178-01	MRL_CK	Fluoride		0.101	mg/L	101				
	MRL_CK	Nitrate as N		0.0395	mg/L	99				
QC2201178-02	CCV	Fluoride		0.485	mg/L	97				
	CCV	Nitrate as N		0.194	mg/L	97				
QC2201178-03	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201178-04	LCS	Fluoride		1.02	mg/L	102				
	LCS	Nitrate as N		0.384	mg/L	96				
QC2201178-06	SPK of 2292968-04	Fluoride	0.705	1.18	mg/L	96				Splt# 2292968-04 (0.705mg/L)
	SPK of 2292968-04	Nitrate as N	0.0501	0.237	mg/L	94				Splt# 2292968-04 (0.0501mg/L)
QC2201178-07	SPKD of 2292968-04	Fluoride	0.705	1.21	mg/L	103	2			Splt# 2292968-04 (0.705mg/L)
	SPKD of 2292968-04	Nitrate as N	0.0501	0.258	mg/L	105	8			Splt# 2292968-04 (0.0501mg/L)
QC2201178-08	CCV	Fluoride		0.487	mg/L	97				
	CCV	Nitrate as N		0.194	mg/L	97				
QC2201178-09	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201178-10	DUP of 2292987-03A	Fluoride	<0.1	<0.1	mg/L		N/A	0.02	0.1	Splt# 2292987-03A (<0.1mg/L)
	DUP of 2292987-03A	Nitrate as N	<0.04	<0.04	mg/L		N/A	0.034	0.04	Splt# 2292987-03A (<0.04mg/L)

QC list for Run#: 2044390 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201485-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2201485-02	LCS	Calcium, Ca		1.81	mg/L	90		0.04	1	
	LCS	Magnesium, Mg		1.98	mg/L	99		0.007	0.2	

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SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292987

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

LCS	Potassium, K	2.03	mg/L	101	0.04	0.2	
LCS	Sodium, Na	1.99	mg/L	99	0.02	1	
QC2201485-03							
DUP of 2292987-01	Calcium, Ca	92.9	92.5	mg/L	0	0.04	1 Splt# 2292987-01 (92.9mg/L)
DUP of 2292987-01	Magnesium, Mg	76.4	76.5	mg/L	0	0.007	0.2 Splt# 2292987-01 (76.4mg/L)
DUP of 2292987-01	Potassium, K	4.41	4.47	mg/L	1	0.04	0.2 Splt# 2292987-01 (4.41mg/L)
DUP of 2292987-01	Sodium, Na	82.7	81.5	mg/L	1	0.02	1 Splt# 2292987-01 (82.7mg/L)
QC2201485-04							
SPK of 2292987-01	Calcium, Ca	92.9	94.1	mg/L	62	0.04	1 Splt# 2292987-01 (92.9mg/L)
SPK of 2292987-01	Magnesium, Mg	76.4	77.3	mg/L	43	0.007	0.2 Splt# 2292987-01 (76.4mg/L)
SPK of 2292987-01	Potassium, K	4.41	6.75	mg/L	117	0.04	0.2 Splt# 2292987-01 (4.41mg/L)
SPK of 2292987-01	Sodium, Na	82.7	83.2	mg/L	26	0.02	1 Splt# 2292987-01 (82.7mg/L)
QC2201485-05							
SPKD of 2292987-01	Calcium, Ca	92.9	93.4	mg/L	27	0	0.04 1 Splt# 2292987-01 (92.9mg/L)
SPKD of 2292987-01	Magnesium, Mg	76.4	78.2	mg/L	87	1	0.007 0.2 Splt# 2292987-01 (76.4mg/L)
SPKD of 2292987-01	Potassium, K	4.41	6.6	mg/L	110	2	0.04 0.2 Splt# 2292987-01 (4.41mg/L)
SPKD of 2292987-01	Sodium, Na	82.7	83.9	mg/L	56	0	0.02 1 Splt# 2292987-01 (82.7mg/L)
QC2201485-06							
MRL_CK	Calcium, Ca	<1	mg/L	N/A	0.04	1	
MRL_CK	Magnesium, Mg	<0.2	mg/L	N/A	0.007	0.2	
MRL_CK	Potassium, K	0.255	mg/L	102	0.04	0.2	
MRL_CK	Sodium, Na	<1	mg/L	N/A	0.02	1	
QC2201600-01							
ICV	Potassium, K	2.02	mg/L	101	0.03	0.2	
QC2201600-02							
ICV	Calcium, Ca	9.82	mg/L	98	0.05	1	
ICV	Magnesium, Mg	9.78	mg/L	96	0.01	0.2	
ICV	Sodium, Na	10.3	mg/L	103	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Lab Sample#: 2293413-01 **Sample Source:** WSB_CAL-31A-145 **External ID:**

Date Collected: 05/26/2022 10:50AM **Date Received:** 05/26/2022 01:19PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-145

Test/Analyte

<u>MBI_IC_ANIONS_A(EPA 300.0 (A))</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Sulfate	52.5	mg/L	0.5	2.5	05/26/2022	2044099 DREGGIO	
Nitrate as N	0.994	mg/L	0.17	0.2	05/26/2022	2044099 DREGGIO	

<u>SEM_200.7_DW(EPA 200.7)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Calcium, Ca	67.9	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
Magnesium, Mg	59.1	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
Potassium, K	3.84	mg/L	0.04	0.2	06/03/2022	2044390 BTRINH	
Sodium, Na	79.1	mg/L	0.02	1	06/03/2022	2044390 BTRINH	

<u>MBO_524_VOC(EPA 524.2)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Vinyl chloride	<0.5	µg/L	0.1	0.5	06/02/2022	2044371 DREGGIO	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	06/02/2022	2044371 DREGGIO	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	06/02/2022	2044371 DREGGIO	
Methylene chloride	<0.5	µg/L	0.058	0.5	06/02/2022	2044371 DREGGIO	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	06/02/2022	2044371 DREGGIO	
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	06/02/2022	2044371 DREGGIO	
Methyl t-butyl ether	<3	µg/L	0.106	3	06/02/2022	2044371 DREGGIO	
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	06/02/2022	2044371 DREGGIO	
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	06/02/2022	2044371 DREGGIO	
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	06/02/2022	2044371 DREGGIO	
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
Benzene	<0.5	µg/L	0.061	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	06/02/2022	2044371 DREGGIO	
Trichloroethylene	<0.5	µg/L	0.093	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	06/02/2022	2044371 DREGGIO	
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	06/02/2022	2044371 DREGGIO	
Toluene	<0.5	µg/L	0.118	0.5	06/02/2022	2044371 DREGGIO	
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	06/02/2022	2044371 DREGGIO	
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	06/02/2022	2044371 DREGGIO	
Tetrachloroethylene	<0.5	µg/L	0.114	0.5	06/02/2022	2044371 DREGGIO	
Chlorobenzene	<0.5	µg/L	0.185	0.5	06/02/2022	2044371 DREGGIO	
Ethylbenzene	<0.5	µg/L	0.05	0.5	06/02/2022	2044371 DREGGIO	
m,p-Xylene	<0.5	µg/L	0.151	0.5	06/02/2022	2044371 DREGGIO	
o-Xylene	<0.5	µg/L	0.076	0.5	06/02/2022	2044371 DREGGIO	
Styrene	<0.5	µg/L	0.053	0.5	06/02/2022	2044371 DREGGIO	
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	06/02/2022	2044371 DREGGIO	
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	06/02/2022	2044371 DREGGIO	
Xylene (total: p, m, o)	<0.5	µg/L		0.5	06/02/2022	2044371 DREGGIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Internal Standard(s)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Fluorobenzene (IS)	1	µg/L			06/02/2022	2044371 DREGGIO	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.92	µg/L			06/02/2022	2044371 DREGGIO	
1,2-Dichlorobenzene d- (Surr.)	0.96	µg/L			06/02/2022	2044371 DREGGIO	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	478	mg/L	2.96	15	05/27/2022	2044147 DREGGIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	46.3	mg/L		15	05/27/2022	2044148 DREGGIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	1020	µmhos/cm		1	05/26/2022	2044101 WHORNER	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	408	mg/L	2.37	15	05/27/2022	2044149 DREGGIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.68	pH			05/26/2022	2044102 WHORNER	
Temperature (°C)	18.5	°C			05/26/2022	2044102 WHORNER	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	576	mg/L	13.2	20	05/27/2022	2044104 ALEE	>MCL
Lab Sample#: 2293413-02	Sample Source: WSB_CAL-31A-280	External ID:					
Date Collected: 05/26/2022 10:47AM	Date Received: 05/26/2022 01:19PM	Sample Matrix: Aqueous	Location Desc: GSR_CAL_CUP-31-280				
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	76.5	mg/L	1	5	05/26/2022	2044099 DREGGIO	
Nitrate as N	4.53	mg/L	0.34	0.4	05/26/2022	2044099 DREGGIO	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	50.4	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
Magnesium, Mg	48.2	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
Potassium, K	3.17	mg/L	0.04	0.2	06/03/2022	2044390 BTRINH	
Sodium, Na	74	mg/L	0.02	1	06/03/2022	2044390 BTRINH	
MBO_524_VOC(EPA 524.2)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Tetrachloroethylene	144	µg/L	1.14	5	06/02/2022	2044371 DREGGIO	>MCL
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	328	mg/L	2.96	15	05/27/2022	2044147 DREGGIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	46.8	mg/L		15	05/27/2022	2044148 DREGGIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	883	µmhos/cm		1	05/26/2022	2044101 WHORNER	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	333	mg/L	2.37	15	05/27/2022	2044149 DREGGIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.87	pH			05/26/2022	2044102 WHORNER	
Temperature (°C)	18.6	°C			05/26/2022	2044102 WHORNER	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	517	mg/L	13.2	20	05/27/2022	2044104 ALEE	>MCL

Lab Sample#: 2293413-02A **Sample Source:** WSB_CAL-31A-280 **External ID:**

Date Collected: 05/26/2022 10:47AM **Date Received:** 05/26/2022 01:19PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-280 1x

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBO_524_VOC(EPA 524.2)							
Vinyl chloride	<0.5	µg/L	0.1	0.5	06/02/2022	2044371 DREGGIO	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	06/02/2022	2044371 DREGGIO	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	06/02/2022	2044371 DREGGIO	
Methylene chloride	<0.5	µg/L	0.058	0.5	06/02/2022	2044371 DREGGIO	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	06/02/2022	2044371 DREGGIO	
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	06/02/2022	2044371 DREGGIO	
Methyl t-butyl ether	<3	µg/L	0.106	3	06/02/2022	2044371 DREGGIO	
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	06/02/2022	2044371 DREGGIO	
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	06/02/2022	2044371 DREGGIO	
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	06/02/2022	2044371 DREGGIO	
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
Benzene	<0.5	µg/L	0.061	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	06/02/2022	2044371 DREGGIO	
Trichloroethylene	2.35	µg/L	0.093	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	06/02/2022	2044371 DREGGIO	
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	06/02/2022	2044371 DREGGIO	
Toluene	<0.5	µg/L	0.118	0.5	06/02/2022	2044371 DREGGIO	
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	06/02/2022	2044371 DREGGIO	
1,1,2-Trichloroethane	1.21	µg/L	0.052	0.5	06/02/2022	2044371 DREGGIO	
Chlorobenzene	<0.5	µg/L	0.185	0.5	06/02/2022	2044371 DREGGIO	
Ethylbenzene	<0.5	µg/L	0.05	0.5	06/02/2022	2044371 DREGGIO	
m,p-Xylene	<0.5	µg/L	0.151	0.5	06/02/2022	2044371 DREGGIO	
o-Xylene	<0.5	µg/L	0.076	0.5	06/02/2022	2044371 DREGGIO	
Styrene	<0.5	µg/L	0.053	0.5	06/02/2022	2044371 DREGGIO	
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	06/02/2022	2044371 DREGGIO	
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	06/02/2022	2044371 DREGGIO	
Xylene (total: p, m, o)	<0.5	µg/L		0.5	06/02/2022	2044371 DREGGIO	
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			06/02/2022	2044371 DREGGIO	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.88	µg/L			06/02/2022	2044371 DREGGIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

1,2-Dichlorobenzene d- (Surr.) 0.87 µg/L 06/02/2022 2044371 DREGGIO

Lab Sample#: 2293413-03 **Sample Source:** WSB_CAL-31A-480 **External ID:**

Date Collected: 05/26/2022 09:55AM **Date Received:** 05/26/2022 01:19PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-480

Test/Analyte

<u>MBI_IC_ANIONS_A(EPA 300.0 (A))</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Sulfate	2.49	mg/L	0.1	0.5	05/26/2022	2044099 DREGGIO	
Nitrate as N	<0.04	mg/L	0.034	0.04	05/26/2022	2044099 DREGGIO	

<u>SEM_200.7_DW(EPA 200.7)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Calcium, Ca	30.4	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
Magnesium, Mg	40	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
Sodium, Na	53.9	mg/L	0.02	1	06/03/2022	2044390 BTRINH	

<u>MBO_524_VOC(EPA 524.2)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Vinyl chloride	<0.5	µg/L	0.1	0.5	06/02/2022	2044371 DREGGIO	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	06/02/2022	2044371 DREGGIO	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	06/02/2022	2044371 DREGGIO	
Methylene chloride	<0.5	µg/L	0.058	0.5	06/02/2022	2044371 DREGGIO	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	06/02/2022	2044371 DREGGIO	
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	06/02/2022	2044371 DREGGIO	
Methyl t-butyl ether	<3	µg/L	0.106	3	06/02/2022	2044371 DREGGIO	
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	06/02/2022	2044371 DREGGIO	
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	06/02/2022	2044371 DREGGIO	
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	06/02/2022	2044371 DREGGIO	
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
Benzene	<0.5	µg/L	0.061	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	06/02/2022	2044371 DREGGIO	
Trichloroethylene	<0.5	µg/L	0.093	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	06/02/2022	2044371 DREGGIO	
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	06/02/2022	2044371 DREGGIO	
Toluene	<0.5	µg/L	0.118	0.5	06/02/2022	2044371 DREGGIO	
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	06/02/2022	2044371 DREGGIO	
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	06/02/2022	2044371 DREGGIO	
Tetrachloroethylene	<0.5	µg/L	0.114	0.5	06/02/2022	2044371 DREGGIO	
Chlorobenzene	<0.5	µg/L	0.185	0.5	06/02/2022	2044371 DREGGIO	
Ethylbenzene	<0.5	µg/L	0.05	0.5	06/02/2022	2044371 DREGGIO	
m,p-Xylene	<0.5	µg/L	0.151	0.5	06/02/2022	2044371 DREGGIO	
o-Xylene	<0.5	µg/L	0.076	0.5	06/02/2022	2044371 DREGGIO	
Styrene	<0.5	µg/L	0.053	0.5	06/02/2022	2044371 DREGGIO	
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	06/02/2022	2044371 DREGGIO	
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	06/02/2022	2044371 DREGGIO	
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	06/02/2022	2044371 DREGGIO	
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	06/02/2022	2044371 DREGGIO	
Xylene (total: p, m, o)	<0.5	µg/L		0.5	06/02/2022	2044371 DREGGIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Internal Standard(s)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Fluorobenzene (IS)	1	µg/L			06/02/2022	2044371 DREGGIO	headspace < 1ml high so2
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.81	µg/L			06/02/2022	2044371 DREGGIO	
1,2-Dichlorobenzene d- (Surr.)	0.84	µg/L			06/02/2022	2044371 DREGGIO	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	321	mg/L	2.96	15	05/27/2022	2044147 DREGGIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	45.4	mg/L		15	05/27/2022	2044148 DREGGIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	737	µmhos/cm		1	05/26/2022	2044101 WHORNER	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	241	mg/L	2.37	15	05/27/2022	2044149 DREGGIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.34	pH			05/26/2022	2044102 WHORNER	
Temperature (°C)	18.8	°C			05/26/2022	2044102 WHORNER	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	377	mg/L	13.2	20	05/27/2022	2044104 ALEE	
Lab Sample#: 2293413-03A Sample Source: WSB_CAL-31A-480 External ID:							
Date Collected: 05/26/2022 09:55AM		Date Received: 05/26/2022 01:19PM		Sample Matrix: Aqueous	Location Desc: GSR_CAL_CUP-31-480		
Test/Analyte							
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Potassium, K	10.8	mg/L	0.16	0.8	06/03/2022	2044390 BTRINH	
Lab Sample#: 2293413-04 Sample Source: WSB_CAL-31A-595 External ID:							
Date Collected: 05/26/2022 09:36AM		Date Received: 05/26/2022 01:19PM		Sample Matrix: Aqueous	Location Desc: GSR_CAL_CUP-31-595		
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	212	mg/L	2	10	05/26/2022	2044099 DREGGIO	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	104	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
Magnesium, Mg	55.3	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
Potassium, K	5.34	mg/L	0.04	0.2	06/03/2022	2044390 BTRINH	
Sodium, Na	98	mg/L	0.02	1	06/03/2022	2044390 BTRINH	
MBO_524_VOC(EPA 524.2)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Vinyl chloride	<0.5	µg/L	0.1	0.5	06/02/2022	2044371 DREGGIO	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	06/02/2022	2044371 DREGGIO	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	06/02/2022	2044371 DREGGIO	
Methylene chloride	<0.5	µg/L	0.058	0.5	06/02/2022	2044371 DREGGIO	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	06/02/2022	2044371 DREGGIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

<i>trans-1,2-Dichloroethylene</i>	<0.5	µg/L	0.099	0.5	06/02/2022	2044371	DREGGIO
<i>Methyl t-butyl ether</i>	<3	µg/L	0.106	3	06/02/2022	2044371	DREGGIO
<i>1,1-Dichloroethane</i>	<0.5	µg/L	0.192	0.5	06/02/2022	2044371	DREGGIO
<i>cis-1,2-dichloroethylene</i>	<0.5	µg/L	0.111	0.5	06/02/2022	2044371	DREGGIO
<i>1,1,1-Trichloroethane</i>	<0.5	µg/L	0.179	0.5	06/02/2022	2044371	DREGGIO
<i>Carbon tetrachloride</i>	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
<i>Benzene</i>	<0.5	µg/L	0.061	0.5	06/02/2022	2044371	DREGGIO
<i>1,2-Dichloroethane</i>	<0.5	µg/L	0.115	0.5	06/02/2022	2044371	DREGGIO
<i>Trichloroethylene</i>	<0.5	µg/L	0.093	0.5	06/02/2022	2044371	DREGGIO
<i>1,2-Dichloropropane</i>	<0.5	µg/L	0.073	0.5	06/02/2022	2044371	DREGGIO
<i>cis-1,3-dichloropropene</i>	<0.5	µg/L	0.07	0.5	06/02/2022	2044371	DREGGIO
<i>Toluene</i>	<0.5	µg/L	0.118	0.5	06/02/2022	2044371	DREGGIO
<i>trans-1,3-Dichloropropene</i>	<0.5	µg/L	0.213	0.5	06/02/2022	2044371	DREGGIO
<i>1,1,2-Trichloroethane</i>	<0.5	µg/L	0.052	0.5	06/02/2022	2044371	DREGGIO
<i>Tetrachloroethylene</i>	<0.5	µg/L	0.114	0.5	06/02/2022	2044371	DREGGIO
<i>Chlorobenzene</i>	<0.5	µg/L	0.185	0.5	06/02/2022	2044371	DREGGIO
<i>Ethylbenzene</i>	<0.5	µg/L	0.05	0.5	06/02/2022	2044371	DREGGIO
<i>m,p-Xylene</i>	<0.5	µg/L	0.151	0.5	06/02/2022	2044371	DREGGIO
<i>o-Xylene</i>	<0.5	µg/L	0.076	0.5	06/02/2022	2044371	DREGGIO
<i>Styrene</i>	<0.5	µg/L	0.053	0.5	06/02/2022	2044371	DREGGIO
<i>1,1,2,2-Tetrachloroethane</i>	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
<i>1,4-Dichlorobenzene</i>	<0.5	µg/L	0.082	0.5	06/02/2022	2044371	DREGGIO
<i>1,2-Dichlorobenzene</i>	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
<i>1,2,4-Trichlorobenzene</i>	<0.5	µg/L	0.084	0.5	06/02/2022	2044371	DREGGIO
<i>1,3-Dichloropropene Total (cis+ trans)</i>	<0.5	µg/L	0.5	0.5	06/02/2022	2044371	DREGGIO
<i>Xylene (total: p, m, o)</i>	<0.5	µg/L		0.5	06/02/2022	2044371	DREGGIO
Internal Standard(s)							
<i>Fluorobenzene (IS)</i>	1	µg/L			06/02/2022	2044371	DREGGIO
Surrogate(s)							
<i>p-Bromofluorobenzene (Surr.)</i>	0.86	µg/L			06/02/2022	2044371	DREGGIO
<i>1,2-Dichlorobenzene d- (Surr.)</i>	0.87	µg/L			06/02/2022	2044371	DREGGIO
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Alkalinity</i>	240	mg/L	2.96	15	05/27/2022	2044147	DREGGIO
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Chloride</i>	170	mg/L		15	05/27/2022	2044148	DREGGIO
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Specific Conductance</i>	1350	µmhos/cm		1	05/26/2022	2044101	WHORNER >MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Hardness, Total, as CaCO3</i>	470	mg/L	2.37	15	05/27/2022	2044149	DREGGIO
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>pH</i>	7.1	pH			05/26/2022	2044102	WHORNER
<i>Temperature (°C)</i>	18.7	°C			05/26/2022	2044102	WHORNER
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

<i>Total Dissolved Solids</i>	829	mg/L	13.2	20	05/27/2022	2044104	ALEE	>MCL
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Lab Sample#: 2293413-04A **Sample Source:** WSB_CAL-31A-595 **External ID:**

Date Collected: 05/26/2022 09:36AM **Date Received:** 05/26/2022 01:19PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-595

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Nitrate as N</i>	<0.04	mg/L	0.034	0.04	05/26/2022	2044099 DREGGIO	

Lab Sample#: 2293413-05 **Sample Source:** WSB_CAL_DUP **External ID:**

Date Collected: 05/26/2022 11:03AM **Date Received:** 05/26/2022 01:19PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-280

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Sulfate</i>	77.8	mg/L	1	5	05/26/2022	2044099 DREGGIO	
<i>Nitrate as N</i>	4.47	mg/L	0.34	0.4	05/26/2022	2044099 DREGGIO	

SEM_200.7_DW(EPA 200.7)

<i>Calcium, Ca</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Calcium, Ca</i>	50.4	mg/L	0.04	1	06/03/2022	2044390 BTRINH	
<i>Magnesium, Mg</i>	47.4	mg/L	0.007	0.2	06/03/2022	2044390 BTRINH	
<i>Potassium, K</i>	3.13	mg/L	0.04	0.2	06/03/2022	2044390 BTRINH	
<i>Sodium, Na</i>	71.9	mg/L	0.02	1	06/03/2022	2044390 BTRINH	

MBO_524_VOC(EPA 524.2)

<i>Tetrachloroethylene</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Tetrachloroethylene</i>	149	µg/L	1.14	5	06/02/2022	2044371 DREGGIO	>MCL

MBP_ALK(SM 2320 B)

<i>Alkalinity</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Alkalinity</i>	316	mg/L	2.96	15	05/27/2022	2044147 DREGGIO	

MBP_CHLORIDE(SM 4500-CL- D)

<i>Chloride</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Chloride</i>	46.4	mg/L		15	05/27/2022	2044148 DREGGIO	

MBP_COND(SM 2510 B)

<i>Specific Conductance</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance</i>	893	µmhos/cm		1	05/26/2022	2044101 WHORNER	

MBP_HARDNESS_T(SM 2340 C)

<i>Hardness, Total, as CaCO3</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	322	mg/L	2.37	15	05/27/2022	2044149 DREGGIO	

MBP_PH(SM 4500-H+ B)

<i>pH</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	6.88	pH			05/26/2022	2044102 WHORNER	
<i>Temperature (°C)</i>	19.5	°C			05/26/2022	2044102 WHORNER	

MBP_TDS(SM 2540 C)

<i>Total Dissolved Solids</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	513	mg/L	13.2	20	05/27/2022	2044104 ALEE	>MCL

Lab Sample#: 2293413-05A **Sample Source:** WSB_CAL_DUP **External ID:**

Date Collected: 05/26/2022 11:03AM **Date Received:** 05/26/2022 01:19PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-280 1x

Test/Analyte

<i>MBO_524_VOC(EPA 524.2)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Vinyl chloride</i>	<0.5	µg/L	0.1	0.5	06/02/2022	2044371 DREGGIO	
<i>Trichlorofluoromethane (F-11)</i>	<0.5	µg/L	0.052	0.5	06/02/2022	2044371 DREGGIO	
<i>1,1-Dichloroethylene</i>	<0.5	µg/L	0.075	0.5	06/02/2022	2044371 DREGGIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/26/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Compound	Result	Unit	MDL	MRL	Date	ID	Lab
Methylene chloride	<0.5	µg/L	0.058	0.5	06/02/2022	2044371	DREGGIO
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	06/02/2022	2044371	DREGGIO
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	06/02/2022	2044371	DREGGIO
Methyl t-butyl ether	<3	µg/L	0.106	3	06/02/2022	2044371	DREGGIO
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	06/02/2022	2044371	DREGGIO
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	06/02/2022	2044371	DREGGIO
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	06/02/2022	2044371	DREGGIO
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
Benzene	<0.5	µg/L	0.061	0.5	06/02/2022	2044371	DREGGIO
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	06/02/2022	2044371	DREGGIO
Trichloroethylene	2.17	µg/L	0.093	0.5	06/02/2022	2044371	DREGGIO
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	06/02/2022	2044371	DREGGIO
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	06/02/2022	2044371	DREGGIO
Toluene	<0.5	µg/L	0.118	0.5	06/02/2022	2044371	DREGGIO
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	06/02/2022	2044371	DREGGIO
1,1,2-Trichloroethane	1.21	µg/L	0.052	0.5	06/02/2022	2044371	DREGGIO
Chlorobenzene	<0.5	µg/L	0.185	0.5	06/02/2022	2044371	DREGGIO
Ethylbenzene	<0.5	µg/L	0.05	0.5	06/02/2022	2044371	DREGGIO
m,p-Xylene	<0.5	µg/L	0.151	0.5	06/02/2022	2044371	DREGGIO
o-Xylene	<0.5	µg/L	0.076	0.5	06/02/2022	2044371	DREGGIO
Styrene	<0.5	µg/L	0.053	0.5	06/02/2022	2044371	DREGGIO
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	06/02/2022	2044371	DREGGIO
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	06/02/2022	2044371	DREGGIO
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	06/02/2022	2044371	DREGGIO
Xylene (total: p, m, o)	<0.5	µg/L		0.5	06/02/2022	2044371	DREGGIO
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			06/02/2022	2044371	DREGGIO
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.88	µg/L			06/02/2022	2044371	DREGGIO
1,2-Dichlorobenzene d- (Surr.)	0.89	µg/L			06/02/2022	2044371	DREGGIO

Lab Sample#: 2293413-06 **Sample Source:** QC_TRIP_BLANK **External ID:**

Date Collected: 05/20/2022 11:15AM **Date Received:** 05/26/2022 01:19PM **Sample Matrix:** Aqueous **Location Desc:** TRIP_BLANK_GSR_CAL_CUP-31

Test/Analyte

MBO_524_VOC(EPA 524.2)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Vinyl chloride	<0.5	µg/L	0.1	0.5	06/02/2022	2044371	DREGGIO
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	06/02/2022	2044371	DREGGIO
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	06/02/2022	2044371	DREGGIO
Methylene chloride	<0.5	µg/L	0.058	0.5	06/02/2022	2044371	DREGGIO
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	06/02/2022	2044371	DREGGIO
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	06/02/2022	2044371	DREGGIO
Methyl t-butyl ether	<3	µg/L	0.106	3	06/02/2022	2044371	DREGGIO

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	06/02/2022	2044371	DREGGIO
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	06/02/2022	2044371	DREGGIO
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	06/02/2022	2044371	DREGGIO
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
Benzene	<0.5	µg/L	0.061	0.5	06/02/2022	2044371	DREGGIO
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	06/02/2022	2044371	DREGGIO
Trichloroethylene	<0.5	µg/L	0.093	0.5	06/02/2022	2044371	DREGGIO
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	06/02/2022	2044371	DREGGIO
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	06/02/2022	2044371	DREGGIO
Toluene	<0.5	µg/L	0.118	0.5	06/02/2022	2044371	DREGGIO
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	06/02/2022	2044371	DREGGIO
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	06/02/2022	2044371	DREGGIO
Tetrachloroethylene	<0.5	µg/L	0.114	0.5	06/02/2022	2044371	DREGGIO
Chlorobenzene	<0.5	µg/L	0.185	0.5	06/02/2022	2044371	DREGGIO
Ethylbenzene	<0.5	µg/L	0.05	0.5	06/02/2022	2044371	DREGGIO
m,p-Xylene	<0.5	µg/L	0.151	0.5	06/02/2022	2044371	DREGGIO
o-Xylene	<0.5	µg/L	0.076	0.5	06/02/2022	2044371	DREGGIO
Styrene	<0.5	µg/L	0.053	0.5	06/02/2022	2044371	DREGGIO
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	06/02/2022	2044371	DREGGIO
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	06/02/2022	2044371	DREGGIO
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	06/02/2022	2044371	DREGGIO
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	06/02/2022	2044371	DREGGIO
Xylene (total: p, m, o)	<0.5	µg/L		0.5	06/02/2022	2044371	DREGGIO
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			06/02/2022	2044371	DREGGIO
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.95	µg/L			06/02/2022	2044371	DREGGIO
1,2-Dichlorobenzene d- (Surr.)	0.88	µg/L			06/02/2022	2044371	DREGGIO

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

QC list for Run#: 2044099 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201386-01										
	MRL_CK	Fluoride		0.101	mg/L	101				
	MRL_CK	Chloride		0.508	mg/L	102				
	MRL_CK	Sulfate		0.505	mg/L	101				
	MRL_CK	Nitrate as N		0.0404	mg/L	101				
QC2201386-02										
	CCV	Fluoride		0.482	mg/L	96				
	CCV	Chloride		2.43	mg/L	97				
	CCV	Sulfate		2.38	mg/L	95				
	CCV	Nitrate as N		0.195	mg/L	98				
QC2201386-03										
	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201386-04										
	LCS	Fluoride		0.984	mg/L	98				
	LCS	Chloride		5.05	mg/L	101				
	LCS	Sulfate		4.84	mg/L	96				
	LCS	Nitrate as N		0.386	mg/L	97				
QC2201386-05										
	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2201386-06										
	SPK of 2293413-03	Fluoride	<0.1	0.531	mg/L	107				Splt# 2293413-03 (<0.1mg/L)
	SPK of 2293413-03	Sulfate	2.49	4.99	mg/L	101				Splt# 2293413-03 (2.49mg/L)
	SPK of 2293413-03	Nitrate as N	<0.04	0.197	mg/L	99				Splt# 2293413-03 (<0.04mg/L)
QC2201386-07										
	SPKD of 2293413-03	Fluoride	<0.1	0.506	mg/L	102	4			Splt# 2293413-03 (<0.1mg/L)
	SPKD of 2293413-03	Sulfate	2.49	4.89	mg/L	96	2			Splt# 2293413-03 (2.49mg/L)
	SPKD of 2293413-03	Nitrate as N	<0.04	0.186	mg/L	94	5			Splt# 2293413-03 (<0.04mg/L)
QC2201386-08										
	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Chloride		<1	mg/L			0.2	1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Sample ID	Container	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2201386-09	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	
	CCV	Fluoride	0.518	mg/L	104				
	CCV	Chloride	2.44	mg/L	97				
	CCV	Sulfate	2.39	mg/L	95				
	CCV	Nitrate as N	0.194	mg/L	97				
QC2201386-10	CCV	Fluoride	0.516	mg/L	103				
	CCV	Chloride	2.44	mg/L	97				
	CCV	Sulfate	2.39	mg/L	95				
	CCV	Nitrate as N	0.193	mg/L	97				
QC2201386-11	BLK	Fluoride	<0.1	mg/L			0.02	0.1	
	BLK	Chloride	<1	mg/L			0.2	1	
	BLK	Sulfate	<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	
QC2201386-12	DUP of 2293024-03	Fluoride	0.633	0.637	mg/L	0	0.02	0.1	Splt# 2293024-03 (0.633mg/L)
	DUP of 2293024-03	Sulfate	14.5	14.5	mg/L	0	0.1	0.5	Splt# 2293024-03 (14.5mg/L)
	DUP of 2293024-03	Nitrate as N	<0.04	<0.04	mg/L	N/A	0.034	0.04	Splt# 2293024-03 (<0.04mg/L)

QC list for Run#: 2044101 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201388-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2201388-02	MRL_CK	Specific Conductance	9.64		µmhos/cm	96				
QC2201388-03	CCV	Specific Conductance	99.5		µmhos/cm	99				
QC2201388-06	DUP of 2293273-02	Specific Conductance	88.7	89	µmhos/cm		0		1	Splt# 2293273-02 (88.7µmhos/cm)
QC2201388-08	LCS	Specific Conductance	151		µmhos/cm	103			1	

QC list for Run#: 2044102 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201389-04	ICV	pH	8.99		pH	99				
	ICV	Temperature (°C)	21		°C					
QC2201389-05	DUP of 2293258-04	pH	8.96	9	pH		0			Splt# 2293258-04 (8.96pH)

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Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

DUP of 2293258-04	Temperature (°C)	16.3	16.3	°C					Splt# 2293258-04 (16.3°C)
QC2201389-06	CCV	pH		8.99	pH	99			
	CCV	Temperature (°C)		21	°C				
QC2201389-07	CCV	pH		8.99	pH	99			
	CCV	Temperature (°C)		21.1	°C				

QC list for Run#: 2044104 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201385-01	DUP of 2293413-05	Total Dissolved Solids	513	515	mg/L		0	13.2	20	Splt# 2293413-05 (513mg/L)
QC2201385-02	DUP of 2293474-01	Total Dissolved Solids	<20	<20	mg/L		N/A	13.2	20	Splt# 2293474-01 (<20mg/L)
QC2201385-03	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2201385-04	LCS	Total Dissolved Solids		85	mg/L	89		13.2	20	

QC list for Run#: 2044147 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201421-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2201421-02	MRL_CK	Alkalinity		3.83	mg/L	128				
QC2201421-03	LCS	Alkalinity		39.9	mg/L	99			3	
QC2201421-04	DUP of 2293255-06	Alkalinity	14.1	14	mg/L		0	0.593	3	Splt# 2293255-06 (14.1mg/L)
QC2201421-05	LCS	Alkalinity		39.7	mg/L	99			3	

QC list for Run#: 2044148 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201422-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2201422-02	MRL_CK	Chloride		2.77	mg/L	92				
QC2201422-03	LCS	Chloride		38.8	mg/L	96			3	
QC2201422-04	SPK of 2293255-06	Chloride	4.15	43	mg/L	97			3	Splt# 2293255-06 (4.15mg/L)
QC2201422-05										

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Water Quality Laboratory

FOLDER ID: 2293413

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Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

SPKD of 2293255-06	Chloride	4.15	42.9	mg/L	96	0	3	Splt# 2293255-06 (4.15mg/L)
QC2201422-07	LCS	Chloride	38.9	mg/L	97		3	

QC list for Run#: 2044149 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201423-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2201423-02	MRL_CK	Hardness, Total, as CaCO3	3.05		mg/L	102				
QC2201423-03	LCS	Hardness, Total, as CaCO3	43.1		mg/L	108			3	
QC2201423-04	DUP of 2293255-06	Hardness, Total, as CaCO3	11.3	11	mg/L		2	0.474	3	Splt# 2293255-06 (11.3mg/L)
QC2201423-05	LCS	Hardness, Total, as CaCO3	43.2		mg/L	108			3	

QC list for Run#: 2044371 and Test: MBO_524_VOC (EPA 524.2)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201584-01	MRL_CK	m,p-Xylene	0.33		µg/L	82				
	MRL_CK	o-Xylene	0.17		µg/L	85				
Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1		µg/L	100				
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	0.96		µg/L	96				
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	0.94		µg/L	94				
QC2201584-02	MRL_CK	Vinyl chloride	0.55		µg/L	110				
	MRL_CK	Trichlorofluoromethane (F-11)	0.49		µg/L	98				
	MRL_CK	1,1-Dichloroethylene	0.52		µg/L	104				
	MRL_CK	Methylene chloride	0.56		µg/L	112				
	MRL_CK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	0.5		µg/L	100				
	MRL_CK	trans-1,2-Dichloroethylene	0.54		µg/L	108				
	MRL_CK	Methyl t-butyl ether	0.52		µg/L	104				
	MRL_CK	1,1-Dichloroethane	0.5		µg/L	100				
	MRL_CK	cis-1,2-dichloroethylene	0.53		µg/L	106				
	MRL_CK	1,1,1-Trichloroethane	0.53		µg/L	106				
	MRL_CK	Carbon tetrachloride	0.51		µg/L	102				
	MRL_CK	Benzene	0.52		µg/L	104				
	MRL_CK	1,2-Dichloroethane	0.55		µg/L	110				
	MRL_CK	Trichloroethylene	0.51		µg/L	102				
	MRL_CK	1,2-Dichloropropane	0.56		µg/L	112				
	MRL_CK	cis-1,3-dichloropropene	0.5		µg/L	100				

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Water Quality Laboratory

FOLDER ID: 2293413

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Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/26/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

MRL_CK	Toluene	0.52	µg/L	104		
MRL_CK	trans-1,3-Dichloropropene	0.48	µg/L	96		
MRL_CK	1,1,2-Trichloroethane	0.53	µg/L	106		
MRL_CK	Tetrachloroethylene	0.49	µg/L	98		
MRL_CK	Chlorobenzene	0.53	µg/L	106		
MRL_CK	Ethylbenzene	0.48	µg/L	96		
MRL_CK	m,p-Xylene	0.96	µg/L	96		
MRL_CK	o-Xylene	0.49	µg/L	98		
MRL_CK	Styrene	0.47	µg/L	94		
MRL_CK	1,1,2,2-Tetrachloroethane	0.57	µg/L	114		
MRL_CK	1,4-Dichlorobenzene	0.48	µg/L	96		
MRL_CK	1,2-Dichlorobenzene	0.5	µg/L	100		
MRL_CK	1,2,4-Trichlorobenzene	0.54	µg/L	108		
Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1	µg/L	100	
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	0.88	µg/L	88	
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	0.87	µg/L	87	
QC2201584-04						
CCV	Vinyl chloride	20.9	µg/L	104	0.1	0.5
CCV	Trichlorofluoromethane (F-11)	21.4	µg/L	107	0.052	0.5
CCV	1,1-Dichloroethylene	19.7	µg/L	98	0.075	0.5
CCV	Methylene chloride	19.3	µg/L	96	0.058	0.5
CCV	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	22.2	µg/L	111	0.114	0.5
CCV	trans-1,2-Dichloroethylene	19.4	µg/L	96	0.099	0.5
CCV	Methyl t-butyl ether	19.9	µg/L	99	0.106	3
CCV	1,1-Dichloroethane	19.7	µg/L	98	0.192	0.5
CCV	cis-1,2-dichloroethylene	18.7	µg/L	93	0.111	0.5
CCV	1,1,1-Trichloroethane	20.2	µg/L	101	0.179	0.5
CCV	Carbon tetrachloride	20.6	µg/L	103	0.066	0.5
CCV	Benzene	20.1	µg/L	100	0.061	0.5
CCV	1,2-Dichloroethane	19.4	µg/L	97	0.115	0.5
CCV	Trichloroethylene	20.2	µg/L	101	0.093	0.5
CCV	1,2-Dichloropropane	19.9	µg/L	99	0.073	0.5
CCV	cis-1,3-dichloropropene	20.2	µg/L	101	0.07	0.5
CCV	Toluene	20.6	µg/L	103	0.118	0.5
CCV	trans-1,3-Dichloropropene	20.2	µg/L	101	0.213	0.5
CCV	1,1,2-Trichloroethane	20	µg/L	100	0.052	0.5
CCV	Tetrachloroethylene	20.1	µg/L	101	0.114	0.5
CCV	Chlorobenzene	20.4	µg/L	102	0.185	0.5
CCV	Ethylbenzene	20.6	µg/L	103	0.05	0.5
CCV	m,p-Xylene	43.2	µg/L	108	0.151	0.5

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FOLDER ID: 2293413

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Project: WESTSIDE_BASIN

Scheduled Sample Date: 05/26/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

	CCV	o-Xylene	20.6	µg/L	103	0.076	0.5
	CCV	Styrene	21.4	µg/L	107	0.053	0.5
	CCV	1,1,2,2-Tetrachloroethane	20	µg/L	100	0.066	0.5
	CCV	1,4-Dichlorobenzene	20.7	µg/L	104	0.082	0.5
	CCV	1,2-Dichlorobenzene	20.4	µg/L	102	0.066	0.5
	CCV	1,2,4-Trichlorobenzene	20.5	µg/L	102	0.084	0.5
Internal Standard(s)	CCV	Fluorobenzene (IS)	1	µg/L	100		
Surrogate(s)	CCV	p-Bromofluorobenzene (Surr.)	1.09	µg/L	109		
Surrogate(s)	CCV	1,2-Dichlorobenzene d- (Surr.)	1.13	µg/L	113		
QC2201584-05							
	LCS	Vinyl chloride	9.24	µg/L	92	0.1	0.5
	LCS	Trichlorofluoromethane (F-11)	9.73	µg/L	97	0.052	0.5
	LCS	1,1-Dichloroethylene	9.82	µg/L	98	0.075	0.5
	LCS	Methylene chloride	9.63	µg/L	96	0.058	0.5
	LCS	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	9.14	µg/L	91	0.114	0.5
	LCS	trans-1,2-Dichloroethylene	9.48	µg/L	94	0.099	0.5
	LCS	Methyl t-butyl ether	9.35	µg/L	93	0.106	3
	LCS	1,1-Dichloroethane	9.61	µg/L	96	0.192	0.5
	LCS	cis-1,2-dichloroethylene	9.45	µg/L	94	0.111	0.5
	LCS	1,1,1-Trichloroethane	9.28	µg/L	92	0.179	0.5
	LCS	Carbon tetrachloride	9.66	µg/L	96	0.066	0.5
	LCS	Benzene	9.35	µg/L	93	0.061	0.5
	LCS	1,2-Dichloroethane	9.51	µg/L	95	0.115	0.5
	LCS	Trichloroethylene	9.61	µg/L	96	0.093	0.5
	LCS	1,2-Dichloropropane	9.26	µg/L	92	0.073	0.5
	LCS	cis-1,3-dichloropropene	9.31	µg/L	93	0.07	0.5
	LCS	Toluene	9.75	µg/L	97	0.118	0.5
	LCS	trans-1,3-Dichloropropene	9.43	µg/L	94	0.213	0.5
	LCS	1,1,2-Trichloroethane	9.82	µg/L	98	0.052	0.5
	LCS	Tetrachloroethylene	9.56	µg/L	95	0.114	0.5
	LCS	Chlorobenzene	9.54	µg/L	95	0.185	0.5
	LCS	Ethylbenzene	9.49	µg/L	94	0.05	0.5
	LCS	m,p-Xylene	19.8	µg/L	99	0.151	0.5
	LCS	o-Xylene	9.31	µg/L	93	0.076	0.5
	LCS	Styrene	9.53	µg/L	95	0.053	0.5
	LCS	1,1,2,2-Tetrachloroethane	9.93	µg/L	99	0.066	0.5
	LCS	1,4-Dichlorobenzene	9.73	µg/L	97	0.082	0.5
	LCS	1,2-Dichlorobenzene	9.48	µg/L	94	0.066	0.5
	LCS	1,2,4-Trichlorobenzene	9.26	µg/L	92	0.084	0.5
Internal Standard(s)	LCS	Fluorobenzene (IS)	1	µg/L	100		

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Water Quality Laboratory

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Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Surrogate(s)	LCS	p-Bromofluorobenzene (Surr.)	0.94	µg/L	94					
Surrogate(s)	LCS	1,2-Dichlorobenzene d- (Surr.)	0.93	µg/L	93					
QC2201584-06										
LCSD of QC2201584-05	Vinyl chloride	9.24	9.61	µg/L	96	3	0.1	0.5	Splt# QC2201584-05	(9.24µg/L)
LCSD of QC2201584-05	Trichlorofluoromethane (F-11)	9.73	10.4	µg/L	104	6	0.052	0.5	Splt# QC2201584-05	(9.73µg/L)
LCSD of QC2201584-05	1,1-Dichloroethylene	9.82	10.5	µg/L	105	7	0.075	0.5	Splt# QC2201584-05	(9.82µg/L)
LCSD of QC2201584-05	Methylene chloride	9.63	10.1	µg/L	101	4	0.058	0.5	Splt# QC2201584-05	(9.63µg/L)
LCSD of QC2201584-05	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	9.14	9.42	µg/L	94	3	0.114	0.5	Splt# QC2201584-05	(9.14µg/L)
LCSD of QC2201584-05	trans-1,2-Dichloroethylene	9.48	9.94	µg/L	99	4	0.099	0.5	Splt# QC2201584-05	(9.48µg/L)
LCSD of QC2201584-05	Methyl t-butyl ether	9.35	9.49	µg/L	94	1	0.106	3	Splt# QC2201584-05	(9.35µg/L)
LCSD of QC2201584-05	1,1-Dichloroethane	9.61	9.98	µg/L	99	3	0.192	0.5	Splt# QC2201584-05	(9.61µg/L)
LCSD of QC2201584-05	cis-1,2-dichloroethylene	9.45	9.58	µg/L	95	1	0.111	0.5	Splt# QC2201584-05	(9.45µg/L)
LCSD of QC2201584-05	1,1,1-Trichloroethane	9.28	9.49	µg/L	94	2	0.179	0.5	Splt# QC2201584-05	(9.28µg/L)
LCSD of QC2201584-05	Carbon tetrachloride	9.66	10.3	µg/L	103	6	0.066	0.5	Splt# QC2201584-05	(9.66µg/L)
LCSD of QC2201584-05	Benzene	9.35	9.9	µg/L	99	5	0.061	0.5	Splt# QC2201584-05	(9.35µg/L)
LCSD of QC2201584-05	1,2-Dichloroethane	9.51	9.63	µg/L	96	1	0.115	0.5	Splt# QC2201584-05	(9.51µg/L)
LCSD of QC2201584-05	Trichloroethylene	9.61	10	µg/L	100	4	0.093	0.5	Splt# QC2201584-05	(9.61µg/L)
LCSD of QC2201584-05	1,2-Dichloropropane	9.26	9.73	µg/L	97	4	0.073	0.5	Splt# QC2201584-05	(9.26µg/L)
LCSD of QC2201584-05	cis-1,3-dichloropropene	9.31	9.47	µg/L	94	1	0.07	0.5	Splt# QC2201584-05	(9.31µg/L)
LCSD of QC2201584-05	Toluene	9.75	10.2	µg/L	102	4	0.118	0.5	Splt# QC2201584-05	(9.75µg/L)
LCSD of QC2201584-05	trans-1,3-Dichloropropene	9.43	9.85	µg/L	98	4	0.213	0.5	Splt# QC2201584-05	(9.43µg/L)
LCSD of QC2201584-05	1,1,2-Trichloroethane	9.82	9.75	µg/L	97	0	0.052	0.5	Splt# QC2201584-05	(9.82µg/L)
LCSD of QC2201584-05	Tetrachloroethylene	9.56	10.1	µg/L	101	5	0.114	0.5	Splt# QC2201584-05	(9.56µg/L)
LCSD of QC2201584-05	Chlorobenzene	9.54	9.76	µg/L	97	2	0.185	0.5	Splt# QC2201584-05	(9.54µg/L)
LCSD of QC2201584-05	Ethylbenzene	9.49	9.93	µg/L	99	4	0.05	0.5	Splt# QC2201584-05	(9.49µg/L)
LCSD of QC2201584-05	m,p-Xylene	19.8	20.8	µg/L	104	4	0.151	0.5	Splt# QC2201584-05	(19.8µg/L)
LCSD of QC2201584-05	o-Xylene	9.31	9.8	µg/L	98	5	0.076	0.5	Splt# QC2201584-05	(9.31µg/L)
LCSD of QC2201584-05	Styrene	9.53	9.86	µg/L	98	3	0.053	0.5	Splt# QC2201584-05	(9.53µg/L)
LCSD of QC2201584-05	1,1,2,2-Tetrachloroethane	9.93	10.1	µg/L	101	1	0.066	0.5	Splt# QC2201584-05	(9.93µg/L)
LCSD of QC2201584-05	1,4-Dichlorobenzene	9.73	9.99	µg/L	99	2	0.082	0.5	Splt# QC2201584-05	(9.73µg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Sample ID	Compound	Concentration	Unit	Method	Volume	Flow	Temp	Pressure	Notes
LCSD of QC2201584-05	1,2-Dichlorobenzene	9.48	9.96	µg/L	99	4	0.066	0.5	Splt# QC2201584-05 (9.48µg/L)
LCSD of QC2201584-05	1,2,4-Trichlorobenzene	9.26	9.55	µg/L	95	3	0.084	0.5	Splt# QC2201584-05 (9.26µg/L)
Internal Standard(s)	Fluorobenzene (IS)	1	1	µg/L	100	0			Splt# QC2201584-05 (1µg/L)
Surrogate(s)	p-Bromofluorobenzene (Surr.)	0.94	0.96	µg/L	96	2			Splt# QC2201584-05 (0.94µg/L)
Surrogate(s)	1,2-Dichlorobenzene d- (Surr.)	0.93	0.94	µg/L	94	1			Splt# QC2201584-05 (0.93µg/L)
QC2201584-07									
BLK	Vinyl chloride	<0.5		µg/L			0.1	0.5	
BLK	Trichlorofluoromethane (F-11)	<0.5		µg/L			0.052	0.5	
BLK	1,1-Dichloroethylene	<0.5		µg/L			0.075	0.5	
BLK	Methylene chloride	<0.5		µg/L			0.058	0.5	
BLK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	<0.5		µg/L			0.114	0.5	
BLK	trans-1,2-Dichloroethylene	<0.5		µg/L			0.099	0.5	
BLK	Methyl t-butyl ether	<3		µg/L			0.106	3	
BLK	1,1-Dichloroethane	<0.5		µg/L			0.192	0.5	
BLK	cis-1,2-dichloroethylene	<0.5		µg/L			0.111	0.5	
BLK	1,1,1-Trichloroethane	<0.5		µg/L			0.179	0.5	
BLK	Carbon tetrachloride	<0.5		µg/L			0.066	0.5	
BLK	Benzene	<0.5		µg/L			0.061	0.5	
BLK	1,2-Dichloroethane	<0.5		µg/L			0.115	0.5	
BLK	Trichloroethylene	<0.5		µg/L			0.093	0.5	
BLK	1,2-Dichloropropane	<0.5		µg/L			0.073	0.5	
BLK	cis-1,3-dichloropropene	<0.5		µg/L			0.07	0.5	
BLK	Toluene	<0.5		µg/L			0.118	0.5	
BLK	trans-1,3-Dichloropropene	<0.5		µg/L			0.213	0.5	
BLK	1,1,2-Trichloroethane	<0.5		µg/L			0.052	0.5	
BLK	Tetrachloroethylene	<0.5		µg/L			0.114	0.5	
BLK	Chlorobenzene	<0.5		µg/L			0.185	0.5	
BLK	Ethylbenzene	<0.5		µg/L			0.05	0.5	
BLK	m,p-Xylene	<0.5		µg/L			0.151	0.5	
BLK	o-Xylene	<0.5		µg/L			0.076	0.5	
BLK	Styrene	<0.5		µg/L			0.053	0.5	
BLK	1,1,2,2-Tetrachloroethane	<0.5		µg/L			0.066	0.5	
BLK	1,4-Dichlorobenzene	<0.5		µg/L			0.082	0.5	
BLK	1,2-Dichlorobenzene	<0.5		µg/L			0.066	0.5	
BLK	1,2,4-Trichlorobenzene	<0.5		µg/L			0.084	0.5	
Internal Standard(s)	BLK	Fluorobenzene (IS)	1	µg/L	100				
Surrogate(s)	BLK	p-Bromofluorobenzene (Surr.)	0.96	µg/L	96				
Surrogate(s)	BLK	1,2-Dichlorobenzene d- (Surr.)	0.91	µg/L	91				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

QC2201584-08

DUP of 2293370-02	Vinyl chloride	21.9	22	µg/L	0	0.1	0.5	Splt# 2293370-02 (21.9µg/L)
DUP of 2293370-02	Trichlorofluoromethane (F-11)		<0.5	µg/L		0.052	0.5	Splt# 2293370-02
DUP of 2293370-02	1,1-Dichloroethylene	17.4	17.5	µg/L	0	0.075	0.5	Splt# 2293370-02 (17.4µg/L)
DUP of 2293370-02	Methylene chloride	9.38	9.79	µg/L	4	0.058	0.5	Splt# 2293370-02 (9.38µg/L)
DUP of 2293370-02	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre		<0.5	µg/L		0.114	0.5	Splt# 2293370-02
DUP of 2293370-02	trans-1,2-Dichloroethylene	13.7	13.6	µg/L	0	0.099	0.5	Splt# 2293370-02 (13.7µg/L)
DUP of 2293370-02	Methyl t-butyl ether		<3	µg/L		0.106	3	Splt# 2293370-02
DUP of 2293370-02	1,1-Dichloroethane		<0.5	µg/L		0.192	0.5	Splt# 2293370-02
DUP of 2293370-02	cis-1,2-dichloroethylene	3.73	3.87	µg/L	3	0.111	0.5	Splt# 2293370-02 (3.73µg/L)
DUP of 2293370-02	1,1,1-Trichloroethane	13.2	13.1	µg/L	0	0.179	0.5	Splt# 2293370-02 (13.2µg/L)
DUP of 2293370-02	Carbon tetrachloride	4.96	5.08	µg/L	2	0.066	0.5	Splt# 2293370-02 (4.96µg/L)
DUP of 2293370-02	Benzene	5.16	5.29	µg/L	2	0.061	0.5	Splt# 2293370-02 (5.16µg/L)
DUP of 2293370-02	1,2-Dichloroethane	11.1	11.6	µg/L	4	0.115	0.5	Splt# 2293370-02 (11.1µg/L)
DUP of 2293370-02	Trichloroethylene	13.4	13.7	µg/L	1	0.093	0.5	Splt# 2293370-02 (13.4µg/L)
DUP of 2293370-02	1,2-Dichloropropane	4.97	5.23	µg/L	5	0.073	0.5	Splt# 2293370-02 (4.97µg/L)
DUP of 2293370-02	cis-1,3-dichloropropene		<0.5	µg/L		0.07	0.5	Splt# 2293370-02
DUP of 2293370-02	Toluene	1.94	1.98	µg/L	2	0.118	0.5	Splt# 2293370-02 (1.94µg/L)
DUP of 2293370-02	trans-1,3-Dichloropropene		<0.5	µg/L		0.213	0.5	Splt# 2293370-02
DUP of 2293370-02	1,1,2-Trichloroethane	11.6	12	µg/L	4	0.052	0.5	Splt# 2293370-02 (11.6µg/L)
DUP of 2293370-02	Tetrachloroethylene	7.64	7.88	µg/L	3	0.114	0.5	Splt# 2293370-02 (7.64µg/L)
DUP of 2293370-02	Chlorobenzene	2.43	2.56	µg/L	5	0.185	0.5	Splt# 2293370-02 (2.43µg/L)
DUP of 2293370-02	Ethylbenzene	16.7	17.1	µg/L	2	0.05	0.5	Splt# 2293370-02 (16.7µg/L)
DUP of 2293370-02	m,p-Xylene	25.8	26.2	µg/L	1	0.151	0.5	Splt# 2293370-02 (25.8µg/L)
DUP of 2293370-02	o-Xylene	8.42	8.71	µg/L	3	0.076	0.5	Splt# 2293370-02 (8.42µg/L)
DUP of 2293370-02	Styrene	16.6	17	µg/L	2	0.053	0.5	Splt# 2293370-02 (16.6µg/L)
DUP of 2293370-02	1,1,2,2-Tetrachloroethane		<0.5	µg/L		0.066	0.5	Splt# 2293370-02
DUP of 2293370-02	1,4-Dichlorobenzene	1.96	1.98	µg/L	1	0.082	0.5	Splt# 2293370-02 (1.96µg/L)
DUP of 2293370-02	1,2-Dichlorobenzene	3.58	3.75	µg/L	4	0.066	0.5	Splt# 2293370-02 (3.58µg/L)
DUP of 2293370-02	1,2,4-Trichlorobenzene	2.9	3.03	µg/L	4	0.084	0.5	Splt# 2293370-02 (2.9µg/L)
DUP of 2293370-02	1,3-Dichloropropene Total (cis+ trans)		<0.5	µg/L	r: No Parent		0.5	Splt# 2293370-02
DUP of 2293370-02	Xylene (total: p, m, o)	34.2	34.9	µg/L	2		0.5	Splt# 2293370-02 (34.2µg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Internal Standard(s)	Fluorobenzene (IS)	1	1	µg/L	100	Split# 2293370-02 (1µg/L)
Surrogate(s)	p-Bromofluorobenzene (Surr.)	0.93	0.93	µg/L	93	Split# 2293370-02 (0.93µg/L)
Surrogate(s)	1,2-Dichlorobenzene d- (Surr.)	0.95	0.9	µg/L	90	Split# 2293370-02 (0.95µg/L)

QC list for Run#: 2044390 and Test: SEM_200.7_DW (EPA 200.7)										
Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2201485-01										
	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2201485-02										
	LCS	Calcium, Ca		1.81	mg/L	90		0.04	1	
	LCS	Magnesium, Mg		1.98	mg/L	99		0.007	0.2	
	LCS	Potassium, K		2.03	mg/L	101		0.04	0.2	
	LCS	Sodium, Na		1.99	mg/L	99		0.02	1	
QC2201485-03										
	DUP of 2292987-01	Calcium, Ca	92.9	92.5	mg/L		0	0.04	1	Split# 2292987-01 (92.9mg/L)
	DUP of 2292987-01	Magnesium, Mg	76.4	76.5	mg/L		0	0.007	0.2	Split# 2292987-01 (76.4mg/L)
	DUP of 2292987-01	Potassium, K	4.41	4.47	mg/L		1	0.04	0.2	Split# 2292987-01 (4.41mg/L)
	DUP of 2292987-01	Sodium, Na	82.7	81.5	mg/L		1	0.02	1	Split# 2292987-01 (82.7mg/L)
QC2201485-04										
	SPK of 2292987-01	Calcium, Ca	92.9	94.1	mg/L	62		0.04	1	Split# 2292987-01 (92.9mg/L)
	SPK of 2292987-01	Magnesium, Mg	76.4	77.3	mg/L	43		0.007	0.2	Split# 2292987-01 (76.4mg/L)
	SPK of 2292987-01	Potassium, K	4.41	6.75	mg/L	117		0.04	0.2	Split# 2292987-01 (4.41mg/L)
	SPK of 2292987-01	Sodium, Na	82.7	83.2	mg/L	26		0.02	1	Split# 2292987-01 (82.7mg/L)
QC2201485-05										
	SPKD of 2292987-01	Calcium, Ca	92.9	93.4	mg/L	27	0	0.04	1	Split# 2292987-01 (92.9mg/L)
	SPKD of 2292987-01	Magnesium, Mg	76.4	78.2	mg/L	87	1	0.007	0.2	Split# 2292987-01 (76.4mg/L)
	SPKD of 2292987-01	Potassium, K	4.41	6.6	mg/L	110	2	0.04	0.2	Split# 2292987-01 (4.41mg/L)
	SPKD of 2292987-01	Sodium, Na	82.7	83.9	mg/L	56	0	0.02	1	Split# 2292987-01 (82.7mg/L)
QC2201485-06										
	MRL_CK	Calcium, Ca		<1	mg/L	N/A		0.04	1	
	MRL_CK	Magnesium, Mg		<0.2	mg/L	N/A		0.007	0.2	
	MRL_CK	Potassium, K		0.255	mg/L	102		0.04	0.2	
	MRL_CK	Sodium, Na		<1	mg/L	N/A		0.02	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

QC2201600-01	ICV	Potassium, K	2.02	mg/L	101	0.03	0.2
QC2201600-02	ICV	Calcium, Ca	9.82	mg/L	98	0.05	1
	ICV	Magnesium, Mg	9.78	mg/L	96	0.01	0.2
	ICV	Sodium, Na	10.3	mg/L	103	0.002	1

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Qualifiers Legend:

Flag

Code	Description
B	Analyte Detected in Blank
UD	Analyzed, but result is undetermined
NFC	Not For Compliance. Method specification(s) not met.
T6	Sample was received at above 6°C
UJ	Analyzed, but not detected, the quantitation limit is an estimated quantity
V	Result in violation
U	Analyzed, but not detected
TIC	Tentatively Identified Compound
R	Data unusable
N	Not used in diversity analyses
E	Exceeds Calibration Range, to be used as minimum
J	The numerical value is an estimated quantity
EST	Estimated value
NA	Not Analyzed
ND	No Data
NS	Not Sampled

RQualifier

Code	Description
DNQ	Detected, but Not Quantified
>	Greater Than
<	Less Than
-	Negative
A	Bacti result, absent
=	Equals
P	Bacti result, present
I	Bacti result, Inconclusive value. Analyzed, but result is undetermined
+	Positive

QC Type

Code	Description
BLK	Method Blank Sample
CAL	Calibration Sample
CCV	Continuing Calibration Verification Sample
DUP	Duplicate Sample
ICV	Initial Calibration Verification Sample
LCS	Laboratory Control Standard Sample
LCSD	Laboratory Control Standard Duplicate Sample
MRL_CK	Method Reporting Level Check Sample
SPK	Matrix Spike Sample
SPKD	Matrix Spike Duplicate Sample

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2293413

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

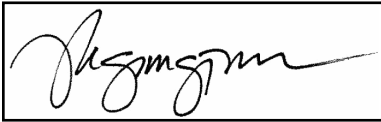
Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 05/26/2022

Sampling Team: Field

Please email labfeedback@sfwater.org <<mailto:labfeedback@sfwater.org>> to report any comments, complaints, compliments or suggestions. Please provide detailed descriptions and attach documentation as necessary.

Reported By: Megan Tran



Reported On: 28-Jun-2022

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

Lab Sample#:	2292260-01	Sample Source:	WSB_SB-44-1-190	External ID:	
Date Collected:	04/19/2022 10:48AM	Date Received:	04/19/2022 01:03PM	Sample Matrix:	Aqueous
				Location Desc:	GSR_SB_CUP-44-1-190, GG NATIONAL CEMETE

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	99	mg/L	1	5	04/19/2022	2042229 PWARNER	
Nitrate as N	6.29	mg/L	0.34	0.4	04/19/2022	2042229 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	48	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	34.1	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	1.55	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	273	mg/L	1.19	6	04/19/2022	2042228 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	95.8	mg/L		6	04/19/2022	2042233 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance	1040	µmhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	263	mg/L	0.948	6	04/19/2022	2042249 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	6.4	pH			04/19/2022	2042236 DCARDONA	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	598	mg/L	13.2	20	04/22/2022	2042361 ABALALIO	>MCL

Lab Sample#:	2292260-01A	Sample Source:	WSB_SB-44-1-190	External ID:	
Date Collected:	04/19/2022 10:48AM	Date Received:	04/19/2022 01:03PM	Sample Matrix:	Aqueous
				Location Desc:	GSR_SB_CUP-44-1-190, GG NATIONAL CEMETE

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Sodium, Na	117	mg/L	0.08	4	04/27/2022	2042514 BTRINH	

Lab Sample#:	2292260-02	Sample Source:	WSB_SB-44-1-300	External ID:	
Date Collected:	04/19/2022 11:15AM	Date Received:	04/19/2022 01:03PM	Sample Matrix:	Aqueous
				Location Desc:	GSR_SB_CUP-44-1-300, GG NATIONAL CEMETE

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	102	mg/L	1	5	04/19/2022	2042229 PWARNER	
Nitrate as N	6.39	mg/L	0.34	0.4	04/19/2022	2042229 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	51	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	35.9	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	1.71	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	271	mg/L	1.19	6	04/19/2022	2042228 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	94.7	mg/L		6	04/19/2022	2042233 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	1050	µmhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	272	mg/L	0.948	6	04/19/2022	2042249 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.41	pH			04/19/2022	2042236 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	603	mg/L	13.2	20	04/22/2022	2042361 ABALALIO	>MCL

Lab Sample#: 2292260-02A **Sample Source:** WSB_SB-44-1-300 **External ID:**

Date Collected: 04/19/2022 11:15AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-300, GG NATIONAL CEMETE

Test/Analyte

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sodium, Na	122	mg/L	0.08	4	04/27/2022	2042514 BTRINH	

Lab Sample#: 2292260-03 **Sample Source:** WSB_SB-44-1-460 **External ID:**

Date Collected: 04/19/2022 10:01AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-460, GG NATIONAL CEMETE

Test/Analyte

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	103	mg/L	1	5	04/19/2022	2042229 PWARNER	
Nitrate as N	1.25	mg/L	0.34	0.4	04/19/2022	2042229 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	54.2	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	45.8	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	3.49	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
Sodium, Na	66.2	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	176	mg/L	1.19	6	04/19/2022	2042228 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	128	mg/L		6	04/19/2022	2042233 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	946	µmhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	327	mg/L	0.948	6	04/19/2022	2042249 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.88	pH			04/19/2022	2042236 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

<i>Total Dissolved Solids</i>	522	mg/L	13.2	20	04/22/2022	2042361	ABALALIO	>MCL
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Lab Sample#: 2292260-04 **Sample Source:** WSB_SB-44-1-580 **External ID:**

Date Collected: 04/19/2022 09:50AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Sulfate</i>	379	mg/L	2.5	12.5	04/19/2022	2042229 PWARNER	>MCL

<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
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<i>Calcium, Ca</i>	111	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
<i>Magnesium, Mg</i>	97.7	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	

<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
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<i>Alkalinity</i>	288	mg/L	2.96	15	04/19/2022	2042228 ALEE	
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<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
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<i>Chloride</i>	207	mg/L		15	04/19/2022	2042233 ALEE	
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<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
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<i>Specific Conductance</i>	1700	umhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL
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<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
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<i>Hardness, Total, as CaCO3</i>	715	mg/L	2.37	15	04/19/2022	2042249 ALEE	
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<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
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<i>pH</i>	7.38	pH			04/19/2022	2042236 DCARDONA	
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Lab Sample#: 2292260-04A **Sample Source:** WSB_SB-44-1-580 **External ID:**

Date Collected: 04/19/2022 09:50AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Nitrate as N</i>	<0.04	mg/L	0.034	0.04	04/19/2022	2042229 PWARNER	

Lab Sample#: 2292260-04B **Sample Source:** WSB_SB-44-1-580 **External ID:**

Date Collected: 04/19/2022 09:50AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE

Test/Analyte

<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
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<i>Total Dissolved Solids</i>	1070	mg/L	26.4	40	04/22/2022	2042361 ABALALIO	>MCL; result reported @ 2x, i
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Lab Sample#: 2292260-04C **Sample Source:** WSB_SB-44-1-580 **External ID:**

Date Collected: 04/19/2022 09:50AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE

Test/Analyte

<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
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<i>Potassium, K</i>	6.11	mg/L	0.12	0.6	04/27/2022	2042514 BTRINH	
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Lab Sample#: 2292260-04D **Sample Source:** WSB_SB-44-1-580 **External ID:**

Date Collected: 04/19/2022 09:50AM **Date Received:** 04/19/2022 01:03PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE

Test/Analyte

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sodium, Na	108	mg/L	0.08	4	04/27/2022	2042514 BTRINH	
Lab Sample#: 2292260-05 Sample Source: WSB_SB_DUP External ID:							
Date Collected: 04/19/2022 10:29AM Date Received: 04/19/2022 01:03PM Sample Matrix: Aqueous Location Desc: GSR_SB_CUP-44-1-460, GG NATIONAL CEMETE							
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	103	mg/L	1	5	04/19/2022	2042229 PWARNER	
Nitrate as N	1.27	mg/L	0.34	0.4	04/19/2022	2042229 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	54.6	mg/L	0.04	1	04/27/2022	2042514 BTRINH	
Magnesium, Mg	46.4	mg/L	0.007	0.2	04/27/2022	2042514 BTRINH	
Potassium, K	3.59	mg/L	0.04	0.2	04/27/2022	2042514 BTRINH	
Sodium, Na	65.6	mg/L	0.02	1	04/27/2022	2042514 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	174	mg/L	1.19	6	04/19/2022	2042228 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	127	mg/L		6	04/19/2022	2042233 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	945	µmhos/cm		1	04/19/2022	2042234 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	331	mg/L	0.948	6	04/19/2022	2042249 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.84	pH			04/19/2022	2042236 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	518	mg/L	13.2	20	04/22/2022	2042361 ABALALIO	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

QC list for Run#: 2042228 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200032-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2200032-02	MRL_CK	Alkalinity	3.7		mg/L	123				
QC2200032-03	LCS	Alkalinity	40.3		mg/L	101			3	
QC2200032-04	DUP of 2292086-03	Alkalinity	20.3	20.4	mg/L		0	0.593	3	Splt# 2292086-03 (20.3mg/L)
QC2200032-06	LCS	Alkalinity	40.5		mg/L	101			3	
QC2200032-07	SPKD of 2292767-02	Alkalinity	32.9	73.7	mg/L	102	0		3	Splt# 2292767-02 (32.9mg/L)
QC2200032-08	SPK of 2292767-02	Alkalinity	32.9	73.1	mg/L	100			3	Splt# 2292767-02 (32.9mg/L)

QC list for Run#: 2042229 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200035-01	MRL_CK	Sulfate	0.516		mg/L	103				
	MRL_CK	Nitrate as N	0.0412		mg/L	103				
QC2200035-02	CCV	Sulfate	2.35		mg/L	94				
	CCV	Nitrate as N	0.192		mg/L	96				
QC2200035-03	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2200035-04	LCS	Sulfate	4.79		mg/L	95				
	LCS	Nitrate as N	0.383		mg/L	96				
QC2200035-05	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2200035-06	SPK of 2292781-01	Sulfate	7.19	9.65	mg/L	99				Splt# 2292781-01 (7.19mg/L)
	SPK of 2292781-01	Nitrate as N	0.103	0.293	mg/L	96				Splt# 2292781-01 (0.103mg/L)
QC2200035-07	SPKD of 2292781-01	Sulfate	7.19	9.71	mg/L	101	0			Splt# 2292781-01 (7.19mg/L)
	SPKD of 2292781-01	Nitrate as N	0.103	0.296	mg/L	97	1			Splt# 2292781-01 (0.103mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

QC2200035-08	CCV	Sulfate	2.36	mg/L	94					
	CCV	Nitrate as N	0.191	mg/L	96					
QC2200035-09	BLK	Sulfate	<0.5	mg/L			0.1	0.5		
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04		
QC2200035-10	DUP of 2292781-02	Sulfate	6.74	6.76	mg/L	0	0.1	0.5	Splt# 2292781-02 (6.74mg/L)	
	DUP of 2292781-02	Nitrate as N	0.0994	0.1	mg/L	0	0.034	0.04	Splt# 2292781-02 (0.0994mg/L)	

QC list for Run#: 2042233 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200036-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2200036-02	MRL_CK	Chloride	2.74		mg/L	91				
QC2200036-03	LCS	Chloride	38.5		mg/L	96			3	
QC2200036-04	SPK of 2292767-02	Chloride	11.1	49.6	mg/L	96			3	Splt# 2292767-02 (11.1mg/L)
QC2200036-05	SPKD of 2292767-02	Chloride	11.1	49.9	mg/L	96	0		3	Splt# 2292767-02 (11.1mg/L)
QC2200036-06	DUP of 2292086-03	Chloride	6.28	6.03	mg/L		4		3	Splt# 2292086-03 (6.28mg/L)
QC2200036-07	LCS	Chloride	38.5		mg/L	96			3	

QC list for Run#: 2042234 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200037-01	BLK	Specific Conductance	<1		µmhos/cm				1	
QC2200037-02	MRL_CK	Specific Conductance	9.76		µmhos/cm	97				
QC2200037-03	CCV	Specific Conductance	100		µmhos/cm	100				
QC2200037-04	ICV	Specific Conductance	152		µmhos/cm	103				
QC2200037-05	LCS	Specific Conductance	1000		µmhos/cm	100			1	
QC2200037-06	DUP of 2292086-03	Specific Conductance	78.5	78.8	µmhos/cm		0		1	Splt# 2292086-03 (78.5µmhos/cm)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

QC2200037-07	DUP of 2292091-04	Specific Conductance	92.2	91.9	µmhos/cm	0	1	Splt# 2292091-04 (92.2µmhos/cm)
QC2200037-09	LCS	Specific Conductance		152	µmhos/cm	103	1	

QC list for Run#: 2042236 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200038-01	ICV	pH		8.98	pH	99				
QC2200038-02	DUP of 2292086-03	pH	9.08	9.12	pH		0			Splt# 2292086-03 (9.08pH)
QC2200038-03	CCV	pH		10.1	pH	100				
QC2200038-04	CCV	pH		10.1	pH	100				
QC2200038-06	CAL	pH		10.1	pH	101				
QC2200038-07	CAL	pH		7.01	pH	100				
QC2200038-08	CAL	pH		4.01	pH	100				

QC list for Run#: 2042249 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200047-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200047-02	MRL_CK	Hardness, Total, as CaCO3		2.91	mg/L	97				
QC2200047-03	LCS	Hardness, Total, as CaCO3		43	mg/L	107			3	
QC2200047-04	LCS	Hardness, Total, as CaCO3		42.9	mg/L	107			3	
QC2200047-05	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2200047-06	DUP of 2292086-03	Hardness, Total, as CaCO3	17.7	17.5	mg/L		0	0.474	3	Splt# 2292086-03 (17.7mg/L)
QC2200047-07	DUP of 2292767-02	Hardness, Total, as CaCO3	39.8	39.1	mg/L		1	0.474	3	Splt# 2292767-02 (39.8mg/L)
QC2200047-08	LCS	Hardness, Total, as CaCO3		43.3	mg/L	108			3	

QC list for Run#: 2042361 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Sample ID	Sample Type	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2200126-01	BLK	Total Dissolved Solids	<20	mg/L			13.2	20	
QC2200126-02	DUP of 2292781-02	Total Dissolved Solids	43	41	mg/L	4	13.2	20	Splt# 2292781-02 (43mg/L)
QC2200126-03	LCS	Total Dissolved Solids	98	103	mg/L		13.2	20	

QC list for Run#: 2042514 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2200201-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	
QC2200201-02	LCS	Calcium, Ca	1.85		mg/L	92		0.04	1	
	LCS	Magnesium, Mg	1.92		mg/L	96		0.007	0.2	
	LCS	Potassium, K	2.12		mg/L	106		0.04	0.2	
	LCS	Sodium, Na	2.07		mg/L	104		0.02	1	
QC2200201-03	DUP of 2292622-01	Calcium, Ca	37.4	38.1	mg/L		1	0.04	1	Splt# 2292622-01 (37.4mg/L)
	DUP of 2292622-01	Magnesium, Mg	34.6	33.9	mg/L		2	0.007	0.2	Splt# 2292622-01 (34.6mg/L)
	DUP of 2292622-01	Potassium, K	2.04	2	mg/L		2	0.04	0.2	Splt# 2292622-01 (2.04mg/L)
	DUP of 2292622-01	Sodium, Na	68.7	67.3	mg/L		2	0.02	1	Splt# 2292622-01 (68.7mg/L)
QC2200201-04	SPK of 2292622-01	Calcium, Ca	37.4	39.1	mg/L	83		0.04	1	Splt# 2292622-01 (37.4mg/L)
	SPK of 2292622-01	Magnesium, Mg	34.6	35.3	mg/L	34		0.007	0.2	Splt# 2292622-01 (34.6mg/L)
	SPK of 2292622-01	Potassium, K	2.04	4.33	mg/L	115		0.04	0.2	Splt# 2292622-01 (2.04mg/L)
	SPK of 2292622-01	Sodium, Na	68.7	69.3	mg/L	27		0.02	1	Splt# 2292622-01 (68.7mg/L)
QC2200201-05	SPKD of 2292622-01	Calcium, Ca	37.4	40	mg/L	130	2	0.04	1	Splt# 2292622-01 (37.4mg/L)
	SPKD of 2292622-01	Magnesium, Mg	34.6	36.1	mg/L	75	2	0.007	0.2	Splt# 2292622-01 (34.6mg/L)
	SPKD of 2292622-01	Potassium, K	2.04	4.35	mg/L	116	0	0.04	0.2	Splt# 2292622-01 (2.04mg/L)
	SPKD of 2292622-01	Sodium, Na	68.7	69.8	mg/L	52	0	0.02	1	Splt# 2292622-01 (68.7mg/L)
QC2200201-06	MRL_CK	Calcium, Ca	<1		mg/L	N/A		0.04	1	
	MRL_CK	Magnesium, Mg	<0.2		mg/L	N/A		0.007	0.2	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 04/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

	MRL_CK	Potassium, K	0.264	mg/L	106	0.04	0.2
	MRL_CK	Sodium, Na	<1	mg/L	N/A	0.02	1
QC2200229-01							
	ICV	Potassium, K	2.1	mg/L	105	0.03	0.2
QC2200229-02							
	ICV	Calcium, Ca	9.98	mg/L	100	0.05	1
	ICV	Magnesium, Mg	9.75	mg/L	96	0.01	0.2
	ICV	Sodium, Na	10.3	mg/L	103	0.002	1

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 04/19/2022

Sampling Team: Field

Qualifiers Legend:

Flag

Code	Description
B1	Target analyte detected in associated Method Blank.
B2	Target analyte detected in Travel/Trip Blank.
D	Result taken from the analysis of a dilution.
E1	Estimated value. Exceeds calibration range. Reanalysis not possible due to insufficient sample vol.
E2	Estimated value. Exceeds calibration range. Reanalysis not performed due to hold time requirement.
E3	EMPC (estimated maximum possible concentration)
H1	Sample analysis performed past the method specified hold time per client request.
H2	Initial analysis within hold time. Reanalysis for the required dilution was past hold time.
H3	Sample was received past hold time.
H4	Confirmatory analysis was past hold time.
H5	Confirmatory analysis was past hold time. Original result not confirmed.
H6	Filtration not completed w/in 15 min of sampling, Filtered in Lab. Filtration exceeded hold time.
I1	I.S. recovery or R.T. outside method limits. Interference confirmed by reanalysis/dilution. GC/GCMS
L1	LCS and/or LCSD is outside acceptance limits. Results might be low biased.
L2	LCS and/or LCSD is outside acceptance limits. Results might be high biased.
M	Matrix interference
M1	MS/MSD % rec. outside acceptable limits due to matrix interference. Batch acceptance by LCS.
M2	MS/MSD RPD outside acceptable limits. Batch acceptance by LCS.
M3	Sample diluted due to matrix. MS recovery not useful. Batch acceptance by LCS.
NA	Not Analyzed
NC1	Not for Compliance. Method specification(s) not met
NC2	Not for Compliance. This test/analyte is not accredited or accreditation is not available.
NP	Not provided
NS	Not sampled (or no sample received)
P1	Sample received and analyzed without chemical preservation.
P2	Sample received without chemical preservation but preserved by the laboratory.
P3	Sample received with inadequate chemical preservation, but preserved by the laboratory
P4	Sample was received outside recommended temperature range.
P5	Sample received in inappropriate sample container.
P6	Insufficient sample received to meet method requirements.
P7	Sample received with head space.
Q	%RPD between the 1st and 2nd column/detector is >40%. Lower value reported.
Q1	Minimum Reporting Limit (MRL) verification failed high, but target analyte was not detected.
R	Data rejected
S	Dilution due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
S1	Sample diluted due to matrix. Surrogate spike recovery provides no useful information.
S2	Surrogate recovery exceeds acceptable limits. Results might be low biased.
S3	Surrogate recovery exceeds acceptable limits. Results might be high biased.
TIC	Tentatively Identified Compound
U	Analyzed but not detected

RQualifier

Code	Description
+	Positive
-	Negative
<	Less Than

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292260

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

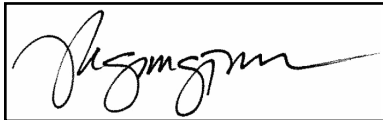
Scheduled Sample Date: 04/19/2022

Sampling Team: Field

=	Equals
>	Greater Than
A	Bacti result, absent
DNQ	Detected, but Not Quantified
E	Estimated value
I	Bacti result, Inconclusive value. Analyzed, but result is undetermined
ND	Non-detected
P	Bacti result, present
QC Type	
Code	Description
BLK	Method Blank Sample
CAL	Calibration Sample
CCV	Continuing Calibration Verification Sample
DUP	Duplicate Sample
ICV	Initial Calibration Verification Sample
LCS	Laboratory Control Standard Sample
LCSD	Laboratory Control Standard Duplicate Sample
MRL_CK	Method Reporting Level Check Sample
SPK	Matrix Spike Sample
SPKD	Matrix Spike Duplicate Sample

Please email labfeedback@sfgwater.org to report any comments, complaints, compliments or suggestions. Please provide detailed descriptions and attach documentation as necessary.

Reported By: Megan Tran



Reported On: 1-Aug-2022

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 03/30/2022

Routine: WSB_SFPUC

Sampling Team: Field

Lab Sample#: **2292110-01** Sample Source: WSB_SF07_LM1S External ID:

Date Collected: 03/30/2022 09:20AM Date Received: 03/30/2022 03:11PM Sample Matrix: Aqueous Location Desc: SF#07 - LMMW1S

Test/Analyte								
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Calcium, Ca	45	mg/L	0.04	1	04/06/2022	2041566 BTRINH		
Magnesium, Mg	65.9	mg/L	0.007	0.2	04/06/2022	2041566 BTRINH		
Potassium, K	2.87	mg/L	0.04	0.2	04/06/2022	2041566 BTRINH		
Sodium, Na	81.7	mg/L	0.02	1	04/06/2022	2041566 BTRINH		
MBP_ALK(SM 2320 B)								
Alkalinity	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Alkalinity	372	mg/L	1.19	6	03/30/2022	2041266 ABALALIO		
MBP_CHLORIDE(SM 4500-CL- D)								
Chloride	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Chloride	126	mg/L		6	03/30/2022	2041267 ABALALIO		
MBP_COND(SM 2510 B)								
Specific Conductance	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Specific Conductance	1090	µmhos/cm		1	03/30/2022	2041264 DCARDONA	>MCL	
MBP_HARDNESS_T(SM 2340 C)								
Hardness, Total, as CaCO3	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Hardness, Total, as CaCO3	390	mg/L	0.948	6	03/30/2022	2041263 ABALALIO		
MBP_PH(SM 4500-H+ B)								
pH	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
pH	6.84	pH			03/30/2022	2041265 DCARDONA		
MBP_TDS(SM 2540 C)								
Total Dissolved Solids	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Total Dissolved Solids	565	mg/L	13.2	20	04/01/2022	2041314 ABALALIO	>MCL	

Lab Sample#: **2292110-01A** Sample Source: WSB_SF07_LM1S External ID:

Date Collected: 03/30/2022 09:20AM Date Received: 03/30/2022 03:11PM Sample Matrix: Aqueous Location Desc: SF#07 - LMMW1S

Test/Analyte								
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Sulfate	20.5	mg/L	0.2	1	03/31/2022	2041310 DREGGIO		
Nitrate as N	0.483	mg/L	0.068	0.08	03/31/2022	2041310 DREGGIO		

Lab Sample#: **2292110-02** Sample Source: WSB_SF08_LM2D External ID:

Date Collected: 03/30/2022 02:21PM Date Received: 03/30/2022 03:11PM Sample Matrix: Aqueous Location Desc: SF#08 - LMMW2D

Test/Analyte								
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Sulfate	46.7	mg/L	1	5	03/30/2022	2041261 DREGGIO		
Nitrate as N	3.24	mg/L	0.34	0.4	03/30/2022	2041261 DREGGIO		
SEM_200.7_DW(EPA 200.7)								
Calcium, Ca	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Calcium, Ca	46.6	mg/L	0.04	1	04/06/2022	2041566 BTRINH		
Magnesium, Mg	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Magnesium, Mg	51.5	mg/L	0.007	0.2	04/06/2022	2041566 BTRINH		
Potassium, K	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Potassium, K	2.98	mg/L	0.04	0.2	04/06/2022	2041566 BTRINH		
Sodium, Na	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Sodium, Na	57.3	mg/L	0.02	1	04/06/2022	2041566 BTRINH		
MBP_ALK(SM 2320 B)								
Alkalinity	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Alkalinity	211	mg/L	1.19	6	03/30/2022	2041266 ABALALIO		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 03/30/2022

Sampling Team: Field

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	135	mg/L		6	03/30/2022	2041267 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	938	µmhos/cm		1	03/30/2022	2041264 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	332	mg/L	0.948	6	03/30/2022	2041263 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.57	pH			03/30/2022	2041265 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	476	mg/L	13.2	20	04/01/2022	2041314 ABALALIO	

Lab Sample#: 2292110-03 **Sample Source:** WSB_SF09_LM2S **External ID:**

Date Collected: 03/30/2022 12:35PM **Date Received:** 03/30/2022 03:11PM **Sample Matrix:** Aqueous **Location Desc:** SF#09 - LMMW2S

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	68.8	mg/L	2	10	03/30/2022	2041261 DREGGIO	
Nitrate as N	6.81	mg/L	0.68	0.8	03/30/2022	2041261 DREGGIO	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	70.4	mg/L	0.04	1	04/06/2022	2041566 BTRINH	
Magnesium, Mg	69.8	mg/L	0.007	0.2	04/06/2022	2041566 BTRINH	
Potassium, K	3.33	mg/L	0.04	0.2	04/06/2022	2041566 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	254	mg/L	1.19	6	03/30/2022	2041266 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	248	mg/L		6	03/30/2022	2041267 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance	1440	µmhos/cm		1	03/30/2022	2041264 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	464	mg/L	0.948	6	03/30/2022	2041263 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.43	pH			03/30/2022	2041265 DCARDONA	
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	767	mg/L	13.2	20	04/01/2022	2041314 ABALALIO	>MCL

Lab Sample#: 2292110-03A **Sample Source:** WSB_SF09_LM2S **External ID:**

Date Collected: 03/30/2022 12:35PM **Date Received:** 03/30/2022 03:11PM **Sample Matrix:** Aqueous **Location Desc:** SF#09 - LMMW2S

Test/Analyte

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sodium, Na	120	mg/L	0.08	4	04/06/2022	2041566 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 03/30/2022

Sampling Team: Field

Lab Sample#:	2292110-04	Sample Source:	WSB_SF63_LM1D	External ID:			
Date Collected:	03/30/2022 10:27AM	Date Received:	03/30/2022 03:11PM	Sample Matrix:	Aqueous	Location Desc:	SF#63 - LMMW1D
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	28.4	mg/L	2	10	03/30/2022	2041261 DREGGIO	
Nitrate as N	9.93	mg/L	0.68	0.8	03/30/2022	2041261 DREGGIO	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	32.3	mg/L	0.04	1	04/06/2022	2041566 BTRINH	
Magnesium, Mg	47.4	mg/L	0.007	0.2	04/06/2022	2041566 BTRINH	
Potassium, K	3.37	mg/L	0.04	0.2	04/06/2022	2041566 BTRINH	
Sodium, Na	46.1	mg/L	0.02	1	04/06/2022	2041566 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	167	mg/L	1.19	6	03/30/2022	2041266 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	107	mg/L		6	03/30/2022	2041267 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance	796	µmhos/cm		1	03/30/2022	2041264 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	277	mg/L	0.948	6	03/30/2022	2041263 ABALALIO	
MBP_PH(SM 4500-H+ B)							
pH	7.84	pH			03/30/2022	2041265 DCARDONA	
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	423	mg/L	13.2	20	04/01/2022	2041314 ABALALIO	

Lab Sample#:	2292110-05	Sample Source:	WSB_SF_DUP_FULL	External ID:			
Date Collected:	03/30/2022 12:38PM	Date Received:	03/30/2022 03:11PM	Sample Matrix:	Aqueous	Location Desc:	SF#09 - LMMW25
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	69.6	mg/L	2	10	03/30/2022	2041261 DREGGIO	
Nitrate as N	6.85	mg/L	0.68	0.8	03/30/2022	2041261 DREGGIO	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	69.2	mg/L	0.04	1	04/06/2022	2041566 BTRINH	
Magnesium, Mg	69.4	mg/L	0.007	0.2	04/06/2022	2041566 BTRINH	
Potassium, K	3.25	mg/L	0.04	0.2	04/06/2022	2041566 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	253	mg/L	1.19	6	03/30/2022	2041266 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	248	mg/L		6	03/30/2022	2041267 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance	1440	µmhos/cm		1	03/30/2022	2041264 DCARDONA	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 03/30/2022

Sampling Team: Field

<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Hardness, Total, as CaCO3	465	mg/L	0.948	6	03/30/2022	2041263 ABALALIO	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
pH	7.43	pH			03/30/2022	2041265 DCARDONA	
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	756	mg/L	13.2	20	04/01/2022	2041314 ABALALIO	>MCL
Lab Sample#: 2292110-05A		Sample Source: WSB_SF_DUP_FULL		External ID:			
Date Collected: 03/30/2022 12:38PM		Date Received: 03/30/2022 03:11PM		Sample Matrix: Aqueous		Location Desc: SF#09 - LMMW2S	
<u>Test/Analyte</u>							
<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Sodium, Na	113	mg/L	0.08	4	04/06/2022	2041566 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 03/30/2022

Sampling Team: Field

QC list for Run#: 2041261 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299338-01	MRL_CK	Sulfate		0.511	mg/L	102				
	MRL_CK	Nitrate as N		0.0404	mg/L	101				
QC2299338-02	CCV	Sulfate		2.4	mg/L	96				
	CCV	Nitrate as N		0.195	mg/L	97				
QC2299338-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299338-04	LCS	Sulfate		4.85	mg/L	97				
	LCS	Nitrate as N		0.391	mg/L	98				
QC2299338-05	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299338-06	SPK of 2292110-01	Sulfate	20.3	68.7	mg/L	97				Splt# 2292110-01 (20.3mg/L) manually calculated % rec (3.4359-1.0163)/2.48
	SPK of 2292110-01	Nitrate as N	<0.8	4.41	mg/L	98				Splt# 2292110-01 (<0.8mg/L) manually calculated % rec (0.2207-0.0271)/0.197482 4
QC2299338-07	SPKD of 2292110-01	Sulfate	20.3	68.5	mg/L	97	0			Splt# 2292110-01 (20.3mg/L) manually calculated % rec (3.4231-1.0163)/2.48
	SPKD of 2292110-01	Nitrate as N	<0.8	4.42	mg/L	98	0			Splt# 2292110-01 (<0.8mg/L) manually calculated % rec (0.2207-0.0271)/0.197482 4
QC2299338-08	CCV	Sulfate		2.4	mg/L	95				
	CCV	Nitrate as N		0.195	mg/L	98				
QC2299338-09	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299338-10	DUP of 2292110-02	Sulfate	46.7	46.7	mg/L		0	1	5	Splt# 2292110-02 (46.7mg/L) manually entered rpd from when run is 1x due to lms bug

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 03/30/2022

Sampling Team: Field

DUP of 2292110-02	Nitrate as N	3.24	3.23	mg/L	0	0.34	0.4	Splt# 2292110-02 (3.24mg/L) manually entered rpd from when run is 1x due to lims bug
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QC list for Run#: 2041263 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299339-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2299339-02	MRL_CK	Hardness, Total, as CaCO3		2.55	mg/L	85				
QC2299339-03	LCS	Hardness, Total, as CaCO3		40.1	mg/L	100			3	
QC2299339-04	DUP of 2292110-04	Hardness, Total, as CaCO3	277	278	mg/L		0	0.948	6	Splt# 2292110-04 (277mg/L)
QC2299339-05	LCS	Hardness, Total, as CaCO3		40	mg/L	99			3	

QC list for Run#: 2041264 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299340-01	BLK	Specific Conductance		<1	µmhos/cm				1	
QC2299340-02	MRL_CK	Specific Conductance		9.61	µmhos/cm	96				
QC2299340-03	CCV	Specific Conductance		99.9	µmhos/cm	99				
QC2299340-06	DUP of 2292110-01	Specific Conductance	1090	1100	µmhos/cm		0		1	Splt# 2292110-01 (1090µmhos/cm)
QC2299340-07	LCS	Specific Conductance		152	µmhos/cm	103			1	

QC list for Run#: 2041265 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299341-01	ICV	pH		9	pH	99				
QC2299341-02	DUP of 2292110-01	pH	6.84	6.83	pH		0			Splt# 2292110-01 (6.84pH)
QC2299341-03	CCV	pH		10.1	pH	100				

QC list for Run#: 2041266 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299342-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2299342-02										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 03/30/2022

Routine: WSB_SFPUC

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2299342-03	MRL_CK	Alkalinity	3.84	mg/L	128				
QC2299342-04	LCS	Alkalinity	40.6	mg/L	102			3	
QC2299342-05	DUP of 2292110-04	Alkalinity	167	169	mg/L	1	1.19	6	Splt# 2292110-04 (167mg/L)
QC2299342-05	LCS	Alkalinity	40.4	mg/L	101			3	

QC list for Run#: 2041267 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299343-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2299343-02	MRL_CK	Chloride	3		mg/L	100				
QC2299343-03	LCS	Chloride	40.2		mg/L	101			3	
QC2299343-04	SPK of 2292110-04	Chloride	107	188	mg/L	102			6	Splt# 2292110-04 (107mg/L)
QC2299343-05	SPKD of 2292110-04	Chloride	107	188	mg/L	102	0		6	Splt# 2292110-04 (107mg/L)
QC2299343-07	LCS	Chloride	40.2		mg/L	101			3	

QC list for Run#: 2041310 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299372-01	MRL_CK	Sulfate	0.515		mg/L	103				
QC2299372-01	MRL_CK	Nitrate as N	0.04		mg/L	100				
QC2299372-02	CCV	Sulfate	2.41		mg/L	96				
QC2299372-02	CCV	Nitrate as N	0.195		mg/L	98				
QC2299372-03	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
QC2299372-03	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2299372-04	LCS	Sulfate	4.89		mg/L	97				
QC2299372-04	LCS	Nitrate as N	0.393		mg/L	98				
QC2299372-05	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
QC2299372-05	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2299372-06										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 03/30/2022

Sampling Team: Field

Sample ID	Analyte	Parent	Current	Units	% Rec	RPD	MDL	MRL	Flag/Comments
SPK of 2292110-01A	Sulfate	20.5	25.7	mg/L	105				Splt# 2292110-01A (20.5mg/L) manually calculated % rec (12.866-10.2546)/2.48
SPK of 2292110-01A	Nitrate as N	0.483	0.847	mg/L	92				Splt# 2292110-01A (0.483mg/L) manually calculated % rec (0.4235-0.2416)/0.1974824
QC2299372-07									
SPKD of 2292110-01A	Sulfate	20.5	25.6	mg/L	106	0			Splt# 2292110-01A (20.5mg/L) manually calculated % rec (12.8024-10.2546)/2.48
SPKD of 2292110-01A	Nitrate as N	0.483	0.85	mg/L	92	0			Splt# 2292110-01A (0.483mg/L) manually calculated % rec (0.4248-0.2416)/0.1974824
QC2299372-08									
CCV	Sulfate		2.41	mg/L	96				
CCV	Nitrate as N		0.196	mg/L	98				
QC2299372-09									
BLK	Sulfate		<0.5	mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2299372-10									
DUP of 2292110-01A	Sulfate	20.5	20.4	mg/L		0	0.2	1	Splt# 2292110-01A (20.5mg/L)
DUP of 2292110-01A	Nitrate as N	0.483	0.48	mg/L		0	0.068	0.08	Splt# 2292110-01A (0.483mg/L)

QC list for Run#: 2041314 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299376-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2299376-02	DUP of 2292252-02	Total Dissolved Solids	43	39	mg/L		9	13.2	20	Splt# 2292252-02 (43mg/L)
QC2299376-03	LCS	Total Dissolved Solids		96	mg/L			13.2	20	

QC list for Run#: 2041566 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2299537-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2299537-02	LCS	Calcium, Ca		1.83	mg/L		91	0.04	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 03/30/2022

Routine: WSB_SFPUC

Sampling Team: Field

LCS	Magnesium, Mg	1.92	mg/L	95	0.007	0.2	
LCS	Potassium, K	1.96	mg/L	98	0.04	0.2	
LCS	Sodium, Na	2.01	mg/L	100	0.02	1	
QC2299537-03							
DUP of 2292109-01	Calcium, Ca	28.2	28.5	mg/L	0	0.04	1 Splt# 2292109-01 (28.2mg/L)
DUP of 2292109-01	Magnesium, Mg	30.3	29.7	mg/L	1	0.007	0.2 Splt# 2292109-01 (30.3mg/L)
DUP of 2292109-01	Potassium, K	2.16	2.16	mg/L	0	0.04	0.2 Splt# 2292109-01 (2.16mg/L)
DUP of 2292109-01	Sodium, Na	43.7	42.5	mg/L	2	0.02	1 Splt# 2292109-01 (43.7mg/L)
QC2299537-04							
SPK of 2292109-01	Calcium, Ca	28.2	30.3	mg/L	105	0.04	1 Splt# 2292109-01 (28.2mg/L)
SPK of 2292109-01	Magnesium, Mg	30.3	31.9	mg/L	79	0.007	0.2 Splt# 2292109-01 (30.3mg/L)
SPK of 2292109-01	Potassium, K	2.16	4.41	mg/L	113	0.04	0.2 Splt# 2292109-01 (2.16mg/L)
SPK of 2292109-01	Sodium, Na	43.7	44.4	mg/L	38	0.02	1 Splt# 2292109-01 (43.7mg/L)
QC2299537-05							
SPKD of 2292109-01	Calcium, Ca	28.2	30.6	mg/L	122	1	0.04 1 Splt# 2292109-01 (28.2mg/L)
SPKD of 2292109-01	Magnesium, Mg	30.3	31.9	mg/L	76	0	0.007 0.2 Splt# 2292109-01 (30.3mg/L)
SPKD of 2292109-01	Potassium, K	2.16	4.34	mg/L	109	1	0.04 0.2 Splt# 2292109-01 (2.16mg/L)
SPKD of 2292109-01	Sodium, Na	43.7	44.4	mg/L	33	0	0.02 1 Splt# 2292109-01 (43.7mg/L)
QC2299537-06							
MRL_CK	Calcium, Ca	<1	mg/L	N/A	0.04	1	
MRL_CK	Magnesium, Mg	<0.2	mg/L	N/A	0.007	0.2	
MRL_CK	Potassium, K	0.241	mg/L	96	0.04	0.2	
MRL_CK	Sodium, Na	<1	mg/L	N/A	0.02	1	
QC2299560-01							
ICV	Potassium, K	2	mg/L	99	0.03	0.2	
QC2299560-02							
ICV	Calcium, Ca	10	mg/L	101	0.05	1	
ICV	Magnesium, Mg	9.7	mg/L	95	0.01	0.2	
ICV	Sodium, Na	10.5	mg/L	105	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 03/30/2022

Sampling Team: Field

Qualifiers Legend:

Flag

Code	Description
B1	Target analyte detected in associated Method Blank.
B2	Target analyte detected in Travel/Trip Blank.
D	Result taken from the analysis of a dilution.
E1	Estimated value. Exceeds calibration range. Reanalysis not possible due to insufficient sample vol.
E2	Estimated value. Exceeds calibration range. Reanalysis not performed due to hold time requirement.
E3	EMPC (estimated maximum possible concentration)
H1	Sample analysis performed past the method specified hold time per client request.
H2	Initial analysis within hold time. Reanalysis for the required dilution was past hold time.
H3	Sample was received past hold time.
H4	Confirmatory analysis was past hold time.
H5	Confirmatory analysis was past hold time. Original result not confirmed.
H6	Filtration not completed w/in 15 min of sampling, Filtered in Lab. Filtration exceeded hold time.
I1	I.S. recovery or R.T. outside method limits. Interference confirmed by reanalysis/dilution. GC/GCMS
L1	LCS and/or LCSD is outside acceptance limits. Results might be low biased.
L2	LCS and/or LCSD is outside acceptance limits. Results might be high biased.
M	Matrix interference
M1	MS/MSD % rec. outside acceptable limits due to matrix interference. Batch acceptance by LCS.
M2	MS/MSD RPD outside acceptable limits. Batch acceptance by LCS.
M3	Sample diluted due to matrix. MS recovery not useful. Batch acceptance by LCS.
NA	Not Analyzed
NC1	Not for Compliance. Method specification(s) not met
NC2	Not for Compliance. This test/analyte is not accredited or accreditation is not available.
NP	Not provided
NS	Not sampled (or no sample received)
P1	Sample received and analyzed without chemical preservation.
P2	Sample received without chemical preservation but preserved by the laboratory.
P3	Sample received with inadequate chemical preservation, but preserved by the laboratory
P4	Sample was received outside recommended temperature range.
P5	Sample received in inappropriate sample container.
P6	Insufficient sample received to meet method requirements.
P7	Sample received with head space.
Q	%RPD between the 1st and 2nd column/detector is >40%. Lower value reported.
Q1	Minimum Reporting Limit (MRL) verification failed high, but target analyte was not detected.
R	Data rejected
S	Dilution due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
S1	Sample diluted due to matrix. Surrogate spike recovery provides no useful information.
S2	Surrogate recovery exceeds acceptable limits. Results might be low biased.
S3	Surrogate recovery exceeds acceptable limits. Results might be high biased.
TIC	Tentatively Identified Compound
U	Analyzed but not detected

RQualifier

Code	Description
+	Positive
-	Negative
<	Less Than

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2292110

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

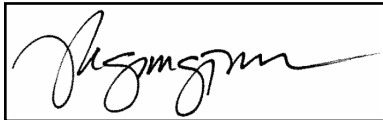
Scheduled Sample Date: 03/30/2022

Sampling Team: Field

=	Equals
>	Greater Than
A	Bacti result, absent
DNQ	Detected, but Not Quantified
E	Estimated value
I	Bacti result, Inconclusive value. Analyzed, but result is undetermined
ND	Non-detected
P	Bacti result, present
QC Type	
Code	Description
BLK	Method Blank Sample
CAL	Calibration Sample
CCV	Continuing Calibration Verification Sample
DUP	Duplicate Sample
ICV	Initial Calibration Verification Sample
LCS	Laboratory Control Standard Sample
LCSD	Laboratory Control Standard Duplicate Sample
MRL_CK	Method Reporting Level Check Sample
SPK	Matrix Spike Sample
SPKD	Matrix Spike Duplicate Sample

Please email labfeedback@sfgwater.org to report any comments, complaints, compliments or suggestions. Please provide detailed descriptions and attach documentation as necessary.

Reported By: Megan Tran



Reported On: 1-Aug-2022

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

MILLBRAE 1449

Water Quality Laboratory

SEWPCP 1721

FOLDER ID: 2297076

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/03/2022

Sampling Team: Field

Lab Sample#: 2297076-01 Sample Source: WSB_SF11_LM3S External ID:

Date Collected: 10/03/2022 11:07AM Date Received: 10/03/2022 03:06PM Sample Matrix: Aqueous Location Desc: SF#11 - LMMW3S

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	0.608	mg/L	0.1	0.5	10/03/2022	2050468 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	10/03/2022	2050468 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	72.4	mg/L	0.04	1	10/06/2022	2050642 BTRINH	
Magnesium, Mg	77.4	mg/L	0.007	0.2	10/06/2022	2050642 BTRINH	
Potassium, K	3.62	mg/L	0.04	0.2	10/06/2022	2050642 BTRINH	
Sodium, Na	40	mg/L	0.02	1	10/06/2022	2050642 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	472	mg/L	1.19	6	10/03/2022	2050469 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	78.8	mg/L		6	10/03/2022	2050471 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1080	µmhos/cm		1	10/03/2022	2050448 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	504	mg/L	0.948	6	10/03/2022	2050467 ABALALIO	
MBP_PH(SM 4500-H+ B)							
pH	6.89	pH			10/03/2022	2050464 DCARDONA	H1,H3
Temperature (°C)	16	°C			10/03/2022	2050464 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	573	mg/L	13.2	20	10/05/2022	2050537 DCARDONA	>MCL

Lab Sample#: 2297076-02 Sample Source: WSB_SF10_LM3D External ID:

Date Collected: 10/03/2022 11:43AM Date Received: 10/03/2022 03:06PM Sample Matrix: Aqueous Location Desc: SF#10 - LMMW3D

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	8.32	mg/L	0.1	0.5	10/03/2022	2050468 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	10/03/2022	2050468 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	28.8	mg/L	0.04	1	10/06/2022	2050642 BTRINH	
Magnesium, Mg	30.3	mg/L	0.007	0.2	10/06/2022	2050642 BTRINH	
Potassium, K	2.1	mg/L	0.04	0.2	10/06/2022	2050642 BTRINH	
Sodium, Na	45.3	mg/L	0.02	1	10/06/2022	2050642 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	188	mg/L	0.593	3	10/03/2022	2050469 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	65.9	mg/L		3	10/03/2022	2050471 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297076

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/03/2022

Sampling Team: Field

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	604	µmhos/cm		1	10/03/2022	2050448 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	194	mg/L	0.474	3	10/03/2022	2050467 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.45	pH			10/03/2022	2050464 DCARDONA	H1,H3
Temperature (°C)	16.1	°C			10/03/2022	2050464 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	297	mg/L	13.2	20	10/05/2022	2050537 DCARDONA	

Lab Sample#: 2297076-03 **Sample Source:** WSB_SF15_LM6D **External ID:**
Date Collected: 10/03/2022 02:13PM **Date Received:** 10/03/2022 03:06PM **Sample Matrix:** Aqueous **Location Desc:** SF#15 - LMMW6D

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	31.4	mg/L	1	5	10/03/2022	2050468 PWARNER	
Nitrate as N	6.35	mg/L	0.34	0.4	10/03/2022	2050468 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	31.2	mg/L	0.04	1	10/06/2022	2050642 BTRINH	
Magnesium, Mg	32.3	mg/L	0.007	0.2	10/06/2022	2050642 BTRINH	
Potassium, K	1.85	mg/L	0.04	0.2	10/06/2022	2050642 BTRINH	
Sodium, Na	41.7	mg/L	0.02	1	10/06/2022	2050642 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	165	mg/L	0.593	3	10/03/2022	2050469 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	54	mg/L		3	10/03/2022	2050471 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	624	µmhos/cm		1	10/03/2022	2050448 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	209	mg/L	0.474	3	10/03/2022	2050467 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.74	pH			10/03/2022	2050464 DCARDONA	H1,H3
Temperature (°C)	19	°C			10/03/2022	2050464 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	318	mg/L	13.2	20	10/05/2022	2050537 DCARDONA	

Lab Sample#: 2297076-04 **Sample Source:** WSB_SF_DUP_FULL **External ID:**
Date Collected: 10/03/2022 11:10AM **Date Received:** 10/03/2022 03:06PM **Sample Matrix:** Aqueous **Location Desc:** SF#11 - LMMW3S

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	0.615	mg/L	0.1	0.5	10/03/2022	2050468 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	10/03/2022	2050468 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297076

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/03/2022

Sampling Team: Field

<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Calcium, Ca	70.8	mg/L	0.04	1	10/06/2022	2050642 BTRINH	
Magnesium, Mg	75.2	mg/L	0.007	0.2	10/06/2022	2050642 BTRINH	
Potassium, K	3.58	mg/L	0.04	0.2	10/06/2022	2050642 BTRINH	
Sodium, Na	39.4	mg/L	0.02	1	10/06/2022	2050642 BTRINH	
<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Alkalinity	471	mg/L	1.19	6	10/03/2022	2050469 ABALALIO	
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	79	mg/L		6	10/03/2022	2050471 ABALALIO	
<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance @25°C	1080	µmhos/cm		1	10/03/2022	2050448 DCARDONA	>MCL
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Hardness, Total, as CaCO3	507	mg/L	0.948	6	10/03/2022	2050467 ABALALIO	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
pH	6.86	pH			10/03/2022	2050464 DCARDONA	H1,H3
Temperature (°C)	16.9	°C			10/03/2022	2050464 DCARDONA	H1,H3
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	558	mg/L	13.2	20	10/05/2022	2050537 DCARDONA	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297076

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/03/2022

Sampling Team: Field

QC list for Run#: 2050448 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205933-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2205933-02	MRL_CK	Specific Conductance @25°C		10.4	µmhos/cm	104				
QC2205933-03	DUP of 2296514-01	Specific Conductance @25°C	79	78.1	µmhos/cm		1		1	Splt# 2296514-01 (79µmhos/cm)
QC2205933-04	CCV	Specific Conductance @25°C		101	µmhos/cm	101				
QC2205933-05	LCS	Specific Conductance @25°C		1000	µmhos/cm	100			1	

QC list for Run#: 2050464 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205934-04	ICV	pH		9.02	pH	99				
	ICV	Temperature (°C)		21.1	°C					
QC2205934-05	DUP of 2296514-01	pH	9.27	9.27	pH		0			Splt# 2296514-01 (9.27pH) H1,H3
	DUP of 2296514-01	Temperature (°C)	18.1	18	°C					Splt# 2296514-01 (18.1°C) H1,H3
QC2205934-06	CCV	pH		9.03	pH	99				
	CCV	Temperature (°C)		20.9	°C					
QC2205934-07	CCV	pH		9.02	pH	99				
	CCV	Temperature (°C)		20.9	°C					

QC list for Run#: 2050467 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205937-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2205937-02	MRL_CK	Hardness, Total, as CaCO3		2.64	mg/L	88				
QC2205937-03	DUP of 2297196-01	Hardness, Total, as CaCO3	14.8	14.7	mg/L		0	0.474	3	Splt# 2297196-01 (14.8mg/L)
QC2205937-04	LCS	Hardness, Total, as CaCO3		43.2	mg/L	108			3	

QC list for Run#: 2050468 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205938-01										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297076

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/03/2022

Sampling Team: Field

Sample ID	Method	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
MRL_CK	Fluoride		0.104	mg/L	104				
MRL_CK	Sulfate		0.508	mg/L	102				
MRL_CK	Nitrate as N		0.0391	mg/L	98				
QC2205938-02									
CCV	Fluoride		0.492	mg/L	98				
CCV	Sulfate		2.42	mg/L	96				
CCV	Nitrate as N		0.192	mg/L	96				
QC2205938-03									
BLK	Fluoride		<0.1	mg/L			0.02	0.1	
BLK	Sulfate		<0.5	mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2205938-04									
BLK	Fluoride		<0.1	mg/L			0.02	0.1	
BLK	Sulfate		<0.5	mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2205938-05									
LCS	Fluoride		0.493	mg/L	98				
LCS	Sulfate		2.45	mg/L	97				
LCS	Nitrate as N		0.202	mg/L	101				
QC2205938-06									
CCV	Fluoride		4.26	mg/L	106				
CCV	Sulfate		21.7	mg/L	108				
CCV	Nitrate as N		1.64	mg/L	103				
QC2205938-07									
BLK	Fluoride		<0.1	mg/L			0.02	0.1	
BLK	Sulfate		<0.5	mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2205938-08									
SPK of 2297076-02	Fluoride		<0.1	0.539	mg/L	108			Splt# 2297076-02 (<0.1mg/L)
SPK of 2297076-02	Sulfate		8.32	11	mg/L	108			Splt# 2297076-02 (8.32mg/L)
SPK of 2297076-02	Nitrate as N		<0.04	0.198	mg/L	99			Splt# 2297076-02 (<0.04mg/L)
QC2205938-09									
SPKD of 2297076-02	Fluoride		<0.1	0.542	mg/L	108	0		Splt# 2297076-02 (<0.1mg/L)
SPKD of 2297076-02	Sulfate		8.32	11	mg/L	108	0		Splt# 2297076-02 (8.32mg/L)
SPKD of 2297076-02	Nitrate as N		<0.04	0.2	mg/L	101	1		Splt# 2297076-02 (<0.04mg/L)

QC list for Run#: 2050469 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205939-01	BLK	Alkalinity		<3	mg/L			0.593	3	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297076

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/03/2022

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2205939-02	MRL_CK	Alkalinity	3.09	mg/L	103				
QC2205939-03	SPK of 2297196-01	Alkalinity	17	57.8	mg/L	102		3	Splt# 2297196-01 (17mg/L)
QC2205939-04	SPKD of 2297196-01	Alkalinity	17	57.6	mg/L	102	0	3	Splt# 2297196-01 (17mg/L)
QC2205939-06	LCS	Alkalinity	40.4	mg/L	101			3	

QC list for Run#: 2050471 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205941-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2205941-02	MRL_CK	Chloride	2.57		mg/L	85				
QC2205941-03	SPK of 2297196-01	Chloride	4.87	43.6	mg/L	96			3	Splt# 2297196-01 (4.87mg/L)
QC2205941-04	SPKD of 2297196-01	Chloride	4.87	43.6	mg/L	96	0		3	Splt# 2297196-01 (4.87mg/L)
QC2205941-06	LCS	Chloride	38.9		mg/L	97			3	

QC list for Run#: 2050537 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205989-01	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2205989-02	DUP of 2297346-01	Total Dissolved Solids	35	32	mg/L		8	13.2	20	Splt# 2297346-01 (35mg/L)
QC2205989-03	LCS	Total Dissolved Solids	90		mg/L	94		13.2	20	

QC list for Run#: 2050642 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206038-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	
QC2206038-02	LCS	Calcium, Ca	1.78		mg/L	88		0.04	1	
	LCS	Magnesium, Mg	1.94		mg/L	96		0.007	0.2	
	LCS	Potassium, K	2.03		mg/L	102		0.04	0.2	
	LCS	Sodium, Na	2.03		mg/L	101		0.02	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297076

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/03/2022

Sampling Team: Field

QC ID	Sample Type	Parameter	Result 1	Result 2	Unit	Flow	Temp	Depth	Notes	
QC2206038-03	DUP of 2297076-01	Calcium, Ca	72.4	73.2	mg/L	1	0.04	1	Splt# 2297076-01 (72.4mg/L)	
	DUP of 2297076-01	Magnesium, Mg	77.4	75.5	mg/L	2	0.007	0.2	Splt# 2297076-01 (77.4mg/L)	
	DUP of 2297076-01	Potassium, K	3.62	3.55	mg/L	1	0.04	0.2	Splt# 2297076-01 (3.62mg/L)	
	DUP of 2297076-01	Sodium, Na	40	39.4	mg/L	1	0.02	1	Splt# 2297076-01 (40mg/L)	
QC2206038-04	SPK of 2297076-01	Calcium, Ca	72.4	73.7	mg/L	61	0.04	1	Splt# 2297076-01 (72.4mg/L)	
	SPK of 2297076-01	Magnesium, Mg	77.4	77.3	mg/L	0	0.007	0.2	Splt# 2297076-01 (77.4mg/L)	
	SPK of 2297076-01	Potassium, K	3.62	5.63	mg/L	100	0.04	0.2	Splt# 2297076-01 (3.62mg/L)	
	SPK of 2297076-01	Sodium, Na	40	41.3	mg/L	68	0.02	1	Splt# 2297076-01 (40mg/L)	
QC2206038-05	SPKD of 2297076-01	Calcium, Ca	72.4	73.4	mg/L	47	0	0.04	1	Splt# 2297076-01 (72.4mg/L)
	SPKD of 2297076-01	Magnesium, Mg	77.4	77.5	mg/L	7	0	0.007	0.2	Splt# 2297076-01 (77.4mg/L)
	SPKD of 2297076-01	Potassium, K	3.62	5.7	mg/L	104	1	0.04	0.2	Splt# 2297076-01 (3.62mg/L)
	SPKD of 2297076-01	Sodium, Na	40	41	mg/L	54	0	0.02	1	Splt# 2297076-01 (40mg/L)
QC2206038-06	MRL_CK	Calcium, Ca	<1		mg/L	N/A	0.04	1		
	MRL_CK	Magnesium, Mg	<0.2		mg/L	N/A	0.007	0.2		
	MRL_CK	Potassium, K	0.23		mg/L	92	0.04	0.2		
	MRL_CK	Sodium, Na	<1		mg/L	N/A	0.02	1		
QC2206069-01	ICV	Potassium, K	1.93		mg/L	96	0.03	0.2		
QC2206069-03	ICV	Calcium, Ca	10.1		mg/L	101	0.05	1		
	ICV	Magnesium, Mg	9.7		mg/L	95	0.01	0.2		
	ICV	Sodium, Na	10.2		mg/L	102	0.002	1		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297077

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/06/2022

Sampling Team: Field

Lab Sample#: 2297077-01 Sample Source: WSB_SF09_LM2S External ID:

Date Collected: 10/06/2022 02:10PM Date Received: 10/06/2022 04:00PM Sample Matrix: Aqueous Location Desc: SF#09 - LMMW2S

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	69	mg/L	1	5	10/06/2022	2050645 PWARNER	
Nitrate as N	7.38	mg/L	0.34	0.4	10/06/2022	2050645 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	68.5	mg/L	0.04	1	10/12/2022	2050859 BTRINH	
Magnesium, Mg	67.7	mg/L	0.007	0.2	10/12/2022	2050859 BTRINH	
Potassium, K	2.91	mg/L	0.04	0.2	10/12/2022	2050859 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	250	mg/L	2.96	15	10/06/2022	2050678 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	245	mg/L		15	10/06/2022	2050682 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1440	µmhos/cm		1	10/06/2022	2050680 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	458	mg/L	2.37	15	10/06/2022	2050683 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7.39	pH			10/06/2022	2050679 DCARDONA	H1,H3
Temperature (°C)	16.9	°C			10/06/2022	2050679 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	769	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	>MCL

Lab Sample#: 2297077-01A Sample Source: WSB_SF09_LM2S External ID:

Date Collected: 10/06/2022 02:10PM Date Received: 10/06/2022 04:00PM Sample Matrix: Aqueous Location Desc: SF#09 - LMMW2S

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Sodium, Na	115	mg/L	0.08	4	10/13/2022	2050859 BTRINH	

Lab Sample#: 2297077-02 Sample Source: WSB_SF08_LM2D External ID:

Date Collected: 10/06/2022 03:19PM Date Received: 10/06/2022 04:00PM Sample Matrix: Aqueous Location Desc: SF#08 - LMMW2D

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	47.2	mg/L	1	5	10/06/2022	2050645 PWARNER	
Nitrate as N	3.34	mg/L	0.34	0.4	10/06/2022	2050645 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	47.8	mg/L	0.04	1	10/12/2022	2050859 BTRINH	
Magnesium, Mg	49.1	mg/L	0.007	0.2	10/12/2022	2050859 BTRINH	
Potassium, K	2.72	mg/L	0.04	0.2	10/12/2022	2050859 BTRINH	
Sodium, Na	60.4	mg/L	0.02	1	10/12/2022	2050859 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297077

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/06/2022

Sampling Team: Field

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	209	mg/L	1.19	6	10/06/2022	2050678 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	133	mg/L		6	10/06/2022	2050682 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	941	µmhos/cm		1	10/06/2022	2050680 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	333	mg/L	0.948	6	10/06/2022	2050683 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.55	pH			10/06/2022	2050679 DCARDONA	H1,H3
Temperature (°C)	18.3	°C			10/06/2022	2050679 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	477	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

Lab Sample#: 2297077-03 **Sample Source:** WSB_SF07_LM1S **External ID:**

Date Collected: 10/06/2022 11:30AM **Date Received:** 10/06/2022 04:00PM **Sample Matrix:** Aqueous **Location Desc:** SF#07 - LMMW1S

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	84.9	mg/L	2	10	10/06/2022	2050645 PWARNER	
Nitrate as N	11.1	mg/L	0.68	0.8	10/06/2022	2050645 PWARNER	>MCL
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	70	mg/L	0.04	1	10/12/2022	2050859 BTRINH	
Potassium, K	3.23	mg/L	0.04	0.2	10/12/2022	2050859 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	306	mg/L	2.96	15	10/06/2022	2050678 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	398	mg/L		15	10/06/2022	2050682 ALEE	>MCL
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	2080	µmhos/cm		1	10/06/2022	2050680 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	621	mg/L	2.37	15	10/06/2022	2050683 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.57	pH			10/06/2022	2050679 DCARDONA	H1,H3
Temperature (°C)	16.6	°C			10/06/2022	2050679 DCARDONA	H1,H3

Lab Sample#: 2297077-03A **Sample Source:** WSB_SF07_LM1S **External ID:**

Date Collected: 10/06/2022 11:30AM **Date Received:** 10/06/2022 04:00PM **Sample Matrix:** Aqueous **Location Desc:** SF#07 - LMMW1S

Test/Analyte

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	1074	mg/L	26.4	40	10/07/2022	2050661 ABALALIO	>MCL; dried residue < 200 mg

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

MILLBRAE 1449

Water Quality Laboratory

SEWPCP 1721

FOLDER ID: 2297077

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/06/2022

Routine: WSB_SFPUC

Sampling Team: Field

Lab Sample#: 2297077-03B Sample Source: WSB_SF07_LM1S External ID:

Date Collected: 10/06/2022 11:30AM Date Received: 10/06/2022 04:00PM Sample Matrix: Aqueous Location Desc: SF#07 - LMMW1S

Test/Analyte

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sodium, Na	181	mg/L	0.08	4	10/13/2022	2050859 BTRINH	

Lab Sample#: 2297077-03C Sample Source: WSB_SF07_LM1S External ID:

Date Collected: 10/06/2022 11:30AM Date Received: 10/06/2022 04:00PM Sample Matrix: Aqueous Location Desc: SF#07 - LMMW1S

Test/Analyte

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Magnesium, Mg	105	mg/L	0.028	0.8	10/13/2022	2050859 BTRINH	

Lab Sample#: 2297077-04 Sample Source: WSB_SF63_LM1D External ID:

Date Collected: 10/06/2022 11:52AM Date Received: 10/06/2022 04:00PM Sample Matrix: Aqueous Location Desc: SF#63 - LMMW1D

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	28.7	mg/L	1	5	10/06/2022	2050645 PWARNER	
Nitrate as N	10.5	mg/L	0.34	0.4	10/06/2022	2050645 PWARNER	>MCL

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	32.4	mg/L	0.04	1	10/12/2022	2050859 BTRINH	
Magnesium, Mg	46.1	mg/L	0.007	0.2	10/12/2022	2050859 BTRINH	
Potassium, K	3.1	mg/L	0.04	0.2	10/12/2022	2050859 BTRINH	
Sodium, Na	49.3	mg/L	0.02	1	10/12/2022	2050859 BTRINH	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	161	mg/L	1.19	6	10/06/2022	2050678 ALEE	

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	102	mg/L		6	10/06/2022	2050682 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	809	µmhos/cm		1	10/06/2022	2050680 DCARDONA	

MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	283	mg/L	0.948	6	10/06/2022	2050683 ALEE	

MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.84	pH			10/06/2022	2050679 DCARDONA	H1,H3
Temperature (°C)	16.2	°C			10/06/2022	2050679 DCARDONA	H1,H3

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	426	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

Lab Sample#: 2297077-05 Sample Source: WSB_SF_DUP_FULL External ID:

Date Collected: 10/06/2022 02:12PM Date Received: 10/06/2022 04:00PM Sample Matrix: Aqueous Location Desc: SF#09 - LMMW2S

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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Water Quality Laboratory

FOLDER ID: 2297077

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/06/2022

Sampling Team: Field

<i>Sulfate</i>	68.4	mg/L	1	5	10/06/2022	2050645	PWARNER	
<i>Nitrate as N</i>	7.3	mg/L	0.34	0.4	10/06/2022	2050645	PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Calcium, Ca</i>	67.9	mg/L	0.04	1	10/12/2022	2050859	BTRINH	
<i>Magnesium, Mg</i>	67	mg/L	0.007	0.2	10/12/2022	2050859	BTRINH	
<i>Potassium, K</i>	2.84	mg/L	0.04	0.2	10/12/2022	2050859	BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Alkalinity</i>	258	mg/L	2.96	15	10/06/2022	2050678	ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Chloride</i>	252	mg/L		15	10/06/2022	2050682	ALEE	>MCL
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Specific Conductance @25°C</i>	1430	µmhos/cm		1	10/06/2022	2050680	DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Hardness, Total, as CaCO3</i>	459	mg/L	2.37	15	10/06/2022	2050683	ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>pH</i>	7.37	pH			10/06/2022	2050679	DCARDONA	H1,H3
<i>Temperature (°C)</i>	17.7	°C			10/06/2022	2050679	DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Total Dissolved Solids</i>	759	mg/L	13.2	20	10/07/2022	2050661	ABALALIO	>MCL

Lab Sample#: 2297077-05A **Sample Source:** WSB_SF_DUP_FULL **External ID:**

Date Collected: 10/06/2022 02:12PM **Date Received:** 10/06/2022 04:00PM **Sample Matrix:** Aqueous **Location Desc:** SF#09 - LMMW2S

Test/Analyte

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
<i>Sodium, Na</i>	109	mg/L	0.08	4	10/13/2022	2050859	BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297077

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/06/2022

Sampling Team: Field

QC list for Run#: 2050645 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206071-01	MRL_CK	Sulfate		0.342	mg/L	101				See CAR 2022-MBI-006
	MRL_CK	Nitrate as N		0.0248	mg/L	91				
QC2206071-02	CCV	Sulfate		1.58	mg/L	93				
	CCV	Nitrate as N		0.125	mg/L	92				
QC2206071-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206071-04	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206071-05	LCS	Sulfate		2.39	mg/L	95				
	LCS	Nitrate as N		0.192	mg/L	95				
QC2206071-06	CCV	Sulfate		13.5	mg/L	99				
	CCV	Nitrate as N		1.04	mg/L	95				
QC2206071-07	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206071-08	SPK of 2296764-01	Sulfate	4.22	6.72	mg/L	100				Splt# 2296764-01 (4.22mg/L)
	SPK of 2296764-01	Nitrate as N	0.0771	0.269	mg/L	96				Splt# 2296764-01 (0.0771mg/L)
QC2206071-09	SPKD of 2296764-01	Sulfate	4.22	6.73	mg/L	100	0			Splt# 2296764-01 (4.22mg/L)
	SPKD of 2296764-01	Nitrate as N	0.0771	0.271	mg/L	97	0			Splt# 2296764-01 (0.0771mg/L)
QC2206071-10	CCV	Sulfate		1.58	mg/L	93				
	CCV	Nitrate as N		0.125	mg/L	92				
QC2206071-11	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	

QC list for Run#: 2050661 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206079-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206079-02										

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Water Quality Laboratory

FOLDER ID: 2297077

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/06/2022

Sampling Team: Field

Sample ID	Analyte	Parent	Current	Units	% Rec	RPD	MDL	MRL	Flag/Comments
DUP of 2297078-01	Total Dissolved Solids	388	388	mg/L	0	13.2	20		Splt# 2297078-01 (388mg/L)
QC2206079-03	LCS		95	mg/L	100	13.2	20		
DUP of 2297077-02	Total Dissolved Solids	477	490	mg/L	2	13.2	20		Splt# 2297077-02 (477mg/L)

QC list for Run#: 2050678 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206091-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2206091-02	MRL_CHK	Alkalinity		3.07	mg/L	102				
QC2206091-03	SPK of 2296721-01	Alkalinity	17.4	57.7	mg/L	101			3	Splt# 2296721-01 (17.4mg/L)
QC2206091-04	SPKD of 2296721-01	Alkalinity	17.4	57.7	mg/L	101	0		3	Splt# 2296721-01 (17.4mg/L)
QC2206091-06	LCS	Alkalinity		39.9	mg/L	99			3	

QC list for Run#: 2050679 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206092-04	ICV	pH		9.04	pH	99				
	ICV	Temperature (°C)		20.7	°C					
QC2206092-05	DUP of 2296706-01	pH	9.29	9.32	pH		0			Splt# 2296706-01 (9.29pH) H1,H3
	DUP of 2296706-01	Temperature (°C)	18.7	18.7	°C					Splt# 2296706-01 (18.7°C) H1,H3
QC2206092-06	CCV	pH		9.05	pH	100				
	CCV	Temperature (°C)		20.5	°C					
QC2206092-07	CCV	pH		9.04	pH	99				
	CCV	Temperature (°C)		20.5	°C					

QC list for Run#: 2050680 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206093-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2206093-02	MRL_CHK	Specific Conductance @25°C		10.4	µmhos/cm	104				
QC2206093-03										

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Water Quality Laboratory

FOLDER ID: 2297077

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/06/2022

Sampling Team: Field

DUP of 2297077-01	Specific Conductance @25°C	1440	1430	µmhos/cm	0	1	Splt# 2297077-01 (1440µmhos/cm)
QC2206093-05	LCS	Specific Conductance @25°C	1000	µmhos/cm	100	1	

QC list for Run#: 2050682 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206095-01	BLK	Chloride	<3	mg/L			1.16	3		
QC2206095-02	MRL_CK	Chloride	2.51	mg/L		83				
QC2206095-03	SPK of 2296721-01	Chloride	6.85	46	mg/L	97			3	Splt# 2296721-01 (6.85mg/L)
QC2206095-04	SPKD of 2296721-01	Chloride	6.85	46.4	mg/L	98	0		3	Splt# 2296721-01 (6.85mg/L)
QC2206095-06	LCS	Chloride	38.8	mg/L		96			3	

QC list for Run#: 2050683 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206096-01	BLK	Hardness, Total, as CaCO3	<3	mg/L			0.474	3		
QC2206096-02	MRL_CK	Hardness, Total, as CaCO3	2.82	mg/L		94				
QC2206096-03	DUP of 2296721-02	Hardness, Total, as CaCO3	15.9	15.9	mg/L		0	0.474	3	Splt# 2296721-02 (15.9mg/L)
QC2206096-04	LCS	Hardness, Total, as CaCO3	43.4	mg/L		109			3	

QC list for Run#: 2050859 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206197-01	BLK	Calcium, Ca	<1	mg/L			0.04	1		
	BLK	Magnesium, Mg	<0.2	mg/L			0.007	0.2		
	BLK	Potassium, K	<0.2	mg/L			0.04	0.2		
	BLK	Sodium, Na	<1	mg/L			0.02	1		
QC2206197-02	LCS	Calcium, Ca	1.9	mg/L		94		0.04	1	
	LCS	Magnesium, Mg	1.94	mg/L		97		0.007	0.2	
	LCS	Potassium, K	2.06	mg/L		103		0.04	0.2	
	LCS	Sodium, Na	2.1	mg/L		105		0.02	1	
QC2206197-03	DUP of 2297077-01	Calcium, Ca	68.5	68.3	mg/L		0	0.04	1	Splt# 2297077-01 (68.5mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297077

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/06/2022

Sampling Team: Field

DUP of 2297077-01	Magnesium, Mg	67.7	67	mg/L	1	0.007	0.2	Splt# 2297077-01 (67.7mg/L)
DUP of 2297077-01	Potassium, K	2.91	2.82	mg/L	3	0.04	0.2	Splt# 2297077-01 (2.91mg/L)
DUP of 2297077-01	Sodium, Na	118	113	mg/L	4	0.02	1	Splt# 2297077-01 (118mg/L)
QC2206197-03A								
DUP of QC2206197-03	Sodium, Na	113	119	mg/L	117	0.08	4	Splt# QC2206197-03 (113mg/L)
QC2206197-04								
SPK of 2297077-01	Calcium, Ca	68.5	72.2	mg/L	185	0.04	1	Splt# 2297077-01 (68.5mg/L)
SPK of 2297077-01	Magnesium, Mg	67.7	70.1	mg/L	121	0.007	0.2	Splt# 2297077-01 (67.7mg/L)
SPK of 2297077-01	Potassium, K	2.91	4.99	mg/L	104	0.04	0.2	Splt# 2297077-01 (2.91mg/L)
SPK of 2297077-01	Sodium, Na	118	119	mg/L	8	0.02	1	Splt# 2297077-01 (118mg/L)
QC2206197-05								
SPKD of 2297077-01	Calcium, Ca	68.5	70.4	mg/L	93	0.04	1	Splt# 2297077-01 (68.5mg/L)
SPKD of 2297077-01	Magnesium, Mg	67.7	68	mg/L	16	0.007	0.2	Splt# 2297077-01 (67.7mg/L)
SPKD of 2297077-01	Potassium, K	2.91	4.97	mg/L	103	0.04	0.2	Splt# 2297077-01 (2.91mg/L)
SPKD of 2297077-01	Sodium, Na	118	116	mg/L	0	0.02	1	Splt# 2297077-01 (118mg/L)
QC2206197-06								
MRL CK	Calcium, Ca		<1	mg/L	N/A	0.04	1	
MRL CK	Magnesium, Mg		<0.2	mg/L	N/A	0.007	0.2	
MRL CK	Potassium, K		0.242	mg/L	96	0.04	0.2	
MRL CK	Sodium, Na		<1	mg/L	N/A	0.02	1	
QC2206226-01								
ICV	Potassium, K		1.96	mg/L	98	0.03	0.2	
QC2206226-02								
ICV	Calcium, Ca		10	mg/L	100	0.05	1	
ICV	Magnesium, Mg		9.67	mg/L	95	0.01	0.2	
ICV	Sodium, Na		10.2	mg/L	102	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297078

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/04/2022

Sampling Team: Field

Lab Sample#: **2297078-01** Sample Source: WSB_SF58_SWD140 External ID:

Date Collected: 10/04/2022 09:45AM Date Received: 10/04/2022 12:38PM Sample Matrix: Aqueous Location Desc: SF#58 - USGS SOUTH WINDMILL MW140

Test/Analyte							
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	62.5	mg/L		6	10/04/2022	2050547 ALEE	
Test/Analyte							
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	749	µmhos/cm		1	10/04/2022	2050523 ABALALIO	
Test/Analyte							
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	388	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

Lab Sample#: **2297078-02** Sample Source: WSB_SF57_SWD57 External ID:

Date Collected: 10/04/2022 09:41AM Date Received: 10/04/2022 12:38PM Sample Matrix: Aqueous Location Desc: SF#57 - USGS SOUTH WINDMILL MW57

Test/Analyte							
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	191	mg/L		15	10/04/2022	2050547 ALEE	
Test/Analyte							
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	1290	µmhos/cm		1	10/04/2022	2050523 ABALALIO	>MCL
Test/Analyte							
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	686	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	>MCL

Lab Sample#: **2297078-03** Sample Source: WSB_SF_DUP External ID:

Date Collected: 10/04/2022 09:43AM Date Received: 10/04/2022 12:38PM Sample Matrix: Aqueous Location Desc: SF#57 - USGS SOUTH WINDMILL MW57

Test/Analyte							
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	191	mg/L		15	10/04/2022	2050547 ALEE	
Test/Analyte							
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	1290	µmhos/cm		1	10/04/2022	2050523 ABALALIO	>MCL
Test/Analyte							
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	673	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	>MCL

Lab Sample#: **2297078-04** Sample Source: WSB_SF70_SWM3 External ID:

Date Collected: 10/04/2022 11:08AM Date Received: 10/04/2022 12:38PM Sample Matrix: Aqueous Location Desc: WSB_SF70, GGP SWM-3

Test/Analyte							
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	38.5	mg/L		3	10/04/2022	2050547 ALEE	
Test/Analyte							
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	491	µmhos/cm		1	10/04/2022	2050523 ABALALIO	
Test/Analyte							
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	265	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

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Water Quality Laboratory

FOLDER ID: 2297078

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/04/2022

Sampling Team: Field

Lab Sample#: 2297078-05 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 10/04/2022 11:09AM **Date Received:** 10/04/2022 12:38PM **Sample Matrix:** Aqueous **Location Desc:** WSB_SF70, GGP SWM-3

Test/Analyte

<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	38.6	mg/L		3	10/04/2022	2050547 ALEE	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance @25°C	494	µmhos/cm		1	10/04/2022	2050523 ABALALIO	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	272	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

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Water Quality Laboratory

FOLDER ID: 2297078

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/04/2022

Sampling Team: Field

QC list for Run#: 2050523 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205982-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2205982-02	MRL_CK	Specific Conductance @25°C		10.4	µmhos/cm	104				
QC2205982-03	DUP of 2296513-01	Specific Conductance @25°C	76	76.5	µmhos/cm		0		1	Splt# 2296513-01 (76µmhos/cm)
QC2205982-04	CCV	Specific Conductance @25°C		101	µmhos/cm	101				
QC2205982-05	LCS	Specific Conductance @25°C		1000	µmhos/cm	100			1	

QC list for Run#: 2050547 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2205997-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2205997-02	MRL_CK	Chloride		2.7	mg/L	90				
QC2205997-03	SPK of 2296510-03	Chloride	6.42	45.5	mg/L	97			3	Splt# 2296510-03 (6.42mg/L)
QC2205997-04	SPKD of 2296510-03	Chloride	6.42	45.4	mg/L	97	0		3	Splt# 2296510-03 (6.42mg/L)
QC2205997-05	DUP of 2297078-05	Chloride	38.6	38.6	mg/L		0		3	Splt# 2297078-05 (38.6mg/L)
QC2205997-06	LCS	Chloride		38.5	mg/L	96			3	

QC list for Run#: 2050661 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206079-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206079-02	DUP of 2297078-01	Total Dissolved Solids	388	388	mg/L		0	13.2	20	Splt# 2297078-01 (388mg/L)
QC2206079-03	LCS	Total Dissolved Solids		95	mg/L	100		13.2	20	
QC2206079-04	DUP of 2297077-02	Total Dissolved Solids	477	490	mg/L		2	13.2	20	Splt# 2297077-02 (477mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297080

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/11/2022

Sampling Team: Field

Lab Sample#: 2297080-01 **Sample Source:** WSB_SF34_KIR130 **External ID:**

Date Collected: 10/11/2022 12:15PM **Date Received:** 10/11/2022 01:12PM **Sample Matrix:** Aqueous **Location Desc:** SF#34 - GRT HWY/KIRKHAM MW130

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	31.4	mg/L		3	10/11/2022	2050858 DCARDONA	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	418	µmhos/cm		1	10/11/2022	2050870 ALEE	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	225	mg/L	13.2	20	10/14/2022	2050979 DCARDONA	

Lab Sample#: 2297080-02 **Sample Source:** WSB_SF35_KIR255 **External ID:**

Date Collected: 10/11/2022 11:49AM **Date Received:** 10/11/2022 01:12PM **Sample Matrix:** Aqueous **Location Desc:** SF#35 - GRT HWY/KIRKHAM MW255

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	38.2	mg/L		3	10/11/2022	2050858 DCARDONA	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	503	µmhos/cm		1	10/11/2022	2050870 ALEE	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	270	mg/L	13.2	20	10/14/2022	2050979 DCARDONA	

Lab Sample#: 2297080-03 **Sample Source:** WSB_SF36_KIR385 **External ID:**

Date Collected: 10/11/2022 11:37AM **Date Received:** 10/11/2022 01:12PM **Sample Matrix:** Aqueous **Location Desc:** SF#36 - GRT HWY/KIRKHAM MW385

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	35	mg/L		3	10/11/2022	2050858 DCARDONA	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	476	µmhos/cm		1	10/11/2022	2050870 ALEE	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	273	mg/L	13.2	20	10/14/2022	2050979 DCARDONA	

Lab Sample#: 2297080-04 **Sample Source:** WSB_SF37_KIR435 **External ID:**

Date Collected: 10/11/2022 10:52AM **Date Received:** 10/11/2022 01:12PM **Sample Matrix:** Aqueous **Location Desc:** SF#37 - GRT HWY/KIRKHAM MW435

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	27.5	mg/L		3	10/11/2022	2050858 DCARDONA	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	442	µmhos/cm		1	10/11/2022	2050870 ALEE	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	256	mg/L	13.2	20	10/14/2022	2050979 DCARDONA	

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Water Quality Laboratory

FOLDER ID: 2297080

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/11/2022

Sampling Team: Field

Lab Sample#: 2297080-05 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 10/11/2022 10:53AM **Date Received:** 10/11/2022 01:12PM **Sample Matrix:** Aqueous **Location Desc:** SF#37 - GRT HWY/KIRKHAM MW435

Test/Analyte

<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	27.6	mg/L		3	10/11/2022	2050858 DCARDONA	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance @25°C	442	µmhos/cm		1	10/11/2022	2050870 ALEE	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	259	mg/L	13.2	20	10/14/2022	2050979 DCARDONA	

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Water Quality Laboratory

FOLDER ID: 2297080

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/11/2022

Routine: WSB_SFPUC

Sampling Team: Field

QC list for Run#: 2050858 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206225-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206225-02	MRL_CK	Chloride		2.55	mg/L	85				
QC2206225-03	SPK of 2297474-01	Chloride	5.13	43.8	mg/L	96			3	Splt# 2297474-01 (5.13mg/L)
QC2206225-04	SPKD of 2297474-01	Chloride	5.13	43.6	mg/L	96	0		3	Splt# 2297474-01 (5.13mg/L)
QC2206225-05	DUP of 2297080-03	Chloride	35	35	mg/L		0		3	Splt# 2297080-03 (35mg/L)
QC2206225-06	LCS	Chloride		38.6	mg/L	96			3	

QC list for Run#: 2050870 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206232-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2206232-02	MRL_CK	Specific Conductance @25°C		10.3	µmhos/cm	103				
QC2206232-03	DUP of 2297472-01	Specific Conductance @25°C	82	82	µmhos/cm		0		1	Splt# 2297472-01 (82µmhos/cm)
QC2206232-04	CCV	Specific Conductance @25°C		101	µmhos/cm	101				
QC2206232-05	LCS	Specific Conductance @25°C		1000	µmhos/cm	100			1	

QC list for Run#: 2050979 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206308-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206308-02	DUP of 2297475-01	Total Dissolved Solids	39	38	mg/L		2	13.2	20	Splt# 2297475-01 (39mg/L)
QC2206308-03	LCS	Total Dissolved Solids		90	mg/L	94		13.2	20	
QC2206308-04	DUP of 2297082-03	Total Dissolved Solids	284	286	mg/L		0	13.2	20	Splt# 2297082-03 (284mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297081

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/05/2022

Sampling Team: Field

Lab Sample#: **2297081-01** Sample Source: WSB_SF30_ORT125 External ID:

Date Collected: 10/05/2022 11:46AM Date Received: 10/05/2022 02:10PM Sample Matrix: Aqueous Location Desc: SF#30 - GRT HWY/ORTEGA MW125

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	31.9	mg/L		3	10/05/2022	2050599 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	462	µmhos/cm		1	10/05/2022	2050613 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	254	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

Lab Sample#: **2297081-02** Sample Source: WSB_SF31_ORT265 External ID:

Date Collected: 10/05/2022 11:49AM Date Received: 10/05/2022 02:10PM Sample Matrix: Aqueous Location Desc: SF#31 - GRT HWY/ORTEGA MW265

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	23.4	mg/L		3	10/05/2022	2050599 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	268	µmhos/cm		1	10/05/2022	2050613 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	143	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

Lab Sample#: **2297081-03** Sample Source: WSB_SF32_ORT400 External ID:

Date Collected: 10/05/2022 10:48AM Date Received: 10/05/2022 02:10PM Sample Matrix: Aqueous Location Desc: SF#32 - GRT HWY/ORTEGA MW400

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	22.8	mg/L		3	10/05/2022	2050599 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	277	µmhos/cm		1	10/05/2022	2050613 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	152	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

Lab Sample#: **2297081-04** Sample Source: WSB_SF33_ORT475 External ID:

Date Collected: 10/05/2022 10:53AM Date Received: 10/05/2022 02:10PM Sample Matrix: Aqueous Location Desc: SF#33 - GRT HWY/ORTEGA MW475

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	28.5	mg/L		3	10/05/2022	2050599 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	304	µmhos/cm		1	10/05/2022	2050613 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	164	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

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Water Quality Laboratory

FOLDER ID: 2297081

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC

Scheduled Sample Date: 10/05/2022

Sampling Team: Field

Lab Sample#: 2297081-05 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 10/05/2022 11:47AM **Date Received:** 10/05/2022 02:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#30 - GRT HWY/ORTEGA MW125

Test/Analyte

<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	31.3	mg/L		3	10/05/2022	2050599 ALEE	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance @25°C	462	µmhos/cm		1	10/05/2022	2050613 ABALALIO	
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	250	mg/L	13.2	20	10/07/2022	2050661 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297081

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/05/2022

Routine: WSB_SFPUC

Sampling Team: Field

QC list for Run#: 2050599 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206037-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206037-02	MRL_CHK	Chloride		2.74	mg/L	91				
QC2206037-03	SPK of 2297081-01	Chloride	31.9	70.4	mg/L	96			3	Splt# 2297081-01 (31.9mg/L)
QC2206037-04	SPKD of 2297081-01	Chloride	31.9	70.7	mg/L	96	0		3	Splt# 2297081-01 (31.9mg/L)
QC2206037-06	LCS	Chloride		38.4	mg/L	96			3	

QC list for Run#: 2050613 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206044-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2206044-02	MRL_CHK	Specific Conductance @25°C		10.4	µmhos/cm	104				
QC2206044-03	DUP of 2296726-04	Specific Conductance @25°C	76.2	76.4	µmhos/cm		0		1	Splt# 2296726-04 (76.2µmhos/cm)
QC2206044-05	LCS	Specific Conductance @25°C		1000	µmhos/cm	100			1	

QC list for Run#: 2050661 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206079-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206079-02	DUP of 2297078-01	Total Dissolved Solids	388	388	mg/L		0	13.2	20	Splt# 2297078-01 (388mg/L)
QC2206079-03	LCS	Total Dissolved Solids		95	mg/L	100		13.2	20	
QC2206079-04	DUP of 2297077-02	Total Dissolved Solids	477	490	mg/L		2	13.2	20	Splt# 2297077-02 (477mg/L)

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Water Quality Laboratory

FOLDER ID: 2297082

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/12/2022

Sampling Team: Field

Lab Sample#: **2297082-01** Sample Source: WSB_SF68_GGPNL1 External ID:

Date Collected: 10/12/2022 12:20PM Date Received: 10/12/2022 01:37PM Sample Matrix: Aqueous Location Desc: WSB_SF68, GGP NORTH LAKE ROAD NL-1

Test/Analyte								
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Chloride	42.2	mg/L		3	10/12/2022	2050931 ALEE		
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Specific Conductance @25°C	502	µmhos/cm		1	10/12/2022	2050921 DCARDONA		
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Total Dissolved Solids	272	mg/L	13.2	20	10/14/2022	2050979 DCARDONA		

Lab Sample#: **2297082-02** Sample Source: WSB_SF69_NWM3 External ID:

Date Collected: 10/12/2022 11:13AM Date Received: 10/12/2022 01:37PM Sample Matrix: Aqueous Location Desc: WSB_SF69, GGP NWM-3

Test/Analyte								
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Chloride	39	mg/L		3	10/12/2022	2050931 ALEE		
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Specific Conductance @25°C	434	µmhos/cm		1	10/12/2022	2050921 DCARDONA		
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Total Dissolved Solids	232	mg/L	13.2	20	10/14/2022	2050979 DCARDONA		

Lab Sample#: **2297082-03** Sample Source: WSB_SF67_GGSPF1 External ID:

Date Collected: 10/12/2022 10:07AM Date Received: 10/12/2022 01:37PM Sample Matrix: Aqueous Location Desc: WSB_SF67, GGP SOCCER FIELD SF-1

Test/Analyte								
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Chloride	41.2	mg/L		3	10/12/2022	2050931 ALEE		
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Specific Conductance @25°C	562	µmhos/cm		1	10/12/2022	2050921 DCARDONA		
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Total Dissolved Solids	284	mg/L	13.2	20	10/14/2022	2050979 DCARDONA		

Lab Sample#: **2297082-04** Sample Source: WSB_SF_DUP External ID:

Date Collected: 10/12/2022 12:32PM Date Received: 10/12/2022 01:37PM Sample Matrix: Aqueous Location Desc: WSB_SF68, GGP NORTH LAKE ROAD NL-1

Test/Analyte								
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Chloride	42.5	mg/L		3	10/12/2022	2050931 ALEE		
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Specific Conductance @25°C	504	µmhos/cm		1	10/12/2022	2050921 DCARDONA		
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments	
Total Dissolved Solids	277	mg/L	13.2	20	10/14/2022	2050979 DCARDONA		

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Water Quality Laboratory

FOLDER ID: 2297082

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/12/2022

Sampling Team: Field

QC list for Run#: 2050921 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206267-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2206267-02	MRL_CK	Specific Conductance @25°C		10.2	µmhos/cm	102				
QC2206267-03	DUP of 2297406-01	Specific Conductance @25°C	28.2	28.1	µmhos/cm	0		1		Splt# 2297406-01 (28.2µmhos/cm)
QC2206267-05	LCS	Specific Conductance @25°C		998	µmhos/cm	99			1	

QC list for Run#: 2050931 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206276-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206276-02	MRL_CK	Chloride		2.55	mg/L	85				
QC2206276-03	SPK of 2297478-05	Chloride	6.92	45.9	mg/L	97			3	Splt# 2297478-05 (6.92mg/L)
QC2206276-04	SPKD of 2297478-05	Chloride	6.92	45.8	mg/L	97	0		3	Splt# 2297478-05 (6.92mg/L)
QC2206276-06	LCS	Chloride		38.7	mg/L	96			3	

QC list for Run#: 2050979 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206308-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206308-02	DUP of 2297475-01	Total Dissolved Solids	39	38	mg/L		2	13.2	20	Splt# 2297475-01 (39mg/L)
QC2206308-03	LCS	Total Dissolved Solids		90	mg/L	94		13.2	20	
QC2206308-04	DUP of 2297082-03	Total Dissolved Solids	284	286	mg/L		0	13.2	20	Splt# 2297082-03 (284mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297083

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/13/2022

Sampling Team: Field

Lab Sample#: 2297083-01 **Sample Source:** WSB_SF41_WSPLAY **External ID:**

Date Collected: 10/13/2022 10:44AM **Date Received:** 10/13/2022 02:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	32.2	mg/L	1	5	10/13/2022	2050985 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	10.8	mg/L	0.04	1	10/20/2022	2051327 BTRINH	
Magnesium, Mg	25	mg/L	0.007	0.2	10/20/2022	2051327 BTRINH	
Potassium, K	1.16	mg/L	0.04	0.2	10/20/2022	2051327 BTRINH	
Sodium, Na	31.7	mg/L	0.02	1	10/20/2022	2051327 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	113	mg/L	0.593	3	10/13/2022	2050986 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	38.8	mg/L		3	10/13/2022	2050989 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	426	µmhos/cm		1	10/13/2022	2050998 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	8.31	pH			10/13/2022	2050997 ABALALIO	H1, H3
Temperature (°C)	16.3	°C			10/13/2022	2050997 ABALALIO	H1, H3

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	190	mg/L	13.2	20	10/14/2022	2050979 DCARDONA	

Lab Sample#: 2297083-01A **Sample Source:** WSB_SF41_WSPLAY **External ID:**

Date Collected: 10/13/2022 10:44AM **Date Received:** 10/13/2022 02:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	130	mg/L	0.948	6	10/13/2022	2050990 ALEE	

Lab Sample#: 2297083-01B **Sample Source:** WSB_SF41_WSPLAY **External ID:**

Date Collected: 10/13/2022 10:44AM **Date Received:** 10/13/2022 02:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	10/14/2022	2051032 DREGGIO	

Lab Sample#: 2297083-02 **Sample Source:** WSB_SB-M-1 **External ID:**

Date Collected: 10/13/2022 09:15AM **Date Received:** 10/13/2022 02:10PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-M-1, MILLBRAE CORP. YARD, tem

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	22.9	mg/L	1	5	10/13/2022	2050985 PWARNER	
Nitrate as N	3.78	mg/L	0.34	0.4	10/13/2022	2050985 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297083

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/13/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	29	mg/L	0.04	1	10/20/2022	2051327 BTRINH	
Magnesium, Mg	19.2	mg/L	0.007	0.2	10/20/2022	2051327 BTRINH	
Potassium, K	1.84	mg/L	0.04	0.2	10/20/2022	2051327 BTRINH	
Sodium, Na	31.5	mg/L	0.02	1	10/20/2022	2051327 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	111	mg/L	0.593	3	10/13/2022	2050986 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	50.7	mg/L		3	10/13/2022	2050989 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	480	µmhos/cm		1	10/13/2022	2050998 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	145	mg/L	0.474	3	10/13/2022	2050990 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.69	pH			10/13/2022	2050997 ABALALIO	H1, H3
Temperature (°C)	16.3	°C			10/13/2022	2050997 ABALALIO	H1, H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	258	mg/L	13.2	20	10/14/2022	2050979 DCARDONA	

Lab Sample#: 2297083-03 **Sample Source:** WSB_SF_DUP_FULL **External ID:**

Date Collected: 10/13/2022 11:04AM **Date Received:** 10/13/2022 02:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	31.6	mg/L	1	5	10/13/2022	2050985 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	10.9	mg/L	0.04	1	10/20/2022	2051327 BTRINH	
Magnesium, Mg	24.7	mg/L	0.007	0.2	10/20/2022	2051327 BTRINH	
Potassium, K	1.16	mg/L	0.04	0.2	10/20/2022	2051327 BTRINH	
Sodium, Na	31.1	mg/L	0.02	1	10/20/2022	2051327 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	113	mg/L	0.593	3	10/13/2022	2050986 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	38.9	mg/L		3	10/13/2022	2050989 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	426	µmhos/cm		1	10/13/2022	2050998 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	8.15	pH			10/13/2022	2050997 ABALALIO	H1, H3
Temperature (°C)	18.5	°C			10/13/2022	2050997 ABALALIO	H1, H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	189	mg/L	13.2	20	10/14/2022	2050979 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297083

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/13/2022

Sampling Team: Field

Lab Sample#: 2297083-03A **Sample Source:** WSB_SF_DUP_FULL **External ID:**

Date Collected: 10/13/2022 11:04AM **Date Received:** 10/13/2022 02:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

<u>MBP_HARDNESS_T(SM 2340 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Hardness, Total, as CaCO3	129	mg/L	0.948	6	10/13/2022	2050990 ALEE	

Lab Sample#: 2297083-03B **Sample Source:** WSB_SF_DUP_FULL **External ID:**

Date Collected: 10/13/2022 11:04AM **Date Received:** 10/13/2022 02:10PM **Sample Matrix:** Aqueous **Location Desc:** SF#41 - WEST SUNSET PLAYGROUND

Test/Analyte

<u>MBI_IC_ANIONS_A(EPA 300.0 (A))</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Nitrate as N	<0.04	mg/L	0.034	0.04	10/14/2022	2051032 DREGGIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297083

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/13/2022

Sampling Team: Field

QC list for Run#: 2050979 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206308-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206308-02	DUP of 2297475-01	Total Dissolved Solids	39	38	mg/L		2	13.2	20	Splt# 2297475-01 (39mg/L)
QC2206308-03	LCS	Total Dissolved Solids		90	mg/L	94		13.2	20	
QC2206308-04	DUP of 2297082-03	Total Dissolved Solids	284	286	mg/L		0	13.2	20	Splt# 2297082-03 (284mg/L)

QC list for Run#: 2050985 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206311-01	MRL_CK	Sulfate		0.485	mg/L	97				
	MRL_CK	Nitrate as N		0.0388	mg/L	97				
QC2206311-02	CCV	Sulfate		2.35	mg/L	94				
	CCV	Nitrate as N		0.186	mg/L	93				
QC2206311-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206311-04	BLK	Chloride		<1	mg/L			0.2	1	
QC2206311-05	LCS	Sulfate		2.26	mg/L	90				
	LCS	Nitrate as N		0.185	mg/L	92				
QC2206311-06	CCV	Sulfate		21.3	mg/L	106				
	CCV	Nitrate as N		1.6	mg/L	101				
QC2206311-07	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206311-08	SPK of 2296712-04	Sulfate	4.35	6.88	mg/L	101				Splt# 2296712-04 (4.35mg/L)
	SPK of 2296712-04	Nitrate as N	0.0782	0.273	mg/L	97				Splt# 2296712-04 (0.0782mg/L)
QC2206311-09	SPKD of 2296712-04	Sulfate	4.35	6.89	mg/L	101	0			Splt# 2296712-04 (4.35mg/L) Manually calculated RPD
	SPKD of 2296712-04	Nitrate as N	0.0782	0.274	mg/L	98	0			Splt# 2296712-04 (0.0782mg/L) Manually calculated RPD

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297083

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/13/2022

Sampling Team: Field

QC list for Run#: 2050986 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206312-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2206312-02	MRL CK	Alkalinity	3.02		mg/L	101				
QC2206312-03	SPK of 2297477-03	Alkalinity	17.3	57.6	mg/L	101			3	Splt# 2297477-03 (17.3mg/L)
QC2206312-04	SPKD of 2297477-03	Alkalinity	17.3	57.8	mg/L	101	0		3	Splt# 2297477-03 (17.3mg/L)
QC2206312-06	LCS	Alkalinity	40.2		mg/L	100			3	
QC2206312-07	DUP of 2296896-06	Alkalinity	45.3	46	mg/L		1	0.593	3	Splt# 2296896-06 (45.3mg/L)

QC list for Run#: 2050989 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206315-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2206315-02	MRL CK	Chloride	2.47		mg/L	82				
QC2206315-03	SPK of 2297477-03	Chloride	6.88	45.8	mg/L	97			3	Splt# 2297477-03 (6.88mg/L)
QC2206315-04	SPKD of 2297477-03	Chloride	6.88	46	mg/L	97	0		3	Splt# 2297477-03 (6.88mg/L)
QC2206315-06	LCS	Chloride	38.5		mg/L	96			3	

QC list for Run#: 2050990 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206316-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2206316-02	MRL CK	Hardness, Total, as CaCO3	2.58		mg/L	86				
QC2206316-03	DUP of 2297477-01	Hardness, Total, as CaCO3	14.9	15.2	mg/L		1	0.474	3	Splt# 2297477-01 (14.9mg/L)
QC2206316-04	LCS	Hardness, Total, as CaCO3	40.7		mg/L	102			3	

QC list for Run#: 2050997 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206320-04										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297083

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/13/2022

Sampling Team: Field

ICV	pH	9.04	pH	99	
ICV	Temperature (°C)	20	°C		
QC2206320-05					
DUP of 2296865-01	pH	9.27	9.27	pH	0 Splt# 2296865-01 (9.27pH) H1, H3
DUP of 2296865-01	Temperature (°C)	18	18	°C	Splt# 2296865-01 (18°C) H1, H3
QC2206320-06					
CCV	pH	9.04	pH	99	
CCV	Temperature (°C)	19.8	°C		

QC list for Run#: 2050998 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206321-01	BLK	Specific Conductance @25°C	<1		µmhos/cm				1	
QC2206321-02	MRL_CK	Specific Conductance @25°C	10.3		µmhos/cm	103				
QC2206321-03	DUP of 2296865-01	Specific Conductance @25°C	80	80.1	µmhos/cm	0			1	Splt# 2296865-01 (80µmhos/cm)
QC2206321-05	LCS	Specific Conductance @25°C	1000		µmhos/cm	100			1	

QC list for Run#: 2051032 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206353-01	MRL_CK	Nitrate as N	0.0367		mg/L	92				
QC2206353-02	CCV	Nitrate as N	0.186		mg/L	93				
QC2206353-03	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2206353-04	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2206353-05	LCS	Nitrate as N	0.186		mg/L	92				
QC2206353-06	CCV	Nitrate as N	1.6		mg/L	101				
QC2206353-07	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2206353-08	SPK of 2296896-09	Nitrate as N	0.055	0.245	mg/L	95				Splt# 2296896-09 (0.055mg/L)
QC2206353-09	SPKD of 2296896-09	Nitrate as N	0.055	0.246	mg/L	95	r: No Parent			Splt# 2296896-09 (0.055mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297083

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/13/2022

Sampling Team: Field

QC list for Run#: 2051327 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206538-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	
QC2206538-02	LCS	Calcium, Ca	1.77		mg/L	88		0.04	1	
	LCS	Magnesium, Mg	1.91		mg/L	95		0.007	0.2	
	LCS	Potassium, K	2.02		mg/L	101		0.04	0.2	
	LCS	Sodium, Na	2.06		mg/L	103		0.02	1	
QC2206538-03	DUP of 2297083-01	Calcium, Ca	10.8	10.9	mg/L		0	0.04	1	Splt# 2297083-01 (10.8mg/L)
	DUP of 2297083-01	Magnesium, Mg	25	25.3	mg/L		1	0.007	0.2	Splt# 2297083-01 (25mg/L)
	DUP of 2297083-01	Potassium, K	1.16	1.16	mg/L		0	0.04	0.2	Splt# 2297083-01 (1.16mg/L)
	DUP of 2297083-01	Sodium, Na	31.7	31.8	mg/L		0	0.02	1	Splt# 2297083-01 (31.7mg/L)
QC2206538-04	SPK of 2297083-01	Calcium, Ca	10.8	13	mg/L	108		0.04	1	Splt# 2297083-01 (10.8mg/L)
	SPK of 2297083-01	Magnesium, Mg	25	27.1	mg/L	105		0.007	0.2	Splt# 2297083-01 (25mg/L)
	SPK of 2297083-01	Potassium, K	1.16	3.25	mg/L	104		0.04	0.2	Splt# 2297083-01 (1.16mg/L)
	SPK of 2297083-01	Sodium, Na	31.7	33.8	mg/L	104		0.02	1	Splt# 2297083-01 (31.7mg/L)
QC2206538-05	SPKD of 2297083-01	Calcium, Ca	10.8	13	mg/L	110	0	0.04	1	Splt# 2297083-01 (10.8mg/L)
	SPKD of 2297083-01	Magnesium, Mg	25	26.5	mg/L	76	2	0.007	0.2	Splt# 2297083-01 (25mg/L)
	SPKD of 2297083-01	Potassium, K	1.16	3.24	mg/L	104	0	0.04	0.2	Splt# 2297083-01 (1.16mg/L)
	SPKD of 2297083-01	Sodium, Na	31.7	33.4	mg/L	82	1	0.02	1	Splt# 2297083-01 (31.7mg/L)
QC2206538-06	MRL_CK	Calcium, Ca	<1		mg/L	N/A		0.04	1	
	MRL_CK	Magnesium, Mg	<0.2		mg/L	N/A		0.007	0.2	
	MRL_CK	Potassium, K	0.276		mg/L	110		0.04	0.2	
	MRL_CK	Sodium, Na	<1		mg/L	N/A		0.02	1	
QC2206561-01	ICV	Potassium, K	1.91		mg/L	95		0.03	0.2	
QC2206561-02	ICV	Calcium, Ca	10.1		mg/L	101		0.05	1	
	ICV	Magnesium, Mg	9.61		mg/L	95		0.01	0.2	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297083

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/13/2022

Sampling Team: Field

ICV	Sodium, Na	10.3	mg/L	103	0.002	1
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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297491

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/17/2022

Sampling Team: Field

Lab Sample#: 2297491-01 **Sample Source:** WSB_SF26_TAR145 **External ID:**

Date Collected: 10/18/2022 10:29AM **Date Received:** 10/18/2022 11:52AM **Sample Matrix:** Aqueous **Location Desc:** SF#26 - GRT HWY/TARAVAL MW145

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	42	mg/L		3	10/18/2022	2051208 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	477	µmhos/cm		1	10/18/2022	2051223 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	242	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	

Lab Sample#: 2297491-02 **Sample Source:** WSB_SF27_TAR240 **External ID:**

Date Collected: 10/18/2022 09:54AM **Date Received:** 10/18/2022 11:52AM **Sample Matrix:** Aqueous **Location Desc:** SF#27 - GRT HWY/TARAVAL MW240

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	32.4	mg/L		3	10/18/2022	2051208 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	391	µmhos/cm		1	10/18/2022	2051223 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	206	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	

Lab Sample#: 2297491-03 **Sample Source:** WSB_SF28_TAR400 **External ID:**

Date Collected: 10/18/2022 11:09AM **Date Received:** 10/18/2022 11:52AM **Sample Matrix:** Aqueous **Location Desc:** SF#28 - GRT HWY/TARAVAL MW400

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	27.6	mg/L		3	10/18/2022	2051208 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	322	µmhos/cm		1	10/18/2022	2051223 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	165	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	

Lab Sample#: 2297491-04 **Sample Source:** WSB_SF29_TAR530 **External ID:**

Date Collected: 10/18/2022 10:52AM **Date Received:** 10/18/2022 11:52AM **Sample Matrix:** Aqueous **Location Desc:** SF#29 - GRT HWY/TARAVAL MW530

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	24.7	mg/L		3	10/18/2022	2051208 ALEE	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	368	µmhos/cm		1	10/18/2022	2051223 ABALALIO	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	193	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297491

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/17/2022

Sampling Team: Field

Lab Sample#: 2297491-05 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 10/18/2022 10:00AM **Date Received:** 10/18/2022 11:52AM **Sample Matrix:** Aqueous **Location Desc:** SF#27 - GRT HWY/TARAVAL MW240

Test/Analyte

<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	32.4	mg/L		3	10/18/2022	2051208 ALEE	

<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance @25°C	391	µmhos/cm		1	10/18/2022	2051223 ABALALIO	

<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	207	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	

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Water Quality Laboratory

FOLDER ID: 2297491

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/17/2022

Sampling Team: Field

QC list for Run#: 2051200 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206475-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206475-02	DUP of 2297494-01	Total Dissolved Solids	594	588	mg/L	1		13.2	20	Splt# 2297494-01 (594mg/L)
QC2206475-03	LCS	Total Dissolved Solids		83	mg/L	87		13.2	20	

QC list for Run#: 2051208 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206480-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206480-02	MRL_CK	Chloride		2.57	mg/L	85				
QC2206480-03	SPK of 2297658-01	Chloride	6.85	45.7	mg/L	97			3	Splt# 2297658-01 (6.85mg/L)
QC2206480-04	SPKD of 2297658-01	Chloride	6.85	45.8	mg/L	97	0		3	Splt# 2297658-01 (6.85mg/L)
QC2206480-06	LCS	Chloride		38.5	mg/L	96			3	

QC list for Run#: 2051223 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206489-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2206489-02	MRL_CK	Specific Conductance @25°C		10.2	µmhos/cm	102				
QC2206489-03	DUP of 2297008-01	Specific Conductance @25°C	76.7	76.8	µmhos/cm		0		1	Splt# 2297008-01 (76.7µmhos/cm)
QC2206489-04	CCV	Specific Conductance @25°C		101	µmhos/cm	101				
QC2206489-05	LCS	Specific Conductance @25°C		1000	µmhos/cm	100			1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297492

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#: **2297492-01** Sample Source: WSB_SB-44-1-190 External ID:
Date Collected: 10/19/2022 11:34AM Date Received: 10/19/2022 01:00PM Sample Matrix: Aqueous Location Desc: GSR_SB_CUP-44-1-190, GG NATIONAL CEMETE

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	101	mg/L	1	5	10/19/2022	2051272 PWARNER	
Nitrate as N	6.17	mg/L	0.34	0.4	10/19/2022	2051272 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	48.2	mg/L	0.04	1	10/28/2022	2051741 BTRINH	
Magnesium, Mg	33.2	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH	
Potassium, K	1.46	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	261	mg/L	1.19	6	10/19/2022	2051287 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	92.3	mg/L		6	10/19/2022	2051290 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1050	µmhos/cm		1	10/19/2022	2051288 DCARDONA	>MCL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	258	mg/L	0.948	6	10/19/2022	2051282 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	6.46	pH			10/19/2022	2051289 DCARDONA	H1,H3
Temperature (°C)	20.2	°C			10/19/2022	2051289 DCARDONA	H1,H3

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	617	mg/L	13.2	20	10/21/2022	2051364 ABALALIO	>MCL

Lab Sample#: **2297492-01A** Sample Source: WSB_SB-44-1-190 External ID:
Date Collected: 10/19/2022 11:34AM Date Received: 10/19/2022 01:00PM Sample Matrix: Aqueous Location Desc: GSR_SB_CUP-44-1-190, GG NATIONAL CEMETE

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Sodium, Na	120	mg/L	0.08	4	10/28/2022	2051741 BTRINH	

Lab Sample#: **2297492-02** Sample Source: WSB_SB-44-1-300 External ID:
Date Collected: 10/19/2022 12:02PM Date Received: 10/19/2022 01:00PM Sample Matrix: Aqueous Location Desc: GSR_SB_CUP-44-1-300, GG NATIONAL CEMETE

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	104	mg/L	1	5	10/19/2022	2051272 PWARNER	
Nitrate as N	6.2	mg/L	0.34	0.4	10/19/2022	2051272 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	49.7	mg/L	0.04	1	10/28/2022	2051741 BTRINH	
Magnesium, Mg	33.2	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH	
Potassium, K	1.5	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297492

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	268	mg/L	1.19	6	10/19/2022	2051287 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	93.3	mg/L		6	10/19/2022	2051290 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	1060	µmhos/cm		1	10/19/2022	2051288 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	263	mg/L	0.948	6	10/19/2022	2051282 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.43	pH			10/19/2022	2051289 DCARDONA	H1,H3
Temperature (°C)	20.4	°C			10/19/2022	2051289 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	617	mg/L	13.2	20	10/21/2022	2051364 ABALALIO	>MCL

Lab Sample#: 2297492-02A **Sample Source:** WSB_SB-44-1-300 **External ID:**

Date Collected: 10/19/2022 12:02PM **Date Received:** 10/19/2022 01:00PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-300, GG NATIONAL CEMETE

Test/Analyte

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sodium, Na	124	mg/L	0.08	4	10/28/2022	2051741 BTRINH	

Lab Sample#: 2297492-03 **Sample Source:** WSB_SB-44-1-460 **External ID:**

Date Collected: 10/19/2022 10:57AM **Date Received:** 10/19/2022 01:00PM **Sample Matrix:** Aqueous **Location Desc:** GSR_SB_CUP-44-1-460, GG NATIONAL CEMETE

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	104	mg/L	1	5	10/19/2022	2051272 PWARNER	
Nitrate as N	0.8	mg/L	0.34	0.4	10/19/2022	2051272 PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	53.9	mg/L	0.04	1	10/28/2022	2051741 BTRINH	
Magnesium, Mg	43.7	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH	
Potassium, K	3.29	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH	
Sodium, Na	64.5	mg/L	0.02	1	10/28/2022	2051741 BTRINH	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	166	mg/L	1.19	6	10/19/2022	2051287 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	128	mg/L		6	10/19/2022	2051290 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	954	µmhos/cm		1	10/19/2022	2051288 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	319	mg/L	0.948	6	10/19/2022	2051282 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297492

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

pH	6.63	pH			10/19/2022	2051289	DCARDONA	H1,H3
Temperature (°C)	20.4	°C			10/19/2022	2051289	DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Total Dissolved Solids	528	mg/L	13.2	20	10/21/2022	2051364	ABALALIO	>MCL
Lab Sample#:	2297492-04	Sample Source:	WSB_SB-44-1-580		External ID:			
Date Collected:	10/19/2022 10:11AM	Date Received:	10/19/2022 01:00PM	Sample Matrix:	Aqueous	Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE		
Test/Analyte								
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Sulfate	306	mg/L	2	10	10/19/2022	2051272	PWARNER	>MCL
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Calcium, Ca	112	mg/L	0.04	1	10/28/2022	2051741	BTRINH	
Magnesium, Mg	92.1	mg/L	0.007	0.2	10/28/2022	2051741	BTRINH	
Potassium, K	5.83	mg/L	0.04	0.2	10/28/2022	2051741	BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Alkalinity	259	mg/L	2.96	15	10/19/2022	2051287	ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Chloride	192	mg/L		15	10/19/2022	2051290	ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Specific Conductance @25°C	1740	µmhos/cm		1	10/19/2022	2051288	DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Hardness, Total, as CaCO3	674	mg/L	2.37	15	10/19/2022	2051282	ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
pH	7.37	pH			10/19/2022	2051289	DCARDONA	H1,H3
Temperature (°C)	19.6	°C			10/19/2022	2051289	DCARDONA	H1,H3
Lab Sample#:	2297492-04A	Sample Source:	WSB_SB-44-1-580		External ID:			
Date Collected:	10/19/2022 10:11AM	Date Received:	10/19/2022 01:00PM	Sample Matrix:	Aqueous	Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE		
Test/Analyte								
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Nitrate as N	<0.04	mg/L	0.034	0.04	10/19/2022	2051272	PWARNER	
Lab Sample#:	2297492-04B	Sample Source:	WSB_SB-44-1-580		External ID:			
Date Collected:	10/19/2022 10:11AM	Date Received:	10/19/2022 01:00PM	Sample Matrix:	Aqueous	Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE		
Test/Analyte								
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments
Total Dissolved Solids	1090	mg/L	26.4	40	10/21/2022	2051364	ABALALIO	>MCL; dilution @ 2x, dried re
Lab Sample#:	2297492-04C	Sample Source:	WSB_SB-44-1-580		External ID:			
Date Collected:	10/19/2022 10:11AM	Date Received:	10/19/2022 01:00PM	Sample Matrix:	Aqueous	Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE		
Test/Analyte								
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst		Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297492

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

<i>Sodium, Na</i>	118	mg/L	0.08	4	10/28/2022	2051741	BTRINH	
Lab Sample#: 2297492-05	Sample Source: WSB_SB_DUP			External ID:				
Date Collected: 10/19/2022 10:42AM	Date Received: 10/19/2022 01:00PM	Sample Matrix: Aqueous		Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE				
<u>Test/Analyte</u>								
<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Sulfate</i>	395	mg/L	2	10	10/19/2022	2051272 PWARNER	>MCL	
<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Calcium, Ca</i>	113	mg/L	0.04	1	10/28/2022	2051741 BTRINH		
<i>Magnesium, Mg</i>	92.8	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH		
<i>Potassium, K</i>	5.79	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH		
<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Alkalinity</i>	261	mg/L	2.96	15	10/19/2022	2051287 ABALALIO		
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Chloride</i>	190	mg/L		15	10/19/2022	2051290 ABALALIO		
<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Specific Conductance @25°C</i>	1720	µmhos/cm		1	10/19/2022	2051288 DCARDONA	>MCL	
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Hardness, Total, as CaCO3</i>	675	mg/L	2.37	15	10/19/2022	2051282 ABALALIO		
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>pH</i>	7.37	pH			10/19/2022	2051289 DCARDONA	H1,H3	
<i>Temperature (°C)</i>	20.2	°C			10/19/2022	2051289 DCARDONA	H1,H3	
Lab Sample#: 2297492-05A	Sample Source: WSB_SB_DUP			External ID:				
Date Collected: 10/19/2022 10:42AM	Date Received: 10/19/2022 01:00PM	Sample Matrix: Aqueous		Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE				
<u>Test/Analyte</u>								
<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Nitrate as N</i>	<0.04	mg/L	0.034	0.04	10/19/2022	2051272 PWARNER		
Lab Sample#: 2297492-05B	Sample Source: WSB_SB_DUP			External ID:				
Date Collected: 10/19/2022 10:42AM	Date Received: 10/19/2022 01:00PM	Sample Matrix: Aqueous		Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE				
<u>Test/Analyte</u>								
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Total Dissolved Solids</i>	1040	mg/L	26.4	40	10/21/2022	2051364 ABALALIO	>MCL; dilution @ 2x, dried re	
Lab Sample#: 2297492-05C	Sample Source: WSB_SB_DUP			External ID:				
Date Collected: 10/19/2022 10:42AM	Date Received: 10/19/2022 01:00PM	Sample Matrix: Aqueous		Location Desc: GSR_SB_CUP-44-1-580, GG NATIONAL CEMETE				
<u>Test/Analyte</u>								
<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Sodium, Na</i>	116	mg/L	0.08	4	10/28/2022	2051741 BTRINH		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297492

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

QC list for Run#: 2051272 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206526-01	MRL_CK	Sulfate		0.504	mg/L	101				
	MRL_CK	Nitrate as N		0.0391	mg/L	98				
QC2206526-02	CCV	Sulfate		2.44	mg/L	97				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2206526-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206526-04	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206526-05	LCS	Sulfate		2.38	mg/L	95				
	LCS	Nitrate as N		0.188	mg/L	93				
QC2206526-06	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206526-07	CCV	Sulfate		21.8	mg/L	109				
	CCV	Nitrate as N		1.65	mg/L	104				
QC2206526-08	SPKD of 2297710-01	Sulfate	4.68	7.14	mg/L	98	2			Splt# 2297710-01 (4.68mg/L)
	SPKD of 2297710-01	Nitrate as N	0.076	0.275	mg/L	99	8			Splt# 2297710-01 (0.076mg/L)
QC2206526-09	SPK of 2297710-01	Sulfate	4.68	7.34	mg/L	106				Splt# 2297710-01 (4.68mg/L)
	SPK of 2297710-01	Nitrate as N	0.076	0.298	mg/L	111				Splt# 2297710-01 (0.076mg/L)
QC2206526-10	CCV	Sulfate		2.46	mg/L	98				
	CCV	Nitrate as N		0.195	mg/L	97				
QC2206526-11	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206526-12	SPK of 2297000-04	Sulfate	4.59	7.16	mg/L	103				Splt# 2297000-04 (4.59mg/L)
	SPK of 2297000-04	Nitrate as N	0.0955	0.288	mg/L	96				Splt# 2297000-04 (0.0955mg/L)
QC2206526-13										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297492

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

SPKD of 2297000-04	Sulfate	4.59	7.15	mg/L	102	r: No Parent	Splt# 2297000-04 (4.59mg/L)
SPKD of 2297000-04	Nitrate as N	0.0955	0.284	mg/L	94	r: No Parent	Splt# 2297000-04 (0.0955mg/L)

QC list for Run#: 2051282 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206529-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2206529-02	MRL_CHK	Hardness, Total, as CaCO3	2.66		mg/L	88				
QC2206529-03	DUP of 2297492-01	Hardness, Total, as CaCO3	258	258	mg/L		0	0.948	6	Splt# 2297492-01 (258mg/L)
QC2206529-04	LCS	Hardness, Total, as CaCO3	42.6		mg/L	107			3	

QC list for Run#: 2051287 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206533-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2206533-02	MRL_CHK	Alkalinity	3.03		mg/L	101				
QC2206533-03	SPK of 2297707-01	Alkalinity	16.6	57.3	mg/L	102			3	Splt# 2297707-01 (16.6mg/L)
QC2206533-04	SPKD of 2297707-01	Alkalinity	16.6	56.9	mg/L	101	0		3	Splt# 2297707-01 (16.6mg/L)
QC2206533-06	LCS	Alkalinity	40.4		mg/L	101			3	

QC list for Run#: 2051288 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206534-01	BLK	Specific Conductance @25°C	<1		µmhos/cm				1	
QC2206534-02	MRL_CHK	Specific Conductance @25°C	10.2		µmhos/cm	102				
QC2206534-03	DUP of 2297492-01	Specific Conductance @25°C	1050	1050	µmhos/cm		0		1	Splt# 2297492-01 (1050µmhos/cm)
QC2206534-05	LCS	Specific Conductance @25°C	997		µmhos/cm	99			1	

QC list for Run#: 2051289 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206535-04	ICV	pH	9.03		pH	99				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297492

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
ICV	Temperature (°C)		20.8	°C					
QC2206535-05	DUP of 2297492-01	pH	6.46	6.47	pH	0			Splt# 2297492-01 (6.46pH) H1,H3
DUP of 2297492-01	Temperature (°C)		20.2	20.1	°C				Splt# 2297492-01 (20.2°C) H1,H3
QC2206535-06	CCV	pH	9.04	pH	99				
CCV	Temperature (°C)		20.7	°C					
QC2206535-07	CCV	pH	9.03	pH	99				
CCV	Temperature (°C)		20.7	°C					

QC list for Run#: 2051290 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206536-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2206536-02	MRL_CK	Chloride	2.58		mg/L	86				
QC2206536-03	SPK of 2297707-01	Chloride	6.2	45.4	mg/L	97			3	Splt# 2297707-01 (6.2mg/L)
QC2206536-04	SPKD of 2297707-01	Chloride	6.2	45.4	mg/L	98	0		3	Splt# 2297707-01 (6.2mg/L)
QC2206536-06	LCS	Chloride	38.9		mg/L	97			3	

QC list for Run#: 2051364 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206587-01	DUP of 2297710-02	Total Dissolved Solids	36	39	mg/L		8	13.2	20	Splt# 2297710-02 (36mg/L)
QC2206587-02	DUP of 2297493-03	Total Dissolved Solids	205	209	mg/L		1	13.2	20	Splt# 2297493-03 (205mg/L)
QC2206587-03	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2206587-04	LCS	Total Dissolved Solids	92		mg/L	96		13.2	20	

QC list for Run#: 2051741 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206830-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2		
BLK	Potassium, K	<0.2		mg/L			0.04	0.2		
BLK	Sodium, Na	<1		mg/L			0.02	1		
QC2206830-02										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297492

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

LCS	Calcium, Ca	1.79	mg/L	89	0.04	1	
LCS	Magnesium, Mg	1.94	mg/L	97	0.007	0.2	
LCS	Potassium, K	2.04	mg/L	102	0.04	0.2	
LCS	Sodium, Na	2.09	mg/L	105	0.02	1	
QC2206830-03							
DUP of 2297492-01	Calcium, Ca	48.2	48.2	mg/L	0	0.04	1 Splt# 2297492-01 (48.2mg/L)
DUP of 2297492-01	Magnesium, Mg	33.2	32.2	mg/L	3	0.007	0.2 Splt# 2297492-01 (33.2mg/L)
DUP of 2297492-01	Potassium, K	1.46	1.41	mg/L	3	0.04	0.2 Splt# 2297492-01 (1.46mg/L)
DUP of 2297492-01	Sodium, Na	129	127	mg/L	1	0.02	1 Splt# 2297492-01 (129mg/L)
QC2206830-03A							
DUP of QC2206830-03	Sodium, Na	127	125	mg/L	121	0.08	4 Splt# QC2206830-03 (127mg/L)
QC2206830-04							
SPK of 2297492-01	Calcium, Ca	48.2	50.8	mg/L	131	0.04	1 Splt# 2297492-01 (48.2mg/L)
SPK of 2297492-01	Magnesium, Mg	33.2	35	mg/L	86	0.007	0.2 Splt# 2297492-01 (33.2mg/L)
SPK of 2297492-01	Potassium, K	1.46	3.63	mg/L	108	0.04	0.2 Splt# 2297492-01 (1.46mg/L)
SPK of 2297492-01	Sodium, Na	129	130	mg/L	93	0.02	1 Splt# 2297492-01 (129mg/L)
QC2206830-05							
SPKD of 2297492-01	Calcium, Ca	48.2	49.8	mg/L	82	1	0.04 1 Splt# 2297492-01 (48.2mg/L)
SPKD of 2297492-01	Magnesium, Mg	33.2	33.7	mg/L	22	3	0.007 0.2 Splt# 2297492-01 (33.2mg/L)
SPKD of 2297492-01	Potassium, K	1.46	3.62	mg/L	108	0	0.04 0.2 Splt# 2297492-01 (1.46mg/L)
SPKD of 2297492-01	Sodium, Na	129	128	mg/L	0	1	0.02 1 Splt# 2297492-01 (129mg/L)
QC2206830-06							
MRL_CHK	Calcium, Ca	<1	mg/L	N/A	0.04	1	
MRL_CHK	Magnesium, Mg	<0.2	mg/L	N/A	0.007	0.2	
MRL_CHK	Potassium, K	0.273	mg/L	109	0.04	0.2	
MRL_CHK	Sodium, Na	<1	mg/L	N/A	0.02	1	
QC2206858-01							
ICV	Potassium, K	1.98	mg/L	99	0.03	0.2	
QC2206858-02							
ICV	Calcium, Ca	9.92	mg/L	99	0.05	1	
ICV	Magnesium, Mg	9.59	mg/L	94	0.01	0.2	
ICV	Sodium, Na	10.2	mg/L	102	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297493

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/20/2022

Sampling Team: Field

Lab Sample#: **2297493-01** Sample Source: WSB_SF42_ZOO275 External ID:

Date Collected: 10/20/2022 09:50AM Date Received: 10/20/2022 01:40PM Sample Matrix: Aqueous Location Desc: SF#42 - ZOO MW275

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	73.2	mg/L		3	10/20/2022	2051362 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	536	µmhos/cm		1	10/20/2022	2051355 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	257	mg/L	13.2	20	10/21/2022	2051364 ABALALIO	

Lab Sample#: **2297493-02** Sample Source: WSB_SF43_ZOO450 External ID:

Date Collected: 10/20/2022 09:49AM Date Received: 10/20/2022 01:40PM Sample Matrix: Aqueous Location Desc: SF#43 - ZOO MW450

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	48.9	mg/L		3	10/20/2022	2051362 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	571	µmhos/cm		1	10/20/2022	2051355 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	316	mg/L	13.2	20	10/21/2022	2051364 ABALALIO	

Lab Sample#: **2297493-03** Sample Source: WSB_SF45_ZOO565 External ID:

Date Collected: 10/20/2022 10:31AM Date Received: 10/20/2022 01:40PM Sample Matrix: Aqueous Location Desc: SF#45 - ZOO MW565

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	46.1	mg/L		3	10/20/2022	2051362 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	428	µmhos/cm		1	10/20/2022	2051355 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	205	mg/L	13.2	20	10/21/2022	2051364 ABALALIO	

Lab Sample#: **2297493-04** Sample Source: WSB_SF_DUP External ID:

Date Collected: 10/20/2022 09:50AM Date Received: 10/20/2022 01:40PM Sample Matrix: Aqueous Location Desc: SF#42 - ZOO MW275

Test/Analyte

MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	73.6	mg/L		3	10/20/2022	2051362 ABALALIO	

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	535	µmhos/cm		1	10/20/2022	2051355 DCARDONA	

MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	271	mg/L	13.2	20	10/21/2022	2051364 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297493

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/20/2022

Sampling Team: Field

QC list for Run#: 2051355 and Test: MBP_COND (SM 2510 B)										
Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206578-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2206578-02	MRL_CK	Specific Conductance @25°C		10.2	µmhos/cm	102				
QC2206578-03	DUP of 2297035-01	Specific Conductance @25°C	78.4	77.9	µmhos/cm		0		1	Splt# 2297035-01 (78.4µmhos/cm)
QC2206578-04	CCV	Specific Conductance @25°C		101	µmhos/cm	101				
QC2206578-05	LCS	Specific Conductance @25°C		1000	µmhos/cm	100			1	

QC list for Run#: 2051362 and Test: MBP_CHLORIDE (SM 4500-CL- D)										
Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206585-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206585-02	MRL_CK	Chloride		2.65	mg/L	88				
QC2206585-03	SPK of 2297033-01	Chloride	6.06	45.4	mg/L	98			3	Splt# 2297033-01 (6.06mg/L)
QC2206585-04	SPKD of 2297033-01	Chloride	6.06	45.3	mg/L	98	0		3	Splt# 2297033-01 (6.06mg/L)
QC2206585-06	LCS	Chloride		39	mg/L	97			3	

QC list for Run#: 2051364 and Test: MBP_TDS (SM 2540 C)										
Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206587-01	DUP of 2297710-02	Total Dissolved Solids	36	39	mg/L		8	13.2	20	Splt# 2297710-02 (36mg/L)
QC2206587-02	DUP of 2297493-03	Total Dissolved Solids	205	209	mg/L		1	13.2	20	Splt# 2297493-03 (205mg/L)
QC2206587-03	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206587-04	LCS	Total Dissolved Solids		92	mg/L	96		13.2	20	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297494

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

Lab Sample#:	2297494-01	Sample Source:	WSB_SS-36-1-160	External ID:	
Date Collected:	10/17/2022 10:06AM	Date Received:	10/17/2022 11:38AM	Sample Matrix:	Aqueous
				Location Desc:	GSR_SS_CUP-36-1-160, ROW AT FUNERAL HON

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	110	mg/L	1	5	10/17/2022	2051115 PWARNER	
Nitrate as N	8.04	mg/L	0.34	0.4	10/17/2022	2051115 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	64.4	mg/L	0.04	1	10/20/2022	2051327 BTRINH	
Magnesium, Mg	31.4	mg/L	0.007	0.2	10/20/2022	2051327 BTRINH	
Potassium, K	2.56	mg/L	0.04	0.2	10/20/2022	2051327 BTRINH	
Sodium, Na	92.8	mg/L	0.02	1	10/20/2022	2051327 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	232	mg/L	1.19	6	10/17/2022	2051136 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	92.5	mg/L		6	10/17/2022	2051143 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1000	µmhos/cm		1	10/17/2022	2051137 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	302	mg/L	0.948	6	10/17/2022	2051145 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	6.93	pH			10/17/2022	2051139 DCARDONA	H1,H3
Temperature (°C)	18.9	°C			10/17/2022	2051139 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	594	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	>MCL

Lab Sample#:	2297494-02	Sample Source:	WSB_SS-36-1-270	External ID:	
Date Collected:	10/17/2022 10:41AM	Date Received:	10/17/2022 11:38AM	Sample Matrix:	Aqueous
				Location Desc:	GSR_SS_CUP-36-1-270, ROW AT FUNERAL HON

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	21.7	mg/L	0.5	2.5	10/17/2022	2051115 PWARNER	
Nitrate as N	1.68	mg/L	0.17	0.2	10/17/2022	2051115 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	34.7	mg/L	0.04	1	10/20/2022	2051327 BTRINH	
Magnesium, Mg	29.1	mg/L	0.007	0.2	10/20/2022	2051327 BTRINH	
Potassium, K	2.32	mg/L	0.04	0.2	10/20/2022	2051327 BTRINH	
Sodium, Na	56.1	mg/L	0.02	1	10/20/2022	2051327 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	136	mg/L	1.19	6	10/17/2022	2051136 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	119	mg/L		6	10/17/2022	2051143 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297494

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	719	µmhos/cm		1	10/17/2022	2051137 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	212	mg/L	0.948	6	10/17/2022	2051145 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.34	pH			10/17/2022	2051139 DCARDONA	H1,H3
Temperature (°C)	19.2	°C			10/17/2022	2051139 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	389	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	

Lab Sample#: 2297494-03 Sample Source: WSB_SS-36-1-455 External ID:

Date Collected: 10/17/2022 09:30AM Date Received: 10/17/2022 11:38AM Sample Matrix: Aqueous Location Desc: GSR_SS_CUP-36-1-455, ROW AT FUNERAL HON

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	<0.5	mg/L	0.1	0.5	10/17/2022	2051115 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	10/17/2022	2051115 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	40.1	mg/L	0.04	1	10/20/2022	2051327 BTRINH	
Magnesium, Mg	23.1	mg/L	0.007	0.2	10/20/2022	2051327 BTRINH	
Potassium, K	4.86	mg/L	0.04	0.2	10/20/2022	2051327 BTRINH	
Sodium, Na	60.2	mg/L	0.02	1	10/20/2022	2051327 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	228	mg/L	1.19	6	10/17/2022	2051136 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	85.5	mg/L		6	10/17/2022	2051143 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	708	µmhos/cm		1	10/17/2022	2051137 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	202	mg/L	0.948	6	10/17/2022	2051145 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.1	pH			10/17/2022	2051139 DCARDONA	H1,H3
Temperature (°C)	19	°C			10/17/2022	2051139 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	325	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	

Lab Sample#: 2297494-04 Sample Source: WSB_SS-36-1-585 External ID:

Date Collected: 10/17/2022 09:26AM Date Received: 10/17/2022 11:38AM Sample Matrix: Aqueous Location Desc: GSR_SS_CUP-36-1-585, ROW AT FUNERAL HON

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	31.3	mg/L	1	5	10/17/2022	2051115 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297494

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	42.7	mg/L	0.04	1	10/20/2022	2051327 BTRINH	
Magnesium, Mg	18.9	mg/L	0.007	0.2	10/20/2022	2051327 BTRINH	
Potassium, K	2.44	mg/L	0.04	0.2	10/20/2022	2051327 BTRINH	
Sodium, Na	45	mg/L	0.02	1	10/20/2022	2051327 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	152	mg/L	0.593	3	10/17/2022	2051136 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	74.1	mg/L		3	10/17/2022	2051143 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	620	µmhos/cm		1	10/17/2022	2051137 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	195	mg/L	0.474	3	10/17/2022	2051145 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.03	pH			10/17/2022	2051139 DCARDONA	H1,H3
Temperature (°C)	18.6	°C			10/17/2022	2051139 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	328	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	

Lab Sample#: 2297494-04A Sample Source: WSB_SS-36-1-585 External ID:

Date Collected: 10/17/2022 09:26AM Date Received: 10/17/2022 11:38AM Sample Matrix: Aqueous Location Desc: GSR_SS_CUP-36-1-585, ROW AT FUNERAL HOM

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Nitrate as N	0.0958	mg/L	0.034	0.04	10/17/2022	2051115 PWARNER	

Lab Sample#: 2297494-05 Sample Source: WSB_SS_DUP External ID:

Date Collected: 10/17/2022 10:22AM Date Received: 10/17/2022 11:38AM Sample Matrix: Aqueous Location Desc: GSR_SS_CUP-36-1-160, ROW AT FUNERAL HOM

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	109	mg/L	1	5	10/17/2022	2051115 PWARNER	
Nitrate as N	7.9	mg/L	0.34	0.4	10/17/2022	2051115 PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	64.5	mg/L	0.04	1	10/20/2022	2051327 BTRINH	
Magnesium, Mg	30.8	mg/L	0.007	0.2	10/20/2022	2051327 BTRINH	
Potassium, K	2.51	mg/L	0.04	0.2	10/20/2022	2051327 BTRINH	
Sodium, Na	92	mg/L	0.02	1	10/20/2022	2051327 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	226	mg/L	1.19	6	10/17/2022	2051136 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	91.5	mg/L		6	10/17/2022	2051143 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297494

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Specific Conductance @25°C</i>	1000	µmhos/cm		1	10/17/2022	2051137 DCARDONA	>MCL
<i>MBP_HARDNESS_T(SM 2340 C)</i>							
<i>Hardness, Total, as CaCO3</i>	305	mg/L	0.948	6	10/17/2022	2051145 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>							
<i>pH</i>	6.87	pH			10/17/2022	2051139 DCARDONA	H1,H3
<i>Temperature (°C)</i>	19.2	°C			10/17/2022	2051139 DCARDONA	H1,H3
<i>MBP_TDS(SM 2540 C)</i>							
<i>Total Dissolved Solids</i>	600	mg/L	13.2	20	10/19/2022	2051200 DCARDONA	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297494

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

QC list for Run#: 2051115 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206416-01	MRL_CK	Fluoride		0.0987	mg/L	98				
	MRL_CK	Sulfate		0.492	mg/L	98				
	MRL_CK	Nitrate as N		0.0368	mg/L	92				
QC2206416-02	CCV	Fluoride		0.479	mg/L	95				
	CCV	Sulfate		2.39	mg/L	95				
	CCV	Nitrate as N		0.19	mg/L	95				
QC2206416-03	BLK	Fluoride	<0.1		mg/L			0.02	0.1	
	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2206416-04	BLK	Fluoride	<0.1		mg/L			0.02	0.1	
	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2206416-05	LCS	Fluoride		0.488	mg/L	97				
	LCS	Sulfate		2.49	mg/L	99				
	LCS	Nitrate as N		0.193	mg/L	96				
QC2206416-06	CCV	Fluoride		4.19	mg/L	105				
	CCV	Sulfate		21.4	mg/L	107				
	CCV	Nitrate as N		1.62	mg/L	102				
QC2206416-07	BLK	Fluoride	<0.1		mg/L			0.02	0.1	
	BLK	Sulfate	<0.5		mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04		mg/L			0.034	0.04	
QC2206416-08	SPK of 2297494-03	Fluoride	<0.1	0.508	mg/L	102				Splt# 2297494-03 (<0.1mg/L)
	SPK of 2297494-03	Sulfate	<0.5	2.51	mg/L	100				Splt# 2297494-03 (<0.5mg/L)
	SPK of 2297494-03	Nitrate as N	<0.04	0.204	mg/L	102				Splt# 2297494-03 (<0.04mg/L)
QC2206416-09	SPKD of 2297494-03	Fluoride	<0.1	0.509	mg/L	102	0			Splt# 2297494-03 (<0.1mg/L)
	SPKD of 2297494-03	Sulfate	<0.5	2.5	mg/L	100	0			Splt# 2297494-03 (<0.5mg/L)
	SPKD of 2297494-03	Nitrate as N	<0.04	0.203	mg/L	102	0			Splt# 2297494-03 (<0.04mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297494

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

QC list for Run#: 2051136 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206433-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2206433-02	MRL_CK	Alkalinity		3.1	mg/L	103				
QC2206433-03	SPK of 2297494-04	Alkalinity	152	196	mg/L	109			3	Splt# 2297494-04 (152mg/L)
QC2206433-04	SPKD of 2297494-04	Alkalinity	152	193	mg/L	102	1		3	Splt# 2297494-04 (152mg/L)
QC2206433-06	LCS	Alkalinity		41.1	mg/L	103			3	

QC list for Run#: 2051137 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206428-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2206428-02	MRL_CK	Specific Conductance @25°C		10.2	µmhos/cm	102				
QC2206428-03	DUP of 2296878-01	Specific Conductance @25°C	77.7	77.5	µmhos/cm		0		1	Splt# 2296878-01 (77.7µmhos/cm)
QC2206428-04	CCV	Specific Conductance @25°C		101	µmhos/cm	101				
QC2206428-05	LCS	Specific Conductance @25°C		1000	µmhos/cm	100			1	

QC list for Run#: 2051139 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206429-01	CAL	pH		4.02	pH	100				
	CAL	Temperature (°C)		19.8	°C					
QC2206429-02	CAL	pH		7.05	pH	101				
	CAL	Temperature (°C)		19.7	°C					
QC2206429-03	CAL	pH		10.1	pH	101				
	CAL	Temperature (°C)		19.8	°C					
QC2206429-04	ICV	pH		9.02	pH	99				
	ICV	Temperature (°C)		19.9	°C					
QC2206429-05	DUP of 2296878-01	pH	9.21	9.24	pH		0			Splt# 2296878-01 (9.21pH) H1,H3

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297494

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/19/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
DUP of 2296878-01	Temperature (°C)		16.6	16.5	°C				Splt# 2296878-01 (16.6°C) H1,H3
QC2206429-06	CCV	pH		9.04	pH	99			
	CCV	Temperature (°C)		19.6	°C				
QC2206429-07	CCV	pH		9.03	pH	99			
	CCV	Temperature (°C)		19.9	°C				

QC list for Run#: 2051143 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206434-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206434-02	MRL_CK	Chloride		2.47	mg/L	82				
QC2206434-03	SPK of 2297494-04	Chloride	74.1	113	mg/L	96			3	Splt# 2297494-04 (74.1mg/L)
QC2206434-04	SPKD of 2297494-04	Chloride	74.1	114	mg/L	98	0		3	Splt# 2297494-04 (74.1mg/L)
QC2206434-06	LCS	Chloride		38.7	mg/L	96			3	

QC list for Run#: 2051145 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206435-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2206435-02	MRL_CK	Hardness, Total, as CaCO3		2.73	mg/L	91				
QC2206435-03	DUP of 2297494-04	Hardness, Total, as CaCO3	195	196	mg/L		0	0.474	3	Splt# 2297494-04 (195mg/L)
QC2206435-04	LCS	Hardness, Total, as CaCO3		43.6	mg/L	109			3	

QC list for Run#: 2051200 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206475-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206475-02	DUP of 2297494-01	Total Dissolved Solids	594	588	mg/L		1	13.2	20	Splt# 2297494-01 (594mg/L)
QC2206475-03	LCS	Total Dissolved Solids		83	mg/L	87		13.2	20	

QC list for Run#: 2051327 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297494

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/19/2022

Sampling Team: Field

Sample ID	Parameter	Unit	Result	Method	Conc	Temp	Flow	Depth	Notes
QC2206538-01	BLK Calcium, Ca	mg/L	<1		0.04			1	
	BLK Magnesium, Mg	mg/L	<0.2		0.007			0.2	
	BLK Potassium, K	mg/L	<0.2		0.04			0.2	
	BLK Sodium, Na	mg/L	<1		0.02			1	
QC2206538-02	LCS Calcium, Ca	mg/L	1.77	88	0.04			1	
	LCS Magnesium, Mg	mg/L	1.91	95	0.007			0.2	
	LCS Potassium, K	mg/L	2.02	101	0.04			0.2	
	LCS Sodium, Na	mg/L	2.06	103	0.02			1	
QC2206538-03	DUP of 2297083-01 Calcium, Ca	mg/L	10.8	10.9	0	0.04		1	Splt# 2297083-01 (10.8mg/L)
	DUP of 2297083-01 Magnesium, Mg	mg/L	25	25.3	1	0.007		0.2	Splt# 2297083-01 (25mg/L)
	DUP of 2297083-01 Potassium, K	mg/L	1.16	1.16	0	0.04		0.2	Splt# 2297083-01 (1.16mg/L)
	DUP of 2297083-01 Sodium, Na	mg/L	31.7	31.8	0	0.02		1	Splt# 2297083-01 (31.7mg/L)
QC2206538-04	SPK of 2297083-01 Calcium, Ca	mg/L	10.8	13	108	0.04		1	Splt# 2297083-01 (10.8mg/L)
	SPK of 2297083-01 Magnesium, Mg	mg/L	25	27.1	105	0.007		0.2	Splt# 2297083-01 (25mg/L)
	SPK of 2297083-01 Potassium, K	mg/L	1.16	3.25	104	0.04		0.2	Splt# 2297083-01 (1.16mg/L)
	SPK of 2297083-01 Sodium, Na	mg/L	31.7	33.8	104	0.02		1	Splt# 2297083-01 (31.7mg/L)
QC2206538-05	SPKD of 2297083-01 Calcium, Ca	mg/L	10.8	13	110	0	0.04	1	Splt# 2297083-01 (10.8mg/L)
	SPKD of 2297083-01 Magnesium, Mg	mg/L	25	26.5	76	2	0.007	0.2	Splt# 2297083-01 (25mg/L)
	SPKD of 2297083-01 Potassium, K	mg/L	1.16	3.24	104	0	0.04	0.2	Splt# 2297083-01 (1.16mg/L)
	SPKD of 2297083-01 Sodium, Na	mg/L	31.7	33.4	82	1	0.02	1	Splt# 2297083-01 (31.7mg/L)
QC2206538-06	MRL_CK Calcium, Ca	mg/L	<1		N/A		0.04	1	
	MRL_CK Magnesium, Mg	mg/L	<0.2		N/A		0.007	0.2	
	MRL_CK Potassium, K	mg/L	0.276		110		0.04	0.2	
	MRL_CK Sodium, Na	mg/L	<1		N/A		0.02	1	
QC2206561-01	ICV Potassium, K	mg/L	1.91		95		0.03	0.2	
QC2206561-02	ICV Calcium, Ca	mg/L	10.1		101		0.05	1	
	ICV Magnesium, Mg	mg/L	9.61		95		0.01	0.2	
	ICV Sodium, Na	mg/L	10.3		103		0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/24/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#: 2297495-01 Sample Source: WSB_SS11SSLP120 External ID:

Date Collected: 10/24/2022 10:26AM Date Received: 10/24/2022 11:39AM Sample Matrix: Aqueous Location Desc: SS#11 - SS LINEAR PARK MW-120

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	65.5	mg/L	0.5	2.5	10/24/2022	2051493 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	61.2	mg/L	0.04	1	10/28/2022	2051741 BTRINH	
Magnesium, Mg	43.6	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH	
Potassium, K	3.23	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH	
Sodium, Na	95.4	mg/L	0.02	1	10/28/2022	2051741 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	277	mg/L	1.19	6	10/24/2022	2051500 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	136	mg/L		6	10/24/2022	2051501 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1070	µmhos/cm		1	10/24/2022	2051498 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	333	mg/L	0.948	6	10/24/2022	2051502 ABALALIO	
MBP_PH(SM 4500-H+ B)							
pH	7.06	pH			10/24/2022	2051497 DCARDONA	H1,H3
Temperature (°C)	18.7	°C			10/24/2022	2051497 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	594	mg/L	13.2	20	10/26/2022	2051570 DCARDONA	>MCL

Lab Sample#: 2297495-01A Sample Source: WSB_SS11SSLP120 External ID:

Date Collected: 10/24/2022 10:26AM Date Received: 10/24/2022 11:39AM Sample Matrix: Aqueous Location Desc: SS#11 - SS LINEAR PARK MW-120

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	10/24/2022	2051493 PWARNER	

Lab Sample#: 2297495-02 Sample Source: WSB_SS12SSLP220 External ID:

Date Collected: 10/24/2022 10:26AM Date Received: 10/24/2022 11:39AM Sample Matrix: Aqueous Location Desc: SS#12 - SS LINEAR PARK MW-220

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	20.2	mg/L	0.2	1	10/24/2022	2051493 PWARNER	
Nitrate as N	0.844	mg/L	0.068	0.08	10/24/2022	2051493 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	30.9	mg/L	0.04	1	10/28/2022	2051741 BTRINH	
Magnesium, Mg	25.9	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH	
Potassium, K	2.27	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH	
Sodium, Na	54	mg/L	0.02	1	10/28/2022	2051741 BTRINH	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/24/2022

Sampling Team: Field

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	130	mg/L	0.593	3	10/24/2022	2051500 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	103	mg/L		3	10/24/2022	2051501 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	659	µmhos/cm		1	10/24/2022	2051498 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	180	mg/L	0.474	3	10/24/2022	2051502 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.07	pH			10/24/2022	2051497 DCARDONA	H1,H3
Temperature (°C)	18.7	°C			10/24/2022	2051497 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	334	mg/L	13.2	20	10/26/2022	2051570 DCARDONA	

Lab Sample#: 2297495-03 **Sample Source:** WSB_SS13SSLP440 **External ID:**
Date Collected: 10/24/2022 09:45AM **Date Received:** 10/24/2022 11:39AM **Sample Matrix:** Aqueous **Location Desc:** SS#13 - SS LINEAR PARK MW-440

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	<0.5	mg/L	0.1	0.5	10/24/2022	2051493 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	10/24/2022	2051493 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	27.8	mg/L	0.04	1	10/28/2022	2051741 BTRINH	
Magnesium, Mg	22.6	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH	
Potassium, K	5.66	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH	
Sodium, Na	56	mg/L	0.02	1	10/28/2022	2051741 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	210	mg/L	0.593	3	10/24/2022	2051500 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	63.4	mg/L		3	10/24/2022	2051501 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	623	µmhos/cm		1	10/24/2022	2051498 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	160	mg/L	0.474	3	10/24/2022	2051502 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.5	pH			10/24/2022	2051497 DCARDONA	H1,H3
Temperature (°C)	18.4	°C			10/24/2022	2051497 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	306	mg/L	13.2	20	10/26/2022	2051570 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/24/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#: 2297495-04 Sample Source: WSB_SS14SSLP520 External ID:

Date Collected: 10/24/2022 09:43AM Date Received: 10/24/2022 11:39AM Sample Matrix: Aqueous Location Desc: SS#14 - SS LINEAR PARK MW-520

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	44.5	mg/L	0.5	2.5	10/24/2022	2051493 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	41.7	mg/L	0.04	1	10/28/2022	2051741 BTRINH	
Magnesium, Mg	14.2	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH	
Potassium, K	3.72	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH	
Sodium, Na	93.2	mg/L	0.02	1	10/28/2022	2051741 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	195	mg/L	0.593	3	10/24/2022	2051500 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	89.8	mg/L		3	10/24/2022	2051501 ABALALIO	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	780	µmhos/cm		1	10/24/2022	2051498 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	161	mg/L	0.474	3	10/24/2022	2051502 ABALALIO	
MBP_PH(SM 4500-H+ B)							
pH	7.25	pH			10/24/2022	2051497 DCARDONA	H1,H3
Temperature (°C)	18.1	°C			10/24/2022	2051497 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	418	mg/L	13.2	20	10/26/2022	2051570 DCARDONA	

Lab Sample#: 2297495-04A Sample Source: WSB_SS14SSLP520 External ID:

Date Collected: 10/24/2022 09:43AM Date Received: 10/24/2022 11:39AM Sample Matrix: Aqueous Location Desc: SS#14 - SS LINEAR PARK MW-520

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	10/24/2022	2051493 PWARNER	

Lab Sample#: 2297495-05 Sample Source: WSB_SS_DUP External ID:

Date Collected: 10/24/2022 10:34AM Date Received: 10/24/2022 11:39AM Sample Matrix: Aqueous Location Desc: SS#12 - SS LINEAR PARK MW-220

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	19.9	mg/L	0.2	1	10/24/2022	2051493 PWARNER	
Nitrate as N	0.83	mg/L	0.068	0.08	10/24/2022	2051493 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	31.1	mg/L	0.04	1	10/28/2022	2051741 BTRINH	
Magnesium, Mg	25.8	mg/L	0.007	0.2	10/28/2022	2051741 BTRINH	
Potassium, K	2.24	mg/L	0.04	0.2	10/28/2022	2051741 BTRINH	
Sodium, Na	53.1	mg/L	0.02	1	10/28/2022	2051741 BTRINH	

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Water Quality Laboratory

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/24/2022

Sampling Team: Field

<u>MBP_ALK(SM 2320 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Alkalinity	130	mg/L	0.593	3	10/24/2022	2051500 ABALALIO	
<u>MBP_CHLORIDE(SM 4500-CL- D)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Chloride	103	mg/L		3	10/24/2022	2051501 ABALALIO	
<u>MBP_COND(SM 2510 B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Specific Conductance @25°C	659	µmhos/cm		1	10/24/2022	2051498 DCARDONA	
<u>MBP_HARDNESS_T(SM 2340 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Hardness, Total, as CaCO3	181	mg/L	0.474	3	10/24/2022	2051502 ABALALIO	
<u>MBP_PH(SM 4500-H+ B)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
pH	7.04	pH			10/24/2022	2051497 DCARDONA	H1,H3
Temperature (°C)	19	°C			10/24/2022	2051497 DCARDONA	H1,H3
<u>MBP_TDS(SM 2540 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	341	mg/L	13.2	20	10/26/2022	2051570 DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/24/2022

Sampling Team: Field

QC list for Run#: 2051493 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206677-01	MRL_CK	Fluoride		0.103	mg/L	103				
	MRL_CK	Sulfate		0.504	mg/L	101				
	MRL_CK	Nitrate as N		0.0399	mg/L	100				
QC2206677-02	CCV	Fluoride		0.49	mg/L	98				
	CCV	Sulfate		2.43	mg/L	97				
	CCV	Nitrate as N		0.19	mg/L	95				
QC2206677-03	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206677-04	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206677-05	LCS	Fluoride		0.489	mg/L	97				
	LCS	Sulfate		2.43	mg/L	97				
	LCS	Nitrate as N		0.193	mg/L	96				
QC2206677-06	CCV	Fluoride		4.26	mg/L	107				
	CCV	Sulfate		21.8	mg/L	109				
	CCV	Nitrate as N		1.65	mg/L	104				
QC2206677-07	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206677-08	SPK of 2297495-03	Fluoride	<0.1	0.516	mg/L	103				Splt# 2297495-03 (<0.1mg/L)
	SPK of 2297495-03	Sulfate	<0.5	2.55	mg/L	102				Splt# 2297495-03 (<0.5mg/L)
	SPK of 2297495-03	Nitrate as N	<0.04	0.204	mg/L	103				Splt# 2297495-03 (<0.04mg/L)
QC2206677-09	SPKD of 2297495-03	Fluoride	<0.1	0.517	mg/L	103	0			Splt# 2297495-03 (<0.1mg/L)
	SPKD of 2297495-03	Sulfate	<0.5	2.56	mg/L	102	0			Splt# 2297495-03 (<0.5mg/L)
	SPKD of 2297495-03	Nitrate as N	<0.04	0.205	mg/L	103	0			Splt# 2297495-03 (<0.04mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/24/2022

Sampling Team: Field

QC list for Run#: 2051497 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206680-01	CAL	pH		4.01	pH	100				
	CAL	Temperature (°C)		19.5	°C					
QC2206680-02	CAL	pH		7.03	pH	100				
	CAL	Temperature (°C)		19.4	°C					
QC2206680-03	CAL	pH		10.1	pH	101				
	CAL	Temperature (°C)		19.5	°C					
QC2206680-04	ICV	pH		9.04	pH	99				
	ICV	Temperature (°C)		19.6	°C					
QC2206680-05	DUP of 2297162-02	pH	9.41	9.44	pH		0			Splt# 2297162-02 (9.41pH) H1,H3
	DUP of 2297162-02	Temperature (°C)	16.5	16.4	°C					Splt# 2297162-02 (16.5°C) H1,H3
QC2206680-06	CCV	pH		9.06	pH	100				
	CCV	Temperature (°C)		19.5	°C					
QC2206680-07	CCV	pH		9.06	pH	100				
	CCV	Temperature (°C)		19.5	°C					

QC list for Run#: 2051498 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206681-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2206681-02	MRL_CK	Specific Conductance @25°C		10.3	µmhos/cm	103				
QC2206681-03	DUP of 2297495-01	Specific Conductance @25°C	1070	1070	µmhos/cm		0		1	Splt# 2297495-01 (1070µmhos/cm)
QC2206681-05	LCS	Specific Conductance @25°C		1000	µmhos/cm	100			1	

QC list for Run#: 2051500 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206682-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2206682-02	MRL_CK	Alkalinity		3.02	mg/L	101				
QC2206682-03										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/24/2022

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
SPK of 2297495-03	Alkalinity	210	250	mg/L	99				Splt# 2297495-03 (210mg/L)
QC2206682-04									
SPKD of 2297495-03	Alkalinity	210	251	mg/L	103	0			Splt# 2297495-03 (210mg/L)
QC2206682-06									
LCS	Alkalinity		40.9	mg/L	102				

QC list for Run#: 2051501 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206683-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206683-02	MRL_CHK	Chloride		2.71	mg/L	90				
QC2206683-03	SPK of 2297495-03	Chloride	63.4	104	mg/L	101			3	Splt# 2297495-03 (63.4mg/L)
QC2206683-04	SPKD of 2297495-03	Chloride	63.4	104	mg/L	102	0		3	Splt# 2297495-03 (63.4mg/L)
QC2206683-06	LCS	Chloride		39.9	mg/L	99			3	

QC list for Run#: 2051502 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206684-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2206684-02	MRL_CHK	Hardness, Total, as CaCO3		2.5	mg/L	83				
QC2206684-03	DUP of 2297495-03	Hardness, Total, as CaCO3	160	162	mg/L		1	0.474	3	Splt# 2297495-03 (160mg/L)
QC2206684-04	LCS	Hardness, Total, as CaCO3		42.6	mg/L	107			3	

QC list for Run#: 2051570 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206732-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2206732-02	DUP of 2297495-01	Total Dissolved Solids	594	598	mg/L		0	13.2	20	Splt# 2297495-01 (594mg/L)
QC2206732-03	LCS	Total Dissolved Solids		88	mg/L	92		13.2	20	

QC list for Run#: 2051741 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206830-01										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/24/2022

Sampling Team: Field

Sample ID	Parameter	Unit	Result	Method	Concentration	Flow	Volume	Recovery	Notes
BLK	Calcium, Ca	mg/L	<1		0.04	1			
BLK	Magnesium, Mg	mg/L	<0.2		0.007	0.2			
BLK	Potassium, K	mg/L	<0.2		0.04	0.2			
BLK	Sodium, Na	mg/L	<1		0.02	1			
QC2206830-02									
LCS	Calcium, Ca	mg/L	1.79	89	0.04	1			
LCS	Magnesium, Mg	mg/L	1.94	97	0.007	0.2			
LCS	Potassium, K	mg/L	2.04	102	0.04	0.2			
LCS	Sodium, Na	mg/L	2.09	105	0.02	1			
QC2206830-03									
DUP of 2297492-01	Calcium, Ca	mg/L	48.2	48.2	0	0.04	1		Splt# 2297492-01 (48.2mg/L)
DUP of 2297492-01	Magnesium, Mg	mg/L	33.2	32.2	3	0.007	0.2		Splt# 2297492-01 (33.2mg/L)
DUP of 2297492-01	Potassium, K	mg/L	1.46	1.41	3	0.04	0.2		Splt# 2297492-01 (1.46mg/L)
DUP of 2297492-01	Sodium, Na	mg/L	129	127	1	0.02	1		Splt# 2297492-01 (129mg/L)
QC2206830-03A									
DUP of QC2206830-03	Sodium, Na	mg/L	127	125	121	0.08	4		Splt# QC2206830-03 (127mg/L)
QC2206830-04									
SPK of 2297492-01	Calcium, Ca	mg/L	48.2	50.8	131	0.04	1		Splt# 2297492-01 (48.2mg/L)
SPK of 2297492-01	Magnesium, Mg	mg/L	33.2	35	86	0.007	0.2		Splt# 2297492-01 (33.2mg/L)
SPK of 2297492-01	Potassium, K	mg/L	1.46	3.63	108	0.04	0.2		Splt# 2297492-01 (1.46mg/L)
SPK of 2297492-01	Sodium, Na	mg/L	129	130	93	0.02	1		Splt# 2297492-01 (129mg/L)
QC2206830-05									
SPKD of 2297492-01	Calcium, Ca	mg/L	48.2	49.8	82	1	0.04	1	Splt# 2297492-01 (48.2mg/L)
SPKD of 2297492-01	Magnesium, Mg	mg/L	33.2	33.7	22	3	0.007	0.2	Splt# 2297492-01 (33.2mg/L)
SPKD of 2297492-01	Potassium, K	mg/L	1.46	3.62	108	0	0.04	0.2	Splt# 2297492-01 (1.46mg/L)
SPKD of 2297492-01	Sodium, Na	mg/L	129	128	0	1	0.02	1	Splt# 2297492-01 (129mg/L)
QC2206830-06									
MRL_CK	Calcium, Ca	mg/L	<1		N/A	0.04	1		
MRL_CK	Magnesium, Mg	mg/L	<0.2		N/A	0.007	0.2		
MRL_CK	Potassium, K	mg/L	0.273		109	0.04	0.2		
MRL_CK	Sodium, Na	mg/L	<1		N/A	0.02	1		
QC2206858-01									
ICV	Potassium, K	mg/L	1.98		99	0.03	0.2		
QC2206858-02									
ICV	Calcium, Ca	mg/L	9.92		99	0.05	1		
ICV	Magnesium, Mg	mg/L	9.59		94	0.01	0.2		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297495

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/24/2022

Sampling Team: Field

ICV	Sodium, Na	10.2	mg/L	102	0.002	1
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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297496

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/25/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#: 2297496-01 Sample Source: WSB_CM-23-230 External ID:
Date Collected: 10/26/2022 11:04AM Date Received: 10/26/2022 02:10PM Sample Matrix: Aqueous Location Desc: GSR_CM_CUP-23-230, TREASURE ISLAND TRAIL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	39.9	mg/L	1	5	10/26/2022	2051628 PWARNER	
Nitrate as N	9.36	mg/L	0.34	0.4	10/26/2022	2051628 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	62.1	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
Magnesium, Mg	54.2	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
Potassium, K	1.99	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
Sodium, Na	60.8	mg/L	0.02	1	11/03/2022	2052029 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	311	mg/L	1.19	6	10/26/2022	2051650 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	91	mg/L		6	10/26/2022	2051651 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1010	µmhos/cm		1	10/26/2022	2051656 ALEE	>MCL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	380	mg/L	0.948	6	10/26/2022	2051652 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	7.11	pH			10/26/2022	2050873 ALEE	H1, H3
Temperature (°C)	18.1	°C			10/26/2022	2050873 ALEE	H1, H3

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	531	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	>MCL

Lab Sample#: 2297496-02 Sample Source: WSB_CM-23-440 External ID:
Date Collected: 10/26/2022 10:16AM Date Received: 10/26/2022 02:10PM Sample Matrix: Aqueous Location Desc: GSR_CM_CUP-23-440, TREASURE ISLAND TRAIL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	6.55	mg/L	0.2	1	10/26/2022	2051628 PWARNER	
Nitrate as N	0.18	mg/L	0.068	0.08	10/26/2022	2051628 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	19.3	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
Magnesium, Mg	19.2	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
Potassium, K	1.63	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
Sodium, Na	32.9	mg/L	0.02	1	11/03/2022	2052029 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	115	mg/L	0.593	3	10/26/2022	2051650 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	55.8	mg/L		3	10/26/2022	2051651 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297496

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/25/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	434	µmhos/cm		1	10/26/2022	2051656 ALEE	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	126	mg/L	0.474	3	10/26/2022	2051652 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.97	pH			10/26/2022	2050873 ALEE	H1, H3
Temperature (°C)	18.9	°C			10/26/2022	2050873 ALEE	H1, H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	214	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	

Lab Sample#: 2297496-03 Sample Source: WSB_CM-23-515 External ID:

Date Collected: 10/26/2022 09:02AM Date Received: 10/26/2022 02:10PM Sample Matrix: Aqueous Location Desc: GSR_CM_CUP-23-515, TREASURE ISLAND TRAIL

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	45.7	mg/L	0.5	2.5	10/26/2022	2051628 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	42.6	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
Magnesium, Mg	27.4	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
Potassium, K	2.94	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
Sodium, Na	47	mg/L	0.02	1	11/03/2022	2052029 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	179	mg/L	0.593	3	10/26/2022	2051650 ABALALIO	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	71	mg/L		3	10/26/2022	2051651 ABALALIO	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	679	µmhos/cm		1	10/26/2022	2051656 ALEE	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	217	mg/L	0.474	3	10/26/2022	2051652 ABALALIO	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.16	pH			10/26/2022	2050873 ALEE	H1, H3
Temperature (°C)	17.1	°C			10/26/2022	2050873 ALEE	H1, H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	333	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	

Lab Sample#: 2297496-03A Sample Source: WSB_CM-23-515 External ID:

Date Collected: 10/26/2022 09:02AM Date Received: 10/26/2022 02:10PM Sample Matrix: Aqueous Location Desc: GSR_CM_CUP-23-515, TREASURE ISLAND TRAIL

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Nitrate as N	<0.04	mg/L	0.034	0.04	10/26/2022	2051628 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297496

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/25/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#: 2297496-04 Sample Source: WSB_CM-23-600 External ID:
Date Collected: 10/26/2022 11:05AM Date Received: 10/26/2022 02:10PM Sample Matrix: Aqueous Location Desc: GSR_CM_CUP-23-600, TREASURE ISLAND TRAIL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	41.6	mg/L	2	10	10/26/2022	2051628 PWARNER	
Nitrate as N	19.7	mg/L	0.68	0.8	10/26/2022	2051628 PWARNER	>MCL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	44.3	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
Magnesium, Mg	44.5	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
Potassium, K	2.18	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
Sodium, Na	49.1	mg/L	0.02	1	11/03/2022	2052029 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	185	mg/L	1.19	6	10/26/2022	2051650 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	74.9	mg/L		6	10/26/2022	2051651 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	835	µmhos/cm		1	10/26/2022	2051656 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	295	mg/L	0.948	6	10/26/2022	2051652 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	6.81	pH			10/26/2022	2050873 ALEE	H1, H3
Temperature (°C)	18.4	°C			10/26/2022	2050873 ALEE	H1, H3

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	457	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	

Lab Sample#: 2297496-05 Sample Source: WSB_CM_DUP External ID:
Date Collected: 10/26/2022 09:16AM Date Received: 10/26/2022 02:10PM Sample Matrix: Aqueous Location Desc: GSR_CM_CUP-23-515, TREASURE ISLAND TRAIL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	45.6	mg/L	0.5	2.5	10/26/2022	2051628 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	42.4	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
Magnesium, Mg	28	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
Potassium, K	2.98	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
Sodium, Na	47	mg/L	0.02	1	11/03/2022	2052029 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	180	mg/L	0.593	3	10/26/2022	2051650 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	71.3	mg/L		3	10/26/2022	2051651 ABALALIO	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297496

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/25/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	681	µmhos/cm		1	10/26/2022	2051656 ALEE	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	215	mg/L	0.474	3	10/26/2022	2051652 ABALALIO	
MBP_PH(SM 4500-H+ B)							
pH	7.15	pH			10/26/2022	2050873 ALEE	H1, H3
Temperature (°C)	17.1	°C			10/26/2022	2050873 ALEE	H1, H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	329	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	
Lab Sample#: 2297496-05A Sample Source: WSB_CM_DUP External ID:							
Date Collected: 10/26/2022 09:16AM Date Received: 10/26/2022 02:10PM Sample Matrix: Aqueous Location Desc: GSR_CM_CUP-23-515, TREASURE ISLAND TRAIL							
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Nitrate as N	<0.04	mg/L	0.034	0.04	10/26/2022	2051628 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297496

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/25/2022

Sampling Team: Field

QC list for Run#: 2050873 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206235-04	ICV	pH		9.06	pH	100				
	ICV	Temperature (°C)		20	°C					
QC2206235-05	DUP of 2297496-04	pH	6.81	6.81	pH		0			Splt# 2297496-04 (6.81pH) H1, H3
	DUP of 2297496-04	Temperature (°C)	18.4	18.4	°C					Splt# 2297496-04 (18.4°C) H1, H3
QC2206235-06	CCV	pH		9.06	pH	100				
	CCV	Temperature (°C)		20.1	°C					
QC2206235-07	CCV	pH		9.05	pH	100				
	CCV	Temperature (°C)		20	°C					

QC list for Run#: 2051628 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206776-01	MRL_CK	Sulfate		0.499	mg/L	99				
	MRL_CK	Nitrate as N		0.0374	mg/L	93				
QC2206776-02	CCV	Sulfate		2.39	mg/L	95				
	CCV	Nitrate as N		0.19	mg/L	95				
QC2206776-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206776-04	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206776-05	LCS	Sulfate		2.4	mg/L	95				
	LCS	Nitrate as N		0.189	mg/L	94				
QC2206776-06	CCV	Sulfate		21.6	mg/L	108				
	CCV	Nitrate as N		1.62	mg/L	102				
QC2206776-07	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206776-08	CCV	Sulfate		2.4	mg/L	96				
	CCV	Nitrate as N		0.19	mg/L	95				
QC2206776-09										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297496

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/25/2022

Sampling Team: Field

Sample ID	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
BLK	Sulfate		<0.5	mg/L			0.1	0.5	
BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206776-10	SPK of 2297248-03	Sulfate	4.93	7.53	mg/L	104			Splt# 2297248-03 (4.93mg/L)
	SPK of 2297248-03	Nitrate as N	0.0695	0.264	mg/L	97			Splt# 2297248-03 (0.0695mg/L)
QC2206776-11	SPKD of 2297248-03	Sulfate	4.93	7.54	mg/L	104	0		Splt# 2297248-03 (4.93mg/L)
	SPKD of 2297248-03	Nitrate as N	0.0695	0.267	mg/L	99	1		Splt# 2297248-03 (0.0695mg/L)
QC2206776-12	SPK of 2297250-05	Sulfate	5.26	7.87	mg/L	105			Splt# 2297250-05 (5.26mg/L)
	SPK of 2297250-05	Nitrate as N	0.112	0.316	mg/L	102			Splt# 2297250-05 (0.112mg/L)
QC2206776-13	SPKD of 2297250-05	Sulfate	5.26	7.91	mg/L	106	0		Splt# 2297250-05 (5.26mg/L)
	SPKD of 2297250-05	Nitrate as N	0.112	0.33	mg/L	110	4		Splt# 2297250-05 (0.112mg/L)

QC list for Run#: 2051650 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206786-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2206786-02	MRL_CK	Alkalinity		2.94	mg/L	98				
QC2206786-03	SPK of 2297496-02	Alkalinity	115	155	mg/L	101			3	Splt# 2297496-02 (115mg/L)
QC2206786-04	SPKD of 2297496-02	Alkalinity	115	155	mg/L	101	0		3	Splt# 2297496-02 (115mg/L)
QC2206786-06	LCS	Alkalinity		40.6	mg/L	101			3	

QC list for Run#: 2051651 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206787-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206787-02	MRL_CK	Chloride		2.69	mg/L	89				
QC2206787-03	SPK of 2297496-02	Chloride	55.8	96	mg/L	101			3	Splt# 2297496-02 (55.8mg/L)
QC2206787-04	SPKD of 2297496-02	Chloride	55.8	96.1	mg/L	101	0		3	Splt# 2297496-02 (55.8mg/L)
QC2206787-06										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297496

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/25/2022

Sampling Team: Field

LCS Chloride 39.8 mg/L 99 3

QC list for Run#: 2051652 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206788-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2206788-02	MRL CK	Hardness, Total, as CaCO3	2.07		mg/L	69				
QC2206788-03	DUP of 2297496-02	Hardness, Total, as CaCO3	126	128	mg/L		1	0.474	3	Splt# 2297496-02 (126mg/L)
QC2206788-04	LCS	Hardness, Total, as CaCO3	42.5		mg/L	106			3	

QC list for Run#: 2051656 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206790-01	BLK	Specific Conductance @25°C	<1		µmhos/cm				1	
QC2206790-02	MRL CK	Specific Conductance @25°C	10.3		µmhos/cm	103				
QC2206790-03	DUP of 2297496-04	Specific Conductance @25°C	835	837	µmhos/cm		0		1	Splt# 2297496-04 (835µmhos/cm)
QC2206790-05	LCS	Specific Conductance @25°C	990		µmhos/cm	99			1	

QC list for Run#: 2051700 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206821-01	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2206821-02	DUP of 2297496-01	Total Dissolved Solids	531	522	mg/L		1	13.2	20	Splt# 2297496-01 (531mg/L)
QC2206821-03	LCS	Total Dissolved Solids	92		mg/L	96		13.2	20	

QC list for Run#: 2052029 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207033-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	
QC2207033-02	LCS	Calcium, Ca	1.84		mg/L	91		0.04	1	
	LCS	Magnesium, Mg	1.89		mg/L	94		0.007	0.2	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297496

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/25/2022

Sampling Team: Field

LCS	Potassium, K	2	mg/L	100	0.04	0.2	
LCS	Sodium, Na	2.07	mg/L	104	0.02	1	
QC2207033-03							
DUP of 2297496-01	Calcium, Ca	62.1	62.8	mg/L	1	0.04	1 Splt# 2297496-01 (62.1mg/L)
DUP of 2297496-01	Magnesium, Mg	54.2	54.9	mg/L	1	0.007	0.2 Splt# 2297496-01 (54.2mg/L)
DUP of 2297496-01	Potassium, K	1.99	1.98	mg/L	0	0.04	0.2 Splt# 2297496-01 (1.99mg/L)
DUP of 2297496-01	Sodium, Na	60.8	60.9	mg/L	0	0.02	1 Splt# 2297496-01 (60.8mg/L)
QC2207033-04							
SPK of 2297496-01	Calcium, Ca	62.1	64.8	mg/L	135	0.04	1 Splt# 2297496-01 (62.1mg/L)
SPK of 2297496-01	Magnesium, Mg	54.2	55.6	mg/L	73	0.007	0.2 Splt# 2297496-01 (54.2mg/L)
SPK of 2297496-01	Potassium, K	1.99	4.12	mg/L	106	0.04	0.2 Splt# 2297496-01 (1.99mg/L)
SPK of 2297496-01	Sodium, Na	60.8	62.1	mg/L	65	0.02	1 Splt# 2297496-01 (60.8mg/L)
QC2207033-05							
SPKD of 2297496-01	Calcium, Ca	62.1	64.5	mg/L	124	0	0.04 1 Splt# 2297496-01 (62.1mg/L)
SPKD of 2297496-01	Magnesium, Mg	54.2	54.8	mg/L	31	1	0.007 0.2 Splt# 2297496-01 (54.2mg/L)
SPKD of 2297496-01	Potassium, K	1.99	4.17	mg/L	109	1	0.04 0.2 Splt# 2297496-01 (1.99mg/L)
SPKD of 2297496-01	Sodium, Na	60.8	62.1	mg/L	67	0	0.02 1 Splt# 2297496-01 (60.8mg/L)
QC2207033-06							
MRL CK	Calcium, Ca	<1	mg/L	N/A	0.04	1	
MRL CK	Magnesium, Mg	<0.2	mg/L	N/A	0.007	0.2	
MRL CK	Potassium, K	0.252	mg/L	101	0.04	0.2	
MRL CK	Sodium, Na	<1	mg/L	N/A	0.02	1	
QC2207058-01							
ICV	Potassium, K	1.95	mg/L	97	0.03	0.2	
QC2207058-02							
ICV	Calcium, Ca	10.1	mg/L	101	0.05	1	
ICV	Magnesium, Mg	9.64	mg/L	95	0.01	0.2	
ICV	Sodium, Na	10.4	mg/L	104	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

MILLBRAE 1449

Water Quality Laboratory

SEWPCP 1721

FOLDER ID: 2297497

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/26/2022

Sampling Team: Field

Lab Sample#:	2297497-01	Sample Source:	WSB_CAL-19-475	External ID:			
Date Collected:	10/27/2022 10:40AM	Date Received:	10/27/2022 01:16PM	Sample Matrix:	Aqueous	Location Desc:	GSR_CAL_CUP-19-475, ROW AT SERRAMONTE
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	61.6	mg/L	0.5	2.5	10/27/2022	2051686 PWARNER	
Nitrate as N	1.94	mg/L	0.17	0.2	10/27/2022	2051686 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	42.6	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
Magnesium, Mg	37.8	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
Potassium, K	2.61	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
Sodium, Na	52.5	mg/L	0.02	1	11/03/2022	2052029 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	153	mg/L	1.19	6	10/27/2022	2051697 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	115	mg/L		6	10/27/2022	2051707 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	801	µmhos/cm		1	10/27/2022	2051703 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	261	mg/L	0.948	6	10/27/2022	2051708 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.28	pH			10/27/2022	2051696 DCARDONA	H1,H3
Temperature (°C)	16.9	°C			10/27/2022	2051696 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	430	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	

Lab Sample#:	2297497-02	Sample Source:	WSB_CAL-19-600	External ID:			
Date Collected:	10/27/2022 09:56AM	Date Received:	10/27/2022 01:16PM	Sample Matrix:	Aqueous	Location Desc:	GSR_CAL_CUP-19-600, ROW AT SERRAMONTE
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	16.2	mg/L	0.1	0.5	10/27/2022	2051686 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	10/27/2022	2051686 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	49.4	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
Magnesium, Mg	38.9	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
Potassium, K	2.51	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
Sodium, Na	57.5	mg/L	0.02	1	11/03/2022	2052029 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	267	mg/L	1.19	6	10/27/2022	2051697 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	100	mg/L		6	10/27/2022	2051707 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297497

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/26/2022

Sampling Team: Field

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	842	µmhos/cm		1	10/27/2022	2051703 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	291	mg/L	0.948	6	10/27/2022	2051708 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.4	pH			10/27/2022	2051696 DCARDONA	H1,H3
Temperature (°C)	16.6	°C			10/27/2022	2051696 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	433	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	

Lab Sample#: 2297497-03 Sample Source: WSB_CAL-19-690 External ID:

Date Collected: 10/27/2022 09:58AM Date Received: 10/27/2022 01:16PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-19-690, ROW AT SERRAMONTE

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	61.1	mg/L	1	5	10/27/2022	2051686 PWARNER	
Nitrate as N	6.17	mg/L	0.34	0.4	10/27/2022	2051686 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	46.4	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
Magnesium, Mg	34.9	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
Potassium, K	2.28	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
Sodium, Na	48.9	mg/L	0.02	1	11/03/2022	2052029 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	153	mg/L	1.19	6	10/27/2022	2051697 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	101	mg/L		6	10/27/2022	2051707 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	790	µmhos/cm		1	10/27/2022	2051703 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	269	mg/L	0.948	6	10/27/2022	2051708 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.18	pH			10/27/2022	2051696 DCARDONA	H1,H3
Temperature (°C)	16.6	°C			10/27/2022	2051696 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	425	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	

Lab Sample#: 2297497-04 Sample Source: WSB_CAL_DUP External ID:

Date Collected: 10/27/2022 10:21AM Date Received: 10/27/2022 01:16PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-19-690, ROW AT SERRAMONTE

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	65.2	mg/L	1	5	10/27/2022	2051686 PWARNER	
Nitrate as N	5.35	mg/L	0.34	0.4	10/27/2022	2051686 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297497

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/26/2022

Sampling Team: Field

<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Calcium, Ca</i>	47.9	mg/L	0.04	1	11/03/2022	2052029 BTRINH	
<i>Magnesium, Mg</i>	35.2	mg/L	0.007	0.2	11/03/2022	2052029 BTRINH	
<i>Potassium, K</i>	2.32	mg/L	0.04	0.2	11/03/2022	2052029 BTRINH	
<i>Sodium, Na</i>	50	mg/L	0.02	1	11/03/2022	2052029 BTRINH	
<i>MBP_ALK(SM 2320 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Alkalinity</i>	154	mg/L	1.19	6	10/27/2022	2051697 ALEE	
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Chloride</i>	101	mg/L		6	10/27/2022	2051707 ALEE	
<i>MBP_COND(SM 2510 B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Specific Conductance @25°C</i>	793	µmhos/cm		1	10/27/2022	2051703 DCARDONA	
<i>MBP_HARDNESS_T(SM 2340 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Hardness, Total, as CaCO3</i>	269	mg/L	0.948	6	10/27/2022	2051708 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>pH</i>	7.14	pH			10/27/2022	2051696 DCARDONA	H1,H3
<i>Temperature (°C)</i>	17.3	°C			10/27/2022	2051696 DCARDONA	H1,H3
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
<i>Total Dissolved Solids</i>	421	mg/L	13.2	20	10/28/2022	2051700 ABALALIO	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297497

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/26/2022

Sampling Team: Field

QC list for Run#: 2051686 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206814-01	MRL_CK	Sulfate		0.502	mg/L	100				
	MRL_CK	Nitrate as N		0.0372	mg/L	93				
QC2206814-02	CCV	Sulfate		2.42	mg/L	96				
	CCV	Nitrate as N		0.191	mg/L	96				
QC2206814-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206814-04	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206814-05	LCS	Sulfate		2.41	mg/L	96				
	LCS	Nitrate as N		0.188	mg/L	94				
QC2206814-06	CCV	Sulfate		21.7	mg/L	109				
	CCV	Nitrate as N		1.64	mg/L	103				
QC2206814-07	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206814-08	SPK of 2297258-09	Sulfate	4.46	7.02	mg/L	102				Splt# 2297258-09 (4.46mg/L)
	SPK of 2297258-09	Nitrate as N	0.0591	0.248	mg/L	94				Splt# 2297258-09 (0.0591mg/L)
QC2206814-09	SPKD of 2297258-09	Sulfate	4.46	7.06	mg/L	104	0			Splt# 2297258-09 (4.46mg/L)
	SPKD of 2297258-09	Nitrate as N	0.0591	0.248	mg/L	94	0			Splt# 2297258-09 (0.0591mg/L)

QC list for Run#: 2051696 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206819-01	CAL	pH		4.04	pH	101				
	CAL	Temperature (°C)		20.2	°C					
QC2206819-02	CAL	pH		7.01	pH	100				
	CAL	Temperature (°C)		20.1	°C					
QC2206819-03	CAL	pH		10.1	pH	101				
	CAL	Temperature (°C)		20	°C					

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297497

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/26/2022

Sampling Team: Field

QC2206819-04	ICV	pH	9.03	pH	99				
	ICV	Temperature (°C)	20	°C					
QC2206819-05	DUP of 2297257-01	pH	9.16	9.21	pH	0			Splt# 2297257-01 (9.16pH) H1,H3
	DUP of 2297257-01	Temperature (°C)	16.5	16.4	°C				Splt# 2297257-01 (16.5°C) H1,H3
QC2206819-06	CCV	pH	9.05	pH	100				
	CCV	Temperature (°C)	19.8	°C					
QC2206819-07	CCV	pH	9.05	pH	100				
	CCV	Temperature (°C)	19.7	°C					

QC list for Run#: 2051697 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206818-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2206818-02	MRL_CHK	Alkalinity	3.09		mg/L	103				
QC2206818-03	SPK of 2297253-02	Alkalinity	21.3	62.2	mg/L	102			3	Splt# 2297253-02 (21.3mg/L)
QC2206818-04	SPKD of 2297253-02	Alkalinity	21.3	62.1	mg/L	102	0		3	Splt# 2297253-02 (21.3mg/L)
QC2206818-06	LCS	Alkalinity	40.2		mg/L	100			3	

QC list for Run#: 2051700 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206821-01	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2206821-02	DUP of 2297496-01	Total Dissolved Solids	531	522	mg/L		1	13.2	20	Splt# 2297496-01 (531mg/L)
QC2206821-03	LCS	Total Dissolved Solids	92		mg/L	96		13.2	20	

QC list for Run#: 2051703 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206823-01	BLK	Specific Conductance @25°C	<1		µmhos/cm				1	
QC2206823-02	MRL_CHK	Specific Conductance @25°C	10.2		µmhos/cm	102				
QC2206823-03										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297497

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/26/2022

Sampling Team: Field

DUP of	Specific Conductance @25°C	87.3	87.1	µmhos/cm	0	1	Splt# 2297257-01 (87.3µmhos/cm)
QC2206823-04	CCV		101	µmhos/cm	101		
QC2206823-05	LCS		993	µmhos/cm	99	1	

QC list for Run#: 2051707 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206827-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2206827-02	MRL CK	Chloride		2.67	mg/L	89				
QC2206827-03	SPK of 2297253-02	Chloride	6.47	46.5	mg/L	100			3	Splt# 2297253-02 (6.47mg/L)
QC2206827-04	SPKD of 2297253-02	Chloride	6.47	46.5	mg/L	100	0		3	Splt# 2297253-02 (6.47mg/L)
QC2206827-06	LCS	Chloride		39.6	mg/L	98			3	

QC list for Run#: 2051708 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206828-01	BLK	Hardness, Total, as CaCO3		<3	mg/L			0.474	3	
QC2206828-02	MRL CK	Hardness, Total, as CaCO3		2.79	mg/L	93				
QC2206828-03	DUP of 2297253-01	Hardness, Total, as CaCO3	16.6	16.8	mg/L		0	0.474	3	Splt# 2297253-01 (16.6mg/L)
QC2206828-04	LCS	Hardness, Total, as CaCO3		42.6	mg/L	106			3	

QC list for Run#: 2052029 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207033-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2207033-02	LCS	Calcium, Ca		1.84	mg/L	91		0.04	1	
	LCS	Magnesium, Mg		1.89	mg/L	94		0.007	0.2	
	LCS	Potassium, K		2	mg/L	100		0.04	0.2	
	LCS	Sodium, Na		2.07	mg/L	104		0.02	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297497

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 10/26/2022

Sampling Team: Field

QC	Sample ID	Parameter	Result 1	Result 2	Unit	Count	Conc	Vol	Notes	
QC2207033-03	DUP of 2297496-01	Calcium, Ca	62.1	62.8	mg/L	1	0.04	1	Splt# 2297496-01 (62.1mg/L)	
	DUP of 2297496-01	Magnesium, Mg	54.2	54.9	mg/L	1	0.007	0.2	Splt# 2297496-01 (54.2mg/L)	
	DUP of 2297496-01	Potassium, K	1.99	1.98	mg/L	0	0.04	0.2	Splt# 2297496-01 (1.99mg/L)	
	DUP of 2297496-01	Sodium, Na	60.8	60.9	mg/L	0	0.02	1	Splt# 2297496-01 (60.8mg/L)	
QC2207033-04	SPK of 2297496-01	Calcium, Ca	62.1	64.8	mg/L	135	0.04	1	Splt# 2297496-01 (62.1mg/L)	
	SPK of 2297496-01	Magnesium, Mg	54.2	55.6	mg/L	73	0.007	0.2	Splt# 2297496-01 (54.2mg/L)	
	SPK of 2297496-01	Potassium, K	1.99	4.12	mg/L	106	0.04	0.2	Splt# 2297496-01 (1.99mg/L)	
	SPK of 2297496-01	Sodium, Na	60.8	62.1	mg/L	65	0.02	1	Splt# 2297496-01 (60.8mg/L)	
QC2207033-05	SPKD of 2297496-01	Calcium, Ca	62.1	64.5	mg/L	124	0	0.04	1	Splt# 2297496-01 (62.1mg/L)
	SPKD of 2297496-01	Magnesium, Mg	54.2	54.8	mg/L	31	1	0.007	0.2	Splt# 2297496-01 (54.2mg/L)
	SPKD of 2297496-01	Potassium, K	1.99	4.17	mg/L	109	1	0.04	0.2	Splt# 2297496-01 (1.99mg/L)
	SPKD of 2297496-01	Sodium, Na	60.8	62.1	mg/L	67	0	0.02	1	Splt# 2297496-01 (60.8mg/L)
QC2207033-06	MRL CK	Calcium, Ca	<1		mg/L	N/A	0.04	1		
	MRL CK	Magnesium, Mg	<0.2		mg/L	N/A	0.007	0.2		
	MRL CK	Potassium, K	0.252		mg/L	101	0.04	0.2		
	MRL CK	Sodium, Na	<1		mg/L	N/A	0.02	1		
QC2207058-01	ICV	Potassium, K	1.95		mg/L	97	0.03	0.2		
QC2207058-02	ICV	Calcium, Ca	10.1		mg/L	101	0.05	1		
	ICV	Magnesium, Mg	9.64		mg/L	95	0.01	0.2		
	ICV	Sodium, Na	10.4		mg/L	104	0.002	1		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297498

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Lab Sample#: 2297498-01 **Sample Source:** WSB_CAL-22A-290 **External ID:**
Date Collected: 10/31/2022 10:58AM **Date Received:** 10/31/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-22A-290, ROW AT HICKEY BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	52.8	mg/L	1	5	10/31/2022	2051844 PWARNER	
Nitrate as N	8.45	mg/L	0.34	0.4	10/31/2022	2051844 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	59.1	mg/L	0.04	1	11/09/2022	2052302 BTRINH	
Magnesium, Mg	45.2	mg/L	0.007	0.2	11/09/2022	2052302 BTRINH	
Potassium, K	2.67	mg/L	0.04	0.2	11/09/2022	2052302 BTRINH	
Sodium, Na	61.6	mg/L	0.02	1	11/09/2022	2052302 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	929	µmhos/cm		1	10/31/2022	2051832 DCARDONA	>MCL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	326	mg/L	0.948	6	10/31/2022	2051839 ALEE	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_PH(SM 4500-H+ B)							
pH	7.14	pH			10/31/2022	2051833 DCARDONA	H1,H3
Temperature (°C)	19.7	°C			10/31/2022	2051833 DCARDONA	H1,H3

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	517	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	>MCL

Lab Sample#: 2297498-01A **Sample Source:** WSB_CAL-22A-290 **External ID:**
Date Collected: 10/31/2022 10:58AM **Date Received:** 10/31/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-22A-290, ROW AT HICKEY BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	245	mg/L	0.593	3	10/31/2022	2051834 ALEE	manual entry

Lab Sample#: 2297498-01B **Sample Source:** WSB_CAL-22A-290 **External ID:**
Date Collected: 10/31/2022 10:58AM **Date Received:** 10/31/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-22A-290, ROW AT HICKEY BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	196	mg/L		6	10/31/2022	2051837 ALEE	manual entry

Lab Sample#: 2297498-02 **Sample Source:** WSB_CAL-22A-440 **External ID:**
Date Collected: 10/31/2022 10:12AM **Date Received:** 10/31/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-22A-440, ROW AT HICKEY BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	56.1	mg/L	0.04	1	11/09/2022	2052302 BTRINH	
Magnesium, Mg	42.9	mg/L	0.007	0.2	11/09/2022	2052302 BTRINH	
Potassium, K	2.54	mg/L	0.04	0.2	11/09/2022	2052302 BTRINH	
Sodium, Na	59	mg/L	0.02	1	11/09/2022	2052302 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297498

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	235	mg/L	1.19	6	10/31/2022	2051834 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	96.2	mg/L		6	10/31/2022	2051837 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	906	µmhos/cm		1	10/31/2022	2051832 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	313	mg/L	0.948	6	10/31/2022	2051839 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7.02	pH			10/31/2022	2051833 DCARDONA	H1,H3
Temperature (°C)	18.1	°C			10/31/2022	2051833 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	517	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	>MCL

Lab Sample#: 2297498-02A **Sample Source:** WSB_CAL-22A-440 **External ID:**

Date Collected: 10/31/2022 10:12AM **Date Received:** 10/31/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-22A-440, ROW AT HICKEY BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	51.4	mg/L	1	5	11/01/2022	2051889 PWARNER	
Nitrate as N	6.95	mg/L	0.34	0.4	11/01/2022	2051889 PWARNER	

Lab Sample#: 2297498-03 **Sample Source:** WSB_CAL-22A-545 **External ID:**

Date Collected: 10/31/2022 09:54AM **Date Received:** 10/31/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-22A-545, ROW AT HICKEY BLVD

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	90.4	mg/L	1	5	10/31/2022	2051844 PWARNER	
Nitrate as N	5.26	mg/L	0.34	0.4	10/31/2022	2051844 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	69.9	mg/L	0.04	1	11/09/2022	2052302 BTRINH	
Magnesium, Mg	51.9	mg/L	0.007	0.2	11/09/2022	2052302 BTRINH	
Potassium, K	3.12	mg/L	0.04	0.2	11/09/2022	2052302 BTRINH	
Sodium, Na	86.2	mg/L	0.02	1	11/09/2022	2052302 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	306	mg/L	1.19	6	10/31/2022	2051834 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	104	mg/L		6	10/31/2022	2051837 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1100	µmhos/cm		1	10/31/2022	2051832 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	377	mg/L	0.948	6	10/31/2022	2051839 ALEE	
MBP_PH(SM 4500-H+ B)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297498

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.6	pH			10/31/2022	2051833 DCARDONA	H1,H3
Temperature (°C)	18	°C			10/31/2022	2051833 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	635	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	>MCL
Lab Sample#: 2297498-04 Sample Source: WSB_CAL_DUP External ID:							
Date Collected: 10/31/2022 10:14AM Date Received: 10/31/2022 12:22PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-22A-545, ROW AT HICKEY BLVD							
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	90.2	mg/L	1	5	10/31/2022	2051844 PWARNER	
Nitrate as N	5.21	mg/L	0.34	0.4	10/31/2022	2051844 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	69.6	mg/L	0.04	1	11/09/2022	2052302 BTRINH	
Magnesium, Mg	51.5	mg/L	0.007	0.2	11/09/2022	2052302 BTRINH	
Potassium, K	3.12	mg/L	0.04	0.2	11/09/2022	2052302 BTRINH	
Sodium, Na	85.3	mg/L	0.02	1	11/09/2022	2052302 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	308	mg/L	1.19	6	10/31/2022	2051834 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	104	mg/L		6	10/31/2022	2051837 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	1100	µmhos/cm		1	10/31/2022	2051832 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	377	mg/L	0.948	6	10/31/2022	2051839 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.62	pH			10/31/2022	2051833 DCARDONA	H1,H3
Temperature (°C)	18.5	°C			10/31/2022	2051833 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	636	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297498

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

QC list for Run#: 2051832 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206928-01	BLK	Specific Conductance @25°C	<1		µmhos/cm				1	
QC2206928-02	MRL_CK	Specific Conductance @25°C	10.3		µmhos/cm	103				
QC2206928-03	DUP of 2297340-01	Specific Conductance @25°C	80.8	80.3	µmhos/cm	0			1	Splt# 2297340-01 (80.8µmhos/cm)
QC2206928-04	CCV	Specific Conductance @25°C	101		µmhos/cm	101				
QC2206928-05	LCS	Specific Conductance @25°C	993		µmhos/cm	99			1	

QC list for Run#: 2051833 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206930-01	CAL	pH	4.01		pH	100				
	CAL	Temperature (°C)	20.9		°C					
QC2206930-02	CAL	pH	7.03		pH	100				
	CAL	Temperature (°C)	20.8		°C					
QC2206930-03	CAL	pH	10.1		pH	101				
	CAL	Temperature (°C)	20.7		°C					
QC2206930-04	ICV	pH	9.01		pH	99				
	ICV	Temperature (°C)	20.6		°C					
QC2206930-05	DUP of 2297340-01	pH	9.21	9.24	pH	0				Splt# 2297340-01 (9.21pH) H1,H3
	DUP of 2297340-01	Temperature (°C)	17.1	16.9	°C					Splt# 2297340-01 (17.1°C) H1,H3
QC2206930-06	CCV	pH	9.04		pH	99				
	CCV	Temperature (°C)	20.6		°C					
QC2206930-07	CCV	pH	9.04		pH	99				
	CCV	Temperature (°C)	20.7		°C					

QC list for Run#: 2051834 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206929-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2206929-02										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297498

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2206929-03	MRL_CK	Alkalinity	2.81	mg/L	93				
SPK of 2297498-01		Alkalinity	242	562	mg/L	400		6	Splt# 2297498-01 (242mg/L) not used
QC2206929-03A									
SPK of 2297498-01A		Alkalinity	245	281	mg/L	89		3	Splt# 2297498-01A (245mg/L) manual entry
QC2206929-04									
SPKD of 2297498-01		Alkalinity	242	568	mg/L	407	0	6	Splt# 2297498-01 (242mg/L) not used
QC2206929-04A									
SPKD of 2297498-01A		Alkalinity	245	284	mg/L	96	0	3	Splt# 2297498-01A (245mg/L) manual entry
QC2206929-06									
LCS		Alkalinity	40.3	mg/L	101			3	

QC list for Run#: 2051837 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206932-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2206932-02	MRL_CK	Chloride	2.8		mg/L	93				
QC2206932-03	SPK of 2297498-01	Chloride	98.3	178	mg/L	99		6		Splt# 2297498-01 (98.3mg/L)
QC2206932-03A	SPK of 2297498-01B	Chloride	196	274	mg/L	96		6		Splt# 2297498-01B (196mg/L) manual entry
QC2206932-04	SPKD of 2297498-01	Chloride	98.3	178	mg/L	99	0	6		Splt# 2297498-01 (98.3mg/L)
QC2206932-04A	SPKD of 2297498-01B	Chloride	196	275	mg/L	98	0	6		Splt# 2297498-01B (196mg/L) manual entry
QC2206932-06	LCS	Chloride	39.8		mg/L	99			3	

QC list for Run#: 2051839 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206933-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2206933-02	MRL_CK	Hardness, Total, as CaCO3	2.7		mg/L	90				
QC2206933-03	DUP of 2297498-01	Hardness, Total, as CaCO3	326	325	mg/L		0	0.948	6	Splt# 2297498-01 (326mg/L)
QC2206933-04	LCS	Hardness, Total, as CaCO3	42.1		mg/L	105			3	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297498

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

QC list for Run#: 2051844 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206934-01	MRL_CK	Sulfate		0.506	mg/L	101				
	MRL_CK	Nitrate as N		0.0372	mg/L	93				
QC2206934-02	CCV	Sulfate		2.44	mg/L	97				
	CCV	Nitrate as N		0.193	mg/L	96				
QC2206934-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206934-04	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206934-05	LCS	Sulfate		2.4	mg/L	96				
	LCS	Nitrate as N		0.192	mg/L	96				
QC2206934-06	CCV	Sulfate		21.9	mg/L	109				
	CCV	Nitrate as N		1.65	mg/L	104				
QC2206934-07	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2206934-08	SPK of 2297325-01	Sulfate	4.54	7.14	mg/L	104				Splt# 2297325-01 (4.54mg/L)
	SPK of 2297325-01	Nitrate as N	0.0663	0.258	mg/L	96				Splt# 2297325-01 (0.0663mg/L)
QC2206934-09	SPKD of 2297325-01	Sulfate	4.54	7.11	mg/L	103	0			Splt# 2297325-01 (4.54mg/L) Manually calculated RPD
	SPKD of 2297325-01	Nitrate as N	0.0663	0.266	mg/L	100	2			Splt# 2297325-01 (0.0663mg/L) Manually calculated RPD

QC list for Run#: 2051889 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2206970-01	MRL_CK	Sulfate		0.506	mg/L	101				
	MRL_CK	Nitrate as N		0.0388	mg/L	97				
QC2206970-02	CCV	Sulfate		2.43	mg/L	97				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2206970-03										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297498

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Sample ID	Method	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2206970-04	BLK	Sulfate	<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	
QC2206970-05	BLK	Sulfate	<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	
QC2206970-06	LCS	Sulfate	2.42	mg/L	96				
	LCS	Nitrate as N	0.193	mg/L	96				
QC2206970-07	CCV	Sulfate	22.1	mg/L	110				Technically fails high. Monitoring results only.
	CCV	Nitrate as N	1.66	mg/L	104				
QC2206970-08	BLK	Sulfate	<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L			0.034	0.04	
QC2206970-09	SPK of 2297396-02	Sulfate	4.93	7.42	mg/L	99			Splt# 2297396-02 (4.93mg/L)
	SPK of 2297396-02	Nitrate as N	0.0971	0.284	mg/L	93			Splt# 2297396-02 (0.0971mg/L)
QC2206970-09	SPKD of 2297396-02	Sulfate	4.93	7.47	mg/L	101	0		Splt# 2297396-02 (4.93mg/L) Manually calculated RPD
	SPKD of 2297396-02	Nitrate as N	0.0971	0.29	mg/L	97	2		Splt# 2297396-02 (0.0971mg/L) Manually calculated RPD

QC list for Run#: 2052049 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207073-01	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2207073-02	DUP of 2297498-01	Total Dissolved Solids	517	520	mg/L		0	13.2	20	Splt# 2297498-01 (517mg/L)
QC2207073-03	DUP of 2297887-05	Total Dissolved Solids	647	651	mg/L		0	13.2	20	Splt# 2297887-05 (647mg/L)
QC2207073-04	LCS	Total Dissolved Solids	101		mg/L	106		13.2	20	

QC list for Run#: 2052302 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207220-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297498

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

QC2207220-02

LCS	Calcium, Ca	1.85	mg/L	92	0.04	1
LCS	Magnesium, Mg	1.98	mg/L	99	0.007	0.2
LCS	Potassium, K	2	mg/L	99	0.04	0.2
LCS	Sodium, Na	2.03	mg/L	102	0.02	1

QC2207220-03

DUP of 2297498-01	Calcium, Ca	59.1	58.9	mg/L	0	0.04	1	Splt# 2297498-01 (59.1mg/L)
DUP of 2297498-01	Magnesium, Mg	45.2	44.2	mg/L	2	0.007	0.2	Splt# 2297498-01 (45.2mg/L)
DUP of 2297498-01	Potassium, K	2.67	2.57	mg/L	3	0.04	0.2	Splt# 2297498-01 (2.67mg/L)
DUP of 2297498-01	Sodium, Na	61.6	60.2	mg/L	2	0.02	1	Splt# 2297498-01 (61.6mg/L)

QC2207220-04

SPK of 2297498-01	Calcium, Ca	59.1	61.3	mg/L	109	0.04	1	Splt# 2297498-01 (59.1mg/L)
SPK of 2297498-01	Magnesium, Mg	45.2	46.3	mg/L	52	0.007	0.2	Splt# 2297498-01 (45.2mg/L)
SPK of 2297498-01	Potassium, K	2.67	4.68	mg/L	100	0.04	0.2	Splt# 2297498-01 (2.67mg/L)
SPK of 2297498-01	Sodium, Na	61.6	62.5	mg/L	44	0.02	1	Splt# 2297498-01 (61.6mg/L)

QC2207220-05

SPKD of 2297498-01	Calcium, Ca	59.1	61.1	mg/L	96	0	0.04	1	Splt# 2297498-01 (59.1mg/L)
SPKD of 2297498-01	Magnesium, Mg	45.2	47.3	mg/L	106	2	0.007	0.2	Splt# 2297498-01 (45.2mg/L)
SPKD of 2297498-01	Potassium, K	2.67	4.73	mg/L	103	1	0.04	0.2	Splt# 2297498-01 (2.67mg/L)
SPKD of 2297498-01	Sodium, Na	61.6	63	mg/L	68	0	0.02	1	Splt# 2297498-01 (61.6mg/L)

QC2207220-06

MRL_CK	Calcium, Ca	<1	mg/L	N/A	0.04	1
MRL_CK	Magnesium, Mg	<0.2	mg/L	N/A	0.007	0.2
MRL_CK	Potassium, K	<0.2	mg/L	N/A	0.04	0.2
MRL_CK	Sodium, Na	<1	mg/L	N/A	0.02	1

QC2207252-01

ICV	Potassium, K	1.94	mg/L	96	0.03	0.2
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QC2207252-02

ICV	Calcium, Ca	10.1	mg/L	102	0.05	1
ICV	Magnesium, Mg	9.85	mg/L	97	0.01	0.2
ICV	Sodium, Na	10.3	mg/L	103	0.002	1

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Lab Sample#: 2297887-01	Sample Source: WSB_DC-10A-160	External ID:
Date Collected: 11/02/2022 09:57AM	Date Received: 11/02/2022 11:44AM	Sample Matrix: Aqueous
		Location Desc: GSR_DC_CUP-10A-160, ROW AT SERRA BOWL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	55.7	mg/L	1	5	11/02/2022	2051996 PWARNER	
Nitrate as N	9.99	mg/L	0.34	0.4	11/02/2022	2051996 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	63.8	mg/L	0.04	1	11/09/2022	2052302 BTRINH	
Magnesium, Mg	62.1	mg/L	0.007	0.2	11/09/2022	2052302 BTRINH	
Potassium, K	1.51	mg/L	0.04	0.2	11/09/2022	2052302 BTRINH	
Sodium, Na	72.1	mg/L	0.02	1	11/09/2022	2052302 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	301	mg/L	1.19	6	11/02/2022	2052000 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	129	mg/L		6	11/02/2022	2052001 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1110	µmhos/cm		1	11/03/2022	2052006 DCARDONA	>MCL
MBP_PH(SM 4500-H+ B)							
pH	6.72	pH			11/02/2022	2052008 DCARDONA	H1,H3
Temperature (°C)	19.6	°C			11/02/2022	2052008 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	628	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	>MCL

Lab Sample#: 2297887-01B	Sample Source: WSB_DC-10A-160	External ID:
Date Collected: 11/02/2022 09:57AM	Date Received: 11/02/2022 11:44AM	Sample Matrix: Aqueous
		Location Desc: GSR_DC_CUP-10A-160, ROW AT SERRA BOWL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	406	mg/L	23.7	150	11/03/2022	2052061 ALEE	

Lab Sample#: 2297887-01C	Sample Source: WSB_DC-10A-160	External ID:
Date Collected: 11/02/2022 09:57AM	Date Received: 11/02/2022 11:44AM	Sample Matrix: Aqueous
		Location Desc: GSR_DC_CUP-10A-160, ROW AT SERRA BOWL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	408	mg/L	4.74	30	11/03/2022	2052061 ALEE	

Lab Sample#: 2297887-01D	Sample Source: WSB_DC-10A-160	External ID:
Date Collected: 11/02/2022 09:57AM	Date Received: 11/02/2022 11:44AM	Sample Matrix: Aqueous
		Location Desc: GSR_DC_CUP-10A-160, ROW AT SERRA BOWL

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	408	mg/L	2.37	15	11/03/2022	2052061 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

MILLBRAE 1449

Water Quality Laboratory

SEWPCP 1721

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Lab Sample#:	2297887-03	Sample Source:	WSB_DC-10A-500	External ID:			
Date Collected:	11/02/2022 09:56AM	Date Received:	11/02/2022 11:44AM	Sample Matrix:	Aqueous	Location Desc:	GSR_DC_CUP-10A-500 ROW AT SERRA BOWL
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	75.4	mg/L	1	5	11/02/2022	2051996 PWARNER	
Nitrate as N	8.74	mg/L	0.34	0.4	11/02/2022	2051996 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	61.6	mg/L	0.04	1	11/09/2022	2052302 BTRINH	
Magnesium, Mg	62.8	mg/L	0.007	0.2	11/09/2022	2052302 BTRINH	
Potassium, K	1.39	mg/L	0.04	0.2	11/09/2022	2052302 BTRINH	
Sodium, Na	70.7	mg/L	0.02	1	11/09/2022	2052302 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	279	mg/L	1.19	6	11/02/2022	2052000 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	139	mg/L		6	11/02/2022	2052001 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	1120	µmhos/cm		1	11/03/2022	2052006 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	404	mg/L	0.948	6	11/02/2022	2052002 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.61	pH			11/02/2022	2052008 DCARDONA	H1,H3
Temperature (°C)	19.4	°C			11/02/2022	2052008 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	653	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	>MCL

Lab Sample#:	2297887-04	Sample Source:	WSB_DC-10A-710	External ID:			
Date Collected:	11/02/2022 10:46AM	Date Received:	11/02/2022 11:44AM	Sample Matrix:	Aqueous	Location Desc:	GSR_DC_CUP-10A-710 ROW AT SERRA BOWL
Test/Analyte							
MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	85.9	mg/L	1	5	11/02/2022	2051996 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	71.5	mg/L	0.04	1	11/09/2022	2052302 BTRINH	
Magnesium, Mg	47.1	mg/L	0.007	0.2	11/09/2022	2052302 BTRINH	
Potassium, K	3.95	mg/L	0.04	0.2	11/09/2022	2052302 BTRINH	
Sodium, Na	92.5	mg/L	0.02	1	11/09/2022	2052302 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	275	mg/L	1.19	6	11/02/2022	2052000 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	187	mg/L		6	11/02/2022	2052001 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>Specific Conductance @25°C</i>	1180	µmhos/cm		1	11/03/2022	2052006 DCARDONA	>MCL
<i>MBP_HARDNESS_T(SM 2340 C)</i>							
<i>Hardness, Total, as CaCO3</i>	366	mg/L	0.948	6	11/02/2022	2052002 ALEE	
<i>MBP_PH(SM 4500-H+ B)</i>							
<i>pH</i>	7.15	pH			11/02/2022	2052008 DCARDONA	H1,H3
<i>Temperature (°C)</i>	19.6	°C			11/02/2022	2052008 DCARDONA	H1,H3
<i>MBP_TDS(SM 2540 C)</i>							
<i>Total Dissolved Solids</i>	657	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	>MCL

Lab Sample#: 2297887-04A **Sample Source:** WSB_DC-10A-710 **External ID:**

Date Collected: 11/02/2022 10:46AM **Date Received:** 11/02/2022 11:44AM **Sample Matrix:** Aqueous **Location Desc:** GSR_DC_CUP-10A-710 ROW AT SERRA BOWL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>							
<i>Nitrate as N</i>	<0.04	mg/L	0.034	0.04	11/03/2022	2051996 PWARNER	

Lab Sample#: 2297887-05 **Sample Source:** WSB_DC_DUP **External ID:**

Date Collected: 11/02/2022 10:12AM **Date Received:** 11/02/2022 11:44AM **Sample Matrix:** Aqueous **Location Desc:** GSR_DC_CUP-10A-160, ROW AT SERRA BOWL

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>							
<i>Sulfate</i>	55.9	mg/L	1	5	11/02/2022	2051996 PWARNER	
<i>Nitrate as N</i>	10	mg/L	0.34	0.4	11/02/2022	2051996 PWARNER	
<i>SEM_200.7_DW(EPA 200.7)</i>							
<i>Calcium, Ca</i>	64.6	mg/L	0.04	1	11/09/2022	2052302 BTRINH	
<i>Magnesium, Mg</i>	62.9	mg/L	0.007	0.2	11/09/2022	2052302 BTRINH	
<i>Potassium, K</i>	1.64	mg/L	0.04	0.2	11/09/2022	2052302 BTRINH	
<i>Sodium, Na</i>	72.1	mg/L	0.02	1	11/09/2022	2052302 BTRINH	
<i>MBP_ALK(SM 2320 B)</i>							
<i>Alkalinity</i>	301	mg/L	1.19	6	11/02/2022	2052000 ALEE	
<i>MBP_CHLORIDE(SM 4500-CL- D)</i>							
<i>Chloride</i>	129	mg/L		6	11/02/2022	2052001 ALEE	
<i>MBP_COND(SM 2510 B)</i>							
<i>Specific Conductance @25°C</i>	1110	µmhos/cm		1	11/03/2022	2052006 DCARDONA	>MCL
<i>MBP_PH(SM 4500-H+ B)</i>							
<i>pH</i>	6.73	pH			11/02/2022	2052008 DCARDONA	H1,H3
<i>Temperature (°C)</i>	19.9	°C			11/02/2022	2052008 DCARDONA	H1,H3
<i>MBP_TDS(SM 2540 C)</i>							
<i>Total Dissolved Solids</i>	647	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	>MCL

Lab Sample#: 2297887-05A **Sample Source:** WSB_DC_DUP **External ID:**

Date Collected: 11/02/2022 10:12AM **Date Received:** 11/02/2022 11:44AM **Sample Matrix:** Aqueous **Location Desc:** GSR_DC_CUP-10A-160, ROW AT SERRA BOWL

Test/Analyte

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

<u>MBP_HARDNESS_T(SM 2340 C)</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Hardness, Total, as CaCO3	408	mg/L	0.948	6	11/02/2022	2052002 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

QC list for Run#: 2051996 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207029-01	MRL_CK	Sulfate		0.504	mg/L	101				
	MRL_CK	Nitrate as N		0.0405	mg/L	102				
QC2207029-02	CCV	Sulfate		2.41	mg/L	96				
	CCV	Nitrate as N		0.196	mg/L	98				
QC2207029-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207029-04	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207029-05	LCS	Sulfate		2.62	mg/L	105				
	LCS	Nitrate as N		0.2	mg/L	100				
QC2207029-06	CCV	Sulfate		21.4	mg/L	107				
	CCV	Nitrate as N		1.66	mg/L	104				
QC2207029-07	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207029-08	SPK of 2297535-03	Sulfate	14.3	17	mg/L	111				Splt# 2297535-03 (14.3mg/L)
	SPK of 2297535-03	Nitrate as N	0.102	0.297	mg/L	98				Splt# 2297535-03 (0.102mg/L)
QC2207029-09	SPKD of 2297535-03	Sulfate	14.3	16.9	mg/L	107	0			Splt# 2297535-03 (14.3mg/L)
	SPKD of 2297535-03	Nitrate as N	0.102	0.302	mg/L	100	1			Splt# 2297535-03 (0.102mg/L)
QC2207029-10	CAL	Chloride		19.7	mg/L	98		0.2		
	CAL	Sulfate		21.3	mg/L	106		0.1		
	CAL	Nitrate as N		1.66	mg/L	104		0.034		
QC2207029-11	CAL	Chloride		10.4	mg/L	104		0.2		
	CAL	Sulfate		10	mg/L	100		0.1		
	CAL	Nitrate as N		0.802	mg/L	101		0.034		
QC2207029-12	CAL	Chloride		5.02	mg/L	100		0.2		
	CAL	Sulfate		4.82	mg/L	96		0.1		

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/31/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Sample ID	Method	Analyte	Result	Units	% Rec	MDL	MRL	Flag/Comments
QC2207029-13	CAL	Nitrate as N	0.392	mg/L	98	0.034		
	CAL	Chloride	2.43	mg/L	97	0.2		
	CAL	Sulfate	2.4	mg/L	96	0.1		
	CAL	Nitrate as N	0.194	mg/L	97	0.034		
QC2207029-14	CAL	Chloride	0.982	mg/L	98	0.2		
	CAL	Sulfate	0.984	mg/L	98	0.1		
	CAL	Nitrate as N	0.0809	mg/L	102	0.034		
QC2207029-15	CAL	Chloride	0.806	mg/L	101	0.2		
	CAL	Sulfate	0.804	mg/L	100	0.1		
	CAL	Nitrate as N	0.0636	mg/L	99	0.034		
QC2207029-16	CAL	Chloride	0.504	mg/L	101	0.2		
	CAL	Sulfate	0.507	mg/L	101	0.1		
	CAL	Nitrate as N	0.0402	mg/L	101	0.034		
QC2207029-17	BLK	Chloride	<1	mg/L		0.2	1	
	BLK	Sulfate	<0.5	mg/L		0.1	0.5	
	BLK	Nitrate as N	<0.04	mg/L		0.034	0.04	
QC2207029-18	ICV	Chloride	2.45	mg/L	98	0.2	1	
	ICV	Sulfate	2.63	mg/L	105	0.1	0.5	
	ICV	Nitrate as N	0.201	mg/L	100	0.34	0.04	

QC list for Run#: 2052000 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207034-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2207034-02	MRL_CK	Alkalinity	3.22		mg/L	107				
QC2207034-03	SPK of 2298090-01	Alkalinity	43.6	84.2	mg/L	102			3	Splt# 2298090-01 (43.6mg/L)
QC2207034-04	SPKD of 2298090-01	Alkalinity	43.6	83.2	mg/L	99	1		3	Splt# 2298090-01 (43.6mg/L)
QC2207034-06	LCS	Alkalinity	41.2		mg/L	103			3	

QC list for Run#: 2052001 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207035-01										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

Sample ID	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2207035-02	BLK	Chloride	<3	mg/L			1.16	3	
QC2207035-03	MRL CK	Chloride	3.06	mg/L	102				
QC2207035-04	SPK of 2298090-01	Chloride	14.7	55 mg/L	101			3	Splt# 2298090-01 (14.7mg/L)
QC2207035-05	SPKD of 2298090-01	Chloride	14.7	54.7 mg/L	100	0		3	Splt# 2298090-01 (14.7mg/L)
QC2207035-06	LCS	Chloride	39.5	mg/L	98			3	

QC list for Run#: 2052002 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207036-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2207036-02	MRL CK	Hardness, Total, as CaCO3	2.82		mg/L	94				
QC2207036-04	LCS	Hardness, Total, as CaCO3	39.2		mg/L	97			3	
QC2207036-05	DUP of 2297887-04	Hardness, Total, as CaCO3	366	367	mg/L		0	0.948	6	Splt# 2297887-04 (366mg/L)

QC list for Run#: 2052006 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207038-01	BLK	Specific Conductance @25°C	<1		µmhos/cm				1	
QC2207038-02	MRL CK	Specific Conductance @25°C	9.89		µmhos/cm	98				
QC2207038-03	DUP of 2297887-01	Specific Conductance @25°C	1110	1110	µmhos/cm		0		1	Splt# 2297887-01 (1110µmhos/cm)
QC2207038-04	CCV	Specific Conductance @25°C	97.3		µmhos/cm	97				
QC2207038-05	ICV	Specific Conductance @25°C	153		µmhos/cm	104				

QC list for Run#: 2052008 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207040-04	ICV	pH	9.03		pH	99				
QC2207040-05	ICV	Temperature (°C)	19.7		°C					
QC2207040-05	DUP of 2297887-01	pH	6.72	6.73	pH		0			Splt# 2297887-01 (6.72pH) H1,H3
QC2207040-05	DUP of 2297887-01	Temperature (°C)	19.6	19.6	°C					Splt# 2297887-01 (19.6°C) H1,H3

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 10/31/2022

Sampling Team: Field

QC2207040-06

CCV	pH	9.04	pH	99
CCV	Temperature (°C)	19.8	°C	

QC list for Run#: 2052049 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207073-01	BLK	Total Dissolved Solids	<20		mg/L			13.2	20	
QC2207073-02	DUP of 2297498-01	Total Dissolved Solids	517	520	mg/L	0		13.2	20	Splt# 2297498-01 (517mg/L)
QC2207073-03	DUP of 2297887-05	Total Dissolved Solids	647	651	mg/L	0		13.2	20	Splt# 2297887-05 (647mg/L)
QC2207073-04	LCS	Total Dissolved Solids	101		mg/L	106		13.2	20	

QC list for Run#: 2052061 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207083-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2207083-02	MRL_CK	Hardness, Total, as CaCO3	2.89		mg/L	96				
QC2207083-03	DUP of 2297552-02	Hardness, Total, as CaCO3	17.2	17.2	mg/L	0		0.474	3	Splt# 2297552-02 (17.2mg/L)
QC2207083-04	LCS	Hardness, Total, as CaCO3	39.4		mg/L	98			3	

QC list for Run#: 2052302 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207220-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	
	BLK	Potassium, K	<0.2		mg/L			0.04	0.2	
	BLK	Sodium, Na	<1		mg/L			0.02	1	
QC2207220-02	LCS	Calcium, Ca	1.85		mg/L	92		0.04	1	
	LCS	Magnesium, Mg	1.98		mg/L	99		0.007	0.2	
	LCS	Potassium, K	2		mg/L	99		0.04	0.2	
	LCS	Sodium, Na	2.03		mg/L	102		0.02	1	
QC2207220-03	DUP of 2297498-01	Calcium, Ca	59.1	58.9	mg/L	0		0.04	1	Splt# 2297498-01 (59.1mg/L)
	DUP of 2297498-01	Magnesium, Mg	45.2	44.2	mg/L	2		0.007	0.2	Splt# 2297498-01 (45.2mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297887

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 10/31/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

DUP of 2297498-01	Potassium, K	2.67	2.57	mg/L	3	0.04	0.2	Splt# 2297498-01 (2.67mg/L)
DUP of 2297498-01	Sodium, Na	61.6	60.2	mg/L	2	0.02	1	Splt# 2297498-01 (61.6mg/L)
QC2207220-04								
SPK of 2297498-01	Calcium, Ca	59.1	61.3	mg/L	109	0.04	1	Splt# 2297498-01 (59.1mg/L)
SPK of 2297498-01	Magnesium, Mg	45.2	46.3	mg/L	52	0.007	0.2	Splt# 2297498-01 (45.2mg/L)
SPK of 2297498-01	Potassium, K	2.67	4.68	mg/L	100	0.04	0.2	Splt# 2297498-01 (2.67mg/L)
SPK of 2297498-01	Sodium, Na	61.6	62.5	mg/L	44	0.02	1	Splt# 2297498-01 (61.6mg/L)
QC2207220-05								
SPKD of 2297498-01	Calcium, Ca	59.1	61.1	mg/L	96	0	0.04	1
SPKD of 2297498-01	Magnesium, Mg	45.2	47.3	mg/L	106	2	0.007	0.2
SPKD of 2297498-01	Potassium, K	2.67	4.73	mg/L	103	1	0.04	0.2
SPKD of 2297498-01	Sodium, Na	61.6	63	mg/L	68	0	0.02	1
QC2207220-06								
MRL_CK	Calcium, Ca		<1	mg/L	N/A	0.04	1	
MRL_CK	Magnesium, Mg		<0.2	mg/L	N/A	0.007	0.2	
MRL_CK	Potassium, K		<0.2	mg/L	N/A	0.04	0.2	
MRL_CK	Sodium, Na		<1	mg/L	N/A	0.02	1	
QC2207252-01								
ICV	Potassium, K		1.94	mg/L	96	0.03	0.2	
QC2207252-02								
ICV	Calcium, Ca		10.1	mg/L	102	0.05	1	
ICV	Magnesium, Mg		9.85	mg/L	97	0.01	0.2	
ICV	Sodium, Na		10.3	mg/L	103	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 11/01/2022

Sampling Team: Field

Lab Sample#:	2297888-01	Sample Source:	WSB_CAL-18-230	External ID:					
Date Collected:	11/03/2022 11:27AM	Date Received:	11/03/2022 01:47PM	Sample Matrix:	Aqueous	Location Desc:	GSR_CAL_CUP-18-230, ROW AT COLMA BLVD		
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments		
MBI_IC_ANIONS_A(EPA 300.0 (A))									
Sulfate	36.8	mg/L	0.5	2.5	11/03/2022	2052042	PWARNER		
Nitrate as N	2.42	mg/L	0.17	0.2	11/03/2022	2052042	PWARNER		
SEM_200.7_DW(EPA 200.7)									
Calcium, Ca	37.4	mg/L	0.04	1	11/09/2022	2052302	BTRINH		
Magnesium, Mg	33.8	mg/L	0.007	0.2	11/09/2022	2052302	BTRINH		
Potassium, K	1.76	mg/L	0.04	0.2	11/09/2022	2052302	BTRINH		
Sodium, Na	63.4	mg/L	0.02	1	11/09/2022	2052302	BTRINH		
MBP_ALK(SM 2320 B)									
Alkalinity	174	mg/L	1.19	6	11/03/2022	2052055	ALEE		
MBP_CHLORIDE(SM 4500-CL- D)									
Chloride	115	mg/L		6	11/03/2022	2052056	ALEE		
MBP_COND(SM 2510 B)									
Specific Conductance @25°C	788	µmhos/cm		1	11/03/2022	2052053	ABALALIO		
MBP_HARDNESS_T(SM 2340 C)									
Hardness, Total, as CaCO3	232	mg/L	0.948	6	11/03/2022	2052061	ALEE		
MBP_PH(SM 4500-H+ B)									
pH	6.62	pH			11/03/2022	2052052	ABALALIO	H1, H3	
Temperature (°C)	16.9	°C			11/03/2022	2052052	ABALALIO	H1, H3	
MBP_TDS(SM 2540 C)									
Total Dissolved Solids	449	mg/L	13.2	20	11/07/2022	2052049	DCARDONA		

Lab Sample#:	2297888-02	Sample Source:	WSB_CAL-18-425	External ID:						
Date Collected:	11/03/2022 11:13AM	Date Received:	11/03/2022 01:47PM	Sample Matrix:	Aqueous	Location Desc:	GSR_CAL_CUP-18-425, ROW AT COLMA BLVD			
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments			
MBI_IC_ANIONS_A(EPA 300.0 (A))										
Sulfate	36.8	mg/L	0.5	2.5	11/03/2022	2052042	PWARNER			
Nitrate as N	2.36	mg/L	0.17	0.2	11/03/2022	2052042	PWARNER			
SEM_200.7_DW(EPA 200.7)										
Calcium, Ca	36.7	mg/L	0.04	1	11/09/2022	2052302	BTRINH			
Magnesium, Mg	33.7	mg/L	0.007	0.2	11/09/2022	2052302	BTRINH			
Potassium, K	1.74	mg/L	0.04	0.2	11/09/2022	2052302	BTRINH			
Sodium, Na	63.6	mg/L	0.02	1	11/09/2022	2052302	BTRINH			
MBP_ALK(SM 2320 B)										
Alkalinity	177	mg/L	1.19	6	11/03/2022	2052055	ALEE			
MBP_CHLORIDE(SM 4500-CL- D)										
Chloride	116	mg/L		6	11/03/2022	2052056	ALEE			

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/01/2022

Routine: WSB_SFPUC+Consult.B

Sampling Team: Field

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	781	µmhos/cm		1	11/03/2022	2052053 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	232	mg/L	0.948	6	11/03/2022	2052061 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.64	pH			11/03/2022	2052052 ABALALIO	H1, H3
Temperature (°C)	16.8	°C			11/03/2022	2052052 ABALALIO	H1, H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	427	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	

Lab Sample#: 2297888-03 Sample Source: WSB_CAL-18-490 External ID:

Date Collected: 11/03/2022 10:21AM Date Received: 11/03/2022 01:47PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-18-490, ROW AT COLMA BLVD

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	37.5	mg/L	0.5	2.5	11/03/2022	2052042 PWARNER	
Nitrate as N	2.26	mg/L	0.17	0.2	11/03/2022	2052042 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	38.4	mg/L	0.04	1	11/14/2022	2052446 BTRINH	
Magnesium, Mg	33.8	mg/L	0.007	0.2	11/14/2022	2052446 BTRINH	
Potassium, K	1.93	mg/L	0.04	0.2	11/14/2022	2052446 BTRINH	
Sodium, Na	66.2	mg/L	0.02	1	11/14/2022	2052446 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	175	mg/L	1.19	6	11/03/2022	2052055 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	112	mg/L		6	11/03/2022	2052056 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	782	µmhos/cm		1	11/03/2022	2052053 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	231	mg/L	0.948	6	11/03/2022	2052061 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.68	pH			11/03/2022	2052052 ABALALIO	H1, H3
Temperature (°C)	15.9	°C			11/03/2022	2052052 ABALALIO	H1, H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	444	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	

Lab Sample#: 2297888-04 Sample Source: WSB_CAL-18-595 External ID:

Date Collected: 11/03/2022 10:02AM Date Received: 11/03/2022 01:47PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-18-595, ROW AT COLMA BLVD

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	48.7	mg/L	0.5	2.5	11/03/2022	2052042 PWARNER	
Nitrate as N	2.17	mg/L	0.17	0.2	11/03/2022	2052042 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 11/01/2022

Sampling Team: Field

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	44.1	mg/L	0.04	1	11/14/2022	2052446 BTRINH	
Magnesium, Mg	37.2	mg/L	0.007	0.2	11/14/2022	2052446 BTRINH	
Potassium, K	2.06	mg/L	0.04	0.2	11/14/2022	2052446 BTRINH	
Sodium, Na	66.8	mg/L	0.02	1	11/14/2022	2052446 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	184	mg/L	1.19	6	11/03/2022	2052055 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	123	mg/L		6	11/03/2022	2052056 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	853	µmhos/cm		1	11/03/2022	2052053 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	261	mg/L	0.948	6	11/03/2022	2052061 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.6	pH			11/03/2022	2052052 ABALALIO	H1, H3
Temperature (°C)	16	°C			11/03/2022	2052052 ABALALIO	H1, H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	491	mg/L	13.2	20	11/07/2022	2052049 DCARDONA	

Lab Sample#: 2297888-05 **Sample Source:** WSB_CAL_DUP **External ID:**

Date Collected: 11/03/2022 10:35AM **Date Received:** 11/03/2022 01:47PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-18-595, ROW AT COLMA BLVD

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	49	mg/L	0.5	2.5	11/03/2022	2052042 PWARNER	
Nitrate as N	2.27	mg/L	0.17	0.2	11/03/2022	2052042 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	45	mg/L	0.04	1	11/14/2022	2052446 BTRINH	
Magnesium, Mg	38.6	mg/L	0.007	0.2	11/14/2022	2052446 BTRINH	
Potassium, K	2.14	mg/L	0.04	0.2	11/14/2022	2052446 BTRINH	
Sodium, Na	66.7	mg/L	0.02	1	11/14/2022	2052446 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	186	mg/L	1.19	6	11/03/2022	2052055 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	124	mg/L		6	11/03/2022	2052056 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	851	µmhos/cm		1	11/03/2022	2052053 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	264	mg/L	0.948	6	11/03/2022	2052061 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.56	pH			11/03/2022	2052052 ABALALIO	H1, H3

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 11/01/2022

Sampling Team: Field

<i>Temperature (°C)</i>	16.4	°C			11/03/2022	2052052	ABALALIO	H1, H3
<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>	
<i>Total Dissolved Solids</i>	478	mg/L	13.2	20	11/07/2022	2052049	DCARDONA	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 11/01/2022

Sampling Team: Field

QC list for Run#: 2052042 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207068-01	MRL_CK	Sulfate		0.502	mg/L	100				
	MRL_CK	Nitrate as N		0.0402	mg/L	101				
QC2207068-02	CCV	Sulfate		2.4	mg/L	96				
	CCV	Nitrate as N		0.198	mg/L	99				
QC2207068-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207068-04	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207068-05	LCS	Sulfate		2.62	mg/L	105				
	LCS	Nitrate as N		0.2	mg/L	99				
QC2207068-06	CCV	Sulfate		21.3	mg/L	107				
	CCV	Nitrate as N		1.66	mg/L	104				
QC2207068-07	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207068-08	SPK of 2297589-09	Sulfate	1.36	3.63	mg/L	90				Splt# 2297589-09 (1.36mg/L)
	SPK of 2297589-09	Nitrate as N	0.0484	0.233	mg/L	92				Splt# 2297589-09 (0.0484mg/L)
QC2207068-09	SPKD of 2297589-09	Sulfate	1.36	3.63	mg/L	90	0			Splt# 2297589-09 (1.36mg/L) Calculated RPD Manually
	SPKD of 2297589-09	Nitrate as N	0.0484	0.233	mg/L	92	0			Splt# 2297589-09 (0.0484mg/L) Calculated RPD manually

QC list for Run#: 2052049 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207073-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2207073-02	DUP of 2297498-01	Total Dissolved Solids	517	520	mg/L		0	13.2	20	Splt# 2297498-01 (517mg/L)
QC2207073-03	DUP of 2297887-05	Total Dissolved Solids	647	651	mg/L		0	13.2	20	Splt# 2297887-05 (647mg/L)
QC2207073-04										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 11/01/2022

Sampling Team: Field

LCS Total Dissolved Solids 101 mg/L 106 13.2 20

QC list for Run#: 2052052 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207078-01	CAL	pH		4.01	pH	100				
	CAL	Temperature (°C)		20.1	°C					
QC2207078-02	CAL	pH		7.01	pH	100				
	CAL	Temperature (°C)		20	°C					
QC2207078-03	CAL	pH		10.1	pH	101				
	CAL	Temperature (°C)		20.1	°C					
QC2207078-04	ICV	pH		9.04	pH	99				
	ICV	Temperature (°C)		20.3	°C					
QC2207078-05	DUP of 2297552-01	pH	9.06	9.07	pH		0			Splt# 2297552-01 (9.06pH) H1, H3
	DUP of 2297552-01	Temperature (°C)	16.2	16.2	°C					Splt# 2297552-01 (16.2°C) H1, H3
QC2207078-06	CCV	pH		9.06	pH	100				
	CCV	Temperature (°C)		20	°C					
QC2207078-07	CCV	pH		9.06	pH	100				
	CCV	Temperature (°C)		19.8	°C					

QC list for Run#: 2052053 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207081-01	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2207081-02	MRL CK	Specific Conductance @25°C		9.81	µmhos/cm	98				
QC2207081-03	DUP of 2297552-01	Specific Conductance @25°C	87.7	87.8	µmhos/cm		0		1	Splt# 2297552-01 (87.7µmhos/cm)
QC2207081-04	CCV	Specific Conductance @25°C		96.8	µmhos/cm	96				
QC2207081-05	ICV	Specific Conductance @25°C		153	µmhos/cm	104				
QC2207081-06	CAL	Specific Conductance @25°C		1410	µmhos/cm	100				
QC2207081-07	CCV	Specific Conductance @25°C		1420	µmhos/cm	100				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 11/01/2022

Sampling Team: Field

QC list for Run#: 2052055 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207076-01	BLK	Alkalinity	<3		mg/L			0.593	3	
QC2207076-02	MRL_CK	Alkalinity	3.3		mg/L	110				
QC2207076-03	SPK of 2297552-01	Alkalinity	20.6	61	mg/L	101			3	Splt# 2297552-01 (20.6mg/L)
QC2207076-04	SPKD of 2297552-01	Alkalinity	20.6	62.6	mg/L	105	2		3	Splt# 2297552-01 (20.6mg/L)
QC2207076-06	LCS	Alkalinity	40.4		mg/L	101			3	

QC list for Run#: 2052056 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207077-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2207077-02	MRL_CK	Chloride	2.99		mg/L	99				
QC2207077-03	SPK of 2297552-01	Chloride	7.96	47.5	mg/L	98			3	Splt# 2297552-01 (7.96mg/L)
QC2207077-04	SPKD of 2297552-01	Chloride	7.96	47.6	mg/L	99	0		3	Splt# 2297552-01 (7.96mg/L)
QC2207077-06	LCS	Chloride	39.7		mg/L	99			3	

QC list for Run#: 2052061 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207083-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2207083-02	MRL_CK	Hardness, Total, as CaCO3	2.89		mg/L	96				
QC2207083-03	DUP of 2297552-02	Hardness, Total, as CaCO3	17.2	17.2	mg/L		0	0.474	3	Splt# 2297552-02 (17.2mg/L)
QC2207083-04	LCS	Hardness, Total, as CaCO3	39.4		mg/L	98			3	

QC list for Run#: 2052302 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207220-01	BLK	Calcium, Ca	<1		mg/L			0.04	1	
	BLK	Magnesium, Mg	<0.2		mg/L			0.007	0.2	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 11/01/2022

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current					
BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2207220-02									
LCS	Calcium, Ca		1.85	mg/L	92		0.04	1	
LCS	Magnesium, Mg		1.98	mg/L	99		0.007	0.2	
LCS	Potassium, K		2	mg/L	99		0.04	0.2	
LCS	Sodium, Na		2.03	mg/L	102		0.02	1	
QC2207220-03									
DUP of 2297498-01	Calcium, Ca		59.1	58.9	mg/L	0	0.04	1	Splt# 2297498-01 (59.1mg/L)
DUP of 2297498-01	Magnesium, Mg		45.2	44.2	mg/L	2	0.007	0.2	Splt# 2297498-01 (45.2mg/L)
DUP of 2297498-01	Potassium, K		2.67	2.57	mg/L	3	0.04	0.2	Splt# 2297498-01 (2.67mg/L)
DUP of 2297498-01	Sodium, Na		61.6	60.2	mg/L	2	0.02	1	Splt# 2297498-01 (61.6mg/L)
QC2207220-04									
SPK of 2297498-01	Calcium, Ca		59.1	61.3	mg/L	109	0.04	1	Splt# 2297498-01 (59.1mg/L)
SPK of 2297498-01	Magnesium, Mg		45.2	46.3	mg/L	52	0.007	0.2	Splt# 2297498-01 (45.2mg/L)
SPK of 2297498-01	Potassium, K		2.67	4.68	mg/L	100	0.04	0.2	Splt# 2297498-01 (2.67mg/L)
SPK of 2297498-01	Sodium, Na		61.6	62.5	mg/L	44	0.02	1	Splt# 2297498-01 (61.6mg/L)
QC2207220-05									
SPKD of 2297498-01	Calcium, Ca		59.1	61.1	mg/L	96	0	0.04	1
SPKD of 2297498-01	Magnesium, Mg		45.2	47.3	mg/L	106	2	0.007	0.2
SPKD of 2297498-01	Potassium, K		2.67	4.73	mg/L	103	1	0.04	0.2
SPKD of 2297498-01	Sodium, Na		61.6	63	mg/L	68	0	0.02	1
QC2207220-06									
MRL_CK	Calcium, Ca		<1	mg/L	N/A		0.04	1	
MRL_CK	Magnesium, Mg		<0.2	mg/L	N/A		0.007	0.2	
MRL_CK	Potassium, K		<0.2	mg/L	N/A		0.04	0.2	
MRL_CK	Sodium, Na		<1	mg/L	N/A		0.02	1	
QC2207252-01									
ICV	Potassium, K		1.94	mg/L	96		0.03	0.2	
QC2207252-02									
ICV	Calcium, Ca		10.1	mg/L	102		0.05	1	
ICV	Magnesium, Mg		9.85	mg/L	97		0.01	0.2	
ICV	Sodium, Na		10.3	mg/L	103		0.002	1	

QC list for Run#: 2052446 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current					
QC2207337-01									

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297888

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.B

Scheduled Sample Date: 11/01/2022

Sampling Team: Field

BLK	Calcium, Ca	<1	mg/L		0.04	1			
BLK	Magnesium, Mg	<0.2	mg/L		0.007	0.2			
BLK	Potassium, K	<0.2	mg/L		0.04	0.2			
BLK	Sodium, Na	<1	mg/L		0.02	1			
QC2207337-02									
LCS	Calcium, Ca	1.86	mg/L	93	0.04	1			
LCS	Magnesium, Mg	1.91	mg/L	95	0.007	0.2			
LCS	Potassium, K	2.02	mg/L	101	0.04	0.2			
LCS	Sodium, Na	2.04	mg/L	102	0.02	1			
QC2207337-03									
DUP of 2297888-03	Calcium, Ca	38.4	38.6	mg/L	0	0.04	1	Splt# 2297888-03 (38.4mg/L)	
DUP of 2297888-03	Magnesium, Mg	33.8	33.4	mg/L	0	0.007	0.2	Splt# 2297888-03 (33.8mg/L)	
DUP of 2297888-03	Potassium, K	1.93	1.91	mg/L	0	0.04	0.2	Splt# 2297888-03 (1.93mg/L)	
DUP of 2297888-03	Sodium, Na	66.2	65.5	mg/L	1	0.02	1	Splt# 2297888-03 (66.2mg/L)	
QC2207337-04									
SPK of 2297888-03	Calcium, Ca	38.4	39.5	mg/L	57	0.04	1	Splt# 2297888-03 (38.4mg/L)	
SPK of 2297888-03	Magnesium, Mg	33.8	34.3	mg/L	26	0.007	0.2	Splt# 2297888-03 (33.8mg/L)	
SPK of 2297888-03	Potassium, K	1.93	4	mg/L	104	0.04	0.2	Splt# 2297888-03 (1.93mg/L)	
SPK of 2297888-03	Sodium, Na	66.2	65.6	mg/L	0	0.02	1	Splt# 2297888-03 (66.2mg/L)	
QC2207337-05									
SPKD of 2297888-03	Calcium, Ca	38.4	41.1	mg/L	134	3	0.04	1	Splt# 2297888-03 (38.4mg/L)
SPKD of 2297888-03	Magnesium, Mg	33.8	35.6	mg/L	92	3	0.007	0.2	Splt# 2297888-03 (33.8mg/L)
SPKD of 2297888-03	Potassium, K	1.93	4.12	mg/L	110	3	0.04	0.2	Splt# 2297888-03 (1.93mg/L)
SPKD of 2297888-03	Sodium, Na	66.2	67.6	mg/L	68	3	0.02	1	Splt# 2297888-03 (66.2mg/L)
QC2207337-06									
MRL_CK	Calcium, Ca	<1	mg/L	N/A	0.04	1			
MRL_CK	Magnesium, Mg	<0.2	mg/L	N/A	0.007	0.2			
MRL_CK	Potassium, K	0.238	mg/L	95	0.04	0.2			
MRL_CK	Sodium, Na	<1	mg/L	N/A	0.02	1			
QC2207358-01									
ICV	Potassium, K	1.97	mg/L	98	0.03	0.2			
QC2207358-02									
ICV	Calcium, Ca	10	mg/L	101	0.05	1			
ICV	Magnesium, Mg	9.57	mg/L	94	0.01	0.2			
ICV	Sodium, Na	10.1	mg/L	101	0.002	1			

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297890

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/02/2022

Sampling Team: Field

Lab Sample#: 2297890-01 **Sample Source:** WSB_SF71_PP195 **External ID:**

Date Collected: 11/07/2022 09:57AM **Date Received:** 11/07/2022 11:17AM **Sample Matrix:** Aqueous **Location Desc:** SF #71 - PARK PLAZA MW195

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	130	mg/L	2	10	11/07/2022	2052184 PWARNER	
Nitrate as N	11.1	mg/L	0.68	0.8	11/07/2022	2052184 PWARNER	>MCL
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	96.1	mg/L	0.04	1	11/14/2022	2052446 BTRINH	
Magnesium, Mg	73.4	mg/L	0.007	0.2	11/14/2022	2052446 BTRINH	
Potassium, K	4.27	mg/L	0.04	0.2	11/14/2022	2052446 BTRINH	
Sodium, Na	79.4	mg/L	0.02	1	11/14/2022	2052446 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	331	mg/L	2.96	15	11/07/2022	2052199 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	159	mg/L		15	11/07/2022	2052202 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1400	µmhos/cm		1	11/07/2022	2052211 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	545	mg/L	2.37	15	11/07/2022	2052206 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7.08	pH			11/07/2022	2052216 ABALALIO	H1,H3
Temperature (°C)	19.7	°C			11/07/2022	2052216 ABALALIO	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	784	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	>MCL

Lab Sample#: 2297890-02 **Sample Source:** WSB_SF50_PP460 **External ID:**

Date Collected: 11/07/2022 09:14AM **Date Received:** 11/07/2022 11:17AM **Sample Matrix:** Aqueous **Location Desc:** SF#50 - PARK PLAZA MW460

Test/Analyte

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	68.2	mg/L	0.5	2.5	11/07/2022	2052184 PWARNER	
Nitrate as N	6.87	mg/L	0.17	0.2	11/07/2022	2052184 PWARNER	
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	55	mg/L	0.04	1	11/14/2022	2052446 BTRINH	
Magnesium, Mg	54.3	mg/L	0.007	0.2	11/14/2022	2052446 BTRINH	
Potassium, K	2.27	mg/L	0.04	0.2	11/14/2022	2052446 BTRINH	
Sodium, Na	57.7	mg/L	0.02	1	11/14/2022	2052446 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	307	mg/L	1.19	6	11/07/2022	2052199 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	65.1	mg/L		6	11/07/2022	2052202 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297890

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/02/2022

Sampling Team: Field

MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	926	µmhos/cm		1	11/07/2022	2052211 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	356	mg/L	0.948	6	11/07/2022	2052206 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.1	pH			11/07/2022	2052216 ABALALIO	H1,H3
Temperature (°C)	19.4	°C			11/07/2022	2052216 ABALALIO	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	502	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	>MCL

Lab Sample#: 2297890-03 **Sample Source:** WSB_SF51_PP620 **External ID:**

Date Collected: 11/07/2022 09:42AM **Date Received:** 11/07/2022 11:17AM **Sample Matrix:** Aqueous **Location Desc:** SF#51 - PARK PLAZA MW620

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	62.8	mg/L	0.5	2.5	11/07/2022	2052184 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	38.6	mg/L	0.04	1	11/14/2022	2052446 BTRINH	
Magnesium, Mg	32.9	mg/L	0.007	0.2	11/14/2022	2052446 BTRINH	
Potassium, K	2.39	mg/L	0.04	0.2	11/14/2022	2052446 BTRINH	
Sodium, Na	48.3	mg/L	0.02	1	11/14/2022	2052446 BTRINH	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	172	mg/L	1.19	6	11/07/2022	2052199 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	82	mg/L		6	11/07/2022	2052202 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	704	µmhos/cm		1	11/07/2022	2052211 ABALALIO	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	233	mg/L	0.948	6	11/07/2022	2052206 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.78	pH			11/07/2022	2052216 ABALALIO	H1,H3
Temperature (°C)	19.5	°C			11/07/2022	2052216 ABALALIO	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	377	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	

Lab Sample#: 2297890-03A **Sample Source:** WSB_SF51_PP620 **External ID:**

Date Collected: 11/07/2022 09:42AM **Date Received:** 11/07/2022 11:17AM **Sample Matrix:** Aqueous **Location Desc:** SF#51 - PARK PLAZA MW620

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Nitrate as N	<0.04	mg/L	0.034	0.04	11/07/2022	2052184 PWARNER	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297890

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/02/2022

Sampling Team: Field

Lab Sample#: 2297890-04 **Sample Source:** WSB_SF_DUP **External ID:**

Date Collected: 11/07/2022 10:15AM **Date Received:** 11/07/2022 11:17AM **Sample Matrix:** Aqueous **Location Desc:** SF #71 - PARK PLAZA MW195

Test/Analyte

<u>Test/Analyte</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	127	mg/L	2	10	11/07/2022	2052184 PWARNER	
Nitrate as N	10.9	mg/L	0.68	0.8	11/07/2022	2052184 PWARNER	>MCL
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	97.1	mg/L	0.04	1	11/14/2022	2052446 BTRINH	
Magnesium, Mg	76.1	mg/L	0.007	0.2	11/14/2022	2052446 BTRINH	
Potassium, K	4.37	mg/L	0.04	0.2	11/14/2022	2052446 BTRINH	
Sodium, Na	81	mg/L	0.02	1	11/14/2022	2052446 BTRINH	
MBP_ALK(SM 2320 B)							
Alkalinity	332	mg/L	2.96	15	11/07/2022	2052199 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	158	mg/L		15	11/07/2022	2052202 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	1400	µmhos/cm		1	11/07/2022	2052211 ABALALIO	>MCL
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	548	mg/L	2.37	15	11/07/2022	2052206 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	7.07	pH			11/07/2022	2052216 ABALALIO	H1,H3
Temperature (°C)	19.7	°C			11/07/2022	2052216 ABALALIO	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	770	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	>MCL

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297890

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/02/2022

Sampling Team: Field

QC list for Run#: 2052184 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207174-01	MRL_CK	Sulfate		0.525	mg/L	105				
	MRL_CK	Nitrate as N		0.0415	mg/L	104				
QC2207174-02	CCV	Sulfate		2.42	mg/L	96				
	CCV	Nitrate as N		0.195	mg/L	98				
QC2207174-03	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207174-04	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207174-05	LCS	Sulfate		2.38	mg/L	95				
	LCS	Nitrate as N		0.194	mg/L	97				
QC2207174-06	CCV	Sulfate		21.7	mg/L	108				
	CCV	Nitrate as N		1.68	mg/L	105				
QC2207174-07	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207174-08	SPK of 2297570-03	Sulfate	14.2	16.9	mg/L	111				Splt# 2297570-03 (14.2mg/L)
	SPK of 2297570-03	Nitrate as N	0.0875	0.279	mg/L	96				Splt# 2297570-03 (0.0875mg/L)
QC2207174-09	SPKD of 2297570-03	Sulfate	14.2	17	mg/L	113	0			Splt# 2297570-03 (14.2mg/L)
	SPKD of 2297570-03	Nitrate as N	0.0875	0.281	mg/L	97	0			Splt# 2297570-03 (0.0875mg/L)

QC list for Run#: 2052199 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207183-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2207183-02	MRL_CK	Alkalinity		3.14	mg/L	105				
QC2207183-03	SPK of 2297570-03	Alkalinity	34.4	75.2	mg/L	102			3	Splt# 2297570-03 (34.4mg/L)
QC2207183-04	SPKD of 2297570-03	Alkalinity	34.4	72.9	mg/L	96	3		3	Splt# 2297570-03 (34.4mg/L)

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Water Quality Laboratory

FOLDER ID: 2297890

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/02/2022

Sampling Team: Field

QC2207183-06

LCS	Alkalinity	40.4	mg/L	101	3
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QC list for Run#: 2052202 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207185-01	BLK	Chloride	<3		mg/L			1.16	3	
QC2207185-02	MRL CK	Chloride	2.96		mg/L	98				
QC2207185-03	SPK of 2297570-03	Chloride	11.4	51	mg/L	99			3	Splt# 2297570-03 (11.4mg/L)
QC2207185-04	SPKD of 2297570-03	Chloride	11.4	51.2	mg/L	99	0		3	Splt# 2297570-03 (11.4mg/L)
QC2207185-06	LCS	Chloride	40		mg/L	99			3	

QC list for Run#: 2052206 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207188-01	BLK	Hardness, Total, as CaCO3	<3		mg/L			0.474	3	
QC2207188-02	MRL CK	Hardness, Total, as CaCO3	2.96		mg/L	98				
QC2207188-03	DUP of 2297570-03	Hardness, Total, as CaCO3	40.2	40.7	mg/L		1	0.474	3	Splt# 2297570-03 (40.2mg/L)
QC2207188-04	LCS	Hardness, Total, as CaCO3	39.9		mg/L	99			3	

QC list for Run#: 2052211 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207192-01	BLK	Specific Conductance @25°C	<1		µmhos/cm				1	
QC2207192-02	MRL CK	Specific Conductance @25°C	9.96		µmhos/cm	99				
QC2207192-03	DUP of 2297540-01	Specific Conductance @25°C	65.4	65.6	µmhos/cm		0		1	Splt# 2297540-01 (65.4µmhos/cm)
QC2207192-04	CCV	Specific Conductance @25°C	97.9		µmhos/cm	97				
QC2207192-05	ICV	Specific Conductance @25°C	153		µmhos/cm	104				
QC2207192-06	CAL	Specific Conductance @25°C	1410		µmhos/cm	100				
QC2207192-07	CCV	Specific Conductance @25°C	1420		µmhos/cm	100				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297890

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/02/2022

Sampling Team: Field

QC list for Run#: 2052216 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207195-04	ICV	pH		9.04	pH	99				
	ICV	Temperature (°C)		19.9	°C					
QC2207195-05	DUP of 2297560-02	pH	9.16	9.17	pH		0			Splt# 2297560-02 (9.16pH) H1,H3
	DUP of 2297560-02	Temperature (°C)	18.9	18.8	°C					Splt# 2297560-02 (18.9°C) H1,H3
QC2207195-06	CCV	pH		9.04	pH	99				
	CCV	Temperature (°C)		19.8	°C					
QC2207195-07	CCV	pH		9.04	pH	99				
	CCV	Temperature (°C)		19.7	°C					

QC list for Run#: 2052367 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207301-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2207301-02	DUP of 2298199-01	Total Dissolved Solids	51	48	mg/L		6	13.2	20	Splt# 2298199-01 (51mg/L)
QC2207301-03	DUP of 2297891-05	Total Dissolved Solids	506	504	mg/L		0	13.2	20	Splt# 2297891-05 (506mg/L)
QC2207301-04	LCS	Total Dissolved Solids		89	mg/L	93		13.2	20	

QC list for Run#: 2052446 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207337-01	BLK	Calcium, Ca		<1	mg/L			0.04	1	
	BLK	Magnesium, Mg		<0.2	mg/L			0.007	0.2	
	BLK	Potassium, K		<0.2	mg/L			0.04	0.2	
	BLK	Sodium, Na		<1	mg/L			0.02	1	
QC2207337-02	LCS	Calcium, Ca		1.86	mg/L	93		0.04	1	
	LCS	Magnesium, Mg		1.91	mg/L	95		0.007	0.2	
	LCS	Potassium, K		2.02	mg/L	101		0.04	0.2	
	LCS	Sodium, Na		2.04	mg/L	102		0.02	1	
QC2207337-03	DUP of 2297888-03	Calcium, Ca	38.4	38.6	mg/L		0	0.04	1	Splt# 2297888-03 (38.4mg/L)
	DUP of 2297888-03	Magnesium, Mg	33.8	33.4	mg/L		0	0.007	0.2	Splt# 2297888-03 (33.8mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297890

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/02/2022

Sampling Team: Field

DUP of 2297888-03	Potassium, K	1.93	1.91	mg/L	0	0.04	0.2	Splt# 2297888-03 (1.93mg/L)
DUP of 2297888-03	Sodium, Na	66.2	65.5	mg/L	1	0.02	1	Splt# 2297888-03 (66.2mg/L)
QC2207337-04								
SPK of 2297888-03	Calcium, Ca	38.4	39.5	mg/L	57	0.04	1	Splt# 2297888-03 (38.4mg/L)
SPK of 2297888-03	Magnesium, Mg	33.8	34.3	mg/L	26	0.007	0.2	Splt# 2297888-03 (33.8mg/L)
SPK of 2297888-03	Potassium, K	1.93	4	mg/L	104	0.04	0.2	Splt# 2297888-03 (1.93mg/L)
SPK of 2297888-03	Sodium, Na	66.2	65.6	mg/L	0	0.02	1	Splt# 2297888-03 (66.2mg/L)
QC2207337-05								
SPKD of 2297888-03	Calcium, Ca	38.4	41.1	mg/L	134	3	0.04	1
SPKD of 2297888-03	Magnesium, Mg	33.8	35.6	mg/L	92	3	0.007	0.2
SPKD of 2297888-03	Potassium, K	1.93	4.12	mg/L	110	3	0.04	0.2
SPKD of 2297888-03	Sodium, Na	66.2	67.6	mg/L	68	3	0.02	1
QC2207337-06								
MRL_CK	Calcium, Ca		<1	mg/L	N/A	0.04	1	
MRL_CK	Magnesium, Mg		<0.2	mg/L	N/A	0.007	0.2	
MRL_CK	Potassium, K		0.238	mg/L	95	0.04	0.2	
MRL_CK	Sodium, Na		<1	mg/L	N/A	0.02	1	
QC2207358-01								
ICV	Potassium, K		1.97	mg/L	98	0.03	0.2	
QC2207358-02								
ICV	Calcium, Ca		10	mg/L	101	0.05	1	
ICV	Magnesium, Mg		9.57	mg/L	94	0.01	0.2	
ICV	Sodium, Na		10.1	mg/L	101	0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#: 2297891-01 Sample Source: WSB_CAL-31A-145 External ID:

Date Collected: 11/09/2022 11:07AM Date Received: 11/09/2022 12:22PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-31-145

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	53.6	mg/L	0.5	2.5	11/09/2022	2052349 PWARNER	
Nitrate as N	1.06	mg/L	0.17	0.2	11/09/2022	2052349 PWARNER	

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	69.8	mg/L	0.04	1	11/16/2022	2052641 BTRINH	
Magnesium, Mg	59.8	mg/L	0.007	0.2	11/16/2022	2052641 BTRINH	
Potassium, K	4.03	mg/L	0.04	0.2	11/16/2022	2052641 BTRINH	
Sodium, Na	79.4	mg/L	0.02	1	11/16/2022	2052641 BTRINH	

MBO_524_VOC(EPA 524.2)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Vinyl chloride	<0.5	µg/L	0.1	0.5	11/10/2022	2052432 GKWONG	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	11/10/2022	2052432 GKWONG	
Methylene chloride	<0.5	µg/L	0.058	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	11/10/2022	2052432 GKWONG	
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	11/10/2022	2052432 GKWONG	
Methyl t-butyl ether	<3	µg/L	0.106	3	11/10/2022	2052432 GKWONG	
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	11/10/2022	2052432 GKWONG	
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	11/10/2022	2052432 GKWONG	
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	11/10/2022	2052432 GKWONG	
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
Benzene	<0.5	µg/L	0.061	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	11/10/2022	2052432 GKWONG	
Trichloroethylene	<0.5	µg/L	0.093	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	11/10/2022	2052432 GKWONG	
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	11/10/2022	2052432 GKWONG	
Toluene	<0.5	µg/L	0.118	0.5	11/10/2022	2052432 GKWONG	
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
Tetrachloroethylene	<0.5	µg/L	0.114	0.5	11/10/2022	2052432 GKWONG	
Chlorobenzene	<0.5	µg/L	0.185	0.5	11/10/2022	2052432 GKWONG	
Ethylbenzene	<0.5	µg/L	0.05	0.5	11/10/2022	2052432 GKWONG	
m,p-Xylene	<0.5	µg/L	0.151	0.5	11/10/2022	2052432 GKWONG	
o-Xylene	<0.5	µg/L	0.076	0.5	11/10/2022	2052432 GKWONG	
Styrene	<0.5	µg/L	0.053	0.5	11/10/2022	2052432 GKWONG	
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	11/10/2022	2052432 GKWONG	
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	11/10/2022	2052432 GKWONG	
Xylene (total: p, m, o)	<0.5	µg/L		0.5	11/10/2022	2052432 GKWONG	

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Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

Internal Standard(s)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Fluorobenzene (IS)	1	µg/L			11/10/2022	2052432 GKWONG	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.89	µg/L			11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene d- (Surr.)	0.8	µg/L			11/10/2022	2052432 GKWONG	
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	452	mg/L	1.19	6	11/09/2022	2052370 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	45.9	mg/L		6	11/09/2022	2052373 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	1030	µmhos/cm		1	11/09/2022	2052368 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	402	mg/L	0.948	6	11/09/2022	2052374 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	6.68	pH			11/09/2022	2052371 DCARDONA	H1,H3
Temperature (°C)	19.4	°C			11/09/2022	2052371 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	584	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	>MCL
Lab Sample#: 2297891-02	Sample Source: WSB_CAL-31A-280	External ID:					
Date Collected: 11/09/2022 10:39AM	Date Received: 11/09/2022 12:22PM	Sample Matrix: Aqueous	Location Desc: GSR_CAL_CUP-31-280				
Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	75.4	mg/L	1	5	11/09/2022	2052349 PWARNER	
Nitrate as N	4.05	mg/L	0.34	0.4	11/09/2022	2052349 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	51.3	mg/L	0.04	1	11/16/2022	2052641 BTRINH	
Magnesium, Mg	44.2	mg/L	0.007	0.2	11/16/2022	2052641 BTRINH	
Potassium, K	2.9	mg/L	0.04	0.2	11/16/2022	2052641 BTRINH	
Sodium, Na	69.9	mg/L	0.02	1	11/16/2022	2052641 BTRINH	
MBO_524_VOC(EPA 524.2)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Vinyl chloride	<0.5	µg/L	0.1	0.5	11/10/2022	2052432 GKWONG	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	11/10/2022	2052432 GKWONG	
Methylene chloride	<0.5	µg/L	0.058	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	11/10/2022	2052432 GKWONG	
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	11/10/2022	2052432 GKWONG	
Methyl t-butyl ether	<3	µg/L	0.106	3	11/10/2022	2052432 GKWONG	
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	11/10/2022	2052432 GKWONG	
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	11/10/2022	2052432 GKWONG	
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	11/10/2022	2052432 GKWONG	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
Benzene	<0.5	µg/L	0.061	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	11/10/2022	2052432 GKWONG	
Trichloroethylene	2.55	µg/L	0.093	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	11/10/2022	2052432 GKWONG	
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	11/10/2022	2052432 GKWONG	
Toluene	<0.5	µg/L	0.118	0.5	11/10/2022	2052432 GKWONG	
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
Chlorobenzene	<0.5	µg/L	0.185	0.5	11/10/2022	2052432 GKWONG	
Ethylbenzene	<0.5	µg/L	0.05	0.5	11/10/2022	2052432 GKWONG	
m,p-Xylene	<0.5	µg/L	0.151	0.5	11/10/2022	2052432 GKWONG	
o-Xylene	<0.5	µg/L	0.076	0.5	11/10/2022	2052432 GKWONG	
Styrene	<0.5	µg/L	0.053	0.5	11/10/2022	2052432 GKWONG	
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	11/10/2022	2052432 GKWONG	
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	11/10/2022	2052432 GKWONG	
Xylene (total: p, m, o)	<0.5	µg/L		0.5	11/10/2022	2052432 GKWONG	
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			11/10/2022	2052432 GKWONG	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.9	µg/L			11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene d- (Surr.)	0.86	µg/L			11/10/2022	2052432 GKWONG	

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	311	mg/L	1.19	6	11/09/2022	2052370 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	46.6	mg/L		6	11/09/2022	2052373 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	881	µmhos/cm		1	11/09/2022	2052368 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	310	mg/L	0.948	6	11/09/2022	2052374 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	6.9	pH			11/09/2022	2052371 DCARDONA	H1,H3
Temperature (°C)	19.1	°C			11/09/2022	2052371 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	505	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	>MCL

Lab Sample#: 2297891-02A Sample Source: WSB_CAL-31A-280 External ID:

Date Collected: 11/09/2022 10:39AM Date Received: 11/09/2022 12:22PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-31-280

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBO_524_VOC(EPA 524.2)							

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Tetrachloroethylene	204	µg/L	1.14	5	11/10/2022	2052432 GKWONG	>MCL
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			11/10/2022	2052432 GKWONG	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.82	µg/L			11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene d- (Surr.)	0.97	µg/L			11/10/2022	2052432 GKWONG	

Lab Sample#: 2297891-03 **Sample Source:** WSB_CAL-31A-480 **External ID:**

Date Collected: 11/09/2022 09:55AM **Date Received:** 11/09/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-480

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBI_IC_ANIONS_A(EPA 300.0 (A))							
Sulfate	<0.5	mg/L	0.1	0.5	11/09/2022	2052349 PWARNER	
Nitrate as N	<0.04	mg/L	0.034	0.04	11/09/2022	2052349 PWARNER	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
SEM_200.7_DW(EPA 200.7)							
Calcium, Ca	32.5	mg/L	0.04	1	11/16/2022	2052641 BTRINH	
Magnesium, Mg	39.8	mg/L	0.007	0.2	11/16/2022	2052641 BTRINH	
Sodium, Na	54.9	mg/L	0.02	1	11/16/2022	2052641 BTRINH	

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBO_524_VOC(EPA 524.2)							
Vinyl chloride	<0.5	µg/L	0.1	0.5	11/10/2022	2052432 GKWONG	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	11/10/2022	2052432 GKWONG	
Methylene chloride	<0.5	µg/L	0.058	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	11/10/2022	2052432 GKWONG	
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	11/10/2022	2052432 GKWONG	
Methyl t-butyl ether	<3	µg/L	0.106	3	11/10/2022	2052432 GKWONG	
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	11/10/2022	2052432 GKWONG	
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	11/10/2022	2052432 GKWONG	
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	11/10/2022	2052432 GKWONG	
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
Benzene	<0.5	µg/L	0.061	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	11/10/2022	2052432 GKWONG	
Trichloroethylene	<0.5	µg/L	0.093	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	11/10/2022	2052432 GKWONG	
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	11/10/2022	2052432 GKWONG	
Toluene	<0.5	µg/L	0.118	0.5	11/10/2022	2052432 GKWONG	
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
Tetrachloroethylene	<0.5	µg/L	0.114	0.5	11/10/2022	2052432 GKWONG	
Chlorobenzene	<0.5	µg/L	0.185	0.5	11/10/2022	2052432 GKWONG	
Ethylbenzene	<0.5	µg/L	0.05	0.5	11/10/2022	2052432 GKWONG	
m,p-Xylene	<0.5	µg/L	0.151	0.5	11/10/2022	2052432 GKWONG	
o-Xylene	<0.5	µg/L	0.076	0.5	11/10/2022	2052432 GKWONG	
Styrene	<0.5	µg/L	0.053	0.5	11/10/2022	2052432 GKWONG	
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP 1721

Water Quality Laboratory

MILLBRAE 1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Test/Analyte	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	11/10/2022	2052432 GKWONG	
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	11/10/2022	2052432 GKWONG	
Xylene (total: p, m, o)	<0.5	µg/L		0.5	11/10/2022	2052432 GKWONG	
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			11/10/2022	2052432 GKWONG	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.87	µg/L			11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene d- (Surr.)	0.76	µg/L			11/10/2022	2052432 GKWONG	

MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	348	mg/L	1.19	6	11/09/2022	2052370 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	38.9	mg/L		6	11/09/2022	2052373 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	762	µmhos/cm		1	11/09/2022	2052368 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	244	mg/L	0.948	6	11/09/2022	2052374 ALEE	
MBP_PH(SM 4500-H+ B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
pH	7.29	pH			11/09/2022	2052371 DCARDONA	H1,H3
Temperature (°C)	19.1	°C			11/09/2022	2052371 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Total Dissolved Solids	403	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	

Lab Sample#: 2297891-03B Sample Source: WSB_CAL-31A-480 External ID:

Date Collected: 11/09/2022 09:55AM Date Received: 11/09/2022 12:22PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-31-480

Test/Analyte

SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Potassium, K	11.1	mg/L	0.2	1	11/16/2022	2052641 BTRINH	

Lab Sample#: 2297891-04 Sample Source: WSB_CAL-31A-595 External ID:

Date Collected: 11/09/2022 09:47AM Date Received: 11/09/2022 12:22PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-31-595

Test/Analyte

MBI_IC_ANIONS_A(EPA 300.0 (A))	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Sulfate	202	mg/L	2	10	11/09/2022	2052349 PWARNER	
SEM_200.7_DW(EPA 200.7)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Calcium, Ca	106	mg/L	0.04	1	11/16/2022	2052641 BTRINH	
Magnesium, Mg	50.2	mg/L	0.007	0.2	11/16/2022	2052641 BTRINH	
Potassium, K	4.58	mg/L	0.04	0.2	11/16/2022	2052641 BTRINH	
Sodium, Na	96.7	mg/L	0.02	1	11/16/2022	2052641 BTRINH	
MBO_524_VOC(EPA 524.2)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Vinyl chloride	<0.5	µg/L	0.1	0.5	11/10/2022	2052432 GKWONG	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	11/10/2022	2052432	GKWONG
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	11/10/2022	2052432	GKWONG
Methylene chloride	<0.5	µg/L	0.058	0.5	11/10/2022	2052432	GKWONG
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	11/10/2022	2052432	GKWONG
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	11/10/2022	2052432	GKWONG
Methyl t-butyl ether	<3	µg/L	0.106	3	11/10/2022	2052432	GKWONG
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	11/10/2022	2052432	GKWONG
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	11/10/2022	2052432	GKWONG
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	11/10/2022	2052432	GKWONG
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	11/10/2022	2052432	GKWONG
Benzene	<0.5	µg/L	0.061	0.5	11/10/2022	2052432	GKWONG
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	11/10/2022	2052432	GKWONG
Trichloroethylene	<0.5	µg/L	0.093	0.5	11/10/2022	2052432	GKWONG
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	11/10/2022	2052432	GKWONG
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	11/10/2022	2052432	GKWONG
Toluene	<0.5	µg/L	0.118	0.5	11/10/2022	2052432	GKWONG
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	11/10/2022	2052432	GKWONG
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	11/10/2022	2052432	GKWONG
Tetrachloroethylene	<0.5	µg/L	0.114	0.5	11/10/2022	2052432	GKWONG
Chlorobenzene	<0.5	µg/L	0.185	0.5	11/10/2022	2052432	GKWONG
Ethylbenzene	<0.5	µg/L	0.05	0.5	11/10/2022	2052432	GKWONG
m,p-Xylene	<0.5	µg/L	0.151	0.5	11/10/2022	2052432	GKWONG
o-Xylene	<0.5	µg/L	0.076	0.5	11/10/2022	2052432	GKWONG
Styrene	<0.5	µg/L	0.053	0.5	11/10/2022	2052432	GKWONG
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	11/10/2022	2052432	GKWONG
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	11/10/2022	2052432	GKWONG
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	11/10/2022	2052432	GKWONG
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	11/10/2022	2052432	GKWONG
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	11/10/2022	2052432	GKWONG
Xylene (total: p, m, o)	<0.5	µg/L		0.5	11/10/2022	2052432	GKWONG
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			11/10/2022	2052432	GKWONG
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.91	µg/L			11/10/2022	2052432	GKWONG
1,2-Dichlorobenzene d- (Surr.)	0.97	µg/L			11/10/2022	2052432	GKWONG
MBP_ALK(SM 2320 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Alkalinity	235	mg/L	2.96	15	11/09/2022	2052370 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chloride	177	mg/L		15	11/09/2022	2052373 ALEE	
MBP_COND(SM 2510 B)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Specific Conductance @25°C	1370	µmhos/cm		1	11/09/2022	2052368 DCARDONA	>MCL
MBP_HARDNESS_T(SM 2340 C)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Hardness, Total, as CaCO3	466	mg/L	2.37	15	11/09/2022	2052374 ALEE	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

<i>MBP_PH(SM 4500-H+ B)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
pH	7.11	pH			11/09/2022	2052371 DCARDONA	H1,H3
Temperature (°C)	19	°C			11/09/2022	2052371 DCARDONA	H1,H3

<i>MBP_TDS(SM 2540 C)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Total Dissolved Solids	825	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	>MCL

Lab Sample#: 2297891-04A **Sample Source:** WSB_CAL-31A-595 **External ID:**

Date Collected: 11/09/2022 09:47AM **Date Received:** 11/09/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-595

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Nitrate as N	<0.04	mg/L	0.034	0.04	11/09/2022	2052349 PWARNER	

Lab Sample#: 2297891-05 **Sample Source:** WSB_CAL_DUP **External ID:**

Date Collected: 11/09/2022 10:54AM **Date Received:** 11/09/2022 12:22PM **Sample Matrix:** Aqueous **Location Desc:** GSR_CAL_CUP-31-280

Test/Analyte

<i>MBI_IC_ANIONS_A(EPA 300.0 (A))</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Sulfate	73.6	mg/L	1	5	11/09/2022	2052349 PWARNER	
Nitrate as N	3.96	mg/L	0.34	0.4	11/09/2022	2052349 PWARNER	

<i>SEM_200.7_DW(EPA 200.7)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Calcium, Ca	51.8	mg/L	0.04	1	11/16/2022	2052641 BTRINH	
Magnesium, Mg	44.4	mg/L	0.007	0.2	11/16/2022	2052641 BTRINH	
Potassium, K	2.83	mg/L	0.04	0.2	11/16/2022	2052641 BTRINH	
Sodium, Na	71.3	mg/L	0.02	1	11/16/2022	2052641 BTRINH	

<i>MBO_524_VOC(EPA 524.2)</i>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>MRL</u>	<u>Analysis Date</u>	<u>Run#/Analyst</u>	<u>Flag/Comments</u>
Vinyl chloride	<0.5	µg/L	0.1	0.5	11/10/2022	2052432 GKWONG	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	11/10/2022	2052432 GKWONG	
Methylene chloride	<0.5	µg/L	0.058	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	11/10/2022	2052432 GKWONG	
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	11/10/2022	2052432 GKWONG	
Methyl t-butyl ether	<3	µg/L	0.106	3	11/10/2022	2052432 GKWONG	
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	11/10/2022	2052432 GKWONG	
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	11/10/2022	2052432 GKWONG	
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	11/10/2022	2052432 GKWONG	
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
Benzene	<0.5	µg/L	0.061	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	11/10/2022	2052432 GKWONG	
Trichloroethylene	2.43	µg/L	0.093	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	11/10/2022	2052432 GKWONG	
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	11/10/2022	2052432 GKWONG	
Toluene	<0.5	µg/L	0.118	0.5	11/10/2022	2052432 GKWONG	
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Compound	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Chlorobenzene	<0.5	µg/L	0.185	0.5	11/10/2022	2052432 GKWONG	
Ethylbenzene	<0.5	µg/L	0.05	0.5	11/10/2022	2052432 GKWONG	
m,p-Xylene	<0.5	µg/L	0.151	0.5	11/10/2022	2052432 GKWONG	
o-Xylene	<0.5	µg/L	0.076	0.5	11/10/2022	2052432 GKWONG	
Styrene	<0.5	µg/L	0.053	0.5	11/10/2022	2052432 GKWONG	
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	11/10/2022	2052432 GKWONG	
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	11/10/2022	2052432 GKWONG	
Xylene (total: p, m, o)	<0.5	µg/L		0.5	11/10/2022	2052432 GKWONG	
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			11/10/2022	2052432 GKWONG	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.78	µg/L			11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene d- (Surr.)	0.85	µg/L			11/10/2022	2052432 GKWONG	

Parameter	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBP_ALK(SM 2320 B)							
Alkalinity	311	mg/L	1.19	6	11/09/2022	2052370 ALEE	
MBP_CHLORIDE(SM 4500-CL- D)							
Chloride	46.4	mg/L		6	11/09/2022	2052373 ALEE	
MBP_COND(SM 2510 B)							
Specific Conductance @25°C	879	µmhos/cm		1	11/09/2022	2052368 DCARDONA	
MBP_HARDNESS_T(SM 2340 C)							
Hardness, Total, as CaCO3	311	mg/L	0.948	6	11/09/2022	2052374 ALEE	
MBP_PH(SM 4500-H+ B)							
pH	6.89	pH			11/09/2022	2052371 DCARDONA	H1,H3
Temperature (°C)	19.3	°C			11/09/2022	2052371 DCARDONA	H1,H3
MBP_TDS(SM 2540 C)							
Total Dissolved Solids	506	mg/L	13.2	20	11/14/2022	2052367 ABALALIO	>MCL

Lab Sample#: 2297891-05A Sample Source: WSB_CAL_DUP External ID:

Date Collected: 11/09/2022 10:54AM Date Received: 11/09/2022 12:22PM Sample Matrix: Aqueous Location Desc: GSR_CAL_CUP-31-280

Test/Analyte

Compound	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
MBO_524_VOC(EPA 524.2)							
Tetrachloroethylene	144	µg/L	1.14	5	11/10/2022	2052432 GKWONG	>MCL
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			11/10/2022	2052432 GKWONG	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.78	µg/L			11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene d- (Surr.)	0.92	µg/L			11/10/2022	2052432 GKWONG	

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SEWPCP

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Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Lab Sample#: 2297891-06 Sample Source: QC_TRIP_BLANK External ID:

Date Collected: 11/07/2022 11:00AM Date Received: 11/09/2022 12:22PM Sample Matrix: Aqueous Location Desc: TRIP_BLANK_GSR_CAL_CUP-31

Test/Analyte

MBO_524_VOC(EPA 524.2)	Result	Unit	MDL	MRL	Analysis Date	Run#/Analyst	Flag/Comments
Vinyl chloride	<0.5	µg/L	0.1	0.5	11/10/2022	2052432 GKWONG	
Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5	11/10/2022	2052432 GKWONG	
Methylene chloride	<0.5	µg/L	0.058	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.5	µg/L	0.114	0.5	11/10/2022	2052432 GKWONG	
trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5	11/10/2022	2052432 GKWONG	
Methyl t-butyl ether	<3	µg/L	0.106	3	11/10/2022	2052432 GKWONG	
1,1-Dichloroethane	<0.5	µg/L	0.192	0.5	11/10/2022	2052432 GKWONG	
cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5	11/10/2022	2052432 GKWONG	
1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5	11/10/2022	2052432 GKWONG	
Carbon tetrachloride	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
Benzene	<0.5	µg/L	0.061	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloroethane	<0.5	µg/L	0.115	0.5	11/10/2022	2052432 GKWONG	
Trichloroethylene	<0.5	µg/L	0.093	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichloropropane	<0.5	µg/L	0.073	0.5	11/10/2022	2052432 GKWONG	
cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5	11/10/2022	2052432 GKWONG	
Toluene	<0.5	µg/L	0.118	0.5	11/10/2022	2052432 GKWONG	
trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5	11/10/2022	2052432 GKWONG	
1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5	11/10/2022	2052432 GKWONG	
Tetrachloroethylene	<0.5	µg/L	0.114	0.5	11/10/2022	2052432 GKWONG	
Chlorobenzene	<0.5	µg/L	0.185	0.5	11/10/2022	2052432 GKWONG	
Ethylbenzene	<0.5	µg/L	0.05	0.5	11/10/2022	2052432 GKWONG	
m,p-Xylene	<0.5	µg/L	0.151	0.5	11/10/2022	2052432 GKWONG	
o-Xylene	<0.5	µg/L	0.076	0.5	11/10/2022	2052432 GKWONG	
Styrene	<0.5	µg/L	0.053	0.5	11/10/2022	2052432 GKWONG	
1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5	11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5	11/10/2022	2052432 GKWONG	
1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5	11/10/2022	2052432 GKWONG	
1,3-Dichloropropene Total (cis+ trans)	<0.5	µg/L	0.5	0.5	11/10/2022	2052432 GKWONG	
Xylene (total: p, m, o)	<0.5	µg/L		0.5	11/10/2022	2052432 GKWONG	
Internal Standard(s)							
Fluorobenzene (IS)	1	µg/L			11/10/2022	2052432 GKWONG	
Surrogate(s)							
p-Bromofluorobenzene (Surr.)	0.85	µg/L			11/10/2022	2052432 GKWONG	
1,2-Dichlorobenzene d- (Surr.)	0.82	µg/L			11/10/2022	2052432 GKWONG	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

QC list for Run#: 2052349 and Test: MBI_IC_ANIONS_A (EPA 300.0 (A))

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207289-01	MRL_CK	Fluoride		0.0979	mg/L	97				
	MRL_CK	Sulfate		0.509	mg/L	102				
	MRL_CK	Nitrate as N		0.0394	mg/L	99				
QC2207289-02	CCV	Fluoride		0.481	mg/L	96				
	CCV	Sulfate		2.4	mg/L	95				
	CCV	Nitrate as N		0.192	mg/L	96				
QC2207289-03	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207289-04	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207289-05	LCS	Fluoride		0.477	mg/L	95				
	LCS	Sulfate		2.36	mg/L	94				
	LCS	Nitrate as N		0.206	mg/L	103				
QC2207289-06	CCV	Fluoride		4.16	mg/L	104				
	CCV	Sulfate		21.4	mg/L	107				
	CCV	Nitrate as N		1.66	mg/L	104				
QC2207289-07	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207289-08	CCV	Fluoride		0.482	mg/L	96				
	CCV	Sulfate		2.4	mg/L	95				
	CCV	Nitrate as N		0.196	mg/L	98				
QC2207289-09	BLK	Fluoride		<0.1	mg/L			0.02	0.1	
	BLK	Sulfate		<0.5	mg/L			0.1	0.5	
	BLK	Nitrate as N		<0.04	mg/L			0.034	0.04	
QC2207289-10	SPK of 2297891-03	Fluoride	<0.1	0.485	mg/L	97				Splt# 2297891-03 (<0.1mg/L)
	SPK of 2297891-03	Sulfate	<0.5	2.48	mg/L	99				Splt# 2297891-03 (<0.5mg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

Sample ID	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
SPK of 2297891-03	Nitrate as N	<0.04	0.198 mg/L	99				Splt# 2297891-03 (<0.04mg/L)
QC2207289-11								
SPKD of 2297891-03	Fluoride	<0.1	0.459 mg/L	91	5			Splt# 2297891-03 (<0.1mg/L) Manually calculated RPD
SPKD of 2297891-03	Sulfate	<0.5	2.49 mg/L	99	0			Splt# 2297891-03 (<0.5mg/L)
SPKD of 2297891-03	Nitrate as N	<0.04	0.199 mg/L	100	0			Splt# 2297891-03 (<0.04mg/L)
QC2207289-12								
SPK of 2297543-05	Fluoride	0.632	1.13 mg/L	99				Splt# 2297543-05 (0.632mg/L)
SPK of 2297543-05	Sulfate	8	10.6 mg/L	106				Splt# 2297543-05 (8mg/L)
SPK of 2297543-05	Nitrate as N	0.097	0.297 mg/L	100				Splt# 2297543-05 (0.097mg/L)
QC2207289-13								
SPKD of 2297543-05	Fluoride	0.632	1.13 mg/L	99	0			Splt# 2297543-05 (0.632mg/L)
SPKD of 2297543-05	Sulfate	8	10.7 mg/L	107	0			Splt# 2297543-05 (8mg/L) Manually calculated RPD
SPKD of 2297543-05	Nitrate as N	0.097	0.296 mg/L	100	0			Splt# 2297543-05 (0.097mg/L) Manually calculated RPD

QC list for Run#: 2052367 and Test: MBP_TDS (SM 2540 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207301-01	BLK	Total Dissolved Solids		<20	mg/L			13.2	20	
QC2207301-02	DUP of 2298199-01	Total Dissolved Solids	51	48	mg/L		6	13.2	20	Splt# 2298199-01 (51mg/L)
QC2207301-03	DUP of 2297891-05	Total Dissolved Solids	506	504	mg/L		0	13.2	20	Splt# 2297891-05 (506mg/L)
QC2207301-04	LCS	Total Dissolved Solids		89	mg/L	93		13.2	20	

QC list for Run#: 2052368 and Test: MBP_COND (SM 2510 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207302-02	ICV	Specific Conductance @25°C		152	µmhos/cm	104				
QC2207302-03	BLK	Specific Conductance @25°C		<1	µmhos/cm				1	
QC2207302-04	MRL_CK	Specific Conductance @25°C		10	µmhos/cm	100				
QC2207302-05	DUP of 2297891-01	Specific Conductance @25°C	1030	1030	µmhos/cm		0		1	Splt# 2297891-01 (1030µmhos/cm)
QC2207302-06	CCV	Specific Conductance @25°C		96.9	µmhos/cm	96				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

QC list for Run#: 2052370 and Test: MBP_ALK (SM 2320 B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207304-01	BLK	Alkalinity		<3	mg/L			0.593	3	
QC2207304-02	MRL_CK	Alkalinity		3.26	mg/L	109				
QC2207304-03	SPK of 2298266-01	Alkalinity	44.4	85.6	mg/L	103			3	Splt# 2298266-01 (44.4mg/L)
QC2207304-04	SPKD of 2298266-01	Alkalinity	44.4	85.9	mg/L	104	0		3	Splt# 2298266-01 (44.4mg/L)
QC2207304-06	LCS	Alkalinity		40.8	mg/L	102			3	

QC list for Run#: 2052371 and Test: MBP_PH (SM 4500-H+ B)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207305-04	ICV	pH		9.04	pH	99				
	ICV	Temperature (°C)		19.7	°C					
QC2207305-05	DUP of 2297891-01	pH	6.68	6.7	pH		0			Splt# 2297891-01 (6.68pH) H1,H3
	DUP of 2297891-01	Temperature (°C)	19.4	19.4	°C					Splt# 2297891-01 (19.4°C) H1,H3
QC2207305-06	CCV	pH		9.05	pH	100				
	CCV	Temperature (°C)		19.6	°C					

QC list for Run#: 2052373 and Test: MBP_CHLORIDE (SM 4500-CL- D)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207307-01	BLK	Chloride		<3	mg/L			1.16	3	
QC2207307-02	MRL_CK	Chloride		2.76	mg/L	92				
QC2207307-03	SPK of 2298266-01	Chloride	15.2	55.2	mg/L	100			3	Splt# 2298266-01 (15.2mg/L)
QC2207307-04	SPKD of 2298266-01	Chloride	15.2	55.6	mg/L	101	0		3	Splt# 2298266-01 (15.2mg/L)
QC2207307-06	LCS	Chloride		39.7	mg/L	99			3	

QC list for Run#: 2052374 and Test: MBP_HARDNESS_T (SM 2340 C)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207308-01										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Sample ID	Code	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
QC2207308-02	BLK	Hardness, Total, as CaCO3	<3	mg/L			0.474	3	
QC2207308-03	MRL CK	Hardness, Total, as CaCO3	2.57	mg/L	85				
QC2207308-04	DUP of 2298207-01	Hardness, Total, as CaCO3	18.2	18.9	mg/L	3	0.474	3	Splt# 2298207-01 (18.2mg/L)
QC2207308-04	LCS	Hardness, Total, as CaCO3	38.8	mg/L	97			3	

QC list for Run#: 2052432 and Test: MBO_524_VOC (EPA 524.2)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207348-01	MRL CK	m,p-Xylene		0.37	µg/L	92				
	MRL CK	o-Xylene		0.18	µg/L	90				
Internal Standard(s)	MRL CK	Fluorobenzene (IS)		1	µg/L	100				
Surrogate(s)	MRL CK	p-Bromofluorobenzene (Surr.)		0.9	µg/L	90				
Surrogate(s)	MRL CK	1,2-Dichlorobenzene d- (Surr.)		0.96	µg/L	96				
QC2207348-02	MRL CK	Vinyl chloride		0.4	µg/L	80				
	MRL CK	Trichlorofluoromethane (F-11)		0.46	µg/L	92				
	MRL CK	1,1-Dichloroethylene		0.46	µg/L	92				
	MRL CK	Methylene chloride		0.62	µg/L	124				
	MRL CK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre		0.44	µg/L	88				
	MRL CK	trans-1,2-Dichloroethylene		0.46	µg/L	92				
	MRL CK	Methyl t-butyl ether		0.55	µg/L	110				
	MRL CK	1,1-Dichloroethane		0.64	µg/L	128				
	MRL CK	cis-1,2-dichloroethylene		0.58	µg/L	116				
	MRL CK	1,1,1-Trichloroethane		0.46	µg/L	92				
	MRL CK	Carbon tetrachloride		0.48	µg/L	96				
	MRL CK	Benzene		0.47	µg/L	94				
	MRL CK	1,2-Dichloroethane		0.42	µg/L	84				
	MRL CK	Trichloroethylene		0.51	µg/L	102				
	MRL CK	1,2-Dichloropropane		0.49	µg/L	98				
	MRL CK	cis-1,3-dichloropropene		0.41	µg/L	82				
	MRL CK	Toluene		0.43	µg/L	86				
	MRL CK	trans-1,3-Dichloropropene		0.4	µg/L	80				
	MRL CK	1,1,2-Trichloroethane		0.52	µg/L	104				
	MRL CK	Tetrachloroethylene		0.43	µg/L	86				
	MRL CK	Chlorobenzene		0.41	µg/L	82				
	MRL CK	Ethylbenzene		0.45	µg/L	90				
	MRL CK	m,p-Xylene		0.79	µg/L	79				
	MRL CK	o-Xylene		0.41	µg/L	82				

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

MRL_CK	Styrene	0.5	µg/L	100		
MRL_CK	1,1,2,2-Tetrachloroethane	0.45	µg/L	90		
MRL_CK	1,4-Dichlorobenzene	0.44	µg/L	88		
MRL_CK	1,2-Dichlorobenzene	0.47	µg/L	94		
MRL_CK	1,2,4-Trichlorobenzene	0.41	µg/L	82		
Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1	µg/L	100	
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	0.94	µg/L	94	
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	1	µg/L	100	
QC2207348-03						
CCV	Vinyl chloride	4.58	µg/L	91	0.1	0.5
CCV	Trichlorofluoromethane (F-11)	4.71	µg/L	94	0.052	0.5
CCV	1,1-Dichloroethylene	4.66	µg/L	93	0.075	0.5
CCV	Methylene chloride	4.84	µg/L	96	0.058	0.5
CCV	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	5.3	µg/L	106	0.114	0.5
CCV	trans-1,2-Dichloroethylene	5.1	µg/L	102	0.099	0.5
CCV	Methyl t-butyl ether	5.08	µg/L	102	0.106	3
CCV	1,1-Dichloroethane	4.81	µg/L	96	0.192	0.5
CCV	cis-1,2-dichloroethylene	4.86	µg/L	97	0.111	0.5
CCV	1,1,1-Trichloroethane	4.8	µg/L	96	0.179	0.5
CCV	Carbon tetrachloride	4.88	µg/L	97	0.066	0.5
CCV	Benzene	4.53	µg/L	90	0.061	0.5
CCV	1,2-Dichloroethane	4.5	µg/L	90	0.115	0.5
CCV	Trichloroethylene	4.49	µg/L	89	0.093	0.5
CCV	1,2-Dichloropropane	4.57	µg/L	91	0.073	0.5
CCV	cis-1,3-dichloropropene	4.35	µg/L	87	0.07	0.5
CCV	Toluene	4.63	µg/L	92	0.118	0.5
CCV	trans-1,3-Dichloropropene	4.37	µg/L	87	0.213	0.5
CCV	1,1,2-Trichloroethane	4.44	µg/L	88	0.052	0.5
CCV	Tetrachloroethylene	4.82	µg/L	96	0.114	0.5
CCV	Chlorobenzene	4.63	µg/L	92	0.185	0.5
CCV	Ethylbenzene	4.51	µg/L	90	0.05	0.5
CCV	m,p-Xylene	9.03	µg/L	90	0.151	0.5
CCV	o-Xylene	4.54	µg/L	90	0.076	0.5
CCV	Styrene	4.41	µg/L	88	0.053	0.5
CCV	1,1,2,2-Tetrachloroethane	4.66	µg/L	93	0.066	0.5
CCV	1,4-Dichlorobenzene	4.93	µg/L	98	0.082	0.5
CCV	1,2-Dichlorobenzene	4.53	µg/L	90	0.066	0.5
CCV	1,2,4-Trichlorobenzene	4.43	µg/L	88	0.084	0.5
Internal Standard(s)	CCV	Fluorobenzene (IS)	1	µg/L	100	
Surrogate(s)	CCV	p-Bromofluorobenzene (Surr.)	0.96	µg/L	96	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Surrogate(s)	CCV	1,2-Dichlorobenzene d- (Surr.)	0.94	µg/L	94					
QC2207348-04	LCS	Vinyl chloride	8.92	µg/L	89	0.1	0.5			
	LCS	Trichlorofluoromethane (F-11)	9.5	µg/L	95	0.052	0.5			
	LCS	1,1-Dichloroethylene	9.64	µg/L	96	0.075	0.5			
	LCS	Methylene chloride	9.79	µg/L	97	0.058	0.5			
	LCS	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	8.65	µg/L	86	0.114	0.5			
	LCS	trans-1,2-Dichloroethylene	9.79	µg/L	97	0.099	0.5			
	LCS	Methyl t-butyl ether	9.74	µg/L	97	0.106	3			
	LCS	1,1-Dichloroethane	9.97	µg/L	99	0.192	0.5			
	LCS	cis-1,2-dichloroethylene	9.44	µg/L	94	0.111	0.5			
	LCS	1,1,1-Trichloroethane	8.86	µg/L	88	0.179	0.5			
	LCS	Carbon tetrachloride	9.98	µg/L	99	0.066	0.5			
	LCS	Benzene	9.25	µg/L	92	0.061	0.5			
	LCS	1,2-Dichloroethane	9.34	µg/L	93	0.115	0.5			
	LCS	Trichloroethylene	8.75	µg/L	87	0.093	0.5			
	LCS	1,2-Dichloropropane	9.46	µg/L	94	0.073	0.5			
	LCS	cis-1,3-dichloropropene	8.64	µg/L	86	0.07	0.5			
	LCS	Toluene	9.33	µg/L	93	0.118	0.5			
	LCS	trans-1,3-Dichloropropene	9.04	µg/L	90	0.213	0.5			
	LCS	1,1,2-Trichloroethane	9.96	µg/L	99	0.052	0.5			
	LCS	Tetrachloroethylene	9.43	µg/L	94	0.114	0.5			
	LCS	Chlorobenzene	9.12	µg/L	91	0.185	0.5			
	LCS	Ethylbenzene	9.09	µg/L	90	0.05	0.5			
	LCS	m,p-Xylene	19	µg/L	95	0.151	0.5			
	LCS	o-Xylene	8.78	µg/L	87	0.076	0.5			
	LCS	Styrene	9.18	µg/L	91	0.053	0.5			
	LCS	1,1,2,2-Tetrachloroethane	9.6	µg/L	96	0.066	0.5			
	LCS	1,4-Dichlorobenzene	9.77	µg/L	97	0.082	0.5			
	LCS	1,2-Dichlorobenzene	9.65	µg/L	96	0.066	0.5			
	LCS	1,2,4-Trichlorobenzene	9.19	µg/L	91	0.084	0.5			
Internal Standard(s)	LCS	Fluorobenzene (IS)	1	µg/L	100					
Surrogate(s)	LCS	p-Bromofluorobenzene (Surr.)	0.96	µg/L	96					
Surrogate(s)	LCS	1,2-Dichlorobenzene d- (Surr.)	0.9	µg/L	90					
QC2207348-05	LCSD of QC2207348-04	Vinyl chloride	8.92	8.32	µg/L	83	6	0.1	0.5	Splt# QC2207348-04 (8.92µg/L)
	LCSD of QC2207348-04	Trichlorofluoromethane (F-11)	9.5	8.75	µg/L	87	8	0.052	0.5	Splt# QC2207348-04 (9.5µg/L)
	LCSD of QC2207348-04	1,1-Dichloroethylene	9.64	9.18	µg/L	91	4	0.075	0.5	Splt# QC2207348-04 (9.64µg/L)
	LCSD of QC2207348-04	Methylene chloride	9.79	9.37	µg/L	93	4	0.058	0.5	Splt# QC2207348-04 (9.79µg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

LCSD of QC2207348-04	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	8.65	8	µg/L	80	7	0.114	0.5	Split# QC2207348-04 (8.65µg/L)
LCSD of QC2207348-04	trans-1,2-Dichloroethylene	9.79	9.01	µg/L	90	8	0.099	0.5	Split# QC2207348-04 (9.79µg/L)
LCSD of QC2207348-04	Methyl t-butyl ether	9.74	8.92	µg/L	89	8	0.106	3	Split# QC2207348-04 (9.74µg/L)
LCSD of QC2207348-04	1,1-Dichloroethane	9.97	9.53	µg/L	95	4	0.192	0.5	Split# QC2207348-04 (9.97µg/L)
LCSD of QC2207348-04	cis-1,2-dichloroethylene	9.44	9.03	µg/L	90	4	0.111	0.5	Split# QC2207348-04 (9.44µg/L)
LCSD of QC2207348-04	1,1,1-Trichloroethane	8.86	8.8	µg/L	88	0	0.179	0.5	Split# QC2207348-04 (8.86µg/L)
LCSD of QC2207348-04	Carbon tetrachloride	9.98	9.36	µg/L	93	6	0.066	0.5	Split# QC2207348-04 (9.98µg/L)
LCSD of QC2207348-04	Benzene	9.25	8.48	µg/L	84	8	0.061	0.5	Split# QC2207348-04 (9.25µg/L)
LCSD of QC2207348-04	1,2-Dichloroethane	9.34	9.01	µg/L	90	3	0.115	0.5	Split# QC2207348-04 (9.34µg/L)
LCSD of QC2207348-04	Trichloroethylene	8.75	8.6	µg/L	86	1	0.093	0.5	Split# QC2207348-04 (8.75µg/L)
LCSD of QC2207348-04	1,2-Dichloropropane	9.46	8.62	µg/L	86	9	0.073	0.5	Split# QC2207348-04 (9.46µg/L)
LCSD of QC2207348-04	cis-1,3-dichloropropene	8.64	8.05	µg/L	80	7	0.07	0.5	Split# QC2207348-04 (8.64µg/L)
LCSD of QC2207348-04	Toluene	9.33	8.88	µg/L	88	4	0.118	0.5	Split# QC2207348-04 (9.33µg/L)
LCSD of QC2207348-04	trans-1,3-Dichloropropene	9.04	8.52	µg/L	85	5	0.213	0.5	Split# QC2207348-04 (9.04µg/L)
LCSD of QC2207348-04	1,1,2-Trichloroethane	9.96	8.91	µg/L	89	11	0.052	0.5	Split# QC2207348-04 (9.96µg/L)
LCSD of QC2207348-04	Tetrachloroethylene	9.43	8.72	µg/L	87	7	0.114	0.5	Split# QC2207348-04 (9.43µg/L)
LCSD of QC2207348-04	Chlorobenzene	9.12	8.75	µg/L	87	4	0.185	0.5	Split# QC2207348-04 (9.12µg/L)
LCSD of QC2207348-04	Ethylbenzene	9.09	8.73	µg/L	87	4	0.05	0.5	Split# QC2207348-04 (9.09µg/L)
LCSD of QC2207348-04	m,p-Xylene	19	18.1	µg/L	90	5	0.151	0.5	Split# QC2207348-04 (19µg/L)
LCSD of QC2207348-04	o-Xylene	8.78	8.35	µg/L	83	5	0.076	0.5	Split# QC2207348-04 (8.78µg/L)
LCSD of QC2207348-04	Styrene	9.18	8.81	µg/L	88	4	0.053	0.5	Split# QC2207348-04 (9.18µg/L)
LCSD of QC2207348-04	1,1,2,2-Tetrachloroethane	9.6	9.15	µg/L	91	4	0.066	0.5	Split# QC2207348-04 (9.6µg/L)
LCSD of QC2207348-04	1,4-Dichlorobenzene	9.77	9.33	µg/L	93	4	0.082	0.5	Split# QC2207348-04 (9.77µg/L)
LCSD of QC2207348-04	1,2-Dichlorobenzene	9.65	8.9	µg/L	89	8	0.066	0.5	Split# QC2207348-04 (9.65µg/L)
LCSD of QC2207348-04	1,2,4-Trichlorobenzene	9.19	8.57	µg/L	85	6	0.084	0.5	Split# QC2207348-04 (9.19µg/L)
Internal Standard(s)	Fluorobenzene (IS)	1	1	µg/L	100	0			Split# QC2207348-04 (1µg/L)
Surrogate(s)	p-Bromofluorobenzene (Surr.)	0.96	0.88	µg/L	88	8			Split# QC2207348-04 (0.96µg/L)
Surrogate(s)	1,2-Dichlorobenzene d- (Surr.)	0.9	1	µg/L	100	10			Split# QC2207348-04 (0.9µg/L)
QC2207348-06									

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

BLK	Vinyl chloride	<0.5	µg/L	0.1	0.5			
BLK	Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5			
BLK	1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5			
BLK	Methylene chloride	<0.5	µg/L	0.058	0.5			
BLK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	<0.5	µg/L	0.114	0.5			
BLK	trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5			
BLK	Methyl t-butyl ether	<3	µg/L	0.106	3			
BLK	1,1-Dichloroethane	<0.5	µg/L	0.192	0.5			
BLK	cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5			
BLK	1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5			
BLK	Carbon tetrachloride	<0.5	µg/L	0.066	0.5			
BLK	Benzene	<0.5	µg/L	0.061	0.5			
BLK	1,2-Dichloroethane	<0.5	µg/L	0.115	0.5			
BLK	Trichloroethylene	<0.5	µg/L	0.093	0.5			
BLK	1,2-Dichloropropane	<0.5	µg/L	0.073	0.5			
BLK	cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5			
BLK	Toluene	<0.5	µg/L	0.118	0.5			
BLK	trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5			
BLK	1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5			
BLK	Tetrachloroethylene	<0.5	µg/L	0.114	0.5			
BLK	Chlorobenzene	<0.5	µg/L	0.185	0.5			
BLK	Ethylbenzene	<0.5	µg/L	0.05	0.5			
BLK	m,p-Xylene	<0.5	µg/L	0.151	0.5			
BLK	o-Xylene	<0.5	µg/L	0.076	0.5			
BLK	Styrene	<0.5	µg/L	0.053	0.5			
BLK	1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5			
BLK	1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5			
BLK	1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5			
BLK	1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5			
Internal Standard(s)	BLK	Fluorobenzene (IS)	1	µg/L	100			
Surrogate(s)	BLK	p-Bromofluorobenzene (Surr.)	0.86	µg/L	86			
Surrogate(s)	BLK	1,2-Dichlorobenzene d- (Surr.)	0.79	µg/L	79			
QC2207348-07								
DUP of 2297891-01	Vinyl chloride	<0.5	<0.5	µg/L	N/A	0.1	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Trichlorofluoromethane (F-11)	<0.5	<0.5	µg/L		0.052	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,1-Dichloroethylene	<0.5	<0.5	µg/L	N/A	0.075	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Methylene chloride	<0.5	<0.5	µg/L		0.058	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	<0.5	<0.5	µg/L		0.114	0.5	Splt# 2297891-01 (<0.5µg/L)

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

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Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

DUP of 2297891-01	trans-1,2-Dichloroethylene	<0.5	<0.5	µg/L	N/A	0.099	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Methyl t-butyl ether	<3	<3	µg/L	N/A	0.106	3	Splt# 2297891-01 (<3µg/L)
DUP of 2297891-01	1,1-Dichloroethane	<0.5	<0.5	µg/L		0.192	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	cis-1,2-dichloroethylene	<0.5	<0.5	µg/L	N/A	0.111	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,1,1-Trichloroethane	<0.5	<0.5	µg/L		0.179	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Carbon tetrachloride	<0.5	<0.5	µg/L		0.066	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Benzene	<0.5	<0.5	µg/L	N/A	0.061	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,2-Dichloroethane	<0.5	<0.5	µg/L		0.115	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Trichloroethylene	<0.5	<0.5	µg/L		0.093	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,2-Dichloropropane	<0.5	<0.5	µg/L	N/A	0.073	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	cis-1,3-dichloropropene	<0.5	<0.5	µg/L		0.07	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Toluene	<0.5	<0.5	µg/L	N/A	0.118	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	trans-1,3-Dichloropropene	<0.5	<0.5	µg/L		0.213	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,1,2-Trichloroethane	<0.5	<0.5	µg/L		0.052	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Tetrachloroethylene	<0.5	<0.5	µg/L	N/A	0.114	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Chlorobenzene	<0.5	<0.5	µg/L		0.185	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Ethylbenzene	<0.5	<0.5	µg/L		0.05	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	m,p-Xylene	<0.5	<0.5	µg/L		0.151	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	o-Xylene	<0.5	<0.5	µg/L		0.076	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Styrene	<0.5	<0.5	µg/L		0.053	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,1,2,2-Tetrachloroethane	<0.5	<0.5	µg/L		0.066	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,4-Dichlorobenzene	<0.5	<0.5	µg/L		0.082	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,2-Dichlorobenzene	<0.5	<0.5	µg/L		0.066	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,2,4-Trichlorobenzene	<0.5	<0.5	µg/L		0.084	0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	1,3-Dichloropropene Total (cis+ trans)	<0.5	<0.5	µg/L	N/A		0.5	Splt# 2297891-01 (<0.5µg/L)
DUP of 2297891-01	Xylene (total: p, m, o)	<0.5	<0.5	µg/L	N/A		0.5	Splt# 2297891-01 (<0.5µg/L)
Internal Standard(s)	Fluorobenzene (IS)	1	1	µg/L				Splt# 2297891-01 (1µg/L)
Surrogate(s)	p-Bromofluorobenzene (Surr.)	0.89	0.81	µg/L				Splt# 2297891-01 (0.89µg/L)
Surrogate(s)	1,2-Dichlorobenzene d- (Surr.)	0.8	0.73	µg/L				Splt# 2297891-01 (0.8µg/L)

QC2207348-08

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

	MRL_CK	m,p-Xylene	0.32	µg/L	80
	MRL_CK	o-Xylene	0.16	µg/L	80
Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1	µg/L	100
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	0.77	µg/L	77
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	0.94	µg/L	94
QC2207348-09					
	MRL_CK	Vinyl chloride	0.53	µg/L	106
	MRL_CK	Trichlorofluoromethane (F-11)	0.47	µg/L	94
	MRL_CK	1,1-Dichloroethylene	0.52	µg/L	104
	MRL_CK	Methylene chloride	0.55	µg/L	110
	MRL_CK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	0.42	µg/L	84
	MRL_CK	trans-1,2-Dichloroethylene	0.62	µg/L	124
	MRL_CK	Methyl t-butyl ether	0.6	µg/L	120
	MRL_CK	1,1-Dichloroethane	0.53	µg/L	106
	MRL_CK	cis-1,2-dichloroethylene	0.54	µg/L	108
	MRL_CK	1,1,1-Trichloroethane	0.44	µg/L	88
	MRL_CK	Carbon tetrachloride	0.45	µg/L	90
	MRL_CK	Benzene	0.48	µg/L	96
	MRL_CK	1,2-Dichloroethane	0.56	µg/L	112
	MRL_CK	Trichloroethylene	0.42	µg/L	84
	MRL_CK	1,2-Dichloropropane	0.49	µg/L	98
	MRL_CK	cis-1,3-dichloropropene	0.43	µg/L	86
	MRL_CK	Toluene	0.46	µg/L	92
	MRL_CK	trans-1,3-Dichloropropene	0.43	µg/L	86
	MRL_CK	1,1,2-Trichloroethane	0.55	µg/L	110
	MRL_CK	Tetrachloroethylene	0.41	µg/L	82
	MRL_CK	Chlorobenzene	0.45	µg/L	90
	MRL_CK	Ethylbenzene	0.41	µg/L	82
	MRL_CK	m,p-Xylene	0.76	µg/L	76
	MRL_CK	o-Xylene	0.39	µg/L	78
	MRL_CK	Styrene	0.4	µg/L	80
	MRL_CK	1,1,2,2-Tetrachloroethane	0.55	µg/L	110
	MRL_CK	1,4-Dichlorobenzene	0.45	µg/L	90
	MRL_CK	1,2-Dichlorobenzene	0.48	µg/L	96
	MRL_CK	1,2,4-Trichlorobenzene	0.39	µg/L	78
Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1	µg/L	100
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	0.72	µg/L	72
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	0.83	µg/L	83
QC2207348-10					
	MRL_CK	m,p-Xylene	0.24	µg/L	60

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

	MRL_CK	o-Xylene	0.13	µg/L	65
Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1	µg/L	100
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	0.85	µg/L	85
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	0.81	µg/L	81
QC2207348-11					
	MRL_CK	Vinyl chloride	0.51	µg/L	102
	MRL_CK	Trichlorofluoromethane (F-11)	0.48	µg/L	96
	MRL_CK	1,1-Dichloroethylene	0.55	µg/L	110
	MRL_CK	Methylene chloride	0.61	µg/L	122
	MRL_CK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	0.45	µg/L	90
	MRL_CK	trans-1,2-Dichloroethylene	0.66	µg/L	132
	MRL_CK	Methyl t-butyl ether	0.56	µg/L	112
	MRL_CK	1,1-Dichloroethane	0.58	µg/L	116
	MRL_CK	cis-1,2-dichloroethylene	0.74	µg/L	148
	MRL_CK	1,1,1-Trichloroethane	0.52	µg/L	104
	MRL_CK	Carbon tetrachloride	0.5	µg/L	100
	MRL_CK	Benzene	0.55	µg/L	110
	MRL_CK	1,2-Dichloroethane	0.54	µg/L	108
	MRL_CK	Trichloroethylene	0.47	µg/L	94
	MRL_CK	1,2-Dichloropropane	0.52	µg/L	104
	MRL_CK	cis-1,3-dichloropropene	0.43	µg/L	86
	MRL_CK	Toluene	0.46	µg/L	92
	MRL_CK	trans-1,3-Dichloropropene	0.43	µg/L	86
	MRL_CK	1,1,2-Trichloroethane	0.47	µg/L	94
	MRL_CK	Tetrachloroethylene	0.5	µg/L	100
	MRL_CK	Chlorobenzene	0.47	µg/L	94
	MRL_CK	Ethylbenzene	0.4	µg/L	80
	MRL_CK	m,p-Xylene	0.82	µg/L	82
	MRL_CK	o-Xylene	0.36	µg/L	72
	MRL_CK	Styrene	0.43	µg/L	86
	MRL_CK	1,1,2,2-Tetrachloroethane	0.47	µg/L	94
	MRL_CK	1,4-Dichlorobenzene	0.43	µg/L	86
	MRL_CK	1,2-Dichlorobenzene	0.46	µg/L	92
	MRL_CK	1,2,4-Trichlorobenzene	0.4	µg/L	80
Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1	µg/L	100
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	0.84	µg/L	84
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	0.83	µg/L	83
QC2207348-12					
	MRL_CK	m,p-Xylene	0.32	µg/L	80
	MRL_CK	o-Xylene	0.13	µg/L	65

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Scheduled Sample Date: 11/09/2022

Routine: WSB_SFPUC+Consult.A

Sampling Team: Field

Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1	µg/L	100		
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	0.87	µg/L	87		
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	0.94	µg/L	94		
QC2207348-13							
	MRL_CK	Vinyl chloride	0.55	µg/L	110		
	MRL_CK	Trichlorofluoromethane (F-11)	0.57	µg/L	114		
	MRL_CK	1,1-Dichloroethylene	0.54	µg/L	108		
	MRL_CK	Methylene chloride	0.63	µg/L	126		
	MRL_CK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	0.48	µg/L	96		
	MRL_CK	trans-1,2-Dichloroethylene	0.64	µg/L	128		
	MRL_CK	Methyl t-butyl ether	0.62	µg/L	124		
	MRL_CK	1,1-Dichloroethane	0.61	µg/L	122		
	MRL_CK	cis-1,2-dichloroethylene	0.75	µg/L	150		
	MRL_CK	1,1,1-Trichloroethane	0.5	µg/L	100		
	MRL_CK	Carbon tetrachloride	0.58	µg/L	116		
	MRL_CK	Benzene	0.53	µg/L	106		
	MRL_CK	1,2-Dichloroethane	0.59	µg/L	118		
	MRL_CK	Trichloroethylene	0.51	µg/L	102		
	MRL_CK	1,2-Dichloropropane	0.55	µg/L	110		
	MRL_CK	cis-1,3-dichloropropene	0.39	µg/L	78		
	MRL_CK	Toluene	0.46	µg/L	92		
	MRL_CK	trans-1,3-Dichloropropene	0.42	µg/L	84		
	MRL_CK	1,1,2-Trichloroethane	0.59	µg/L	118		
	MRL_CK	Tetrachloroethylene	0.5	µg/L	100		
	MRL_CK	Chlorobenzene	0.47	µg/L	94		
	MRL_CK	Ethylbenzene	0.47	µg/L	94		
	MRL_CK	m,p-Xylene	0.79	µg/L	79		
	MRL_CK	o-Xylene	0.41	µg/L	82		
	MRL_CK	Styrene	0.48	µg/L	96		
	MRL_CK	1,1,2,2-Tetrachloroethane	0.49	µg/L	98		
	MRL_CK	1,4-Dichlorobenzene	0.46	µg/L	92		
	MRL_CK	1,2-Dichlorobenzene	0.54	µg/L	108		
	MRL_CK	1,2,4-Trichlorobenzene	0.43	µg/L	86		
Internal Standard(s)	MRL_CK	Fluorobenzene (IS)	1	µg/L	100		
Surrogate(s)	MRL_CK	p-Bromofluorobenzene (Surr.)	1.01	µg/L	101		
Surrogate(s)	MRL_CK	1,2-Dichlorobenzene d- (Surr.)	1.06	µg/L	106		
QC2207348-14							
	BLK	Vinyl chloride	<0.5	µg/L		0.1	0.5
	BLK	Trichlorofluoromethane (F-11)	<0.5	µg/L		0.052	0.5
	BLK	1,1-Dichloroethylene	<0.5	µg/L		0.075	0.5
	BLK	Methylene chloride	<0.5	µg/L		0.058	0.5

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

BLK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	<0.5	µg/L	0.114	0.5
BLK	trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5
BLK	Methyl t-butyl ether	<3	µg/L	0.106	3
BLK	1,1-Dichloroethane	<0.5	µg/L	0.192	0.5
BLK	cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5
BLK	1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5
BLK	Carbon tetrachloride	<0.5	µg/L	0.066	0.5
BLK	Benzene	<0.5	µg/L	0.061	0.5
BLK	1,2-Dichloroethane	<0.5	µg/L	0.115	0.5
BLK	Trichloroethylene	<0.5	µg/L	0.093	0.5
BLK	1,2-Dichloropropane	<0.5	µg/L	0.073	0.5
BLK	cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5
BLK	Toluene	<0.5	µg/L	0.118	0.5
BLK	trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5
BLK	1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5
BLK	Tetrachloroethylene	<0.5	µg/L	0.114	0.5
BLK	Chlorobenzene	<0.5	µg/L	0.185	0.5
BLK	Ethylbenzene	<0.5	µg/L	0.05	0.5
BLK	m,p-Xylene	<0.5	µg/L	0.151	0.5
BLK	o-Xylene	<0.5	µg/L	0.076	0.5
BLK	Styrene	<0.5	µg/L	0.053	0.5
BLK	1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5
BLK	1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5
BLK	1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5
BLK	1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5
Internal Standard(s)	BLK	Fluorobenzene (IS)	1	µg/L	100
Surrogate(s)	BLK	p-Bromofluorobenzene (Surr.)	0.79	µg/L	79
Surrogate(s)	BLK	1,2-Dichlorobenzene d- (Surr.)	0.85	µg/L	85
QC2207348-15					
BLK	Vinyl chloride	<0.5	µg/L	0.1	0.5
BLK	Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5
BLK	1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5
BLK	Methylene chloride	<0.5	µg/L	0.058	0.5
BLK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	<0.5	µg/L	0.114	0.5
BLK	trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5
BLK	Methyl t-butyl ether	<3	µg/L	0.106	3
BLK	1,1-Dichloroethane	<0.5	µg/L	0.192	0.5
BLK	cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5
BLK	1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5
BLK	Carbon tetrachloride	<0.5	µg/L	0.066	0.5

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

BLK	Benzene	<0.5	µg/L	0.061	0.5
BLK	1,2-Dichloroethane	<0.5	µg/L	0.115	0.5
BLK	Trichloroethylene	<0.5	µg/L	0.093	0.5
BLK	1,2-Dichloropropane	<0.5	µg/L	0.073	0.5
BLK	cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5
BLK	Toluene	<0.5	µg/L	0.118	0.5
BLK	trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5
BLK	1,1,2-Trichloroethane	<0.5	µg/L	0.052	0.5
BLK	Tetrachloroethylene	<0.5	µg/L	0.114	0.5
BLK	Chlorobenzene	<0.5	µg/L	0.185	0.5
BLK	Ethylbenzene	<0.5	µg/L	0.05	0.5
BLK	m,p-Xylene	<0.5	µg/L	0.151	0.5
BLK	o-Xylene	<0.5	µg/L	0.076	0.5
BLK	Styrene	<0.5	µg/L	0.053	0.5
BLK	1,1,2,2-Tetrachloroethane	<0.5	µg/L	0.066	0.5
BLK	1,4-Dichlorobenzene	<0.5	µg/L	0.082	0.5
BLK	1,2-Dichlorobenzene	<0.5	µg/L	0.066	0.5
BLK	1,2,4-Trichlorobenzene	<0.5	µg/L	0.084	0.5
Internal Standard(s)	BLK	Fluorobenzene (IS)	1	µg/L	100
Surrogate(s)	BLK	p-Bromofluorobenzene (Surr.)	0.88	µg/L	88
Surrogate(s)	BLK	1,2-Dichlorobenzene d- (Surr.)	1	µg/L	100
QC2207348-16					
BLK	Vinyl chloride	<0.5	µg/L	0.1	0.5
BLK	Trichlorofluoromethane (F-11)	<0.5	µg/L	0.052	0.5
BLK	1,1-Dichloroethylene	<0.5	µg/L	0.075	0.5
BLK	Methylene chloride	<0.5	µg/L	0.058	0.5
BLK	1,1,2-Trichloro-1,2,2-trifluoroethane (Fre	<0.5	µg/L	0.114	0.5
BLK	trans-1,2-Dichloroethylene	<0.5	µg/L	0.099	0.5
BLK	Methyl t-butyl ether	<3	µg/L	0.106	3
BLK	1,1-Dichloroethane	<0.5	µg/L	0.192	0.5
BLK	cis-1,2-dichloroethylene	<0.5	µg/L	0.111	0.5
BLK	1,1,1-Trichloroethane	<0.5	µg/L	0.179	0.5
BLK	Carbon tetrachloride	<0.5	µg/L	0.066	0.5
BLK	Benzene	<0.5	µg/L	0.061	0.5
BLK	1,2-Dichloroethane	<0.5	µg/L	0.115	0.5
BLK	Trichloroethylene	<0.5	µg/L	0.093	0.5
BLK	1,2-Dichloropropane	<0.5	µg/L	0.073	0.5
BLK	cis-1,3-dichloropropene	<0.5	µg/L	0.07	0.5
BLK	Toluene	<0.5	µg/L	0.118	0.5
BLK	trans-1,3-Dichloropropene	<0.5	µg/L	0.213	0.5

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

Sample #	Name	Analyte	Result	Units	% Rec	RPD	MDL	MRL	Flag/Comments
BLK	1,1,2-Trichloroethane		<0.5	µg/L			0.052	0.5	
BLK	Tetrachloroethylene		<0.5	µg/L			0.114	0.5	
BLK	Chlorobenzene		<0.5	µg/L			0.185	0.5	
BLK	Ethylbenzene		<0.5	µg/L			0.05	0.5	
BLK	m,p-Xylene		<0.5	µg/L			0.151	0.5	
BLK	o-Xylene		<0.5	µg/L			0.076	0.5	
BLK	Styrene		<0.5	µg/L			0.053	0.5	
BLK	1,1,2,2-Tetrachloroethane		<0.5	µg/L			0.066	0.5	
BLK	1,4-Dichlorobenzene		<0.5	µg/L			0.082	0.5	
BLK	1,2-Dichlorobenzene		<0.5	µg/L			0.066	0.5	
BLK	1,2,4-Trichlorobenzene		<0.5	µg/L			0.084	0.5	
Internal Standard(s)	BLK	Fluorobenzene (IS)	1	µg/L	100				
Surrogate(s)	BLK	p-Bromofluorobenzene (Surr.)	0.76	µg/L	76				
Surrogate(s)	BLK	1,2-Dichlorobenzene d- (Surr.)	0.72	µg/L	72				

QC list for Run#: 2052641 and Test: SEM_200.7_DW (EPA 200.7)

Sample #	Name	Analyte	Result		Units	% Rec	RPD	MDL	MRL	Flag/Comments
			Parent	Current						
QC2207468-01										
BLK	Calcium, Ca		<1		mg/L			0.04	1	
BLK	Magnesium, Mg		<0.2		mg/L			0.007	0.2	
BLK	Potassium, K		<0.2		mg/L			0.04	0.2	
BLK	Sodium, Na		<1		mg/L			0.02	1	
QC2207468-02										
LCS	Calcium, Ca		1.9		mg/L	95		0.04	1	
LCS	Magnesium, Mg		1.93		mg/L	96		0.007	0.2	
LCS	Potassium, K		2.03		mg/L	101		0.04	0.2	
LCS	Sodium, Na		2.07		mg/L	103		0.02	1	
QC2207468-03										
DUP of 2297891-01	Calcium, Ca		69.8	69.2	mg/L		0	0.04	1	Splt# 2297891-01 (69.8mg/L)
DUP of 2297891-01	Magnesium, Mg		59.8	58.8	mg/L		1	0.007	0.2	Splt# 2297891-01 (59.8mg/L)
DUP of 2297891-01	Potassium, K		4.03	3.99	mg/L		1	0.04	0.2	Splt# 2297891-01 (4.03mg/L)
DUP of 2297891-01	Sodium, Na		79.4	77	mg/L		3	0.02	1	Splt# 2297891-01 (79.4mg/L)
QC2207468-04										
SPK of 2297891-01	Calcium, Ca		69.8	71.3	mg/L	75		0.04	1	Splt# 2297891-01 (69.8mg/L)
SPK of 2297891-01	Magnesium, Mg		59.8	60.2	mg/L	17		0.007	0.2	Splt# 2297891-01 (59.8mg/L)
SPK of 2297891-01	Potassium, K		4.03	6.06	mg/L	101		0.04	0.2	Splt# 2297891-01 (4.03mg/L)
SPK of 2297891-01	Sodium, Na		79.4	79	mg/L	0		0.02	1	Splt# 2297891-01 (79.4mg/L)
QC2207468-05										

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

SPKD of 2297891-01	Calcium, Ca	69.8	70.3	mg/L	26	1	0.04	1	Splt# 2297891-01 (69.8mg/L)
SPKD of 2297891-01	Magnesium, Mg	59.8	59.2	mg/L	0	1	0.007	0.2	Splt# 2297891-01 (59.8mg/L)
SPKD of 2297891-01	Potassium, K	4.03	5.8	mg/L	88	4	0.04	0.2	Splt# 2297891-01 (4.03mg/L)
SPKD of 2297891-01	Sodium, Na	79.4	77.4	mg/L	0	2	0.02	1	Splt# 2297891-01 (79.4mg/L)
QC2207468-06									
MRL_CK	Calcium, Ca		<1	mg/L	N/A		0.04	1	
MRL_CK	Magnesium, Mg		<0.2	mg/L	N/A		0.007	0.2	
MRL_CK	Potassium, K		<0.2	mg/L	N/A		0.04	0.2	
MRL_CK	Sodium, Na		<1	mg/L	N/A		0.02	1	
QC2207494-01									
ICV	Potassium, K		2.05	mg/L	103		0.03	0.2	
QC2207494-02									
ICV	Calcium, Ca		10.1	mg/L	101		0.05	1	
ICV	Magnesium, Mg		9.68	mg/L	95		0.01	0.2	
ICV	Sodium, Na		10.3	mg/L	103		0.002	1	

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SEWPCP

1721

Water Quality Laboratory

MILLBRAE

1449

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

Scheduled Sample Date: 11/09/2022

Sampling Team: Field

Qualifiers Legend:

Flag

Code	Description
B1	Target analyte detected in associated Method Blank.
B2	Target analyte detected in Travel/Trip Blank.
D	Result taken from the analysis of a dilution.
E1	Estimated value. Exceeds calibration range. Reanalysis not possible due to insufficient sample vol.
E2	Estimated value. Exceeds calibration range. Reanalysis not performed due to hold time requirement.
E3	EMPC (estimated maximum possible concentration)
H1	Sample analysis performed past the method specified hold time per client request.
H2	Initial analysis within hold time. Reanalysis for the required dilution was past hold time.
H3	Sample was received past hold time.
H4	Confirmatory analysis was past hold time.
H5	Confirmatory analysis was past hold time. Original result not confirmed.
H6	Filtration not completed w/in 15 min of sampling, Filtered in Lab. Filtration exceeded hold time.
I1	I.S. recovery or R.T. outside method limits. Interference confirmed by reanalysis/dilution. GC/GCMS
L1	LCS and/or LCSD is outside acceptance limits. Results might be low biased.
L2	LCS and/or LCSD is outside acceptance limits. Results might be high biased.
M	Matrix interference
M1	MS/MSD % rec. outside acceptable limits due to matrix interference. Batch acceptance by LCS.
M2	MS/MSD RPD outside acceptable limits. Batch acceptance by LCS.
M3	Sample diluted due to matrix. MS recovery not useful. Batch acceptance by LCS.
NA	Not Analyzed
NC1	Not for Compliance. Method specification(s) not met
NC2	Not for Compliance. This test/analyte is not accredited or accreditation is not available.
NP	Not provided
NS	Not sampled (or no sample received)
P1	Sample received and analyzed without chemical preservation.
P2	Sample received without chemical preservation but preserved by the laboratory.
P3	Sample received with inadequate chemical preservation, but preserved by the laboratory
P4	Sample was received outside recommended temperature range.
P5	Sample received in inappropriate sample container.
P6	Insufficient sample received to meet method requirements.
P7	Sample received with head space.
Q	%RPD between the 1st and 2nd column/detector is >40%. Lower value reported.
Q1	Minimum Reporting Limit (MRL) verification failed high, but target analyte was not detected.
R	Data rejected
S	Dilution due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
S1	Sample diluted due to matrix. Surrogate spike recovery provides no useful information.
S2	Surrogate recovery exceeds acceptable limits. Results might be low biased.
S3	Surrogate recovery exceeds acceptable limits. Results might be high biased.
TIC	Tentatively Identified Compound
U	Analyzed but not detected

RQualifier

Code	Description
+	Positive
-	Negative
<	Less Than

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Water Quality Laboratory

FOLDER ID: 2297891

Client: SF_PUC_PLANNING

Project: WESTSIDE_BASIN

Routine: WSB_SFPUC+Consult.A

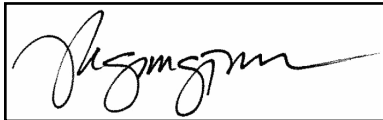
Scheduled Sample Date: 11/09/2022

Sampling Team: Field

=	Equals
>	Greater Than
A	Bacti result, absent
DNQ	Detected, but Not Quantified
E	Estimated value
I	Bacti result, Inconclusive value. Analyzed, but result is undetermined
ND	Non-detected
P	Bacti result, present
QC Type	
Code	Description
BLK	Method Blank Sample
CAL	Calibration Sample
CCV	Continuing Calibration Verification Sample
DUP	Duplicate Sample
ICV	Initial Calibration Verification Sample
LCS	Laboratory Control Standard Sample
LCSD	Laboratory Control Standard Duplicate Sample
MRL_CK	Method Reporting Level Check Sample
SPK	Matrix Spike Sample
SPKD	Matrix Spike Duplicate Sample

Please email labfeedback@sfgwater.org to report any comments, complaints, compliments or suggestions. Please provide detailed descriptions and attach documentation as necessary.

Reported By: Megan Tran



Reported On: 9-Dec-2022

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Bay Side Groundwater Monitoring Laboratory Analytical Results



alpha

Alpha Analytical Laboratories, Inc.

email: clientservices@alpha-labs.com

Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

07 April 2022

San Bruno, City of - DW

Attn: Steve Salazar

225 Huntington Avenue

San Bruno, CA 94066

RE: SF Intrusion Project

Work Order: 22C2440

Enclosed are the results of analyses for samples received by the laboratory on 03/16/22 22:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeanette L. Poplin For Robbie C. Phillips

Project Manager



Alpha Analytical Laboratories, Inc.

email: clientservices@alpha-labs.com

Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

San Bruno, City of - DW
225 Huntington Avenue
San Bruno, CA 94066

Project Manager: Steve Salazar
Project: SF Intrusion Project
Project Number: [none]

Reported:
04/07/22 10:53

Bay Area: 262 Rickenbacker Circle | Livermore, CA 94551 | T: 925-828-6226 | F: 925-828-6309 | ELAP# 2728
Central Valley: 9090 Union Park Way Suite 113 | Elk Grove, CA 95624 | T: 916-686-5190 | F: 916-686-5192 | ELAP# 2922
North Bay: 110 Liberty Street | Petaluma, CA 94952 | T: 707-769-3128 | F: 707-769-8093 | ELAP# 2303
San Diego: 2722 Loker Avenue West Suite A | Carlsbad, CA 92010 | T: 760-930-2555 | F: 760-930-2510 | ELAP# 3055

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SFO-D	22C2440-01	Water	03/16/22 08:52	03/16/22 22:50
SFO-S	22C2440-02	Water	03/16/22 08:55	03/16/22 22:50
Burlingame - D	22C2440-03	Water	03/16/22 08:20	03/16/22 22:50
Burlingame - M	22C2440-04	Water	03/16/22 08:24	03/16/22 22:50
Burlingame - S	22C2440-05	Water	03/16/22 08:28	03/16/22 22:50



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San Bruno, City of - DW
225 Huntington Avenue
San Bruno, CA 94066

Project Manager: Steve Salazar
Project: SF Intrusion Project
Project Number: [none]

Reported:
04/07/22 10:53

	Result	Units	Reporting Limit	Dilution	Batch	Prepared	Analyzed	ELAP#	Method	Note
SFO-D (22C2440-01)										
	Sample Type: Water				Sampled: 03/16/22 08:52					
Metals by EPA 200 Series Methods										
Boron	0.20	mg/L	0.20	1	AC24601	03/29/22 14:19	03/30/22 16:11	1551	EPA 200.7	P-02
Calcium	140	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:11	1551	EPA 200.7	
Magnesium	130	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:11	1551	EPA 200.7	
Potassium	14	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:11	1551	EPA 200.7	
Sodium	770	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:11	1551	EPA 200.7	
Conventional Chemistry Parameters by APHA/EPA Methods										
Bicarbonate	320	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Orthophosphate as P	0.11	mg/L	0.10	1	AC24051	03/17/22 17:50	03/17/22 18:15	1551	SM4500-P E	
pH	7.53	pH Units	1.68	1	AC24199	03/17/22 16:00	03/17/22 17:00	1551	SM4500-H+ B	T-14
Specific Conductance (EC)	5200	umhos/cm	20	1	AC24199	03/17/22 16:00	03/17/22 17:00	1551	SM2510B	
Total Dissolved Solids	2900	mg/L	10	1	AC24386	03/23/22 09:00	04/04/22 16:59	1551	SM2540C	
Bicarbonate Alkalinity as CaCO3	260	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Carbonate Alkalinity as CaCO3	ND	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Hydroxide Alkalinity as CaCO3	ND	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Total Alkalinity as CaCO3	260	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Anions by EPA Method 300.0										
Chloride	1600	mg/L	50	100	AC24003	03/18/22 11:08	03/18/22 11:08	1551	EPA 300.0	
Nitrate as N	ND	mg/L	1.0	5	AC24003	03/17/22 16:08	03/17/22 16:08	1551	EPA 300.0	R-01
Sulfate as SO4	140	mg/L	2.5	5	AC24003	03/17/22 16:08	03/17/22 16:08	1551	EPA 300.0	
Anions by EPA Method 300.1										
Bromide	3.6	mg/L	2.5	1	AC24609	03/29/22 06:16	03/29/22 06:16	1551	EPA 300.1	
Surrogate: Dichloroacetate	112 %		90-115		AC24609	03/29/22 06:16	03/29/22 06:16	1551	EPA 300.1	
SFO-S (22C2440-02)										
	Sample Type: Water				Sampled: 03/16/22 08:55					
Metals by EPA 200 Series Methods										
Boron	0.92	mg/L	0.20	1	AC24601	03/29/22 14:19	03/30/22 16:29	1551	EPA 200.7	P-02
Calcium	580	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:29	1551	EPA 200.7	
Magnesium	720	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:29	1551	EPA 200.7	
Potassium	74	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:29	1551	EPA 200.7	
Sodium	5400	mg/L	10	10	AC24601	03/29/22 14:19	03/31/22 10:58	1551	EPA 200.7	

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



Alpha Analytical Laboratories, Inc.

email: clientservices@alpha-labs.com

Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

San Bruno, City of - DW
225 Huntington Avenue
San Bruno, CA 94066

Project Manager: Steve Salazar
Project: SF Intrusion Project
Project Number: [none]

Reported:
04/07/22 10:53

	Result	Units	Reporting Limit	Dilution	Batch	Prepared	Analyzed	ELAP#	Method	Note
SFO-S (22C2440-02)										
Sample Type: Water										
Sampled: 03/16/22 08:55										
Conventional Chemistry Parameters by APHA/EPA Methods										
Bicarbonate	810	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Orthophosphate as P	ND	mg/L	0.10	1	AC24051	03/17/22 17:50	03/17/22 18:15	1551	SM4500-P E	
pH	7.22	pH Units	1.68	1	AC24199	03/17/22 16:00	03/17/22 17:00	1551	SM4500-H+ B	T-14
Specific Conductance (EC)	28000	umhos/cm	20	1	AC24199	03/17/22 16:00	03/17/22 17:00	1551	SM2510B	
Total Dissolved Solids	18000	mg/L	10	1	AC24386	03/23/22 09:00	04/05/22 11:35	1551	SM2540C	
Bicarbonate Alkalinity as CaCO3	660	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Carbonate Alkalinity as CaCO3	ND	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Hydroxide Alkalinity as CaCO3	ND	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Total Alkalinity as CaCO3	660	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Anions by EPA Method 300.0										
Chloride	11000	mg/L	500	1000	AC24003	03/18/22 14:48	03/18/22 14:48	1551	EPA 300.0	
Nitrate as N	ND	mg/L	0.40	2	AC24003	03/17/22 18:40	03/17/22 18:40	1551	EPA 300.0	R-01
Sulfate as SO4	750	mg/L	10	20	AC24003	03/17/22 19:14	03/17/22 19:14	1551	EPA 300.0	
Anions by EPA Method 300.1										
Bromide	36	mg/L	25	1	AC24609	03/29/22 07:05	03/29/22 07:05	1551	EPA 300.1	
Surrogate: Dichloroacetate	113 %		90-115		AC24609	03/29/22 07:05	03/29/22 07:05	1551	EPA 300.1	
Burlingame - D (22C2440-03)										
Sample Type: Water										
Sampled: 03/16/22 08:20										
Metals by EPA 200 Series Methods										
Boron	ND	mg/L	0.20	1	AC24601	03/29/22 14:19	03/30/22 16:38	1551	EPA 200.7	P-02
Calcium	40	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:38	1551	EPA 200.7	
Magnesium	17	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:38	1551	EPA 200.7	
Potassium	1.8	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:38	1551	EPA 200.7	
Sodium	50	mg/L	1.0	1	AC24601	03/29/22 14:19	03/30/22 16:38	1551	EPA 200.7	



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San Bruno, City of - DW
 225 Huntington Avenue
 San Bruno, CA 94066

Project Manager: Steve Salazar
 Project: SF Intrusion Project
 Project Number: [none]

Reported:
 04/07/22 10:53

	Result	Units	Reporting Limit	Dilution	Batch	Prepared	Analyzed	ELAP#	Method	Note
Burlingame - S (22C2440-05)			Sample Type: Water			Sampled: 03/16/22 08:28				
Conventional Chemistry Parameters by APHA/EPA Methods										
Bicarbonate	530	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Orthophosphate as P	ND	mg/L	0.10	1	AC24051	03/17/22 17:50	03/17/22 18:15	1551	SM4500-P E	
pH	7.33	pH Units	1.68	1	AC24199	03/17/22 16:00	03/17/22 17:00	1551	SM4500-H+ B	T-14
Specific Conductance (EC)	4400	umhos/cm	20	1	AC24199	03/17/22 16:00	03/17/22 17:00	1551	SM2510B	
Total Dissolved Solids	2400	mg/L	10	1	AC24386	03/23/22 09:00	04/04/22 16:59	1551	SM2540C	
Bicarbonate Alkalinity as CaCO3	440	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Carbonate Alkalinity as CaCO3	ND	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Hydroxide Alkalinity as CaCO3	ND	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Total Alkalinity as CaCO3	440	mg/L	5.0	1	AC24667	03/29/22 08:32	03/29/22 13:30	1551	SM2320B	
Anions by EPA Method 300.0										
Chloride	1300	mg/L	50	100	AC24003	03/18/22 11:42	03/18/22 11:42	1551	EPA 300.0	
Nitrate as N	ND	mg/L	1.0	5	AC24003	03/17/22 19:31	03/17/22 19:31	1551	EPA 300.0	R-01
Sulfate as SO4	31	mg/L	2.5	5	AC24003	03/17/22 19:31	03/17/22 19:31	1551	EPA 300.0	
Anions by EPA Method 300.1										
Bromide	4.8	mg/L	2.5	1	AC24609	03/29/22 09:30	03/29/22 09:30	1551	EPA 300.1	
Surrogate: Dichloroacetate	112 %		90-115		AC24609	03/29/22 09:30	03/29/22 09:30	1551	EPA 300.1	



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Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

San Bruno, City of - DW
225 Huntington Avenue
San Bruno, CA 94066

Project Manager: Steve Salazar
Project: SF Intrusion Project
Project Number: [none]

Reported:
04/07/22 10:53

Notes and Definitions

- P-02 Sample acidified to pH <2 and allowed to sit 24 hours before further processing.
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- R-01 The Reporting Limit for this analyte has been raised to account for matrix interference.
- T-14 Residual chlorine, dissolved oxygen, sulfite, and pH must be analyzed in the field to meet the EPA specified 15 minute hold time.
- ND Analyte NOT DETECTED at or above the reporting limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Non-accredited analytes are reported only when ELAP accreditation for a requested analyte method pair is not available. For a list of accredited analytes, view our certificates at the Company link on our website at www.alpha-labs.com or contact your Project Manager directly.

Chain of Custody Record

Lab No. 22C2440 Page of

Name: City of San Bruno - Drinking Water		Project No: SF Intrusion Project		Signature below authorizes work under terms stated on reverse side.										Analysis Request		Sample Notes		TAT			
Mailing Address: 225 Huntington Avenue San Bruno, CA 94066		Project ID:																24 hr		Lab Approval Required For Rush	
Project Contact (Hardcopy or PDF to): Steve Salazar ssalazar@sanbruno.ca.gov		PO#																24 hr			
Phone/Fax: ssalazar@sanbruno.ca.gov		Bill to:		48 hr		Lab Approval Required															
Field Sampler - Print Name & Signature		Sample Collection		Container			Preservative				Matrix			1 wk							
Sample Identification		Date Time		40ml VOA	Poly	Amber	Sleeve	HCL	HNO3	H2SO4	other	None	Water	Soil	2 wk (standard)						
SFO-D	3-16-22 8:52AM	2										X	X	X	X	X					
SFO-S	3-16-22 8:55AM	2										X	X	X	X	X					
BURLINGAME -D	3-16-22 8:10AM	2										X	X	X	X	X					
BURLINGAME-M	3-16-22 8:24AM	2										X	X	X	X	X					
BURLINGAME-S	3-16-22 8:26AM	2										X	X	X	X	X					
Relinquished by: <u>Trevor Lavezzo</u>		Received by: <u>David</u>		Date: <u>3-16</u>		Time: <u>1148</u>															
Relinquished by: <u>JK</u>		Received by: <u>JE</u>		Date: <u>3-16</u>		Time: <u>1940</u>															
Relinquished by: <u>JE</u>		Received by: <u>JE</u>		Date: <u>3-16</u>		Time: <u>2250</u>															
Relinquished by:		Received by:		Date:		Time:															
Relinquished by:		Received for Laboratory by:		Date:		Time:															



alpha

Alpha Analytical Laboratories, Inc.

email: clientservices@alpha-labs.com

Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

24 August 2022

San Bruno, City of - DW

Attn: Steve Salazar

225 Huntington Avenue

San Bruno, CA 94066

RE: SF Intrusion Project

Work Order: 22H0715

Enclosed are the results of analyses for samples received by the laboratory on 08/03/22 23:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robbie C. Phillips

Project Manager



Alpha Analytical Laboratories, Inc.

email: clientservices@alpha-labs.com

Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

San Bruno, City of - DW
225 Huntington Avenue
San Bruno, CA 94066

Project Manager: Steve Salazar
Project: SF Intrusion Project
Project Number: [none]

Reported:
08/24/22 11:02

Bay Area: 262 Rickenbacker Circle | Livermore, CA 94551 | 925-828-6226 | ELAP# 2728
Central Valley: 9090 Union Park Way Suite 113 | Elk Grove, CA 95624 | 916-686-5190 | ELAP# 2922
North Bay: 737 Southpoint Blvd Unit D | Petaluma, CA 94954 | 707-769-3128 | ELAP# 2303
San Diego: 2722 Loker Avenue West Suite A | Carlsbad, CA 92010 | 760-930-2555 | ELAP# 3055
Los Angeles: 1230 E. 223rd Street Suite 205 | Carson, CA 90745 | 424-267-5032 | Service Center

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SFO-D	22H0715-01	Water	08/03/22 08:40	08/03/22 23:50
SFO-S	22H0715-02	Water	08/03/22 08:50	08/03/22 23:50
Burlingame - D	22H0715-03	Water	08/03/22 07:50	08/03/22 23:50
Burlingame - M	22H0715-04	Water	08/03/22 08:00	08/03/22 23:50
Burlingame - S	22H0715-05	Water	08/03/22 08:10	08/03/22 23:50



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email: clientservices@alpha-labs.com

Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

San Bruno, City of - DW
225 Huntington Avenue
San Bruno, CA 94066

Project Manager: Steve Salazar
Project: SF Intrusion Project
Project Number: [none]

Reported:
08/24/22 11:02

	Result	Units	Reporting Limit	Dilution	Batch	Prepared	Analyzed	ELAP#	Method	Note
SFO-D (22H0715-01)										
	Sample Type: Water				Sampled: 08/03/22 08:40					
Metals by EPA 200 Series Methods										
Boron	ND	mg/L	0.20	1	AH23771	08/12/22 09:15	08/15/22 17:27	1551	EPA 200.7	P-02
Calcium	61	mg/L	1.0	1	AH23771	08/12/22 09:15	08/15/22 17:27	1551	EPA 200.7	
Magnesium	44	mg/L	1.0	1	AH23771	08/12/22 09:15	08/15/22 17:27	1551	EPA 200.7	
Potassium	10	mg/L	1.0	1	AH23771	08/12/22 09:15	08/15/22 17:27	1551	EPA 200.7	
Sodium	210	mg/L	1.0	1	AH23771	08/12/22 09:15	08/16/22 11:15	1551	EPA 200.7	
Conventional Chemistry Parameters by APHA/EPA Methods										
Bicarbonate	280	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Orthophosphate as P	0.19	mg/L	0.10	1	AH23401	08/04/22 17:15	08/04/22 17:30	1551	SM4500-P E	
pH	7.47	pH Units	1.68	1	AH23590	08/04/22 16:00	08/04/22 17:00	1551	SM4500-H+ B	T-14
Specific Conductance (EC)	1600	umhos/cm	20	1	AH23590	08/04/22 16:00	08/04/22 17:00	1551	SM2510B	
Total Dissolved Solids	970	mg/L	10	1	AH23587	08/08/22 14:30	08/17/22 09:34	1551	SM2540C	
Bicarbonate Alkalinity as CaCO3	230	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Carbonate Alkalinity as CaCO3	ND	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Hydroxide Alkalinity as CaCO3	ND	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Total Alkalinity as CaCO3	230	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Anions by EPA Method 300.0										
Chloride	360	mg/L	12	25	AH23367	08/05/22 10:43	08/05/22 10:43	1551	EPA 300.0	
Nitrate as N	ND	mg/L	0.20	1	AH23367	08/04/22 21:06	08/04/22 21:06	1551	EPA 300.0	
Sulfate as SO4	37	mg/L	12	25	AH23367	08/05/22 10:43	08/05/22 10:43	1551	EPA 300.0	
Anions by EPA Method 300.1										
Bromide	0.58	mg/L	0.25	5	AH23734	08/12/22 22:43	08/12/22 22:43	1551	EPA 300.1	R-01
Surrogate: Dichloroacetate	467 %		90-115		AH23734	08/12/22 22:43	08/12/22 22:43	1551	EPA 300.1	S-06
SFO-S (22H0715-02)										
	Sample Type: Water				Sampled: 08/03/22 08:50					
Metals by EPA 200 Series Methods										
Boron	0.85	mg/L	0.20	1	AH23771	08/12/22 09:15	08/15/22 17:38	1551	EPA 200.7	P-02
Calcium	530	mg/L	1.0	1	AH23771	08/12/22 09:15	08/15/22 17:38	1551	EPA 200.7	
Magnesium	620	mg/L	1.0	1	AH23771	08/12/22 09:15	08/15/22 17:38	1551	EPA 200.7	
Potassium	77	mg/L	1.0	1	AH23771	08/12/22 09:15	08/15/22 17:38	1551	EPA 200.7	
Sodium	5300	mg/L	10	10	AH23771	08/12/22 09:15	08/16/22 12:06	1551	EPA 200.7	

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



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225 Huntington Avenue
San Bruno, CA 94066

Project Manager: Steve Salazar
Project: SF Intrusion Project
Project Number: [none]

Reported:
08/24/22 11:02

	Result	Units	Reporting Limit	Dilution	Batch	Prepared	Analyzed	ELAP#	Method	Note
Burlingame - S (22H0715-05)			Sample Type: Water			Sampled: 08/03/22 08:10				
Conventional Chemistry Parameters by APHA/EPA Methods										
Bicarbonate	510	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Orthophosphate as P	ND	mg/L	0.10	1	AH23401	08/04/22 17:15	08/04/22 17:30	1551	SM4500-P E	
pH	7.48	pH Units	1.68	1	AH23590	08/04/22 16:00	08/04/22 17:00	1551	SM4500-H+ B	T-14
Specific Conductance (EC)	4000	umhos/cm	20	1	AH23590	08/04/22 16:00	08/04/22 17:00	1551	SM2510B	
Total Dissolved Solids	2300	mg/L	10	1	AH23587	08/08/22 14:30	08/17/22 09:34	1551	SM2540C	
Bicarbonate Alkalinity as CaCO3	420	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Carbonate Alkalinity as CaCO3	ND	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Hydroxide Alkalinity as CaCO3	ND	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Total Alkalinity as CaCO3	420	mg/L	5.0	1	AH24032	08/16/22 08:13	08/16/22 12:45	1551	SM2320B	
Anions by EPA Method 300.0										
Chloride	1100	mg/L	50	100	AH23367	08/05/22 11:17	08/05/22 11:17	1551	EPA 300.0	
Nitrate as N	ND	mg/L	1.0	5	AH23367	08/04/22 23:20	08/04/22 23:20	1551	EPA 300.0	R-01
Sulfate as SO4	35	mg/L	2.5	5	AH23367	08/04/22 23:20	08/04/22 23:20	1551	EPA 300.0	
Anions by EPA Method 300.1										
Bromide	ND	mg/L	12	1	AH23734	08/13/22 01:57	08/13/22 01:57	1551	EPA 300.1	R-01
Surrogate: Dichloroacetate	101	%	90-115		AH23734	08/13/22 01:57	08/13/22 01:57	1551	EPA 300.1	



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Project Number: [none]

Reported:
08/24/22 11:02

Notes and Definitions

- P-02 Sample acidified to pH <2 and allowed to sit 24 hours before further processing.
- QM-01 The spike recovery for this QC sample is outside of established control limits possibly due to a sample matrix interference.
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- R-01 The Reporting Limit for this analyte has been raised to account for matrix interference.
- S-04 The surrogate recovery for this sample is outside of established control limits possibly due to a sample matrix effect.
- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interferences.
- T-14 Residual chlorine, dissolved oxygen, sulfite, and pH must be analyzed in the field to meet the EPA specified 15 minute hold time.
- ND Analyte NOT DETECTED at or above the reporting limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Non-accredited analytes are reported only when ELAP accreditation for a requested analyte method pair is not available. For a list of accredited analytes, view our certificates at the Company link on our website at www.alpha-labs.com or contact your Project Manager directly.

Name: City of San Bruno - Drinking Water		Project No: SF Intrusion Project		Signature below authorizes work under terms stated on reverse side.										Analysis Request		Sample Notes		TAT															
Mailing Address: 225 Huntington Avenue San Bruno, CA 94066		Project ID:																24 hr <input type="radio"/> 48 hr <input type="radio"/> Lab Approval Required 1 wk <input type="radio"/> 2 wk (standard) <input type="radio"/> Lab Approval Required For Rush															
Project Contact (Hardcopy or PDF to): Steve Salazar ssalazar@sanbruno.ca.gov		PO#																															
Phone/Fax: ssalazar@sanbruno.ca.gov		Bill to:																															
Field Sampler - Print Name & Signature J. Galea		Sample Collection		Container			Preservative				Matrix																						
Sample Identification		Date Time		40ml VOA	Poly	Amber	Sleeve	HCL	HNO3	H2SO4	other	None	Water	Soil	B, Ca, Mg, Na, K, Bicarbonate	Sulfate, Chloride, TDS, Alkalinity	Nitrate as N, Orthophosphate as P	pH, Conductance	Bromide														
SFO-D		8/3/22 840		2									X	X	X	X	X	X	X														
SFO-S		850		2									X	X	X	X	X	X	X														
BURLINGAME -D		750		2									X	X	X	X	X	X	X														
BURLINGAME-M		800		2									X	X	X	X	X	X	X														
BURLINGAME-S		810		2									X	X	X	X	X	X	X														
Relinquished by: <i>J. Galea</i>		Received by: <i>J. Salazar</i>		Date: 8-3-22		Time: 13:42																											
Relinquished by: <i>J. Salazar</i>		Received by: <i>J. Salazar</i>		Date: 8-3		Time: 2040																											
Relinquished by: <i>J. Salazar</i>		Received by: <i>J. Salazar</i>		Date: 8-3		Time: 2300																											
Relinquished by:		Received by:		Date:		Time:																											
Relinquished by:		Received for Laboratory by:		Date:		Time:																											

Appendix C
Westside Basin Groundwater Monitoring Manual of Procedures

Westside Basin Groundwater Monitoring Manual of Procedures

Final

March 2014

Foreword

The San Francisco Public Utilities Commission (SFPUC) has authorized two new groundwater projects to help meet the SFPUC's regular and dry year water supply needs. The San Francisco Groundwater Supply Project (SFGW) will provide a total of up to 4 mgd from 6 wells in San Francisco as a regular water supply to supplement the existing surface water supply in San Francisco. The Regional Groundwater Storage and Recovery (GSR) Project will pump up to 7.2 mgd from 16 wells in northern San Mateo County as a regional dry year water supply.

Over the past 15 years, the SFPUC has worked with the Dal City, San Bruno and Cal Water to develop a network of monitoring and test wells and a sampling program to characterize groundwater quality and water levels in the Westside Basin. This program allows basin users to monitor the long-term condition of the basin; helps establish baseline conditions prior to implementation of the SFPUC's projects; and will inform future basin operations.

This document outlines the technical procedures for the SFPUC groundwater sampling programs in the Westside Basin. The Water Quality Division (WQD) will complete sampling and coordination with the Water Resources Division (WRD) according to standards and programmatic details described in this manual. WRD will continue to provide groundwater project management, data analysis, and reporting.

This formal program description applies to routine monitoring and sampling. Additional monitoring Standard Operating Procedures (SOPs) for environmental assessments and remediation, environmental discharges for future drinking wells, and other special studies will require alternative sampling procedures. The SFPUC Water Quality Division would like to acknowledge and thank the following individuals who have contributed to this project:

SFPUC – Water Quality Division

Andrew DeGraca, P.E.

Manouchehr Boozarpour, P.E.

Alan R. Wong, P.E.

Roberto V. Gonzales, P.G.

Karen Chu, E.I.T.

Ryan Gabriel, P.E.

SFPUC – Water Resources Division

Greg Bartow, C.E.G., C.HG.

Jeff Gilman, C.E.G., C.HG.

Carolyn Cooper, P.G.

SFPUC – Natural Resources Division

Jason Bielski

Scott Taylor

Baseline Environmental Consulting

William K. Scott, P.G., C.E.G., C.HG

Monika Krupa

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Appendix A: Well Descriptions and Locations

Appendix B: Groundwater Sampling Procedure Flow Chart and Summary

Appendix C: General Supply and Equipment Checklist

Appendix D: Title 22 Constituents with Additional Parameters of Concern for
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Appendix E: Field Forms

Appendix F: Individual Well Site Maps and Photos

Appendix G: Operations Manual, Calibration, and Maintenance Procedures

1.1. Overview

The San Francisco Public Utilities Commission (SFPUC) has developed a groundwater monitoring program for the Westside Basin in support of its groundwater management goals and various planned groundwater projects. Monitoring of groundwater elevations and water quality is conducted to evaluate the potential for seawater intrusion, determine water quality and groundwater conditions in areas of potential groundwater development, define lake-aquifer interaction, assess general conditions in the Westside Basin resulting from historical and ongoing pumping, and establish baseline groundwater conditions prior to and during implementation of various groundwater projects.

This manual provides formal procedures and program descriptions of Westside Groundwater Basin monitoring for SFPUC staff involved with the sampling and field analytical measurement, as well as for the data analysis and reporting for the various groundwater programs. The manual does not, however, include any environmental assessment protocols that may affect groundwater quality. This information can be referenced from the latest Drinking Water Source Assessment Program documents for the proposed San Francisco Groundwater (SFGW) Project as well as the proposed Regional Groundwater Storage and Recovery (GSR) Project.

1.2. Background

The Westside Basin is composed of a series of aquifers with its north boundary located in Golden Gate Park in San Francisco stretching to its southern boundary in the City of Burlingame in San Mateo County. The City of Daly City, California Water Service Company (Cal Water), and the City of San Bruno currently operate a series of wells that distribute groundwater from the Westside Basin to their respective systems. These entities also receive water from the SFPUC's Regional Water System.

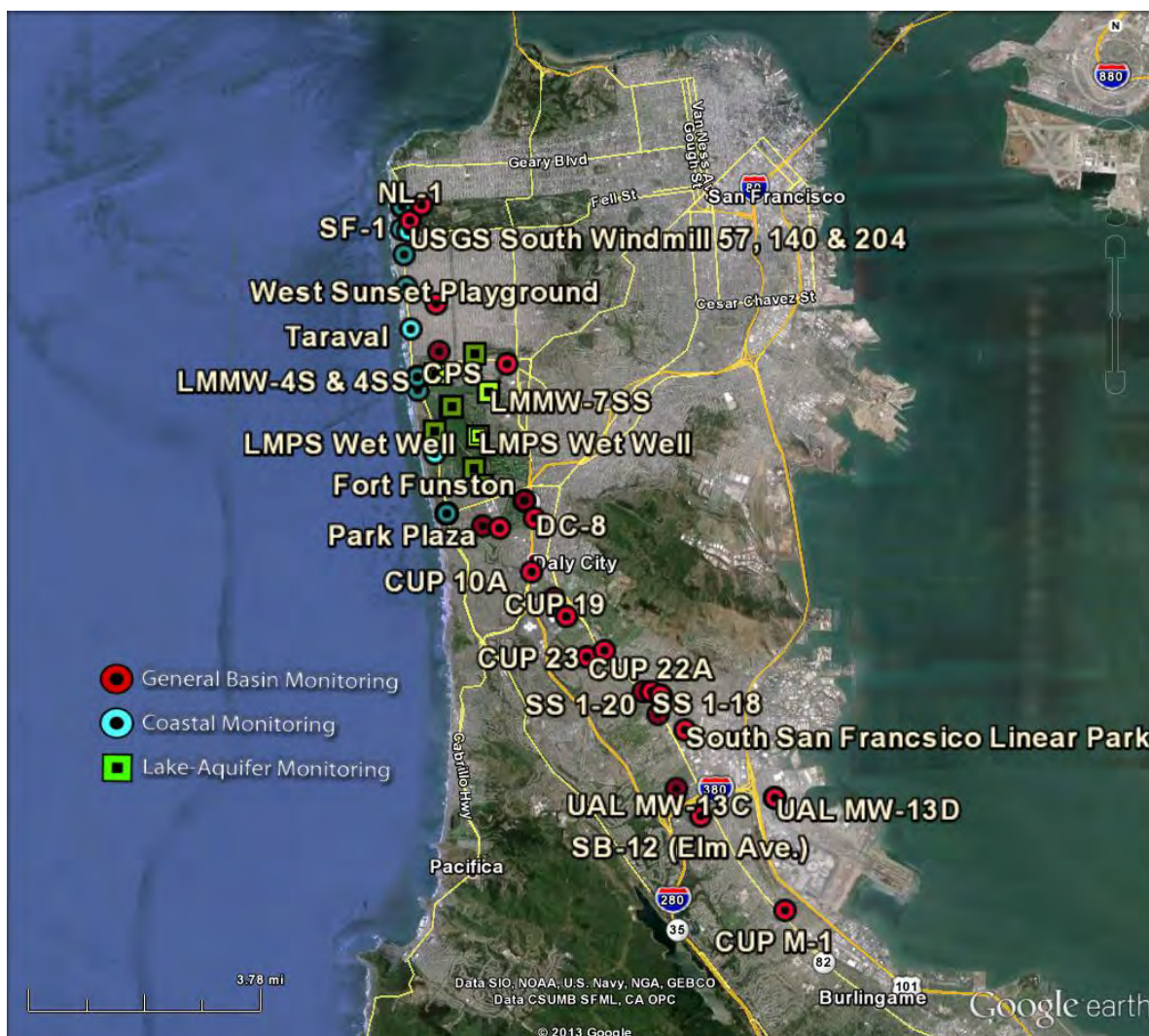
As with the agencies noted above, the SFPUC plans to supplement existing surface water supplies with groundwater. The SFGW project was developed to supply up to four million gallons per day (MGD) from the North Westside Basin from six production wells. These wells will be operated continuously in order to increase the long term availability of water in San Francisco. The GSR project was designed to supply up to 7.2 MGD of groundwater from the South Westside Basin during drought conditions.

In 2000, the San Mateo County Environmental Health Services Agency initiated the effort in sampling and testing groundwater conditions throughout the Westside Basin. In 2004, the program coordination was shifted to the SFPUC in cooperation with Daly City, San Bruno, and Cal Water (Partner Agencies). The SFPUC continues to lead the monitoring and sampling programs in the Westside Basin based on groundwater management goals and any supporting data needed for the SFGW and GSR projects.

Water quality and level sampling is currently handled by the Natural Resources Division (NRD) and an outside consulting firm with oversight and coordination by the Water Resources Division (WRD). The Water Quality Division will assume the role of sampling during fall of 2013. Water quality samples are processed through Millbrae Laboratories and select samples are sent to subcontracted laboratories for analysis.

All well locations are sampled from a network of existing monitoring and production wells located throughout the Westside Basin. A complete list of individual well sites and map locations can be found in Appendix F.

This document is not intended to cover monitoring procedures for any future potable water well facilities.



1.3. Governing Regulations

Groundwater regulations and guidance materials for the procedures listed in this manual were researched from available literature, web search of regulatory sites and through contact with the local California Department of Public Health. Existing practices already in use by Water Resources & Natural Resources Divisions and various consultants were also considered.

No specific regulations were identified governing monitoring well sample techniques, operations and maintenance. Most of the available guidelines were found from U.S. EPA, Region 9 (Western Region) and Region 4 Science, Ecosystem Support Division (SESD, Southeast Region based in Atlanta). The latter SESD document was dated 2013 and referenced several other research and guidance recommendations found online.

Summaries of key regulations and guidelines governing monitoring well sampling, operations and maintenance, sorted by agency, are as follows:

United States Environmental Protection Agency (U.S. EPA), Region 9 and Region 4. No regulations were found, however several guidance documents were published on sampling and operating procedure, well and depth measurement, decontamination and field equipment cleaning.

California Department of Water Resources (CA DWR). Published regulations for monitoring well construction, disinfection and destruction/abandonment in DWR Bulletin 74 and Bulletin 91. No specific regulations or guidance were found for operations, sampling or monitoring of wells. DWR permits monitoring wells, and construction data must be submitted to DWR and assigned a state well number.

California Regional Water Quality Control Board. Governs discharges to state water bodies and reinjection of water into the aquifer. No specific regulations or guidance were found for operations, sampling or monitoring of wells.

California Department of Public Health. Oversees drinking water regulations and statutes in California Code of Regulations Title 22. Regulations cite aquifer protection and prevention of groundwater contamination. No specific regulations or guidance found for operations, or sampling or monitoring of wells.

San Francisco Department of Public Health. Provides local jurisdiction of wells and enforces City and County of San Francisco regulations. Regulations in Article 12B of the San Francisco Health Code include language regarding prohibiting contamination of groundwater and well/boring construction and destruction requirements. No specific regulations or guidance were found for operations, sampling or monitoring of wells.

Project Objective

The objective of this project is to create a Manual of Procedures (MOP) for the various groundwater sampling and monitoring programs for the Westside Basin. It includes details and descriptions for each monitoring program, locations for each well site, coordinates and direction data for each well, and standard operating procedures (SOPs) for water quality, water level sampling, and the various types of equipment used for groundwater sampling.

The basin monitoring programs are divided into five categories. The description for each category is as follows:

Table 2.1-1: Well Monitoring Categories and Objectives

Category	Objective
General Basin Monitoring	Hydrogeologic dynamics of groundwater conditions (levels)
Coastal Monitoring	Detection of seawater intrusion at coastal and bayside locations
Lake-Aquifer Monitoring	Characterization of lake-aquifer interactions around Lake Merced
Groundwater Supply	Assessment of groundwater conditions at proposed local and regional drinking water well locations
Miscellaneous Projects	Sampling support for all other groundwater-related projects (e.g. Contaminants of Emerging Concern (CEC) Study)

Well Locations and Descriptions

Wells used for the various sampling protocols for the Westside Basin are located locally throughout Golden Gate Park, Sunset District, and Lake Merced, as well as in Daly City, Colma, South San Francisco, Millbrae, Burlingame, and San Bruno. These wells include various monitoring wells and existing wells developed by SFPUC and Partner Agencies along the Peninsula. Appendix A lists each well sampling location along with its associated physical parameters that may aid in the sampling process. These parameters include:

- Well type
- Sample method
- Geospatial coordinates
- Location
- Water level from previous sampling event
- Case diameter
- Total depth of casing, below top of casing (BTOC)
- Measured total depth of casing, BTOC
- Screen interval
- Year Installed
- Additional comments (well condition, special access or location information)

Table 3.1-1 below tabulates typical sampling and analyses for well sites in the Westside Basin. Additional constituents are added on an as-needed basis.

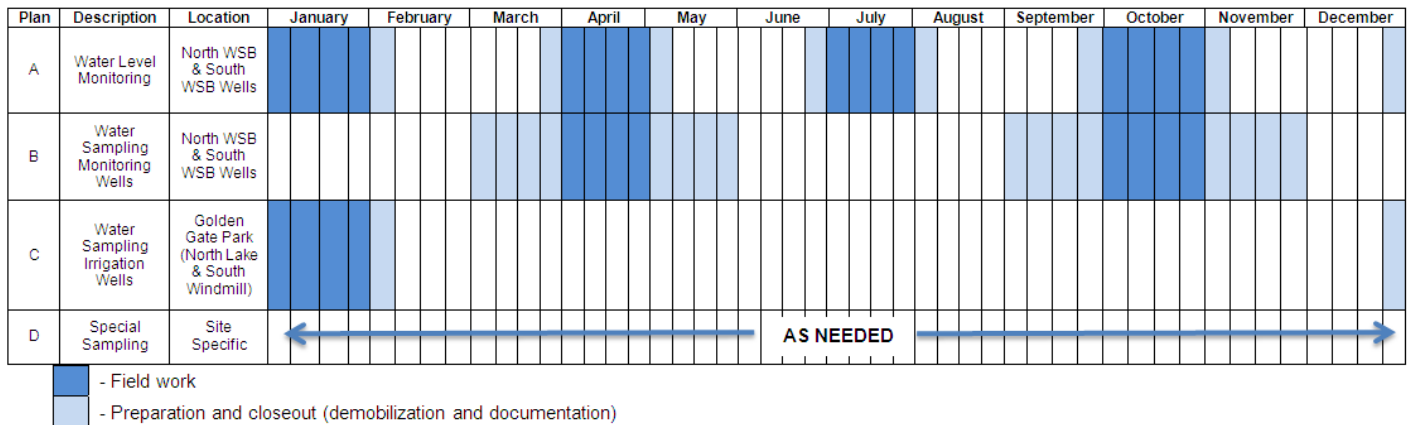
Table 3.1-1: Analyses and Associated Well Sites

Analyses	Well Names
Chloride, TDS, Specific Conductance	USGS South Windmill MW57, 140 Kirkham MW130, 255, 385, 435 Ortega MW125, 265, 400, 475 Taraval MW145, 240, 400, 530 Zoo MW275, 450, 565
Total Alkalinity, pH, Specific Conductance, TDS, Hardness, Calcium, Magnesium, Sodium, Potassium, Bicarbonate as CaCO ₃ , Chloride, Sulfate, and Nitrate	NL-1 SF-1 NWM-3 SWM-3 West Sunset Playground LMMW-1S, 1D, 2S, 2D, 3S, 3D, 6D

Analyses	Well Names
<p>Total Alkalinity, pH, Specific Conductance, TDS, Hardness, Calcium, Magnesium, Sodium, Potassium, Bicarbonate as CaCO₃, Chloride, Sulfate, Nitrate, Total and Dissolved Iron and Manganese</p>	<p>CUP 3A MW180, 240, 450, 580 CUP 10A MW160, 250, 500 CUP 18A MW230, 425, 490 CUP 19 MW475, 600, 690 CUP 22A MW290, 440, 545 CUP 23 MW230, 440, 515, 600 CUP 31A MW145, 280, 480, 595 CUP 36-1 MW160, 270, 455, 585 CUP 44-1 MW190, 300, 460, 580 CUP MW-M1 Park Plaza MW195, 460, 620 SSFLP MW120, 220, 440, 520</p>
<p>Water Level</p>	<p>CPS MW190, 270 CUP 3A MW180, 240, 450, 580 CUP 10A MW160, 250, 500, 710 CUP 18A MW230, 425, 490, 595 CUP 19 MW180, 475, 600, 690 CUP 22A MW140, 290, 440, 545 CUP 23 MW230, 440, 515, 600 CUP 31A MW145, 280, 480, 595 CUP 36-1 MW160, 270, 455, 585 CUP 44-1 MW190, 300, 460, 580 CUP MW-M1 DC-1 (Westlake) DC-8 Fort Funston S, M, D LMMW 1S, 1D, 2S, 2D, 2SS, 3S, 3SS, 3D, 4S, 4SS, 5S, 5SS, 6D 7SS, 8SS, 9SS LMPS MW155, 270, 440, 575 LMPS Wet Well NL-1 NWM-3 Ortega MW125, 265, 400, 475 Park Plaza MW135, 190, 460, 620 Kirkham MW130, 255, 385, 435 SB-12 SF-1 SS 1-02, SS 1-18, SS 1-20 SSFLP MW120, 220, 440, 520 SWM-3 Taraval MW145, 240, 400, 530 Thornton Beach MW225, 360, 670 UAL MW13C, 13D USGS South Windmill 57, 140 West Sunset Playground Zoo MW275, 450, 565</p>

Monitoring Schedule

A monitoring schedule has been implemented to accommodate the various sampling events throughout the calendar year. The program list includes Semi-Annual (water quality, level), Quarterly, Annual Production (Title 22 for various test/monitoring wells), Specific Sampling (repeat sampling for detected contaminants of concern), and Special Projects. Figure 2 shows the overall Basin monitoring schedule.



- Plan A - Quarterly Water Level Monitoring:** Water level measurements and downloading transducers (levelloggers and barologgers)
- Plan B - Semi-Annual Water Sampling and Water Level Monitoring:** Plan A activities and groundwater sampling for well specific constituents
- Plan C - Annual Water Sampling:** Groundwater sampling for full Title 22 constituents (test wells and regulatory wells)
- Plan D - Special Groundwater Sampling:** usually conducted with regular scheduled well sampling

Figure 2: Groundwater Sampling and Monitoring Schedule

Staffing

WQD will maintain field sampling equipment, conduct field sampling, compile field sampling records, coordinate pick-up and drop-off of sample containers, and coordinate with WRD according to the standards and programmatic details described in this manual. WRD will provide project management, data analysis, and reporting.

A minimum of one engineer/scientist and one senior technician from WQD will be needed to conduct the field work for each sampling event. The engineer/ scientist will review & analyze data, reporting and program development. The scientist will manage equipment, scheduling, and preparation for sampling, and perform field work and analysis with assistance from the team.

Note: The field work component of the prior water sampling events required two full-time scientists from the Natural Resource Division (NRD) for two weeks for shallow well sampling and two full-time staff members from Baseline Environmental Consulting for two weeks for deep

well sampling. Coordination and program management by one scientist from WRD remains unchanged for the new program.

Major Equipment

Westside Groundwater Basin monitoring and sampling requires mechanical and electrical equipment to measure water level and well depths, and extract water from the well. These equipment are sized to fit within the 2" diameter well casing, and needs to be securely fastened so that the equipment can be retrieved after measurement and sampling.

A multi-parameter field analyzer is needed to monitor the water quality during the purging process, where specific parameters are measured for stability and consistency.

Equipment is bulky and heavy and requires a large vehicle for transport. Operations, maintenance and safety protocols are provided in Appendix G. Key equipment are listed and briefly discussed below:

Level Tape and Reel

Tape measures to 0.01 feet and is attached to a probe with an electrode sensor to detect water depth, with either a manual hand crank or automated reel. Westside Basin monitoring requires tape lengths of 500' to 750'. Tape should be decontaminated and cleaned between uses.

Well Pump

Groundwater can be extracted from wells by hand bailers or pump-tubing systems. Pumps allow the sampler to purge standing well water and obtain fresh groundwater from the source aquifer. For the Westside Basin monitoring, two pump systems are used.

Submersible Pump – (e.g. Grundfos RediFlo2 electrical submersible pump, Portable Purge and Sampling Pump System, 100ml/min to 9gpm, 5.5lbs. 5HP. 220V 5.5amps; 1.8 in diameter). This multistage centrifugal pump provides a higher flow to purge shallow wells (280' or less), and provide continuous flow for sampling. Pump placement should be within the top 3 to 5' of the water surface so that the casing can be purged of at least 3 well casing volumes of water. The pump and tubing/ hose reel assembly is operated with a VFD flow controller. A stainless steel wireline cable is attached to the pump to ensure retrieval from well.

Bladder Pump – (e.g. Geotech bladder pump). This pump, equipped with small diameter tubing (1/4 in and 3/8 in OD) is used to sample deeper wells (up to 1000' depth), and provides continuous low flow (at 100 – 500 ml/min) for sampling. The pump operates with pressurized CO₂ gas to expand and compress the bladder to suction lift the sample to the surface. Gas does not come into contact with the sample. The pump fits within 2" diameter monitoring wells. Pump placement should be at mid-screen depth so that formation water is extracted directly from the target aquifer. Purging of water inside the sample tubing is required (to at least 3 tubing volumes). Other equipment used in conjunction with the bladder pump include: flow controller,

CO₂ cylinder with pressure regulator and stainless steel cable to ensure retrieval from the well.

Other Pumps – Other types of pumps include bailers, peristaltic pumps, and hydra-sleeves. A peristaltic pump may be used to purge and sample shallow wells (to about 25 feet). Also, it is used when decontaminating the tubing and pump.

Tubing

Silicon Silicone Tubing (1/2" ID, 5/8" OD, 300'). Stain, corrosion and ozone/UV resistant tubing used to purge and sample wells. Tubing is odorless and inert, but susceptible to high temperatures and should be replaced if gummy. NSF61 certified. For use with submersible pump.

Polyethylene tubing (1/4" ID, 3/8" OD, 1000')

Teflon Tubing (Teflon® and Silastic® or Tygon®, PTFE Type 1, Grade E5, 150 psi, 1/4" OD x 0.040 wall and 3/8"OD x 0.062 wall/SS nuts and fittings or equivalent)

Generator

A gas generator is used to power the submersible pump. A Honda 2000i EU Inverter is available for use. This unit provides 2000 watts, 120V, 9.6 hours run time for 1 gal of gas. Weight: 47 lbs.

Multi-parameter Water Quality instrument

Field parameters such as pH, conductivity, DO, ORP, temperature and turbidity are measured and monitored when purging wells. Multi-parameter water quality meter used include: YSI 556, YSI Professional Plus, Horiba U-10, Hach MP-6, Hach 40-D, and Hach 2100P Turbidimeter. The multi-parameter meters are recommended for use with a flow-through cell unit.

Leveloader

Some of the wells are equipped with transducers/data loggers that continuously monitor water level and temperature. In particular, Solinst Leveloggers and Barologgers may be found suspended on a wire line cable or coaxial "direct read cables" inside the well. The table in Appendix A indicates the wells that currently have transducers and/or barologgers installed in them. Connecting the cable end of the data loggers to a Leveloader allows viewing of the data, downloading and/or programming in the field.

5.1 Groundwater Sampling Protocol

This section describes general and specific procedures, methods and considerations to be used and observed in the collection and documentation of groundwater well data and groundwater samples for field screening and laboratory analysis, during its quarterly, semi-annual and annual schedules.

5.2 Monitoring and Sampling Overview

The following list highlights key procedures when planning any groundwater monitoring and sampling activities:

Determine monitoring/sampling schedule as calendared

Determine and coordinate activity requirements (inter-agency services, e.g. access, sample bottles from the laboratory, and equipment)

Understand field safety procedures, undergo training as necessary, and make available field safety equipment and PPE

Know proper safety protocols when handling and operating field equipment and appurtenances

Review well construction data and sampling history including purge stabilization data such as pump rates/ flow control adjustments, and water level data.

Coordinate sampling event with Millbrae Laboratory. Providing type of sampling (e.g. regulatory Title 22, basin study), well and analyte lists, QA/QC samples (field, equipment and trip blanks, and duplicates needed), as well as transportation and receiving procedures and deadlines.

Complete, check, calibrate, test and decontaminate monitoring and sampling equipment

Understand and manage applicable purge method and water sampling practices

Apply proper sampling protocol and field analytical techniques

Know proper field activity logging, recording, chain-of-custody procedures, and reporting

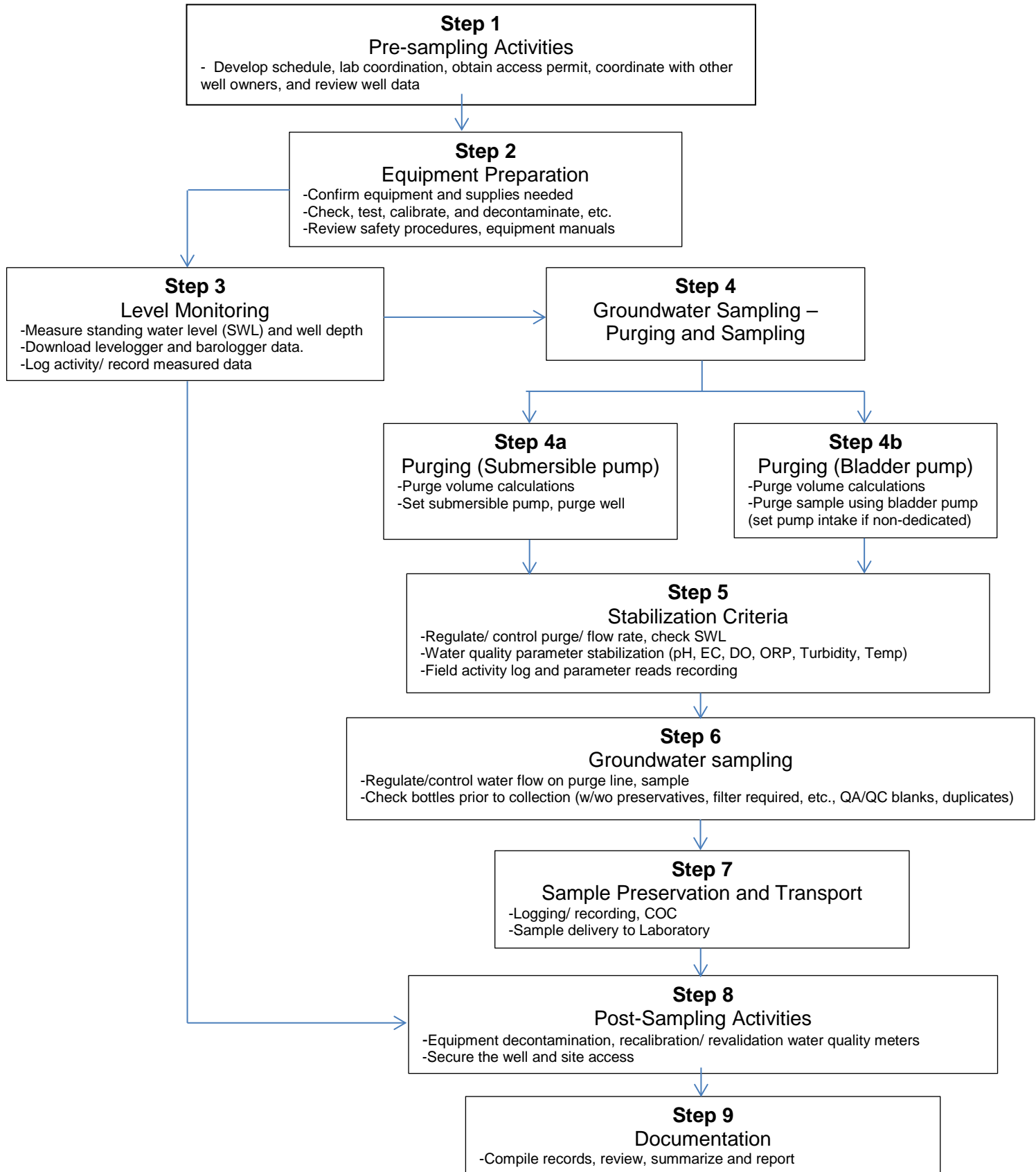


Figure 3: Groundwater Monitoring and Sampling Flow Chart

Table 5.2-1: Groundwater Monitoring and Sampling Plan Summary

<u>Step(s)</u>	<u>Procedure</u>	<u>Materials/Equipment</u>
Step 1 & 2: Pre-sampling Activity/ Mobilization	<p>Determine monitoring/ sampling schedule. Review last well data (level, purging and sampling data), and safety protocols. Schedule field activities and lab requirements, coordinate well access/ permits Confirm schedule, goals, and analytes with groundwater project managers List and procure monitoring/sampling and safety equipment/ supplies (sample bottles, preservatives, filters, cooler, ice, etc.) Complete, clean, calibrate, test, check batteries, and decontaminate sampling equipment Site inspection</p>	<p>SOP manual, well sampling data from last monitoring event Equipment and supply list</p>
Step 3: Level Monitoring	<p>Open well cover and cap, note integrity. Clean and de-water if necessary Measure and record water level and well depth (reference point as marked/or north side of top of casing) Download data, if data loggers are present. Decontaminate submerged meter and probe Secure well if only doing level monitoring.</p>	<p>Set of keys, tools Water Level meter Levellogger Barologger Leveloader Field record sheets</p>
Step 4 & 5: Well Purging and Recording	<p>Install submersible pump or bladder pump to intake depth. Pump water to a minimum of 3x standing water volume. *If using bladder pump, purge a minimum of 3x line/tubing volumes as calculated. Regulate flow and monitor water quality parameters until stable: pH, EC, DO, ORP, Temperature, Turbidity. Refer to stabilization criteria Record water quality data and pump data</p>	<p>Submersible pump (lift range to 300 ft.) Generator Bladder pump (used with deeper wells and/or if dedicated tube is present) Water level meter Laptop</p>
Step 6: Sample Collection and Recording	<p>Regulate water flow, use sample purge line for sampling. Use filter only if required. Check sample bottles to use with type of analysis (w/ or w/o preservative), field blanks, standards. Water level meter re-validation/ calibration (last sampling site) Equipment decontamination (pump, hose and tubing in contact with groundwater). Complete COC</p>	<p>Field blanks (Travel & Equipment blank, if necessary) Sample labels Duplicate samples and bottles Field forms, COC</p>
Step 7: Sample Preservation, Storage and Transport	<p>Place samples in cooler and keep chilled during transport to the laboratory. Preservation includes cooling the sample to 4°C (40°F) during transport, shipping and storage. It is best to deliver the samples to the laboratory on the same day as sampling.</p>	<p>Cooler Ice packs and chemical preservatives (if necessary)</p>
Step 8: Post Sampling Activity	<p>WQ meter/ probe calibration/revalidation). Clean and pack equipment and supplies Brush/ clean inside casing protector (if necessary) and secure the well.</p>	
Step 9: Documentation	<p>Compile data and review results Summarize results for sampling/monitoring event and report</p>	

Measurements of Groundwater Indicator Parameters

Indicator parameters are measured in the field to evaluate well flow stabilization during purging, provide information on general ground water quality, and to help evaluate well construction, or indicate when well maintenance is needed. Indicator parameters measured during well purging and sampling activities include specific conductance, pH, dissolved oxygen, oxidation-reduction potential, turbidity and temperature. These are reliably measured using multi-parameter water quality meters, or a combination of available meters and probes. Calibration procedures vary with each meter. Hence, it is important to follow the operating instructions supplied for each piece of equipment.

Calibration of instruments should be conducted prior to each day of monitoring/ sampling activity. Although calibration is preferred to be done in the field as close to the time of use, it may be conducted in a controlled environment that is in the laboratory or field office. It is always a good practice to re-calibrate and validate all instruments used after the last sampling location to compare with the initial calibration results while noting any significant deviations.

pH

Measurement of pH is conducted to determine the acid balance of the water on a scale of 1 (being strongly acid) to 14 (being strongly alkaline). It is ideally measured on site at the time of sampling.

Conductivity

Conductivity is a measure of the ability of water to conduct electricity. This is directly related to the concentration of dissolved ions; thus, it is a reasonable indication of the concentration of dissolved solids in the water. Like pH, conductivity is ideally measured in the field.

Temperature

Temperature is not necessarily an indicator of ground water chemical stabilization, and is generally not very sensitive in distinguishing between stagnant casing water and formation water. Nevertheless, temperature is important for data interpretation. Groundwater temperature is subject to rapid changes when collected for parameter measurement. Its usefulness is subject to question for the purpose of determining parameter stability. However, it is still advisable to record the sample temperature, along with the other groundwater chemistry parameters during well purging, as it may be needed to interpret other chemical parameter results in some situations.

Dissolved Oxygen (DO)

Dissolved oxygen (DO) has been noted to be a reliable indicator of the chemical stabilization of purge water under most ground water purging and sampling circumstances. DO is a good indicator when sampling for volatile organic compounds (VOCs), because erratic or elevated DO readings may reflect procedures that are causing excessive agitation and aeration of the ground water being drawn from the well and subsequent loss of VOCs. Artificially aerated ground water may also adversely affect dissolved metals analyses.

Turbidity

Turbidity is not an indicator of ground water chemical stabilization and does not distinguish between stagnant casing water and formation water. However, turbidity can be useful to measure during purging. Relatively high or erratic measurements may indicate improper sampling procedures, such as purging at an excessive rate that exceeds the well yield. Purging and sampling in a manner that produces low-turbidity water is particularly important when analyzing for total metals. When sampling for contaminants or parameters that may be biased by turbidity, stabilizing the turbidity readings at or below 10 Nephelometric Turbidity Units (NTUs) is recommended.

Oxidation Reduction Potential Meter

Oxidation-reduction potential (ORP), also referred to as redox potential or Eh, is a numerical index of the intensity of the oxidizing or reducing conditions within an aqueous solution such as groundwater. Oxidizing conditions are indicated by positive potentials and reducing conditions are indicated by negative potentials. ORP measurements are generally expressed in millivolts (mV).

Purge Stabilization Criteria

An adequate purge is achieved when the pH and specific conductance of the ground water have stabilized, and the turbidity has either stabilized or is below 10 NTUs. Although 10 NTUs is normally considered the minimum goal for most ground water sampling objectives, lower turbidity has been shown to be easily achievable in most situations and reasonable attempts should be made to achieve these lower levels.

Stabilization occurs when, for at least three consecutive measurements, the pH remains constant within 0.1 Standard Unit (SU) and specific conductance varies no more than approximately 5 percent. Other parameters, such as dissolved oxygen (DO), may also be used as a purge adequacy parameter. Normal goals for DO are 0.2 mg/L or 10% saturation, whichever is greater. DO measurements must be conducted using either a flow-through cell or an over-topping cell to minimize or reduce any oxygenation of the sample during measurement. Oxidation Reduction Potential (ORP) should not be used as a purge stabilization parameter but

may be measured during purging to obtain the measurement of record for ORP for the sampling event (see Table 3 – Stabilization Criteria).

If the chemical parameters have not stabilized according to the above criteria after three well volumes have been removed, purging should continue up to five well volumes. If the parameters have not stabilized within five volumes, it is at the discretion of the project leader whether or not to collect a sample or to continue purging. If, after five well volumes, pH and conductivity have stabilized and the turbidity is still decreasing and approaching an acceptable level, additional purging should be considered to obtain the best sample possible, with respect to turbidity. The conditions of sampling should be noted in the field log.

Table 5.4-1: Stabilization Criteria (Note: ORP is for reference only and not recommended for use to determine stabilization)

Parameter	Stabilization Criteria
pH	± 0.1 standard units
Specific Conductance	± 5%
Oxidation-Reduction Potential (ORP)	± 10 millivolts
Turbidity	± 10% (when > 10 NTUs); maintained at <10 NTUs, consider stabilized
Dissolved Oxygen (DO)	± 0.2 milligrams per liter or 10% saturation; If 3 DO values < 0.5 mg/L, consider stabilized

Note: Stabilization criteria based on U.S. EPA Groundwater Sampling Operating Procedure (Science and Ecosystem Support Division (SESD), SESDPROC-301-R3 section 3.2.1.1.2, effective March 6, 2013).

Procedural Precautions

The following precautions should be considered when collecting groundwater samples:

Avoid contaminating samples, start sampling from least suspected contaminated site.

Always wear new clean sterile gloves per sample site, or as necessary.

Always wash/spray wash the water level/depth level measuring probe and/or line, and pumping equipment with a phosphate free detergent (ex. Alconox), rinse with distilled or de-ionized water, and wipe clean each time it is used in a well. This minimizes the opportunity for cross-contamination to occur during sampling.

Sample as soon as possible after purging

Always document field events (e.g. well access, monitoring, purging and sampling procedural deviations) in a field logbook or appropriate field form.

Chain-of-custody documents shall be filled out and remain with the samples until custody is relinquished.

Special Sampling Considerations

Volatile Organic Compounds (VOC) Analysis

Groundwater samples for VOC analysis are typically collected in 40 ml glass vials that are preserved with concentrated hydrochloric acid. Absolutely no bubbles or headspace should be present in the vial after it is capped.

After the cap is securely tightened, the vial should be inverted to see if any undetected bubbles are present. If a bubble or bubbles are present, the vial should be topped off with care so as not to flush any preservative out of the vial. If bubbles are still present after capping, a new vial should be obtained and the sample re-collected.

Groundwater producing large amount of fine bubbles will render the sample unacceptable. In this case, unpreserved vials should be used and arrangements must be made with the laboratory to meet the sample holding times.

Note: VOC analysis based on U.S. EPA Groundwater Sampling Operating Procedure (SESDPROC-301-R3 section 2.1, effective March 6, 2013).

Sample Handling and Preservation Requirements

All sample vessels that do not contain preservatives should be rinsed twice with sample water. Groundwater samples will typically be collected from the discharge line of a pump. Reduce the flow from either the pump discharge line during sample collection to minimize sample agitation.

During sample collection, make sure that the pump discharge line does not come in contact with the sample container.

Samples may be collected from either designated tubing or reused tubing after purging decontamination.

Place the sample into appropriate, labeled containers. Samples collected for VOC, acidity and alkalinity analysis must **not** have any headspace. All other sample containers can be filled with headspace.

Quality Control

To assure adequate QA/QC in the field, the sampling plan should be followed consistently. The laboratory typically provides the tools to verify if procedures are contaminating water samples, hence, a variety of samples and blanks need to be collected and analyzed. The following are typical checks:

Field Duplicate - Field duplicates are prepared by the laboratory to be collected at a frequency of one per sampling event (or one a day) or one (1) per 10 sampling locations. Field forms should note the wells from which field duplicates were collected.

Trip Blanks - Trip blanks are generally prepared by the laboratory and are included in each cooler containing VOC samples. At a minimum, at least one trip blank should accompany each sampling event. Trip blanks are never opened in the field.

Equipment Blanks - Whenever non-dedicated sampling equipment is used, equipment/field blanks should be collected. An equipment/field blank is obtained by passing analyte-free, distilled or deionized water through a cleaned sampling apparatus (pump, bailer, filtration gear, etc.) and collecting it in a clean container. This blank is used to assess the effectiveness of the decontamination procedures implemented between sampling locations.

Immediately after sampling, well data measurements shall be recorded in a field logbook or field monitoring/sampling form, and Chain-of-Custody documentation shall be completed.

Field Procedures

Accessing the Well

Monitoring wells are usually secured with a locking cover or bolted metal housing, either at ground level in well box or inside a 2- to 3- foot tall metal pipe housing. Inside the housing, the actual monitoring well (usually a 2- or 4-inch PVC pipe) is sealed with an expandable rubber plug that can be locked tight. The plug is sometimes sealed with a keyed padlock. Specific entities will need to be notified in order to access certain wells/properties and to schedule site work.

After completion of monitoring and sampling activities, all locking covers, locks, housing covers, and access gates should be secured safely to ensure protection of the well. Any maintenance or improvement needs should be recorded and reported to the supervisor and WRD.

Level readings

Groundwater level and well depth measurements are needed to determine the volume of water or drawdown in the well casing for proper purging. These measurements also provide indication of the well condition.

All groundwater level and well depth measurements are made relative to an established reference point on the well casing documented in the field records. This reference point is usually identified by a permanent marker for PVC wells, or by a notch at the top of casing. By convention, this marking is usually placed on the north side of the top of casing. If no mark is apparent, the person performing the measurements should take both water level and depth measurements from the north side of the top of casing and note this procedure in the field logbook

Water levels should be allowed to equilibrate prior to measurement after removing sealing caps. When the sounding probe comes in contact with the water, the circuit is closed and a meter light and/or audible buzzer attached to the spool will signal contact. At least two readings are made. Measurements should be made and recorded to the nearest 0.01 foot.

The well sounder, a weighted tape or electronic water level indicators can be used to determine water level and the total well depth. Measuring well depth is accomplished by lowering the tape or cable until the weighted end is felt resting on the bottom of the well. The operator may find it easier to allow the weight to touch bottom and then detect the 'tug' on the tape while lifting the weight off the well bottom. Well depths do not need to be measured when we are only checking water levels (i.e., not sampling).

As a cautionary note, when measuring well depths with the electronic water level indicators, the person performing the measurement should initially check if the water level probe has its circuit closing electrode referenced to the tape distance markings and specific for water level

sounding. In some instances, one must measure and add the length of the probe beneath the circuit closing electrodes to the depth measured to obtain the true depth

Note: Level reading procedures based on U.S. EPA Groundwater Level and Well Depth Measurement Operating Procedure (SESDPROC-105-R2, effective January 29, 2013).

Data Loggers

Solinst Leveloggers and Barologgers may be found suspended on a wire line cable or coaxial “direct read cables” inside the well. The table in Appendix A indicates the wells that currently have transducers and/or barologgers installed in them. Additionally, prior to each water level measurement event, WRD will provide a list of water level measurements from the previous event; the list will also include a notation of which wells have transducers and/or barologgers installed in them. Connecting the cable end of the data loggers to a Leveloader allows viewing of the data, downloading and/or programming in the field. It is important to record the lapsed time real-time data logging was disturbed for later data interpretation.

After removing the data logging unit from the well, the water level is allowed to equilibrate/stabilize and is then measured using a water level sounder. After water level and depth measurements, purging and groundwater sampling are conducted the Levelogger and Barologger are placed back in the well as previously set.

Decontamination

Equipment and tools shall be kept cleaned and decontaminated throughout the groundwater sampling activities. Equipment in direct contact with groundwater such as water level meter tapes, probes, tubings, pumps, and protective sheaths will be new or decontaminated using at least the following process: Phosphate free soap (Alconox, Liquinox or equivalent) and water wash, and DI water rinse. Soap and DI water bath and sprays may be used for the process. Decontamination wastes such as rinsates, liquid spray, soil, nitrile gloves and other debris should be fully contained and collected for proper waste management and disposal.

Note: Decontamination procedures based on U.S. EPA Field Equipment Cleaning and Decontamination (SESD, SESDPROC-205-R2, effective December 20, 2011).

Purging Requirements

Prior to sampling a monitoring well, the well must be purged to remove standing water from the well. Purging also serves to rinse and condition the sampling equipment with well water.

Purge Volume Determination and Purge Adequacy

Prior to initiating the purge, the amount of water standing in the well should be determined. To do this, the diameter of the well/ casing must be determined and the water level and total depth of the well should be measured and recorded. Measuring the depth of a well indicates the amount of siltation that has occurred. Natural siltation can block water from entering, which could lead to erroneous water level measurements and bias analytical results by increasing sample turbidity. Checking depth also provides a check on casing integrity.

Once this information is obtained, calculate the approximate volume of water in the well using the following equation:

$$V = 0.041 \times d^2 \times h$$

Where:

h = length of water column* (ft)

d = diameter of well (in)

V = volume of water (gal)

*The length of the water column (h) is the total depth of the well minus the depth to water. Multiply the calculated volume (V) by the desired number of well volumes to determine the purge volume, in gallons.

With respect to volume, an adequate purge is normally achieved when three to five well volumes have been removed. The field notes should reflect the single well volume calculation, and a reference to the appropriate multiplication of that volume, i.e., a minimum three well volumes, identified as a purge volume goal.

Equipment Considerations for Purging

Monitoring well purging is accomplished by using in-place plumbing and dedicated pumps or by using portable pumps/equipment when dedicated systems are not present. The equipment utilized consists of a variable speed submersible pump and dedicated/ in-place bladder pumps. Standard operating procedures for these 2 methods are discussed in the following sections. In addition, the manufacturer's manual on operation, calibration and maintenance manuals for all groundwater monitoring and sampling equipment used by our crew are included in Appendix G.

Well Purging and Sampling Standard Operating Procedure

Method 1 – Submersible Pump

When a submersible pump, e.g. Grundfos RediFlo2, is used for well purging/ sampling, the pump itself is lowered into the water column. The pump/hose assembly used in purging should be lowered into the top of the standing water column, but not deep into the column. This is done so that the purging will "pull" water from the formation into the screened area of the well and up through the casing so that the entire static volume can be removed. If the pump is placed deep into the water column, the water above the pump may not be removed, and the subsequent samples may not be representative of the aquifer conditions. The pump should be lowered no more than three to five feet into the water column. If the recovery rate of the well is faster than the pump rate and no observable drawdown occurs, the pump should be raised until the intake is within one foot of the top of the water column for the duration of purging. If the pump rate exceeds the recovery rate of the well, the pump will have to be lowered, as needed, to accommodate the drawdown.

Before purging begins, prepare the necessary field forms. Review past well data, including pump depth placement and Variable Flow Drive (VFD) settings. Complete the field form including the type of equipment being used. Lay plastic sheeting around the well to prevent contaminating the equipment.

1. Using a water level meter, measure and record the depth to static/standing water level and the depth of the well inside the casing.
2. Calculate and record the well water volume (multiply by 3 to get purge volume).
3. In the monitoring well, lower the submersible pump followed by a water-level sensor to the desired location of the pump intake. Lower the equipment slowly and smoothly to avoid stirring up particulates. Position the pump intake between 3 ft (~0.9 m) below static water surface and a minimum distance above the top of the open/screened interval. The water-level sensor should be a maximum of 1 ft (~0.3 m) below water surface.
4. Start the generator. Connect the pump terminals to the generator, then run the pump using the VFD keypad controls. Gradually increase and (or) adjust the pumping rate to limit drawdown to between 0.5 and 1.0 ft (~0.15 to ~0.3 m). Measure the water level as purging progresses. The pumping rate for a pump can be determined by collecting the discharge from the pump in a bucket of known volume and timing how long it takes to fill the bucket. The pumping rate is recorded in gallons per minute.
5. If the final intake position is above the screened or open interval, the final pumping rate should be about 500 to 1,000 milliliters per minute. Do not exceed 1 ft of drawdown.
6. If the final intake position is within the screened or open interval, the final pumping rate should be about 200 to 500 milliliters per minute. Do not exceed 0.5 ft of drawdown. After approximately one to two well volumes are removed, a flow-through cell may be hooked-up to the discharge tubing of the pump.
7. If the pump and intake position are fixed, as in a supply well, control the rate of flow for field measurements through flow-splitting valve(s). Do not move the pump during

purging or sample collection after the intake has been set at the final location.

8. Throughout purging, monitor and record field-measurement readings. Check for special instructions regarding field-measurement or field-analysis requirements. Consult criteria for establishing field-measurement stabilization.
9. Record field measurements at regular time intervals, about 3 to 5 minutes apart. For deep wells, the time intervals could be 15 minutes or longer. The time intervals selected will depend on the well characteristics and hydraulic properties of the aquifer, but the intervals must be sufficiently spaced to yield results representative of aquifer properties.
10. Purge a minimum of three well volumes or the purge volume dictated by study.
11. As the third or last well volume is purged, when the final field measurements are recorded, adjust the purge rate to the pumping rate to be used during sampling.
12. If criteria are being met--record at least five sequential measurements and report the median value.
13. If criteria are not being met, consult the study requirements and objectives. Extend the purge time if readings still do not stabilize; report the median value of the last five or more sequential measurements.
14. Contain purge water as required by Federal, State, or local regulations.
15. Complete field forms and report the data. Report the median of the recorded field-measurement readings as the final well volume is purged. Record anomalies, difficulties, and adjustments on the field form. Record the purge volume, rate of pumping, initial and final intake locations, and time and respective reading of sequential field measurements.
16. Prepare the sample bottles and collect groundwater samples using the same purge tubing. Place bottles in coolers and add ice/ ice packs in sealed bags.
17. Turn off pump, shut off generator. Slowly pull out the pump/hose assembly. Wipe dry the portion of the submerged hose and pump, and set up to decontaminate as per SOP (see section 5.8.4). Bag or wrap the pump with clean plastic prior to storage.

Note: Purging and sampling procedure based on U.S. EPA Groundwater Sampling Operating Procedure (SESDPROC-301-R3 section 3.3.1, effective March 6, 2013).

Method 2 - Bladder Pump

The following describes the purging and sampling procedures for the collection of ground-water samples when using a bladder pump. These procedures describe steps for both dedicated and non-dedicated systems. Some WSB monitoring wells have dedicated bladder pumps installed at set depths. Two surface tubing lines (air supply line and intake line) are required to hook up to the Micro Purge Basics Controller (Model MP-10 Controller).

Before purging begins, lay out plastic sheeting around the well to minimize the likelihood of contamination of sampling/purging equipment from the soil. Place monitoring, purging and sampling equipment on the sheeting.

1. Measure water level depth and well casing depth (to nearest 0.01 feet, and at least twice to confirm) relative to a reference measuring point on the well casing with an electronic water level indicator and record in logbook or ground-water sampling log.
2. Calculate the volume of the water inside the tubing that extends from the top of the monitoring well to the depth of the intake.
3. For a dedicated system – The pump (a QED P1101M bladder pump) has already been installed. Refer to the available monitoring well data from the last purge/ sampling and enter pertinent information into the new blank form (Baseline Environmental Consulting Groundwater Sampling Form). Note purge data, including pump intake depth, purge volume and (MP-10) controller settings
4. For a non-dedicated system - Place the pump and support equipment at the wellhead and slowly lower the pump and tubing down into the monitoring well until the location of the pump intake is set at a pre-determined location within the screen interval. The placement of the pump intake should be positioned with a calibrated sampling pump hose, sounded with a weighted-tape, or using a pre-measured hose. Measure the depth of the pump intake while lowering the pump into location. Record pump location in a field logbook or sampling log.
5. For both non-dedicated system and dedicated systems, the following procedure applies - Measure the water level and record information on the ground-water sampling log, leave water level indicator probe in the monitoring well.
6. For both non-dedicated and dedicated systems - Connect the discharge line from the pump to a flow-through cell. A “T” connection is recommended prior to the flow cell to allow for the collection of water for the turbidity measurements. The discharge line from the flow-through cell must be directed to a container to contain the purge water during the purging and sampling of the monitoring well.

7. Non-dedicated and dedicated system – Connect all tubing/ fittings to air supply and pump to controller. Set air supply pressure (max 125 psi), set cycle and discharge values, set air intake psi and cycle frequency in the MP-10 Controller. Turn on pump and throttle/ adjust refill and discharge flow rates. Start pumping the well at a low flow rate (0.2 to 0.5 liter per minute) and slowly increase the speed. Check water level. Maintain a steady flow rate while maintaining a drawdown of less than 0.33 feet. If drawdown is greater than 0.33 feet lower the flow rate. Measure the discharge rate of the pump with a graduated cylinder and a stop watch. Also, measure the water level and record both flow rate and water level on the groundwater sampling log.
8. Non-dedicated and dedicated system - Continue purging, monitor and record water level and pump rate every three to five minutes during purging. Pumping rates should be kept at minimal flow to ensure minimal drawdown in the monitoring well.
9. Non-dedicated and dedicated system - During the purging, a minimum of one tubing volume (including the volume of water in the pump and flow cell) must be purged prior to recording the water-quality indicator parameters. Then monitor and record the water-quality indicator parameters every three to five minutes.
10. Once the criteria have been successfully met indicating that the water quality indicator parameters have stabilized, then sample collection can take place. If two tubing volumes (including the volume of water in the pump and flow cell) have been removed during purging then sampling can proceed. All information should be noted in the field notebook and groundwater sampling form with an explanation if a different purging and sampling procedure was conducted.
11. Prepare the sample bottles and collect groundwater samples using the same purge tubing. Place bottles in coolers and add ice/ ice packs in sealed bags.
12. After sampling, recording and properly storing the samples, turn off pump and air supply, and disconnect fittings. In a non-dedicated system slowly pull out/ remove the pump and tubing assembly from the monitoring well. Decontaminate the pump and tubing.
13. For a dedicated system, disconnect all surface tubing that extends from the plate at the wellhead (or cap). Rinse, bag and seal for future use in the same well. Also, decontaminate the tubing if to be used in other wells.

Note: Purging and sampling procedure based on U.S. EPA Groundwater Sampling Operating Procedure (SESDPROC-301-R3 section 3.3.2, effective March 6, 2013).

Sampling for Laboratory Analysis

For monitoring wells, the same pump should be used for purging and sampling without stopping or removing the pump. Samples should be collected directly from the discharge port of the pump tubing prior to passing through the flow-through cell. Alternatively, disconnect the pump's tubing from the flow-through-cell so that the samples are collected from the pump's discharge tubing.

The sequence of the samples is immaterial unless filtered (dissolved) samples are collected and they must be collected last. However, the preferred order of sampling is metals first, followed by other inorganic analytes, extractable organic compounds and volatile organic compounds. All sample containers should be filled with minimal turbulence by allowing the ground water to flow from the tubing gently down the inside of the container.

Access to production wells can be more difficult. Ideally, sample water should be collected directly from the well. A sample valve or spigot will be located in the water pipeline at a point in the distribution system that comes before the water enters any treatment and as close to the well as possible. In some cases it may be possible to gain access to the well casing through an access pipe. If you are sampling directly from a production well by means of a portable submersible pump, considerable care must be taken to avoid tangling or wedging the sampling/testing equipment between the production line, cables, and other equipment typically suspended in a well casing.

Documentation and Field Forms

As mentioned previously, all field documentation should be accurately recorded. Accurate records are critical for historical purposes, including regulatory and liability issues. Appendix E lists all field forms related to all groundwater sampling activities.

We have two (2) level monitoring and groundwater sampling forms adapted from previous works: (1) the SFPUC Groundwater Level Data Field Form which is used for level monitoring survey only, and (2) the Groundwater Sampling Form, which includes more well data than the SFPUC Well Sampling Form used when purging/ sampling with the Grundfos submersible pump. This second form is adapted from Baseline Environmental Consulting for continuity. Because it is available in an electronic program, it is easier to determine when purge stabilization has been achieved. It is necessary to review and copy previous data for reference and guidance in setting flow controls for purging, sampling, and recording. Additional information or issues such as well/site condition and maintenance requirements should be recorded in the comments section.

A Field Daily Activity Log is kept on site and updated with all activities and events. The form is self-explanatory and is completed by filling in the box items such as changes from plans and procedures, important decisions made pertaining to water level monitoring, purging and

sampling, weather conditions, visitors on site, notes on well site number, sample number/ label collected, QA/QC field duplicates collected, personnel on site, etc.

Chain-of-Custody (COC) forms are provided with the sample bottles by the laboratory and accompany the samples collected at all times. The forms are updated as soon as samples have been collected, checked and stored, prior to moving to the next sampling site or finally transporting and submitting all samples to the laboratory.

References

U.S. EPA Groundwater Sampling Operating Procedure, Science and Ecosystem Studies Division (SESD), SESDPROC-301-R3, effective March 6, 2013.

U.S. EPA Groundwater Level and Well Depth Measurement Operating Procedure, SESD, SESDPROC-105-R2, effective January 29, 2013.

U.S. EPA Field Equipment Cleaning and Decontamination, SESD, SESDPROC-205-R2, effective December 20, 2011.

CS-179 Groundwater Monitoring Program: Agreement between the City and County of San Francisco and Baseline Environmental Consulting – Westside Basin Services to be provided by Contractor.

Field Procedures – Westside Basin Monitoring Project, SFPUC Natural Resources Division – Limnology

Groundwater Quality Monitoring – Sampling and Testing Protocol for Westside Basin, Luhdorf and Scalmanini Consulting Engineers, November 2006