CALIFORNIA VALLEY COMMUNITY SERVICES DISTRICT

WATER SUPPLY ISSUES AND ALTERNATIVES ANALYSIS

OCTOBER 10, 2025

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California Valley Community Services District

Water Supply Issues and Alternatives Analysis

October 2025

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Appendix A: CVCSD Water Quality Hydrogeologic Characterization (Black & Veatch, 2025)

List of Abbreviations

AMWC	Atascadero Mutual Water Company
ADD	Average Day Demand
B&V	Black & Veatch
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
Community	California Valley Community
CVCSD	California Valley Community Services District
CU	Color Units
CUWA	California Urban Water Agencies
DDW	Division of Drinking Water
DFA	Division of Financial Assistance
EAWH	Electric Atmospheric Water Harvesting
GPCD	Gallons per Capita per Day
GPD	Gallons per Day
GPM	Gallons per Minute
IX	Ion Exchange
LAFCO	Local Agency Formation Commission
MCL	Maximum Contaminant Level
MDD	Maximum Day Demand
mg/L	Milligrams
MKN	MKN & Associates, Inc.
ng/L	Nanograms per Liter
NTU	Nephelometric Turbidity Unit
pCi/L	Picocuries per Liter
PFAS	Per- and Polyfluoroalkyl Substances
PHD	Peak Hour Demand
POE	Point of Entry
POU	Point of Use
RWQCB	Regional Water Quality Control Board
RO	Reverse Osmosis
SAWH	Solar Atmospheric Water Harvesting
SWRCB	California State Water Resources Control Board
TAP	Technical Assistance Provider
T.O.N.	Threshold Odor Number
TDS	Total Dissolved Solids
UDWN	Urgent Drinking Water Needs
ug/L	Micrograms per Liter
umhos/cm	Microohms per Centimeter
WKWD	West Kern Water District

1.0 INTRODUCTION AND BACKGROUND

The California Valley Community Services District (CVCSD) is located approximately 60 miles southeast of Paso Robles in San Luis Obispo County, with a population of approximately 500 residents. The water source for the California Valley community (Community) consists of groundwater from private domestic wells and a community well managed by CVCSD, which provides non-potable water to residents. The Community is situated within the Carrizo Plain groundwater basin. CVCSD provides services including road maintenance and solid waste disposal but does not currently supply potable water to residents. The CVCSD service area and key local landmarks are shown in **Figure 1-1**, the Community's location relative to nearby cities with essential services is illustrated in **Figure 1-2**, and **Figure 1-3** shows the Community's housing distribution and densities relative to the service area.

Many domestic wells and the CVCSD community well are in areas where groundwater quality does not meet California Drinking Water Standards listed in Title 22 of the California Code of Regulations, leading many residents to avoid using their well water for drinking. To address this, CVCSD sought funding to improve the Community's water infrastructure and provide safe drinking water. Under grant funding from the Division of Financial Assistance (DFA) of the California State Water Resources Control Board (SWRCB), California Urban Water Agencies (CUWA) serves as a Technical Assistance Provider (TAP) to help CVCSD and the Community identify solutions to their water supply challenges. CUWA engaged MKN & Associates, Inc. (MKN) to conduct a characterization of water quality/supply issues and a limited alternatives analysis, including well sampling, community outreach, water quality analysis, and potential field testing (e.g., test well and/or monitoring well program), culminating in the development of an Engineering Report to identify a preferred alternative for potable water supply.

This technical memorandum presents the results of a historical groundwater data review, the voluntary well sampling effort conducted on domestic wells throughout the CVCSD area, and a hydrogeologic characterization by Black & Veatch (B&V)[1]. Based on the identified issues in the data review, conceptual alternatives to address the Community's drinking water issues were developed and presented herein. The most viable solutions will be further evaluated in the Engineering Report that follows this technical memorandum.

1.1 Water System Demands

Due to the residents within CVCSD relying solely on individual domestic wells for their water supply, the exact demands of the Community, as a whole, are unknown. MKN reviewed available water demands from nearby communities. Between 2015 and 2020, the five-year average water usage for the nearby City of Atascadero was approximately 140 gallons per capita per day (GPCD). The City of Atascadero is used to estimate CVCSD demand due to both the proximity to CVCSD as well as a moderately dense population, which draws the closest similarities to CVCSD when compared to other nearby communities with higher densities. Utilizing this per capita demand, **Table 1-1** summarizes the estimated average day demand (ADD), maximum day demand (MDD), and peak hour demand (PHD) for the Community.

[1] Subcontractor to MKN.

Table 1-1: Estimated Total CVCSD Water Demands					
Population Scenario	**Service Population**	**ADD**	**MDD[1]**	**PHD[2]**	**PHD**
		(gpd)	**(gpd)**	**(gpd[3])**	**(gpm[4])**
Existing	500	70,000	105,000	157,500	109
Future[5]	600	84,000	126,000	189,000	131

Notes:

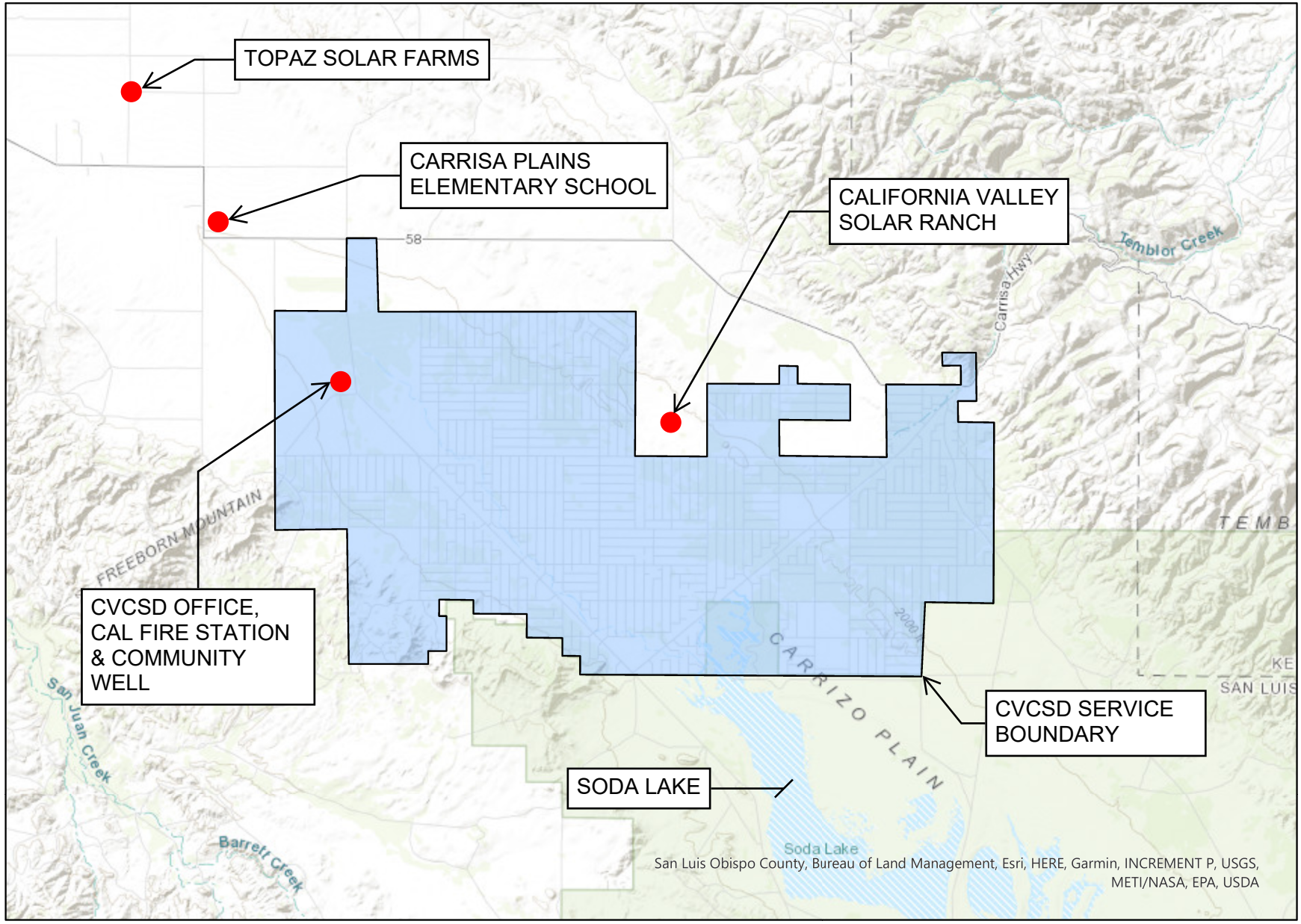
1. *MDD = ADD x 1.5.*
2. *PHD = MDD x 1.5.*
3. *gpd = gallons per day*
4. *gpm = gallons per minute*
5. *Assumes a population increase of 20 percent, which is recognized by the SWRCB as a conservative planning estimate for communities with limited or no growth projection data.*

Some of the water supply alternatives reviewed address only a portion of the water demand (i.e., only indoor use, or only water for drinking and cooking). **Table 1-2** summarizes the estimated water demands for indoor use and for drinking and cooking. Indoor demands are estimated to be 42 GPCD based on California indoor water use efficiency standards, and drinking and cooking water demands are estimated to be three (3) GPCD based on SWRCB allocations per capita.

Table 1-2: Estimated Alternate CVCSD Indoor and Drinking and Cooking Demands				
Demand Category	**Water System**	**Service Population**	**MDD**	**MDD**
			(gpd)	**(gpm)**
Indoor Use	Existing	500	21,000	15
	Future[1]	600	25,200	18
Drinking and Cooking	Existing	500	1,500	N/A
	Future[1]	600	1,800	N/A

Notes:

1. *Assumes a population increase of 20 percent, which is recognized by the SWRCB as a conservative planning estimate for communities with limited or no growth projection data.*



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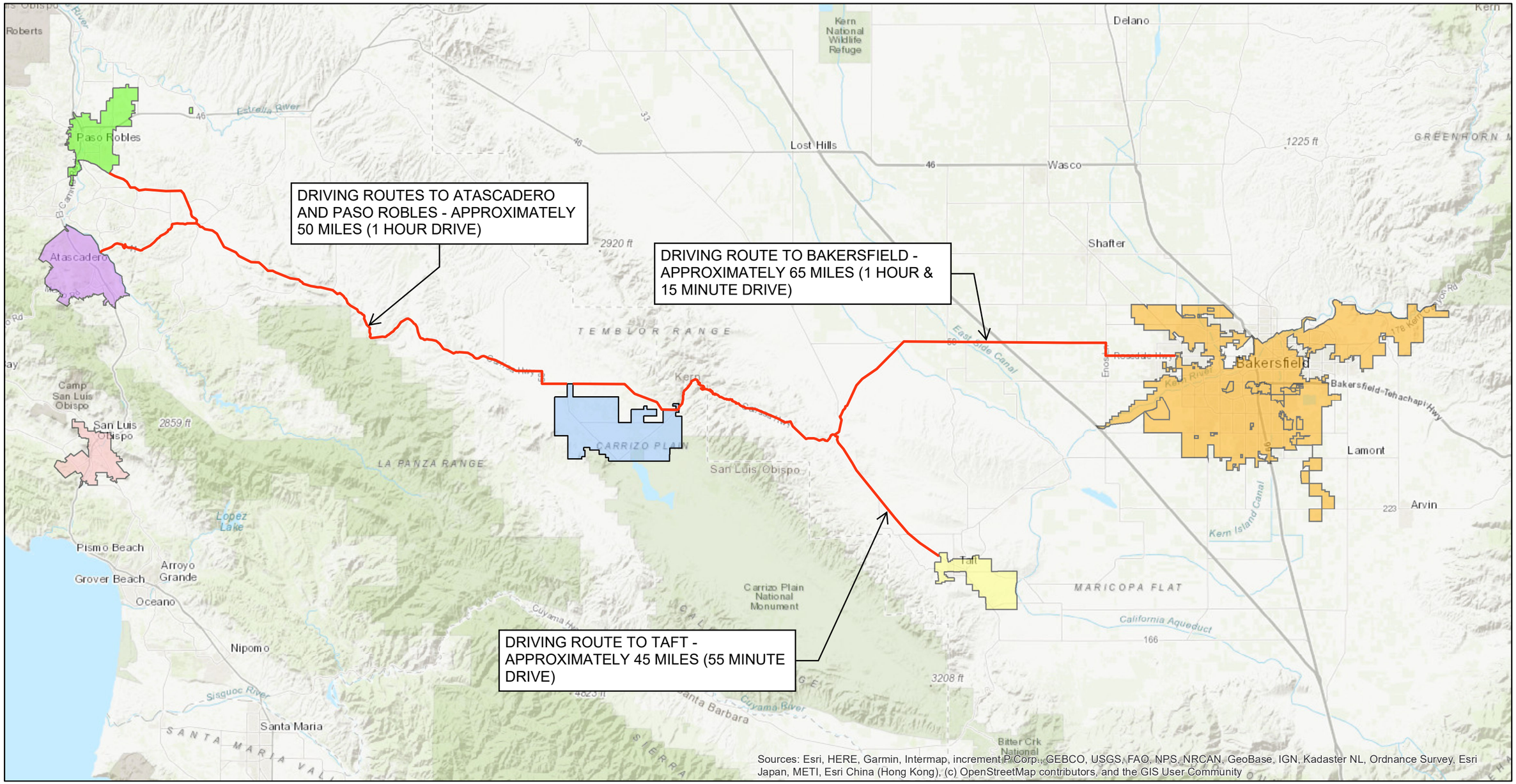
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WATER SUPPLY ISSUES AND ALTERNATIVE ANALYSIS

CVCSD SERVICE AREA

FIGURE

1-1



Legend

- Driving Routes
- CVCSD Service Area
- Bakersfield - City Limits
- Taft - City Limits
- Paso Robles - City Limits
- Atascadero - City Limits
- San Luis Obispo - City Limits

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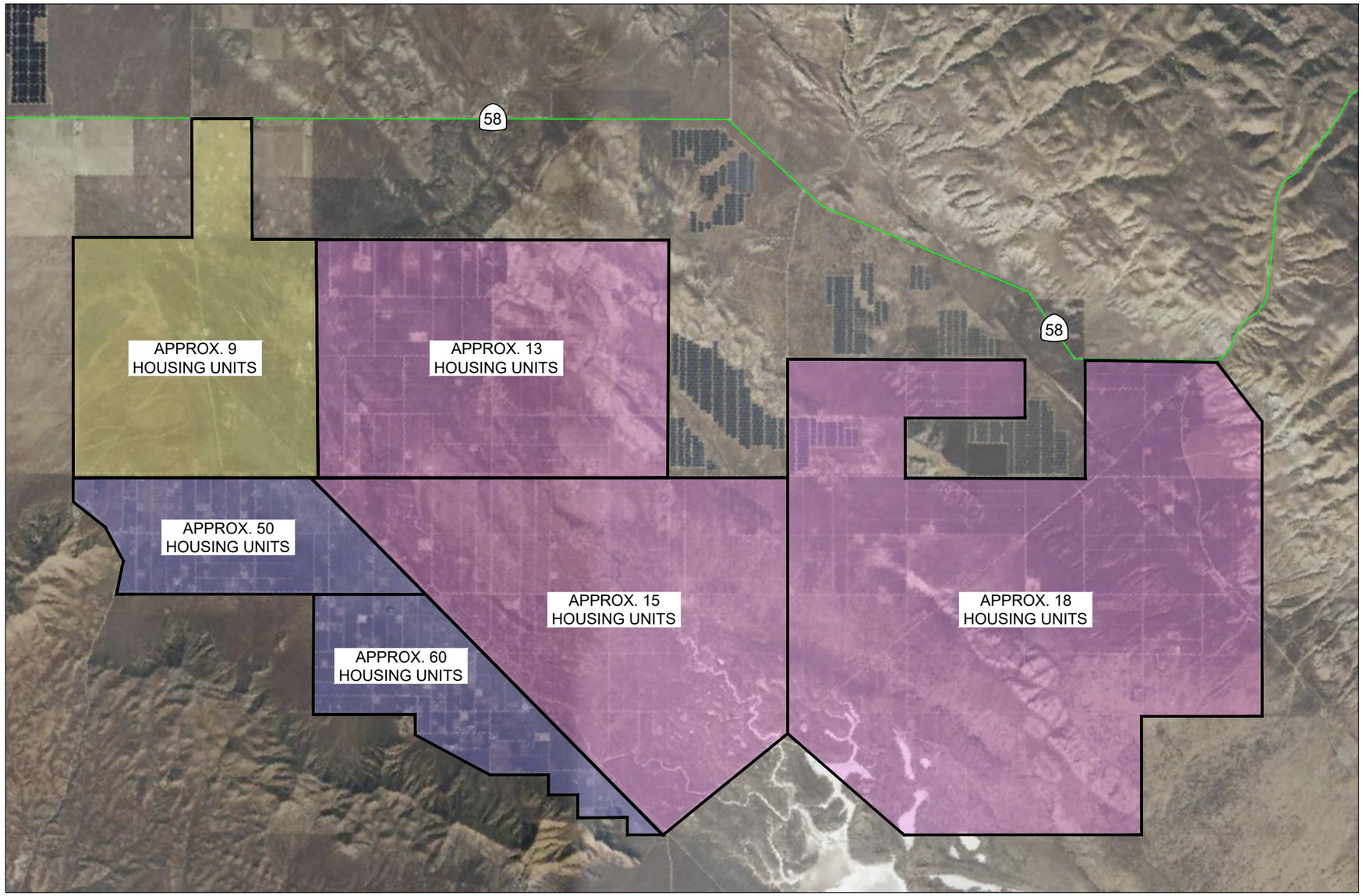
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CVCSD PROXIMITY TO ESSENTIAL SERVICES

FIGURE

1-2



NOTES

1. THE TERM "DENSITY" AS USED HERE IS RELATIVE TO THE EXISTING RESIDENTIAL STRUCTURES WITHIN CVCSD AND IS NOT INTENDED TO SERVE AS A PLANNING STANDARD OR REFLECT A TYPICAL COMMUNITY DEVELOPMENT / PLANNING DEFINITION OF RESIDENTIAL DENSITY.
2. BOUNDARIES SHOWN REPRESENT AREAS WITH RESIDENCES WITHIN CVCSD.

LEGEND:

- LOW DENSITY RESIDENTIAL AREA
- MEDIUM DENSITY RESIDENTIAL AREA
- HIGH DENSITY RESIDENTIAL AREA

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WATER SUPPLY ISSUES AND ALTERNATIVE ANALYSIS

RELATIVE COMMUNITY HOUSING DENSITY

FIGURE
1-3

5/28/2025 DWG: N:\CA Urban Water Agency\CUWA-2024-001 Water Supply Alternatives\300 Engineering\301 CAD\Exhibits\fig 1-3.dwg Plotted By: GZAMORA

2.0 WATER SUPPLY INVESTIGATION AND ISSUES

MKN conducted multiple investigations to identify the potential water supply issues facing the Community. This included a detailed desktop survey of Community wells via publicly available sources to provide information on typical well depth, production, and water quality. To gain a more current understanding of the local groundwater conditions, nine local groundwater wells were sampled for a California Code of Regulations Title 22 suite of analytes. Seven of the wells sampled were local volunteers sourced through Community outreach letters and an in-person community meeting to discuss the project and related goals. The other two wells were the CVCSD community well and an additional inactive well maintained by CVCSD. The results of the sampling were analyzed by MKN and B&V to characterize the main water quality issues of the local aquifer. The investigations performed are described in **Sections 2-1** through **2-5**.

2.1 Community Input

A community meeting was held in November 2024 to present the project's goal of addressing water supply issues in the Community. During the meeting, MKN provided an overview of the project initiatives, including the goals, methods, and potential outcomes. Spanish translation services were provided to facilitate involvement of all Community members. A key component of the meeting was the offer of free, voluntary well sampling to assess the water quality of domestic wells in the area from which eight volunteers were sourced, although one well was not able to be tested due to the lack of an existing pump.

While the meeting was an opportunity to inform the Community about the project and well sampling opportunity, it also served as a platform to gather feedback from residents. Several Community members expressed concerns about the project, particularly regarding the involvement of state funding. There was noticeable hesitation towards participation, with some residents voicing fears that the project could lead to unwanted government intervention or regulation. These concerns appeared to stem from a lack of trust in government involvement, fueled by either past experiences or general apprehension about external oversight.

The project team (CVCSD, CUWA, and MKN) acknowledged these concerns and emphasized that participation in well sampling was entirely voluntary and that the project was designed to assist, not control, the Community. Efforts were made to reassure residents that the project's intent was to provide helpful data and support the Community by developing drinking water solutions without any punitive or regulatory consequences. The drinking water alternatives presenting herein are intended to be informational, unbiased, and based on professional engineering judgement. The alternatives do not represent any Community commitment and will only be used to support potential state-funding applications once CVCSD formally decides on the solution.

2.2 Historical Data Review

The historical data review consisted of obtaining data both directly from CVCSD and via online sources, the Department of Water Resources (DWR), and San Luis Obispo County. Data from CVCSD provided a foundation for historical water quality at the CVCSD Community Well, CalFire Well, and Carrisa Plains Elementary School Well. DWR-provided data included all digitized well completion reports for Community wells, providing information on well construction (e.g., completed depth, static water level, and initial production). Lastly, San Luis Obispo County-provided data included groundwater quality for all wells

drilled within the Community after 2018. These data were consolidated to remove or combine duplicates and filtered to relevant data. **Table 2-1** presents consolidated results of the collected historical groundwater quality data. It should be noted that only constituents with a California maximum contaminant level (MCL) and detectable concentration level are included in the table. However, all water quality data that was collected is included in the hydrogeological characterization (**Appendix A**). **Figure 2-1** shows the locations from which the data was obtained.

Table 2-1: Summary of Historical Water Quality Data (1993 - 2024)

Parameter[1]	Average	Minimum	Maximum	Units	Primary MCL	Secondary MCL
Aluminum, Total[2]	875	29.0	3,100	ug/L	1,000	200
Arsenic, Total	2.69	1.10	4.00	ug/L	10	--
Barium, Total	93.8	39.0	250	ug/L	1,000	--
Cadmium, Total	3.90	3.90	3.90	ug/L	5	--
Chloride	264	7.00	3,100	mg/L	--	250
Color, Apparent	18.3	1.00	75	CU	--	15
Conductivity @ 25C[3]	2,505	36.0	15,000	umhos/cm	--	900
Fluoride	0.926	0.190	3.10	mg/L	2	--
Iron, Total	985	17.0	4,300	ug/L	--	300
Manganese, Total	112	12.0	510	ug/L	--	50
MBAS (Surfactants)	2.39	0.073	3.90	mg/L	--	1
Nitrate + Nitrite as N[4]	8.1	0.920	18	mg/L	10	--
Nitrate as N[5]	9.8	0.920	18	mg/L	10	--
Nitrate as NO_3	46.0	27.0	72.0	mg/L	45	--
Nitrite as N	0.15	0.110	0.190	mg/L	1	--
Perchlorate (ClO_4)	2.50	2.40	2.60	ug/L	6	--
Selenium, Total	17.5	2.00	210	ug/L	50	--
Sulfate as SO_4[6]	224	5.00	480	mg/L	--	250
Threshold Odor[7]	6	1.00	50	T.O.N.	--	3
Total Dissolved Solids[8]	1,473	360	6,100	mg/L	--	500
Turbidity	15.7	0.070	68.0	NTU	--	5

Notes:

1. *Contaminants that exceed primary (health-based) drinking water MCLs are highlighted in red, while contaminants exceeding secondary (aesthetic, e.g. taste and odor) drinking water MCLs are highlighted in yellow.*

The following concentration data points were determined to be statistically significant outliers and removed from the analysis:

2. *Aluminum outlier of 4,100 ug/L.*
3. *Conductivity outlier of 63,000 umhos/cm.*
4. *Nitrate + Nitrite as N outlier of 230 mg/L.*
5. *Nitrate as N outlier of 210 mg/L.*
6. *Sulfate as SO4 outliers of 1,700 and 2,100 mg/L.*
7. *Threshold Odor outlier of 1,700 T.O.N..*
8. *TDS outlier of 58,000 mg/L.*

Out of approximately 30 samples for each of the constituents listed above that exceed either the primary or secondary MCL, fluoride and selenium had only one exceedance. Chloride, color, MBAS, sulfate, and threshold odor had less than ten exceedances. Constituents of significant concern with more than ten

exceedances include aluminum, conductivity, iron, manganese, nitrate as N, total dissolved solids, and turbidity.

2.3 Voluntary Well Sampling

Well sampling was conducted in December 2024 to gain a better understanding of the current conditions of the Community's groundwater aquifer. In addition to the Community Meeting, to gather interest in the sampling efforts, MKN prepared and mailed informative outreach letters to Community members where they were provided the opportunity to volunteer for a California Title 22 well sampling analysis free of charge. The various locations of wells sampled in December 2024 are shown in **Figure 2-1**.

A summary of the collected water quality data, including maximum, minimum, and averages for all wells tested are included in **Table 2-2**. Only constituents with a California MCL and detectable concentration level are included in the table, and all water quality data that was collected is included in the hydrogeological characterization (**Appendix A**). A geospatial representation as well as hydrogeological characterization of the groundwater quality results is included in **Section 2.4**.

In addition to the constituents analyzed as part of a Title 22 analysis, wastewater markers such as artificial sweeteners were also analyzed to evaluate if domestic septic systems may be contributing to groundwater quality issues. All the wastewater marker analyses were returned "non-detect". These constituents were analyzed as a surrogate to identify if surface contaminants or septic system effluent were short-circuiting to the wells. Although a full surface contamination analysis has not been performed, the non-detect results of these surrogate analytes indicate that the water quality issues are not likely influenced by domestic septic systems or surface contaminants.

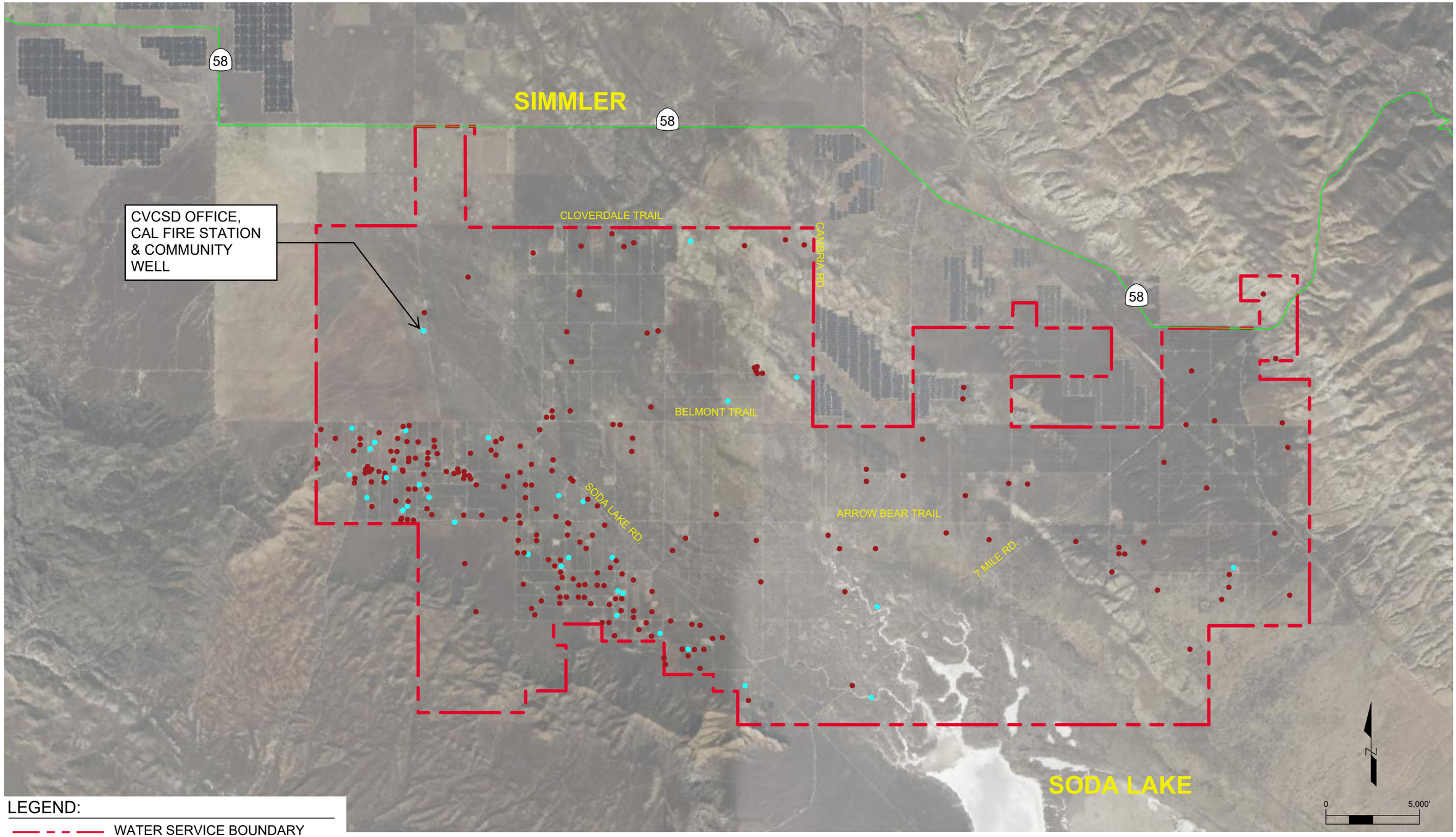
Results of the voluntary well sampling reflect a single sampling event at each well. Seasonal fluctuations in groundwater levels, flow patterns, and pumping schedules have the potential to affect sampling results, which may be present in the data.

Table 2-2: Well Sampling Results						
Parameter[1]	**Average**	**Minimum**	**Maximum**	**Units**	**Primary MCL**	**Secondary MCL**
Aluminum, Total	86.7	ND	700.0	ug/L	1000	200
Arsenic, Total	2.5	1.0	4.0	ug/L	10	--
Chloride	226.4	44.0	530.0	mg/L	--	250
Chromium, Total	17.8	6.0	25.0	ug/L	50	--
Color, Apparent	120.0	120.0	120.0	CU	--	15
Conductivity @ 25C	2522.9	620.0	4520.0	umhos/cm	--	900
Fluoride	2.2	0.1	6.2	mg/L	2	--
Glyphosate	101.0	101.0	101.0	ug/L	700	--
Gross Alpha	11.8	0.3	34.4	pCi/L	15	--
Iron, Total	140.0	30.0	220.0	ug/L	--	300
Lead, Total	1.5	1.0	3.0	ug/L	15	--
Manganese, Total	22.9	0.7	79.9	ug/L	--	50
Nitrate + Nitrite as N	5.8	0.6	9.2	mg/L	10	--
Nitrate as N	5.8	0.6	9.2	mg/L	10	--
Nitrate as NO_3	25.5	2.4	40.7	mg/L	45	--
Perchlorate (ClO_4)	0.9	0.2	1.4	ug/L	6	--
Perfluorohexanesesulfonic Acid (PFHxS)	5.5	5.5	5.5	ng/L	10	--
Perfluorooctanesulfonic Acid (PFOS)	1.9	1.9	1.9	ng/L	4	--
Perfluorooctanoic Acid (PFOA)	1.9	1.9	1.9	ng/L	4	--
Selenium, Total	22.7	5.0	86.0	ug/L	50	--
Silica (SiO_2), Total	25.9	16	36	mg/L	--	--
Sulfate as SO_4	759.1	39.7	2420	mg/L	--	250
Total Dissolved Solids	1838.9	400	4160	mg/L	--	500
Turbidity	11.5	0.1	100.0	NTU	--	5
Uranium	11.8	1.9	64.3	pCi/L	20	--
Vanadium	10.8	5.0	25.0	ug/L	50	--

Notes:

1. *Contaminants that exceed primary drinking water MCLs are highlighted in red, while contaminants exceeding secondary drinking water MCLs are highlighted in yellow.*

Out of nine samples for each of the constituents listed above that exceed either the primary or secondary MCL, aluminum, color, manganese, turbidity, and uranium had one exceedance; fluoride, gross alpha, and selenium had less than or equal to three exceedances; and constituents introducing significant concern with more than three exceedances include chloride, conductivity, sulfate, and total dissolved solids (TDS). Interestingly, five of the samples had elevated nitrate concentrations (over 5 mg/L as N), but no exceedances were noted, which is in stark comparison to the historical data presented in **Table 2-1**.



LEGEND:

- WATER SERVICE BOUNDARY
- BLUE STAR MEMORIAL HIGHWAY
- WELL, KNOWN WATER QUALITY
- WELL, UNKNOWN WATER QUALITY

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EXISTING WELL LOCATIONS

FIGURE
2-1

2.4 Hydrogeological Characterization

Following collection of groundwater water quality data within the Community, B&V conducted a water quality hydrogeologic characterization using available online groundwater basin data and water quality data from 33 sample locations as discussed in **Sections 2.2** and **2.3**. In the characterization, B&V evaluated the hydrostratigraphy of the Carrizo Plain Basin and estimated that the majority of domestic wells within the area draw from the Holocene alluvium. Information on well location, depth, static water level, and yield were analyzed, and based on the data, the available groundwater yield is not well understood and is limited to being estimated based on yields of existing wells (when developed) in the Community, which range from 1 to 100 gpm. Additionally, the water quality data were analyzed and compared to California MCLs with respect to becoming a safe public drinking water source. This analysis informed the development of contaminant concentration maps of five high priority constituents of concern (nitrate, TDS, aluminum, iron, and manganese), which assisted in preliminary well placement for use in multiple proposed alternatives discussed in **Section 3.0**. The full hydrogeologic characterization and the concentration maps can be found in **Appendix A**.

Based on the available water quality data, nitrate as nitrogen is highest in concentration on the western edge of the CVCSD boundary, although there are exceedances throughout the Community. TDS is highest in concentration near Soda Lake and concentrations decrease the further the sample is from the lake; however, TDS concentrations are high within the entire CVCSD boundary. Aluminum, iron, and manganese concentrations are more sporadic and do not show clear hydrogeological trends with exceedances spread throughout the entire CVCSD boundary.

Although the hydrogeologic characterization findings are useful for the purposes of preliminary planning and presenting water issue solution alternatives for further evaluation, there are numerous data gaps within the area studied. These data gaps introduce uncertainty when determining design criteria such as sustainable yield of the groundwater basin and treatment methodology. B&V's recommendations for closing the data gaps are integrated in **Section 2.6**.

2.5 Summary of Water Supply Issues

The investigation into groundwater conditions in the Community identified several key water quality concerns. Well sampling and historical data review revealed that multiple constituents in the groundwater exceed California's drinking water standards (MCLs), with the following being the most concerning and/or prevalent:

- **Nitrate**
    - Health Concern: High levels can cause methemoglobinemia ("blue baby syndrome") in infants, interfering with oxygen transport in the blood.
- **TDS**
    - Aesthetic Concern: Contributes to poor taste, mineral scaling, and corrosion in plumbing systems.
    - Not typically a health risk, but high TDS may indicate the presence of other undesirable substances.

- **Fluoride**
    - Aesthetic Concern: May cause an off or unpleasant taste.
    - Health Concern: Long-term exposure above the MCL may lead to dental fluorosis in children and skeletal fluorosis in adults.
- **Manganese**
    - Aesthetic Concern: Causes black staining on plumbing fixtures, laundry, and sinks; may produce a metallic taste.
    - Health Concern: At high concentrations, long-term exposure may have neurological effects, particularly in children.
- **Aluminum**
    - Aesthetic Concern: Can cause color issues, turbidity, and metallic taste in water.
    - Health Concern: Potential (though not conclusively proven) links to neurological impacts have been studied.
- **Iron**
    - Aesthetic Concern: Causes reddish-brown staining, unpleasant metallic taste, and sediment buildup in distribution systems.
    - Not typically a health hazard but can lead to consumer complaints and maintenance issues
- **Sulfate**
    - Aesthetic Concern: May impart a bitter or medicinal taste; contributes to scaling in pipes and fixtures.
    - Health Concern: At high concentrations, may cause laxative effects, especially in individuals not accustomed to it.
- **Chloride**
    - Aesthetic Concern: High levels cause salty taste, can promote corrosion of pipes and appliances.
- **Turbidity**
    - Aesthetic Concern: Indicates cloudiness in water, often caused by suspended particles.
    - Health Concern: Can shield pathogens from disinfection processes, potentially compromising microbial safety.

Additional but less frequent exceedances were observed for selenium, gross alpha, and uranium. Testing for wastewater markers suggests that domestic septic systems are unlikely to be contributing to water quality issues at the locations analyzed. Hydrogeological analysis indicated that most wells draw from

the Holocene alluvium in the Carrizo Plain Basin, though available data on groundwater yield remains limited and uncertain.

2.6 Data Gaps

Several data limitations were identified that hinder a comprehensive understanding of the Carrizo Plain Groundwater Basin, including the following:

1. Missing well construction details for key wells (e.g., depths, screen intervals, and pump settings), which is crucial to understanding water quality with depth
2. Absence of reliable aquifer performance test results to understand sustainable yield relative to location
3. Deficient water quality dataset, lacking in spatial distribution and quantity of sampling locations. Namely, there is highly limited data east of Soda Lake Road.

Potential actions to collect missing information and better evaluate the basin's suitability as a public drinking water source are included in the list below. Finalized recommendations will be included in **Section 5.0** following selection of alternatives for further consideration.

1. Perform video logging of the CVCSD well and/or recently sampled wells to better understand depths and perforated intervals.
2. Perform continued general water quality sampling including the sampling of per- and polyfluoroalkyl substances (PFAS) and other emerging constituents of concern under the Environmental Protection Agency's Unregulated Contaminant Monitoring Rule to better understand the spatial distribution of contaminants within the basin.
3. Perform a test well drilling program in locations indicated to be optimal for new well drilling, if new well alternatives are pursued. This will aid in determining sustainable yield and allow for targeted site-specific water quality testing for production well and water treatment design.

3.0 CONCEPTUAL ALTERNATIVES

This section discusses conceptual alternatives to address the water supply issues faced by CVCSD. Conceptual alternatives include the drilling of new wells with associated treatment and storage, hauled water to centralized community storage tanks, a community-wide water distribution system, point of use and point of entry water treatment systems at each property with a domestic well, atmospheric water harvesting, and bottled water deliveries (as an interim solution). Each alternative presented herein has been analyzed at a high conceptual level. A short-list of the most preferable and feasible solutions is presented in **Section 4.2**. The short-list of solutions will be analyzed in further detail in a future Engineering Report.

3.1 Alternative 1 – Strategic Community Well Construction – Centralized Fill Station

This alternative proposes the drilling of two new wells in locations with more favorable water quality. These wells would supply water to a centralized treatment system and storage facility.

After treatment, the water would be stored in an onsite storage tank, and pumps would supply water to filling stations where residents could collect potable water. The tank would be sized to hold a three-day supply of the estimated future indoor water demand of the Community (76,000 gallons). An access and accounting system (i.e. key-card entry) would need to be designed and implemented for CVCSD (or other water system operator/owner) to track and bill the consumers for water use. This solution may be feasible from a constructability perspective, but its ability to provide convenient, easy access to drinking water for all residents is limited due to the storage tank being long distances from some residents. This solution also limits residents to hauling volumes of 250 gallons or less without either (1) an individual water hauling license or (2) a community-wide water hauling license coordinated with the California Department of Public Health (CDPH) and SWRCB, Division of Drinking Water (DDW).

In addition to potential water hauling concerns, this alternative would require CVCSD to create a public water system. Creation of a public water system requires approval by the San Luis Obispo County Local Agency Formation Commission (LAFCO) and SWRCB DDW. Necessary steps to facilitate a public water system formation are likely to include the following and should be confirmed with the San Luis Obispo County LAFCO if this alternative is pursued:

- A resolution of application adopted by CVCSD's governing board.
- A plan for providing water services with necessary supporting documentation.
- Environmental documentation compliant with the California Environmental Quality Act (CEQA).
- Public hearing and approval.

Available data on existing wells within the Community indicate that wells may be able to yield between one and 100 gpm (when drilled) with a 5-inch casing based on existing well completion reports. Although site-specific yield may vary, it is estimated that each new well drilled within the Community can sustainably yield up to 50 gpm with an 8-inch well casing, which represents the 75th percentile of the available data. This estimate reflects a high, yet realistically sustainable yield in the context of the existing data variability. Well completion reports evaluated to inform these estimates will be included in the future Engineering Report. Based on the estimated well yield and future indoor use demand of 23 gpm, it is

recommended that two new wells are drilled, with the CVCSD well used as an additional backup in the event of one or multiple well failures. The existing CVCSD well would continue to stand alone in this alternative and would not supply the centralized storage tank. Potential well locations were evaluated based on two main parameters: Community accessibility and water quality. Four potential locations for new wells to be drilled were determined for further investigation in each alternative that proposes new wells as part of the solution. Potential new well locations and areas of favorable water quality are presented in **Figure 3-1**. Additionally, the extent of the Community that can reach each well location within a 10-minute driving radius is shown in **Figure 3-2**. It is possible that fewer, larger-capacity wells may be drilled, but sufficient information to support this concept is not available.

Although the potential new well locations were placed in areas with preferable water quality, there are still constituents of concern present at each of the potential locations, and these are presented by location in **Table 3-1**. All constituents that have one or more measured concentration at 50 percent or higher than the California MCL are included in the table. This differs from **Section 2.5**, which only lists constituents with California MCL exceedances. This alternative proposes that all wells be drilled at or near Location 2 due to (1) optimal water quality compared to the other locations and (2) its centralized location relative to the Community's housing density, shown in **Figure 1-3**.

Table 3-1: Constituents of Concern at Potential Locations for New Wells or Facilities

Constituents of Concern[1]	Primary or *Secondary* MCL[2]	Location No. 1		Location No. 2		Location No. 3		Location No. 4[4]	
		Concern (Yes/No)	Estimated Average Concentration[3]	Concern (Yes/No)	Estimated Average Concentration	Concern (Yes/No)	Estimated Average Concentration	Concern (Yes/No)	Estimated Average Concentration
Aluminum, Total (ug/L)	1,000 (*200*)	Yes	1020	Yes	2050	No	--	Yes	670
Arsenic (ug/L)	10	No	--	No	2.65	No	1	No	--
Bromoform (mg/L)	0.06	N/A	No Data Available	N/A	No Data Available	N/A	No Data Available	N/A	No Data Available
Cadmium, Total (ug/L)	5	No	--	No	--	No	--	Yes	3.9
Chloride (mg/L)	*250*	No	--	No	--	Yes	310	Yes	3600
Chromium, Total (ug/L)	50	No	2.05	No	--	No	7.75	No	--
Color, Apparent (CU)	*15*	No	--	Yes	10	No	--	Yes	10
Conductivity (umhos/cm)	*900*	Yes	1025	Yes	1750	Yes	2065	Yes	15000
Fluoride (mg/L)	2	Yes	2.3	Yes	1.2	No	--	No	--
Gross Alpha (pCi/L)	15	N/A	No Data Available	N/A	No Data Available	Yes	13.9	N/A	No Data Available
Iron (ug/L)	*300*	Yes	1440	Yes	2150	No	--	Yes	730
Manganese (ug/L)	*50*	No	--	Yes	105	No	--	Yes	510
MBAS (Surfactants)	*0.5*	No	--	No	--	Yes	1.95	No	--
Nitrate + Nitrite as N (mg/L)	10	Yes	7.2	No	3.5	Yes	6	Yes	13
Nitrate as N (mg/L)	10	Yes	7.2	No	4.15	Yes	4.1	Yes	13
Nitrate as NO3 (mg/L)	45	N/A	No Data Available	N/A	No Data Available	Yes	35.9	N/A	No Data Available
Perchlorate (ug/L)	6	N/A	No Data Available	N/A	No Data Available	No	--	N/A	No Data Available
Perfluorohexanesesulfonic Acid (PFHxS, ng/L)	10	N/A	No Data Available	N/A	No Data Available	No	--	N/A	No Data Available
Perfluorooctanesulfonic Acid (PFOS, ng/L)	4	N/A	No Data Available	N/A	No Data Available	No	--	N/A	No Data Available
Perfluorooctanoic Acid (PFOA, ng/L)	4	N/A	No Data Available	N/A	No Data Available	No	--	N/A	No Data Available
Selenium, Total (ug/L)	50	No	--	No	--	No	--	Yes	43
Silica, Total (mg/L)	N/A[5]	N/A	No Data Available	N/A	No Data Available	Yes	24	N/A	No Data Available
Sulfate as SO4 (mg/L)	*250*	Yes	175	Yes	170	Yes	699	Yes	5600
Threshold Odor (T.O.N.)	*3*	Yes	8.5	No	--	Yes	4.2	Yes	1.5
Total Dissolved Solids (mg/L)	*500*	Yes	635	Yes	1360	Yes	1330	Yes	15000
Turbidity (NTU)	*5*	Yes	25.5	Yes	34.2	No	--	Yes	15
Uranium (pCi/L)	20	N/A	No Data Available	N/A	No Data Available	No	5.9	N/A	No Data Available

Notes:

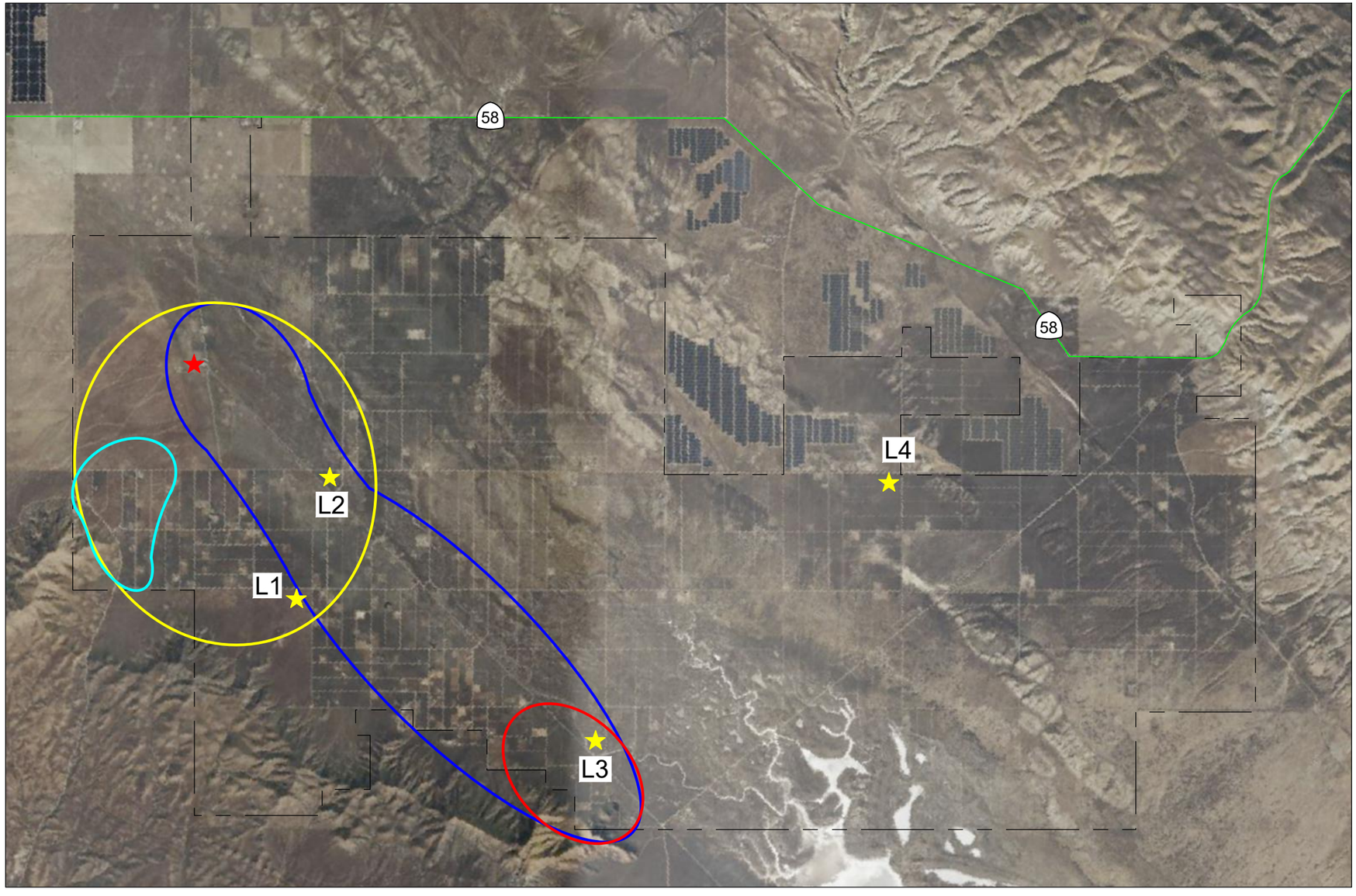
1. Red highlighted cells represent the most prevalent constituents of concern, which have multiple measured MCL exceedances (see ***Section 2.5****). Non-highlighted cells represent constituents that have one or more measured concentration at 50% or higher than the MCL, accounting for all data analyzed for this report.*

2. Secondary MCL's are listed in italic font.

3. Estimates are calculated by taking the respective average concentration of the nearest two wells with available water quality data. A concentration estimate is only provided if the nearest existing water quality is greater than 50% of the current MCL (Primary or Secondary). "--" indicates that the estimated concentration was less than 50% of the MCL. "No Data Available" indicates that there is no data for the particular constituent from the well(s) in which data is being taken for the location.

4. The water quality of at this location is not well known and will need to be confirmed. Constituents of concern are based on well sample data located approximately 2-miles away.

5. Although silica does not pose a significant health risk, it significantly influences water treatment design, which is why it is included here.



LEGEND:

- EXISTING CVCSD WELL
- POTENTIAL NEW FACILITY LOCATION
- L# LOCATION NUMBER
- AREAS OF LOWEST TDS CONCENTRATION
- AREAS OF LOWEST NITRATE CONCENTRATION
- AREAS OF LOWEST ALUMINUM/IRON CONCENTRATION
- AREA OF LOWEST ALUMINUM CONCENTRATION
- CVCSD SERVICE BOUNDARY

N

0 0.5 1
MILES

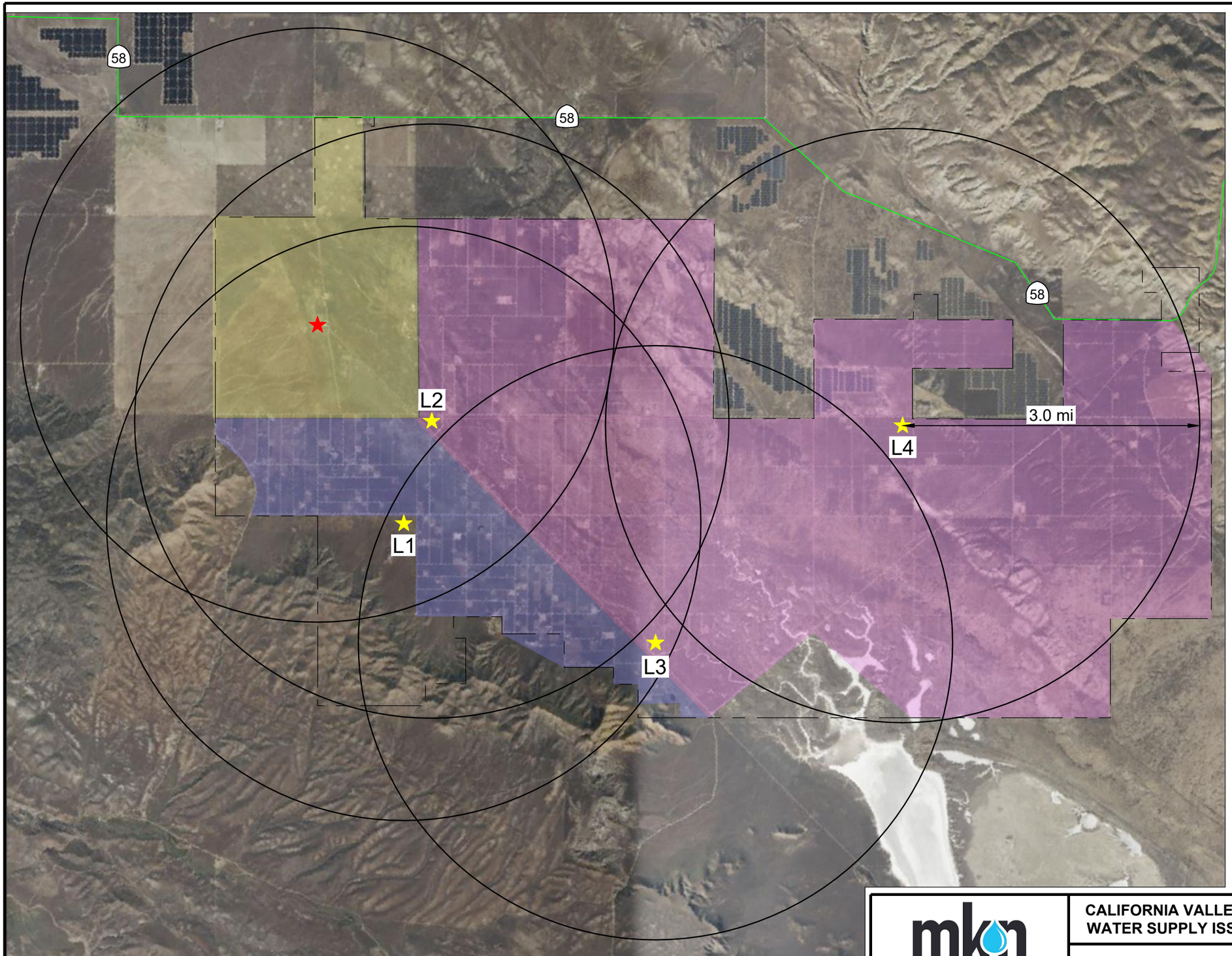
mkn
1800 21st STREET, SUITE C
BAKERSFIELD, CA 93301 (661) 873-4262

CALIFORNIA VALLEY COMMUNITY SERVICES DISTRICT
WATER SUPPLY ISSUES AND ALTERNATIVE ANALYSIS

POTENTIAL NEW FACILITY LOCATIONS &
AREAS OF OPTIMAL WATER QUALITY

FIGURE
3-1

8/21/2025 DWG: N:\CA Urban Water Agency\CUWA-A2024-084 Water Supply Alternatives\300 Engineering\301 CAD\Exhibits\fig 3-1.dwg Plotted By: CHATMAKER



NOTES:

1. THE THREE (3) MILE RADIUS ILLUSTRATES A DRIVE TIME OF 10 MINUTES FROM CENTER TO CIRCLE EDGE BASED ON AN AVERAGE DRIVING SPEED OF 25 MILES PER HOUR.
2. THE TERM "DENSITY" AS USED HERE IS RELATIVE TO THE EXISTING RESIDENTIAL STRUCTURES WITHIN CVCSD AND IS NOT INTENDED TO SERVE AS A PLANNING STANDARD OR REFLECT A TYPICAL COMMUNITY DEVELOPMENT / PLANNING DEFINITION OF RESIDENTIAL DENSITY.
3. BOUNDARIES SHOWN REPRESENT AREAS WITH RESIDENCES WITHIN CVCSD .

LEGEND:

- EXISTING CVCSD WELL
- POTENTIAL NEW FACILITY LOCATION
- L# LOCATION NUMBER
- LOW DENSITY RESIDENTIAL AREA
- MEDIUM DENSITY RESIDENTIAL AREA
- HIGH DENSITY RESIDENTIAL AREA
- CVCSD SERVICE BOUNDARY

N

0 0.5 1
MILES

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1800 21st STREET, SUITE C
BAKERSFIELD, CA 93301 (661) 873-4262

CALIFORNIA VALLEY COMMUNITY SERVICES DISTRICT
WATER SUPPLY ISSUES AND ALTERNATIVE ANALYSIS

PROXIMITY TO POTENTIAL NEW FACILITIES

FIGURE
3-2

8/19/2025 DWG: N:\CA Urban Water Agency\CUWA-A2024-084 Water Supply Alternatives\300 Engineering\301 CAD\Exhibits\fig 3-2.dwg Plotted By: CHATMAKER

Advanced treatment processes would be necessary based on the existing water quality at the Community well and potential locations for new wells to be drilled. Although additional site-specific water quality sampling would need to be conducted at the exact location of new well drilling to confirm required treatment methodologies, for the purposes of this assessment/report and based on initial water quality results, the following conceptual treatment train is assumed to be required to address the contaminants of concern discussed in **Section 2.5** and shown in **Table 3-1**.

1. Pre-oxidation and coagulation with the following chemicals:
    a. Chlorine for iron
    b. Ferric chloride for manganese and aluminum
2. Pre-filtration for iron, manganese and aluminum
3. De-chlorination to protect the filtration elements in ion exchange (IX) or reverse osmosis (RO) treatment
4. Advanced treatment
    a. RO or IX, depending on the site-specific water quality
    b. If RO treatment is utilized, anti-scalant will be dosed to avoid excessive scaling on the membranes.
5. Post-treatment to stabilize the product water (pH and/or alkalinity stabilization) and maintain chlorine residuals.

A chlorine analyzer, injection facility, and an internal active mixer would be installed at the tank. These components would continuously monitor the chlorine content to maintain an adequate residual, preventing biofilm growth and reducing the risk of organic contamination in the water.

Advanced water treatment requires careful disposal of liquid waste byproduct created by removal of the contaminants in the source water. For the purposes of this report, it is assumed the RO would be implemented due to ease of operation and proven effectiveness when compared to IX, although IX remains a viable treatment methodology. It is conservatively estimated that RO treatment of the source water would have a 70 percent recovery rate, meaning that 70 percent of the flow passing through the RO filtration membrane would become viable drinking water, whereas the remaining 30 percent of flow would consist of liquid waste byproduct requiring proper disposal.

Using the future indoor use water demand to calculate liquid waste byproduct volumes from both the pre-filtration units and RO system, it is estimated that approximately 10,000 gallons of liquid waste byproduct would be produced per day by the two new wells (5,000 gallons per well). Liquid waste byproduct can be disposed of in on-site lined evaporation ponds with the thickened sludge being hauled off periodically as part of CVCSD operations. Preliminary sizing indicates that a total surface area of approximately two acres would be needed to facilitate evaporation of the liquid waste byproduct (one acre per well). This area can be subdivided into multiple smaller ponds and/or reduced by adding means to accelerate the evaporation process such as mechanical aeration or surface agitation. The ongoing water treatment and disposal operations would require an experienced water treatment operator with the minimum qualifications being a tier three certified water treatment operator in California.

The complexity and requirements surrounding the treatment of new wells within the area make large-scale treatment of the groundwater largely infeasible and uncertain considering the potential high capital

cost, operational cost and complexity, and uncertainty revolving the site-specific water quality prior to implementing a test well program in the areas considered for construction.

List of Alternative Improvements and Requirements:

- Drill two new wells at Location 2 and maintain the existing CVCSD community well on standby for emergencies.
- Construct a centralized water treatment system site.
    - Construct raw water distribution pipelines to centralized treatment.
    - Construct treatment train.
    - Construct liquid waste byproduct infrastructure.
    - Construct two (2) low-flow filling stations (10 gpm) - Install a small pump, flowmeter, and filling station where residents can collect drinking water.
    - Construct two (2) high-flow filling stations (50 gpm) - Install a larger pump, flowmeter, and filling station where residents can collect drinking water.
    - Construct a 76,000-gallon onsite storage tank for treated water.
    - Equip the tank with a chlorine analyzer, injection facility, and internal mixer to ensure adequate chlorine residual and prevent contamination.
    - Install onsite telemetry for equipment monitoring and water accounting system, with data collection at the CVCSD office.
    - Construct site improvements including site security and a parking area of adequate size for resident parking.
- Secure electrical service for new well and treatment sites.
- Construct a similar, smaller-scale treatment train at the CVCSD well.
- Complete detailed design.
- Secure construction funding.
- Secure necessary permits for the formation of the water system and construction of the well(s).
- Conduct extensive Community outreach to facilitate support and understanding of the project.

Advantages:

- Feasible from a constructability standpoint.
- Addresses groundwater quality issues by providing treated potable water through centralized treatment.
- Can be adapted to future changes in water demand by adding additional wells or treatment capacity.

Disadvantages:

- Limited access to drinking water for residents, as the filling station may not be convenient or accessible to all, especially for those without transportation.
- Provides potable water for indoor use only.
- Requires significant Community buy-in and coordination for residents to collect water from a centralized location.
- Ongoing and complex operation and maintenance required for the treatment system, liquid waste byproduct disposal system, storage tank, and pump, which may pose long-term challenges and requires a tier three certified operator to operate and maintain the treatment infrastructure.
- The water supply may still be affected by seasonal fluctuations in groundwater levels or quality, requiring continued monitoring and potentially additional treatment.
- Could present logistical and infrastructure challenges for ensuring equitable access, particularly for residents who are farther from the filling station.

Next Steps:

- Detailed discussion with the SWRCB DDW regarding (1) the hauling of water by the general public as viable drinking water solution and (2) Community permitting for hauling in excess of 250 gallons, if desired by the Community.
- Discuss with CVCSD the preferred location for the new wells to be placed. Initial discussion with CVCSD indicates that the preferred centralized location may be the CVCSD office rather than Location 2.
- If a viable solution,
    - Initiate discussion with San Luis Obispo County LAFCO.
    - Determine a water accounting system that could be effectively integrated with the system. For example, a card reader that is activated by each resident through a unique identifier. Once activated, the telemetry data (water volume) read from the flowmeter for the duration in which the resident drew water will be transmitted to CVCSD for accounting and billing purposes.
    - Drill a test well at Location 2 (or CVCSD preferred centralized location) and implement the test well drilling program recommended by B&V to confirm water quality and water treatment design prior to full buildout.
    - Conduct bench scale treatability testing on the collected test well water samples.
    - Conduct a Drinking Water Source Water Assessment for submittal to the SWRCB, DDW.

3.2 Alternative 2 – Strategic Community Well Construction – Localized Fill Stations

This alternative also proposes drilling two new wells in locations with more favorable water quality. However, these wells would supply water to individual treatment systems and storage facilities spaced throughout the Community.

Similar to Alternative 1, after treatment, the water would be stored in an onsite storage tank, and pumps would be used to supply water to a filling station where residents could collect potable water. Each storage tank would be sized to store 1.5 times the Community's future indoor water use demand (38,000 gallons). An accounting system would need to be designed and implemented for residents to track their water usage such that CVCSD could accurately bill the consumers. This solution is less feasible than Alternative 1 from a cost and constructability perspective, but its ability to provide convenient, easy access to drinking water for all residents is improved. This solution also limits residents to hauling volumes of 250 gallons or less without either (1) an individual water hauling license or (2) a community-wide water hauling license coordinated with the CDPH.

Based on the estimated yield and locations discussed in **Section 3.1**, this alternative proposes that a new well be drilled at Locations 1 and 4. Location 1 was chosen as water quality sampling and results from the hydrogeologic analysis indicate that this area will provide the best water quality while also being centrally located relative to the Community's housing spatial distribution. Location 4 was chosen solely on the basis of equitable access as the data on water quality in the area is highly limited. The constituents of concern for each location are presented in **Table 3-1** above.

Due to the wide variety of contaminants at each potential well location, the treatment and liquid waste byproduct disposal methodologies outlined in **Section 3.1** would be modified and scaled to treat each new well independently.

List of Alternative Improvements and Requirements:

- Drill two new wells at Locations 1 and 4 and maintain the existing CVCSD community well on standby for emergencies.
- Construct a centralized water treatment system site at each well (including CVCSD well).
    - Construct raw water distribution pipelines to centralized treatment.
    - Construct treatment train.
    - Construct liquid waste byproduct infrastructure.
    - Construct one low-flow filling station (10 gpm) - Install a small pump, flowmeter, and filling station where residents can collect drinking water.
    - Construct one high-flow filling station (50 gpm) - Install a larger pump, flowmeter, and filling station where residents can collect drinking water.
    - Construct a 38,000-gallon onsite storage tank for treated water.
    - Equip the tank with a chlorine analyzer, injection facility, and internal mixer to ensure adequate chlorine residual and prevent contamination.

- Install onsite telemetry for equipment monitoring and water accounting system, with data collection at the CVCSD office.
- Construct site improvements including site security and a parking area of adequate size for resident parking.

- Secure electrical service for new wells and treatment sites.
- Complete detailed design.
- Secure construction funding.
- Secure necessary permits for the formation of the water system and construction of the well(s).
- Conduct extensive Community outreach to ensure support and understanding of the project.

Advantages:

- Provides more equitable access to drinking water when compared to Alternative 1, as each filling station will serve a smaller area, reducing transportation barriers for residents.
- Reduces the need for residents to travel long distances to collect water, improving convenience and accessibility when compared to Alternative 1.
- Feasible from a constructability standpoint.
- Addresses groundwater quality issues by providing treated potable water through centralized treatment.
- Can be adapted to future changes in water demand by adding additional wells or treatment capacity.

Disadvantages:

- Requires multiple treatment systems, storage tanks, and filling stations, leading to higher overall costs and more complex infrastructure.
- Provides potable water for indoor use only.
- Increased operations and maintenance complexity as each well system, treatment unit, and tank will require monitoring and upkeep, distributed amongst a single certified operator.
- The water supply may still be affected by seasonal fluctuations in groundwater levels or quality, requiring continued monitoring and potentially additional treatment.

Next Steps:

- Detailed discussion with the SWRCB DDW regarding (1) the hauling of water by the general public as viable drinking water solution and (2) Community permitting for hauling excess of 250 gallons, if desired by the Community.

- If a viable solution,
    - Initiate discussion with San Luis Obispo County LAFCO.
    - Determine a water accounting system that could be effectively integrated with the system. For example, a card reader that is activated by each resident through a unique identifier. Once activated, the telemetry data (water volume) read from the flowmeter for the duration in which the resident drew water will be transmitted to CVCSD for accounting and billing purposes.
    - Drill a test well at Locations 1 and 4 and implement the test well drilling program recommended by B&V to confirm water quality and water treatment design prior to full buildout.
    - Conduct bench scale treatability testing on the collected test well water samples.
    - Conduct a Drinking Water Source Water Assessment for submittal to the SWRCB, DDW.

3.3 Alternative 3 – Community Storage Tanks

This alternative is no longer being considered. Due to the limited long-term viability of this alternative, further exploration is not justifiable.

This alternative proposes the construction of two 7,000-gallon storage tanks, where water would be purchased and hauled by a bulk water hauling company to the tanks. The tanks would serve as the main storage for the Community's drinking water supply, and due to the limiting size and cost of water-hauling vehicles, the storage tanks would be unable to supply water for additional household needs such as bathing. Therefore, the future drinking and cooking water demand for the Community is used for this alternative. Assuming deliveries once per week to each tank, this supply provides approximately three gallons per person per day of drinking and cooking water based on the estimated future population discussed in **Section 1.1**. Each tank would be equipped with small pumps for designated filling stations for residents. The tanks would be located at Locations 1 and 4 as shown in **Figure 3-1**, which allows for more equitable access throughout the Community.

Although the hauled water will be of potable quality, to ensure the water remains safe for consumption, a chlorine analyzer, injection facility, and an internal mixer would be installed at each tank. These components would continuously monitor the chlorine content to maintain an adequate residual, preventing biofilm growth and reducing the risk of organic contamination in the water.

While this solution offers a relatively straightforward approach to providing potable water, it presents significant operational and cost considerations. Research indicates that there are very few companies capable of delivering water in quantities necessary for this alternative (14,000-gallon deliveries). This introduces concern with water supply reliability over time if the companies were to ever dissolve or halt delivery services to the area.

The purchase and hauling of water from nearby municipalities (as shown in **Figure 1-2**) was also considered. However, discussions with the municipalities (i.e., Atascadero Mutual Water Company and the City of Bakersfield/California Water Service) proved this option to be unviable due to either (1) existing codes prohibiting an outside purchase agreement and/or (2) ongoing water use reductions as part of conservation efforts.

List of Alternative Improvements and Requirements:

- Construct two 7,000-gallon storage tanks at Locations 1 and 4 for storing hauled water.
- Construct two (2) low-flow filling stations (10 gpm) - Install small pumps, flowmeter, and filling station at each storage tank.
- Install onsite telemetry for equipment monitoring and water accounting system at each location, with data collection at the CVCSD office.
- Equip each tank with a chlorine analyzer, injection facility, and internal mixer to ensure adequate chlorine residual and prevent contamination.
- Construct site improvements including site security and a parking area of adequate size for resident parking.
- Secure electrical service for each site.
- Complete detailed design.
- Secure construction funding.
- Secure necessary permits for the formation of the water system and construction of the storage tanks.
- Conduct extensive Community outreach to ensure support and understanding of the project.

Advantages:

- Ensures high water quality through purchasing from a reputable potable water hauling company and continuous monitoring and maintenance of chlorine residual, reducing contamination risks.
- Easier and quicker to implement compared to developing a full-scale well system or pipeline infrastructure (Alternatives 1, 2, 4, and 5).
- Reduces the need for extensive well drilling or construction of a large-scale pipeline system.

Disadvantages:

- Relies on the ongoing transportation of water, which introduces recurring hauling costs and logistical challenges.
- Provides potable water for drinking and cooking use only.
- May not be fundable by the SWRCB DDW as a long term solution.
- Limited long-term sustainability due to reliance on external water sources, which may become more expensive or unavailable in the future.
- Limited capacity to scale if the Community grows, as the current system would require expansion of storage and hauling infrastructure.
- Potential for reduced water quality if the chlorine residual is not properly maintained.

Next Steps:

- Due to the limited long-term viability of this alternative, further exploration is not justifiable.

3.4 Alternative 4 – Community Water System

This alternative is no longer being considered. Due to the residential distribution of the Community, this alternative's capital cost would be too significant to justify further exploration.

This alternative proposes the installation of a community water system and full-scale distribution system. The solution involves designing and constructing an extensive water distribution network, including approximately 85 to 100 miles of transmission and distribution pipelines to supply safe potable water to all residents. To supply the water distribution system and provide adequate storage, this alternative would need to be paired with the well drilling and treatment methodologies discussed in either Alternative 1 or 2. However, instead of two new wells and 100,000 gallons of storage, this alternative would require three new wells and increased storage to meet the total, emergency, and fire demands of the system. Storage tank size is based on the total MDD of the Community (126,000 gallons), one day emergency ADD supply (84,000 gallons), and fire supply that accounts for two hours of 1,000 gpm fire flow (120,000 gallons). This results in a 330,000-gallon storage tank. This solution could also be paired with Alternative 5 (Consolidation with a Nearby Water System), and storage tanks capable of the capacity discussed (330,000 gallons) would need to be built in addition to the improvements outlined in Alternative 5.

Although this solution is the most traditional approach and would provide a long-term solution to the Community's groundwater quality problems, it represents one of the most expensive alternatives, making it financially infeasible at this time.

List of Alternative Improvements and Requirements:

- Construct improvements outlined in Alternatives 1 or 2, depending on the paired alternative and modified to meet the additional requirements discussed above, less the filling station infrastructure.
- Complete detailed design of the water system.
- Construct water system transmission and distribution pipelines as well as private service connections.
- Secure construction funding.
- Secure necessary permits for the formation of the water system, construction of wells, and construction of pipelines and services connections.
- Conduct extensive Community outreach to ensure support and understanding of the project.

Advantages:

- Provides a long-term, reliable solution to the Community's groundwater quality issues.
- Provides potable water for the Community's total demand.
- Ensures safe, potable water for all residents, regardless of their access to private wells.

- Potentially increases property values and enhances quality of life by providing a stable water supply.
- Reduces reliance on individual private wells, improving water access and equity among residents.

Disadvantages:

- High upfront costs for design, construction, and implementation of the water system and pipeline.
- Uncertainty regarding well yields being able to sustain the total demand of the Community.
- Requires extensive permitting, which could take a significant amount of time and regulatory approval.
- Significant disruption during the construction phase, including possible environmental impacts from well drilling and pipeline installation.
- Long timeline for project completion, potentially taking years before the system is fully operational.
- Ongoing maintenance and operational costs for the new infrastructure could strain the Community's resources.

Next Steps:

- Due to the residential distribution of the Community, this alternative's capital cost would be too significant to justify further exploration.

3.5 Alternative 5 – Consolidation with a Nearby Water System

This alternative is no longer being considered. Due to the complex conveyance and permitting requirements and distance from the nearest consolidating water systems, this alternative's capital cost would be too significant to justify further exploration.

This alternative proposes the consolidation of the Community's water supply with a larger water system, such as West Kern Water District (WKWD), Atascadero Mutual Water Company (AMWC), or the City of Paso Robles. WKWD has services approximately 30 miles away in the town of McKittrick, and AMWC and Paso Robles have services approximately 50 miles away. Assuming consolidation with WKWD, approximately 17 to 30 miles of piping would need to be constructed to connect the Community to the larger water system. The approximate locations and distances to communities served by each of the water systems can be seen in **Figure 1-2**.

Booster pump station(s) as well as chlorine analyzer and injection facilities would likely be required to address headloss, elevation changes, and water age concerns. Additionally, Alternatives 1, 2, or 4 would need to be coupled with the consolidation pipeline to facilitate the delivery of potable water to the Community. The proposed new wells and associated treatment would be removed from each of the potential paired alternatives as the consolidating pipeline would serve as the sole source of supply for the Community. Alternatives 1, 2, or 4 would require approximately 17, 25, or 30 miles of consolidating piping, respectively.

Permitting this alternative would require detailed discussion with the larger water systems and San Luis Obispo County LAFCO to determine the likelihood of an annexation (i.e., service area expansion to

include CVCSD) to the water systems as well as detailed discussion with Caltrans to determine the likelihood of obtaining an encroachment permit for infrastructure construction along portions of State Route 58.

While this solution could potentially provide a reliable, long-term water source, it presents significant feasibility challenges, including high capital costs, complex permitting requirements, and the risks associated with having a single point of failure for the entire Community's water supply.

List of Alternative Improvements and Requirements:

- Construct approximately 17 to 30 miles (or 50 miles if connecting to AMWC or Paso Robles) of pipeline depending on the paired alternative to connect the Community to a larger, established water system.
- Construct booster pump stations and chlorine analyzer and injection facilities.
- Integrate Alternative 1, 2, or 4 with the pipeline infrastructure for water storage and distribution.
- Secure electrical service for booster pump, chemical injection, fill station facilities.
- Complete detailed design.
- Secure construction funding.
- Secure necessary permits for the pipeline construction, formation of the water system, and consolidation with the larger water system.

Advantages:

- Provides a long-term, reliable water source from an established, larger water system.
- Ensures high water quality, as the larger water systems are typically have greater technical, managerial, and financial capacity.
- Potential for long-term stability and sustainability by relying on a more robust water infrastructure.
- Eliminates the need for complex local treatment or filtration systems if integrated with an established water supplier.
- Reduces future maintenance and operational costs compared to developing a local, standalone water system.

Disadvantages:

- High capital costs associated with constructing 17 to 30 miles of pipeline and associated infrastructure, which would require significant financial investment.
- Complex permitting process, which could result in lengthy delays and regulatory hurdles.
- Risks associated with having a single point of failure in the water supply; if the larger system or consolidating pipeline experiences an issue, the entire Community may be affected.

- Dependence on external systems and the potential for water supply interruptions or rate increases from the larger utility. Decreased local control over water management and decision-making.
- Requires substantial coordination between the Community and the larger water provider to align needs, expectations, and infrastructure requirements.

Next Steps:

- Due to the complex conveyance and permitting requirements and distance from the nearest consolidating water systems, this alternative's capital cost would be too significant to justify further exploration.

3.6 Alternative 6 – Point of Use Filtration

This alternative is no longer being considered. After discussion with CVCSD, this alternative has been determined infeasible as not all residents own and/or obtain water from private domestic wells.

This alternative proposes the installation of one under sink mounted point of use (POU) RO filtration unit at each individual residence to address the Community's water quality concerns. This solution would be cost effective and timely to mobilize as an interim or permanent solution. This also provides the benefit to residents of having immediately accessible drinking water at home, which eliminates the necessity to travel for drinking water needs.

The installation and capital cost of these units may be considered for funding under an Urgent Drinking Water Needs (UDWN) grant, which would further reduce the time necessary to implement this solution. If desired by the Community and approved by regulators, this solution may be considered to permanently address the water quality needs in the area, forgoing the need to develop a new water system and implement an additional alternative solution. It is recognized that if point of use filtration is used as a permanent solution, the area will likely face increased difficulty in the future developing a Community water system if the area grows in population and/or becomes more extensively developed.

POU systems are capable of filtering the same contaminants of a larger scale RO system such as that discussed in **Section 3.1** but experience a lower recovery (efficiency) due to the lack of robust pre-treatment methodologies. This contributes to a larger percentage of the influent water becoming liquid waste byproduct. POU systems with the highest efficiency can have a recovery of up to 50 percent. Assuming a household of four people and three (3) gallons of drinking water per person per day, the POU systems would produce up to 12 gallons of drinking water and 12 gallons of liquid waste byproduct per day. This waste is permitted for disposal into residence's existing septic systems by the California Regional Water Quality Control Board (RWQCB), Central Coast Region General Order No. R3-2019-0089.

Generally, POU RO systems consist of the following treatment train methodology:

1. Pre-Treatment
    a. Sediment Filter
    b. Carbon Filter
2. Reverse Osmosis Membrane
3. Post-Treatment
    a. Polishing Carbon Filter

b. Remineralization Filter

    i. Adds back essential minerals like calcium and magnesium for taste and pH balance.

If the POU systems are chosen for implementation, a piloting procedure would need to be implemented, spread geospatially throughout the Community, to ensure removal of necessary contaminants such that the filtered water meets drinking water standards.

The POU systems have two ownership and ongoing maintenance options for implementation including (1) CVCSD ownership and maintenance and (2) private resident ownership and maintenance.

1. CVCSD ownership would allow CVCSD to oversee installation as well as monitor maintenance dates to ensure that all POU systems are properly functioning and maintained at all times. CVCSD ownership would also require the formation of a public water system (as discussed in **Section 3.1**), and public water systems are restricted to using POU filtration as an interim solution for up to three years. Thus, this ownership option is only viable if granted an exemption by the SWRCB for permanent use. Under this ownership, residents would not bear any responsibility to maintain their POU units.

2. Private resident ownership would place the responsibility of POU system monitoring and maintenance on the residents to ensure proper function and longevity, and CVCSD would have no part in ongoing maintenance. Because private ownership would not require formation of a public water system, the POU filtration solution is not subject to the 3-year SWRCB regulation or ongoing water sampling and reporting.

List of Alternative Improvements and Requirements:

- Conduct POU filtration pilot testing.
- Install an under sink (or otherwise professionally located) POU RO filtration unit at each residential property.

Advantages:

- Quick to mobilize and implement, providing an immediate solution to water quality issues without significant delays.
- Cost-effective compared to larger-scale infrastructure projects like community water systems or extensive pipeline networks.
- Provides residents with readily accessible drinking water at their homes, reducing the need for water hauling or travel to filling stations.
- May be eligible for funding under the UDWN grant program, speeding up implementation and reducing financial barriers.
- May be considered a permanent solution if a SWRCB exemption is granted, particularly if the Community desires to avoid developing a larger-scale water system.
- May be used as a temporary solution if the Community opts for a different permanent solution, ensuring no gap in water quality or supply.

Disadvantages:

- Does not address larger-scale water quality or quantity issues for residents who may need more water than what the POU RO systems can provide.
- Provides potable water for drinking and cooking use only.
- Requires ongoing maintenance and replacement of filters for each individual unit, which could become a financial and logistical burden for residents and/or CVCSD.
- If adopted as a permanent solution, the Community may face challenges in the future when attempting to develop a larger-scale water system, particularly if the population grows or the Community becomes more developed.
- Limited long-term scalability; as the Community grows, it may become increasingly difficult to manage and maintain a large number of individual filtration units if managed by CVCSD.
- Some may not consider POU's as a permanent solution for the entire Community's water needs, which could lead to continued concerns regarding water availability and quality.
- With the dissolved solids in the RO waste being discharged to septic systems and ultimately to groundwater, this alternative further exacerbates the water quality issues over time.

Next Steps:

- **Removed from consideration**. After discussion with CVCSD, this alternative has been determined infeasible as not all residents own and/or obtain water from private domestic wells.

Next steps from draft report:

- If desired by the Community, apply for a UDWN grant to expedite providing the Community with acceptable safe drinking water.
- Discussion with SWRCB DDW to determine the likelihood of permitting POU systems for permanent use, if owned and maintained by CVCSD.
- Consult with POU manufacturers to determine the best individual systems for homes throughout the Community based on the available geospatial water quality.
- Obtain Community input on preferred ownership and maintenance approach.
    - Initiate discussion with San Luis Obispo County LAFCO if public ownership is pursued.
- Develop pilot testing protocol geographically spread throughout the Community to ensure successful removal of contaminants in all areas.

3.7 Alternative 7 – Point of Entry Filtration

This alternative is no longer being considered. After discussion with CVCSD, this alternative has been determined infeasible as not all residents own and/or obtain water from private domestic wells.

This alternative is very similar in nature to Alternative 6 but proposes the installation of one point of entry (POE) RO filtration unit at each individual residence. Unlike POU filtration, which provides water solely for drinking and cooking, POE filtration would provide potable water for all indoor uses (i.e., at all water fixtures in and around the home). Similar to Alternative 6, this solution would be cost effective and timely to mobilize as an interim solution or permanent solution and provide the benefit to residents of having immediately accessible drinking water at home, which eliminates the necessity to travel for drinking water needs.

Due to the higher capital cost of POE versus POU treatment, it is less likely that POE units may be considered for funding under an UDWN grant. However, discussion with the SWRCB regarding potential eligibility for funding over 500,000 dollars will need to take place to determine with certainty. If the POE systems are not eligible for a UDWN grant and the Community desires for this alternative be explored as a permanent option, funding through the SWRCB Drinking Water State Revolving Fund could be pursued.

Like the POU systems, POE systems have lower recovery rates than larger scale RO systems, with systems suitable for residential use having up to 50% recovery rates. The recovery rates of POE systems may introduce concern with regard to discharging into residences' existing septic systems as the General Order No. R3-2019-0089 stipulates that no more than 50 percent of the discharge into the septic system is liquid waste byproduct. Given that the POE would serve the entire home, should the recovery rate be less than 50 percent, it is likely the majority of the discharge would be the treatment waste product. During implementation of a piloting protocol as discussed in **Section 3.6**, recovery rates would need to be investigated to determine the system's ability to comply with local regulations. Proposed ownership options of the POE systems are the same as those described in **Section 3.6**.

List of Alternative Improvements and Requirements:

- Conduct POE filtration pilot testing.
- Install a POE RO filtration unit at each residential property, preferably within the residence or well house structure to avoid outdoor exposure.

Advantages:

- Quick to mobilize and implement, providing an immediate solution to water quality issues without significant delays.
- Provides filtration of all well-supplied water (i.e., meets existing indoor and outdoor demands).
- Cost-effective compared to larger-scale infrastructure projects like community water systems or extensive pipeline networks.
- Provides residents with readily accessible drinking water at their homes, reducing the need for water hauling or travel to filling stations.
- Provides the entire residence with water of acceptable drinking quality, not just at one location within the home.

- May be eligible for funding under the UDWN grant program, speeding up implementation and reducing financial barriers.
- May be considered a permanent solution, particularly if the Community desires to avoid developing a larger-scale water system.
- May be used as a temporary solution if the Community opts for a different permanent solution, limited downtime in water quality or supply.

Disadvantages:

- Requires ongoing maintenance and replacement of filters for each individual unit, which could become a financial and logistical burden for residents and/or CVCSD.
- If adopted as a permanent solution, the Community may face challenges in the future when attempting to develop a larger-scale water system, particularly if the population grows or the Community becomes more developed.
- Limited long-term scalability; as the Community grows, it may become increasingly difficult to manage and maintain a large number of individual filtration units if done by CVCSD.
- Some may not consider POE's as a permanent solution for the entire Community's water needs, which could lead to continued concerns regarding water availability and quality.
- With the dissolved solids in the RO waste being discharged to septic systems and ultimately to groundwater, this alternative further exacerbates the water quality issues over time.

Next Steps:

- **Removed from consideration**. After discussion with CVCSD, this alternative has been determined infeasible as not all residents own and/or obtain water from private domestic wells.

Next steps from draft report:

- Discussion with SWRCB to determine the likelihood of POE systems being eligible for an UDWN grant.
- Discussion with SWRCB to determine the likelihood of permitting POE systems for permanent use, whether owned and maintained by CVCSD or individual residents.
- Consult with POE manufacturers to determine the best individual systems for homes throughout the Community based on the available geospatial water quality.
- Obtain Community input on preferred ownership and maintenance approach.
    - Initiate discussion with San Luis Obispo County LAFCO if public ownership is pursued.
- Develop pilot testing protocol geographically spread throughout the Community to ensure successful removal of contaminants in all areas.
- Discussion with RWQCB to determine the likelihood of permitting options for discharges of liquid waste byproduct (which may largely be dependent on recovery percentages).

3.8 Alternative 8 – Solar Atmospheric Water Harvesting Units

This alternative is no longer being considered. Following development of this alternative, the manufacturer discussed below (Source) has decided to no longer service customers in the United States. Thus, this alternative is no longer being considered.

Solar atmospheric water harvesting (SAWH) units are an innovative, off-grid technology that produces safe drinking water by passively capturing moisture from the air and condensing it using solar energy. These systems operate independently of traditional water infrastructure and are particularly well-suited for remote or underserved communities where groundwater is contaminated or inaccessible. These units present a viable interim solution to provide safe, clean drinking water while more permanent infrastructure such as that discussed in Alternatives 1 through 5 is being planned, permitted, and constructed. Although SAWH units would be a viable interim solution due to their ability to be deployed quickly, it is unlikely that they could receive UDWN grant funding due to high capital cost.

SAWH units, such as Source Hydropanels®, require no electricity, complex plumbing, or external water sources to function, making them quick to deploy and minimally invasive. Each panel is capable of generating approximately 1.32 gallons of potable water per day based on local humidity and solar exposure. While their production capacity may not be sufficient for full household needs, they may be particularly effective in providing drinking and cooking water. Each Source Hydropanel® is ground-mounted with provided footings and has a footprint of approximately 32 square feet.

Although not an officially approved drinking water solution by the SWRCB, SAWH units are beginning to receive recognition by federal and state agencies as a viable solution to drinking water issues, namely, to address needs within disadvantaged communities such as CVCSD. Based on discussion with Source, in a comparable Arizona Community of 500 people, 350 grant-funded Source Hydropanels® are currently being successfully utilized as a drinking water solution, which indicates the potential viability of this solution for CVCSD.

This alternative considers two deployment strategies based on a consumption rate of approximately three gallons of water per person per day:

- **Centralized unit arrays**, consisting of approximately 250 panels, that feed into a central storage tank with a public dispensing facility at each location (including CVCSD well location) shown in **Figure 3-1**.
    - CVCSD would own and operate the panel arrays under this deployment strategy.
- **Distributed residential approach**, where 2 to 8 panels are installed at each household, coupled with small, pressurized storage tanks to provide direct, on-site access to drinking water.
    - Either CVCSD or residents would own and maintain the panels under this deployment strategy, dependent on Community feedback.

Both options can effectively address short-term water access challenges by providing a safe, decentralized source of drinking water; however, they differ significantly in terms of logistical complexity, equity of access, implementation cost, and user convenience. A centralized SAWH unit array is typically easier to install and maintain due to its consolidated location, requiring a single site for system operation, water storage, and Community access. This approach can be more cost-effective at scale but introduces potential barriers to equitable access, particularly for households located far from the dispensing facility or for those with limited transportation.

The distributed residential model provides a more equitable and user-friendly solution, as it allows each household access to clean drinking water directly from their own property. This approach eliminates the need for residents to travel, reduces risk of crowding or supply disputes, and ensures consistent availability of water across the entire Community. However, it comes with higher upfront costs due to the need for individual system components (SAWH units, small pressure tanks, plumbing modifications) at each home, as well as more complex installation logistics and maintenance responsibilities dispersed across a significant number of sites.

List of Alternative Improvements and Requirements:

- Installation of SAWH units for off-grid water generation either in a centralized array or at individual residences.
- Construct centralized storage and dispensing facility at each location (centralized array option).
- Install onsite telemetry for monitoring and a water accounting system at each location (centralized array option).
- Construct site improvements including site security and a parking area of adequate size for resident parking at each location (centralized array option).
- Secure electrical service for filling infrastructure (centralized array option).
- Complete detailed design (centralized array option).
- Secure construction funding.
- Install small, pressurized storage tanks at individual homes (residential option).
- Perform necessary plumbing modifications at individual homes (residential option).

Advantages:

- Fully independent of groundwater, reducing the risk of contamination.
- Solar-powered with no external energy or water source required.
- Systems can be sized to match household or Community demand due to their scalable and modular nature.
- Equitable access (residential option). Each household has direct access to clean water, eliminating the need to travel to a dispensing location.
- Fast deployment. Units can be installed and operational within weeks, ideal for interim solutions.

Disadvantages:

- High upfront cost per household (residential option).
- Limited daily water output (suitable for drinking and cooking only).
- Maintenance is still required (air filters, periodic servicing).

- Storage and logistics needed for centralized array option (including securing site, tank installation, and public access).
- Climatic dependency. Reduced output in very dry or overcast conditions
- Regulation – current California regulation does not have clear guidelines on the use cases and approvals in which this technology can be implemented on the scale proposed in this alternative

Next Steps:

- **Removed from consideration**.

Next steps from draft report:

- Perform a pilot study within CVCSD to determine the production values of the SAWH units by month to ensure adequate water production year-round
- Further engage with vendors to evaluate costs for centralized vs. distributed systems.
- Better estimate demand and sizing (number of panels per home or totals for centralized arrays).
- Obtain input from the Community to gauge preferences for centralized array or residential option and ownership.
    - Initiate discussion with San Luis Obispo County LAFCO if public ownership is pursued.
- Detailed discussions with the SWRCB to determine the likelihood of this alternative being approved for interim or long-term use as a drinking water solution for the Community.
- Explore SWRCB grant or emergency funding options to cover initial capital costs.
- Develop maintenance and service plan to ensure long-term operation and reliability.

3.9 Alternative 9 – Electric Atmospheric Water Harvesting Units

This alternative is no longer being considered. Due to the lack of historical data on the long-term reliability of atmospheric water harvesting technology, it was determined that applying for SWRCB DFA funding would be infeasible.

Electric atmospheric water harvesting (EAWH) units offer a flexible approach to producing potable water by condensing moisture from the air using electrically powered systems. These units rely on a steady supply of electricity from the surrounding electrical grid as well as ideal climate conditions. The smaller, domestic-sized units require higher humidity than is typically seen in the area (greater than 40 percent). However, the larger units require, at minimum, greater than 20 percent humidity and 59 degrees Fahrenheit, which may be suitable for the Community to provide as a centralized public dispensing facility or distributed public dispensing facilities.

Based on the available units on the market and their production (Watergen GEN-L©), it is possible to have as little as one unit at each location presented in **Figure 3-1** to provide as a dispensing facility for drinking water. These units are capable of producing up to 1,585 gallons of water per day with estimates of approximately 850 gallons per day based on online weather data for the area. However, the production of the unit would need to be further investigated based on CVCSD-specific weather data to ensure the

feasibility of these units. In ideal humidity conditions, these units require approximately 350 watt-hours of energy per liter of drinking water produced. The GEN-L© has a footprint of approximately 70 square feet, not including storage and dispensing facilities. An accounting system would need to be designed and implemented for residents to track their water usage such that CVCSD could accurately bill the consumers.

Deploying a unit at each of the four locations in **Figure 3-1** would provide the Community with equal access to drinking water, have a very low construction and environmental impact, and could be deployed immediately once obtained from the manufacturer. This alternative has the potential to serve as an interim or permanent solution for drinking water concerns in the area. The quantity of water produced can only satisfy drinking and cooking uses, so if used as a permanent solution, the water for other household needs such as showering would be supplied by the resident's domestic wells.

List of Alternative Improvements and Requirements:

- Purchase and deployment of four large EAWH systems at the four locations described.
- Construct necessary electrical improvements to supply the EAWH units and associated improvements at each location.
    - The Watergen Gen-L© requires a 3 phase, 480 Volts Alternating Current/60 Hertz service.
- Construct centralized storage and dispensing facility at each location.
- Install permanent or purchase portable emergency generators.
- Install onsite telemetry for monitoring and a water accounting system at each location, with data collecting at the CVCSD office.
- Perform earthwork necessary to grade a parking area of adequate size for resident parking at each location.
- Complete detailed design (centralized array option).
- Secure construction funding.
- Secure necessary permits for the EAWH construction.

Advantages:

- Faster water generation rates compared to solar alternatives.
- Scalable design – can be added to if demand increases over time.
- Equitable access – access to drinking water from similar distances throughout the Community.

Disadvantages:

- Limited daily water output (suitable for drinking and cooking only).
- Sole-source manufacturer, which presents long-term viability concerns.

- Convenience and access – this approach is much less convenient for the Community when compared to the POU, POE, or residential SAWH approach as it requires travel to access drinking water supplies.

- Current California regulation does not have clear guidelines on the use cases and approvals in which this technology can be implemented on the scale proposed in this alternative

Next Steps:

- **Removed from consideration**.

Next steps from draft report:

- Perform a pilot study within CVCSD to determine the production values of the EAWH units by month to ensure adequate water production year-round

- Determine a water accounting system that could be effectively integrated with the system. For example, a card reader that is activated by each resident through a unique identifier. Once activated, the telemetry data (water volume) read from a flowmeter for the duration in which the resident drew water will be transmitted to CVCSD for accounting and billing purposes

- Detailed discussions with the SWRCB to determine the likelihood of this alternative being approved for interim or long-term use as a drinking water solution for the Community.

- Initiate discussion with San Luis Obispo County LAFCO.

- Explore SWRCB grant or emergency funding options to cover initial capital costs.

- Develop maintenance and service plan to ensure long-term operation and reliability.

3.10 Alternative 10 – Bottled Water Deliveries

Bottled drinking water delivery offers a low-complexity, immediately deployable interim solution to address drinking water needs within the CVCSD service area. Under this alternative, bottled water would be delivered weekly to the CVCSD office, where residents could collect their allocations. The program would provide three (3) gallons of potable water per person per day, intended strictly for drinking and cooking needs. A one-week supply for the Community would be 10,500 gallons (approximately 75,000 water bottles), or 2,100 5-gallon bottles, which may require storage in addition to what is currently available at CVCSD facilities. Pickups would occur once per week, with each household receiving their full allocation at that time.

This solution serves as a temporary measure to ensure Community access to clean, regulated drinking water concurrent to development of a more permanent water supply solution. Bottled water delivery avoids many of the regulatory, permitting, and infrastructure challenges associated with other alternatives, making it particularly useful in the early phases of emergency response or while other systems are under construction. It also offers predictable quality and quantity, as commercial bottled water providers must comply with stringent state and federal water quality regulations. Like Alternative 6, the cost of these deliveries may be considered for funding under a UDWN grant, which would further reduce the time necessary to implement this solution.

Securing a reliable vendor for water delivery, establishing a distribution protocol, and managing logistics such as secure onsite storage, household verification, and equitable pickup scheduling would be necessary as part of this solution. While not suitable as a long-term solution due to cost and logistical demands, this approach ensures all residents have immediate and reliable access to clean drinking water in the near term.

List of Alternative Improvements and Requirements:

- Contract with a commercial bottled water provider for scheduled deliveries to the CVCSD office.
- Develop and implement a tracking system to manage per-person water allocations.
- Designate secure and shaded storage space at the CVCSD office to house weekly deliveries.
    - If there is not enough space available, assess the additional space needed and construct a temporary storage shed.
- Establish staffed pickup windows and procedures to ensure equitable and orderly distribution.
- Conduct Community outreach to inform residents of eligibility, pickup times, and requirements.

Advantages:

- Implementation can occur as soon as UWDN funding is secured and vendor agreements are in place.
- Bottled water deliveries ensure high quality drinking water.
- No construction, electrical, or plumbing improvements required.

Disadvantages:

- Not sustainable as a permanent solution due to high ongoing costs.
- Requires consistent vendor coordination, delivery scheduling, and storage management.
- Residents must travel to the CVCSD office to retrieve water.
- Water allocations only meet drinking and cooking needs.
- Households with limited mobility or transportation may face challenges accessing their allocations.

Next Steps:

- Identify and solicit quotes from certified bottled water providers capable of weekly delivery volumes.
- If desired by the Community, apply for UDWN grant to expedite providing the Community with acceptable drinking water.
- Develop resident tracking and verification systems to manage per-person allocations.

- Investigate options for a secure, shaded water storage area at the CVCSD office to accommodate weekly deliveries.
- Coordinate with Community stakeholders to establish equitable pickup hours and support options for residents with limited mobility.
- Continue evaluating long-term alternatives to ensure transition from this interim model to a permanent water solution.

4.0 ALTERNATIVE COMPARISON

4.1 Alternative Feasibility Matrix

A feasibility matrix was developed to clearly compare the alternatives presented in **Section 3.0**. Criteria were selected to determine each alternative's ability to address water quality concerns while providing the entire Community with equitable access to the water supply. The criteria developed and the qualitative measures used to compare each of the alternatives are described below. Due to the qualitative nature of each criterion and the conceptual nature of the analysis performed in this document, the alternatives were analyzed based on their qualitative scoring rather than on a points or quantitative basis. Based on the qualitative scoring, discussion with CVCSD, and professional engineering judgement of each alternative, it was determined which alternatives would be included in the ER for further consideration. The feasibility matrix is presented in **Table 4-1**.

- **Improved Water Quality** – Scored via responses of "Yes", "No", or "Further Investigation Needed"
- **Capital Cost** – Scored via a dollar sign range of one through five: $ - $$$$$
- **O&M Cost** – Scored via a dollar sign range of one through five: $ - $$$$$
- **Quantity of Water** – Scored via responses of "All uses", "Indoor Use", or "Drinking/Cooking Use"
- **Proximity to All Residents** – Scored via responses of "Immediate", "Close", or "Far"
- **Equitable Access** – Scored via responses of "Yes" or "No"
- **Timeline** – Scored via responses of "Expedient", "Moderate", or "Delayed"
- **Construction Impact** – Scored via responses of "High", "Low", or "None"
- **Land Acquisition Requirements** – Scored via responses of "Large", "Moderate", or "None"
- **Environmental Impacts/Considerations** – Scored via responses of "Significant", "Moderate", or "None"
- **Potential Permanent Solution** – Scored via responses of "Yes", "No", or "Potentially"

Table 4-1: Alternative Feasibility Matrix

Alternative No.	Improved Water Quality	Capital Cost	O&M Cost	Quantity of Water	Proximity to All Residents	Equitable Access	Timeline	Construction Impact	Land Acquisition Requirements	Environmental Impacts/Considerations	Permanent Solution	Included in Further Consideration (Yes/No)
Alternative 1 – Strategic Community Well Construction – Centralized Fill Station	Further Investigation Needed	$$$$	$$$$	Indoor Use	Far	No	Delayed	High	Moderate	Significant	Yes	**Yes**
Alternative 2 – Strategic Community Well Construction – Localized Fill Stations	Further Investigation Needed	$$$$	$$$$	Indoor Use	Close	Yes	Delayed	High	Large	Significant	Yes	**Yes**
Alternative 3 – Community Storage Tanks	Yes	$$$	$$$$$	Drinking/Cooking Use	Close	Yes	Moderate	High	Large	Moderate	Yes	**No**
Alternative 4 – Community Water System	Further Investigation Needed	$$$$$	$$$$	All Uses	Immediate	Yes	Delayed	High	Variable[1]	Significant	Yes	**Yes**[5]
Alternative 5 – Consolidation with a Nearby Water System	Yes	$$$$$	$$$	N/A[2]	N/A[2]	N/A[2]	Delayed	High	Variable[2]	Significant	Yes	**Yes**[5]
Alternative 6 – Point of Use Filtration	Further Investigation Needed	$	$$	Drinking/Cooking Use	Immediate	No	Expedient	None	None	None	No	**No**
Alternative 7 – Point of Entry Filtration	Further Investigation Needed	$$	$$	All Uses	Immediate	No	Expedient	None	None	Moderate	No	**No**
Alternative 8 – Solar Atmospheric Water Harvesting Units	Further Investigation Needed	$$$	$	Drinking/Cooking Use	N/A[3]	Yes	Expedient	Low	Variable[4]	None	No	**No**
Alternative 9 – Electric Atmospheric Water Harvesting Units	Further Investigation Needed	$$$	$	Drinking/Cooking Use	Close	Yes	Expedient	Low	Large	None	Potentially	**No**
Alternative 10 – Bottled Water Deliveries	Yes	$	$	Drinking/Cooking Use	Far	No	Expedient	None	None	None	No	**Yes**

Notes:

1. Scoring is equivalent to Alternative 1, 2, or 5, depending on the chosen paired alternative.
2. Scoring is equivalent to Alternative 1, 2, or 4, depending on the chosen paired alternative.
3. "Close" for centralized array option, and "Immediate" for distributed residential option.
4. "Large" for centralized array option, and "None" for distributed residential option.
5. This solution will be evaluated further for the sake of comparison to Alternatives 1, 2, and 10 to comply with SWRCB DFA funding application requirements.

4.2 Recommended Alternatives for Further Consideration

Using the scores developed in the feasibility matrix, three alternatives are recommended for further consideration. These alternatives represent the most feasible solutions for the Community that balance water supply quality, availability, access, and cost.

- **Alternative 2** – Strategic Community Well Construction – Localized Fill Stations
- **Alternative 1** – Strategic Community Well Construction – Centralized Fill Station
- **Alternative 10** – Bottled Water Deliveries

Bottled water deliveries can potentially be implemented expeditiously as an interim drinking water solution, and as such, if the Community expresses interest to pursue as an emergency interim solution at the next Community meeting (September 2025), MKN will evaluate this alternative further to supply drinking and cooking water to the Community.

The following more traditional solutions will be evaluated further for the sake of comparison to Alternatives 1, 2, and 10 to comply with SWRCB DFA funding application requirements.

- **Alternative 4** – Community Water System
- **Alternative 5** – Consolidation with a Nearby Water System

5.0 NEXT STEPS

Next steps for each alternative are included in **Section 3.0**. However, the following discussions and investigations are important next steps for development of the recommended alternatives.

Suggested next steps for the top three recommended alternatives:

- **Alternative 2 – Strategic Community Well Construction - Localized Fill Stations**
    - Implement a test well and aquifer characterization program at each potential well location to evaluate aquifer yield and groundwater quality per B&V recommendations, which consists of the following:
        - Well Siting: Identify four pilot well sites at or immediately near the locations presented in **Figure 3-1**.
        - Pilot Borehole: Drill and log boreholes to identify productive zones. Depending on the location, convert to monitoring or production wells.
        - Test Well Installation: Based upon results of the borehole drilling program, design, drill, and complete a pilot test well with a minimum 6-inch diameter casing for aquifer performance (sustainable yield) and quality testing.
        - Long-Term Monitoring: Equip wells for ongoing water level and quality monitoring to inform future design
- **Alternative 1 – Strategic Community Well Construction - Localized Fill Stations**
    - Implement a test well and aquifer characterization program as described above at the potential centralized well location to evaluate aquifer yield and groundwater quality.
- **Alternative 10 – Bottled Water Deliveries**
    - Identify and solicit quotes from certified bottled water providers capable of weekly delivery volumes.
    - Apply for UDWN grant or other funding source through the SWRCB DFA.
    - If a UDWN grant is secured, proceed with the additional next steps listed in **Section 3.10**.

Appendix A

CVCSD Water Quality Hydrogeologic Characterization (Black & Veatch, 2025)

CALIFORNIA VALLEY COMMUNITY SERVICES DISTRICT
WATER QUALITY HYDROGEOLOGIC CHARACTERIZATION

Technical Memorandum

B&V PROJECT NO. 420793

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PREPARED FOR

MKN Associates

10 OCTOBER 2025

BLACK & VEATCH

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1.0 Introduction

Black & Veatch (BV) was retained by MKN Associates to conduct a limited desktop hydrogeologic investigation for the California Valley Community Services District (CVCSD or District), San Luis Obispo (SLO) County, California. The scope included a basin scale hydrogeologic review which relied on both publicly available data from wells completed in the valley and results from a limited round of water quality sampling collected from select wells during December 2024 and publicly available water quality data available between 2020 and 2024. The water sources for the region consist of groundwater from private domestic wells and a community well managed by CVCSD, which provides non-potable water to residents. The District is not a public water service provider. The California Urban Water Agencies (CUWA) is working with MKN to support the District by performing a water supply alternatives analysis to assess the feasibility of a safe and reliable drinking water supply for the residents of this rural community.

BV conducted a desktop review of existing literature and publicly available hydrogeologic and groundwater quality data. BV also reviewed both publicly available water quality data and the water quality data collected by MKN from select local wells during December 2024 for treatability purposes. As part of the water supply alternatives analysis, a limited water quality assessment of local groundwater quality was completed and compared with the California State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW) Primary and Secondary Maximum Contaminant Levels (MCLs). The United States Environmental Protection Agency (USEPA) MCLs were used for constituents that do not have water quality standards in California. This analysis was initiated due to regional, historic, elevated groundwater nitrate concentrations, as well as additional constituents of concern, impacting the quality of the groundwater for potable use.

Prior to conducting the water quality sampling, the District, CUWA, and MKN held a community meeting with residents on November 5th, 2024. Public comments were summarized and residents with domestic wells that consented to having their wells sampled were identified for groundwater quality sampling purposes. Results of the groundwater quality analyses from the 2024 sampling event were provided to BV for review and inclusion in this technical memorandum.

1.1 Project Location

The project area is located in the Carrizo Plain Groundwater Basin in central California approximately 50 miles west of the city of Bakersfield and 35 miles northeast of the city of Santa Maria. The community of residents is located approximately 15 miles northwest of the Carrizo Plain National Monument. The project study area is presented in **Figure 1-1**.

Water quality data provided to BV by MKN was derived from three sources: the California Department of Water Resources (DWR) groundwater database, the SLO County groundwater database, and the local water sampling event coordianted by MKN in December 2024 (MKN, 2024). The locations of the water wells and sample points used in this study are presented in **Figure 1-1**. The wells and sample locations are color-coded by total depth in feet below land surface (bls) and labeled by unique sample location numbers assigned by BV.

1.2 Community Concerns

Prior to initiating the groundwater quality investigation, CUWA and MKN held a community meeting with residents in the region. The meeting helped identify resident volunteers with domestic wells on their properties who were willing to have their wells sampled in support of the study. A summary of the community meeting minutes is provided in **Appendix A**. Case-closure summaries of groundwater contamination cases in the study area are included in **Appendix B**. A summary of the water quality samples collected at resident properties are included in **Section 3.** Laboratory analyses and results relied upon for the study are provided in **Appendix C**.

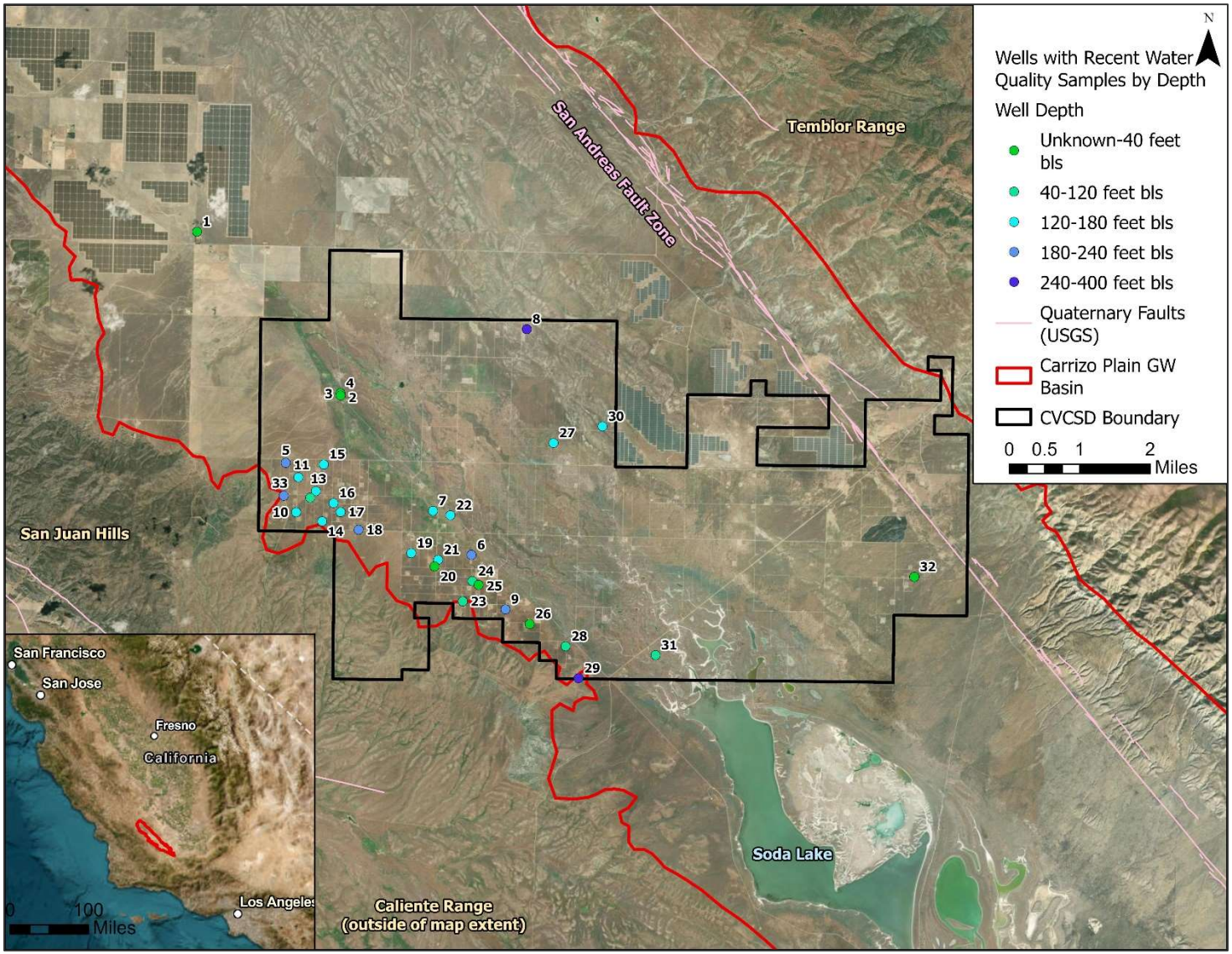


Figure 1-1 Location Map

2.0 Regional Hydrogeology

The Carrizo Plain Groundwater Basin has a surface area of approximately 270 square miles. Underlying a northwest-southeast trending valley, the basin is located between the Caliente Range and San Juan Hills to the west and the Temblor Range to the east. The San Andreas Fault runs through the eastern portion of the basin, with Soda Lake located in the central portion of the basin. The average annual precipitation is approximately 7 to 9-inches per year (DWR, 2004). The location of the basin, Soda Lake, and significant geologic features are presented in **Figure 1-1**.

Within the basin, groundwater exists within younger valley-fill alluvium, as well as the underlying Paso Robles and Morales Formations. A stratigraphic column from Chipping et al., (date unknown), of the Carrizo Plain Basin is presented in **Figure 2-1**. A brief description of the geologic units follows:

- The Upper Pleistocene to Holocene alluvium consists of unconsolidated to loosely consolidated sands, gravels, and silts, with a few beds of compacted clays (DWR, 2004).
- The Paso Robles Formation is Pleistocene in age and consists of predominantly poorly sorted, loosely consolidated sands, gravels, and silts. The thickness of the formation increases eastward towards the San Andreas fault, where deposits can be greater than 3,000 feet (DWR, 2004).
- The Upper Pliocene Morales Formation consists of sands, gravel, and silts, which are generally more compacted and stratified than in the overlying Paso Robles Formation (DWR, 2004).

BV understands that most of the domestic wells in the area are completed in the Holocene alluvium. However, due to incomplete lithologic logs and well construction data, and limited understanding of the stratigraphy of the groundwater basin and depth of contact between the alluvium, some of the wells may also be completed in sections of the Paso Robles Formation. Based on the topography of the area and drainage patterns observed from satellite imagery, groundwater in the study area is expected to flow from the mountains towards the valley, and generally from the northwest to the southeast, following the general topographic trend of the valley. Groundwater elevation data provided by MKN from a network of nine monitoring wells collected in August of 2012 was reviewed and interpreted by BV. A modified version of the dataset, to include the anticipated groundwater flow direction, is presented in **Figure 2-2**.

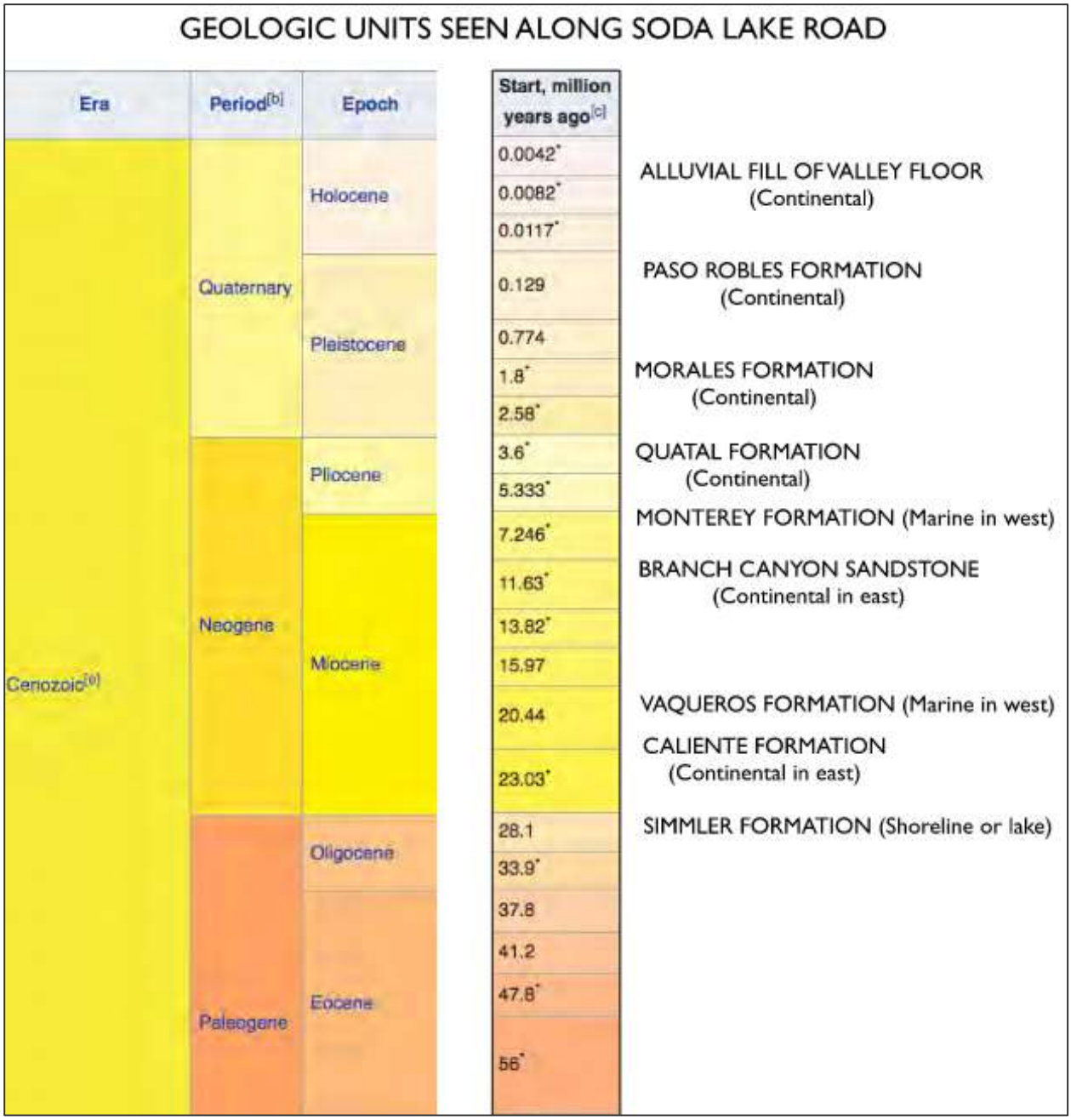


Figure 2-1 Stratigraphic Column of the Carrizo Plain Basin

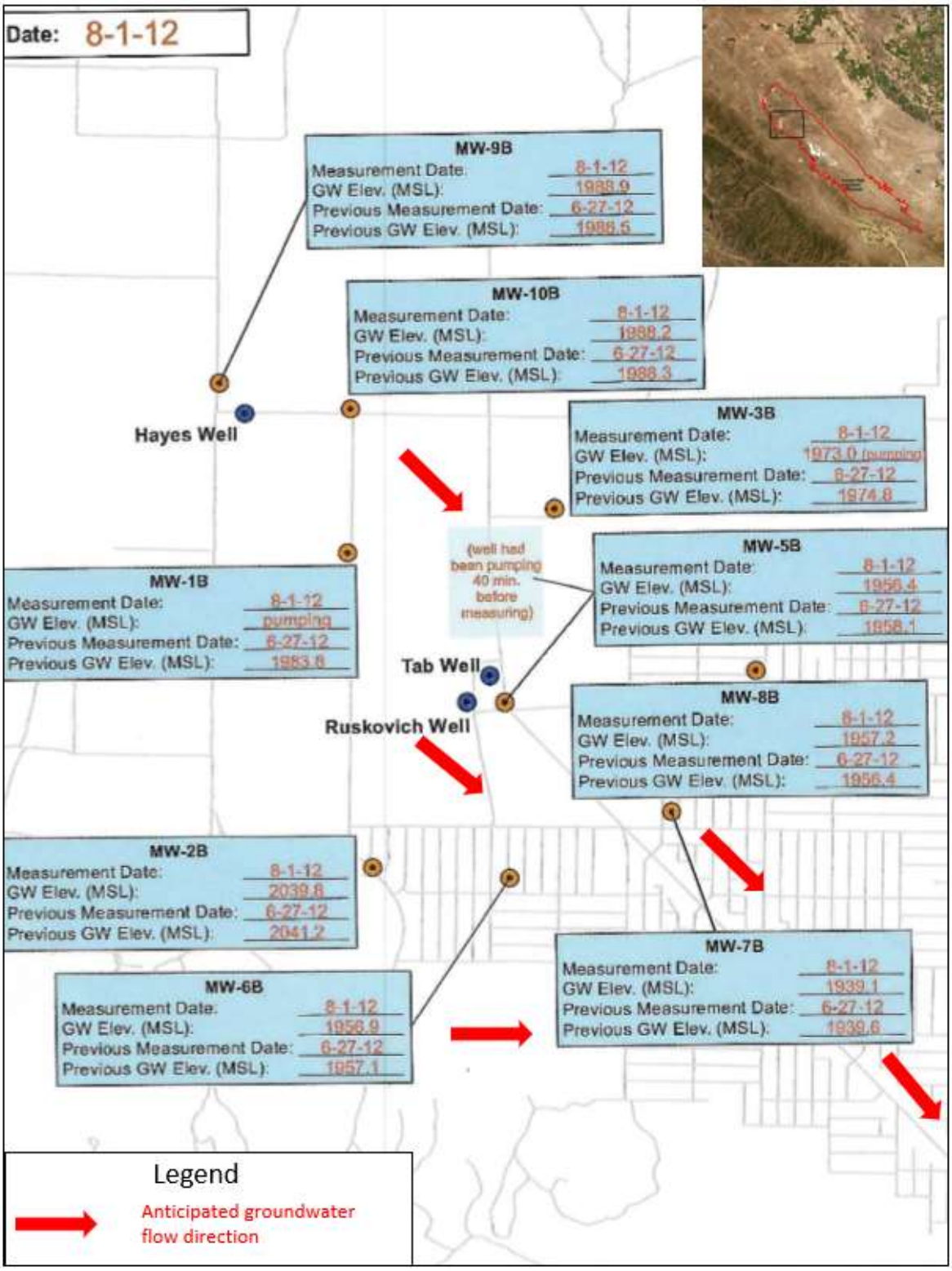


Figure 2-2 Estimated Regional Groundwater Flow Direction

2.1 Groundwater Quality Risk

Historically, a highly mineralized groundwater zone has been found in the lower alluvium and upper Paso Robles Formation in the vicinity of Soda Lake. Brackish groundwater likely exists in the water-bearing portions of the Morales Formation (DWR, 2004). Concentrations of total dissolved solids (TDS) generally increase from northwest to southeast along the San Andreas fault and towards Soda Lake. Several gypsum mines are located along the San Andreas fault in the region. Evidence suggests that the increase of mineralized/poor water quality with depth could be attributed to the clay interbeds of the upper Pleistocene to Holocene alluvium with younger, less mineralized water occurring at shallower depths (Cooper, 1990).

The California SWRCB Groundwater Quality Risk by Section database denotes the northern portion of the study area to have a high potential of contamination for all contaminant types reviewed. Medium contamination risk is shown in the center of the study area and low contamination risk is shown in the southeast and central-west portions of the study area. However, these "low risk" areas are likely limited by the number of data points in the section. The results of the database query is provided in **Figure 2-3**.

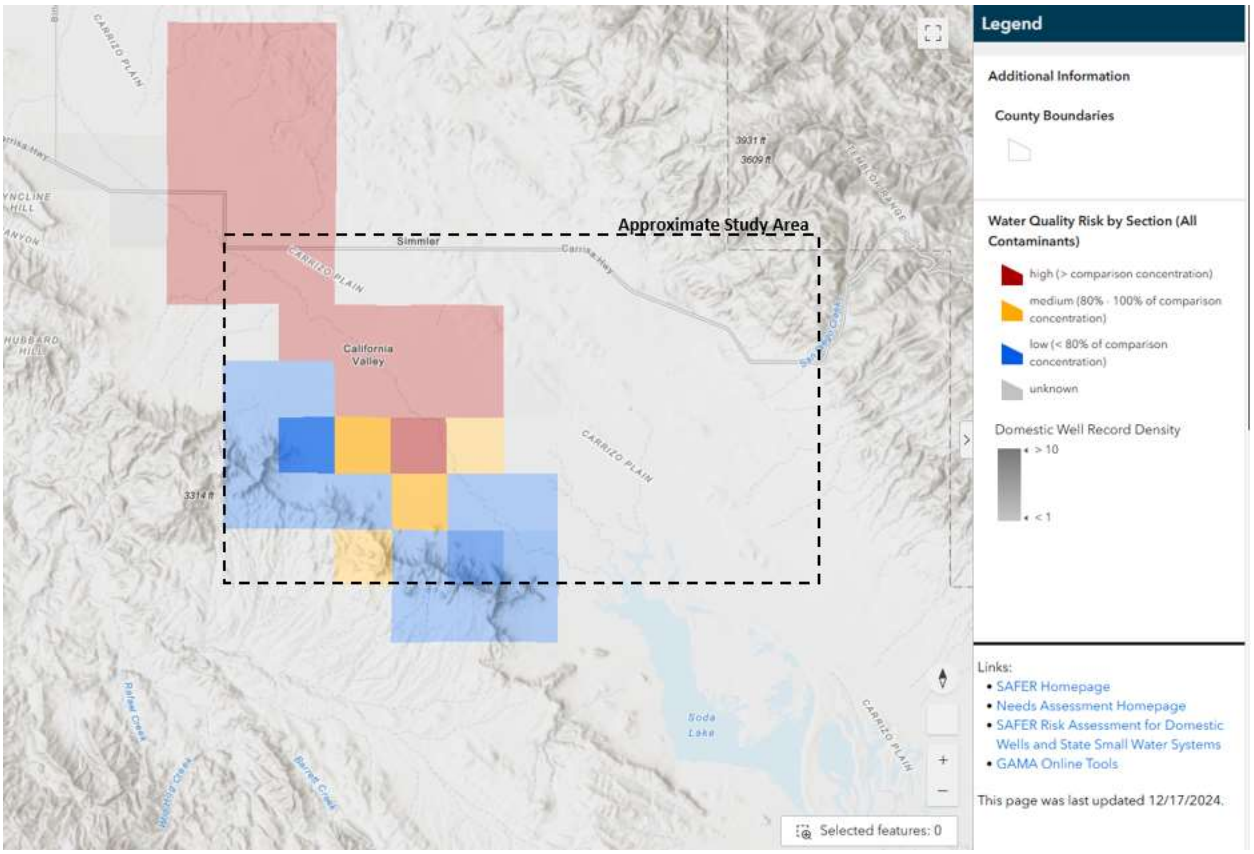


Figure 2-3 Groundwater Quality Risk by Section

The California SWRCB also has a database known as GeoTracker, which is a data management system for sites that impact, or have the potential to impact, water quality in California, with an emphasis on groundwater. The database was reviewed, and two leaky underground storage tank (LUST) Cleanup Sites were identified in the study area (RB Case Nos. 3698 and 3273). RB Case No. 3698 is located just south of the Carrisa Plains Elementary School and has listed potential contaminants of benzene, gasoline, and polynuclear aromatic hydrocarbons (PAHs). RB Case No. 3273 is located on the western edge of Soda Lake and has a listed potential contaminant of gasoline. Both cases have been resolved and marked as complete and closed; therefore, they are not classified as a significant concern for impact to groundwater quality. Copies of the Case Closure Summaries for these two cases are included in **Appendix B**.

A detailed analysis of inorganic groundwater quality concerns for wells in the study area is presented in **Section 3**.

2.2 Groundwater Availability

The Carrizo Plain Groundwater Basin water balance includes recharge via percolation of stream flow and infiltration of rainfall to the valley floors, with discharge via domestic well production and drainage to Soda Lake. The Carrizo Plain Groundwater Basin has a total estimated groundwater storage capacity of 400,000 acre-feet (AF) (DWR, 2004).

The estimated potential yield from a water supply well in the Carrizo Plain Groundwater Basin is not well-understood based on the data reviewed. Estimated well yields, based on aquifer testing reports from publicly available well completion reports sourced from the California DWR, Well Completion Report Map Application, range from 1 to 100 gallons per minute (gpm). A summary of the existing well information reviewed by BV is provided below in **Section 2.3**.

2.3 Well Construction and Water Quality

The water well construction details and groundwater quality data used in this analysis was provided by MKN. MKN compiled historical data from state and county databases, as well as groundwater quality samples and laboratory analytical results from the December 2024 sampling event. A summary of the sample locations used in this analysis with existing groundwater quality samples from the last five years (2020-2024) is provided below in **Table 2-1**. This table does not include the complete set of well data provided to BV, only the wells and sample locations referenced for the water quality analysis.

Table 2-1 Locations with Water Quality Data[1]

Sample Location Number	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Perforated Interval (feet bls)	Well Depth (feet bls)	Well Casing Outside Diameter (in)	Static Water Level (feet bls)	Well Yield (gpm)
1[2]	NA	NA	35.354196	-120.040128	NA	NA	NA	NA	NA
2[3]	NA	NA	35.321061	-120.00324	NA	NA	NA	NA	5
3[4]	NA	NA	35.321061	-120.00324	NA	40	NA	15.9	5
4[5]	NA	NA	35.321512	-120.003283	NA	NA	NA	NA	NA
5	WCR2023-012704	WP1027837	35.306962	-120.0167	NA	200	5.563	94	15
6	WCR2021-005644	WP1026944	35.28873	-119.96953	30-200	200	5.563	8	25
7	WCR2021-005645	WP1027006	35.29766	-119.97942	30-160	160	5.563	8	25
8	WCR2024-001967	WP1027835	35.33546	-119.95674	200-380	400	5.563	NA	NA
9	WCR2021-011543	WP1027065	35.27769	-119.96076	40-240	240	5.563	60.9	25
10	WCR2021-011601	WP1027135	35.296817	-120.01381	30-160	160	5.563	50	10
11	WCR2020-010827	WP1026786	35.30401	-120.01342	60-160	160	5.563	71	9
12	WCR2020-003758	WP1026621	35.299845	-120.010361	20-60	117	5	54	15
13	WCR2021-011545	WP1027162	35.30123	-120.00896	40-160	160	5.563	47	40
14	WCR2021-011565	WP1027064	35.295049	-120.007239	30-160	160	5.563	57	5
15	WCR2021-011546	WP1027063	35.3068	-120.00712	30-160	160	5.563	35.8	15
16	WCR2021-011540	WP1027116	35.298859	-120.004454	30-160	160	5	41.6	75
17	WCR2021-011598	WP1027117	35.29704	-120.00266	40-160	160	5.563	42	50
18	WCR2022-005891	WP1027260	35.29345	-119.998024	80-200	200	5.563	60	30
19	WCR2023-007117	WP1207724	35.288896	-119.984717	20-160	160	5.563	21.3	50
20	NA	NA	35.286226	-119.978749	NA	NA	NA	NA	4
21	NA	NA	35.287615	-119.977918	NA	167.9	NA	16.4	4

[1] NA = Information not available.
[2] Carrisa Plains Elementary School Well
[3] CVCSD Main Well
[4] CVCSD West Yard
[5] CalFire Station 42

Sample Location Number	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Perforated Interval (feet bls)	Well Depth (feet bls)	Well Casing Outside Diameter (in)	Static Water Level (feet bls)	Well Yield (gpm)
22	WCR2021-011585	WP1027062	35.29683	-119.97503	30-160	160	5.563	15	25
23	NA	NA	35.279138	-119.971511	NA	109.5	NA	70.4	4
24	NA	NA	35.283343	-119.969178	NA	81.3	NA	7.5	5
25	NA	NA	35.282605	-119.967623	NA	NA	NA	NA	4
26	NA	NA	35.274751	-119.954598	NA	NA	NA	NA	5
27	WCR2020-015083	WP1026835	35.31212	-119.94946	60-180	180	5.563	17	1
28	NA	WP1027008	35.2703	-119.9454	60-120	120	NA	60	10
29	WCR2022-004928	WP1027259	35.26378	-119.94201	NA	300	5.563	110	20
30	WCR2020-015082	WP1026791	35.31575	-119.93721	60-180	180	5.563	18	15
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	50-70	90	5	25	4
32	NA	NA	35.285965	-119.858165	NA	NA	NA	NA	5
33	WCR2020-011120	WP1026780	35.30017	-120.01701	60-200	200	5.563	93	6

In addition to the data provided in **Table 2-1**, BV reviewed relevant, publicly available water well construction data in Carrizo Plain Basin study area. A summary of the well construction, static water level and well yield observations for the water wells reviewed by BV is as follows:

- Generally, the total completed depth of water wells throughout the basin range from 40 to 400 feet bls, with newer installed wells ranging in depth between 100 to 200 feet bls. The wells with deeper total depths are observed to occur closer to the mountain fronts in areas of higher elevation.
- Water wells with reported static water level measurements range between 7 to 220 feet bls with deeper static water levels observed closer to the mountain fronts.
- Reported groundwater yields range between 1 to 100 gpm. BV assumes the well yields provided were estimated at the completion of well installation and during short duration (1 to 4 hour) well yield tests, as indicated in the available well construction reports.

3.0 Site Water Quality Data Review

Collection of water quality samples from select wells during the December 2024 sampling event was completed in accordance with the "Well Sampling and Analysis Plan" prepared by MKN, October 25th, 2024. Blaine Tech Services completed the field water quality sample collection and managed the sample custody. To ensure representative groundwater samples were collected from the individual wells, at least three (3) well casing volumes were purged prior to sample collection at each site. All sampling equipment was decontaminated with Liquinox in between sampling locations. The samples were submitted to FGL Environmental for further analysis. Analytical results were transmitted to MKN and to BV for review and analysis.

Additionally, a data request was submitted by MKN to the California SWRCB and SLO County for historical groundwater quality samples in the northern portion of the Carrizo Plain Groundwater Basin. Historical data from 2020 to 2024 was reviewed and incorporated into the analysis to provide a complete review of available groundwater quality results from the study area.

BV reviewed available data from a total of 33 sample locations within the Carrizo Plain Groundwater Basin from the 2020 to 2024 timeframe, which included available historical data and the results from the discrete sampling event conducted in December 2024. The data was then organized to include constituents of concern (COC) that have potential public health risks or aesthetic concerns due to exceedance of primary and secondary drinking water standards per the SWRCB, DDW.

3.1 Water Quality Data

The source water from the Carrizo Plain Groundwater Basin is required to meet California SWRCB primary drinking water standards, and consider constituent specific secondary drinking water standards, for evaluation of the source water supply as a public drinking water supply. As provided in **Table 3-1**, 26 constituents having primary or secondary MCLs were selected for further investigation. The 26 parameters included in Table 3-1 were selected due to detections above their respective MCLs in at least one of the 33 sample locations or are constituents of concern. The water quality results are discussed further below. The water quality data used for the analysis is provided in **Appendix C.**

Table 3-1 California's SWRCB Primary and Secondary MCLs for Select Constituents

Parameter	Primary MCL	Secondary MCL
Aluminum, Total (µg/L)	1,000	200
Arsenic (µg/L)	10	NA
Bromoform (µg/L)	0.5[2]	NA
Cadmium, Total (µg/L)	5	NA
Color (Pt. Co. Units)	NA	15
Conductivity (µS/cm)	NA	900
Chloride (mg/L)	NA	250
Fluoride (mg/L)	2	NA
Chromium, Total (µg/L)	50	NA
Gross Alpha (pCi/L)	15	NA
Iron, Total (µg/L)	NA	300

Parameter	Primary MCL	Secondary MCL
Manganese, Total (µg/L)	NA	50
MBAS (mg/L)	NA	0.5
Nitrate as N (mg/L)	10	NA
Nitrate + Nitrite as N (mg/L)	10	NA
Nitrate as NO_3 (mg/L)	45	NA
Odor Threshold Number (Units)	NA	3
Perchlorate (µg/L)	6	NA
Perfluorooctanoic Acid (PFOA) (ng/L)	4[1]	NA
Perfluorooctanesulfonic Acid (PFOS) (ng/L)	4[1]	NA
Perfluorohexane sulfonic acid (PFHxS) (ng/L)	10[1]	NA
Selenium (µg/L)	50	NA
Sulfate (mg/L as SO_4)	NA	250
Total Dissolved Solids (mg/L)	NA	500
Turbidity (NTU)	NA	5
Uranium (pCi/L)	20	NA

[1]Compliance is determined by running annual averages at the sampling point

Analytical results from 33 sample locations were used to evaluate the potential for the Carrizo Plain Groundwater Basin to be utilized as a drinking water source. As shown in **Table 3-2**, the average, maximum, and number of measurements were calculated and used to determine water quality ranges for select parameters. Additionally, the 95th and 5th percentile was calculated to better understand the threshold of the concentrations for each parameter. Common physical and chemical water quality parameters, as well as parameters that exceeded the primary and secondary MCLs listed in **Table 3-1** were further summarized.

Table 3-2 Summary of Select Water Quality Parameters from 33 Sample Locations

Parameter	Count	Average	Maximum	95th	5th
Alkalinity (mg/L as CaCO3)	30	202	500	399	55
Aluminum, Total (µg/L)	21	**1,072**	**4,100**	**3,100**	29
Arsenic, Total (µg/L)	9	2.3	4.0	4.0	1.0
Barium, Total (µg/L)	14	52	250	166	7.7
Boron (mg/L)	31	2	11	9.1	0.1
Bromoform (µg/L)	0	ND	ND	ND	ND
Cadmium, Total (µg/L)	0	ND	ND	ND	ND
Calcium (mg/L)	30	134	590	479	10.4
Chloride (mg/L)	30	**285**	**3,100**	**1,132**	27.3
Chromium, Total (µg/L)	11	16	25	23	6.9
Conductivity (µS/cm)	31	**4,864**	**63,000**	**13,500**	670

Parameter	Count	Average	Maximum	95th	5th
Color (Pt. Co. Units)	15	**25**	**120**	**89**	3.8
Fluoride (mg/L)	30	1.4	**6.2**	**4.5**	0.3
Gross Alpha (pCi/L)	9	12	34	28	2.1
Hexavalent Chromium (µg/L)	9	2.3	7.9	6.9	0.3
Iron, Total (µg/L)	26	**974**	**4,300**	**2,500**	20
Magnesium (mg/L)	31	66	500	183	15
Manganese, Total (µg/L)	26	**92**	**510**	**300**	1.7
MBAS (mg/L)	3	2.4	3.9	3.8	0.4
Nitrate (mg/L as N)	35	8.8	**18**	**16**	0.9
Nitrate + Nitrite (mg/L as N)	35	8.2	**18**	**17**	0.9
Nitrite as N (mg/L)	2	0.2	0.2	0.2	0.1
Nitrate (mg/L as NO_3)	8	25	41	39	3.9
Threshold Odor (T.O.N)	18	100	1,700	297	1
Perchlorate (µg/L)	7	1.1	2.6	2.2	0.4
Perfluorooctanoic Acid (PFOA) (ng/L)	1	1.9	1.9	1.9	1.9
Perfluorooctanesulfonic Acid (PFOS) (ng/L)	1	1.9	1.9	1.9	1.9
Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	1	5.5	5.5	5.5	5.5
pH	32	7.9	8.4	8.3	7.3
Sodium (mg/L)	31	637	7,700	2,505	54.5
Sulfate (mg/L as SO_4)	22	**538**	**2,420**	**2,100**	39.7
Selenium, Total (mg/L)	32	20	**210**	76	2.4
Temperature (°C)	24	21.9	23.5	23.1	18.7
Total Dissolved Solids (mg/L)	31	**3,445**	**58,000**	**5,965**	432
Total Hardness (mg/L as $CaCO_3$)	32	547	3,200	2,125	94
Turbidity (NTU)	32	**17**	**100**	**63**	0.1
Uranium (pCi/L)	9	12	**64**	**43**	2.1

*Bold indicates parameter was above the respective Primary and/or Secondary MCL

The summary of the sampling sites and associated water quality data indicate several parameters that would need to be evaluated further for treatability to ensure a safe drinking water supply. The following subsections will further discuss these parameters, their effect on water quality with respect to drinking water quality, and recommended actions (*e.g.,* treatment) needed to address these constituents. Provided is high level overview of the water quality data reviewed, potential health effects, and treatability considering the concentrations of the COC's and their respective MCLs.

3.1.1 Nitrate

Nitrate is an important constituent to monitor because it can pose health risks, specifically to pregnant women and infants, at elevated concentrations. California SWRCB's primary MCL for nitrate is 10 mg/L (as nitrogen [N]). The average nitrate concentration was 8.8 mg/L as N, which is slightly below the primary MCL. However, the maximum observed value was 18 mg/L as N for nitrate, which is almost two times higher than the primary MCL. Notably, the Carrisa Plains Elementary School site location had values consistently above the allowable limit. As a result, continued monitoring of nitrate concentrations and potential removal may be required to safeguard the public. Nitrate may be lowered to optimal levels by advanced treatment processes such as reverse osmosis, or ion exchange.

A concentration map consisting of a heat map of nitrate as N was generated using the analytical results from 2020 to 2024. For sample locations with multiple nitrate measurements, such as the Carrisa Plains Elementary School site location, the most recent available result was used in the analysis. In general, only three samples exceeded the MCL for nitrate as N and the exceedances were in the northwest and northeast regions of the study area. The nitrate as N concentration map is presented in **Figure 3.1**.

3.1.2 Total Dissolved Solids

Total dissolved solid (TDS) is another key parameter that is a measure of minerals, salts, and other inorganic compounds in the water. High TDS concentrations can impact the aesthetic quality (*i.e.,* salty taste) of water and can lead to potential customer complaints. California SWRCB's secondary MCL is currently 500 mg/L. The average TDS concentration is almost six times higher than the secondary MCL which indicates that the Carrizo Plain Groundwater Basin is brackish quality. A maximum TDS and conductivity measurement of 58,000 mg/L and 63,000 µS/cm were detected, respectively. However, the accuracy of these measurements is in question because the measurements are substantially higher than seawater TDS. The most implemented treatment method for reducing TDS levels is reverse osmosis.

A concentration map of the TDS results was generated using the TDS laboratory analytical results available between 2020 and 2024. In general, most samples exceeded the secondary MCL for TDS. Higher TDS values were observed in the southeastern portion of the study area near the assumed highly mineralized surface water within Soda Lake. The sample with analytical result of 58,000 mg/L (sample location number 31, as shown on **Figure 1-1**) is near Soda Lake and was not included in the map, as it skewed the color flood of the heat map. The concentration map is presented in **Figure 3-2**.

3.1.3 Aluminum

Presence of aluminum at elevated concentrations above its primary MCL of 1,000 µg/L and secondary MCL of 200 µg/L can lead to potential effects to drinking water quality and to treatability. For example, aluminum at high concentrations can impact the aesthetics (*i.e.,* appearance) and is associated with alumina silicate scaling which can reduce the effectiveness of reverse osmosis membranes. The average total aluminum concentration was slightly higher than the primary MCL and approximately five times higher than the secondary MCL. The maximum total aluminum concentration was almost four and

eighty times higher than the primary and secondary MCL, respectively. Methods for reducing aluminum concentrations include conventional (*e.g.,* coagulation, flocculation) and advanced (*e.g.,* ion exchange, reverse osmosis) treatment processes.

A concentration map of aluminum results was generated using the analytical results available between 2020 and 2024. In general, about half (16 of the 33 samples) exceeded the secondary MCL of 200 µg/L. No spatial trend in the distribution of aluminum concentrations was observed. The concentration map is presented in **Figure 3-3.**

3.1.4 Iron

Iron is another key parameter that can impact treatability and drinking water quality if detected at concentrations above its 300 µg/L secondary MCL. Iron has the most noticeable aesthetic effects compared to other secondary contaminants, such as discoloration (*i.e.,* orange, or reddish color), metallic taste or odor, sediment buildup, and potential leaching into pipe systems. The average total iron concentration exceeded its secondary MCL by three times and was detected at a maximum concentration approximately fifteen times higher than its secondary MCL. Further monitoring and analysis of iron levels is recommended to prevent potential aesthetic issues. There are various methods that can reduce iron to acceptable levels, such as corrosion control (at the point of distribution), as well as conventional (*e.g.,* coagulation/flocculation, aeration) and advanced treatment (*e.g.,* ion exchange) processes.

A concentration map of total iron results was generated using the analytical results available between 2020 and 2024. In general, about half (15 of the 32 samples) exceeded the secondary MCL of 300 µg/L. The primary spatial trend observed for iron is that wells with higher concentrations of aluminum also had higher concentrations of total iron. The concentration map is presented in **Figure 3-4**.

3.1.5 Manganese

Another key parameter that can impact public health and aesthetic quality is manganese, which can occur naturally in groundwater sources. The impacts of manganese at high concentrations include potential for neurological syndromes (*i.e.,* manganism) and can lead to a black or brown discoloration and metallic taste. California SWRCB currently has a secondary MCL of 50 µg/L that is enforceable, as well as a notification limit of 500 µg/L. The average total manganese did exceed the secondary MCL but not the notification limit, which indicates that manganese is prevalent across the study area. There was a maximum value that was in exceedance of the notification limit, which may require further investigation. Methods for reducing manganese to levels that meet the established secondary MCL include oxidation, such as potassium permanganate and advanced treatment processes, such as ion exchange and reverse osmosis.

A concentration map of the total manganese results was generated using the analytical results available between 2020 and 2024. In general, about half (17 of the 32 samples) exceeded the secondary MCL of 50 µg/L. There is no obvious trend in the distribution of the higher levels of manganese in the study area. The concentration map is presented in **Figure 3-5**.

3.1.6 Other Parameters

There were other parameters detected at the sampling locations that may impact the use of the groundwater from the Carrizo Plain Groundwater Basin for drinking water uses. For example, gross alpha was detected at least once at a concentration (34 pCi/L) above its primary MCL. Uranium also had a maximum concentration of 64 pCi/L which was approximately four times higher than the primary MCL,

but the average concentration meets the California primary MCL. The average sulfate concentration was approximately twice the 250 mg/L secondary MCL, which indicates sulfate levels are elevated at most of the sample locations. Apparent color, which can impact the appearance of the water, had a maximum value of 120 Platinum-Cobalt (Pt-Co) scale, which is eight times higher than the secondary MCL, but the average color results met the secondary MCL. The average turbidity was 16.8 Nephelometric Turbidity Units (NTU), which is three times greater than the secondary MCL, indicating elevated turbidity levels at the sample sites. Turbidity is an indicator of the presence of harmful microbes and can cause aesthetic concerns (*i.e.,* appearance) that can impact customer confidence, so it is crucial to monitor for this parameter. Recommended treatment for turbidity includes conventional filtration (*e.g.,* sand, dual media) and membrane filtration (*e.g.,* microfiltration, ultrafiltration). Lastly, the average total hardness concentration of the samples is considered very hard (> 180 mg/L), with a maximum value measured up to 3,200 mg/L as $CaCO_3$. Methods for removing total hardness from water include water softeners and reverse osmosis.

In addition, a few key parameters met their U.S. EPA and California primary or secondary MCL. For pH, U.S. EPA's standard will be used since California SWRCB does not have a secondary MCL. The average pH level met the U.S. EPA 6.5-8.5 secondary MCL range and was relatively consistent across the sample locations. Total barium concentrations did not exceed its 1,000 µg/L primary MCL. Nitrite measurements were consistently below the 1 mg/L as N primary MCL and was almost always non-detect. PFOA, PFOS, and PFHxS were measured in ten samples, and their concentrations were either non-detect or were detected below their respective primary MCL, indicating compliance for these newly regulated constituents. However, further sampling and analysis of PFAS compounds is recommended due to the relatively small sample size.

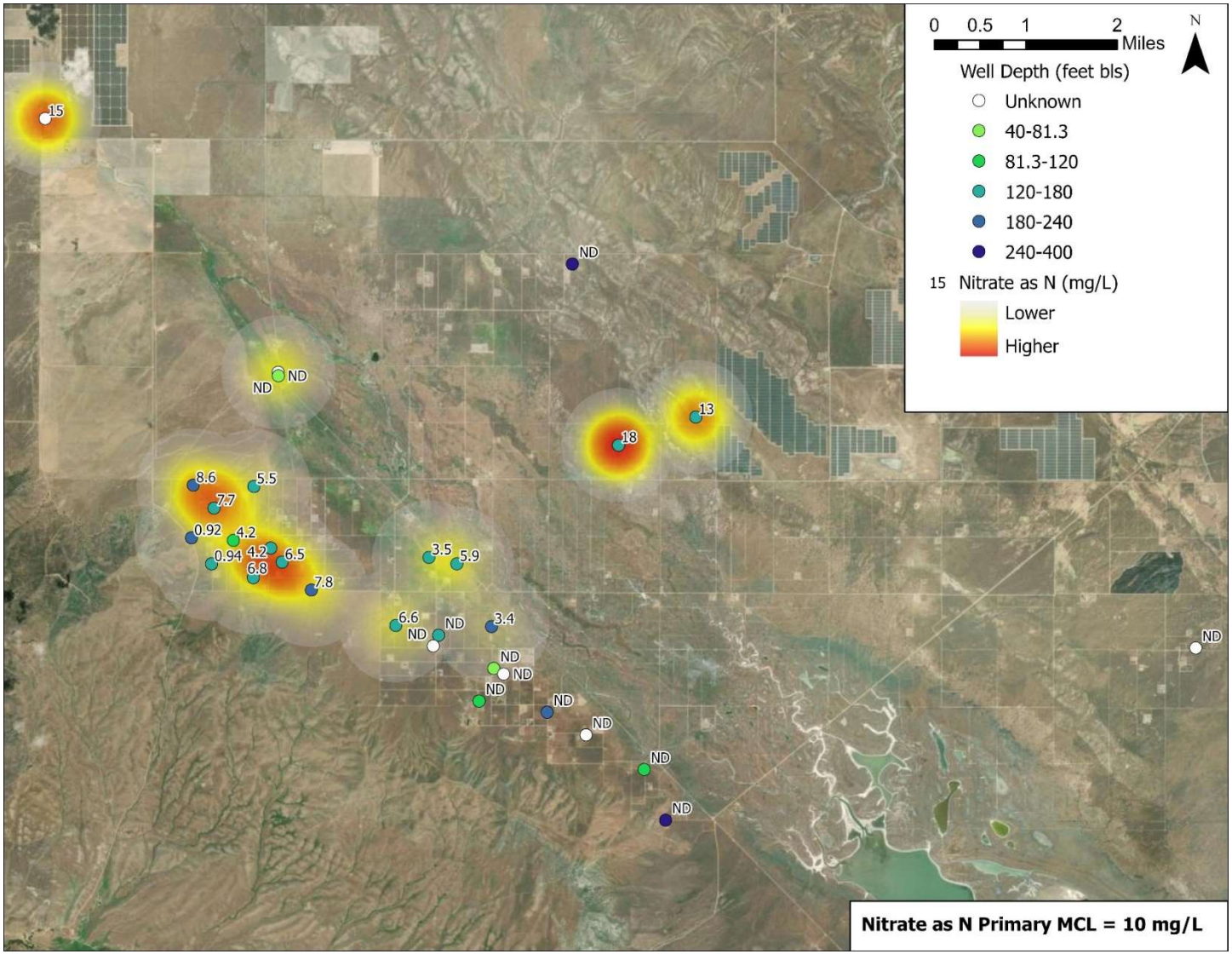


Figure 3-1 Nitrate as Nitrogen Concentration Map

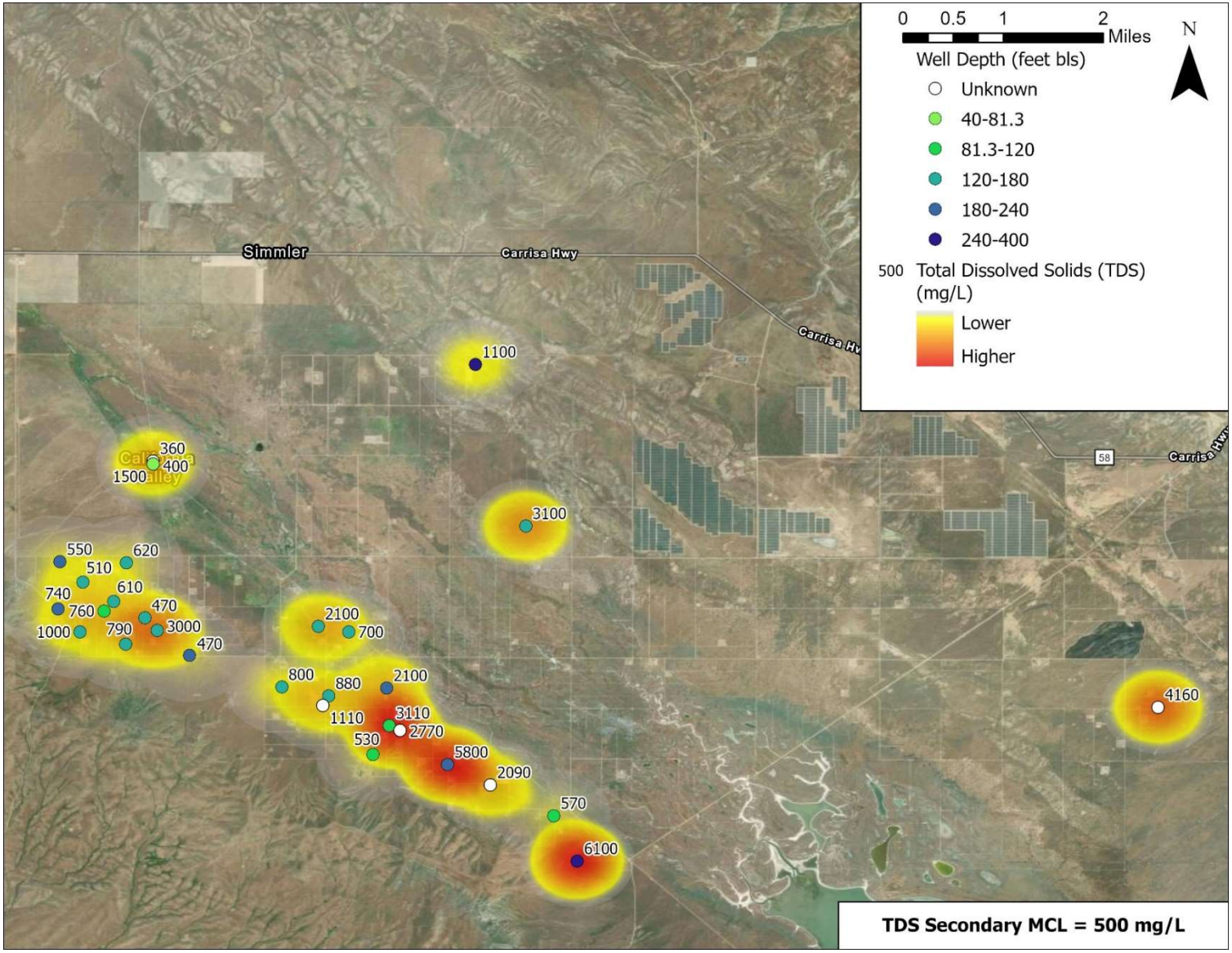


Figure 3-2 Total Dissolved Solids Concentration Map

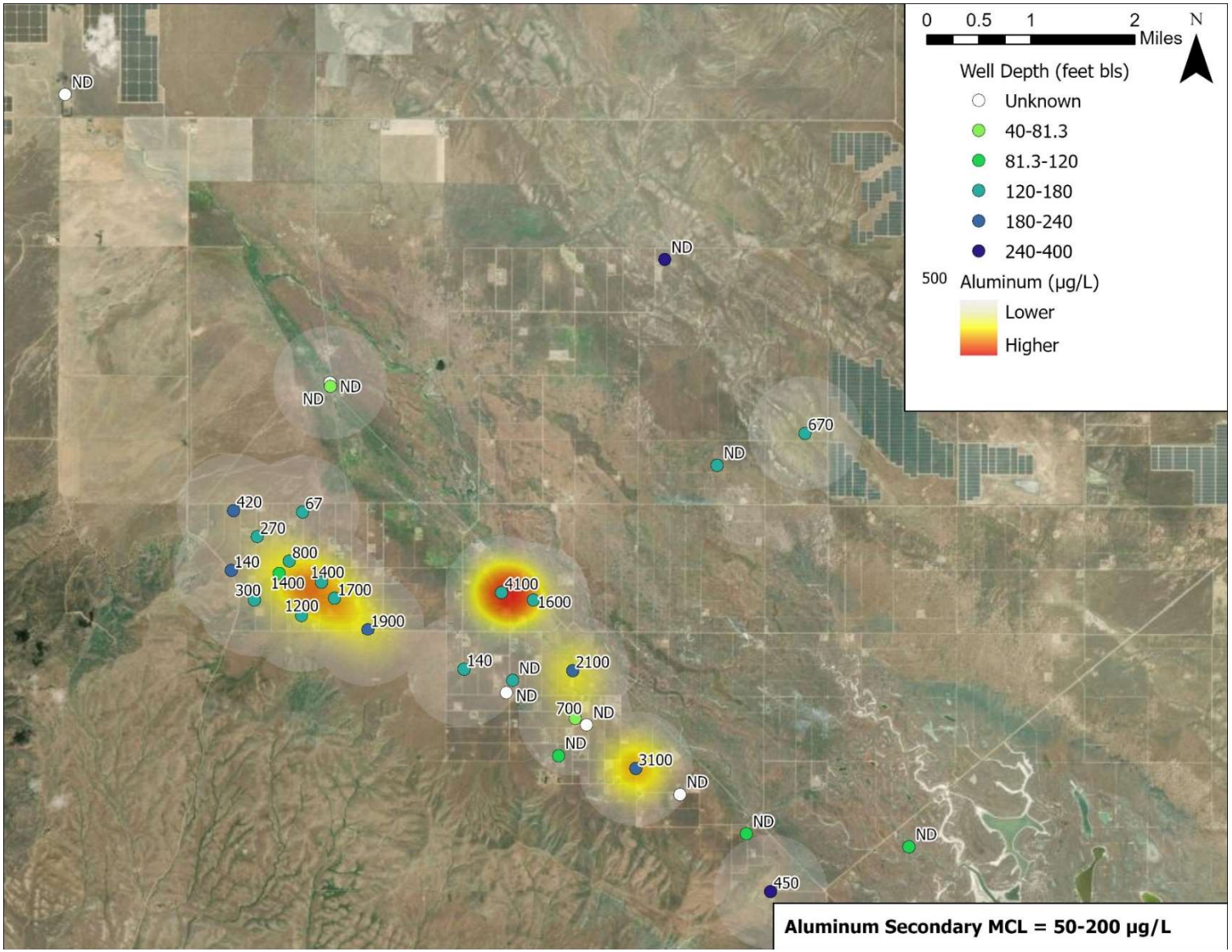


Figure 3-3 Total Aluminum Concentration Map

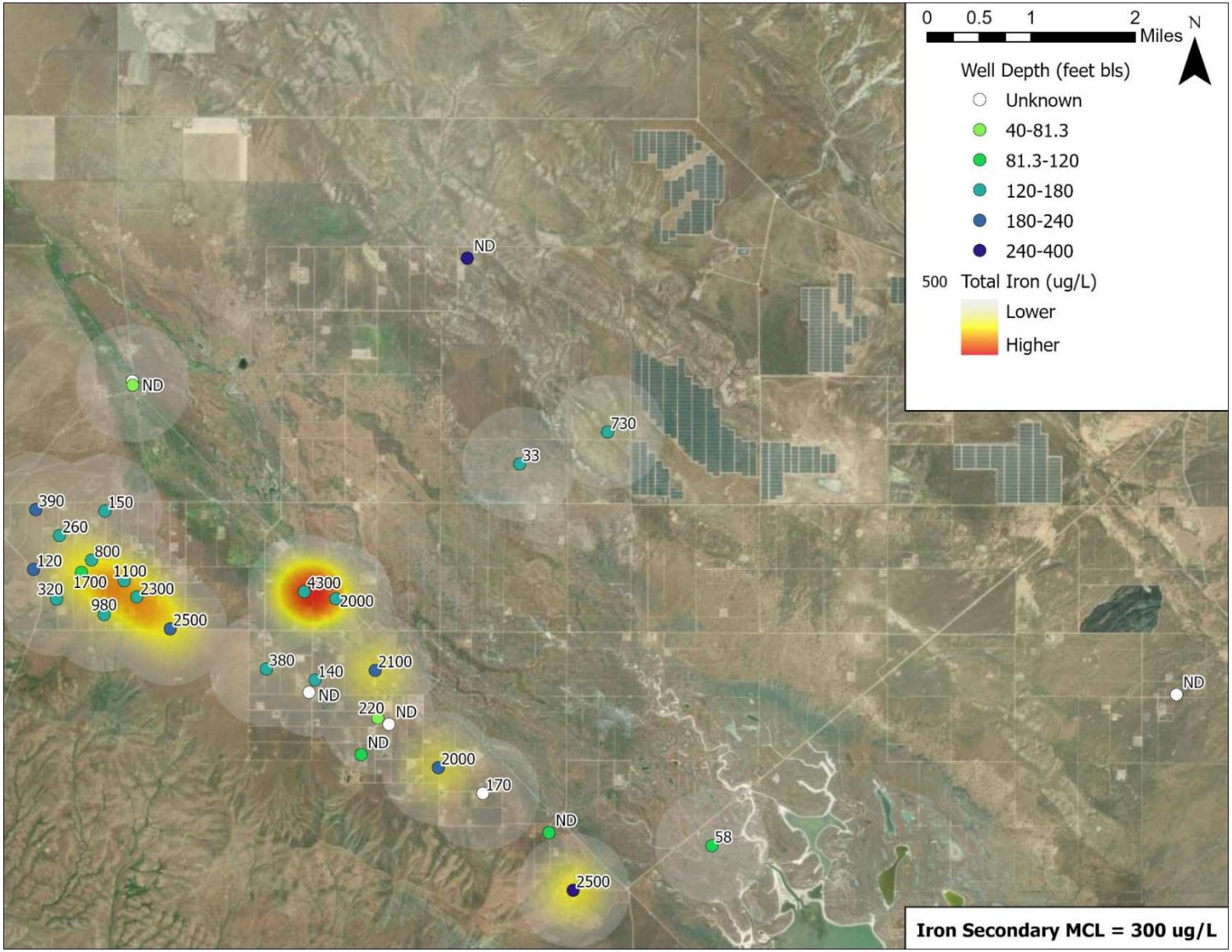


Figure 3-4 Total Iron Concentration Map

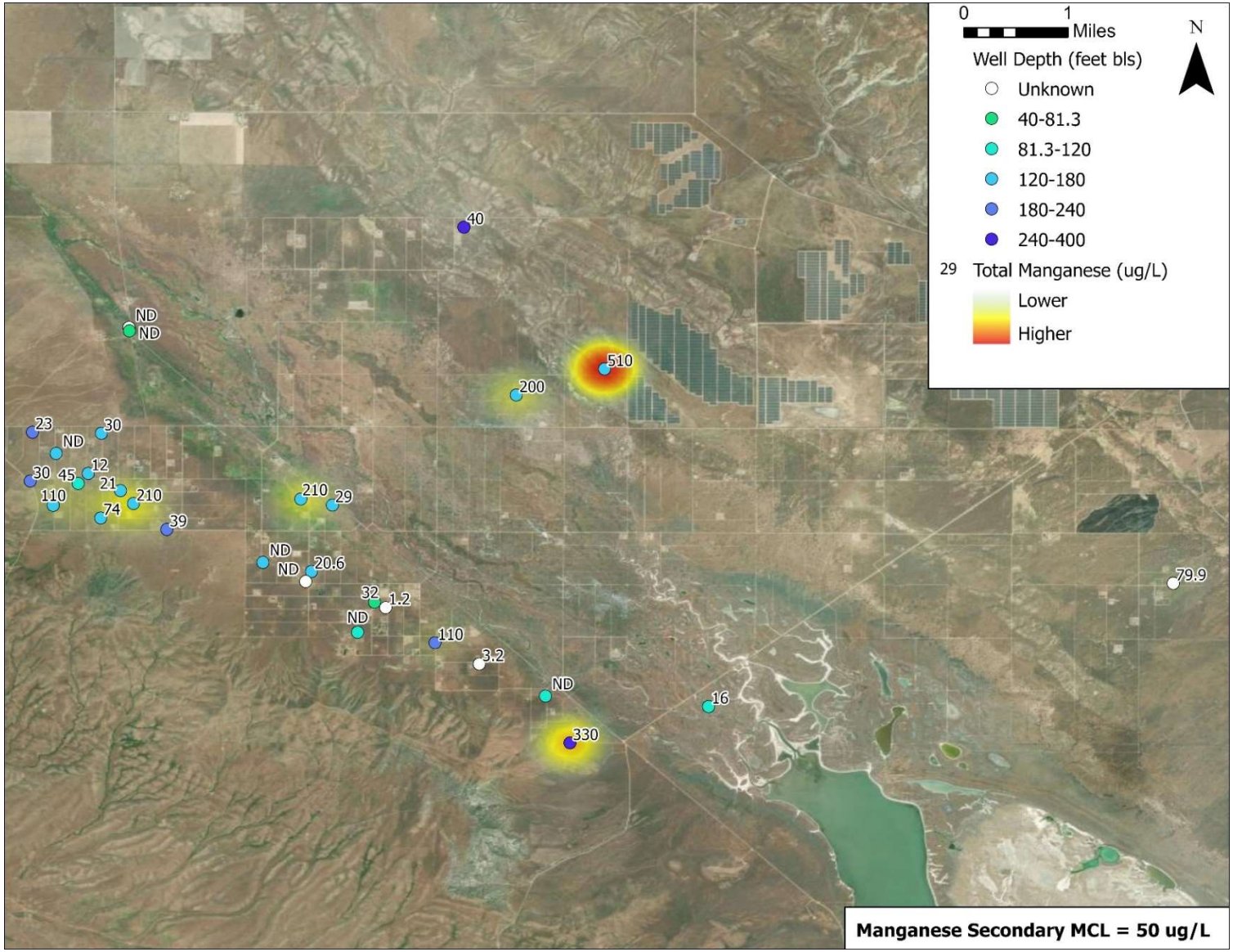


Figure 3-5 Total Manganese Concentration Map

3.2 Water Quality Summary

The results from the sampling locations provided a general characterization of the groundwater quality of the Carrizo Plain Groundwater Basin. The water quality was compared to California's primary and secondary MCLs, as well as US EPA's MCLs where no California standard exists, to determine if the groundwater is safe and aesthetically pleasing to drink. A summary of the water quality with respect to the primary and secondary MCLs is provided in **Table 3-2**. Out of the 29 regulated constituents, seven were detected above their respective MCL greater than 50% of the time. TDS had the highest percentage of values that were detected above the 500 mg/L secondary MCL at 87% of samples. Nitrate was detected above its primary MCL in 34% of the samples, and requires further monitoring. Other parameters, such as chloride, fluoride, selenium, and uranium were detected above their respective MCLs in less than roughly 25% of samples. Approximately eleven parameters were detected at concentrations below their respective MCL in 100% of samples. Additional sampling and monitoring will be required to further characterize the water quality in the basin for treatment feasibility purposes.

Table 3-3 Summary of Water Quality with MCLs

Parameter	Total Count	Count > MCL	% > MCL	Primary MCL	Secondary MCL
Aluminum, Total (µg/L)	21	16	76%	1,000	200
Arsenic, Total (µg/L)	9	0	0%	10	NA
Barium, Total (µg/L)	14	0	0%	1,000	NA
Bromoform (µg/L)	0	0	0%	0.5	NA
Cadmium, Total (µg/L)	0	0	0%	5	NA
Color (Pt. Co. Units)	15	6	40%	NA	15
Conductivity (µS/cm)	31	25	81%	NA	900
Chloride (mg/L)	30	8	27%	NA	250
Chromium, Total (µg/L)	11	0	0%	50	NA
Fluoride (mg/L)	30	4	13%	2	NA
Gross Alpha (pCi/L)	9	3	33%	15	NA
Iron, Total (µg/L)	26	15	58%	15	NA
Manganese, Total (µg/L)	26	10	38%	NA	300
MBAS (mg/L)	3	2	67%	NA	0.5
Nitrate (mg/L as N)	35	12	34%	10	NA
Nitrate + Nitrite (mg/L as N)	35	10	29%	10	NA
Nitrite as N (mg/L)	2	0	0%	1	NA
Threshold Odor (T.O.N)	18	4	22%	NA	3
Perchlorate (µg/L)	7	0	0%	4	NA
Perfluorooctanoic Acid (PFOA) (ng/L)	1	0	0%	4	NA
Perfluorooctanesulfonic Acid (PFOS) (ng/L)	1	0	0%	4	NA
Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	1	0	0%	10	NA

Parameter	Total Count	Count > MCL	% > MCL	Primary MCL	Secondary MCL
pH	32	0	0%	NA	6.5-8.5
Sulfate (mg/L as SO4)	22	13	59%	NA	250
Selenium, Total (mg/L)	32	3	9%	50	NA
Total Dissolved Solids (mg/L)	31	27	87%	NA	500
Turbidity (NTU)	32	17	53%	NA	5
Uranium (pCi/L)	9	1	11%	20	NA

4.0 Conclusion

Residents of the District currently do not have a public water system and rely mostly upon domestic wells for their water supply needs. CUWA and MKN are performing a water supply alternatives analysis so the District can evaluate the feasibility of providing a safe and reliable drinking water supply for the residents of this rural community.

As part of the water supply alternatives analysis, BV conducted a limited desktop review of existing literature and hydrogeologic and groundwater quality data in the northern portion of the Carrizo Plain Groundwater Basin. BV also reviewed water quality data from the sample locations to conduct a screening level evaluation of the regional groundwater quality as a future source of water supply for a potable water supply system.

Concentration maps were generated using the water quality data provided and are included in **Section 3**. A table including the water quality data analyzed is provided in **Appendix C**.

The results of this limited desktop review yielded data gaps that will need to be addressed, such as data supporting the understanding of groundwater availability and the addition of specific constituents for future groundwater quality sampling for treatability purposes.

4.1 Data Gaps

The purpose of this section is to discuss data gaps that were identified during the hydrogeological and water quality characterization and analysis. An emphasis on constituents, relevant to the primary and secondary drinking water standards, that are missing from new and historic data are discussed further. Recommendations for additional testing are provided below to ensure a complete understanding of the water quality of the Carrizo Plain Groundwater Basin can be developed in support of future feasibility studies.

4.1.1 Water Quality Data Gaps

To better characterize the water quality of the Carrizo Plain Groundwater Basin, additional monitoring and sampling following the California Standard Operating Procedures, the same methods followed during the 2024 sampling event, is needed to confirm the water quality characterization and trends. BV recommends continued future water quality sampling of silica and all constituents that have impacts to public health (e.g., acrylamide) and aesthetic quality (e.g., hydrogen sulfide). Continued sampling and monitoring of PFAS and other emerging constituents of concern under the Unregulated Contaminant Monitoring Rule (UCMR) is also recommended to determine if these contaminants may pose future risk to public health.

4.1.2 Hydrogeological Data Gaps

Groundwater quality and well completion data were summarized and provided to BV by MKN for the study. The datasets included historical data collected by MKN, publicly available data from various online sources, and more recent water quality data collected by MKN in 2024. Provided is a summary of key data gaps identified as a result of the study:

- Well completion details for the Carrisa Plains Elementary School Well and the CVCSD Main Well. A complete understanding of construction details for all wells used in this analysis is crucial for understanding water quality variations with depth.

- Important well completion details including screened intervals, grout seal depth, pump installation and settings, sustainable production yield, and total water production data were not available.
- Aquifer hydraulic parameters obtained from pumping tests. Available pump testing data is limited to driller log summaries of single well, short term, constant rate tests.

In order to better understand groundwater availability and aquifer productivity for high-capacity water supply well(s) to support a community public water system sourced from the Carrizo Plain Groundwater Basin, additional hydrogeologic studies are necessary.

To address the data gaps associated with sustainability of groundwater supply and quality, the following recommendations have been developed.

4.2 Recommendations

To better characterize the Carrizo Plain Groundwater Basin as a future source of drinking water supply to support a District developed and operated potable water supply system for its residents, a test well and aquifer characterization program should be implemented. This program will be designed to significantly improve estimates of sustainable groundwater production (yield) and water quality at both local and subregional levels. **Section 4.2.1** below provides a brief overview of the components of such a program. Additionally, it is recommended to apply for a California DWR Airborne Electromagnetic (AEM) Survey to better refine the local hydrogeologic conceptual model.

4.2.1 Test Well Drilling Program

A test well drilling program will have the primary objectives of obtaining a better understanding of the occurrence, yield and expected water quality of the area and aquifers of interest in consideration of a high-capacity, groundwater production well(s) capable of providing a safe and reliable supply of groundwater for the District. The test well drilling program would be designed to meet the primary objectives, and should consider the following components:

1. **Well Siting Review**: Work in conjunction with the District and MKN to site one or two locations for a pilot test well(s) in an area that is in close proximity to the residential demand, and with sufficient space for potential treatment, storage and distribution facilities.
2. **Pilot Test Borehole**: Design and drill a pilot test borehole for lithologic and advanced borehole geophysical logging, and to identify potential water production zones. Convert the pilot borehole into a monitoring well for water level, well drawdown, and water quality monitoring purposes.
3. **Pilot Test Well**: Based upon results of the borehole drilling program, design, drill, and complete a pilot test well, with a minimum completed nominal casing and screen diameter of 6-inches, for well testing purposes. The well testing will provide estimates of sustainable yield and water level drawdown. The well can be used for long term water quality monitoring purposes to support the water treatment design.
4. **Additional Monitoring Wells**: Based upon results of the borehole drilling program, design, drill, and complete at least two additional monitoring wells near the test well to determine the groundwater flow gradient in the vicinity of the test well. Tracer studies are not recommended.
5. **Long-Term Monitoring:** The wells installed in support of the testing program should be configured for long-term water level and water quality monitoring purposes. Long-term

monitoring for at least 5 years could be used to understand groundwater flow, aquifer storage parameters, domestic well influence, and other key hydrogeological properties.

Additionally, aquifer testing with water quality analyses at the CVCSD Main Well, or other existing wells, would support a better understanding of local aquifer yield and water quality. Well inspections, including a downhole video survey, would provide important construction details and downhole conditions. This information would be gathered prior to a test well program to support the development of any future drilling program.

4.2.2 Airborne Electromagnetic (AEM) Survey

The District should consider applying for a California DWR AEM Survey to better refine the local hydrogeologic conceptual model. AEM surveys provide high-resolution, 3D images of subsurface geology revealing aquifer structures, clay layers, and potential recharge zones up to 1,000 feet deep. AEM surveys help understand groundwater flow and identify optimal locations for groundwater recharge, which is critical for drought resilience and long-term water supply planning. This can guide investments and infrastructure development more effectively.

AEM data directly supports the development and refinement of Groundwater Sustainability Plans (GSPs) required under the Sustainable Groundwater Management Act (SGMA). The surveys are fully funded by Proposition 68, Senate Bill 5, and the California General Fund. The data collected is publicly available and standardized across the state, enabling collaboration with other agencies, researchers, and stakeholders. This transparency can improve community trust, support and coordination in regional water management efforts (DWR).

4.2.3 Water Quality Recommendations

For future sampling and monitoring procedures, the inclusion of silica, for the purpose of aiding future treatment design, and other relevant constituents that have impacts to public health and aesthetic quality, is recommended to better characterize the Carrizo Plain Groundwater Basin water quality. Continued sampling and monitoring of PFAS compounds is also recommended to determine if these newly regulated contaminants may pose future risk to public health. For an accurate statistical analysis (*e.g.,* 95^{th} and 5^{th} percentile) an increase in the sampling size for each parameter for the 33 sample locations is recommended. For example, arsenic, barium, bromoform, cadmium, color, chromium, gross alpha, MBAS, odor threshold, perchlorate, uranium, hexavalent chromium, and apparent color all had sample counts of less than 20, a statistically insignificant sample population required to support meaningful statistical analyses. Lastly, a water quality investigation in areas with limited data, such as the northeast and southeast regions of the study area, is recommended to improve the characterization of the Carrizo Plain Groundwater Basin regional water quality.

5.0 References

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Appendix A. CVCSD Community Meeting Summary

CALIFORNIA VALLEY COMMUNITY SERVICES DISTRICT – WATER SUPPLY ALTERNATIVES ANALYSIS

COMMUNITY MEETING NO. 1 SUMMARY

NOVEMBER 5, 2024

ATTACHMENTS

1. Public Comments
2. Attendance List
3. Well Sampling Volunteer List

Attachment 1 - Public Comments

Comment #	Commentor	Comment	In-Person Response (if provided)
1	Velma McGraw (Resident, Comment Card)	We had our water checked over 10 years ago. Even the animals won't drinking. Only brine shrimp survive. I'm 2 miles eat of Soda Lake Rd (East).	None.
2	Public Comment (Verbal)	What will the long term costs of this project be for residents? Although unsafe, my water is currently free.	[Henry] Long term project costs are unknown. Costs for each alternative solution will be produced and provided to the community to which the community can use to inform their
3	Public Comment (Verbal)	[To other residents] You do not have to participate in the voluntary well sampling. The results of the sampling will be collected and reported to the state. At which point, the use of the data is out of your hands.	None.
4	Public Comment (Verbal)	Are you guys going to put filters on each on of our homes?	[Henry] That may be a potential alternative developed, but potential solutions are unknown at this time.
5	Public Comment (Verbal)	What is CVCSD's goal with this project? Is the CSD trying to obtain water rights?	[Henry] To provide the entire community with access to clean, safe drinking water. [Karina] The project was started to better understand the CSD's water quality. The CSD is not seeking water rights.
6	Public Comment (Verbal)	I'm on the east side, and my water is very salty. I have to use bottled water.	[Henry] Issues like these is why we're completing this work to improve WQ.
7	Public Comment (Verbal)	I've consumed my well water for many years. Are there PFAS in the area? What diseases are caused by it?	[Henry] We're unsure of any PFAS in the area and the specific negative health effects associated with PFAS.
8	Public Comment (Verbal)	How is well sampling helpful if all wells are different [meaning depth]?	[Henry] It will help us better understand GW quality relative to both space and depth.
9	Public Comment (Verbal)	So if I were to get my well sampled, the data will be sent to the state and used to help the CSD obtain "water rights" to become a public water system. The state will then ban private well drilling if the water quality is bad.	None. Another resident interjected.
10	Public Comment (Verbal)	Why don't you guys find the best well and use that to provide drinking water?	[Henry] That may be a potential alternative solution.
11	Public Comment (Verbal)	The solar plant drilled wells. Do we have that data? If not, you should get it.	[Henry] We will look into it.
12	Public Comment (Verbal)	Shouldn't there be a well driller present at these meetings to provide professional insight?	[Henry] A well driller is not needed or qualified to evaluate GW quality and drinking water solutions.
13	Public Comment (Verbal)	The CSD was sued ~20 years ago for running cattle and sheep on private land. Is this where the Nitrate comes from?	[Henry] We're not sure of the Nitrate source as it could be from a multitude of factors.
14	Public Comment (Verbal)	What happens if septic waste is discharged onto land without a septic system?	[Earl refers to slides] Issues such as presented in the slides and introducing coliform to the aquifer are potential effects.
15	Public Comment (Verbal)	I've lived out here awhile, and you [MKN, CUWA] need to understand that residents will be suspicious of this project. Most residents believe the state is going to use this project as a stepping stone to control the rights to the water for use somewhere else (out of the area) or to make money off of residents.	[Henry acknowledges suspicion] This project is to develop and drinking water solution for this community in an effort to help, not make money or take away rights from private well owners.
16	Public Comment (Verbal)	If my well is tested and the quality is bad, how will treatment be paid for?	[Henry] You would pay for treatment if wanted at your residence. This project is to develop a solution for the entire community's drinking water issues.
17	Public Comment (Verbal, Spanish)	Will the state want to continually test my well if I volunteer now and fine me if I don't allow testing at a later date?	[Henry] No.
18	Public Comment (Verbal, Spanish)	If well testing by the state is started, will the state eventually want to meter my private well and charge me for it?	[Henry] No.
19	Public Comment (Verbal)	If I volunteer for sampling, is it up to me and the other volunteers to decide the direction of the project after alternatives are developed?	[Henry] No. The entire community will be involved in that decision.

Attachment 1 - Public Comments

Comment #	Commentor	Comment	In-Person Response (if provided)
20	Public Comment (Verbal, Spanish)	I test my well privately, and the results are only reported to me. I prefer this.	None.
21	Public Comment (Verbal, Spanish)	If the WQ in my well is bad, what will you do?	[Henry] Nothing will be done immediately following testing other than the sharing of results. The data will be used to help develop solutions for the entire community.
22	Public Comment (Verbal)	Can I sample my well privately and pay for an independent contractor to develop a solution for the quality?	[Henry] Yes.
23	Public Comment (Verbal)	Have you [MKN] worked with private well owners to develop treatment solutions?	[Henry] Yes.
24	Public Comment (Verbal)	What causes changes is Nitrate levels in GW?	[Henry] This is typically caused by GW levels lowering. Fluctuations can also be caused by agriculture and other factors.

Appendix B. Geotracker Case Closure Summaries

CENTRAL COAST WATER BOARD
CASE SUMMARY FORM
Leaking Underground Fuel Storage Tank Program

I. Agency Information

Agency Name: Central Coast Water Board	**Address:** 895 Aerovista Place, Suite 101
City/State/Zip: San Luis Obispo, CA 93401-7906	**Phone:** (805) 542-4640
Responsible Staff person: Mr. Tom Sayles	**Title:** Engineering Geologist

II. Case Information

Site Facility Name: A.J. Cooper Ranch, LLC	**USTCF Claim No.** NA	**Water Board Case No.** 3698
Site Facility Address: 9689 Carrisa Highway, California Valley	**Assessor Parcel No:** 072-131-009	

Responsible Parties	**Address**	**Phone Number**
Mr. Wayne Cooper	5301 Cabrillo Avenue, Atascadero, CA 93422	805-466-6030
Property Owner		
Topaz Solar Farms, LLC	Attn: Matt Garamone - First Solar, Inc., 400 Crossing Boulevard, 5th Floor, Bridgewater, NJ 08807	908-809-4127

III. Tank Information

Tank #	Size in Gallons	Contents	Closed in Place/Removed	Date
1	250	Unleaded Gasoline	Removed	1991
2	500	Unleaded Gasoline	Removed	1991

IV. Release and Site Characterization Information

Cause and type of release: UST leak; gasoline	**Was source removed to extent practical:** Yes	
Site characterization complete? Yes	**Local Oversight Agency concurrence?** NA	
Monitoring Wells installed? Yes	**Number:** 4	**Proper screen interval?** Yes
Highest GW depth below ground surface: 22.45 ft. bgs (9/1/15, MW-3 and MW-4)	**Lowest:** 18.91 ft. bgs (7/2/12 MW-2)	**Flow Direction:** Southeast
Most Sensitive Current GW use: Residential drinking water and irrigation		
Are Water Wells affected? No	**Hydrologic Unit:** Carrizo Plain Hydrologic Unit (3-11.00)	
Is the Site on Municipal Water? No. Domestic water wells were non-detect for petroleum hydrocarbon constituents.		
Distance to nearest Water Well(s): AJ Ranch Domestic Water Well #1 – 200 feet north of former UST excavation AJ Ranch Domestic Water Well #3 – 800 feet west-northwest of the former UST excavation	**Well Type/Status** AJ Ranch Domestic Water Well #1 – used for irrigation AJ Ranch Domestic Water Well #3 – used as domestic water supply	
Distance to nearest Surface Water(s): Over 1 mile.	**Has Surface Water(s) been affected?** No.	
Off-site Beneficial use impacts (addresses/locations): None		

CASE SUMMARY FORM

Is site an active fueling facility: (If No, has Vapor Intrusion been evaluated?) No. Vapor intrusion has been evaluated. Since the plume is not located beneath any structures, the risk of vapor intrusion into residential structures is very low. In addition, soil gas concentrations were found to be below Low-Threat Closure criteria.	
Conceptual Site Model complete? Yes.	**Date of CSM:** 12/10/2015

V. Treatment/Disposal Methods (Attach any additional information)

Material	Amount (Include Units)	Action (Treatment or Disposal Method)	Date
Tanks	1-250 gallon unleaded gasoline, 1-500 gallon unleaded gasoline	Removal, disposal offsite	1991
Piping	NA	NA	NA
Free Product	None	No free product observed	
Soil	Unknown	Unknown amount of soil removed during UST removal	1991
Ground Water	~44,439 gallons	Treated through activated carbon during 30 day DPE activity and then removed and transported by Green Compass Environmental Solutions, LLC to Southern California Waste Water facility located in Santa Paula, California for disposal	2/18/14-3/20/14; 12/3/14 -1/2/2015

Maximum Documented Contaminant Concentrations--Before and After Cleanup

Contaminant	Soil (mg/kg)		Water (µg/L)		Contaminant	Soil (mg/kg)		Water (µg/L)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	4,600	890	84,000	14,000	**1,2-DCA**	ND<0.12	ND<0.002	1,300	210
TPH (Diesel)	100	57	2,700	410	**Oil & Grease**	191	ND<40	630	NA
Benzene	9.5	ND<0.005	16,000	2,700	**Lead**	19.0	17	97	ND<6.0
Toluene	230	0.059	12,000	2,800	**MTBE**	0.0051	ND<0.006	32	ND<25
Ethylbenzene	55	1.5	740	200	**TBA**	0.027	0.017 J	120	ND<250
Xylenes	390	23	4,900	2,800	**Other**				
Naphthalene	12	20	250	120					

Comments: Historical groundwater analytical data indicate that high contaminants of concern (COC) concentrations have remained in the immediate area around monitoring well MW-1 and have not migrated to nearby monitoring wells, the closest being 25 feet away (MW-3). Natural attenuation parameters indicate that biodegradation is occurring and will continue to decrease COC concentrations at the Site.

NA=Not analyzed (Not a constituent of concern). ND=Non Detect

CASE SUMMARY FORM

VI. Closure

Amount of contaminant(s) mass removed: 886.03 pounds of hydrocarbons removed during two 30-day DPE events from 2/18/14-3/20/14 and 12/314-1/2/15		
Contaminant and media type: Soil and groundwater shallow impact		
Location/depth of residual contaminant mass left-in-place: 9.5 to 37.5 feet below ground surface		
Is the plume stable and/or shrinking? Yes.	**Does remaining plume extend off-site?** No.	
Approximate length of hydrocarbon plume (ft.): 73 feet		
Does completed corrective action protect existing and potential beneficial uses per the Basin Plan? Yes.		
Does corrective action protect public health for current land use? Yes.		
Should corrective action be reviewed if land uses change? Yes(See Additional Comments section below)		
Monitoring Wells destroyed? Yes	**Number destroyed:** 4	**Number retained:** None

VII. Local Agency Representative Data

Agency: San Luis Obispo Environmental Health Services	**Address:** 2156 Sierra Way
City/State/Zip: San Luis Obispo, CA 93401	**Phone/Email:** 805-781-1105 tatkins@co.slo.ca.us
Responsible Staff Person: Ms. Tricia Atkins	**Title**: Hazardous Materials Specialist

VIII. Additional Comments

Site Management Requirements: Residual soil and groundwater contamination may still exist on-site that could pose an unacceptable risk under certain site development activities such as site grading, excavation, or de-watering. The Central Coast Water Board, the local health agency and the appropriate local planning and building departments must be notified prior to any changes in land use, grading activities, excavation, or dewatering. This notification must include a statement that residual soil and groundwater contamination underlie the property and nearby properties. The levels of residual contamination and any associated risks are expected to reduce with time.

IX. Central Coast Water Board Certification

***for* John M. Robertson, Executive Officer**	**Date:** June 13, 2016

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X. Additional Information (Maps, Reports etc. available upon request)

CASE CLOSURE SUMMARY

Leaking Underground Fuel Storage Tank Program

I. Agency Information

Agency Name: RWQCB - Central Coast Water Board	**Address:** 895 Aerovista Place, Suite 101
City/State/Zip: San Luis Obispo, CA 93401-7906	**Phone:** (805) 542-4781
Responsible Staff person: Mr. Corey Walsh	**Title:** Associate Engineering Geologist

II. Case Information

Site Facility Name: Goodwin Ranch	**USTCF Claim No.** NA	**RWQCB Case No.** 3273
Site Facility Address: 15505 Soda Lake Road, California Valley		

Responsible Parties	Address	Phone Number
The Nature Conservancy	201 Mission Street, 4th Floor, San Francisco, CA 94105	(707) 266-2003
Property Owner	**Assessor's Parcel No:**	
The Nature Conservancy	094-251-023	(707) 266-2003

III. Tank Information

Tank #	Size in Gallons	Contents	Closed in Place/Removed	Date
1	1,000	Gasoline	Removed	7/30/99
2				
3				
4				
5				

IV. Release and Site Characterization Information

Cause and Type of Release: Leak		
Site Characterization Complete? Yes	**Local Oversight Agency Concurrence:**	
Monitoring Wells Installed? Yes	**Number:** 11	**Proper Screened Interval?** Yes
Highest GW Depth Below Ground Surface: 27.4	**Lowest:** 32.7	**Flow Direction:** NE
Most Sensitive Current GW Use: Not designated for groundwater beneficial uses in Basin Plan, however actual domestic and agricultural supply wells are used in area.		
Are Drinking Water Wells Affected? No	**Hydrologic Unit:** Carrizo Plain Hydrologic Unit (3-11.00) Soda Lake Sub-basin	
Is Surface Water Affected? No	**Nearest Surface Water:** Soda Lake (dry lake with intermittent water)	
Off-site Beneficial Use Impacts (addresses/locations): None		

CASE CLOSURE SUMMARY

Leaking Underground Storage Tank Program

V. Treatment/Disposal Methods (Attach any additional information)

Material	Amount (Include Units)	Action (Treatment or Disposal Method)	Date
Tanks	One 1,000-gallon	Removal; disposed offsite	7/30/99
Piping			
Free Product	~471.5 gallons	Free product removal device, soil vapor extraction, and dual-phase extraction (DPE); free product disposed off-site; vapor phase destroyed onsite through catalytic oxidizer	12/01–5/11
Soil	~358 cubic yards	Over-excavation during UST removal; disposed offsite	7/30/99
Ground Water	~50,400 gallons	Treated through activated carbon during DPE; discharged onsite through general waiver from RWQCB by letter dated 4/28/11	12/01–5/11

Maximum Documented Contaminant Concentrations--Before and After Cleanup

Contaminant	Soil (mg/kg)		Water (µg/L)		Contaminant	Soil (mg/kg)		Water (µg/L)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	11,000	3,000	150,000	7,200	**1,2-DCA**			870	21
TPH (Diesel)			9,300	NA	**Oil & Grease**				
Benzene	0.7	1.4	15,000	99	**Lead**	59	27	15	NA
Toluene	130	53	38,000	230	**MTBE**	<0.5	<0.5	<5,000	<50
Ethylbenzene	94	19	3,700	180	**TBA**			<500	3.4
Xylenes	620	200	25,000	1,100	**Other**				

Comments:

TPHd detections contained significant gasoline range compounds; therefore, TPHd not analyzed after 2002.

Soil samples before UST removal and over-excavation collected on 7/30/99.

VI. Closure

Does completed corrective action protect existing beneficial uses per the Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Basin Plan? Yes		
Does corrective action protect public health for current land use? Yes		
Site Management Requirements: None		
Should corrective action be reviewed if land use changes? Yes		
Monitoring Wells Destroyed? No	**Number Destroyed:** 0	**Number Retained:** 11

CASE CLOSURE SUMMARY

Leaking Underground Storage Tank Program

List Enforcement Actions Taken: Completed free product removal and DPE per Interim Remedial Action Plans
List Enforcement Actions Rescinded: None

VII. Local Agency Representative Data

Agency: San Luis Obispo County EHS	**Address:** PO Box 1489 / 2156 Sierra Way
City/State/Zip: San Luis Obispo, CA 93401-5240	**Phone:** (805) 781-1105 tatkins@co.slo.ca.us
Responsible Staff Person: Ms. Tricia Atkins	**Title:** Hazardous Materials Specialist

VIII. Additional Comments

This case closure summary is being performed per the request from the RWQCB, Central Coast Region by email dated
May 4, 2012.

IX. Regional Board Certification

Signature of Executive Officer	**Date:**

CASE CLOSURE SUMMARY

Leaking Underground Storage Tank Program

X. Additional Information (to be attached to this report)

1. Listing of Reports

Please include a list of all investigative reports, including reports prepared for financial institutions such as Phase I Environmental Assessments, all monitoring data, corrective action alternatives analyses, and other consultant reports. If a report on the list has not been previously submitted to the Regional Board, please submit the report with this form.

On or attached to the list must be the following statement, with the dated signature of the responsible party or his agent:

> "I attest, under penalty of perjury, in accordance with Water Code section 13267, the following documents constitute the complete list of documents pertaining to waste discharged, hydrogeology and other information directly relevant to the characterization and cleanup of the waste discharged at the subject site."

The following items are optional as applicable to the review of the site for closure:

2. Extent of Soil Contamination

a) Maps showing the extent of soil degradation by chemicals of concern in excess of guidelines, before and after remediation.

b) Geologic log of the most highly degraded soil boring or monitoring well showing sample points with a list of contaminant concentrations.

c) Summary table of all historic soil sampling results.

3. Extent of Ground Water Contamination

a) Maps showing the extent of ground water degradation in excess of detection limits for chemicals of concern, before and after remediation.

b) Geologic logs, including construction, for all wells.

c) Representative geologic log identifying all aquifers.

d) Two intersecting cross-sections of the site.

e) Summary table of all historic ground water analyses and water levels.

Goodwin Ranch
Case Closure Summary

XI. Additional Information

1. List of Reports in Chronological Order

Philip Transportation and Remediation, Inc., *Work Plan for Site Investigation, Goodwin Ranch, Soda Lake Road, California Valley, California, Project No. GR00-1*, October 3, 2000

Philip Transportation and Remediation, Inc., *Site Investigation Report for Goodwin Ranch Site, 15505 Soda Lake Road, San Luis Obispo County, California, Project No. 102SA-2*, July 11, 2001

Philip Transportation and Remediation, Inc., *Interim Remedial Action Plan for The Nature Conservancy – Goodwin Ranch Site, 15505 Soda Lake Road, San Luis Obispo County, California, Project No. 102SA-2.2.7*, November 30, 2001

Philip Transportation and Remediation, Inc., *Work Plan for Further Site Investigation, Goodwin Ranch, 15505 Soda Lake Road, California Valley, California, Project No. 102SA-2*, April 25, 2002

Dockter Environmental Consulting, *Site Investigation Report for Goodwin Ranch Site, 15505 Soda Lake Road, San Luis Obispo County, California, Project No. 102SA-2.2*, September 16, 2002

GeoRestoration, Inc., *Summary of Free Product Removal, Goodwin Ranch, California Valley, CA*, August 17, 2010

GeoRestoration, Inc., *Interim Remedial Action Plan for Former Underground Storage Tank Site, 15505 Soda Lake Road, California Valley, San Luis Obispo County, CA, Case No. 3273*, January 3, 2011

GeoRestoration, Inc., *Interim Remedial Action Update, Former Underground Storage Tank Site, 15505 Soda Lake Road, California Valley, San Luis Obispo County, CA, Case No. 3273*, January 7, 2011

GeoRestoration, Inc., *Workplan for Further Site Investigation for Former Underground Storage Tank Site, 15505 Soda Lake Road, California Valley, San Luis Obispo County, CA, Case No. 3273*, January 25, 2011

GeoRestoration, Inc., *Interim Remedial Action Update, Former Underground Storage Tank Site, 15505 Soda Lake Road, California Valley, San Luis Obispo County, CA, Case No. 3273*, February 9, 2011

GeoRestoration, Inc., *Site Investigation and Remedial Action Report, The Nature Conservancy – Goodwin Ranch Site, 15505 Soda Lake Road, San Luis Obispo County, CA, Case No. 3273*, June 22, 2011

Monitoring Reports:

- January 2002
- April 2002
- July 2002
- September 2002
- December 2002
- March 2003
- April 2004
- April 2005
- April 2006
- April 2007
- April 2008
- 2009 Annual
- 2010 Annual
- December 2010
- March 2011
- June 2011
- September 2011
- December 2011
- March 2012

I attest, under penalty of perjury, in accordance with Water Code section 13267, the following documents constitute the complete list of documents pertaining to waste discharged, hydrogeology and other information directly relevant to the characterization and cleanup of the waste discharged at the subject site.

H. Scott Butterfield

Date 5/22/12

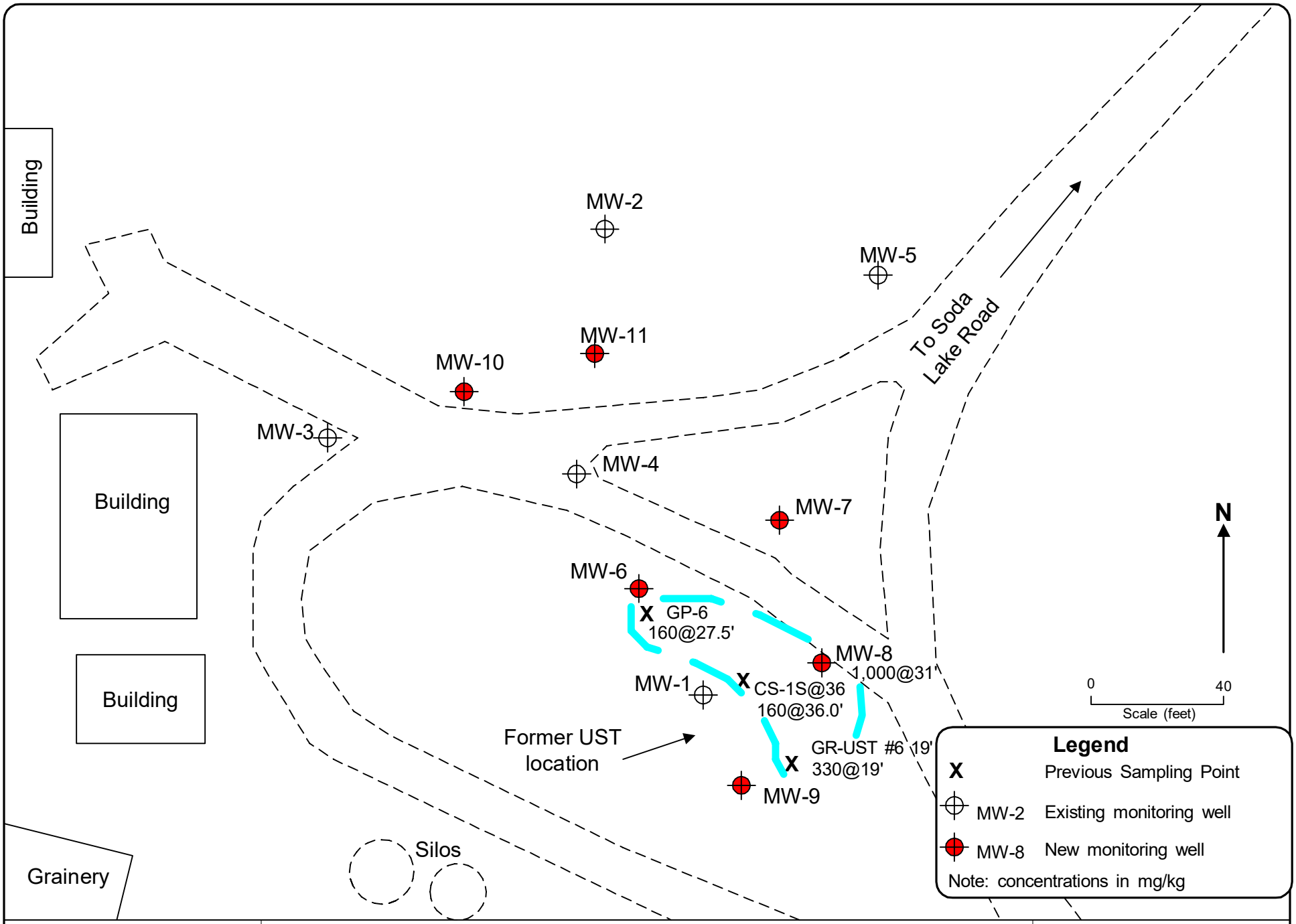
Goodwin Ranch
Case Closure Summary

XI. Additional Information

2. Extent of Soil Contamination

a) Maps showing the extent of soil degradation by chemicals of concern in excess of guidelines, before and after remediation.

Note: No soil sampling conducted after 15-day DPE event in May 2011.



GRI
15940 Concord Circle
Morgan Hill, California 95037

TPHg Concentrations in Soil (>100 mg/kg)
Goodwin Ranch
15505 Soda Lake Road, California Valley, California

Figure 7
Project: 0544

Goodwin Ranch
Case Closure Summary

XI. Additional Information

2. Extent of Soil Contamination

b) Geologic log of the most highly degraded soil boring or monitoring well showing sample points with a list of contaminant concentrations.

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-9
Well Address: 15505 Soda Lake Road, San Luis Obispo Co, CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No PID (PPM) Blows / 6"	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
	Cement Seal (0 - 22')	1 2 3 4 5	ML	**Clayey SILT**; yellowish brown (10YR, 5/4); 90% medium plasticity fines; 10% fine to medium sand; damp; no odors.
Grab 0.0	2" diameter Schedule 40 PVC	6 7 8 9 10		Soil is dry; no odors. Color is brown (10YR, 5/3). No hydrocarbon odor, unit contains scattered pebbles (<1%).
Grab 0.0		11 12 13 14		No hydrocarbon odor, damp.
MW9d16' 0.0 16/20	Bentonite (22 - 23')	15 16 17 18 19		No hydrocarbon odor; analytical results: all ND
MW9d21' 0.0 7/10		20 21 22 23 24		No hydrocarbon odor; analytical results: all ND
MW9d26' 0.0 8/10	Sand Pack (23 - 40') Screen-0.020" (25-40')	25 26 27 28 29 30		No hydrocarbon odor; analytical results: all ND

GeoRestoration, Inc.
15940 Concord Circle
Morgan Hill, CA 95037

Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
SS = cal modified soil sampler

MW-9

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-9
Well Address: 15505 Soda Lake Road, San Luis Obispo, Co., CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No/ PID (PPM)	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
MW9d31' 10.0 7/6	Sand Pack (23 - 40'); Screen-0.020" (25-40')	31	ML	▽ 31.5' ▼ 31.2' Unconfined aquifer; analytical results: TPHg 42 mg/kg, Toluene 0.24 mg/kg, Ethylbenzene 0.28 mg/kg, Total Xylenes 2.2 mg/kg. Increasing sand content to 20%; wet; slight hydrocarbon odor.
		32		
		33		
		34		
MW9d36' 0.0 6/9		35		
		36		No hydrocarbon odors; analytical results: all ND
		37		
		38		
		39		
		40		
		41		**Total Depth = 40 feet**
		42		
		43		
		44		
		45		
		46		
		47		
		48		
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		60		

PROFESSIONAL GEOLOGIST
Roger D. Dockter
Exp. 4/30/13
No. 6152
STATE OF CALIFORNIA

GeoRestoration, Inc.
15940 Concord Circle
Morgan Hill, CA 95037

Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
Grab = grab sample from cuttings

Goodwin Ranch
Case Closure Summary

XI. Additional Information

2. Extent of Soil Contamination

c) Summary table of all historic soil sampling results.

TABLE 2 – SUMMARY OF PREVIOUS SAMPLING (SOIL)

Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample I.D. & Depth (ft)	Sample Location	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Total Lead (mg/kg)
GEOPROBE SOIL SAMPLES (7/30/99)								
1A @ 4-6’	South of SW corner of tank pit	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	5.5
1B @ 8-10’	South of SW corner of tank pit	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	28
2 @ 14-16’	SE corner of former tank pit	2,500	ND<0.5	11	11	210	ND<0.5	8.2
3 @ 14-16’	SW corner of former tank pit	11,000	ND<0.5	100	94	620	ND<0.5	45
4 @ 14-16’	NW corner of former tank pit	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	4.2
5 @ 14-16’	NE corner of former tank pit	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	5.0
6 @ 14-16’	Center of former tank pit	4,800	0.7	130	70	420	ND<0.5	59
EXCAVATION SOIL SAMPLES (7/18/00)								
GR-UST #1 31’ WB	Bottom – west side	510	0.5	8.3	6.1	34	ND<0.1	5.9
GR-UST #2 28’ ES	Sidewall – east side	ND<0.5	0.006	0.014	ND<0.005	0.010	ND<0.005	3.7
GR-UST #3 19’ NS	Sidewall – north side	ND<0.5	ND<0.005	0.011	ND<0.005	0.009	ND<0.005	4.6
GR-UST #4 19’ WS	Sidewall – west side	110	ND<0.1	0.1	0.3	4.1	ND<0.1	27
GR-UST #5 30’ EB	Bottom – east side	3,000	0.8	53	19	200	ND<0.5	4.6
GR-UST #6 19’ SS	Sidewall – south side	330	ND<0.1	0.2	0.4	4.6	ND<0.1	4.5
GEOPROBE SOIL SAMPLES (8/3/00)								
CS-1S @ 36’	Stepout – southeast of tank	160	ND<0.1	ND<0.1	0.6	5.3	ND<0.1	5.4
CS-2S @ 36’	Stepout – northeast of tank	0.8	ND<0.005	ND<0.005	ND<0.005	0.010	ND<0.005	3.3
CS-3S @ 36’	Stepout – northwest of tank	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	4.2
CS-4S @ 36’	Stepout – southest of tank	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	3.4
GR-UST#5S EB 36’	Below tank	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	4.5

ND = Not detected above the test reporting limit.
NA = Not Analyzed.

TABLE 2 continued – SUMMARY OF SAMPLING (SOIL)

Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample Location	Description	Date Sampled	TPH as Gasoline mg/kg	Benzene mg/kg	Toluene mg/kg	Ethyl-benzene mg/kg	Total Xylenes mg/kg	Organic/ Total Lead mg/kg
GEOPROBE SOIL SAMPLES (5/8/01-5/9/01)								
GP-4@27.5’	Location GP-4 at 27’-27.5’ interval	5/9/01	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA
GP-5@27.5’	Location GP-6 at 27-27.5’ interval	5/9/01	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA
GP-6@28’	Location GP-6 at 27.5’-28’ interval	5/8/01	160	0.46	3.4	3.4	24	1.7/6.7
GP-7@29.5’	Location GP-7 at 29’-29.5’ interval	5/8/01	25	0.11	0.94	0.45	3.0	ND<0.5/7.3
GP-8@32’	Location GP-8 at 31.5’-32’ interval	5/8/01	ND	0.028	0.011	ND<0.005	0.028	ND
MONITORING WELL SOIL SAMPLES (5/22/01)								
MW-1@28’	Location MW-1 at 27.5-28.0’ interval	5/22/01	16	ND<0.005	ND<0.005	0.040	0.026	NA

ND = Not detected above the test reporting limit.
NA = Not Analyzed.
Total lead is TTLC.

TABLE 2 continued – SUMMARY OF SAMPLING (SOIL)

Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample Location	Description	Date Sampled	MtBE
GP-4@27.5’	Location GP-4 at 27’-27.5’ interval	5/9/01	ND<0.05
GP-5@27.5’	Location GP-6 at 27-27.5’ interval	5/9/01	ND<0.05
GP-6@28’	Location GP-6 at 27.5’-28’ interval	5/8/01	ND<0.05
GP-7@29.5’	Location GP-7 at 29’-29.5’ interval	5/8/01	ND<0.05
GP-8@32’	Location GP-8 at 31.5’-32’ interval	5/8/01	ND<0.2

TABLE 1 continued – SOIL SAMPLING – PREVIOUS AND 8/2/02
Goodwin Ranch, California Valley, California

Sample I.D. & Depth (ft)	Sample Location	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	Total Lead (mg/L)
GEOPROBE SOIL SAMPLES (5/8/01-5/9/01)								
GP-4@27.5'	Location GP-4 at 27'-27.5' interval	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	NA
GP-5@27.5'	Location GP-6 at 27-27.5' interval	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	NA
GP-6@28'	Location GP-6 at 27.5'-28' interval	160	0.46	3.4	3.4	24	ND<0.05	1.7/6.7
GP-7@29.5'	Location GP-7 at 29'-29.5' interval	25	0.11	0.94	0.45	3.0	ND<0.05	ND<0.5/7.3
GP-8@32'	Location GP-8 at 31.5'-32' interval	ND	0.028	0.011	ND<0.005	0.028	ND<0.2	ND
MONITORING WELL SOIL SAMPLES (5/22/01)								
MW-1@28'	Location MW-1 at 27.5-28.0' interval	16	ND<0.005	ND<0.005	0.040	0.026		NA
MONITORING WELL SOIL SAMPLES (8/2/02)								
MW5@21'	Location MW-5 at 19.5'-21.0' interval	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	
MW5@26'	Location MW-5 at 24.5-26' interval	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	
MW5@31'	Location MW-5 at 29.5'-31' interval	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	
MW5@36'	Location MW-5 at 34.5'-36' interval	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	

ND = Not detected above the test reporting limit.
NA = Not Analyzed.

TABLE 2 – SOIL ANALYTICAL RESULTS
Goodwin Ranch – 15505 Soda Lake Road, California Valley, California

Sample ID	MW-6d15'	MW-6d20'	MW-6d25'	MW-6d30'	MW-7d16'	MW-7d21'	MW-7d26'	MW-7d31'	MW-7d36'
Sample Date	4/18/11	4/18/11	4/18/11	4/18/11	4/19/11	4/19/11	4/19/11	4/19/11	4/19/11
Sample Depth	15'	20'	25'	30'	16'	21'	26'	31'	36'
Compound\Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPHg	ND<1.0	ND<1.0	**15a**	**1.6a**	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Benzene	ND<0.005	ND<0.005	**0.055**	**0.074**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Toluene	ND<0.005	ND<0.005	**0.44**	**0.014**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Ethylbenzene	ND<0.005	ND<0.005	**0.11**	**0.058**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Xylenes	ND<0.005	ND<0.005	**0.70**	**0.030**	ND<0.005	ND<0.005	ND<0.005	**0.015**	**0.021**
TAME	ND<0.005	ND<0.005	ND<0.020	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
TBA	ND<0.05	ND<0.05	ND<0.20	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
EDB	ND<0.004	ND<0.004	ND<0.016	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004
1,2-DCA	ND<0.004	ND<0.004	ND<0.016	**0.016**	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004
DIPE	ND<0.005	ND<0.005	ND<0.020	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
ETBE	ND<0.005	ND<0.005	ND<0.020	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MTBE	ND<0.005	ND<0.005	ND<0.020	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Sample ID	MW-8d16'	MW-8d21'	MW-8d26'	MW-8d31'	MW-8d36'	MW-9d16'	MW-9d21'	MW-9d26'	MW-9d31'
Sample Date	4/18/11	4/18/11	4/18/11	4/18/11	4/18/11	4/18/11	4/18/11	4/18/11	4/18/11
Sample Depth	16'	21'	26'	31'	36'	16'	21'	26'	31'
Compound\Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPHg	ND<1.0	ND<1.0	ND<1.0	**1,000b,c**	ND<1.0	ND<1.0	ND<1.0	ND<1.0	**42b,c**
Benzene	ND<0.005	ND<0.005	ND<0.005	**1.4**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10
Toluene	ND<0.005	ND<0.005	ND<0.005	**25**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	**0.24**
Ethylbenzene	ND<0.005	ND<0.005	ND<0.005	**14**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	**0.28**
Xylenes	ND<0.005	ND<0.005	ND<0.005	**79**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	**2.2**
TAME	ND<0.005	ND<0.005	ND<0.005	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10
TBA	ND<0.05	ND<0.05	ND<0.05	ND<10	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<1.0
EDB	ND<0.004	ND<0.004	ND<0.004	ND<0.80	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.080
1,2-DCA	ND<0.004	ND<0.004	ND<0.004	ND<0.80	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.080
DIPE	ND<0.005	ND<0.005	ND<0.005	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10
ETBE	ND<0.005	ND<0.005	ND<0.005	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10
MTBE	ND<0.005	ND<0.005	ND<0.005	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.10

TABLE 2 – SOIL ANALYTICAL RESULTS
Goodwin Ranch – 15505 Soda Lake Road, California Valley, California

Sample ID	MW-9d36'	MW-10d16'	MW-10d21'	MW-10d26'	MW-10d31'	MW-10d36'	MW-11d16'	MW-11d21'	MW-11d26'
Sample Date	4/18/11	4/19/11	4/19/11	4/19/11	4/19/11	4/19/11	4/19/11	4/19/11	4/19/11
Sample Depth	36'	16'	21'	26'	31'	36'	16'	21'	26'
Compound\Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPHg	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Benzene	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Toluene	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Ethylbenzene	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Xylenes	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
TAME	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
TBA	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
EDB	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004
1,2-DCA	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004	ND<0.004
DIPE	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
ETBE	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MTBE	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Sample ID	MW-11d31'	MW-11d36'							
Sample Date	4/19/11	4/19/11							
Sample Depth	31'	36'							
Compound\Units	mg/kg	mg/kg							
TPHg	ND<1.0	ND<1.0							
Benzene	ND<0.005	ND<0.005							
Toluene	ND<0.005	ND<0.005							
Ethylbenzene	ND<0.005	ND<0.005							
Xylenes	ND<0.005	ND<0.005							
TAME	ND<0.005	ND<0.005							
TBA	ND<0.05	ND<0.05							
EDB	ND<0.004	ND<0.004							
1,2-DCA	ND<0.004	ND<0.004							
DIPE	ND<0.005	ND<0.005							
ETBE	ND<0.005	ND<0.005							
MTBE	ND<0.005	ND<0.005							

Notes:

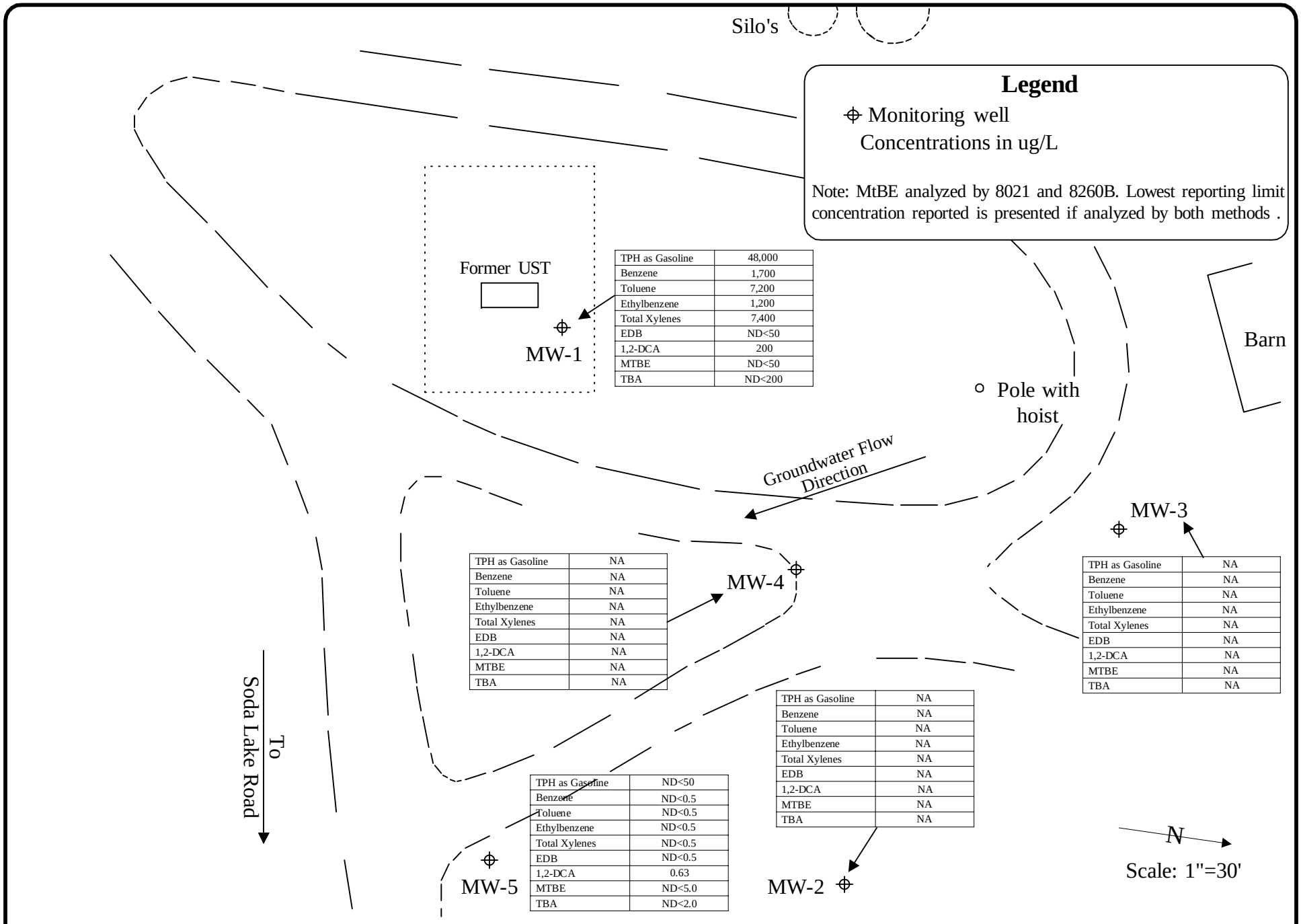
TPHg	total petroleum hydrocarbons as gasoline
TAME	tert-amyl methyl ether
TBA	tert-butyl alcohol
EDB	1,2-dibromoethane
1,2-DCA	1,2-dichloroethane
DIPE	di-isopropyl ether
ETBE	ethyl tert-butyl ether
MTBE	methyl tert-butyl alcohol
mg/kg	milligrams per kilogram
ND	not detected above laboratory reporting limit
a	weakly modified or unmodified gasoline is significant
b	heavier gasoline range compounds are significant (aged gasoline?)
c	no recognizable pattern

Goodwin Ranch
Case Closure Summary

XI. Additional Information

3. Extent of Groundwater Contamination

a) Maps showing the extent of groundwater degradation in excess of detection limits by chemicals of concern, before and after remediation.



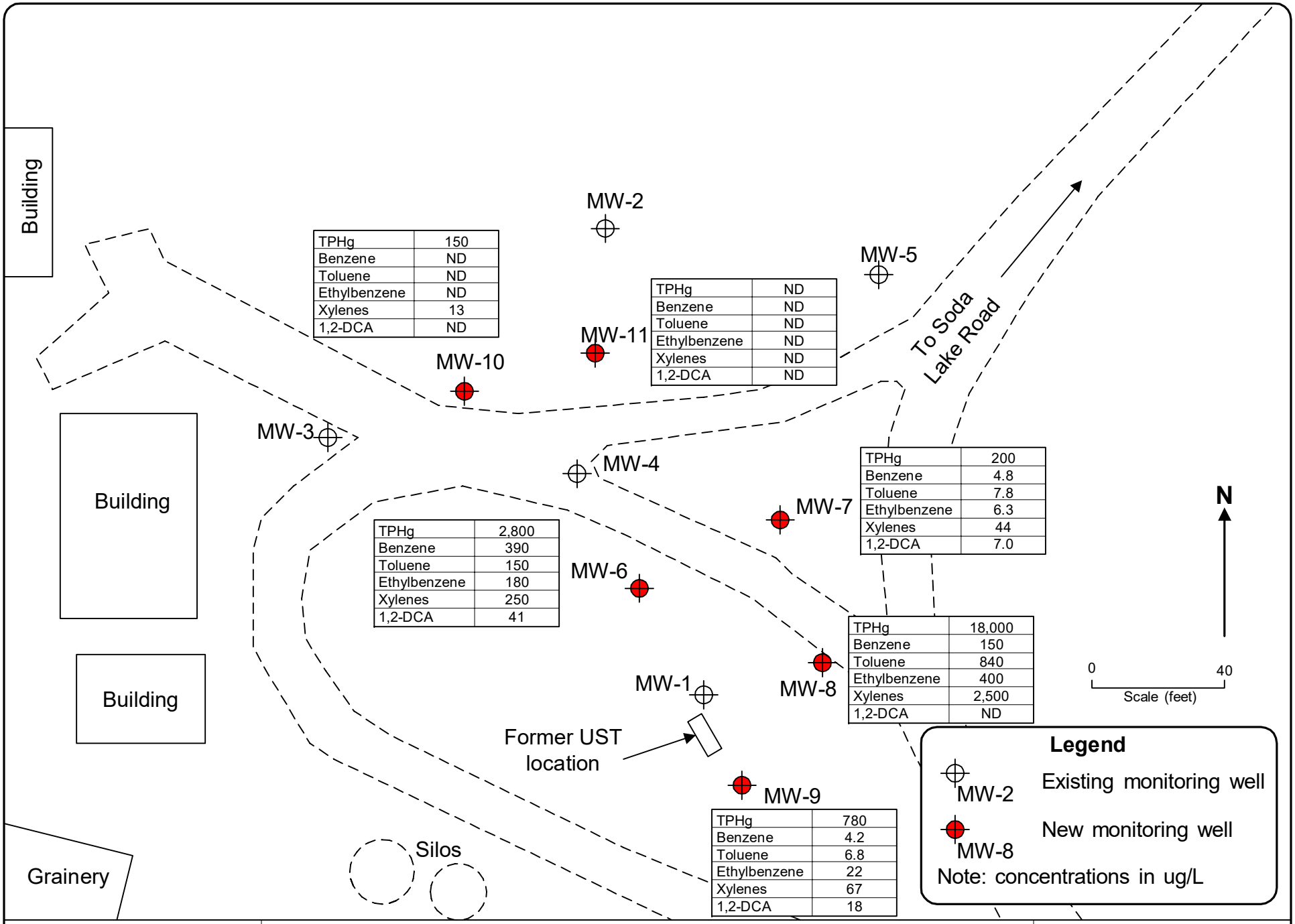
GeoRestoration, Inc
15940 Concord Circle
Morgan Hill, Ca 95037

Chemical Concentrations in Groundwater (3/25/11)

Goodwin Ranch, San Luis Obispo County, California

Figure 3

Project: 0544

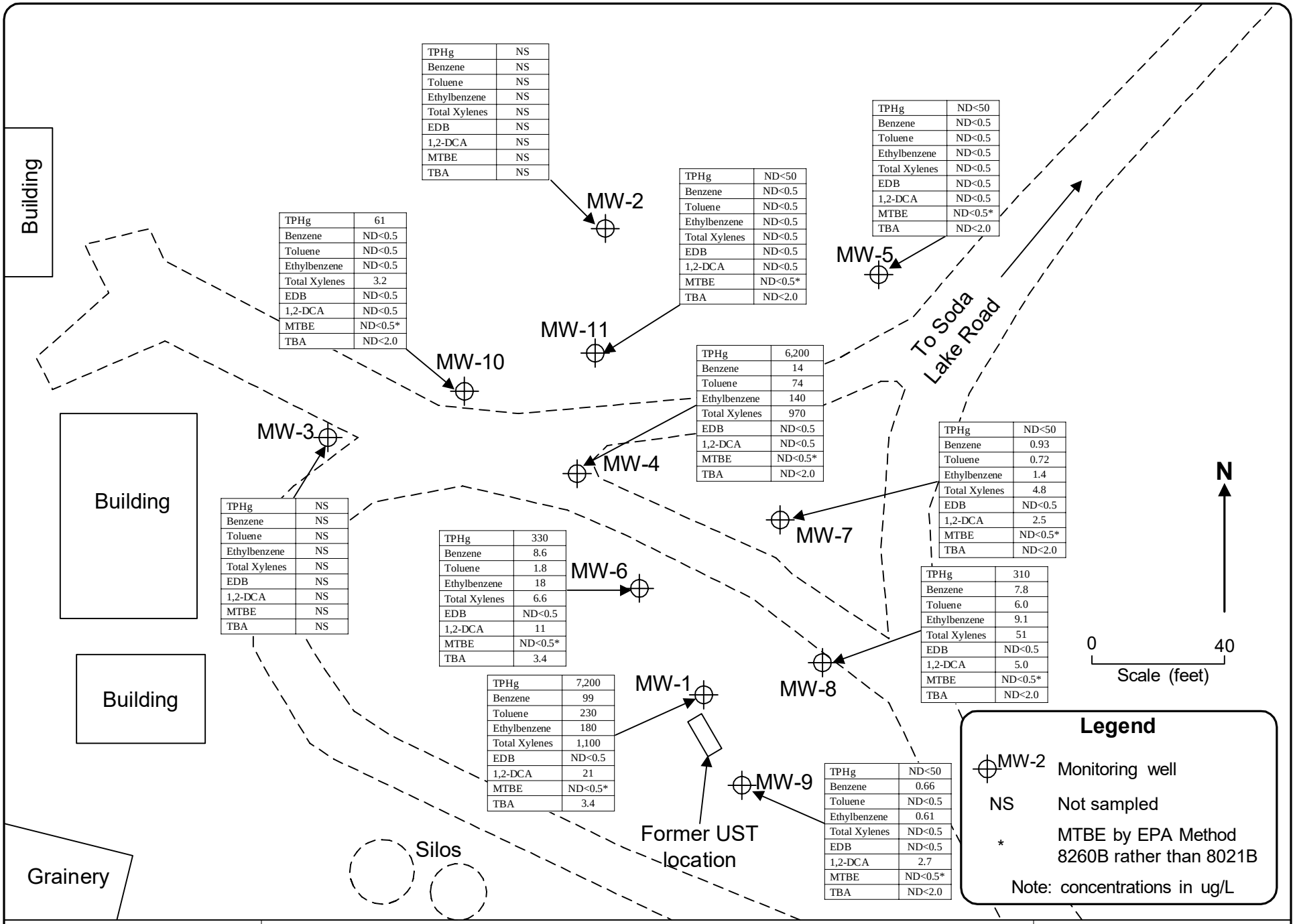


GRI
15940 Concord Circle
Morgan Hill, California 95037

Chemical Concentrations in Groundwater (5/01/11)
Goodwin Ranch
15505 Soda Lake Road, California Valley, California

Figure 6

Project: 0544



GRI
15940 Concord Circle
Morgan Hill, California 95037

Chemical Concentrations in Groundwater (3/22/12)
Goodwin Ranch
15505 Soda Lake Road, California Valley, California

Figure 3

Project: 0544

Goodwin Ranch
Case Closure Summary

XI. Additional Information

3. Extent of Groundwater Contamination

b) Geologic logs, including construction, for all wells.

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-1
Project Number: 102SA-2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 5-22-01/5-22-01	**Drilled By:** Twinning Labs

P.I.D. (PPM)	Sample Number	Depth (ft)	Lithologic Column	Description
0.3		1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9 _ 10 _ 11 _ 12 _ 13 _ 14 _ 15 _ 16 _ 17 _ 18 _ 19 _ 20 _ 21 _ 22 _ 23 _ 24_ 25 _	ML	Silt, clayey with fine to medium sand. Occassional pebbles to 1/4". Color is Yellow brown (10YR 5/4).
32				
102				
225				
500				

PTR

Philip Transportation and Remediation
P.O. Box 431, San Ardo, CA 93450
(831) 627-2595

Legend: NR **No Recovery**
CL **Clay**
ML **Silt**
SC, SM, SP, SW **Sand**
GC, GM, GP, GW **Gravel**
Sand or Gravel : C = clayey, M = silty, P=pooly-graded, W= Well-graded

Log MW-1

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-1
Project Number: 102SA-2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 5-22-01/5-22-01	**Drilled By:** Twinning Lab

PID (PPM)	Sample Number	Depth (ft)	Lithologic Column	Description
		26	SC/ SM	Silt, clayey with medium sand. Color is yellowish brown (10YR 5/4)
		27		
		28		Sample MW-1 at 28' from cuttings
		29		
34		30		
		31		
		32		
		33		
		34		
		35		
		36		
50		37		Refusal at 37' (Appears to be bedrock)
		38		Total Depth 37'
		39		
		40		
		41		
		42		
		43		
		44		
		45		
		46		
		47		
		48		
		49		
		50		

REGISTERED GEOLOGIST
Roger D. Dockter
Exp 4/30/03
No. 6152
STATE OF CALIFORNIA

PTR
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(831) 627-2595

Notes: Logged from drill cuttings.

Log MW-1

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-2
Project Number: 102SA-2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 5-22-01/5-22-01	**Drilled By:** Twinning Labs

P.I.D. (PPM)	Sample Number	Depth (ft)	Lithologic Column	Description
		1–25	ML	Silt, clayey with fine to medium sand. Occassional pebbles to 1/4". Color is Yellow brown (10YR 5/4).
0.5		13		15% medium to coarse sand at 13'
		18–19	SM	Sand, silty. Medium to coarse sand.
0.3		23–24	SM/ SC	Sand, silty and clayey at 23 feet

◆ PTR

Philip Transportation and Remediation
P.O. Box 431, San Ardo, CA 93450
(831) 627-2595

Legend: NR **No Recovery**
- CL **Clay**
- ML **Silt**
- SC, SM, SP, SW **Sand**
- GC, GM, GP, GW **Gravel**

Sand or Gravel : C = clayey, M = silty, P=pooly-graded, W= Well-graded

Log MW-2

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-2
Project Number: 102SA-2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 5-22-01/5-22-01	**Drilled By:** Twinning Lab

PID (PPM)	Sample Number	Depth (ft)	Lithologic Column		Description
		26		SC/ SM	Sand, silty to clayey. Sand is medium to coarse.
		27			
		28			Unit is wet at approximately 27'-28'.
		29			
2.4		30			
		31			
		32			
		33		ML	Silt, clayey with 10 to 15% fine to medium sand. Color is yellowish brown (10YR 5/6).
		34			
		35			
		36			
50		37			
		38			
		39			
		40			Total Depth 40'
		41			
		42			
		43			
		44			
		45			
		46			
		47			
		48			
		49			
		50			

REGISTERED GEOLOGIST
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Exp 4/30/03
No. 6152
STATE OF CALIFORNIA

◆ PTR
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Notes: Logged from drill cuttings.

Log MW-2

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-3
Project Number: 102SA-2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 5-21-01/5-21-01	**Drilled By:** Twinning Labs

P.I.D. (PPM)	Sample Number	Depth (ft)	Lithologic Column	Description
		1 – 25	ML	Silt, clayey with fine sand. Color is brown (10YR 4/3) at 4' and yellow brown (10YR 5/4) at 6'.
0.5				Decrease in clay at 6'
				Increase in clay at 9'
0.2				
0.3				

PTR

Philip Transportation and Remediation
P.O. Box 431, San Ardo, CA 93450
(831) 627-2595

Legend: NR **No Recovery**
- CL **Clay**
- ML **Silt**
- SC, SM, SP, SW **Sand**
- GC, GM, GP, GW **Gravel**

Sand or Gravel : C = clayey, M = silty, P=pooly-graded, W= Well-graded

Log MW-3

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-3
Project Number: 102SA-2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 5-21-01/5-21-01	**Drilled By:** Twinning Lab

PID (PPM)	Sample Number	Depth (ft)	Lithologic Column		Description
		26		ML	Silt, clayey with 10% fine sand.
1.5		27			
		28			
		29		CL	Clay, silty with fine sand.
		30			
		31			Drill cuttings are wet at 31'
		32			
		33			
		34			
		35			
		36			
		37			
		38			
		39			
240		40			Total Depth 40'
		41			
		42			
		43			
		44			
		45			
		46			
		47			
		48			
		49			
		50			

REGISTERED GEOLOGIST
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No. 6152
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(831) 627-2595

Notes: Logged from drill cuttings.

Log MW-3

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-4
Project Number: 102SA-2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 5-22-01/5-22-01	**Drilled By:** Twinning Labs

P.I.D. (PPM)	Sample Number	Depth (ft)	Lithologic Column	Description
		1	ML	Silt, clayey with medium to coarse sand (<10%). Color is yellowish brown (10YR 5/6) at 4' and light yellowish brown (10YR 6/4) at 12'.
		2		
		3		
		4		
		5		
		6		
		7		
		8		
2.0		9		
		10		
		11		
		12		Decrease in clay at 12'
		13		
		14		
0.4		15		
		16		
		17		
		18		
		19		
1.1		20		
		21		
		22		
		23		
		24		
		25		

PTR
Philip Transportation and Remediation
P.O. Box 431, San Ardo, CA 93450
(831) 627-2595

Legend: NR **No Recovery**
CL **Clay**
ML **Silt**
SC, SM, SP, SW **Sand**
GC, GM, GP, GW **Gravel**
Sand or Gravel : C = clayey, M = silty, P=pooly-graded, W= Well-graded

Log MW-4

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-4
Project Number: 102SA-2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 5-22-01/5-22-01	**Drilled By:** Twinning Lab

PID (PPM)	Sample Number	Depth (ft)	Lithologic Column		Description
2.0		26 _		ML	Silt, clayey with 10% medium to coarse sand.
		27 _			
		28 _			
		29 _			
		30 _			
		31 _			
		32 _			
40		33 _			
		34 _			
		35 _			
		36 _			
		37 _			
		38 _			
		39 _		SS	Bedrock (weathered sandstone)
240		40 _			Total Depth 40'
		41 _			
		42 _			
		43 _			
		44 _			
		45 _			
		46 _			
		47 _			
		48 _			
		49 _			
		50 _			

REGISTERED GEOLOGIST
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Exp 4/30/03
No. 6152
STATE OF CALIFORNIA

◆ PTR
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(831) 627-2595

Notes: Logged from drill cuttings.

Log MW-4

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-5
Project Number: 102SA-2.2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 8-2-02/8-2-02	**Drilled By:** S&G Drilling Company

P.I.D. (PPM)	Sample Number/ blow count	Depth (ft)	Lithologic Column	Description
		1	ML	Silt, clayey with fine to medium sand (<10%). Color is dark yellowish brown (10YR 4/6).
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		10		
		11		
		12		
		13		
		14		
		15		
		16		
		17		Occasional granules (<5%)
		18		
		19		
		20		
1.0	MW5@21' 7/6/10	21	SP	Sand with scattered pebbles. Medium sand.
		22		
		23		
		24		
		25		

◆ DEC

Dockter Environmental Consulting
P.O. Box 1532, Soquel, CA 95073
(831) 476-7352

Legend: NR **No Recovery**
CL **Clay**
ML **Silt**
SC, SM, SP, SW **Sand**
GC, GM, GP, GW **Gravel**
Sand or Gravel : C = clayey, M = silty, P=pooly-graded, W= Well-graded

Log MW-5

BORING LOG

Site: Goodwin Ranch	**Boring Number:** MW-5
Project Number: 102SA-2.2.2	**Logged By:** Roger Dockter, R.G. #6152
Date Started/Completed: 8-2-02/8-2-02	**Drilled By:** S&G Drilling Company

PID (PPM)	Sample Number/ blow count	Depth (ft)	Lithologic Column		Description
0.7	MW5@26' 4/6/10	26		SP/ SM	Sand , fine to medium with minor silt, moist. Unit contains scattered granules.
		27			
		28			
		29			
		30			
0.5	MW5@31' 9/14/9	31		GP	Sand and gravel, coarse to very coarse sand with pebbles up to 1/4 inch, wet. Unit contains scattered granules. Wet at 30'.
		32		ML	Silt, Clayey.
		33			
		34			
		35			
0.7	MW5@36' 5/7/6	36			
		37			
		38			
		39			
		40			Total Depth 40'
		41			
		42			
		43			
		44			
		45			
		46			
		47			
		48			
		49			
		50			

PROFESSIONAL GEOLOGIST
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Exp 9/30/03
No. 6152
STATE OF CALIFORNIA

◆ DEC
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(831) 476-7352

Notes:

Well construction:
Screen - 39.5' to 19.5',
Blank casing -19.5' to 0.5'
Sand #3 - 39.5 to 17.5'
Seal - 17.5' - 1.0'

Log MW-5

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-6
Well Address: 15505 Soda Lake Road, San Luis Obispo Co, CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No PID (PPM) Blows / 6"	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
	Cement Seal (0 - 22')	1	SC	**Clayey SILT**; yellowish brown (10YR, 5/4); 90% medium plasticity fines; 10% fine to medium sand; damp; no odors.
		2		
		3		
		4		
Grab 0.0		5		Soil is dry; no odors. Color is yellowish brown (10YR, 5/6).
		6		
		7		
		8		
		9		
Grab 0.0		10		Soil contains scattered pebbles 1/16-1/8 inch, damp.
		11		
		12		
		13		
		14		
MW6d15' 0.0 8/9		15		Mottled - colors are yellowish brown (10YR, 5/4)and very dark pale brown (10YR, 7/4); damp; no odors.Sand content 15-20%.
		16		
		17		
		18		
		19		
MW6d20' 0.0 8/11	Bentonite (22 - 23')	20		
		21		
		22		
		23		
		24		
MW6d25' 303 4/7	Sand Pack (23 - 40')	25		Hydrocarbon odor.
	2" diameter Schedule 40 PVC	26		
		27		
		28		
		29		
MW6d30' 120 6/8	Screen-0.020" (25-40')	30		Slight hydrocarbon odor.

GeoRestoration, Inc.
15940 Concord Circle
Morgan Hill, CA 95037

Notes: San Luis Obispo County Permit No. 2011-MW-071-071

▽ Initial depth to groundwater

▼ Stabilized depth to groundwater

SS = cal modified soil sampler

MW-6

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-6
Well Address: 15505 Soda Lake Road, San Luis Obispo, Co., CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No/ PID (PPM)	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column		Description
MW6d35' 50 50/6"	Sand Pack (23 - 40') Screen-0.020" (25-40')	31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60		SP	▼ 30.52' No sample recovery ▽ 35.50' **SAND**; coarse, cemented; no fines; wet; no hydrocarbon odors. **Total Depth = 40 feet**

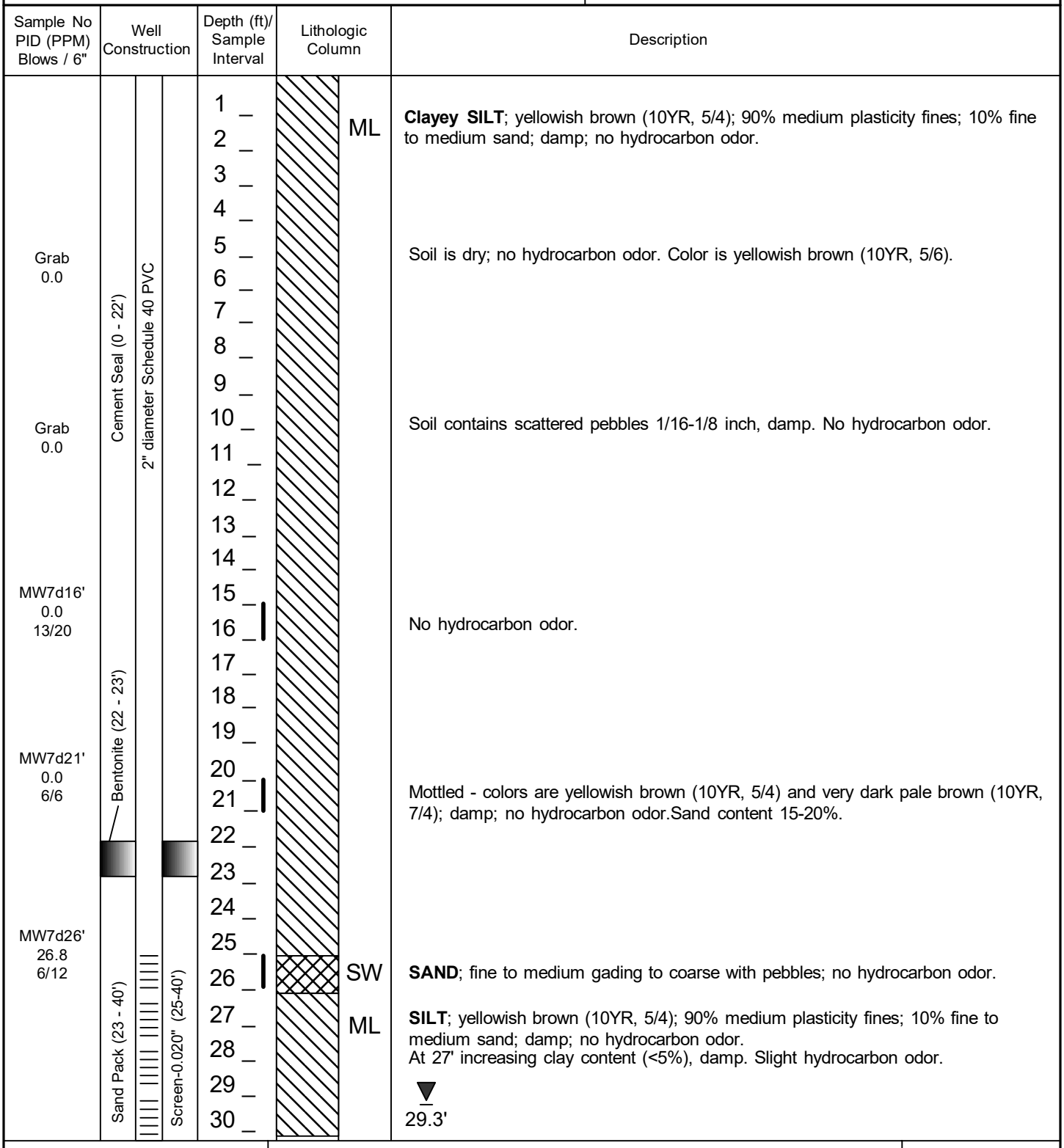
PROFESSIONAL GEOLOGIST
Roger D. Dockter
Exp. 4/30/13
No. 6152
STATE OF CALIFORNIA

GeoRestoration, Inc.
15940 Concord Circle
Morgan Hill, CA 95037

Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
Grab = grab sample from cuttings

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-7
Well Address: 15505 Soda Lake Road, San Luis Obispo Co, CA	**Logged By:** R. Dockter
Date Started/Completed: 04/19/11	**Drilled By:** Exploration Geoservices, Inc.



GeoRestoration, Inc.
15940 Concord Circle
Morgan Hill, CA 95037

Notes: San Luis Obispo County Permit No. 2011-MW-071-071

▽ Initial depth to groundwater

▼ Stabilized depth to groundwater

SS = cal modified soil sampler

MW-7

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-7
Well Address: 15505 Soda Lake Road, San Luis Obispo, Co., CA	**Logged By:** R. Dockter
Date Started/Completed: 04/19/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No/ PID (PPM)	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
MW7d31' 0.0 4/6	Sand Pack (23 - 40') Screen-0.020" (25-40')	31 32 33 34 35 36 37 38 39 40	ML	Increasing sand content to 20%.
MW7d36' 0.0 3/5				▽ 35.5' wet; no hydrocarbon odors.
		41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60		**Total Depth = 40 feet**

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Exp. 4/30/13
No. 6152
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Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
Grab = grab sample from cuttings

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-8
Well Address: 15505 Soda Lake Road, San Luis Obispo Co, CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No PID (PPM) Blows / 6"	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
	Cement Seal (0 - 22')	1	ML	**Clayey SILT**; yellowish brown (10YR, 5/4); 90% medium plasticity fines; 10% fine to medium sand; damp; no odors.
		2		
		3		
		4		
Grab 0.0		5		Soil is dry; no odors. Color is yellowish brown (10YR, 5/6).
		6		No hydrocarbon odor, unit containsscattered pebbles (<1%).
		7		
		8		
		9		
Grab 0.0		10		No hydrocarbon odor, damp.
		11		
		12		
		13		
		14		
MW8d16' 0.0 9/16		15		
		16		No hydrocarbon odor
		17		
		18		
		19		Unit contains medium to coarse sand (<5%)
MW8d21' 0.0 9/17		20		
		21		No hydrocarbon odor
		22		
		23		
		24		
MW8d26' 0.0 18/18		25		
		26		No hydrocarbon odor
		27		
		28		
		29		Hydrocarbon odor in cuttings.
		30		▼ 29.8'

Bentonite (22 - 23')

2" diameter Schedule 40 PVC

Sand Pack (23 - 40')

Screen-0.020" (25-40')

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Notes: San Luis Obispo County Permit No. 2011-MW-071-071

▽ Initial depth to groundwater

▼ Stabilized depth to groundwater

SS = cal modified soil sampler

MW-8

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-8
Well Address: 15505 Soda Lake Road, San Luis Obispo, Co., CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No/ PID (PPM)	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
MW8d31' 20.0 8/11	Sand Pack (23 - 40') Screen-0.020" (25-40')	31	ML	▽ 30.5' Increasing sand content to 20%; wet; hydrocarbon odors.
MW8d36' 0.0 7/10		36		No hydrocarbon odors
		40		**Total Depth = 40 feet**

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Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
Grab = grab sample from cuttings

MW-8

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-9
Well Address: 15505 Soda Lake Road, San Luis Obispo Co, CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No PID (PPM) Blows / 6"	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
	Cement Seal (0 - 22')	1	ML	**Clayey SILT**; yellowish brown (10YR, 5/4); 90% medium plasticity fines; 10% fine to medium sand; damp; no odors.
Grab 0.0	2" diameter Schedule 40 PVC	6		Soil is dry; no odors. Color is brown (10YR, 5/3). No hydrocarbon odor, unit contains scattered pebbles (<1%).
Grab 0.0		10		No hydrocarbon odor, damp.
MW9d16' 0.0 16/20	Bentonite (22 - 23')	16		No hydrocarbon odor
MW9d21' 0.0 7/10		21		No hydrocarbon odor
MW9d26' 0.0 8/10	Sand Pack (23 - 40') Screen-0.020" (25-40')	26		No hydrocarbon odor

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Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
SS = cal modified soil sampler

MW-9

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-9
Well Address: 15505 Soda Lake Road, San Luis Obispo, Co., CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No/ PID (PPM)	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
MW9d31' 10.0 7/6	Sand Pack (23 - 40') Screen-0.020" (25-40')	31	ML	▽ 31.5' ▼ 31.2' Increasing sand content to 20%; wet; slight hydrocarbon odor.
MW9d36' 0.0 6/9		36		No hydrocarbon odors
		40		**Total Depth = 40 feet**

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Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
Grab = grab sample from cuttings

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-10
Well Address: 15505 Soda Lake Road, San Luis Obispo Co, CA	**Logged By:** R. Dockter
Date Started/Completed: 04/19/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No PID (PPM) Blows / 6"	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
	Cement Seal (0 - 22')	1	ML	**Clayey SILT**; yellowish brown (10YR, 5/4); 90% medium plasticity fines; 10% fine to medium sand; damp; no odors.
		2		
		3		
		4		
		5		
Grab 0.0		6		Soil is dry. Color is brown (10YR, 5/3).
		7		No hydrocarbon odor, unit contains scattered pebbles (<1%).
		8		
		9		
Grab 0.0		10		No hydrocarbon odor
		11		
		12		
		13		
		14		
MW10d16' 0.0 5/9		15		No hydrocarbon odor
		16		
		17		
		18		
		19		
MW10d21' 0.0 9/13	Bentonite (22 - 23')	20		No hydrocarbon odor
		21		
		22		
		23		
		24		
MW10d26' 0.0 5/6	Sand Pack (23 - 40')	25		No hydrocarbon odor
	2" diameter Schedule 40 PVC	26		
		27		▼ 27.8'
		28		
	Screen-0.020" (25-40')	29		▽ 30.0'
		30		

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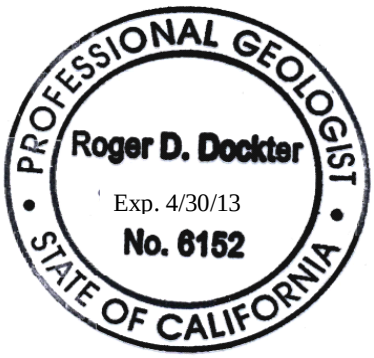
Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
SS = cal modified soil sampler

MW-10

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-10
Well Address: 15505 Soda Lake Road, San Luis Obispo, Co., CA	**Logged By:** R. Dockter
Date Started/Completed: 04/19/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No/ PID (PPM)	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
MW10d31' 0.0 10/11	Sand Pack (23 - 40') Screen-0.020" (25-40')	31	ML	Increasing sand content to 20%; wet.
MW10d36' 0.0 9/11		36		No hydrocarbon odors
		40		**Total Depth = 40 feet**



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Notes: San Luis Obispo County Permit No. 2011-MW-071-071

▽ Initial depth to groundwater

▼ Stabilized depth to groundwater

Grab = grab sample from cuttings

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-11
Well Address: 15505 Soda Lake Road, San Luis Obispo Co, CA	**Logged By:** R. Dockter
Date Started/Completed: 04/19/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No PID (PPM) Blows / 6"	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
	Cement Seal (0 - 22')	1	ML	**Clayey SILT**; yellowish brown (10YR, 5/4); 90% medium plasticity fines; 10% fine to medium sand; damp; no odors.
		2		
		3		
		4		
		5		
Grab 0.0		6		Soil is dry; no odors. Color is brown (10YR, 5/3).
		7		No hydrocarbon odor, unit contains scattered pebbles (<1%).
		8		
		9		
		10		
Grab 0.0		11		No hydrocarbon odor, damp.
		12		
		13		
		14		
		15		
MW11d16' 0.0 12/14		16		No hydrocarbon odor,minor clay and sand (<5%) with scattred pebbles.
		17		
		18		
		19		
		20		
MW11d21' 0.0 8/15		21		No hydrocarbon odor, unit contains medium sand (<5%) with scattered clasts up to 1.5".
	Bentonite (22 - 23')	22		
		23		
		24		
		25		
MW11d26' 0.0 7/10		26		No hydrocarbon odor
		27		
		28		▼ 28.0'
		29		
	Sand Pack (23 - 40')	30		▽ 30.0'
	2" diameter Schedule 40 PVC			
	Screen-0.020" (25-40')			

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Notes: San Luis Obispo County Permit No. 2011-MW-071-071

▽ Initial depth to groundwater

▼ Stabilized depth to groundwater

SS = cal modified soil sampler

MW-11

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-11
Well Address: 15505 Soda Lake Road, San Luis Obispo, Co., CA	**Logged By:** R. Dockter
Date Started/Completed: 04/19/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No/ PID (PPM)	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
MW11d31' 0.0 8/10	Sand Pack (23 - 40') Screen-0.020" (25-40')	31	ML	
		32		Increasing sand content to 15-20%; wet.
		33		
		34		
MW11d36' 0.0 6/7		35		
		36		No hydrocarbon odors
		37		
		38		
		39		
		40		
		41		**Total Depth = 40 feet**
		42		
		43		
		44		
		45		
		46		
		47		
		48		
		49		
		50		
		51		
		52		
		53		
		54		
		55		
		56		
		57		
		58		
		59		
		60		

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Notes: San Luis Obispo County Permit No. 2011-MW-071-071

▽ Initial depth to groundwater

▼ Stabilized depth to groundwater

Grab = grab sample from cuttings

MW-11

Goodwin Ranch
Case Closure Summary

XI. Additional Information

3. Extent of Groundwater Contamination

c) Representative geologic log identifying all aquifers.

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-9
Well Address: 15505 Soda Lake Road, San Luis Obispo Co, CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No PID (PPM) Blows / 6"	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
	Cement Seal (0 - 22')	1 2 3 4 5	ML	**Clayey SILT**; yellowish brown (10YR, 5/4); 90% medium plasticity fines; 10% fine to medium sand; damp; no odors.
Grab 0.0	2" diameter Schedule 40 PVC	6 7 8 9 10		Soil is dry; no odors. Color is brown (10YR, 5/3). No hydrocarbon odor, unit contains scattered pebbles (<1%).
Grab 0.0		11 12 13 14		No hydrocarbon odor, damp.
MW9d16' 0.0 16/20	Bentonite (22 - 23')	15 16 17 18 19		No hydrocarbon odor; analytical results: all ND
MW9d21' 0.0 7/10		20 21 22 23 24		No hydrocarbon odor; analytical results: all ND
MW9d26' 0.0 8/10	Sand Pack (23 - 40') Screen-0.020" (25-40')	25 26 27 28 29 30		No hydrocarbon odor; analytical results: all ND

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Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
SS = cal modified soil sampler

MW-9

BORING LOG

Project: Former Goodwin Ranch	**Boring/Well Number:** MW-9
Well Address: 15505 Soda Lake Road, San Luis Obispo, Co., CA	**Logged By:** R. Dockter
Date Started/Completed: 04/18/11	**Drilled By:** Exploration Geoservices, Inc.

Sample No/ PID (PPM)	Well Construction	Depth (ft)/ Sample Interval	Lithologic Column	Description
MW9d31' 10.0 7/6	Sand Pack (23 - 40'); Screen-0.020" (25-40')	31	ML	▽ 31.5' ▼ 31.2' Unconfined aquifer; analytical results: TPHg 42 mg/kg, Toluene 0.24 mg/kg, Ethylbenzene 0.28 mg/kg, Total Xylenes 2.2 mg/kg. Increasing sand content to 20%; wet; slight hydrocarbon odor.
		32		
		33		
		34		
MW9d36' 0.0 6/9		35		
		36		No hydrocarbon odors; analytical results: all ND
		37		
		38		
		39		
		40		
		41		**Total Depth = 40 feet**
		42		
		43		
		44		
		45		
		46		
		47		
		48		
		49		
		50		
		51		
		52		
		53		
		54		
		55		
		56		
		57		
		58		
		59		
		60		

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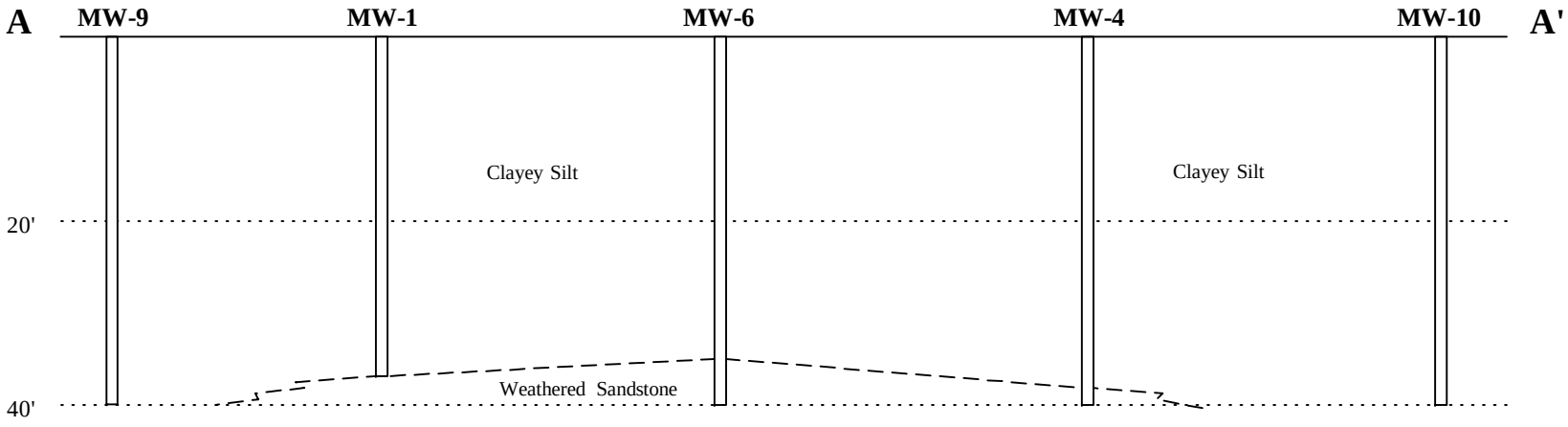
Notes: San Luis Obispo County Permit No. 2011-MW-071-071
▽ Initial depth to groundwater
▼ Stabilized depth to groundwater
Grab = grab sample from cuttings

Goodwin Ranch
Case Closure Summary

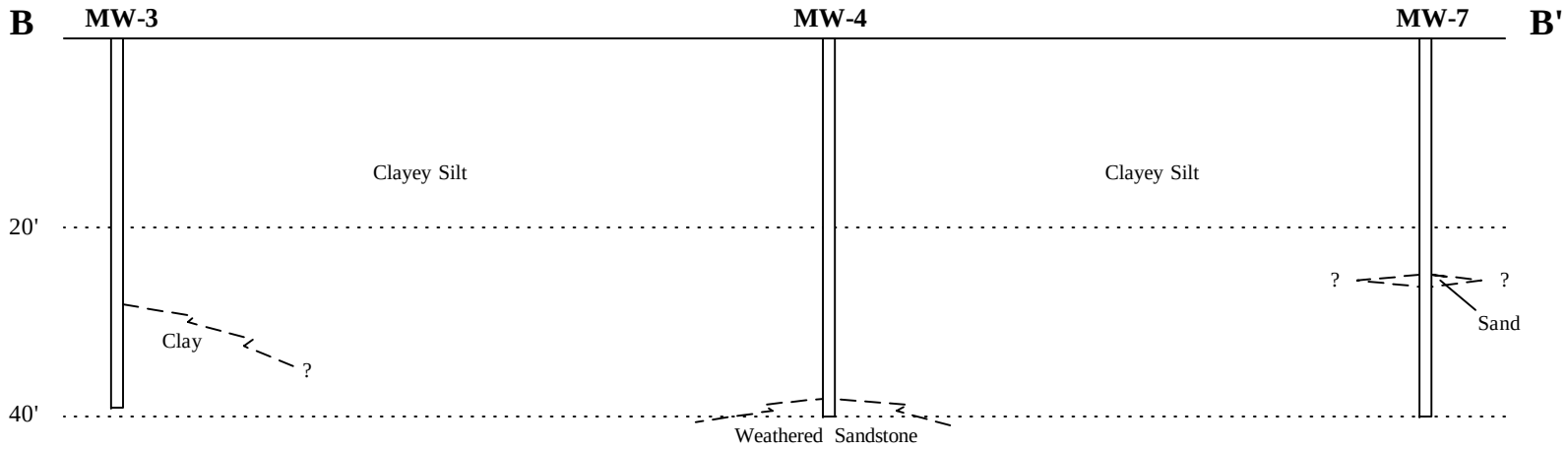
XI. Additional Information

3. Extent of Groundwater Contamination

d) Two intersecting cross-sections of the site.



Scale: Horizontal 1" = 20'
Vertical 1" = 20'



Scale: Horizontal 1" = 20'
Vertical 1" = 20'

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Lithologic Cross Sections

Goodwin Ranch
15505 Soda Lake Road, California Valley, California

Attachment 3d

Project 0544

Goodwin Ranch
Case Closure Summary

XI. Additional Information

3. Extent of Groundwater Contamination

e) Summary table of all historic groundwater analyses and water levels.

TABLE 2 - WATER LEVEL DEPTH AND ELEVATION
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Well Number		**5/23/01***	**12/18/01***	**12/30/01***	**4/3/02***	**7/14/02***	**9/21/02***	**12/24/02***	**3/30/03***	**6/23/03***	**1/4/04***	**4/25/04***
MW-1	DTW	27.71	27.85	27.86	27.95	28.05	28.13	28.27	28.38	28.49	28.76	28.92
	ELEV.	1916.82	1916.68	1916.67	1916.58	1916.48	1916.40	1916.26	1916.15	1916.04	1915.77	1915.61
MW-2	DTW	24.91	25.03	25.04	25.13	25.21	25.28	25.42	25.52	25.62	25.89	26.04
	ELEV.	1916.52	1916.40	1916.39	1916.30	1916.22	1916.15	1916.01	1915.91	1915.81	1915.54	1915.39
MW-3	DTW	25.55	25.69	25.69	25.77	25.86	25.96	26.08	26.20	26.29	26.57	26.73
	ELEV.	1916.72	1916.58	1916.58	1916.50	1916.41	1916.31	1916.19	1916.07	1915.98	1915.70	1915.54
MW-4	DTW	25.43	25.57	25.58	25.66	25.75	25.83	25.97	26.08	26.18	26.45	26.61
	ELEV.	1916.70	1916.56	1916.55	1916.47	1916.38	1916.30	1916.16	1916.05	1915.95	1915.68	1915.52
MW-5	DTW						26.15	26.28	26.38	26.47	26.73	26.89
	ELEV.						1916.11	1915.98	1915.88	1915.79	1915.53	1915.37
Well Number		**4/4/05***	**4/22/06**	**4/30/07**	**4/30/08**	**4/23/09**	**4/22/10**	**12/26/10**	**3/25/11**	**-**	**-**	**-**
MW-1	DTW	29.38	29.72	30.19	30.58	31.03	31.68	32.66	30.82			
	ELEV.	1915.15	1917.85	1917.38	1916.99	1916.54	1915.89[1]	1915.05[2]	1916.75			
MW-2	DTW	26.44	26.73	27.17	27.61	28.03	28.18	28.14	27.69			
	ELEV.	1914.99	1917.75	1917.31	1916.87	1916.45	1916.30	1916.34	1916.79			
MW-3	DTW	27.16	27.49	27.94	28.38	28.78	28.96	28.85	28.38			
	ELEV.	1915.11	1917.84	1917.39	1916.95	1916.55	1916.37	1916.48	1916.95			
MW-4	DTW	27.03	27.37	27.79	28.26	28.65	29.39	29.18	28.45			
	ELEV.	1915.10	1917.81	1917.39	1916.92	1916.53	1915.79	1916.21[2]	1916.73[2]			
MW-5	DTW	27.29	27.64	28.05	28.50	28.88	29.05	29.03	28.59			
	ELEV.	1914.97	1917.66	1917.25	1916.80	1916.42	1916.25	1916.27	1916.71			

TABLE 2 - WATER LEVEL DEPTH AND ELEVATION
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Well Number		6/12/11	9/23/11	12/28/11	3/22/12							
MW-1	DTW	30.52	30.46	30.58	30.77							
	ELEV.	1917.05	1917.11	1916.99	1916.80							
MW-2	DTW	27.40	27.35	27.48	27.68							
	ELEV.	1917.08	1917.13	1917.00	1916.80							
MW-3	DTW	28.24	28.17	28.29	28.50							
	ELEV.	1917.09	1917.16	1917.04	1916.83							
MW-4	DTW	28.12	28.05	28.17	28.37							
	ELEV.	1917.06	1917.13	1917.01	1916.81							
MW-5	DTW	28.27	28.20	28.34	28.55							
	ELEV.	1917.03	1917.10	1916.96	1916.75							
MW-6	DTW	29.20	29.12	29.25	29.46							
	ELEV.	1917.07	1917.15	1917.02	1916.81							
MW-7	DTW	29.22	29.15	29.27	29.48							
	ELEV.	1917.05	1917.12	1917.00	1916.79							
MW-8	DTW	29.77	29.69	29.80	30.00							
	ELEV.	1917.04	1917.12	1917.01	1916.81							
MW-9	DTW	31.47	31.40	31.51	31.70							
	ELEV.	1917.03	1917.10	1916.99	1916.80							
MW-10	DTW	27.69	27.63	27.76	27.96							
	ELEV.	1917.09	1917.15	1917.02	1916.82							
MW-11	DTW	27.98	27.92	28.04	28.24							
	ELEV.	1917.07	1917.13	1917.01	1916.81							

NM = Not measured or calculated
DTW = Depth to groundwater
ELEV. = Groundwater elevation ([1] elevation not corrected for presence of free product; [2] elevation corrected for presence of free product)
* Elevations have been revised to the 2005 survey for the hydrographs

TABLE 3a - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - TPHg and MBTEX (EPA 8015Cm/8021B or 8260B*)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-1	Monitoring Well MW-1	5/23/01	PSC	120,000	15,000	38,000	3,500	22,000	NA
		12/17/01	PSC	130,000	12,000	34,000	3,100	20,000	ND<100
		12/30/01	PSC	75,000	3,300	10,000	1,200	9,400	ND<50
		4/3/02	PSC	67,000	3,600	11,000	1,400	11,000	ND<5.0
		7/14/02	PSC	98,000	5,000	12,000	1,500	11,000	ND<2,500
		9/21/02	PSC	57,000,a	4,800	11,000	1,400	10,000	ND<1,000
		12/24/02	DEC	80,000,a	6,000	12,000	1,800	12,000	ND<1,000
		3/30/03	DEC	77,000,a	6,900	14,000	1,800	12,000	ND<5,000
		6/23/03	DEC	72,000,a	5,200	8,000	1,300	8,500	ND<1000
		1/4/04	DEC	49,000,a	6,000	7,900	1,300	8,200	ND<1,700
		4/25/04	DEC	61,000,a	8,600	8,100	1,800	8,600	NA
		4/4/05	DEC	47,000,a	6,400	5,400	1,400	6,300	NA
		4/22/06	DEC	42,000,a	5,500*	5,000*	1,400*	6,800*	ND<100*
		4/30/07	DEC	75,000,a	3,300	8,700	1,400	12,000	NA
		4/30/08	DEC	20,000,a	1,500	1,600	250	3,800	ND<25
		4/23/09	GRI	54,000	2,700	11,000	2,200	14,000	NA
		4/22/10	GRI	150,000	2,300*	15,000*	3,200*	25,000*	ND<500
		12/26/10	GRI	140,000,a,c	6,800	31,000	3,700	27,000	ND<1,000
		3/25/11	GRI	48,000,a	1,700	7,200	1,200	7,400	ND<100
		6/12/11	GRI	24,000,a	140	790	420	4,100	ND<250
		9/23/11	GRI	7,600,a	150	360	230	1,500	ND<50
		12/28/11	GRI	6,900,a	100	240	190	990	ND<50
		3/22/12	GRI	7,200,a	99	230	180	1,100	ND<50

TABLE 3a - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - TPHg and MBTEX (EPA 8015Cm/8021B or 8260B*)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-2	Monitoring Well MW-2	5/23/01	PSC	ND<50	1.3	3.5	0.62	3.7	1.0
		12/17/01	PSC	NA	NA	NA	NA	NA	NA
		12/30/01	PSC	120	4.5	23	3.9	23	1.5
		4/3/02	PSC	ND<50	ND<0.5	2.3	0.53	3.7	ND<0.5
		7/14/02	PSC	ND<50	ND<0.5	2.1	ND<0.5	6.3	ND<5.0
		9/21/02	PSC	ND<50	ND<0.5	ND<0.5	ND<0.5	1.2	ND<5.0
		12/24/02	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	1.0	ND<5.0
		3/30/03	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	0.91	ND<5.0
		6/23/03	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		1/4/04	DEC	ND<50	1.8	6.4	1.1	7.9	ND<5.0
		4/25/04	DEC	NS	NS	NS	NS	NS	NS
		4/4/05	DEC	NS	NS	NS	NS	NS	NS
		4/22/06	DEC	NS	NS	NS	NS	NS	NS
		4/30/07	DEC	NS	NS	NS	NS	NS	NS
		4/30/08	DEC	NS	NS	NS	NS	NS	NS
		4/23/09	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
		4/22/10	GRI	NS	NS	NS	NS	NS	NS
		12/26/10	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		3/25/11	GRI	NS	NS	NS	NS	NS	NS
		6/12/11	GRI	NS	NS	NS	NS	NS	NS
		9/23/11	GRI	NS	NS	NS	NS	NS	NS
		12/28/11	GRI	NS	NS	NS	NS	NS	NS
		3/22/12	GRI	NS	NS	NS	NS	NS	NS

TABLE 3a - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - TPHg and MBTEX (EPA 8015Cm/8021B or 8260B*)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-3	Monitoring Well MW-3	5/23/01	PSC	ND<50	1.6	4.1	0.68	3.5	NA
		12/17/01	PSC	NA	NA	NA	NA	NA	NA
		12/30/01	PSC	180	2.3	16	3.4	19	ND<1.0
		4/3/02	PSC	ND<50	ND<0.5	2.5	0.56	3.6	ND<0.5
		7/14/02	PSC	52	1.3	4.9	0.56	10	ND<5.0
		9/21/02	PSC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		12/24/02	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	1.4	ND<5.0
		3/30/03	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	1.1	ND<5.0
		6/23/03	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		1/4/04	DEC	ND<50	1.9	4.8	0.67	4.7	ND<5.0
		4/25/04	DEC	NS	NS	NS	NS	NS	NS
		4/4/05	DEC	NS	NS	NS	NS	NS	NS
		4/22/06	DEC	NS	NS	NS	NS	NS	NS
		4/30/07	DEC	NS	NS	NS	NS	NS	NS
		4/30/08	DEC	NS	NS	NS	NS	NS	NS
		4/23/09	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
		4/22/10	GRI	NS	NS	NS	NS	NS	NS
		12/26/10	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		3/25/11	GRI	NS	NS	NS	NS	NS	NS
		6/12/11	GRI	NS	NS	NS	NS	NS	NS
		9/23/11	GRI	NS	NS	NS	NS	NS	NS
		12/28/11	GRI	NS	NS	NS	NS	NS	NS
		3/22/12	GRI	NS	NS	NS	NS	NS	NS

TABLE 3a - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - TPHg and MBTEX (EPA 8015Cm/8021B or 8260B*)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-4	Monitoring Well MW-4	5/23/01	PSC	32,000	1,500	7,700	1,400	8,800	NA
		12/17/01	PSC	1,000	31	150	24	160	ND<6.0
		12/30/01	PSC	18,000	490	1,400	220	2,400	1.1
		4/3/02	PSC	2,400	79	360	65	460	ND<0.5
		7/14/02	PSC	2,800	90	420	73	470	ND<5.0
		9/21/02	PSC	790,a	33	150	28	180	ND<5.0
		12/24/02	DEC	2,900,a	100	450	83	500	ND<50.0
		3/30/03	DEC	1,900,a	100	440	88	500	ND<50.0
		6/23/03	DEC	2,500,a	75	290	64	350	ND<50.0
		1/4/04	DEC	1,900,a	83	350	73	420	ND<50
		4/25/04	DEC	NS	NS	NS	NS	NS	NS
		4/4/05	DEC	NS	NS	NS	NS	NS	NS
		4/22/06	DEC	NS	NS	NS	NS	NS	NS
		4/30/07	DEC	NS	NS	NS	NS	NS	NS
		4/30/08	DEC	NS	NS	NS	NS	NS	NS
		4/23/09	GRI	ND<50	1.1	3.0	1.6	5.5	NA
		4/22/10	GRI	NS	NS	NS	NS	NS	NS
		12/26/10	GRI	30,000,a	130	1,700	760	6,000	ND<500
		3/25/11	GRI	NS	NS	NS	NS	NS	NS
		6/12/11	GRI	19,000,a	61	510	230	2,500	ND<50
		9/23/11	GRI	2,500,a	10	16	64	210	ND<17
		12/28/11	GRI	11,000,a	24	73	280	1,300	ND<50
		3/22/12	GRI	6,200,a	14	74	140	970	ND<50

TABLE 3a - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - TPHg and MBTEX (EPA 8015Cm/8021B or 8260B*)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-5	Monitoring Well MW-5	9/21/02	PSC	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	ND<5.0
		12/24/02	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	2.1	ND<5.0
		3/30/03	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		6/23/03	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		1/4/04	DEC	ND<50	1.5	5.0	0.93	6.5	ND<5.0
		4/25/04	DEC	ND<50	2.5	5.7	0.98	6.9	NA
		4/4/05	DEC	58,a	6.0	8.8	0.84	6.4	NA
		4/22/06	DEC	ND<50	13*	0.74*	ND<0.5*	2.6*	ND<0.5*
		4/30/07	DEC	52,a	9.4	ND<0.5	ND<0.5	1.3	NA
		4/30/08	DEC	ND<50	ND<0.5	ND<0.5	ND<0.5	1.1	ND<0.5
		4/23/09	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
		4/22/10	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		12/26/10	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		3/25/11	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		6/12/11	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		9/23/11	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		12/28/11	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		3/22/12	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
MW-6	Monitoring Well MW-6	5/01/11	GRI	2,800	390	150	180	250	ND<10
		6/12/11	GRI	1,200,a	74	46	8.9	190	ND<5.0
		9/23/11	GRI	910,a	33	10	37	45	ND<17
		12/28/11	GRI	580,a	14	2.7	31	21	ND<5.0
		3/22/12	GRI	330,a	8.6	1.8	18	6.6	ND<5.0

TABLE 3a - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - TPHg and MBTEX (EPA 8015Cm/8021B or 8260B*)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-6 cont.	Monitoring Well MW-6								
MW-7	Monitoring Well MW-7	5/01/11	GRI	200	4.8	7.8	6.3	44	ND<5.0
		6/12/11	GRI	130,a	7.8	3.4	2.7	21	ND<5.0
		9/23/11	GRI	67,a	1.9	2.0	2.2	12	ND<5.0
		12/28/11	GRI	99,a	4.2	2.6	3.9	20	ND<5.0
		3/22/12	GRI	ND<50	0.93	0.72	1.4	4.8	ND<5.0
MW-8	Monitoring Well MW-8	5/01/11	GRI	18,000	150	840	400	2,500	ND<50
		6/12/11	GRI	3,300,a	160	240	40	470	ND<50
		9/23/11	GRI	820,a	28	32	14	92	ND<5.0
		12/28/11	GRI	2,900,a	130	46	110	400	ND<5.0
		3/22/12	GRI	310,a	7.8	6.0	9.1	51	ND<5.0
MW-9	Monitoring Well MW-9	5/01/11	GRI	780	4.2	6.8	22	67	ND<5.0
		6/12/11	GRI	240,a	2.2	1.4	1.2	22	ND<5.0
		9/23/11	GRI	410,a	18	ND<0.5	6.7	7.7	ND<5.0
		12/28/11	GRI	160,a	14	ND<0.5	5.6	0.67	ND<5.0
		3/22/12	GRI	ND<50	0.66	ND<0.5	0.61	ND<0.5	ND<5.0

TABLE 3a - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - TPHg and MBTEX (EPA 8015Cm/8021B or 8260B*)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-10	Monitoring Well MW-10	5/01/11	GRI	150	ND<0.5	ND<0.5	ND<0.5	13	ND<5.0
		6/12/11	GRI	240,b	ND<0.5	ND<0.5	0.74	16	ND<5.0
		9/23/11	GRI	130,b	ND<0.5	ND<0.5	0.52	7.5	ND<5.0
		12/28/11	GRI	160,b	ND<0.5	ND<0.5	0.88	16	ND<5.0
		3/22/12	GRI	61,b	ND<0.5	ND<0.5	ND<0.5	3.2	ND<5.0
MW-11	Monitoring Well MW-11	5/01/11	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		6/12/11	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		9/23/11	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		12/28/11	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0
		3/22/12	GRI	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0

Notes:
a weakly modified or unmodified gasoline is significant
b heavier gasoline range compounds are significant (aged gasoline?)
c lighter than water immiscible sheen/product is present

TABLE 3b - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Oxygenates (EPA 8260B)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample I.D.	Well Number	Date	Sampler	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	EDB (ug/L)	1,2-DCA (ug/L)
MW-1	Well MW-1	12/24/02	DEC	ND<50	ND<50	ND<50	ND<50	ND<500	110	490
		3/30/03	DEC	ND<50	ND<50	ND<50	ND<50	ND<500	110	590
		1/4/04	DEC	ND<10	ND<10	ND<10	ND<10	ND<100	47	650
		4/25/04	DEC	NA	NA	NA	NA	NA	ND<170	870
		4/4/05	DEC	NA	NA	NA	NA	NA	ND<250	790
		4/22/06	DEC	NA	NA	ND<100	NA	NA	ND<100	570
		4/30/07	DEC	NA	NA	NA	NA	NA	ND<120	540
		4/30/08	DEC	NA	NA	NA	NA	NA	ND<25	370
		4/23/09	GRI	NA	NA	NA	NA	NA	ND<500	ND<500
		4/22/10	GRI	NA	NA	NA	NA	NA	ND<500	ND<500
		12/26/10	GRI	NA	NA	ND<50	NA	ND<200	180,c	750
		3/25/11	GRI	ND<50	ND<50	ND<50	ND<50	ND<200	ND<50	200
		6/12/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.0	7.5	22
		9/23/11	GRI	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<5.0	38
		12/28/11	GRI	5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<5.0	26
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.4	ND<0.5	21
MW-2	Well MW-2	12/24/02	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
		3/30/03	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
		1/4/04	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
		4/25/04	DEC	NS	NS	NS	NS	NS	NS	NS
		4/4/05	DEC	NS	NS	NS	NS	NS	NS	NS
		4/22/06	DEC	NS	NS	NS	NS	NS	NS	NS
		4/30/07	DEC	NS	NS	NS	NS	NS	NS	NS
		4/30/08	DEC	NS	NS	NS	NS	NS	NS	NS

TABLE 3b - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Oxygenates (EPA 8260B)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample I.D.	Well Number	Date	Sampler	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	EDB (ug/L)	1,2-DCA (ug/L)
MW-2	Well MW-2	4/23/09	GRI	NA	NA	NA	NA	NA	ND<0.5	ND<0.5
cont.		4/22/10	GRI	NS	NS	NS	NS	NS	NS	NS
		12/26/10	GRI	NA	NA	ND<0.5	NA	ND<2.0	ND<0.5	ND<0.5
		3/25/11	GRI	NS	NS	NS	NS	NS	NS	NS
		6/12/11	GRI	NS	NS	NS	NS	NS	NS	NS
		9/23/11	GRI	NS	NS	NS	NS	NS	NS	NS
		12/28/11	GRI	NS	NS	NS	NS	NS	NS	NS
		3/22/12	GRI	NS	NS	NS	NS	NS	NS	NS
MW-3	Well MW-3	12/24/02	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
		3/30/03	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
		1/4/04	DEC	ND<0.5	ND<0.5	0.69	ND<0.5	ND<5.0	ND<0.5	ND<0.5
		4/25/04	DEC	NS	NS	NS	NS	NS	NS	NS
		4/4/05	DEC	NS	NS	NS	NS	NS	NS	NS
		4/22/06	DEC	NS	NS	NS	NS	NS	NS	NS
		4/30/07	DEC	NS	NS	NS	NS	NS	NS	NS
		4/30/08	DEC	NS	NS	NS	NS	NS	NS	NS
		4/23/09	GRI	NA	NA	NA	NA	NA	ND<0.5	ND<0.5
		4/22/10	GRI	NS	NS	NS	NS	NS	NS	NS
		12/26/10	GRI	NA	NA	ND<0.5	NA	ND<2.0	ND<0.5	ND<0.5
		3/25/11	GRI	NS	NS	NS	NS	NS	NS	NS
		6/12/11	GRI	NS	NS	NS	NS	NS	NS	NS
		9/23/11	GRI	NS	NS	NS	NS	NS	NS	NS
		12/28/11	GRI	NS	NS	NS	NS	NS	NS	NS
		3/22/12	GRI	NS	NS	NS	NS	NS	NS	NS

TABLE 3b - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Oxygenates (EPA 8260B)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample I.D.	Well Number	Date	Sampler	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	EDB (ug/L)	1,2-DCA (ug/L)
MW-3 cont.	Well MW-3									
MW-4	Well MW-4	12/24/02	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	0.80
		3/30/03	DEC	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<20	ND<2.0	ND<2.0
		1/4/04	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	1.0
		4/25/04	DEC	NS	NS	NS	NS	NS	NS	NS
		4/4/05	DEC	NS	NS	NS	NS	NS	NS	NS
		4/22/06	DEC	NS	NS	NS	NS	NS	NS	NS
		4/30/07	DEC	NS	NS	NS	NS	NS	NS	NS
		4/30/08	DEC	NS	NS	NS	NS	NS	NS	NS
		4/23/09	GRI	NA	NA	NA	NA	NA	ND<0.5	ND<0.5
		4/22/10	GRI	NS	NS	NS	NS	NS	NS	NS
		12/26/10	GRI	NA	NA	ND<50	NA	ND<200	ND<50	ND<50
		3/25/11	GRI	NS	NS	NS	NS	NS	NS	NS
		6/12/11	GRI	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<5.0	ND<5.0
		9/23/11	GRI	ND<1.7	ND<1.7	ND<1.7	ND<1.7	ND<6.7	ND<1.7	ND<1.7
		12/28/11	GRI	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	ND<1.0	ND<1.0
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
MW-5	Well MW-5	12/24/02	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	2.0
		3/30/03	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	1.4
		1/4/04	DEC	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	1.8
		4/25/04	DEC	NA	NA	NA	NA	NA	ND<0.5	1.7
		4/4/05	DEC	NA	NA	NA	NA	NA	ND<0.5	1.3

TABLE 3b - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Oxygenates (EPA 8260B)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample I.D.	Well Number	Date	Sampler	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	EDB (ug/L)	1,2-DCA (ug/L)
MW-5	Well MW-5	4/22/06	DEC	NA	NA	ND<0.5	NA	NA	ND<0.5	5.7
		4/30/07	DEC	NA	NA	NA	NA	NA	ND<0.5	7.4
		4/30/08	DEC	NA	NA	NA	NA	NA	ND<0.5	0.84
		4/23/09	GRI	NA	NA	NA	NA	NA	ND<0.5	0.57
		4/22/10	GRI	NA	NA	NA	NA	NA	ND<0.5	0.73
		12/26/10	GRI	NA	NA	ND<0.5	NA	ND<2.0	ND<0.5	ND<0.5
		3/25/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	0.63
		6/12/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.4	ND<0.5	ND<0.5
		9/23/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		12/28/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
MW-6	Well MW-6	5/01/11	GRI	ND<10	ND<10	ND<10	ND<10	ND<40	ND<10	41
		6/12/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	7.5
		9/23/11	GRI	ND<1.7	ND<1.7	ND<1.7	ND<1.7	ND<6.7	ND<1.7	15
		12/28/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.4	ND<0.5	10
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.4	ND<0.5	11
MW-7	Well MW-7	5/01/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	7.0
		6/12/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	11
		9/23/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	6.2
		12/28/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	5.4
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	2.5

TABLE 3b - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Oxygenates (EPA 8260B)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample I.D.	Well Number	Date	Sampler	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	EDB (ug/L)	1,2-DCA (ug/L)
MW-7 cont.	Well MW-7									
MW-8	Well MW-8	5/01/11	GRI	ND<50	ND<50	ND<50	ND<50	ND<200	ND<50	ND<50
		6/12/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.8	2.8	26
		9/23/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	8.7
		12/28/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	25
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	5.0
MW-9	Well MW-9	5/01/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	18
		6/12/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	14
		9/23/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.6	ND<0.5	21
		12/28/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.2	ND<0.5	19
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	2.7
MW-10	Well MW-10	5/01/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		6/12/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		9/23/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		12/28/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5

TABLE 3b - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Oxygenates (EPA 8260B)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample I.D.	Well Number	Date	Sampler	DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	EDB (ug/L)	1,2-DCA (ug/L)
MW-11	Well MW-11	5/01/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		6/12/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		9/23/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		12/28/11	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5
		3/22/12	GRI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<0.5	ND<0.5

Notes:
DEC Dockter Environmental Consulting
GRI GeoRestoration, Inc.
DIPE di-isopropyl ether
ETBE ethyl tert-butyl ether
MTBE methyl tert-butyl ether
TAME tert-amyl methyl ether
TBA tert-butyl alcohol
EDB 1,2-dibromoethane
1,2-DCA 1,2-dichloroethane
µg/L micrograms per liter
NA not analyzed
ND not detected above the specified laboratory reporting limit

TABLE 3c - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - TPHd and Oxygenates (12/01-9/02)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	TPHd	Oxygenates and Breakdown Products				
					MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	DIPE (ug/L)	ETBE (ug/L)
MW-1	Monitoring Well MW-1	12/30/01	PSC	7,700,d,b	ND<50	ND<50	ND<250	ND<50	ND<50
MW-2	Monitoring Well MW-2	12/30/01	PSC	ND<50	1.5	ND<5.0	ND<10.0	ND<5.0	ND<5.0
MW-3	Monitoring Well MW-3	12/30/01	PSC	ND<50	ND<1.0	ND<5.0	ND<10.0	ND<5.0	ND<5.0
MW-4	Monitoring Well MW-4	12/30/01	PSC	1,700,d	1.1	ND<5.0	ND<10.0	ND<5.0	ND<5.0
MW-1	Monitoring Well MW-1	04/03/02	PSC	NA	ND<5.0	NA	ND<50	NA	NA
MW-2	Monitoring Well MW-2	04/03/02	PSC	NA	ND<0.5	NA	ND<5.0	NA	NA
MW-3	Monitoring Well MW-3	04/03/02	PSC	NA	ND<0.5	NA	ND<5.0	NA	NA
MW-4	Monitoring Well MW-4	04/03/02	PSC	NA	ND<0.5	NA	ND<5.0	NA	NA
MW-1	Monitoring Well MW-1	07/14/02	PSC	9,300, d,b	ND<250	ND<250	ND<2,500	ND<250	ND<250
MW-2	Monitoring Well MW-2	07/14/02	PSC	ND<50	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
MW-3	Monitoring Well MW-3	07/14/02	PSC	ND<50	4.0	ND<0.5	ND<5.0	ND<0.5	ND<0.5
MW-4	Monitoring Well MW-4	07/14/02	PSC	460,d	ND<10	ND<10	ND<100	ND<10	ND<10
MW-1	Monitoring Well MW-1	9/21/02	PSC	NA	ND<25	ND<25	ND<250	ND<25	ND<25
MW-2	Monitoring Well MW-2	9/21/02	PSC	NA	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
MW-3	Monitoring Well MW-3	9/21/02	PSC	NA	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
MW-4	Monitoring Well MW-4	9/21/02	PSC	NA	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
MW-5	Monitoring Well MW-5	9/21/02	PSC	NA	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
DWW	Domestic Well	9/21/02	PSC	NA	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5

TABLE 3d - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Lead Scavengers (12/01-9/02)
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler		Lead Scavengers and Breakdown Products			
					Chlorobenzene (ug/L)	Dichlorobenzene (ug/L)	1,2-dichloroethane (ug/L)	Ethylene dibromide (ug/L)
MW-1	Monitoring Well MW-2	12/30/01	PSC		NA	NA	280	120
MW-2	Monitoring Well MW-2	12/30/01	PSC		NA	NA	ND<0.5	ND<0.5
MW-3	Monitoring Well MW-3	12/30/01	PSC		NA	NA	ND<0.5	ND<0.5
MW-4	Monitoring Well MW-4	12/30/01	PSC		NA	NA	4.8	2.5
MW-1	Monitoring Well MW-1	04/03/02	PSC		NA	NA	290	150
MW-2	Monitoring Well MW-2	04/03/02	PSC		NA	NA	ND<0.5	ND<0.5
MW-3	Monitoring Well MW-3	04/03/02	PSC		NA	NA	ND<0.5	ND<0.5
MW-4	Monitoring Well MW-4	04/03/02	PSC		NA	NA	1.1	ND<0.5
MW-1	Monitoring Well MW-1	07/14/02	PSC		NA	ND<250	470	ND<250
MW-2	Monitoring Well MW-2	07/14/02	PSC		NA	ND<0.5	ND<0.5	ND<0.5
MW-3	Monitoring Well MW-3	07/14/02	PSC		NA	ND<0.5	ND<0.5	ND<0.5
MW-4	Monitoring Well MW-4	07/14/02	PSC		NA	ND<10	ND<10	ND<10
MW-1	Monitoring Well MW-1	9/21/02	PSC		NA	NA	470	95
MW-2	Monitoring Well MW-2	9/21/02	PSC		NA	NA	ND<0.5	ND<0.5
MW-3	Monitoring Well MW-3	9/21/02	PSC		NA	NA	ND<0.5	ND<0.5
MW-4	Monitoring Well MW-4	9/21/02	PSC		NA	NA	0.61	ND<0.5
MW-5	Monitoring Well MW-5	9/21/02	PSC		NA	NA	2.5	ND<0.5
DWW	Domestic Well	9/21/02	PSC		NA	NA	ND<0.5	ND<0.5

TABLE 3e - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Other VOCs
Goodwin Ranch, 15505 Soda Lake Road, San Luis Obispo County, California

Sample/Well I.D.	Sample Location	Date	Sampler	Total Lead mg/L	Naphthalene ug/L	1,2,4-Trimethyl-Benzene ug/L	1,3,5-Trimethyl-Benzene ug/L	Other 8260 Compounds
MW-1	Monitoring Well MW-1	7/14/02	PSC	0.0075	480	2,600	720	None
MW-2	Monitoring Well MW-2	7/14/02	PSC	0.0067	ND<5.0	ND<0.5	ND<0.5	None
MW-3	Monitoring Well MW-3	7/14/02	PSC	0.0076	ND<5.0	ND<0.5	ND<0.5	See lab report
MW-4	Monitoring Well MW-4	7/14/02	PSC	0.015	25	98	28	See lab report

Tables 3c, 3d, and 3e Notes:

TPHd = Total petroleum hydrocarbons as diesel (Modified Method 8015).
DIPE = Di-isopropyl Ether
ETBE = Ethyl tert-Butyl Ether
MTBE = Methyl tert-utyl Ether
TAME = tert-Amyl Methyl Ether
TBA = Tert-Butanol or tributyl alcohol
a = unmodified or weakly modified gasoline is significant
b = diesel range compounds are significant, no recognizable pattern.
c = lighter than water immiscible sheen/product is present
d = Gasoline range compounds are significant.
ND = Not detected above the reporting limit.
NS = Not Sampled
NA = Not Analyzed
PSC = Philip Services Corporation
DEC = Dockter Environmental
GRI = GeoRestoration, Inc.

Appendix C. Water Quality Data

BLACK & VEATCH

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2302865-01	Nitrate + Nitrite (mg/L as N)	16	10	--	mg/L	4/12/2023
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2305337-01	Nitrate + Nitrite (mg/L as N)	15	10	--	mg/L	7/11/2023
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2308439-01	Nitrate + Nitrite (mg/L as N)	14	10	--	mg/L	10/25/2023
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	4560012008260930	Nitrate (mg/L as N)	15.1	10	--	mg/L	8/26/2020
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2405313-01	Threshold Odor (T.O.N)	50	--	3	T.O.N.	6/27/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Threshold Odor (T.O.N)	ND	--	3	T.O.N.	8/13/2012
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Aluminum, Total (µg/L)	ND	1000	200	ug/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Aluminum, Total (µg/L)	ND	1000	200	ug/L	10/11/2021
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Arsenic, Total (µg/L)	3.9	10	--	ug/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Barium, Total (µg/L)	ND	1000	--	ug/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Barium, Total (µg/L)	ND	1000	--	ug/L	10/11/2021
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Cadmium, Total (µg/L)	ND	5	--	ug/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Chromium, Total (µg/L)	ND	50	--	ug/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Conductivity (µS/cm)	910	--	--	umhos/cm	10/11/2021
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Conductivity (µS/cm)	950	--	--	umhos/cm	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Flouride (mg/L)	0.41	2	2	mg/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Flouride (mg/L)	0.41	2	2	mg/L	10/11/2021
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Hexavalent Chromium (µg/L)	5.5	--	--	ug/L	11/18/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Nitrate + Nitrite (mg/L as N)	15	10	--	mg/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Nitrate + Nitrite (mg/L as N)	15	10	--	mg/L	7/11/2023
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Nitrate + Nitrite (mg/L as N)	15	10	--	mg/L	10/11/2021
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Perchlorate (µg/L)	2.6	6	--	ug/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Selenium, Total (mg/L)	4.6	50	--	ug/L	10/14/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A		Selenium, Total (mg/L)	4.7	50	--	ug/L	10/11/2021
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	AEJ1115-01	Nitrate (mg/L as N)	15	10	--	mg/L	10/11/2021
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2206655-01	Nitrate (mg/L as N)	15	10	--	mg/L	10/20/2022
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2302865-01	Nitrate (mg/L as N)	16	10	--	mg/L	4/12/2023
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2305337-01	Nitrate (mg/L as N)	15	10	--	mg/L	7/11/2023
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2308439-01	Nitrate (mg/L as N)	14	10	--	mg/L	10/25/2023
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2401265-01	Nitrate (mg/L as N)	16	10	--	mg/L	2/12/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	2405313-01	Nitrate (mg/L as N)	14	10	--	mg/L	6/5/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	AHI2586-01	Nitrate (mg/L as N)	15	10	--	mg/L	9/18/2024
1	N/A	N/A	35.354196	-120.040128	Domestic	0	0	N/A	AHJ2271-01	Nitrate (mg/L as N)	15	10	--	mg/L	10/14/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Alkalinity (mg/L as CaCO3)	190	--	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Arsenic, Total (µg/L)	2	10	--	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Barium, Total (µg/L)	84	1000	--	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Boron (mg/L)	0.5	--	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Bromoform (µg/L)	ND	0	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Calcium (mg/L)	33	--	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Chloride (mg/L)	44	--	250	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Chromium, Total (µg/L)	18	50	--	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Color (Pt. Co. Units)	ND	--	15	CU	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Conductivity (µS/cm)	620	--	--	umhos/cm	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Flouride (mg/L)	0.6	2	2	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Gross Alpha (pCi/L)	6.04	15	--	pCi/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Hexavalent Chromium (µg/L)	7.9	--	--	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Iron, Total (µg/L)	30	--	300	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Magnesium (mg/L)	15	--	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Manganese, Total (µg/L)	0.7	--	50	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	MBAS (mg/L)	ND	--	500.00	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Nitrate + Nitrite (mg/L as N)	9.2	10	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Nitrate + Nitrite (mg/L as N)	ND	10	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Perchlorate (µg/L)	1.4	6	--	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	pH	8.1	--	6.5-8.5	pH Units	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Selenium, Total (mg/L)	6	50	--	ug/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Sodium (mg/L)	73	--	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Sulfate (mg/L as SO4)	39.7	--	250	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Total Dissolved Solids (mg/L)	400	--	500	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Total Hardness (mg/L as CaCO3)	144	--	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Turbidity (NTU)	0.7	--	5	NTU	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Uranium (pCi/L)	4.67	20	--	pCi/L	12/18/2024

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	2420466 (Main Well	Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	2420466 (Main Well	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	2420466 (Main Well	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	P 2420466 (Main We	Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	5.5	10	--	ng/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	P 2420466 (Main We	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	1.9	4	--	ng/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	P 2420466 (Main We	Perfluorooctanoic Acid (PFOA) (ng/L)	1.9	4	--	ng/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Nitrate (mg/L as N)	9.2	10	--	mg/L	12/18/2024
2	N/A	N/A	35.321061	-120.00324	Domestic	0	0	5	SP 2420466	Nitrate as NO3 (mg/L)	40.7	45	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Alkalinity (mg/L as CaCO3)	500	--	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Arsenic, Total (µg/L)	2	10	--	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Barium, Total (µg/L)	16	1000	--	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Boron (mg/L)	5.6	--	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Bromoform (µg/L)	ND	0	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Calcium (mg/L)	9	--	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Chloride (mg/L)	100	--	250	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Chromium, Total (µg/L)	25	50	--	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Color (Pt. Co. Units)	ND	--	15	CU	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Conductivity (µS/cm)	2290	--	--	umhos/cm	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Flouride (mg/L)	6.2	2	2.0	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Gross Alpha (pCi/L)	18.5	15	--	pCi/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Hexavalent Chromium (µg/L)	0.3	--	--	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Iron, Total (µg/L)	ND	--	300	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Magnesium (mg/L)	8	--	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Manganese, Total (µg/L)	ND	--	50	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	MBAS (mg/L)	ND	--	500.00	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Nitrate + Nitrite (mg/L as N)	1.5	10	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Nitrate + Nitrite (mg/L as N)	ND	10	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Perchlorate (µg/L)	ND	6	--	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	pH	8.15	--	6.5-8.5	pH Units	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Selenium, Total (mg/L)	66	50	--	ug/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Sodium (mg/L)	505	--	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Sulfate (mg/L as SO4)	486	--	250	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Total Dissolved Solids (mg/L)	1500	--	500	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Total Hardness (mg/L as CaCO3)	55.4	--	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Turbidity (NTU)	0.15	--	5	NTU	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Uranium (pCi/L)	10.4	20	--	pCi/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Nitrate (mg/L as N)	1.5	10	--	mg/L	12/18/2024
3	N/A	N/A	35.321061	-120.00324	Domestic	40	15.9	5	SP 2420467	Nitrate as NO3 (mg/L)	6.8	45	--	mg/L	12/18/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Arsenic, Total (µg/L)	ND	10	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Cadmium, Total (µg/L)	ND	5	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Chromium, Total (µg/L)	ND	50	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Color (Pt. Co. Units)	ND	--	15	CU	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Flouride (mg/L)	ND	2	2	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Iron, Total (µg/L)	ND	--	300	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Magnesium (mg/L)	ND	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Manganese, Total (µg/L)	ND	--	50	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	MBAS (mg/L)	ND	--	500.00	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Nitrate + Nitrite (mg/L as N)	ND	10	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Nitrite as N (mg/L)	ND	1	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Perchlorate (µg/L)	ND	6	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	pH	7.89	--	6.5-8.5	pH Units	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Selenium, Total (mg/L)	ND	50	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Alkalinity (mg/L as CaCO3)	171	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Aluminum, Total (µg/L)	29	1000	200	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Arsenic, Total (µg/L)	1.1	10	--	ug/L	1/29/2024

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Boron (mg/L)	0.64	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Cadmium, Total (µg/L)	ND	5	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Calcium (mg/L)	35	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Chloride (mg/L)	36	--	250	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Chromium, Total (µg/L)	7.7	50	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Color (Pt. Co. Units)	1	--	15	CU	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Conductivity (µS/cm)	620	--	--	umhos/cm	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Flouride (mg/L)	0.69	2	2	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Iron, Total (µg/L)	17	--	300	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Magnesium (mg/L)	15	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Manganese, Total (µg/L)	ND	--	50	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	MBAS (mg/L)	ND	--	500.00	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Nitrate + Nitrite (mg/L as N)	8.5	10	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Nitrite as N (mg/L)	ND	1	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Perchlorate (µg/L)	ND	6	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	pH	7.98	--	6.5-8.5	pH Units	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Selenium, Total (mg/L)	ND	50	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Sodium (mg/L)	8	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Sulfate (mg/L as SO4)	36	--	250	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Temperature (°C)	17.6	--	7.5	--	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Total Dissolved Solids (mg/L)	360	--	500	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Total Hardness (mg/L as CaCO3)	150	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Turbidity (NTU)	0.55	--	5	NTU	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Aluminum, Total (µg/L)	29	1000	200	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Arsenic, Total (µg/L)	1.1	10	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Cadmium, Total (µg/L)	ND	5	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Chromium, Total (µg/L)	7.7	50	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Iron, Total (µg/L)	17	--	300	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Manganese, Total (µg/L)	15	--	50	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Manganese, Total (µg/L)	ND	--	50	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Selenium, Total (mg/L)	ND	50	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Sodium (mg/L)	83	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Total Hardness (mg/L as CaCO3)	87	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-1	Total Hardness (mg/L as CaCO3)	150	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-2	Arsenic, Total (µg/L)	ND	10	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-2	Cadmium, Total (µg/L)	ND	5	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-2	Chromium, Total (µg/L)	ND	50	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-2	Iron, Total (µg/L)	ND	--	300	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-2	Magnesium (mg/L)	63	--	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-2	Manganese, Total (µg/L)	ND	--	50	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-2	Manganese, Total (µg/L)	ND	--	50	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	380-80886-2	Selenium, Total (mg/L)	ND	50	--	ug/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	240117002-01	Nitrate (mg/L as N)	ND	10	--	mg/L	1/29/2024
4	N/A	N/A	35.321512	-120.003283	Domestic	0	0	N/A	24117002-00	Nitrate (mg/L as N)	8.5	10	--	mg/L	1/29/2024
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Aluminum, Total (µg/L)	420	1000	200	ug/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Barium, Total (µg/L)	53	1000	--	ug/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Boron (mg/L)	0.1	--	--	mg/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Chloride (mg/L)	51	--	250	mg/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Color (Pt. Co. Units)	ND	--	15	CU	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Conductivity @ 25C	830	--	--	umhos/cm	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Flouride (mg/L)	0.37	2	2.0	mg/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Iron, Total (µg/L)	390	--	300	ug/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Manganese, Total (µg/L)	23	--	50	ug/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	MBAS (mg/L)	ND	--	500.00	mg/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Nitrate + Nitrite (mg/L as N)	8.6	10	--	mg/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Nitrite as N (mg/L)	ND	1	--	mg/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	pH	8.41	--	6.5-8.5	pH Units	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Selenium, Total (mg/L)	3.8	50	--	ug/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Sulfate (mg/L as SO4)	190	--	250	mg/L	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Temperature (°C)	20	--	--	--	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Total Dissolved Solids (mg/L)	550	--	500	mg/L	11/20/2023

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Turbidity (NTU)	14	--	5	NTU	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Threshold Odor (T.O.N)	1700	--	3	T.O.N.	11/20/2023
5	WCR2023-012704	WP1027837	35.306962	-120.0167	Domestic	200	94	15	2309242-01	Nitrate (mg/L as N)	8.6	10	--	mg/L	11/20/2023
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Nitrate (mg/L as N)	3.4	10	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Alkalinity (mg/L as CaCO3)	150	--	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Aluminum, Total (µg/L)	2100	1000	200	ug/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Barium, Total (µg/L)	ND	1000	--	ug/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Boron (mg/L)	1.6	--	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Calcium (mg/L)	240	--	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Chloride (mg/L)	37	--	250	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Color (Pt. Co. Units)	20	--	15	CU	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Conductivity (µS/cm)	2600	--	--	umhos/cm	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Flouride (mg/L)	1.1	2	2.0	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Iron, Total (µg/L)	2100	--	300	ug/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Magnesium (mg/L)	70	--	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Manganese, Total (µg/L)	190	--	50	ug/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	MBAS (mg/L)	ND	--	500.00	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Nitrate + Nitrite (mg/L as N)	3.4	10	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Nitrite as N (mg/L)	ND	1	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	pH	7.8	--	6.5-8.5	pH Units	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Selenium, Total (mg/L)	2.6	50	--	ug/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Sodium (mg/L)	310	--	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Temperature (°C)	22.3	--	--	--	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Total Dissolved Solids (mg/L)	2100	--	500	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Total Hardness (mg/L as CaCO3)	880	--	--	mg/L	4/21/2021
6	WCR2021-005644	WP1026944	35.28873	-119.96953	Domestic	200	8	25	AED2355	Turbidity (NTU)	58	--	5	NTU	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Nitrate (mg/L as N)	3.5	10	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Alkalinity (mg/L as CaCO3)	150	--	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Aluminum, Total (µg/L)	4100	1000	200	ug/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Barium, Total (µg/L)	ND	1000	--	ug/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Boron (mg/L)	1.6	--	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Calcium (mg/L)	230	--	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Chloride (mg/L)	37	--	250	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Color (Pt. Co. Units)	20	--	15	CU	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Conductivity (µS/cm)	2600	--	--	umhos/cm	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Flouride (mg/L)	1.2	2	2	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Iron, Total (µg/L)	4300	--	300	ug/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Magnesium (mg/L)	71	--	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Manganese, Total (µg/L)	210	--	50	ug/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	MBAS (mg/L)	ND	--	500.00	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Nitrate + Nitrite (mg/L as N)	3.5	10	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Nitrite as N (mg/L)	ND	1	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	pH	7.8	--	6.5-8.5	pH Units	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Selenium, Total (mg/L)	4.1	50	--	ug/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Sodium (mg/L)	320	--	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Temperature (°C)	22.3	--	--	--	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Total Dissolved Solids (mg/L)	2100	--	500	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Total Hardness (mg/L as CaCO3)	870	--	--	mg/L	4/21/2021
7	WCR2021-005645	WP1027006	35.29766	-119.97942	Domestic	160	8	25	AED2354	Turbidity (NTU)	68	--	5	NTU	4/21/2021
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Alkalinity (mg/L as CaCO3)	10	--	--	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Aluminum, Total (µg/L)	ND	1000	200	ug/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Arsenic, Total (µg/L)	ND	10	--	ug/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Barium, Total (µg/L)	ND	1000	--	ug/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Boron (mg/L)	0.25	--	--	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Cadmium, Total (µg/L)	ND	5	--	ug/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Calcium (mg/L)	12	--	--	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Chloride (mg/L)	190	--	250	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Chromium, Total (µg/L)	ND	50	--	ug/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Color (Pt. Co. Units)	ND	--	15	CU	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Conductivity (µS/cm)	1700	--	--	umhos/cm	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Flouride (mg/L)	ND	2	2.0	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Iron, Total (µg/L)	ND	--	300	ug/L	8/27/2024

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Magnesium (mg/L)	23	--	--	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Manganese, Total (µg/L)	40	--	50	ug/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	MBAS (mg/L)	ND	--	500.00	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Nitrate + Nitrite (mg/L as N)	ND	10	--	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Nitrite as N (mg/L)	ND	1	--	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	pH	7.4	--	6.5-8.5	pH Units	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Selenium, Total (mg/L)	2.2	50	--	ug/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Sodium (mg/L)	320	--	--	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Sulfate (mg/L as SO4)	480	--	250	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Temperature (°C)	18.6	--	--	--	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Threshold Odor (T.O.N)	1	--	3	T.O.N.	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Total Dissolved Solids (mg/L)	1100	--	500	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Total Hardness (mg/L as CaCO3)	130	--	--	mg/L	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Turbidity (NTU)	0.56	--	5	NTU	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Threshold Odor (T.O.N)	1	--	3	T.O.N.	8/27/2024
8	WCR2024-001967	WP1027835	35.33546	-119.95674	Domestic	400	N/A	N/A	AHH3803	Nitrate (mg/L as N)	ND	10	--	mg/L	8/27/2024
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Nitrate (mg/L as N)	ND	10	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Threshold Odor (T.O.N)	1.5	--	3	T.O.N.	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Alkalinity (mg/L as CaCO3)	260	--	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Aluminum, Total (µg/L)	3100	1000	200	ug/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Barium, Total (µg/L)	ND	1000	--	ug/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Boron (mg/L)	11	--	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Calcium (mg/L)	140	--	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Chloride (mg/L)	1600	--	250	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Color (Pt. Co. Units)	50	--	15	CU	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Conductivity (µS/cm)	9300	--	--	umhos/cm	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Flouride (mg/L)	1.7	2	2.0	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Iron, Total (µg/L)	2000	--	300	ug/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Magnesium (mg/L)	100	--	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Manganese, Total (µg/L)	110	--	50	ug/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	MBAS (mg/L)	3.2	--	500.00	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Nitrate + Nitrite (mg/L as N)	ND	10	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Nitrite as N (mg/L)	ND	1	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	pH	8.1	--	6.5-8.5	pH Units	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Selenium, Total (mg/L)	21	50	--	ug/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Sodium (mg/L)	1900	--	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Temperature (°C)	22.9	--	--	--	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Total Dissolved Solids (mg/L)	5800	--	500	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Total Hardness (mg/L as CaCO3)	790	--	--	mg/L	9/2/2021
9	WCR2021-011543	WP1027065	35.27769	-119.96076	Domestic	240	60.9	25	AEI0343	Turbidity (NTU)	49	--	5	NTU	9/2/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Nitrate (mg/L as N)	0.94	10	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Threshold Odor (T.O.N)	2.5	--	3	T.O.N.	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Alkalinity (mg/L as CaCO3)	190	--	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Aluminum, Total (µg/L)	300	1000	200	ug/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Barium, Total (µg/L)	ND	1000	--	ug/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Boron (mg/L)	0.44	--	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Calcium (mg/L)	92	--	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Chloride (mg/L)	39	--	250	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Color (Pt. Co. Units)	5	--	15	CU	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Conductivity (µS/cm)	1500	--	--	umhos/cm	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Flouride (mg/L)	1.1	2	2.0	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Iron, Total (µg/L)	320	--	300	ug/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Magnesium (mg/L)	44	--	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Manganese, Total (µg/L)	110	--	50	ug/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	MBAS (mg/L)	0.073	--	500.00	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Nitrate + Nitrite (mg/L as N)	0.94	10	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Nitrite as N (mg/L)	ND	1	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	pH	8	--	6.5-8.5	pH Units	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Selenium, Total (mg/L)	3	50	--	ug/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Sodium (mg/L)	160	--	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Temperature (°C)	22.9	--	--	--	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Total Dissolved Solids (mg/L)	1000	--	500	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Total Hardness (mg/L as CaCO3)	410	--	--	mg/L	9/27/2021
10	WCR2021-011601	WP1027135	35.296817	-120.01381	Domestic	160	50	10	AEI0999	Turbidity (NTU)	11	--	5	NTU	9/27/2021

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Nitrate (mg/L as N)	7.7	10	--	mg/L	8/17/2020
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Nitrate (mg/L as N)	ND	10	--	mg/L	2/24/2022
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Threshold Odor (T.O.N)	1.5	--	3	T.O.N.	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Alkalinity (mg/L as CaCO3)	150	--	--	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Aluminum, Total (µg/L)	270	1000	200	ug/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Barium, Total (µg/L)	ND	1000	--	ug/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Boron (mg/L)	0.18	--	--	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Calcium (mg/L)	57	--	--	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Chloride (mg/L)	33	--	250	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Color (Pt. Co. Units)	ND	--	15	CU	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Conductivity (µS/cm)	770	--	--	umhos/cm	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Flouride (mg/L)	0.96	2	2.0	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Iron, Total (µg/L)	260	--	300	ug/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Magnesium (mg/L)	24	--	--	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Manganese, Total (µg/L)	ND	--	50	ug/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	MBAS (mg/L)	ND	--	500.00	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Nitrate + Nitrite (mg/L as N)	7.7	10	--	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Nitrite as N (mg/L)	ND	1	--	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	pH	8.1	--	6.5-8.5	pH Units	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Selenium, Total (mg/L)	2	50	--	ug/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Sodium (mg/L)	73	--	--	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Sulfate (mg/L as SO4)	160	--	250	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Temperature (°C)	21.8	--	--	--	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Total Dissolved Solids (mg/L)	510	--	500	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Total Hardness (mg/L as CaCO3)	240	--	--	mg/L	8/17/2020
11	WCR2020-010827	WP1026786	35.30401	-120.01342	Domestic	160	71	9	ADH1677	Turbidity (NTU)	3.6	--	5	NTU	8/17/2020
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Threshold Odor (T.O.N)	1.5	--	3	T.O.N.	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Alkalinity (mg/L as CaCO3)	480	--	--	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Aluminum, Total (µg/L)	450	1000	200	ug/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Barium, Total (µg/L)	120	1000	--	ug/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Boron (mg/L)	0.74	--	--	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Calcium (mg/L)	430	--	--	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Chloride (mg/L)	3100	--	250	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Color (Pt. Co. Units)	ND	--	15	CU	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Conductivity (µS/cm)	12000	--	--	umhos/cm	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Flouride (mg/L)	ND	2	2.0	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Iron, Total (µg/L)	2500	--	300	ug/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Magnesium (mg/L)	500	--	--	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Manganese, Total (µg/L)	330	--	50	ug/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	MBAS (mg/L)	ND	--	500.00	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Nitrate + Nitrite (mg/L as N)	ND	10	--	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Nitrite as N (mg/L)	ND	1	--	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	pH	7.9	--	6.5-8.5	pH Units	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Selenium, Total (mg/L)	23	50	--	ug/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Sodium (mg/L)	7700	--	--	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Sulfate (mg/L as SO4)	2100	--	250	mg/L	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Temperature (°C)	23.5	--	--	--	2/24/2022
11	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Total Dissolved Solids (mg/L)	6100	--	500	mg/L	2/24/2022
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Nitrate (mg/L as N)	4.2	10	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Alkalinity (mg/L as CaCO3)	180	--	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Aluminum, Total (µg/L)	1400	1000	200	ug/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Barium, Total (µg/L)	ND	1000	--	ug/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Boron (mg/L)	0.22	--	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Calcium (mg/L)	99	--	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Chloride (mg/L)	45	--	250	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Color (Pt. Co. Units)	35	--	15	CU	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Conductivity (µS/cm)	1100	--	--	umhos/cm	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Flouride (mg/L)	1.1	2	2.0	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Iron, Total (µg/L)	1700	--	300	ug/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Magnesium (mg/L)	31	--	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Manganese, Total (µg/L)	45	--	50	ug/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	MBAS (mg/L)	ND	--	500.00	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Nitrate + Nitrite (mg/L as N)	4.2	10	--	mg/L	2/19/2020

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Nitrate + Nitrite (mg/L as N)	4.4	10	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Nitrite as N (mg/L)	0.19	1	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	pH	7.9	--	6.5-8.5	pH Units	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Selenium, Total (mg/L)	3.6	50	--	ug/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Sodium (mg/L)	97	--	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Sulfate (mg/L as SO4)	310	--	250	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Temperature (°C)	22.9	--	7.5	--	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Total Dissolved Solids (mg/L)	760	--	500	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Total Hardness (mg/L as CaCO3)	380	--	--	mg/L	2/19/2020
12	WCR2020-003758	WP1026621	35.299845	-120.010361	Domestic	117	54	15	ADB1857	Turbidity (NTU)	18	--	5	NTU	2/19/2020
12	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Total Hardness (mg/L as CaCO3)	3200	--	--	mg/L	2/24/2022
12	WCR2022-004928	WP1027259	35.26378	-119.94201	Domestic	300	110	20	AFB1843	Turbidity (NTU)	25	--	5	NTU	2/24/2022
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Alkalinity (mg/L as CaCO3)	170	--	--	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Aluminum, Total (µg/L)	800	1000	200	ug/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Barium, Total (µg/L)	ND	1000	--	ug/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Boron (mg/L)	0.14	--	--	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Calcium (mg/L)	75	--	--	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Chloride (mg/L)	25	--	250	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Color (Pt. Co. Units)	10	--	15	CU	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Flouride (mg/L)	0.85	2	2.0	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Iron, Total (µg/L)	800	--	300	ug/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Magnesium (mg/L)	28	--	--	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Manganese, Total (µg/L)	12	--	50	ug/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	MBAS (mg/L)	ND	--	500.00	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	pH	8.1	--	6.5-8.5	pH Units	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Selenium, Total (mg/L)	3	50	--	ug/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Sodium (mg/L)	66	--	--	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Sulfate (mg/L as SO4)	240	--	250	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Temperature (°C)	22.9	--	--	--	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Total Dissolved Solids (mg/L)	610	--	500	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Total Hardness (mg/L as CaCO3)	300	--	--	mg/L	9/28/2021
13	WCR2021-011545	WP1027162	35.30123	-120.00896	Domestic	160	47	40	AEI3108	Turbidity (NTU)	18	--	5	NTU	9/28/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Nitrate (mg/L as N)	6.8	10	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Threshold Odor (T.O.N)	2.5	--	3	T.O.N.	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Alkalinity (mg/L as CaCO3)	170	--	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Aluminum, Total (µg/L)	1200	1000	200	ug/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Barium, Total (µg/L)	ND	1000	--	ug/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Boron (mg/L)	0.32	--	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Calcium (mg/L)	87	--	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Chloride (mg/L)	40	--	250	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Color (Pt. Co. Units)	10	--	15	CU	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Conductivity (µS/cm)	1100	--	--	umhos/cm	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Flouride (mg/L)	1.3	2	2.0	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Iron, Total (µg/L)	980	--	300	ug/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Magnesium (mg/L)	25	--	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Manganese, Total (µg/L)	74	--	50	ug/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	MBAS (mg/L)	ND	--	500.00	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Nitrate + Nitrite (mg/L as N)	6.9	10	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Nitrite as N (mg/L)	0.11	1	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	pH	8.1	--	6.5-8.5	pH Units	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Selenium, Total (mg/L)	12	50	--	ug/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Sodium (mg/L)	120	--	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Sulfate (mg/L as SO4)	340	--	250	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Temperature (°C)	22.9	--	--	--	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Total Dissolved Solids (mg/L)	790	--	500	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Total Hardness (mg/L as CaCO3)	320	--	--	mg/L	9/1/2021
14	WCR2021-011565	WP1027064	35.295049	-120.007239	Domestic	160	57	5	AEI0249	Turbidity (NTU)	13	--	5	NTU	9/1/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Nitrate (mg/L as N)	5.5	10	--	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Threshold Odor (T.O.N)	1.2	--	3	T.O.N.	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Alkalinity (mg/L as CaCO3)	170	--	--	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Aluminum, Total (µg/L)	67	1000	200	ug/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Barium, Total (µg/L)	ND	1000	--	ug/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Boron (mg/L)	0.22	--	--	mg/L	9/7/2021

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Calcium (mg/L)	79	--	--	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Chloride (mg/L)	32	--	250	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Color (Pt. Co. Units)	ND	--	15	CU	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Conductivity (µS/cm)	950	--	--	umhos/cm	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Flouride (mg/L)	0.48	2	2.0	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Iron, Total (µg/L)	150	--	300	ug/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Magnesium (mg/L)	29	--	--	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Manganese, Total (µg/L)	30	--	50	ug/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	MBAS (mg/L)	ND	--	500.00	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Nitrate + Nitrite (mg/L as N)	5.5	10	--	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Nitrite as N (mg/L)	ND	1	--	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	pH	8.2	--	6.5-8.5	pH Units	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Selenium, Total (mg/L)	ND	50	--	ug/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Sodium (mg/L)	75	--	--	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Sulfate (mg/L as SO4)	270	--	250	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Temperature (°C)	22.1	--	--	--	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Total Dissolved Solids (mg/L)	620	--	500	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Total Hardness (mg/L as CaCO3)	320	--	--	mg/L	9/7/2021
15	WCR2021-011546	WP1027063	35.3068	-120.00712	Domestic	160	35.8	15	AEI0608	Turbidity (NTU)	2.1	--	5	NTU	9/7/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Nitrate (mg/L as N)	4.2	10	--	mg/L	9/2/2021
16	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	Color (Pt. Co. Units)	ND	--	15	CU	6/22/2023
16	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	Flouride (mg/L)	3.1	2	2.0	mg/L	6/22/2023
16	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	Iron, Total (µg/L)	380	--	300	ug/L	6/22/2023
16	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	Manganese, Total (µg/L)	ND	--	50	ug/L	6/22/2023
16	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	MBAS (mg/L)	ND	--	500.00	mg/L	6/22/2023
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Threshold Odor (T.O.N)	1	--	3	T.O.N.	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Alkalinity (mg/L as CaCO3)	120	--	--	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Aluminum, Total (µg/L)	1400	1000	200	ug/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Barium, Total (µg/L)	ND	1000	--	ug/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Boron (mg/L)	0.17	--	--	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Calcium (mg/L)	98	--	--	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Chloride (mg/L)	19	--	250	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Color (Pt. Co. Units)	5	--	15	CU	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Conductivity (µS/cm)	720	--	--	umhos/cm	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Flouride (mg/L)	1	2	2.0	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Iron, Total (µg/L)	1100	--	300	ug/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Magnesium (mg/L)	21	--	--	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Manganese, Total (µg/L)	21	--	50	ug/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	MBAS (mg/L)	ND	--	500.00	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Nitrate + Nitrite (mg/L as N)	4.2	10	--	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Nitrite as N (mg/L)	ND	1	--	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	pH	8	--	6.5-8.5	pH Units	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Selenium, Total (mg/L)	8	50	--	ug/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Sodium (mg/L)	62	--	--	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Sulfate (mg/L as SO4)	210	--	250	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Temperature (°C)	23.1	--	--	--	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Total Dissolved Solids (mg/L)	470	--	500	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Total Hardness (mg/L as CaCO3)	330	--	--	mg/L	9/2/2021
16	WCR2021-011540	WP1027116	35.298859	-120.004454	Domestic	160	41.6	75	AEI0342	Turbidity (NTU)	9.5	--	5	NTU	9/2/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Nitrate (mg/L as N)	6.5	10	--	mg/L	9/7/2021
17	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	Nitrate (mg/L as N)	6.6	10	--	mg/L	6/22/2023
17	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	Nitrate + Nitrite (mg/L as N)	6.6	10	--	mg/L	2/28/2022
17	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	Nitrite as N (mg/L)	ND	1	--	mg/L	6/22/2023
17	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	pH	8.35	--	6.5-8.5	pH Units	6/22/2023
17	N/A	WP1207724	35.28889	-119.98468	Domestic	160	21.3	50	2304870-01	Selenium, Total (mg/L)	22	50	--	ug/L	6/22/2023
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Threshold Odor (T.O.N)	1	--	3	T.O.N.	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Alkalinity (mg/L as CaCO3)	190	--	--	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Aluminum, Total (µg/L)	1700	1000	200	ug/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Barium, Total (µg/L)	ND	1000	--	ug/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Boron (mg/L)	1.4	--	--	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Calcium (mg/L)	180	--	--	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Chloride (mg/L)	340	--	250	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Color (Pt. Co. Units)	5	--	15	CU	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Conductivity (µS/cm)	4700	--	--	umhos/cm	9/7/2021

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Flouride (mg/L)	0.98	2	2.0	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Iron, Total (µg/L)	2300	--	300	ug/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Magnesium (mg/L)	98	--	--	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Manganese, Total (µg/L)	210	--	50	ug/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	MBAS (mg/L)	ND	--	500.00	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Nitrate + Nitrite (mg/L as N)	6.5	10	--	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Nitrite as N (mg/L)	ND	1	--	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	pH	8.3	--	6.5-8.5	pH Units	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Selenium, Total (mg/L)	22	50	--	ug/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Sodium (mg/L)	790	--	--	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Temperature (°C)	21.9	--	--	--	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Total Dissolved Solids (mg/L)	3000	--	500	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Total Hardness (mg/L as CaCO3)	850	--	--	mg/L	9/7/2021
17	WCR2021-011598	WP1027117	35.29704	-120.00266	Domestic	160	42	50	AEI0609	Turbidity (NTU)	28	--	5	NTU	9/7/2021
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Nitrate (mg/L as N)	7.8	10	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Alkalinity (mg/L as CaCO3)	160	--	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Aluminum, Total (µg/L)	1900	1000	200	ug/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Barium, Total (µg/L)	ND	1000	--	ug/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Boron (mg/L)	0.15	--	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Calcium (mg/L)	64	--	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Chloride (mg/L)	42	--	250	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Color (Pt. Co. Units)	ND	--	15	CU	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Conductivity (µS/cm)	750	--	--	umhos/cm	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Flouride (mg/L)	1.4	2	2.0	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Iron, Total (µg/L)	2500	--	300	ug/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Magnesium (mg/L)	24	--	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Manganese, Total (µg/L)	39	--	50	ug/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	MBAS (mg/L)	ND	--	500.00	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Nitrate + Nitrite (mg/L as N)	7.8	10	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Nitrite as N (mg/L)	ND	1	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	pH	8.1	--	6.5-8.5	pH Units	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Selenium, Total (mg/L)	2.8	50	--	ug/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Sodium (mg/L)	54	--	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Sulfate (mg/L as SO4)	130	--	250	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Temperature (°C)	22.1	--	7.5	--	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Total Dissolved Solids (mg/L)	470	--	500	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Total Hardness (mg/L as CaCO3)	260	--	--	mg/L	2/28/2022
18	WCR2022-005891	WP1027260	35.29345	-119.998024	Domestic	200	60	30	AFC0069	Turbidity (NTU)	35	--	5	NTU	2/28/2022
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Aluminum, Total (µg/L)	140	1000	200	ug/L	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Barium, Total (µg/L)	39	1000	--	ug/L	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Boron (mg/L)	1.9	--	--	mg/L	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Chloride (mg/L)	48	--	250	mg/L	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Conductivity @ 25C	1300	--	--	umhos/cm	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Sulfate (mg/L as SO4)	220	--	250	mg/L	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Temperature (°C)	22	--	--	--	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Total Dissolved Solids (mg/L)	800	--	500	mg/L	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Turbidity (NTU)	16	--	5	NTU	6/22/2023
19	WCR2023-007117	WP1207724	35.288896	-119.984717	Domestic	160	21.3	50	2304870-01	Threshold Odor (T.O.N)	17	--	3	T.O.N.	6/22/2023
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Alkalinity (mg/L as CaCO3)	300	--	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Arsenic, Total (µg/L)	ND	10	--	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Barium, Total (µg/L)	13	1000	--	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Boron (mg/L)	1.6	--	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Bromoform (µg/L)	ND	0	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Calcium (mg/L)	54	--	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Chloride (mg/L)	86	--	250	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Chromium, Total (µg/L)	21	50	--	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Color (Pt. Co. Units)	ND	--	15	CU	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Conductivity (µS/cm)	1620	--	--	umhos/cm	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Flouride (mg/L)	1.9	2	2	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Gross Alpha (pCi/L)	4.8	15	--	pCi/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Hexavalent Chromium (µg/L)	1.2	--	--	ug/L	12/17/2024

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Iron, Total (µg/L)	ND	--	300	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Magnesium (mg/L)	50	--	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Manganese, Total (µg/L)	ND	--	50	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	MBAS (mg/L)	ND	--	500.00	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Nitrate + Nitrite (mg/L as N)	4	10	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Nitrate (mg/L as N)	4	10	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Perchlorate (µg/L)	0.7	6	--	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	pH	7.4	--	6.5-8.5	pH Units	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Selenium, Total (mg/L)	8	50	--	ug/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Sodium (mg/L)	214	--	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Sulfate (mg/L as SO4)	437	--	250	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Total Dissolved Solids (mg/L)	1110	--	500	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Total Hardness (mg/L as CaCO3)	340	--	--	mg/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Turbidity (NTU)	0.1	--	5	NTU	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Uranium (pCi/L)	3.18	20	--	pCi/L	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/17/2024
20	N/A	N/A	35.286226	-119.978749	Domestic	0	0	4	SP 2420464	Nitrate as NO3 (mg/L)	17.6	45	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Alkalinity (mg/L as CaCO3)	250	--	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Arsenic, Total (µg/L)	ND	10	--	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Barium, Total (µg/L)	24	1000	--	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Boron (mg/L)	0.7	--	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Bromoform (µg/L)	ND	0	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Calcium (mg/L)	71	--	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Chloride (mg/L)	49	--	250	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Chromium, Total (µg/L)	21	50	--	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Color (Pt. Co. Units)	ND	--	15	CU	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Conductivity (µS/cm)	1260	--	--	umhos/cm	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Flouride (mg/L)	1	2	2.0	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Gross Alpha (pCi/L)	5.12	15	--	pCi/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Hexavalent Chromium (µg/L)	2.3	--	--	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Iron, Total (µg/L)	140	--	300	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Magnesium (mg/L)	59	--	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Manganese, Total (µg/L)	20.6	--	50	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	MBAS (mg/L)	ND	--	500.00	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Nitrate + Nitrite (mg/L as N)	6.3	10	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Nitrate (mg/L as N)	6.3	10	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Perchlorate (µg/L)	1	6	--	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	pH	7.3	--	6.5-8.5	pH Units	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Selenium, Total (mg/L)	7	50	--	ug/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Sodium (mg/L)	114	--	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Sulfate (mg/L as SO4)	358	--	250	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Total Dissolved Solids (mg/L)	880	--	500	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Total Hardness (mg/L as CaCO3)	420	--	--	mg/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Turbidity (NTU)	1.6	--	5	NTU	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Uranium (pCi/L)	2.33	20	--	pCi/L	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/17/2024
21	N/A	N/A	35.287615	-119.977918	Domestic	167.9	16.4	4	SP 2420460	Nitrate as NO3 (mg/L)	28	45	--	mg/L	12/17/2024
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Nitrate (mg/L as N)	5.9	10	--	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Threshold Odor (T.O.N)	1.5	--	3	T.O.N.	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Alkalinity (mg/L as CaCO3)	10	--	--	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Aluminum, Total (µg/L)	1600	1000	200	ug/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Barium, Total (µg/L)	ND	1000	--	ug/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Boron (mg/L)	0.21	--	--	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Calcium (mg/L)	100	--	--	mg/L	9/7/2021

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Chloride (mg/L)	46	--	250	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Color (Pt. Co. Units)	5	--	15	CU	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Conductivity (µS/cm)	1000	--	--	umhos/cm	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Flouride (mg/L)	1.3	2	2.0	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Iron, Total (µg/L)	2000	--	300	ug/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Magnesium (mg/L)	22	--	--	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Manganese, Total (µg/L)	29	--	50	ug/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	MBAS (mg/L)	ND	--	500.00	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Nitrate + Nitrite (mg/L as N)	5.9	10	--	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Nitrite as N (mg/L)	ND	1	--	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	pH	8.1	--	6.5-8.5	pH Units	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Selenium, Total (mg/L)	6.4	50	--	ug/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Sodium (mg/L)	79	--	--	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Temperature (°C)	21.5	--	--	--	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Total Dissolved Solids (mg/L)	700	--	500	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Total Hardness (mg/L as CaCO3)	340	--	--	mg/L	9/7/2021
22	WCR2021-011585	WP1027062	35.29683	-119.97503	Domestic	160	15	25	AEI0607	Turbidity (NTU)	18	--	5	NTU	9/7/2021
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Alkalinity (mg/L as CaCO3)	210	--	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Arsenic, Total (µg/L)	ND	10	--	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Barium, Total (µg/L)	27	1000	--	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Boron (mg/L)	0.1	--	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Bromoform (µg/L)	ND	0	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Calcium (mg/L)	48	--	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Chloride (mg/L)	49	--	250	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Chromium, Total (µg/L)	15	50	--	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Color (Pt. Co. Units)	ND	--	15	CU	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Conductivity (µS/cm)	816	--	--	umhos/cm	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Flouride (mg/L)	0.6	2	2.0	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Gross Alpha (pCi/L)	7.93	15	--	pCi/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Hexavalent Chromium (µg/L)	1.4	--	--	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Iron, Total (µg/L)	ND	--	300	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Magnesium (mg/L)	42	--	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Manganese, Total (µg/L)	ND	--	50	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	MBAS (mg/L)	ND	--	500.00	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Nitrate (mg/L as N)	8.1	10	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Nitrate + Nitrite (mg/L as N)	8.1	10	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Nitrate as NO3 (mg/L)	35.9	45	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Perchlorate (µg/L)	1.2	6	--	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	pH	8.2	--	6.5-8.5	pH Units	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Selenium, Total (mg/L)	5	50	--	ug/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Sodium (mg/L)	55	--	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Sulfate (mg/L as SO4)	132	--	250	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Total Dissolved Solids (mg/L)	530	--	500	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Total Hardness (mg/L as CaCO3)	293	--	--	mg/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Turbidity (NTU)	0.1	--	5	NTU	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Uranium (pCi/L)	1.89	20	--	pCi/L	12/17/2024
23	N/A	N/A	35.279138	-119.971511	Domestic	109.5	70.4	4	SP 2420461	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/17/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Alkalinity (mg/L as CaCO3)	280	--	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Aluminum, Total (µg/L)	700	1000	200	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Arsenic, Total (µg/L)	4	10	--	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Barium, Total (µg/L)	15	1000	--	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Boron (mg/L)	9.4	--	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Bromoform (µg/L)	ND	0	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Calcium (mg/L)	27	--	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Chloride (mg/L)	530	--	250	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Chromium, Total (µg/L)	20	50	--	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Color (Pt. Co. Units)	120	--	15	CU	12/18/2024

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Conductivity (µS/cm)	4520	--	--	umhos/cm	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Flouride (mg/L)	5.1	2	2	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Gross Alpha (pCi/L)	15.6	15	--	pCi/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Hexavalent Chromium (µg/L)	ND	--	--	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Iron, Total (µg/L)	220	--	300	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Magnesium (mg/L)	18	--	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Manganese, Total (µg/L)	32	--	50	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	MBAS (mg/L)	ND	--	500.00	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Nitrate + Nitrite (mg/L as N)	ND	10	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Perchlorate (µg/L)	ND	6	--	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Perfluorohexanesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	pH	8.04	--	6.5-8.5	pH Units	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Selenium, Total (mg/L)	8	50	--	ug/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Sodium (mg/L)	981	--	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Sulfate (mg/L as SO4)	1210	--	250	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Total Dissolved Solids (mg/L)	3110	--	500	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Total Hardness (mg/L as CaCO3)	141	--	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Turbidity (NTU)	100	--	5	NTU	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Uranium (pCi/L)	7.38	20	--	pCi/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Nitrate (mg/L as N)	ND	10	--	mg/L	12/18/2024
24	N/A	N/A	35.283343	-119.969178	Domestic	81.3	7.5	5	SP 2420468	Nitrate as NO3 (mg/L)	ND	45	--	mg/L	12/18/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Nitrate (mg/L as N)	0.6	10	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Nitrate as NO3 (mg/L)	2.4	45	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Alkalinity (mg/L as CaCO3)	280	--	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Arsenic, Total (µg/L)	3	10	--	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Barium, Total (µg/L)	7	1000	--	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Boron (mg/L)	8.8	--	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Bromoform (µg/L)	ND	0	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Calcium (mg/L)	28	--	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Chloride (mg/L)	470	--	250	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Chromium, Total (µg/L)	19	50	--	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Color (Pt. Co. Units)	ND	--	15	CU	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Conductivity (µS/cm)	4110	--	--	umhos/cm	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Flouride (mg/L)	3.7	2	2	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Gross Alpha (pCi/L)	0.323	15	--	pCi/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Hexavalent Chromium (µg/L)	1.1	--	--	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Iron, Total (µg/L)	ND	--	300	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Magnesium (mg/L)	19	--	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Manganese, Total (µg/L)	1.2	--	50	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	MBAS (mg/L)	ND	--	500.00	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Nitrate + Nitrite (mg/L as N)	0.6	10	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Perchlorate (µg/L)	ND	6	--	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Perfluorohexanesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	pH	8.3	--	6.5-8.5	pH Units	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Selenium, Total (mg/L)	5	50	--	ug/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Sodium (mg/L)	834	--	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Sulfate (mg/L as SO4)	1050	--	250	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Total Dissolved Solids (mg/L)	2770	--	500	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Total Hardness (mg/L as CaCO3)	148	--	--	mg/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Turbidity (NTU)	0.35	--	5	NTU	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Uranium (pCi/L)	6.25	20	--	pCi/L	12/17/2024
25	N/A	N/A	35.282605	-119.967623	Domestic	0	0	4	SP 2420462	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/17/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Alkalinity (mg/L as CaCO3)	300	--	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Arsenic, Total (µg/L)	1	10	--	ug/L	12/18/2024

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Barium, Total (µg/L)	25	1000	--	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Boron (mg/L)	1.5	--	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Bromoform (µg/L)	ND	0	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Calcium (mg/L)	129	--	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Chloride (mg/L)	450	--	250	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Chromium, Total (µg/L)	15	50	--	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Color (Pt. Co. Units)	ND	--	15	CU	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Conductivity (µS/cm)	3030	--	--	umhos/cm	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Flouride (mg/L)	0.7	2	2	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Gross Alpha (pCi/L)	13.9	15	--	pCi/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Hexavalent Chromium (µg/L)	0.6	--	--	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Iron, Total (µg/L)	170	--	300	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Magnesium (mg/L)	97	--	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Manganese, Total (µg/L)	3.2	--	50	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	MBAS (mg/L)	ND	--	500.00	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Nitrate + Nitrite (mg/L as N)	8.1	10	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Perchlorate (µg/L)	0.8	6	--	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Perfluorohexanesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	pH	7.1	--	6.5-8.5	pH Units	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Selenium, Total (mg/L)	13	50	--	ug/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Sodium (mg/L)	335	--	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Sulfate (mg/L as SO4)	699	--	250	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Total Dissolved Solids (mg/L)	2090	--	500	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Total Hardness (mg/L as CaCO3)	721	--	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Turbidity (NTU)	0.25	--	5	NTU	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Uranium (pCi/L)	5.92	20	--	pCi/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Nitrate (mg/L as N)	8.1	10	--	mg/L	12/18/2024
26	N/A	N/A	35.274751	-119.954598	Domestic	0	0	5	SP 2420465	Nitrate as NO3 (mg/L)	35.9	45	--	mg/L	12/18/2024
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Nitrate (mg/L as N)	18	10	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Alkalinity (mg/L as CaCO3)	130	--	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Barium, Total (µg/L)	ND	1000	--	ug/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Boron (mg/L)	2.1	--	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Calcium (mg/L)	310	--	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Chloride (mg/L)	560	--	250	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Color (Pt. Co. Units)	ND	--	15	CU	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Conductivity (µS/cm)	4700	--	--	umhos/cm	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Flouride (mg/L)	ND	2	2.0	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Iron, Total (µg/L)	33	--	300	ug/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Magnesium (mg/L)	62	--	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Manganese, Total (µg/L)	200	--	50	ug/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	MBAS (mg/L)	ND	--	500.00	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Nitrate + Nitrite (mg/L as N)	18	10	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Nitrate + Nitrite (mg/L as N)	18	10	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Nitrite as N (mg/L)	ND	1	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	pH	7.8	--	6.5-8.5	pH Units	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Selenium, Total (mg/L)	29	50	--	ug/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Sodium (mg/L)	750	--	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Temperature (°C)	22	--	7.5	--	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Total Dissolved Solids (mg/L)	3100	--	500	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Total Hardness (mg/L as CaCO3)	100	--	--	mg/L	12/9/2020
27	WCR2020-015083	WP1026835	35.31212	-119.94946	Domestic	180	17	1	ADL1227	Turbidity (NTU)	0.19	--	5	NTU	12/9/2020
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Nitrate (mg/L as N)	ND	10	--	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Threshold Odor (T.O.N)	8.3	--	3	T.O.N.	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Alkalinity (mg/L as CaCO3)	280	--	--	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Aluminum, Total (µg/L)	ND	1000	200	ug/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Barium, Total (µg/L)	250	1000	--	ug/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Boron (mg/L)	0.17	--	--	mg/L	10/5/2021

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Calcium (mg/L)	67	--	--	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Chloride (mg/L)	170	--	250	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Color (Pt. Co. Units)	ND	--	15	CU	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Conductivity (µS/cm)	1100	--	--	umhos/cm	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Flouride (mg/L)	0.93	2	2.0	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Iron, Total (µg/L)	ND	--	300	ug/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Magnesium (mg/L)	48	--	--	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Manganese, Total (µg/L)	ND	--	50	ug/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	MBAS (mg/L)	3.9	--	500.00	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Nitrate + Nitrite (mg/L as N)	3.9	10	--	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Nitrite as N (mg/L)	ND	1	--	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Selenium, Total (mg/L)	2.5	50	--	ug/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Sodium (mg/L)	73	--	--	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Temperature (°C)	22.6	--			10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Temperature (°C)	23	--	7.5	--	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Total Dissolved Solids (mg/L)	570	--	500	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Total Hardness (mg/L as CaCO3)	360	--	--	mg/L	10/5/2021
28	N/A	WP1027008	35.2703	-119.9454	Domestic	120	60	10	AEJ0487	Turbidity (NTU)	0.16	--	5	NTU	10/5/2021
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Nitrate (mg/L as N)	13	10	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Threshold Odor (T.O.N)	1.5	--	3	T.O.N.	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Alkalinity (mg/L as CaCO3)	110	--	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Aluminum, Total (µg/L)	670	1000	200	ug/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Barium, Total (µg/L)	ND	1000	--	ug/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Boron (mg/L)	5.3	--	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Calcium (mg/L)	590	--	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Color (Pt. Co. Units)	10	--	15	CU	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Conductivity (µS/cm)	15000	--	--	umhos/cm	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Flouride (mg/L)	0.19	2	2.0	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Iron, Total (µg/L)	730	--	300	ug/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Magnesium (mg/L)	230	--	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Manganese, Total (µg/L)	510	--	50	ug/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	MBAS (mg/L)	ND	--	500.00	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Nitrate + Nitrite (mg/L as N)	13	10	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Nitrate + Nitrite (mg/L as N)	13	10	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Nitrite as N (mg/L)	ND	1	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	pH	7.7	--	6.5-8.5	pH Units	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Selenium, Total (mg/L)	43	50	--	ug/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Sodium (mg/L)	3000	--	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Temperature (°C)	22	--	7.5	--	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Total Hardness (mg/L as CaCO3)	2400	--	--	mg/L	9/12/2020
30	WCR2020-015082	WP1026791	35.31575	-119.93721	Domestic	180	18	15	ADI2070	Turbidity (NTU)	15	--	5	NTU	9/12/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Threshold Odor (T.O.N)	1.5	--	3	T.O.N.	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Alkalinity (mg/L as CaCO3)	180	--	--	mg/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Aluminum, Total (µg/L)	ND	1000	200	ug/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Barium, Total (µg/L)	ND	1000	--	ug/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Boron (mg/L)	ND	--	--	mg/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Calcium (mg/L)	6	--	--	mg/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Color (Pt. Co. Units)	75	--	15	CU	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Conductivity (µS/cm)	63000	--	--	umhos/cm	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Iron, Total (µg/L)	58	--	300	ug/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Magnesium (mg/L)	22	--	--	mg/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Manganese, Total (µg/L)	16	--	50	ug/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	MBAS (mg/L)	ND	--	500.00	mg/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	pH	7.7	--	6.5-8.5	pH Units	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Selenium, Total (mg/L)	210	50	--	ug/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Sodium (mg/L)	150	--	--	mg/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Temperature (°C)	21.9	--	7.5	--	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Total Dissolved Solids (mg/L)	58000	--	500	mg/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Total Hardness (mg/L as CaCO3)	110	--	--	mg/L	6/15/2020
31	WCR2024-001638	WP1026705	35.2688333	-119.92275	Domestic	90	25	4	ADF1699	Turbidity (NTU)	29	--	5	NTU	6/15/2020
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Alkalinity (mg/L as CaCO3)	130	--	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Aluminum, Total (µg/L)	ND	1000	200	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Arsenic, Total (µg/L)	3	10	--	ug/L	12/18/2024

Appendix C - Water Quality Data Used in Analysis

Sample Location Number (BV assigned)	WCR Number (DWR)	Record ID (SLO Co)	Decimal Latitude	Decimal Longitude	Well Use	Well Depth	Static Water Level	Well Yield	Lab Sample ID	Analyte Name	Detected Level	MCL	SMCL	Unit	Sampling Date
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Barium, Total (µg/L)	8	1000	--	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Boron (mg/L)	1.8	--	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Bromoform (µg/L)	ND	0	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Cadmium, Total (µg/L)	ND	5	--	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Calcium (mg/L)	519	--	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Chloride (mg/L)	260	--	250	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Chromium, Total (µg/L)	6	50	--	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Color (Pt. Co. Units)	ND	--	15	CU	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Conductivity (µS/cm)	4440	--	--	umhos/cm	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Flouride (mg/L)	0.1	2	2	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Gross Alpha (pCi/L)	34.4	15	--	pCi/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Hexavalent Chromium (µg/L)	0.4	--	--	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Iron, Total (µg/L)	ND	--	300	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Magnesium (mg/L)	136	--	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Manganese, Total (µg/L)	79.9	--	50	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	MBAS (mg/L)	ND	--	500.00	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Nitrate + Nitrite (mg/L as N)	8.2	10	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Nitrate (mg/L as N)	8.2	10	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Perchlorate (µg/L)	0.2	6	--	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Perfluorohexanesesulfonic Acid (PFHxS) (ng/L)	ND	10	--	ng/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Perfluorooctanesulfonic Acid (PFOS) (ng/L)	ND	4	--	ng/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Perfluorooctanoic Acid (PFOA) (ng/L)	ND	4	--	ng/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	pH	7.2	--	6.5-8.5	pH Units	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Selenium, Total (mg/L)	86	50	--	ug/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Sodium (mg/L)	374	--	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Sulfate (mg/L as SO4)	2420	--	250	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Total Dissolved Solids (mg/L)	4160	--	500	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Total Hardness (mg/L as CaCO3)	1850	--	--	mg/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Turbidity (NTU)	0.15	--	5	NTU	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Uranium (pCi/L)	64.3	20	--	pCi/L	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Threshold Odor (T.O.N)	ND	--	3	T.O.N.	12/18/2024
32	N/A	N/A	35.285965	-119.858165	Domestic	0	0	5	SP 2420469	Nitrate as NO3 (mg/L)	36.3	45	--	mg/L	12/18/2024
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Nitrate (mg/L as N)	0.92	10	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Threshold Odor (T.O.N)	3	--	3	T.O.N.	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Alkalinity (mg/L as CaCO3)	200	--	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Aluminum, Total (µg/L)	140	1000	200	ug/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Barium, Total (µg/L)	52	1000	--	ug/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Boron (mg/L)	0.13	--	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Calcium (mg/L)	96	--	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Chloride (mg/L)	30	--	250	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Color (Pt. Co. Units)	5	--	15	CU	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Conductivity (µS/cm)	1000	--	--	umhos/cm	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Flouride (mg/L)	1.5	2	2.0	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Iron, Total (µg/L)	120	--	300	ug/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Magnesium (mg/L)	46	--	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Manganese, Total (µg/L)	30	--	50	ug/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	MBAS (mg/L)	ND	--	500.00	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Nitrate + Nitrite (mg/L as N)	0.92	10	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Nitrite as N (mg/L)	ND	1	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	pH	8.2	--	6.5-8.5	pH Units	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Selenium, Total (mg/L)	3.1	50	--	ug/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Sodium (mg/L)	72	--	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Sulfate (mg/L as SO4)	320	--	250	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Temperature (°C)	21.8	--	--	--	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Total Dissolved Solids (mg/L)	740	--	500	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Total Hardness (mg/L as CaCO3)	430	--	--	mg/L	8/17/2020
33	WCR2020-011120	WP1026780	35.30017	-120.01701	Domestic	200	93	6	ADH1676	Turbidity (NTU)	3.2	--	5	NTU	8/17/2020



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