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MIDDLE
RIVER
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VACA DIXON POWER CENTER

Groundwater Feasibility Study

Vaca Dixon Power Center Project

Vaca Dixon BESS LLC/Arges BESS LLC



Prepared by:



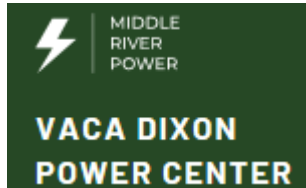
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JULY 9, 2026

Groundwater Feasibility Study

Vaca Dixon Power Center Project

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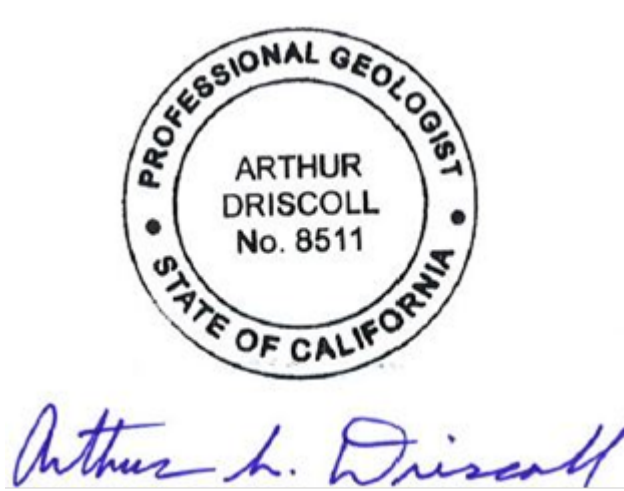
Executive Summary

INTERA Incorporated (INTERA) conducted a desktop groundwater supply feasibility study in support of the California Energy Commission (CEC) Opt-in Application for the Vaca Dixon Power Center Project (Project), developed by Vaca Dixon BESS LLC and Arges BESS LLC (Applicant), located on an approximately 10-acre agricultural parcel (Assessor's Parcel Number [APN] 0133-060-060) near Interstate 80 and Kilkenny Road within the City of Vacaville in Solano County, California (Site). Key findings are summarized below.

- Water demand during Project operation is minimal. The Project requires groundwater for emergency fire suppression storage (estimated by the Applicant to be approximately 240,000 gallons per year, assuming the maximum use case of full tank refill twice annually) and landscape irrigation (less than approximately 0.5 acre-feet per year [AFY]) for a combined maximum total of 1.24 AFY—less than the 2 AFY threshold for de minimis water users under California Water Code § 10721(e). Over the assumed 35-year Project lifetime, maximum total groundwater use is estimated at 43.3 acre-feet (AF).
- A groundwater well is feasible. The Theis analytical model, applied with conservative local aquifer parameters, simulates approximately 90.5 feet (ft) of drawdown at the well during peak-demand events (250 gallons per minute [gpm] for 8 hours to refill fire suppression storage tank[s]). A well screened at a depth of approximately 190–580 ft below ground surface (bgs) into the Upper Tehama Formation is recommended to accommodate this drawdown and ensure adequate pump submergence. Wells completed at this depth can yield up to 577 gpm, based on nearby well completion report (WCR) data, which exceeds the 250 gpm peak demand.
- Long-term drawdown at the proposed well is negligible. Theis simulations indicate approximately 5.8 inches of drawdown at the proposed well after 35 years of continuous pumping at the annualized average rate of 0.77 gpm.
- Long-term impact on neighboring wells is negligible. Under long-term pumping conditions (0.77 gpm continuously over 35 years), simulated drawdown at neighboring well locations within 0.5 miles ranges from 2.0 to 2.7 inches, which is below the 3-inch zone of influence threshold as defined by this study.
- Short-term impacts of peak-demand events are localized and temporary. During short-term peak demand events (250 gpm for 8 hours), simulated drawdown at neighboring well locations ranges from 0.04 ft to 7.75 ft, with the largest drawdown occurring at the nearest well; however, sufficient saturated thickness remains at all neighboring wells to prevent pumping interference, and the aquifer is expected to recover rapidly following cessation of pumping.
- Groundwater quality is suitable for intended non-potable uses (fire suppression and landscape irrigation). No evidence of groundwater contamination was identified within 0.5 miles of the Site, and the zone of influence (defined as the 3-inch long-term drawdown contour) does not reach any known contamination sites identified in regulatory database reviews.
- Subbasin-scale impacts are negligible. Total Project groundwater demand represents less than 0.03 percent of average annual Solano Subbasin extraction, and no significant impact to subbasin groundwater resources is anticipated.

Professional Geologist Seal

This Groundwater Feasibility Study for Vaca Dixon Power Center Project has been prepared under the direction of a professional geologist licensed in the State of California, consistent with professional standards of practice.



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Acronyms and Abbreviations

µg/L	micrograms per liter
AF	acre-feet
AFY	acre-feet per year
AFC	Application for Certification
APN	Assessor's Parcel Number
Applicant	Vaca Dixon BESS LLC and Arges BESS LLC
BESS	battery energy storage system
bgs	below ground surface
CEC	California Energy Commission
Cr6	hexavalent chromium
CVHM2	Central Valley Hydrologic Model version 2
C2VSim-FG v1.5	California Central Valley Groundwater-Surface Water Simulation Model Fine Grid version 1.5
DWR	California Department of Water Resources
ESA	Environmental Site Assessment
ft	foot/feet
GAMA	Groundwater Ambient Monitoring and Assessment
gpd/ft	gallons per day per foot
gpm	gallons per minute
GSP	Groundwater Sustainability Plan
GSA	Groundwater Sustainability Agency
INTERA	INTERA Incorporated
MCL	maximum contaminant level
msl	mean sea level
NO ₃ -N	nitrate as nitrogen
NPDES	National Pollutant Discharge Elimination System
Project	Vaca Dixon Power Center Project
REC	recognized environmental condition
report	Groundwater Feasibility Study
SGMA	Sustainable Groundwater Management Act
Site	10-acre property (APN 0133-060-060) at the intersection of Kilkenny Road and Interstate 80
SPPE	Small Power Plant Exemption
TDS	total dissolved solids
USGS	U.S. Geological Survey
UST	underground storage tank
WCR	well completion report

1.0 Introduction

Vaca Dixon BESS LLC and Arges BESS LLC (Applicant) plan to construct the Vaca Dixon Power Center Project (Project) on an approximately 10-acre agricultural parcel (Assessor's Parcel Number [APN] 0133-060-060) located near Interstate 80 and Kilkenny Road within the City of Vacaville in Solano County, California (Site). The Project consists of two battery energy storage system (BESS) facilities: the Vaca Dixon BESS (57 MW / 57 MWh) and the Arges BESS (100 MW / 400 MWh). The Site is orchard land (prunes) at the time of this study. Three billboards are located along the northwestern boundary of the Site. The Site and surrounding properties are shown in Figures 1 and 2.

The Project may require an onsite groundwater supply well to meet the following non-potable operational water demands: emergency fire suppression water storage (approximately 240,000 gallons per year, assuming the maximum use case of full tank refill twice annually), landscape irrigation (a maximum of approximately 0.5 acre-feet per year [AFY], applied April through October), and minimal annual makeup and testing water. These demands correspond to a combined total of 1.24 AFY for an annualized average pumping rate of approximately 0.77 gallons per minute (gpm), which is comparable to a de minimis water use defined as extractions of less than 2 AFY¹.

The Applicant is submitting a license application through the California Energy Commission's (CEC) AB 205 Opt-in Application process for approval to construct and operate qualifying energy facilities. CEC filing requirements include specific water supply and water quality information as outlined in Appendix B, *Information Requirements for an Application for Certification (AFC) or Small Power Plant Exemption (SPPE)*². The Applicant contracted Rincon Consultants to conduct a desktop study to determine the feasibility of constructing an on-site groundwater well for emergency fire suppression storage and landscape irrigation (non-potable) needs in support of the CEC Opt-in Application. Rincon Consultants subcontracted INTERA Incorporated (INTERA) to complete the requested Groundwater Feasibility Study (report) based on INTERA's expertise in this type of study.

1.1 Study Objectives

The objectives of this study are: 1) determine whether constructing an onsite groundwater well is feasible and can meet the water demand for the specified 35-year Project duration; and 2) provide information pertaining to the groundwater supply well to support CEC's Opt-in Application review.

1.2 Study Methodology and Data Sources

The methodology and data sources for this study include the following:

- Collecting and reviewing available hydrogeological and environmental data and information from various sources including U.S. Geological Survey (USGS) publications; California

¹ California Water Code § 10721(e) defines a person who extracts, for domestic purposes, two acre-feet or less of groundwater per year.

² Cal. Code Regs., tit. 20, div. 2, ch. 5, appendix B

Department of Water Resources (DWR) well completion reports (WCRs) and groundwater databases; basin plans from local water agencies; State of California GeoTracker and EnviroStor environmental databases; and a Phase I Environmental Site Assessment (ESA) for the Site prepared by TRC Environmental Corporation, Inc. (TRC, 2025), and findings from a geotechnical investigation conducted at the Site (Lau, 2025);

- Assessment of the groundwater supply including groundwater source aquifers, expected water quality, potential sources of groundwater contamination, and expected well depth and pumping capacity;
- Estimating the magnitude of water level drawdown in existing nearby wells and the potential mobilization of any groundwater contamination that may be caused by pumping from a new groundwater well onsite, using Theis analytical solutions calibrated to local aquifer parameters from regional scale groundwater models covering the Site and nearby WCRs; and
- Reviewing the state and local regulatory and permitting requirements pertaining to water wells.

1.3 Report Organization

This report is organized into the following sections:

- **Section 1 – Introduction:** provides the Project background and objectives of this report.
- **Section 2 – Groundwater Source Assessment:** provides a discussion on geology, hydrogeology, available groundwater aquifers, expected well production capacity, expected water quality for the proposed well, and an analytical assessment of the potential influence of Project pumping on nearby wells and groundwater resources.
- **Section 3 – Well Permitting and Construction Requirements:** provides an overview of the regulatory and permitting requirements for groundwater well construction and operation.
- **Section 4 – Conclusion and Recommendations:** provides a conclusion on whether constructing a groundwater well onsite is feasible and can meet the water demand for the specified 35-year Project duration, and recommendations.
- **Section 5 – Limitations:** provides a description of the study limitations.
- **Section 6 – References:** provides a list of references cited in this study.

2.0 Groundwater Source Assessment

The Project is located within the Solano Subbasin of the Sacramento Valley Groundwater Basin. The Solano Subbasin has been the focus of several comprehensive geologic, hydrogeologic, and hydrologic studies undertaken by DWR, Solano County, the USGS, and the Solano Subbasin Groundwater Sustainability Agency Collaborative. INTERA has utilized published literature and datasets from these and other sources, including the Solano Subbasin Groundwater Sustainability Plan (GSP; LSCE Team, 2021) and the most recent Solano County and Solano Subbasin Groundwater Sustainability Annual Report (LSCE, 2025), as well as geologic and water quality data from the GeoTracker and EnviroStor databases for this feasibility study. Analytical groundwater methods (Theis analytical solutions) were

applied using aquifer parameters derived from the Central Valley Hydrologic Model version 2 (CVHM2; Faunt *et al.*, 2024), the California Central Valley Groundwater-Surface Water Simulation Model Fine Grid version 1.5 (C2VSim-FG v1.5; DWR, 2025), and local WCRs to assess the potential impacts of groundwater pumping at the Site.

2.1 Geology and Hydrogeology

The Site overlies the Solano Subbasin of the Sacramento Valley Groundwater Basin, at a ground surface elevation of approximately 85 feet (ft) above mean sea level (msl) (TRC, 2025). The Solano Subbasin includes the southernmost portion of the Sacramento Valley Basin and extends into the northern portion of the Delta. The subbasin is bounded by the Coast Range and Vaca Mountains to the west, the Yolo Subbasin to the north and east (coinciding with Putah Creek along most of the northern edge and approximately the Solano/Yolo County line to the east), and the Sacramento, North Mokelumne, and San Joaquin Rivers to the south and east. The western boundary extends through a portion of Vacaville and is defined by a hydrogeologic divide separating it from the Suisun-Fairfield Valley Groundwater Basin. Subbasin topography is relatively flat, with ground surface elevations ranging from approximately 700 ft above msl in the northern and western areas abutting the Coast Range to approximately 20 ft below msl in the southern Delta (LSCE Team, 2021).

The primary water-bearing formations within the Solano Subbasin are sedimentary continental deposits of Pliocene to Holocene age that pinch out near the Coast Range to the west and thicken toward the eastern margin of the subbasin, reaching thicknesses of over 3,000 ft. The subbasin is characterized by two primary aquifer zones: 1) the Alluvial Aquifer and Upper Tehama zone, and 2) the Basal Tehama zone (LSCE Team, 2021). Saline water-bearing sedimentary units underlie the freshwater-bearing formations.

The Alluvial Aquifer / Upper Tehama zone is the shallower of the two primary aquifer zones, consisting of the Quaternary Alluvium and the Upper Tehama Formation, which have similar hydrogeologic characteristics and largely behave as a hydraulically connected aquifer zone (LSCE Team, 2021). The Quaternary Alluvium consists of Pleistocene to Holocene alluvial and intertidal deposits ranging from clays to gravels, and reaching thicknesses of several hundred feet. The underlying Upper Tehama Formation consists of Pliocene to early Pleistocene nonmarine sedimentary deposits of poorly stratified, laterally discontinuous sand-to-gravel beds interstratified with thicker fine-grained clay and silt beds, and it supplies many shallow wells in the Subbasin. Generally, in the vicinity of the Site, the Quaternary Alluvium is estimated to extend from the ground surface to approximately 40–100 ft below ground surface (bgs), and the Upper Tehama zone is estimated to extend to approximately 580 ft bgs (approximately -500 ft msl), based on interpretation of regional elevation contour maps from the Solano Subbasin groundwater sustainability plan (GSP; LSCE Team, 2021, pp. 1217–1220).

Separating the Alluvial Aquifer and Upper Tehama zone from the deeper Basal Tehama zone is the Middle Tehama, which is generally fine-grained with only thin sandy intervals of limited lateral extent. Because of its fine-grained nature, the Middle Tehama functions as an aquitard in much of the Subbasin, confining the underlying Basal Tehama zone and limiting vertical movement of water between the two

primary aquifer zones (LSCE Team, 2021). Generally, in the vicinity of the Site, the Middle Tehama is estimated to extend from approximately 580 to 1,380 ft bgs.

The Basal Tehama zone represents a notable source of groundwater supply in the Subbasin, particularly for public water supply wells, and is generally found at great depth under confined conditions. Generally, in the vicinity of the Site, the Basal Tehama zone is estimated to extend from approximately 1,380 to 1,980 ft bgs (LSCE Team, 2021, pp. 1217–1220). All formation depth estimates are approximate and based on projections from regional contour maps.

Pumping rates in the Alluvial Aquifer and Upper Tehama zone across the Subbasin are highly variable, ranging from less than 10 gpm in fine-grained portions of the aquifer to over 2,000 gpm in productive sand and gravel intervals (LSCE Team, 2021, pp. 1133–1138). Transmissivity values in the zone are similarly variable, ranging from less than 100 to greater than 40,000 gallons per day per foot (gpd/ft) across the subbasin. Values in the western portion of the subbasin are generally lower, likely reflecting the thinning of the Quaternary Alluvium and the greater prominence of finer-grained and more consolidated materials within the Upper Tehama part of the aquifer zone. Transmissivity values in the vicinity of the Site are estimated at less than 5,000 gpd/ft based on available well test data (LSCE Team, 2021, Figure 2-31, p. 1260), suggesting that groundwater production at the Site is likely toward the lower end of the subbasin-wide range. Specific yield values for the Alluvial Aquifer and Upper Tehama zone within the Solano Subbasin range from 0.063 to 0.102, with an overall average of 0.079 (Thomasson and others, 1960, as cited in LSCE Team, 2021, pp. 1138–1139). These specific yield values are based on well data within the upper 200 ft bgs; storage data for the deeper portions of the Upper Tehama Formation are not defined in the available GSP literature. Pumping rates in the underlying Basal Tehama zone are more consistently high, ranging from approximately 470 to 2,230 gpm, with transmissivity values in the range of 20,000 to 40,000 gpd/ft near the Site (LSCE Team, 2021, Figure 2-32, pp. 1261).

Prevailing groundwater flow directions within the Alluvial Aquifer and Upper Tehama zone tend to be from west/northwest to east/southeast toward the Sacramento River and Delta and are expected to be representative of conditions at the Site. In the deeper, confined Basal Tehama zone, groundwater gradients near the Site indicate flow generally to the southwest toward downtown Vacaville, largely reflecting the concentration of historical Basal Tehama pumping in that area (LSCE, 2025, pp. 108–111).

Overall, long-term groundwater level trends in the Solano Subbasin are stable, with localized declines in the northwestern part of the Subbasin. Groundwater levels decline during drought periods and recover during and after wet periods, with seasonal fluctuations driven by cyclic annual pumping for urban and agricultural uses. The subbasin has experienced a prolonged drier-than-average period since about 2000, with notable dry and critical years from 2020 through 2022, although many wells exhibited recovery in response to wet years in 2017, 2019, and 2023 (LSCE, 2025). Two groundwater level monitoring sites are located within 0.5 miles of the Site: PG&E well 383996N1219208W001, located less than 700 ft to the north (total completed depth of 150 ft bgs), and 06N01E06D001M, located approximately 1,700 ft to the northeast (total completed depth of 90 ft bgs). Both wells exhibit minimal seasonal variation (less than 5 ft) since 2009, with depth to groundwater ranging from 22.8 to 27.4 ft bgs at the PG&E well and from 7.6 to 10.7 ft bgs at 06N01E06D001M (DWR Sustainable Groundwater Management Act [SGMA] Data Viewer).

Groundwater storage in the Alluvial Aquifer and Upper Tehama zone fluctuates with climatic conditions, ranging from a decrease of approximately 117,000 AF during dry year 2019–2020 to an increase of approximately 47,000 AF during wet year 2022–2023, with a modest decrease of approximately 32,000 AF estimated for 2023–2024 (LSCE, 2025). Changes in Basal Tehama zone storage are substantially smaller given its confined conditions, with annual fluctuations generally less than 100 AF (LSCE, 2025).

2.2 Analytical Groundwater Impact Assessment

The CEC Application filing requirements for water resources development (Appendix B, (g)(14)(E)(ii)) require the Applicant to estimate the drawdown (pumping interference) on neighboring wells within 0.5 miles of the proposed pumping well, any effect on the migration of groundwater contaminants, and the likelihood of any change in existing physical or chemical conditions of groundwater. The Theis analytical groundwater flow solution was used to assess the extent of pumping effects and meet this filing requirement.

The Theis Non-Equilibrium Flow Equations (Theis, 1935; Kruseman and de Ridder, 1994) are as follows:

$$s = \frac{Q}{4\pi T} W(u)$$

$$u = \frac{r^2 S}{4Tt}$$

$$W(u) = \int_u^{\infty} \frac{e^{-x}}{x} dx$$

where

- s = predicted drawdown (ft)
- Q = average pumping rate (ft³/day)
- T = transmissivity (ft²/day)
- t = time (days)
- r = distance from pumping well (ft)
- S = coefficient of storage (dimensionless)
- $W(u)$ = Theis well function
- u = dimensionless time-distance parameter

The Theis equations describe transient groundwater flow to a pumping well in a homogeneous, isotropic confined aquifer and provide a conservative, well-established analytical basis for estimating drawdown as a function of pumping rate, aquifer transmissivity, coefficient of storage, distance, and time.

Transmissivity and coefficient of storage values for use in the Theis model were evaluated from two sources: local WCR data from wells within 0.5 miles of the Site (described below in Section 2.4, Table 2) and regional-scale numerical groundwater models.

Four WCRs within 0.5 miles of the Site reported pump test data sufficient to estimate transmissivity. Two wells screened at 100 ft bgs or less — WCR1962-000517 (perforated 20–100 ft bgs) and WCR1966-000117 (perforated 40–100 ft bgs), likely completed in the shallow Alluvial Aquifer — reported yields of 8 and 30 gpm and transmissivity values of 640 and 1,200 gpd/ft, respectively. Two deeper wells — WCR1950-000015 (perforated 78–570 ft bgs) and WCR1960-000769 (perforated 224–512 ft bgs), likely screened in the Upper Tehama Formation — reported yields between 417 and 577 gpm and transmissivity values ranging from 4,600 to 6,600 gpd/ft. As discussed below in Section 2.4, the proposed well must be screened in the Upper Tehama Formation (which extends approximately between 100 and 580 ft bgs) to meet the 250 gpm peak demand required for fire suppression tank refill; accordingly, transmissivity values from the two shallow wells are not representative of the target aquifer zone.

Model layers corresponding to the Upper Tehama Formation yielded transmissivity values of approximately 22,200 gpd/ft for C2VSim-FG v1.5 (Layer 1, representing from the ground surface to 418.6 ft bgs) and approximately 55,870 gpd/ft for CVHM2 (Layers 5 and 9, representing 150–500 ft bgs; Layers 6, 7, and 8 are not active in this portion of the model domain). Taken together, the available transmissivity data from these regional models and WCR data indicate considerable variability across the study area, ranging from 4,600 to 55,870 gpd/ft.

To ensure a conservative analysis, the smallest transmissivity value for the Upper Tehama (4,600 gpd/ft, observed at WCR1950-000015; Table 2) was selected for the analytical model. Using the minimum transmissivity value is the most conservative assumption because lower transmissivity produces a larger computed zone of influence, thereby providing an upper-bound estimate of pumping impacts on neighboring wells.

Because the proposed well is expected to be screened in the Upper Tehama Formation at depths greater than 100 ft bgs, and the Upper Tehama is characterized by poorly stratified, laterally discontinuous sand-to-gravel beds interstratified with thicker fine-grained clay and silt beds, semi-confined aquifer conditions are anticipated. Specific yield values reported in the regional GSP (LSCE Team, 2021), which are derived from shallow well data (less than 200 ft bgs), may therefore overestimate the coefficient of storage for a well completed in the Upper Tehama Formation. Accordingly, coefficients of storage were estimated from the regional models by multiplying model-layer specific storage by the representative layer thickness, yielding coefficients of storage of 2.237×10^{-4} (CVHM2, Layers 5 and 9) and 5.987×10^{-3} (C2VSim-FG v1.5, Layer 1). The smaller CVHM2 value was selected, as lower coefficient of storage produces greater computed drawdown and is therefore the more conservative choice. The selected value of 2.237×10^{-4} is considerably below the specific yield range of 0.063 to 0.102 reported for the Alluvial Aquifer and Upper Tehama zone (Thomasson et al., 1960, as cited in LSCE Team, 2021), further supporting its use as a conservative estimate.

The Project is expected to require approximately 0.5 AFY of groundwater for landscape irrigation and approximately 240,000 gallons per year for emergency fire suppression storage, assuming a maximum use case of two full-tank refills annually. Combined, these demands total a maximum of approximately 1.24 AFY, yielding a continuous annualized pumping rate of approximately 0.77 gpm applied at a theoretical well located at the centroid of the Site.

Two pumping scenarios were evaluated using the Theis analytical model. The long-term scenario evaluates drawdown over the full 35-year expected operational lifetime of the Project at the annualized average pumping rate of 0.77 gpm. The short-term scenario evaluates peak demand conditions associated with fire suppression tank refill events, in which 120,000 gallons is extracted at 250 gpm over eight hours.

For both scenarios, drawdown at the proposed well is estimated at a radial distance of 1 ft from the well center, as the Theis equation predicts infinite drawdown at $r = 0$. Drawdown at neighboring well locations is calculated at the mapped distance from the proposed well location (assumed at the parcel centroid) to each known well within 0.5 miles of the Site.

The long-term analysis is conservative for two reasons: first, actual pumping will occur only during the irrigation season (April through October), allowing for aquifer recovery during the remaining months; and second, the Theis equation assumes no recharge to the aquifer, whereas in reality the aquifer receives recharge from precipitation, agricultural irrigation recharge from adjacent and nearby orchards, and lateral inflow that would limit long-term drawdown accumulation. The short-term analysis is similarly conservative, as the selected transmissivity of 4,600 gpd/ft represents values observed in nearby Upper Tehama wells, and the selected coefficient of storage of 2.237×10^{-4} is considerably below values reported for the broader aquifer zone, resulting in a larger and more extensive computed cone of depression than would likely occur in practice.

The zone of influence of the proposed well is defined in this study as the area experiencing 3 inches (0.25 ft) or more of simulated drawdown – the threshold beyond which sustained hydraulic gradients toward the well could potentially influence groundwater contaminant migration. The effect of the proposed pumping on groundwater contaminant migration and existing physical and chemical groundwater conditions is discussed in Section 2.5: Expected Groundwater Quality. Drawdown was calculated at the locations of all known wells within 0.5 miles of the Site, and results are presented in Section 2.6: Potential Impact of Proposed Well on Groundwater Resources.

2.3 Groundwater Wells in the Vicinity

Water well information from the DWR well completion reports database was reviewed to identify water wells in the vicinity of the Site. Wells were included in the analysis only if they met the following criteria: (1) a well completion report PDF was available, (2) the report indicated a new well installation, modification, or repair (records for wells being destroyed were excluded), and (3) the well location was legibly documented in the report. Twenty-four water wells within 0.5 miles of the Site met these criteria. Water Code section 13752 was amended in June 2015 to allow public access to water well completion reports. Geologic information and well construction data from the well completion reports were used to characterize local aquifer conditions and calculate transmissivity values for use in the analytical groundwater model. A list of nearby water wells and their reported construction details are provided in Table 1, and the locations of these wells are shown in Figure 3. Copies of the well completion reports are provided in Appendix A.

Table 1. Nearby Wells – Construction Details

Well ID	Perforated Interval, Top/Bottom (ft bgs)	Casing Diameter (in.)	Location	Distance/Direction from Site	Well Type
WCR1963-000051	35-85	5	100 ft north of Mills Rd, ½ mile east of Ellsworth Rd, Section 1 T6N R1W	450 ft E of Site	Domestic
WCR1950-000015	78-570	12	1000 ft south of north section line, 1650 ft west of east section line, Section 1 T6N R1W	800 ft NE of Site	Industrial
WCR1978-000906	100-160	8	225 ft east of Mills Lane, 300 ft north of Ellsworth Rd, Section 1 T6N R1W	1000 ft W of Site	Irrigation
WCR1950-000639	29-99	6	1480 ft south, 733 ft west of NE corner, Section 1 T6N R1W	0.25 mi NE of Site	Domestic
WCR1964-000286	40-80	7	50 ft west of Mills Rd, 500 ft north of Ellsworth Rd, Section 1 T6N R1W	0.25 mi W of Site	Domestic
WCR1962-000517	20-40, 60-100	6	Mills Ln/Hwy 80	0.25 mi W of Site	Domestic
WCR1964-000285	41-81	6	200 ft west of Mills Rd, 500 ft north of Ellsworth Rd, Section 1 T6N R1W	0.25 mi W of Site	Domestic
WCR1948-000177	-	12	1800 ft north, 4050 ft west of SE corner,	0.25 mi SW of Site	Unknown

Well ID	Perforated Interval, Top/Bottom (ft bgs)	Casing Diameter (in.)	Location	Distance/Direction from Site	Well Type
			Section 1 T6N R1W		
WCR1982-001432	-	6	150 ft west of Mills Lane, 1000 ft north of Ellsworth Rd	0.25 mi W of Site	Domestic
WCR1960-000769	224-512	12	NW ¼ of SW ¼, Section 1, T6N R1W (center)	0.25 mi W of Site	Industrial
WCR1985-001451	55-100	5	200 ft east of Mills Lane, 1600 ft north of Ellsworth Rd	0.25 mi NW of Site	Domestic
WCR1988-003389	-	5	1800 ft north of Ellsworth Rd, 100 ft east of Mills Lane	0.5 mi NW of Site	Domestic
WCR1988-003410	70-100	5	2050 ft west of Byrnes Rd, 250 ft south of Kilkenny Rd, Section 6 T6N R1E	0.5 mi E of Site	Domestic
WCR1982-001419	-	6	1800 ft north of Ellsworth Rd, 125 ft west of Mills Rd, Section 1 T6N R1W	0.5 mi NW of Site	Domestic
WCR0036794	120-140	5	1320 ft north of Walnut Rd, 150 ft west of Willow Rd, Section 1 T6N R1W	0.5 mi SW of Site	Domestic
WCR1956-000314	32-64	6	75 ft north, 1000 ft west of SE corner, Section 1 T6N R1W	0.5 mi SE of Site	Domestic
WCR1981-002321	-	5	75 ft east of Leisure Town Rd, 400 ft north of Ellsworth Rd	0.5 mi W of Site	Domestic

Well ID	Perforated Interval, Top/Bottom (ft bgs)	Casing Diameter (in.)	Location	Distance/Direction from Site	Well Type
WCR1957-000466	41-105	8	500 ft east, 500 ft north of SW corner of Section 1, T6N R1W	0.5 mi SW of Site	Domestic
WCR1971-000471	100-160	5	3400 ft north of Hwy 80, 80 ft east of Leisure Town Rd, Section 1 T6N R1W	0.5 mi W of Site	Domestic
WCR1946-000079	-	12	4700 ft north, 4600 ft west of SE corner, Section 6 T6N R1E	0.5 mi NE of Site	Unknown
WCR1987-007603	-	5	80 ft east of Leisure Town Rd, 1200 ft north of Ellsworth Rd, Section 1 T6N R1W	0.5 mi W of Site	Domestic
WCR1969-000051	55-95	6	40 ft east of Leisure Town Rd, ¼ mile north of Ellsworth Rd, Section 1 T6N R1W	0.5 mi W of Site	Domestic
WCR1966-000117	40-100	6	Box 795 Walnut Rd	0.5 mi SW of Site	Domestic
WCR1998-003732	40-100	5	1320 ft east of Willow Rd, 320 ft north of Walnut Rd	0.5 mi S of Site	Domestic

Data source: DWR well completion reports

Distances measured from the property line closest to Site.

ft bgs = feet below ground surface; ft = feet; mi = mile

2.4 Expected Groundwater Production

This section provides a discussion on the expected well production capacity of a Site water well. Well pumping data from water wells located in the vicinity of the Site are provided in Table 2 below.

Table 2. Nearby Wells – Pumping Data

Well ID	Perforated Interval Top/Bottom (ft bgs)	Static Water Level (ft bgs)	Pumping Drawdown (ft)	Test Pumping Rate (gpm)	Calculated Specific Capacity (gpm/ft)	Calculated Transmissivity (gpd/ft)
WCR1963-000051	35-85	26	-	-	-	-
WCR1950-000015	78-570	35	200	460	2.3	4,600
WCR1978-000906	100-160	-	-	-	-	-
WCR1950-000639	29-99	28	-	-	-	-
WCR1964-000286	40-80	24	-	-	-	-
WCR1962-000517	20-40, 60-100	15*	25	8	0.32	640
WCR1964-000285	41-81	24	-	-	-	-
WCR1948-000177	-	-	-	-	-	-
WCR1982-001432	-	-	-	-	-	-
WCR1960-000769	224-512	75	147 and 177	417 and 577	2.8 and 3.3	5,600 and 6,600
WCR1985-001451	55-100	-	-	-	-	-
WCR1988-003389	-	-	-	-	-	-
WCR1988-003410	70-100	-	-	-	-	-
WCR1982-001419	-	-	-	-	-	-
WCR0036794	120-140	-	-	-	-	-
WCR1956-000314	32-64	29	-	-	-	-
WCR1981-002321	-	-	-	-	-	-

Well ID	Perforated Interval Top/Bottom (ft bgs)	Static Water Level (ft bgs)	Pumping Drawdown (ft)	Test Pumping Rate (gpm)	Calculated Specific Capacity (gpm/ft)	Calculated Transmissivity (gpd/ft)
WCR1957-000466	41-105	37	-	-	-	-
WCR1971-000471	100-160	-	-	-	-	-
WCR1946-000079	-	-	-	-	-	-
WCR1987-007603	-	-	-	-	-	-
WCR1969-000051	55-95	18	-	-	-	-
WCR1966-000117	40-100	17	50	30	0.6	1200
WCR1998-003732	40-100	-	-	-	-	-

Data source: DWR well completion reports

* = Estimated based on nearby well data

- = no information

ft bgs = feet below ground surface; gpm = gallons per minute; gpd/ft = gallons per day per foot

Transmissivity (T) = $2000 \times (Q/S_w)$; where Q = pumping rate (gpm); S_w = drawdown in pumping well (ft). [Driscoll, F.G. (1986)]

Of the 24 well completion reports reviewed, 11 included static depth to water information. Ten of these wells recorded static water levels ranging from 15 to 37 ft bgs. These observations are consistent with the geotechnical investigation conducted at the Site, which encountered groundwater at depths of 14 to 26 ft bgs (Lau, 2025). The remaining well, WCR1960-000769, screened entirely within the deeper portion of the Upper Tehama Formation (224–512 ft bgs), reported a static water level of 75 ft bgs. The deeper static water level observed in this well, relative to wells completed at least partly in the overlying Alluvial Aquifer and shallower Upper Tehama zone, suggests that interbedded fine-grained materials may be causing some degree of vertical hydraulic separation within the deeper portion (greater than 200 ft bgs) of the Upper Tehama Formation. This is consistent with the poorly stratified, laterally discontinuous nature of the Upper Tehama sediments and further supports the expectation of semi-confined aquifer conditions at the Site.

Of the 24 well completion reports reviewed, 4 included pump test data (Table 2). Wells completed to shallow depths (less than approximately 100 ft bgs) yielded 8 to 30 gpm at drawdowns of 25 to 50 ft, with calculated transmissivity values of 640 to 1,200 gpd/ft. These wells are likely screened within the Quaternary Alluvium, estimated to extend to approximately 40–100 ft bgs in the vicinity of the Site. The two deeper wells, perforated between approximately 78 and 570 ft bgs and likely screened across the Upper Tehama Formation which extends approximately 100 to 580 ft bgs in the vicinity of the Site,

yielded 417 to 577 gpm and drawdowns of 147 to 200 ft, with transmissivity values ranging from 4,600 to 6,600 gpd/ft. Because the Project requires a peak pumping rate of 250 gpm for up to eight hours to refill on-site fire suppression storage tanks, and shallow wells in the vicinity yield only 8 to 30 gpm based on local WCR data, a groundwater well completed within the Upper Tehama Formation is required to meet Project water needs.

To evaluate the minimum well depth required to ensure adequate pump submergence during peak demand events, a short-term scenario was simulated in which 120,000 gallons is extracted continuously at 250 gpm for eight hours to refill on-site fire suppression storage tanks. The Theis analytical model (described in Section 2.2) simulates 90.5 feet of drawdown at the proposed well at the end of this pumping period. Based on the production capacity of nearby Upper Tehama wells and the need to accommodate this drawdown, a total completed well depth of approximately 580 ft bgs is recommended. This depth corresponds to the approximate extent of the Upper Tehama Formation in the vicinity of the Site, and represents a conservative (upper-bound) depth that is comparable to the perforated intervals of nearby wells capable of meeting the Project's peak production requirements, per WCR data. This analysis is conservative with respect to simulated aquifer parameters, as the transmissivity value used (4,600 gpd/ft) represents the lower-bound of values observed in nearby Upper Tehama wells — with regional model estimates suggesting values several times greater — and the coefficient of storage value used (2.237×10^{-4}) is considerably below values reported for the broader aquifer zone.

The top of the well screen should be set deep enough to remain saturated and provide adequate pump submergence under peak pumping conditions. Considering that static water levels in the deeper Upper Tehama Formation may be as deep as 75 ft bgs based on local WCR data, the estimated water level during a peak pumping event would be approximately 166 ft bgs (75 ft bgs static water level plus 90.5 ft of drawdown). Consistent with standard water well design practice, the pump intake is typically set above the top of the screen — approximately 10 ft above the top of screen, with a minimum of 10 ft of submergence above the pump intake (Driscoll, 1986; Glotfelty, 2021). Setting the pump directly adjacent to the screen can result in pump bowl or screen abrasion, or cause formation sand to be produced because of the high entrance velocities of the pumped groundwater (Glotfelty, 2021). Where hydrogeologic or structural conditions require the pump to be set within the screened interval, a blank section of casing (a "pump gallery," typically 10 to 40 ft long) can be installed to provide a non-perforated location for the pump intake and limit sand invasion (Glotfelty, 2021). To satisfy these conditions, the top of the screen should be set at approximately 190 ft bgs, yielding a recommended screened interval of approximately 190 to 580 ft bgs. Seasonal and hydroclimatic fluctuations in groundwater levels are not expected to materially affect the recommended screen interval, as nearby monitoring wells exhibit minimal seasonal variation (less than 5 ft; Section 2.1). Final screen placement, total completed depth, and pump setting should be confirmed using site-specific data collected during well drilling and development, including a visual boring log and borehole geophysical logs.

2.5 Expected Groundwater Quality

This section discusses the expected quality of groundwater produced from a potential on-site water well. Available regulatory environmental databases were reviewed to assess off-site sources that may

impact groundwater quality at the Site, and local groundwater conditions. The results of the review are summarized below. The location of nearby sources identified on GeoTracker and EnviroStor are shown in Figure 4. The location of groundwater ambient monitoring and assessment (GAMA) program locations and DWR Water Data Library locations are shown in Figure 5.

GeoTracker Environmental Database, State Water Resources Control Board

- A closed underground storage tank (UST) site was identified approximately 0.4 miles southwest of the Project. Potential contaminants of concern include diesel and waste oil/motor/hydraulic/lubricating oil. Remediation began in December 2005, with verification monitoring the following year, and the case was closed in April 2008. Given the distance from the Site, the cross-gradient-to-slightly-downgradient position relative to the prevailing groundwater flow direction, and the closed regulatory status, this site is unlikely to have impacted groundwater quality at the Site.
- A land disposal site owned by Gibson Canyon Creek Waste Water Disposal is located approximately 0.6 miles northwest (upgradient) of the Project. The site was closed in 2009, with continued monitoring, and no contaminants of concern were identified. Given the absence of listed contaminants, this site is not expected to affect groundwater quality at the Site.
- A closed UST site associated with a corroded gasoline tank owned by BP is located approximately 0.8 miles southwest of the Site (817 Leisure Town Road). Remediation began September 2002 and the case was closed October 2022. Given the distance, cross-gradient position, and closed regulatory status, this site is not expected to have impacted groundwater quality at the Site.
- All other GeoTracker sites are located more than one mile from the Site.

EnviroStor Environmental Database, Department of Toxic Substances Control

- No release sites were identified within 0.5 miles of the Project. The closest EnviroStor site is located approximately 0.6 miles west (upgradient) of the Project at North Village Elementary School; however, no contaminants of concern were identified at this site. All other EnviroStor sites are located more than one mile from the Site.

GAMA Program, State Water Resources Control Board

- Three GAMA monitoring locations are situated within 0.5 miles of the Site and are assumed to be representative of local groundwater quality conditions (locations shown in Figure 5).
- Available monitoring data from water year 2015 through present were analyzed using mean and maximum observed values for constituents identified in the Solano Subbasin GSP as primary constituents of concern: arsenic, chloride, boron, hexavalent chromium (Cr6), nitrate as nitrogen (NO₃-N), and total dissolved solids (TDS). Results are summarized in Table 3.
- Of the constituents evaluated, only nitrate has exceeded the maximum contaminant level (MCL) in recent years. Arsenic has been observed at levels approaching the MCL at one monitoring

location (CA4800801_001_001), warranting attention, though it has not exceeded the standard in recent years at these local monitoring sites.

- These results are largely consistent with groundwater quality maps presented in the most recent Solano Subbasin Groundwater Sustainability Annual Report (LSCE, 2025, pp. 121–132), with the exception of Cr6, which appears lower in concentration at these monitoring locations than suggested by regional reporting.
- Boron data are not available for these monitoring locations; however, regional reporting indicates that boron concentrations are not expected to be elevated in the vicinity of the Site (LSCE, 2025, Figure 11a, pp. 123).

Water Data Library, Department of Water Resources

- Water quality records exist for three wells located within one mile of the Project (locations shown in Figure 5). Available data consist of general chemistry parameters (major ions, pH, and specific conductance) collected from the 1970s through the 1990s. Reported values appear to be at background levels, with no constituents of concern identified.

The review of available water quality data and nearby known contamination sources suggest the groundwater quality is sufficient to meet the non-potable needs of the Project.

Table 3. Summary of Expected Water Quality

Analyte	Units	Criteria	CA4800801_001_001		CA4800801_002_002		CA4800826_005_005	
			Avg	Max	Avg	Max	Avg	Max
Arsenic	µg/L	10 (Primary MCL)	3.5	7.2	4.2	5.6	1.7	2
Chloride	mg/L	250 (Secondary MCL)	–	–	8.6	8.6	–	–
Chromium, Hexavalent (Cr6)	µg/L	10 (Primary MCL)	0.14	0.32	0.064	0.13	1.2	1.3
Nitrate as N	mg/L	10 (Primary MCL)	10.1	17	1.5	8.4	2.7	3.3
Total Dissolved Solids	mg/L	1,000 (Secondary MCL)	–	–	180	180	–	–

Data Source: Groundwater Ambient Monitoring and Assessment (GAMA) Program

µg/L = microgram per liter; MCL = maximum contaminant level; mg/L = milligram per liter

2.6 Potential Impact of Proposed Well on Groundwater Resources

This section provides an evaluation of the potential impact the proposed Site pumping well may have on surrounding water wells, groundwater quality, and groundwater aquifers.

2.6.1 Potential Impact on Surrounding Water Wells

A pumping well in close proximity to another well will likely cause interference drawdown if the wells are pumping from the same source aquifer. The potential effect of the proposed Site pumping well on surrounding water wells was evaluated using the Theis analytical groundwater flow equation, as described in Section 2.2. The pumping scenario results are summarized in Tables 4 and 5 below, and Figures 6 through 8.

Table 4. Analytically Simulated Long-Term Groundwater Drawdown at the Proposed Well and Nearby Wells

Simulated Pumping Rate (gpm)	Duration (years)	Drawdown at Well (inches)	Max Drawdown at Closest Neighboring Well (inches)	Max Drawdown at Farthest Neighboring Well (inches)
0.77	35	5.8	2.7	2.0

Notes: Drawdown values represent conditions after 35 years of continuous pumping at the annualized average rate of 0.77 gpm. The Theis analytical model assumes no aquifer recharge, representing a conservative upper-bound estimate of long-term drawdown. gpm = gallons per minute; in = inches.

The long-term analytical simulation (Table 4) assumed continuous pumping at 0.77 gpm at a theoretical well located at the centroid of the Site over the 35-year Project lifetime. The results indicate that simulated drawdown at all well locations within 0.5 miles of the Site ranges from 2.0 to 2.7 inches, with the greatest drawdown occurring at the closest well location (Figure 6). Notably, all simulated drawdown values at neighboring well locations fall below the 3-inch zone of influence threshold defined in Section 2.2, indicating that no existing wells within 0.5 miles of the Site are expected to be meaningfully affected by the proposed pumping. Drawdown at the proposed well itself is simulated at approximately 5.8 inches after 35 years, which is negligible relative to the available water column in a well screened at the recommended depth of 190 to 580 ft bgs within the Upper Tehama Formation.

Table 5. Analytically Simulated Peak-Pumping Groundwater Drawdown at the Proposed Well and Nearby Wells

Simulated Pumping Rate (gpm)	Duration (hours)	Drawdown at Well (ft)	Max Drawdown at Closest Neighboring Well (ft)	Max Drawdown at Farthest Neighboring Well (ft)
250	8	90.5	7.75	0.04

Notes: Drawdown values represent conditions after 8 hours of continuous pumping at the peak pumping rate of 250 gpm. The Theis analytical model was applied using conservative transmissivity and coefficient of storage values, thus representing an upper-bound estimate of short-term drawdown. gpm = gallons per minute; ft = feet.

Under the short-term peak demand scenario (250 gpm for 8 hours), simulated drawdown at neighboring wells ranges from 7.75 ft at the nearest well to 0.04 ft at the farthest well, with drawdown falling below 1 ft at distances greater than approximately 2,100 ft (Table 5, Figure 7). The nearest well, WCR1963-000051 (perforated 35–85 ft bgs, static water level 26 ft bgs), experiences the greatest simulated short-term drawdown at 7.75 ft. Even with this drawdown, the expected water level at WCR1963-000051

during the peak pumping event would be approximately 34 ft bgs — leaving approximately 50 ft of saturated aquifer within the screen interval and well above the bottom of the well screen at 85 ft bgs. Pumping interference at this well is therefore not anticipated. The next four closest wells experience simulated drawdowns of 1.4 to 3.4 ft. Even at the shallowest of these wells (WCR1964-000286), the simulated water level during the peak pumping event is estimated to remain more than 50 ft above the bottom of the well screen, indicating sufficient saturated thickness to avoid pumping interference. The remaining 19 wells within 0.5 miles experience less than 1.1 ft of simulated drawdown, decreasing to 0.04 ft at the farthest well.

Despite the more pronounced short-term drawdown at nearby wells, these drawdown effects are expected to be temporary: given the semi-confined conditions anticipated in the Upper Tehama Formation, rapid aquifer pressure recovery is expected following cessation of pumping. As discussed in Section 2.4, drawdown at the proposed well itself is simulated at approximately 90.5 ft during the peak pumping event, which remains within the available water column for a well screened at the recommended depth of 190 to 580 ft bgs.

The results of these analytical scenarios indicate that long-term pumping at an annualized average rate of 0.77 gpm over 35 years produces negligible drawdown at all neighboring well locations, with all simulated values falling below the 3-inch zone-of-influence threshold defined in this study. Short-term drawdown during peak demand events is more pronounced but spatially limited and temporary, with rapid pressure recovery expected given the semi-confined nature of the Upper Tehama Formation. Meaningful impacts to neighboring wells are not anticipated under either scenario. As a precaution, the onsite geologist should conduct aquifer zone testing during drilling and evaluate well screen placement. Completing the well with a screen spanning a depth of approximately 190 to 580 ft bgs within the Upper Tehama Formation is expected to yield sufficient production to meet peak Project demands while minimizing drawdown impacts on neighboring wells.

2.6.2 Potential Impact on Groundwater Quality

As indicated in Section 2.5, Expected Groundwater Quality, no active groundwater contamination sites were identified within 0.5 miles of the Project, and all identified GeoTracker and EnviroStor sites in the broader area are either closed or present no identified contaminants of concern.

As an additional evaluation, the zone of influence of the proposed pumping well — defined in this study as the area experiencing 3 inches or more of simulated drawdown after 35 years of continuous pumping — was compared against the locations of known contamination sites identified in the regulatory database review. As shown in Figure 8, the zone of influence extends approximately 415 ft (0.08 mile) from the proposed well location, barely extending beyond the Project parcel boundary. All known GeoTracker and EnviroStor sites are located well outside this radius, with the nearest site approximately 0.4 miles from the Project. The proposed pumping is therefore not expected to mobilize or redirect groundwater contaminants toward the Project well or any neighboring receptors.

Based on the results of the groundwater quality data review and the limited extent of the simulated zone of influence, the risk of groundwater pumping from the Site negatively impacting groundwater quality at the Site or at neighboring wells is considered negligible.

2.6.3 Potential Impact on Groundwater Aquifers

The average annual volume of groundwater extraction in the Solano Subbasin is estimated to be approximately 180,000 AFY, and the sustainable yield for the Solano Subbasin is estimated at approximately 190,000 AFY (LSCE Team, 2021). Sustainable yield is defined as the rate at which groundwater can be pumped without compromising the quality or quantity of the water or causing unacceptable environmental or economic consequences. Long-term groundwater level trends in the Solano Subbasin are stable, and groundwater levels are not expected to decline under current management conditions (LSCE Team, 2021). Groundwater storage in the Alluvial Aquifer and Upper Tehama zone fluctuates with climatic conditions but has not exhibited a long-term declining trend, ranging from a decrease of approximately 117,000 AF during dry year 2019–2020 to an increase of approximately 47,000 AF during wet year 2022–2023 (LSCE, 2025).

The total groundwater demand associated with this Project over its 35-year operational lifetime — including landscape irrigation (0.5 AFY), emergency fire suppression storage (approximately 240,000 gallons per year, assuming the maximum use case of full tank refill twice annually), and minimal annual makeup and testing water— is approximately 43.3 AF. This represents less than 0.03 percent of the Solano Subbasin's average annual groundwater extraction and is negligible relative to even the largest observed annual storage fluctuations. The potential impact of the Project on groundwater aquifers in the Solano Subbasin is therefore considered negligible.

3.0 Well Permitting and Construction Requirements

This section provides a preliminary outline of activities associated with permitting and constructing a water well on the Site.

3.1 Well Siting

Drilling and completing a water well requires sufficient space for a drilling rig and associated equipment, typically a minimum area of approximately 100 ft by 100 ft. Well siting must also comply with setback requirements established by the Solano County Department of Resource Management to protect groundwater quality from potential contamination sources. Solano County Department of Resource Management requires a minimum setback of 25 ft from property lines, streams, ditches, and drainage courses; 50 ft from sewer lines; and 100 ft from septic tanks, disposal fields, deep trenches, animal enclosures, and hazardous materials tanks.

The 10-acre Site is currently used for agricultural land with three billboards on the Site. Therefore, it is assumed that the well can be placed at a location where it is accessible by drilling rig and equipment and that meets the setback requirements.

3.2 Well Construction Permit

A well construction permit must be obtained from the Solano County Department of Resource Management, Environmental Health Division, prior to well drilling, pursuant to the California Well

Standards (Bulletins 74-81 and 74-90) and Solano County Code, Chapter 13.10. The well permit application requires specific information on the well design including well location, planned completion depth, casing and sealing materials, and screened intervals, as well as a plot plan identifying potential contamination sources in the vicinity of the proposed well. Required minimum setback distances vary by feature: 25 ft from property lines (in unsewered areas), streams, ditches, and drainage canals; 50 ft from sewer lines; and 100 ft from septic tanks, leachfields, subsurface leaching systems, animal or fowl enclosures, and underground storage tanks containing hazardous substances (Solano County Code, Chapter 13.10-14).

No recognized environmental conditions (REC) were identified on the Site in the Phase I ESA (TRC, 2025), and there are no known encumbrances that would prevent meeting the minimum setback distance requirements at this time. The well drilling permit application should be completed by the Project geologist, as it requires technical information regarding well design. The permit application fee is \$779.00 (as of May 2026; H&S Code §101325). Upon completion of the well, the driller is required to furnish a signed well log to the Environmental Health Division program manager within 30 days, pursuant to California Water Code Section 13751 (Solano County Code, Chapter 13.10-14(g)).

3.3 NPDES Discharge Permit

Waste groundwater will be generated during well construction, development, and pump testing activities and will require disposal. The volume of waste groundwater will depend on the final well design and pump test duration, which are not yet determined; however, it is expected to be on the order of tens of thousands of gallons. The Site encompasses approximately 10 acres, which is expected to provide sufficient land area to spread discharged water for percolation or irrigation without allowing runoff to reach drainage ditches or surface water bodies. Under this assumption, a National Pollutant Discharge Elimination System (NPDES) permit would not be required. If discharge to a drainage ditch or surface water body is nonetheless necessary, a Notice of Intent must be submitted to the Central Valley Regional Water Quality Control Board for coverage under a general NPDES permit prior to any such discharge.

3.4 Drilling Waste Management

During drilling and well construction, soil cuttings and drilling mud will be generated. Solid wastes and drilling fluids will be contained onsite and transported to an appropriate disposal facility upon completion of drilling activities. Prior to disposal, the Project geologist should confirm the receiving facility's waste acceptance requirements, which may include characterization of drill cuttings.

4.0 Conclusion and Recommendations

This analytical groundwater supply feasibility study was completed to support the Applicant's water supply planning and CEC AB 205 Opt-in Application filing requirements for the Vaca Dixon Power Center Project, located in the City of Vacaville, California. The Project may require groundwater for non-potable operational needs, including landscape irrigation (approximately 0.5 AFY), emergency fire suppression

storage (approximately 240,000 gallons per year, assuming the maximum use case of full tank refill twice annually), and minimal annual makeup and testing water, for a total Project lifetime demand of approximately 43.3 AF.

The purposes of the study were to: 1) determine whether constructing an onsite groundwater well is feasible and capable of meeting Project water demand; and 2) obtain information to support the CEC AB 205 Opt-in Application filing requirements for water resources development.

4.1 Conclusions

- A groundwater well is feasible and capable of meeting Project water demands. Nearby WCR data indicate that shallow wells yield only 8 to 30 gpm, insufficient to meet the peak demand of 250 gpm required to refill fire suppression storage tanks; however, deeper wells completed in the Upper Tehama Formation have produced 417 to 577 gpm. A well screened at approximately 190–580 ft bgs is recommended to meet peak demand and accommodate simulated drawdowns of up to 90.5 ft during peak pumping events.
- Long-term drawdown at the proposed well is negligible. Theis analytical simulations indicate approximately 5.8 inches of drawdown at the proposed well after 35 years of continuous pumping at the annualized average rate of 0.77 gpm.
- Impacts to neighboring wells are negligible under both short- and long-term scenarios. Long-term simulated drawdown at neighboring well locations ranges from 2.0 to 2.7 inches, below the 3-inch zone of influence threshold. Short-term drawdown during peak demand events is more pronounced, ranging from 0.04 to 7.75 ft, but is temporary and spatially limited; sufficient saturated thickness remains at all neighboring wells to prevent pumping interference, and rapid pressure recovery is expected given the semi-confined nature of the Upper Tehama Formation.
- Groundwater quality is suitable for the intended non-potable uses of fire suppression and landscape irrigation. No evidence of groundwater contamination was identified within 0.5 miles of the Site. The long-term zone of influence extends approximately 415 ft from the proposed well location and does not reach any known GeoTracker or EnviroStor contamination sites. The risk that proposed pumping would mobilize or redirect groundwater contaminants toward the Site or neighboring receptors is considered negligible.
- Subbasin-scale impacts are negligible. The total Project groundwater demand of 43.3 AF over the 35-year Project lifetime represents less than 0.03 percent of average annual Solano Subbasin extraction (approximately 180,000 AFY), and no significant impact to subbasin groundwater resources is anticipated.
- The Site encompasses approximately 10 acres, which is expected to provide ample space for drilling rig access and equipment setup, well siting in compliance with Solano County setback requirements, and onsite disposal of waste groundwater generated during well construction and testing without the need for an NPDES permit.

4.2 Recommendations

- The proposed well should be screened at approximately 190–580 ft bgs within the Upper Tehama Formation; however, the Project geologist should conduct aquifer zone testing during drilling to confirm the optimal screen and submersible pump intake placement. Transmissivity, sustainable pumping rate, and static water level should also be confirmed during well drilling and development, as the feasibility-level aquifer parameters used in this study are based on nearby WCR data and regional models.
- A well construction permit must be obtained from the Solano County Department of Resource Management, Environmental Health Division, prior to well drilling. No REC were identified on the Site, and no known encumbrances would prevent compliance with minimum setback requirements. The well drilling permit application should be completed by the Project geologist.
- Upon completion of the well, the driller must furnish a signed well log to the Environmental Health Division program manager within 30 days pursuant to California Water Code Section 13751.
- During drilling and well construction, soil cuttings and drilling mud will be generated. Solid wastes and drilling fluids will be contained onsite and transported to an appropriate disposal facility upon completion of drilling activities. Prior to disposal, the Project geologist should confirm the receiving facility's waste acceptance requirements, which may include characterization of drill cuttings.

5.0 Limitations

This report was prepared by INTERA in support of the CEC Opt-in Application process for the Vaca Dixon Power Center Project, located in Solano County, California. This desktop study was conducted to evaluate the feasibility of constructing an onsite groundwater well to meet emergency fire suppression storage and non-potable landscape irrigation water needs. This report was prepared based in part on information from outside sources and information in the public domain. INTERA makes no warranty as to the accuracy or completeness of information or statements made by others contained in this report, nor are any other warranties or guarantees, express or implied, included or intended with respect to information from outside sources or conclusions substantially based on such information. This report has been prepared in accordance with current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by professional consultants performing the same or similar services. Since the information forming the basis for this report is subject to professional interpretation, differing conclusions could be reached. None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature but shall be a representation of findings of fact from records examined.

The Theis analytical groundwater flow equation carries several simplifying assumptions that are acknowledged as limitations of this analysis: the aquifer is assumed to be infinite in areal extent, homogeneous, isotropic, and of uniform saturated thickness; the pumping well is assumed to fully penetrate the aquifer; flow is assumed to be horizontal and radial; and no natural recharge to the aquifer is simulated during the forecast period. Additionally, the Theis equation was originally developed

for confined aquifers; its application to the semi-confined aquifer at this Site introduces a degree of approximation. However, given the small Project water demand (0.77 gpm annualized average) and the minimal simulated drawdowns relative to the available saturated thickness, the error introduced by these assumptions is negligible. The assumption of no recharge is conservative, as the shallow aquifer is expected to receive recharge from precipitation, deep percolation from agricultural irrigation, and lateral inflow, meaning actual long-term drawdown is likely to be less than simulated. For a project of this scale, the Theis analytical solution is the appropriate tool and provides a technically defensible, conservative estimate of groundwater impacts.

6.0 References

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FIGURES

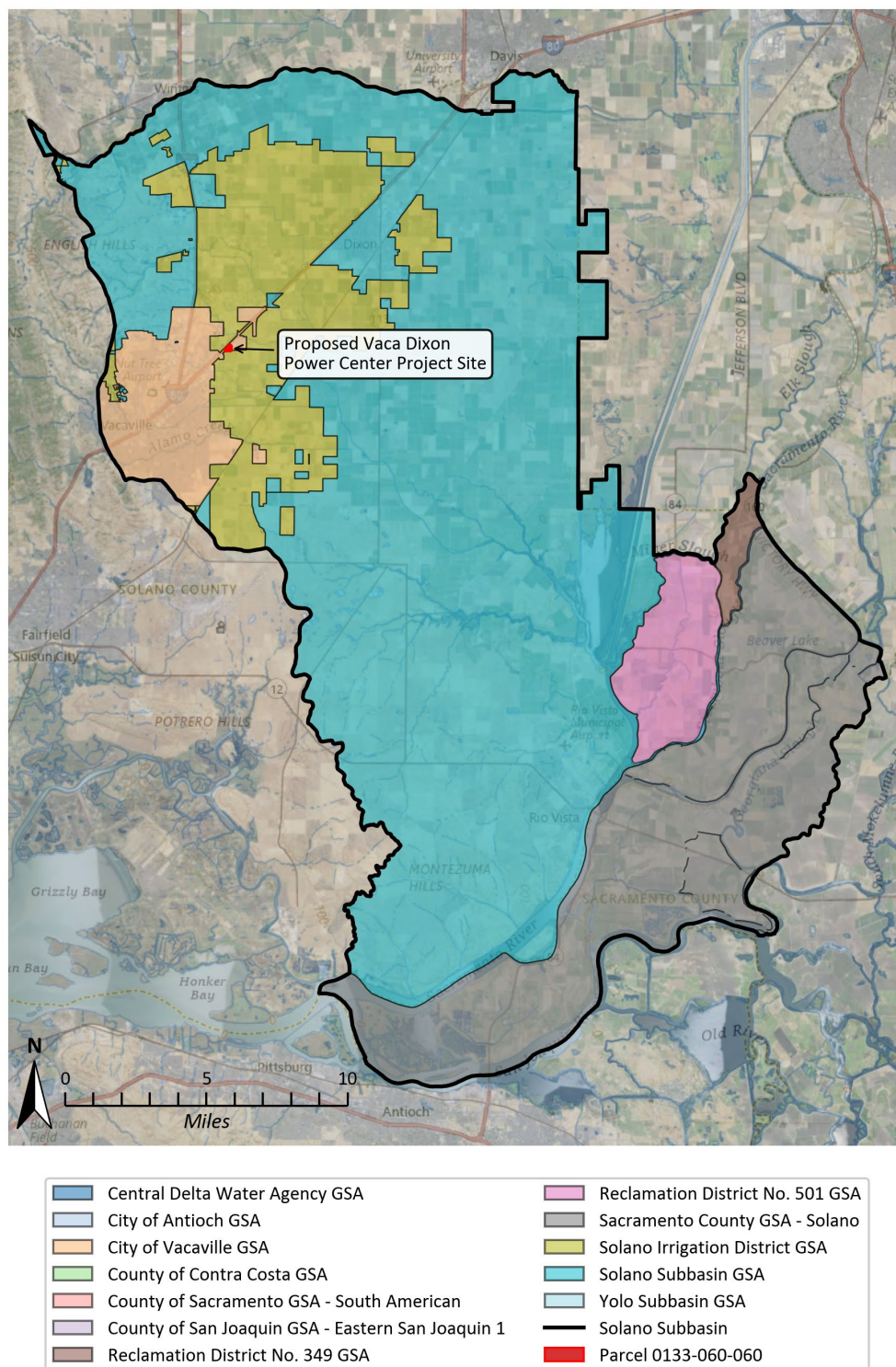


Figure 1.

Location of the Site (Parcel 0133-060-060, red outline) within the Solano Subbasin, showing the boundaries of Groundwater Sustainability Agency (GSA) jurisdictions. The Solano Subbasin boundary is shown by the bold black line.



Figure 2. Close-up view of the Site (Parcel 0133-060-060, red) situated within the City of Vacaville GSA, adjacent to the Solano Irrigation District GSA boundary.

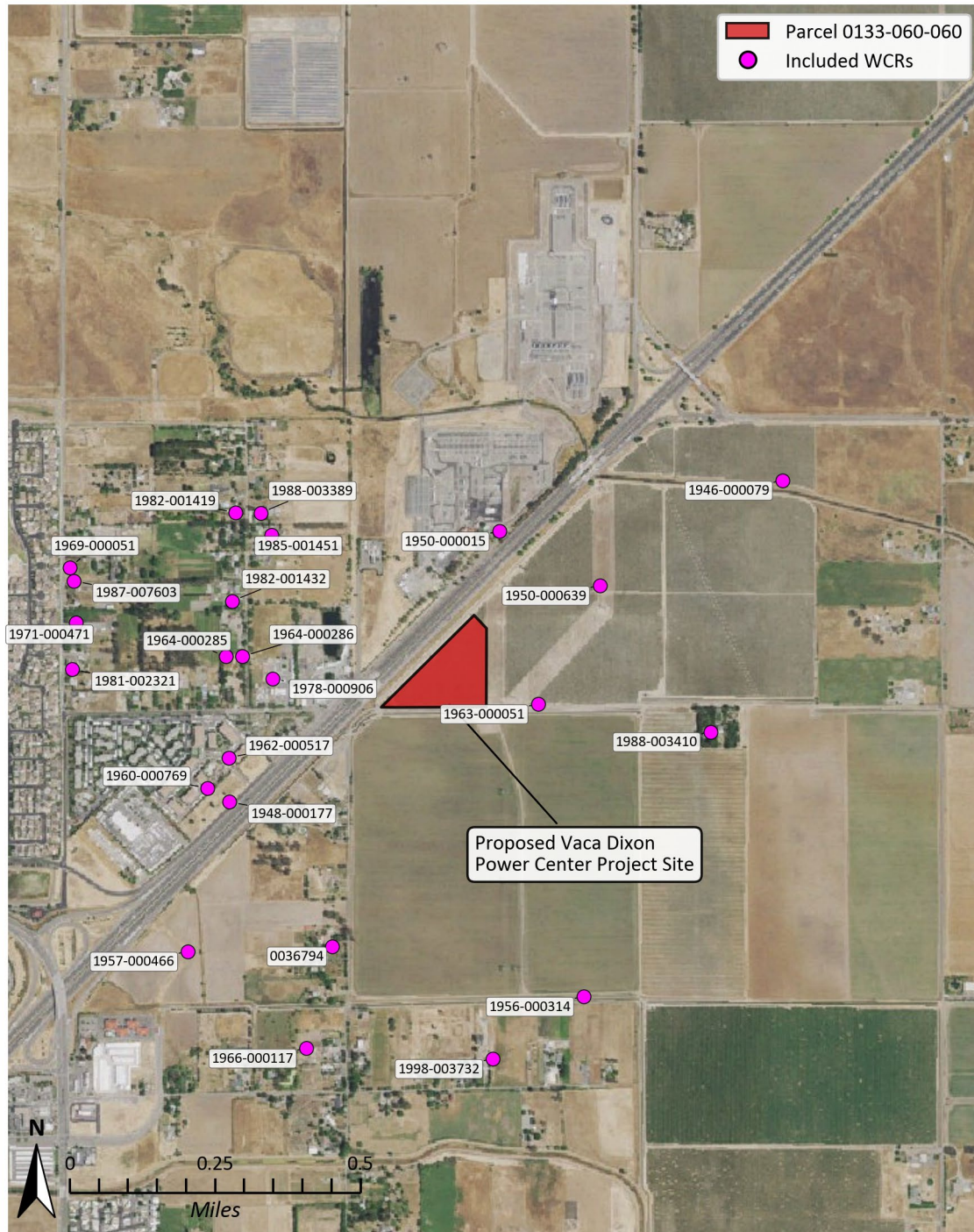


Figure 3. Locations of well completion reports (WCRs) within half a mile of the Site (APN 0133-060-060, red). WCR numbers are annotated for each well location (magenta circles).

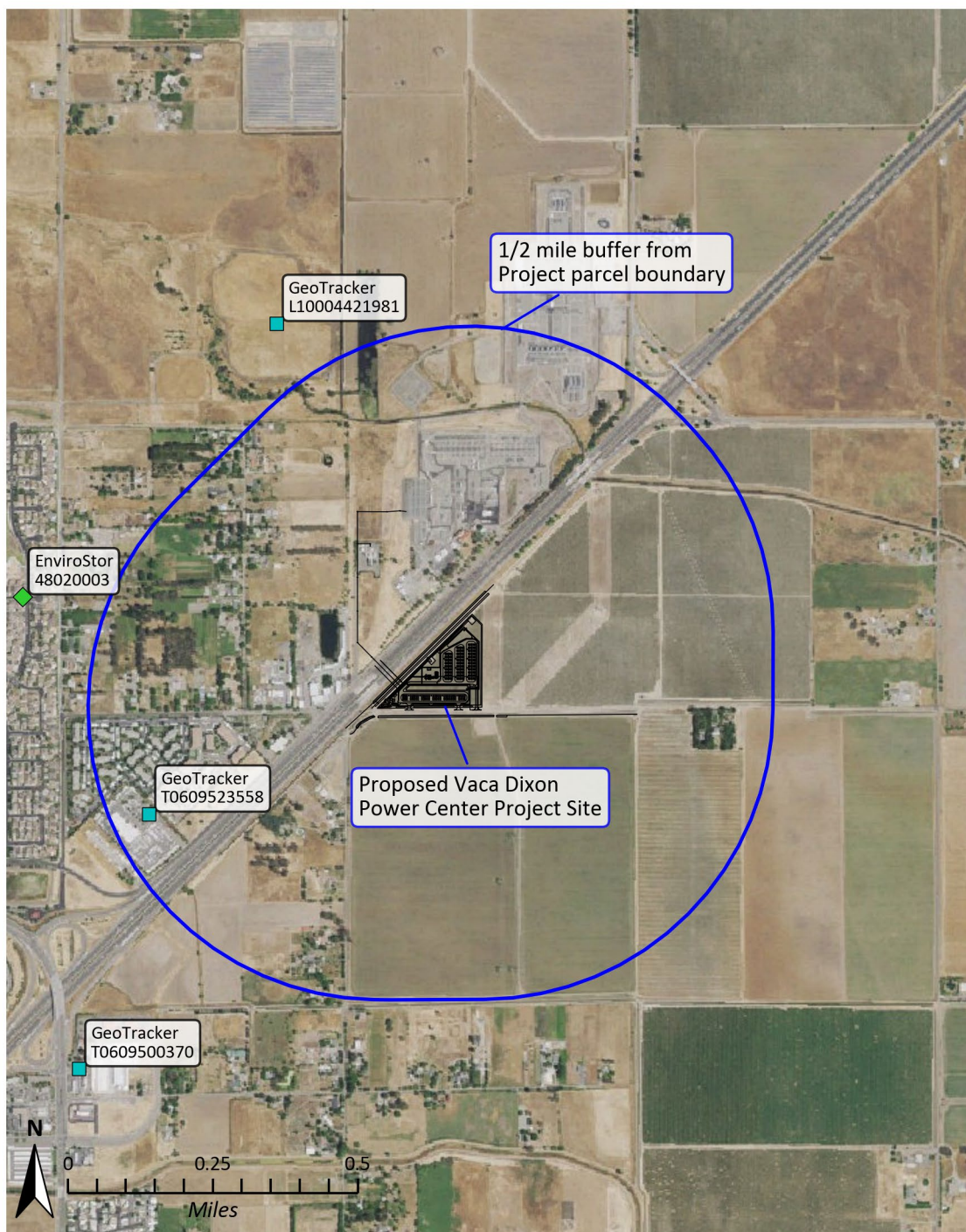


Figure 4. GeoTracker (cyan squares) and EnviroStor (green diamonds) sites in the vicinity of the Site. One GeoTracker site (T0609523558), a closed underground storage tank contamination site located approximately 0.4 miles southwest of the Project, falls within a 0.5-mile buffer from Site parcel boundary (shown in blue), with additional GeoTracker and EnviroStor sites identified nearby.

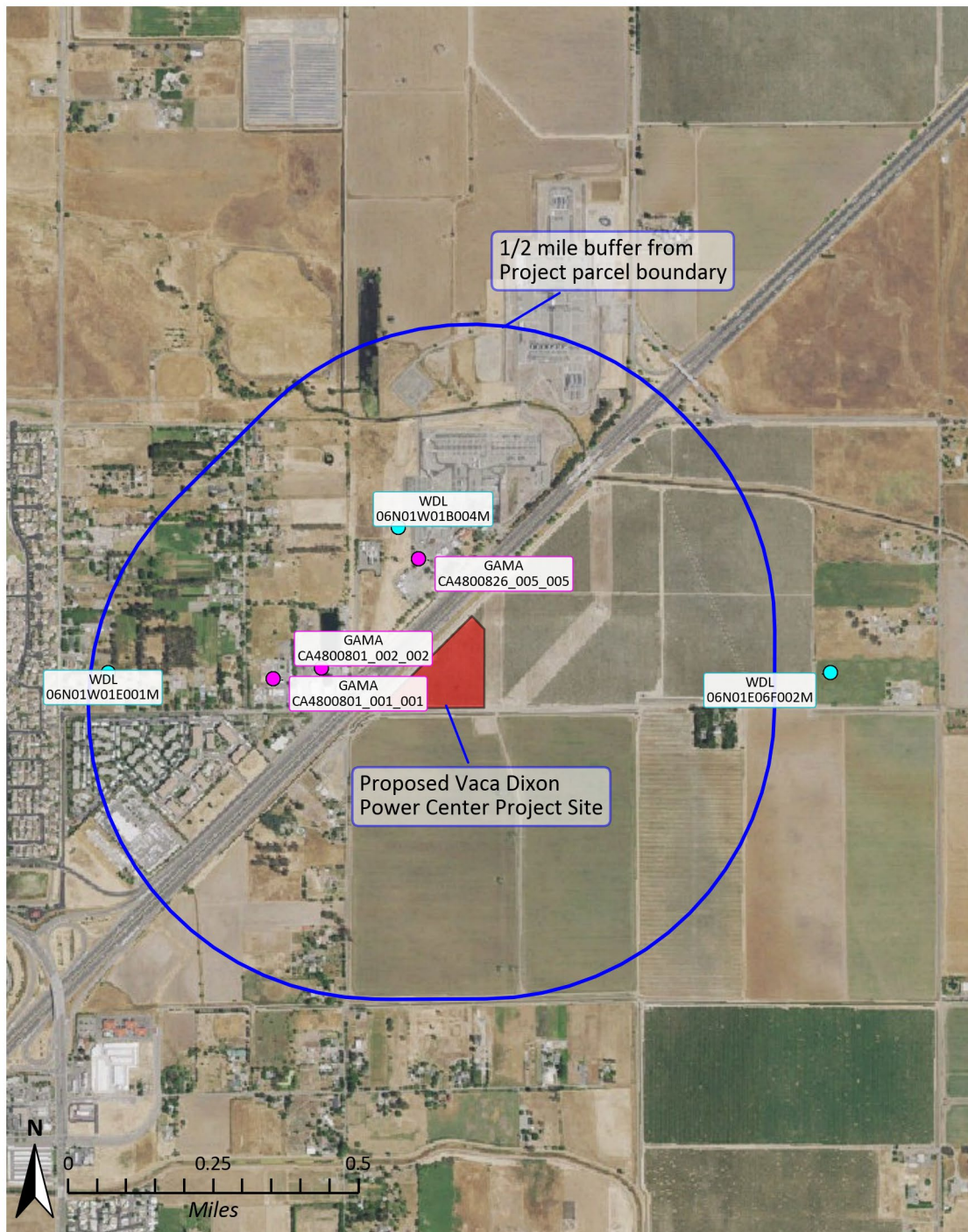


Figure 5. GAMA (pink circles) and Water Data Library (WDL, cyan circles) groundwater monitoring sites nearby the Site (Parcel 0133-060-060, red). GAMA and WDL site identifiers are annotated for each location. The 0.5-mile buffer from the Site parcel boundary is shown in blue.

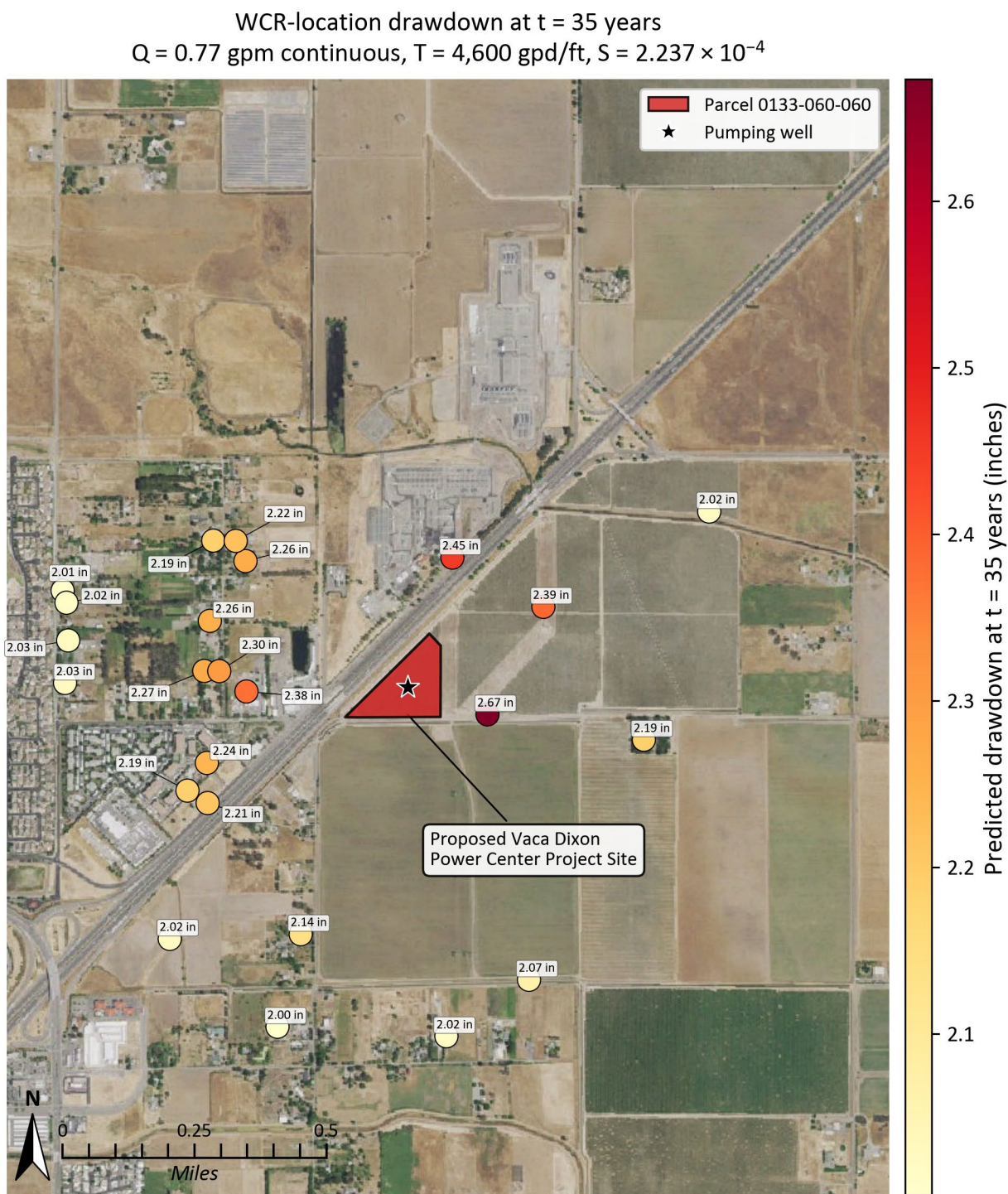


Figure 6. Predicted drawdown (inches) at nearby well locations after 35 years of continuous pumping at 0.77 gpm from the Site (Parcel 0133-060-060, red). The pumping well location is shown by the black star. Circle colors indicate predicted drawdown magnitude, ranging from yellow (approximately 2 inches drawdown) to dark red (approximately 2.7 inches drawdown).

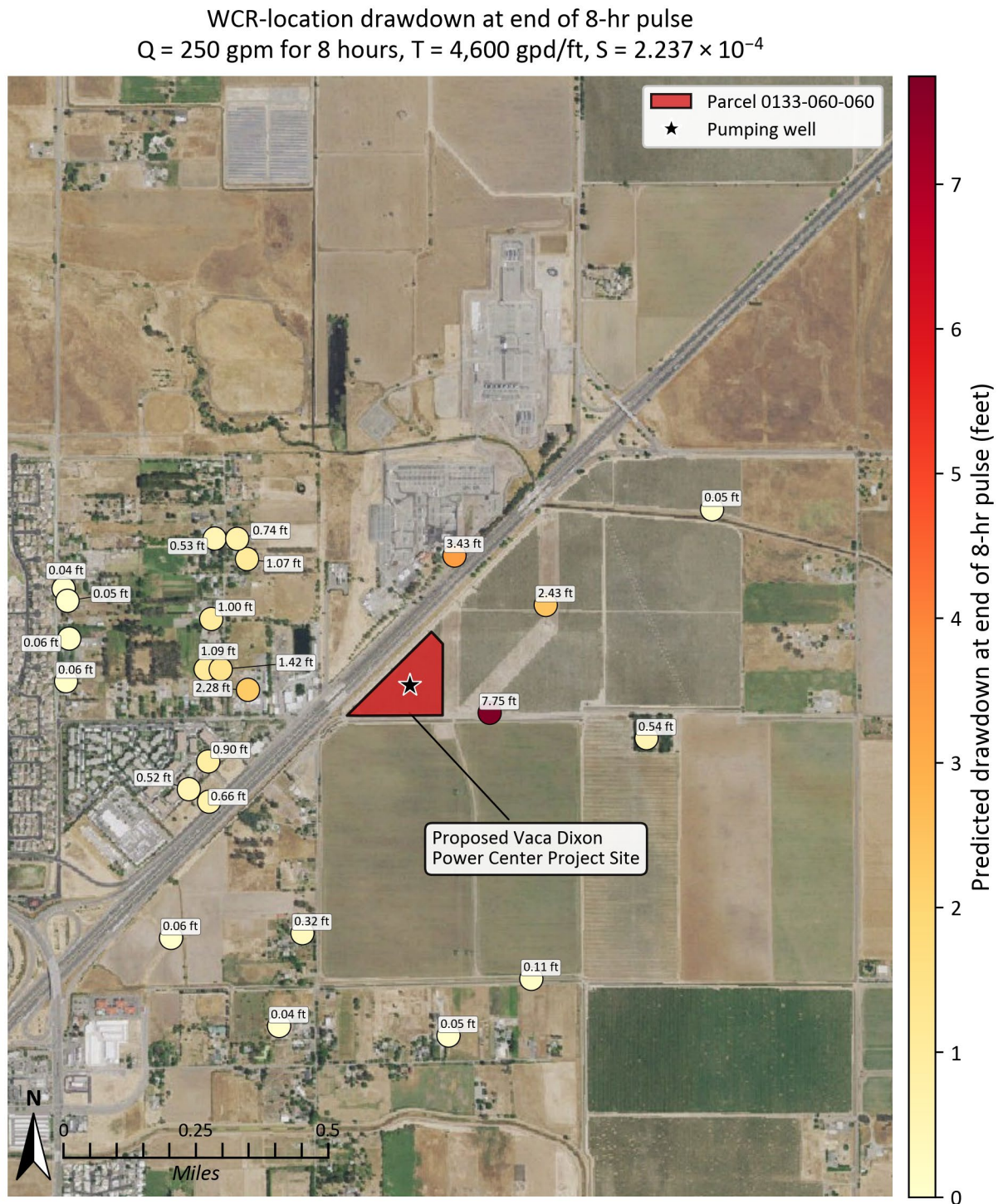


Figure 7. Predicted drawdown (feet) at nearby well locations after 8 hours of continuous pumping at the peak demand rate of 250 gpm from the Site (Parcel 0133-060-060, red). The pumping well location is shown by the black star. Circle colors indicate predicted drawdown magnitude, ranging from yellow (less than 1 ft drawdown) to dark red (more than 7 ft drawdown).

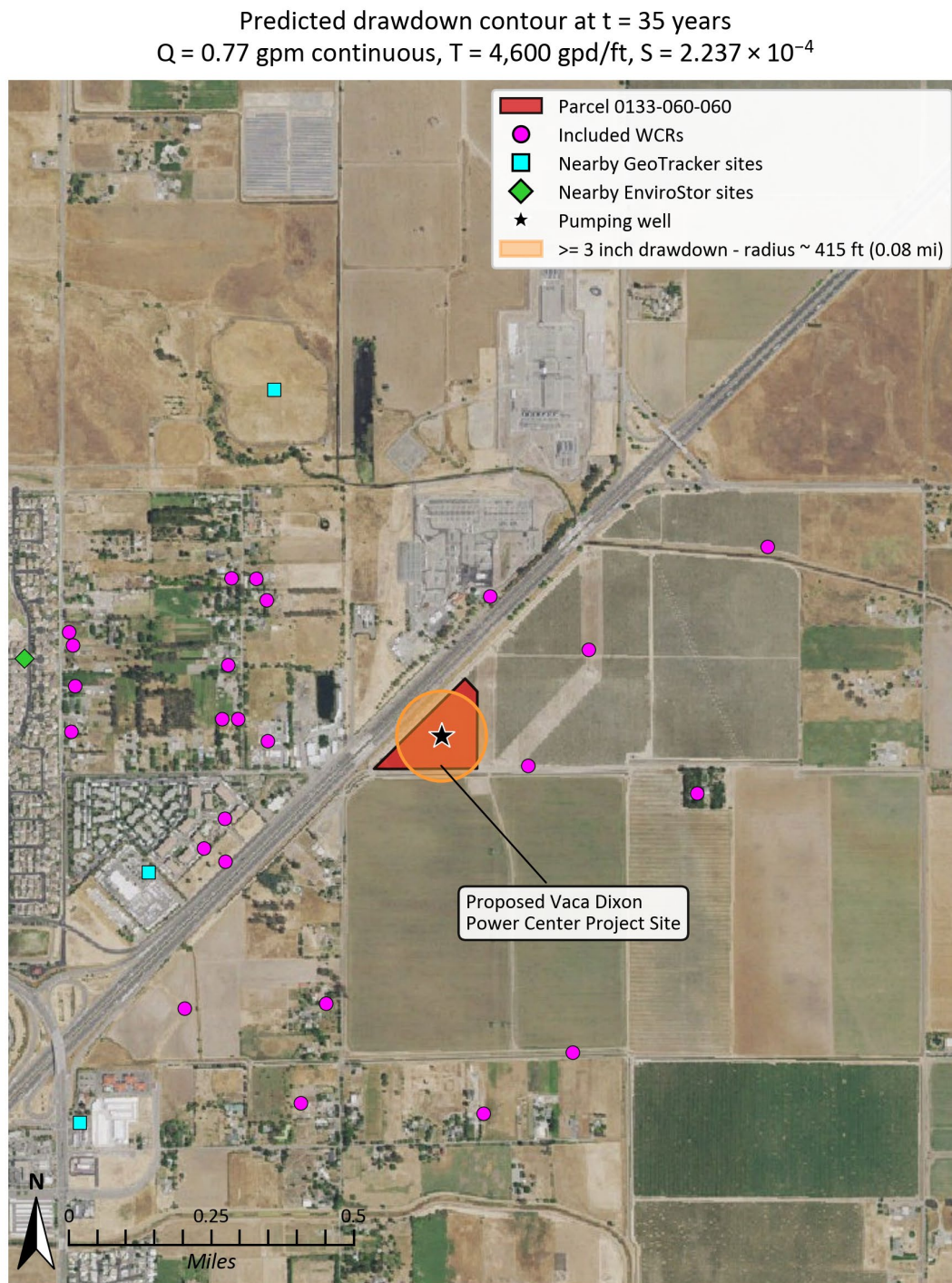


Figure 8. Predicted drawdown contour after 35 years of continuous pumping at 0.77 gpm from the Site (Parcel 0133-060-060, red). The orange shaded area indicates the zone of predicted drawdown greater than or equal to 3 inches, extending approximately 415 ft (0.08 miles) from the simulated pumping well (black star). Nearby well completion reports (pink circles), GeoTracker sites (cyan squares), and EnviroStor sites (green diamonds) are shown for reference.

APPENDIX A

Well Completion Reports

USGS-CAL-T1
May 1948

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

48-651

No. 6/1E-62

Other Nos. _____

WELL LOG

State California County Solano Subarea _____

Owner _____

Location 1,700 ft. N., 1,600 ft. W. of SE corner of Sec. 6
about 5.0 miles north east of Vacaville

Drilled by Eaton Address published in U.S.G.S Appendix C

Date Aug. 1946 Casing diam. 12" Land-surf. alt. 76

Source of data _____

(Enter type of well, perforations, yield, and drawdown at end of log)

Correlation	Material	Thick- ness (feet)	Depth (feet)
	Top soil	4	4
	Yellow clay	10	14
	Sand	9	23
	clay	13	36
	Sand	4	40
	clay	15	55
	Gravel	12	67
	clay	13	80
	Blue clay	30	110
	Sand	10	120
	Blue clay	40	160
	Hard shale	10	170
	Blue clay	10	180
	Sand	6	186
	Blue clay	4	190
	Sand	5	195
	Blue clay	16	211
	Sand	4	215

Record by _____ Date _____

Sheet 1 of 2

USGS-CAL-T1
May 1948

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

48-651
No. 6/12-602, continued

Other Nos. _____

WELL LOG

State California County Solano Subarea _____

Owner _____

Location _____

Drilled by _____ Address _____

Date _____ Casing diam. _____ Land-surf. alt. _____

Source of data _____

(Enter type of well, perforations, yield, and drawdown at end of log)

Correlation	Material	Thick- ness (feet)	Depth (feet)
	Brown clay	20	235
	Sand	5	240
	clay	18	258
	Sand	4	262
	Clay, hard	13	275
	Sand and gravel	7	282
	clay	4	286
	Gravel	8	294
	Broken	26	320
	72' of 12" gravel packed		

Record by _____ Date _____ Sheet 2 of 2

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 250695

Notice of Intent No. 244926
Local Permit No. or Date _____

State Well No. _____
Other Well No. 06N01E06M

S 1/2 Sec 6

(2) LOCATION OF WELL (See instructions):

County SOLANO Owner's Well Number _____

Well address if different from above _____

Township T. 6N Range R. 1E Section 6

Distance from cities, roads, railroads, fences, etc. _____

2050 Ft. West of Byrnes Rd.
250 Ft. South of Kilkenny Rd.

(12) WELL LOG: Total depth 100 ft. Completed depth 100 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

0	3	Soil
3	16	Clay
16	19	Sand
19	31	Clay
31	38	Sand
38	72	Clay
72	84	Sand & Fine Gravel
84	90	Brown Clay
90	100	Blue Clay

(3) TYPE OF WORK:

New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic ☒
Irrigation ☒
Industrial ☐
Test Well ☐
Municipal ☐
Other ☒ (Describe)

Kilkenny Rd.

Byrnes Rd.

250 Ft.
2050 Ft.

WELL LOCATION SKETCH

(5) EQUIPMENT:

Rotary ☒ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:

Yes ☒ No ☐ Size 3/4" x 2"
Diameter of bore 9"
Packed from 20 to 100 ft.

(7) CASING INSTALLED:

Steel ☐ Plastic ☒ Concrete ☐

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	101	5"	1 1/4"	70	100	1/8x6"

Assessors #

141-030-01

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 20 ft.

Were strata sealed against pollution? Yes ☐ No ☒ Interval _____ ft.

Method of sealing Cement Grout

Work started 8-1 19 88 Completed 8-1 19 88

(10) WATER LEVELS:

Depth of first water, if known _____ ft.

Standing level after well completion _____ ft.

(11) WELL TESTS:

Well test made? Yes ☐ No ☒ If yes, by whom? _____
Pump ☐ Bailer ☐ Air lift ☐

Depth to water at start of test _____ ft. At end of test _____ ft.

Discharge _____ gal/min after _____ hours Water temperature _____

Chemical analysis made? Yes ☐ No ☒ If yes, by whom? _____

Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed Robert Crews (Well Driller)

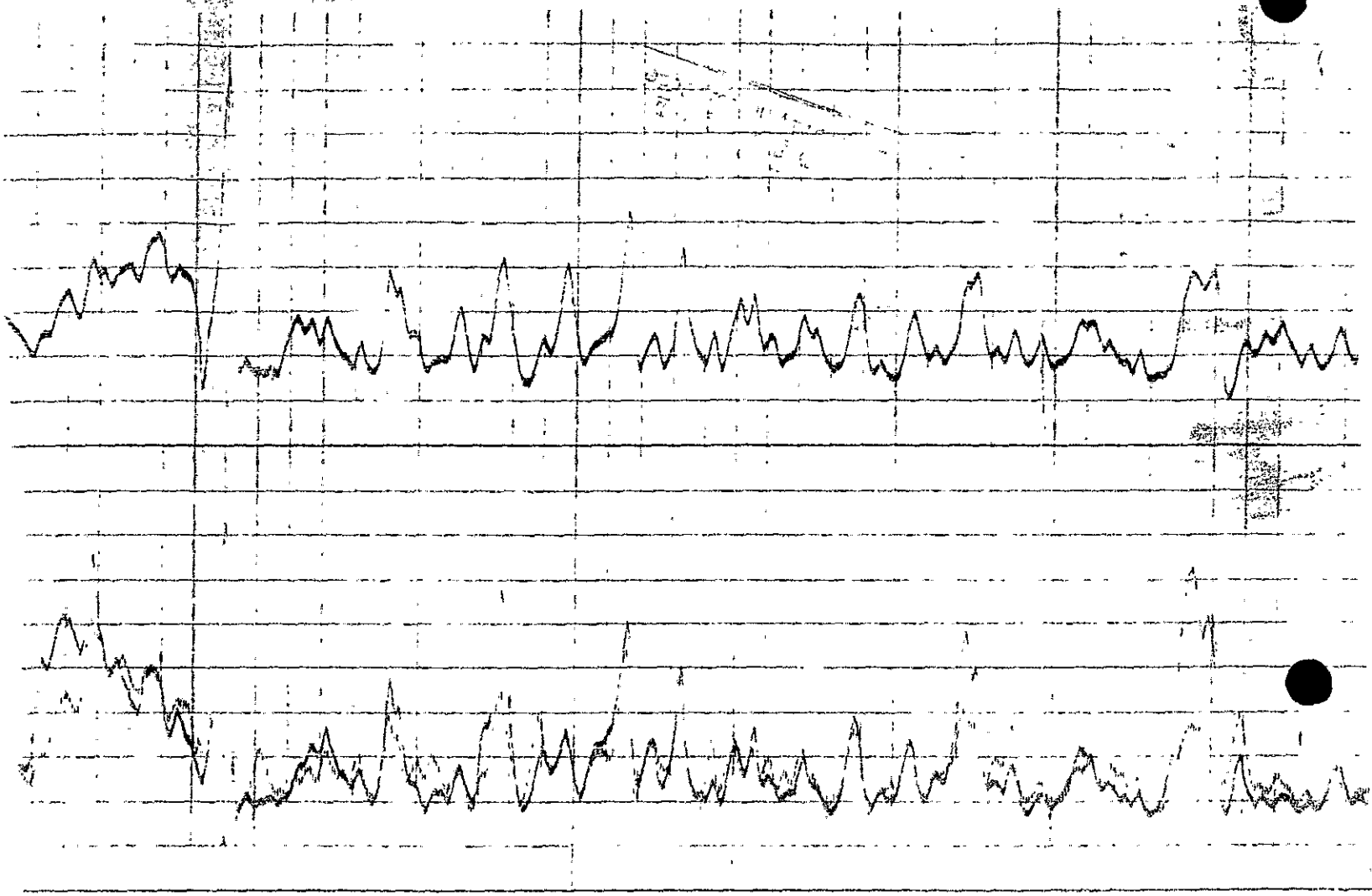
NAME VACA DRILLING CO.

Address 5815 CHERRY STREET (Typed or printed)

VACAVILLE, CA 95688

City _____ ZIP _____

License No. 532679 Date of this report 8/3/88



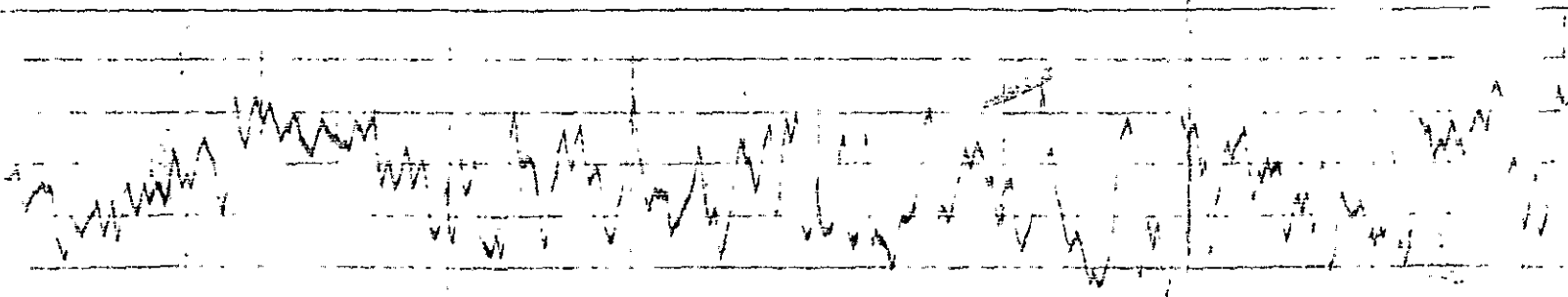
0100

0200

0300

0400

0500



DIVISION OF WATER RESOURCES

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

Do Not Fill In
State Well No. 6N/1W-1B4
Other Well No. _____
Region 5

(1) Driller:

Name D.C. Crew
Address Route 1, Box 320
Vacaville, Calif.
License No. _____ Classification _____

(2) Proposed use or uses (check):

Domestic ☐ Municipal ☐
Irrigation ☐ Industrial ☒
Domestic and Test well ☐
Irrigation ☐ Dug well ☐
Other _____ Other _____

(3) Equipment used

(check):

Rotary ☒
Cable ☐
Dug well ☐
Other _____

Owner

Name _____

Address _____

(4) Type of work (check):

New well ☒ Reconditioning of well ☐
Deepening existing well ☐

(5) Well log:

Total depth of well 600 ft.

Give details of formations penetrated, such as silt, peat, muck, sand, gravel, clay, shale, sandstone, hardpan, rock. Include size of gravel (diameter) and sand (fine, medium, coarse), color of material, structure (loose, packed, cemented, soft, hard, brittle).

Depth From Ground Surface

0	ft. to	2	ft.
2	" "	9	"
9	" "	11	"
11	" "	44	"
44	" "	50	"
50	" "	73	"
73	" "	86	"
86	" "	90	"
90	" "	95	"
95	" "	102	"
102	" "	138	"
138	" "	143	"
143	" "	146	"
146	" "	213	"
213	" "	222	"
222	" "	228	"
228	" "	237	"
237	" "	250	"
250	" "	253	"
253	" "	308	"
308	" "	312	"
312	" "	372	"
372	" "	375	"
375	" "	385	"
385	" "	411	"

Soil
Clay-Yellow
Sand
Sandy Clay - Yellow
Sand & Gravel - Loose
Sandy Clay - Yellow
Blue Clay - Soft
Sand & Gravel - Loose
Yellow Clay - Hard
Gravel - Loose
Blue Clay - Soft
Clay - Gravel
Gravel - Loose
Yellow Clay
Gravel
Yellow Clay
Sand & Gravel - Loose
Yellow Clay
Rock & Gravel
Yellow Clay
Gravel
Yellow Clay
Gravel
Clay & Gravel - Hard
Yellow Clay

If additional space is required, continue on DWR Form No. 246—Supplement, and attach to respective report copies.

(6) Casing left in well:

LENGTH FT.	DIAMETER INCHES	SINGLE, DOUBLE, WELDED, OTHER	LBS. PER FOOT OR GAGE OF CASING	SEATING BELOW GROUND SURFACE, FT.
570	12	Welded	3/16 gage	570

Type and size of shoe or well ring _____ Welded joints ☒ Yes ☐ No

FOR OFFICIAL USE ONLY

Drilled and Coded
As Well 6N/1W-1B4

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

Do Not Fill In
State Well No. 6N/1W-1B-7
Other Well No. 188
Region 5

(7) Perforations:

Type of perforator used	Slotted				
Perforated	78	ft. to	180	ft. Hole size	3/16
"	216	" "	270	" "	No. of holes
"	306	" "	324	" "	1 1/2 x 2 1/2 Centers
"	370	" "	388	" "	" "
"	404	" "	422	" "	" "
"	434	" "	452	" "	" "
"	470	" "	524	" "	" "
"	552	" "	570	" "	" "
"		" "		" "	" "
"		" "		" "	" "

(8) Water levels:

Depth at which water first encountered 44 ft.
Depth to water before perforating _____ ft.
Depth to water after perforating _____ ft.
Note any change in water level while drilling _____

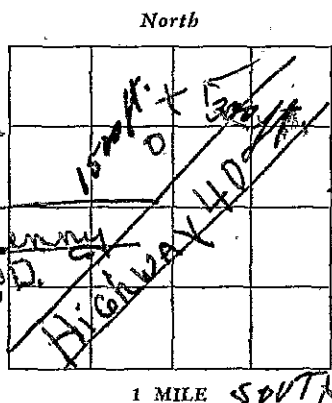
(9) Well pumping test:

Date of test 7/15 By whom E.E. Luhdorff
Depth to water when test started 35 ft.
G.P.M. at beginning of test 460
Drawdown from standing level 200 ft.
G.P.M. at completion of test 460
Drawdown at completion of test 200 ft.
Length of time tested 44 Hrs.
Temperature of water _____
Was gas present in water? ☐ Yes ☒ No

(10) General:

Was well gravel packed? Yes Size of rock 1/4 x 3/4 Thickness of pack 6 in.
Was a surface sanitary seal provided? _____
Were any strata sealed against pollution? ☐ Yes ☒ No If yes, attach detailed description.
Strata sealed _____
Was analysis made of water? ☐ Yes ☐ No If yes, attach copy.
Was electric log made of well? ☒ Yes ☐ No If yes, attach copy.
If well abandoned, was it plugged and sealed? _____
Method of plugging and sealing _____

(11) Location:



Section No. 1
Township Elmira 6N
Range 1W
Base & Meridian MD
Show location of well in Section, thus (X)
Distances to section lines from well, N or S 1000 ft. and E or W 1650 ft.
Show location of nearest known well, thus (O)
Distance to nearest known well 200 ft.

(12) Time of work:

Work started date 6/27 Completed date 7/8
Date of this report 7/10/50

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[SIGNED]

By E.E. Luhdorff
License No. RE-1977 Classification C-57
Dated 7/10/50, 1950

USGS-CAL-T1
May 1948

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

No. 6/14-141

Other Nos. 27

WELL LOG

State California County Solano Subarea 333

Owner _____

Location Vacaville about 3.9 miles north east of Vacaville

1800 ft. N. & 4,050 ft. W. of SE corner of Sec. 1

Drilled by R. Clark Address _____

Date 1948 Casing diam. 12" Land-surf. alt. 81

Source of data _____

(Enter type of well, perforations, yield, and drawdown at end of log)

Correlation	Material	Thick- ness (feet)	Depth (feet)
	Sand and clay	33	33
	Gravel	6	39
	Sand	3	42
	Gravel	2	44
	Sand and clay	18	62
	Gravel	6	68
	Sand and clay	10	78
	Blue clay	17	95
	Light gravel, fine	4	99
	Blue clay and coarse sand - hard	11	110
	Quicksand	10	120
	Clay	40	160

Record by _____ Date _____ Sheet _____ of _____

DIVISION OF WATER RESOURCES

48-378

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

Do Not Fill In
State Well No. 64/101-1
Other Well No. M4
Region 5

(1) Driller: H. O. Krossa
Name H. O. Krossa
Address 1032
Vacaville, Calif.
License No. 109884 Classification 1257

(2) Proposed use or uses (check): (3) Equipment used (check):
Domestic ☒ Municipal ☐
Irrigation ☐ Industrial ☐ Rotary ☐
Domestic and Test well ☐ Cable ☒
Irrigation ☐ Dug well ☐
Other ☐ Other ☐

Owner
Name
Address

4) Type of work (check):
New well ☒ Reconditioning of well ☐
Deepening existing well ☐

(5) Well log:
Total depth of well 99 ft.

Give details of formations penetrated, such as silt, peat, muck, sand, gravel, clay, shale, sandstone, hardpan, rock. Include size of gravel (diameter) and sand (fine, medium, coarse), color of material, structure (loose, packed, cemented, soft, hard, brittle).

Depth From Ground Surface

0 ft. to	4 ft.
4	10
10	20
20	23
23	36
36	70
70	76
76	77
77	90
90	91
91	96
96	99

Surface
Yellow Clay
Dry fine sand
Sandy clay
Coarse yellow sand
Hard sandy clay
Blue clay
Gravel pit
Blue clay
Loose fine gravel
Strips of hard gravel pit
Blue clay

FOR OFFICIAL USE ONLY

If additional space is required, continue on DWR Form No. 246—Supplement, and attach to respective report copies.

(6) Casing left in well:

LENGTH
FT.

DIAMETER
INCHES

SINGLE, DOUBLE, WELDED,
OTHER

LBS. PER FOOT OR
GAGE OF CASING

SEATING BELOW
GROUND SURFACE, FT.

102

6

Single

12.5

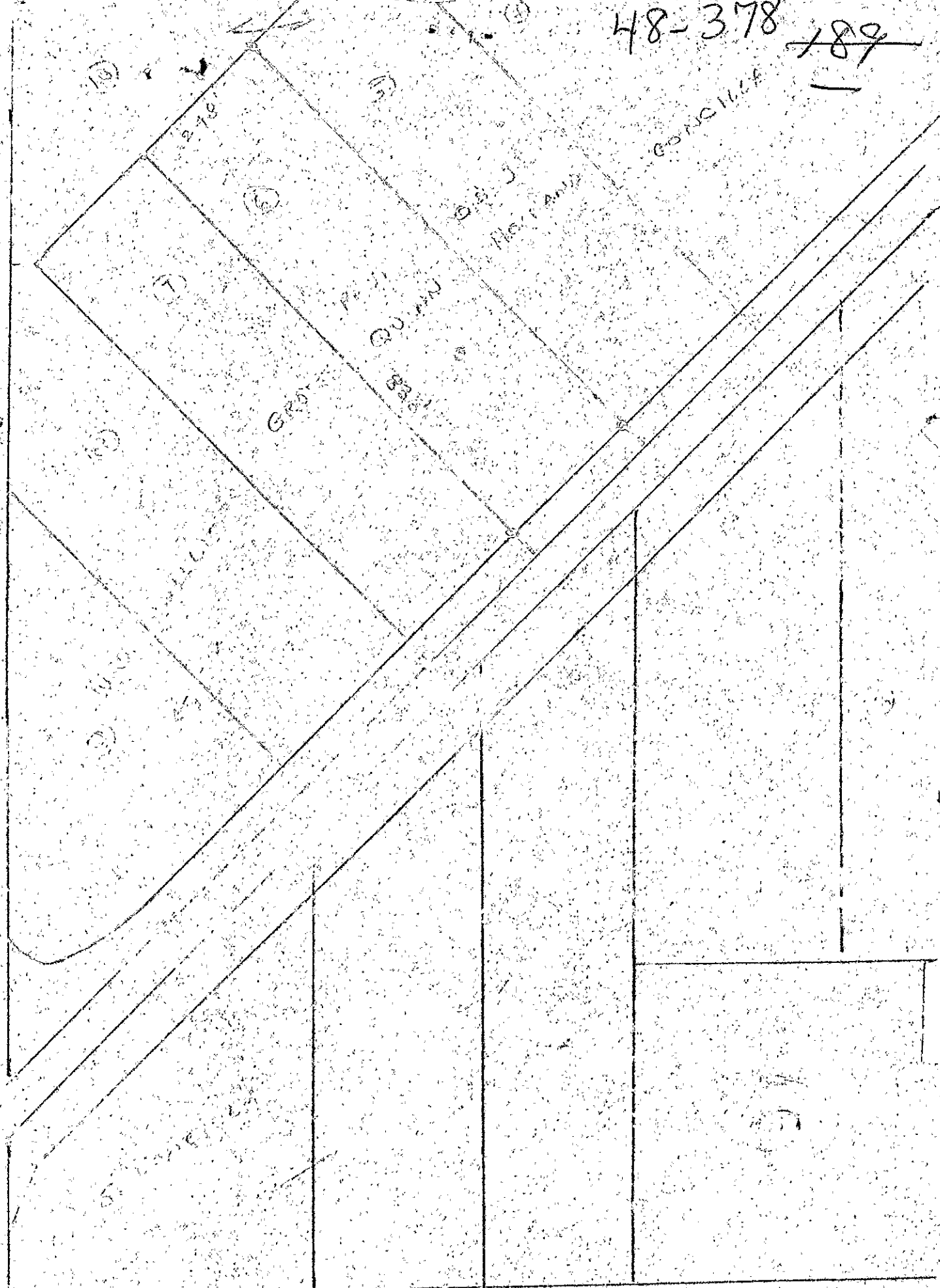
79

RECEIVED

Type and size of shoe or well ring _____ Welded joints ☒ Yes ☐ No

48-378 ~~189~~

CONCESSION



COUNTY RD 256

270

GRASSY PASTURE
QUINN

D.B. J.
HARTMAN

SW COR - 1 - 60/100

BRIDGE ROAD SW COR 17-344

(Sections 7076, 7077, 7078, Water Code)

Do Not Fill In
State Well No. 68/14-1
Other Well No. _____
Region 5

[illegible]

Depth at which water first encountered 28 ft.
Depth to water before perforating 1 ft.
Depth to water after perforating 1 ft.
Note any change in water level while drilling

Date of test _____ By whom _____
 Depth to water when test started _____ ft.
 G.P.M. at beginning of test _____
 Drawdown from standing level _____ ft.
 G.P.M. at completion of test _____
 Drawdown at completion of test _____ ft.
 Length of time tested _____
 Temperature of water _____
 Was gas present in water? ☐ Yes ☒ No

Was well gravel packed? Yes Size of rock 3/4" Thickness of pack 1/2"
Was a surface sanitary seal provided? Yes
Were any strata sealed against pollution? ☐ Yes ☒ No If yes, attach detailed description.
Strata sealed Yes
Was analysis made of water? ☐ Yes ☒ No If yes, attach copy.
Was electric log made of well? ☐ Yes ☒ No If yes, attach copy.
If well abandoned, was it plugged and sealed? Yes
Method of plugging and sealing Grout

1 MILE

Work started date 5-2-50 Completed date 5-4-50
Date of this report 5-22-50

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[SIGNED] _____
Well Driller
By _____
License No. 109874 Classification C-57
Dated May 22, 1950

ORIGINAL
File with Dyer

06N01W01 D
E
WATER WELL DRILLERS REPORT 251000
(Sections 7079, 7080, 7081, 7082, Water Code)

LOCATION NOT
FIELD CHECKED
Do Not Fill In

No 16620

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

State Well No.
Other Well No. 6/10-10

(1) OWNED.

(11) WELL LOG:

Total depth 96 ft. Depth of completed well 96 ft.

Formation: Describe by color, character, size of material, and structure

1. 0 ft. to 6 Soil 1 ft.
6 49 Clay
19 64 Sandy clay
64 77 Blue Clay
77 92 blue sand
92 95 Hard blue Clay

(2) LOCATION OF WELL:

County Solano Owner's number, if any

Township, Range, and Section T. 6N. R. 1W. Sec. 1

Distance from cities, roads, railroads, etc. 40 Ft. East of Leisure town Rd. 1/2 mile North of Elsworth Rd.

(3) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐
Cable ☒
Other ☐

(6) CASING INSTALLED:

STEEL: OTHER:
SINGLE ☒ DOUBLE ☐

If gravel packed

From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.
0	96	6	3/16			

Size of shoe or well ring: 2 1/8 x 1 1/4"

Size of gravel:

Describe joint Water Tight Welded

(7) PERFORATIONS OR SCREEN:

Type of perforation or name of screen Torch cut

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
55	95	6 Perf	per Ft.	5/32x5"

CONFIDENTIAL LOG
Water Code Sec. 7080

FOR OFFICIAL USE ONLY

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth 20 ft.

Were any strata sealed against pollution? Yes ☐ No ☒ If yes, note depth of strata

From ft. to ft.

From ft. to ft.

Method of sealing

(9) WATER LEVELS:

Depth at which water was first found, if known 22 ft.

Standing level before perforating, if known ft.

Standing level after perforating and developing 18 ft.

(10) WELL TESTS:

Was pump test made? Yes ☐ No ☒ If yes, by whom?

Field: gal./min. with ft. drawdown after hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒

Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

Work started 3-27 19 69 . Completed 4-1 19 69

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME H.O. Krossa

(Person, firm, or corporation) (Typed or printed)

Address Rt. 2 Box 3245

Vacaville Calif.

[SIGNED] H.O. Krossa (Well Driller)

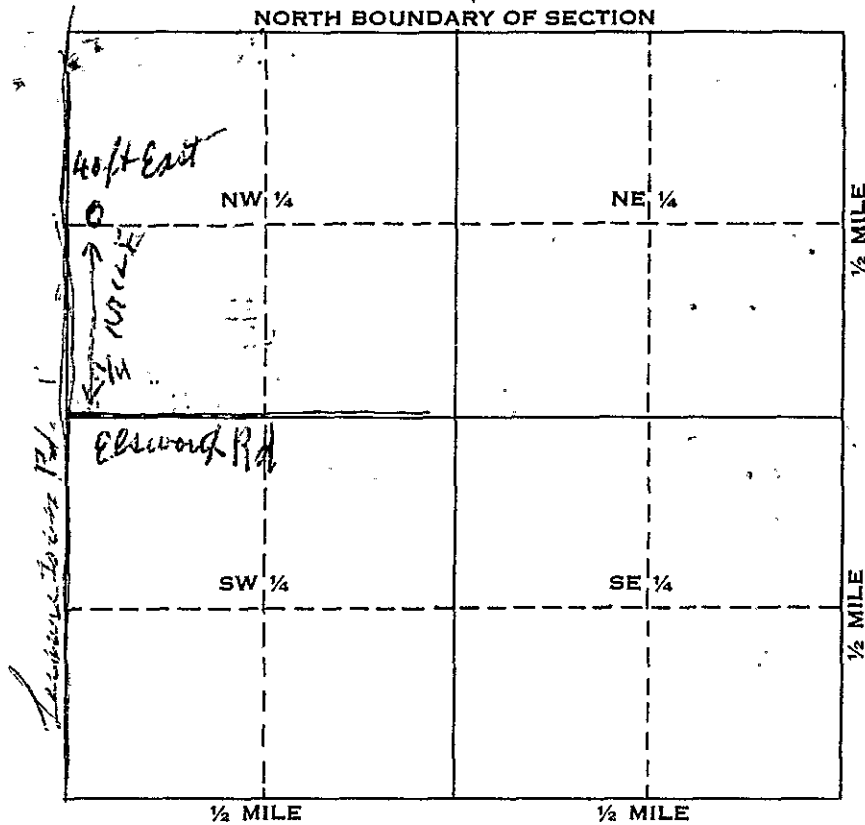
License No. 109884 Dated July 1, 1967

SKETCH LOCATION OF WELL ON REVERSE SIDE

WELL LOCATION SKETCH

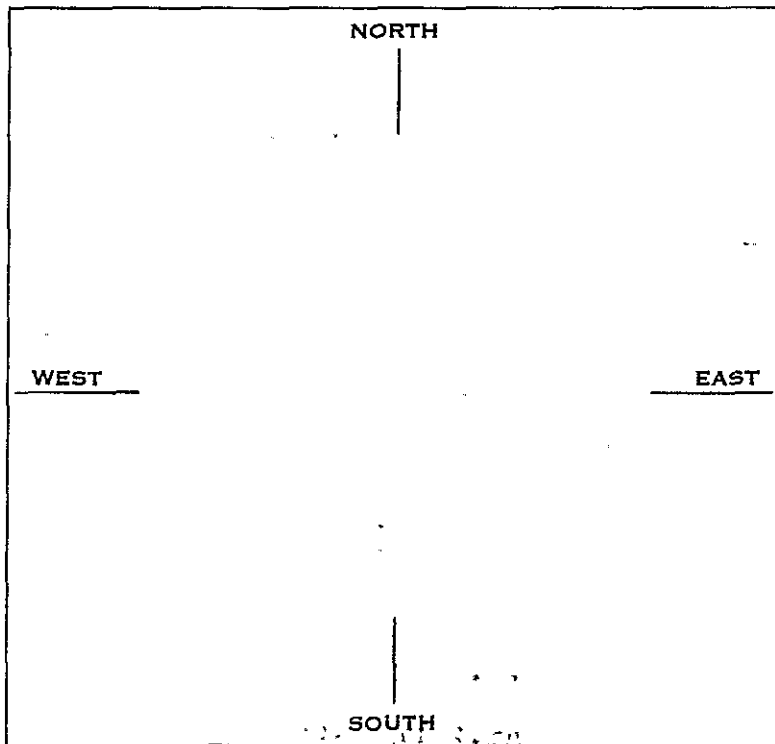
16620

U.S. GEOLOGICAL SURVEY



Township 6 N N/S
Range 1 W E/W
Section No. 1

- A. Location of well in sectionized areas.
Sketch roads, railroads, streams, or other features as necessary.



- B. Location of well in areas not sectionized.
Sketch roads, railroads, streams, or other features as necessary.
Indicate distances.

1969 APR 3 AM 11 27

DEPT. OF WATER RESOURCES

ORIGINAL
File Original, Duplicate and Triplicate with the
REGIONAL WATER POLLUTION
CONTROL BOARD No. 5
(Insert appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

LOCATION NOT CHECKED

Do Not Fill In

No 36245

State Well No.

Other Well No. 6N/1W-1

708

(1) OWNE

Name

Address

(2) LOCATION OF WELL:

County SOLANO Owner's number, if any

R. F. D. or Street No. Route # 2 on Walnut Ave.

SEC. 1 T-6N. R-1W

75 feet North and 1000 feet West of
the Section lines

(3) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐

Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐

Cable ☒

Dug Well ☐

(6) CASING INSTALLED:

SINGLE ☒ DOUBLE ☐

From 11 ft. to 62 1/2 ft. Diam. 6 " 12ga

If gravel packed

Diameter of Bore	from ft.	to ft.

Type and size of shoe or well ring 2X3/16" SPRING STEEL

Describe joint ARC WELDED

(7) PERFORATIONS:

Type of perforator used ACETYLENE TORCH

Size of perforations 5 in., length, by 3/16 in.

From 32 ft. to 64 ft. Perf. per row 10 Rows per ft. per foot

(8) CONSTRUCTION:

Was a surface sanitary seal provided? ☒ Yes ☐ No To what depth 20 ft.

Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strata

From 32 ft. to 64 ft.

Method of Sealing

(9) WATER LEVELS:

Depth at which water was first found 36 ft.

Standing level before perforating 36 ft.

Standing level after perforating Stands at 29 ft.

(10) WELL TESTS:

Was a pump test made? ☐ Yes ☒ No If yes, by whom?

Yield: 36 gal./min. with 36 ft. draw down after 36 hrs.

Temperature of water 36 Was a chemical analysis made? ☐ Yes ☒ No

Was electric log made of well? ☐ Yes ☒ No

(11) WELL LOG:

Total depth 64 ft. Depth of completed well 64 ft.

Formations: Describe by color, character, size of material, and structure.

ft. to	ft.	Formation
0	4	surface
4	12	sand
12	36	clay
36	50	sand with some gravel
50	64	(water at 36) clay

CONFIDENTIAL
Section 7076.1, Water Code

FOR OFFICIAL USE ONLY

Work started JUNE 20 19 56 Completed JUNE 20 19 56

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME H.O. KROSSA (Person, firm, or corporation) (Typed or printed)

Address ROUTE 2 BOX 1070
VACAVILLE, CALIF.

[SIGNED] H.O. Krossa Well Driller

License No. 109884 Dated to JUNE 30, 19 57

ORIGINAL

File Original, Duplicate and Triplicate with the

REGIONAL WATER POLLUTION

CONTROL BOARD No. 5
(Insert appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

Do Not Fill In

N^o 48407

State Well No.

Other Well No. 6/1/12 - 1

(1)

Name

Address

(2) LOCATION OF WELL:

County SOLANO Owner's number, if any—R. F. D. or Street No. HIGHWAY 140SECTION E 1 T-6N. R-1W B&M-MD500 feet East and 500' North of theSection Lines. (150' north of hiway140

(3) TYPE OF WORK (check):

New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐Cable ☒Dug Well ☐

(6) CASING INSTALLED:

SINGLE ☒ DOUBLE ☐

From ft. to ft. Diam. Gage or Wall

XXXXXXX XXXXX XXXXX XXXXX0 " 105 " 8" " 12ga.Type and size of shoe or well ring 2X3/16" SPRING STEELDescribe joint ARC WELDED

If gravel packed

Diameter of Bore from ft. to ft.

" " " " " "" " " " " "" " " " " "" " " " " "" " " " " "" " " " " "" " " " " "" " " " " "

(7) PERFORATIONS:

Type of perforator used ACETYLENE TORCHSize of perforations 3/16 in., length, by 5 in.

From ft. to ft. Perf. per row Rows per ft.

" 93 " 105 " 8 PERF " per foot" 41 " 69 " 8 PERF " per foot" " " " " " " " " "" " " " " " " " " "

(8) CONSTRUCTION:

Was a surface sanitary seal provided? ☒ Yes ☐ No To what depth ft.Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strata

From ft. to ft.

" " " " " "" " " " " "

Method of Sealing

(9) WATER LEVELS:

Depth at which water was first found 36 ft.

Standing level before perforating ft.

Standing level after perforating 37 ft.

(10) WELL TESTS:

Was a pump test made? ☐ Yes ☒ No If yes, by whom?

Yield: gal./min. with ft. draw down after hrs.

Temperature of water Was a chemical analysis made? ☐ Yes ☒ NoWas electric log made of well? ☐ Yes ☐ No

(11) WELL LOG:

Total depth 163 ft. Depth of completed well 105 ft.

Formation: Describe by color, character, size of material, and structure.

0 ft. to 16 ft. surface16 " 28 " clay28 " 36 " dry sand (water @ 36')36 " 43 " sandy clay43 " 47 " gravel47 " 53 " clay53 " 66 " sand and gravel66 " 70 " yellow clay70 " 95 " blue clay95 " 100 " blue sand100 " 131 " blue clay131 " 163 " yellow clay" " " " " "CONFIDENTIAL
Section 7076.1, Water Code

FOR OFFICIAL USE ONLY

Work started Sept 10¹⁹ 57 Completed Sept. 13¹⁹ 57

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME H.O. KROSSA
(Person, firm, or corporation) (Typed or printed)Address ROUTE # 2 BOX 1070
VACAVILLE, CALIF.[SIGNED] H.O. Krossa
Well DrillerLicense No. 109881 Dated SEPTEMBER 19¹⁹ 57
to JUNE 30¹⁹ 58

STATE OF CALIFORNIA
THE RESOURCES AGENCY

Do Not Fill In

ORIGINAL
File with DWR

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

No 55341

State Well No. 6S/1W-1E1
Other Well No. 6N/1W-1

(1)
Na
Ad

(2) LOCATION OF WELL:

County Solano Owner's number, if any

Township, Range, and Section T. 6 N. R. 1 W. Sec. 1.

Distance from cities, roads, railroads, etc. 3400 ft. N. of Hwy 20

80 ft E. of Leisuretown Rd.

(3) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐

Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☒

Cable ☐

Other ☐

(6) CASING INSTALLED:

STEEL: SINGLE ☐ DOUBLE ☐ OTHER: Plastic

If gravel packed

From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.
0	159 1/2	5"	3/16	9	20	159 1/2

Size of shoe or well ring: Plug

Size of gravel: 1/4" x 1/2"

Describe joint: Collar - Glue

(7) PERFORATIONS OR SCREEN:

Type of perforation or name of screen

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
100	120	10	1	1/8 x 26"
140	160			

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth 20 ft.

Were any strata sealed against pollution? Yes ☐ No ☒ If yes, note depth of strata

From ft. to ft.

From ft. to ft.

Method of sealing: Cement

(9) WATER LEVELS:

Depth at which water was first found, if known ft.

Standing level before perforating, if known ft.

Standing level after perforating and developing ft.

(10) WELL TESTS:

Was pump test made? Yes ☐ No ☒ If yes, by whom?

gal./min. with ft. drawdown after hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒

Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

(11) WELL LOG:

Total depth 159 1/2 ft. Depth of completed well 159 1/2 ft.

Formation: Describe by color, character, size of material, and structure

Soil	0 ft. to	2 ft.
Clay	2	8
Sandy rock	8	26
Yellow clay	26	62
Sand	62	64
Blue clay	64	110
Sand	110	114
Yellow clay	114	145
Sand	145	152
Clay	152	159 1/2

Plotted and Coded
As Well 6N 1W-1E80

Work started 7/22 19 71, Completed 7/22 19 71

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

VACA DRILLING CO.
NAME Rt. 1 Box 4452
(Vacaville, Calif. 94988 or printed)

Address

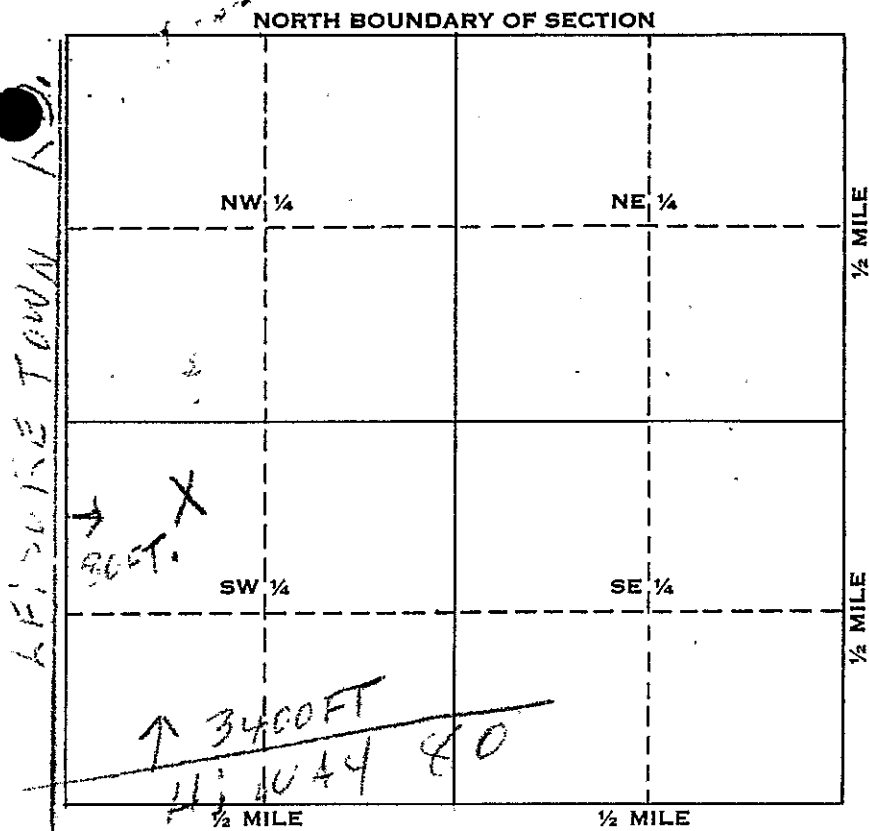
[SIGNED] [Signature]
(Well Driller)

License No. 98441 Dated 7/26, 19 71

SKETCH LOCATION OF WELL ON REVERSE SIDE

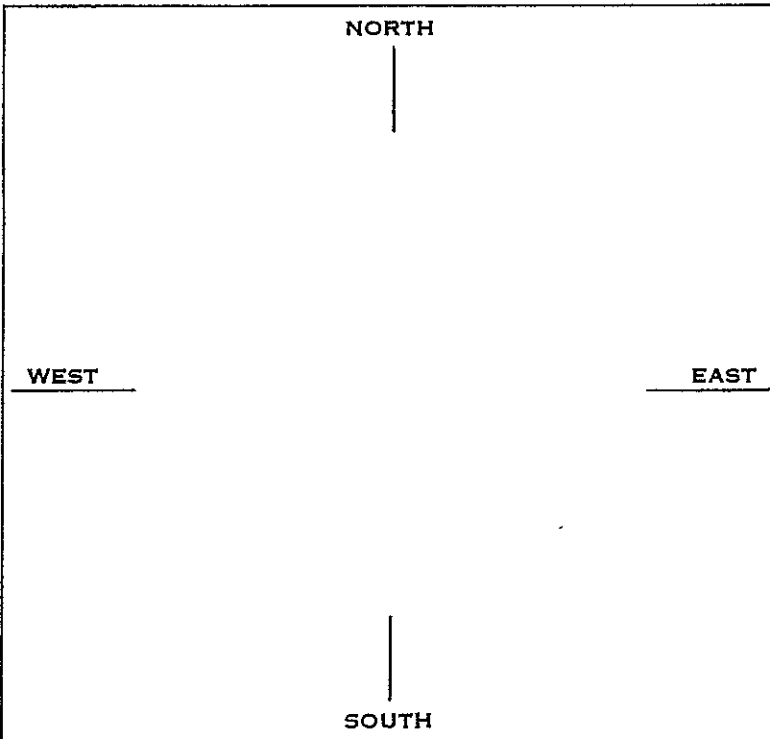
WELL LOCATION SKETCH

55341



Township T. 6 N. N/S
 Range R. 1 W. E/W
 Section No. - 1 -

- A. Location of well in sectionized areas.
 Sketch roads, railroads, streams, or other features as necessary.



- B. Location of well in areas not sectionized.
 Sketch roads, railroads, streams, or other features as necessary.
 Indicate distances.

DEPT. OF WATER
 RESOURCES

1971 AUG 3 AM 11 17

ORIGINAL

File Original, Duplicate and Triplicate with the

REGIONAL WATER POLLUTION

CONTROL BOARD No. 5

(Insert appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

LOCATION NOT CHECKED

Do Not Fill In

N^o 60861

State Well No.

Other Well No.

Name

Address

(2) LOCATION OF WELL:

County Solano

Owner's number, if any—

R. F. D. or Street No. In the Northwest 1/4 of the Southwest 1/4 of Section 1, Township 6 North, Range 1 West, M. D. B. & M and being west from residential section of Substation, State Highway 40 Northeast from Vacaville.

(3) TYPE OF WORK (check):

New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☐ Industrial ☒ Municipal ☐Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☒Cable ☐Dug Well ☐

(6) CASING INSTALLED:

SINGLE ☒ DOUBLE ☐

From ft. to ft. Diam. Gage or Wall

From 0 to 96 ft. 24" 1/4

Surface 524 to 12" 1/4

If gravel packed

Diameter of Bore from to

29" 0 to 96 ft.

24" 96 to 524 ft.

15" 524 to 954 ft.

Type and size of shoe or well ring Point

Describe joint Collar, welded in

one string of casing.

Size of gravel: passing 3/8

Screen, rerun to

.094 Screen

(7) PERFORATIONS:

Type of perforator used Sawn

Size of perforations 5/32" in., length, by 2 1/2" in.

From 224 to 236 ft. 3 Perforations per row 16 Rows per ft.

260 to 268 ft. 3 " " " 16 " " "

331 to 334 ft. 3 " " " 16 " " "

356 to 368 ft. 3 " " " 16 " " "

416 to 420 ft. 3 " " " 16 " " "

436 to 456 ft. 3 " " " 16 " " "

(8) CONSTRUCTION: 3-16 Ground level.

Was a surface sanitary seal provided? ☒ Yes ☐ No To what depth to 96 ft. ft.Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strata

From ft. to ft.

Method of Sealing Cement

(9) WATER LEVELS:

Depth at which water was first found 137 ft.

Standing level before perforating Bailing level 75 ft.

Bailing level after perforating " " 75 ft.

(10) WELL TESTS:

Was a pump test made? ☒ Yes ☐ No If yes, by whom? W.P. Wilson & Sons

Yield: Over Sheet min. with ft. draw down after hrs.

Temperature of water ? Was a chemical analysis made? ☐ Yes ☒ NoWas electric log made of well? ☒ Yes ☐ No

(11) WELL LOG:

Total depth 954 ft. Depth of completed well 524 ft.

Formation: Describe by color, character, size of material, and structure.

0	ft. to	61	ft.	Soil and clay mixed
61	"	92	"	Blue Clay
92	"	137	"	Blue sandy clay
137	"	144	"	Pkd. Sand, some fine Grav
144	"	151	"	Clay
151	"	160	"	Sandy brittle
160	"	197	"	Clay
197	"	203	"	Sandy brittle
203	"	227	"	Brittle sandy clay
227	"	231	"	Sand and fine gravel
231	"	261	"	Clay
261	"	265	"	Sandy Brittle, some fine gravel.
265	"	325	"	Clay
325	"	339	"	Sandy clay
339	"	343	"	Packed sand.
343	"	355	"	Clay
355	"	361	"	Sandy clay, britt. Strks.
361	"	364	"	Britt., some fine grav.
364	"	410	"	Clay
410	"	416	"	Brittle
416	"	437	"	Clay
437	"	442	"	Brittle
442	"	453	"	Britt., some fine gravel
453	"	477	"	Clay
477	"	492	"	Sandy clay
492	"	495	"	Gravel
495	"	508	"	Clay
508	"	521	"	Sandy clay
521	"	569	"	Clay
569	"	573	"	Sandy clay
573	"	587	"	Clay
587	"	591	"	Brittle
591	"	605	"	Clay
605	"	610	"	Brittle
610	"	637	"	Sandy clay
637	"	648	"	Brittle
648	"	704	"	Clay
704	"	706	"	Sandy Britt. & fine grav.
706	"	717	"	Clay
717	"	720	"	Sandy brittle
720	"	831	"	Clay (over sheet)

Work started Aug 4 1960. Completed Sep. 8 1960

Cased & graveled 8/24 (last day pumped)

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Aulman & Aulman FOR OFFICIAL USE ONLY

(Person, firm, or corporation)

(Typed or printed)

Address 1309 Westwood Way,

Woodland, California

[Signed] Aulman

License No. 109870

Well Drilled 1/1/60 to

Dated 6/30/61 incl. 19

6086-1

Log of Well Continued:

831 ft to 834 ft	Brittle
834 " 891 "	Clay
891 " 897 "	Sandy clay
897 " 923 "	Clay
923 " 928 "	Sandy clay
928 " 954 "	Clay

Suitable guides were welded to outside of casing at 150 ft. intervals as per contract.

Yield of Well as per P.G.&E check

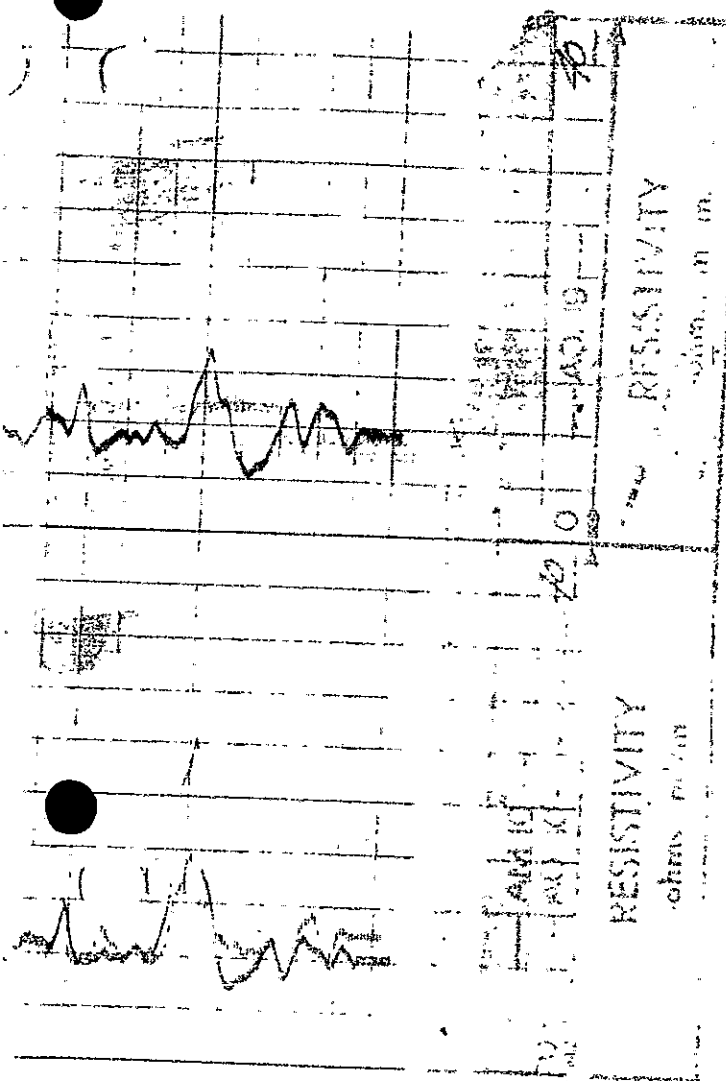
#1	251.4 ft Total Head	577 GPM	Draw down from level 61.4 ft
#2	221.65 " " "	417 " " "	31.65 "

Standing level after short shutdown of pump 190 ft.

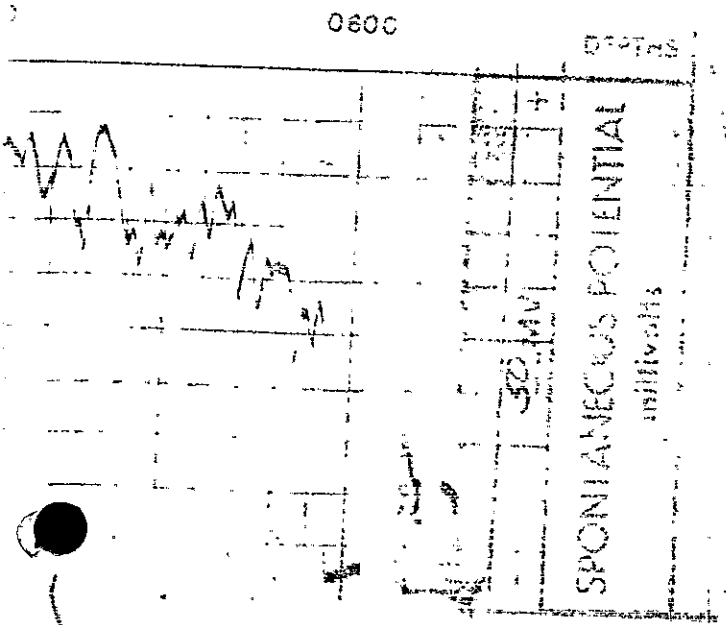
60861

06NOIWOIBOAM / 88

COUNTY: SOLANO
 FIELD OR LOCATION: Vaca-Dixon Station
 WELL: M.W. 3
 COMPANY: P.G. & E.



Ele. diam. D.F.:
 X.B.:
 or C.:
 RUN NO. 1
 6.20/50
 596
 18
 578
 597
 600
 64
 Natural
 65



75
 70
 73
 70

06N01W01

S/F?

LOCATION NOT CHECKED

Do Not Fill In

No 69808

ORIGINAL

File Original, Duplicate and Triplicate with the

REGIONAL WATER POLLUTION

CONTROL BOARD No. 5

(Enter appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

State Well No.

Other Well No. 6-111-100-1

OWNER:

Name

Address

(2) LOCATION OF WELL:

County Solano

Owner's number, if any—

R. F. D. or Street No.

SEC 1 T.6N.R.1.W

100 FT. NORTH OF MILLS ROAD

1/2 MILE EAST OF ELSWORTH ROAD

(11) WELL LOG:

Total depth 85 ft. Depth of completed well 85 ft.

Formation: Describe by color, character, size of material, and structure.

0	ft. to	20	ft.	Surface
20	"	35	"	SANDY Clay
35	"	37	"	Gravel
37	"	41	"	Sandy Clay
41	"	67	"	Clay
67	"	71	"	Sand
71	"	81	"	SANDY Clay
81	"	85	"	Blue Clay

(3) TYPE OF WORK (check):

New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐Cable ☒Dug Well ☐

(6) CASING INSTALLED:

SINGLE ☒ DOUBLE ☐

From 0 ft. to 86 ft. Diam. 6-3/8 O.D.

188 Wall

If gravel packed

Diameter of Bore from ft. to ft.

Type and size of shoe or well ring 1/2 X 2 1/2 SPRING STEEL

Describe joint ARC. WELDED

(7) PERFORATIONS:

Type of perforator used Acetylene Torch

Size of perforations 5 in., length, by 3/16 in.

From 35 ft. to 45 ft. Perf. per row 6 PERF PER FT. Rows per ft.

65 ft. to 85 ft. 6 PERF PER FT.

(8) CONSTRUCTION:

Was a surface sanitary seal provided? ☒ Yes ☐ No To what depth ft.Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strata

From ft. to ft.

Method of Sealing

(9) WATER LEVELS:

Depth at which water was first found 35 ft.

Standing level before perforating ft.

Water level after perforating 26 ft.

(10) WELL TESTS:

Was a pump test made? ☐ Yes ☒ No If yes, by whom?

Yield: gal./min. with ft. draw down after hrs.

Temperature of water Was a chemical analysis made? ☐ Yes ☒ NoWas electric log made of well? ☐ Yes ☒ No

Work started 19 Completed 19

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME H. O. KROSSA

(Person, firm, or corporation)

(Typed or printed)

Address Rt. 2 BOX 1070 Vacaville

Calif.

[SIGNED]

H. O. Krossa

Well Driller

License No. 109884

Dated July 1

1963

57025 6-57 30M QUIN Δ SPD DWR 1 1/2 V. 1000

LOCATION NOT CHECKED

ORIGINAL
File Original, Duplicate and Triplicate with the
REGIONAL WATER POLLUTION
CONTROL BOARD No. 2
(at appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

STATE OF CALIFORNIA

***Do Not Fill In**

Nº 76521

State Well No.

Other Well No. 601100-1F

OWT

Name _____
Address _____

(2) LOCATION OF WELL:

County Solano Owner's number, if any—
R. F. D. or Street No. County Rd. 621 A, Box 439

See Diagram, Item 11.

(3) TYPE OF WORK (*check*):

New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary	☒
Cable	☐
Dug Well	☐

(6) CASING INSTALLED:

SINGLE ☒ DOUBLE ☐				Gage or Wall	Diameter of Bore	from ft.	to ft.
From	ft. to	ft.	Diam.				
0"		100	6"	12	None		

Type and size of shoe or well ring

Size of gravel:

Type and size of shoe or well ring

Describe joint Butt Welded

(7) PERFORATIONS:

Type of perforator used		Acetylene			
Size	of perforations	6	in., length, by	1/4	in.
From	ft. to	ft.	Perf. per row	Rows per ft.	
"	20	40	" 20"	" 3"	"
"	60	100	" 20"	" 3"	"
"	"	"	"	"	"
"	"	"	"	"	"

(8) CONSTRUCTION: To be provided by
Owner

Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strata

From	ft. to	ft.
------	--------	-----

Method of Sealing

(9) WATER LEVELS:		
Depth at which water was first found	75	ft.
Water level before perforating	70	ft.
Water level after perforating	70	ft.

(10) WELL TESTS: Tested by Bailing.

Was a pump test made? ☐ Yes ☐ No If yes, by whom?
Yield: 8 gal./min. with 25 ft. draw down after 20 hrs.
Temperature of water _____ Was a chemical analysis made? ☐ Yes ☒ No
Was electric log made of well? ☐ Yes ☒ No

(11) WELL LOG:

Total depth 105 ft. Depth of completed well 100 ft.

Formation: *Describe by color, character, size of material, and structure.*

Formation: Describe by color, character, size of material, and structure.

ft. to	ft.	
0	2	Top Soil
2	12	Clay
12	90	Sand & Clay
90	105	Blue Shale

A hand-drawn map on lined paper showing a property layout. A diagonal line runs from the top left towards the bottom right, labeled 'Highways' with an arrow pointing to it. Another diagonal line runs from the top right towards the bottom left, labeled 'Collinsworth Rd.' with an arrow pointing to it. A horizontal line crosses the middle of the diagram, labeled 'Cross fence' on the right side. A diagonal line runs from the bottom left towards the top right, labeled 'Mills Lane' with an arrow pointing to it. In the center, there are two labels: '75' bellos to' and '44'', both with arrows pointing towards the central area. On the right side, there is a label 'Adams Prop' with an arrow pointing to a specific location. The diagram uses simple lines and arrows to indicate directions and boundaries.

CONFIDENTIAL
Section 7076.1, Water Code

Work started 6 Sept. 19 62 Completed 6 Sept. 19 62

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Doshier-Gregson Well Drilling Service

Address ^(Person, firm, or corporation) 1554 Green Island Rd. ^(Typed or printed)

Vallejo, California

[SIGNED] W. D. Nester
Well Driller
License No. 208135 Dated 10 Sept. 1962

ORIGINAL

File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 086634

Permit No. 176669
Permit No. or Date _____

State Well No. _____
Other Well No. 06NO1W01P

(1) O

Address _____

City _____

(2) LOCATION OF WELL (See instructions):

County Solano Owner's Well Number _____

Well address if different from above _____

Township T. 6N. Range R. 1W. Section 1Distance from cities, roads, railroads, fences, etc. 1320 ft. North ofWalnut Road, 150 ft. West of Willow
Road.

(3) TYPE OF WORK:

New Well ☒ Deepening ☐Reconstruction ☐Reconditioning ☐Horizontal Well ☐Destruction ☐ (Describe
destruction materials and
procedures in Item 12)

(4) PROPOSED USE:

Domestic ☒Irrigation ☐Industrial ☐Test Well ☐Stock ☐Municipal ☐Other ☐

WELL LOCATION SKETCH

(5) EQUIPMENT:

Rotary ☒ Reverse ☐Cable ☐ Air ☐Other ☐ Bucket ☐

(6) GRAVEL PACK:

Yes ☒ No ☐ Size 2 X 2"Diameter of bore 9"Packed from 20 to 140 ft.

(7) CASING INSTALLED:

Steel ☐ Plastic ☒ Concrete ☐

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Cage or Wall	From ft.	To ft.	Slot size
0	140	5"	3/16"	120	140	1/8 X 6"

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 20 ft.Were strata sealed against pollution? Yes ☐ No ☒ Interval _____ ft.Method of sealing cement grout

(10) WATER LEVELS:

Depth of first water, if known _____ ft.

Standing level after well completion _____ ft.

(11) WELL TESTS:

Was well test made? Yes ☐ No ☒ If yes, by whom? _____Type of test Pump ☐ Bailer ☐ Air lift ☐

Depth to water at start of test _____ ft. At end of test _____ ft.

Discharge _____ gal/min after _____ hours Water temperature _____

Chemical analysis made? Yes ☐ No ☒ If yes, by whom? _____Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report(12) WELL LOG: Total depth 140 ft. Depth of completed well 141 ft.

from ft. to ft. Formation (Describe by color, character, size or material)

0 - 2 soil

2 - 14 clay

14 - 19 gravel & sand

19 - 80 hard clay

80 - 125 blue clay

125 - 134 blue sand

134 - 140 blue clay

ORIGINAL

File with DWR

STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 100921

State Well No.

Other Well No.

Permit No. or Date 149019

(1) OW.

Address

City

(2) LOCATION OF WELL (See instructions):

County Solano Owner's Well Number

Well address if different from above

Township T.6N Range R.1W Section 1

Distance from cities, roads, railroads, fences, etc.

(12) WELL LOG: Total depth 160 ft. Depth of completed well 160 ft.

from ft. to ft. Formation (Describe by color, character, size or material)

0 - 2 Soil

2 - 65 Clay

65 - 80 Sandy Clay

80 - 110 Blue Clay

110 - 116 Blue Sand

116 - 145 Blue Clay

145 - 148 Yellow Clay

148 - 155 Brown Sand

155 - 160

(3) TYPE OF WORK:

New Well ☒ Deepening ☐Reconstruction ☐Reconditioning ☐Horizontal Well ☐Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic ☐Irrigation ☒Industrial ☐Test Well ☐Stock ☐Municipal ☐Other ☐

WELL LOCATION SKETCH

(5) EQUIPMENT:

Rotary ☒ Reverse ☐Cable ☐ Air ☐Other ☐ Bucket ☐

(6) GRAVEL PACK:

Yes ☒ No ☐ Size 1/2"

Diameter of bore 12"

Packed from 20 to 160

(7) CASING INSTALLED:

Steel ☐ Plastic ☒ Concrete ☐

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	161	8"	1/4"	100	120	1/8X6"
				140	160	

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 20 ft.Were strata sealed against pollution? Yes ☐ No ☒ Interval

Method of sealing Cement Grout

(10) WATER LEVELS:

Depth of first water, if known

Standing level after well completion

(11) WELL TESTS:

Was well test made? Yes ☐ No ☒ If yes, by whom?Type of test Pump ☐ Bailer ☐ Air Lift ☐

Depth to water at start of test

Discharge gal/min after hours Water temperature

Chemical analysis made? Yes ☐ No ☒ If yes, by whom?Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

Work started 07-03 1978 Completed 07-04 1978

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED W.C. Bauer (Well Driller)

NAME (Person, firm, or corporation) (Typed or printed)

Address VACA DRILLING CO.

City 4452 CHERRY GLEN RD.

License No. 98441 VACAVILLE, CALIF. 94388

Date of this report July 23-78

ORIGINAL

File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 149705

Permit No. or Date 182744

State Well No. 06N01001C
Other Well No. 06N01001C

(1)

Address

City

(2) LOCATION OF WELL (See instructions):

County Solano Owner's Well Number

Well address if different from above

Township T.6.N. Range R.IW. Section 1Distance from cities, roads, railroads, fences, etc. 200 Ft. East of Mills EN. 1600 Ft. North Elsworth RD.(12) WELL LOG: Total depth 100 ft. Depth of completed well 100 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

0	3	SOIL
3	8	CLAY
8	12	SAND
12	25	CLAY
25	34	SAND
34	56	CLAY
56	64	GRAVEL SAND
64	100	BLUE SANDY CLAY

(3) TYPE OF WORK:

New Well ☒ Deepening ☐Reconstruction ☐Reconditioning ☐Horizontal Well ☐Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic ☒Irrigation ☐Industrial ☐Test Well ☐Stock ☐Municipal ☐Other ☐

WELL LOCATION SKETCH

(5) EQUIPMENT:

Rotary ☒ Reverse ☐Cable ☐ Air ☐Other ☐ Bucket ☐

(7) CASING INSTALLED:

Steel ☐ Plastic ☐ Concrete ☐

From ft.	To ft.	Dia. in.	Gage or Wall
0	101	5"	3/16

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 20 ft.Were strata sealed against pollution? Yes ☐ No ☐ Interval ft.Method of sealing Cement Grout

(10) WATER LEVELS:

Depth of first water, if known ft.Standing level after well completion ft.

(11) WELL TESTS:

Was well test made? Yes ☐ No ☐ If yes, by whom? Type of test Pump ☐ Bailer ☐ Air lift ☐Depth to water at start of test ft. At end of test ft.Discharge gal/min after hours Water temperature Chemical analysis made? Yes ☐ No ☐ If yes, by whom? Was electric log made? Yes ☐ No ☐ If yes, attach copy to this report Work started 6-7 1985 Completed 6/7 1985

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED W. C. Brown Jr.
(Well Driller)NAME VACA DRILLING CO.

(Person, firm or corporation) (Typed or printed)

Address 5815 CHERRY GLEN RD.City VACAVILLE CA.Zip 95688Contr. Lic. # 397995License No. Date of this report 6/7/85

ORIGINAL

File with DWR

STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 229419

No. of Intent No. 178710

Permit No. or Date

State Well No.

Other Well No. 06N011W01E

(1)

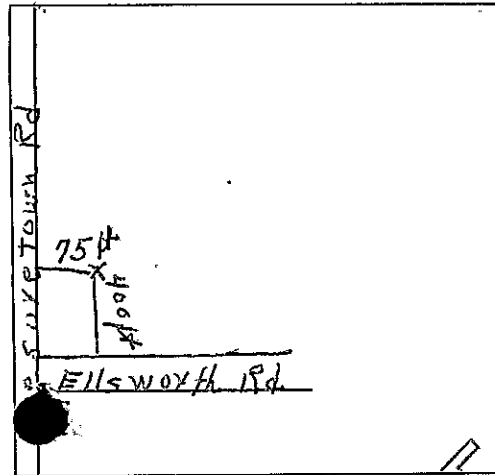
Adi

City

(2) LOCATION OF WELL (See instructions):

County SOLANO Owner's Well Number

Well address if different from above

Township T. 6 N Range R. 1 W Section 1
Distance from cities, roads, railroads, fences, etc. 75 FT. EAST OF
LIESURE TOWN RD. 400 FT. NORTH OF
ELLSWORTH RD.

WELL LOCATION SKETCH

(3) TYPE OF WORK:

New Well ☒ Deepening ☐Reconstruction ☐Reconditioning ☐Horizontal Well ☐Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic ☒Irrigation ☐Industrial ☐Test Well ☐Stock ☐Municipal ☐Other ☐

(12) WELL LOG: Total depth 140 ft. Depth of completed well 141 ft.

from ft. to ft. Formation (Describe by color, character, size or material)

0 - 2 SOIL

2 - 13 CLAY

13 - 16 SAND & GRAVEL

16 - 30 CLAY

30 - 36 SAND & FINE GRAVEL

36 - 50 YELLOW CLAY

50 - 90 BLUE CLAY

90 - 100 BLUE SAND & FINE GRAVEL

100 - 125 YELLOW CLAY

125 - 130 SAND

130 - 140 CLAY

ORIGINAL

File with DWR

STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in

No. 229490

No. of Intent No. 179634

Permit No. or Date

State Well No.

Other Well No. 06NO1201C

(1)

Add:

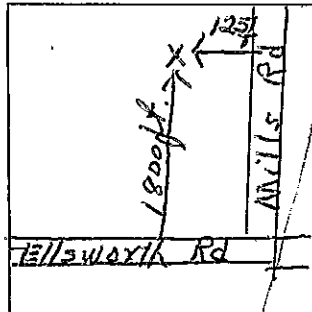
City:

(2) LOCATION OF WELL (See instructions):

County SOLANO Owner's Well Number

Well address if different from above

Township T6N Range R1W Section 1

Distance from cities, roads, railroads, fences, etc. 1800FT. NORTH OF
ELLSWORTH RD. 125FT. WEST OF MILLS RD.

WELL LOCATION SKETCH

(3) TYPE OF WORK:

New Well ☒ Deepening ☐Reconstruction ☐Reconditioning ☐Horizontal Well ☐Destruction ☐ (Describe
destruction materials and
procedures in Item 12)

(4) PROPOSED USE:

Domestic ☒Irrigation ☐Industrial ☐Test Well ☐Stock ☐Municipal ☐Other ☐

(5) EQUIPMENT:

Rotary ☒ Reverse ☐Cable ☐ Air ☐Other ☐ Bucket ☐

(6) GRAVEL PACK:

Yes ☒ No ☐ Size

Diameter of bore 10"

Packed from 20 to 60 ft

(7) CASING INSTALLED:

Steel ☐ Plastic ☒ Concrete ☐

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	61	6 1/2	1/2	40	60	1/8 x 6

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 20 ft.Were strata sealed against pollution? Yes ☒ No ☐ Interval

Method of sealing CEMENT GROUT

(10) WATER LEVELS:

Depth of first water, if known

Standing level after well completion

(11) WELL TESTS:

Was well test made? Yes ☐ No ☒ If yes, by whom?Type of test Pump ☐ Bailer ☐ Air lift ☐

Depth to water at start of test

At end of test

Discharge gal/min after

Water temperature

Chemical analysis made? Yes ☐ No ☒ If yes, by whom?Was electric log made? Yes ☐ No ☒ If yes, attach copy to this report

(12) WELL LOG: Total depth 60 ft. Depth of completed well 61 ft.

from ft. to ft. Formation (Describe by color, character, size or material)

0 - 8 SANDY SOIL

8 - 18 CLAY

18 - 22 SAND

22 - 35 CLAY

35 - 39 SAND

39 - 48 CLAY

48 - 53 GRAVEL & SAND

53 - 60 CLAY

Work started 4-24 1982 Completed 4-24 1982

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED W. C. C. (Well Driller)

NAME VACA DRILLING CO.
(Person, firm, or corporation) (Typed or printed)

Address 5815 CHERRY GLEN RD.

City VACAVILLE, CALIF. Zip 95688

License No. 397995 Date of this report 4-26-82

ORIGINAL

File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 231934

No. of Intent No. 179678

Permit No. or Date

State Well No.

Other Well No. 06N01W001F

(1)

Address

City

(2) LOCATION OF WELL (See instructions):

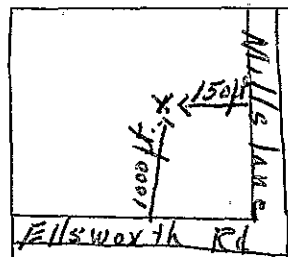
County SOLANO Owner's Well Number

Well address if different from above

Township T6N Range R1W Section 1

Distance from cities, roads, railroads, fences, etc. 150 FT. WEST OF

MILLS LN. 1000 FT. NORTH OF ELLSWORTH RD



WELL LOCATION SKETCH

(3) TYPE OF WORK:

New Well ☒ Deepening ☐Reconstruction ☐Reconditioning ☐Horizontal Well ☐Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic ☒Irrigation ☐Industrial ☐Test Well ☐Stock ☐Municipal ☐Other ☐

(5) EQUIPMENT:

Rotary ☒ Reverse ☐Cable ☐ Air ☐Other ☐ Bucket ☐

(7) CASING INSTALLED:

Steel ☐ Plastic ☒ Concrete ☐

From ft. To ft. Dia. in. Casing or Wall

0 121 6 1/4 1/4

(6) GRAVEL PACK:

Yes ☒ No ☐ Size 10 x 1/2

Diameter of bore 10"

Packed from 20' to 121 ft.

(8) PERFORATIONS:

Type of perforation or size of screen

From ft. To ft. Slot size

100 120 1/8 x 6

(12) WELL LOG: Total depth 120 ft. Depth of completed well 121 ft.

from ft. to ft. Formation (Describe by color, character, size or material)

0 - 3 SOIL

3 - 75 CLAY

75 - 105 BLUE CLAY

105 - 112 BLUE SAND

112 - 120 BLUE CLAY

ORIGINAL
File with DWR

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 250652

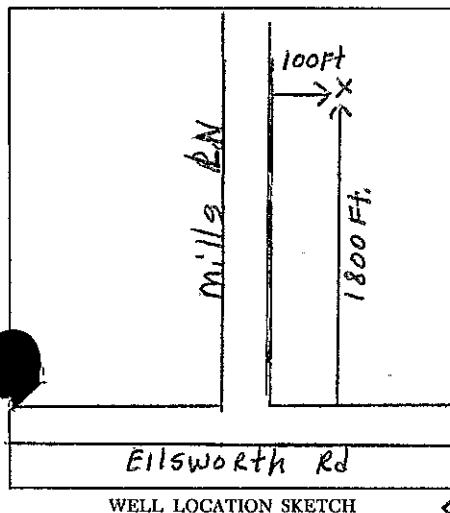
Notice of Intent No. 244903
Local Permit No. or Date _____

State Well No. _____
Other Well No. 06N01W01C

(1) OV
Address _____
City _____

(2) LOCATION OF WELL (See instructions):
County Solano Owner's Well Number _____
Well address if different from above _____
Township T.6N Range R.1W Section 1
Distance from cities, roads, railroads, fences, etc. _____
1800 Ft. North of Ellsworth
100 Ft. East of Mills Lane

(12) WELL LOG: Total depth 100 ft. Completed depth 100 ft.
from ft. to ft. Formation (Describe by color, character, size or material)
0 - 2 Soil
2 - 25 Clay
25 - 32 Sand & Gravel
32 - 55 Clay
55 - 58 Sand
58 - 74 Clay
74 - 81 Sand & Gravel
81 - 100 Blue Clay



(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☒
Irrigation ☐
Industrial ☐
Test Well ☐
Municipal ☐
Other ☒ (Describe)

(5) EQUIPMENT:
Rotary ☒ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☒ No ☐ Size 1/4" x 1/2"
Diameter of bore 2"
Packed from 20 to 100 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic ☒ Concrete ☐

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	101	5"	1/4"	70	100	1/8x6"

(8) PERFORATIONS:
Type of perforation or size of screen

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 20 ft.
Were strata sealed against pollution? Yes ☐ No ☒ Interval _____ ft.
Method of sealing Cement Grout

(10) WATER LEVELS:
Depth of first water, if known _____ ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Well test made? Yes ☐ No ☒ If yes, by whom? _____
Type of test _____ Pump ☐ Bailor ☐ Air lift ☐
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes ☐ No ☒ If yes, by whom? _____
Was electric log made Yes ☐ No ☒ If yes, attach copy to this report

Work started 6-10 1988 Completed 6-10 1988

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Delbert Crew Jr (Well Driller)
NAME VACA DRILLING CO. (Typed or printed)
Address 5815 CHERRY GLEN RD.
VACAVILLE, CA 95688
City _____ ZIP _____
License No. 98441/397995 Date of this report _____

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 298916

Notice of Intent No. 205807
Local Permit No. or Date _____

State Well No. _____
Other Well No. 06NOTICE

(1) OWNER: Na

Address _____

City _____

(2) LOCATION OF WELL (See instructions):

County Solano Owner's Well Number _____

Well address if different from above _____

Township 6N Range 1W Section 1

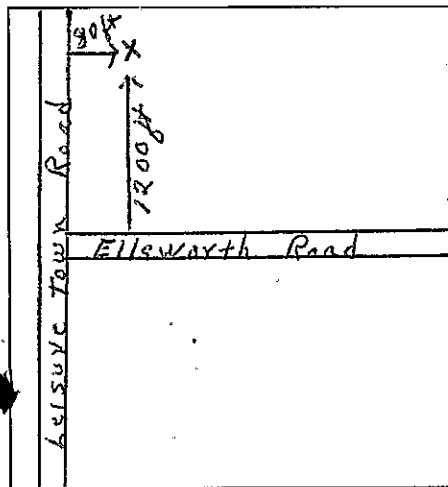
Distance from cities, roads, railroads, fences, etc. _____

80 ft. east of Leisure Town Road

1200 ft. north of Ellsworth Road

(12) WELL LOG: Total depth _____ ft. Completed depth _____ ft.
from ft. to ft. Formation (Describe by color, character, size or material)

0	-	3	soil
3	-	30	hard clay & sand
30	-	65	clay
65	-	110	blue clay
110	-	115	sand
115	-	142	brown clay
142	-	150	sand & fine gravel
150	-	160	brown clay



WELL LOCATION SKETCH

(3) TYPE OF WORK:

New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic ☒
Irrigation ☐
Industrial ☐
Test Well ☐
Municipal ☐
Other ☐ (Describe)

(5) EQUIPMENT:

Rotary ☒ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:

Yes ☒ No ☐ Size 1/4"
Diameter of bore 9"
Packed from 20 to 160 ft.

(7) CASING INSTALLED:

Steel ☐ Plastic ☒ Concrete ☐

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	161	5	3/16	110	120	1/8"
			PVC	140	160	

(8) PERFORATIONS:

Type of perforation or size of screen

(9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 20 ft.

Were strata sealed against pollution? Yes ☐ No ☐ Interval _____ ft.

Method of sealing Cement grout

Work started 10-5-1987 Completed 10-5-1987

(10) WATER LEVELS:

Depth of first water, if known _____ ft.

Standing level after well completion _____ ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed W. B. Brown Jr. (Well Driller)

NAME Vaca Drilling Co. (Person, firm, or corporation) (Typed or printed)

Address 5815 Cherry Glen Road

City Vacaville, CA ZIP 95688

License No. 98441/397995 Date of this report 10-5-87

(11) WELL TESTS:

Was well test made? Yes ☐ No ☐ If yes, by whom? _____

Type of test Pump ☐ Bailer ☐ Air lift ☐

Depth to water at start of test _____ ft. At end of test _____ ft.

Discharge _____ gal/min after _____ hours Water temperature _____

Chemical analysis made? Yes ☐ No ☐ If yes, by whom? _____

Was electric log made? Yes ☐ No ☐ If yes, attach copy to this report

ORIGINAL
File with DWR

Page 1 of 1

Owner's Well No. B 05077

Date Work Began 10/07/98, Ended 10/07/98 No. 700519

Local Permit Agency Solano County Environmental Mgt.

Permit No. W-98-39 Permit Date 10/05/98

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY — DO NOT FILL IN

0161N1011W1011

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

WELL OWNER

ORIENTATION () ☒ VERTICAL ☐ HORIZONTAL ☐ ANGLE (SPECIFY)
DRILLING METHOD Rotary FLUID Mud

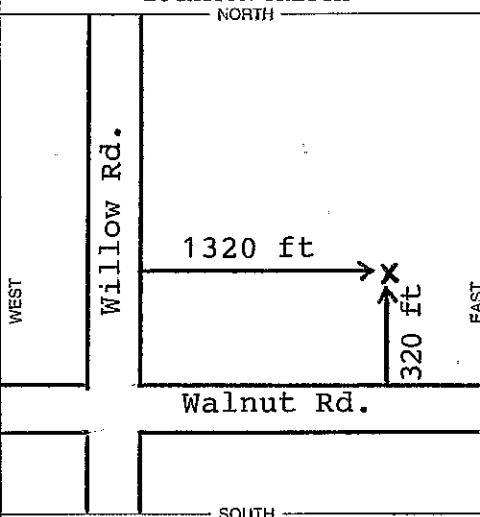
Name
Mail

CITY

DEPTH FROM SURFACE		DESCRIPTION
Ft.	to Ft.	Describe material, grain size, color, etc.
0	2	Soil
2	13	Clay
13	17	Sand
17	40	Clay
40	48	Sand & Fine Gravel
48	60	Brown Clay
60	100	Blue Clay

Address 1320 Ft. East of Willow Rd.
City 320 Ft. North of Walnut Rd.
County Solano
APN Book 133 Page 160 Parcel 16
Township 6N Range 1W Section 1
Latitude DEG. MIN. SEC. NORTH Longitude DEG. MIN. SEC. WEST

LOCATION SKETCH



ACTIVITY ()
☒ NEW WELL
MODIFICATION/REPAIR
— Deepen
— Other (Specify)

— DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES ()
WATER SUPPLY
☒ Domestic ☐ Public
— Irrigation ☐ Industrial

MONITORING ☐
TEST WELL ☐
CATHODIC PROTECTION ☐
HEAT EXCHANGE ☐
DIRECT PUSH ☐
INJECTION ☐
VAPOR EXTRACTION ☐
SPARGING ☐
REMEDIATION ☐
OTHER (SPECIFY) ☐

TOTAL DEPTH OF BORING 100 (Feet)
TOTAL DEPTH OF COMPLETED WELL 100 (Feet)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL (Ft.) & DATE MEASURED
ESTIMATED YIELD (GPM) & TEST TYPE
TEST LENGTH (Hrs.) TOTAL DRAWDOWN (Ft.)
* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE			BORE-HOLE DIA. (Inches)	CASING (S)							DEPTH FROM SURFACE			ANNULAR MATERIAL				
				TYPE ($\leq$)				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS				SLOT SIZE IF ANY (Inches)	TYPE			
Ft.	to	Ft.	BLANK	SCREEN	CON- DUCTOR	FILL PIPE										Ft.	to	Ft.
0	:	40	10"	X				F-480	5"	$\frac{1}{4}$ "		0	:	3	X			
40	:	60	10"		X			F-480	5"	$\frac{1}{4}$ "	.032	3	:	25		X		
60	:	80	10"	X				F-480	5"	$\frac{1}{4}$ "		25	:	100				Birdseye
80	:	100	10"		X			F-480	5"	$\frac{1}{4}$ "	.032		:					Gravel
	:												:					
	:												:					
	:												:					

ATTACHMENTS ()

- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME VACA DRILLING CO./ Del Crew Jr.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

P. O. Box 759

ADDRESS Vacaville CA 95696
CITY STATE ZIP
Signed Robert Crew 10-9-98 532679
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

ORIGINAL

File Original, Duplicate and Triplicate with the

REGIONAL WATER POLLUTION

CONTROL BOARD No. 2

(Insert appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

THE RESOURCES AGENCY OF CALIFORNIA

Do Not Fill In

No. 117739

State Well No.

Other Well No. 6/101-12

(1) OWNER:

(2) LOCATION OF WELL:

County Solano Owner's number, if any—R. F. D. or Street No. Route 2, Box 795
Walnut Rd. (no #)

(3) TYPE OF WORK (check):

New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☒Cable ☐Dug Well ☐

(6) CASING INSTALLED:

SINGLE ☒ DOUBLE ☐From 0 ft. to 100 ft. Diam. 6" Gage or Wall 12"

If gravel packed

Diameter of Bore from ft. to ft.
8" " " "

None

Type and size of shoe or well ring

Describe joint Bitt Weld

Size of gravel:

(7) PERFORATIONS:

Type of perforator used AceytleneSize of perforations 6" in., length, by 1/4 in.From 40 ft. to 100 ft. Perf. per row 20 Rows per ft. 3

(8) CONSTRUCTION: By Owner

Was a surface sanitary seal provided? ☐ Yes ☐ No To what depth ft.Were any strata sealed against pollution? ☐ Yes ☒ No If yes, note depth of strataFrom ft. to ft.

Method of Sealing

(9) WATER LEVELS:

Depth at which water was first found 28, 50 & 53 ft.Standing level before perforating 17 ft.Standing level after perforating 17 ft.

(10) WELL TESTS:

Tested by bailingWas a pump test made? ☐ Yes ☐ No If yes, by whom?DrillersYield: 30 gal./min. with 50 ft. draw down after 2 hrs.

Temperature of water

Was a chemical analysis made? ☐ Yes ☒ NoWas electric log made of well? ☐ Yes ☒ No

(11) WELL LOG:

Total depth 105 ft. Depth of completed well 100 ft.

Formation: Describe by color, character, size of material, and structure.

ft. to	ft.	
0	2	Brown Soil
2	10	Brown Clay
10	58	Sandy Clay
58	70	Lt. Brown Clay
70	92	Gray Clay
92	105	Lt. Brown Clay

CONFIDENTIAL LOG
Water Code Sec. 7080

FOR OFFICIAL USE ONLY

Work started August 20 1966 Completed August 21 1966

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Doshier-Gregson Well Drilling Serv.Address 5365 Napa-Vallejo HighwayVallejo, Calif.[SIGNED] J. D. Doshier Well DrillerLicense No. 208135 Dated Sept. 15, 19 66