Exhibit D-2

RICHARD C. SLADE & ASSOCIATES LLC

CONSULTING GROUNDWATER GEOLOGISTS

MEMORANDUM

June 28, 2021

To: Mr. Drew Aspegren
Napa Valley Vineyard Engineering (NVVE)
Sent via email (nvvedla@comcast.net)

Job No. 633-NPA02

From: Anthony Hicke and Richard C. Slade
Richard C. Slade & Associates LLC (RCS)

Re: Results of Theoretical Water Level Drawdown Calculations for
Tier 2 Water Availability Analysis, Well Interference Calculations
Atlas View II Vineyard
4300 Atlas Peak Rd
Napa County, California

Introduction

This Memorandum presents the RCS calculations regarding a Tier 2 Water Availability Analysis (WAA), Well Interference Calculation for the Atlas View II vineyard (subject property) in Napa County, California. This document was prepared for Napa Valley Vineyard Engineering, Inc. (NVVE) to provide well interference calculations in conformance with NVVE's compliance with Napa County Tier 2 WAA requirements, as described in the Napa County WAA Guidelines Document (WAA, 2015).

The subject property is comprised by a single parcel and is located at 4300 Atlas peak Road in the Atlas Peak area of Napa County (County). RCS understands that NVEE has prepared and submitted to Napa County a Tier 1 WAA (Groundwater Recharge Estimate) for the project. As part of that submission, NVVE was notified by the County that offsite wells owned by others are located within 500 feet of the onsite Irrigation Well #1. As a result, Napa County reviewers asked that a "Tier 2" WAA analysis be prepared for the proposed project to estimate the magnitude of the water level interference that might be induced in this offsite well by virtue of the future pumping of Irrigation Well #1 to meet the irrigation demand of the proposed Atlas View II Vineyard Project. RCS was retained by NVVE solely for the purposes of preparing the Tier 2 WAA (Well Interference Calculation) for Irrigation Well #1. In this Memorandum, RCS does not opine on the Tier 1 WAA by NVVE; the data upon which this Tier 2 WAA analysis relies was provided by NVVE. Further, NVVE provided the specific set of pumping rate and well performance details necessary for the calculations; RCS has not independently verified those assumptions, but only used the inputs as requested by NVVE.

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Provided in the Appendix of this Memorandum is a map provided by NVVE (titled "Exhibit B" by NVVE) that shows the location of the existing "Irrigation Well #1" on the subject property and the approximate locations of the nearby offsite well in question (these wells lie to the south of Irrigation Well #1).

Additonal data provided by NVVE to RCS for this project includes the following:

- The Atlas View II WAA document prepared by NVEE, dated March 29, 2019, including various exhibits.
- A driller's log for onsite Atlas View II Irrigation Well #1 (the project well).
- Well permits, location maps, and a driller's log and a well destruction report for the offsite wells (both existing and destroyed) located south of the Atlas View II property.
- Data collected during a short-term pumping test of Irrigation Well #1 performed by Ray's Well Testing Service dated September 29, 2014.

Figure 1, "Well Location Map," shows the boundary of the subject property superimposed on a USGS topographic map of the area. This approximate parcel boundary was adapted from the County Assessor's parcel data, which are freely available on the County GIS website. Also shown on Figure 1 are locations of: the project well (Irrigation Well #1); the two other onsite wells (Irrigation Well #2 and #3); and two offsite wells, one to the north of the property, and one to the south of the property. Note that the distance from onsite Irrigation Well #1 to the nearest offsite well to the south is approximately 255 ft.

Local Geologic Conditions

Figure 2A, "Geology Map," illustrates the types, lateral extents, and boundaries between the various earth materials mapped at ground surface in the region by others. Figure 2B, Geology Map Explanation" describes the geologic materials shown on Figure 2A. Specifically, Figures 2A and 2B have been adapted from the results of regional geologic field mapping of the Eastern Sonoma and Western Napa Counties (2007)[1], as published by the United State Geological Survey (USGS). As shown on Figures 2A and 2B, the key earth materials mapped at ground surface in the area, from geologically youngest to oldest, include the following:

a. Landslide deposits. Landslide deposits[2] (map symbol Qls) are shown to occur at ground surface and to underlie the vast majority of the subject property. These deposits consist of debris flows and "block slump" landslides. These deposits are generally fractures and can be more loosely consolidated than the source geology materials due to the downslope movement of the material as a landslide mass. Based on geologic mapping, and based on driller's descriptions of drill cuttings in the onsite wells, it is likely that the landslide deposits are comprised of volcanic rock and ash material from the Sonoma Volcanics which are exposed at higher elevations to the west of the subject property.

[1] Graymer, R. W., Brabb, E. E., Jones, D. L., Barnes, J., Nicholson, R. S., & Stamski, R. E., (2007). Geologic map and map database of eastern Sonoma and western Napa Counties, California. US Geological Survey Science Investigations Map 2956

[2] Note that it was not a part of our Scope of Hydrogeologic Services for this project to study, investigate, analyze, determine, or opine on the potential activity of landslides, and/or on the potential impact that landslides might have on any of the onsite structures, or to any onsite and/or offsite wells used for the subject property.

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b. Sonoma Volcanics. The Sonoma Volcanics are comprised by a highly variable sequence of chemically and lithologically diverse volcanic rocks. The rock types shown on Figure 2A include hard lava flows of andesitic composition (map symbol Psvasl), general volcanics, tuff, and sediments (map symbols Tsvt), and pumiceous tuff of Atlas Peak (Tsvat). As mentioned above, the majority of the geologic materials within the landslide deposits are likely comprised of the Sonoma Volcanics.

c. Great Valley Complex. The geologically older (Cretaceous- and Jurassic-aged) Great Valley Complex rocks are exposed on the eastern edge of the property and those exposures continue to the east of the property. These rocks consist mainly of well-consolidated to cemented thickly bedded sandstone, conglomerate, siltstone, and shale. These geologically older rocks are considered to be the bedrock of the area and are interpreted to directly underlie the volcanic rocks and landslide deposits at depth beneath the subject property.

Site Visit

On February 11, 2021, an RCS geologist visited the subject property with Mr. Aspegren of NVVE. The basic purposes of the site visit were to obtain current water level measurements and GPS locations for the onsite wells. Below is a summary of the data obtained during the site visit.

a. Irrigation Well #1. –A static (non-pumping) water level could not be measured in this well. A blockage inside the well casing was located only a few inches from the top of the wellhead and prevented the water level measuring device from descending further into the well casing. GPS coordinates were determined and were used to plot this well location on Figure 1.

b. Irrigation Well #2 – A static (non-pumping) water level of 53.13 ft below the wellhead reference point was measured; the reference point was 1.13 ft above ground surface. Figure 1 shows the location of Irrigation Well #2 derived using GPS coordinates collected during the site visit.

c. Irrigation Well #3 – This well could not be located by Mr. Aspegren during the site visit; gates from adjacent properties apparently prevented access to road that led to the onsite Irrigation Well #3. No water level data or GPS location data could be collected for this well.

d. RCS could not, and did not, attempt to access any offsite property other owned by others than the subject property; RCS did not attempt to visit any offsite wells; RCS observed onsite wells only.

Key Well Construction Data

A DWR Well Completion Report (i.e., driller's log) is not available for the Irrigation Well #1, but a well permit application from 1973 was provided. In addition, limited well construction data and testing information were provided in pumping test summary report submitted by Ray's Well Testing Service (RWTS) for a short-term pumping test performed in Irrigation Well #1 in September 2014. Both of these documents were provided to RCS by NVVE. A driller's log for the offsite neighboring well to the south was also provided by NVVE. Details available on those

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logs are discussed below, and the original forms from which the data below were derived are provided in the Appendix.

A. Irrigation Well #1 Data

- A Napa County well drilling permit application dated October 4, 1973 that reportedly corresponds to Irrigation Well #1 shows that this well was constructed with 8-inch diameter steel casing set to a depth of 200 ft bgs; casing perforations are between the depths of 60 ft bgs and 200 ft bgs.
- Limited descriptions of geologic material encountered while drilling the well are shown on the 1973 well drilling permit, but the simplistic terminology used by the driller, coupled with the known surficial geology of the area, make interpretation of the driller descriptions spurious at best.
- According to the RWTS documentation, Irrigation Well #1 is constructed of 8-inch diameter steel casing with a 6-inch diameter steel liner. The depth of the well could not be measured by RWTS because their measuring device could not pass the depth setting of the pump at 180 ft bgs.
- On September 29, 2014, the static water level in Irrigation Well #1 was reported by RWTS to be 62 ft bgs. On the well drilling permit dated October 4, 1973, a static water level of 35 ft bgs was reported.

B. Irrigation Well #2 Well Data

- A driller's log for Irrigation Well #2 dated March 13, 2018, shows the well to be constructed of 5-inch diameter PVC well casing set to a depth of 159 ft bgs.
- A static water level of 47 ft bgs was measured in Irrigation Well #2 on March 6, 2018, as shown on the driller's log.
- The borehole for the well (drilled before the well was completed) was drilled to a depth of approximately 600 ft bgs. Based on RCS interpretation of the driller's descriptions the depth of the volcanic rocks in the borehole might extend to a depth of approximately 375 ft bgs, whereupon these rocks are directly underlain by shale of the Great Valley Sequence.

C. Neighboring Wells to the South

Three WCRs for boreholes drilled on the neighboring property to the south were provided to RCS by NVVE, as follows:

1) WCR e0083250 permit number E09-00006, drilled to 420 ft bgs in January 2009
2) WCR e0083249, permit number E09-00006, drilled to 600 ft bgs in February 2009
3) WCR e0102664, permit number E09-00513, drilled to 700 ft bgs in November 2009

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Of the three WCRs, only 1) and 3) listed above were shown on the driller's logs to have been completed into wells; the borehole associated with 2) WCR e0083249 was reported to have been destroyed. This is somewhat corroborated by Mr. Aspegren's assertion that "the well" associated with permit E09-00006 was destroyed, but it does appear that two wells were drilled under that E09-00006 permit. Hence, only two wells are described below. The locations of those two offsite wells are shown on Figure 1. Construction details for the two existing wells to the south include:

- Well WCR e0083250 construction:
  - A casing diameter of 6-inch PVC was reported on the log
  - Perforations in the well exist between the depths of 65 ft bgs to 155 ft bgs, and 295 ft to 395 ft bgs; the bottom of the well casing is also reported to be 395 ft bgs.
  - The reported static water level depth on February 2, 2009 was 62 ft bgs.
  - Descriptions of the drill cuttings as listed on the log suggests that the entire length of the borehole to a depth of 420 ft may have been drilled within rocks of the Sonoma Volcanics.
- Well WCR e0102664 construction:
  - Based on a map shown on the driller's log, this well is located roughly 40 ft south of Well WCR e0083250
  - The well was constructed using 6-inch diameter PVC casing to a depth of 600 ft bgs.
  - Perforations intervals were placed between the depths of 90 ft bgs to 190 ft, 230 ft to 540 ft, and 560 ft to 580 ft bgs.
  - The reported static water level depth on January 1, 2010 was 106 ft bgs.
  - Based on RCS interpretation of the driller's descriptions of drill cuttings, the Sonoma Volcanics may extend to a depth of approximately 590 ft in this borehole.

Pumping Test Data by RWTS for Irrigation Well #1

A 4-hour-long pumping test of Irrigation Well #1 was performed by RWTS on September 29, 2014. The test performed was a constant head test, in which the pump was turned on, and the pumping rate for the well was decreased over time by the pumper in an attempt to maintain a constant pumping water level in the well. Before pumping in the well began, a static water level measurement of 62 ft was reported. The pumping rate was decreased from an initial rate of 26.7 gpm at the beginning of the test. As reported by RWTS "the recharge rate at the end of the test was 18.4 gallons per minute". At this pumping rate, water level drawdown was reported to be 118 ft below the static water level in the well, i.e., at a depth of 180 ft bgs. This depth is equal to the reported depth of the installed pump. A total of 15 water level measurements were collected during the pumping test. No water level recovery data were provided.

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Proposed Irrigation Well #1 Pumping Rate for the Project

As discussed in the Tier 1 WAA by NVVE, available data reportedly indicate that "the driller's logs and a production test… for the three irrigation wells [on the subject property]… indicate a total production of 27.9 gallons per minute (gpm). At 27 gpm, the irrigation wells will need to operate about 14 hours to meet vineyard demand on a peak day."

Based on this information, NVVE has determined that Irrigation Well #1 would need to pump at a rate of 18.4 gpm (the same rate at which Irrigation Well No. 1 was pumping at the at the end of the constant head pumping test) for 14 hours during a peak irrigation day. This assumes that the "recharge rate" of 18.4 gpm posited by RWTS is feasible for 14 hours of continuous pumping; such a pumping duration was not tested by RWTS.

Tier 2 WAA Well Interference Calculations

As shown on Figures 1 and 2A, there are two offsite wells located within 500 ft to the south of the project well. The closest of the two wells (WCR e0083250) lies roughly 255 ft from onsite Irrigation Well #1 and is the shallower of the two offsite wells. Therefore, to present a conservative analysis, RCS evaluated potential theoretical water level values at this nearest offsite well, which also happens to be the shallower of the two nearby offsite wells within 500 ft of Irrigation Well #1. Any theoretically-calculated impacts estimated for the nearer of the two wells (at 255 ft from Irrigation Well #1) will be greater than possible impacts estimated for wells that are further than 255 ft from Irrigation Well #1.

Theoretical Drawdown in Offsite Well by Virtue of Pumping Irrigation Well #1

To calculate the theoretical amount of water level drawdown interference that might possibly be induced in the offsite Well (WCR e0083250) by the future pumping of the project well, and to help satisfy requirements of the County's Tier 2 WAA, RCS used the AQTESOLV software to perform a "predictive simulation" of the potential (theoretical) water level drawdowns that might occur in the region due to future pumping by Irrigation Well #1. Below is a list of the inputs/assumptions used as part of the theoretical drawdown calculations:

- Inherent Theis Assumptions – For the subject simulations, RCS used the Theis (1935)/Hantush (1961) solution in the AQTESOLV software. The Theis (1935)/Hantush (1961) solution assumes numerous conditions about the aquifer system, including that aquifer is homogeneous and isotropic (the same in all directions) and that the aquifer is of infinite areal extent.
- Well Penetration – For the purposes of the simulation, the project well is assumed to be a "partially penetrating" well, and the Offsite Well (WCR e0083250) is assumed to be the "fully penetrating" well, as the depth of the offsite well is screened to a deeper depth (395 ft bgs) than the project well (200 ft bgs). AQTESOLV documentation states that "the screens of a fully penetrating well extend over the entire aquifer's saturated thickness".
- Aquifer Thickness – The thickness of the saturated Sonoma Volcanic rock aquifer system near the project well is estimated to be approximately 333 ft. This represents the vertical distance from the SWL water level in Irrigation Well #1 (about 62 ft brp) as of September 29, 2014), and the 395-foot depth to the bottom of perforations in the nearest neighbor Well (WCR e0083250). Note that during the RCS site visit, although no water level data could

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be collected from Irrigation Well #1, a static water level of approximately 53 ft was measured in Irrigation Well #2. Hence, 62 ft is a deeper water level, and is a reasonable estimate of the current static water level in the well.

- Transmissivity and Storativity – Important aquifer parameters such as transmissivity (T) and storativity (S) are required in order to calculate theoretical water level drawdown impacts that might result in nearby wells by the future pumping of the project well. These parameters are typically determined using data collected during a pumping test of a well. Transmissivity is a measure of the rate at which groundwater can move through an aquifer system, and therefore it is essentially a measure of the ability of an aquifer to transmit water to a pumping well. Transmissivity is expressed in units of gallons per day per foot of aquifer width (gpd/ft). Storativity (S) is a measure of the volume of groundwater taken into or released from storage in an aquifer for a given volume of aquifer materials; storativity is dimensionless and has no units. Storativity calculations can only be made using actual amounts of water level drawdown, if any, monitored in an observation well during a pumping test of another well; storativity cannot be calculated using water level drawdown data acquired solely from the pumping well.

  To perform the required calculations, it was first necessary to calibrate the theoretical equations by simulating the 4-hour period of continuous pumping in Irrigation Well #1, (similar to the constant head pumping test that was performed in the well by RWTS in 2014) by attempting to reproduce the water level drawdown values that were manually recorded in this onsite well by the RWTS pumper at that time. Because no water level observation data were monitored in any nearby water level observation well during the pumping period of Irrigation Well #1 (the pumping well), a value for storativity could not be directly calculated. A storativity[3] value of 3.3×10^{-4}, which represents a dimensionless value, is assumed for the local aquifer system. Note that this is considered to be a conservative assumption for storativity for the local volcanic rocks.

  An iterative process was used to estimate the transmissivity value used in the AQTESOLV simulation. A transmissivity value of 488 gpd/ft (65 ft^2/day)[4] was found to provide theoretical drawdown values of 118 ft when pumping Irrigation Well #1 for 14 hours at a rate of 18.4 gpm; this is the same drawdown value reported by RWTS.

Using the parameters described above, the predictive water level drawdown simulation was performed to include the nearest offsite Neighbor Well (the observation well). Figure 3, "Theoretical Drawdown Calculations, Predictive Simulation" has been prepared to show the theoretically-calculated water level drawdown values in Irrigation Well #1 (the pumping well) and also in the Neighbor Well (the observation well) that might occur after pumping Irrigation Well #1 for the assumed continuous period of 14 hours and at a constant pumping rate of 18.4 gpm (the

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[3] In Appendix F, Table F-3 of the WAA Guidance document (WAA 2015), the specific storage value for "rock, fissured" ranges between 1×10^{-6} and 2.1×10^{-5} (ft^{-1}). Multiplying these specific storage values by the estimated aquifer thickness of 333 ft yields a range of dimensionless storativity values between 3.3×10^{-4} and 7.0×10^{-3}. Therefore, using an S value of 3.3×10^{-4} is a conservative assumption for this analysis. In addition, because the well is constructed into landslide deposits derived from Sonoma Volcanics rocks (which may be more fractured than in-situ Sonoma Volcanics), the actual storativity value for those materials could actually be higher than this assumption.

[4] In Appendix F, Table F-4 of the WAA Guidance document (WAA 2015), the hydraulic conductivity value for "Fractured Basalt (e.g., Sonoma Volcanics)" is shown to range from 10^{-2} and 10^{2} ft/day. Hydraulic conductivity is equal to transmissivity of an aquifer divided by the aquifer thickness. Assuming the aquifer thickness of 333 ft described herein, and a transmissivity of 65 ft^2/day, a hydraulic conductivity or 2×10^{-1} ft/day is calculated, which falls within the range of representative values shown on Table F-4.

rate necessary, according to NVVE, to meet the portion of the future project groundwater demands for the project).

In this scenario, the offsite well to the south (the observation well) is assumed to be not pumping during the pumping period for Irrigation Well #1. As shown on Figure 3, the results of the predictive simulation for theoretical water level drawdown values during future pumping of Irrigation Well #1 are presented as follows:

- Irrigation Well #1 (pumping well) – After pumping at a future rate of 18.4 gpm for a continuous period of 14 hours, the theoretical water level decline (i.e., self-induced water level drawdown) of 118 ft is calculated for this well using an assumed transmissivity value of 488 gpd/ft (65 ft2/day).
- Offsite Well to the south (observation well) – A theoretical water level drawdown interference value of about 6.5 ft is predicted as a result of the future pumping of Irrigation Well #1 at 18.4 gpm for 14 continuous hours.

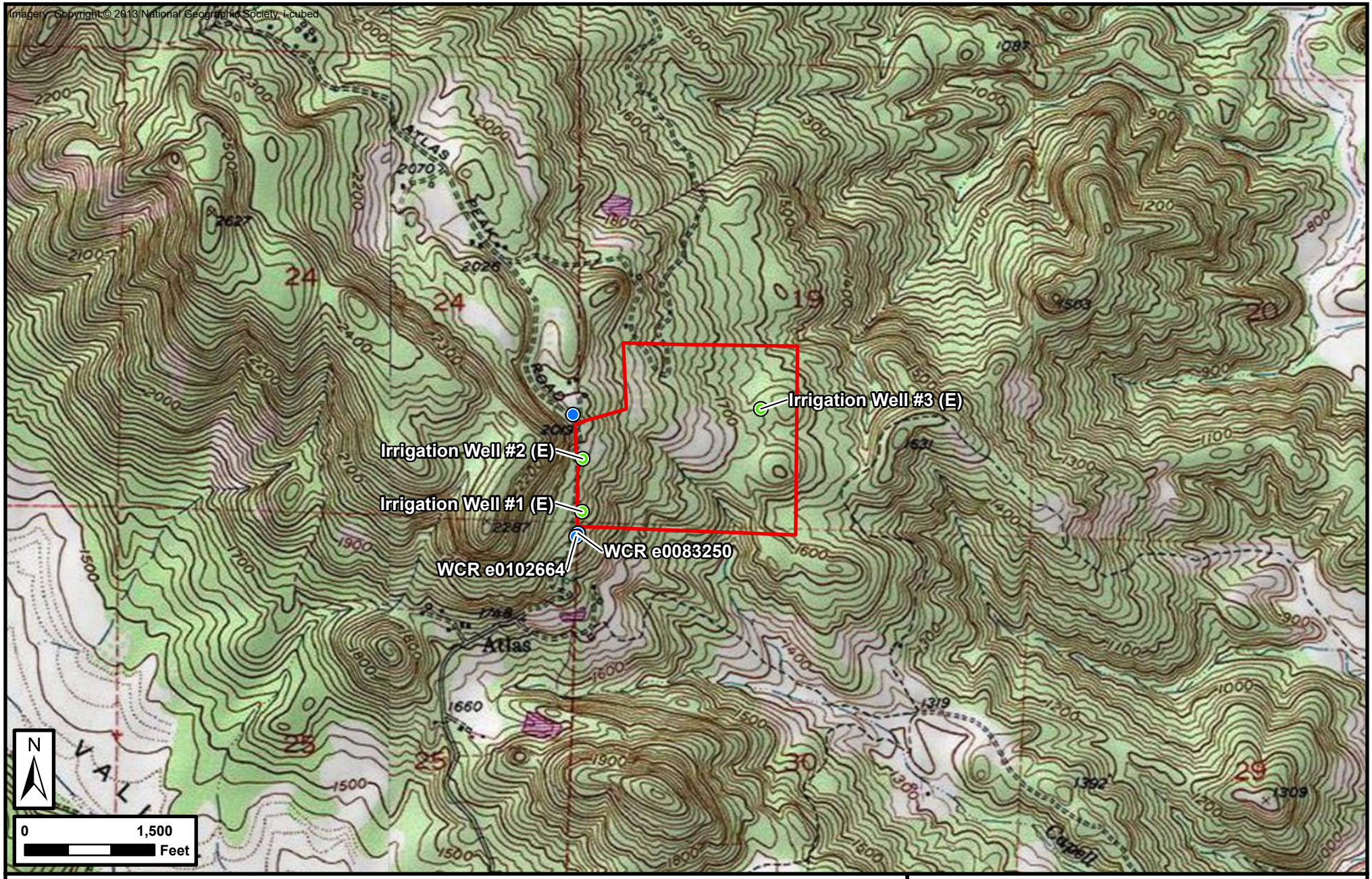
The calculated theoretical water level drawdown interference value of 6.5 ft estimated for the offsite neighboring well by virtue of pumping Irrigation Well #1 at a rate of 18.4 gpm for 14 hours is less than the acceptable value defined in the "Default Well Interference Criteria" shown on Table F-1 of the May 12, 2015 Napa County WAA Guidelines (WAA 2015). Those drawdown criteria in the WAA Guidelines (WAA 2015) show that water level drawdown interference is not considered significant by the County if the induced drawdown interference is less than 10 ft for offsite wells that have a casing diameter less than six inches (the casing diameter of the offsite well is 6 inches).

References

- **(USGS 2007)** Graymer, Brabb, et al, 2007. Geologic Map and Map Database of Eastern Sonoma and Western Napa Counties, California, USGS.
- **(WAA 2015)** Napa County Board of Supervisors, Adopted May 12, 2015. Water Availability Analysis (WAA) – Guidance Document.

  Website:

- Napa County GIS database, 2021. https://gis.napa.ca.gov.



LEGEND

Subject Parcel (Approximate Boundary)

Approximate Locations of Wells

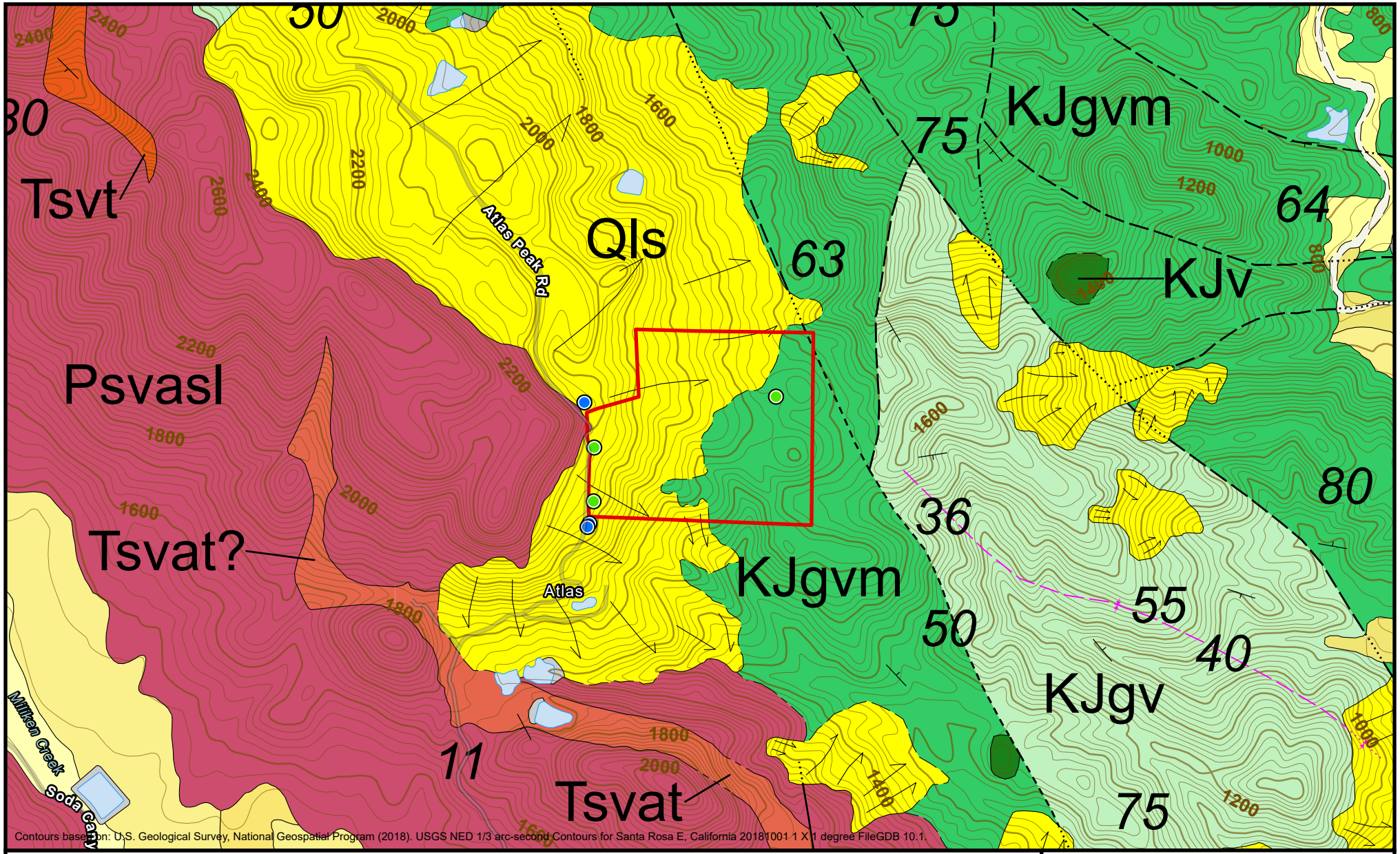
- Onsite Well
- Offsite Well

RCS

Figure 1
Location Map

RCS Job No. 633-NPA02

June 2021



Contours based on: U.S. Geological Survey, National Geospatial Program (2018). USGS NED 1/3 arc-second Contours for Santa Rosa E, California 20181001 1 X 1 degree FileGDB 10.1.

LEGEND

Subject Parcel (Approximate Boundary)

Approximate Locations of Wells

- Onsite Well
- Offsite Well

See Figure 2B, "Geology Map Explanation", for an explanation of geologic units within 1,000 ft of subject parcel.

Adapted from: Graymer, R. W., Brabb, E. E., Jones, D. L., Barnes, J., Nicholson, R. S., & Stamski, R. E. (2007). Geologic map and map database of eastern Sonoma and western Napa Counties, California. US Geological Survey Science Investigations Map 2956.

N

0 1,500 Feet

RCS

Figure 2A
Geology Map

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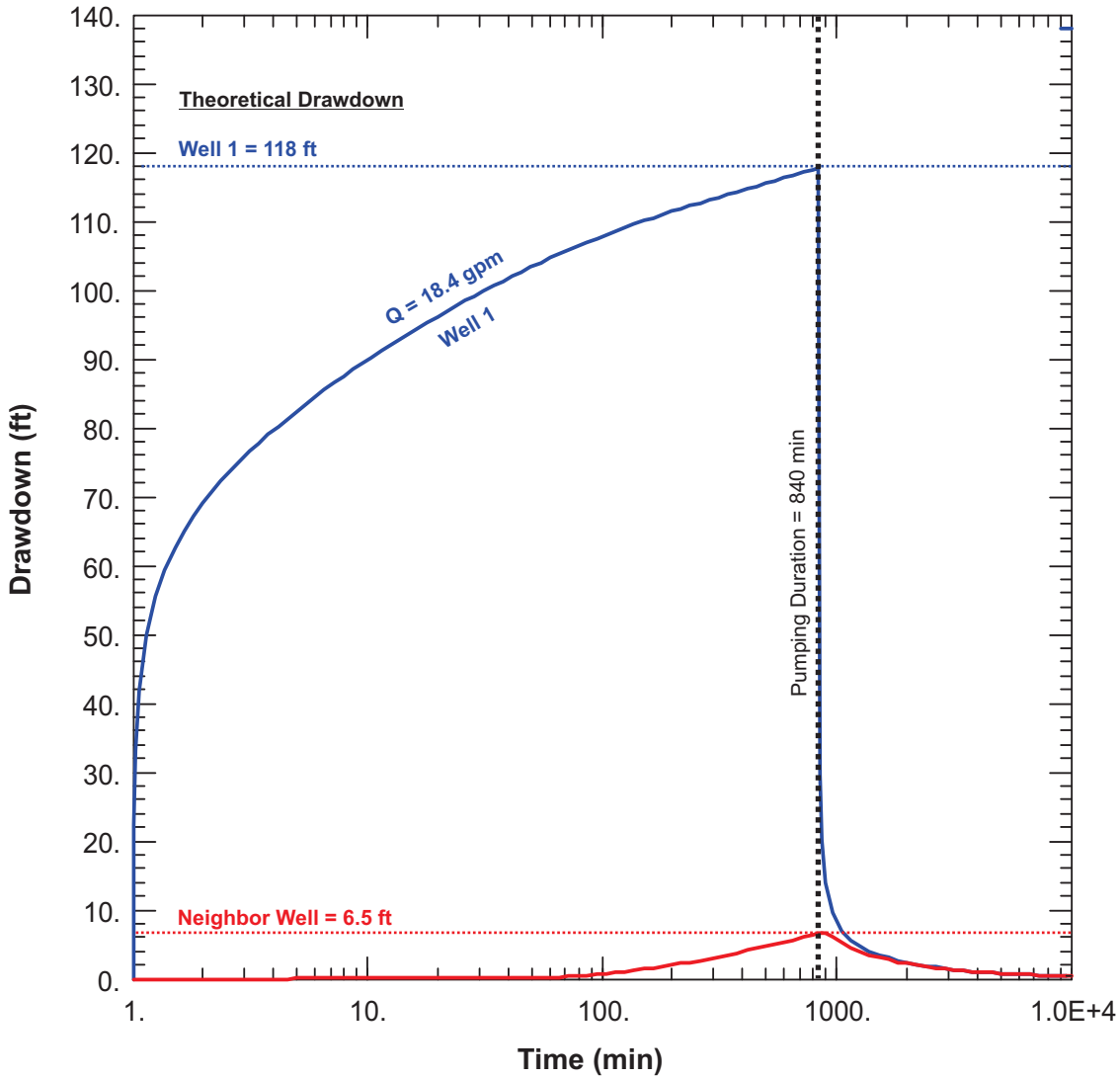
FIGURE 2B
GEOLOGY MAP EXPLANATION

	Symbol	Description	Age	Explanation
	Qls	Landslides	Holocene to Pleistocene	Includes debris flow and block slump landslides. Only landslides larger than 50,000 square meters are shown.
Eastern Sonoma Volcanics	Psvasl	Andesite lava flows of Stags Leap	Pliocene	Included within Andesite of Stags Leap Volcanic Center (4.3 - 4.35 Ma, Sweetkind and others, 2011).
	Tsvt	Sonoma Volcanics, tuff and sediments	Pliocene, Miocene	Light-colored tuff locally interbedded with sediments similar to the Petaluma Formation. Locally subdivided.
	Tsvat	White pumiceous tuff of Atlas Peak	Pliocene, Miocene	Local subdivision of Tsvt.
Great Valley Sequence	KJgv	Great Valley Sequence, undivided	Late Cretaceous to Late Jurassic	Marine shale, sandstone, and conglomerate; coeval with and structurally overlying the Franciscan Complex.
	KJgvm	Melange in the lower Great Valley Sequence	Late Cretaceous to Late Jurassic	Structurally disrupted mudstone and sandstone.

Reference:
Preliminary Geologic Map of the Napa and Bodega Bay 30' x 60' Quadrangles, California
(Wagner, D.L., and Gutierrez, C.I., 2017)



Pumping Well

- Well 1

Observation Well
(distance from Onsite Well)

Neighbor Well (255 ft)

Aquifer Model

Confined

Solution

Theis/Hantush

Parameters

T = 488 gal/day/ft
S = 0.00033 (unitless)
Pumping Rate = 18.4 gpm
Duration = 14 hours (840 minutes)

Graphical Solution by:
AQTESOLV Vers. 4.50 Pro
by Hydrosolve, Inc.

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Figure 3
Theoretical Drawdown Calculations
in Observation Well
14 Hours/18.4 gpm/T=488 gpd/ft

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APPENDIX

DRILLERS LOGS
&
RAY'S WELL TESTING SERVICE PUMPING TEST

Irrigation Well #1

FEE: 7.12 [illegible]
DATE: 10/4/73
RECEIPT NO: 6672
BY: MJP

NAPA COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH

RECEIVED
NOV 27 1973
HUMAN SERVICES AGENCY
ENVIRONMENTAL QUALITY CONTROL

032-120-015

APPLICATION & PERMIT TO CONSTRUCT
A WATER WELL
(ORDINANCE #)

NAME [redacted] (Owner) ADDRESS [redacted] (Job Location) DATE 10/4/73

NAME Harold McEwan (Well Driller) ADDRESS El Centro

TYPE OF WORK
NEW WELL ✓ RECONDITIONING ___ DEEPENING ___
TEST HOLES ___ DESTROYING ___ OTHER ___
TYPE I PERMIT ✓ TYPE II PERMIT ___ FEE ___

PROPOSED USE
DOMESTIC ✓ IRRIGATION ___ INDUSTRIAL ___ MUNICIPAL ___
TEST WELL ___ OTHER ___

NEAREST PARCEL AT PRESENT
Sewage Disposal On Site (Existing or Proposed) Public___ Individual ✓ Private___
Distance from well to any part of nearest sewage disposal system 100+ feet.
(Sketch of site to accompany application.

TYPE OF EQUIPMENT TO BE USED
Rotary ___ Cable ✓ Hand Dug ___ Other ___

CONSTRUCTION PROPOSED
Diameter of casing 6" Material Steel Annular Space: Size 4"+
Sealed with: Concrete ✓ Grout ___ Neat Cement ___ Puddled Clay ___ Other___
Conductor Casing: Yes___ No ✓ Material ___
Chlorination By: Owner ✓ Pump Co___ Driller ___

Harold McEwan
(SIGNATURE OF APPLICANT)

10/4/1973
(DATE)

NOTICE TO DRILLER: COMPLETE THIS PORTION AND PROVIDE OWNER WITH THIS COPY.

CASING

CONSTRUCTION
Total Depth 200 Ft.
Surface Seal to 20 Ft.
Any Stratas sealed: Yes___ No ✓
If yes, depth of Stratas
From___ Ft. to___ Feet
From___ Ft. to___ Feet
Perforations
From 60 Ft. to 200 Feet
From___ Ft. to___ Feet
From___ Ft. to___ Feet

WATER LEVELS
First water at 45 Feet
Static level at 35 Feet

WELL TESTS
How performed Air Jet
Yield 22 GPM with 9.5 Feet
Drawdown 130 Ft. after 3 Hrs.

WELL LOG
(Formation; describe by color, size of material, structure)

	Ft.	to Ft.
Topsoil	0	12
Light Brown Sandstone	12	59
Blue Sandstone	59	81
White Pommos	81	126
Brown Sandstone	126	182
Gray Sandstone	182	194
Blue Clay	194	200

Signed: [illegible]

Irrigation Well #2

ORIGINAL
File with DWR

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e0364594

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./ STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Owner's Well No. 1-2018

Date Work Began 2/20/2018, Ended 3/6/2018

Local Permit Agency Napa County Environmental Mgmt WELL #2

Permit No. E18-00023 Permit Date 1/16/2018

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ROTARY FLUID BENTONITE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	6	BROWN ASH
6	15	TAN ASH WITH COBBLES
15	100	TAN SANDY ASH
100	130	MIXED VOLCANIC ROCK
130	200	TAN ASH WITH EMBEDDED ROCK
200	245	TAN ASH
245	310	TAN ASH WITH EMBEDDED ROCK
310	375	BROWN SANDY ASH
375	400	SHALE
400	415	80% CLAY / 20% SHALE
415	500	50% CLAY / 50% SHALE
500	520	80% CLAY / 20% SHALE
520	560	50% CLAY / 50% SHALE

New File

TOTAL DEPTH OF BORING 560 (Feet)

TOTAL DEPTH OF COMPLETED WELL 159 (Feet)

WELL OWNER

Name Atlas View, LLC

Mailing Address 1535 Sage Canyon Road

St. Helena CA 94574

CITY STATE ZIP

WELL LOCATION

Address 4300 Atlas Peak Road

City Napa CA

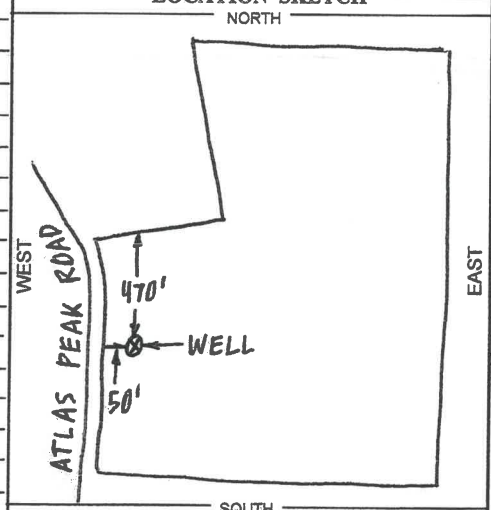
County Napa

APN Book 032 Page 120 Parcel 015

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. ___ DEG. ___ MIN. ___ SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. **PLEASE BE ACCURATE & COMPLETE.**

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) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 100 (Ft.) BELOW SURFACE 1

DEPTH OF STATIC WATER LEVEL 47 (Ft.) & DATE MEASURED 3/6/2018

ESTIMATED YIELD * 6.5 (GPM) & TEST TYPE AIR LIFT

TEST LENGTH 3 (Hrs.) TOTAL DRAWDOWN N/A (Ft.)

May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	25	10								
25	560	9								
0	79		✓				PVC F480	5	SDR-21	
79	139			✓			PVC F480	5	SDR-21	.032
139	159		✓				PVC F480	5	SDR-21	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	5	✓			CONCRETE
5	25		✓		CHIPS
25	240			✓	PEA GRAVEL
240	250		✓		TABLETS
250	560			✓	PEA GRAVEL

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analysis
___ 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 HUCKFELDT WELL DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

2110 Penny Lane Napa CA 94559
ADDRESS CITY STATE ZIP

Signed [signature] 03/13/18 439-746
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Irrigation Well #3

ORIGINAL
File with DWR

Page 1 of 1

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e0367356

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./ STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Owner's Well No. 2-2018

Date Work Began 5/29/2018, Ended 6/8/2018

WELL #3

Local Permit Agency Napa County Environmental Mgmt

Permit No. E18-00177 Permit Date 3/13/2018

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ROTARY FLUID BENTONITE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	6	BROWN ASH WITH EMBEDDED BOULDERS
6	20	BOULDERS WITH TAN ASH
20	60	GRAY ASH WITH EMBEDDED ROCK
60	80	YELLOW ASH
80	100	GRAY, WHITE ASH
100	130	SOFT BLACK VOLCANICS WITH ASH
130	140	BLACK SANDY ASH
140	165	GREEN, GRAY SANDY ASH
165	420	80% SHALE / 20% CLAY

TOTAL DEPTH OF BORING 420 (Feet)

TOTAL DEPTH OF COMPLETED WELL 190 (Feet)

WELL OWNER

Name Atlas View, LLC

Mailing Address 1535 Sage Canyon Road

St. Helena CA 94574

CITY STATE ZIP

WELL LOCATION

Address 4300 Atlas Peak Road

City Napa CA

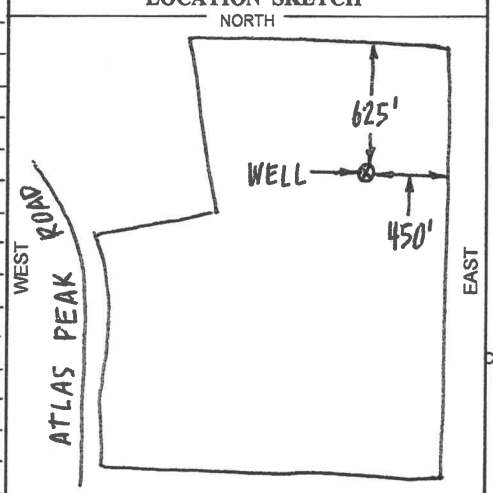
County Napa

APN Book 032 Page 120 Parcel 015

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. ___ DEG. ___ MIN. ___ SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. **PLEASE BE ACCURATE & COMPLETE.**

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) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 120 (Ft.) BELOW SURFACE 1

DEPTH OF STATIC WATER LEVEL 91 (Ft.) & DATE MEASURED 6/8/2018

ESTIMATED YIELD * 3 (GPM) & TEST TYPE AIR LIFT

TEST LENGTH 3 (Hrs.) TOTAL DRAWDOWN N/A (Ft.)

May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	25	12								
25	420	9								
0	110		✓				PVC F480	5	SDR-21	
110	170			✓			PVC F480	5	SDR-21	.032
170	190		✓				PVC F480	5	SDR-21	

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	3	✓			CONCRETE
3	21		✓		GROUT
31	420			✓	PEA GRAVEL

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analysis
___ 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 HUCKFELDT WELL DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

2110 Penny Lane Napa CA 94559
ADDRESS CITY STATE ZIP

Signed [signature] 06/24/18 439-746
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Ray's Well Testing Service Inc.
4031 Shadowhill Dr, Santa Rosa Ca 95404
Phone 707 823 3191 **Fax** 707 317 0057 **Lic#** 903708

WELL TESTING SERVICE

CUSTOMER INFORMATION

REPORT #: 6754	DATE OF TEST: 9/29/2014
CUSTOMER NAME:	CONTACT:
AGENT NAME: Scott Andersen - Preferred Properties	CONTACT: 707-321-3168
PROPERTY ADDRESS: 4300 Atlas Peak Rd, Napa CA 94558	SENT TO: scott@napaluxury.com

WELL DATA

LOCATION OF WELL:	In field near road on south side of property
TYPE OF WELL:	Drilled
DEPTH OF COMPLETED WELL:	Unknown - Probe stopped at pump
DIAMETER OF WELL CASING:	8" Steel with 6" Steel Liner
SANITARY WELL SEAL (PLATE SEAL AT OPENING OF WELL CASING):	Yes
ANNULAR SEAL (IN-GROUND SEAL OF BOREHOLE):	Unknown - Please Refer to well log
PUMP HP AND TYPE:	2 HP 230V Submersible
DEPTH OF PUMP SUCTION:	180 Feet. 1.25" tee at well head. #10-4 sub cable

WATER PRODUCTION RESULTS

WATER LEVEL AT START (STATIC LEVEL):	62 Feet	FLOW RATE AT START:	26.7 GPM
FINAL PUMPING LEVEL:	180 Feet	FINAL FLOW RATE:	**18.4 GPM**
WATER LEVEL DRAWDOWN:	118 Feet	TOTAL LENGTH OF TEST:	4 Hours

CONSTANT PUMPING LEVEL INFORMATION

STABILIZED PUMPING LEVEL:	180 Feet	STABILIZED FLOW RATE (YIELD):	**18.4 GPM**
DURATION OF CONSTANT PUMPING LEVEL:	see pumping log	TOTAL YIELD:	see pumping log

WATER SYSTEM INSPECTION

WELL PUMP	Functional	TECHNICAL INFO: 20.4 GPM @ 100 PSI @ 64', 10.2 amps, control box dated 2009
ELECTRICAL	Functional	TECHNICAL INFO: 40 amp breaker in main panel near well head
PRESSURE TANK	Deficient	TECHNICAL INFO: 2- 86 gallon WX-252 tanks, dated 1977, 24 and 0 PSI air charges
STORAGE TANK	None	TECHNICAL INFO:
BOOSTER PUMP	None	TECHNICAL INFO:

WATER QUALITY TESTING

THE FOLLOWING SAMPLES ARE BEING ANALYZED. PLEASE REFER TO FOLLOW-UP REPORT FOR RESULTS.		
Bacteria - Coliform & E.Coli	DATED: 9/29/2014	TURNAROUND: Standard
	DATED:	TURNAROUND:
	DATED:	TURNAROUND:
	DATED:	TURNAROUND:

SEE NEXT PAGE FOR FURTHER INFORMATION...

DATE: 9/29/2014

ADDRESS: 4300 Atlas Peak Rd, Napa CA 94558

COMMENTS:

1. The recharge rate at the end of the test was 18.4 gallons per minute. This may not represent the long term or seasonal yield.
2. The well pump pressurizes 2- 86 gallon WX-252 tanks (tank on right waterlogged). The operating pressure range is set 35 to 50 psi. This system pressurizes water for agricultural use. The well pump is protected by a pump saver 233 device. (delay set approx. 10 min.)
3. Recommend replacing pressure tank and further water analysis per intended use.

PUMPING LOG:

TIME	WATER LEVEL	COLOR	ODOR	SEDIMENT	GPM
9:55 AM	62'	CLEAR	NO	NO	26.7
10:10 AM	72'	CLEAR	NO	NO	26.4
10:25 AM	81.5'	CLEAR	NO	NO	26.4
10:40 AM	91'	CLEAR	NO	NO	26.2
10:55 AM	100.8'	CLEAR	NO	NO	33
11:10 AM	140'	CLEAR	NO	NO	32.6
11:25 AM	180'	ORANGE	NO	NO	23.5
11:40 AM	180'	ORANGE	NO	NO	21.8
11:55 AM	180'	SLIGHT ORANGE	NO	NO	21
12:10 PM	180'	SLIGHT YELLOW	NO	NO	20.6
12:25 PM	180'	CLEAR	NO	NO	20.2
12:40 PM	180'	CLEAR	NO	NO	20
12:55 PM	180'	CLEAR	NO	NO	19.5
1:25 PM	180'	CLEAR	NO	NO	18.7
1:55 PM	180'	CLEAR	NO	NO	18.4

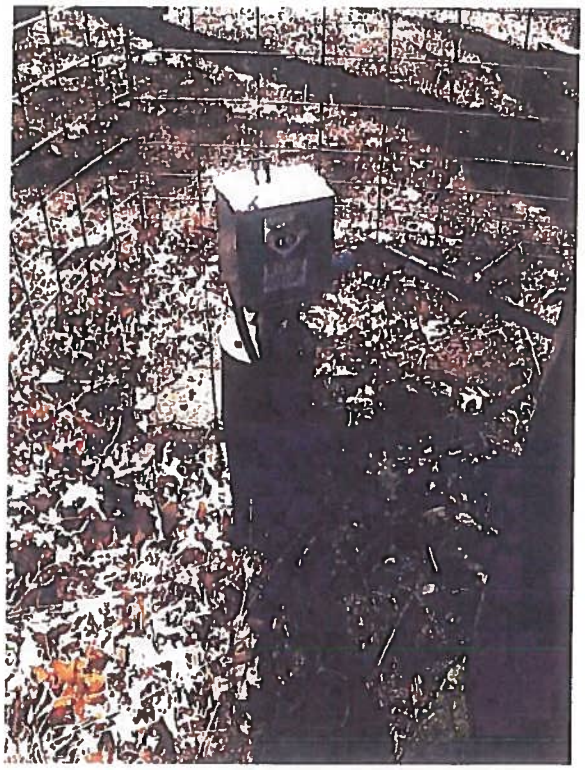
Thank you for allowing us to do your well inspection!

APPROVED BY: NICK BRASESCO

Water levels and well depth are measured as feet below top of well casing unless otherwise noted.

All wells and springs are subject to seasonal and yearly changes in regards to water yield, production and quality. Wells may be influenced by creeks or other water sources and are likely to yield less water during dry months of the year; typically August, September, & October. We make no predictions of future water production or water quality.

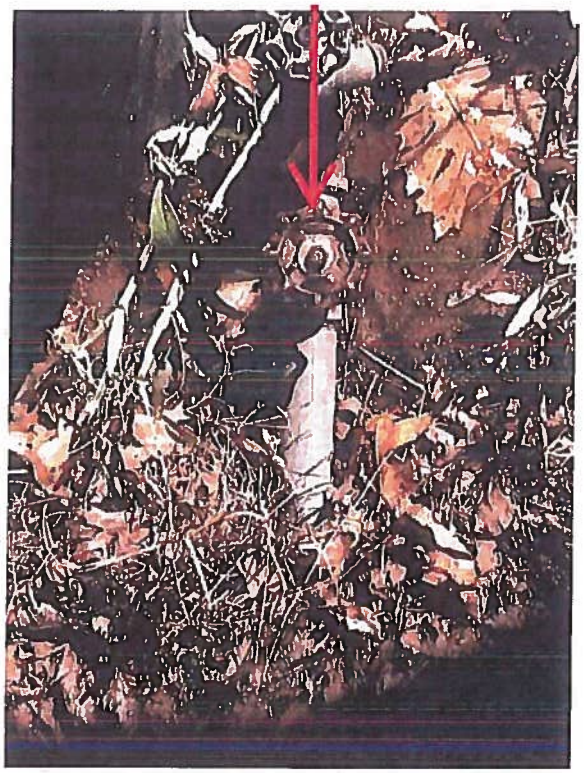
Well Head



Electrical Panel

Pressure Tanks

Main Shut Off Valve



Offsite Well to South

ORIGINAL
File with DWR

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e0083250

Owner's Well No. ETS - 6

Date Work Began 1/22/2009, Ended 2/2/2009

Local Permit Agency Napa County Environmental Mgmt

Permit No. E09-00006 Permit Date 1/12/2009

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./ STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ROTARY FLUID BENTONITE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	46	SANDY ASHEY CLAY
46	58	GRAVEL
58	160	TAN ASH WITH SANDS & GRAVEL
160	180	GRAY ASHEY CLAY
180	310	BLUE ASHEY CLAY
310	370	BLUE, GRAY SANDY ASH
370	372	VOLCANIC SANDS
372	390	BLUE, GRAY SANDY ASH
390	393	VOLCANIC SANDS
393	420	GRAY ASH

RECEIVED
FEB 24 2009
DEPT. OF ENVIRONMENTAL MANAGEMENT

TOTAL DEPTH OF BORING 420 (Feet)

TOTAL DEPTH OF COMPLETED WELL 395 (Feet)

WELL OWNER

Name [redacted]

Mailing Address [redacted]

Berkeley CA 94707

CITY STATE ZIP

WELL LOCATION

Address 4111 Atlas Peak Road

City Napa CA

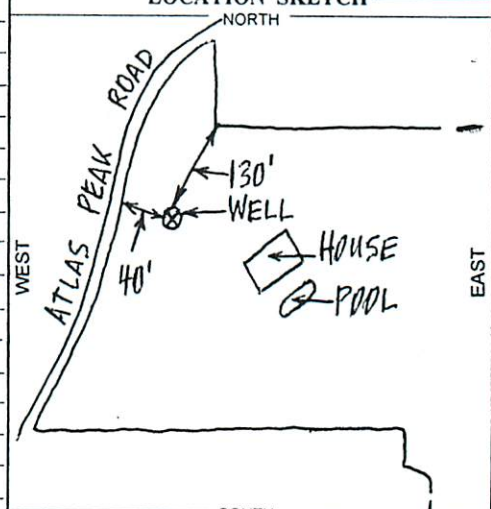
County Napa

APN Book 032 Page 160 Parcel 075 79

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. ___ DEG. ___ MIN. ___ SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. **PLEASE BE ACCURATE & COMPLETE.**

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) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 46 (Ft.) BELOW SURFACE 1

DEPTH OF STATIC WATER LEVEL 62 (Ft.) & DATE MEASURED 2/2/2009

ESTIMATED YIELD 18 (GPM) & TEST TYPE AIR LIFT

TEST LENGTH 3 (Hrs.) TOTAL DRAWDOWN N/A (Ft.)

May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	420	12								
0	65		✓				PVC F480	6	SDR-21	
65	155			✓			PVC F480	6	SDR-21	.032
155	295		✓				PVC F480	6	SDR-21	
295	395			✓			PVC F480	6	SDR-21	.032

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	4	✓			CONCRETE
4	59		✓		GROUT
59	395			✓	PEA GRAVEL
395	420			✓	CUTTINGS

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analysis
___ 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 HUCKFELDT WELL DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

2110 Penny Lane Napa CA 94559
ADDRESS CITY STATE ZIP

Signed [signature] 02/04/09 439-746
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Offsite Well to South (Not Completed)

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. e0083249

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./ STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. ETS-5
Date Work Began 1/16/2009, Ended 2/2/2009
Local Permit Agency Napa County Environmental Mgmt
Permit No. E09-00006 Permit Date 1/12/2009

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ROTARY FLUID AIR

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	45	BROWN SANDY ASH
45	180	GREEN SANDY ASH
180	260	GREEN/GRAY SANDY ASH
260	310	GRAY CLAY
310	315	HARD FRACTURED SANDSTONE
315	320	50% SHALE / 50% CLAY
320	330	HARD FRACTURED SANDSTONE
330	360	60% CLAY / 40% SHALE
360	370	HARD SHALE
370	385	50% SHALE/ 50% CLAY
385	435	SEMI HARD SHALE
435	480	70% CLAY / 30% SHALE
480	485	SEMI HARD SHALE
485	505	50% SHALE / 50% CLAY
505	520	80% SHALE / 20% CLAY
520	550	50% SHALE / 50% CLAY
550	590	GRAY CLAY W/SHALE & SANDSTONE EMBED.
590	600	70% SHALE / 30% CLAY
		BACKFILLED TEST HOLE WITH PEA GRAVEL FROM 600' TO 38'. INSTALLED BENTONITE CHIPS FROM 38' TO 3'. NATURAL MATERIAL TO SURFACE.

RECEIVED
FEB 24 2009
DEPT. OF ENVIRONMENTAL MANAGEMENT

TOTAL DEPTH OF BORING 600 (Feet)
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

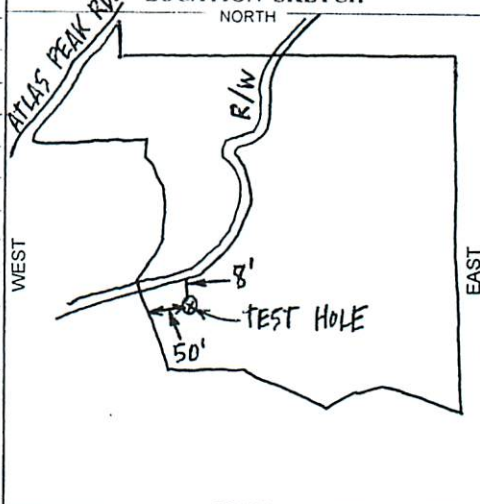
WELL OWNER

Name [redacted]
Mailing Address [redacted]
Berkeley CA 94707
CITY STATE ZIP

WELL LOCATION

Address 4110 Atlas Peak Road
City Napa CA
County Napa
APN Book 032 Page 160 Parcel 075 79
Township ___ Range ___ Section ___
Latitude ___ DEG. MIN. SEC. ___ DEG. MIN. SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. **PLEASE BE ACCURATE & COMPLETE.**

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) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD 0 (GPM) & TEST TYPE AIR LIFT
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	600	9								

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	3			✓	CUTTINGS
3	38		✓		CHIPS
38	600			✓	PEA GRAVEL

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analysis
___ 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 HUCKFELDT WELL DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
2110 Penny Lane Napa CA 94559
ADDRESS CITY STATE ZIP
Signed [signature] 02/05/09 439-746
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Offsite Well to South

ORIGINAL
File with DWR

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e0102664

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./ STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Owner's Well No. 2-'09

Date Work Began 11/20/2009, Ended 1/13/2010

Local Permit Agency Napa County Environmental Mgmt

Permit No. E09-00513 Permit Date 11/19/2009

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DRILLING METHOD ROTARY FLUID BENTONITE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain, size, color, etc.*
0	5	BROWN CLAY
5	60	MIXED VOLCANIC ROCK & SAND
60	80	WHITE ASH WITH BLACK VOLCANICS
80	100	GREEN & YELLOW VOLCANIC SAND
100	140	GRAY ASH W/ BLACK VOLCANIC SAND
140	165	GREEN ASH W/ GREEN VOL. SANDS
165	190	GREEN VOLCANIC SAND
190	340	GREEN VOLCANIC ASH
340	350	BROWN VOLCANIC ASH
350	370	GREEN, GRAY ASH
370	420	LIGHT GRAY ASH W/ ROCK STRINGER
420	490	DARK GRAY ASH
490	520	GRN/ GRAY ASH W/ ROCK STRINGER
520	575	STICKY GREEN/GRAY ASH
575	580	VOLCANIC ROCK
580	590	GRAY ASH
590	700	MIXED SEDIMENTARY
		CONTINUED CASING LAYOUT
540	560	BLANK PVC 6"
560	580	SCREEN PVC 6" .032 SLOT
580	600	BLANK PVC 6"

RECEIVED
JUN 22 2010
DEPT. OF
ENVIRONMENTAL MANAGEMENT

TOTAL DEPTH OF BORING 700 (Feet)

TOTAL DEPTH OF COMPLETED WELL 600 (Feet)

WELL OWNER

Name [redacted] LLC

Mailing Address [redacted]

Berkeley CA 94707
CITY STATE ZIP

WELL LOCATION

Address 4111 Atlas Peak Road

City Napa CA

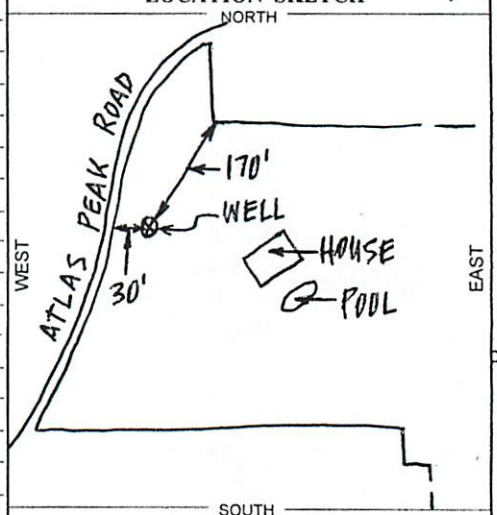
County Napa

APN Book 032 Page 160 Parcel 075 79

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. ___ DEG. ___ MIN. ___ SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. **PLEASE BE ACCURATE & COMPLETE.**

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) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER N/A (Ft.) BELOW SURFACE 1

DEPTH OF STATIC WATER LEVEL 106 (Ft.) & DATE MEASURED 1/13/2010

ESTIMATED YIELD 7 (GPM) & TEST TYPE AIR LIFT

TEST LENGTH 4 (Hrs.) TOTAL DRAWDOWN N/A (Ft.)

May not be representative of a well's long-term yield.

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	610	12								
610	700	9								
0	90		✓				PVC F480	6	SDR-21	
90	190			✓			PVC F480	6	SDR-21	.032
190	230		✓				PVC F480	6	SDR-21	
230	540			✓			PVC F480	6	SDR-21	.032

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	6	✓			CONCRETE
6	55		✓		GROUT
55	610			✓	#6 SAND
610	700			✓	CUTTINGS

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analysis
___ 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.

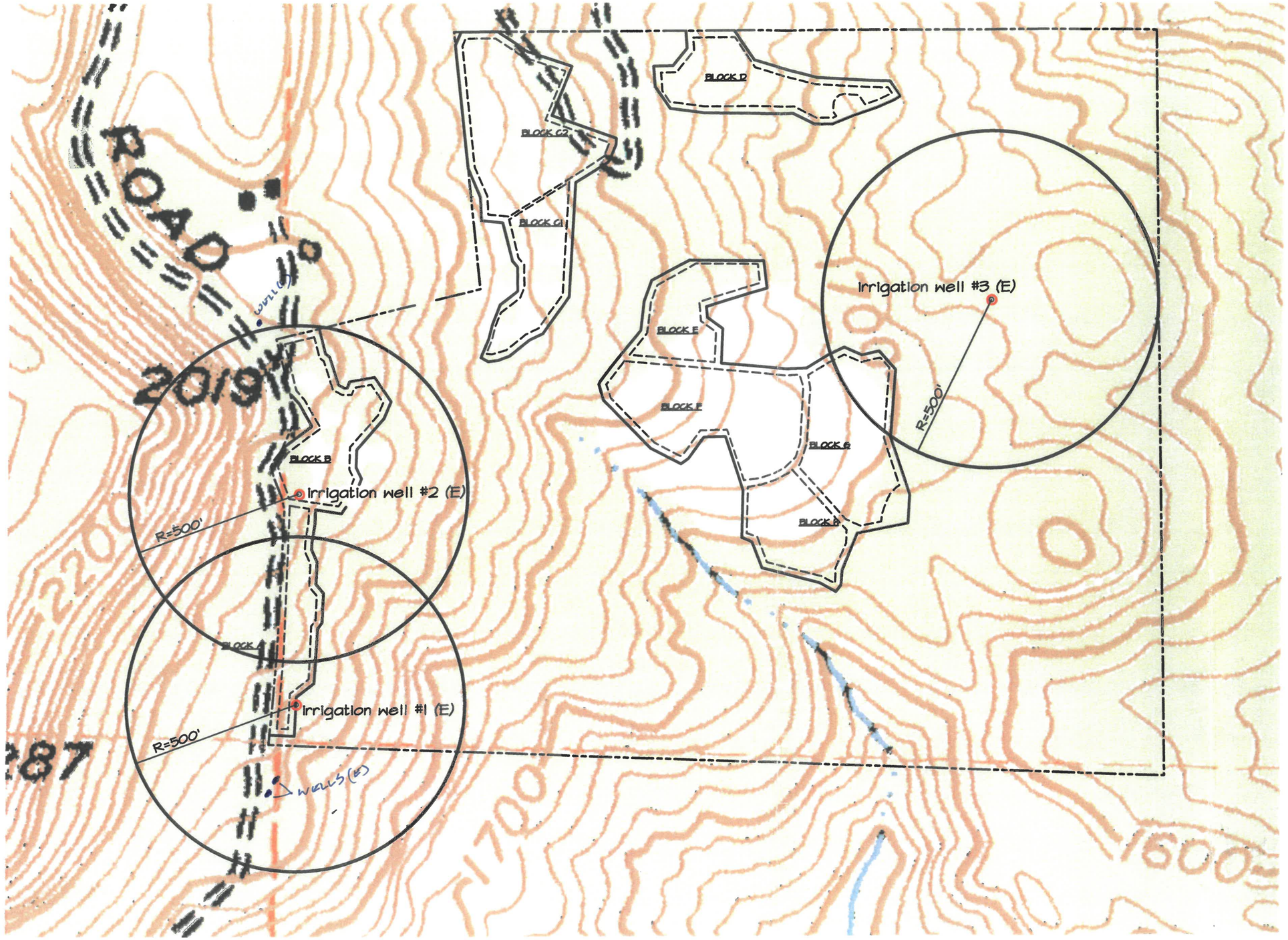
NAME HUCKFELDT WELL DRILLING, INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

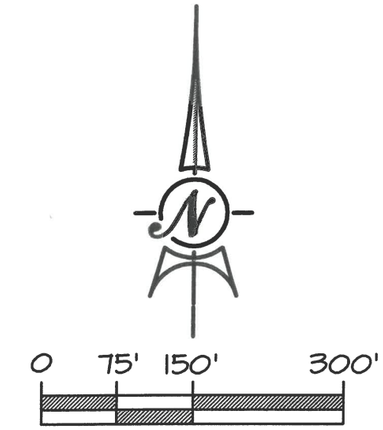
2110 Penny Lane Napa CA 94559
ADDRESS CITY STATE ZIP

Signed [signature] 01/24/10 439-746
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM





SCALE: 1"=300'
CONTOUR INTERVAL: 40'

EXHIBIT B

ATLAS VIEW LLC
Atlas View II Vineyard
WELL LOCATION MAP
NWE 3-4-19