



**DRAFT MEMORANDUM**

April 22, 2020

To: Willis Blakewell  
Blakewell Consulting  
Sent via email ([willis@blakewellconsulting.com](mailto:willis@blakewellconsulting.com))

Cc: Mr. Johnnie White  
Piña Vineyard Management  
Sent via email ([johnniejr@pinavineyards.com](mailto:johnniejr@pinavineyards.com))

Job No. 704-NPA01

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

Re: Results of Napa County Tier 1 Water Availability Analysis  
G1 Financial Corporation Property Vineyard Development  
1220 Soda Canyon Road (APN 039-150-091)  
Soda Canyon Area, Napa County, California

**Introduction**

This Memorandum presents the key findings and conclusions regarding the Water Availability Analysis (WAA), along with preliminary recommendations, prepared by RCS for the proposed vineyard development project for the G1 Financial Corporation property in Napa, California. This document was prepared for the property owner to provide hydrogeologic analyses in conformance with Napa County Tier 1 requirements, as described in the Napa County WAA Guidelines Document (WAA, 2015).

The G1 Financial Corporation property (referred to herein as “subject property”) is comprised by approximately 10 acres and is located at 1220 Silverado Trail in the Soda Canyon area in Napa County. Figure 1, “Location Map,” shows the boundaries of the subject property superimposed on a USGS topographic map. Property boundaries shown on Figure 1 were adapted from parcel data provided by Albion Surveys (Albion) of St. Helena, California. Also shown on Figure 1 are the locations of the existing onsite water wells and the locations of some nearby offsite wells owned by others. The locations of the proximal offsite wells shown on Figure 1 are considered to be approximate only, and that group is not considered to represent all existing nearby wells owned by others. The offsite wells and other features shown on Figure 1 are discussed later in this Memorandum. Figure 2, “Aerial Photograph Map,” shows the same property boundaries and well locations that are illustrated on Figure 1, but the basemap for Figure 2 is an aerial photograph of the area; this aerial photograph was obtained via the ArcGIS Pro software package.



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As reported by the Owner's representative, the 10-acre subject property was previously developed with a residence (with a pool) and a lawn, but the residence was reportedly destroyed in the Atlas Fire in 2017. The residence is reportedly in the process of being re-designed and constructed. Water demands for the previously existing onsite developments (a residence, pool, and lawn) have historically been met via groundwater pumped from onsite "Well 2". A new water-supply well ("Well 3") was constructed in July 2018 to replace Well 2 as the primary source of groundwater for the proposed project development (new vineyards) and the reconstructed, previously existing developments (residence and pool); the lawn area that originally existed pre-fire will not be re-planted. Once Well 3 becomes operational, Well 2 would then be used solely as a backup well in the future.

RCS understands the proposed project is to develop 1.7 acres of new vineyards; currently there are no existing vineyards on the property. For the proposed project, water demands for the new vineyards and existing uses (which include the residence and pool, once reconstructed) are proposed to be met using groundwater pumped from new Well 3.

The basic purpose of this Memorandum is to comply with Napa County's WAA guidelines for a "Tier 1" WAA (i.e., a groundwater recharge estimate); those guidelines were promulgated by the County in May 2015. Because there are no known offsite wells located within 500 ft of Well 3 (i.e., the "project well"), County requirements for a "Tier 2" WAA (Well Interference Evaluation) have been "presumptively met" per the WAA Guidelines (WAA 2015).

### **Site Conditions**

From review of in-house data provided by the property owner, and from the field reconnaissance visit by an RCS geologist to the subject property on January 24, 2020, the following key items were noted and/or observed (refer to Figures 1 and 2):

- a. The G1 Financial Corporation property is comprised by a single parcel having Napa County Assessor's Parcel Number (APN) of 039-150-091. The total assessed area of the subject property is 10 acres.
- b. The subject property is situated on the eastern side of Napa Valley along the base of the nearby foothills, in the Soda Canyon area of Napa County. Based on the topographic contours illustrated in Figure 1, the relatively small property is occupied by converging slopes separated by a small intervening drainage that drains southerly across the property.
- c. There is a mapped ephemeral creek<sup>1</sup> on the subject property. As noted above, this creek transects the property and flows from the north to the southwest across the property. At the time of the January 2020 site visit, this ephemeral creek was observed to be flowing by the RCS geologist.
- d. Previous onsite developments that existed before the Atlas Fire in 2017 included a residence with a pool, and lawn. At the time of the site visit, the subject property was relatively undeveloped, with the exception of a semi-paved driveway to the area of the residence that was destroyed by the Atlas Fire in 2017; initial reconstruction of the residence appeared to be in progress.

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<sup>1</sup> Such drainages are shown as "dashed lines" on USGS topographic maps (denoting ephemeral status).



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- e. As shown on Figures 1 and 2, there are two existing water-supply wells ("Well 2" and "Well 3") on the subject property. Well 2 is located in the central portion of the property near the previously existing residence, whereas Well 3 is located in the northern portion of the property, approximately 700 ft north of Well 2.
- f. Developments on offsite areas surrounding the subject property consist primarily of vineyards, wineries, and residences.
- g. During the January 2020 site visit, the RCS geologist traveled along Silverado Trail to the west of the property, and along the property's driveway easement, and also walked along the boundaries of the subject property in an attempt to identify possible locations and/or the existence of nearby but offsite wells owned by others. RCS refers to such work as "windshield surveys." During these surveys, RCS geologists attempt to identify possible offsite well locations by observing typical well-house enclosures, pressure tanks, storage tanks, power lines, or direct observation of a wellhead.

RCS geologists also contacted Napa County Planning, Building, and Environmental Services (PBES) in attempt to acquire "Well Completion Reports" (also known as "driller's logs") that might exist for the onsite wells, and for possible wells located on those neighboring offsite properties. In addition, RCS geologists also used the California Department of Water Resources (DWR) online Well Completion Report website to download driller's logs for wells within the immediate vicinity of the subject property. As a result of those inquiries, several driller's logs were obtained and/or locations were reported for wells historically drilled in the area.

Figures 1 and 2 show the approximate locations of known, reported, and/or inferred nearby offsite wells surrounding the subject property, as determined from the field reconnaissance and well log research. Those locations are not necessarily considered to be inclusive of all actual offsite wells in the area. It is noteworthy that none of these wells are shown on Figures 1 and 2 to be located within 500 ft of the Well 3 (i.e., the "project well").

### **Key Construction and Testing Data for Onsite Wells**

DWR Well Completion Reports are available for both Well 2 (Log No. 281571) and Well 3 (Log No. e0367367); a copy of each driller's log is appended to this Memorandum. Table 1, "Summary of Well Construction and Yield Data," provides a tabulation of key well construction data and original groundwater airlifting data that are available for these two onsite wells. A geophysical electric log survey was reportedly not conducted in the pilot hole for either well.

### **Well Construction Data**

Key data for the two onsite wells listed on the available driller's logs and/or identified during our site visits include:

- a. Well 2 was constructed in November 1989 by Doshier-Gregson, Inc. (Doshier-Gregson), of Vallejo, California; the drilling method for this well was reported by the driller to be direct air rotary. Well 3 (the "well number" is listed as "1-2018" on the driller's log) was constructed in July 2018 by Huckfeldt Well Drilling, Inc. (Huckfeldt), of Napa, California. Well 3 was drilled using the direct air rotary drilling method.



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- b. Pilot hole depths (the borehole drilled before the well casing was placed downwell) were reported to be 355 ft below ground surface (bgs) for Well 2, and 800 ft bgs for Well 3.
- c. Both onsite wells were reportedly cased with PVC casing having a nominal diameter of 8 inches. During the January 2020 site visit, RCS geologists also observed a 12-inch diameter steel outer casing around Well 2 (likely a conductor casing or surface casing). Total casing depths were reported to be 355 ft bgs for Well 2, and 800 ft bgs for Well 3.
- d. Casing perforations for both onsite wells are factory-cut slots with slot opening widths of 0.032 inches (32-slot). Perforations in Well 2 were reported to have been placed between the depths of 160 ft and 355 ft bgs. In Well 3, casing perforations were placed at the following depth intervals: 420 ft to 440 ft bgs; 620 ft to 700 ft bgs; and 720 ft to 780 ft bgs.
- e. The gravel pack material reported on the driller's log for Well 2 is listed as "pea gravel", whereas gravel pack in Well 3 is listed as "No. 6 Sand".
- f. Well 2 and Well 3 were both constructed with sanitary seals consisting of concrete, cement, and/or bentonite. The sanitary seal in Well 2 is set to a depth of 27 ft bgs, whereas the sanitary seal in the newer Well 3 is set to a depth of 59 ft bgs. A minimum 20-foot seal depth is required in the County to use the pumped groundwater for irrigation supply and for domestic supply at a single residence.

### Summary of Key Airlifting "Test" Data

The driller's logs for the two onsite wells also provided the depth to the original post-construction static water levels (SWL) for these wells, along with the original driller-reported airlifting test rates (as shown on Table 1). These data include:

- Initial SWL depths following completion of well construction were reported to be 160 ft bgs in Well 2 in November 1989, and 239 ft bgs in Well 3 in July 2018.
- Reported maximum airlift rates<sup>2</sup> for initial post-construction airlifting operations in the onsite wells were estimated by the drillers to be approximately 50 gallons per minute (gpm) in Well 2 in November 1989, and 150 gpm in Well 3 in July 2018.
- "Water level drawdown" values during airlifting were not listed on the driller's logs for the two onsite wells during their respective airlifting tests, because water level drawdown cannot be measured during airlifting operations; thus, the original post-construction specific capacity<sup>3</sup> value for the wells cannot be calculated from the limited data on the driller's log.

### Pumping Test Data by Others for Well 2

Two pumping tests were performed in Well 2 by Doshier-Gregson following its construction in 1989. Only pumping rate data were collected by Doshier-Gregson during these pumping tests;

<sup>2</sup> As a rule of thumb, RCS geologists estimate that normal operational pumping rates for a new well equipped with a permanent pump are typically on the order of only about one-half or less of the airlifting rate reported on a driller's log.

<sup>3</sup> Specific capacity, in gallons per minute per foot of water level drawdown (gpm/ft ddn), represents the ratio of the pumping rate in a well (in gpm) divided by the amount of water level drawdown (in ft ddn) created in the well while pumping at that rate.



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water level data were either not collected or not reported on the “Report of Water Well Test” sheets prepared by Doshier-Gregson. Copies of these pumping test reports are appended to this Memorandum. Key pumping rate data available for each pumping test of Well 2 by Doshier-Gregson include:

- On November 17, 2009, a 4-hour constant drawdown test was started at an initial rate of 60 gpm, but this rate was reduced to a rate of 25 gpm approximately 60 minutes into the test. At the end of this 4-hour constant drawdown test, the final pumping rate was reported by the pumper to be 25 gpm.
- On April 22, 2014, the second 4-hour constant rate test was initiated at a rate of 56 gpm; this rate was reduced to a final rate of 35 gpm, approximately 60 minutes into this 4-hour pumping test.

### Well Data from Site Visits

As discussed above, a site visit to the subject property was performed by RCS geologists on January 24, 2020. The following information for the onsite wells was gleaned from this visit:

- Well 2 was observed to be equipped with a permanent pump, and the pump was turned off (not pumping) during the January 2020 visit. A static water level (SWL) could not be measured in this well, as the RCS-owned, manual electric (tape) presumably due to downhole blockage water level sounder could not descend below a depth of approximately 220 ft bgs. This well was observed to not be equipped with a totalizer flowmeter at the time of our site visit.
- Well 3, which was constructed in July 2018, was observed not to be equipped with a permanent pump, and the top of the casing was temporarily capped. A SWL of 223.4 ft below the wellhead reference point (brp) was measured by the RCS geologist during the site visit on January 24, 2020; the reference point for the measurement was approximately 1.3 ft above ground surface (ags). Because this well has yet to be equipped with a permanent pump, no totalizer flowmeter device has been installed to date.

### Local Geologic Conditions

Figure 3, “Geology Map,” illustrates the types, lateral extents, and boundaries between the various earth materials mapped at ground surface in the region by others. Specifically, Figure 3 has been adapted from the results of regional geologic field mapping of the Napa (2004) and Yountville (2005) quadrangles, as published by the California Geological Survey (CGS). As shown on Figure 3, the key earth materials mapped at ground surface in the area, from geologically youngest to oldest, include the following:

- a. Alluvial-type deposits. These deposits consist of undifferentiated and/or undivided alluvium deposits (map symbols Qha and Qa on Figure 3). These deposits are generally unconsolidated, and consist of layers and lenses of sand, gravel, silt, and clay. As shown on Figure 3, these alluvial deposits primarily occur at ground surface across the floor of Napa Valley to the west of the subject property. These alluvial deposits are interpreted to be become thicker from east to west towards the Napa River. Similar alluvial deposits are not mapped or exposed at ground surface on the subject property (see Figure 3).



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- b. Landslide deposits. Small landslide areas have been mapped in the region by others (see the bright yellow-colored areas on Figure 3). Arrows placed within these mapped landslide areas show the general direction of ground surface movement within these slides. These small landslide areas are shown to be mapped east of the subject property, and not within the boundaries of the subject property.
- c. Huichica Formation. This sedimentary deposit (map symbol Th on Figure 3), which is exposed at ground surface offsite south of the subject property, is comprised of interbedded gravel, sand, reworked tuff, and clay.
- d. 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 3 are primarily andesitic in composition (map symbol Tsaa) and interbedded with tuff. As shown on Figure 3, these andesitic volcanic rocks are exposed at ground surface across the entirety of the subject property, and they are also known to extend further to the north, east, and west of the property. These volcanic rocks are also known to directly underlie the alluvial-type deposits throughout portions of the floor of Napa Valley.
- e. Great Valley Sequence. The geologically older (Cretaceous- and Jurassic-aged) Great Valley Sequence rocks are exposed at ground surface in offsite areas to the east of the subject property (not shown on Figure 3). These rocks consist mainly of well-consolidated to cemented sandstone, siltstone, and shale. These geologically older rocks are considered to be the bedrock of the area and are known to underlie the base of the volcanic rocks at depth beneath the subject property.

### Geologic Structure

The Soda Creek Fault zone<sup>4</sup>, as mapped by others, has been interpreted to exist within and/or proximal to the boundaries of the subject property (CGS 2004 and LSCE 2017). Specifically, one of these northwest-southeast trending fault traces is shown on Figure 3 to be mapped through the central portion of the subject property. There may be potential impacts of these faults on groundwater availability in the region. Faults can serve to increase the number and frequency of fracturing in the Sonoma Volcanics rocks. If such fractures were to occur, they would tend to increase the amount of open area in the rock fractures which, in turn, could increase the ability of the local earth materials to store groundwater. Additionally, faults, such as the Soda Creek Fault, can also act as barriers to groundwater flow (LSCE 2017).

### Local Hydrogeologic Conditions

The earth materials described above can generally be separated into two basic categories, based on their relative ability to store and transmit groundwater to wells. These two basic categories are:

#### Potentially Water-Bearing Materials

The principal water-bearing materials beneath the subject property and its environs are represented by the hard, fractured volcanic flow rocks of the Sonoma Volcanics. The occurrence and movement of groundwater in Sonoma Volcanic rocks tend to be controlled primarily by the

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<sup>4</sup> Note that it is neither the purpose of nor within our Scope of Hydrogeologic Services for this project to assess the potential seismicity or activity of any faults that may occur in the region



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secondary porosity within the rock mass, that is, by the fractures and joints that have been created in these harder volcanic flow-type rocks over time by various volcanic and tectonic processes. Specifically, these fractures and joints have been created as a result of the cooling of these originally molten flow rocks and flow breccias deposits following their deposition, and also from mountain building or tectonic processes (faulting and folding) that have occurred over time in the region after the rocks were erupted and hardened. Some groundwater can also occur in zones of deep weathering between the periods of volcanic events that yielded the various flow rocks and also within the pore spaces created by the grain-to-grain interaction in volcanic tuff and ash, if and where present at depth beneath the subject property.

The amount of groundwater available at a particular drill site for a well constructed into the Sonoma Volcanics beneath the subject property would depend on such factors as:

- Whether or the hard fractured volcanic flow rocks are the preponderant volcanic material beneath the property.
- The number, frequency, size and degree of openness of the fractures/joints in the hard volcanic rocks.
- The degree of interconnection of the various fracture/joint systems in the subsurface and to ground surface.
- The extent to which the open fractures may have been possibly in-filled over time by chemical precipitates/deposits and/or weathering products (clay, etc.).
- The amount of recharge from local rainfall that becomes available for deep percolation to the fracture systems.
- The existence and thickness of possible ash flow tuffs beneath the property.
- To a lesser extent, the size of the pore-spaces formed by the grain-to-grain interactions of volcanic ash particles, if these rock types exist beneath the subject property.

As stated above, the principal rock types expected in the subsurface beneath the property, based on the driller's logs of the two onsite wells, appear to be mainly the hard, volcanic flow rocks that may be fractured to varying degrees. The basic descriptions of drill cuttings by the driller that have been recorded on the available driller's logs for Well 2 and Well 3, and for other nearby offsite wells owned by others, are consistent with the typical descriptions of the various rocks known in the Sonoma Volcanics. From our long-term experience with the Sonoma Volcanics, based on numerous other water well construction projects in Napa County, pumping capacities in individual wells have ranged widely, from rates as low as a few gpm (if abundant ash-flow tuff is present), to rates as high as 200 gpm or more (if abundant hard fractured flow rocks are present).

### Potentially Nonwater-Bearing Rocks

This category includes the geologically older and fine-grained sedimentary rocks of the Great Valley Sequence. These potentially nonwater-bearing rocks are interpreted to underlie the volcanic rocks that exist beneath the subject property at depths greater than  $\pm 335$  ft bgs in Well 2 and greater than  $\pm 800$  ft bgs in the vicinity of Well 3, as interpreted by RCS from the driller's descriptions of drill cuttings listed on the driller's logs for these wells.

In essence, these diverse and geologically old rocks are well-cemented and well-lithified and have an overall low permeability. Occasionally, localized conditions can allow for small quantities of



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groundwater to exist in these bedrock materials, wherever they may be sufficiently fractured and/or are relatively more coarse-grained. However, even in areas with potentially favorable conditions, well yields are often only a few gpm in these bedrock materials, and the water quality can be marginal to poor in terms of total dissolved solids concentrations, and other dissolved constituents.

### **Project Groundwater Demands**

For the purposes of this WAA, Well 3 is considered to be the “project well,” as it will represent the only well on the property that will be used to meet water demands of the proposed new vineyard development project in the future. Water demands for the former (pre-2017 Atlas Fire) onsite developments (residence, pool, and lawn) are considered to be “existing” for the purposes of this analysis. These existing water demands have historically been supplied by groundwater pumped from Well 2. Reportedly, Well 2 has also historically been used to meet a portion of the vineyard irrigation demands for vineyards located on an adjacent property to the west. Currently, Well 2 is not being used to meet any onsite and/or offsite demands, with the exception of the small volumes of water needed during the re-construction of the former residence. Due to a lack of historical totalizer data for Well 2, the annual volume of groundwater historically used for existing onsite uses and offsite irrigation is unknown. In the future, Well 2 will reportedly only be used as a backup well, once Well 3 becomes operational.

Water use estimates for existing onsite water demands were estimated and based on water use guidelines provided in the WAA Guidance Document (WAA 2015). Additionally, the area of the former lawn on the property was estimated based on review of air photos of the property captured prior to the 2017 Atlas Fire, as shown on Figure 4, “Estimated Area of Lawn, March 2016”; these estimates are considered to be conservative. Those existing water use estimates were also verified by the property owner’s winery and vineyard consultant, Mr. Willis Blakewell of Blakewell Consulting.

### **Existing Water Demands**

Water demands for the existing (historic, pre-fire) onsite developments (the residence, pool, and lawn) are estimated as follows:

- a. Existing residential water demand = 0.75 acre-feet per year (AF/yr)
  - This is the typical water use associated with a primary residence (WAA 2015).
  - Note that 1 AF = 325,851 gallons
- b. Existing water demand for a pool = 0.10 AF/yr
  - This estimate is for a pool without a cover (WAA 2015).
- c. Existing lawn irrigation water demand = 1.21 AF/yr
  - This estimate assumes a former lawn area of approximately 0.30 acres (13,068 square feet, ft<sup>2</sup>); this area was estimated from air photos of the property prior to the 2017 Atlas Fire. Figure 4 was prepared to show the estimated area of irrigated lawn that existed onsite prior to the 2017 Atlas Fire. The assumed estimated area of lawn is shown by yellow-colored boundary lines. The WAA Guidance document states water use for lawn irrigation is 0.10 AF/yr for every 1,000 ft<sup>2</sup> of drought





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tolerant lawn above the first 1,000 ft<sup>2</sup>. Therefore, the water use calculation is as follows:

$$= [(13,068 \text{ ft}^2 - 1,000 \text{ ft}^2) \div 1,000 \text{ ft}^2] \times 0.1 \text{ AF/yr} = 1.21 \text{ AF/yr}.$$

- d. Total estimated existing (historical) water demand = a + b + c = 2.06 AF/yr

### Proposed Water Demands

Water use estimates for the proposed onsite demands (i.e., the proposed new vines) were based on water use guidelines provided in the WAA Guidance Document (WAA 2015). Water demands for the re-built residence and pool (currently under construction) are expected to remain the same as the existing demand estimates provided above; there will reportedly be no irrigated lawn area in the future. All water demands for the property (including those for the residence, pool, and the vineyards) are proposed to be met by pumping groundwater from Well 3. Thus, the total proposed onsite water demands for the property (as supplied by Well 3) would be as follows:

- a. Proposed residential water demand = 0.75 AF/yr
- b. Proposed pool water demand = 0.10 AF/yr
- c. Proposed vineyard irrigation water demand = 0.85 AF/yr
  - o Based on the proposed planted vineyard acreage of 1.7 acres and a unit water use of 0.50 AF per acre vine per year (AF/ac/yr), per the WAA Guidance Document (WAA 2015).
- d. Total proposed water demand = a + b + c = 1.70 AF/yr

Based on the estimates presented above, there would be a decrease in total groundwater demand of 0.36 AF/yr (from 2.06 AF/yr to 1.70 AF/y) as a result of the proposed new project, compared to prior uses.

### Proposed Pumping Rates

To determine the pumping rate necessary from Well 3 (i.e., the project well) to meet the future demands of the property and proposed project, it was assumed that the proposed water demands for the residence and pool (0.75 AF/yr and 0.10 AF/yr, respectively) will be required year-round (365 days/year), whereas the future vineyard irrigation demands (0.85 AF/yr) would be required during a 20-week irrigation season each year, with Well 3 pumping at roughly 12 hours each day during each irrigation season. Based on these assumptions, and in order to meet the groundwater demands for the subject property and proposed project, Well 3 would need to pump at an average rate of about 4 gpm during the irrigation season. This pumping rate assumes that Well 3 would be pumped on a 50% operational basis (12 hours/day, 7 days/week) during the 20-week irrigation season each year. Based on airlifting rates reported by the driller (approximately 150 gpm) for the date Well 3 was constructed in July 2018, it appears that this well is readily capable of meeting the instantaneous groundwater flow demands required for the residence, pool, and the proposed new vineyards project. As noted above, RCS geologists estimate that normal operational pumping rates for a new well equipped with a permanent pump are typically on the order of only about one-half or less of the airlifting rate reported on a driller's log.



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### **Water Use Criterion for Milliken-Sarco-Tulucay (MST) Subarea**

As shaded in blue on Figure 1, a majority of the subject property lies within the County-defined Milliken-Sarco-Tulucay (MST) area. This area is designated by the County as a “groundwater deficient area” in Napa County. As such, any proposed new project within this MST area must comply with specific water use criteria.

Approximately 7.4 acres of the 10-acre subject property are shown to be located within this MST area. However, to present a conservative analysis, RCS assessed the entire subject property using water use criteria set forth for the MST area outlined in the WAA Guidance Document (WAA 2015). Therein, the WAA states that new agricultural development (i.e., vineyards) is not exempt from the groundwater permit process, and the County cannot approve the permit unless the proposed water use is offset by reductions elsewhere. The allowable water use allotment for parcels within the MST area, as shown on Table 2A on page 7 of the WAA Guidelines (WAA 2015), is 0.3 acre-feet per acre per year (AF/ac/yr), or no net increase from current uses, whichever is less.

Based on those guidelines, the acceptable water use for the property is considered to be 3.0 AF/ac/yr (10 acres  $\times$  0.3 AF/ac/yr). As stated above, existing water demands for the property were estimated to be 2.06 AF/yr, based on the existing residence, pool, and lawn. Thus, the acceptable volume of groundwater use for the 10-acre property is limited to the lesser annual volume of 2.06 AF/yr to comply with the “no net increase” stipulation. Hence, the proposed annual groundwater demand of 1.70 AF/yr that was calculated above is less than the acceptable amount of groundwater use for the property.

### **Northeast Napa Study Area**

The subject property is also considered to be partially located within an area has been identified by others as an area of concern by the County with respect to groundwater use and development. Figure 1 shows the eastern edge of the boundary of the NENSA study area, shaded in purple, which traverses across the western boundary of the subject property. Through prior discussions with the County, and review of publicly available documents, including the “Northeast Napa Area: Special Groundwater Study” (LSCE 2017), it is the understanding of RCS that the County does not expect any new groundwater restrictions will be placed on projects within the NENSA in the near future. Any conditions of approval for projects located in the NENSA are expected to be related to monitoring of groundwater levels and extraction volumes<sup>5</sup>; specific conditions are unknown at this time.

### **Key Conclusions and Recommendations**

1. The existing G1 Financial Corporation property is currently being redeveloped to reconstruct a residence that was destroyed in the 2017 Atlas Fire.
2. There are two existing onsite water wells (“Well 2” and “Well 3”) on the subject property. Well 3 was constructed in July 2018, and was not yet equipped with a permanent pump as of January 24, 2020.
3. The proposed project consists of developing 1.7 acres of new vineyards; there are no existing onsite vineyards.

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<sup>5</sup> Specific conditions of approval are unknown and cannot be predicted by RCS.

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4. The proposed (future) average annual groundwater demand for the proposed project (including the proposed new vineyards) is estimated to be 1.70 AF/yr. Existing onsite water demands were estimated to be 2.06 AF/yr, prior to the 2017 Atlas Fire. Thus, total groundwater demands for the property are proposed to decrease by 0.36 AF/yr, when comparing the proposed project to pre-fire site uses.
5. Once the residence and pool have been re-built and the proposed new vineyards are planted, all groundwater demands for the property will be met by pumping groundwater from Well 3. Existing Well 2 will only be used as a backup water source for the property. The lawn area that originally existed pre-fire will not be re-planted.
6. To meet the estimated groundwater demands of the proposed new vineyards (0.85 AF/yr) and existing demands of the residence (0.75 AF/yr) and pool (0.10 AF/yr), Well 3 would need to pump at a rate of approximately 4 gpm during the irrigation season. This pumping rate assumes Well 3 would be pumped on a 50% operational basis (12 hours/day, 7 days/week) during the irrigation season of each year.
7. Based on the driller-reported short-term, post-construction airlifting rates in Well 3 (airlifted at a rate of approximately 150 gpm for 2 hours), this well appears to be capable of pumping at the necessary pumping rate needed (about 4 gpm) to meet the proposed groundwater demands for the proposed project. Although no constant rate pumping tests are known to have been conducted in Well 3, two prior constant drawdown tests were performed by others in the much shallower onsite Well 2. The existence of those tests suggests that pumping water levels in Well 2 stabilized while the well was being pumped at 25 gpm and 35 gpm, respectively.
8. For projects located in the County-defined MST area, according to the Napa County WAA guidelines, the acceptable water use criterion is considered to be 0.3 AF per acre of land per year or "no net increase" from current conditions, whichever is less (WAA 2015). Thus, the acceptable volume of groundwater use for the 10-acre property could be 3 AF/yr (10 acres x 0.3 AF/yr). However, historical onsite demands were estimated to be only 2.06 AF/yr. Thus, any proposed onsite water demands can be no greater than 2.06 AF/yr, per "no net increase" water use criterion set forth in the WAA Guidance Document. The proposed annual groundwater demand of 1.70 AF/yr is actually less than the estimated existing onsite water demands (2.06 AF/yr), and therefore meets the criterion.
9. RCS recommends implementation of a groundwater monitoring program at the subject property. This would include the frequent, ongoing monitoring of static and pumping water levels in the onsite wells, and also of the instantaneous flow rates and cumulative pumped volumes from each of the onsite wells via dual-reading flow meters (that records both flow rate and totalizing values, respectively) at each well. RCS also recommends that water level transducers be purchased and installed in the onsite wells to permit the automatic, frequent, and accurate recording of water levels in those wells. By continuing to observe the trends in groundwater levels and future well production rates/volumes over time by qualified professionals, potential declines in water levels and well production in the onsite wells, along with possible changes in operational pumping scenarios, can be addressed in a timely manner.



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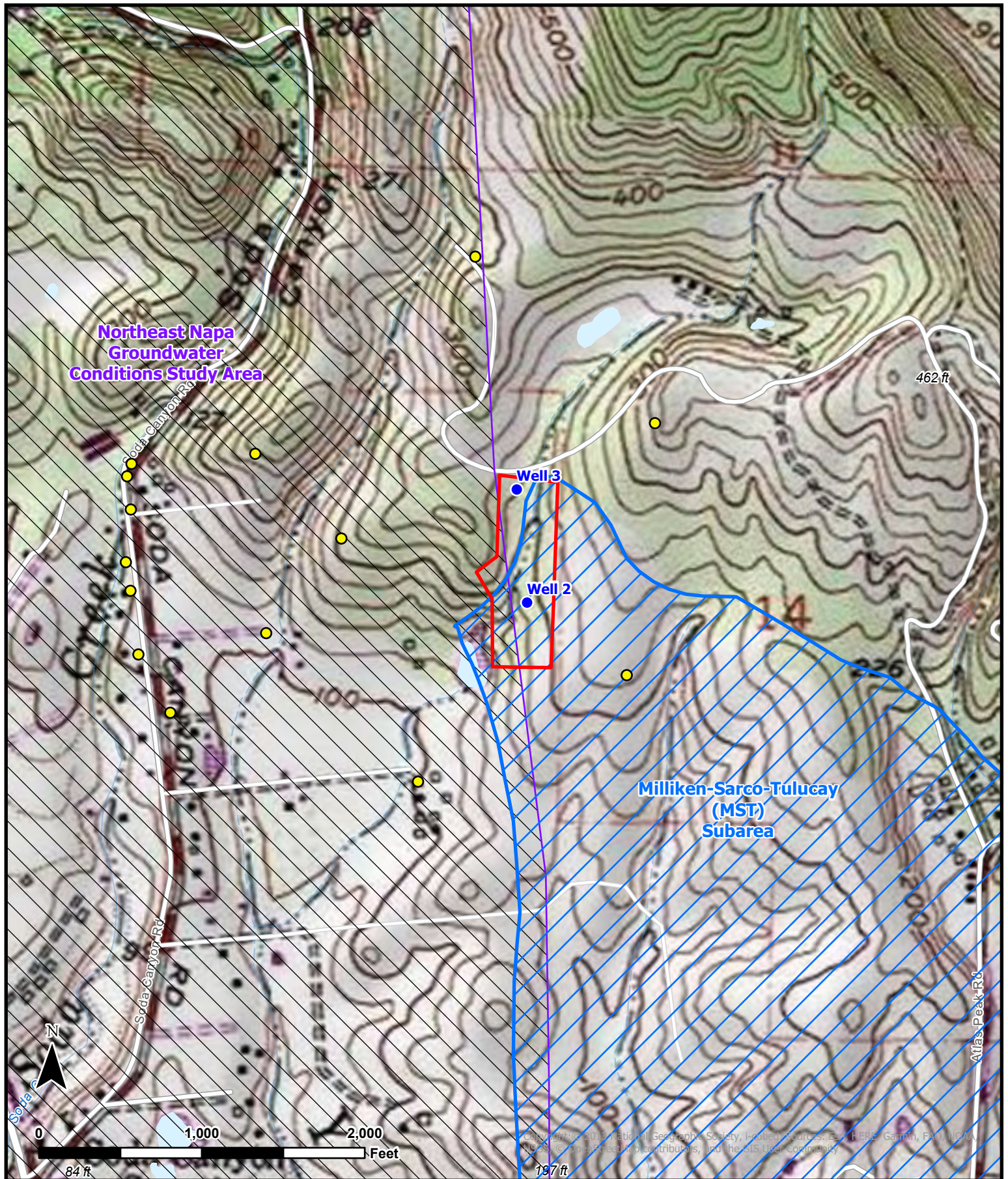
### References

- **(CGS 2004)** Clahan, Wagner, et al, 2004. Geologic Map of the Napa 7.5' Quadrangle, Napa County, California: A Digital Database. California Geological Survey.
- **(CGS 2005)** Bezore, Clahan, et al, 2005. Geologic Map of the Yountville 7.5' Quadrangle, Napa County, California: A Digital Database. California Geological Survey.
- **(LSCE 2017)** Ludhorff & Scalmanini Consulting Engineers, September 2017. Northeast Napa Area: Special Groundwater Study, Prepared for Napa County.
- **(WAA 2015)** Napa County Board of Supervisors, Adopted May 12, 2015. Water Availability Analysis (WAA) – Guidance Document.

### Websites:

- Napa County GIS database, 2020. <http://gis.napa.ca.gov>
- Well Completion Report Map Application, California Department of Water Resources, 2020.  
<https://www.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>





# LEGEND

- Onsite Wells
- Offsite Wells (approx)
- MST Area (Napa County GIS 2011)
- Northeast Napa Study Area
- Subject Property Boundary



**FIGURE 1  
LOCATION MAP**



**Note: Aerial photo imagery from ArcGIS Pro software package (2020);  
Image taken after 2017 Atlas Fire.**



0 500 1,000 Feet

### LEGEND

- Onsite Wells
- Offsite Wells (approx.)
- Subject Property Boundary

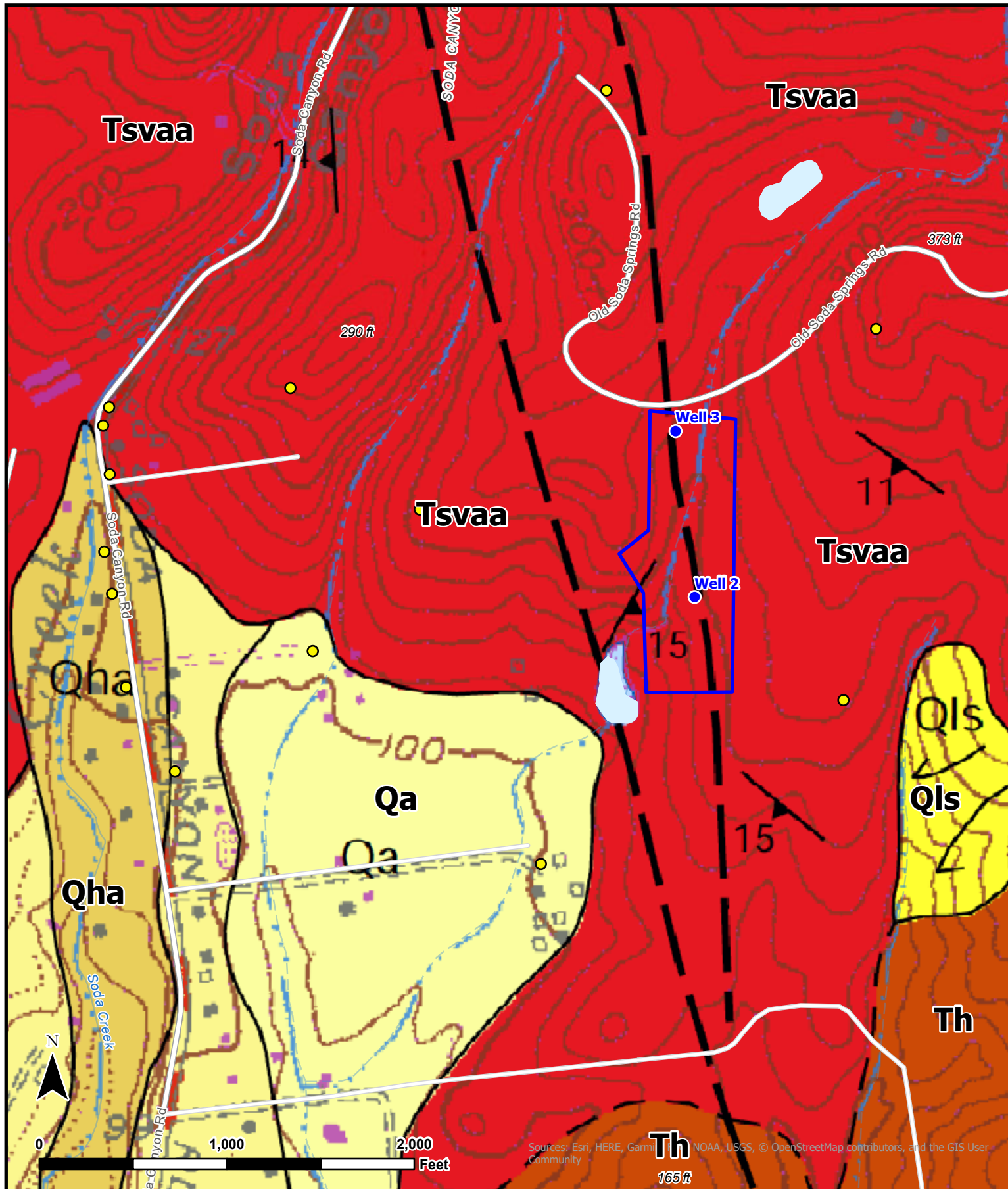


### FIGURE 2 AERIAL PHOTOGRAPH MAP

RCS Job No. 704-NPA01

April 2020





Sources: Esri, HERE, Garmin, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

# LEGEND

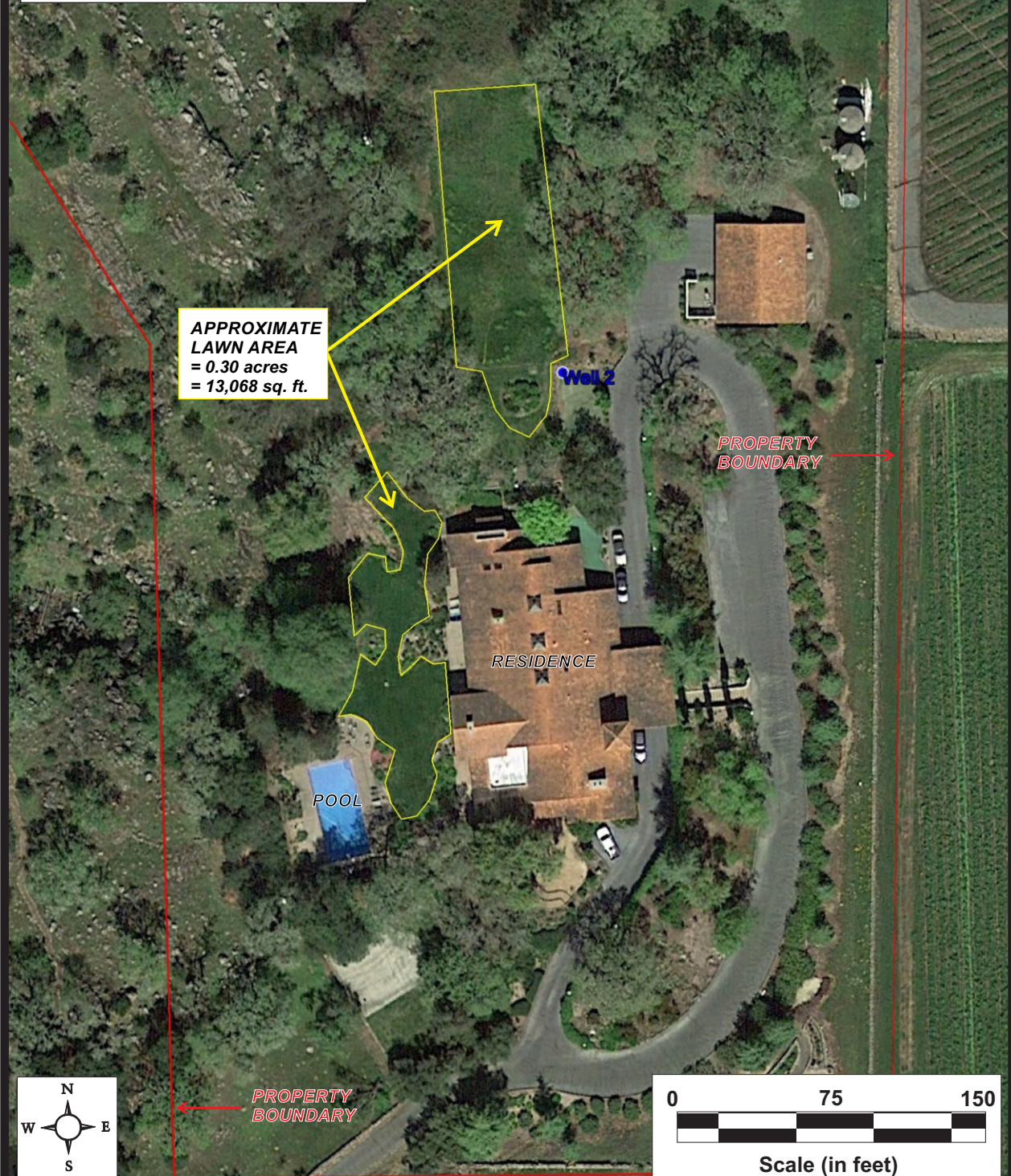
- Onsite Wells
- Offsite Wells (approx)
- Subject Property Boundary



**FIGURE 1  
LOCATION MAP**



IMAGE REF: Google Earth, March 2016



**RICHARD C. SLADE & ASSOCIATES LLC**  
CONSULTING GROUNDWATER GEOLOGISTS  
14051 Burbank Blvd., Suite 300  
Sherman Oaks, CA 91401  
Southern California: (818) 506-0418  
Northern California: (707) 963-391  
[www.rcslade.com](http://www.rcslade.com)

**FIGURE 4**  
**ESTIMATED AREA**  
**OF LAWN (MARCH 2016)**

Job No. 704-NPA01

March 2020



**Table 1**  
**Summary of Well Construction and Yield Data**  
**G1 Financial Corporation Property**

**WELL CONSTRUCTION DETAILS**

Reported Well Designation	DWR Well Log No.	Date Drilled	Method of Drilling	Pilot Hole Depth (ft bgs)	Casing Depth (ft bgs)	Casing Type	Casing Diameter (in)	Borehole Diameter (in)	Sanitary Seal Depth (ft bgs)	Perforation Intervals (ft bgs)	Type and Size (in) of Perforations	Gravel Pack Interval (ft) and Size
Well 2	281571	November 1989	Direct Air Rotary	355	355	PVC	8	12	0-27 (concrete & bentonite)	160-355	Factory-Cut 0.032	27-355 Pea Gravel
Well 3	e0367367	July 2018	Direct Air Rotary	800	800	PVC	8	12	0-59 (cement)	420-440 620-700 720-780	Factory-Cut 0.032	59-800 #6 Sand

**POST-CONSTRUCITON YIELD DATA**

Reported Well Designation	Date & Type of Yield Data	Duration of "Test" (hrs)	Estimated Flow Rate (gpm)	Static Water Level (ft)	Pumping Water Level (ft)	Estimated Specific Capacity (gpm/ft ddn)
Well 2	11/1989 Airlift	6	50	160	ND	ND
	11/17/09 Pump	4	25	ND	ND	ND
	4/22/14 Pump	4	35	ND	ND	ND
Well 3	7/27/18 Airlift	2	150	239	ND	ND

**Notes:**

ND = No data or not listed

ft bgs = feet below ground surface

in = inches

hrs = hours

gpm = gallons per minute

gpm/ft ddn = gallons per minute per foot of water level drawdown

**DRAFT MEMORANDUM**

**APPENDIX**

**CALIFORNIA DEPARTMENT OF WATER RESOURCES  
WELL COMPLETION REPORTS (DRILLER'S LOGS)  
"WELL 2" AND "WELL 3"  
G1 FINANCIAL CORPORATION PROPERTY**

ORIGINAL  
File with DWR

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

Do not fill in

No. 281571

Notice of Intent No. \_\_\_\_\_

Local Permit No. or Date \_\_\_\_\_

State Well No. \_\_\_\_\_

Other Well No. 06A104W

## (2) LOCATION OF WELL (See instructions):

County Napa Owner's Well Number 39-150-70Well address if different from above 1220 Soda Canyon Road

Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_

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

(12) WELL LOG: Total depth 355 ft. Completed depth 355 ft.  
from ft. to ft. Formation (Describe by color, character, size or material)

0 - 2 Topsoil

2 - 27 Brown &amp; red rock strg brn clay

27 - 55 Brown blk &amp; gray rock hard

55 - 85 Black gray &amp; red rock med hard

85 -115 Black rock hard

115 -145 Black red &amp; brn rock med hard

145 -160 Gray &amp; blk rock hard

160 -190 Black rock hard fract

190 -325 Black red brn rock fract

325 -355 Black red brn strg wht rock hard fract

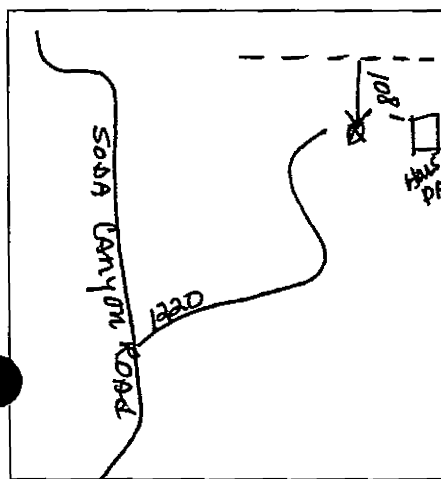
## (3) TYPE OF WORK:

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)



WELL LOCATION SKETCH

## (5) EQUIPMENT:

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

## (6) GRAVEL PACK:

Yes ☐No ☒Size PeaDiameter of bore 12 inPacked from 355to 27

## (7) CASING INSTALLED:

Steel ☐Plastic ☒Concrete ☐(8) PERFORATIONS: Machine

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	160	8	200	160	355	.032

## (9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 27 ft.Were strata sealed against pollution? Yes ☐ No ☐ Interval \_\_\_\_\_ ft.Method of sealing Concrete & bentonite pelletsWork started 10/27/89 19\_\_\_\_ Completed 11/2/89 19\_\_\_\_

## (10) WATER LEVELS:

Depth of first water, if known 160 ft.Standing level after well completion 142 ft.

## (11) WELL TESTS:

Was well test made? Yes ☒ No ☐ If yes, by whom? drillerType of test Pump ☒ Bailer ☐ Air lift ☒Depth to water at start of test 160 ft. At end of test 355 ft.Discharge 50 gal/min after 6 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 Harold Gregson (Well Driller)NAME Doshier-Gregson, Inc.

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

Address 5365 Napa Vallejo HwyCity Vallejo ZIP 94589License No. 258826 Date of this report 11/6/89

ORIGINAL  
File with DWR

Page 1 of 1

Owner's Well No. 1-2018

Date Work Began 7/16/2018, Ended 7/27/2018

Local Permit Agency Napa County Environmental Mgmt

Permit No. E18-00570 Permit Date 7/16/2018

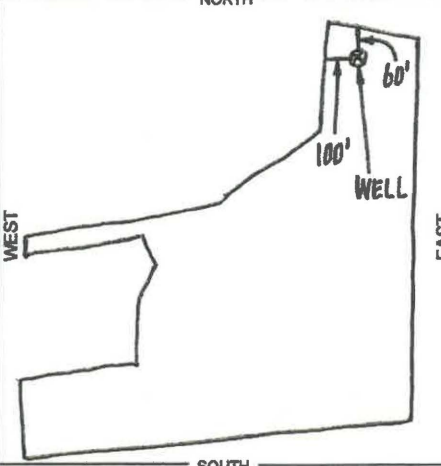
STATE OF CALIFORNIA  
**WELL COMPLETION REPORT**  
*Refer to Instruction Pamphlet*

No. **e0367367**

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

ORIENTATION (✓)		DRILLING METHOD	FLUID	DESCRIPTION
VERTICAL — HORIZONTAL — ANGLE — (SPECIFY)		ROTARY	AIR	Describe material, grain, size, color, etc.
DEPTH FROM SURFACE				
Fl.	to Fl.			
0	20			BOULDER WITH BROWN CLAY
20	50			LARGE FRACTURED VOLCANIC ROCK
50	55			TAN VOLCANIC ASH
55	60			HARD BLACK VOLCANIC ROCK
60	70			FRACTURED MIXED VOLCANICS
70	90			RED VOLCANIC ASH
90	485			HARD BLACK VOLCANIC ROCK
485	525			RED VOLCANIC ROCK
525	540			GRAY VOLCANIC ROCK
540	580			HARD BLACK VOLCANIC ROCK
580	620			GREEN, GRAY VOLCANICS
620	640			HARD BLACK VOLCANIC ROCK
640	655			GRAY, RED MIXED VOLCANICS
655	670			HARD BLACK VOLCANIC ROCK
670	680			GRAY VOLCANIC ASH
680	690			GREEN, GRAY VOLCANICS
690	720			HARD BLACK VOLCANIC ROCK
720	730			SOFT RED VOLCANICS
730	760			BLACK VOLCANIC ROCK
760	800			HARD BLACK VOLCANIC ROCK
CONTINUED CASING LAYOUT				
620	700			SCREEN PVC 8" .032 SLOT
700	720			BLANK PVC 8"
720	780			SCREEN PVC 8" .032 SLOT
780	800			BLANK PVC 8"

TOTAL DEPTH OF BORING 800 (Feet)  
TOTAL DEPTH OF COMPLETED WELL 800 (Feet)

WELL OWNER	
Name <u>G1 Financial Corp. LTD</u>	
Mailing Address <u>1220 Soda Canyon Road</u>	
<u>Napa</u> CA <u>94558</u>	
CITY STATE ZIP	
WELL LOCATION	
Address <u>1220 Soda Canyon Road</u>	
City <u>Napa CA</u>	
County <u>Napa</u>	
APN Book <u>039</u> Page <u>150</u> Parcel <u>091</u>	
Township _____ Range _____ Section _____	
Latitude _____	
DEG. MIN. SEC.	DEG. MIN. SEC.
LOCATION SKETCH	
NORTH	
	
SOUTH	
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 (✓)	
<input checked="" type="checkbox"/> NEW WELL	
MODIFICATION/REPAIR	
— Deepen	
— Other (Specify) _____	
DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")	
PLANNED USES (✓)	
WATER SUPPLY	
<input checked="" type="checkbox"/> Domestic _____ Public _____	
<input checked="" type="checkbox"/> 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 <u>250</u> (FL) BELOW SURFACE	
1	
DEPTH OF STATIC WATER LEVEL <u>239</u> (FL) & DATE MEASURED <u>7/27/2018</u>	
ESTIMATED YIELD • <u>150</u> (GPM) & TEST TYPE <u>AIR LIFT</u>	
TEST LENGTH <u>2</u> (Hrs.) TOTAL DRAWDOWN <u>N/A</u> (FL)	
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 (✓)				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	60	15								0	59	✓			10 SK SAND
60	800	12								59	800			✓	#6 SAND
0	280		✓				PVC F480	8	SDR-17						
280	420		✓				PVC F480	8	SDR-21						
420	440			✓			PVC F480	8	SDR-21						.032
440	620		✓				PVC F480	8	SDR-21						

ATTACHMENTS (✓)		CERTIFICATION STATEMENT	
<input type="checkbox"/> Geologic Log		I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.	
<input type="checkbox"/> Well Construction Diagram		NAME <u>HUCKFELDT WELL DRILLING, INC.</u>	
<input type="checkbox"/> Geophysical Log(s)		(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)	
<input type="checkbox"/> Soil/Water Chemical Analysis		<u>2110 Penny Lane</u> <u>Napa</u> CA <u>94559</u>	
<input type="checkbox"/> Other _____		ADDRESS CITY STATE ZIP	
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.		Signed <u>[Signature]</u> DATE SIGNED <u>08/08/18</u> 439-746	
		WELL DRILLER/AUTHORIZED REPRESENTATIVE C-57 LICENSE NUMBER	

**DRAFT MEMORANDUM**

**APPENDIX**

**“REPORT OF WATER WELL TESTS”  
BY DOSHIER-GREGSON INC.  
FOR WELL 2  
FROM NOVEMBER 2009 AND APRIL 2014**

# Doshier Gregson

PUMP & WELL SERVICE

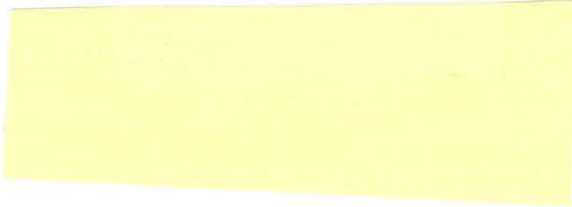


5365 BROADWAY STREET  
AMERICAN CANYON, CA 94503-9678

Napa (707) 226-9698 Vallejo (707) 642-9698

FAX (707) 226-1648

## Report of Water Well Test



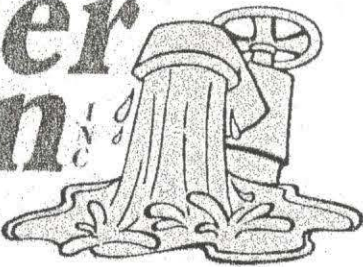
Site: 1220 Soda Canyon Road  
Napa, Ca 94558  
Domestic well

Date/Time	Gallons per minute	Pumping Level	Psi	Flow Meter Reading
11-17-09 9:25 am	60		0	
9:36	32			
10:25	25		0	
10:55	25			
11:25	25		0	
11:55	25			
12:25 pm	25		0	
12:55	25			
1:25 pm	25		0	
These are the results after a 4 hour test using existing equipment. Gallons per minute produced at time of final test: 25 Results of above reported test not warranted beyond this date.				



# Doshier Gregson

PUMP & WELL SERVICE



5365 BROADWAY STREET  
AMERICAN CANYON, CA 94503-9678

Napa (707) 226-9698 Vallejo (707) 642-9698

FAX (707) 226-1648

## Surface Inspection Report

Job Site: 1220 Soda Canyon Rd, Napa, Ca 94558 Domestic Well  
Date: 11-17-09  
Well: Drilled: \_\_\_\_\_ Dug: \_\_\_\_\_ WO# 26518  
Casing: Material: 12" conductor Diameter: \_\_\_\_\_ Depth: \_\_\_\_\_  
Sanitary Seal: (inground) x Well Cap: yes Condition: good  
Height above grade: 18" Comments: good Condition: \_\_\_\_\_  
Pump & Motor: Make: Jacuzzi/Hitachi Model: 75S650+I5 Date Code: G90  
Horsepower: 7½ Phase: three  
N.P. Voltage: 230 N.P. Amps: 22 S.F.: 1.15  
Pump Condition: Good Shut Off Head: 400'  
Flow Rate: Open Discharge: 60 G.P.M. Operating Pressure: 50  
Motor Continuity: (1Ø) R-Y: \_\_\_\_\_ Y-B: \_\_\_\_\_ R-B: \_\_\_\_\_ (3Ø)RX-1 1.2  
Motor Ground: (RX100K): good Amps (actual): \_\_\_\_\_  
Amps: Open discharge: 22.5 Amps: Operating Pressure: 22  
3Ø Balance: L1 21 L2 23.2 L3 22.8 Stinger: \_\_\_\_\_  
Electrical Voltage: 238v Phase: three Fuse Size: 30  
Breaker Size & Brand: 50 GE Transformer Size: na Quantity: 2  
Controls & Panels:  
1. Sizw 1 PPP Condition: good 3. \_\_\_\_\_ Condition: \_\_\_\_\_  
2. Sub Panel Condition: good 4. \_\_\_\_\_ Condition: \_\_\_\_\_  
Wire: Size: 6 Condition: good Distance: \_\_\_\_\_  
Sub Wire: Size: 6-3 Condition: good Distance: \_\_\_\_\_  
Plumbing: Material: Galvanized Sizes: 2" & 2½" Condition: good  
Storage Tank: Material: Concrete Size: 2 ea. 10,500 gallons Condition: good  
Pressure Tanks: Material: Metal Model: 302-Xtrols 1990 Quantity: 2  
Condition: one is bad Air Pressure: 26# Pressure Switch Setting: 40-60

### Comments:

1. One 302-Xtrol pressure tank is bad and needs replacing.
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

Mechanic Allen Gaab

# Doshier Gregson

PUMP & WELL SERVICE



5365 BROADWAY STREET  
AMERICAN CANYON, CA 94503-9678  
Contractors License #258826

Napa (707) 226-9698 Vallejo (707) 642-9698

FAX (707) 226-1648

W030351

## Report of Water Well Test

Site: 1220 Soda Canyon Rd  
Napa, Ca 94558  
Well #1 by house

Date/Time	Gallons per minute	Pumping Level	Psi	Flow Meter Reading
04-22-14 8:50am	56		10	
9:05	50		10	
9:20	37		20	
9:35	36		20	
9:50	35		20	
10:05	35		20	
10:20	35		20	
10:35	35		20	
10:50	35		20	
11:05	35		20	
11:20	35		20	
11:35	35		20	
11:50	35		20	
12:05pm	35		20	
12:20	35		20	
12:35	35		20	
12:50pm	35		20	
These are the results after an 4 hour test using existing equipment. Gallons per minute produce at time of final test: 35 Results of above reported test not warranted beyond this date.				

All Major Brands Available



# Doshier Gregson

PUMP & WELL SERVICE



5365 BROADWAY STREET  
AMERICAN CANYON, CA 94503-9678

Napa (707) 226-9698 Vallejo (707) 642-9698

FAX (707) 226-1648

WO 30351

## Surface Inspection Report

Job Site: 1220 Soda Canyon Rd, Napa, Ca 94558 well #1 by house Date: 04-22-14  
Well: Drilled: \_\_\_\_\_ Dug: \_\_\_\_\_ WO# 30351  
Casing: Material: \_\_\_\_\_ Diameter: \_\_\_\_\_ Depth: \_\_\_\_\_  
Sanitary Seal: (inground) 12" Conductor Well Cap: Plate Yes Condition: good  
Height above grade: 18" Comments: \_\_\_\_\_  
Pump & Motor: Make: Jacuzzi/Hitachi Model: 75S650-15 Date Code: 1999  
Horsepower: 7-1/2 Phase: three  
N.P. Voltage: 230 N.P. Amps: 22 S. F.: 1.15  
Pump Condition: good Shut Off Head: 323' 140#  
Flow Rate: Open Discharge: 56 G.P.M. Operating Pressure: 45 gpm @ 50#  
Motor Continuity: (1Ø) R-Y: \_\_\_\_\_ Y-B: \_\_\_\_\_ R-B: \_\_\_\_\_ (3Ø)RX-1 1  
Motor Ground: (RX100K): 850K Amps (actual): 23.5  
Amps: Open discharge: 23 Amps: Operating Pressure: 24.7  
3Ø Balance: L1 23 L2 24.5 L3 23.8 Stinger: \_\_\_\_\_  
Electrical Voltage: 241 Phase: Three Fuse Size: 30  
Breaker Size & Brand: 50 GE Transformer Size: \_\_\_\_\_ Quantity: \_\_\_\_\_  
Controls & Panels:  
1. Size 1 PPP Condition: good 3. \_\_\_\_\_ Condition: \_\_\_\_\_  
2. \_\_\_\_\_ Condition: \_\_\_\_\_ 4. \_\_\_\_\_ Condition: \_\_\_\_\_  
Wire: Size: 6 Condition: good Distance: \_\_\_\_\_  
Sub Wire: Size: 6-3 Condition: good Distance: \_\_\_\_\_  
Plumbing: Material: Galvanized Sizes: 2" & 2-1/2" Condition: good  
Storage Tank: Material: Concrete Size: 10K 2 ea Condition: good  
Pressure Tanks: Material: Metal Model: 302X-Trol (90) AT266 (13) Quantity: 2  
Condition: \_\_\_\_\_ Air Pressure: 36# & 44# Pressure Switch Setting: 40-60

### Comments:

1. Motor has partial ground.
2. Would recommend a 777 Motor Saver in control box.
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

Mechanic Allen Gaab