

## MEMORANDUM



**Date:** March 18, 2021

**To:** San Luis Obispo County Department of Planning and Building

**From:** Bryan Childress, PE

**Subject:** Vinyl Vineyards – New Winery, APN 015-053-003

Wallace Group has been retained to provide planning phase civil engineering services for the proposed Vinyl Vineyards project. As part of that scope, a water demand analysis for the proposed winery for both industrial and domestic uses, along with review of available water source(s) in regards to capacity and water quality was requested.

The existing water sources at the project consist of two wells. One is dedicated to an existing residential structure on the property and will not be evaluated for use at the winery project. The second is currently being used to irrigate existing vineyards as an agricultural well. The well capacity is 500 gpm and the initial water quality results available indicate the well may require treatment to meet potable standards for arsenic. The existing agricultural well was constructed to potable well standards such that it has a 50ft deep cement annular seal and could be purposed as a domestic well for the winery project. The preliminary well completion report, pump test, and water quality data documentation is attached to this memo. As part of the Paso Robles Groundwater Basin requirements, the well will include a water meter and monthly inspections will be conducted with records kept by the owner.

Tables 1 and 2 on the following page show both the annual and monthly water usage estimated for the project. The monthly process wastewater totals are based on the typical seasonal distribution of water demands in a small winery. The return rate estimates are based on experience with similar size wineries and based on a standard septic system with leach field.

The available water source has far more capacity than necessary for the proposed winery, both on a peak daily demand basis and annual usage basis. A potable storage tank will be sited adjacent to the existing agricultural well and will contain 5,000-10,000 gallons of storage, which is several days' minimum storage during peak harvest conditions, including both industrial and domestic demands.

Attached is an exhibit demonstrating the estimated 13,700 SF of proposed drought tolerant landscaping immediately surrounding the structures.

The project site is located within the Paso Robles Groundwater Basin. All new urban and rural development within the PRGWB is required to offset new water use at a minimum 1:1 ratio through the purchase of water offset credits prior to construction permit issuance.

CIVIL AND  
TRANSPORTATION  
ENGINEERING

CONSTRUCTION  
MANAGEMENT

LANDSCAPE  
ARCHITECTURE

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PLANNING

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ADMINISTRATION

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GIS SOLUTIONS

WATER RESOURCES

WALLACE GROUP  
A California Corporation

612 CLARION CT  
SAN LUIS OBISPO  
CALIFORNIA 93401

T 805 544-4011  
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[www.wallacegroup.us](http://www.wallacegroup.us)

Vinyl Vineyards, New Winery  
Water Demand Calculations  
APN 015-053-003

| Table 1: Annual Water Estimates |                                                         |                                 |                    |                                                           |                  |
|---------------------------------|---------------------------------------------------------|---------------------------------|--------------------|-----------------------------------------------------------|------------------|
| Use                             | Rate                                                    | Gross Demand (gallons/<br>year) | Gross Demand (AFY) | Return rate (recycled or<br>recharged)                    | Net Demand (AFY) |
| Wine Production                 | 5,000 Cases per year (@10<br>gallons per case)          | 50,000                          | 0.15               | Process waste to likely<br>be hauled for disposal         | 0.15             |
| Tasting Room                    | Estimated 200 patrons per week<br>at 5 gal/patron       | 52,000                          | 0.16               | 80%                                                       | 0.03             |
| Employee Demand                 | 5 FTE @20 GPD /employee =<br>100 gpd x 365 days         | 36,500                          | 0.11               | 80%                                                       | 0.02             |
| Event Demand                    | 150 patrons per event at 5<br>gal/patron, 6 events/year | 4,500                           | 0.01               | 80%                                                       | 0.00             |
| Landscaping Demand              | 13,700 SF at ~1.4 ft/year                               | 143,926.00                      | 0.44               | Conservative estimate<br>will not include any<br>recharge | 0.44             |
| <b>Total New Water Demand</b>   |                                                         | <b>286,926</b>                  | <b>0.88</b>        |                                                           | <b>0.65</b>      |

| Table 2: Monthly Analysis of Proposed Winery Demand (Not Including Domestic Uses) |                                                 |                                         |                                                            |
|-----------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------|------------------------------------------------------------|
| Month                                                                             | Estimated Wine Production<br>Water Demand (gal) | Estimated Average Daily<br>Demand (gal) | Estimated Peak Day<br>Demand, 2.5X Peaking<br>Factor (gal) |
| Jan                                                                               | 1,250                                           | 40                                      | 101                                                        |
| Feb                                                                               | 1,250                                           | 45                                      | 112                                                        |
| Mar                                                                               | 2,750                                           | 89                                      | 222                                                        |
| Apr                                                                               | 4,500                                           | 150                                     | 375                                                        |
| May                                                                               | 4,250                                           | 137                                     | 343                                                        |
| June                                                                              | 2,000                                           | 67                                      | 167                                                        |
| Jul                                                                               | 2,000                                           | 65                                      | 161                                                        |
| Aug                                                                               | 6,250                                           | 202                                     | 504                                                        |
| Sep                                                                               | 9,250                                           | 308                                     | 771                                                        |
| Oct                                                                               | 8,000                                           | 258                                     | 645                                                        |
| Nov                                                                               | 6,000                                           | 200                                     | 500                                                        |
| Dec                                                                               | 2,500                                           | 81                                      | 202                                                        |
| <b>Total</b>                                                                      | <b>50,000</b>                                   |                                         |                                                            |

265 13E 30

# APPLICATION FOR WATER WELL PERMIT

To: C 1999\_329  
WP1000472  
(4369) IR

Date 9/7/99  
Permit No. 99-329

I, Smith + Smith, hereby apply for a permit to  
construct ☒, repair [ ], or abandon [ ] a well located on AP# 015051-003  
Section 30 Township 26 S Range 13 E

(Street Address or County Road)

Owner/Agent Daniel + Danice Blake

Address 4380 Union Road

Contractor's Bond \_\_\_\_\_ Cash Deposit \_\_\_\_\_

Well Driller Smith + Smith

Contractor's License Number 193150-580918

I hereby agree to comply with all laws and regulations of the San Luis Obispo County Health Department and the State of California pertaining to, or regulating well construction. Within fifteen days after completion of the well, I will furnish the County Health Department a log of the well and notify them before putting the well in use.

ACREAGE \_\_\_\_\_

Signed Paul O. Smith  
Applicant

## INTENDED USE

\_\_\_\_\_  
Industrial  
\_\_\_\_\_  
Domestic, Private  
\_\_\_\_\_  
Domestic, Public  
\_\_\_\_\_  
☒ Irrigation  
\_\_\_\_\_  
Other

161.00 CK # 6795 9/17/99  
Fee Paid pjo Date

Comments: WELL DRILLED

Site Inspection ✓ Site Letter N/A X-Conn Letter \_\_\_\_\_  
Final Letter \_\_\_\_\_ Abandonment \_\_\_\_\_

Approved ✓ Not Approved \_\_\_\_\_ Specialist Michael M. Es Date 9-21-99

Permit Expires 6 Months After Issue Date

# WELL PERMIT PLOT PLAN

SAN LUIS OBISPO COUNTY HEALTH DEPARTMENT  
2191 Johnson Avenue  
San Luis Obispo, California 93401  
Telephone: 805/542-1800

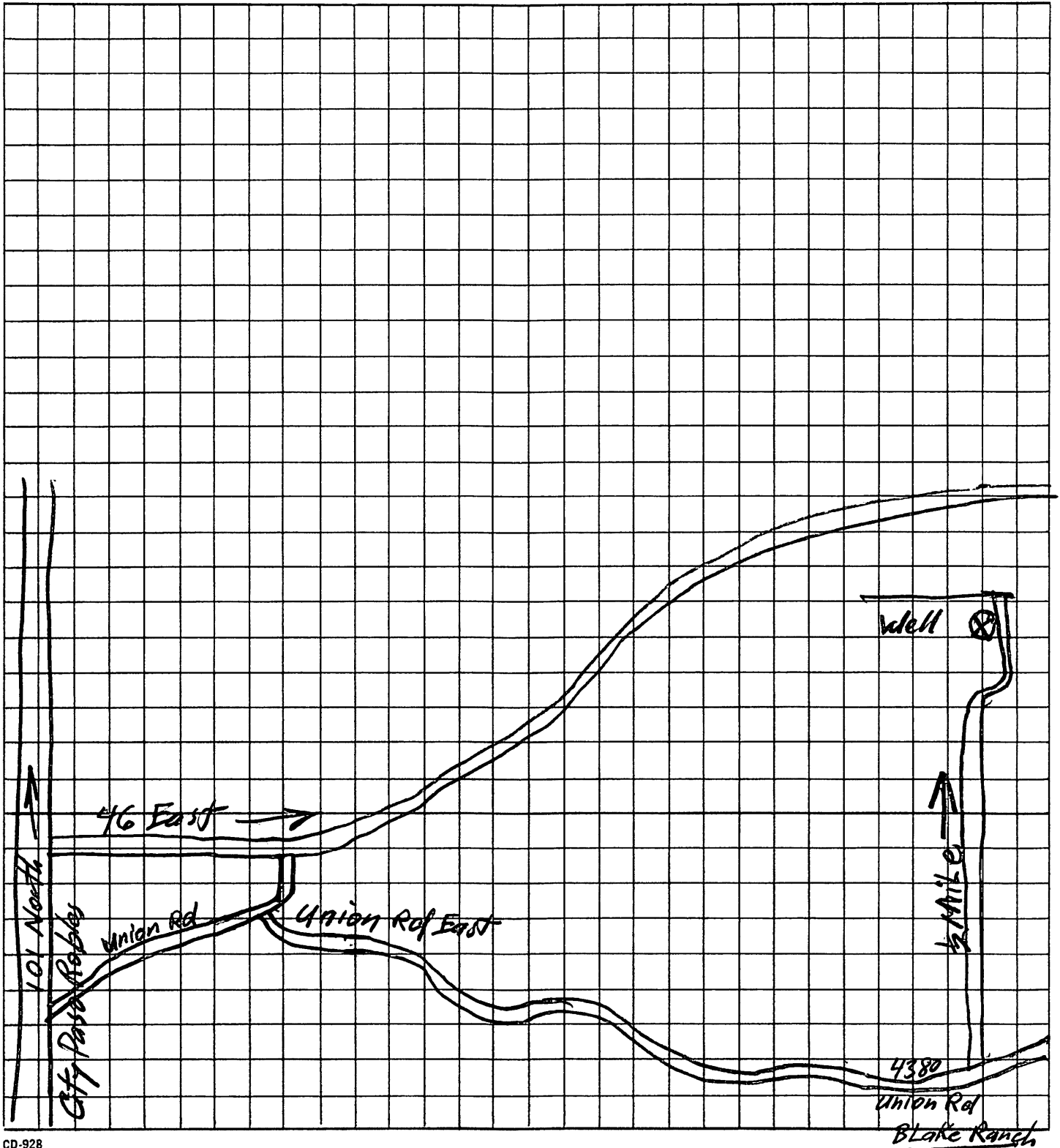
Page 2 of 2 pages

99-329

781-5544

SCALE:  $\frac{1}{4}" = 25'$

INDICATE BELOW THE EXACT LOCATION OF WELL WITH RESPECT TO THE FOLLOWING ITEMS: PROPERTY LINES, WATER BODIES OR WATER COURSES, DRAINAGE PATTERN, ROADS, EXISTING WELLS, SEWERS AND PRIVATE SEWAGE DISPOSAL SYSTEMS. INCLUDE DIMENSIONS.





**Smith & Smith**  
934 Paso Robles, St.  
Paso Robles, CA 93446  
(805) 238-3003

# STATEMENT

Name: Randy Redberg, Daniel & Janice Blake

Address: 4380 Union Road

City: Paso Robles State: Calif. Zip: 93446

Well #2  
Aq Well

| Description                                       |               | QTY | UNIT PRICE | ITEM TOTAL  |
|---------------------------------------------------|---------------|-----|------------|-------------|
| County Permit                                     |               |     |            | \$161.00    |
| 630 - ft of 12-3/4 x .250 wall casing             |               |     |            | \$31,500.00 |
| 380 - ft plain                                    |               |     |            |             |
| 250 - ft perforated 100 - mesh 18 - rows          |               |     |            |             |
| 50 - ft Grout Cement, with gravel shute           |               |     |            |             |
| Pump Test Turbine 6 "                             |               |     |            |             |
| Bowls Set 400 - ft                                |               |     |            |             |
| Pump in & out                                     |               |     |            | \$1,500.00  |
| Test Pump Rental                                  |               |     |            | \$1,000.00  |
| Engine Time 16 - hours Pumping                    |               |     |            | \$1,040.00  |
|                                                   |               |     | Total      | \$35,201.00 |
| Static 263 - ft                                   |               |     |            |             |
| GPM                                               | Pumping Level |     |            |             |
| 900                                               | 392 - ft      |     |            |             |
| 800                                               | 388 - ft      |     |            |             |
| 700                                               | 380 - ft      |     |            |             |
| 600                                               | 378 - ft      |     |            |             |
| 500                                               | 373 - ft      |     |            |             |
| 5 - Minute Recovery 328 - ft                      |               |     |            |             |
| Water sample sent to Bakerdfield to BC Laabatory  |               |     |            |             |
| Water Sample Bill for Chemical Send with Results. |               |     |            |             |
|                                                   |               |     |            |             |
|                                                   |               |     |            |             |
|                                                   |               |     |            |             |
|                                                   |               |     | Total      | \$35,201.00 |

February 25, 2021

Lab ID : CC 2180507-001

Customer ID : 8-1770

**Jeffrey Hevert**

4374 Union Rd

Paso Robles, CA 93446

Sampled On : February 11, 2021-15:20

Sampled By : Mary Janson

Received On : February 11, 2021-17:00

Matrix : Drinking Water

Description : Well

Project : Water Quality Monitoring

### Sample Result - Inorganic

| Constituent                              | Result   | PQL | Units    | MCL/AL            | Sample Preparation |                 | Sample Analysis |                 |
|------------------------------------------|----------|-----|----------|-------------------|--------------------|-----------------|-----------------|-----------------|
|                                          |          |     |          |                   | Method             | Date/ID         | Method          | Date/ID         |
| <b>General Mineral</b>                   |          |     |          |                   |                    |                 |                 |                 |
| Total Hardness as CaCO <sub>3</sub>      | 66.2     | 2.5 | mg/L     |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Calcium                                  | 15       | 1   | mg/L     |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Magnesium                                | 7        | 1   | mg/L     |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Potassium                                | 3        | 1   | mg/L     |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Sodium                                   | 154      | 1   | mg/L     |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Total Cations                            | 8.1      | --- | meq/L    |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Boron                                    | 0.6      | 0.1 | mg/L     |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Copper                                   | ND       | 10  | ug/L     | 1000 <sup>2</sup> | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Iron                                     | ND       | 30  | ug/L     | 300 <sup>2</sup>  | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Manganese                                | ND       | 10  | ug/L     | 50 <sup>2</sup>   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Zinc                                     | ND       | 20  | ug/L     |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| SAR                                      | 8.2      | 0.1 | --       |                   | 200.7              | 02/12/21:201599 | 200.7           | 02/12/21:202216 |
| Total Alkalinity (as CaCO <sub>3</sub> ) | 260      | 10  | mg/L     |                   | 2320B              | 02/18/21:201784 | 2320B           | 02/18/21:202456 |
| Hydroxide as OH                          | ND       | 10  | mg/L     |                   | 2320B              | 02/18/21:201784 | 2320B           | 02/18/21:202456 |
| Carbonate as CO <sub>3</sub>             | ND       | 10  | mg/L     |                   | 2320B              | 02/18/21:201784 | 2320B           | 02/18/21:202456 |
| Bicarbonate as HCO <sub>3</sub>          | 310      | 10  | mg/L     |                   | 2320B              | 02/18/21:201784 | 2320B           | 02/18/21:202456 |
| Sulfate                                  | 120      | 0.5 | mg/L     | 500 <sup>2</sup>  | 300.0              | 02/12/21:201593 | 300.0           | 02/12/21:202276 |
| Chloride                                 | 29       | 1   | mg/L     | 500 <sup>2</sup>  | 300.0              | 02/12/21:201593 | 300.0           | 02/12/21:202276 |
| Nitrate as NO <sub>3</sub>               | 10.9     | 0.4 | mg/L     | 45                | 300.0              | 02/12/21:201593 | 300.0           | 02/12/21:202276 |
| Nitrite as N                             | ND       | 0.2 | mg/L     | 1                 | 300.0              | 02/12/21:201593 | 300.0           | 02/12/21:202276 |
| Nitrate + Nitrite as N                   | 2.5      | 0.1 | mg/L     | 10                | 300.0              | 02/12/21:201593 | 300.0           | 02/12/21:202276 |
| Fluoride                                 | 0.2      | 0.1 | mg/L     | 2                 | 300.0              | 02/12/21:201593 | 300.0           | 02/12/21:202276 |
| Total Anions                             | 8.6      | --- | meq/L    |                   | 2320B              | 02/18/21:201784 | 2320B           | 02/18/21:202456 |
| pH (Field)                               | 8.0      | --  | units    |                   | 4500-H B           | 02/11/21:201674 | 4500HB          | 02/11/21:202285 |
| Specific Conductance                     | 855      | 1   | umhos/cm | 1600 <sup>2</sup> | 2510B              | 02/19/21:201834 | 2510B           | 02/19/21:202466 |
| Total Dissolved Solids                   | 530      | 20  | mg/L     | 1000 <sup>2</sup> | 2540CE             | 02/16/21:201705 | 2540C           | 02/17/21:202349 |
| MBAS Screen                              | Negative | 0.1 | mg/L     | 0.5 <sup>2</sup>  | 5540C              | 02/12/21:201753 | 5540C           | 02/12/21:202355 |
| Aggressiveness Index                     | 12.0     | 1   | --       |                   | 4500-H B           | 02/11/21:201674 | 4500HB          | 02/11/21:202285 |
| Langelier Index (20°C)                   | 0.1      | 1   | --       |                   | 4500-H B           | 02/11/21:201674 | 4500HB          | 02/11/21:202285 |
| Nitrate Nitrogen                         | 2.5      | 0.1 | mg/L     | 10                | 300.0              | 02/12/21:201593 | 300.0           | 02/12/21:202276 |
| <b>Metals, Total</b>                     |          |     |          |                   |                    |                 |                 |                 |
| Aluminum                                 | 60       | 10  | ug/L     | 1000              | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Antimony                                 | ND       | 1   | ug/L     | 6                 | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Arsenic                                  | 27       | 1   | ug/L     | 10                | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Barium                                   | 38.0     | 0.2 | ug/L     | 1000              | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |

February 25, 2021  
Description : Well

Lab ID : CC 2180507-001  
Customer ID : 8-1770

### Sample Result - Inorganic

| Constituent          | Result | PQL  | Units | MCL/AL           | Sample Preparation |                 | Sample Analysis |                 |
|----------------------|--------|------|-------|------------------|--------------------|-----------------|-----------------|-----------------|
|                      |        |      |       |                  | Method             | Date/ID         | Method          | Date/ID         |
| <b>Metals, Total</b> |        |      |       |                  |                    |                 |                 |                 |
| Beryllium            | ND     | 1    | ug/L  | 4                | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Cadmium              | ND     | 0.2  | ug/L  | 5                | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Chromium             | 1      | 1    | ug/L  | 50               | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Lead                 | ND     | 0.5  | ug/L  | 15               | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Mercury              | ND     | 0.03 | ug/L  | 2                | 245.1              | 02/16/21:201693 | 245.1           | 02/16/21:202328 |
| Nickel               | ND     | 1    | ug/L  | 100              | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Selenium             | ND     | 1    | ug/L  | 50               | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Silver               | ND     | 1    | ug/L  | 100 <sup>2</sup> | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Thallium             | ND     | 0.2  | ug/L  | 2                | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| Vanadium             | 151    | 2    | ug/L  |                  | 200.8              | 02/15/21:201663 | 200.8           | 02/15/21:202284 |
| <b>Wet Chemistry</b> |        |      |       |                  |                    |                 |                 |                 |
| Color, Apparent      | ND     | 5    | units | 15 <sup>2</sup>  | 2120B              | 02/12/21:201988 | 2120B           | 02/12/21:202694 |
| Odor                 | ND     | 1    | TON   | 3 <sup>2</sup>   | 2150B              | 02/12/21:201993 | 2150B           | 02/12/21:202685 |
| Sulfide, Total       | ND     | 0.1  | mg/L  |                  | 4500S D            | 02/18/21:201823 | 4500S2          | 02/18/21:202447 |
| Turbidity            | 0.2    | 0.1  | NTU   | 5 <sup>2</sup>   | 2130B              | 02/12/21:201749 | 2130B           | 02/12/21:202350 |

ND=Non-Detected. PQL=Practical Quantitation Limit. \* PQL adjusted for dilution.

MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

February 19, 2021

**Jeffrey Hevert**

4374 Union Rd  
Paso Robles, CA 93446

CC 2180507:1 **Coliform Bacteria Analysis**

Customer ID : 8001770

System Number : N/A

Project Name : Water Quality Monitoring

### Analytical Results

| ID | Sample Description | Total       | Fecal | E. Coli     | Units     | Method   | Prep           | Footnote |
|----|--------------------|-------------|-------|-------------|-----------|----------|----------------|----------|
| 1  | Well               | <1.0 Absent | ---   | <1.0 Absent | MPN/100ml | SM 9223B | Quanti Tray 18 |          |

N/R Not Required

MPN Most Probable Number

A/P Absence/Presence

**The samples listed above were Acceptable for both Total and Fecal Coliform**

### Sample Handling Information

| ID | Sample Number  | System Number | Sample Type/Reason | Sampler     | Employed By       | Sampled          |
|----|----------------|---------------|--------------------|-------------|-------------------|------------------|
| 1  | CC 2180507-001 | N/A           | Source-Other       | Mary Janson | FGL Environmental | 2021-02-11 15:20 |

### Field Analysis/QA Information

| ID | Sample Description | CI Total/Free mg/l | Temp | Analysis Started     | Analysis Completed   | Contact | Contacted |
|----|--------------------|--------------------|------|----------------------|----------------------|---------|-----------|
| 1  | Well               | ---/---            | ---  | 2021-02-11 17:10 jkk | 2021-02-12 11:30 jkk | N/R     |           |

Analyses were performed at the FGL Central Coast Laboratory using Standard Methods 20th edition. If you have any questions regarding your results, please call.

Prepared By: SMH

Reviewed and  
Approved By

**Raquel R. Harvey**



Digitally signed by Raquel R. Harvey  
Title: Tech Director Microbiology  
Date: 2021-02-19



VINEYARD ROWS

OVERFLOW PARKING?

KEYNOTE LEGEND

- A OLIVE ORCHARD PARKING LOT (MATERIAL T.B.D.)
- B OLIVE ORCHARD WITH LAVENDER ROWS
- C MAIN ENTRY SPINE
- D RUSTIC DRYSTACK STONE LOW WALL ~3'-0"
- E ENTRY ART INSTALLATION
- F ARCHED ENTRY ELEMENT (MATCHES BLDG. FORMS)
- G SMALL GROUP SEATING AREAS OVER DECORATIVE GRAVEL OR DECOMPOSED GRANITE SURFACE
- H LOW HEIGHT (3') VERTICAL WOOD SLATS MIXED WITH ORNAMENTAL GRASSES AND NATIVE PERENNIALS.
- I LARGE GROUP / EVENT PATIO (HARDSCAPE MATERIAL TBD)
- J GRAND FIREPLACE WITH SPECIMEN TREES AND SCREEN FENCE/WALL BEHIND
- K SEATING AREA / STAGE
- L CATERING / FOOD TRUCK PARKING
- M LANDSCAPED BERM
- N DROP-OFF NODE



← ACCESS ROAD →

VINEYARD ROWS



