Public Health Division
Center for Health Protection, Drinking Water Services
Tina Kotek, Governor

September 17, 2025

Antonio Verduzco
antonio@sotervineyards.com
Soter Vineyards
PO Box 430
Carlton, OR 97111

Letter sent via email only.

Re: Well #1 (YAMH53009), well #2 (YAMH59102), three 4,000-gal tanks, one 20,000-gal tank, pressure tanks, and UV & cartridges for secondary treatment
Soter Vineyards (PWS ID# 95701)
Conditional Approval (PR#19-2023)

Dear Mr. Verduzco,

Thank you for the plan review information submitted to the Oregon Health Authority's Drinking Water Services (DWS) for the water system (described below) for Soter Vineyards, which is licensed and regulated by the Oregon Dept. of Agriculture.

On March 28, 2023, our office received a schematic and list of processes. A site plan and well log were submitted on February 27, 2023. A plan review fee of $825 was received on February 16, 2023. At that time, the project included a well (well ID YAMH 53009), drilled to a depth of 280 feet in May of 2002, two 4,000 gallon storage tanks, several pressure tanks, Harmsco filters and UV (NSF-55 Class B) for which a Site Plan Approval letter was issued by our office (signed by Carrie Gentry) on April 21, 2023.

Since that time, a second "new well" constructed in 2022 (YAMH59102) is in use and has been added to this plan review. A third 4,000-gallon tank and one 20,000-gallon tank is also now added to this plan review.

Exemption from engineered plans:

Under OAR 333-061-0060(1)(b), submittals must be prepared by a Professional Engineer registered in Oregon, unless exempted by DWS. An exemption was granted for this submittal. **Note that by utilizing this exemption, the water system takes full responsibility for the design of the project.**

Water system classification – TNC:

Located at 10880 NE Mineral Springs Rd, Carlton, OR 97111, the Soter Vineyard tasting room (https://www.sotervineyards.com/) located on Mineral Springs Ranch (MSR) was activated as a new transient non-community (TNC) water system on January 27, 2023 as shown on our website at: https://yourwater.oregon.gov/inventory.php?pwsno=95701. This TNC classification is based on the system serving an average daily population of 80 through 2 connections.

Project description:

The project now includes a review of pre-existing facilities consisting of:

- Two wells - SRC-AA “old well” #1 - YAMH53009 (5-23-02 original construction log) & YAMH53359 (5-12-03 recondition) and SRC-BA “new well” #2 - YAMH59102 (9-21-22 original construction log),
- Three (3) 4,000-gallon buried concrete storage tanks,
- One (1) 20,000-gallon storage tank (tank #4) – fills tanks #1, #2, and #3,
- Four (4) 4.4-gallon NSF-61 Amtrol Well-X-Trol Model #WX-102 pressure tanks,
- Four (4) 4.8-gallon diaphragm NSF-61 Jet-Rite Model #PJR-15 pressure tanks,
- Five (5) 119-gallon NSF-61 WellMate Model #WM-35WB pressure tanks,
- Six (6) Viqua/Trojan UVMax Model #F4 NSF-55 Class B UV units with lamp #602807 (secondary treatment & not approved for total coliform or 4-log viral disinfection),
- One (1) Fleck 2510SXT Digital Control Water Softening System,
  Various carbon and cartridge filters (secondary treatment & not approved for pathogen removal)

Waterlines located on private property fall under local plumbing code and were not included in this review.

This project has been assigned plan review #19-2023 and can be tracked online at: https://yourwater.oregon.gov/planreview.php?pwsno=95701.

Other wells in the area:

There are several wells in the area as shown below, however, this review only covers the "old" and "new" wells as shown.

Any additional wells intended for public water system sources need to be constructed in accordance with the following standards.

1) Oregon Administrative Rule (OAR) 333-061-0050(2), viewable online at: https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PLANREVIEW/Documents/OAR-333-061-0050.pdf#page=2 and
2) Oregon Water Resources Department (OWRD) general standards for the construction and maintenance of water wells in Oregon as prescribed in OAR chapter 690, divisions 200 through 220, viewable online at: https://www.oregon.gov/owrd/Documents/Ch%20690%20Div%20200;%2020230206.pdf

Well evalution results – SRC-AA and SRC-BA:

The following two wells were evaluated by OHA-Drinking Water Services geologist, Tom Pattee:

- SRC-AA "old well" #1 - YAMH53009 (5-23-02 original construction log) & YAMH53359 (5-12-03 recondition) and
- SRC-BA "new well" #2 - YAMH59102 (9-21-22 original construction log),

Both wells were determined by our geologist to be adquately constructed into confined aquifers and not highly sensitive to local land use practices. However, should chemical and/or bacteria monitoring results from the wells suggest that there is a pathway for contaminants originating at the surface to enter the aquifer system, the senstivitiy of the aquifer characteristics will be re-evaluated. More details regarding the well evaluations is included at the end of this letter (see pages 12 and 16).

Water rights:

Water right requirements need to be met as administered by the Oregon Water Resources Dept (OWRD). Please contact Joel Plahn (cc'd on this letter) for more information regarding water right requirements for the intended use.

Joel Plahn
District 22 Watermaster
503-508-2394 (cell)
Joel.M.PLAHN@water.oregon.gov

Nine (9) conditions to be met for Final Approval:

The system is granted Conditional Approval, which means that for Final Approval, the following nine (9) conditions will need to be met.

> *Note that the following conditions are required under our construction standards as indicated in the Oregon Administrative Rules (OAR) cited as follows:*
>
> 333-061-0050(1) - general requirements (page 1)
> 333-061-0050(2)(a) – groundwater wells (page 2)
> 333-061-0050(6)(a) – storage tanks (page 20)
> 333-061-0050(10) – disinfection of facilities (page 24), and
> 333-061-0061(2)(b) – requirements for technical capacity (page 273)
>
> These OARs are viewable online at:
> *https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PLANREVIEW/Documents/OAR-333-061-0050.pdf*

The nine (9) conditions are listed as follows:

OAR 333-061-0050(1) – General

1. ☐ **Materials** in contact with well water are designed for potable water service and **meet NSF Standard 61 (including the UV unit, cartridge filter & pressure tanks)**.

OAR 333-061-0050(2)(a) – Groundwater Wells

2. ☐ **Ownership or easement requirements are met** as required under OAR 333-061-0050(2)(a)(B), which states as follows:

> (B) The area within 100 feet of the well shall be owned by the water supplier, or a perpetual restrictive easement shall be obtained by the water supplier for all land (with the exception of public rights-of-way) within 100 feet of the well. The easement shall be recorded with the county in which the well is located and with the recorded deed to the property. A certified true copy shall be filed with the Authority.

3. ☐ **Wells are protected from contamination from the roadway (located within 100-ft of the new well) and other hazards as listed in OAR 333-061-0050(2)(a)(E).** The information submitted did not show setbacks from the wells. Specifically, please provide a statement that there are no pressure sewer lines or septic drain fields within 50 feet of the well and no gravity sewer lines, or septic tanks within 100 feet of the well. Although a roadway appears to be located within 100 feet of both wells, since the wells are drilled into confined aquifers and located near a road, OAR 333-061-0050(2)(a)(D) applies. This rule allows DWS to waive the setback requirement for a road that is located within 100' of a well. To approve this setback issue, information must be submitted that demonstrates how the well is "…protected against contamination from surface runoff or hazardous liquids which may be spilled on the roadway and is protected from unauthorized access". More information about requesting waivers from constrcution standards is provided following this list of conditions.

4. ☐ **Raw water (pre-treatment) sample taps** are provided at each wellhead.

5. ☐ **Raw water samples** are taken from each well, including coliform bacteria, nitrate, and arsenic.

OAR 333-061-0050(6)(a) – Storage tanks

6. ☐ If the interior surface of the buried water storage tanks has a protective coating, the coating shall meet the requirements of NSF Standard 61: Drinking Water System Components - Health Effects or equivalent.

7. ☐ The buried storage tanks are equipped with:

    a) a **watertight roof**;

    b) An **access hatch** to permit entry to the interior for cleaning and maintenance. When the access hatch is on the roof of the tank there shall be a curbing around the opening and a **lockable watertight cover that overlaps the curbing**;

    c) An **internal ladder** of durable material if the only hatch is on the roof;

    d) **One or more screened vents** shall be provided above the highest water level to permit circulation of air above the water in the tank and exclude insects, birds, and rodents;

    e) **A drain** shall be provided at the lowest point in the bottom of the tank;

    f) **An overflow** of sufficient diameter to handle the maximum flow into the tank shall be provided at or near the top of the sidewall.

g) The **outlet ends of the drain and overflow shall be fitted with angle-flap valves** or equivalent protection and shall discharge to a watercourse or storm drain capable of accommodating the flow with a vertical separation between the bottom of the pipe and top of the receiving body or structure;

h) A **siltstop** shall be provided at the outlet pipe;

i) Where a single inlet/outlet pipe is to remain and the tank floats on the system, provisions shall be made to insure an **adequate exchange of water** and to prevent degradation of the water quality and to assure disinfection levels are detectable throughout the distribution system;

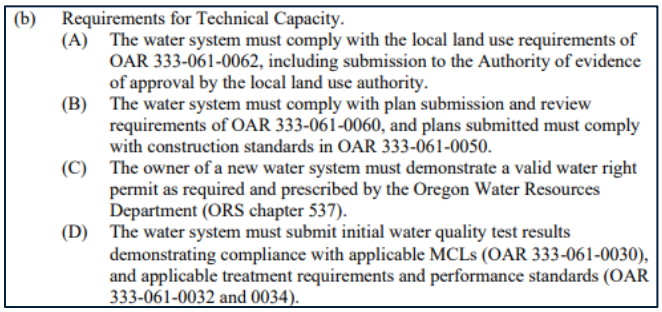
j) A **fence or other method of vandal deterrence** shall be provided around the tank;

OAR 333-061-0050(10) – Disinfection of Facilities

8. ☐ New facilities such as a new well or existing facilties if modified are **disinfected, flushed, and tested** (coliform bacteria presence/absence test) following construction in conformance with OAR 333-061-0050(10).

OAR 333-061-0061(2)(b) – Requirements for Technical Capacity

9. ☐ The land use complies with local land use regulations and is approved by the local land use authority (e.g., City or Yamhill County planning dept.) as demonstrated in a Conditional Use Permit. Alterntively, the following form (provided as a linked pdf or a linked MS Word doucment) may be filled out and submitted to the local land use authority for their signature and then submitted to demonstrate this requirement.



(b) Requirements for Technical Capacity.
(A) The water system must comply with the local land use requirements of OAR 333-061-0062, including submission to the Authority of evidence of approval by the local land use authority.
(B) The water system must comply with plan submission and review requirements of OAR 333-061-0060, and plans submitted must comply with construction standards in OAR 333-061-0050.
(C) The owner of a new water system must demonstrate a valid water right permit as required and prescribed by the Oregon Water Resources Department (ORS chapter 537).
(D) The water system must submit initial water quality test results demonstrating compliance with applicable MCLs (OAR 333-061-0030), and applicable treatment requirements and performance standards (OAR 333-061-0032 and 0034).

Land Use Form PDF or MSWord

(These forms are also available on our website at: https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PLANREVIEW/Pages/index.aspx#landusestatement)

OAR 333-061-0061(2)(b) also includes other requirements as shown below: *https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/RULES/Documents/pwsrules.pdf#page=273*

Construction standard waiver process:

As provided under OAR 333-061-0055 (end of page 26), Drinking Water Services may grant waivers from construction standards under some conditions (e.g., the absence of pressure tank bypass piping or an internal tank ladder). The construction standards waiver application is available as a fillable MS Word or a PDF document on our website at:

https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PLANREVIEW/Pages/index.aspx#waiver

Steps needed to obtain Final Approval:

Until documentation showing how these conditions have been met, and Final Approval has been granted, the system is not approved for use.

To close out this project and request final approval, please fill out the Project Final Approval request form and email it me at evan.e.hofeld@oha.oregon.gov along with any supplemental documentation showing how the above conditions have been met (be sure to reference Plan Review #19-2023 and public water system (PWS) ID #95701).

Supplemental documentation may include one or more of the following:

- ✓ Laboratory test results for arsenic, nitrate, and coliform bacteria from the wells.
- ✓ Photos of the
  - sample taps (pre- and post-treatment),
  - plans/schematics showing the tank inlet, outlet, and overflow piping,
  - the tanks showing the hatch open, closed, and locked as well as the overflow terminating in a flap valve and/or screen,
  - etc.
- ✓ A description of how new facilities were disinfected, flushed, and tested (coliform bacteria presence/absence test results) following construction in conformance with OAR 333-061-0050(10).

You may also find it helpful to refer to this guidance for assistance with disinfection:

https://www.oregon.gov/oha/PH/HealthyEnvironments/DrinkingWater/Operations/Pages/shockchlorination.aspx.

Information contained on subsequent pages of this letter includes maps and photos of the water system along with:

- ✓ A general system description,
- ✓ Source information including:
  - An evaluation from our geologist for well #1 (SRC-AA – old well) and well #2 (SRC-BA – new well),
  - Well logs, and
  - Maps and photos of the wells,
- ✓ Photos of secondary treatment (UV and cartridge filters), and
- ✓ Storage tank and pressure tank information and photos.

If you have any questions, please feel free to email me at evan.e.hofeld@oha.oregon.gov or call me at 971-200-0288.

Sincerely,

Evan Hofeld, PE
Regional Engineer
Drinking Water Services

CC: Chris Fladwood, Soter Vineyards – chrisf@sotervineyards.com
Mitchell Alston, Oregon Vineyard Supply – mitchell.alston@ovs.com
Sarah Schwab, Oregon Dept of Agriculture (ODA) – Drinkingwater@oda.oregon.gov
Wyatt Faulkner, ODA - Wyatt.FAULKNER@oda.oregon.gov
Melissa Wong, Yamhill County Public Health - wongm@yamhillcounty.gov
Tommy Laird, Oregon Water Resources Dept. - Tommy.k.laird@water.oregon.gov
Travis Kelly, Oregon Water Resources Dept. - Travis.N.Kelly@water.oregon.gov
Joel Plahn, Oregon Water Resources Dept. - Joel.M.PLAHN@water.oregon.gov

Description of facilites reviewed under Plan Review #19-2023

General water system description:

Soter Vineyard (https://www.sotervineyards.com) is classified as a transient non-community system, is licensed by the Oregon Dept of Agriculture and has been assigned public water system ID# 95701 as shown online at:
https://yourwater.oregon.gov/inventory.php?pwsno=95701

Located at 10880 NE Mineral Springs Rd, Carlton, OR 97111, the Soter Vineyard tasting room located on Mineral Springs Ranch (MSR) was activated as a new transient non-community (TNC) water system on January 27, 2023 as shown on our website at: https://yourwater.oregon.gov/inventory.php?pwsno=95701.
This TNC classification is based on the system serving an average daily population of 80 through 2 connections.

The water system consists of:

- Two wells - SRC-AA “old well” #1 - YAMH53009 (5-23-02 original construction log) & YAMH53359 (5-12-03 recondition) and SRC-BA “new well” #2 - YAMH59102 (9-21-22 original construction log),
- Three (3) 4,000-gallon buried concrete storage tanks,
- One (1) 20,000-gallon storage tank (tank #4) – fills tanks #1, #2, and #3,
- Four (4) 4.4-gallon NSF-61 Amtrol Well-X-Trol Model #WX-102 pressure tanks,
- Four (4) 4.8-gallon diaphragm NSF-61 Jet-Rite Model #PJR-15 pressure tanks,
- Five (5) 119-gallon NSF-61 WellMate Model #WM-35WB pressure tanks,
- Six (6) Viqua/Trojan UVMax Model #F4 NSF-55 Class B UV units with lamp #602807 (secondary treatment & not approved for total coliform or 4-log viral disinfection),
- One (1) Fleck 2510SXT Digital Control Water Softening System,
- Various carbon and cartridge filters (secondary treatment & not approved for pathogen removal)

There are several wells in the area as shown below, however, this review only covers the "old" and "new" wells as shown below.

Wells in the area:

Old Well - YAMH 53009 - Log

New Well - YAMH 59102 - Log

YAMH 4933 - Log

YAMH 53008 - Log

Well information the old and new well gathering during a suvery conducted June 17, 2025 by the Oregon Dept. of Agriculture is shown at right.

Well Information

Source ID#: SRC-	AA		BA	
Source Name:	Old Well		New Well	
Well log available?*	☒ Y	☐ N	☒ Y	☐ N
Well log ID (e.g., COLU123, L12345)	L51957		L147380	
	Yes	**No**	**Yes**	**No**
Well active?	☐	☒	☒	☐
Pitless adaptor?	☒	☐	☒	☐
● Sanitary seal & casing watertight?	☒	☐	☒	☐
● Raw water sample tap?	☐	☒	☐	☒
● Treated water sample tap? ☐N/A	☒	☐	☒	☐
● If vented, properly screened?	☒	☐	☒	☐
● Wellhead protected from flooding?	☒	☐	☒	☐
Concrete slab around casing?	☐	☒	☐	☒
Casing height ≥12-in. above slab/grade?	☒	☐	☒	☐
Flowmeter?	☒	☐	☒	☐
Pressure gauge?	☒	☐	☒	☐
Pump to waste piping?	☐	☒	☐	☒
● Well meets setbacks from hazards?	☒	☐	☐	☒
If no, identify list of hazard(s) within the setback and the distance to the hazard. HAZARD:			Gravel road & pasture	
DISTANCE (ft.):			30-50'	
Protective housing?	☒	☐	☒	☐
If yes, does it have:				
Heat?	☐	☒	☐	☒
Light?	☐	☒	☐	☒
Floor drain?	☐	☒	☐	☒
Well pump removal provision?	☐	☒	☐	☒
Pump Type: (vertical turbine, submersible, centrifugal, shallow jet, deep jet)	sub		sub	
Bearing lubrication: (oil, or water)	water		water	
Pumping capacity (gpm)	60		60	

SRC-AA "Old" Well #1 L51957 *Evaluation Results from OHA Geologist Tom Pattee*

As Built Well Construction Evaluation for Plan Review and/or Setback Waiver:

☒ Well/Spring meets current construction standards.
☐ WRD special construction standards, see well log or Comments.
☐ Well/Spring construction does not meet construction standards.
☐ Not sealed to appropriate depth. Recommended depth: _____
☐ Not appropriate seal materials
☐ Open to more than one aquifer
☐ Seal info missing or unknown
☐ Seal not constructed properly (☐ Insufficient sealant volume ☐ Insufficient annular space)
☐ Susceptible construction, but grandfathered source. Consider for reconstruction if nitrate ≥ 5mg/L or confirmed *E. coli* at source.
☐ Susceptible well construction, **not approved for use**.

Comments: This well was drilled to a depth of 280 ft and is cased to a depth of 102 ft. The casing seal extends to a depth of 100 ft, 11 ft into a low permeability sandstone that overlies the aquifer. A perforated liner was placed in the well to help keep the borehole open below the casing. A year later the well was reconditioned and the liner was replaced with a screened liner and sand filter pack. Water enters the well through the uncased portion of the well between 102 and 280 ft below ground. Sensitivity Analysis results suggest that well construction does not contribute to the overall sensitivity of this water source to local land use practices.

Nature of Aquifer Evaluation:

Aquifer Nature: ☒ Confined aquifer ☐ Semi-confined aquifer ☐ Unconfined aquifer
Comments: This well draws water from a deep confined sandstone aquifer. The water-bearing layer within the sandstone occurs at a depth of 154 ft and is overlain by 65 ft of sandstone of low permeability that acts as a confining layer. Water within the water-bearing sandstone layer is under pressure, rising 80 ft above the water-bearing zone to a depth of 74 ft below ground. Sensitivity Analysis results, at this time, suggest that the aquifer characteristics are not highly sensitive to local land use practices. However, no monitoring results are on record as of 03/08/2023. Should chemical and/or bacteria monitoring results suggest that there is a pathway for contaminants originating at the surface to enter the aquifer system, the sensitivity of the aquifer characteristics will be re-evaluated.

Reviewed by: Tom Pattee, R. G. Date: 03/09/2023

Link to WRD Well Mapping Tool:
https://apps.wrd.state.or.us/apps/gw/well_log/wl_details.aspx?wl_id=320351

Link to GoogleMaps:
https://maps.app.goo.gl/d59Tsva2ij6km7ym6

Link to Well Logs:

YAMH53009 (2002 original construction log)
https://apps.wrd.state.or.us/apps/misc/vault/vault.aspx?wl_county_code=YAMH&wl_nbr=53009

YAMH53359 (2003 recondition)
https://apps.wrd.state.or.us/apps/misc/vault/vault.aspx?wl_county_code=YAMH&wl_nbr=53359

SRC-AA – Old Well #1 - YAMH53009 (2002 original construction log) – L51957

YAMH 53009

State of Oregon
WATER WELL REPORT (as required by ORS 537.765) Page 1 of 1

State Well ID L51957
Start Card # 145269

(1) OWNER: Well No. 2144
Name TONY SOTER
Address POB 21
City OAKVILLE St CA Zip 94562

(2) TYPE OF WORK: NEW WELL

(3) DRILL METHOD: ROTARY AIR

(4) PROPOSED USE: DOMESTIC

(5) BORE HOLE CONSTRUCTION:
Special Construction Approval NO Depth of Compl. Well 280 ft
Explosives used NO Type _____ Amount _____

HOLE Diam.	From	To	Material	SEAL From	To	Amount
10	0	100	BENTONITE CHIP	0	26	21 SAX
6	100	280	CEMENT W/GEL	26	100	24 SAX

Seal placement method C AND POURED
Backfill: from ___ ft to ___ ft Material
Gravel: from ___ ft to ___ ft Size _____

(6) CASING/LINER:

	Diam.	From	To	Gauge	Material	Connection
Casing	6	+2	102	.25	STEEL	WELDED
Liner	4	0	280	SDR26	PLASTIC	WELDED

Final Location of shoe(s) 102

(7) PERFORATIONS/SCREENS:
[X] Perf. Method ELECTRIC SAW
[_] Screens Type _____ Material _____

From	To	Slot Size	Number	Diam.	Tele/pipe Size	Casing/liner
20	280	.1X7"	72			LINER

(8) WELL TESTS: Minimum testing time is 1 hour
Test type AIR

Yield GPM	Draw-down	Drill stem at	Time
60		280	1 hr.
60		260	2

Temperature of water 54F Depth Artesian Flow Found ____
Was water analysis done? YES By whom BWD
Reason for water not suitable for use MINERAL/MUDDY
Depth of strata 59

(9) LOCATION OF WELL by legal description:
County YAMHILL Lat. ° ' " Long. ° ' "
Township 3 S Range 4 W WM.
Section 23 SE 1/4 NE 1/4
Tax Lot 1400 Lot Block Subdivision
Street Address of Well (or nearest Address)
X FROM 1073 MINERAL SPRINGS RD CARLTON, OR

(10) STATIC WATER LEVEL:
91 ft. below land surface. Date 05/23/02
Artesian pressure _____ lb per square in. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 59

From	To	Est Flow Rate	SWL
59	60	2	NM
154	257	60	91

(12) WELL LOG:
Ground elevation 400

Material	From	To	SWL
TOP SOIL	0	5	
CLAY, BROWN/RED W/SOME SAND	5	24	
SANDSTONE, RED, WEATHERED W/CLAY	24	89	
SANDSTONE, GRAY, FINE GRAIN	89	154	
SANDSTONE, GRAY, MEDIUM GRAIN STRATIFIED WITH COARSE SANDSTONE	154	257	91
CLAYSTONE, GRAY	257	280	

DAVE PAYSINGER, BLUE WATER DRILLING CO.
(503) 868-7878

Date started 05/22/02 Completed 05/23/02

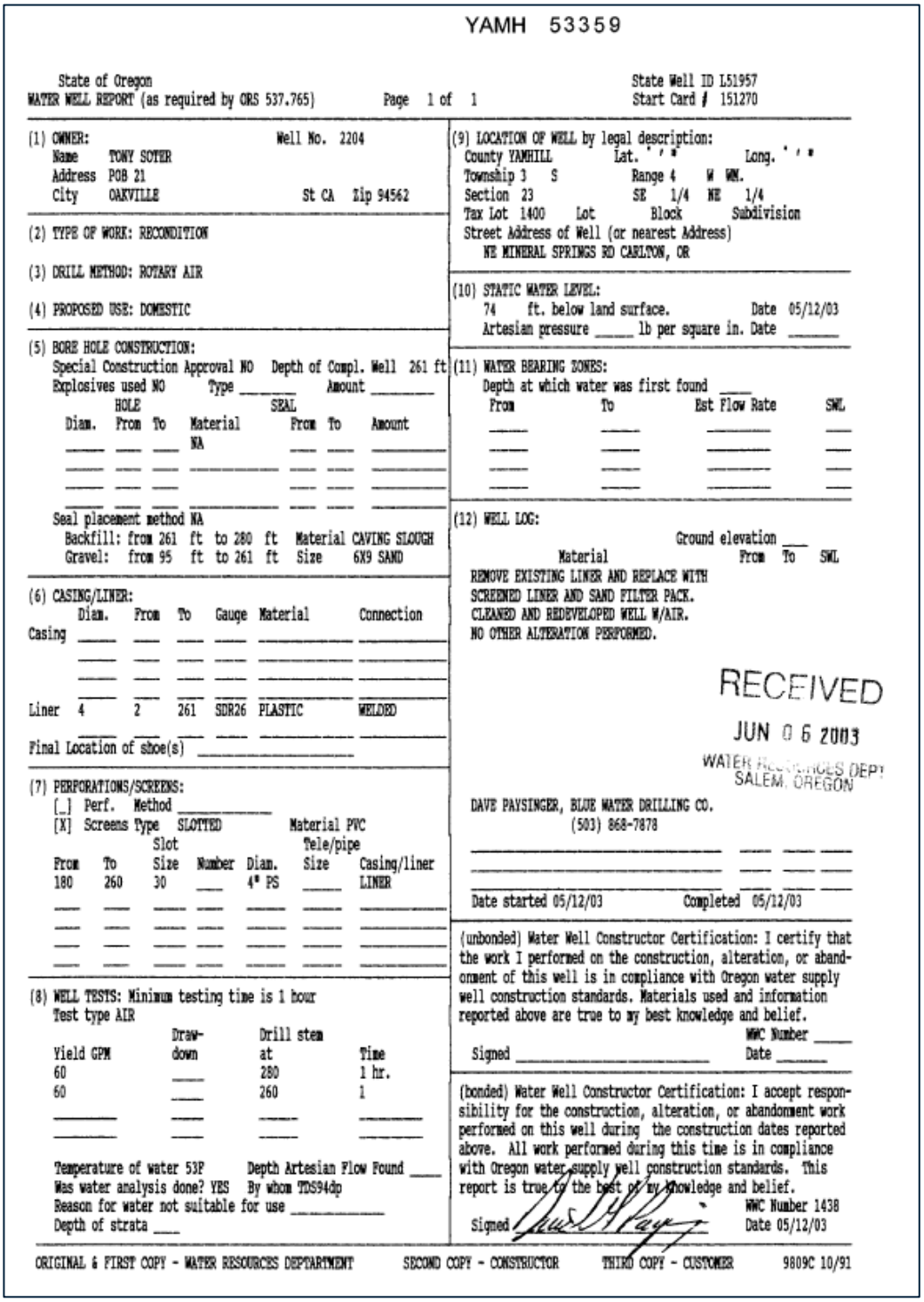
(unbonded) Water Well Constructor Certification: I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.
WWC Number ____
Signed _____ Date _____

(bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 1438
Signed [signature] Date 05/23/02

ORIGINAL & FIRST COPY - WATER RESOURCES DEPTARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 10/91

RECEIVED
JUN 18 2002
WATER RESOURCES DEPT
SALEM, OREGON

SRC-AA – Old Well #1 - YAMH53359 (2003 recondition) – L51957



YAMH 53359

State of Oregon
WATER WELL REPORT (as required by ORS 537.765) Page 1 of 1

State Well ID L51957
Start Card # 151270

(1) OWNER: Well No. 2204
Name TONY SOTER
Address POB 21
City OAKVILLE St CA Zip 94562

(2) TYPE OF WORK: RECONDITION

(3) DRILL METHOD: ROTARY AIR

(4) PROPOSED USE: DOMESTIC

(5) BORE HOLE CONSTRUCTION:
Special Construction Approval NO Depth of Compl. Well 261 ft
Explosives used NO Type _____ Amount _____

HOLE Diam.	From	To	Material	SEAL From	To	Amount
			NA			

Seal placement method NA
Backfill: from 261 ft to 280 ft Material CAVING SLOUGH
Gravel: from 95 ft to 261 ft Size 6X9 SAND

(6) CASING/LINER:

	Diam.	From	To	Gauge	Material	Connection
Casing						
Liner	4	2	261	SDR26	PLASTIC	WELDED

Final Location of shoe(s) _____

(7) PERFORATIONS/SCREENS:
[_] Perf. Method _____
[X] Screens Type SLOTTED Material PVC

From	To	Slot Size	Number	Diam.	Tele/pipe Size	Casing/liner
180	260	30		4" PS		LINER

(8) WELL TESTS: Minimum testing time is 1 hour
Test type AIR

Yield GPM	Draw-down	Drill stem at	Time
60		280	1 hr.
60		260	1

Temperature of water 53F Depth Artesian Flow Found ____
Was water analysis done? YES By whom TDS94dp
Reason for water not suitable for use _____
Depth of strata ____

(9) LOCATION OF WELL by legal description:
County YAMHILL Lat. ° ' " Long. ° ' "
Township 3 S Range 4 W WM.
Section 23 SE 1/4 NE 1/4
Tax Lot 1400 Lot Block Subdivision
Street Address of Well (or nearest Address)
NE MINERAL SPRINGS RD CARLTON, OR

(10) STATIC WATER LEVEL:
74 ft. below land surface. Date 05/12/03
Artesian pressure _____ lb per square in. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found ____

From	To	Est Flow Rate	SWL

(12) WELL LOG: Ground elevation ___

Material	From	To	SWL
REMOVE EXISTING LINER AND REPLACE WITH SCREENED LINER AND SAND FILTER PACK. CLEANED AND REDEVELOPED WELL W/AIR. NO OTHER ALTERATION PERFORMED.			

RECEIVED
JUN 06 2003
WATER RESOURCES DEPT
SALEM, OREGON

DAVE PAYSINGER, BLUE WATER DRILLING CO.
(503) 868-7878

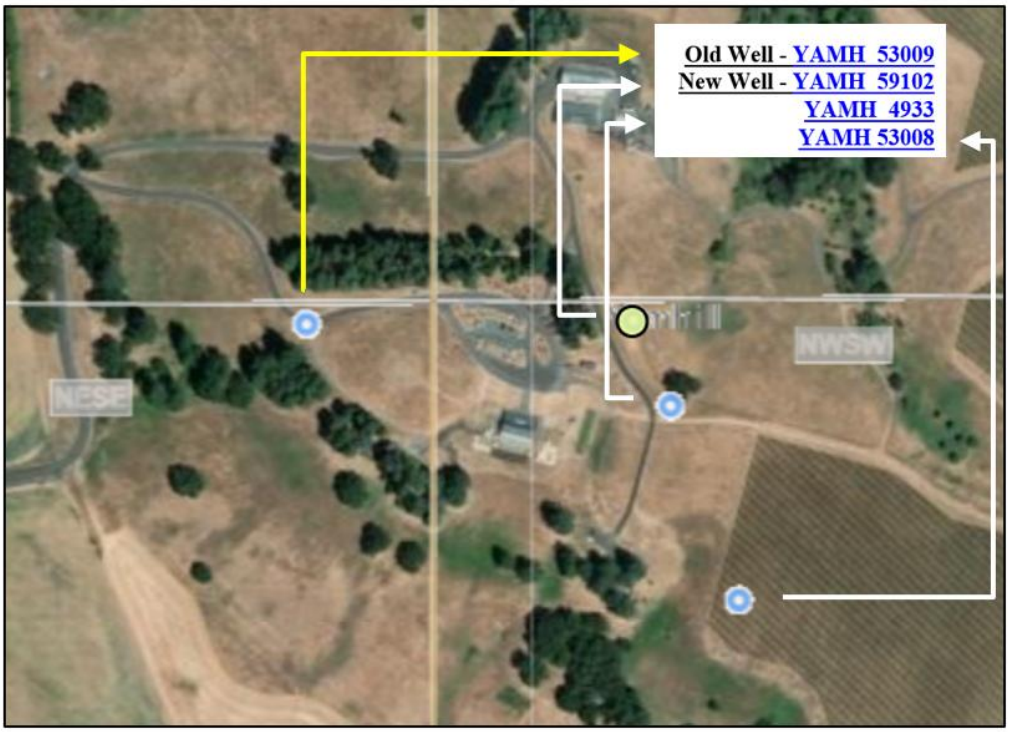
Date started 05/12/03 Completed 05/12/03

(unbonded) Water Well Constructor Certification: I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to my best knowledge and belief.
WWC Number ____
Signed _____ Date _____

(bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 1438
Signed _____ Date 05/12/03

ORIGINAL & FIRST COPY - WATER RESOURCES DEPTARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 10/91

SRC-AA – Old Well #1 - YAMH53359 (2025 survey photos) – L51957



SRC-BA – "New" Well #2 (YAMH59102) Evaluation Results from OHA Geologist Tom Pattee

As Built Well Construction Evaluation for Plan Review and/or Setback Waiver:

☒ Well/Spring meets current construction standards.
☐ WRD special construction standards, see well log or Comments.
☐ Well/Spring construction does not meet construction standards.
☐ Not sealed to appropriate depth. Recommended depth: _____
☐ Not appropriate seal materials
☐ Open to more than one aquifer
☐ Seal info missing or unknown
☐ Seal not constructed properly (☐ Insufficient sealant volume ☐ Insufficient annular space)
☐ Susceptible construction, but grandfathered source. Consider for reconstruction if nitrate ≥ 5mg/L or confirmed *E. coli* at source.
☐ Susceptible well construction, **not approved for use**.

Comments: This well was drilled to a depth of 260 ft and is cased to a depth of 100 ft. The casing seal extends to a depth of 90 ft, 5 ft into a low permeability siltstone that overlies the aquifer. The bottom of the hole is backfilled to a depth of 217 ft with borehole slough. A gravel filter pack was installed outside the casing from 90 to 198 ft below ground. Water can enter the well through the filter pack and the perforations in the casing that occur below the casing seal. Sensitivity Analysis results suggest that well construction does not contribute to the overall sensitivity of this water source.

Nature of Aquifer Evaluation:

Aquifer Nature: ☒ Confined aquifer ☐ Semi-confined aquifer ☐ Unconfined aquifer
Comments: This well draws water from a deep fractured siltstone aquifer. The well log identifies the water-bearing zone as occurring between 100 and 160 ft below ground. The water-bearing zone is overlain by 90 ft of siltstone, silt, and clay, all of low permeability that act as a confining layer. Water within the siltstone is under pressure, rising 39 ft above where it was first encountered to a depth of 41 ft. Sensitivity Analysis results, at this time, suggest that the aquifer characteristics are not highly sensitive to local land use practices. However, no monitoring results are on record as of 09/15/2025. Should chemical and/or bacteria monitoring results suggest that there is a pathway for chemicals originating at the surface to enter the aquifer, the sensitivity of the aquifer will be re-evaluated.

Reviewed by: Tom Pattee, R. G. Date: 09/15/2025

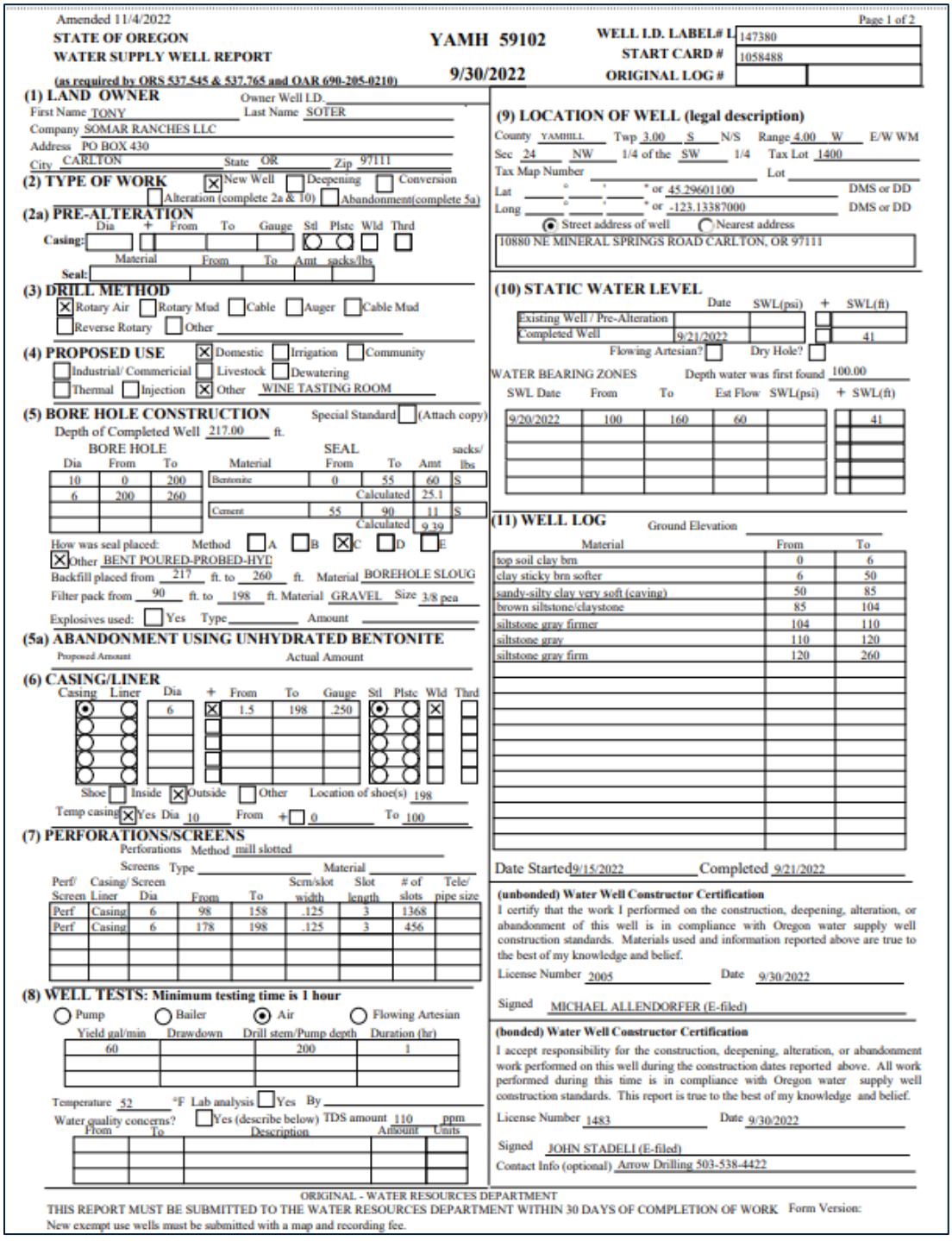
Link to WRD Well Mapping Tool:
https://apps.wrd.state.or.us/apps/gw/well_log/wl_details.aspx?wl_id=597509

Link to GoogleMaps:
https://maps.app.goo.gl/d59Tsva2ij6km7ym6

Link to Exempt Use Map:
https://apps.wrd.state.or.us/apps/misc/vault/vault.aspx?Type=ExemptUseOwnerMap&wl_tag_nbr=147380

Link to Well Log:
YAMH59102 (2022 original construction log)
https://apps.wrd.state.or.us/apps/misc/vault/vault.aspx?wl_county_code=YAMH&wl_nbr=59102

SRC-BA – New Well #2 - YAMH59102 (2022 original construction log) – L147380



Amended 11/4/2022 — Page 1 of 2

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.545 & 537.765 and OAR 690-205-0210)

YAMH 59102
9/30/2022

WELL I.D. LABEL# L 147380
START CARD # 1058488
ORIGINAL LOG #

(1) LAND OWNER — Owner Well I.D.
First Name TONY Last Name SOTER
Company SOMAR RANCHES LLC
Address PO BOX 430
City CARLTON State OR Zip 97111

(2) TYPE OF WORK ☒ New Well ☐ Deepening ☐ Conversion ☐ Alteration (complete 2a & 10) ☐ Abandonment (complete 5a)

(2a) PRE-ALTERATION
Casing: Dia | + | From | To | Gauge | Stl | Plstc | Wld | Thrd
Seal: Material | From | To | Amt | sacks/lbs

(3) DRILL METHOD
☒ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☐ Reverse Rotary ☐ Other

(4) PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Community ☐ Industrial/ Commericial ☐ Livestock ☐ Dewatering ☐ Thermal ☐ Injection ☒ Other WINE TASTING ROOM

(5) BORE HOLE CONSTRUCTION Special Standard ☐ (Attach copy)
Depth of Completed Well 217.00 ft.

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/lbs
10	0	200	Bentonite	0	55	60	S
6	200	260			Calculated	25.1	
			Cement	55	90	11	S
					Calculated	9.39	

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E
☒ Other BENT POURED-PROBED-HYD
Backfill placed from 217 ft. to 260 ft. Material BOREHOLE SLOUG
Filter pack from 90 ft. to 198 ft. Material GRAVEL Size 3/8 pea
Explosives used: ☐ Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE
Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
◉	○	6	☒	1.5	198	.250	◉	○	☒	☐

Shoe ☐ Inside ☒ Outside ☐ Other Location of shoe(s) 198
Temp casing ☒ Yes Dia 10 From + 0 To 100

(7) PERFORATIONS/SCREENS
Perforations Method mill slotted
Screens Type Material

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Perf	Casing	6	98	158	.125	3	1368	
Perf	Casing	6	178	198	.125	3	456	

(8) WELL TESTS: Minimum testing time is 1 hour
○ Pump ○ Bailer ◉ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
60		200	1

Temperature 52 °F Lab analysis ☐ Yes By
Water quality concerns? ☐ Yes (describe below) TDS amount 110 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)
County YAMHILL Twp 3.00 S N/S Range 4.00 W E/W WM
Sec 24 NW 1/4 of the SW 1/4 Tax Lot 1400
Tax Map Number Lot
Lat ° ' " or 45.29601100 DMS or DD
Long ° ' " or -123.13387000 DMS or DD
◉ Street address of well ○ Nearest address
10880 NE MINERAL SPRINGS ROAD CARLTON, OR 97111

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	9/21/2022			41

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found 100.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
9/20/2022	100	160	60			41

(11) WELL LOG Ground Elevation

Material	From	To
top soil clay brn	0	6
clay sticky brn softer	6	50
sandy-silty clay very soft (caving)	50	85
brown siltstone/claystone	85	104
siltstone gray firmer	104	110
siltstone gray	110	120
siltstone gray firm	120	260

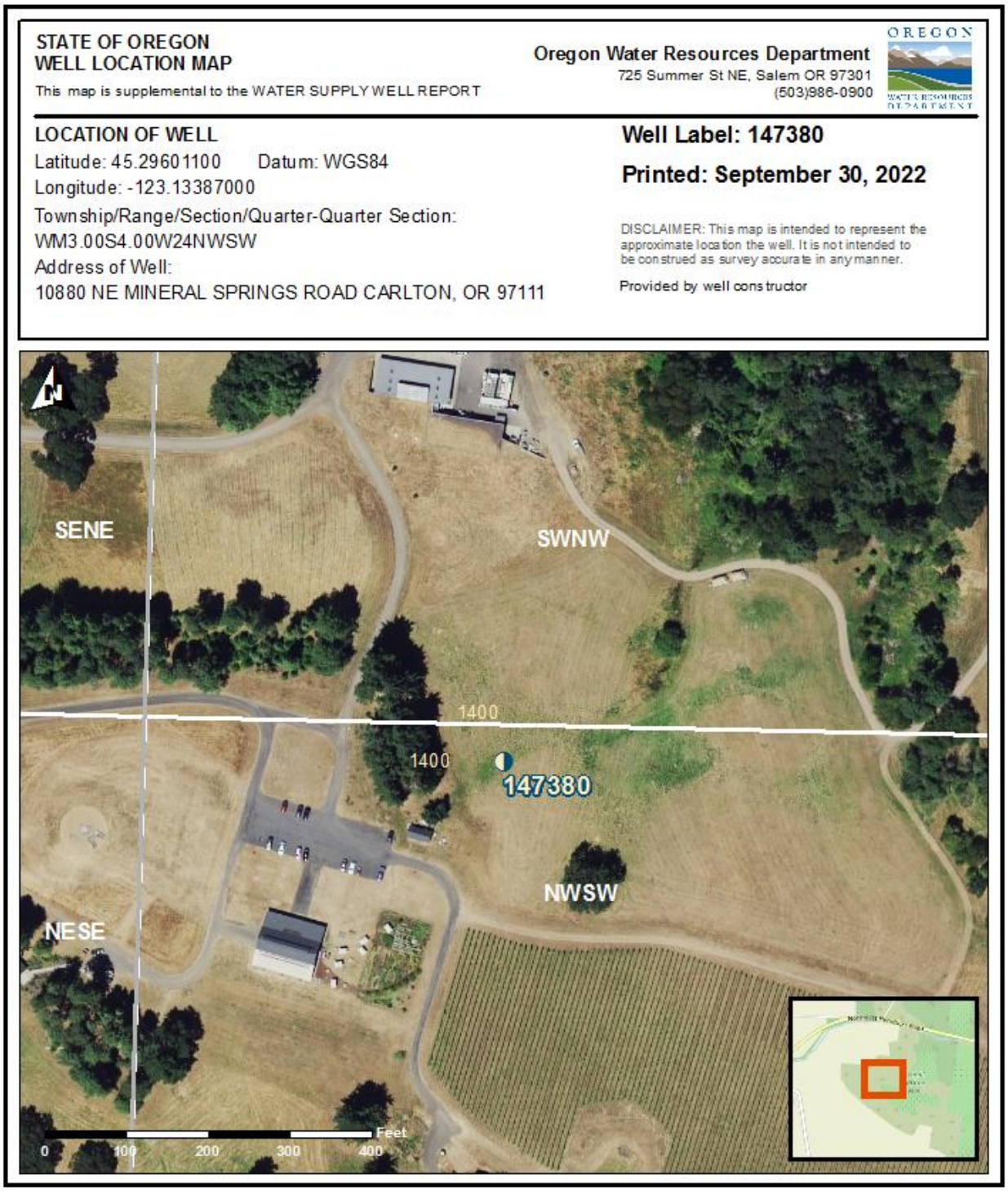
Date Started 9/15/2022 Completed 9/21/2022

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
License Number 2005 Date 9/30/2022
Signed MICHAEL ALLENDORFER (E-filed)

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
License Number 1483 Date 9/30/2022
Signed JOHN STADELI (E-filed)
Contact Info (optional) Arrow Drilling 503-538-4422

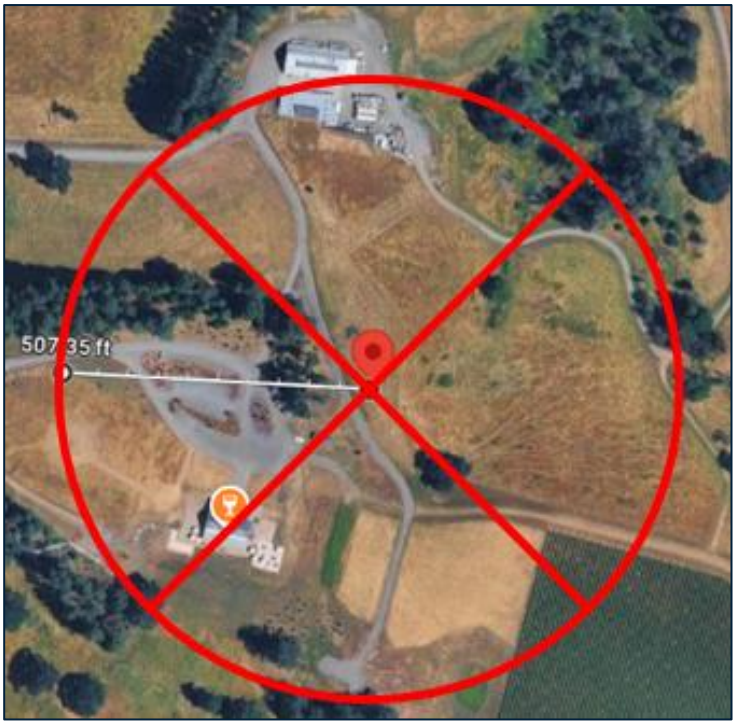
ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:
New exempt use wells must be submitted with a map and recording fee.

SRC-BA – New Well #2 - YAMH59102 (Exempt Use Map) – L147380



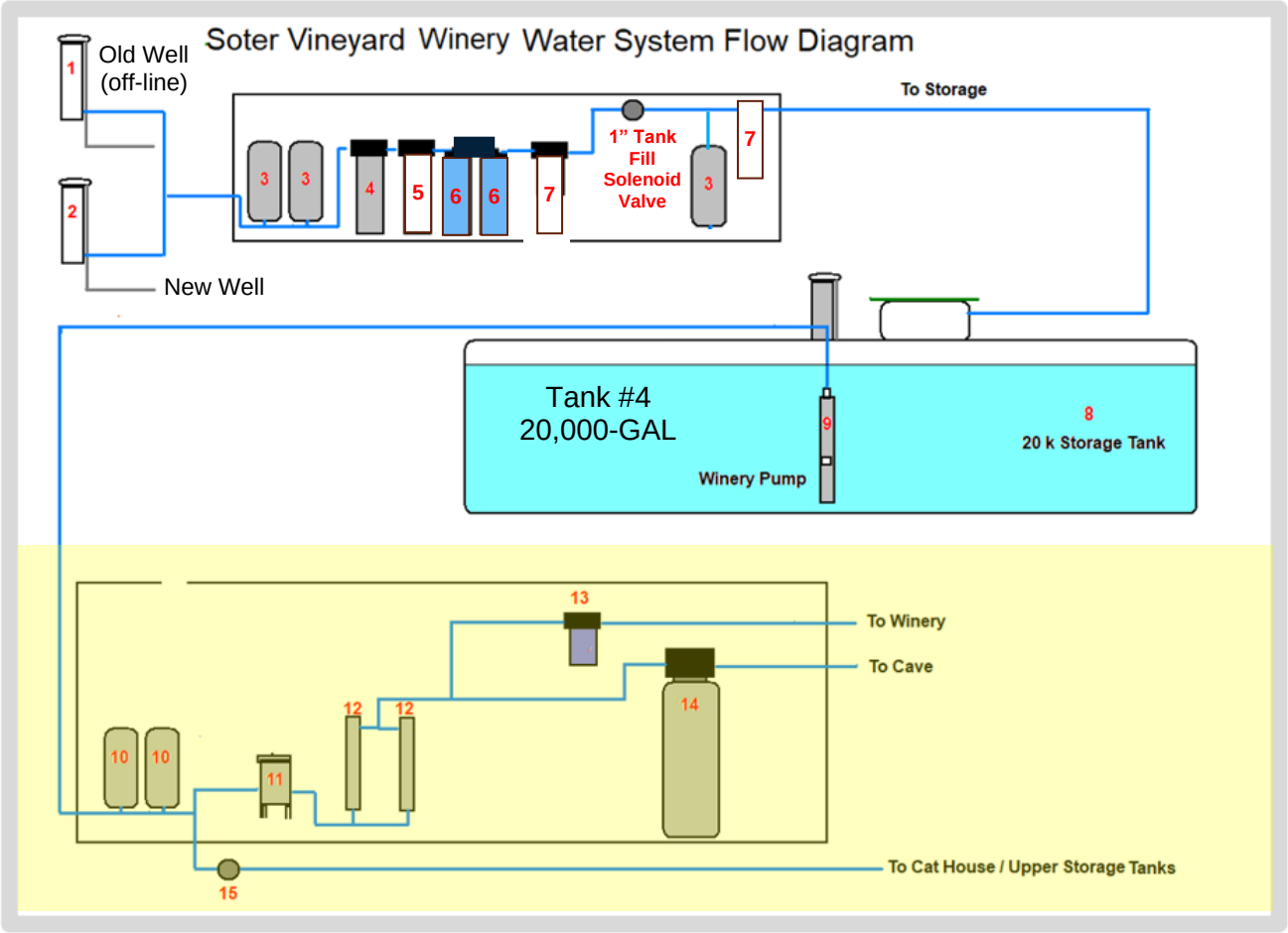
SRC-BA – New Well #2 - YAMH59102 (2025 Survey Photos) – L147380

Approximate 500-ft radius around SRC-BA (New Well)

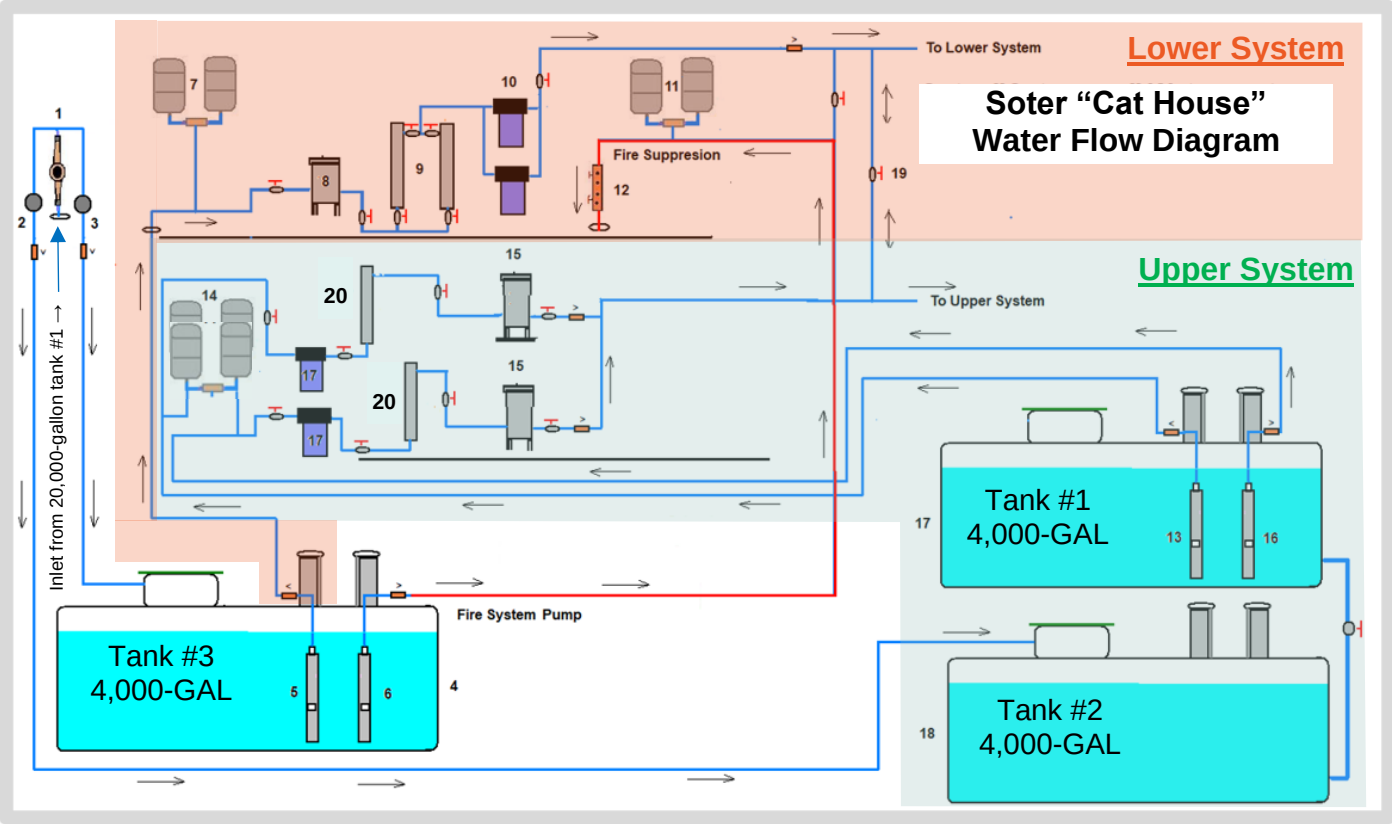


Approximate 50- and 100-ft radii around SRC-BA (New Well)

Treatment System Flow Diagrams

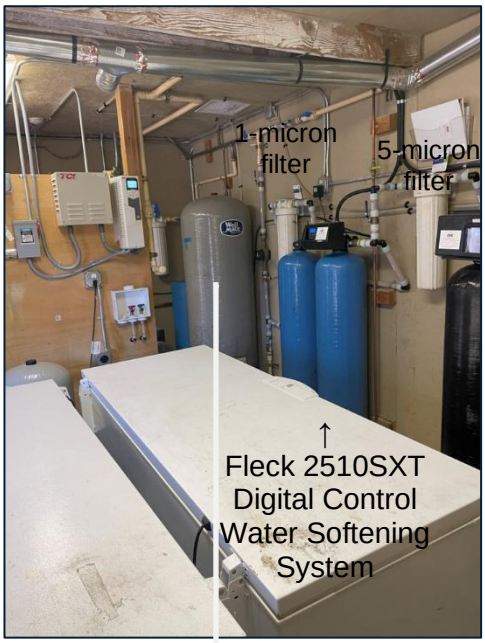


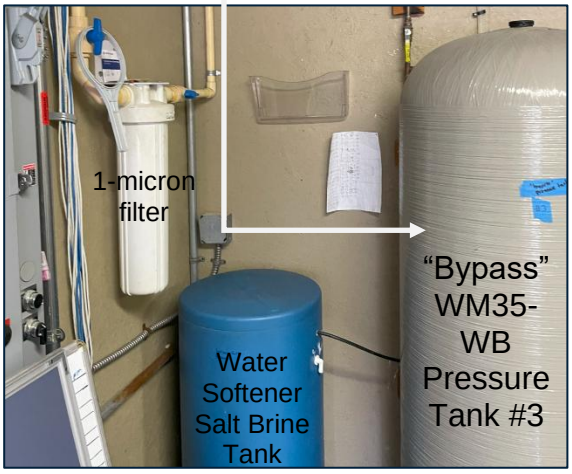
Sotor Winery Flow Diagram #	Component
1	Old Well
2	New Well
3	Well-Mate Model 35-WB Pressure Tank
4	Carbon Filter
5	5-micron filter
6	Fleck 2510SXT Digital Control Water Softening System
7	1-micron cartridge filter
8	Tank #4 – 20,000-gal lower storage tank
9	30 gpm winery pump
10	Well-Mate Model 35-WB Pressure Tank
11	Harmsco Filter
12	Trojan UV Max Model #F4 UV unit
13	Carbon filter
14	“Carbon To Cave” backwashable carbon filter

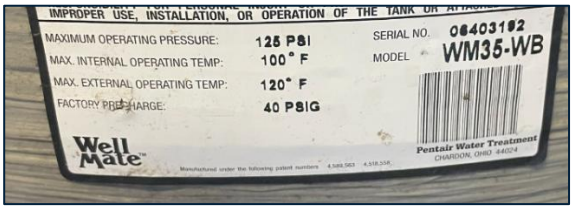


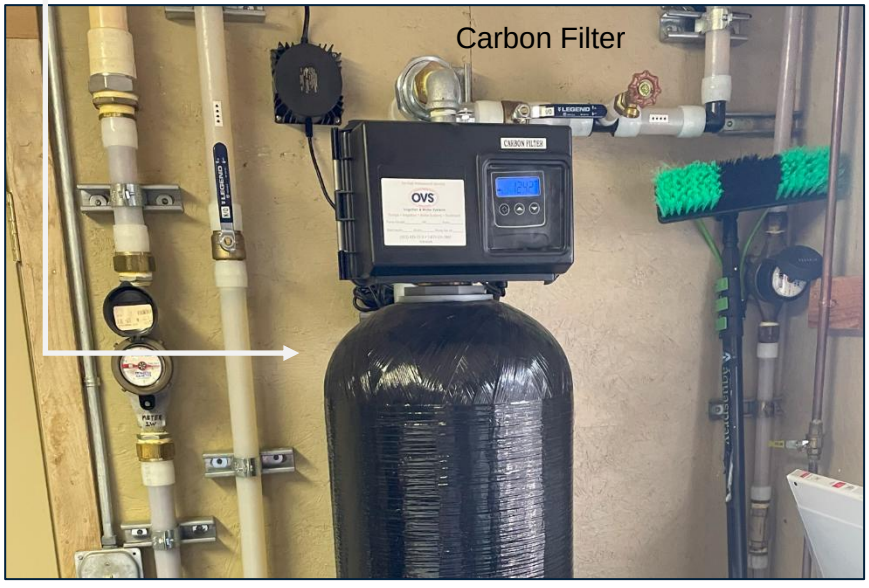
Sotor "Cat House" Diagram #	Component
1	2" Master Meter Flow Register
2	Tank Fill Solenoid "Upper System" – 1 house, 2 cabins, & tasting room
3	Tank Fill Solenoid "Lower System" – 1 House at 10600 NE Hendricks Rd
4	Existing Storage Tank "For Lower Farm"
5	30-gpm submersible pump "For Lower Farm"
6	30-gpm submerisble pump "For Fire Suppression"
7	Two (2) 4.4-gallon Amtrol Well-X-Trol Model #WX-102 Pressure tanks
8	Harmsco HUR-40 cartridge filter
9	Trojan UV Max Model #F4 UV unit
10	CF-92N filter in RFC BB20 housings
11	Two (2) 4.4-gallon Amtrol Well-X-Trol Model #WX-102 pressure tanks
12	2" double check valve for "fire suppression system"
13	40-gpm submersible pump "for upper system/tasting room"
14	Four (4) 4.8-gallon Jet-Rite Model #PJR-15 pressure tanks
15	Harmsco HUR-40 cartridge filter
16	40-gpm submersible pump "for upper system/tasting room"
17	4,000-gallon Upper Storage Tank #1 ("potable")
18	4,000-gallon Upper Storage Tank #2 ("potable")
19	Emergency cross-over valve
20	Trojan UV Max Model #F4 UV unit

Winery treatment - wells feed into pressure tanks, filters, and UV units (secondary treatment) that then serves the 20,000-gallon tank.





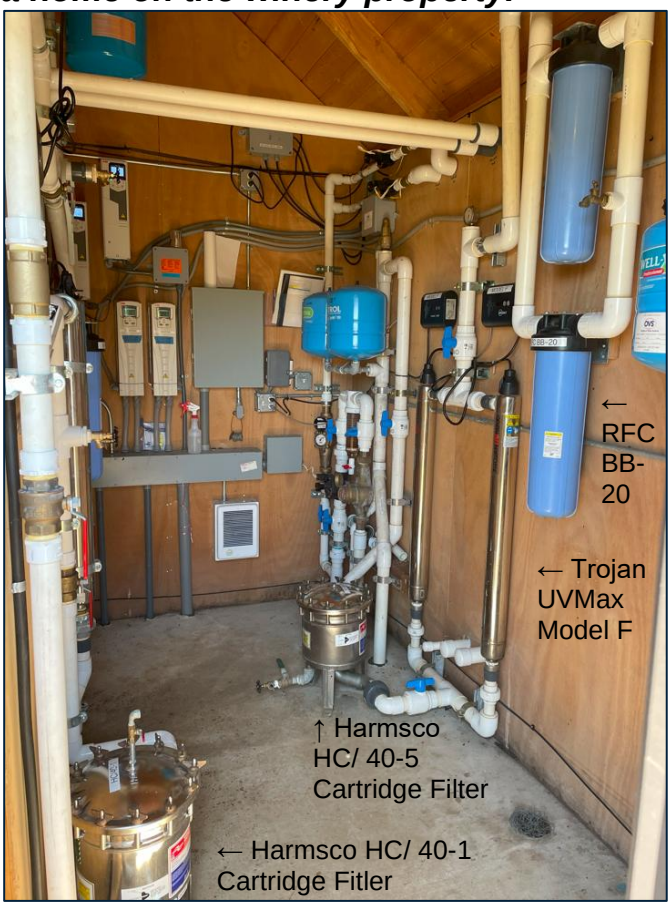


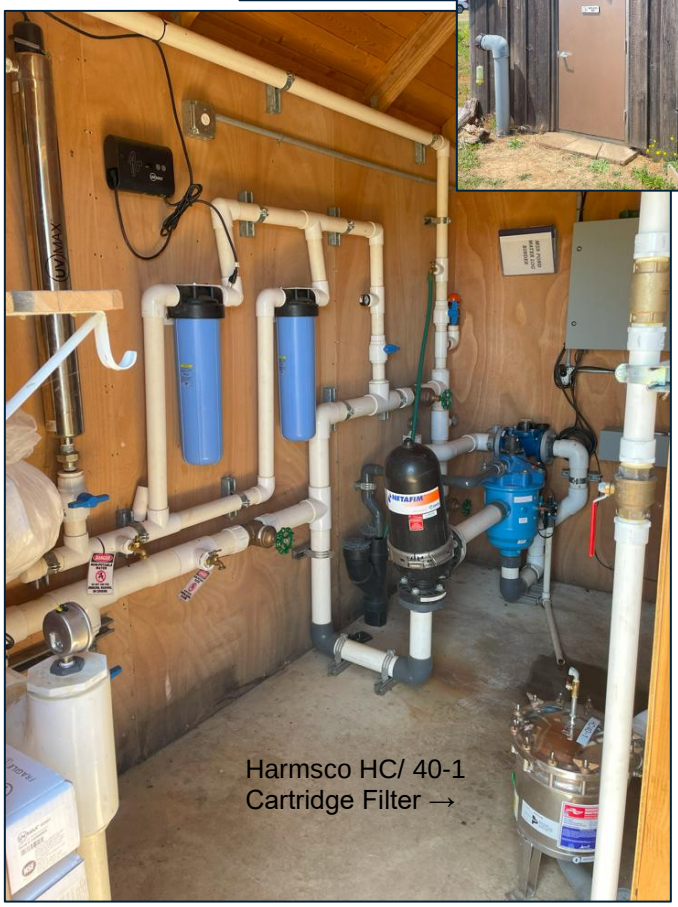


TYPE: Classic

ITEM #	CAPACITY	MAXIMUM OPERATING PRESSURE	DRAWDOWN IN	DIAMETER INCH CM	OVERALL HEIGHT INCH CM	HEIGHT INLET OUTLET TO FLOOR	CONNECTIONS	ASSEMBLY WEIGHT
WM-35WB WM0450 C	119.7 / 453	125 / 862 / 8.6	37.0 / 140.1	24 / 61	74 1/4 / 189	2 1/4 / 5.7	1 1/4" male NPT	102 / 46.4

"Cat House" treatment building w/ pressure tanks, filters and UV units (secondary treatment) that supplies the tasting room, tasting room cabins, and a home on the winery property.



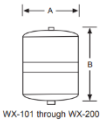


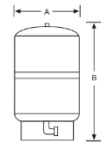
Two (2) 4.4-gallon Amtrol Well-X-Trol Model #WX-102 pressure tanks:

AMTROL

WELL-X-TROL

Next Generation Well Tanks Featuring Antimicrobial Protection


WX-101 through WX-200


WX-201 through WX-350

Specifications

Model Number	Tank Volume (Gallons)	Max. Acceptance Factor	Dimensions A Diameter (Inches)	Dimensions B Height (Inches)	System Conn. (Inches)	Drawdown (Gallons) 30/50 (psig)	Drawdown (Gallons) 40/60 (psig)	Drawdown (Gallons) 50/70 (psig)	Shipping Weight (lbs.)
WX-101	2.0	0.45	8	13	¾ NPTM	0.6	0.6	0.5	5
WX-102	4.4	0.55	11	15	¾ NPTM	1.4	1.2	1.0	9
WX-103	6.7	0.40	11	20	¾ NPTM	2.1	1.8	1.6	15
WX-104	10.3	1.00	15	18	1 NPTM	3.2	2.8	2.4	20
WX-200	14.0	0.81	15	22	1 NPTM	4.3	3.8	3.3	22
WX-201	14.0	0.81	15	25	1 NPTF	4.3	3.8	3.3	25
WX-202	20.0	0.57	15	32	1 NPTF	6.2	5.4	4.7	32
WX-202XL	26.0	0.44	15	39	1 NPTF	8.0	7.0	6.1	39
WX-203	32.0	0.35	15	47	1 NPTF	9.9	8.6	7.6	47
WX-205	34.0	1.00	22	30	1 ¼ NPTF	10.5	9.1	8.0	57
WX-250	44.0	0.77	22	36	1 ¼ NPTF	13.6	11.8	10.4	65
WX-251	62.0	0.55	22	47	1 ¼ NPTF	19.2	16.6	14.6	87
WX-255	81.0	0.41	22	57	1 ¼ NPTF	25.0	21.7	19.1	109
WX-302	86.0	0.54	26	47	1 ¼ NPTF	26.6	23.0	20.3	106
WX-350	119.0	0.39	26	62	1 ¼ NPTF	36.8	31.9	28.1	146

Stainless Steel System Connection.
Maximum Working Pressure: All models: 150 psig. Factory Precharge: 38 psig.
Drawdown can be affected by various ambient and system conditions, including temperature and pressure.

Four (4) 4.8-gallon Jet-Rite Model #PJR-15 pressure tanks:

Description

Jet-Rite (PJR) tanks are a diaphragm type, pre-charged hydro-pneumatic tank designed for residential and commercial water well, pressure booster, and irrigation systems.

Shell: Drawn steel w/ polyurethane paint finish

Diaphragm: Butyl rubber w/ copolymer polypropylene liner

Connection: Stainless steel nipple
(PJR 6-PJR25S-3/4" nipple)
(PJR 44-PJR66S- 1" nipple)

Ratings

Max. Working Pressure: 125 PSI
Max. Working Temp: 140 F
Pre-Charge (adjustable): 28 PSI

Tank Specifications

Model	Diameter (inches)	Height (inches)	System Connection (inches)	Volume (gallons)	Drawdown (gallons)			Weight (lbs)
					20/40	30/50	40/60	
PJR 6	8.0	12.0	¾	2.1	.8	.7	.6	5.0
PJR 15	11.0	14.5	¾	4.8	1.7	1.5	1.3	10.0
PJR 20S	11.4	13.5	¾	5.3	1.9	1.6	1.4	13.3
PJR25	12.5	18.9	¾	9.0	3.1	2.6	2.3	15.4
PJR 25S	12.5	18.9	¾	9.0	3.1	2.6	2.3	15.4
PJR 44IL	16.3	19.75	1	14.0	5.1	4.3	3.8	23.3
PJR 44S	16.3	20.8	1	14.0	5.1	4.3	3.8	27.0
PJR 66S	16.3	28.5	1	20.0	7.6	6.5	5.5	38.0

FLEXCON INDUSTRIES
A Swan Group Company

300 Pond St • Randolph, MA 02368 • 800-527-0030 • 781-986-2029 FAX • www.flexconind.com

NSF-55 Class A Trojan UV Max Model #D Controller & Model #F4 UV system (lamp model #602807)

To find out what model you have, look at the label on the side of the controller as depicted below:

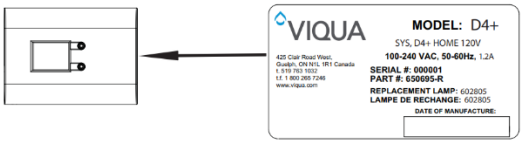


Figure 2 Model D/E/F- Controller Components

Operating Parameters	D4 Premium/D4+/D4-V+/D4-V	E4/E4+/E4-V/E4-V+/E4-50+	F4/F4+/F4-V/F4-V+/F4-50+
No-tools maintenance	Yes	Yes	Yes
Locking Lamp Connector	Yes	Yes	Yes
LCD Colour Display	Yes	Yes	Yes
Sensor status indicator	D4+, D4-V+	E4-V+, E4+, E4-50+	F4-V+, F4+, F4-50+
Sensor	D4+, D4-V+	E4-V+, E4+, E4-50+	F4-V+, F4+, F4-50+
Lamp timer display	Yes	Yes	Yes
Lamp timer reset button	Yes	Yes	Yes
Mute button	Yes	Yes	Yes
Solenoid valve	Optional	Optional	Optional
External control relay	Optional	Optional	Optional

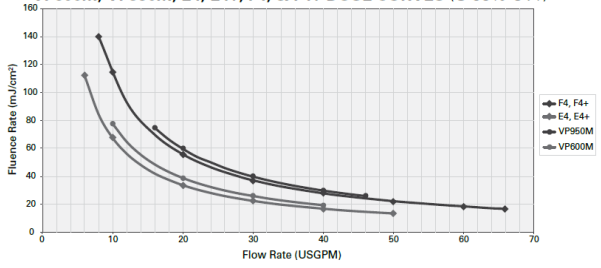
Replacement Parts

602806 – UV lamp for E4 & E4+	**602733** – quartz sleeve for E4 & E4+
602807 – UV lamp for F4 & F4+	**602734** – quartz sleeve for F4 & F4+
S600RL-HO – UV lamp for VP600& VP600M	**BA-ICE-C** – controller for VP600 & VP950
S950RL-HO – UV lamp for VP950 & VP950M	**BA-ICE-CM** – controller for VP600M & VP950M
QSO-600 – quartz sleeve for VP600 & VP600M	**650713-007** – controller E4, E4+, F4 & F4+
QSO-950 – quartz sleeve for VP950 & VP950M	**650703** – sensor for E4+ & F4+

Water Quality Parameters

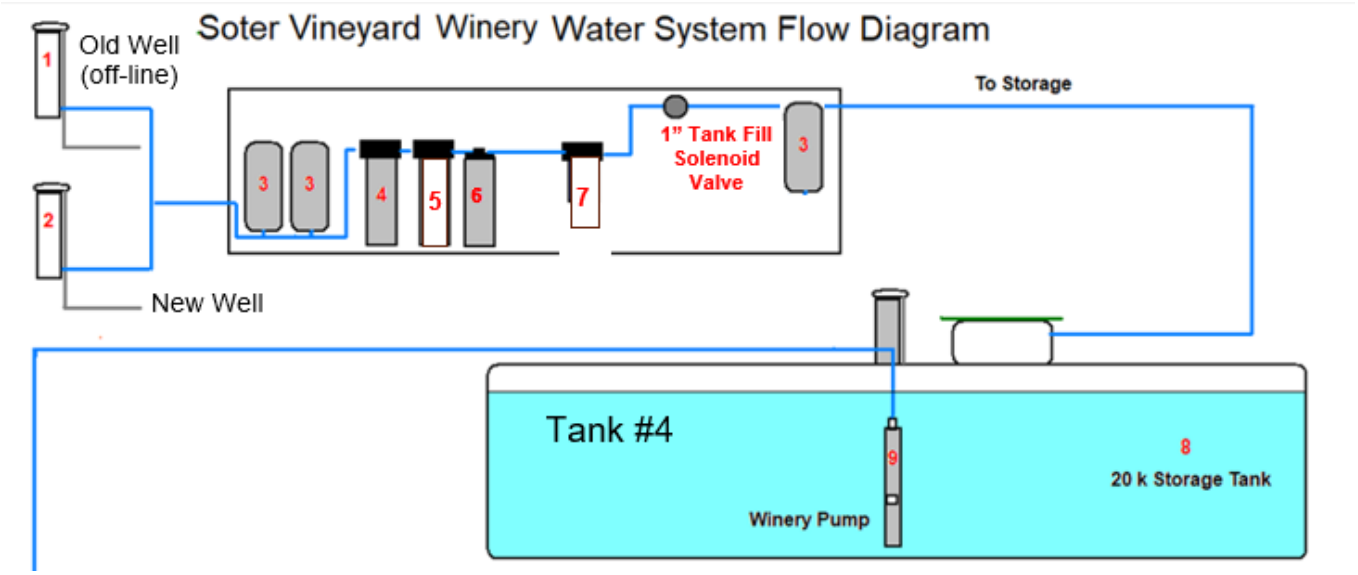
Hardness: < 7 grains (120 mg/L)
Iron: < 0.3 mg/L
Tannins: < 0.1 mg/L

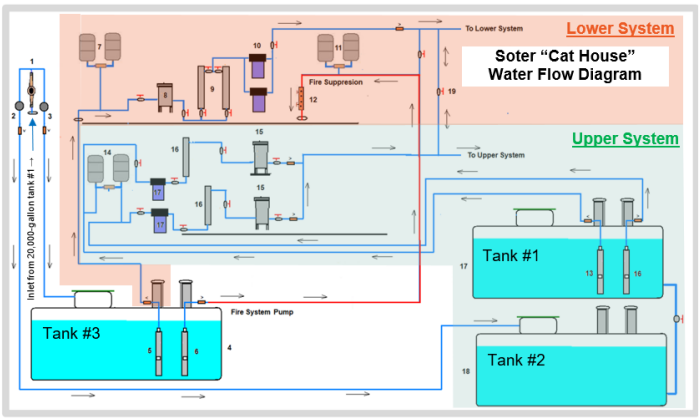
VP600M, VP950M, E4, E4+, F4, & F4+ DOSE CURVES (@ 95% UVT)



4,000-gallon storage tanks #1, #2 & #3

One (1) 20,000-gallon storage tank (tank #4, ca. 2003) – fills tanks #1, #2, and #3





Storage tank information gathered during a water system survey on June 17, 2025 conducted by the Oregon Dept. of Agriculture is shown below.

OREGON HEALTH AUTHORITY

Soter Vineyards Water System
Water System Survey
OHA Drinking Water Services

PWS ID: 41 95701
Survey Date: 06/17/25

Page 13 of 16

Storage and Pressure Tanks

Number	Name	Tank Type (G)round, (E)levated, (P)ressure	Tank Material (Concrete, Steel, Redwood, Plastic, Other)	Year Built	Volume (gal.)
1	Storage Tank #1	G	Concrete	2022	4,000
2	Storage Tank #2	G	Concrete	2022	4,000
3	Storage Tank #3	G	Concrete	unk	unk
4	Storage Tank #4	G	Plastic	2003	20,000
			Total Volume:		28,000 plus

Reservoir Features — Reservoir Number:	1 Yes	1 No	2 Yes	2 No	3 Yes	3 No	4 Yes	4 No	Yes	No
Fence/gate?	☐	☒	☐	☒	☐	☒	☐	☒	☐	☐
● Hatch secured (e.g. locked, bolted, etc.)?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐
● All tank access points watertight?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐
● Screened vent?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐
Overflow?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐
● Overflow protected (screen/flap/valve)?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐
Drain to daylight?	☐	☒	☐	☒	☐	☒	☒	☐	☐	☐
Water level gauge?	☐	☒	☐	☒	☐	☒	☐	☒	☐	☐
Bypass piping? (● if used for contact time)	☒	☐	☒	☐	☒	☐	☐	☒	☐	☐
Alarm for high or low levels?	☐	☒	☐	☒	☐	☒	☒	☐	☐	☐
Separate inlet/outlet?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐
Approved interior coating?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐
Exterior in good condition?	☒	☐	☒	☐	☒	☐	☒	☐	☐	☐
Annual interior/exterior inspection?	☐	☒	☐	☒	☐	☒	☐	☒	☐	☐
Cleaning schedule?	☐	☒	☐	☒	☐	☒	☐	☒	☐	☐
Continuously disinfected? (● post '81 redwood)	na	☐	na	☐	na	☐	na	☐	☐	☐
Pressure Tanks	1,2,3		4,5,6		7,8,9,		10,11		12, 13	
Accessible for maintenance?	☒	☐	☒	☐	☒	☐	☒	☐	☒	☐
Bypass piping?	☒	☐	☒	☐	☒	☐	☒	☐	☒	☐
Drain?	☒	☐	☒	☐	☒	☐	☒	☐	☒	☐
Pressure relief device?	☒	☐	☒	☐	☒	☐	☒	☐	☒	☐
Air bladder/diaphragm?	☒	☐	☒	☐	☒	☐	☒	☐	☒	☐
Valve for adding air?	☒	☐	☒	☐	☒	☐	☒	☐	☒	☐

Comments

The system has four underground storage tanks and 13 pressure tanks.