



May 10, 2024

Levi Danielson
levi@rawcider.com
Oneiros, LLC. DBA Raw Cider Company
10670 SW HALL BLVD
Portland, OR 97223

800 NE Oregon Street, Ste 640 Portland, OR 97232 Phone: (971) 673-0405 Fax: (971) 673-0694

www.healthoregon.org/DWP

Letter sent via e-mail only

Re: Raw Cider Company (PWS #95737) 2022 Well #1 (<u>L149426</u>, <u>YAMH59117</u>) Conditional Approval (PR #45-2024)

Dear Mr. Danielson:

Thank you for your plans for the new transient non-community water system, *Raw Cider Company (https://rawcider.com/*), which has been assigned Public Water System ID# 41-95737. The water system includes a single pitless adapter well drilled 9/15/2022 (L149426, YAMH59117) and a single 20-gallon Flexcon (WR60R) pressure tank to serve one connection with a tasting room and processing operation for manufacturing wine. The system is considered a transient non-community system based on the system serving one connection, year-round, with an average daily population of 50 users, three of which are employees, and the other users are guests from the public. The system description, well log, land use statement and sampling results (nitrate, arsenic, and coliform bacteria) were received on March 28, 2024, along with a plan review fee payment in the amount of \$825. An updated Land Use Compatibility Statement (LUCS) for Yamhill County was received May 7, 2024. Based on the anticipated use, Joel Plahn with the Oregon Water Resources Dept. indicated in an email dated 4/18/24 that the planned use meets the Exempt Use criteria, and no water right would be needed for the well at this time.

This project has been assigned plan review #45-2024 and can be tracked online at: https://yourwater.oregon.gov/planreview.php?pwsno=95737. As a new transient non-community water system, this system has been assigned Public Water System (PWS) ID# 95737 as viewable online at: https://yourwater.oregon.gov/inventory.php?pwsno=95737. All new systems must undergo a Capacity Assessment, which will be completed concurrently with this plan review process and will addressed in more detail via email.

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 approved for this submittal. Note that by utilizing this exemption, the water system takes full responsibility for the design of the project.

Based upon the submitted information, the project is granted Conditional Approval, which means that for Final Approval, the following 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 below and under OAR 333-061-0050(1) - general requirements, -0050(2)(a) - wells, -0050(6)(b) - pressure tanks, and -0050(8) - distribution piping:

OAR 333-061-0050(1) – General:

1. **Materials (including the greensand filter media)** in contact with well water are designed for potable water service and **meet NSF Standard 61**.

$OAR\ 333-061-0050(2)(a) - Wells:$

- 2. Public or private roadways may be allowed within 100 feet of a confined well, provided 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.
- 3. The following sanitary hazards are not allowed within 100 feet of a well which serves a public water system unless waived by the Authority: any existing or proposed pit privy, subsurface sewage disposal drain field; cesspool; solid waste disposal site; pressure sewer line; buried fuel storage tank; animal yard, feedlot or animal waste storage; untreated storm water or gray water disposal; chemical (including solvents, pesticides and fertilizers) storage, usage or application; fuel transfer or storage; mineral resource extraction, vehicle or machinery maintenance or long term storage; junk/auto/scrap yard; cemetery; unapproved well; well that has not been properly abandoned or of unknown or suspect construction; source of pathogenic organisms or any other similar public health hazards. No gravity sewer line or septic tank shall be permitted within 50 feet of a well which serves a public water system. Clearances greater than indicated above shall be provided when it is determined by the Authority that the aquifer sensitivity and degree of hazard require a greater degree of protection. Above-ground fuel storage tanks provided for emergency water pumping equipment may be exempted from this requirement by the Authority provided that a secondary containment system is in place that will accommodate 110 percent of the fuel tank storage.

4. A **raw water sampling tap** shall be provided on the pump discharge line, prior to treatment or storage tanks and as close to the wellhead as possible. Although no treatment was indicated in the submittal, please note that a sample tap after treatment and any tanks is also required should treatment be added with the final design.

OAR 333-061-0050(6)(b) - Pressure Tanks:

- 5. The NSF-61 pressure tank (Flexcon WR60R):
 - a. Shall be provided with bypass piping around the pressure tank to permit operation of the system while the tank is being maintained or repaired (this was indicated as being a planned change in the provided system description); and
 - b. Shall be provided with a drain, a pressure gauge, an air blow-off valve, a means for adding air and pressure switches for controlling the operation of the pump(s).

OAR 333-061-0050(8) – Waterlines:

6. Where the system facilities and the premises being served are both on the same parcel of property, requirements relating to pipe materials and pipe installation shall comply with the local and/or State **Plumbing Code**.

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 roadway within 100-ft of the well). The construction standards waiver application is available as a fillable MS Word or a PDF document.

Please complete this waiver form and email it back to me at evan.e.hofeld@oha.oregon.gov. You may indicate that you are seeking a waiver from OAR 333-061-0050(2)(a)(D) due to the presence of NE McDougall Rd being roughly 50-ft north of the 2022 well (L149426) as shown in the map below, which was found by Tom Pattee (per the well evaluation report completed under PR #45-2024) to be adequately constructed into a deep confined layer basalt aquifer and therefore, both the well and the aquifer have a low susceptibility to activities associated with the road.

Remy Winnes

N. McDougall Rd NE McDougall R

RAW Cider Community

Approximate 100-ft and 500-ft radii around the wellhead:

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Until documentation showing how these conditions have been met and <u>Final Approval</u> 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 #45-2024 and public water system (PWS) ID #95737).

Information contained on subsequent pages of this letter includes the constructed well evaluation results from our geologist, a summary of water quality test results, and a system description.

Thank you for your patience in this plan review process and if you have any questions, please feel free to call me at 971-200-0288 or e-mail me at evan.e.hofeld@oha.oregon.gov.

Sincerely,

Evan Hofeld, PE

Even Afrill

Oregon Health Authority – Drinking Water Services

cc:

Tommy Laird - Oregon Water Resources Dept (OWRD), Well Construction Program Coordinator <u>Tommy.K.LAIRD@water.oregon.gov</u>

Joel Plahn – OWRD, Water Master, Joel.M.PLAHN@water.oregon.gov

Sarah Schwab – Oregon Dept of Agriculture, Sarah.SCHWAB@oda.oregon.gov

Melissa Wong – Yamhill County Environmental Health, wongm@yamhillcounty.gov

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Constructed Well Evaluation Results:

The well log (<u>YAMH59117</u>) was submitted to our geologist, Tom Pattee, for evaluation on April 10, 2024. Mr. Pattee completed his evaluation on May 1, 2024 finding that, as shown in the evaluation excerpts below, the well is:

"...adequately constructed to draw water from a deep confined layer basalt aquifer."

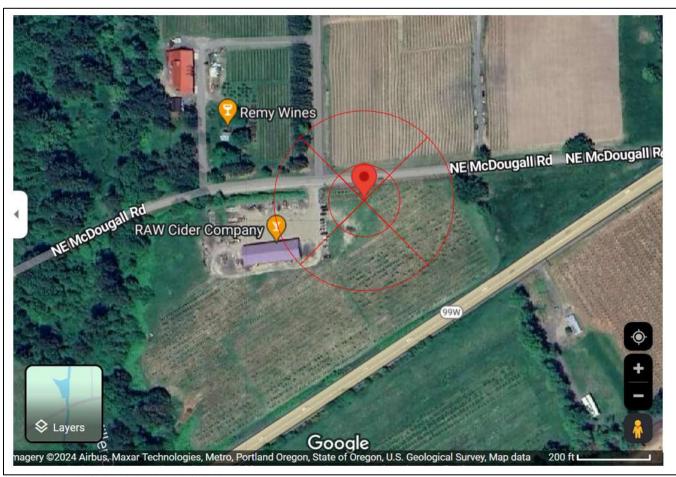
Mr. Pattee further determined that aquifer sensitivity results suggest that:

"...well construction does not contribute to the overall sensitivity of this water source to local land use practices" [and] "...the aquifer is not highly sensitive to nearby land use practices." [having a] "...low susceptibility to activities associated with the roadway that occurs within the 100 ft sanitary setback."

As Built Well Construc	tion Evaluation for Plan Review and/or Setback Waiver:
☐ WRD special ☐ Well/Spring constr	current construction standards. construction standards, see well log or Comments. ruction does not meet construction standards. appropriate depth. Recommended depth:
Not appropria Open to more Seal info miss Seal not cons	tte seal materials than one aquifer sing or unknown tructed properly (Insufficient sealant volume
confirmed E. coli	action, but grandfathered source. Consider for reconstruction if nitrate ≥ 5mg/L or if at source, onstruction, not approved for use.
44 ft into unweathered lo placed in the well, helps uncased portion of the w	was drilled to a depth of 202 ft. The casing and casing seal extend to a depth of 118 ft, by permeability basalt that overlies the aquifer. A narrow diameter perforated liner, to keep the borehole open below the casing. Water can enter the well through the ell between 118 and 202 ft below ground. Sensitivity Analysis results suggest that well ntribute to the overall sensitivity of this water source to local land use practices.
Nature of Aquifer Eval	NOOP NOOP NOOP NOOP NOOP NOOP NOOP NOOP
Comments: This well bearing zone is reported as a confining layer. Wa bearing zone to a final st	Confined aquifer Semi-confined aquifer Unconfined aquifer is designed to draw water from a deep confined layered basalt aquifer. The water-to occur at a depth of 153 ft and is overlain by 79 ft of low permeability basalt that acts after within the aquifer is under pressure, rising 83.5 ft above the identified water-atic water-level of 69.5 ft below ground level. Sensitivity Analysis results suggest that sensitive to nearby land use practices.
Construction Setback	Waiver Info:
Not applical Facility Pro	riew for additional contamination info: ble, Facility Profiler doesn't track releases from this type of contaminant source. filer does not indicate a spill or chemical release related to the sanitary setback violation filer indicates that there is a spill or chemical release related to the sanitary setback
within the 100 ft sanitar layered basalt aquifer.	ents regarding request for Waiver from Construction Standards: A roadway is present ry setback. The well is adequately constructed to draw water from a deep confined Furthermore, Sensitivity Analysis results suggest that water quality from this drinking susceptibility to activities associated with the roadway that occurs within the 100 ft

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Approximate 100-ft and 500-ft radii around the wellhead:

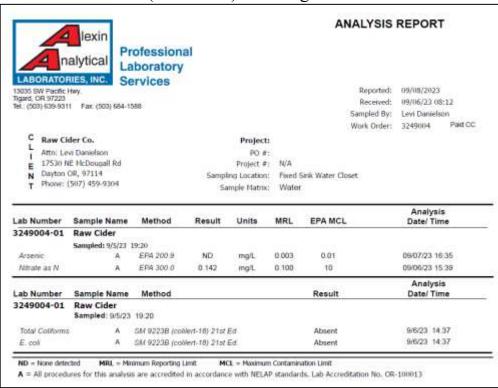




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Well Testing Water Quality Results:

The following test results taken 9/5/23 were received on 3/28/24 and demonstrate that additional treatment is not needed to address arsenic or coliform bacteria (both not detected) or nitrate detected at 0.142 mg/l, which is less than half the Maximum Contaminant Level (EPA MCL) of 10 mg/l:



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System description, Site map & photos showing the extent of the water system:

Name: Raw Cider Company

Property Address: 17530 NE McDougall Rd, Dayton, OR 97114

Ownership/Mailing address: Oneiros, LLC. DBA Raw Cider Company, 10670 SW Hall

Blvd, Portland, OR 97223 **Contact Information:** Name: Levi Danielson Phone: 507-459-9304

Email: levi@rawcider.com

Well Tag: L149426

Project: This is new facility that will include one connection with a tasting room and processing operation for manufacturing wine. A well was drilled in September of 2022. See attached well log.

Population: The system will be considered a transient non-community. This classification is based on the system serving one connection, year-round, with an average daily population of 50 users, three of which will be employees, other users would be guests from the public.

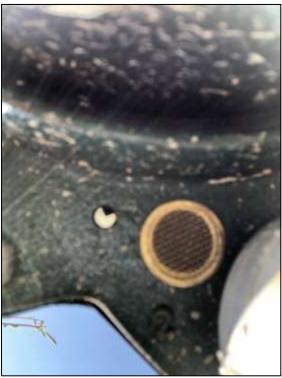
Exemption: We would like to request an exemption from using an Oregon Certified Engineer to create our plans. Possibly if he can provide something on his letterhead would be nice to provide as an attachment.

Land Use Compatibility Statement: Please accept the attached letter dated August 30, 2022, from Yamhill County Department of Planning and Development for land use approval to have a tasting room at this location.

Details & Specification: The well has a pitless wellhead adapter that will have a sample spigot within 5-10 feet of the wellhead. The spigot has not yet been installed. There are no storage tanks, treatment, or filters on the system. There is a 20-gallon Flexcon (WR60R) pressure tank connected to the system. A bypass valve is planned for installation prior to final approval. The well is in a non-irrigated apple orchard that is organic and does not have any chemical applications to the trees. Wanting to open business in May of 2024.

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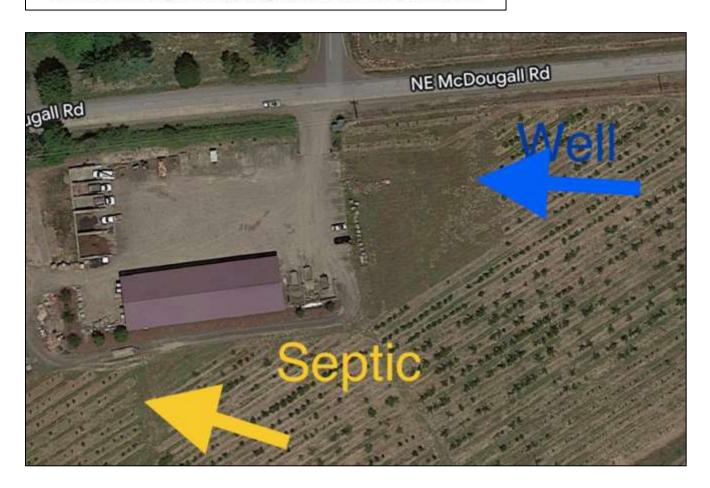




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well head and Septic are 380 ft apart in the diagram below. NE McDougall Rd is approximately 50-ft north of the well.

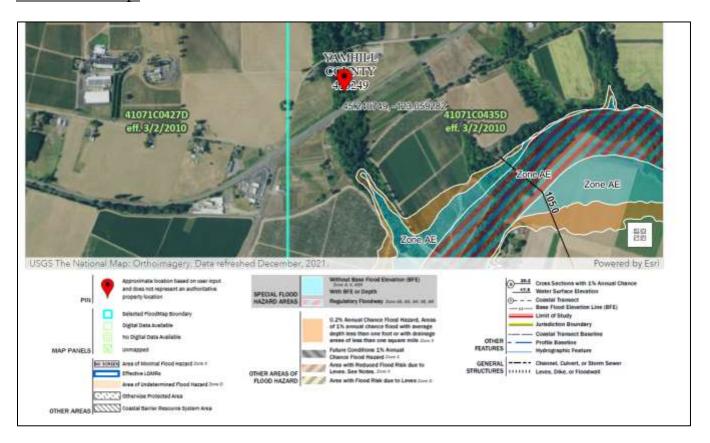
- -Location of well has 1 ¼ PVC buried at code depth that runs south and makes a turn heading west along the back side of the building. Total length of run of the 1 ¼ PVC is 400'
- -At the backside of the building outside of the pump room the water line makes a transition to 1 ¼ PEX piping and enters the building.
- -The entire building has PEX piping with a few sections of copper



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FEMA Flood Map:



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Amended 11/7/2022							Page 1 o
STATE OF OREGON	YAMH	59117	WELL I.D			26	
WATER SUPPLY WELL REPORT			STAR	T CARD #	1058	459	
(as required by ORS 537.545 & 537.765 and OAR 690-205-0210)	10/7/	2022	ORIGIN	AL LOG#			
l) LAND OWNER Owner Well I.D. 3441							
First Name ISAAC Last Name KEARNS		(9) LOCATI	ON OF WE	LL (legal o	descri	ption)	
Company		County YAMHIL				-	W E/W
Address 17180 NE MCDOUGALL RD		Sec 9 N	E 1/4 of tl	ne NE	1/4	Tax Lot 50	0 2 11 1
City DAYTON State OR Zip 97114 2) TYPE OF WORK New Well Deepening Conv		Tax Map Numbe	r			Lot	
	ersion	Lat°_	" or	45.2421932	1		DMS or D
Alteration (complete 2a & 10) Abandonment(co	ompiete 5a)	Long°	" oī	-123.05659	318		DMS or D
(a) PRE-ALTERATION Dia + From To Gauge Stl Plstc Wld Thrd			et address of we		earest a	ddress	
Casing:		17530 NE MCD	OUGALL RD, I	DAYTON			
Material From To Amt sacks/lbs Seal:							
3) DRILL METHOD		(10) STATIC	WATER L	EVEL			
Rotary Air Rotary Mud Cable Auger Cable Mud				Date	e ST	VL(psi) +	SWL(ft)
Reverse Rotary Other			ll / Pre-Alteratio				
		Completed	Vell	9/15/2022			69.5
1) PROPOSED USE Domestic Irrigation Community				rtesian?		y Hole?	
Industrial/ Commercial Livestock Dewatering		WATER BEARD		_		s first found	
Thermal Injection Other		SWL Date	From	Γo Es	t Flow	SWL(psi)	+ SWL(ft)
5) BORE HOLE CONSTRUCTION Special Standard (Attach copy)	9/15/2022	153	194	30		69.5
Depth of Completed Well 202.00 ft.							
BORE HOLE SEAL	sacks/						
Dia From To Material From To A 10 0 118 Bentonite Chips 0 118 I	Amt lbs						
	56	 					Щ
		an were	06				
Calculated		(11) WELL I	OG Gr	ound Elevatio	on		
How was seal placed: Method A B C D	E		Material			From	To
Other POUR/PROBE/HYDRATE		Top Soil				0	5
Backfill placed from ft. to ft. Material		Clay, brown silt Same, w/grit	/			5 23	23 32
Filter pack from ft. to ft. Material Size		Basalt, weathere	d/stewed bm sof	t		32	74
Explosives used: Yes Type Amount		Basalt, brown/gr		•		74	81
sa) ABANDONMENT USING UNHYDRATED BENTONI	TE	Basalt, gray w/o				81	107
Proposed Amount Actual Amount		Basalt, hard gray		. 1		107 153	153 194
6) CASING/LINER		Basalt, med. grav Basalt, hard grav		e orown		194	194
Casing Liner Dia + From To Gauge Stl Plstc		Basalt, hard gray				196	202
(a) C 6 X 2 118 .25 (b) C C C C C C C C C C	×						
8 4 B 2 202 scn40 8 8	$H \cap H$						
	HHI						
Shoe Inside Outside Other Location of shoe(s) 11	8						
Temp casing X Yes Dia 10 From + X 1 To 6							
Land Company Edit of the Company of							
(7) PERFORATIONS/SCREENS Perforations Method circular saw							
Screens Type Material		Date Started	V14/2022	Con	nolete	9/15/2022	
Perf Casing/Screen Scm/slot Stot # or					-		
Screen Liner Dis From To width length slot			ater Well Coust e work I perfor				ne situation
Perf Liner 4 142 162 1 5 40 Perf Liner 4 192 202 1 5 20		TOTAL CONTRACTOR	of this well is		1000		The second second
		construction str	ndards. Materia	ils used and i			
		320000000000000000000000000000000000000	nowledge and b	ebef.			
		License Numbe	1977		Date g	16/2022	
(8) WELL TESTS: Minimum testing time is 1 hour		Signed 30SE	ESTRADA (E	et a to			
Pump Bullet • Air Flowing	Artesian	2333	ESTRADA (E-				
Yield gal'nun Drawdown Drill stem/Pump depth Duration	(hr)	10,000,000,000	r Well Construc				
30 200 3			ability for the o				
	100		on this well dur ng this time is				
Temperature 54 °F Lab analysis Yes By			odards. This rep				
	term	License Numbe	Section Sections and		Date 9/1		₩
Water quality concerns? Yes (describe below) TDS amount 70 From To Description Amount	Units		1436	-	3/1	W 1921	-
(100 mm) (10		Signed DAV	ID PAYSINGER				
		Contact Info (or	tional) bluewat	erdrilling con	1 503 1	868 7878	

Page :

WATER SUPPLY WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow YAMH 59117

10/7/2022

Map of Hole



LOCATION OF WELL

Latitude: 45.24219321 Datum: WGS84

Longitude: -123.05659318

Town ship/Range/Section/Quarter-Quarter Section:

WM4.00S3.00W9NENE

Address of Well:

17530 NE MCDOUGALL RD, DAYTON

Well Label: 149426

Printed: September 16, 2022

DISCLAIMER, This map is intended to represent the approximate location the well. It is not intended to be construed as survey accurate in any manner.

Provided by wall constructor



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Tank Specifications										
Model	Diameter (inches)	Height (inches)	System Connection (inches)	Volume (gallons)	Draw	Weight				
					20/40	30/50	40/60	(lbs)		
WR 45	16	22	1	14	5.6	4.8	4.1	28		
WR 60	16	29	1	20	8.1	6.8	5.9	36		
WR 80	16	34.5	1	26	10.5	8.9	7.7	41		
WR 100	21	27.75	1 1/4	32	12.9	10.9	9.4	54		
WR 120	16	42.75	1	33.4	13.3	11.3	9.7	49		
WR 140	21	36.25	11/4	44	17.7	15.0	13.0	67		
WR 200	21	48	1 1/4	62	25.0	21.1	18.3	82		
WR 240	21	62	1 1/4	81	32.6	27.6	23.9	99		
WR 260	26	44.5	1 1/4	85	34.3	29.0	25.1	121		
WR 360	26	59.75	1 1/4	119	48.0	40.6	35.1	153		



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

