Groundwater Application Review Summary Form

Application # G- 18657
Application # G- 18657 GW Reviewer Phil Marcy Date Review Completed: 11/27/2018
Summary of GW Availability and Injury Review:
[] Groundwater for the proposed use is either over appropriated, will not likely be available in the amounts requested without injury to prior water rights, OR will not likely be available within the capacity of the groundwater resource per Section B of the attached review form.
Summary of Potential for Substantial Interference Review:
[] There is the potential for substantial interference per Section C of the attached review form.
Summary of Well Construction Assessment:
[] The well does not appear to meet current well construction standards per Section D of the attached review form. Route through Well Construction and Compliance Section.

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations and for conditions that may be necessary for a permit (if one is issued).

WATER RESOURCES DEPARTMENT Nov. 27 ,20 18 **MEMO** Application G-18657 TO: GW: Name) (Reviewer's Name) FROM: **SUBJECT: Scenic Waterway Interference Evaluation** YES The source of appropriation is within or above a Scenic Waterway X NO YES Use the Scenic Waterway condition (Condition 7J) X NO Per ORS 390.835, the Groundwater Section is able to calculate ground water interference with surface water that contributes to a Scenic Waterway. The calculated interference is distributed below. Per ORS 390.835, the Groundwater Section is unable to calculate ground water interference with surface water that contributes to a scenic waterway; therefore, the Department is unable to find that there is a preponderance of evidence that the proposed use will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway. DISTRIBUTION OF INTERFERENCE Calculate the percentage of consumptive use by month and fill in the table below. If interference cannot be calculated, per criteria in 390.835, do not fill in the table but check the "unable" option above, thus informing Water Rights that the Department is unable to make a Preponderance of Evidence finding. Exercise of this permit is calculated to reduce monthly flows in ______ Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced. Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



MEMO

To:

Kristopher Byrd, Well Construction and Compliance Section Manager

From:

Joel Jeffery, Well Construction Program Coordinator

Subject:

Review of Water Right Application G-18657

Date:

December 10, 2018

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Phil Marcy reviewed the application. Please see Phil's Groundwater Review and the Well Log.

Applicant's Well #3 (MALH 54314): Based on a review of the Well Report, Applicant's Well #3 seems to protect the groundwater resource.

The construction of Applicants Well #3 may not satisfy hydraulic connection issues.

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: FROM	[:		ection ection		Phillip	I. Marcy	y	Dat	e <u>11/27/2</u>	018				
SUBJE	ECT:	Appli	cation G-	18657		Revi	iewer's Nan	ne	eview of			Date of Re	view(s)	
OAR 6 welfare to deter	90-310-1 , safety a mine wh sumption	130 (1) 7 and healt ether the criteria.	The Depart th as descr e presumpt	ibed in ORS ion is establ ew is based	resume than 537.525. D ished. OAR upon avail	t a proposi Department 690-310- able infor	ed groun t staff rev 140 allow rmation	view ws t	ater use will v groundwate the proposed d agency pole	er applica use be m icies in pl	e prese tions u odified lace at	ervation of nder OA	of the pull R 690-31 itioned to e of evalu	0-140 meet aation.
A1.	Applica	ant(s) se	ek(s) <u>0.4</u>	1 cfs from	n <u>1</u>	well((s) in the		Malheur					_ Basin,
		Granite	Creek			subb	asin							
A2.	Propos	ed use _	1rri	gation (21.7	acres)	Seas	sonality:	_N	1arch 1 st − Oc	ctober 31 ^s	it (245	days)		
A3.	Well ar	nd aquife	er data (att	ach and nu	mber logs f	for existin	g wells;	ma	rk proposed	wells as	such ı	ınder log	gid):	
Well 1	Logi MALH 5		Applicant Well #	Propos	ed Aquifer*	Prop Rate	(cfs)		Location (T/R-S QQ 24S/39E-6 SW	-Q)	Location, metes and bounds, e.g 2250' N, 1200' E fr NW cor S 36 2605'S, 1265'E fr NW cor S 6			
2	um, CRB,								243/372-031	-1444	20	03 3, 1203	Ellinwic	0130
Well	Well Elev ft msl 4502	First Water ft bls 241	SWL ft bls	SWL Date 03/30/2018	Well Depth (ft) 410	Seal Interval (ft) 0-35	Casing Interva (ft) 0-40	_	Liner Intervals (ft) NA	Perfora Or Scre (ft) NA	eens	Well Yield (gpm) 450	Draw Down (ft) NA	Test Type
Use data	from app	lication f	or proposed	l wells.										
A4.	Comme	ents: W. LS. This	vell log for well is an	proposed Po	OA (MALH A on permi	I 54314) re t G-17567	eports pro , with an	odu aut	ection from "I thorized max	oroken cla imum pu	ayston mping	e" at dept	ths between 176 cfs.	een 241-
A5. 🛛	manage (Not all	ment of basin ru	ıles contai	ter hydraulio n such provi	sions.)		face wate	er [iles relative to ☐ are, or ☐	are not,	elopme activa	ent, classi ited by th	ification is applic	and/or ation.
A6. 🗌	Name o	of admin	istrative ar	ea:					p(s) an aquife					triction.

Version: 05/07/2018

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B. GROUNDWATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

B1.	Bas	sed upon available data, I have determined that groundwater* for the proposed use:
	a.	is over appropriated, is not over appropriated, <i>or</i> cannot be determined to be over appropriated during any period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;
	b.	will not or will likely be available in the amounts requested without injury to prior water rights. * This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;
	c.	☐ will not or ☐ will likely to be available within the capacity of the groundwater resource; or
	d.	will, if properly conditioned, avoid injury to existing groundwater rights or to the groundwater resource: i. The permit should contain condition #(s)7N; "Large Water Use Reporting" ii. The permit should be conditioned as indicated in item 2 below. iii. The permit should contain special condition(s) as indicated in item 3 below;
B2.	a.	Condition to allow groundwater production from no deeper than ft. below land surface;
	b.	Condition to allow groundwater production from no shallower than ft. below land surface;
	c.	Condition to allow groundwater production only from the groundwater reservoir between approximately ft. and ft. below land surface;
	d.	 Well reconstruction is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Groundwater Section. Describe injury —as related to water availability—that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc):
В3.	prop	undwater availability remarks: At the current authorized rate of appropriation, water levels appear stable. The bosed POA well is currently under a 7-year measurement condition on permit G-17567. As development commences in area, continued monitoring of groundwater levels is important. Therefore, if a permit is issued, condition 7N shall be
	appl	ied.

C. GROUNDWATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

C1. 6	590-09-040	(1) :	Evaluation	of aq	uifer	confinement:
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Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Broken Claystone		\boxtimes

Basis for aquifer confinement evaluation: Static water level within the well did not rise above the elevation that it was encountered within the well.

C2. **690-09-040** (2) (3): Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ½ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected? YES NO ASSUMED	Potential for Subst. Interfer. Assumed? YES NO
		(

Basis for aquifer hydraulic connection evaluation:	This section does not apply, as there are no perennial streams nearby.

Water Availability Basin the well(s) are located within: Granite Cr> S Fk Malheur R – AB Star Cr (ID# 31011619)

C3a. 690-09-040 (4): Evaluation of stream impacts for each well that has been determined or assumed to be hydraulically connected and less than 1 mile from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% natural flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < 1/4 mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells**. Otherwise same evaluation and limitations apply as in C3a above.

×	SW #		Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
									-	
Comme	ents: <u>T</u>	This section	does not	apply.						

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

	istributed	Wells											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well (Q as CFS												
Interfer	ence CFS												
Dietrib	outed Well	6				The second secon	*****						
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	7 Tug	%	%	%	%
Well (as CFS				- 70	70	70	70	70	70	70	7/0	70
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well (as CFS									70	70	70	70
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well (Q as CFS												70
Interfer	ence CFS												1
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfere	ence CFS												
(A) = To	tal Interf.									T	T		************
(B) = 80	% Nat. Q												
(C) = 1	% Nat. Q												
	(A) > (C)						N	-					1
$(\mathbf{E}) = (\mathbf{A} \cdot \mathbf{A})$	/ B) x 100	%	%	%	%	%	%	%	%	%	%	%	%

References Used: Geologic map of the Owyhee Region, Malheur County, Oregon, by Kittleman et al, 1967.

Application file G-18657, Application review G-17865, OWRD well log database, OWRD water level database.

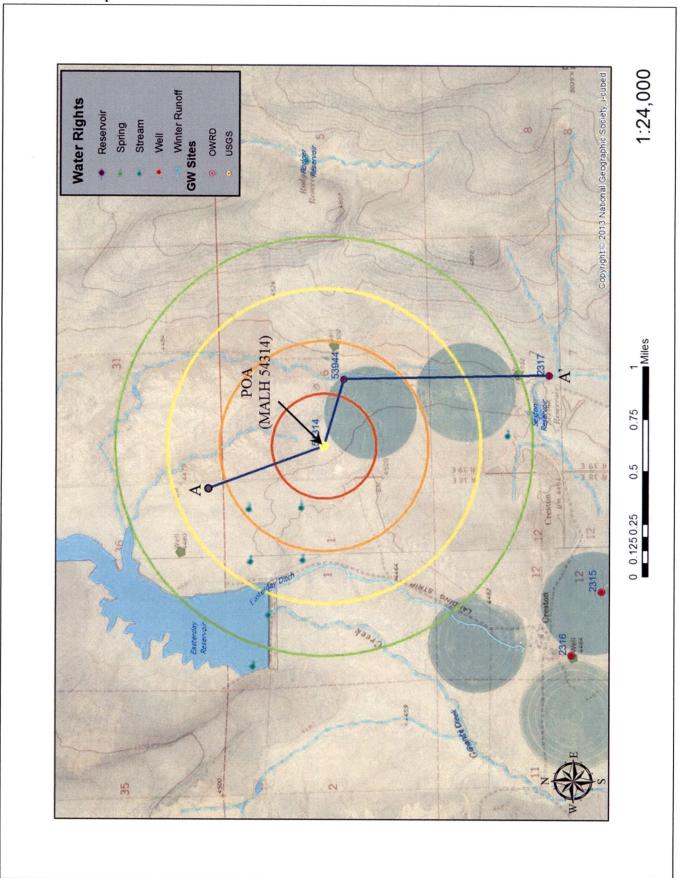
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Page

D1.	Well #:	Log	id:			
D2.	a. review of theb. field inspectic. report of CW	t appear to meet curre well log; on by RE y)				; ;
D3.	THE WELL constru	ction deficiency or oth	er comment is descr	ibed as follows: _		
м Г	Pouts to the Well C	and Comp	lianas Sastian fan a			
J4. L	Route to the Well Co	onstruction and Comp	nance Section for a i	review of existing	well construction.	
Water	Availability Tables	DETAILED REPORT	ON THE WATER AVAILA	BILITY CALCULATIO	DN .	
waters	hed ID #: 31011619 9:56 AM	GRANITE C	R > S FK MALHEUR R Basin: MALHEU	- AB STAR CR	Exc	eedance Level: 80 Date: 11/27/2018
Waters Time:	hed ID #: 31011619 9:56 AM	GRANITE C	R > 5 FK MALHEUR R Basin: MALHEU	- AB STAR CR IR	Exc	Date: 11/27/2018
Waters	hed ID #: 31011619 9:56 AM Natural Stream Flow	GRANITE C Consumptive Use and Storage	R > S FK MALHEUR R Basin: MALHEU Expected Stream Flow Monthly values a	- AB STAR CR R Reserved Stream Flow	Exc Instream Requirements	Date: 11/27/2018

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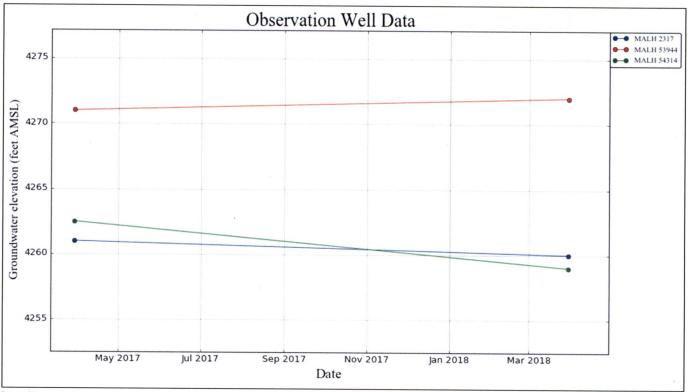
Well Location Map



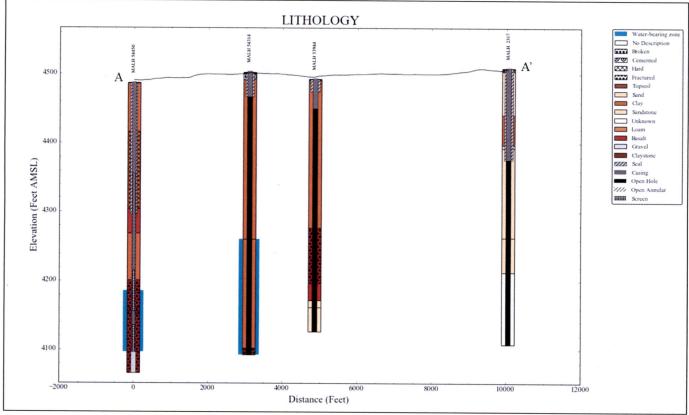
8

Date: 11/27/2018

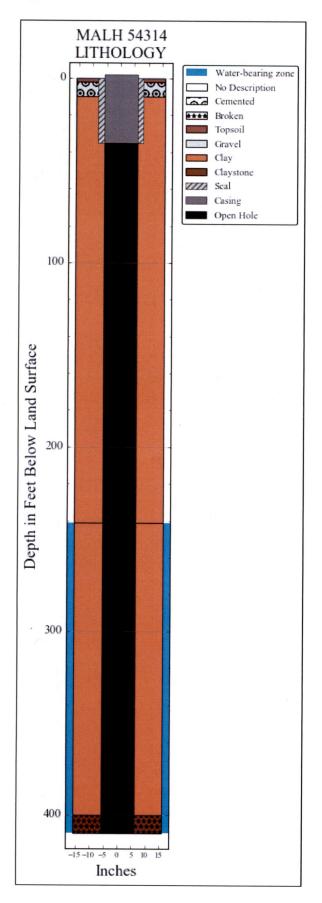
Water-Level Trends in Nearby Wells



Permit condition measurements for all three approve POA wells on permit G-17567 show no discernable decline.



The log report for the proposed POA well (MALH 54314) does not report volcanic rock, however the two wells adjacent report volcanic rock at similar elevations.



STATE OF OREGON

COUNTY OF MALHEUR

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

V BOX LAND & LIVESTOCK PO BOX 156 JUNTURA, OR 97911

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-17865

SOURCE OF WATER: WELL 1 (MALH 2317/54243), WELL 2 (MALH 53944/L107673) AND WELL 3 IN GRANITE CREEK BASIN

PURPOSE OR USE: IRRIGATION OF 220.9 ACRES

MAXIMUM RATE: 2.76 CUBIC FEET PER SECOND

PERIOD OF USE: MARCH 1 THROUGH OCTOBER 31

DATE OF PRIORITY: MAY 22, 2014

WELL LOCATION:

WELL 1 (MALH 2317/54243): NE 1/4 SW 1/4, SECTION 7, T24S, R39E, W.M.; 350 FEET SOUTH AND 2470 FEET EAST FROM W1/4 CORNER, SECTION 7

WELL 2 (MALH 53944/L107673): NE $\frac{1}{4}$ SW $\frac{1}{4}$, SECTION 6, T24S, R39E, W.M.; 3075 FEET SOUTH AND 2585 FEET EAST FROM NW CORNER, SECTION 6

WELL 3: SW ¼ NW ¼, SECTION 6, T24S, R39E, W.M.; 2560 FEET SOUTH AND 900 FEET EAST FROM NW CORNER, SECTION 6

The amount of water used for irrigation under this right, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second and 3.0 acre-feet for each acre irrigated during the irrigation season of each year.

THE PLACE OF USE IS LOCATED AS FOLLOWS:

NE ¼ NW ¼ 13.6 ACRES NW ¼ NW ¼ 36.7 ACRES

SW 1/4 NW 1/4 36.8 ACRES

SE 1/4 NW 1/4 13.6 ACRES

NE ¼ SW ¼ 19.5 ACRES

NW 1/4 SW 1/4 40.6 ACRES

impacting the resource or senior water rights. The water user shall in no instance allow excessive decline, as defined in Commission rules, to occur within the aquifer as a result of use under this permit. If more than one well is involved, the water user may submit an alternative measurement and reporting plan for review and approval by the Department.

Well 3 shall be constructed to produce groundwater only from the bedrock aquifer encountered between 235 and 360 feet below land surface. If any water-bearing zones are encountered in alluvium at shallower depths, the well shall be continuously cased and continuously sealed to a depth no less than 20 feet below the bottom of the water-bearing zone encountered.

Prior to using water from any well listed on this permit, the permittee shall ensure that the well has been assigned an OWRD Well Identification Number (Well ID tag), which shall be permanently attached to the well. The Well ID shall be used as a reference in any correspondence regarding the well, including any reports of water use, water level, or pump test data.

STANDARD CONDITIONS

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

If the number, location, source, or construction of any well deviates from that proposed in the permit application or required by permit conditions, this permit may be subject to cancellation, unless the Department authorizes the change in writing.

If substantial interference with surface water or a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The well(s) shall be constructed and maintained in accordance with the General Standards for the Construction and Maintenance of Water Supply Wells in Oregon. The works shall be equipped with a usable access port adequate to determine water-level elevation in the well at all times.

If the riparian area is disturbed in the process of developing a point of appropriation, the permittee shall be responsible for restoration and enhancement of such riparian area in accordance with ODFW's Fish and Wildlife Habitat Mitigation Policy OAR 635-415. For purposes of mitigation, the ODFW Fish and Wildlife Habitat Mitigation Goals and Standards, OAR 635-415, shall be followed.

The use may be restricted if the quality of downstream waters decreases to the point that those waters no longer meet state or federal water quality standards due to reduced flows.

Where two or more water users agree among themselves as to the manner of rotation in the use of water and such agreement is placed in writing and filed by such water users with the watermaster, and such rotation system does not infringe upon such prior rights of any water user not a party to such rotation plan, the watermaster shall distribute the water according to such agreement.

Prior to receiving a certificate of water right, the permit holder shall submit to the Water Resources Department the results of a pump test meeting the Department's standards for each point of appropriation (well), unless an exemption has been obtained in writing under OAR 690-217. The Director may require water-level or pump-test data every ten years thereafter.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

Construction of the well shall be made within five years of the date of permit issuance. The deadline to begin construction may not be extended. This permit is subject to cancellation proceedings if the begin construction deadline is missed.

Complete application of the water shall be made within five years of the date of permit issuance. If beneficial use of permitted water has not been made before this date, the permittee may submit an application for extension of time, which may be approved based upon the merit of the application.

Within one year after making beneficial use of water, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner.

Issued MARCH 30 2016

1. Timothy Wall.

E. Timothy Wallin, Water Rights Program Manager

for Thomas M. Byler, Director

Basin 10

Application G-17865 Water Resources Department Volume 1 GRANITE CR & MISC

PERMIT G-17567

SW 1/4 SW 1/4 28.0 ACRES SE 1/4 SW 1/4 12.3 ACRES SECTION 6

NE ¼ NW ¼ 0.7 ACRE NW 1/4 NW 1/4 19.1 ACRES SECTION 7 TOWNSHIP 24 SOUTH, RANGE 39 EAST, W.M.

Measurement devices, and recording/reporting of annual water use conditions:

- Α. Before water use may begin under this permit, the permittee shall install a totalizing flow meter at each point of appropriation. The permittee shall maintain the device in good working order.
- В. The permittee shall allow the watermaster access to the device; provided however, where any device is located within a private structure, the watermaster shall request access upon reasonable notice.
- The permittee shall keep a complete record of the volume of C. water diverted each month, and shall submit a report which includes water-use measurements to the Department annually, or more frequently as may be required by the Director. Further, the Director may require the permittee to report general wateruse information, including the place and nature of use of water under the permit.
- D. The Director may provide an opportunity for the permittee to submit alternative measuring and reporting procedures for review and approval.

Static Water Level Conditions

To monitor the effect of water use from the well(s) authorized under this permit, the Department requires the water user to obtain, from a qualified individual (see below), and report annual static water-level measurements. The static water level shall be measured in the month of March. Reports shall be submitted to the Department within 30 days of measurement.

Measurements must be made according to the following schedule:

Before Use of Water Takes Place

Initial and Annual Static Water Level Measurements

The Department requires the permittee to report an initial waterlevel measurement in the month specified above once well construction is complete, and annually thereafter until use of water begins; and

After Use of Water has Begun

Seven Consecutive Annual Static Water Level Measurements

Following the first year of water use, the user shall report seven consecutive annual static water-level measurements. The first of these seven annual measurements will establish the reference level against which future annual measurements will be compared. Based on an analysis of the data collected, the Director may require the user to obtain and report additional annual static water-level measurements beyond the seven year minimum reporting period. The additional measurements may be required in a different month. If the measurement requirement is stopped, the Director may restart it at any time.

All measurements shall be made by a certified water rights examiner, registered professional geologist, registered professional engineer, licensed well constructor or pump installer licensed by the Construction Contractors Board and be submitted to the Department on forms provided by the Department. The Department requires the individual performing the measurement to:

- A. Identify each well with its associated measurement;
- B. Measure and report water levels to the nearest tenth of a foot as depth-to-water below ground surface;
- C. Specify the method used to obtain each well measurement; and
- D. Certify the accuracy of all measurements and calculations reported to the Department.

The Department may require the discontinuance of groundwater use, or reduce the rate or volume of withdrawal, from the well(s) if any of the following events occur:

- A. Annual water-level measurements reveal an average water-level decline of three or more feet per year for five consecutive years; or
- B. Annual water-level measurements reveal a water-level decline of 15 or more feet in fewer than five consecutive years; or
- C. Annual water-level measurements reveal a water-level decline of 25 or more feet; or
- D. Hydraulic interference leads to a decline of 25 or more feet in any neighboring well with senior priority.

The period of non-use or restricted use shall continue until the water level rises above the decline level which triggered the action or until the Department determines, based on the permittee's and/or the Department's data and analysis, that no action is necessary because the aguifer in question can sustain the observed declines without adversely

Page 1 of 1

STATE OF OREGON	MALE	I 54314		ART CARD	_			
WATER SUPPLY WELL REPORT (as required by ORS 537.765 & OAR 690-205-0210)	4/27	/2016		INAL LOG		889		
•		72010	ORIG	INAL LOG	THE STATE OF THE S			
1) LAND OWNER Owner Well I.D. First Name Last Name Company V BOX LAND & LIVESTOCK		(9) LOCATI					E	_ E/W WN
Address PO BOX 156	1	Sec 6 N	NE 1/4	of the SW	1/4	Tax Lot 30	0	
Address PO BOX 156 City JUNTURA State OR Zip 9791 2) TYPE OF WORK New Well Deepening Alteration (complete 2a & 10) Abandon	Conversion	Tax Map Number Lat° Long°	er	" or		Lot	_ DI	MS or DD
2a) PRE-ALTERATION		Long	eet address of	f well	Nearest a	ddress	_ D	MS or DD
Dia + From To Gauge Stl Plstc Wld Casing: Material From To Amt sacks/lbs	THIC	20 MILES SOU JUNTURA						
Seal: 3) DRILL METHOD Rotary Air Rotary Mud Cable Auger Cable Reverse Rotary Other	le Mud	(10) STATIO	ell / Pre-Alter Well	ation 3/28/20	016	WL(psi) +		VL(ft)
4) PROPOSED USE Domestic XIrrigation Con	nmunity		Flowin	ng Artesian?	Dr	y Hole?		
Industrial/Commericial Livestock Dewatering Thermal Injection Other		WATER BEARI SWL Date	NG ZONES From	Depti To		s first found SWL(psi)		
	rd (Attach copy	3/28/2016	241	410	450			241
Depth of Completed Well 410.00 ft. BORE HOLE SEAL Dia From To Material From	sacks/ To Amt lbs							
10 0	35 27 S slated 23.8							
Calcu	lated	(11) WELL I	LOG	Ground Elev	ation			
How was seal placed: Method A B C	D E		Material			From		То
XOther POURED & TAMPED		TOPSOIL	(E) (EE)			0 2	-	10
Backfill placed from ft. to ft. Material	Sizh	GRAVEL - CEI				10	+	400
Filter pack from ft. to ft. Material		CLAYSTONE -				400		410
Explosives used: Yes Type Amount							+	
5a) ABANDONMENT USING UNHYDRATED BEN' Proposed Amount Actual Amount	IONITE							
(6) CASING/LINER							-	
Casing Liner Dia + From To Gauge Stl 12 X 2 40 .250	Plstc Wld Thrd							
Shoe Inside Outside Other Location of sho	oe(s)							
Temp casing Yes Dia From	То						+	
7) PERFORATIONS/SCREENS Perforations Method						1.0000000		
Screens Type Material Perf/ Casing/ Screen Scrn/slot Slot	# of Tele/	Date Started			•	d 3/28/2016		
Screen Liner Dia From To width length	slots pipe size	(unbonded) W I certify that the abandonment of construction states the best of my k License Number	ne work I per of this well andards. Mat knowledge an	rformed on the is in completerials used ar	e construction iance with	ction, deepen n Oregon w	ater s	supply wel
(8) WELL TESTS: Minimum testing time is 1 hour	owing Artosian	Signed						
Yield gal/min Drawdown Drill stem/Pump depth Dt 450 400 Temperature 59 °F Lab analysis Yes By		(bonded) Wate I accept respon work performed performed duri construction sta	sibility for the don this welling this time andards. This	during the co	n, deepening nstruction liance wit	dates reported h Oregon w	d abov ater	ve. All wo supply we
Water quality concerns? Yes (describe below) TDS amoun		License Numbe	er 1424		Date 4/2	27/2016		
		Signed TIMO	OTHY K RIL	EY (E-filed)				

Contact Info (optional) TIM RILEY 541-573-5695

STATE OF OREGON WATER SUPPLY WELL REPORT (as required by OPS 537 765 & OAB 690-205-0216

MALH 54314

WELL I.D. LABEL# L 120703

START CARD # 1029889

ORIGINAL LOG #

4/27/2016 (as required by ORS 537.765 & OAR 690-205-0210) (1) LAND OWNER Owner Well I.D First Name Last Name (9) LOCATION OF WELL (legal description) Company V BOX LAND & LIVESTOCK County MALHEUR Twp 24.00 S N/S Range 39.00 E Address PO BOX 156 Sec <u>6</u> <u>NE</u> <u>1/4 of the <u>SW</u> <u>1/4 Tax Lot <u>300</u></u></u> City JUNTURA Zip 97911 Tax Map Number ___ X New Well (2) TYPE OF WORK Deepening Alteration (complete 2a & 10) Abandonment(complete 5a) " or DMS or DD (2a) PRE-ALTERATION Nearest address Street address of well Stl Plstc Wld Thrd Gauge Casing: 20 MILES SOUTH SHUMWAY ROAD JUNTURA Amt sacks/lbs From Seal: (10) STATIC WATER LEVEL (3) DRILL METHOD SWL(psi) | Rotary Air | Rotary Mud | Cable | Auger | Cable Mud SWL(ft) Existing Well / Pre-Alteration Reverse Rotary Other Completed Well Domestic X Irrigation Flowing Artesian? Dry Hole? (4) PROPOSED USE Livestock Dewatering Industrial/ Commericial Depth water was first found 241.00 WATER BEARING ZONES Thermal Injection Other SWL Date From To Est Flow SWL(psi) + SWL(ft) (5) BORE HOLE CONSTRUCTION Special Standard (Attach copy) 3/28/2016 410 450 241 Depth of Completed Well 410.00 **BORE HOLE SEAL** sacks/ To Dia From Material From Amt lbs 35 27 16 Bentonite Chips Calculated 23.8 410 12 (11) WELL LOG Calculated Ground Elevation How was seal placed: Method Material To Other POURED & TAMPED TOPSOIL **GRAVEL - CEMENTED** 2 10 Backfill placed from _____ ft. to ___ __ ft. Material CLAY - BROWN 10 400 _ ft. to _____ ft. Material 410 **CLAYSTONE - BROKEN** Explosives used: Yes Type_ Amount (5a) ABANDONMENT USING UNHYDRATED BENTONITE Actual Amount Proposed Amount (6) CASING/LINER Stl Plstc Wld Thrd Casing Liner From To Gauge 12 X Other Inside Outside Location of shoe(s) Temp casing Yes Dia_ (7) PERFORATIONS/SCREENS Perforations Method_ Screens Type ___ Date Started 3/7/2016 Completed <u>3/28/2016</u> Material Perf/ Casing/ Screen # of Tele/ Scrn/slot Slot (unbonded) Water Well Constructor Certification slots pipe size To Screen Liner Dia From width length 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 (8) WELL TESTS: Minimum testing time is 1 hour Signed O Flowing Artesian O Pump O Bailer Air (bonded) Water Well Constructor Certification Drill stem/Pump depth Duration (hr) 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. °F Lab analysis Yes By Temperature 59 Date 4/27/2016 Water quality concerns? License Number 1424 Yes (describe below) TDS amount Amount Units Description Signed TIMOTHY K RILEY (E-filed) Contact Info (optional) TIM RILEY 541-573-5695