#### **Groundwater Application Review Summary Form**

Application # G- 18730

GW Reviewer \_\_\_\_\_\_ Date Review Completed: 12-21-2018

#### 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. \$1 12/21/18

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

MEMO

12-21,2018

TO: Application G-\_\_18730

FROM:

GW: <u>J. Woody</u> (Reviewer's Name)

**SUBJECT: Scenic Waterway Interference Evaluation** 

□ ¢	YES NO	The source of appropriation is within or above a Scenic Waterway
- 	YES NO	Use the Scenic Waterway condition (Condition 7J)

- 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
	and the second										

### Memo

To: Kristopher Byrd, Well Construction and Compliance Section Manager

From: Joel Jeffery, Well Construction Program Coordinator

Subject: Review of Water Right Application G-18730

**Date:** December 27, 2018

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

Applicant's Well #1 (YAMH 53959): Based on a review of the Well Report, Applicant's Well #1 seems to protect the groundwater resource.

The construction of Well #1 may not satisfy hydraulic connection issues.

		YAM	Н
Arrow	04-042		1

53959

#### WELL ID # L 74404 START CARD # 166940

	ER: Kathryan S 1089 DRK: eepening [ HOD: Rotary Mud	Well Semke State: O Alteration	(repair/ 1 reconditio	Zip: 9711	11	(9) LOCATION O County: <u>Yamhill</u> Township: <u>3S</u> Section: <u>16</u> Tax Lot: <u>1301</u> L Street Address of W
Address: PO Box City: Carlton (2) TYPE OF WC Mew Well Do (3) DRILL METH (3) DRILL METH (4) PROPOSED I (4) PROPOSED I (5) BORE HOLE Special Constructi Depth of Complete	1089 DRK: eepening [ HOD: Rotary Mud USE: [Communit	Semke State: O ]Alteration	OR Z (repair/ ) recondition	Zip: 9711	11	Township: <u>3S</u> Section: <u>16</u> Tax Lot: <u>1301</u> L
Address: PO Box City: Carlton (2) TYPE OF WC Mew Well Do (3) DRILL METH (3) DRILL METH (4) PROPOSED I (4) PROPOSED I (5) BORE HOLE Special Constructi Depth of Complete	1089 DRK: eepening [ HOD: Rotary Mud USE: [Communit	State: O	(repair/ 1 reconditio		1	Section: <u>16</u> Tax Lot: <u>1301</u> L
(2) TYPE OF WC New Well Do (3) DRILL METH Rotary Air F Other: (4) PROPOSED ( Domestic Thermal (5) BORE HOLE Special Constructi Depth of Complete	eepening [ HOD: Rotary Mud USE:  Communit	Alteration	(repair/ 1 reconditio		11	Tax Lot: 1301 L
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Rotary Air       F         Other:	Rotary Mud U <b>SE</b> : Communit	Cable	Aug		ndonment	Road, Carlton, Oreg
Other: (4) PROPOSED I Domestic Thermal (5) BORE HOLE Special Constructi Depth of Complete	U <b>SE</b> : Communit	Cable	Aug			- (10) STATIC WA'
(4) PROPOSED ( Domestic Thermal (5) BORE HOLE Special Constructi Depth of Complete	Communit			er		<u>73</u> Ft. below lar Artesian pressure
Domestic Thermal (5) BORE HOLE Special Constructi Depth of Complete	Communit					
<b>Thermal</b> (5) BORE HOLE Special Constructi Depth of Complete			otrial	Irriga	tion	(11) WATER BEA
(5) BORE HOLE Special Constructi Depth of Complete				Other		Depth at which wate
Special Construction Depth of Complete	and the second se	States and states and states and states and	btook			From
Depth of Complete			No			109 1:
Explosives Used	ed Well 182	2				
	$\Box$ Yes $\boxtimes$ N	lo Type		Amount	and the second se	
HOLE Diameter From	To M	aterial	SEAL From	To	sacks or pounds	
10" 0		ent chps	0	50	31 inc bf	
6" 58	182					(12) WELL LOG
				+		N
						top soil
					ПЕ	clay red silty clay tan-brwn
How was seal plac Other bent chi			ЪВ	C D	LE	shale gray-brwn sf
Backfill placed fro		to <u>58</u>	Materia	al bent c	hps	shale gray firm
Gravel placed fro	om	to		gravel		claystone light gra
(6) CASING/LIN	ER:					shale gray firm
CASING:						siltstone light gray
Diameter From	To		-	_	ded Threaded	shale gray firm
6" +18"	59'	.250	$\boxtimes$			sandstone light gra
				H F		shale gray firm w/i
LINER:						
4" 41	182	160#				
Drive Shoe used				□ None		REC
Final location of S			c reducer	top of li	ner	
(7) PERFORATI						NOV
Perforations	Method: Type:		Material:			INU Y
	Slot			e/pipe	-	WATER RE
From To	Size I	No. Diam			Casing Liner	SALEI
142 182 3	3/16x7	72 4"	p	ipe		
						Dute Started: 11/11
						Date Started: <u>11/11</u> (unbonded) Water We
					Second Second	I certify that the
(8) WELL TEST:	Bailer	m testing the $\square$ A		<b>nour</b> Flowing 1	Artesian	abandonment of this w
	Drawdown		Stem at	Time		construction standards
11.5 N/		180		1 hr.		to the best of my know
						Signed
				_		(bonded) Water Well (
		Derit	-	law F		I accept response
Temperature of wa		Depth A			na	work performed on thi work performed during
Was a water analy Did any strata con			whom: for inten		(explain)	well construction stan
in any suata coll	tani water I	.or sundoic	.or men		(aubum)	belief.
Depth of Strata:		-				Signed Mar
Depui of Strata.				C 502		
Depth of Strata.	ARR	OW DRI	ILLIN	G 203	-538-4422	Ano
Deput of Strata.	ARR	OW DR	ILLIN	G 303	-538-4422	And the second s

STATE OF OREGON

#### ATION OF WELL by legal description: Range: <u>5W</u> Yamhill : <u>3S</u> 16 <u>SE</u> 1/4 SE 1/4 Block: Subdivision: 1301 Lot: dress of Well (or nearest address) 18179 Meadow Lake lton, Oregon 97111 TIC WATER LEVEL: below land surface Date 11/11/04 \_\_\_\_ lb. per sq. in. ressure Date \_

#### **FER BEARING ZONES:**

То	Est. Flow Rate	SWL
159	11.5 gpm	73'

(12) WELL LOG: Ground Eleve	ation:		
Material	From	То	SWL
top soil	0	1	
clay red silty	1	5	
clay tan-brwn	5	17	
shale gray-brwn sft wthd	17	28	
shale gray firm	28	55	
claystone light gray firm to hrd	55	59	
shale gray firm	59	81	
siltstone light gray firm to hrd	81	87	
shale gray firm	87	109	
sandstone light gray hrd	109	111	
shale gray firm w/intermit hrd fract layers	111	182	
RECEIVED			
NOV 29 2004			
WATER RESOURCES DEPT SALEM, OREGON			
Date Started: 11/11/04 Comp	oleted: 1	1/11/04	J

Water Well Constructor Certification:

rtify that the work I performed on the construction, alteration,, or ent of this well is in compliance with Oregon water supply well on standards. Materials used and information reported above are true of my knowledge and belief. WWC Number

	wwc.inumber
ned	Date
nded) Water Well Constructor Certification:	

cept responsibility for the construction, alteration, or abandonment

rend on this well during the construction dates reported above. All rend during this time is in compliance with Oregon water supply witigh standards. This report is true to the best of my knowledge and

WWC Number 1483 Date 11/24/05

SECOND COPY - Customer

#### PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO:			er Rights S					Da	.te	12/21/2	2018		
FROM	1:	Grou	indwater S	ection		Jen W	oody						
							ewer's Nam						
SUBJ	ECT:	Appl	ication G-	18730		Su	persedes	review of 1	J/A				
											Date of Re-	view(s)	
OAR ( welfare to dete the pre	<b>590-310-1</b> e, safety al rmine who sumption	<b>30</b> ( <b>1</b> ) <i>nd hea</i> ether th criteria	<i>The Depart</i> <i>lth as descr</i> ne presumpt	<i>ibed in ORS</i> ion is establi <b>ew is based</b>	<i>resume tha</i> 537.525. D ished. OAR <b>upon avai</b> l	<i>t a propose</i> Department 690-310- able infor	ed ground staff revi 140 allow <b>mation a</b>	<i>lwater use wil</i> we groundwa sthe propose and agency po Regal	ter applica d use be n licies in p	ations u nodified <b>blace at</b>	nder OAl l or condi <b>the time</b>	R 690-31 tioned to of evalu	0-140 meet ation.
A. <u>GE</u>	MEKAL		JKMAIN	$\underline{ON}$ : A	pplicant s r	vame:	wittenen	Kegal			County: _	ramniii	
A1.	Applica	nt(s) s	$eek(s) \_ 0.1$	1 cfs from	m <u>2</u>	well(	(s) in the	Willamet	e				_Basin,
						subb	asin						
						3000	usin						
A2.	Propose	ed use	Irri	gation of 76.	.3 acres	Seas	onality:	March 10-Oc	tober 31				
A3.	Well an	d aqui	fer data ( <b>att</b>	tach and nu	mber logs	for existin	g wells; ı	mark propose	d wells a	s such ı	under log	gid):	
			Applicant	's		Prop	osed	Locati	on	Locat	tion, mete	s and bou	nds e g
Well	Logic	i l	Well #	Propos	ed Aquifer*	Rate		(T/R-S Q			' N, 1200'		0
1	YAMH 5	3959	1	Marine	Sedimentary	0.		T3S/R5W-16			25' N, 1915		
				В	edrock								
2	Propos	ed	2		Sedimentary	0.	11	T3S/R5W-16	NW SE	162	20'N, 1610'	W fr SE co	or S 16
				В	edrock								
3													
5													
	ium, CRB,	Bedroo	k							1			
Alluv	ium, CRD,	Deuroe	ĸ										
	Well	First			Well	Seal	Casing	Liner	Perfor	ations	Well	Draw	
Well	Elev	Wate	r   SWL	SWL	Depth	Interval	Interval		Or Sc		Yield	Down	Test
	ft msl	ft bls	l tt bls	Date	(ft)	(ft)	(ft)	(ft)	(fi		(gpm)	(ft)	Туре
1	652	109	73	11/11/2004	182	0-50	0-59	41-182	142-	/	11.5	unk	air
2	620	TBD		*	200	0-50	0-100	TBD	TB		TBD	TBD	TBD
	1								1				

Use data from application for proposed wells.

A4. **Comments:** <u>\*Well 2 is proposed with 200 feet total depth; construction details to be determined during drilling.</u>

A5. Provisions of the <u>Willamette</u> Basin rules relative to the development, classification and/or management of groundwater hydraulically connected to surface water  $\Box$  are, *or*  $\boxtimes$  are not, activated by this application. (Not all basin rules contain such provisions.)

Comments: The well produces from a confined aquifer, therefore the pertinent rules (OAR 690-502-240) to not apply.

A6. Well(s) #

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_, \_\_\_\_, tap(s) an aquifer limited by an administrative restriction. , Name of administrative area: Comments: N/A

2

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

- B1. **Based upon available data**, I have determined that <u>groundwater</u>\* for the proposed use:
  - a. **is** over appropriated, **is not** over appropriated, *or* **is 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) \_\_\_\_\_
    - ii.  $\square$  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 <u>marine sedimentary rock</u> 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):

#### B3. Groundwater availability remarks:

The subject site is located in the foothills of the Coast Range, which are characterized by low-yielding marine sedimentary rock aquifers. A survey of well logs in T3S/R5W-Section 16 produced 17 well logs, with reported yields ranging from 0 to 19 gpm. The median yield is 5 gpm and most logs report claystone or siltstone with occasional sandstone or basalt. This is typical of the low-yield bedrock hydrogeologic unit identified at this location by Conlon et al. (2005). The closest marine sedimentary rock wells with water level data are located two miles to the southeast of the subject well; nearby groundwater development from the marine sediments is otherwise limited to exempt uses. Because there are no nearby water level data available, the groundwater resource cannot be determined to be over-appropriated. Water level data from marine sedimentary rock wells in Sections 23 and 24 show a reasonably stable trend at the current level of use (see Figure 3). In the event this permit is issued, water use and water level monitoring conditions are recommended to address resource sustainability questions.

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

C1. 690-09-040 (1): Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Marine Sedimentary Bedrock Aquifer	$\square$	
	· · · · ·		

**Basis for aquifer confinement evaluation:** <u>Nearby well logs in the marine sedimentary bedrock aquifer show static water</u> levels rise above water-bearing zone. This indicates confined aquifer conditions.

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 <sup>1</sup>/<sub>4</sub> 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? ES NO ASSUMED		Potentia Subst. Int Assum YES	terfer. ed? <b>NO</b>
1	1	Russell Creek	580	480- 600	1540- 4100					$\boxtimes$
2	1	Russell Creek	580*	480- 600	1800- 4100	$\boxtimes$				$\boxtimes$
1	2	Beaver Creek	580	360- 600	3800- 5820	$\boxtimes$				× Ź
2	2	Beaver Creek	580*	360- 600	3500- 5280	$\boxtimes$				
/										

**Basis for aquifer hydraulic connection evaluation:** <u>Water-table maps, where they exist, generally show flow paths that</u> converge on local perennial streams. The water level at the subject well is above perennial reaches of the nearby creeks, and the creeks have incised through several hundred feet of marine sediments. Groundwater from the uplands likely discharges to surface water down-gradient, providing baseflow or spring flow to sustain nearby perennial reaches of the creek.

Water Availability Basin the well(s) are located within: <u>Watershed ID #: 70745 PANTHER CR > N YAMHILL R - AT</u> MOUTH

C3a. **690-09-040** (4): Evaluation of stream impacts for <u>each well</u> 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 < ¼ 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?
1	1			N/A	N/A		5.18	$\square$	*	
1	2			N/A	N/A		5.18	$\square$	*	$\square$
2	1			N/A	N/A		5.18	$\square$	*	$\square$
2	2			N/A	N/A		5.18	$\square$	*	$\square$

3

4

C3b. **690-09-040** (**4**): Evaluation of stream impacts <u>by total appropriation</u> 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.

e · araanon	and and miniations apply as in Coa above.										
S	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?		

**Comments:** The proposed pumping rate (0.11 cfs) is greater than 1% of the 80% exceedance natural flow, so PSI is assumed per 690-09.

<u>\* There is no appropriate model to estimate stream depletion from pumping in fractured rock that is incised by streams or discharges to point sources such as springs. Therefore, the percentage of interference at 30 days is not calculated.</u>

# 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	Q as CFS												
Interfer	ence CFS												
	uted Well									~			
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	) as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	· %	%	%	%
Well Q	as CFS												
	ence CFS			-									
		%	%	%	%	%	%	%	%	%	%	%	%
Well C	) as CFS								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	10	10		10
	ence CFS		1.11										
				1									
$(\mathbf{A}) = \mathbf{T}0$	otal Interf.												
(B) = 80	% Nat. Q												
(C) = 1	% Nat. Q												

Application G-18730

<b>Rights So</b> 5. <b>If properly</b> under this p	(5) (b) Tection. (condition (condition) (c	The potential to be regulated if nit should conta nit should conta conditions:	to impair or it is found t ain conditior ain special co The applica	r detriments on dition(s	than (C); ( ntally affer be adequa tially inter s) as indica	E) = total in ect the pu itely protect ated in "Re would be p	blic inter blic inter cted from surface wa emarks" b	est is to b interferen ater: below; from an a	y 80% flow	ined by th	age.
<ul> <li>FS; (D) = highlight Basis for imp</li> <li>Basis for</li> <li>Basis for</li> <li>B</li></ul>	(5) (b) Tection. (condition (condition) (c	The potential to be regulated if nit should conta nit should conta conditions:	to impair or e water sourd it is found t ain conditior ain special co The applica	r detriments on dition(s	than (C); ( ntally affer be adequa tially inter s) as indica	E) = total in ect the pu itely protect ated in "Re would be p	blic inter blic inter cted from surface wa emarks" b	est is to b interferen ater: below; from an a	y 80% flow	ined by th	age.
☐ If properly under this p i. ☐ ii. ☐ SW / GW Rem to be hydraulica	y condition bermit can The perm The perm <b>arks and</b> <u>ally connec</u>	be regulated if nit should conta nit should conta <b>Conditions:</b>	it is found t ain conditior ain special co The applica	to substant n #(s) ondition(s	tially inter	ated in "Re would be r	surface wa	ater: elow; from an a	aquifer tha	t has been	found
References Use	Vozniak, K										
<u>Ground-water h</u> <u>US Geological S</u>			27						-	-	
OWRD water le	evel and w	ell log database	es, includes	reported v	water leve						
Woodward, D.C Washington. U				Framewor	rk of the V	Villamette	Lowland	Aquifer S	System, O	regon and	

Page

#### D. WELL CONSTRUCTION, OAR 690-200

D1.	Well #:         Logid:         N/A
D2.	THE WELL does not appear to meet current well construction standards based upon:         a.       review of the well log;         b.       field inspection by;         c.       report of CWRE;         d.       other: (specify);
D3.	THE WELL construction deficiency or other comment is described as follows:

D4. 
 Route to the Well Construction and Compliance Section for a review of existing well construction.

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Figure 1. Water Availability Tables

## Water Availability Analysis Detailed Reports

PANTHER CR > N YAMHILL R - AT MOUTH WILLAMETTE BASIN

Water Availability as of 12/20/2018

Watershed ID #: 70745 (Map)

Exceedance Level:80%

Date: 12/20/2018

Time: 12:48 PM

### Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second Annual Volume at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	117.00	4.99	112.00	0.00	25.00	87.00
FEB	150.00	5.04	145.00	0.00	25.00	120.00
MAR	119.00	4.12	115.00	0.00	25.00	89.90
APR	72.10	4.34	67.80	0.00	25.00	42.80
MAY	33.20	5.64	27.60	0.00	25.00	2.56
JUN	16.10	6.26	9.84	0.00	6.00	3.84
JUL	8.77	7.67	1.10	0.00	4.00	-2.90
AUG	6.10	6.95	-0.85	0.00	3.00	-3.85
SEP	5.18	4.90	0.28	0.00	3.00	-2.72
OCT	8.85	2.99	5.86	0.00	5.00	0.86
NOV	19.60	3.22	16.40	0.00	25.00	-8.62
DEC	92.20	4.77	87.40	0.00	25.00	62.40
ANN	72,200.00	3,680.00	68,500.00	0.00	11,800.00	56,700.00

Figure 2. Well Location Map

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Version: 05/07/2018

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Figure 3. Water-Level Trends in wells located in T3S/R5W-Sections 23 & 24 are stable; there are no time series water level data available in Section 16 (location of subject wells).

