

**PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS**

TO: Water Rights Section Date September 23, 2004

FROM: Ground Water/Hydrology Section Michael Zwart  
Reviewer's Name

SUBJECT: Application G- 16307 Supersedes review of N/A  
Date of Review(s)

**PUBLIC INTEREST PRESUMPTION; GROUNDWATER**

**OAD 690-310-130 (1)** *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525. Department staff review ground water applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. This review is based upon available information and agency policies in place at the time of evaluation.*

**A. GENERAL INFORMATION:** Applicant's Name: Rich Kortge County: Wasco

A1. Applicant(s) seek(s) 0.89 cfs from one well(s) in the Hood Basin,  
 \_\_\_\_\_ subbasin Quad Map: The Dalles South

A2. Proposed use: Irrigation, 239 ac. (P) Seasonality: March 1 to October 31

A3. Well and aquifer data (attach and number logs for existing wells; mark proposed wells as such under logid):

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	WASC 51251	1	CRB	0.89	1S/13E-3 NE-NE	650' S, 550' W fr NE cor S 13
2						
3						
4						
5						

\* Alluvium, CRB, Bedrock

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	980	229*	84	4/6/04	495	0-225	0-338	None	238-338	350	411	Air

Use data from application for proposed wells.

A4. **Comments: \*A very shallow water-bearing zone at 10-21 feet was described, but this is cased and sealed off. Drawdown estimated from air test.**

A5.  **Provisions of the Hood** \_\_\_\_\_ Basin rules relative to the development, classification and/or management of ground water hydraulically connected to surface water  are, or  are not, activated by this application. (Not all basin rules contain such provisions.)  
 Comments: \_\_\_\_\_

A6.  Well(s) # \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, tap(s) an aquifer limited by an administrative restriction.  
 Name of administrative area: \_\_\_\_\_  
 Comments: \_\_\_\_\_

*app no. G 16307*



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

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

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	Basalt of the Columbia River Basalt Group	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

**Basis for aquifer confinement evaluation: In this area, basalt aquifers are typically confined. The static water level is well above the level of the first basalt water-bearing zone.**

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 ¼ 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?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Japanese Hollow	896	975	200	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	2	Fivemile Creek	896	860	3200	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	3	Threemile Creek	896	800	11500	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	4	Eightmile Creek	896	900	6700	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Basis for aquifer hydraulic connection evaluation: All nearby stream reaches are above the elevation of the shallowest water-bearing zone. Hydraulic connection is likely at downstream reaches of the creeks and/or the Columbia River. However, I am not able to estimate these distances, due to the uncertain dip of beds. Water level trends at nearby wells also suggest that hydraulic connection is poor or distant from the wells.**

**Water Availability Basin the well(s) are located within: Japanese Hollow > Eightmile Cr at mouth (30410536).**

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 < 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?
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

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?
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Comments: 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.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													

(D) = (A) > (C)



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

D1. Well #: 1 Logid: WASC 51251

D2. THE WELL does not 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:

- a.  constitutes a health threat under Division 200 rules;
- b.  commingles water from more than one ground water reservoir;
- c.  permits the loss of artesian head;
- d.  permits the de-watering of one or more ground water reservoirs;
- e.  other: (specify) \_\_\_\_\_

D4. THE WELL construction deficiency is described as follows: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- D5. THE WELL
  - a.  was, or  was not constructed according to the standards in effect at the time of original construction or most recent modification.
  - b.  I don't know if it met standards at the time of construction.

D6.  Route to the Enforcement Section. I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Enforcement Section and the Ground Water Section.

**THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL**

D7.  Well construction deficiency has been corrected by the following actions: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

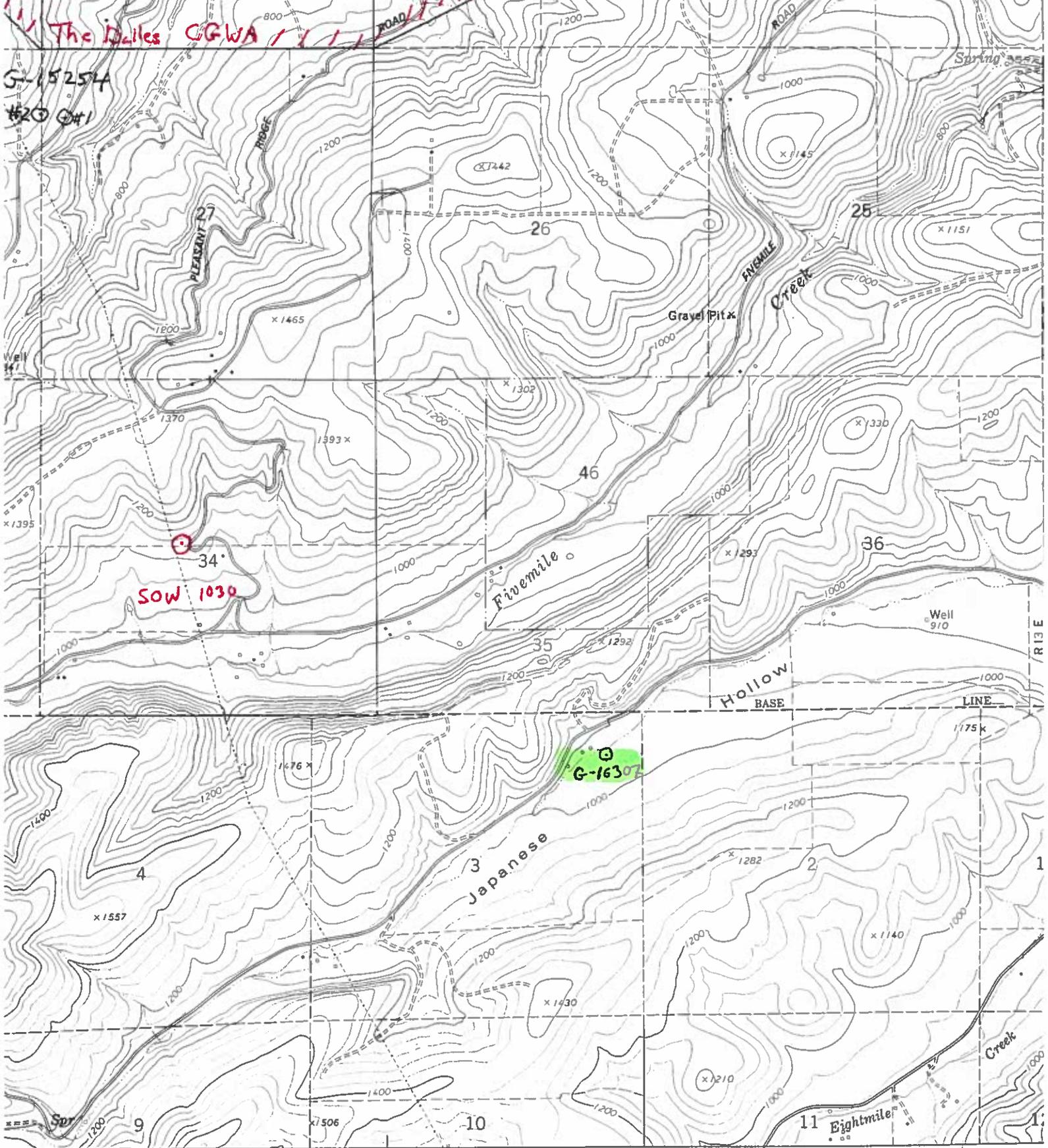
\_\_\_\_\_, 200\_\_\_\_\_  
(Enforcement Section Signature)

D8.  Route to Water Rights Section (attach well reconstruction logs to this page).



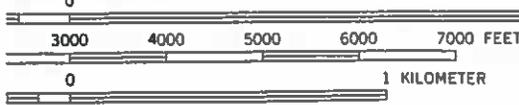
The Dalles CGWA

G-15254  
#20



(DUFUR WEST)  
1774 NW

SCALE 1:24 000



VERTICAL DATUM OF 1929  
SOUNDINGS IN FEET  
NORMAL POOL ELEVATION 72 FEET

The Dalles South



INTERIOR GEOLOGICAL SURVEY, RESTON, VIRGINIA-1978  
ENDERSBY 0.7 MI. 12

ROAD CLASSIFICATION

- Primary highway, hard surface
- Secondary highway, hard surface
- Light-duty road, hard or improved surface
- Unimproved road
- Interstate Route
- U. S. Route
- State Route

THE DALLES SOUTH OREGON WAS

# Ground Water



Oregon Water Resources Department

(503)378-0455 • 150 E2th St. NE Salem, OR 97310



## Hydrograph for State Well WASC 2672, State Observation Well # 1030

Well Location 1.00N13.80E34B0D

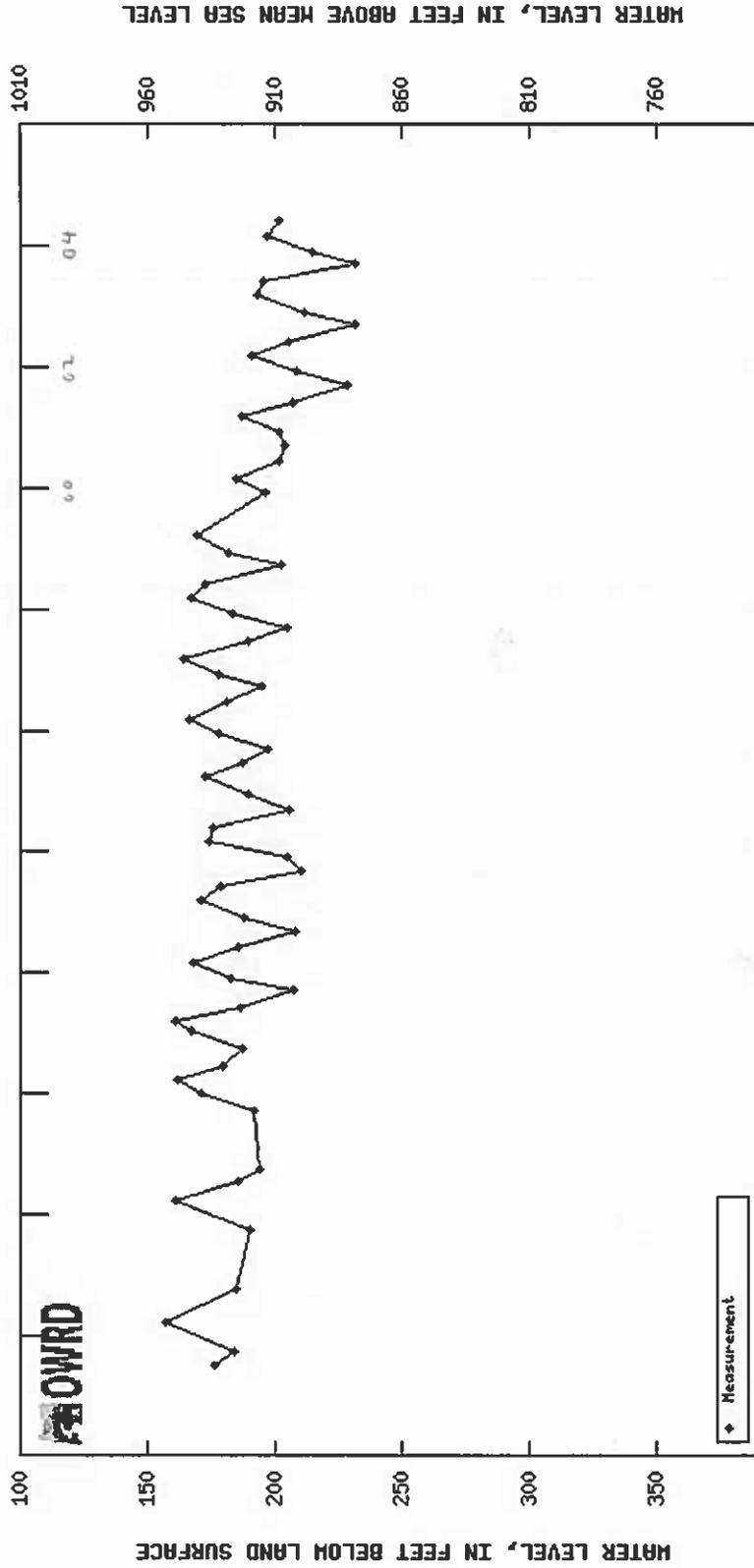
Oregon Water Resources Department Well Log ID WASC 2672

Oregon Water Resources Department State Observation Well Number 1030

Well depth, in feet below land surface 350

Land surface elevation, in feet above mean sea level 1110

Primary use of well not determined



**WATER WELL REPORT**  
STATE OF OREGON

SOW  
1030

WASC  
002672

RECEIVED

State Well No.

NOV 19 1981

1N/13E-34cc

State Permit No.

WATER RESOURCES DEPT  
SALEM, OREGON

**(1) OWNER:**

Name Elmer Wilson  
Address Rt 1 Box 67  
City The Dalles State Oregon

**(2) TYPE OF WORK (check):**

New Well  Deepening  Reconditioning  Abandon

If abandonment, describe material and procedure in Item 12.

**(3) TYPE OF WELL:**

Air  Driven  Domestic  Industrial  Municipal   
 Mud  Dug  Irrigation  Test Well  Other   
 Cable  Bored  Thermal:  Withdrawal  Reinjection

**(4) PROPOSED USE (check):**

**(5) CASING INSTALLED:**

Steel  Plastic   
Threaded  Welded

8" Diam. from 7.2 ft. to 18 ft. Gauge 250  
" Diam. from ft. to ft. Gauge

**LINER INSTALLED:**

" Diam. from ft. to ft. Gauge

**(6) PERFORATIONS:**

Perforated?  Yes  No

Type of perforator used

Size of perforations in. by in.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

**(7) SCREENS:**

Well screen installed?  Yes  No

Manufacturer's Name

Type Model No.

Diam. Slot Size Set from ft. to ft.

Diam. Slot Size Set from ft. to ft.

**(8) WELL TESTS:**

Drawdown is amount water level is lowered below static level

Was a pump test made?  Yes  No If yes, by whom?

Yield: 125 gal/min. with 30 ft. drawdown after 1 hrs.

Air test 125 gal/min. with drill stem at 250 ft. 1 hrs.

Pump test gal/min. with ft. drawdown after hrs.

Artesian flow g.p.m.

Temperature of water 67 Depth artesian flow encountered ft.

**(9) CONSTRUCTION:**

Special standards: Yes  No

Well seal—Material used PORTLAND CEMENT

Well sealed from land surface to 18 ft.

Diameter of well bore to bottom of seal 12 in.

Diameter of well bore below seal 6 in.

Number of sacks of cement used in well seal 8 sacks

How was cement grout placed? pumped

Was pump installed? No Type HP Depth ft.

Was a drive shoe used?  Yes  No Plugs Size: location ft.

Is there any unusable water?  Yes  No

depth of strata

Method of sealing grout

Was well gravel packed?  Yes  No Size of gravel:

Gravel placed from ft. to ft.

Water Resources Department  
NOTICE TO WATER WELL CONTRACTOR  
The original and first copy of this report  
are to be filed with the

**(10) LOCATION OF WELL:**

County Wasc Driller's well number

Section 34 T. 1N R. 13E W.M.

Lot # Lot Blk Subdivision

Address at well location:

**(11) WATER LEVEL: Completed well.**

Depth at which water was first found 40 ft.

Static level 160 ft. below land surface. Date

Artesian pressure lbs. per square inch. Date

**(12) WELL LOG:**

Diameter of well below casing 6"

Depth drilled 350 ft. Depth of completed well 340 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Soil	0	5	
Clay	5	22	
Clay + Black Basalt	22	40	
Broken Black Basalt	40	50	
Brown Clay + Brown Basalt	50	90	
Black Basalt + Brown Basalt	90	190	
Black Basalt	190	290	
Yellow clay + green clay	290	325	
Black Basalt + black + green	325	350	

Work started 10-13 19 81 Completed 10-14 19 81

Date well drilling machine moved off of well 10-15- 19 81

**Drilling Machine Operator's Certification:**

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

[Signed] Judd Horn Date 10-19, 19 81  
(Drilling Machine Operator)

Drilling Machine Operator's License No. 1345

**Water Well Contractor's Certification:**

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name: LADD HORN Well Drilling  
(Person, firm or corporation) (Type or print)

Address: Rt. 1 Box 14 Pilot Rock, Oregon 97266

[Signed] Judd Horn  
(Water Well Contractor)

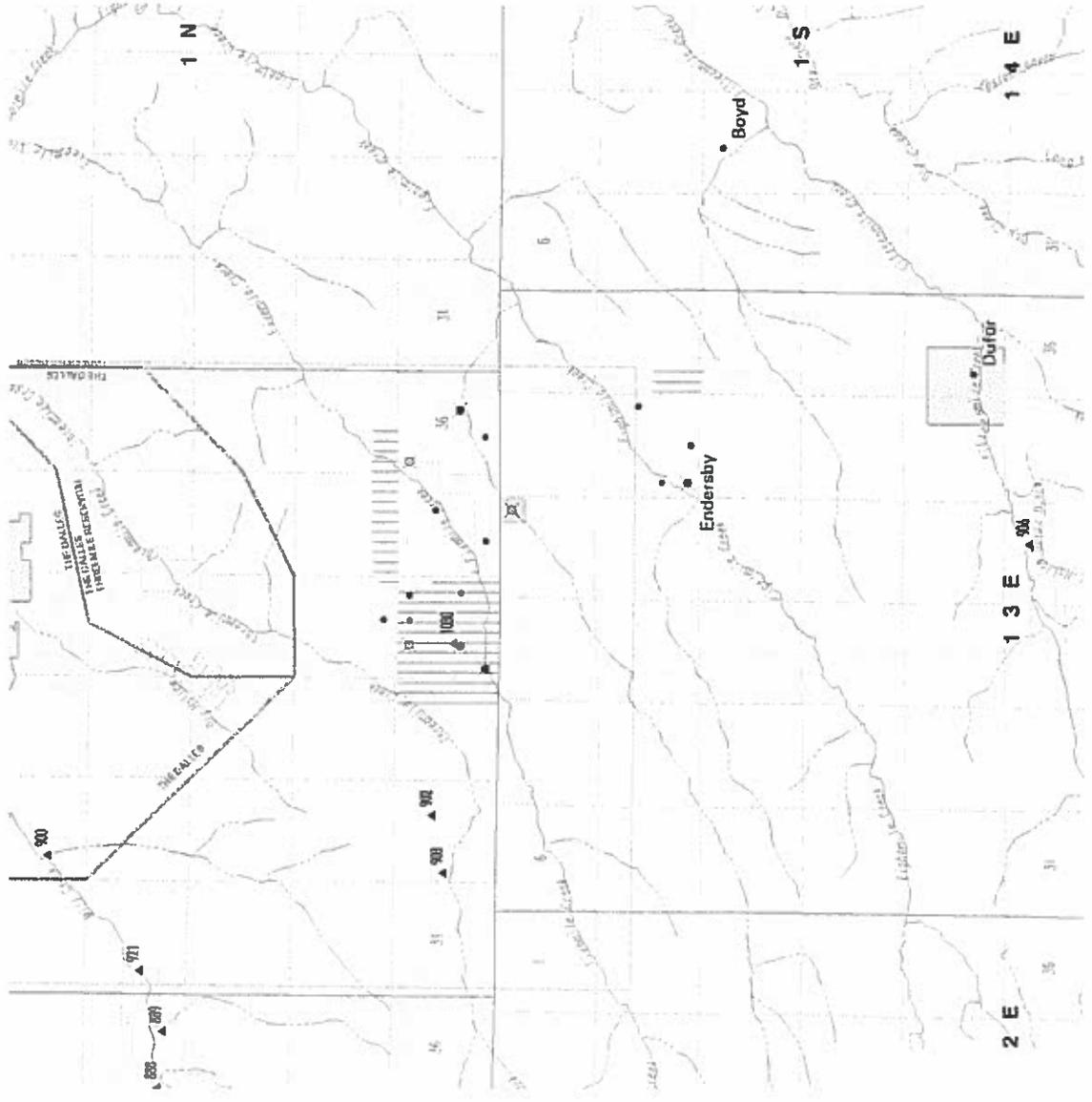
Contractor's License No. 1345 Date 10-19 19 81

WATER RESOURCES DEPARTMENT  
SALEM, OREGON 97330  
within 30 days from the date of well completion.



# Wells in the vicinity of application G 16307

- Application well(s) in this 1/4-1/4 section
- Wells identified in this section from OWRD's well log database within 1 mi. radius of application well(s)
- Permitted well(s) in this 1/4-1/4 section within 1 mi. radius of application well(s)
- Wells identified in this 1/4-1/4 section from OWRD's well log database within 5 mi. radius of application well(s)
- OWRD Observation well and well-id within 5 mi. radius of application well(s)
- Critical GW Area
- Regulated GW Area



app no. G 16307

WELL LOGS WITHIN 1 MILE OF APPLICATION G 16307

ABANDON: 0  
 RECONDITIONED: 7  
 REPAIRED: 2  
 CONVERSION: 0  
 DEEPENINGS: 0  
 NEW CONSTRUCT: 27

COMMUNITY USE: 0  
 DOMESTIC USE: 26  
 INDUSTRIAL USE: 0  
 INJECTION USE: 0  
 IRRIGATION USE: 6  
 THERMAL USE: 0  
 LIVESTOCK USE: 0

\*\*\*\*\*

PERMITTED WELLS WITHIN 1 MILE OF APPLICATION G 16307

\$RECNO	APPLICATION	PERMIT	CLAIM	LOC-QQ	USE_CODE
1	G 10667	G 9762		0 1.00N13.00E34NENW	IR
2	G 2699	G 2511		0 1.00N13.00E36NWNW	IS
2	G 2699	G 2511		0 1.00N13.00E36NWNW	IR
3	G 134	G 38		0 1.00N13.00E36NWSE	IR
3	G 406	G 281		0 1.00N13.00E36NWSE	IR
4	G 1354	G 1233		0 1.00N13.00E34NESW	IR
5	G 6620	G 6198		0 1.00N13.00E34SWSW	IR
6	G 16307	0		0 1.00S13.00E 3NENE	IR
7	G 10452	G 9527		0 1.00S13.00E11SWSW	IS
7	S 61908	S 46303		0 1.00S13.00E11SWSW	IR

\*\*\*\*\*

NO CONDITIONED WELLS WITHIN 1 MILE OF APPLICATION G 16307

\*\*\*\*\*

APPLICATION G 16307 FALLS WITHIN THESE QUAD(S)

THE DALLES SOUTH

\*\*\*\*\*

The following OWRD Groundwater Management Areas are within the map extent:

\$RECNO	NAME1	NAME2	SUB-AREA	STATUS
1	THE DALLES			CRIT
2	THE DALLES	THREEMILE RESERVOIR		CRIT

\*\*\*\*\*

app no. G 16307