

# Application for Permit Amendment

## Part 1 of 5 – Minimum Requirements Checklist



Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.oregon.gov/OWRD

**This permit amendment application will be returned if Parts 1 through 5 and all required attachments are not completed and included.**  
For questions, please call (503) 986-0900, and ask for Transfer Section.

Received  
APR 29 2024

Check all items included with this application. (N/A = Not Applicable)

OWRD

- Part 1 – Completed Minimum Requirements Checklist.
- Part 2 – Completed Application Map Checklist.
- Part 3 – Application Fee, payable by check to the Oregon Water Resources Department, and completed Fee Worksheet, page 3: **\$4,300**
- Part 4 – Completed Applicant Information and Signature.
- Part 5 – Information about Permits to be Amended: **Number of permits to be amended: 1**  
**List the Permits here: Permit G-7593**  
Please include a separate Part 5 for each permit. (See instructions on page 6)
- Completed Permit Amendment Application Map (Does not have to be prepared by a Certified Water Right Examiner). **(Attachment 1)**
- N/A Request for Assignment Form and statutory fee. The request for assignment form has to be completed if the applicant is **not** the permit holder of record and needs to be assigned to the permit; **or** the landowner of the proposed place of use is **not** the permit holder of record and needs to be assigned to the permit Assignment is not needed if the applicant is the permit holder of record.
- N/A Affidavit(s) of Consent are required from all permit holder(s) of record if the permit is not assigned to the applicant **or** other permit holders of record that are not listed as applicants. **(Attachment 2)**
- N/A Oregon Water Resources Department’s Land Use Information Form with approval and signature (or signed land use form receipt stub) from each local land use authority in which water is to be diverted, conveyed, and/or used. Not required if water is to be diverted, conveyed, and/or used only on federal lands or if **all** of the following apply: a) a change in place of use only, b) no structural changes, c) the use of water is for irrigation only, and d) the use is located within an irrigation district or an exclusive farm use zone. **(Attachment 3)**
- N/A Water Well Report/Well Log for changes in point(s) of appropriation (well(s)) or additional point(s) of appropriation. **Existing Well-1 Log Included (Attachment 4)**
- N/A Geologist Report for a change from a surface water point of diversion to a ground water point of appropriation (well), if the proposed well is more than 500 feet from the surface water source and more than 1000 feet upstream or downstream from the point of diversion. (ORS 540.531(2) or (3)).

(For Staff Use Only)

**WE ARE RETURNING YOUR APPLICATION FOR THE FOLLOWING REASON(S):**

<input type="checkbox"/> Application fee not enclosed/insufficient	<input type="checkbox"/> Map not included or incomplete
<input type="checkbox"/> Land Use Form not enclosed or incomplete	<input type="checkbox"/> Part _____ is incomplete
<input type="checkbox"/> Additional signature(s) required	

Other/Explanation \_\_\_\_\_

Staff: \_\_\_\_\_ 503- \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Received  
APR 29 2024

OWRD

## Part 2 of 5 – Permit Amendment Map Checklist

Your permit amendment application will be returned if any of the map requirements listed below are not met.

Please be sure that the map you submit includes all the items listed below and meets the requirements of OAR 690-380-3100, however, the map does not have to be prepared by a Certified Water Right Examiner. Check all boxes that apply.

Received  
APR 29 2024

OWRD

- N/A If **more than three** permits are involved, separate maps for each permit.
- Permanent quality printed with dark ink on good quality paper.
- The size of the map can be 8½ x 11 inches, 8½ x 14 inches, 11 x 17 inches, or up to 30 x 30 inches. For 30 x 30 inch maps, one extra copy is required.
- A north arrow, a legend, and scale.
- The scale of the map must be: 1 inch = 400 feet, **1 inch = 1,320 feet**, the scale of the county assessor map if the scale is not smaller than 1 inch = 1,320 feet, or a scale that has been pre-approved by the Department.
- Township, Range, Section, ¼ ¼, DLC, Government Lot, and other recognized public land survey lines.
- Tax lot boundaries (property lines) are required. Tax lot numbers are recommended.
- Major physical features including rivers and creeks showing direction of flow, lakes and reservoirs, roads, and railroads.
- Major water delivery system features from the point(s) of diversion/appropriation such as main pipelines, canals, and ditches.
- Existing place of use that includes separate hachuring for each water use permit, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions. If less than the entirety of the permit is being changed, a separate hachuring is needed for the portion of the permit left unchanged.
- N/A If you are proposing a change in place of use, show the proposed place of use with hachuring that includes separate hachuring for each permit, priority date, and use including number of acres in each quarter-quarter section, government lot, or in each quarter-quarter section as projected within government lots, donation land claims, or other recognized public land survey subdivisions.
- Existing point(s) of diversion or well(s) with distance and bearing or coordinates from a recognized survey corner. This information can be found in your water use permit.
- N/A If you are proposing a change in point(s) of diversion or well(s), show the proposed location and label it clearly with distance and bearing or coordinates. If GPS coordinates are used, latitude-longitude coordinates may be expressed as either degrees-minutes-seconds with at least one digit after the decimal (example – 42°32'15.5") or degrees-decimal with five or more digits after the decimal (example – 42.53764°).

Part 3 of 5 – Fee Worksheet

FEE WORKSHEET for PERMIT AMENDMENT			
1	Base Fee (includes one type of change to one permit for up to 1 cfs)	1	\$1,360
2	Types of change proposed: <input type="checkbox"/> Place of Use <input checked="" type="checkbox"/> Point of Diversion/Appropriation Number of above boxes checked = <u>1 (2a)</u> Subtract 1 from the number in line 2a = <u>0 (2b)</u> <i>If only one change, this will be 0</i> Multiply line 2b by \$1090 and enter »	2	0
3	Number of permits included in Permit Amendment <u>1 (3a)</u> Subtract 1 from the number in 3a: <u>0 (3b)</u> <i>If only one permit this will be 0</i> Multiply line 3b by \$610 and enter »	3	0
4	Do you propose to add or change a well, or change from a surface water POD to a well? <input type="checkbox"/> No: enter 0 <input checked="" type="checkbox"/> Yes: enter \$480 for the 1 <sup>st</sup> well to be added or changed <u>\$480 (4a)</u>  Do you propose to add or change additional wells? <input type="checkbox"/> No: enter 0 <input checked="" type="checkbox"/> Yes: multiply the number of additional wells by \$410 <u>\$2,460 (4b)</u> Add line 4a to line 4b and enter »	4	\$2,940
5	Do you propose to change the place of use? <input checked="" type="checkbox"/> No: enter 0 on line 5 <input type="checkbox"/> Yes: enter the cfs for the portions of the permits to be amended (see below*): _____ (5a) Subtract 1.0 from the number in 5a above: _____ (5b) If 5b is 0, enter 0 on line 5 » If 5b is greater than 0, round up to the nearest whole number: _____ (5c) and multiply 5c by \$350, then enter on line 5 »	5	0
6	Add entries on lines 1 through 5 above » » » » » » » » » » Subtotal:	6	\$4,300
7	Is this permit amendment: <input type="checkbox"/> necessary to complete a project funded by the Oregon Watershed Enhancement Board (OWEB) under ORS 541.932? <input type="checkbox"/> endorsed in writing by ODFW as a change that will result in a net benefit to fish and wildlife habitat?  If one or more boxes is checked, multiply line 6 by 0.5 and enter on line 7 If no box is applicable, enter 0 on line 7 »	7	0
8	Subtract line 7 from line 6 » <b>Permit Amendment Fee:</b>	8	<b>\$4,300</b>

Received  
APR 29 2024  
OWRD

\*Example for Line 5a calculation to transfer 45.0 acres of Primary Permit S-12345 (total 1.25 cfs for 100 acres) and 45.0 acres of Supplemental Permit S-87654 (1/80 cfs per acre) on the same land:

- For irrigation calculate cfs for each permit involved as follows:
  - Divide total authorized cfs by total acres in the permit (*for S-12345, 1.25 cfs ÷ 100 ac*); then multiply by the number of acres to be changed to get the application cfs ( $x 45 ac = 0.56 cfs$ ).
  - If the water right permit does not list total cfs, but identifies the allowable use as 1/40 or 1/80 of a cfs per acre; multiply number of acres proposed for change by either 0.025 (1/40) or 0.0125 (1/80). (*For S-87654, 45.0 ac x 0.0125 cfs/ac = 0.56 cfs*)
- Add cfs for the portions of permits on all the land included in the application; however **do not count cfs for supplemental permits on acreage for which you have already calculated the cfs fee for the primary permit on the same land**. The fee should be assessed only once for each “on the ground” acre included in the application. (*In this example, blank 5a would be only 0.56 cfs, since both permits serve the same 45.0 acres. Blank 5b would be 0 and Line 5 would then also become 0*).

## Part 4 of 5 – Applicant Information and Signature

### Applicant Information

APPLICANT/BUSINESS NAME <b>City of Banks (Jolynn Becker, City Manager)</b>			PHONE NO.	ADDITIONAL CONTACT NO.
ADDRESS <b>13680 NW Main Street</b>				FAX NO.
CITY <b>Banks</b>	STATE <b>OR</b>	ZIP <b>97106</b>	E-MAIL <b>jbecker@cityofbanks.org</b>	
BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.				

### Agent Information – The agent is authorized to represent the applicant in all matters relating to this application.

AGENT/BUSINESS NAME <b>Bob Long, CWRE, RG, RHG</b>			PHONE NO. <b>503-954-1626</b>	ADDITIONAL CONTACT NO.
ADDRESS <b>311 B Ave, Suite P</b>				FAX NO.
CITY <b>Lake Oswego</b>	STATE <b>OR</b>	ZIP <b>97034</b>	E-MAIL <b>bob.long@cwmmh2o.com</b>	
BY PROVIDING AN E-MAIL ADDRESS, CONSENT IS GIVEN TO RECEIVE ALL CORRESPONDENCE FROM THE DEPARTMENT ELECTRONICALLY. COPIES OF THE FINAL ORDER DOCUMENTS WILL ALSO BE MAILED.				

*City of Banks Permit G-7593 currently has only one approved point of appropriation (POA), Well-1. Well-1 is constructed within 70 ft of City Well-2, and the two wells cause pumping interference when operated in conjunction. Well-2 has a higher pumping capacity and a higher pumping rate available on its water right. When Well-2 pumps, the water level in Well-1 drops (and vice-versa). Therefore, Well-1 cannot effectively operate at the same time as Well-2 and is only able to produce a fraction of its water right.*

*The purpose of this permit amendment application is to add additional POA locations to the Well-1 water right. Wells constructed at these additional POAs will be sufficiently separated from Well-2 that they will be able to operate independently without incurring significant interference. Furthermore, having multiple wells under Permit G-7593 will allow the City to optimize production under this right and limit the compounding drawdown effects between Well-1 and Well-2.*

*This amendment application includes 7 additional POA locations. The City intends to develop between 1 and 3 of these new wells on Permit G-7593. Adding the 7 proposed locations will give the City the flexibility to move forward with well construction planning and negotiations with landowners at the selected sites. The proposed POAs are located on property not owned by the City. The City is currently in negotiations to purchase the land at one of the proposed locations (WTP). Landowner consent has been granted for the City to develop the other proposed well location (AN), as documented in the attached consent forms.*

Check this box if this project is fully or partially funded by the American Recovery and Reinvestment Act. (Federal stimulus dollars)

Is the applicant the permit holder of record?  Yes  No

If NO, include either:

- A completed assignment form (with required statutory assignment fee), assigning all or a portion of the permit to the applicant(s), **OR**
- An affidavit of consent from the permit holder(s) of record that gives permission for the applicant to amend the permit.

Has the Completion (“C”) Date of the permit(s) in this application expired?  Yes  No

If YES, this application will not be accepted by the Department.

If NO, what are the completion dates of the permit(s)? Extended Completion Date: 10/01/2027

- If the permit completion date expires while the Permit Amendment Application is pending, the Department will not approve the Permit Amendment Application until an Extension of Time Application is approved for the permit.

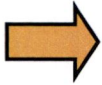
**Received**  
APR 29 2024

**OWRD**

- You may consider using the Reimbursement Authority process to expedite the processing of this Permit Amendment Application if the completion date of the permit expires within 6 months of the date of filing this application.

**By my signature below, I confirm that I understand:**

- Prior to Department approval of the permit amendment, I may be required to submit payment to the Department for publication of a notice in a newspaper with general circulation in the area where the permit is located, once per week for two consecutive weeks. If more than one qualifying newspaper is available, I suggest publishing the notice in the following newspaper: \_\_\_\_\_



I (we) affirm that the information contained in this application is true and accurate.

*[Handwritten Signature]*  
Applicant Signature

*City Manager*  
Print Name (and Title if applicable)  
*Johann Becker*

*4-10-24*  
Date

Received  
APR 29 2024  
OWRD

**Check one of the following:**

- The applicant is responsible for completion of change(s). Notices and correspondence should continue to be sent to the applicant.
- The permit holder(s) of record will be responsible for completing the proposed change(s) after the final order is issued. Copies of notices and correspondence should be sent to the permit holder(s) of record.

**Check the appropriate box, if applicable:**

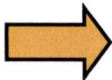
- Check here if any of the permits proposed for amendment are or will be located within or served by an irrigation or other water district.

IRRIGATION DISTRICT NAME <b>Tualatin Valley Irrigation District</b>	ADDRESS <b>2330 Elm Street</b>	
CITY <b>Forest Grove</b>	STATE <b>OR</b>	ZIP <b>97116</b>

*\*The City of Banks Urban Growth Boundary falls within the same Sections and Quarter-quarters as portions of the Tualatin Valley Irrigation District's service area. The water produced, conveyed, and used under the City's water rights and water distribution system is separate from water that may be provided by the District.*

- ~~Check here if water for any of the permits supplied under a water service agreement or other contract for stored water with a federal agency or other entity.~~

ENTITY NAME	ADDRESS	
CITY	STATE	ZIP



To meet State Land Use Consistency Requirements, you must list all local governments (each county, city, municipal corporation, or tribal government) within whose jurisdiction water will be diverted, conveyed or used.

ENTITY NAME <b>City of Banks</b>	ADDRESS <b>13680 NW Main Street</b>	
CITY <b>Banks</b>	STATE <b>OR</b>	ZIP <b>97106</b>

*\*The current and proposed POAs and the existing POU are located completely within the City of Banks' service area as defined by the Urban Growth Boundary. Therefore, all water production and usage under this right occurs within the jurisdiction of the City alone.*

## Part 5 of 5 – Water Use Permit Information

Please use a separate Part 5 for each permit being changed. See instructions on page 6, to copy and paste additional Part 5s, or to add additional rows to tables within the form.

### PERMIT # G-7593

**Table 1. Location of Authorized and Proposed Point(s) of Diversion (POD) or Appropriation (POA)**  
(Note: If the POD/POA name is not specified in the permit, assign it a name or number here.)

POD/POA Name or Number	Is this POD/POA Authorized by the permit or is it Proposed?	If POA, OWRD Well Log ID#	Twp	Rng	Sec	¼ ¼	Tax Lot, DLC or Gov't Lot	Measured Distances (from a recognized survey corner)		
<b>Well-1</b> (Behrman Well 1)	<input checked="" type="checkbox"/> Authorized <input type="checkbox"/> Proposed	<b>WASH-7651</b>	2	N	3	W	31	NE NW	0402	135ft S & 560ft W of N ¼ Corner Sec 31
<b>WTP</b> (Water Treatment Plant)	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	<i>PROPOSED</i>	2	N	4	W	36	NE NE	0600	175 ft S & 335 ft W of NW Corner Sec 31
<b>AN</b> (Aerts Rd North)	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	<i>PROPOSED</i>	2	N	3	W	31	NE NE	0100	275 ft S & 475 ft W of the NE Corner Sec 31
<b>AS</b> (Aerts Rd South)	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	<i>PROPOSED</i>	2	N	3	W	31	NE SE	0100	2,500 ft N & 565 ft W of the SE Corner Sec 31
<b>Park-A</b> (Park Primary)	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	<i>PROPOSED</i>	2	N	3	W	31	NE SW	0600	2,120 ft N & 2,970 ft W of the SE Corner Sec 31
<b>Park-B</b> (Park Alternative)	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	<i>PROPOSED</i>	2	N	3	W	31	NW SE	0100	2,460 ft N & 2,520 ft W of the SE Corner Sec 31
<b>Park-C</b> (Park Alternative)	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	<i>PROPOSED</i>	2	N	3	W	31	NW SE	0400	2,630 ft N & 2,540 ft W of the SE Corner Sec 31
<b>Well-2</b> (Behrman Well 2)	<input type="checkbox"/> Authorized <input checked="" type="checkbox"/> Proposed	<b>WASH-62373</b>	2	N	3	W	31	NE NW	0402	120ft S & 2,070 ft E of the NW Corner Sec 31

**Check all type(s) of change(s) proposed below (change "CODES" are provided in parentheses):**

- |   |  |
|---|--|
| <input type="checkbox"/> Place of Use (POU)                   | <input type="checkbox"/> Point of Appropriation/Well (POA)                   |
| <input type="checkbox"/> Point of Diversion (POD)             | <input checked="" type="checkbox"/> Additional Point of Appropriation (APOA) |
| <input type="checkbox"/> Additional Point of Diversion (APOD) | <input type="checkbox"/> Surface water POD to Ground Water POA               |

**Will all of the proposed changes affect the entire water use permit?**

- Yes** Complete only the proposed ("to" lands) section of Table 2 on the next page. Use the "CODES" listed above to describe the proposed changes.
- No** Complete all of Table 2 to describe the portion of the permit to be changed.

**Received**  
**APR 29 2024**  
**OWRD**

For a change in place of use: **N/A**

~~Does the permit holder of record own or control the land TO which the place of use is being moved?~~

Yes  No

~~If NO, the landowner of the land TO which the place of use is being moved must be assigned to the permit as a permit holder of record by submitting a completed Request for Assignment form and the required statutory fee for an assignment.~~

~~Is the proposed place of use contiguous to the authorized place of use?~~  Yes  No

~~The permitted place of use can be moved only to lands that are contiguous to the authorized place of use unless the change to non-contiguous lands is in furtherance of mitigation or conservation efforts undertaken for the purposes of benefiting a species listed as sensitive, threatened, or endangered under ORS 496.171 to 496.192 or the federal Endangered Species Act of 1973 (16 U.S.C. 1531 to 1544), as determined by the listing agency. Contiguous land being either adjacent land or land separated from the land to which a permit is authorized by roads, utility corridors, irrigation ditches or publicly owned rights of way.~~

Received  
APR 29 2024

OWRD

Please use and attach additional pages of Table 2 as needed.  
See page 6 for instructions.

Do you have questions about how to fill-out the tables?  
Contact the Department at 503-986-0900 and ask for Transfer

**Table 2. Description of Changes to Water Use Permit # G-7593**

List the change proposed for the acreage in each ¼ ¼. If more than one change is proposed, specify the acreage associated with each change. If there is more than one POD/POA involved in the proposed changes, specify the acreage associated with each POD/POA.

AUTHORIZED (the "from" or "off" lands) The listing that appears on the certificate BEFORE PROPOSED CHANGES List only that part or portion of the water right that will be changed.									Proposed Changes (see "CODES" from previous page)	PROPOSED (the "to" or "on" lands) The listing as it would appear AFTER PROPOSED CHANGES are made.									
Twp	Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres (if applicable)	POD(s) or POA(s) (name or number from Table 1)	Priority Date		Twp	Rng	Sec	¼ ¼	Tax Lot	Gvt Lot or DLC	Acres	POD(s) or POA(s) to be used (from Table 1)	Priority Date	
									<b>APOA</b>	<b>The City of Banks Municipal Service Area</b>						<b>WELL-1 AN WTP AS PARK-A PARK-B PARK-C WELL-2</b>		<b>9/29/1977</b>	
<b>TOTAL ACRES</b>									<b>TOTAL ACRES</b>						<b>N/A</b>				

Additional remarks: *The proposed changes effect the entire water right. The place of use for Permit G-7593 is the City's municipal service area.*

Received  
APR 29 2024  
14449 -  
OWRD



Are there other water rights certificates, water use permits or ground water registrations associated with the "from" or "to" lands?  Yes  No

If YES, list the other certificate, permit, or ground water registration numbers: N/A (no "from" lands)

If the permit(s) are for irrigation or supplemental irrigation use, other water rights existing on the same land for irrigation that are subject to transfer must either change concurrently or be cancelled. Any change to a water right certificate or ground water registration must be filed separately in a water right transfer application or ground water registration modification application, respectively.

**For a change in point(s) of appropriation (well(s)) or additional point(s) of appropriation:**

Well log(s) are attached for each authorized and proposed well(s) that are clearly labeled and associated with the corresponding well(s) in Table 1 above and on the accompanying application map. Well-1 Log is Attachment 4, Well-2 Log is Attachment 5, other new POAs are proposed, see Attachment 6 – Basalt Aquifer Memo.

**AND/OR**

Describe the construction of the authorized and proposed well(s) in Table 3 for any wells that do not have a well log. For *proposed wells not yet constructed or built*, provide "a best estimate" for each requested information element in the table. The Department recommends you consult a licensed well driller, geologist, or certified water right examiner to assist with assembling the information necessary to complete Table 3.

**Table 3. Construction of Point(s) of Appropriation**

Any well(s) in this listing must be clearly tied to corresponding well(s) described in Table 1 and shown on the accompanying application map. Failure to provide the information will delay the processing of your transfer application until it is received. The information is necessary for the department to assess whether the proposed well(s) will access the same source aquifer as the authorized point(s) of appropriation (POA). The Department is prohibited by law from approving POA changes that do not access the same source aquifer.

Received  
APR 29 2024  
OWRD

ATTACHMENT 1: REPLACEMENT PAGE WITH TABLE 3 - T-14449

Proposed or Authorized POA Name	Is well already built?	If an existing well, OWRD Well ID Tag No. L-____	Total well depth	Casing Diam.	Casing Intervals (feet)	Seal depth(s) (intervals)	Perforated or screened intervals (in feet)	Static water level (in feet)	Source aquifer	Well - specific rate (cfs or gpm).
WELL-1	YES	-	450 ft	8-5/8"	0-210 ft	0-210 ft	Open-hole to 450 ft	32.2 ft bgs*	CRBG	0.67 CFS
WELL-2	YES	WASH-62373	665 ft	12"	0-300 ft	0-300 ft	Open-hole to 665 ft	34.4 ft bgs*		
AN	NO	-	650-750 ft	16"	Wells will be cased and sealed from the surface to approx. 200-250 ft (depending on conditions encountered in the field)		Open-hole to depth of ~650-750 ft	~30-50 ft		
AS	NO	-								
PARK-A	NO	-								
PARK-B	NO	-								
PARK-C	NO	-								
WTP	NO	-								

*\*The proposed well designs are based on the general construction of Well-2, which is proposed to be added as a POA to this permit. The attached Basalt Aquifer Memo (Attachment 6) describes available data that suggests the two water-bearing zones function as a single aquifer.*

*\*Measurement at Well-1 collected on April 7, 2023.*

**SUPERSEDING**

**RECEIVED  
AUG 20 2024  
OWRD**

Received  
APR 29 2024  
OWRD

Well-1

Application for Water Right Transfer



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Consent by Deeded Landowner

State of Oregon )
County of Washington )ss

I Martin Cropp in my/our capacity as Owner of the land containing a proposed POA,
mailing address 33687 NW Mountaindale Rd, North Plains, OR 97133
telephone number 503-939-3507, duly sworn depose and say that I/We

consent to the proposed change(s) to Water Right Certificate Number Permit G-7593
described in a Water Right Transfer Application (T- Not yet assigned ),
(transfer number, if known)

submitted by The City of Banks, Jolynn Becker, City Manager

on the property in tax lot number(s) 2N43600 (TL 0600)

Section 36 NENE Township 2N North/South Range 4W East/West, W.M.

located at Southwest of the intersection of N Main Street and NW Cedar Canyon Road (WTP-1)
(site address)

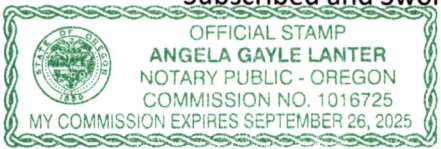
Signature of Affiant (handwritten signature)

Date 3/5/2024

Signature of Affiant

Date

Subscribed and Sworn to before me this 5th day of March, 2024.



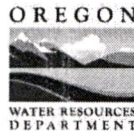
Notary Public for Oregon (handwritten signature)

My commission expires September 26, 2025

Received APR 29 2024 14449 - OWRD

Well-1

Application for Water Right Transfer



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Consent by Deeded Landowner

State of Oregon )
County of WASHINGTON )ss

I Robert S. Bobosky in my/our capacity as Owner of the land containing a proposed POA,
Manager, Wolverine Financial, LLC
mailing address 6770 SW Canyon Dr, Portland, OR 97225

telephone number 503 292-8261, duly sworn depose and say that I/We
consent to the proposed change(s) to Water Right Certificate Number Permit G-7593

described in a Water Right Transfer Application (T- Not yet assigned),
(transfer number, if known)

submitted by The City of Banks, Jolynn Becker, City Manager

on the property in tax lot number(s) 2N43600 (TL 0600)

Section 36 NENE Township 2N North/South Range 4W East/West, W.M.

located at Southwest of the intersection of N Main Street and NW Cedar Canyon Road (WTP-1)
(site address)

Signature of Affiant (Handwritten signature)

Date January 9th, 2024

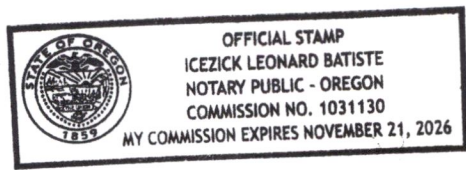
Signature of Affiant

Date

Subscribed and Sworn to before me this 09 day of January, 2024.

Notary Public for Oregon (Handwritten signature)

My commission expires 11/21/2026



**ATTACHMENT 2**  
**Application for**  
**Water Right Transfer**

OREGON  
**Oregon Water Resources Department**  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.wrd.state.or.us

**Consent by Deeded Landowner**

State of Oregon )  
)ss  
County of WASHINGTON )

I QUAIL VALLEY GOLF COURSE in my/our capacity as Owner of the land containing a proposed POAs,

mailing address 12565 NW AERTS RD BANKS OR 97106,

telephone number 503-324-4444, duly sworn depose and say that I/We

consent to the proposed change(s) to Water Right Certificate Number G-7593

described in a Water Right Transfer Application (T-Not yet assigned),  
(transfer number, if known)

submitted by The City of Banks, Jolynn Becker, City Manager

on the property in tax lot number(s) 2N331CA06900 (TL 6900),

Section 31 NESW Township 2N North/South Range 3W East/West, W.M.

located at in a proposed park area (Park-1)  
(site address)

Doug Hixson  
Signature of Affiant

4.9.2024  
Date

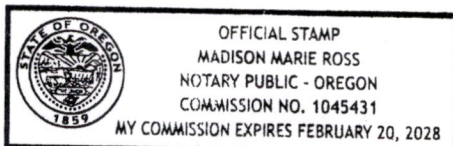
\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Date

Subscribed and Sworn to before me this 9 day of April, 2024.

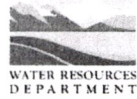
Madison Marie Ross  
Notary Public for Oregon

My commission expires February 20 2028



# Application for Water Right Transfer

OREGON Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.wrd.state.or.us



## Consent by Deeded Landowner

State of Oregon )  
 )ss  
County of WASHINGTON )

I QUAIL VALLEY GOLF COURSE in my/our capacity as Owner of the land containing a proposed POA,

mailing address 12565 NW AERTS RD BANKS OR 97106,

telephone number 503-324-4444, duly sworn depose and say that I/We

consent to the proposed change(s) to Water Right Certificate Number G-7593

described in a Water Right Transfer Application (T- Not yet assigned),  
(transfer number, if known)

submitted by The City of Banks, Jolynn Becker, City Manager

on the property in tax lot number(s) 2N3310000100 (TL 0100),

Section 31 NENE Township 2N North/South Range 3W East/West, W.M.

located at near the intersection of Banks Rd and Aerts Rd (AN)  
(site address)

Doug Hixson  
Signature of Affiant

4.9.2024  
Date

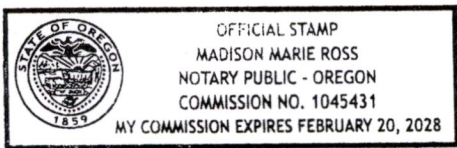
\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Date

Subscribed and Sworn to before me this 9 day of April, ~~2024~~ 2024

Madison Marie Ross  
Notary Public for Oregon

My commission expires February 2028



14449 -

Received  
APR 29 2024

OWRD

ATTACHMENT 2  
Application for  
Water Right Transfer



Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
www.wrd.state.or.us

Consent by Deeded Landowner

State of Oregon )  
 )ss  
County of WASHINGTON )

I QUAIL VALLEY GOLF COURSE in my/our capacity as Owner of the land containing three proposed POAs,

mailing address 12565 NW AERTS RD BANKS OR 97106,

telephone number 503-324-4444, duly sworn depose and say that I/We

consent to the proposed change(s) to Water Right Certificate Number G-7593

described in a Water Right Transfer Application (T- Not yet assigned ),  
(transfer number, if known)

submitted by The City of Banks, Jolynn Becker, City Manager

on the property in tax lot number(s) 2N331D000100 (TL 0100)

Section 31 NWSE/NESE Township 2N North/South Range 3W East/West, W.M.

located at along Aerts Rd (AS) and in two locations in a proposed park area (Park-B and Park-C)  
(site address)

Doug Axtson  
Signature of Affiant

4.9.2024  
Date

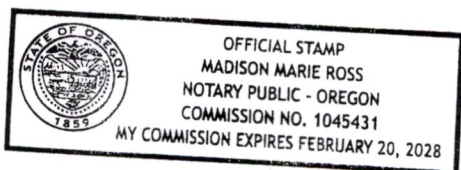
\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Date

Subscribed and Sworn to before me this 9 day of April, 2024.

Madison Marie Ross  
Notary Public for Oregon

My commission expires February 20 2028



Received

APR 29 2024

OWRD

## ATTACHMENT 3

# Land Use Information Form



Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-0900  
[www.oregon.gov/OWRD](http://www.oregon.gov/OWRD)

### Washington County LUCS Form

## NOTE TO APPLICANTS

In order for your application to be processed by the Water Resources Department (WRD), this Land Use Information Form must be completed by a local government planning official in the jurisdiction(s) where your water right will be used and developed. The planning official may choose to complete the form while you wait, or return the receipt stub to you. Applications received by WRD without the Land Use Form or the receipt stub will be returned to you. Please be aware that your application will not be approved without land use approval.

**This form is NOT required if:**

- 1) Water is to be diverted, conveyed, and/or used only on federal lands; **OR**
- 2) The application is for a water right transfer, allocation of conserved water, exchange, permit amendment, or ground water registration modification, and **all** of the following apply:
  - a) The existing and proposed water use is located entirely within lands zoned for exclusive farm-use or within an irrigation district;
  - b) The application involves a change in place of use only;
  - c) The change does not involve the placement or modification of structures, including but not limited to water diversion, impoundment, distribution facilities, water wells and well houses; **and**
  - d) The application involves irrigation water uses only.

## NOTE TO LOCAL GOVERNMENTS

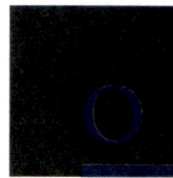
The person presenting the attached Land Use Information Form is applying for or modifying a water right. The Water Resources Department (WRD) requires its applicants to obtain land-use information to be sure the water rights do not result in land uses that are incompatible with your comprehensive plan. Please complete the form or detach the receipt stub and return it to the applicant for inclusion in their water right application. You will receive notice once the applicant formally submits his or her request to the WRD. The notice will give more information about WRD's water rights process and provide additional comment opportunities. You will have 30 days from the date of the notice to complete the land-use form and return it to the WRD. If no land-use information is received from you within that 30-day period, the WRD may presume the land use associated with the proposed water right is compatible with your comprehensive plan. Your attention to this request for information is greatly appreciated by the Water Resources Department. If you have any questions concerning this form, please contact the WRD's Customer Service Group at 503-986-0801.

14449 - Received  
APR 29 2024

OWRD



# Land Use Information Form



Oregon Water Resources Department  
 725 Summer Street NE, Suite A  
 Salem, Oregon 97301-1266  
 (503) 986-0900  
 www.oregon.gov/OWRD

Applicant(s): City of Banks (Jolynn Becker, City Manager)

Mailing Address: 13680 NW Main Street

City: Banks

State: OR

Zip Code: 97106

Daytime Phone: 503-324-5112

## A. Land and Location

Please include the following information for all tax lots where water will be diverted (taken from its source), conveyed (transported), and/or used or developed. Applicants for municipal use, or irrigation uses within irrigation districts may substitute existing and proposed service-area boundaries for the tax-lot information requested below.

Township	Range	Section	¼ ¼	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:	Proposed Land Use:
2N	3W	31	All			<input type="checkbox"/> Diverted <input checked="" type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	
		31	NE NW	0402		<input checked="" type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	
		31	NE NE	0100		<input checked="" type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	
		31	NE SW	6900		<input checked="" type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	
		31	NW SE	0100		<input checked="" type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	
		31	NE SE	0100		<input checked="" type="checkbox"/> Diverted <input type="checkbox"/> Conveyed <input type="checkbox"/> Used	
		25	SE SE	0600	*	<input type="checkbox"/> Diverted <input checked="" type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	
		30	SW SW		*	<input type="checkbox"/> Diverted <input checked="" type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	
	30	NW SW		*	<input type="checkbox"/> Diverted <input checked="" type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used		
	4W	36	NE NE	0600		<input checked="" type="checkbox"/> Diverted <input checked="" type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	
		36	E ¼		*	<input type="checkbox"/> Diverted <input checked="" type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	
		36	NW SE		*	<input type="checkbox"/> Diverted <input checked="" type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	
		36	SW SE		*	<input type="checkbox"/> Diverted <input checked="" type="checkbox"/> Conveyed <input checked="" type="checkbox"/> Used	

\*City of Banks Urban Growth Boundary is the City's service area. Various taxlots and land use classifications within the UGB.

List all counties and cities where water is proposed to be diverted, conveyed, and/or used or developed:

City of Banks (All water production, conveyance, and usage occurs within the City of Banks Service Area as defined by the City's Urban Growth Boundary)

Received

APR 29 2024

## B. Description of Proposed Use

Type of application to be filed with the Water Resources Department:

OWRD

- Permit to Use or Store Water   
  Water Right Transfer   
  Permit Amendment or Ground Water Registration Modification  
 Limited Water Use License   
  Allocation of Conserved Water   
  Exchange of Water

Source of water:  Reservoir/Pond     Ground Water     Surface Water (name) \_\_\_\_\_

Estimated quantity of water needed: 0.67  cubic feet per second     gallons per minute     acre-feet

Intended use of water:  Irrigation     Commercial     Industrial     Domestic for \_\_\_\_\_ household(s)  
 Municipal     Quasi-Municipal     Instream     Other \_\_\_\_\_

Briefly describe:

Permit amendment application to add additional POAs to support potential construction of new well(s) for one of the City's two groundwater supply rights (G-7593).

Received

29 2024

OWRD

## For Local Government Use Only

The following section must be completed by a planning official from each county and city listed unless the project will be located entirely within the city limits. In that case, only the city planning agency must complete this form. This deals only with the local land-use plan. Do not include approval for activities such as building or grading permits.

**Please check the appropriate box below and provide the requested information**

Land uses to be served by the proposed water uses (including proposed construction) are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s):

Land uses to be served by the proposed water uses (including proposed construction) involve discretionary land-use approvals as listed in the table below. (Please attach documentation of applicable land-use approvals which have already been obtained. Record of Action/land-use decision and accompanying findings are sufficient.) **If approvals have been obtained but all appeal periods have not ended, check "Being pursued."**

Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Land-Use Approval:	
	Received	<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
	APR 29 2024	<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
	OWRD	<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued
		<input type="checkbox"/> Obtained <input type="checkbox"/> Denied	<input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued

Local governments are invited to express special land-use concerns or make recommendations to the Water Resources Department regarding this proposed use of water below, or on a separate sheet.

Name: Johanna Becker Title: City Manager

Signature: [Signature] Phone: 503-324-5112 Date: 4-9-24

Government Entity: \_\_\_\_\_

**Note to local government representative:** Please complete this form or sign the receipt below and return it to the applicant. If you sign the receipt, you will have 30 days from the Water Resources Department's notice date to return the completed Land Use Information Form or WRD may presume the land use associated with the proposed use of water is compatible with local comprehensive plans.



**Receipt for Request for Land Use Information**

Applicant name: \_\_\_\_\_

City or County: \_\_\_\_\_ Staff contact: \_\_\_\_\_

Signature: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_

ATTACHMENT 4

CTOR  
ort

WATER WELL REPORT

RECEIVED STATE OF OREGON  
(Please type or print)

WASH  
7651

State Well No. 2N/3W-31  
Received  
State Permit No. \_\_\_\_\_  
APR 29 2024

of well completion.

SEP - 6 1977 (Do not write above this line)

(1) OWNER:

WATER RESOURCES DEPT.  
Name City of Banks SALEM, OREGON  
Address Banks, Oregon

(2) TYPE OF WORK (check):

New Well  Deepening  Reconditioning  Abandon   
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary  Driven   
Cable  Jetted   
Dug  Bored

(4) PROPOSED USE (check):

Domestic  Industrial  Municipal   
Irrigation  Test Well  Other

CASING INSTALLED:

Threaded  Welded   
8-5/8" Diam. from plus 2 ft. to 210 ft. Gage .250  
" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_  
" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_

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? AMJanssen  
\_\_\_\_\_ : 275 gal./min. with 224 ft. drawdown after 48 hrs.  
\_\_\_\_\_ : 150 " " 146 " " " "  
" " " " " "  
" " " " " "  
Bailer test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Artesian flow \_\_\_\_\_ g.p.m.  
Temperature of water 58° Depth artesian flow encountered \_\_\_\_\_ ft.

(9) CONSTRUCTION:

Well seal—Material used Cement grout & 2% gel  
Well sealed from land surface to 210 ft.  
Diameter of well bore to bottom of seal 12-1/4" in.  
Diameter of well bore below seal 8" in.  
Number of sacks of cement used in well seal 25 sacks  
How was cement grout placed? Placed on o.d. of casing  
g through grout pipe - 20 sacks run @ 210',  
5 sacks run to top off at ground level upon  
completion  
Was a drive shoe used?  Yes  No Plugs \_\_\_\_\_ Size: location \_\_\_\_\_ ft.  
Did any strata contain unusable water?  Yes  No  
Type of water? insufficient depth of strata 130' to 160'  
Method of sealing strata off cased and cemented  
Was well gravel packed?  Yes  No Size of gravel: \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(10) LOCATION OF WELL:

County Washington Driller's well number OWRD  
\_\_\_\_\_ 1/4 Section 31 T. 2 N R. 3 W. \_\_\_\_\_ W.M.  
Bearing and distance from section or subdivision corner \_\_\_\_\_

(11) WATER LEVEL: Completed well.

Depth at which water was first found 130 ft.  
Static level 34 ft. below land surface. Date 8/24/77  
Artesian pressure \_\_\_\_\_ lbs. per square inch. Date \_\_\_\_\_

(12) WELL LOG:

Diameter of well below casing 8"  
Depth drilled 450 ft. Depth of completed well 450 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
Dark brown clay topsoil	0	8	
Silty brown clay	8	15	
Red-brown clay w/rotten rock fragments	15	50	
Sticky red clay-occ. rotten rock streaks	50	95	
Brown clay & rotten rock	95	110	
Dark brown & gray-brown clay --organic material	110	120	
Soft blue-gray cemented gravel	120	130	
Rotten brown basalt	130	160	20 gpm
Soft brown basalt-occ. weathered	160	195	
Black-brown basalt	195	215	
Hard gray-black basalt	215	230	
Broken brown basalt w/soapstone and lava interbeds	230	245	10 gpm
Fractured black basalt--occ. crevice	245	265	
Hard gray-black basalt, occ-			

Work started 8/16/77 19 Completed 8/24/77 19  
Date well drilling machine moved off of well 8/24/77 19

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] \_\_\_\_\_ Date 8/29/77, 19\_\_\_\_  
(Drilling Machine Operator)

Drilling Machine Operator's License No. 523

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 A. M. Janssen Drilling Co.  
(Person, firm or corporation) (Type or print)

Address 21075 SW Tualatin Valley Hwy. Aloha, Oregon

[Signed] Edward M. Janssen  
(Water Well Contractor)

Contractor's License No. 79 Date 8/29/77, 19\_\_\_\_



ATTACHMENT 5

JUN 02 2005

WELL I.D. # L 75346

START CARD # 173577

Instructions for completing this report are on the last page of this form. WATER RESOURCES DEPT SALEM, OREGON

(1) LAND OWNER Well Number \_\_\_\_\_ Name City of Banks Address 100 South Main Street City Banks State Or Zip 97106

(2) TYPE OF WORK [X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment [ ] Conversion

(3) DRILL METHOD [X] Rotary Air [X] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud [ ] Other

(4) PROPOSED USE [ ] Domestic [X] Community [ ] Industrial [ ] Irrigation [ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION Special Construction: [ ] Yes [X] No Depth of Completed Well 665 ft. Explosives used: [ ] Yes [X] No Type \_\_\_\_\_ Amount \_\_\_\_\_

Table with columns: BORE HOLE (Diameter, From, To), SEAL (Material, From, To), Sacks or Pounds. Row 1: 16, 0, 300, Cem/Bent, 0, 300, 115 sks. Row 2: 12, 300, 665.

How was seal placed: Method [ ] A [X] B [X] C [ ] D [ ] E [ ] Other Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_ Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER Table with columns: Diameter, From, To, Gauge, Steel, Plastic, Welded, Threaded. Casing: 12, +2, 300, .250, [X], [ ], [X], [ ]. Liner: [ ], [ ], [ ], [ ], [ ], [ ], [ ], [ ].

Drive Shoe used [ ] Inside [ ] Outside [X] None Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS Table with columns: From, To, Slot Size, Number, Diameter, Tele/pipe size, Casing, Liner. (This section is crossed out with a diagonal line.)

(8) WELL TESTS: Minimum testing time is 1 hour [ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian Yield gal/min Drawdown Drill stem at Time 650+ 275-280 660 200 1hr. 1hr.

Temperature of water 57°F Depth Artesian Flow Found \_\_\_\_\_ Was a water analysis done? [X] Yes By whom A.M.J. Did any strata contain water not suitable for intended use? [ ] Too little [ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other \_\_\_\_\_ Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL (legal description) County Washington Tax Lot 402 Lot \_\_\_\_\_ Township 2N N or S Range 3W E or W WM Section 31 NE 1/4 NW 1/4 Lat \_\_\_\_\_ or \_\_\_\_\_ (degrees or decimal) Long \_\_\_\_\_ or \_\_\_\_\_ (degrees or decimal)

Street Address of Well (or nearest address) 42000 NW Banks Rd. Banks, Or

(10) STATIC WATER LEVEL 48 ft. below land surface. Date 5-25-05 \_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_ Artesian pressure \_\_\_\_\_ lb. per square inch Date \_\_\_\_\_

(11) WATER BEARING ZONES Table with columns: From, To, Estimated Flow Rate, SWL. Row 1: 378, 468, 350 gpm, 48. Row 2: 615, 660, 300 gpm, 48.

(12) WELL LOG Table with columns: Material, From, To, SWL. Rows include: Brn & red-brn cly sticky, firm. (0, 69), Red-brn basalt, very weathered. (69, 102), Green clay soft (102, 121), Gry-brn clay firm (121, 155), Red-brn basalt very weathered. (155, 179), Brn basalt, weathered (179, 201), Gry-brn basalt (201, 206), Gry/gry-blk basal thrd (206, 231), Gry-brn basalt w/ interbeds. (231, 251), Gry-gry blk basalt hrd (251, 313), Brn basalt interbed (313, 325). Date Started 3-22-05 Completed 5-25-05.

(unbonded) Water Well Constructor Certification I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief. WWC Number 573 Date 5-31-2005 Signed [Signature]

(bonded) Water Well Constructor Certification I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief. WWC Number 1266 Date May 31, 2005 Signed [Signature]

STATE OF OREGON  
WATER SUPPLY WELL REPORT  
(as required by ORS 537.765)

JUN 02 2005

WELL I.D. # L 75346

WATER RESOURCES DEPT  
SALEM, OREGON

START CARD # 173577

Instructions for completing this report are on the last page of this report.

(1) LAND OWNER Well Number \_\_\_\_\_  
Name City of Banks Conti. Page 2  
Address 100 South Main Street  
City Banks State OR Zip 97106

(2) TYPE OF WORK  New Well  
 Deepening  Alteration (repair/recondition)  Abandonment  Conversion

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  Auger  Cable Mud  
 Other \_\_\_\_\_

(4) PROPOSED USE  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Livestock  Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION Special Construction:  Yes  No  
Depth of Completed Well 665 ft.  
Explosives used:  Yes  No Type \_\_\_\_\_ Amount \_\_\_\_\_

BORE HOLE			SEAL			Sacks or Pounds
Diameter	From	To	Material	From	To	

How was seal placed: Method  A  B  C  D  E  
 Other \_\_\_\_\_

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

Casing:	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
					<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"/>

Drive Shoe used  Inside  Outside  None  
Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS  
 Perforations Method \_\_\_\_\_  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Tele/pipe size	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

Received  
APR 29 2024

OWRD

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

Yield gal/min	Drawdown	Drill stem at	Time

Temperature of water \_\_\_\_\_ Depth Artesian Flow Found \_\_\_\_\_  
Was a water analysis done?  Yes By whom \_\_\_\_\_  
Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL (legal description)  
County Washington  
Tax Lot 402 Lot \_\_\_\_\_  
Township 2N N or S Range 3W E or W WM  
Section 31 NE 1/4 NW 1/4

Lat \_\_\_\_\_ " or \_\_\_\_\_ (degrees or decimal)  
Long \_\_\_\_\_ " or \_\_\_\_\_ (degrees or decimal)

Street Address of Well (or nearest address)  
42000 NW Banks Rd., Banks, OR

(10) STATIC WATER LEVEL  
48 ft. below land surface. Date 05/25/2005  
\_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_  
Artesian pressure \_\_\_\_\_ lb. per square inch Date \_\_\_\_\_

(11) WATER BEARING ZONES  
Depth at which water was first found \_\_\_\_\_

From	To	Estimated Flow Rate	SWL

(12) WELL LOG Ground Elevation \_\_\_\_\_

Material	From	To	SWL
<u>Blk basalt, frags, occ soapstone.</u>	<u>325</u>	<u>378</u>	
<u>Brn/gry-brn basalt frac broken occ red-brn basalt/lava streaks</u>	<u>378</u>	<u>420</u>	<u>48</u>
<u>Blk/gry blk basalt/lava</u>	<u>420</u>	<u>468</u>	
<u>Blk/gry blk basalt, hard occ frags.</u>	<u>468</u>	<u>615</u>	
<u>Blk basalt interbed, occ claystone occ lava streaks.</u>	<u>615</u>	<u>660</u>	<u>48</u>
<u>Blk/gry-blk basalt, frags.</u>	<u>660</u>	<u>665</u>	

Date Started 3-22-2005 Completed 5-25-2005 6100 29 2024

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

WWC Number 573 Date 5-31-2005  
Signed \_\_\_\_\_

(bonded) Water Well Constructor Certification  
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1266 Date May 31, 2005  
Signed \_\_\_\_\_



April 17, 2024

1501011

Oregon Water Resources Department  
Attn: *Groundwater Hydrogeology Section*  
725 Summer St. NE Ste A  
Salem, Oregon 97301

c/o: Dennis Orlowski, *Northeast Region Lead Hydrogeologist*

**RE: INTERPRETATION OF BASALT WATER-BEARING ZONES IN THE AREA OF BANKS, OREGON**

CwM-H2O (CwM) presents this technical memorandum to the Oregon Water Resources Department (OWRD) on behalf of the City of Banks (City). The purpose of the Technical Memorandum is twofold: 1) to present the results of additional investigations into the nature of two water-bearing zones (WBZs) within the Columbia River Basalt Group (CRBG), and 2) to support an application to modify Certificate 95849 that requests the additional points of appropriation and proposes the development of all basalt WBZs encountered to a depth of 665 feet below ground surface (bgs) as one aquifer unit. The WBZs investigated are documented in the City's primary production well, Well 2 (WASH 6237) and in the nearby Quail Valley Irrigation Well (QV Well, WASH 50693). The locations of each well are presented in Figure 1 - Vicinity Map.

This technical memorandum also presents a correction to the 2018 Banks-Green Mountain Aquifer Storage and Recovery Feasibility Study (ASR Feasibility Study) which incorrectly interpreted a downhole video observation to suggest water was moving within the borehole of Well 2. This interpretation is incorrect based on a reevaluation of the original video log and the new evidence presented in sections that follow which demonstrate that the WBZs encountered in Well 2 were in equilibrium and that no flow was evident in the video log.

***Recent Geophysical Evidence***

The investigation of Well 2 was conducted in 2017 as part of the Banks-Green Mountain Aquifer Storage and Recovery Feasibility Study (CwM, 2018). The investigation of the QV Well was completed in two separate investigations. The first was conducted by CwM to assess the condition of the QV Well as a potential asset for the City (CwM, 2020). A separate assessment was conducted by Holt Development and Summit Water Resources, LLC (Summit) in 2023, which focused on the potential flow between water bearing units in the QV Well. Both investigations utilized Pacific Survey, LLC of Auburn, CA for geophysical survey. The array of downhole methods used to evaluate both production wells included the following:

- Video Survey with down- and side-casting camera
- Caliper Log
- Dynamic Spinner Log
- Static Spinner Log
- Temperature Log

Received  
APR 29 2024

OWRD

All information gathered in these assessments is available for OWRD to review. However, for the purposes of this technical memorandum, the pertinent evidence of potential flow within the basalt borehole is found in the static spinner log data collected in each well. The raw data for static spinner log for each of these investigations is provided here for OWRD technical review in the attached Exhibit A - Geophysical Log Surveys with the original State of Oregon Water Well Reports (well logs) from each well.

Exhibit A also contains an excerpt from a report provided by Summit where Pacific Survey provides commentary on the 2017 Banks Well 2 and the 2023 QV Well spinner log results. Pacific Survey's analysis of the spinner logs states that zero flow is detected between the two WBZs. This indicates that, in both wells, the two WBZs are of equal head value and in combination act as a single aquifer without loss of water or artesian head from one zone to the other.

### ***Evidence from Area Water Well Reports of Equivalent Static Water Levels***

The observations of equivalent head values between upper and lower WBZs in Well 2 and the QV Well are also supported in the original well logs which document no change in static water level as the borehole was advanced through each WBZ during the time of drilling. This observation is not uncommon in the northern Tualatin Valley in the area of the City. In a limited search, CwM identified eight other deep (greater than 400 ft bgs) basalt wells in the area that tap a number of WBZs and show no change in static water levels as the wells were constructed. These wells include WASH 7691, WASH 13531, WASH 54161, WASH 55819, WASH 71480, WASH 72830, WASH 141, and WASH 0002 with deepening log WASH 199. The well locations are shown in Figure 1. The well logs for each are included in Exhibit B - Area Basalt Wells. The lack of a change in static water level suggests that the WBZs are interconnected, in equilibrium between WBZs, and that these basalt water WBZs act as one aquifer in the area of the City.

### ***Evidence from Recent Water Level Elevations: Wells 1 and 2***

Previous water levels reported to CwM from the City and to OWRD in annual report as "SCADA" reading are incorrect due to a long-term failure in the transducers measuring water levels in the City's Well 1 and Well 2. The City has recently completed an elevational survey of both wellheads and begun reconditioning and repairs for the pump and motor equipment in Well-1. This reconditioning included the replacement of the older non-functional transducer system. Concurrently, the City has also replaced the previous transducer system that was installed in Well-2.

Since March 2023, Well-1 has been offline as the equipment has been removed for repair or replacement. This allowed for direct access to Well 1 water levels by hand measurement with a well sounder. CwM geologists have collected three water levels during this time period when Well 2 has been idle for at least 7-days. The static water elevations (calculated with survey elevations and manual depth measurements) between the wells differed by 0.62 – 1.12 feet, Table 1.

Under static winter-spring conditions, groundwater elevations were less than 1 ft apart. Some variability in water level is expected due to the irrigation season and the use of multiple area wells for residential use. However, little variation has been observed. In summary, the static water



elevations are essentially equivalent, and the very small differences measured between the wells would not be sufficient to move groundwater between WBZs or cause a loss of water from one zone to the other.

<b>Table 1 – Manual Groundwater Elevation Measurements</b>				
Date	Well-1 Groundwater Elevation	Well-2 Groundwater Elevation	Difference in Elevation	Time Since Well-2 Pumped
3/15/2023	197.60 ft	196.98 ft	0.62 ft	7+ days
4/7/2023	199.17 ft	198.05 ft	1.12 ft	7+ days
10/13/2023	185.85 ft	184.89 ft	0.96 ft	7+ days

**2023 Review of Video Survey of Well-2 completed in 2018**

A video survey of Well-2 was conducted by Pacific Surveys LLC and CwM on January 12, 2018. The video covered the entire length of Well 2 including the cased and open-hole intervals. A CwM Principal-level review of the video was completed by Robert E. Long Jr. *RG, CWRE* in October of 2023 to assess the origin of comments made in the 2018 ASR Feasibility Study regarding the exchange of water between the upper and lower WBZs within Well 2. The quote “the exchange of water between the two water bearing zones was observed, with water from the water from the lower water bearing zone moving upwards and mixing with the upper water bearing zone” is found on page 11 of the ASR Feasibility Study and in Appendix C page 1.

In the review of the video survey, documented suspended sediment and debris dislodged from the inside of the well was observed floating downward in the water column, including when the camera was not in motion. The video survey from top of casing to the bottom of the well (0 to 669.7 bgs) at no time indicates evidence of upward flow. It is CwM’s conclusion that the survey interpretation error occurred as the video camera was retracted from the well. Specifically, it is believed that upward movement of sediment upon the retraction of the camera was interpreted as upward flow. In reality, this effect is the result of suction created behind the camera when it is being pulled back up the well.

CwM’s intent with this memo is to correct this statement about upward water flow and exchange between WBZ in Well 2. There is no evidence from the video survey of water movement in either direction. The evidence provided by the downhole video suggests that the two WBZs share very similar hydraulic pressure regimes under static conditions.

**Summary**

The goal of this memo is to update the factual evidence related to two water bearing zones (WBZ) with in the Columbia River Basalt Group (CRBG) that supply groundwater water to production wells in and around Banks, Oregon in the northern Tualatin Valley in support of a proposed application to add five additional points of appropriation to Certificate 95849. The application proposes to use both WBZs as a single aquifer for both production and for future ASR operations. It is the professional opinion of CwM, based on the evidence presented in geophysical analysis, well log static water levels,

Received  
APR 29 2024

14449 -

and current static water levels measured by CwM at Well 1 and Well 2, that these basalt WBZ are in equilibrium and operate as a single aquifer unit. Previous observations in the 2018 ASR Feasibility Study and interpretations of flow within the borehole based on a downhole video data are incorrect and are amended herein based on the reevaluation of the 2018 video in question.

Please let us know if there are any issues with processing this application or questions regarding the information included therein. Thank you for your assistance.

Sincerely,

**CwM H2O, L.L.C.**



Robert Long, CWRE

CC Jolynn Becker, City Manager, City of Banks  
Joe Schiewe, Holt Homes  
Paul Sellke, AKS Engineering & Forestry

**Received**  
**APR 29 2024**

**OWRD**

**14449 -**

**EXHIBIT A  
GEOPHYSICAL LOG SURVEYS**

Received  
APR 29 2024  
OWRD 14449 -

Jason Melady  
Summit Water Resources, LLC

November 9, 2022

RE: Technical Memo: Static Spinner

Under non-pumping condition the spinner/flowmeter is lowered into the boring/well at a constant speed. The revolutions of the impeller are recorded as counts/sec. Once the spinner/flowmeter reaches total depth, the survey is stopped and a new survey begins with the tool ascending the boring/well. The spinner/flowmeter is raised to the surface at a constant rate and the revolutions of the impeller are recorded.

Both the down and up runs are merged onto one graph and scaled so that both spinner response overlay one another in a zone of known zero-flow. This zone is typically above all perforations. In the case of Well #2, this would be in the 12-inch casing that is set to 300ft. This zone of zero-flow demonstrates that the revolutions of the spinner is directly a result of the speed of descent/ascent of the tool.

If both the down and up run overlay one another throughout the entire boring/well, the inference would be that there is no vertical flow anywhere in the boring/well. If vertical flow was occurring, the down and up runs would diverge from one another in response to the direction of the flow (velocities are additive). In the case for Well #2, there is no significant divergence between the down and up runs, indicating zero-flow through the entire interval.

Best Regards,  
Michael Ridder  
**Pacific Surveys, LLC**

Received  
APR 29 2024  
OWRD

# PACIFIC SURVEYS

## STATIC SPINNER UP & DOWN RUNS NON-PUMPING CONDITION

Job No.  
23530

Company CITY OF BANKS

Well WELL 2

File No.

Field BANKS

County WASHINGTON State OR

Location:  
41700 NW BANKS RD.  
GPS: 45.6214 -123.1066

Other Services:  
VIDEO CALIPER  
DYNAMIC SPINNER  
STOP COUNTS  
SPINNER ANALYSIS

Sec.	Twp.	Rge.	Elevation above perm. datum	Elevation
Permanent Datum	T.O.C.			
Log Measured From	T.O.C.			
Drilling Measured From	N/A			K.B. D.F. G.L.
Date	01-12-2018			
Run Number	ONE			
Depth Driller	669'			
Depth Logger	669'			
Bottom Logged Interval	660'			
Top Log Interval	225'			
Pump Set @	196' (BOTTOM)			
Time Pumping Prior to Survey	30 MIN			
Pumping Water Level	NOT MEASURED			
Max. Recorded Temp.	N/A			
Pump Rate (GPM)	N/A			
Time Well Ready	0800			
Time Logger on Bottom	1200			
Equipment Number	PS-7			
Location	SAC			
Recorded By	SCHUMACHER			
Witnessed By	R. DOUGHERTY			

Perforation Record				Perforation Record			
Type	Slot Size	From	To	Type	Slot Size	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	12"	N/A	0'	300'
Camera Tube				
Production String				
Liner	14449 -			

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pacific Surveys cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Pacific Surveys' general terms and conditions set out in our current Price Schedule.

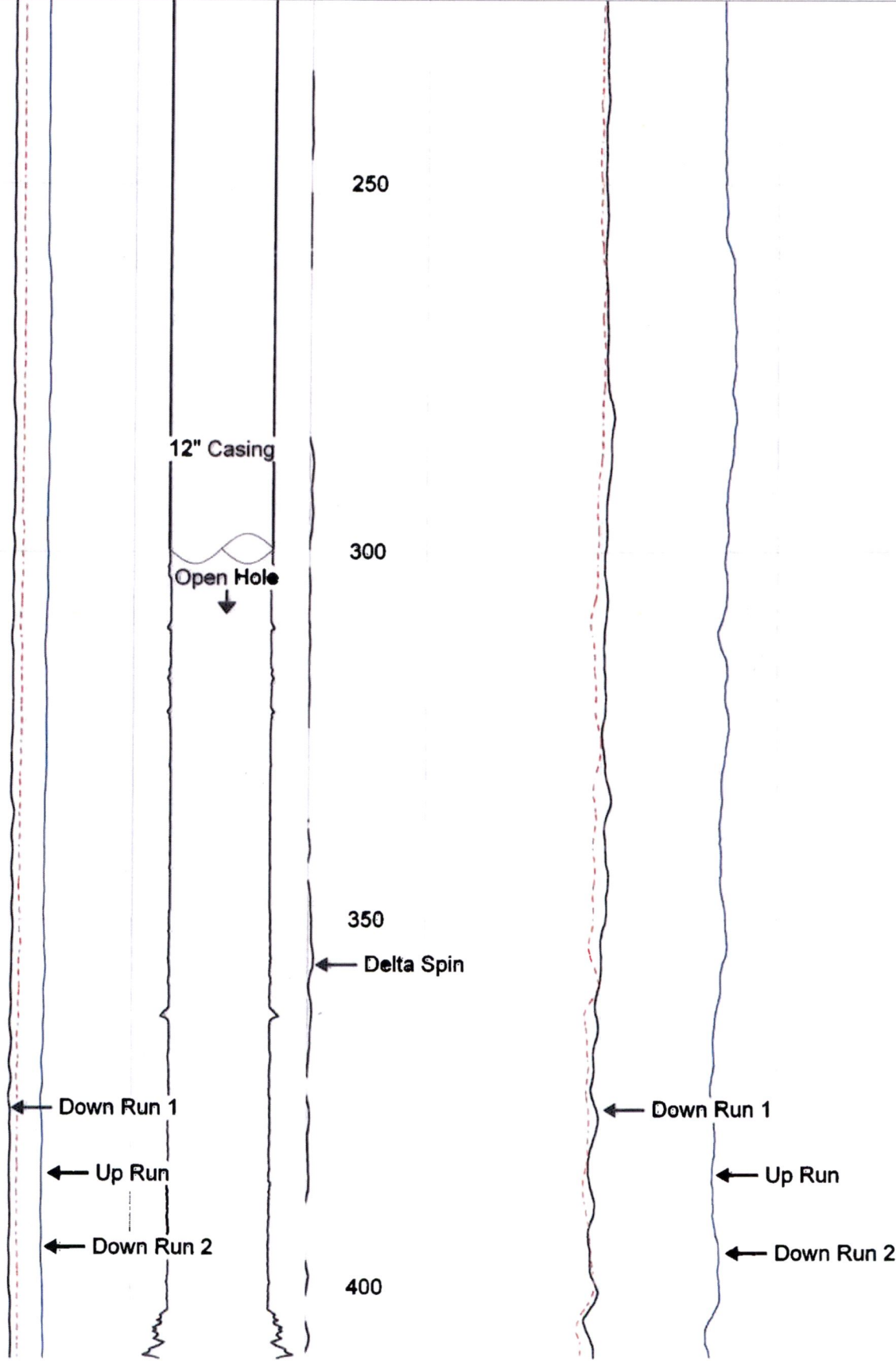
Comments

FULL BORE  
12" OPEN HOLE BELOW 300'

Database File 23530.db  
 Dataset Pathname statD1  
 Presentation Format spinnerg  
 Dataset Creation Fri Jan 12 10:11:44 2018  
 Created by North in Feet scaled 1:240

0	(ft/min) 100
LS	
0	(ft/min) 100
LS	
0	(ft/min) -100

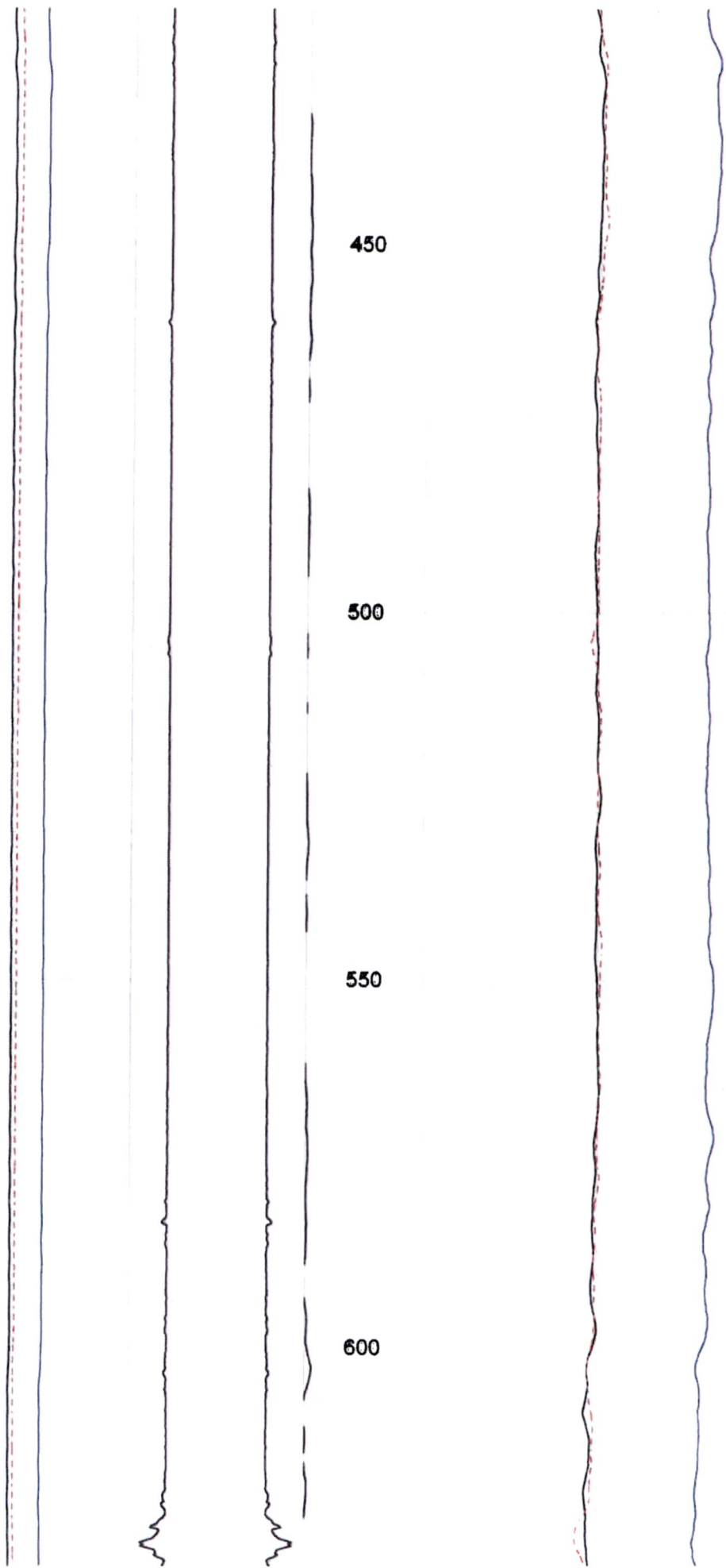
0	Spinner Down Run (cps)	40
1.5	Spinner Up Run (cps)	41.5



Received  
APR 29 2024

OWRD

14449 -



450

500

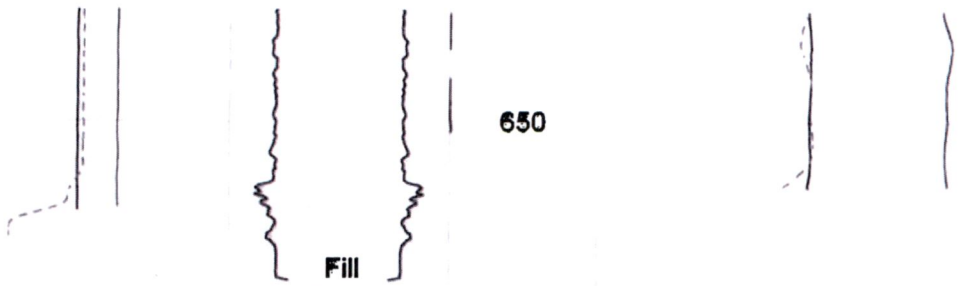
550

600

Received  
APR 29 2024

OWRD

14449 -



LS 0 (ft/min) 100	Delta Spin 0	Spinner Down Run (cps)	40
LS 0 (ft/min) 100	0	Spinner Down Run (cps)	40
LS 0 (ft/min) -100	1.5	Spinner Up Run (cps)	41.5

Received  
APR 29 2024

14449 - OWRD



The original and first copy of this report are to be filed with the

### WATER WELL REPORT

WATER RESOURCES DEPARTMENT  
SALEM, OREGON 97310  
within 30 days from the date of well completion.

# RECEIVED

STATE OF OREGON  
(Please type or print)

WASH  
7651

State Well No. 2N/3W-31  
State Permit No. \_\_\_\_\_

SEP - 6 1977 (Do not write above this line)

(1) OWNER: WATER RESOURCES DEPT.  
Name City of Banks SALEM, OREGON  
Address Banks, Oregon

(2) TYPE OF WORK (check):  
New Well  Deepening  Reconditioning  Abandon   
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL: (4) PROPOSED USE (check):  
Rotary  Driven  Domestic  Industrial  Municipal   
Cable  Jetted  Dug  Bored  Irrigation  Test Well  Other

CASING INSTALLED: Threaded  Welded   
8-5/8" Diam. from plus 2 ft. to 210 ft. Gage 250  
" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_  
" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_

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? AM Jannsen  
Yield: 275 gal./min. with 224 ft. drawdown after 48 hrs.  
150 " " 146 " " " "  
" " " " " " " "  
Baller test gal./min. with ft. drawdown after hrs.  
Artesian flow g.p.m. APR 29 2024  
Temperature of water 58° Depth artesian flow encountered \_\_\_\_\_ ft.

(9) CONSTRUCTION:  
Well seal—Material used Cement grout & 2% gel  
Well sealed from land surface to 210 ft.  
Diameter of well bore to bottom of seal 12-1/4" in.  
Diameter of well bore below seal 8" in.  
Number of sacks of cement used in well seal 25 sacks  
How was cement grout placed? Placed on o.d. of casing through grout pipe - 20 sacks run @ 210', 5 sacks run to top off at ground level upon completion  
Was a drive shoe used?  Yes  No Plugs \_\_\_\_\_ Size: location \_\_\_\_\_ ft.  
Did any strata contain unusable water?  Yes  No  
Type of water? insufficient depth of strata 130' to 160'  
Method of sealing strata off cased and cemented  
Was well gravel packed?  Yes  No Size of gravel: \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(10) LOCATION OF WELL:  
County Washington Driller's well number \_\_\_\_\_  
\_\_\_\_\_ 1/4 Section 31 T. 2 N. R. 3 W. W.M.  
Bearing and distance from section or subdivision corner \_\_\_\_\_

(11) WATER LEVEL: Completed well.  
Depth at which water was first found 130 ft.  
Static level 34 ft. below land surface. Date 8/24/77  
Artesian pressure \_\_\_\_\_ lbs. per square inch. Date \_\_\_\_\_

(12) WELL LOG: Diameter of well below casing 8"  
Depth drilled 450 ft. Depth of completed well 450 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
Dark brown clay topsoil	0	8	
Silty brown clay	8	15	
Red-brown clay w/rotten rock fragments	15	50	
Sticky red clay-occ. rotten rock streaks	50	95	
Brown clay & rotten rock	95	110	
Dark brown & gray-brown clay --organic material	110	120	
Soft blue-gray cemented gravel	120	130	
Rotten brown basalt	130	160	20 gpm
Soft brown basalt-occ. weathered	160	195	
Black-brown basalt	195	215	
Hard gray-black basalt	215	230	
Broken brown basalt w/soapstone and lava interbeds	230	245	10 gpm
Fractured black basalt--occ. crevice	245	285	
Hard gray-black basalt, occ-			

Work started 8/16/77 19 Completed 8/24/77 19  
Date well drilling machine moved off of well 8/24/77 19

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] [Signature] Date 8/29/77, 19\_\_\_\_  
(Drilling Machine Operator)  
Drilling Machine Operator's License No. 523

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 A. M. Jannsen Drilling Co. (Type or print)  
Address 21075 SW Tualatin Valley Hwy. Aloha, Oregon  
[Signed] [Signature] (Water Well Contractor)  
Contractor's License No. 79 Date 8/29/77, 19\_\_\_\_

The original and first copy of this report are to be filed with the  
 WATER RESOURCES DEPARTMENT  
 SALEM, OREGON 97310  
 within 30 days from the date of well completion.

**RECEIVED**  
**WATER WELL REPORT**  
 STATE OF OREGON  
 (Please type or print)  
 SEP - 6 1977  
 (Do not write above this line)

State Well No. 2N13W-31  
 State Permit No. \_\_\_\_\_

**(1) OWNER:**

Name City of Banks SALEM, OREGON Page 2  
 Address \_\_\_\_\_

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

New Well  Deepening  Reconditioning  Abandon   
 If abandonment, describe material and procedure in Item 12.

**(3) TYPE OF WELL:**

Rotary  Driven   
 Cable  Jetted   
 Dug  Bored

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

Domestic  Industrial  Municipal   
 Irrigation  Test Well  Other

**(5) CASING INSTALLED:**

Threaded  Welded   
 \_\_\_\_\_" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_  
 \_\_\_\_\_" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_  
 \_\_\_\_\_" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_

**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?  
 \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
 " " " " "  
 " " " " "  
 Baller test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
 Artesian flow \_\_\_\_\_ g.p.m.  
 Temperature of water \_\_\_\_\_ Depth artesian flow encountered \_\_\_\_\_ ft.

**(9) CONSTRUCTION:**

Well seal—Material used \_\_\_\_\_  
 Well sealed from land surface to \_\_\_\_\_ ft.  
 Diameter of well bore to bottom of seal \_\_\_\_\_ in.  
 Diameter of well bore below seal \_\_\_\_\_ in.  
 Number of sacks of cement used in well seal \_\_\_\_\_ sacks  
 How was cement grout placed? \_\_\_\_\_

Was a drive shoe used?  Yes  No Plugs \_\_\_\_\_ Size: location \_\_\_\_\_ ft.  
 Did any strata contain unusable water?  Yes  No  
 Type of water? \_\_\_\_\_ depth of strata \_\_\_\_\_  
 Method of sealing strata off \_\_\_\_\_  
 Was well gravel packed?  Yes  No Size of gravel: \_\_\_\_\_  
 Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

**(10) LOCATION OF WELL:**

County \_\_\_\_\_ Driller's well number \_\_\_\_\_  
 \_\_\_\_\_ 1/4 Section T. R. W.M.  
 Bearing and distance from section or subdivision corner \_\_\_\_\_

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

Depth at which water was first found \_\_\_\_\_ ft.  
 Static level \_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_  
 Artesian pressure \_\_\_\_\_ lbs. per square inch. Date \_\_\_\_\_

**(12) WELL LOG:**

Diameter of well below casing \_\_\_\_\_

Depth drilled \_\_\_\_\_ ft. Depth of completed well \_\_\_\_\_ 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
fracture	265	315	5 gpm
Brown basalt-occ. broken	315	325	10 gpm
Hard black & gray-black basalt-occ. crevice	325	360	
Black basalt--occ. broken w/ green soapstone	360	380	25 gpm
Broken black & brown basalt-w/ lava & soapstone interbed	380	400	200 gpm
Broken gray-brown basalt w/ lava streaks	400	415	100gpm
Hard gray-black basalt--occ. crevice	415	450	

Received  
 APR 29 2024  
 OWRD

Work started \_\_\_\_\_ 19 Completed \_\_\_\_\_ 19  
 Date well drilling machine moved off of well \_\_\_\_\_ 19

**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] \_\_\_\_\_ Date \_\_\_\_\_, 19\_\_\_\_  
 (Drilling Machine Operator)

Drilling Machine Operator's License No. \_\_\_\_\_

**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 \_\_\_\_\_ (Person, firm or corporation) (Type or print)

Address \_\_\_\_\_

[Signed] \_\_\_\_\_ (Water Well Contractor)

Contractor's License No. \_\_\_\_\_ Date \_\_\_\_\_, 19\_\_\_\_

# **Pacific Surveys, LLC**

*A full service geophysical well logging company*

Ryan Dougherty  
Summit Water Resources, LLC

December 14, 2022

RE: Static Spinner

On November 30<sup>th</sup>, 2022, we performed a static spinner survey on the Quail Valley Golf Course Well in Banks, OR. Only one down and up run were required for this survey, as both the down and up run overlaid one another throughout the entire cased and open-hole portions of the well, with no significant divergence. This corresponds with the Temperature Log performed on this well from November 2020, which, similarly, revealed no significant divergence from the expected geothermal gradient. Therefore, it appears that there is no vertical flow in the boring/well.

Best Regards,  
Mike Schumacher  
**Pacific Surveys, LLC**

Received  
APR 29 2024  
OWRD

**PACIFIC SURVEYS**

**STATIC SPINNER  
UP & DOWN RUNS  
NON-PUMPING CONDITION**

Job No. 30460  
**Company** SUMMIT WATER RESOURCES, LLC  
**Well** QVGC WELL  
**Field** BANKS  
**County** WASHINGTON **State** OR

**Location:**  
 12565 NW AERTS RD  
 GPS: 45.6167 -123.0958  
 Other Services:  
 CALIPER

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	above perm. datum	
Drilling Measured From	N/A		K.B. D.F. G.L.

Date	11-30-2022		
Run Number	ONE		
Depth Driller	640'		
Depth Logger	641'		
Bottom Logged Interval	620'		
Top Log Interval	0'		
Static Water Level	~25'		
Depth Of Pump Bowls	N/A		
Density / Viscosity	N/A		
Max. Recorded Temp.	N/A		
Pump Rate (GPM)	N/A		
Time Well Ready	0900		
Time Logger on Bottom	0945		
Equipment Number	PS-8		
Location	SAC		
Recorded By	SCHUMACHER		
Witnessed By	R. DOUGHERTY		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	10.25" ID	0.25" WALL	0'	315.1'
Liner				

14449 -

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pacific Surveys cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Pacific Surveys' general terms and conditions set out in our current Price Schedule.

**Comments**

OPEN HOLE FROM 315.1 FT TO APPROX. 645 FT.

Database File 30460.db  
 Dataset Pathname spn\_d4  
 Presentation Format spinnerg  
 Dataset Creation Wed Nov 30 11:05:14 2022  
 Created by Depth in Feet scaled 1:240

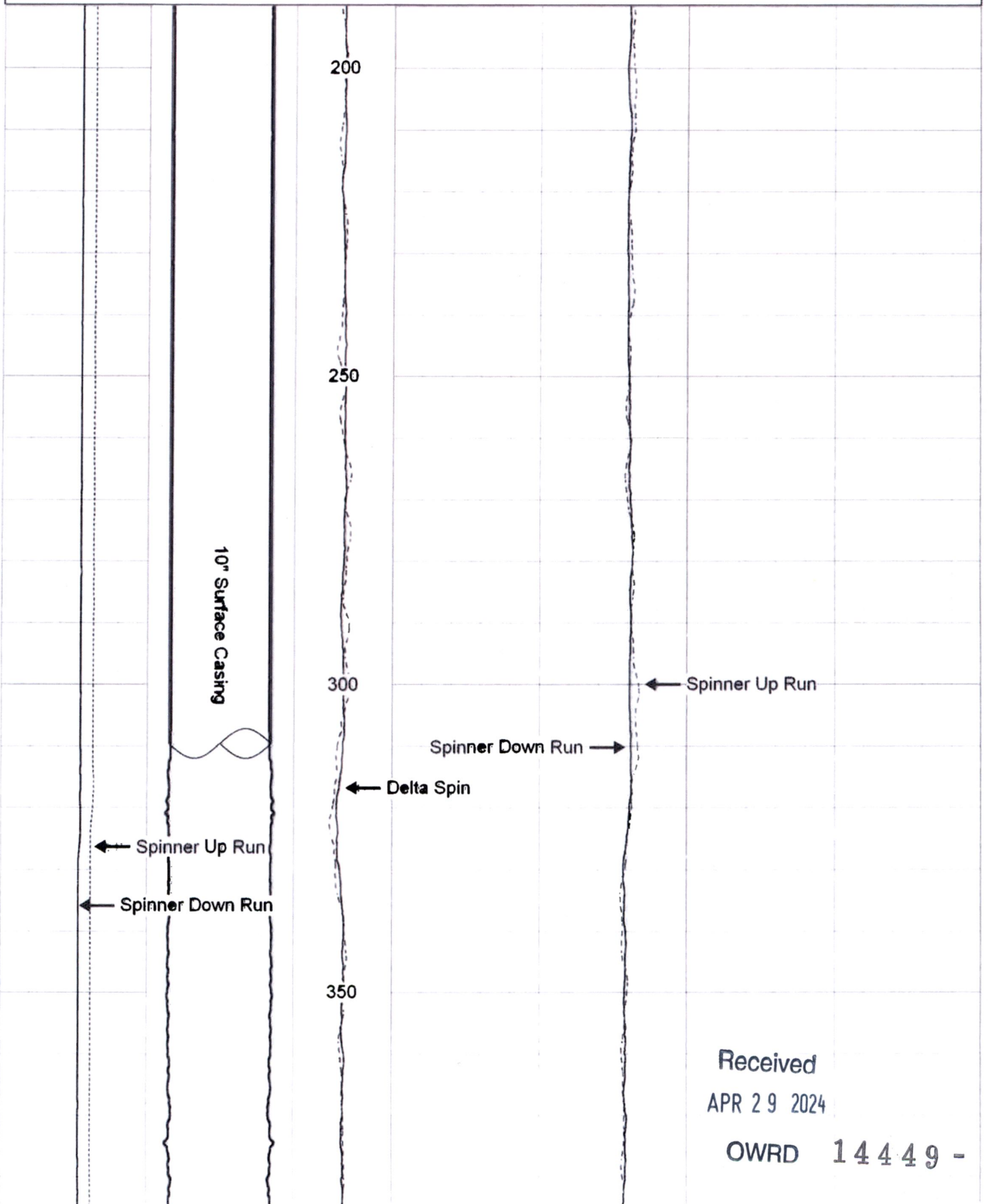
0 (ft/min) -100  
LS  
0 (ft/min) 100

Image

Delta Spin -1.2

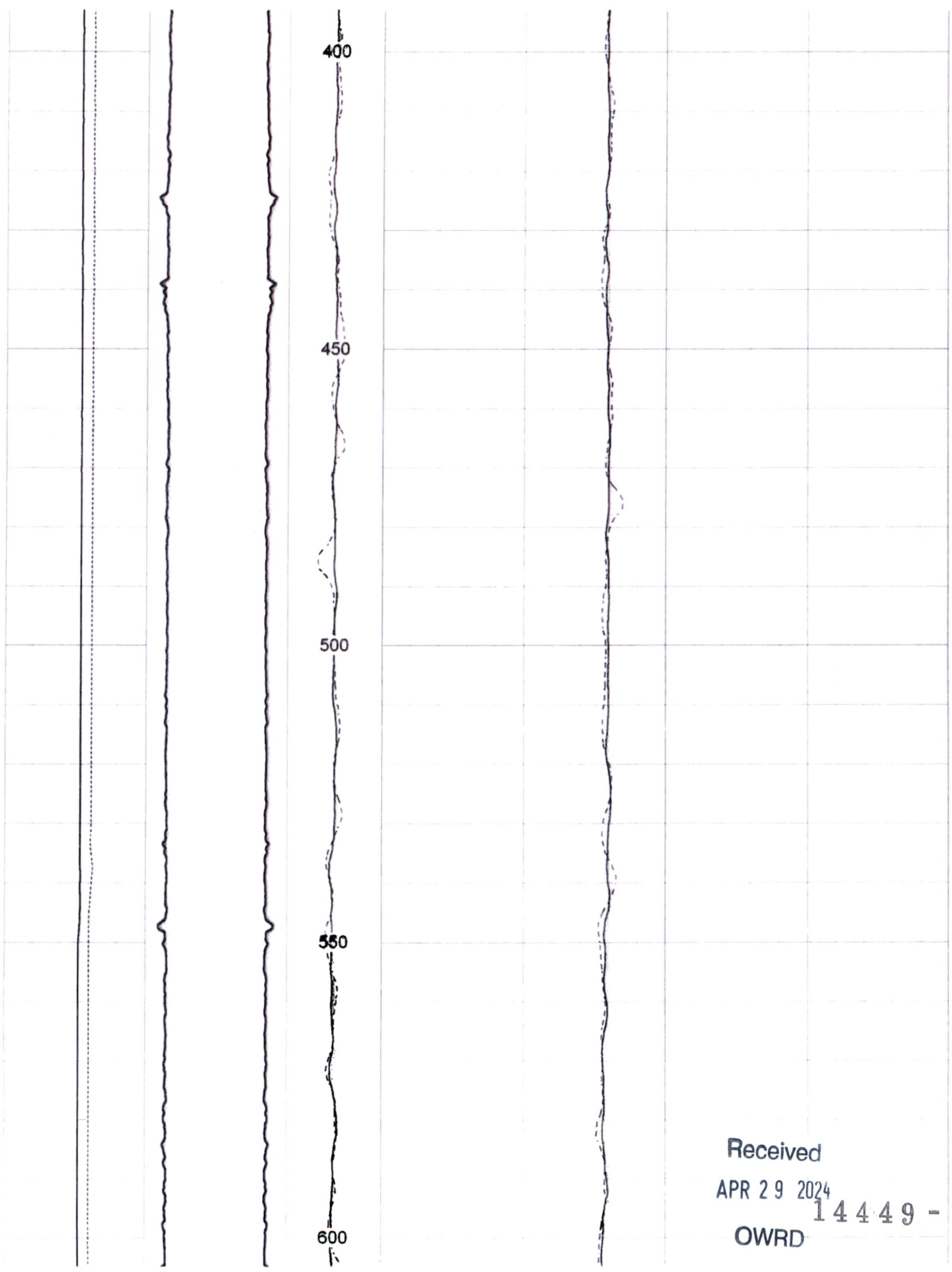
Spinner Up Run (cps)

48.8



Received  
APR 29 2024

OWRD 14449 -



Received  
APR 29 2024  
14449 -  
OWRD



<b>LS</b> <b>0 (ft/min) -100</b>	<b>Borehole Caliper</b> <b>Image</b>	<b>Delta Spin</b> <b>0</b>	<b>Spinner Down Run (cps)</b>	<b>50</b>
		<b>Delta Spin</b> <b>-1.2</b>	<b>Spinner Up Run (cps)</b>	<b>48.8</b>
<b>LS</b> <b>0 (ft/min) 100</b>				

Received  
 APR 29 2024

14449 -

OWRD

**EXHIBIT B  
AREA BASALT WELLS**

Received  
APR 29 2024

14449 - OWRD



STATE OF OREGON  
 WATER SUPPLY WELL REPORT  
 (as required by ORS 537.765)

RECEIVED WASH 62373

CITY WELL-2

WELL I.D. # L 75346

JUN 02 2005

START CARD # 173577

page 1

Instructions for completing this report are on the last page of this form  
 WATER RESOURCES DEPT  
 SALEM, OREGON

(1) LAND OWNER Well Number \_\_\_\_\_  
 Name City of Banks  
 Address 100 South Main Street  
 City Banks State Or Zip 97106

(2) TYPE OF WORK  New Well  
 Deepening  Alteration (repair/recondition)  Abandonment  Conversion

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  Auger  Cable Mud  
 Other \_\_\_\_\_

(4) PROPOSED USE  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Livestock  Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION Special Construction:  Yes  No  
 Depth of Completed Well 665 ft.  
 Explosives used:  Yes  No Type \_\_\_\_\_ Amount \_\_\_\_\_

BORE HOLE			SEAL			Sacks or Pounds
Diameter	From	To	Material	From	To	
16	0	300	Cem/Bent	0	300	115 sks
12	300	665				

How was seal placed: Method  A  B  C  D  E  
 Other \_\_\_\_\_

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
 Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER

Casing:	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	12	+2	300	.250	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Drive Shoe used  Inside  Outside  None  
 Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS  
 Perforations Method \_\_\_\_\_  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Tele/pipe size	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

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

Yield gal/min	Drawdown	Drill stem at	Time
650+		660	1hr.
275-280		200	1hr.

Temperature of water 57°F Depth Artesian Flow Found \_\_\_\_\_  
 Was a water analysis done?  Yes By whom A.M.J.  
 Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
 Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL (legal description)  
 County Washington  
 Tax Lot 402 Lot \_\_\_\_\_  
 Township 2N N or S Range 3W E or W WM  
 Section 31 NE 1/4 NW 1/4

Lat \_\_\_\_\_ " or \_\_\_\_\_ (degrees or decimal)  
 Long \_\_\_\_\_ " or \_\_\_\_\_ (degrees or decimal)

Street Address of Well (or nearest address)  
42000 NW Banks Rd. Banks, Or

(10) STATIC WATER LEVEL  
48 ft. below land surface. Date 5-25-05  
 \_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_  
 Artesian pressure \_\_\_\_\_ lb. per square inch Date \_\_\_\_\_

(11) WATER BEARING ZONES  
 Depth at which water was first found 378

From	To	Estimated Flow Rate	SWL
378	468	350 gpm	48
615	660	300 gpm	48

(12) WELL LOG Ground Elevation \_\_\_\_\_

Material	From	To	SWL
Brn & red-brn cly sticky, firm.	0	69	
Red-brn basalt, very weathered.	69	102	
Green clay soft	102	121	
Gry-brn clay firm	121	155	
Red-brn basalt very weathered.	155	179	
Brn basalt, weathered	179	201	
Gry-brn basalt	201	206	
Gry/gry-blk basalt hrd	206	231	
Gry-brn basalt w/ interbeds.	231	251	
Gry-gry blk basalt hrd	251	313	
Brn basalt interbed	313	325	

Date Started 3-22-05 Completed 5-25-05

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

WWC Number 573 Date 5-31-2005  
 Signed \_\_\_\_\_

(bonded) Water Well Constructor Certification  
 I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1266 Date May 31, 2005  
 Signed \_\_\_\_\_

14449 -

WASH RECEIVED  
50693

QV WELL

STATE OF OREGON  
WATER SUPPLY WELL REPORT  
(as required by ORS 537.765)

MAY 28 1996

(START CARD) # 86703

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number \_\_\_\_\_  
Name QUAIL VALLEY GOLF COURSE  
Address 12565 NW AERTS RD.  
City BANKS State OR Zip 97106

(2) TYPE OF WORK  
 New Well  Deepening  Alteration (repair/recondition)  Abandonment

(3) DRILL METHOD:  
 Rotary Air  Rotary Mud  Cable  Auger  
 Other \_\_\_\_\_

(4) PROPOSED USE:  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Livestock  Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval  Yes  No Depth of Completed Well 640 ft.  
Explosives used  Yes  No Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE			SEAL			
Diameter	From	To	Material	From	To	Sacks or pounds
14-3/4	0	312	Cement	0	90	35 SKS
			Cement	280	312	20 SKS
10	312	640				

How was seal placed: Method  A  B  C  D  E  
 Other \_\_\_\_\_  
Backfill placed from 90 ft. to 280 ft. Material Hivisc Gel & Bent. chips  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing: 10"	+1	312	250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(7) PERFORATIONS/SCREENS:

From		To		Slot size	Number	Diameter	Material	Tele/pipe size	Casing	Liner
<del>Perforations Method _____</del>										
<del>Screens Type _____ Material _____</del>										

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

Yield gal/min	Drawdown	Drill stem at	Flowing Time
300+		280	1 hr.
200		180	"
180		100	"

Temperature of water 56 F Depth Artesian Flow Found \_\_\_\_\_  
Was a water analysis done?  Yes By whom AMT  
Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
County WASHINGTON Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township 2N N or S Range 3W E or W. W.M.  
Section 31 NW 1/4 SE 1/4  
Tax Lo 00100 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) 12565 NW AERTS RD  
BANKS, OR

(10) STATIC WATER LEVEL:  
18 ft. below land surface. Date 05/20/96  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:  
Depth at which water was first found 340

From	To	Estimated Flow Rate	SWL
340	465	100 GPM	18
515	575	100 "	18
575	630	100+GPM	18

(12) WELL LOG:  
Ground Elevation \_\_\_\_\_

Material	From	To	SWL
Topsoil	0	1	
Dark brown clay	1	4	
Sticky brown clay	4	16	
Sticky gray-brown clay	16	94	
Sticky red-brown clay	94	156	
Decomp. brown basalt, occ. clay interbeds	156	283	
Soft brown basalt	283	298	
Firm gray-brown basalt	298	310	
Hard gray basalt	310	340	
Gray-brown, gray-black basalt	340	465	18
occ. brown basalt streaks			"
(caving zone 420-435, grouted solid)			
Brown basalt & ash, cemented debris	465	515	
Gray-brown basalt, frac. occ. broken green mineral stain	515	575	18
Brown & gray-brown basalt, brown	575	630	18
Gray-black basalt, hard, frac.	630	640	

Date started 04/02/96 Completed 05/20/96

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

(bonded) Water Well Constructor Certification:  
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.  
WWC Number 1266 & 573  
Signed [Signature] Date 05/22/96

ORIGINAL & FIRST COPY WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

14449 -

Received  
APR 29 2024

STATE OF OREGON  
WATER SUPPLY WELL REPORT  
(as required by ORS 537.765)

JUN 02 2005

WELL I.D. # L 75346

START CARD # 173577

WATER RESOURCES DEPT  
SALEM, OREGON

Instructions for completing this report are on the last page of this report.

(1) LAND OWNER Well Number \_\_\_\_\_  
Name City of Banks Conti. Page 2  
Address 100 South Main Street  
City Banks State OR Zip 97106

(2) TYPE OF WORK  New Well  
 Deepening  Alteration (repair/recondition)  Abandonment  Conversion

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  Auger  Cable Mud  
 Other \_\_\_\_\_

(4) PROPOSED USE  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Livestock  Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION Special Construction:  Yes  No  
Depth of Completed Well 665 ft.  
Explosives used:  Yes  No Type \_\_\_\_\_ Amount \_\_\_\_\_

BORE HOLE			SEAL			Sacks or Pounds
Diameter	From	To	Material	From	To	

How was seal placed: Method  A  B  C  D  E  
 Other \_\_\_\_\_

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

Casing:	Diameter	From	To	Gauge	SEAL			
					Steel	Plastic	Welded	Threaded
					<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"/>

Drive Shoe used  Inside  Outside  None  
Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS  
 Perforations Method \_\_\_\_\_  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot Size	Number	Diameter	Tele/pipe size	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

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

Yield gal/min	Drawdown	Drill stem at	Time

Temperature of water \_\_\_\_\_ Depth Artesian Flow Found \_\_\_\_\_  
Was a water analysis done?  Yes By whom \_\_\_\_\_  
Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL (legal description)  
County Washington  
Tax Lot 402 Lot \_\_\_\_\_  
Township 2N N or S Range 3W E or W WM  
Section 31 NE 1/4 NW 1/4

Lat \_\_\_\_\_ " or \_\_\_\_\_ (degrees or decimal)  
Long \_\_\_\_\_ " or \_\_\_\_\_ (degrees or decimal)

Street Address of Well (or nearest address)  
42000 NW Banks Rd., Banks, OR

(10) STATIC WATER LEVEL  
48 ft. below land surface. Date 05/25/2005  
\_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_  
Artesian pressure \_\_\_\_\_ lb. per square inch Date \_\_\_\_\_

(11) WATER BEARING ZONES  
Depth at which water was first found \_\_\_\_\_

From	To	Estimated Flow Rate	SWL

(12) WELL LOG Ground Elevation \_\_\_\_\_

Material	From	To	SWL
Blk basalt, frags, occ soapstone.	325	378	
Brn/gry-brn basalt frac broken occ red-brn basalt/lava streaks	378	420	48
Blk/gry blk basalt/lava	420	468	
Blk/gry blk basalt, hard occ frags.	468	615	
Blk basalt interbed, occ claystone occ lava streaks.	615	660	48
Blk/gry-blk basalt, frags.	660	665	

Date Started 3-22-2005 Completed 5-25-2005

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

WWC Number 573 Date 5-31-2005

Signed \_\_\_\_\_

(bonded) Water Well Constructor Certification  
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1266 Date May 31, 2005

Signed \_\_\_\_\_

Received

14449 -

APR 29 2024

OWRD

STATE OF OREGON  
**WATER WELL REPORT**  
 (as required by ORS 537.765)

WASH  
 7691

RECEIVED

SEP 29 1989 (START CARD) # 13022 pg. 1

2N/3W/36C

(1) OWNER: Well Number: WATER  
 Name Pumpkin Ridge Development, Inc. SALE  
 Address One Southwest Columbia, Suite 1010  
 City Portland State OR Zip 97258

(8) LOCATION OF WELL by legal description:  
 Township 2 N N or S, Range 3 W E or W, WM.  
 Section 36 SE ¼ SW ¼  
 Tax Lot \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
 Street Address of Well (or nearest address) \_\_\_\_\_

(2) TYPE OF WORK:  
 New Well  Deepen  Recondition  Abandon

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  
 Other \_\_\_\_\_

(4) PROPOSED USE:  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:  
 Special Construction approval Yes No Depth of Completed Well 583 ft.  
 Yes No   
 Explosives used  Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
1 7/8	0	65	Cement	0	65	50 sacks
1 7/8	65	200	Drill gel	65	200	
1 7/8	200	224	Cement	200	224	25 sacks
1 4-3/4	224	232	Cement	224	232	" "

How was seal placed: Method  A  B  C  D  E  
 Other \_\_\_\_\_  
 Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
 Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing: 12"	+2	232	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS:  
 Perforations Method \_\_\_\_\_  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						<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"/>

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

Yield gal/min	Drawdown	Drill stem at	Time
280	103		24 chr.
350	148		30 hr.
400	195		48 hr.

Temperature of water \_\_\_\_\_ Depth Artesian Flow Found \_\_\_\_\_  
 Was a water analysis done?  Yes By whom \_\_\_\_\_  
 Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
 Depth of strata: \_\_\_\_\_

(10) STATIC WATER LEVEL:  
 40 ft. below land surface. Date 9/21/89  
 Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:  
 Depth at which water was first found 245

From	To	Estimated Flow Rate	BWL
245	253	20 gpm	40
335	350	10 gpm	"
380	403	70 gpm	"
413	417	15 gpm	"

(12) WELL LOG: Ground elevation \_\_\_\_\_

Material	From	To	SWL
Topsoil	0	1	
Firm brown clay	1	4	
Soft brown silty clay	4	23	
Sticky light gray-brown clay	23	47	
Sticky red-brown clay	47	79	
Sticky light gray clay	79	97	
Sticky red-brown clay	97	136	
Sticky red clay	136	151	
Decomposed brown basalt	151	156	
Firm decomp. gray-brown basalt	156	160	
Interbedded red, brown & gray clay	160	170	
Soft decomposed brown basalt	170	191	
Firm decomposed brown basalt	191	218	
Firm gray-brown basalt	218	220	
Hard gray basalt	220	253	
Firm gray-black basalt	253	261	
Soft black basalt	261	268	
Firm gray-black basalt	268	289	
Hard gray basalt	289	299	
Firm gray basalt	299	305	
Soft gray-black basalt	305	312	
Firm gray basalt	312	316	

Date started 8/10/89 Completed 9/25/89

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

(bonded) Water Well Constructor Certification:  
 I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. Work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.  
 WWC Number 1266  
 Signed \_\_\_\_\_ Date 9/27/89

14449 -

STATE OF OREGON  
**WATER WELL REPORT**  
 (as required by ORS 537.765)

RECEIVED Ridge Development  
 SEP 29 1989 (START CARD) # 13022 pg 2  
 LN/3W/36C0

(1) OWNER: Name \_\_\_\_\_ Well Number: WATER RESOURCES DEPARTMENT  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

LOCATION OF WELL by legal description:  
 SALEM, OREGON  
 Township \_\_\_\_\_ N or S, Range \_\_\_\_\_ E or W, WM.  
 Section \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4  
 Tax Lot \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
 Street Address of Well (or nearest address) \_\_\_\_\_

(2) TYPE OF WORK:  
 New Well  Deepen  Recondition  Abandon

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  
 Other \_\_\_\_\_

(4) PROPOSED USE:  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:  
 Special Construction approval Yes  No  Depth of Completed Well \_\_\_\_\_ ft.  
 Explosives used  Yes  No  Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
12"	232	552				
10"	552	583				

How was seal placed: Method  A  B  C  D  E  
 Other \_\_\_\_\_  
 Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
 Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

Diameter	From	To	Gauge	Material			
				Steel	Plastic	Welded	Threaded
Casing:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS:

Perforations Method \_\_\_\_\_  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						<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"/>

(8) WELL TESTS: Minimum testing time is 1 hour  
 Pump  Bailer  Air  Flowing Artesian  
 Yield gal/min \_\_\_\_\_ Drawdown \_\_\_\_\_ Drill stem at \_\_\_\_\_ Time \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Temperature of water \_\_\_\_\_ Depth Artesian Flow Found \_\_\_\_\_  
 Was a water analysis done?  Yes By whom \_\_\_\_\_  
 Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
 Depth of strata: \_\_\_\_\_

(10) STATIC WATER LEVEL:  
 \_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_  
 Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:

Depth at which water was first found \_\_\_\_\_

From	To	Estimated Flow Rate	SWL
434	443	20 gpm	4
453	458	30 "	"
458	519	85 "	"
559	575	150 "	"

(12) WELL LOG: Ground elevation \_\_\_\_\_

Material	From	To	SWL
Hard gray basalt	316	335	
Soft reddish-black basalt w/ green claystone (335-337)	335	350	
Hard gray basalt	350	403	
Firm gray-black basalt	403	417	
Hard gray basalt	417	430	
Soft gray-black basalt	430	443	
Firm gray-black basalt	443	447	
Soft gray-black basalt	447	453	
Hard gray basalt	453	458	
Soft gray-black basalt w/claystone	458	504	
Soft gray-green Claystone	504	508	
Firm gray-black basalt	508	519	
Wood	519	523	
Soft gray-green claystone	523	528	
Gray basalt w/gray claystone interbeds	528	533	
Hard gray basalt	533	559	
Firm gray-black basalt, occ. broken streak	559	583	

Date started \_\_\_\_\_ Completed \_\_\_\_\_

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

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

# GEOLOGIC LOG FOR SITE WASH 7691

NWIS Site ID: 453650123000301

OWRD Log ID: WASH 7691

Well location: 02N/03W-36CAA

Depth drilled, in feet below land surface: 583

Land surface altitude, in feet above Nation Geodetic Vertical Datum of 1929: 220

Logged by: T. L. Tolan and M. H. Beeson

Date drilled: 08/10/1989

Depth	Symbol	Lithologic Description	Elevation	Water Bearing Zones	Geochem Sample	Remarks
0		<b>Wanapum Basalt, Frenchman Springs Member</b> Basalt of Sand Hollow deeply weathered (laterite)	218			Top of CRBG at ground surface; very deeply weathered 0 to 218 ft. No samples from 0 to 235 ft. Unit contacts interpreted from drillers log.
100		Basalt of Ginkgo? deeply weathered (laterite)	121			
		<b>Vantage Interbed</b> claystone	58 48			160 ft: Vantage Interbed estimated to be approx. 10ft. thick.
200		<b>Grande Ronde Basalt, Sentinel Bluffs Member</b> flow 1 (-1) weathered flow top deeply weathered interior dense interior - columnar normal flow top dense interior - columnar, flow lobe	27 0 -32 -42	20gpm	245	Sentinel Bluffs Member flow 1 (-1): aphyric flow 2: sparsely plagioclase phyrlic with small phenocrysts
300		interbed - claystone	-83			305 ft: Interbed <2 ft. thick.
		<b>Grande Ronde Basalt, Winter Water Member</b> flow 1 normal flow top dense interior - columnar interbed - claystone	-97 -117 -137	10gpm	320	335 ft: Interbed <2 ft. thick.  Winter Water Member flows 1 & 2: plagioclase phyrlic with small glomerocrysts
400		normal flow top dense interior - entablature dense interior - columnar	-167	70gpm	390	Note: Winter Water flows 2 and 3 may be flow lobes of a single flow.
		flow lobe	-167			
		flow top dense interior	-197 -202	16gpm	420	flow lobe: plagioclase phyrlic with small glomerocrysts flow 3: plagioclase phyrlic with small glomerocrysts
		normal flow top dense interior - entablature	-212			
500		pillow complex with massive claystone rip-ups			480	
		interbed - siltstone with wood	-302			520 ft: Interbed approx. 10 ft. thick.
		<b>Grande Ronde Basalt, Ortley Member</b> normal flow top dense interior - entablature	-312 -322		565	Ortley Member: aphyric
			-367		575	
600		<b>TD 583 ft</b>				

STATE OF OREGON  
**WATER WELL REPORT**  
 (as required by ORS 537.765)

JUN 10 1987 **RECEIVED** **WASH** 013531 24/3W-21dd

**(1) OWNER:**

Name Harry Lazott  
 Address Rt 20 Box  
 City Banks State OR Zip 97108

**(2) TYPE OF WORK:**

New Well  Deepen  Recondition  Abandon

**(3) DRILL METHOD**

Rotary Air  Rotary Mud  Cable  
 Other

**(4) PROPOSED USE:**

Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Other

**(5) BORE HOLE CONSTRUCTION:**

Special Construction approval Yes  No  Depth of Completed Well 500 ft.  
 Explosives used Yes  No  Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE		SEAL		Amount	
Diameter	From To	Material	From To	sacks or pounds	
10"	0 100	Cement	0 100	28 sacks	
6"	100 500				

How was seal placed: Method  A  B  C  D  E

Other

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_

Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

**(6) CASING/LINER:**

Casing/Liner	Diameter	From	To	Gauge	Material			
					Steel	Plastic	Welded	Threaded
Casing	6	+1	180	1/4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner	4	10	500	1/4 RHD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) Drive shoe 180 ft

**PERFORATIONS/SCREENS:**

Perforations Method Drill  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
400	490	1/2	160			<input type="checkbox"/>	<input checked="" type="checkbox"/>

**(8) WELL TESTS: Minimum testing time is 1 hour**

Pump  Bailer  Air  Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
50		480	1 hr.
40		420	1/2
15		360	1/2

Temperature of water 55 Depth Artesian Flow Found \_\_\_\_\_

Was a water analysis done?  Yes By whom \_\_\_\_\_

Did any strata contain water not suitable for intended use?  Too little

Salty  Muddy  Odor  Colored  Other \_\_\_\_\_

Depth of strata: \_\_\_\_\_

WHITE COPIES - WATER RESOURCES DEPARTMENT

YELLOW COPY - CONSTRUCTOR

PINK COPY - CUSTOMER

9809C 10/88

**(9) LOCATION OF WELL by legal description:**

County Wash Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Township 2N Nor S, Range 3W E or W, WM.  
 Section 21 SE SE

Tax Lot \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_

Street Address of Well (or nearest address) Hahn rd.

**(10) STATIC WATER LEVEL:**

257 ft. below land surface. Date 5-19-87

Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

**(11) WATER BEARING ZONES:**

Depth at which water was first found \_\_\_\_\_

From	To	Estimated Flow Rate	SWL
300	320	6	250
440	490	50	250

**(12) WELL LOG:**

Ground elevation \_\_\_\_\_

Material	From	To	SWL
Brown soil	0	2	
Red clay	2	40	
Tan clay	40	90	
Brown clay	90	140	
Brown clay - Broken rock	140	300	
Black Gravel - W.B.	300	320	250
Brown clay - Layers rock	320	440	
Black Gravel W.B.	440	490	250
Brown clay	490	500	250

Received

APR 29 2024

OWRD

Date started 5-18-87 Completed 5-19-87

**(unbonded) Water Well Constructor Certification:**

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

WWC Number \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_

**(bonded) Water Well Constructor Certification:**

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 711

Signed Joseph Trussell Date 5-21-87

14449 -

WASH  
54161

RECEIVED

NOV 27 1998

STATE OF OREGON  
WATER SUPPLY WELL REPORT  
(as required by ORS 537.765)

WELL I.D. # L 27709  
START CARD # 118198

Instructions for completing this report are on the last page of this form.  
WATER RESOURCES DEPT.  
SALEM, OREGON

(1) OWNER: Well Number \_\_\_\_\_

Name BILL & RHONDA OWEN  
Address 4850 NW KAHNEETA CRT.  
City PORTLAND State OR Zip 97229

(2) TYPE OF WORK  
 New Well  Deepening  Alteration (repair/recondition)  Abandonment

(3) DRILL METHOD:  
 Rotary Air  Rotary Mud  Cable  Auger  
 Other \_\_\_\_\_

(4) PROPOSED USE:  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Livestock  Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval  Yes  No Depth of Completed Well 465 ft.  
Explosives used  Yes  No Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE		SEAL		Sacks or pounds	
Diameter	From To	Material	From To		
6	210 465	SEAL NOT	DISTURBED		

How was seal placed: Method  A  B  C  D  E  
 Other \_\_\_\_\_  
Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:	4 1/2	0	455	200#	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) 4 1/2 x 6 K-Packer @ 355 (SEE NOTE)

(7) PERFORATIONS/SCREENS:

Perforations Method SAW CUT  
 Screens Type \_\_\_\_\_ Material PVC 200

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
435	455	1/8x12	80			<input type="checkbox"/>	<input checked="" type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour  
OWRD

Pump  Bailor  Air  Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
100+		350 to T.D.	1 hr.
60		180	"
18-20		100	"

Temperature of water 53°F Depth Artesian Flow Found \_\_\_\_\_  
Was a water analysis done?  Yes By whom AMT  
Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
County WASHINGTON Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township 2N N or S Range 3W E or W. WM.  
Section 36 NW 1/4 NW 1/4  
Tax Lot 103 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) 13990 NW OLD PUMPKIN RIDGE RD., CORNELIUS, OR

(10) STATIC WATER LEVEL:  
62 ft. below land surface. Date 11/18/98  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:  
Depth at which water was first found ?/210

From	To	Estimated Flow Rate	SWL
---	210	6 GPM	62
210	435	4 GPM	"
435	465	90+GPM	62

(12) WELL LOG:  
Ground Elevation \_\_\_\_\_

Material	From	To	SWL
Existing 6" steel cased well open hole	0	210	62
Red minerals sludge & rock fragments	200	210	
Gray-black basalt, occ. blk lava	210	257	
Multi-colored claystone, ash, spongia coleamic debris	257	270	
Black basalt & lava, occ. broken, creviced	270	390	
Gray-black basalt, occ. lava streaks	390	438	
Black lava, very broken, occ. gray-black basalt	438	455	
Black & red basalt & lava	455	465	62

NOTE: Liner hung on packer @ 355', wedged on bell.

Date started 11/12/98 Completed 11/18/98

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

(bonded) Water Well Constructor Certification:  
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.  
WWC Number 573  
Signed \_\_\_\_\_ Date 11/20/98



STATE OF OREGON  
WATER SUPPLY WELL REPORT  
(as required by ORS 537.765)

WASH.  
55819

APR - 5 2000

WATER RESOURCES DEPT.  
SALEM, OREGON

WELL I.D.# L. 38991  
START CARD # 129593

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number \_\_\_\_\_

Name CROPP FARMS  
Address 31345 NW NORTH AVE.  
City NORTH PLATINS State OR Zip 97133

(2) TYPE OF WORK

New Well  Deepening  Alteration (repair/recondition)  Abandonment

(3) DRILL METHOD:

Rotary Air  Rotary Mud  Cable  Auger  
 Other

(4) PROPOSED USE:

Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Livestock  Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval  Yes  No Depth of Completed Well 420 ft.  
Explosives used  Yes  No Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE			SEAL			
Diameter	From	To	Material	From	To	Sacks or pounds
10	0	281	Cement	0	45	17 sks
			Drill gel	45	250	
8	281	363	Cement	250	363	28 sks
6	363	420				

How was seal placed: Method  A  B  C  D  E  
 Other

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_

Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing: 6"	+1	363	250	<input checked="" 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"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS:

Perforations		Method		Material			
From	To	Slot size	Number	Diameter	Tele./pipe size	Casing	Liner
						<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"/>

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

<input type="checkbox"/> Pump	<input type="checkbox"/> Bailer	<input checked="" type="checkbox"/> Air	<input type="checkbox"/> Flowing Artesian
Yield gal/min	Drawdown	Drill stem at	Time
45		400	1 hr.
36		250	"
21		150	"

Temperature of water 56°F Depth Artesian Flow Found \_\_\_\_\_

Was a water analysis done?  Yes By whom AMT

Did any strata contain water not suitable for intended use?  Too little

Salty  Muddy  Odor  Colored  Other

Depth of strata: 231-278' (SEALED OFF)

(9) LOCATION OF WELL by legal description:

County WASHINGTON Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township 2N N or S Range 3W E or W. WM.  
Section 35 SE 1/4 NW 1/4  
Tax Lot 500 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) 34051 NW MTN DALE RD

(10) STATIC WATER LEVEL:

38 ft. below land surface. Date 03/30/2000  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:

Depth at which water was first found 383

From	To	Estimated Flow Rate	SWL
383	388	21 GPM	38
391	405	24 GPM	38

(12) WELL LOG:

Material	From	To	SWL
Topsoil	0	1	
Brown clay	1	17	
Gray clay	17	24	
Sticky brown clay	24	102	
Sticky gray clay	102	130	
Fine to coarse black sand	130	141	
Sticky gray clay	141	178	
Fine gray sand w/wood	178	190	
Soft dark gray clay	190	231	
Fine to med. black gravel	231	243	wb
Fine to med. brown gravel	243	247	wb
Fine to med. black gravel	247	278	wb
Sticky gray clay	278	318	
Firm gray-brown basalt	318	329	
Soft brown basalt	329	350	
Firm gray-brown basalt	350	391	38
Soft dk. gray-brown basalt	391	405	38
Firm gray-brown basalt	405	412	
Hard gray basalt	412	420	

Date started 03/06/2000 Completed 03/30/2000

(unbonded) Water Well Constructor Certification:

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

WWC Number \_\_\_\_\_  
Signed \_\_\_\_\_ Date \_\_\_\_\_

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1266  
Signed \_\_\_\_\_ Date 03/31/2000

14449 -

STATE OF OREGON  
WATER SUPPLY WELL REPORT

WASH 71480

WELL LABEL # L 107489  
START CARD # 207761  
ORIGINAL LOG #

(ORS 537.765 & OAR 690-205-0210)

Instructions for completing this report are on the last page of this form.

(1) LANDOWNER Owner Well I.D.  
First Name Brady + Darci Last Name Wilson  
Company \_\_\_\_\_  
Address 1815 NW 143rd Ave B 28  
City Portland State OR Zip 97229

(2) TYPE OF WORK  New  Conversion  Deepening  
 Alteration (complete Sections 2a & 10)  Abandonment (complete Section 5a)

(2a) PRE-ALTERATION: Well Depth \_\_\_\_\_ ft.  
Seal Material \_\_\_\_\_  
Casing Type:  Steel  Plastic  Other \_\_\_\_\_  
Casing Gauge \_\_\_\_\_ Casing Diameter \_\_\_\_\_

(3) DRILL METHOD  Rotary Air  Rotary Mud  Auger  
 Cable  Cable Mud  Reverse Rotary  Other \_\_\_\_\_

(4) PROPOSED USE  Domestic  Irrigation  Community  
 Industrial/Commercial  Livestock  Dewatering  Injection  
 Thermal  Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION  
Depth of Completed Well 486 ft. Special Standard:  Yes (attach copy)

BORE HOLE			SEAL			
Dia	From	To	Material	From	To	Amount (sacks/lbs)
10"	0	35	bentonite	0	35	30
6"	35	98				
8"	98	133	cement	98	133	9
6"	133	486				

How was seal placed: Method  A  B  C  D  E  
 Other bentonite poured in dry  
Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Filter pack from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_ Size \_\_\_\_\_

(5a) ABANDONMENT USING UNHYDRATED BENTONITE:  
Calculated Amount Proposed to be Used: \_\_\_\_\_ sacks/lbs  
Actual Amount Used: \_\_\_\_\_ sacks/lbs

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Steel	Plastic	Welded	Thrd
X		6"	+	1 1/2	133 1/2	250	X		X	
	X	4 1/2		6	486			X		

Shoe  Inside  Outside  Other Location of shoe(s) 133 1/2  
Temporary casing  Yes Diameter \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

(7) PERFORATIONS/SCREENS  
Perforations Method drilled  
Screens Type \_\_\_\_\_ Material \_\_\_\_\_

Perf	Scrn	Casing	Liner	Screen Dia	From	To	Screen/slot width	Slot length	# of slots	Tele/pipe size
X			X		446	486	3/8"		120	4 1/2

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

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
60	200		1 1/2 hrs

Temperature 55 °F Lab analysis  Yes By \_\_\_\_\_  
Water quality concerns?  Yes (describe below) TDS \_\_\_\_\_ ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)  
County Washington Twp 2N N or S Range 3W E or W W.M.  
Sec 29 NE 1/4 of the NW 1/4 Tax Lot 140D  
Tax Map Number \_\_\_\_\_ Lot \_\_\_\_\_  
Lat \_\_\_\_\_ " or \_\_\_\_\_ DMS or DD  
Long \_\_\_\_\_ " or \_\_\_\_\_ DMS or DD

Street Address of Well (or nearest address) 15600 NW Roads En. Banks Oregon 97106

(10) STATIC WATER LEVEL

Existing Well/Pre-Alteration	Date	SWL (psi)	+	SWL (ft)
Completed Well	<u>1-29-13</u>			<u>232</u>

Flowing Artesian?  Yes Dry Hole?  Yes  
WATER BEARING ZONES Depth water was first found 350

SWL Date	From	To	Est Flow	SWL (psi)	+	SWL (ft)
1-29-13	350	365	10			232
1-29-13	415	430	15			232
1-29-13	472	486	35			232

(11) WELL LOG Ground Elevation

Material	From	To
brown soil	0	2
brown clay	2	5
red brown sandstone	5	12
red clay	12	48
brown clay	48	67
red clay	67	87
brown sandstone	87	98
grey rock	98	387
grey rock w/clay + wood	387	471
grey rock	471	460
grey rock w/clay + wood	460	471
grey rock	471	486

Date Started 11-19-12 Completed 1-29-13

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

License Number \_\_\_\_\_ Date MAR 06 2013  
Signed \_\_\_\_\_ RECEIVED BY OWRD

(bonded) Water Well Constructor Certification  
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1430 Date 2-16-13  
Signed Jeff Haboush Received

Contact Info. (optional) \_\_\_\_\_ APR 29 2024

OWRD

# WASH 72830

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

**WELL LABEL # L** 113897  
**START CARD #** 210675

**(1) LAND OWNER** Owner Well I.D. \_\_\_\_\_  
 First Name MATTHEW Last Name HUNT  
 Company \_\_\_\_\_  
 Address 32790 NW PEACEFUL LANE  
 City NORTH PLAINS State OR Zip 97133

**(2) TYPE OF WORK**  New Well  Deepening  Conversion  
 Alteration (repair/recondition)  Abandonment

**(3) DRILL METHOD**  
 Rotary Air  Rotary Mud  Cable  Auger  Cable Mud  
 Reverse Rotary  Other \_\_\_\_\_

**(4) PROPOSED USE**  Domestic  Irrigation  Community  
 Industrial/ Commercial  Livestock  Dewatering  
 Thermal  Injection  Other \_\_\_\_\_

**(5) BORE HOLE CONSTRUCTION** Special Standard  Attach copy  
 Depth of Completed Well 515 ft.

BORE HOLE			SEAL			Amt	sacks/ lbs
Dia	From	To	Material	From	To		
10	0	30	Bentonite	0	25	16	S
6	30	350					
8	350	428	Cement	350	428	20	S
5.5	428	515					

How was seal placed: Method  A  B  C  D  E  
 Other POUR SLOWLY & PROD  
 Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
 Filter pack from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_ Size \_\_\_\_\_  
 Explosives used:  Yes Type \_\_\_\_\_ Amount \_\_\_\_\_

**(6) CASING/LINER**

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6		2	428	250	<input checked="" 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"/>

Shoe  Inside  Outside  Other Location of shoe(s) \_\_\_\_\_  
 Temp casing  Yes Dia \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

**(7) PERFORATIONS/SCREENS**

Perforations Method \_\_\_\_\_  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

Perf/S creen	Casing/ Liner	Screen Dia	From	To	Screen/slot width	Slot length	# of slots	Tele/ pipe size

**(8) WELL TESTS: Minimum testing time is 1 hour**

Pump  Bailer  Air  Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
80		515	1
80		425	25
50		325	25

Temperature 54 °F Lab analysis  Yes By \_\_\_\_\_  
 Water quality concerns?  Yes (describe below)  
 From \_\_\_\_\_ To \_\_\_\_\_

**(9) LOCATION OF WELL (legal description)**  
 County WASHING Twp 2 N N/S Range 3 W E/W WM  
 Sec 35 SW 1/4 of the NE 1/4 Tax Lot 207  
 Tax Map Number \_\_\_\_\_ Lot \_\_\_\_\_  
 Lat \_\_\_\_\_ " or \_\_\_\_\_ DMS or DD  
 Long \_\_\_\_\_ " or \_\_\_\_\_ DMS or DD  
 Street address of well  Nearest address  
32790 NW PEACEFUL LANE

**(10) STATIC WATER LEVEL**

Existing Well / Predeepening	Date	SWL (psi)	+ SWL (ft)
Completed Well	07-08-2014		59

Flowing Artesian?  Dry Hole?

**WATER BEARING ZONES** Depth water was first found 434

SWL Date	From	To	Est Flow	SWL (psi)	+ SWL (ft)
07-07-2014	434	505	24		59
07-08-2014	505	515	56		59

**(11) WELL LOG** Ground Elevation \_\_\_\_\_

Material	From	To
BROWN CLAY	0	19
GRAY CLAY	19	29
STICKY BROWN CLAY	29	43
SOFT BROWN SILTY CLAY	43	59
STICKY BROWN CLAY WITH GRAY STREAKS	59	135
STICKY GRAY CLAY WITH SOFT GRAY	135	
BROWN SEAMS		194
SOFT BROWN SANDY CLAY	194	198
STICKY GRAY CLAY WITH OCC. BROWN STREAKS	198	295
RED BROWN CLAY	295	314
BROWN, GRAY BROWN CLAY WITH BROKEN ROCK	314	363
GRAY & BROWN CLY W/ ROTTEN WOOD STRK	363	405
GRAY BROWN CLAY	405	419
GRAY SANDSTONE WITH CLAY	419	433
GRAY CLAY	433	434
GRAY, GRAY BROWN BASALT	434	478
GRAY BASALT	478	515

Date Started 06-23-2014 Completed 07-08-2014

**(unbonded) Water Well Constructor Certification**  
 I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.  
 License Number 1492 Date 07-09-2014  
 Password: (if filing electronically) \_\_\_\_\_  
 Signed Meen Bagby

**(bonded) Water Well Constructor Certification**  
 I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.  
 License Number 1266 Date 07-09-2014  
 Password: (if filing electronically) \_\_\_\_\_  
 Signed \_\_\_\_\_  
 Contact Info (optional) \_\_\_\_\_

**RECEIVED BY OWRD**

JUL 17 2014

14449 -

STATE OF OREGON  
**WATER WELL REPORT**  
 (as required by ORS 537.765)

*Wash*  
*141*

SEP 24 1990

WATER RESOURCES DEPT.  
 SALEM, OREGON

*2N/3W/29 6A*

(START CARD) # *20118*

(1) OWNER:  
 Name *James & Chantal Farando*  
 Address *808 S.W. 175th Pl.*  
 City *Beverton* State *OR* Zip *97006*

(2) TYPE OF WORK:  
 New Well  Deepen  Recondition  Abandon

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  
 Other

(4) PROPOSED USE:  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Other

(5) BORE HOLE CONSTRUCTION:  
 Special Construction approval Yes  No   
 Depth of Completed Well *455* ft.  
 Explosives used  Yes  No  Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
<i>6</i>	<i>0</i>	<i>179</i>	<i>Cement &amp; Bentonite</i>	<i>0</i>	<i>179</i>	<i>38</i>
<i>6</i>	<i>179</i>	<i>455</i>				

How was seal placed: Method  A  B  C  D  E  
 Other

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
 Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	<i>6</i>	<i>0</i>	<i>179</i>	<i>250</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:	<i>4</i>	<i>5</i>	<i>455</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) *None*

(7) PERFORATIONS/SCREENS:  
 Perforations Method *DRILL*  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
<i>435</i>	<i>455</i>		<i>40</i>	<i>578</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Received*  
*APR 29 2024*

(8) WELL TESTS: Minimum testing time is 1 hour  
 Pump  Bailor  Air  Flowing Artesian  
 Yield gal/min *5* Drawdown \_\_\_\_\_ Drill stem at *440* Time *1 hr.*

Temperature of water \_\_\_\_\_ Depth Artesian Flow Found \_\_\_\_\_  
 Was a water analysis done?  Yes By whom \_\_\_\_\_  
 Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
 Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
 County *Wash* Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Township *2N* N or S. Range *3W* E or W. WM. \_\_\_\_\_  
 Section *29* NE *1/4* NW *1/4*  
 Tax Lot *510* Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
 Street Address of Well (or nearest address) *Mallen Road Banks, OR*

(10) STATIC WATER LEVEL:  
*305* ft. below land surface. Date *9-19-90*  
 Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:  
 Depth at which water was first found *374*

From	To	Estimated Flow Rate	SW
<i>374</i>	<i>383</i>	<i>3</i>	<i>30</i>
<i>393</i>	<i>397</i>	<i>2</i>	<i>30</i>

(12) WELL LOG: \_\_\_\_\_ Ground elevation \_\_\_\_\_

Material	From	To	SW
<i>Red Clay</i>	<i>0</i>	<i>26</i>	
<i>Ben Clay</i>	<i>26</i>	<i>150</i>	
<i>Weathered Rock</i>	<i>150</i>	<i>165</i>	
<i>Med Gray Rock</i>	<i>165</i>	<i>205</i>	
<i>Sandy Gray Rock</i>	<i>205</i>	<i>240</i>	
<i>Ben Rock</i>	<i>240</i>	<i>289</i>	
<i>Gray Rock</i>	<i>289</i>	<i>295</i>	
<i>Ben Rock</i>	<i>295</i>	<i>334</i>	
<i>DARK GRAY ROCK</i>	<i>334</i>	<i>346</i>	
<i>Gray Rock</i>	<i>346</i>	<i>374</i>	
<i>Black Pop Rock</i>	<i>374</i>	<i>383</i>	<i>30</i>
<i>Gray Rock</i>	<i>383</i>	<i>393</i>	
<i>Black Rock</i>	<i>393</i>	<i>397</i>	<i>30</i>
<i>BEN CLAY</i>	<i>397</i>	<i>402</i>	
<i>Blue Clay</i>	<i>402</i>	<i>406</i>	
<i>BEN/GRAY CLAY</i>	<i>406</i>	<i>418</i>	
<i>DARK GRAY SANDSTONE</i>	<i>418</i>	<i>446</i>	
<i>DARK GRAY CLAY</i>	<i>446</i>	<i>455</i>	

Date started *9-17-90* Completed *9-19-90*

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

Signed \_\_\_\_\_ WWC Number \_\_\_\_\_ Date \_\_\_\_\_

(bonded) Water Well Constructor Certification:  
 I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. Work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed *Don Fraker* WWC Number *715* Date *9-20-90*

14449 -

STATE OF OREGON  
 WATER WELL REPORT  
 (as required by ORS 537.765)

WATER RESOURCES DEPT.  
 WASH SALEM, OREGON  
 0002

1N/5W/1C

(START CARD) # 13639

(1) OWNER: Well Number: \_\_\_\_\_  
 Name Oregon Canadian Forest Prod, Inc.  
 Address P.O. Box 279  
 City North Plains State OR Zip 97133

(2) TYPE OF WORK:  
 New Well  Deepen  Recondition  Abandon

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  
 Other

(4) PROPOSED USE:  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Other

(5) BORE HOLE CONSTRUCTION:  
 Special Construction approval Yes No Depth of Completed Well 380 ft.  
 Yes No  Amount \_\_\_\_\_  
 Explosives used  Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
10	0	359	Cement + 52 Bent	0	359	140
8	359	380				

How was seal placed: Method  A  B  C  D  E  
 Other  
 Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
 Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel		Plastic		Welded		Threaded	
Casing: 8	+1	359	250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner: none				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) none

(7) PERFORATIONS/SCREENS: none  
 Perforations Method \_\_\_\_\_  
 Screens Type \_\_\_\_\_ Material \_\_\_\_\_

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						<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"/>

(8) WELL TESTS: Minimum testing time is 1 hour  
 Pump  Bailor  Air  Flowing  Artesian  
 Yield gal/min Drawdown Drill stem at Time  
 180 90 350 1 hr.  
 90 180 1/2 hr.

Temperature of water \_\_\_\_\_ Depth Artesian Flow Found \_\_\_\_\_  
 Was a water analysis done?  Yes By whom \_\_\_\_\_  
 Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other \_\_\_\_\_  
 Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
 County Wash Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Township 1N N or S, Range 3W E or W, WM.  
 Section 1 1/4 SW 1/4  
 Tax Lot \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
 Street Address of Well (or nearest address) 740B West  
 Commercial, North Plains

(10) STATIC WATER LEVEL:  
 95 ft. below land surface. Date 3-27-90  
 Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:

Depth at which water was first found 367

From	To	Estimated Flow Rate	SWI
367	380	180	95

(12) WELL LOG: Ground elevation \_\_\_\_\_

Material	From	To	SWI
FILL	0	4	
BRN CLAY	4	23	
Blue CLAY	23	60	
TAN CLAY	60	84	
Grey CLAY	84	109	
Lt BRN CLAY	109	135	
Grey CLAY	135	324	
Weathered Rock	324	329	
BRN Seamy Rock	329	344	
Med Grey Rock	344	367	
BRN Porous Rock	367	380	95

Received  
 APR 29 2024  
 OWRD

Date started 3-12-90 Completed 3-27-90

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

(bonded) Water Well Constructor Certification:  
 I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. Work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.  
 Signed Don Feakin WWC Number 715  
 Date 3-30-90

#18

STATE OF OREGON

WATER WELL REPORT  
(as required by ORS 537.785)

Wash  
199

(START CARD) #

1N/3W/1 CC  
18727

(1) OWNER: Well Number:  
Name Forest Products Oregon Canadian Inc  
Address  
City North Plains State Ore Zip 97133

(2) TYPE OF WORK:  
 New Well  Deepen  Recondition  Abandon

(3) DRILL METHOD  
 Rotary Air  Rotary Mud  Cable  
 Other

(4) PROPOSED USE:  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Other

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval Yes No Depth of Completed Well 500 ft.  
Explosives used   Type Amount

HOLE		SEAL		Amount sacks or pounds
Diameter	From To	Material	From To	
8	380 500			

How was seal placed: Method  A  B  C  D  E  
 Other  
Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel

(6) CASING/LINER:  
Diameter From To Gauge Steel Plastic Welded Threaded  
Casing: Existing well  
Liner:

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:  
 Perforations Method  
 Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						<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"/>

(8) WELL TESTS: Minimum testing time is 1 hour  
 Pump  Bailer  Air  Flowing  Artesian  
Yield gal/min Drawdown Drill stem at Time  
500+ Full 500 1 hr.  
250 Full 200  
120 Full 150

Temperature of water 60° Depth Artesian Flow Found  
Was a water analysis done?  Yes By whom  
Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other  
Depth of strata:

(9) LOCATION OF WELL by legal description:  
County Wash Latitude Longitude  
Township 1N N or S, Range 3W E or W, WM.  
Section 1 SW 1/4 SW 1/4  
Tax Lot Lot Block Subdivision  
Street Address of Well (or nearest address) 7402 West Commercial - North Plains Ore

(10) STATIC WATER LEVEL:  
9.5 ft. below land surface. Date June 13  
Artesian pressure lb. per square inch. Date

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

From	To	Estimated Flow Rate	SWL
Existing well		150 ±	95
413	434	150 ±	95
475	500	150 ±	95

(12) WELL LOG: Ground elevation 200 ±

Material	From	To	SWL
Existing well 380 Dep			
Broken Brown Basalt	380	413	
Dark grey Basalt broken	413	434	
Blue Basalt with holes	434	475	
Brown Basalt Broken w/holes	475	500	

RECEIVED  
DEC 17 1990  
Received  
APR 29 2024  
OWRD

Date started June 12 Completed 13 June

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

(bonded) Water Well Constructor Certification:  
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. Work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.  
WWC Number 128  
Signed Dale S. Alen Date June 19 9

Proposed or Authorized POA Name	Is well already built?	If an existing well, OWRD Well ID Tag No. L-____	Total well depth	Casing Diam.	Casing Intervals (feet)	Seal depth(s) (intervals)	Perforated or screened intervals (in feet)	Static water level (in feet)	Source aquifer	Well - specific rate (cfs or gpm).
WELL-1	YES	-	450 ft	8-5/8"	0-210 ft	0-210 ft	Open-hole to 450 ft	32.2 ft bgs*	CRBG	0.67 CFS
WELL-2	YES	WASH-62373	665 ft	12"	0-300 ft	0-300 ft	Open-hole to 665 ft	34.4 ft bgs*		
AN	NO	-	650-750 ft	12"	Wells will be cased and sealed from the surface to approx. 200-250 ft (depending on conditions encountered in the field)		Open-hole to depth of ~650-750 ft	~30-50 ft		
AS	NO	-								
PARK-A	NO	-								
PARK-B	NO	-								
PARK-C	NO	-								
WTP	NO	-								

*\*The proposed well designs are based on the general construction of Well-2, which is proposed to be added as a POA to this permit. The attached Basalt Aquifer Memo (Attachment 6) describes available data that suggests the two water-bearing zones function as a single aquifer.*

*\*Measurement at Well-1 collected on April 7, 2023.*

**SUPERSEDED**

Received

APR 29 2024

OWRD