



**Project:** Request for Modification to ASR Limited License #002

**To:** Jennifer Woody, RG – Oregon Water Resources Department  
Mitra Khadka, RG – Oregon Water Resources Department  
Seth Sadofsky, RG – Oregon Department of Environmental Quality  
Tom Pattee, RG – Oregon Health Authority

**From:** Summit Water Resources, LLC  
Jason Melady, RG, CWRE  
Larry Eaton, RG  
Darby Scanlon, RG

**CC:** Pete Boon, PE – Tualatin Valley Water District  
David Winship, PE – City of Beaverton

**Date:** July 8, 2025

## Introduction

On behalf of the City of Beaverton (City) and the Tualatin Valley Water District (TVWD), this document requests a modification to the ASR Limited License (LL) #002. The City and TVWD are jointly represented on LL #002. In summary, the following is requested in this memorandum:

- Request to add well ASR 3A (WASH 78442) to ASR LL #002.

Currently, 13 ASR wells are authorized by ASR LL #002. Based on a mutual agreement between the City and TVWD, the City of Beaverton has 7 ASR wells allocated through the LL #002, and 3 additional wells that are jointly allocated between TVWD and the City. **Figure 1** (attached) shows the location of the 13 ASR wells listed in ASR LL #002 as of the latest renewal date of December 29, 2023. **Table 1**, lists those 13 ASR wells along with Well ID logs, the anticipated rates in million gallons per day (MGD), and individual well locations.

The changes proposed in this document will add one additional well (ASR 3A) to ASR LL #002, but the total injection/pumping limits as prescribed in the current ASR LL #002 will not change by adding ASR 3A. We understand that Oregon Water Resources Department (OWRD) is agreeable to either adding a new ASR well to an ASR LL #002 or relocating an already identified well in ASR LL #002. The City has elected to add another well (ASR 3A) that will be located in the Sterling Park area. ASR 3 and ASR 3A are also used as part of the Sterling Park stormwater recharge project under Artificial Recharge Limited License (AR LL) #1912. With ASR 3 and ASR 3A added to ASR LL #002, the two wells can also recover ASR stored water banked over many years by the City in the Cooper Mountain area.

## ASR 3A Details

The location of well ASR 3A is presented in **Figures 1 and 2**. The final ASR 3A as-built and some basic design drawings for ASR 3A are included in **Attachment A**. The well log for ASR 3A is included in **Attachment B**. ASR 3A meets all OWRD well construction standards as defined in Oregon Administrative Rules (OAR) 690-210. The completion of ASR 3A, including the seal and liner, was pre-approved by OWRD. Specifically, ASR 3A is located approximately 45 feet from the existing well ASR 3 at the Sterling Park Site, located at 16490 SW Loon Drive, Beaverton, OR 97007 (**Figure 2**). Below are some specifics for ASR 3A:

- Licensee – City of Beaverton
- Well Name: – ASR 3A
- Well Log ID – WASH 78442
- Rate MGD – 1.4 (up to 1,000 gallons per minute)
- Well Location – 1,611 ft South, 121 ft East from the Northwest corner of Section 5 in T2S R1W.

**Table 1. Wells Currently Under ASR LL #002**

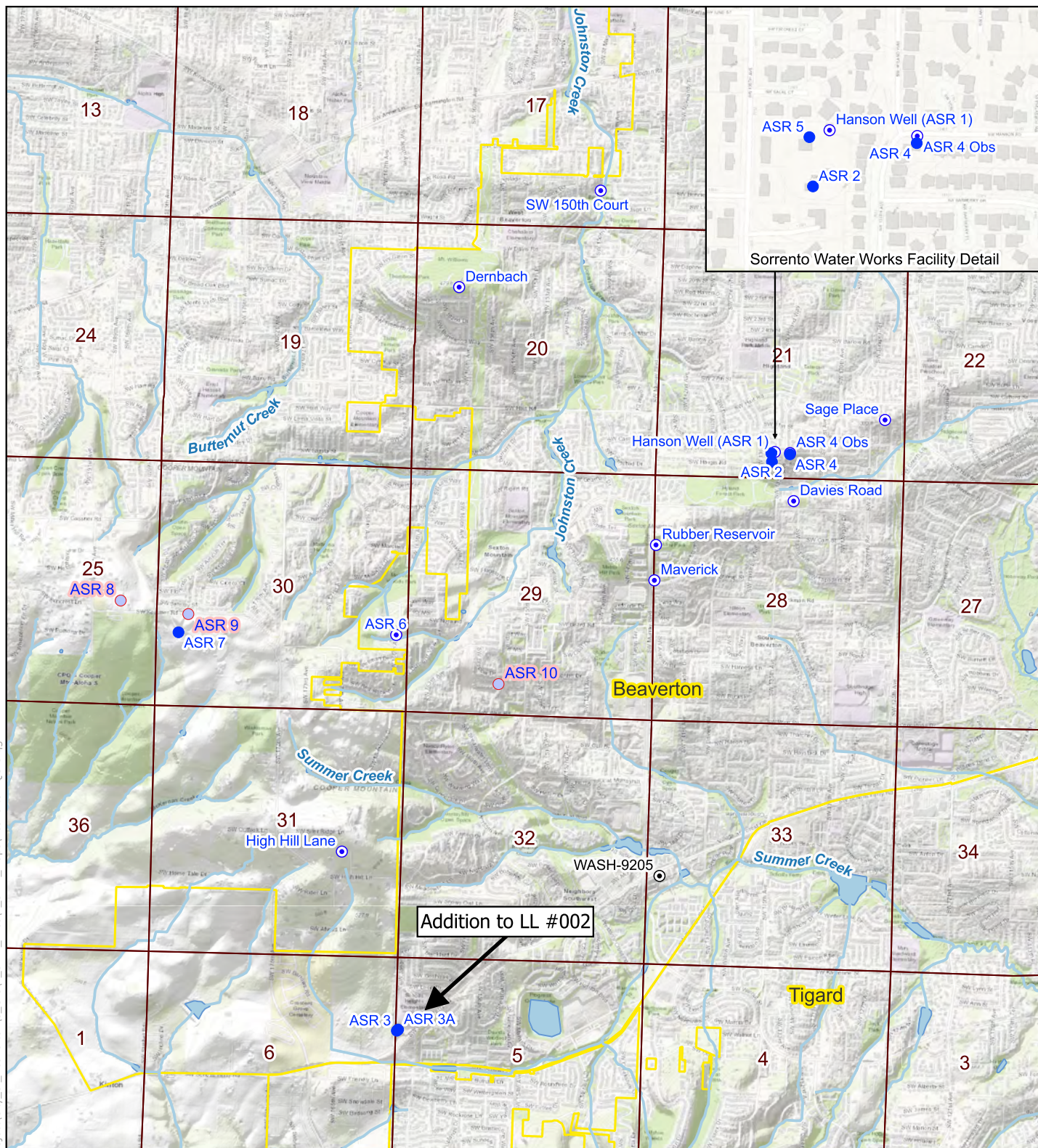
Licensee	Well Name	Well Log ID	Rate (MGD)	Well Location
TVWD/Beaverton	ASR #1	WASH 54507	1.5	1,250 FT SOUTH AND 1,170 FT WEST FROM CENTER OF SECTION 17, T1S/R1W
TVWD/Beaverton	Schuepbach	WASH 8862	1.5	1,600 FT SOUTH AND 1,200 FT WEST FROM CENTER OF SECTION 17, T1S/R1W
Beaverton	ASR #4	WASH 61319	3.0	480 FT NORTH AND 2,445 FT WEST FROM SE CORNER, SECTION 21, T1S/R1W
Beaverton	ASR #2	WASH 55918	3.0	235 FT NORTH AND 2,430 FT EAST FROM SW CORNER, SECTION 21, T1S/R1W
Beaverton	ASR #10	Not yet drilled	3.0	SECTION 29, SE1/4 SW1/4, T1S/R1W
Beaverton	ASR #9	Not yet drilled	3.0	SECTION 30, NW1/4 SW1/4, T1S/R1W
Beaverton	ASR #5	WASH 76834	3.0	540 FT NORTH AND 2,495 FT EAST FROM SW CORNER OF SECTION 21, T1S/R1W
Beaverton	ASR #3	WASH 57952	3.0	1,640 FT SOUTH AND 60 FT EAST FROM NW CORNER, SECTION 5, T2S/R1W
TVWD	Jenkins Estate	WASH 10279	3.0	720 FT SOUTH AND 950 FT WEST FROM SE CORNER, SECTION 23, T1S/R2W
TVWD	Grabhorn	WASH 10148	3.0	200 FT NORTH AND 780 FT WEST FROM SE CORNER, SECTION 23, T1S/R2W
TVWD	189th Ave	WASH 10200	3.0	1,500 FT NORTH AND 750 FT WEST FROM SE CORNER, SECTION 24, T1S/R2W
Beaverton/TVWD	ASR #8	Not yet drilled	3.0	SECTION 25, NE1/4 SE1/4, T1S/R2W
Beaverton	ASR #6	WASH 74133	3.0	1,520 FT NORTH AND 125 FT WEST FROM SE CORNER OF SECTION 30, T1S/R1W

## Figures

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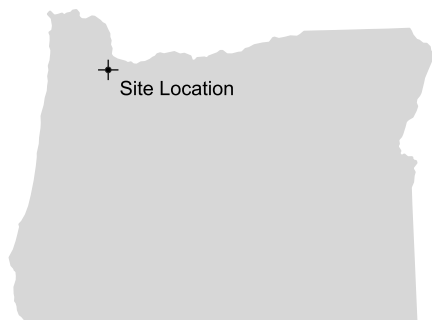
Figure 1	City of Beaverton Monitoring Well Network
Figure 2	Sterling Park Site - ASR 3A Location Map





# LEGEND

- City of Beaverton Active ASR Well
- City of Beaverton Future ASR Wells
- ⊙ City of Beaverton Observation Well
- ⊙ OWRD Observation Well
- ▭ City Boundary
- ~ Surface Water



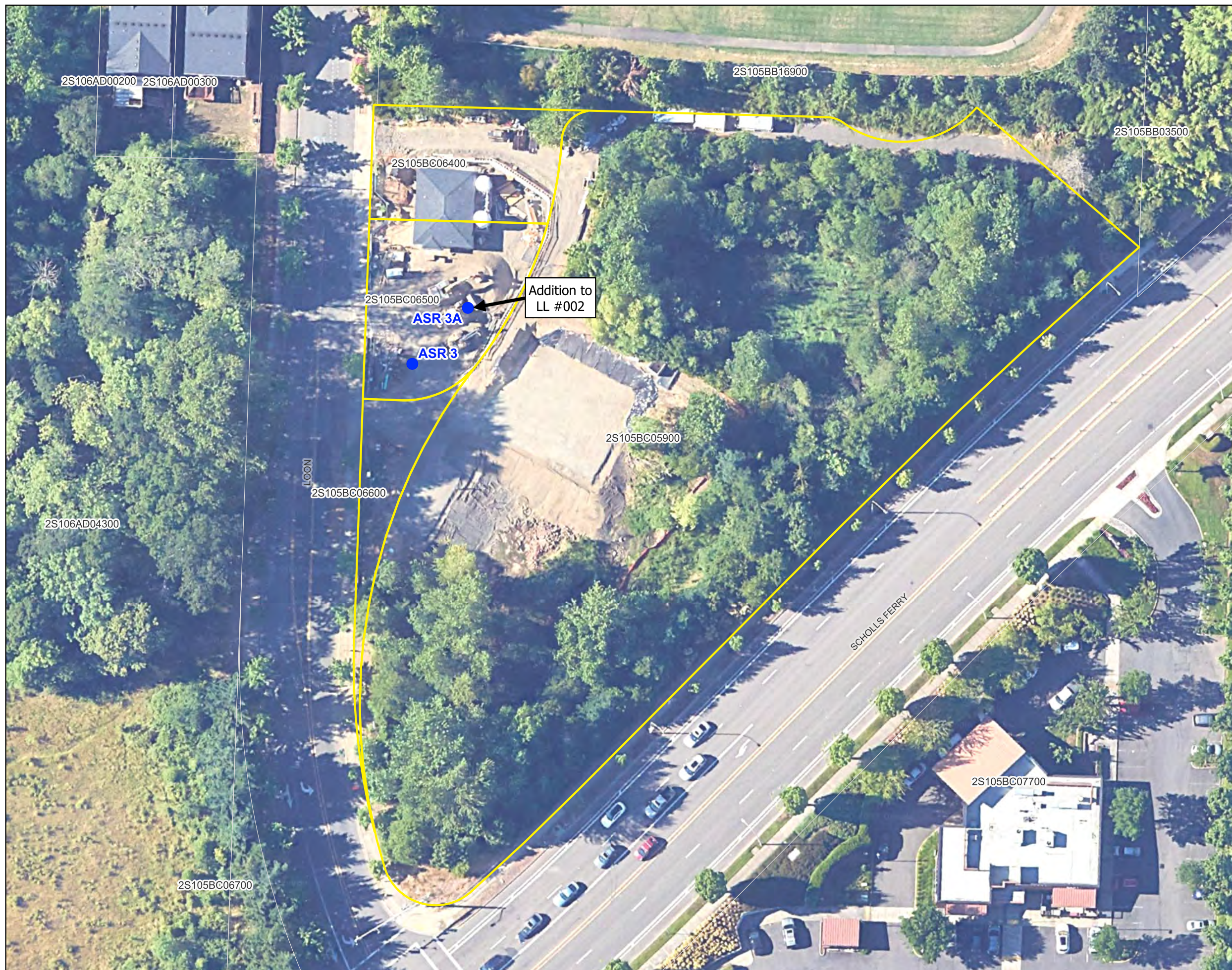
0 1,500 3,000 ft

Figure 1

Current and Proposed  
ASR Wells Based on Existing  
TVWD/Beaverton ASR LL #002







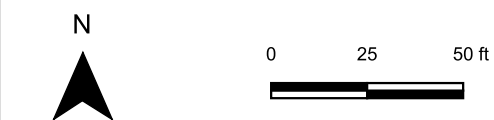
## LEGEND

### Sterling Park Site

- Site
- ASR Wells
- Tax Lots

### ASR #3A (WASH 78442)

Located 1,611 feet South and 121 feet East from the NW corner of Section 5, Township 2 South, Range 1 West (W.M.)



Data Sources: Washington County, METRO, CWS, City of Beaverton, ESRI, USGS  
Date: 3/12/2025

**Figure 2**  
**Sterling Park Site**  
**ASR 3A Location Map**





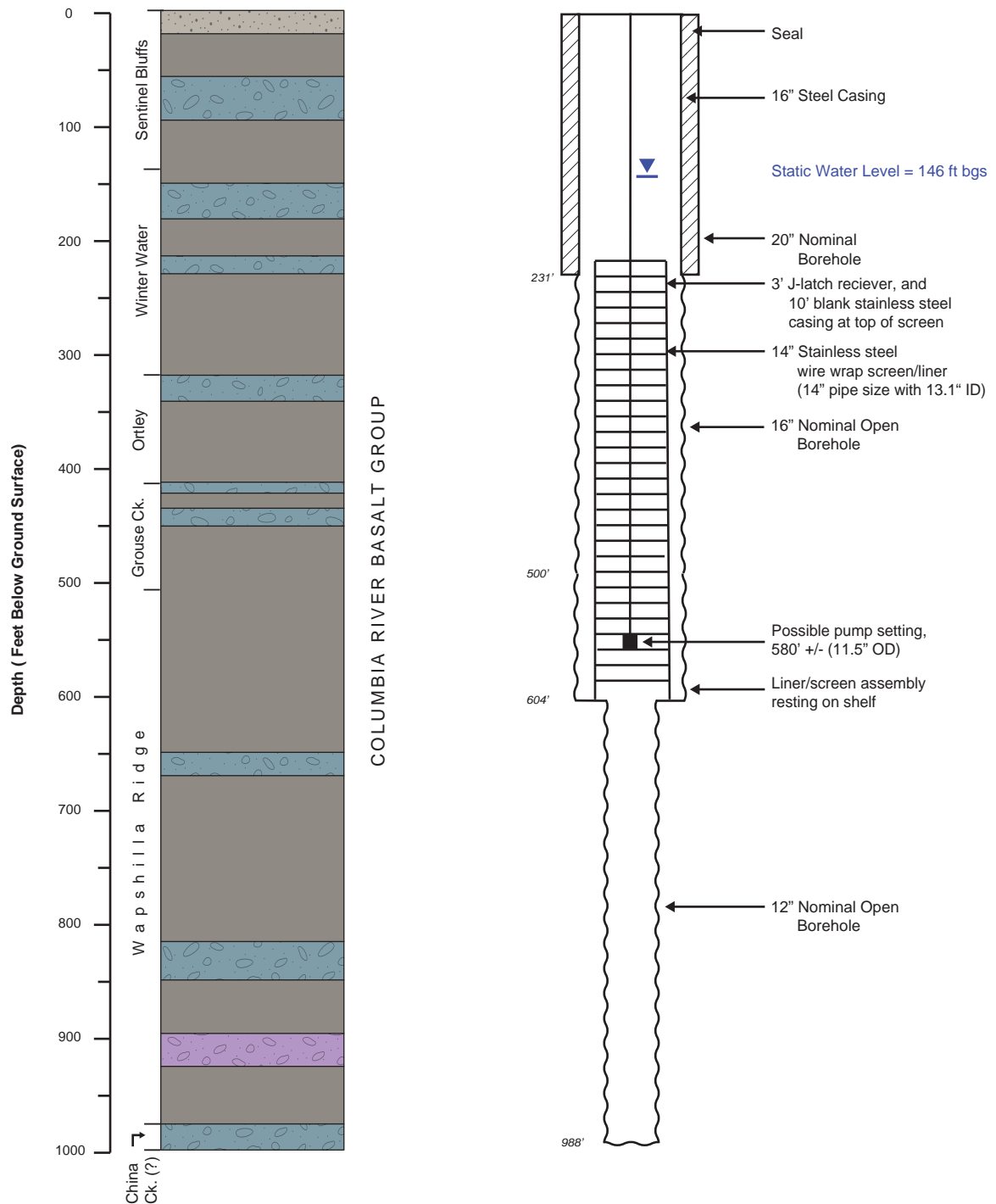
## Attachments

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Attachment A	ASR 3A As-Built and Design Drawing
Attachment B	ASR 3A Well Log

**Attachment A**  
**ASR 3A As-Built and Design Drawing**

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#### LEGEND

- Clay, Silt, and Sand
- Massive to Jointed Flow Interior
- Interflow Zone
- Pillow Complex

#### NOTES:

- SC = Specific Capacity
- gpm = gallons per minute
- gpm/ft = gallons per minute / per foot of drawdown
- ID = Inside Diameter
- OD = Outside Diameter

#### FIGURE 2

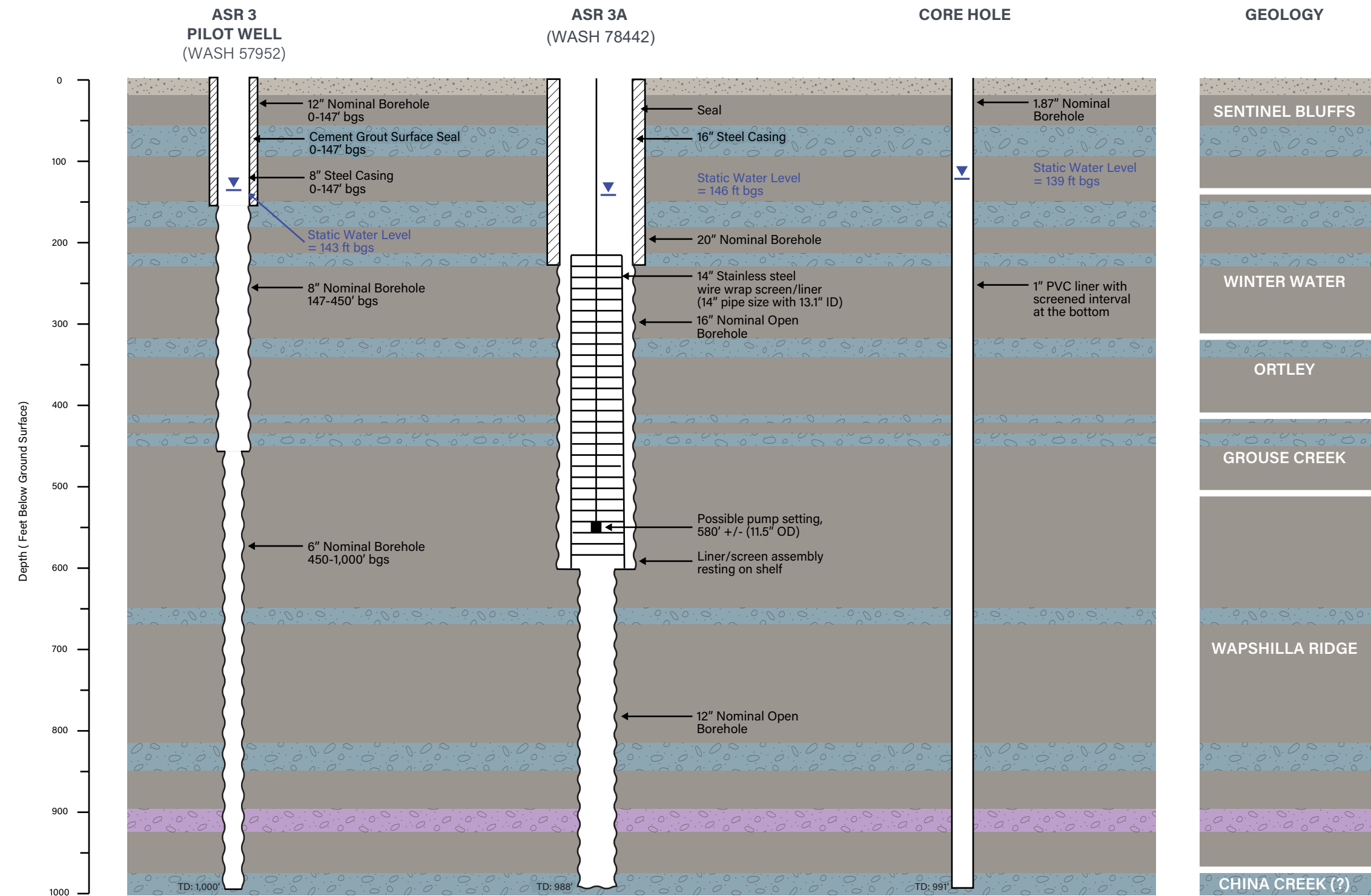
**As-Built  
ASR 3A**

Beaverton, Oregon

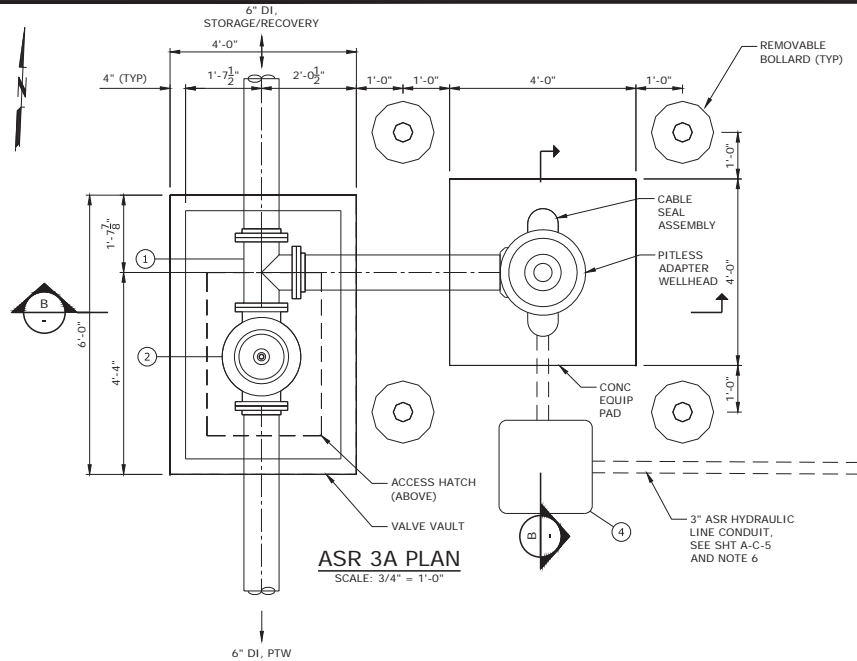




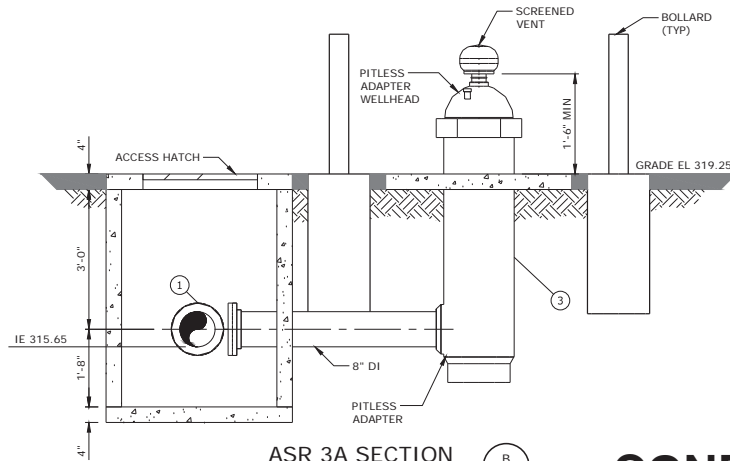
**FIGURE 3**  
**Schematic ASR Overview**  
Beaverton, Oregon



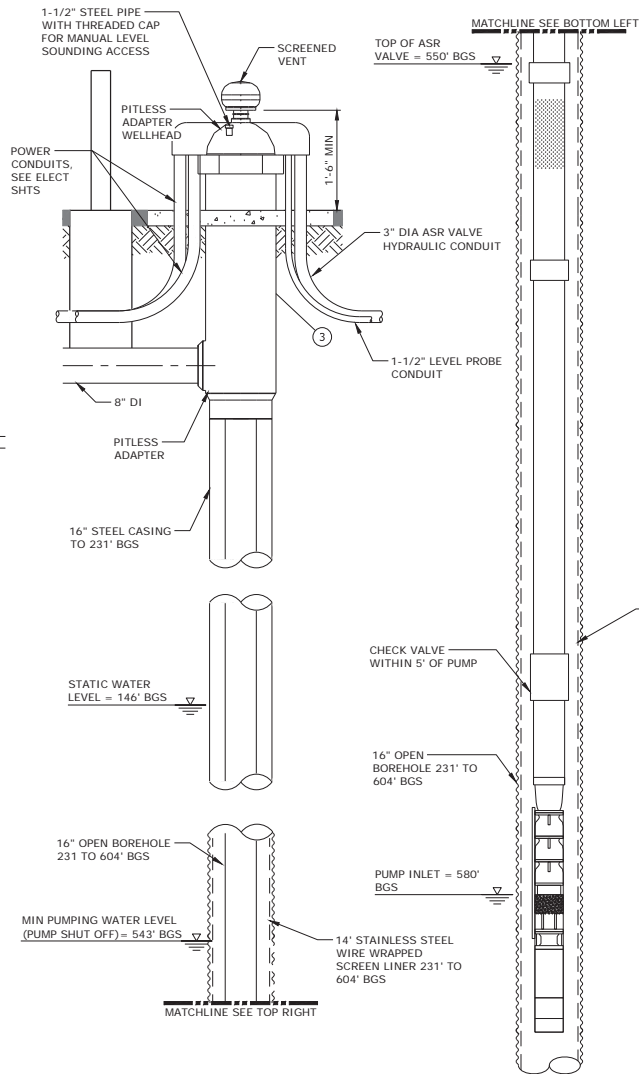
G:\VDPX - Projects\19-2519 - Beaverton Non-Portable Program\CAD Sheets\SCHED A - ASR 3-2519-OR-M-6-7.dwg A-M-7 4/20/2022 11:46 AM LEA CONNORS 23.0s (LMS Tech)



ASR 3A PLAN  
SCALE: 3/4" = 1'-0"



ASR 3A SECTION  
SCALE: 3/4" = 1'-0"



ASR SECTION  
SCALE: 3/4" = 1'-0"

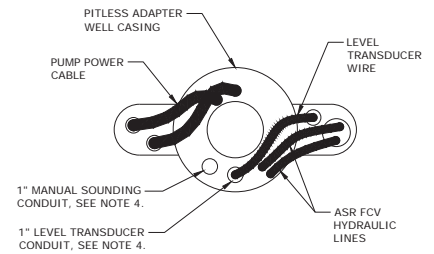
PIPING SCHEDULE:

- 1 4" TEE, FLG
- 2 4" PRV FLG
- 3 PITLESS ADAPTER ASSEMBLY, BAKER # 3PS810WBWE04T4S OR EQUAL
- 4 ASR VALVE HYDRAULIC DISCONNECT BOX, HEAVY DUTY OLDCASTLE 2424 OR EQUAL

NOTES:

1. EACH PITLESS ADAPTER SHALL ACCOMMODATE PUMP POWER LINES, LEVEL TRANSDUCER WELL, MANUAL WATER LEVEL WELL AND ASR VALVE HYDRAULIC LINES.
2. PITLESS ADAPTERS TO BE WELDED TO CASING PER SPECIFICATIONS.
3. PITLESS ADAPTERS SURFACE SEAL SHALL BE INSTALLED IN ACCORDANCE WITH OAR 690-210-260 OAR 690-210-250.
4. PVC CONDUITS (FLUSH THREADED) SHALL EXTEND FROM THE WELL PUMP INLET SCREEN TO 4" FROM THE TOP OF THE WELL CASING.
5. WELL PUMP POWER CABLE SHALL BE ORIENTED OPPOSITE OF THE SOUNDING CASINGS AND HYDRAULIC LINES ON WELL DROP PIPE.
6. COORDINATE ASR HYDRAULIC CONDUIT INSTALLATION WITH ELECTRICAL TO AVOID CONFLICTS.

14' (13.1" ID) STAINLESS STEEL WIRE WRAPPED SCREEN LINER 231' TO 604' BGS



NOTE: WELL PUMP POWER CABLE SHALL BE ORIENTED OPPOSITE OF THE SOUNDING CASINGS AND HYDRAULIC LINES ON DROP PIPE

ASR 3A ENLARGED PLAN

CONFORMED SET

NO.	DATE	BY	REVISION

NOTICE
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

AMB
DESIGNED
CAD
DRAWN
AMB
CHECKED



SCHEDULE A ASR 3A WELL HEAD PLAN, SECTION, AND DETAILS	SHEET A-M-7
PROJECT NO.: 19-2519 SCALE: AS SHOWN DATE: APRIL 2022	56 of 124



**Attachment B**  
**ASR 3A Well Log**

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

WELL I.D. LABEL# L 128831  
START CARD # 216481  
ORIGINAL LOG #

(1) LAND OWNER Owner Well I.D. \_\_\_\_\_  
First Name \_\_\_\_\_ Last Name \_\_\_\_\_  
Company \_\_\_\_\_ City of Beaverton  
Address \_\_\_\_\_ PO Box 4755  
City \_\_\_\_\_ Beaverton State \_\_\_\_\_ OR Zip \_\_\_\_\_ 97076

(2) TYPE OF WORK ☒ New Well ☐ Deepening ☐ Conversion  
☐ Alteration (complete 2a & 10) ☐ Abandonment (complete 5a)

(2a) PRE-ALTERATION  
Dia + From To Gauge Stl Plstc Wld Thrd  
Casing: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
Material From To Amt sacks/lbs  
Seal: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

(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 \_\_\_\_\_ ASR

(5) BORE HOLE CONSTRUCTION Special Standard ☐ (Attach copy)  
Depth of Completed Well \_\_\_\_\_ 988 ft.

BORE HOLE			SEAL			sacks/lbs	
Dia	From	To	Material	From	To	Amt	lbs
24"	0	20.5	cement	0	231	140	sk
20"	20.5	231			Calculated	102	
16"	231	605	cement	0	20.5	16	sk
12"	605	988			Calculated	11	

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

(5a) ABANDONMENT USING UNHYDRATED BENTONITE  
Proposed Amount \_\_\_\_\_ Actual Amount \_\_\_\_\_

(6) CASING/LINER  
Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd  
☒ ☐ 20 ☐ 0 20.5 .375 ☒ ☐ ☒ ☐  
☒ ☐ 16 ☒ 3 231 .375 ☒ ☐ ☒ ☐  
Shoe ☐ Inside ☐ Outside ☐ Other Location of shoe(s) \_\_\_\_\_  
Temp casing ☐ Yes Dia \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

(7) PERFORATIONS/SCREENS  
Screens Type \_\_\_\_\_ V-wire wrap Material \_\_\_\_\_ 304SS  
Perf/ Casing/ Screen Dia From To Scm/slot Slot # of Tele/  
Screen Liner Dia From To width length slots pipe size  
SS riser 14 219 232 blank n.a. n.a. PS  
screen 14 232 602 .100 continuous n.a. PS  
SS tail 14 602 605 blank n.a. n.a. PS

(8) WELL TESTS: Minimum testing time is 1 hour  
☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian  
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)  
680 52 72

Temperature 60 °F Lab analysis ☐ Yes By \_\_\_\_\_  
Water quality concerns? ☐ Yes (describe below) TDS amount 200  
From To Description Amount Units

(9) LOCATION OF WELL (legal description)  
County Washington Twp 2S N/S Range 1W E/W WM  
Sec 5 SW 1/4 of the NW 1/4 Tax Lot 6500  
Tax Map Number 2S 1 05BC Lot \_\_\_\_\_  
Lat \_\_\_\_\_ or \_\_\_\_\_ DMS or DD  
Long \_\_\_\_\_ or \_\_\_\_\_ DMS or DD  
☒ Street address of well ☐ Nearest address  
16500 SW Loon Drive, Beaverton, OR 97007

(10) STATIC WATER LEVEL  
Date SWL(psi) + SWL(ft)  
Existing Well / Pre-Alteration \_\_\_\_\_  
Completed Well 10/22/19 146  
Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES					Depth water was first found
SWL Date	From	To	Est Flow	SWL(psi)	+ SWL(ft)
6/21/19	209	213	1-2		143
10/22/19	305	981	see (8)		146

(11) WELL LOG Ground Elevation \_\_\_\_\_  
Material From To  
See attached formation log  
\*Bore hole diameters are nominal diameters.  
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NOV 22 2019  
OWRD  
Top of 20" casing has steel plate welded between it and 16" csg.  
Top of SS screen riser has J receptor.  
Screen assembly is all 304SS. Blanks are from .375 wall pipe.

Date Started 6/12/19 Completed 11/5/19

(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 649 Date 11/18/19  
Signed *Regina Schmidt*

(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 649 Date 11/18/19  
Signed *Regina Schmidt*  
Contact Info (optional) \_\_\_\_\_



City of Beaverton ASR 3  
SC #216481 - Well Tag ID #L128831  
Formation Log  
by Schneider Water Services

<u>FM</u>	<u>TO</u>	<u>DESCRIPTION</u>
0	12	Clay, brown, silty
12	15	Basalt, broken, soft
15	20	Basalt, grey & brown, medium
20	37	Basalt, grey & brown, medium-hard, broken, fractured
37	59	Basalt, grey & brown, medium, broken, some vesicles
59	65	Basalt, grey, medium-hard, fractured
65	76	Basalt, grey & brown, medium-hard, fractured
76	83	Basalt, brown, broken, weathered, some vesicles
83	150	Basalt, grey & brown, medium, fractured
150	181	Basalt, brown & some grey, some vesicles & weathering
181	189	Basalt, brown, medium-soft, broken, weathered, vesicular, w/some sandstone, tan
189	197	Basalt, black, medium-hard, fractured
197	201	Basalt, grey & brown, medium-hard, fractured
201	207	Basalt, grey, hard, fractured
207	209	Basalt, grey w/brown, fractured
209	213	Basalt, brown, soft, broken, fractured
213	221	Basalt, grey w/brown, medium, fractured, broken
221	226	Basalt, grey, medium-hard, fractured
226	231	Basalt, dark grey, medium-hard, fractured
231	300	Basalt, dark grey, hard, fractured
300	305	Basalt, grey, hard
305	326	Basalt, brown, broken, fractured, weathered w/vesicles
326	338	sandy
338	340	Basalt, grey, medium-hard, fractured
340	354	Basalt, dark grey, hard, some fractures
354	356	Basalt, brown w/dark grey, broken
356	360	Basalt, dark grey w/some brown, fractured
360	366	Basalt, brown w/some grey, broken, fractured
366	377	Basalt, dark grey, fractured, hard
377	387	Basalt, dark grey, fractured, medium hard
387	390	Basalt, grey & brown, fractured, medium-hard
390	396	Basalt, dark grey, fractured, medium-hard
396	412	Basalt, grey, hard, fractured
412	423	Basalt, brown & grey, medium-soft, broken w/some vesicles & claystone, yellow
423	440	Basalt, grey and brown, medium, fractured, some vesicles
440	453	Basalt, grey, hard, fractured
453	457	Basalt, red, soft, broken, vesicleular
457	471	Basalt, brown & grey, medium, fractured, some vesicles

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NOV 22 2019

OWRD

City of Beaverton ASR 3  
SC #216481 - Well Tag ID #L128831  
Formation Log  
by Schneider Water Services

<u>FM</u>	<u>TO</u>	<u>DESCRIPTION</u>
471	505	Basalt, grey, hard, fractured
505	509	Basalt, black, medium-soft, fractured w/vesicles & claystone, green
509	514	Basalt, black, medium soft, fractured, with claystone, black, vesicles
514	567	Basalt, dark grey, medium, fractured
567	575	Basalt, grey & red, medium, fractured
575	592	Basalt, dark grey, medium, fractured
592	598	Basalt, dark grey, medium-hard, some fractures
598	602	Basalt, grey, medium, fractured
602	656	Basalt, grey, hard, some fractures
656	660	Basalt, dark grey, medium-hard, fractured, some vesicles
660	666	Basalt, grey & brown, medium, fractured, vesicular w/claystone, grey
666	673	Basalt, dark grey, medium, fractured, some vesicles
673	679	Basalt, grey & some brown, fractured w/some vesicles & claystone, green
679	689	Basalt, grey, fractured some vesicles
689	710	Basalt, grey, medium-hard, some fractures
710	713	Basalt, grey, hard, some fractures
713	716	Basalt, grey, medium-hard, fractured, some vesicles
716	728	Basalt, grey, hard, some fractures
728	750	Basalt, grey, medium-hard, fractured
750	795	Basalt, grey, medium, fractured, some vesicles
795	816	Basalt, grey, hard, some fractures
816	819	Basalt, dark grey, medium-hard, fractured, some vesicles
819	829	Basalt, grey & brown, broken, vesicular, medium w/claystone, tan
829	844	Basalt, dark grey, medium-hard, fractured, some vesicles
844	873	Basalt, grey & brown, medium-hard, fractured w/some vesicles & claystone, tan
873	885	Basalt, grey, medium, fractured, vesicular w/some claystone, tan
885	925	Basalt, black & brown, soft, broken, vesicular w/some claystone, tan
925	943	Basalt, black, medium-hard, some fractures & vesicles
943	953	Basalt, dark grey & brown, medium hard, fractured, vesicular
953	970	Basalt, dark grey, medium, fractured, w/some vesicles & claystone, multicolored
970	981	Basalt, black, medium-soft, vesicular, some fractures w/claystone, multicolored
981	985	Claystone, grey
985	988	Claystone, blue-grey

RECEIVED

NOV 22 2019

OWRD