

# Groundwater Transfer Review Summary Form

Transfer/PA # T- 14788

GW Reviewer Stacey Garrison Date Review Completed: 2/10/2026

## Summary of Same Source Review:

The proposed change in point of appropriation is not within the same aquifer as per OAR 690-380-2110(2).

## Summary of Water Level Decline Condition Review:

Water levels at the original point(s) of appropriation have exceeded the allowed decline threshold defined by conditions in the originating water right.

## Summary of Injury Review:

The proposed transfer will result in another, existing water right not receiving previously available water to which it is legally entitled or result in significant interference with a surface water source as per 690-380-0100(3).

## Summary of GW-SW Transfer Similarity Review:

The proposed SW-GW transfer doesn't meet the definition of "similarly" as per OAR 690-380-2130.

*This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations.*



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## Ground Water Review Form:

- Water Right Transfer**
- Permit Amendment**
- GR Modification**
- Other**

Application: T-14788

Applicant Name: City of Sublimity

Proposed Changes:     POA             APOA             SW→GW             RA  
                                   USE             POU             OTHER

Reviewer(s): Stacey Garrison

Date of Review: 2/10/2026

Date Reviewed by GW Mgr. and Returned to WRSD: JTI 3/13/26

The information provided in the application is insufficient to evaluate whether the proposed transfer may be approved because:

- The water well reports provided with the application do not correspond to the water rights affected by the transfer.
- The application does not include water well reports or a description of the well construction details sufficient to establish the ground water body developed or proposed to be developed.
- Other \_\_\_\_\_

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1. Basic description of the changes proposed in this transfer: Applicant proposes to add APOA, Well #5 (MARI 9170/9160), to Certificate 84853. Certificate 84853 authorizes municipal use within the service area of the City of Sublimity from POA 1/Well#3 (MARI 9147) at 0.49 cfs (220 gpm) and POA 2/Well #4 (MARI 9172) at 0.94 cfs (422 gpm) and a maximum annual volume of 308.5 AF. The APOA, Well #5 (MARI 9170/9160), is also authorized under other existing water rights, listed in the table below. This review uses the full, combined authorized rate.

Rates and Duties	Water Rights	POA 3/Well #5/Well 3 (MARI 9170/9160)
POU (ac)	This transfer, T-14788/Certificate 84853	City of Sublimity
	T-14769/ Claim GR 323	City of Sublimity
	Inchoate T-7285/T-8179	9 ac
	T-12456/T-12721/T-13191/Claim GR 2353	0.2 ac
	Certificate 94088 (supplemental)	5.4 ac
	<b>Total</b>	<b>14.6 ac &amp; City of Sublimity</b>
Authorized duty (AF/year)	This transfer, T-14788/Certificate 84853	308.5 AF
	T-14769/ Claim GR 323	144.8 AF <sup>a</sup>
	Inchoate T-7285/T-8179	22.5 AF
	T-12456/T-12721/T-13191/Claim GR 2353	0.4
	Certificate 94088 (supplemental)	13.5 AF
	<b>Total</b>	<b>489.7 AF</b>
Flow rate CFS (gpm)	This transfer, T-14788/Certificate 84853	0.94 cfs (421.9 gpm) <sup>b</sup>
	T-14769/ Claim GR 323	0.2 cfs (90 gpm)
	Inchoate T-7285/T-8179	0.11 cfs (49 gpm)
	T-12456/T-12721/T-13191/Claim GR 2353	0.00089
	Certificate 94088 (supplemental)	0.07 cfs (31.4 gpm)
	<b>Total</b>	<b>1.32089 cfs (593 gpm)</b>

<sup>a</sup> A duty is not assigned in Claim GR 323, however, the maximum volume possible for pumping at the authorized rate of 0.2 cfs (90 gpm) for the 365-day municipal use has been calculated and included.

<sup>b</sup> The applicant proposed rate of 1.0026 cfs (450 gpm) for the APOA would result in enlargement, in accordance with OAR 690-380-0100 (2) (d). Transfers cannot result in enlargement per OAR 690-380-4010(2)(c). To avoid enlargement, this review uses the transfer of the highest rate authorized, which is 0.94 cfs (421.9 gpm).

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?  
 Yes  No Comments: The authorized and proposed POAs develop groundwater from multiple water-bearing zones, WBZs, within the Columbia River Basalt Group, CRBG (Gannett and Caldwell, 1998; Woodward et al., 198). Authorized POA 1/Well#3 (MARI 9147), develops a WBZ from 200 to 210 ft bls [332 to 342 ft amsl] with a most recent static water level, SWL, of 127 ft bls [415 ft amsl] in 2008. Authorized POA 2/Well#4 (MARI 91720, develops multiple WBZs 261 to 576 ft bls [74 to 389 ft amsl] with the most recent SWL of 243 ft bls [407 ft amsl]. The proposed APOA, Well #5 (MARI 9170/9160), develops three WBZs from 344 to 455.5 ft bls [94.5 to 206 ft amsl] with the most recent SWL of 145.83 ft bls [404.17 ft amsl] in 2026. Despite the differences in construction and elevations of WBZs, the SWLs are similar and these wells demonstrate an equilibration of WBZ heads such that the CRBG aquifer system now effectively behaves hydraulically as a single source (see attached Hydrograph). The APOA develops the same source as the authorized POA.
3. a) Is the existing authorized POA subject to a water level decline condition?  
 Yes  No Comments: \_\_\_\_\_
- b) If yes, for each POA identify the reference level, most recent spring-high water level, and whether an applicable permit decline condition has been exceeded: N/A
4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?  
 Yes  No Comments: Only the CRBG source is developed.
- b) If yes, estimate the portion of the right supplied by each of the sources and describe any limitations that will need to be placed on the proposed change (rate, duty, etc.): N/A
5. a) Will this proposed change, at its maximum allowed rate of use, likely result in an increase in interference with **another ground water right**?  
 Yes  No Comments: The APOA, Well #5 (MARI 9170/9160), is closer to MARI 9166 and MARI 9167, both POAs on multiple water rights. The reduced intervening distance is likely to result in an increase in interference with MARI 9166 and MARI 9167
- b) If yes, would this proposed change, at its maximum allowed rate of use, likely result in another groundwater right not receiving the water to which it is legally entitled?  
 Yes  No If yes, explain: The Theis (1935) solution for drawdown was used to assess the potential for injury to MARI 9166 and MARI 9167 from the proposed changes (see attached Theis Interference Analysis). Pumping by the APOA, Well#5 (MARI 9170), is not likely to result in MARI 9166 or MARI 9167 not receiving the water to which they are legally entitled.
6. a) Will this proposed change, at its maximum allowed rate of use, likely result in an increase in interference with **another surface water source**?  
 Yes  No Comments: The APOA, Well #5 (MARI 9170/9160), is closer to Beaver Creek. The reduced intervening distance is likely to result in an increase in interference with Beaver Creek.
- b) If yes, at its maximum allowed rate of use, what is the expected change in degree of interference with any **surface water sources** resulting from the proposed change?  
 Stream: Beaver Creek  Minimal  Significant  
 Provide context for minimal/significant impact: Beaver Creek does not incise to the

elevation of the WBZs or SWLs of the authorized POA, POA #1 (MARI 9149), or proposed APOA, Well #5 (MARI 9170/9160). It is likely that the change in degree of interference with Beaver Creek will be minimal.

7. For SW-GW transfers, will the proposed change in point of diversion affect the surface water source similarly (as per OAR 690-380-2130) to the authorized point of diversion specified in the water use subject to transfer?  
 Yes    No   Comments: N/A
8. What conditions or other changes in the application are necessary to address any potential issues identified above:
9. Any additional comments: **The proposed APOA for GR-323, MARI 9170/9160 is a current OWRD state observation wells.** This is particularly valued by OWRD as an observation well because: 1) it is near the center of the Stayton-Sublimity Groundwater Limited Area; 2) it is on the current outskirts of the City of Sublimity, where the City's large-scale municipal wells are pumped, and in between the City and other irrigation wells and surface waters located to the north and northeast.

**If this transfer is approved, OWRD requests continued access to MARI 9170/9160 for periodic monitoring as long as it remains possible to do so (e.g., up until, or if, MARI 9170/9160 is eventually abandoned).**

References

Transfer File: T-14788, T-14769, T-12721

Pumping Test Files: MARI 45, MARI 62468

Conlon, T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 2005, Ground-water hydrology of the Willamette Basin, Oregon, Scientific Investigations Report 2005-5168: U. S. Geological Survey, Reston, VA.

Domenico, P.A. and Mifflin, 1965, Water from low-permeability sediments and land subsidence: Water Resource Research, v. 1, no. 4, p. 563-576.

Freeze, R.A. and Cherry, J.A., 1979, Groundwater, Prentice Hall, Englewood Cliffs, New Jersey, 604 p.

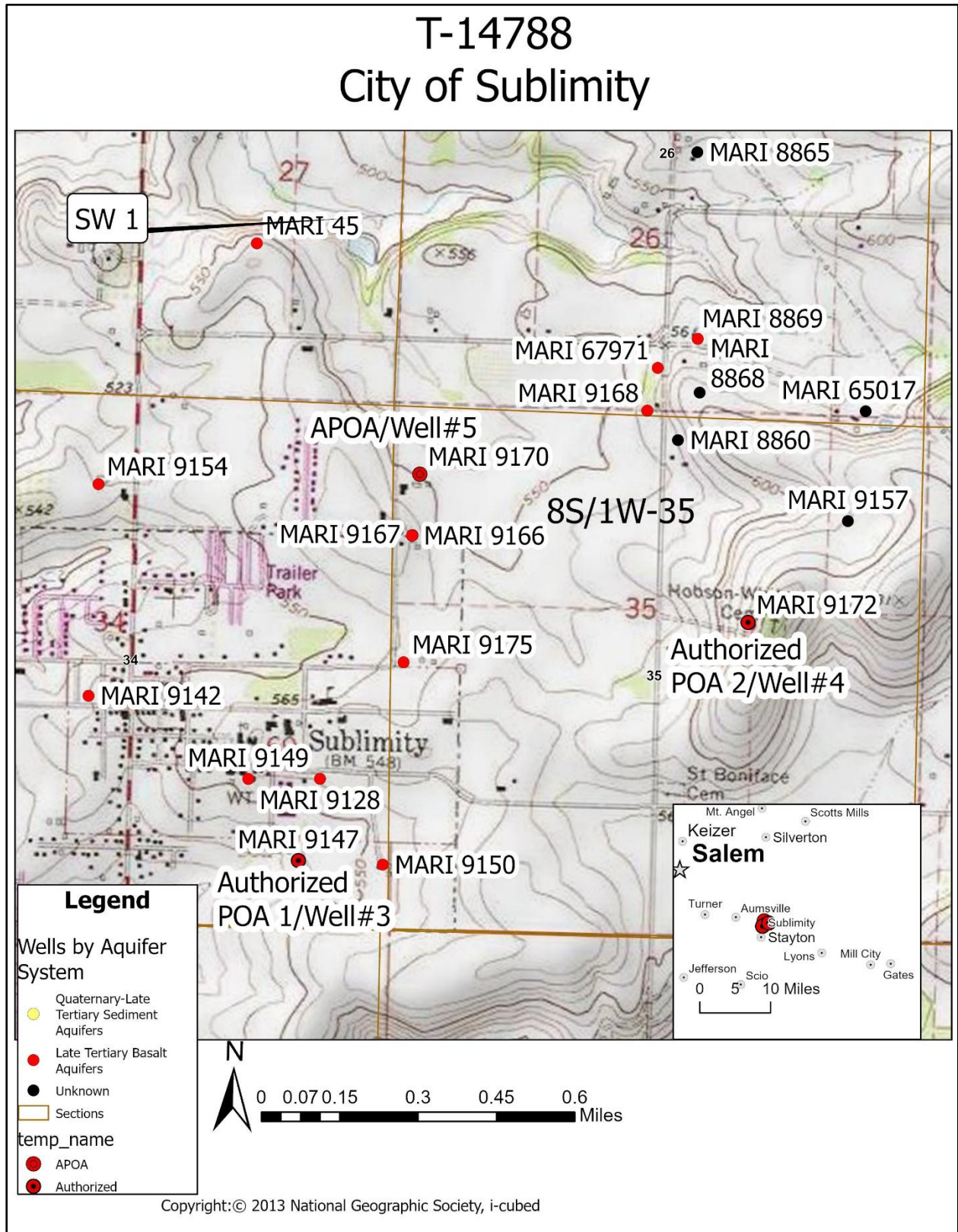
Theis, C.V., 1935, The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, American Geophysical Union Transactions, vol. 16, p. 519-524.

Tolan, Terry L. and Beeson, Marvin H., 1999, Geologic Map of the Silverton and Scotts Mills NE 7.5 Minute Quadrangles, Northwest Oregon [map], 1:24,000, Open File Report 99-141: U.S. Geological Survey, Reston, VA.

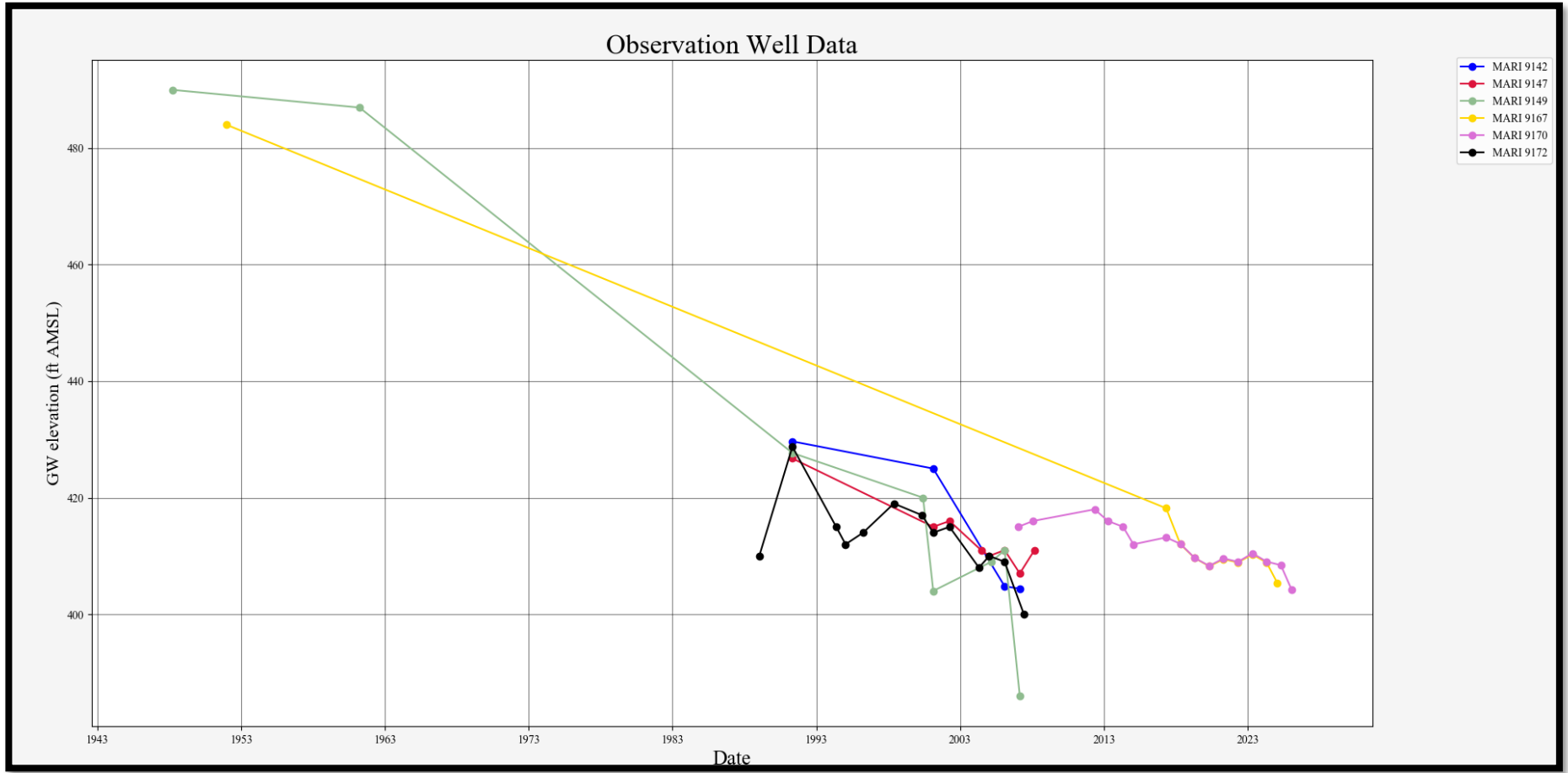
Tolan, Terry L. and Beeson, Marvin H., 1999, Geologic Map of the Scotts Mills, Silverton, and Stayton Northeast 7.5 Minute Quadrangles, Oregon [pamphlet], Open File Report 99-141: U.S. Geological Survey, Reston, VA.

Tolan, Terry L. and Beeson, Marvin H., 1999, Geologic Map of the Stayton NE 7.5 Minute Quadrangles, Northwest Oregon [map], 1:24,000, Open File Report 99-141: U. S. Geological Survey, Reston, VA.

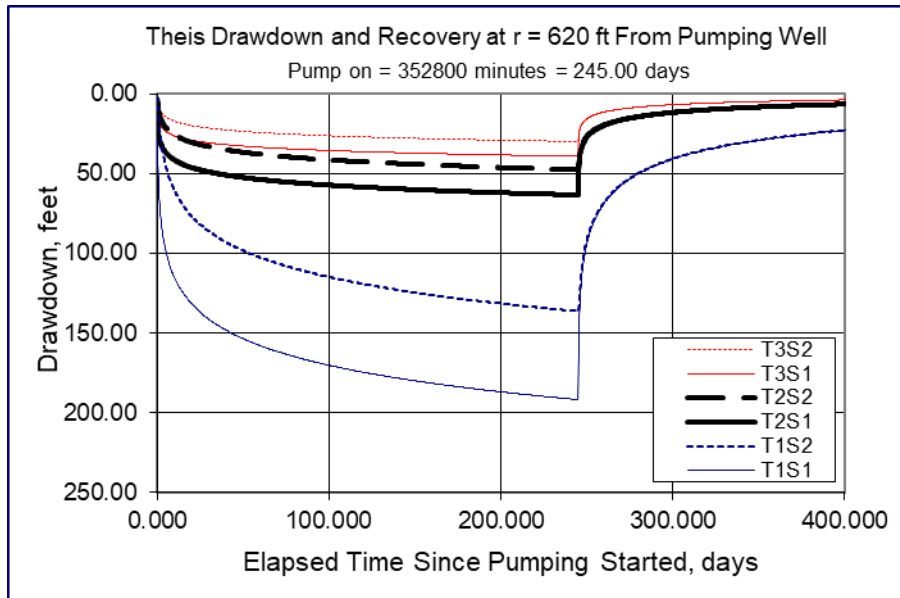
Map



Hydrograph



Theis Interference Analysis



Input Data:	Var Name	Scenario 1	Scenario 2	Scenario 3	Units	
Total pumping time	t		245		d	
Radial distance from pumped well:	r		620		ft	<b>Q conversions</b>
Pumping rate	Q		0.70103		cfs	314.62 gpm
Hydraulic conductivity	K	4	14	24	ft/day	0.70 cfs
Aquifer thickness	b		50		ft	42.06 cfm
Storativity	S 1		0.0001			60,568.99 cfd
	S 2		0.001			1.39 af/d
<b>Transmissivity Conversions</b>	T f2pd	200	700	1200	ft <sup>2</sup> /day	<input type="button" value="Recalculate"/>
	T ft2pm	0.13888889	0.48611111	0.83333333	ft <sup>2</sup> /min	
	T gpdpft	1496	5236	8976	gpd/ft	

\*The max rates could not be used for the entire respective seasons of use because the maximum duties would be used up. The individual duties of 308.5 AF, 22.5 AF, 0.4 AF, and 13.5 AF could be used over the respective seasons of use at average rates of 0.426125 cfs, 0.0463 cfs, 0.000823 cfs, and 0.027781 cfs. Adding the subject water right rate of 0.2 cfs, the combined rate used is 0.70103 cfs (314 gpm).

SWL	84, 83	ft bls	MARI 9166, MARI 9167
Aquifer Bottom	470	ft bls	MARI 9170
Available Water Column	386 and 387	ft	Aquifer bottom-SWL
Pump Height Above Bottom	5	ft	Estimate
NPSHa	5	ft	Estimate
Drawdown	64	ft	Estimated from MARI 9166
Minimum Water Column	74	ft	Estimated Drawdown + NPSHa + Pump Height
Injury	312 and 313	ft	Available Water Column-Minimum Water Column for MARI 9166 and MARI 9167