

# Groundwater Transfer Review Summary Form

Transfer/PA # T- 14800 (RA)

GW Reviewer Steve Ahlquist Date Review Completed: July 7, 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-14800

Applicant Name: Fee Stubblefield

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

Reviewer(s): Steve Ahlquist

Date of Review: 7/7/2026

Date Reviewed by GW Lead and Returned to WRSD: Travis Brown, 7/10/2026

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 \_\_\_\_\_
- 

1. Basic description of the changes proposed in this transfer: The applicant proposes to add four additional points of appropriation (APOAs) to Certificates 57137, 28727, 84234, and 94333. Each certificate currently authorizes irrigation from a single POA. This application would add the authorized POA from each of the four certificates, plus UMAT 56683, as an APOA on each of the other certificates. UMAT 332 and UMAT 56683 are also authorized POAs on water rights not subject to this transfer. The authorized and proposed rates for each POA are summarized in the table below. Potential injury will be assessed for each proposed APOA using the total combined maximum rate across all authorized and proposed uses.

| POA                         | Water Right             | Irrigation Acreage | Rate (cfs)           |
|-----------------------------|-------------------------|--------------------|----------------------|
| UMAT 310 /<br>Burns Well    | Cert 57137              | 158.2              | 1.1                  |
|                             | Cert 28727 <sup>a</sup> | 71.2 <sup>a</sup>  | 0.89 <sup>a</sup>    |
|                             | Cert 84234 <sup>a</sup> | 9.7 <sup>a</sup>   | 0.12125 <sup>a</sup> |
|                             | Cert 94333 <sup>a</sup> | 22.6 <sup>a</sup>  | 0.2825 <sup>a</sup>  |
|                             | <b>TOTAL</b>            | <b>261.7</b>       | <b>2.39375</b>       |
| UMAT 331 /<br>McDonald Well | Cert 57137 <sup>a</sup> | 135.6 <sup>a</sup> | 1.695 <sup>a</sup>   |
|                             | Cert 28727              | 71.2               | 0.89                 |
|                             | Cert 84234 <sup>a</sup> | 9.7 <sup>a</sup>   | 0.12125 <sup>a</sup> |
|                             | Cert 94333 <sup>a</sup> | 22.6 <sup>a</sup>  | 0.2825 <sup>a</sup>  |
|                             | <b>TOTAL</b>            | <b>239.1</b>       | <b>2.98875</b>       |
| UMAT 332 /<br>Well          | Cert 57137 <sup>a</sup> | 135.6 <sup>a</sup> | 1.695 <sup>a</sup>   |
|                             | Cert 28727 <sup>a</sup> | 71.2 <sup>a</sup>  | 0.89 <sup>a</sup>    |
|                             | Cert 84234 <sup>a</sup> | 9.7 <sup>a</sup>   | 0.12125 <sup>a</sup> |
|                             | Cert 94333              | 113.9              | 1.31                 |
|                             | Cert 94375              | 129.6              | 1.62                 |
|                             | Cert 92967              | 290.9              | 3.36                 |
|                             | <b>TOTAL</b>            | <b>750.9</b>       | <b>8.99625</b>       |
| UMAT 333 /<br>Simpson Well  | Cert 57137 <sup>a</sup> | 135.6 <sup>a</sup> | 1.695 <sup>a</sup>   |
|                             | Cert 28727 <sup>a</sup> | 71.2 <sup>a</sup>  | 0.89 <sup>a</sup>    |
|                             | Cert 84234              | 14.6               | 0.1824               |
|                             | Cert 94333 <sup>a</sup> | 22.6 <sup>a</sup>  | 0.2825 <sup>a</sup>  |
|                             | <b>TOTAL</b>            | <b>244</b>         | <b>3.0499</b>        |
| UMAT 56683 /<br>Koch Well   | G16610                  | 500                | 6.25                 |
|                             | Cert 57137 <sup>a</sup> | 135.6 <sup>a</sup> | 1.695 <sup>a</sup>   |
|                             | Cert 28727 <sup>a</sup> | 71.2 <sup>a</sup>  | 0.89 <sup>a</sup>    |
|                             | Cert 84234 <sup>a</sup> | 9.7 <sup>a</sup>   | 0.12125 <sup>a</sup> |
|                             | Cert 94333 <sup>a</sup> | 22.6 <sup>a</sup>  | 0.2825 <sup>a</sup>  |
|                             | <b>TOTAL</b>            | <b>739.1</b>       | <b>9.23875</b>       |

<sup>a</sup>Pending approval of this transfer application (T-14800)

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?  
☒ Yes ☐ No Comments: The authorized POAs and proposed APOAs all produce from multiple water-bearing zones of the Grande Ronde Formation of the Columbia River Basalt Group (CRBG). Static water levels in the authorized POAs and proposed APOAs are similar in elevation and show similar trends, indicating the wells develop the same aquifer (see attached Hydrograph).
3. a) Is the existing authorized POA subject to a water level decline condition?  
☐ Yes ☒ No Comments: None of the authorized POAs are subject to a water level decline condition. UMAT 332 and UMAT 56683 are subject to water level decline conditions under Certificate 94375 and Permit G-16610, respectively, which are not subject to this transfer.
- 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: NA
4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?  
☐ Yes ☒ No Comments: \_\_\_\_\_
- 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.): NA
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 proposed APOAs are located considerably closer to nearby groundwater rights and domestic wells than the authorized POAs. Proposed APOAs UMAT 332 and UMAT 333 are 7,350 and 6,130 feet north of domestic well UMAT 56889, respectively, compared to 21,700 feet for UMAT 310 (authorized POA under Cert 57137). Similarly, proposed APOA UMAT 56683 is approximately 7,900 feet west of well UMAT 327, compared to 24,600 feet for UMAT 333 (authorized POA under Cert 84234). These reduced intervening distances would result in increased interference with the neighboring wells.
- 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 potential for Substantial or Undue Interference (SUI) per OAR 690-008-0001(8)(c) with UMAT 56889 and UMAT 327 due to the proposed changes was assessed using the Theis (1935) solution for drawdown in a confined aquifer (see attached Theis Drawdown Analysis). Hydraulic parameters used for the analyses were derived from regional data and studies (Pumping Test Reports; Norton & Bartholomew 1984, Zwart 1990) and are within the typical range of values for the hydrogeologic regime (Freeze and Cherry, 1979). Results indicate that SUI with nearby wells is unlikely under the proposed changes even if the proposed APOAs were pumped at their maximum combined rate until reaching the maximum duty under all authorized and proposed water rights. It is unlikely that the proposed APOAs could yield the maximum combined rates allowed under the proposed changes so the actual interference would likely be less than what is shown in the attached Theis Drawdown Analyses. The proposed changes are unlikely to deprive another groundwater right of water to which it is 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: Wells UMAT 310, UMAT 331, UMAT 332, and UMAT 333 have a shallow seal and are open to relatively shallow water-bearing zones. Groundwater elevations in these wells relative to nearby surface water elevations indicate potential groundwater discharge to Birch Creek and nearby springs. UMAT 56683 is cased and sealed well below the elevation of the creek and is not hydraulically connected to Birch Creek or other nearby surface water sources. Under Certificates 84234 and 94333, proposed APOAs UMAT 310 and UMAT 331 are much closer to Birch Creek than the authorized POAs UMAT 332 and UMAT 333, respectively. UMAT 310 and UMAT 331 are also much closer to Wendler and Peterson Springs, which are authorized PODs under Certificate 75054 and Certificate 70615, respectively. The closer proximity of the proposed APOAs to Birch Creek and the springs would likely increase interference with these surface water sources under Certificates 84234 and 94333.

- 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: Birch Creek

☐ Minimal   ☒ Significant

Stream: \_\_\_\_\_

☐ Minimal   ☐ Significant

Provide context for minimal/significant impact: Proposed APOAs UMAT 310 and UMAT 331 are located approximately 1.4 and 1.7 miles from Birch Creek, respectively, compared to 4.0 miles for UMAT 332 and 4.5 miles for UMAT 333. Water Availability Analysis for Watershed ID 220 (BIRCH CR > UMATILLA R - AT MOUTH), which encompasses the nearby reach of Birch Creek, shows no Net Water Available during May through December at the 80 percent exceedance level (see attached Water Availability Analysis). Proposed APOAs UMAT 310 and UMAT 331 are located 1.0 and 1.5 miles from Wendler Springs, respectively, compared to 2.4 miles for UMAT 332 and 2.9 miles for UMAT 333. No analytical model is currently available to estimate streamflow depletion from pumping in CRBG interflow zones incised by streams, or depletion of discharge to point sources such as springs. However, given the substantially shorter intervening distances and the known hydraulic properties of the CRBG aquifers, interference with Birch Creek and the springs is expected to be greater for UMAT 310 and UMAT 331 than for the authorized POAs. In addition to Birch Creek, two other streams may be hydraulically connected to the water-bearing zones accessed by the wells: the intermittent stream in Coombs Canyon (Watershed ID 30710319), approximately 4.5 to 5.8 miles from the wells, and the Umatilla River (Watershed ID 221), approximately 11.3 to 12.0 miles from the wells. The proposed APOAs UMAT 310 and UMAT 331 would move the pumping closer to Birch Creek and increase the proportion of stream depletion coming from Birch Creek compared to the other streams. The inverse-distance apportionment method (Reeves et al., 2009) was used to estimate the relative distribution of stream depletion among the three streams as a screening comparison. For the authorized POAs UMAT 332 and UMAT 333, approximately 42 to 45 percent of stream depletion is apportioned to Birch Creek, 40 to 42 percent to Coombs Canyon, and 15 to 16 percent to the Umatilla River. For the proposed APOAs UMAT 310 and UMAT 331, approximately 70 to 73 percent of stream depletion is apportioned to Birch Creek, 18 to 20 percent to Coombs Canyon, and 9 to 10 percent to the Umatilla River. A hydraulic connection between the wells and Coombs Canyon is uncertain; the analysis above conservatively assumes a connection exists, which assigns the minimum share of depletion to Birch Creek. If no hydraulic connection to Coombs Canyon exists, the fraction

apportioned to Birch Creek increases to approximately 72 to 75 percent at the authorized POAs and 88 to 89 percent at the proposed APOAs.

The proposed changes would substantially increase the share of total streamflow depletion apportioned to Birch Creek. The apportioned share to Coombs Canyon is limited by its low streamflow; natural streamflow in Coombs Canyon is less than 0.1 cfs for half the year, so actual depletion from Birch Creek would likely exceed the estimate shown above. This analysis supports the finding of a significant increase in interference with Birch Creek under the proposed changes to Certificates 84234 and 94333.

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: NA
8. What conditions or other changes in the application are necessary to address any potential issues identified above: UMAT 310 and UMAT 331 should be removed as proposed APOAs from Certificates 84234 and 94333 to avoid a significant increase in interference with nearby surface water sources.
9. Any additional comments: UMAT 332 and UMAT 56683 are subject to water level decline conditions under Certificate 94375 and Permit G-16610, respectively, neither of which is subject to this transfer. These conditions require the water user to reduce or discontinue pumping if annual measurements show a cumulative water level decline of 25 feet or more. To date, water levels have declined 20.21 feet at UMAT 332 and 24.23 feet at UMAT 56683 (see attached hydrograph), placing both wells within 5 feet of their respective trigger thresholds. The proposed changes would substantially increase the maximum rate that may be pumped at these wells and at the nearby proposed APOAs, which may accelerate water level declines and lead to curtailment of water use under Certificate 94375 and/or Permit G-16610 if the 25-foot thresholds are exceeded.

### **References Used:**

Application File: T-14800

Certificates: 94333, 94375, 92967, 28727, 84234, 57137

Permit File: G-16610

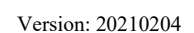
Freeze, R.A. and Cherry, J.A., 1979, Groundwater, Prentice Hall, Englewood Cliffs, New Jersey, 604 p.

Norton, M.A., and Bartholomew, W.S., 1984. Update of Ground Water Conditions and Declining Water Levels in the Butter Creek Area, Morrow and Umatilla Counties, Oregon. Oregon Water Resources. Ground Water Report Number 30. Salem, Oregon. 182p.

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.

Zwart, M.J., 1990. Groundwater Conditions in the Stage Gulch Area, Umatilla County, Oregon. Oregon Water Resources. Ground Water Report Number 35. Salem, Oregon. 156p.

# T-14800 Stubblefield

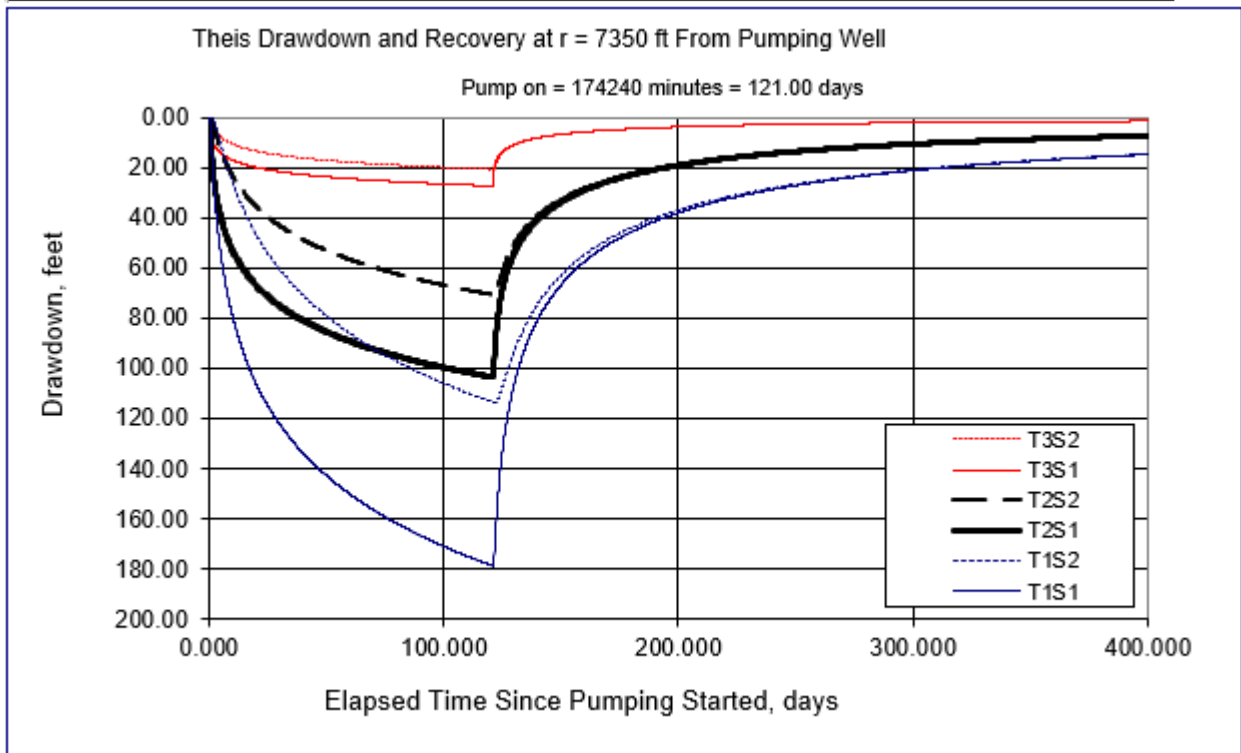


**Theis Drawdown Analysis – UMAT 332 Interference with UMAT 56889****Theis Time-Drawdown Worksheet** v.5.00

Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance,  $r$ , from a pumping well for 3 different  $T$  values and radial distance,  $r$ , from a pumping well for 3 different  $T$  values and 2 different  $S$  values.

Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

| Input Data:                       | Var Name | Scenario 1 | Scenario 2 | Scenario 3 | Units   |                                            |
|-----------------------------------|----------|------------|------------|------------|---------|--------------------------------------------|
| Total pumping time                | t        |            | 121        |            | d       |                                            |
| Radial distance from pumped well: | r        |            | 7350       |            | ft      | <b>Q conversions</b>                       |
| Pumping rate                      | Q        |            | 9          |            | cfs     | 4,039.20 gpm                               |
| Hydraulic conductivity            | K        | 50         | 100        | 500        | ft/day  | 9.00 cfs                                   |
| Aquifer thickness                 | b        |            | 30         |            | ft      | 540.00 cfm                                 |
| Storativity                       | S 1      |            | 0.0001     |            |         | 777,600.00 cfd                             |
|                                   | S 2      |            | 0.0005     |            |         | 17.85 af/d                                 |
| <b>Transmissivity Conversions</b> | T ft2pd  | 1500       | 3000       | 15000      | ft2/day |                                            |
|                                   | T ft2pm  | 1.04166667 | 2.08333333 | 10.4166667 | ft2/min |                                            |
|                                   | T gpd/ft | 11220      | 22440      | 112200     | gpd/ft  |                                            |
|                                   |          |            |            |            |         | <input type="button" value="Recalculate"/> |



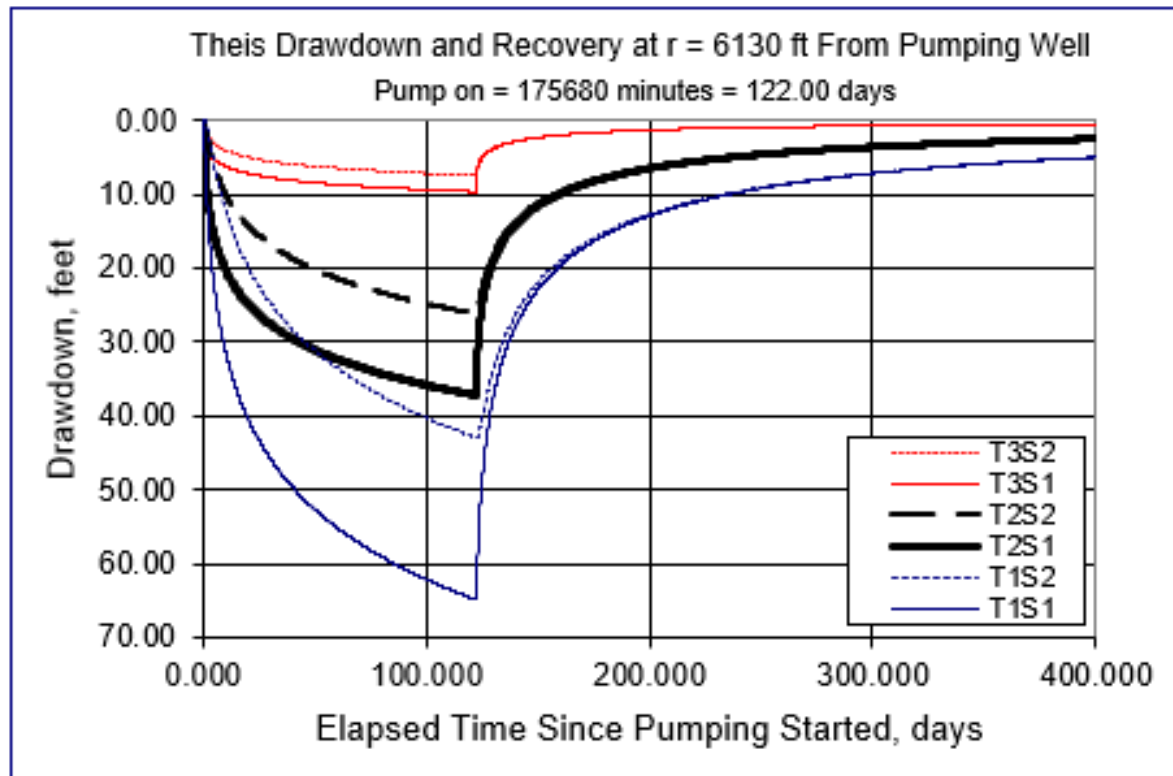
**Theis Drawdown Analysis – UMAT 333 Interference with UMAT 56889****Theis Time-Drawdown Worksheet**

v.5.00

Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance,  $r$ , from a pumping well for 3 different  $T$  values and radial distance,  $r$ , from a pumping well for 3 different  $T$  values and 2 different  $S$  values.

Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

| Input Data:                       | Var Name | Scenario 1 | Scenario 2 | Scenario 3 | Units                |                                            |
|-----------------------------------|----------|------------|------------|------------|----------------------|--------------------------------------------|
| Total pumping time                | t        |            | 122        |            | d                    |                                            |
| Radial distance from pumped well: | r        |            | 6130       |            | ft                   | Q conversions                              |
| Pumping rate                      | Q        |            | 3.01       |            | cfs                  | 1,350.89 gpm                               |
| Hydraulic conductivity            | K        | 50         | 100        | 500        | ft/day               | 3.01 cfs                                   |
| Aquifer thickness                 | b        |            | 30         |            | ft                   | 180.60 cfm                                 |
| Storativity                       | S_1      |            | 0.0001     |            |                      | 260,064.00 cfd                             |
|                                   | S_2      |            | 0.0005     |            |                      | 5.97 af/d                                  |
| Transmissivity Conversions        | T_f2pd   | 1500       | 3000       | 15000      | ft <sup>2</sup> /day |                                            |
|                                   | T_ft2pm  | 1.04166667 | 2.08333333 | 10.4166667 | ft <sup>2</sup> /min |                                            |
|                                   | T_gpdft  | 11220      | 22440      | 112200     | gpd/ft               |                                            |
|                                   |          |            |            |            |                      | <input type="button" value="Recalculate"/> |

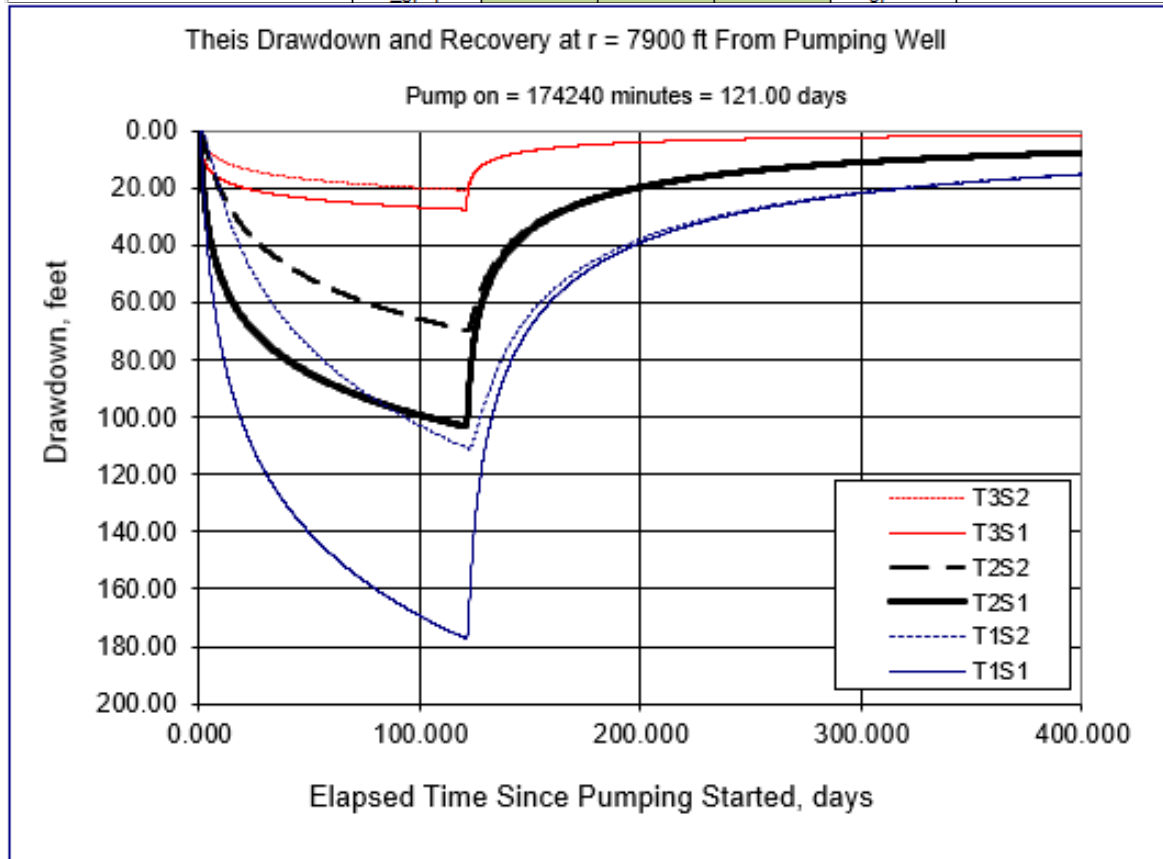


**Theis Drawdown Analysis – UMAT 56683 Interference with UMAT 327****Theis Time-Drawdown Worksheet** v.5.00

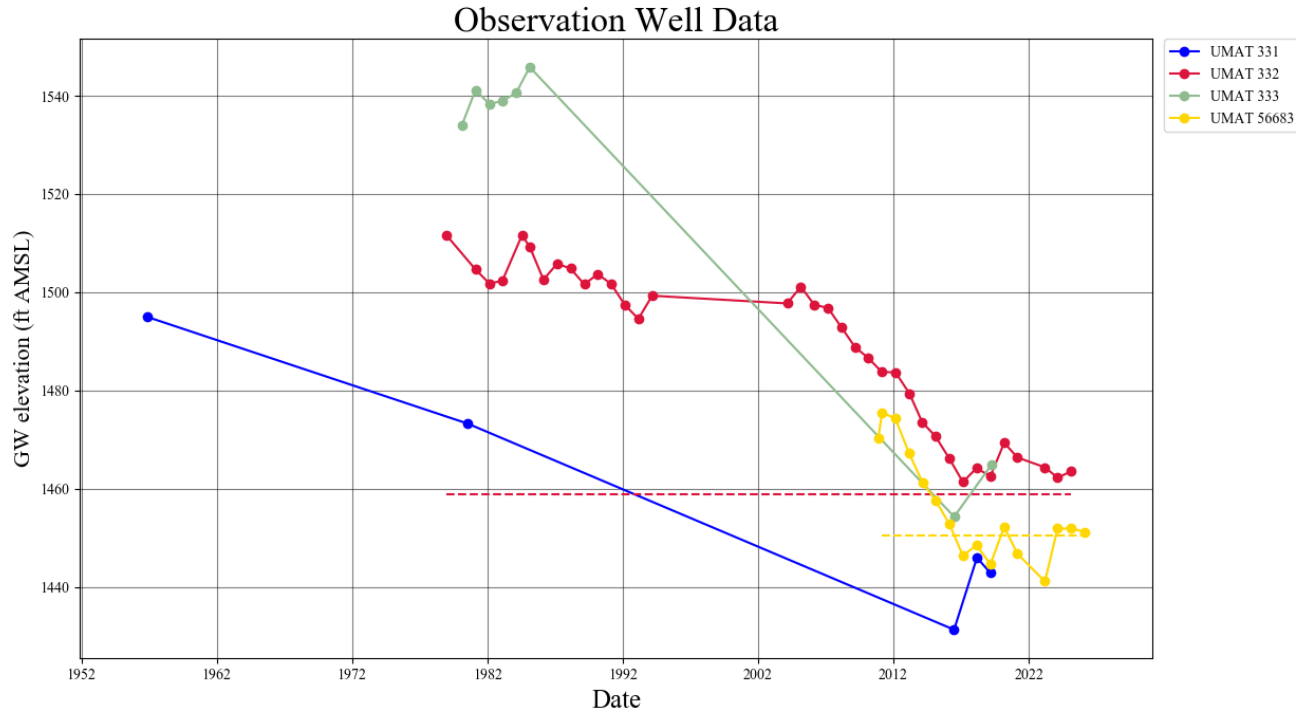
Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance,  $r$ , from a pumping well for 3 different  $T$  values and radial distance,  $r$ , from a pumping well for 3 different  $T$  values and 2 different  $S$  values.

Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

| Input Data:                       | Var Name | Scenario 1 | Scenario 2 | Scenario 3 | Units                |                      |
|-----------------------------------|----------|------------|------------|------------|----------------------|----------------------|
| Total pumping time                | t        |            | 121        |            | d                    |                      |
| Radial distance from pumped well: | r        |            | 7900       |            | ft                   | <b>Q conversions</b> |
| Pumping rate                      | Q        |            | 9.24       |            | cfs                  | 4,146.91 gpm         |
| Hydraulic conductivity            | K        | 50         | 100        | 500        | ft/day               | 9.24 cfs             |
| Aquifer thickness                 | b        |            | 30         |            | ft                   | 554.40 cfm           |
| Storativity                       | S_1      |            | 0.0001     |            |                      | 798,336.00 cfd       |
|                                   | S_2      |            | 0.0005     |            |                      | 18.33 af/d           |
| Transmissivity Conversions        | T_ftpd   | 1500       | 3000       | 15000      | ft <sup>2</sup> /day |                      |
|                                   | T_ft2pm  | 1.04166667 | 2.08333333 | 10.4166667 | ft <sup>2</sup> /min |                      |
|                                   | T_gpdft  | 11220      | 22440      | 112200     | gpd/ft               |                      |



**Hydrograph** – Annual-high water levels for proposed APOAs. Permit decline condition trigger levels for UMAT 332 (Certificate 94333) and UMAT 56683 (Permit G-16610) are shown as dashed lines.



## Water Availability Analysis

|                                                    |                                                    |
|----------------------------------------------------|----------------------------------------------------|
| BIRCH CR > UMATILLA R - AT MOUTH<br>UMATILLA BASIN |                                                    |
| Water Availability as of 6/12/2026                 |                                                    |
| Watershed ID #: 220 ( <a href="#">Map</a> )        | Exceedance Level: <input type="text" value="80%"/> |
| Date: 6/12/2026                                    | Time: 12:44 PM                                     |

## Water Availability Calculation

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

| Month | Natural Stream Flow | Consumptive Uses and Storages | Expected Stream Flow | Reserved Stream Flow | Instream Flow Requirement | Net Water Available |
|-------|---------------------|-------------------------------|----------------------|----------------------|---------------------------|---------------------|
| JAN   | 23.40               | 0.67                          | 22.70                | 0.00                 | 20.00                     | 2.73                |
| FEB   | 39.40               | 0.96                          | 38.40                | 0.00                 | 30.00                     | 8.44                |
| MAR   | 52.20               | 5.00                          | 47.20                | 0.00                 | 30.00                     | 17.20               |
| APR   | 97.00               | 19.90                         | 77.10                | 0.00                 | 30.00                     | 47.10               |
| MAY   | 64.60               | 47.60                         | 17.00                | 0.00                 | 30.00                     | -13.00              |
| JUN   | 32.60               | 38.10                         | -5.54                | 0.00                 | 20.00                     | -25.50              |
| JUL   | 10.60               | 12.80                         | -2.18                | 0.00                 | 12.00                     | -14.20              |
| AUG   | 4.40                | 5.19                          | -0.79                | 0.00                 | 8.00                      | -8.79               |
| SEP   | 2.30                | 2.75                          | -0.45                | 0.00                 | 8.00                      | -8.45               |
| OCT   | 1.10                | 1.42                          | -0.32                | 0.00                 | 8.00                      | -8.32               |
| NOV   | 5.70                | 0.27                          | 5.43                 | 0.00                 | 8.00                      | -2.57               |
| DEC   | 19.20               | 0.48                          | 18.70                | 0.00                 | 20.00                     | -1.28               |
| ANN   | 39,200.00           | 8,180.00                      | 31,200.00            | 0.00                 | 13,500.00                 | 20,400.00           |