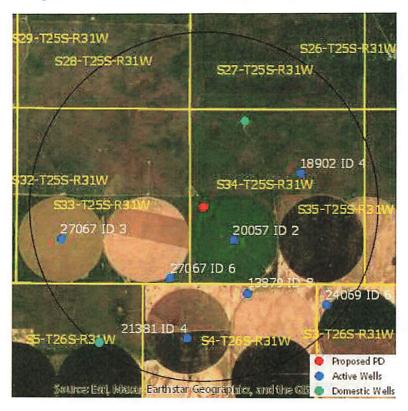
Evaluation of proposed move for Water Right No. 20057

Proposed: Move water right no. 20057 to a new well location, a distance of 1,350 ft to the northwest.



Wells within 1 mile: 27067 ID3, 27067 ID6, 18902, 21381, 13879, 24069, a domestic well in section 34-25-31, and a domestic well in section 5-26-31.

The saturated thickness at the proposed well location is estimated to be 78 ft, based upon the GMD3 model. For saturated thickness between 75 ft and 100 ft, the drawdown allowance is 2.0 ft.

50 year Theis Analysis: The following values were used to run the analysis:

S = 0.045, T = 7260 ft²/day, tp_{current} = 146 days (based on average use and observed rate), $Q_{current} = 349$ gpm (based on 2022 field inspection), tp_{proposed} = 61 days, $Q_{proposed} = 935$ gpm

Theis drawdowns were calculated as follows:

27067 ID3: Drawdown from current location = 1.92 ft

Drawdown from proposed location = 2.68 ft

Net drawdown = 0.8 ft

27067 ID6: Drawdown from current location = 3.02 ft

Drawdown from proposed location = 4.38 ft

Net drawdown = 1.4 ft

18902: Drawdown from current location = 2.66 ft

Drawdown from proposed location = 3.52 ft

Net drawdown = 0.9 ft

21381: Drawdown from current location = 2.48 ft

Drawdown from proposed location = 2.90 ft

Net drawdown = 0.4 ft

13879: Drawdown from current location = 3.43 ft

Drawdown from proposed location = 3.69 ft

Net drawdown = 0.3 ft

24069: Drawdown from current location = 2.42 ft

Drawdown from proposed location = 2.52 ft

Net drawdown = 0.1 ft

Domestic 34-25-31: Drawdown from current location = 2.34 ft

Drawdown from proposed location = 3.76 ft

Net drawdown = 1.4 ft

Domestic 5-26-31: Drawdown from current location = 1.94 ft

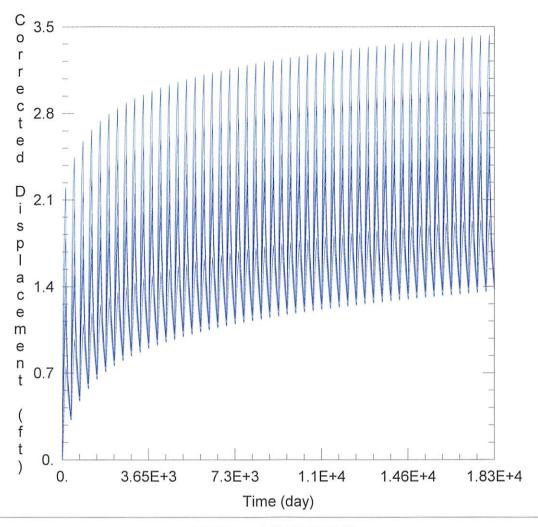
Drawdown from proposed location = 2.33 ft

Net drawdown = 0.4 ft

Net drawdown does not exceed the drawdown allowance of 2.0 ft for any well within 1 mile of the proposed location. Therefore, critical well analysis is not necessary.

Conclusion:

The proposed move is likely to create minimal effects on neighboring wells and appears unlikely to cause impairment. Any concerned neighbors should contact GMD3 at (620) 275-7147 or the Division of Water Resources at (620) 276-2901.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2024_moves\20057\20057 Current.aqt

Date: 07/09/24

Time: 14:43:17

PROJECT INFORMATION

Company: GMD 3 Project: 20057

Well Name

20057

Location: Finney County

WELL DATA

Pumping Wells

X (ft) Y (ft)

24354 348701

Observation Wells		
Well Name	X (ft)	Y (ft)
0	24354	348701
□ 27067 ID3	19147	348715
□ 27067 ID6	22458	347546
18902	26380	350721
· 21381	22976	345736
13879	24795	347103
24069	27163	346763
 Domestic 34-25-31 	24680	352309
 Domestic 5-26-31 	20309	345620

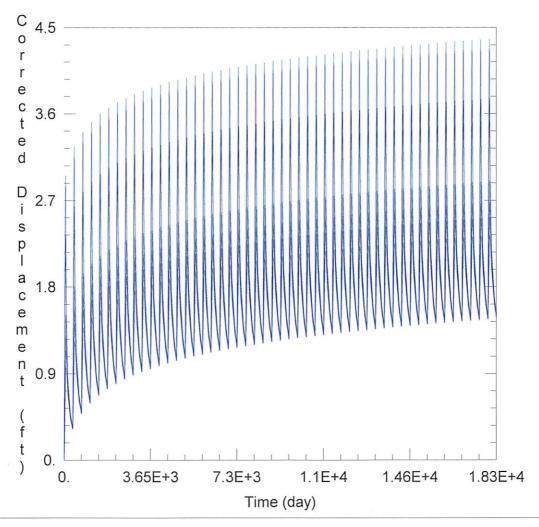
SOLUTION

Aquifer Model: Unconfined

= 7260. ft²/day

Solution Method: Theis

S = 0.045



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2024_moves\20057\20057 Proposed.aqt

Date: 07/09/24 Time: 14:43:11

PROJECT INFORMATION

Company: GMD 3 Project: 20057

20057

Location: Finney County

WELL DATA

Pumping Wells Well Name Y (ft) X (ft) 23456 349710

Well Name	X (ft)	Y (ft)
0	23456	349710
□ 27067 ID3	19147	348715
□ 27067 ID6	22458	347546
18902	26380	350721
21381	22976	345736
13879	24795	347103
24069	27163	346763
 Domestic 34-25-31 	24680	352309
Domestic 5-26-31	20309	345620

Observation Wells

SOLUTION

Aquifer Model: Unconfined

 $= \frac{7260}{100}$ ft²/day

Solution Method: Theis

S = 0.045