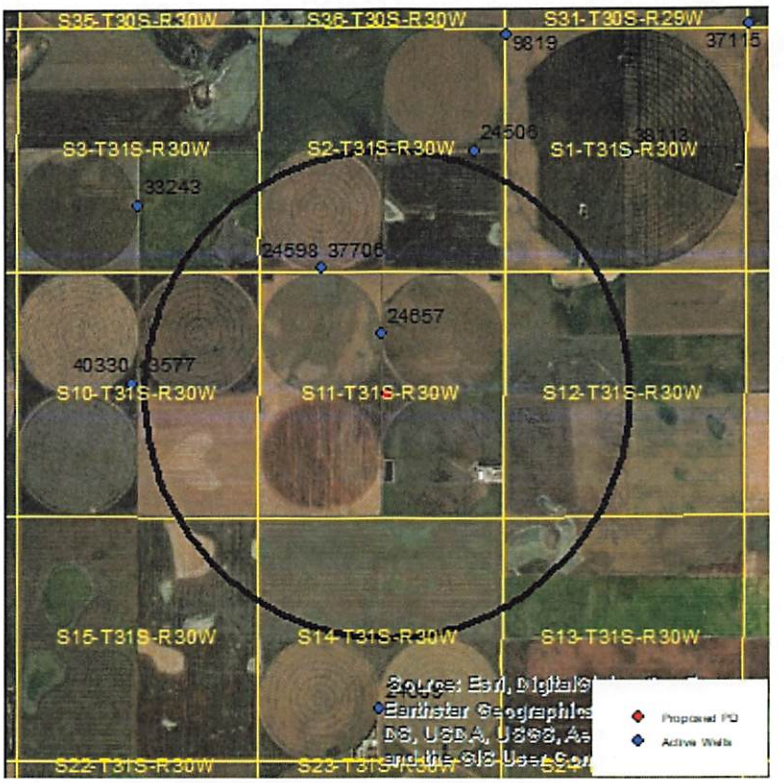
Evaluation of proposed move for Water Right No. 24657

Proposed: Move water right no. 24657 to a new well location, a distance of 1,291 ft to the southeast.



Wells within 1 mile: 24598 & 37706.

The saturated thickness at the proposed well location is estimated to be 195 ft, based upon the GMD3 model. For saturated thickness between 150 ft and 200 ft, the drawdown allowance is 3.5 ft.

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

S = 0.2871, T = 27,746 ft^2/day, $tp_{current}$ = 63 days (based on average use and reported rate), $Q_{current}$ = 1800 gpm (reported rate in 2012), $tp_{proposed}$ = 115 days, $Q_{proposed}$ = 2000 gpm

Theis drawdowns were calculated as follows:

24598 & 37706: Drawdown from current location = 2.17 ft

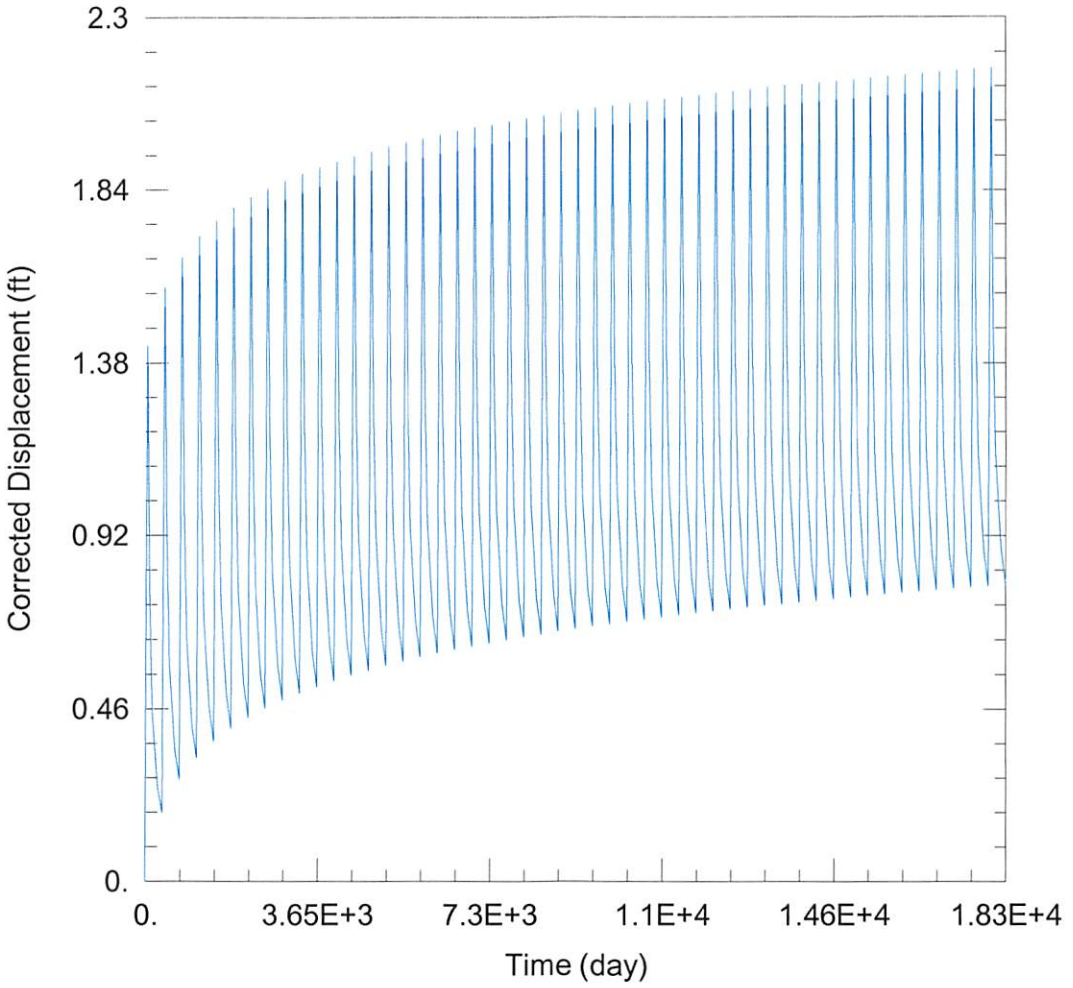
Drawdown from proposed location = 2.76 ft

Net drawdown = **0.6 ft**

Net drawdown does not exceed the drawdown allowance of 3.5 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\2022_moves\24657\24657 Current.aqt
Date: 06/21/22 Time: 09:11:58

PROJECT INFORMATION

Company: GMD 3
Project: 24657
Location: Meade County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
24657	71678	180042

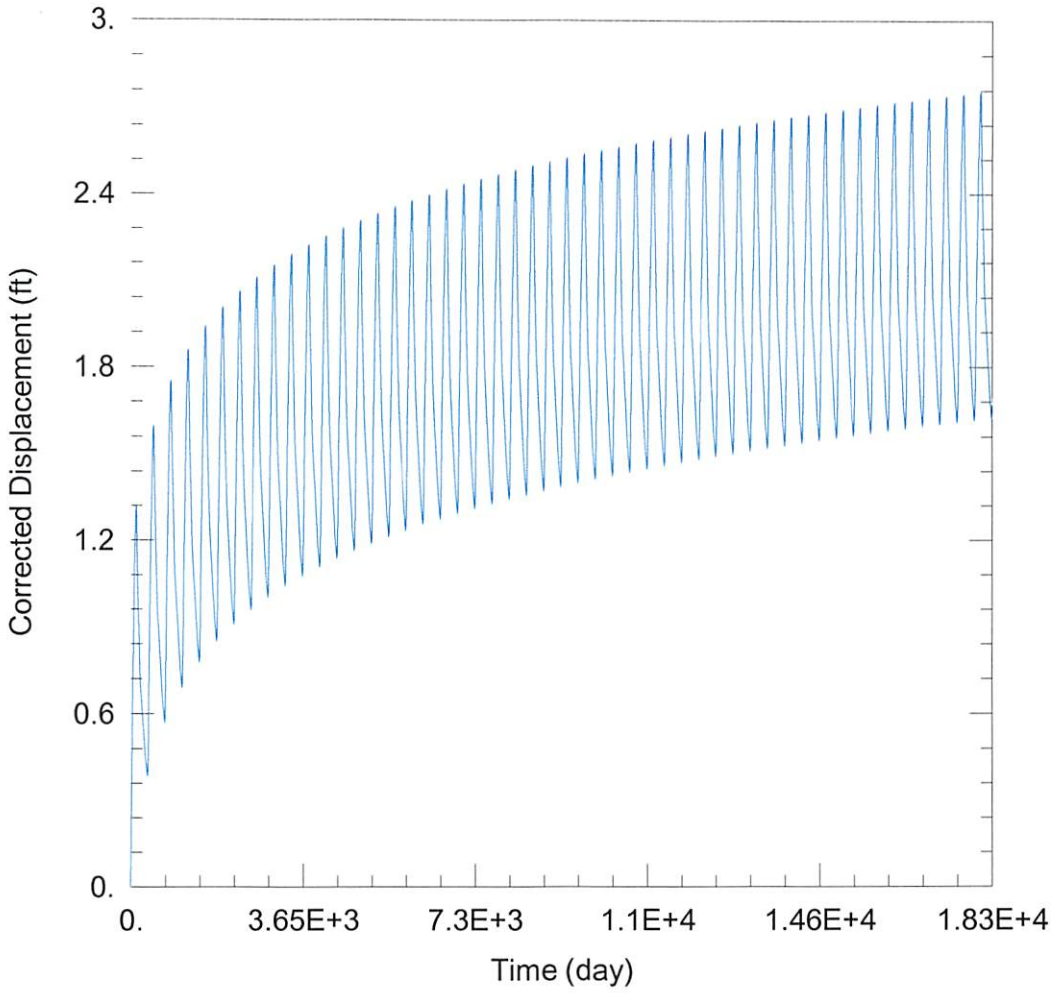
Observation Wells

Well Name	X (ft)	Y (ft)
▫	71678	180042
▫ 24598 & 37706	70366	181477

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 2.775E+4 ft^2/day
S = 0.2871
Kz/Kr = 1.
b = 195. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2022_moves\24657\24657 Proposed.aqt
Date: 06/21/22 Time: 09:11:52

PROJECT INFORMATION

Company: GMD 3
Project: 24657
Location: Meade County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
24657	71798	178757

Observation Wells

Well Name	X (ft)	Y (ft)
▫	71798	178757
▫ 24598 & 37706	70366	181477

SOLUTION

Aquifer Model: Unconfined
T = 2.775E+4 ft^2/day
Kz/Kr = 1.

Solution Method: Theis
S = 0.2871
b = 195. ft