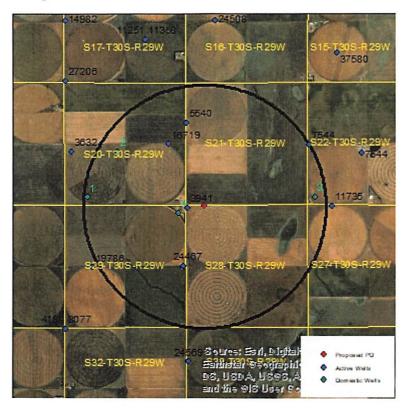
Evaluation of proposed move for Water Right No. 3941

Proposed: Move water right no. 3941 a distance of 745 ft to the east.



Wells within 1 mile: 16719, 5540, 7544, 24467, and 4 domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 288 ft, based upon an observation well in section 28-30-29 and the driller's log. For saturated thickness greater than 200 ft, the drawdown allowance is 4.0 ft.

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

S = 0.2348, T = 53,237 ft²/day, tp_{current} = 151 days (based upon average use and observed rate), $Q_{current} = 759$ gpm (based upon 2015 field inspection), tp_{proposed} = 102 days, $Q_{proposed} = 1815$ gpm

Theis drawdowns were calculated as follows:

16719: Drawdown from current location = 0.88 ft

Drawdown from proposed location = 1.55 ft

Net drawdown = 0.7 ft

5540: Drawdown from current location = 0.78 ft

Drawdown from proposed location = 1.39 ft

Net drawdown = 0.6 ft

7544: Drawdown from current location = 0.60 ft

Drawdown from proposed location = 1.11 ft

Net drawdown = 0.5 ft

24467: Drawdown from current location = 0.93 ft

Drawdown from proposed location = 1.68 ft

Net drawdown = 0.7 ft

Domestic 1: Drawdown from current location = 0.70 ft

Drawdown from proposed location = 1.12 ft

Net drawdown = 0.4 ft

Domestic 2: Drawdown from current location = 0.75 ft

Drawdown from proposed location = 1.22 ft

Net drawdown = 0.5 ft

Domestic 3: Drawdown from current location = 0.62 ft

Drawdown from proposed location = 1.17 ft

Net drawdown = 0.5 ft

Domestic 4: Drawdown from current location = 1.65 ft

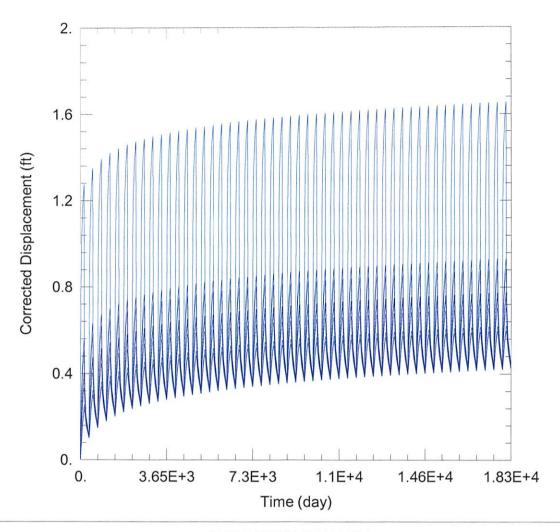
Drawdown from proposed location = 2.51 ft

Net drawdown = 0.9 ft

Net drawdown does not exceed the drawdown allowance of 4.0 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 is unlikely to cause impairment. GMD3 staff recommends approval of this proposal.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\3941\3941 Current.aqt

Date: 04/05/21 Time: 16:09:26

PROJECT INFORMATION

Company: GMD 3 Project: 3941

Location: Meade County

Test Well: 3941

WELL DATA

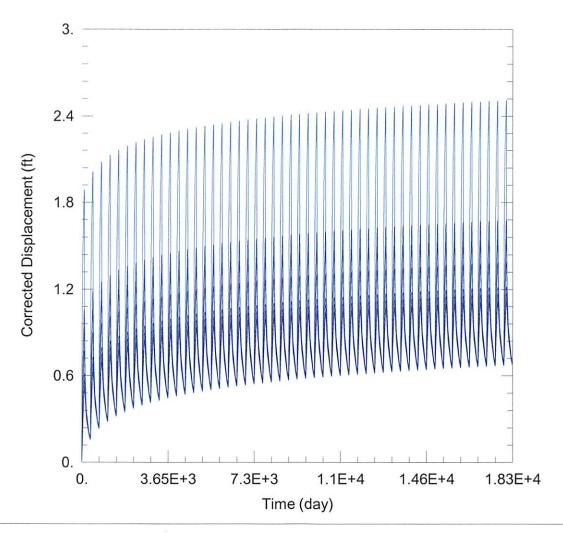
Pumping Wells			
Well Name	X (ft)	Y (ft)	
3941	85022	197172	

Well Name	X (ft)	Y (ft)
	85022	197172
16719	84200	199912
□ 5540	84981	200839
□ 7 544	90299	199884
24467	84855	194652
Domestic 1	80654	197612
Domestic 2	81966	199600
Domestic 3	90554	197623
Domestic 4	84604	196949

Observation Wells

SOLUTION

Aquifer Model: Unconfined Solution Method: Theis



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\3941\3941 Proposed.aqt

Date: 04/05/21

Time: 16:09:18

PROJECT INFORMATION

Company: GMD 3 Project: 3941

Location: Meade County

Test Well: 3941

WELL DATA

Pumping wells			
Well Name	X (ft)	Y (ft)	
3941	85765	197222	

Well Name	X (ft)	Y (ft)
	85765	197222
16719	84200	199912
□ 5540	84981	200839
□ 7 544	90299	199884
24467	84855	194652
Domestic 1	80654	197612
Domestic 2	81966	199600
Domestic 3	90554	197623
Domestic 4	84604	196949

Observation Wells

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis