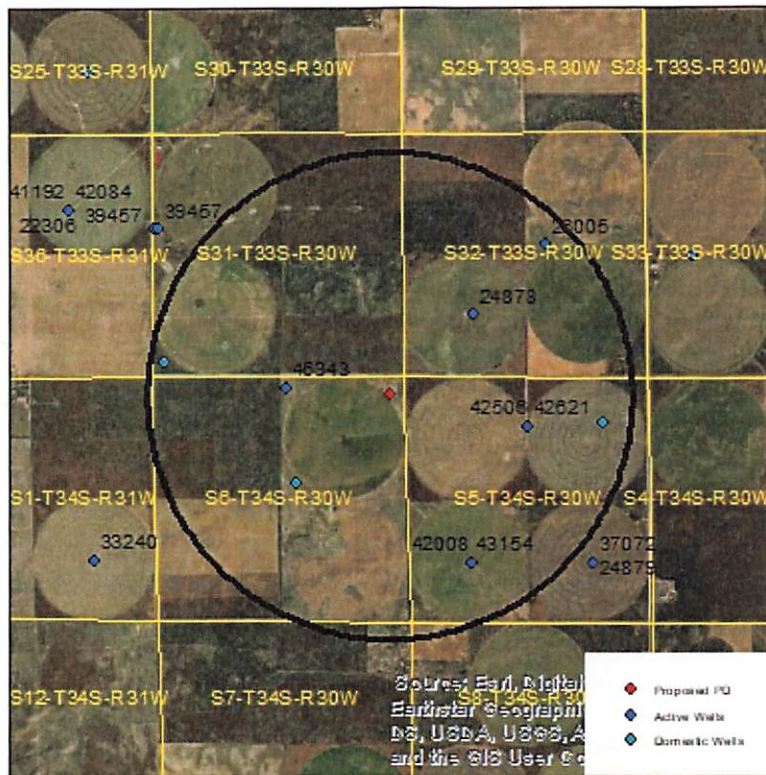


Evaluation of proposed move for Water Right No 45343

Proposed: Move water right no. 45343 a distance of 2,279 ft to the east.



Wells within 1 mile: 24878, 26005, 42506 & 42621, 42008 & 43154, a domestic well in section 31-33-30, a domestic well in section 6-34-30, and a domestic well in section 5-34-30.

The saturated thickness at the proposed well location is estimated to be 253 ft, based upon the GMD3 model. 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:

$S = 0.06384$, $T = 52,861.5 \text{ ft}^2/\text{day}$,

$tp_{\text{current}} = 113 \text{ days}$ (based upon average use and observed rate), $Q_{\text{current}} = 424 \text{ gpm}$ (based upon 2019 field inspection), $tp_{\text{proposed}} = 78 \text{ days}$, $Q_{\text{proposed}} = 1055 \text{ gpm}$

Theis drawdowns were calculated as follows:

24878: Drawdown from current location = 0.46 ft
Drawdown from proposed location = 1.25 ft
Net drawdown = **0.8 ft**

26005: Drawdown from current location = 0.37 ft
Drawdown from proposed location = 0.88 ft
Net drawdown = **0.5 ft**

42506 & 42621: Drawdown from current location = 0.42 ft
Drawdown from proposed location = 1.13 ft
Net drawdown = **0.7 ft**

42008 & 43154: Drawdown from current location = 0.41 ft
Drawdown from proposed location = 0.97 ft
Net drawdown = **0.6 ft**

Domestic 31-33-30: Drawdown from current location = 0.58 ft
Drawdown from proposed location = 0.85 ft
Net drawdown = **0.3 ft**

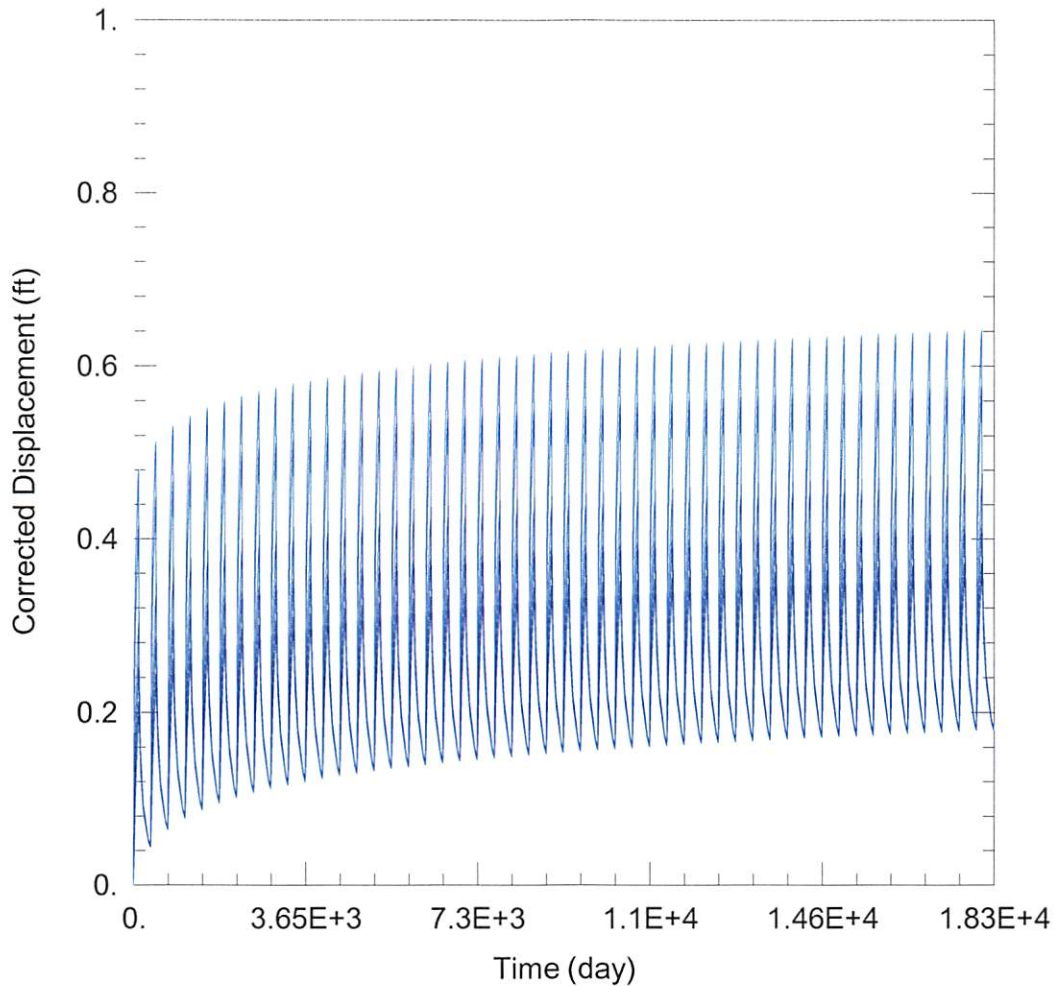
Domestic 6-34-30: Drawdown from current location = 0.64 ft
Drawdown from proposed location = 1.18 ft
Net drawdown = **0.5 ft**

Domestic 5-34-30: Drawdown from current location = 0.36 ft
Drawdown from proposed location = 0.88 ft
Net drawdown = **0.5 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\45343\45343 Current.aqt

Date: 02/19/21

Time: 14:33:36

PROJECT INFORMATION

Company: GMD 3

Project: 45343

Location: Meade County

Test Well: 45343

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
45343	50715	91363

Observation Wells

Well Name	X (ft)	Y (ft)
□	50715	91363
□ 24878	54793	92958
□ 26005	56394	94483
□ 42506 & 42621	55994	90557
□ 42008 & 43154	54746	87602
□ Domestic 31-33-30	48076	91946
□ Domestic 6-34-30	50941	89309
□ Domestic 5-34-30	57646	90612

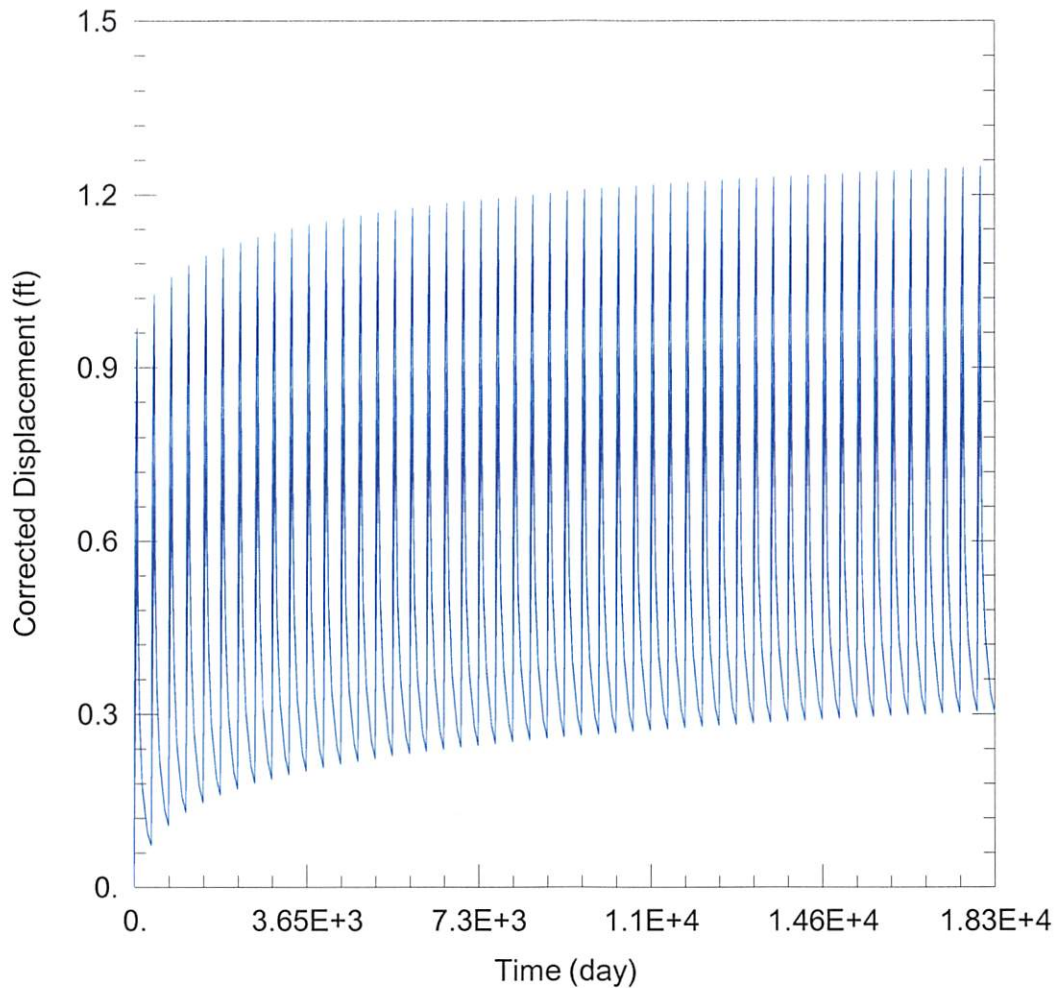
SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 5.286E+4 ft²/day

S = 0.06384



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\45343\45343 Proposed.aqt

Date: 02/19/21

Time: 14:33:25

PROJECT INFORMATION

Company: GMD 3

Project: 45343

Location: Meade County

Test Well: 45343

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
45343	52989	91218

Observation Wells

Well Name	X (ft)	Y (ft)
□	52989	91218
□ 24878	54793	92958
□ 26005	56394	94483
□ 42506 & 42621	55994	90557
□ 42008 & 43154	54746	87602
□ Domestic 31-33-30	48076	91946
□ Domestic 6-34-30	50941	89309
□ Domestic 5-34-30	57646	90612

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = $5.286E+4 \text{ ft}^2/\text{day}$

S = 0.06384