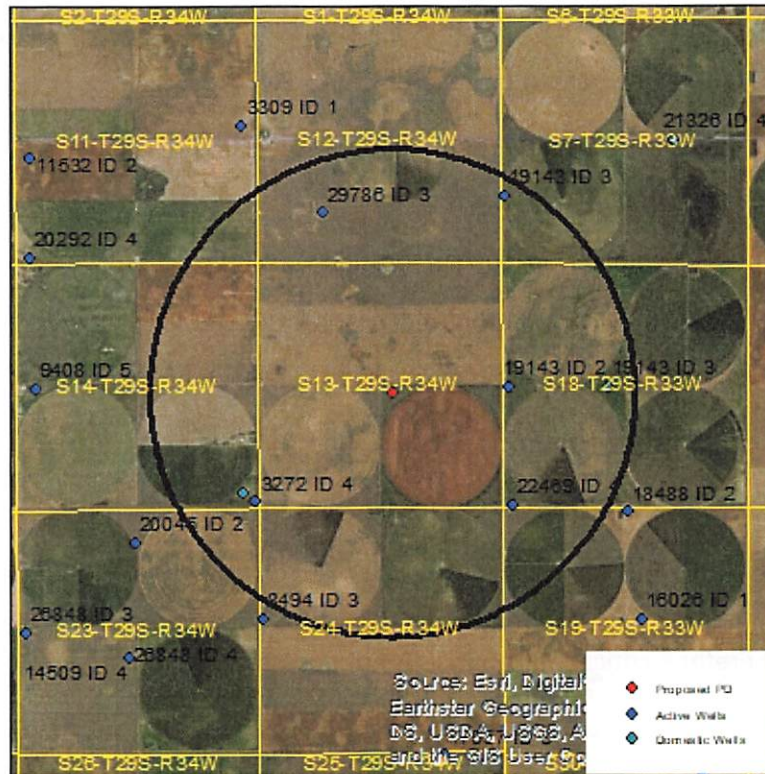


## Evaluation of proposed move for Water Right No. 19143

Proposed: Move water right no. 19143 ID 2 a distance of 2,552 ft to the west.



Wells within 1 mile: 19143 ID 3 (section 18), 19143 ID 3 (section 7), 22469, 29786, 3272, and a domestic well in section 14-29-34.

The saturated thickness at the proposed well location is estimated to be 252 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:

$$S = 0.09278, T = 7019.8 \text{ ft}^2/\text{day},$$

$t_{p\text{current}} = 192$  days (based upon average use and observed rate),  $Q_{\text{current}} = 430$  gpm (based upon 2018 field inspection),  $t_{p\text{proposed}} = 79$  days,  $Q_{\text{proposed}} = 2000$  gpm

Theis drawdowns were calculated as follows:

19143 ID3 sec 18:	Drawdown from current location = 3.93 ft
	Drawdown from proposed location = 5.38 ft
	Net drawdown = <b>1.5 ft</b>
19143 ID3 sec 7:	Drawdown from current location = 2.85 ft
	Drawdown from proposed location = 5.23 ft
	Net drawdown = <b>2.4 ft</b>

22469: Drawdown from current location = 3.62 ft  
Drawdown from proposed location = 6.54 ft  
Net drawdown = **2.9 ft**

29786: Drawdown from current location = 2.43 ft  
Drawdown from proposed location = 5.82 ft  
Net drawdown = **3.4 ft**

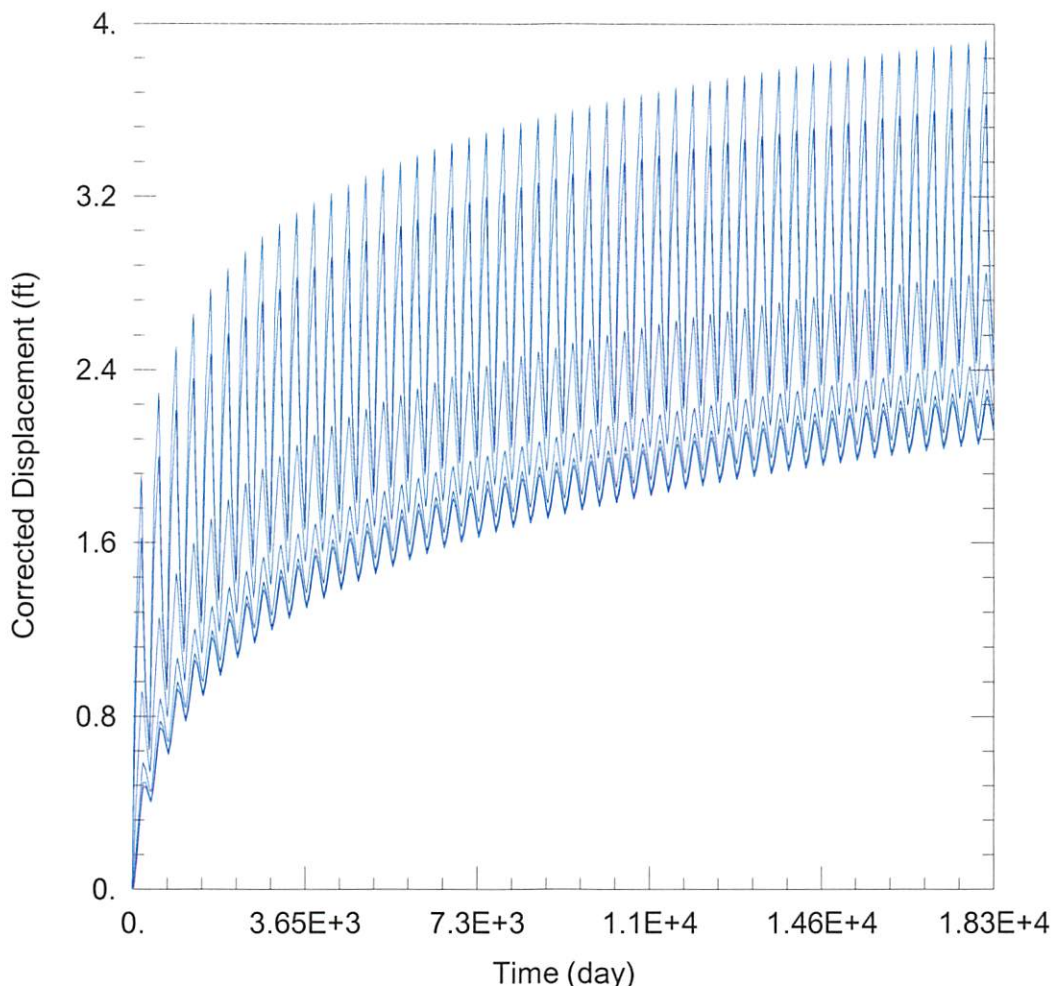
3272: Drawdown from current location = 2.31 ft  
Drawdown from proposed location = 6.23 ft  
Net drawdown = **3.9 ft**

Domestic 14-29-34: Drawdown from current location = 2.28 ft  
Drawdown from proposed location = 6.10 ft  
Net drawdown = **3.8 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\19143\19143 Current.aqt

Date: 06/30/21

Time: 10:14:28

### PROJECT INFORMATION

Company: GMD 3

Project: 19143

Location: Haskell County

### WELL DATA

#### Pumping Wells

Well Name	X (ft)	Y (ft)
19143 ID2	-52391	237006

#### Observation Wells

Well Name	X (ft)	Y (ft)
□	-52391	237006
□ <u>19143 ID3 sec 18</u>	-50245	237006
□ <u>19143 ID3 sec 7</u>	-52499	241129
□ <u>22469</u>	-52309	234461
□ <u>29786</u>	-56443	240769
□ <u>3272</u>	-57906	234523
□ <u>Domestic 14-29-34</u>	-58167	234726

### SOLUTION

Aquifer Model: Unconfined

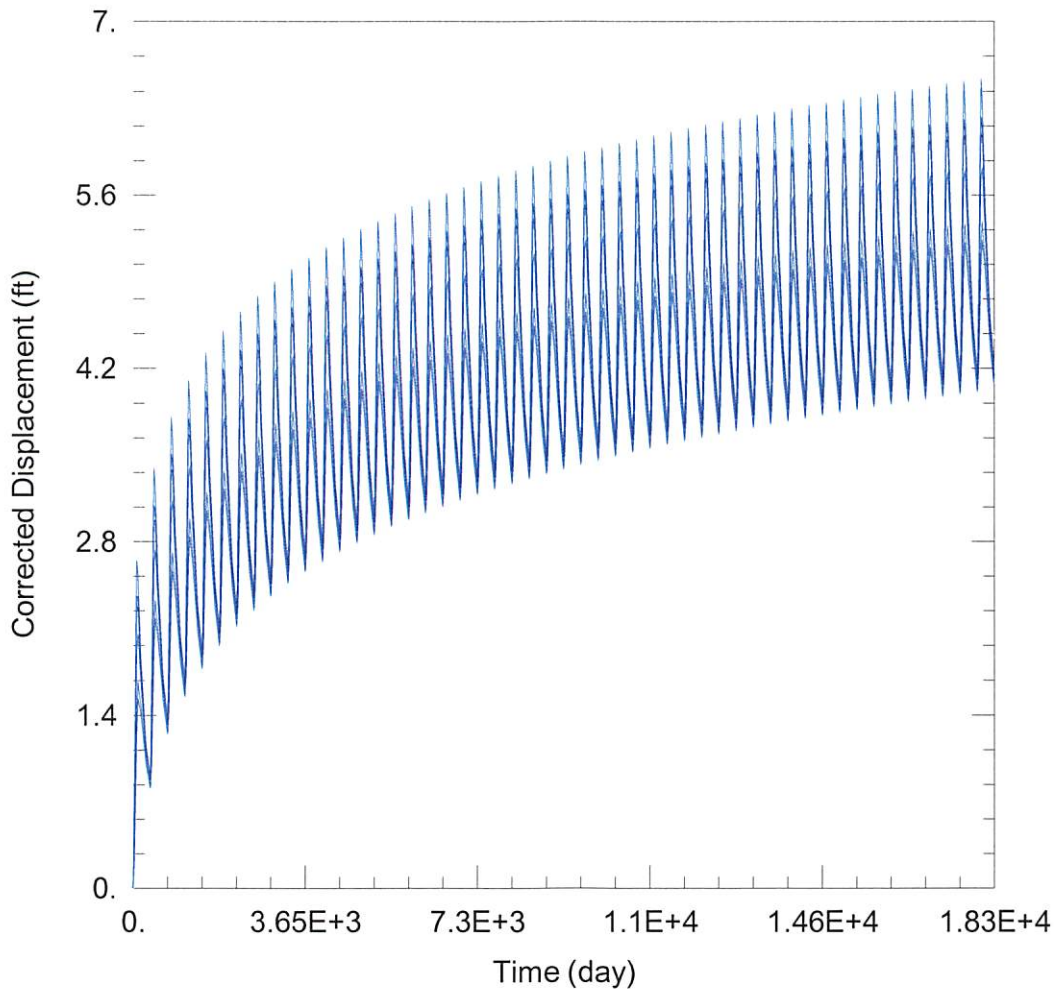
Solution Method: Theis

T = 7019.8 ft<sup>2</sup>/day

S = 0.09278

Kz/Kr = 1.

b = 252. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021\_Moves\19143\19143 Proposed.aqt

Date: 06/30/21

Time: 10:14:17

PROJECT INFORMATION

Company: GMD 3

Project: 19143

Location: Haskell County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
19143 ID2	-54940	236884

Observation Wells

Well Name	X (ft)	Y (ft)
□	-54940	236884
□ <u>19143 ID3 sec 18</u>	-50245	237006
□ <u>19143 ID3 sec 7</u>	-52499	241129
□ <u>22469</u>	-52309	234461
□ <u>29786</u>	-56443	240769
□ <u>3272</u>	-57906	234523
□ <u>Domestic 14-29-34</u>	-58167	234726

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 7019.8 ft<sup>2</sup>/day

S = 0.09278

Kz/Kr = 1.

b = 252. ft