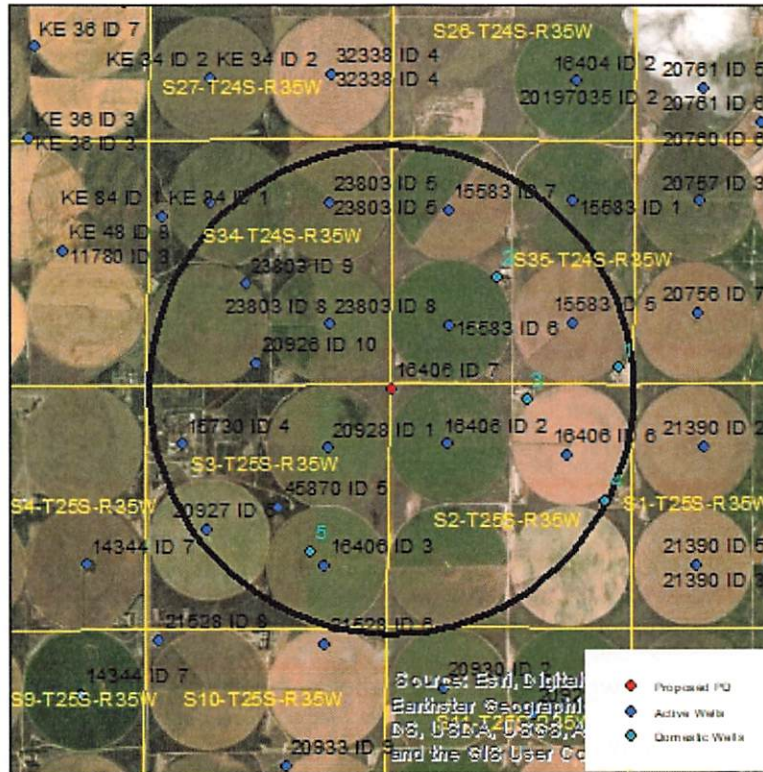


Evaluation of proposed move for Water Right Nos 16406 ID 2 and 16406 ID 6

Proposed: Move water right no. 16406 ID 2 to the well currently authorized under water right no. 16406 ID 7. Move water right no. 16406 ID 6 to the well currently authorized under water right no. 16406 ID 2. Pumping authority on the well currently authorized by water right no. 16406 ID 7 will be increased from 252 AF to 504 AF. Authorized rate on the well will increase from 990 gpm to 1,925 gpm. The well currently authorized under water right no. 16406 ID 6 will no longer be utilized. This application does not meet required spacing to wells authorized under water right nos. 20928 ID 1, 16406 ID 2, 15583 ID 6, and 23803 ID 8, so a waiver of GMD3 rules will be required.



Wells within 1 mile: 16406 ID 2, 16406 ID 3, 20928, 45870, 20927, 15730, 20926, 23803 ID 5, 23803 ID 8, 23803 ID 9, 15583 ID 5, 15583 ID 6, 15583 ID 7, and 5 domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 189 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:

$S = 0.1512$, $T = 11,151 \text{ ft}^2/\text{day}$,

16406 ID 6: $tp_{\text{current}} = 186 \text{ days}$ (based upon average use and observed rate), $Q_{\text{current}} = 158 \text{ gpm}$ (based upon 2014 field inspection), $tp_{\text{proposed}} = 0 \text{ days}$, $Q_{\text{proposed}} = 0 \text{ gpm}$

16406 ID 7: $tp_{\text{current}} = 120 \text{ days}$ (assumed operating time), $Q_{\text{current}} = 468 \text{ gpm}$ (based upon quantity pumped over assumed 120 day period), $tp_{\text{proposed}} = 59 \text{ days}$, $Q_{\text{proposed}} = 1925 \text{ gpm}$

23803 ID 9: Drawdown from current location = 1.74 ft
Drawdown from proposed location = 2.77 ft
Net drawdown = **1.0 ft**

15583 ID 5: Drawdown from current location = 1.99 ft
Drawdown from proposed location = 2.62 ft
Net drawdown = **0.6 ft**

15583 ID 6: Drawdown from current location = 2.67 ft
Drawdown from proposed location = 5.03 ft
Net drawdown = **2.4 ft**

15583 ID 7: Drawdown from current location = 1.77 ft
Drawdown from proposed location = 2.70 ft
Net drawdown = **0.9 ft**

Domestic 1: Drawdown from current location = 1.99 ft
Drawdown from proposed location = 2.33 ft
Net drawdown = **0.3 ft**

Domestic 2: Drawdown from current location = 2.05 ft
Drawdown from proposed location = 3.14 ft
Net drawdown = **1.1 ft**

Domestic 3: Drawdown from current location = 2.56 ft
Drawdown from proposed location = 3.51 ft
Net drawdown = **1.0 ft**

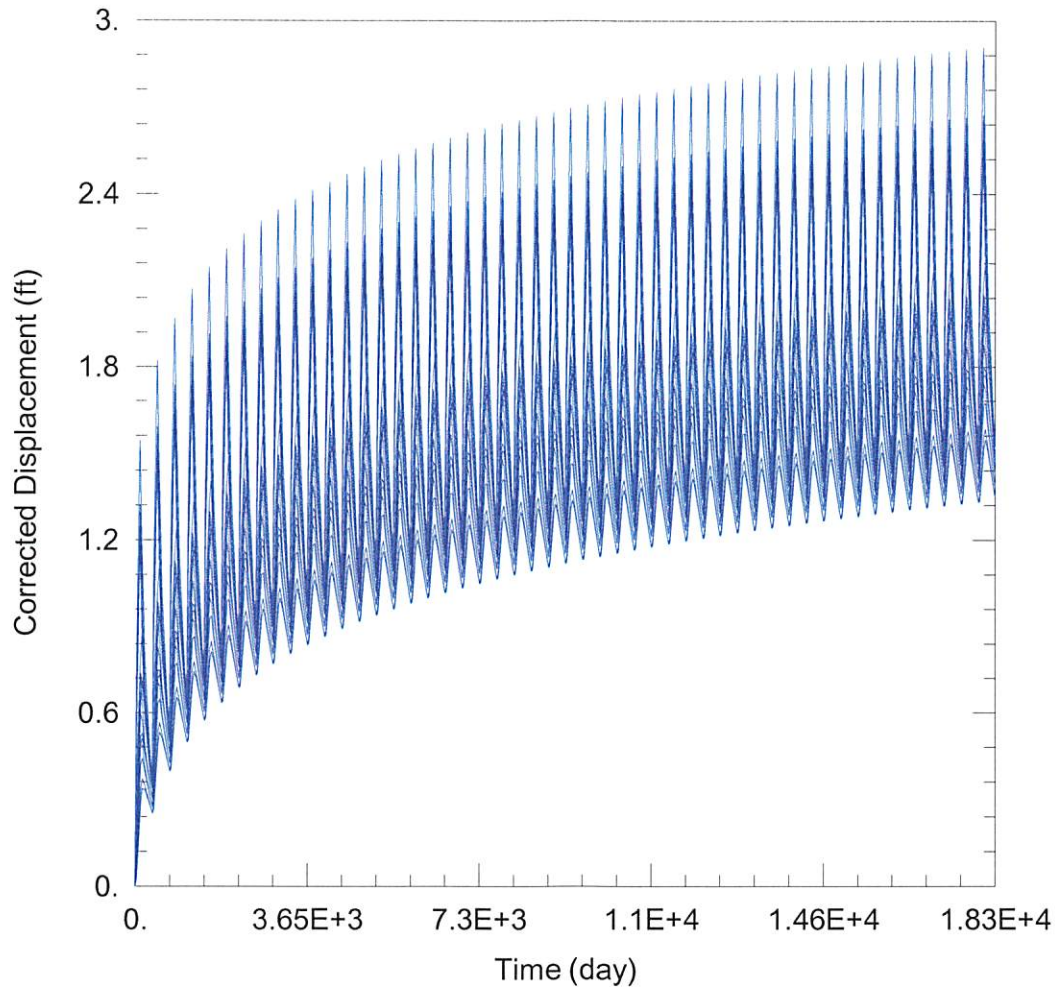
Domestic 4: Drawdown from current location = 2.16 ft
Drawdown from proposed location = 2.23 ft
Net drawdown = **0.1 ft**

Domestic 5: Drawdown from current location = 1.80 ft
Drawdown from proposed location = 2.76 ft
Net drawdown = **1.0 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 is unlikely to cause impairment. GMD3 staff recommends approval of this proposal.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\16406\16406 Current.aqt

Date: 02/11/21

Time: 14:58:26

PROJECT INFORMATION

Company: GMD 3

Project: 16406

Location: Kearny County

Test Well: 16406

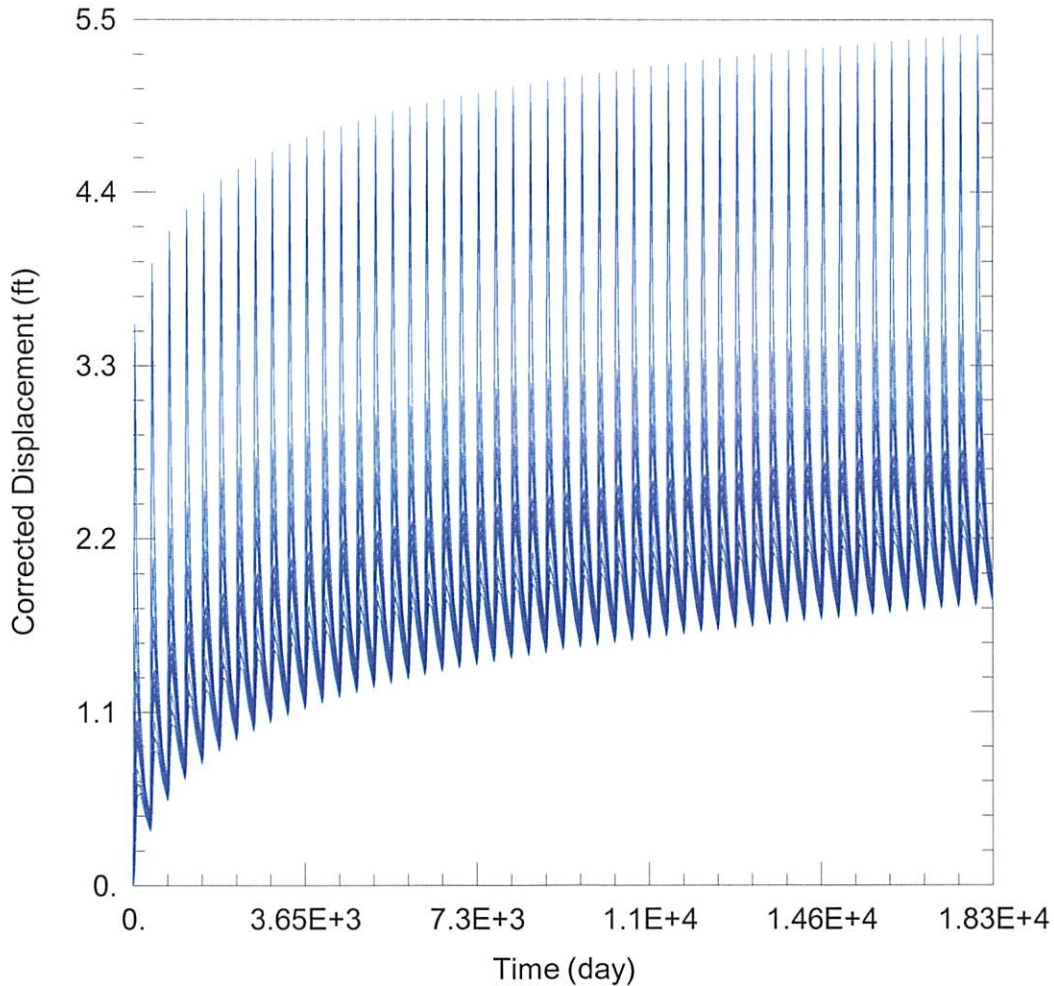
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
	-98150	379064
	-94300	377645

Observation Wells

Well Name	X (ft)	Y (ft)
□	-98150	379064
□	-94300	377645
□ 16406 ID2	-96896	377872
□ 16406 ID3	-99589	375246
□ 20928	-99522	377795
□ 45870	-100594	376513
□ 20927	-102154	376035
□ 15730	-102695	377876
□ 20926	-101068	379642
□ 23803 ID5	-99473	383111
□ 23803 ID8	-99483	380489
□ 23803 ID9	-101297	381344
□ 15583 ID5	-94175	380514



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\16406\16406 Proposed.aqt

Date: 02/11/21

Time: 14:58:18

PROJECT INFORMATION

Company: GMD 3

Project: 16406

Location: Kearny County

Test Well: 16406

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
16406 ID7	-98150	379064

Observation Wells

Well Name	X (ft)	Y (ft)
□	-98150	379064
□ 16406 ID2	-96896	377872
□ 16406 ID3	-99589	375246
□ 20928	-99522	377795
□ 45870	-100594	376513
□ 20927	-102154	376035
□ 15730	-102695	377876
□ 20926	-101068	379642
□ 23803 ID5	-99473	383111
□ 23803 ID8	-99483	380489
□ 23803 ID9	-101297	381344
□ 15583 ID5	-94175	380514
□ 15583 ID6	-96858	380440