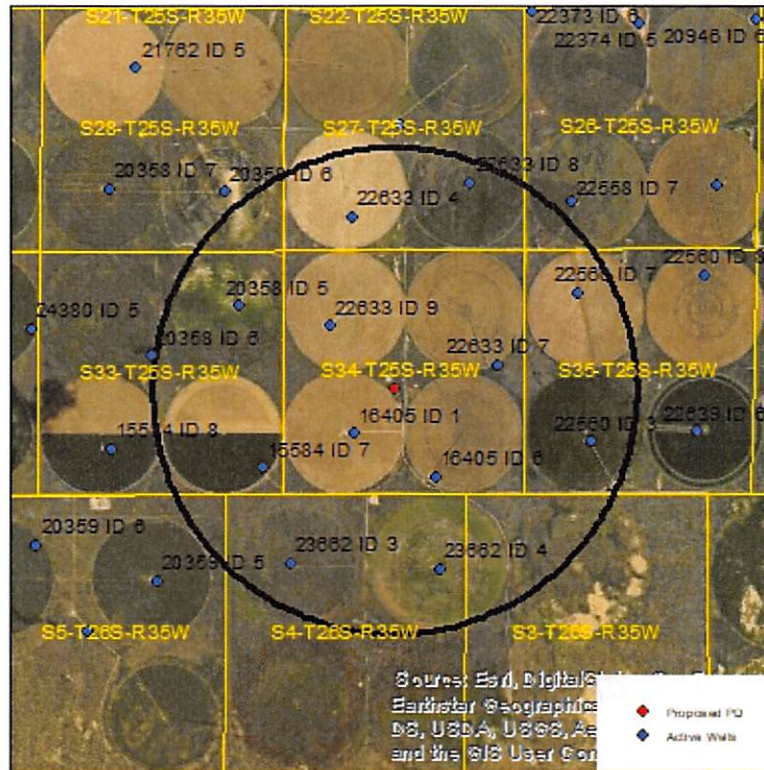


Evaluation of proposed move for Water Right No 16405

Proposed: Move the well authorized under water right no. 16405 ID 1 a distance of 1,288 ft to the northeast.



Wells within 1 mile: 16405 ID 6, 22633 ID 4, 22633 ID 7, 22633 ID 8, 22633 ID 9, 22560 ID 3, 22560 ID 7, 23662 ID 3, 23662 ID 4, 15584 ID 7, and 20358 ID 5.

The saturated thickness at the proposed well location is estimated to be 269 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:

$S = 0.07066$, $T = 23,691 \text{ ft}^2/\text{day}$, $t_{\text{current}} = 194$ days (based upon average use and observed rate), $Q_{\text{current}} = 168$ gpm (based upon 2018 field inspection), $t_{\text{proposed}} = 70$ days, $Q_{\text{proposed}} = 815$ gpm

Theis drawdowns were calculated as follows:

16405 ID 6:	Drawdown from current location = 0.63 ft
	Drawdown from proposed location = 1.81 ft
	Net drawdown = 1.2 ft
22633 ID 4:	Drawdown from current location = 0.45 ft
	Drawdown from proposed location = 1.01 ft
	Net drawdown = 0.6 ft

22633 ID 7: Drawdown from current location = 0.51 ft
Drawdown from proposed location = 1.27 ft
Net drawdown = **0.8 ft**

22633 ID 8: Drawdown from current location = 0.40 ft
Drawdown from proposed location = 0.85 ft
Net drawdown = **0.4 ft**

22633 ID 9: Drawdown from current location = 0.59 ft
Drawdown from proposed location = 1.64 ft
Net drawdown = **1.0 ft**

22560 ID 3: Drawdown from current location = 0.43 ft
Drawdown from proposed location = 0.94 ft
Net drawdown = **0.5 ft**

22560 ID 7: Drawdown from current location = 0.41 ft
Drawdown from proposed location = 0.87 ft
Net drawdown = **0.5 ft**

23662 ID 3: Drawdown from current location = 0.53 ft
Drawdown from proposed location = 1.37 ft
Net drawdown = **0.8 ft**

23662 ID 4: Drawdown from current location = 0.51 ft
Drawdown from proposed location = 1.28 ft
Net drawdown = **0.8 ft**

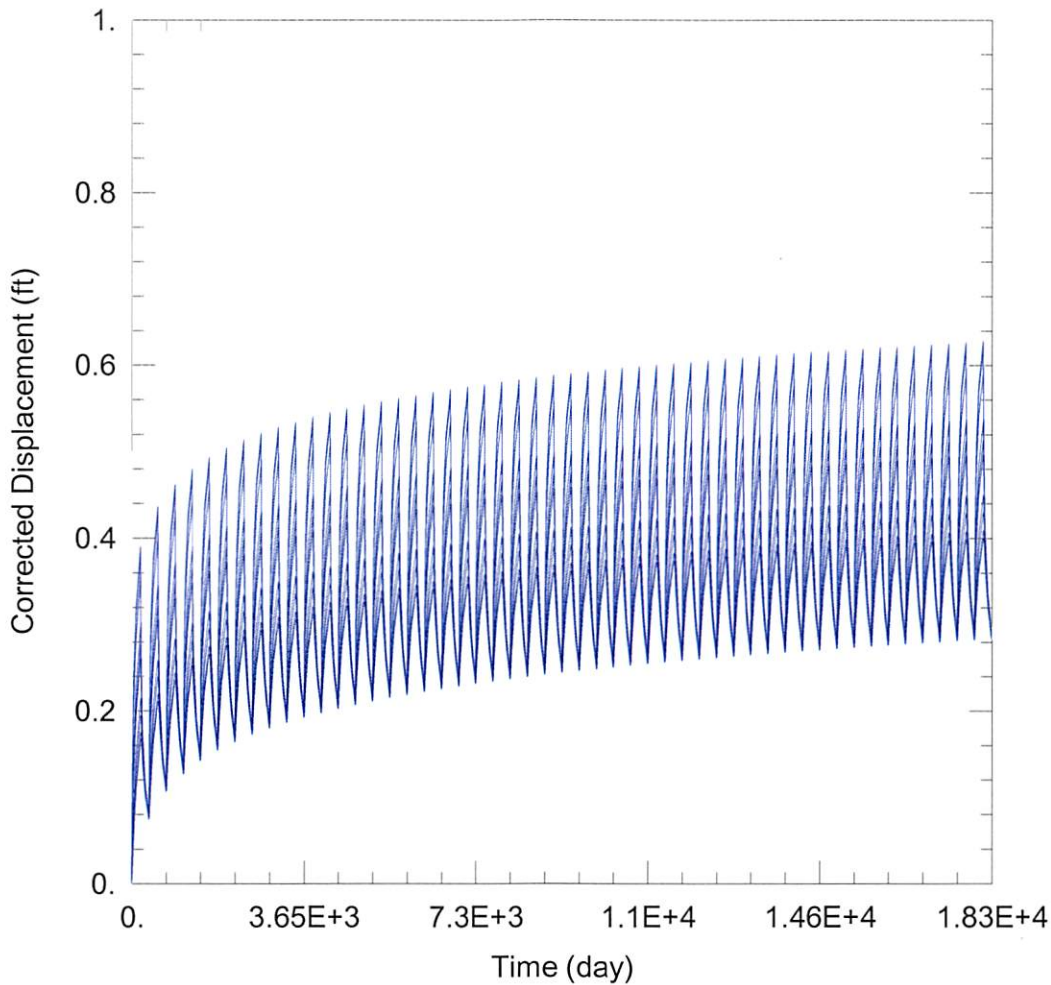
15584 ID 7: Drawdown from current location = 0.62 ft
Drawdown from proposed location = 1.76 ft
Net drawdown = **1.1 ft**

20358 ID 5: Drawdown from current location = 0.50 ft
Drawdown from proposed location = 1.21 ft
Net drawdown = **0.7 ft**

Net drawdown does not exceed the drawdown allowance of 4.0 ft for any wells within 1 mile of the proposed point of diversion, so critical well analysis is not necessary.

Conclusion:

The proposed change should result in minimal effects on neighboring wells and is unlikely to create an impairment situation. GMD3 staff recommends approval of the application.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\16405\16405 Current.aqt

Date: 03/19/20

Time: 10:51:33

PROJECT INFORMATION

Company: GMD 3

Project: 16405

Location: Kearny County

Test Well: 16405

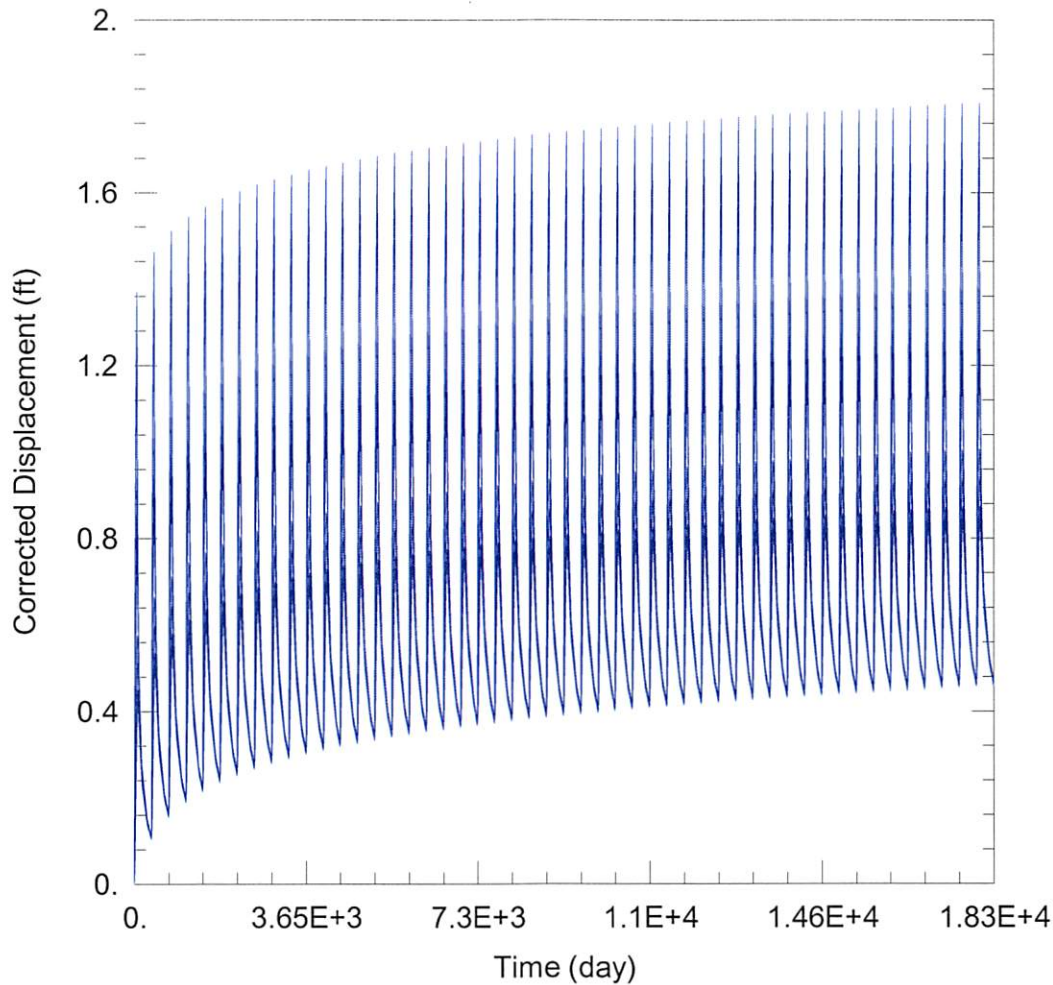
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
16405 ID1	-102153	348748

Observation Wells

Well Name	X (ft)	Y (ft)
□	-102153	348748
□ 16405 ID6	-100357	347820
□ 22633 ID4	-102196	353453
□ 22633 ID7	-99008	350250
□ 22633 ID8	-99606	354190
□ 22633 ID9	-102664	351092
□ 22560 ID3	-96978	348576
□ 22560 ID7	-97290	351818
□ 23662 ID3	-103534	345936
□ 23662 ID4	-100295	345828
□ 15584 ID7	-104131	348006
□ 20358 ID5	-104672	351518



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\16405\16405 Proposed.aqt

Date: 03/19/20

Time: 10:51:26

PROJECT INFORMATION

Company: GMD 3

Project: 16405

Location: Kearny County

Test Well: 16405

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
16405 ID1	-102153	348748

Observation Wells

Well Name	X (ft)	Y (ft)
□	-102153	348748
□ 16405 ID6	-100357	347820
□ 22633 ID4	-102196	353453
□ 22633 ID7	-99008	350250
□ 22633 ID8	-99606	354190
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□ 23662 ID3	-103534	345936
□ 23662 ID4	-100295	345828
□ 15584 ID7	-104131	348006
□ 20358 ID5	-104672	351518