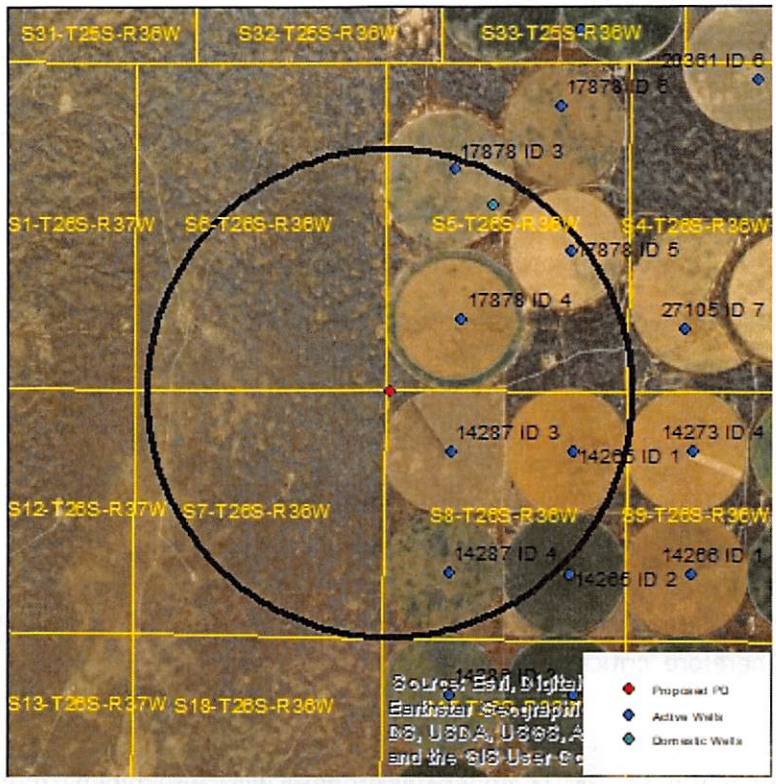
Evaluation of proposed move for Water Right No 14287 D1

Proposed: Move water right no. 14287 D1 ID 3 a distance of 1,859 ft to the northwest.



Wells within 1 mile: 14287 ID 4, 14265, 17878 ID3, 17878 ID 4, 17878 ID 5, and a domestic well in section 5-26-36.

The saturated thickness at the proposed well location is estimated to be 138 ft, based upon the driller's log. For saturated thickness between than 125 ft and 150 ft, the drawdown allowance is 3.0 ft.

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

S = 0.1285, T = 12,089 ft^2/day, $tp_{current}$ = 111 days (based upon average use and observed rate), $Q_{current}$ = 319 gpm (based upon 2019 field inspection), $tp_{proposed}$ = 57 days, $Q_{proposed}$ = 1035 gpm

Theis drawdowns were calculated as follows:

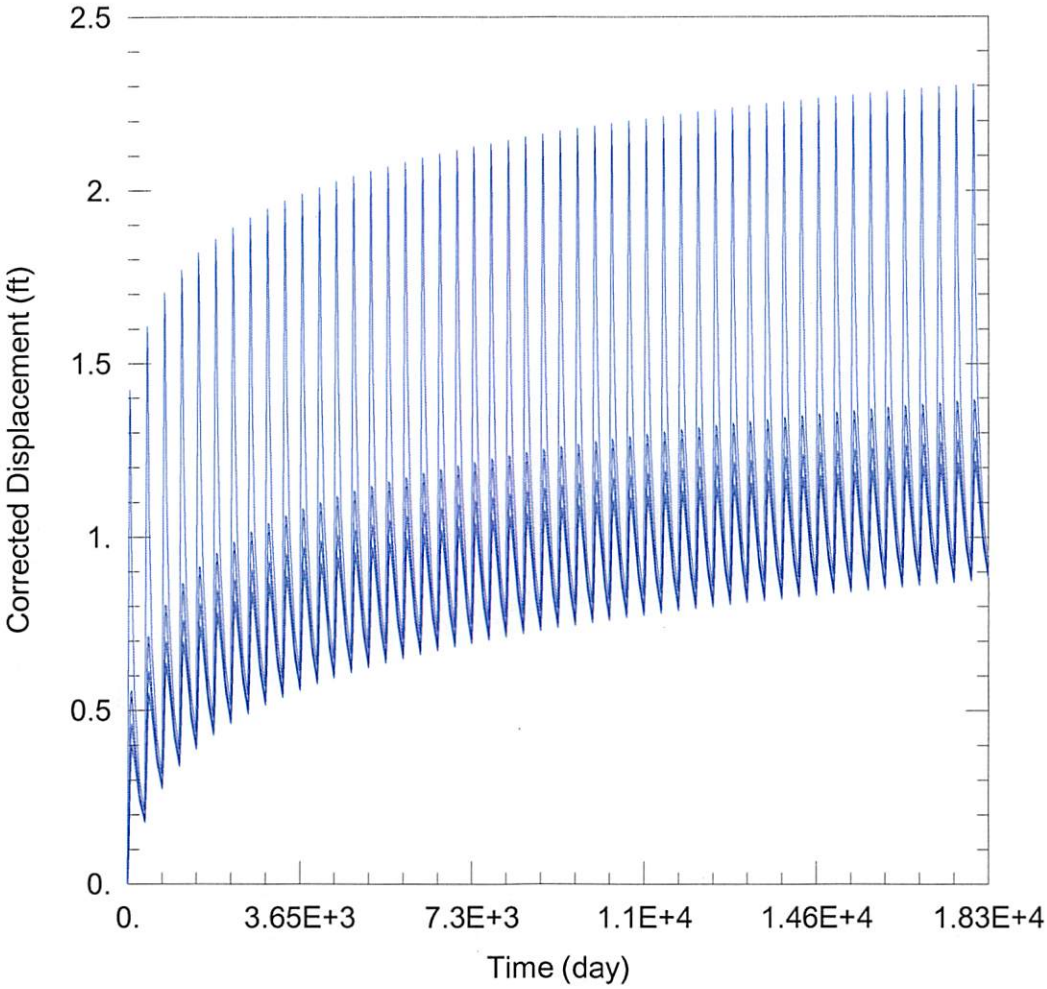
14287 ID 4:	Drawdown from current location = 1.08 ft
	Drawdown from proposed location = 1.40 ft
	Net drawdown = **0.3 ft**
14265:	Drawdown from current location = 1.07 ft
	Drawdown from proposed location = 1.37 ft
	Net drawdown = **0.3 ft**

17878 ID 3:	Drawdown from current location = 0.63 ft
	Drawdown from proposed location = 1.21 ft
	Net drawdown = **0.6 ft**
17878 ID 4:	Drawdown from current location = 1.01 ft
	Drawdown from proposed location = 2.31 ft
	Net drawdown = **1.3 ft**
17878 ID 5:	Drawdown from current location = 0.70 ft
	Drawdown from proposed location = 1.22 ft
	Net drawdown = **0.5 ft**
Domestic 5-26-36:	Drawdown from current location = 0.68 ft
	Drawdown from proposed location = 1.28 ft
	Net drawdown = **0.6 ft**

Net drawdown does not exceed the drawdown allowance of 3.0 ft for any wells within 1 mile of the proposed location. Therefore, critical well analysis is not necessary.

Conclusion:

Based upon information from the GMD3 model, this proposal will cause minimal effects on neighboring wells, and is unlikely to create an impairment. GMD3 staff recommends approval of the application.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\14287\14287 Proposed.aqt
Date: 06/24/20 Time: 10:18:26

PROJECT INFORMATION

Company: GMD 3
Project: 14287 D1
Location: Kearny County
Test Well: 14287 D1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
14287 ID3	-141655	340325

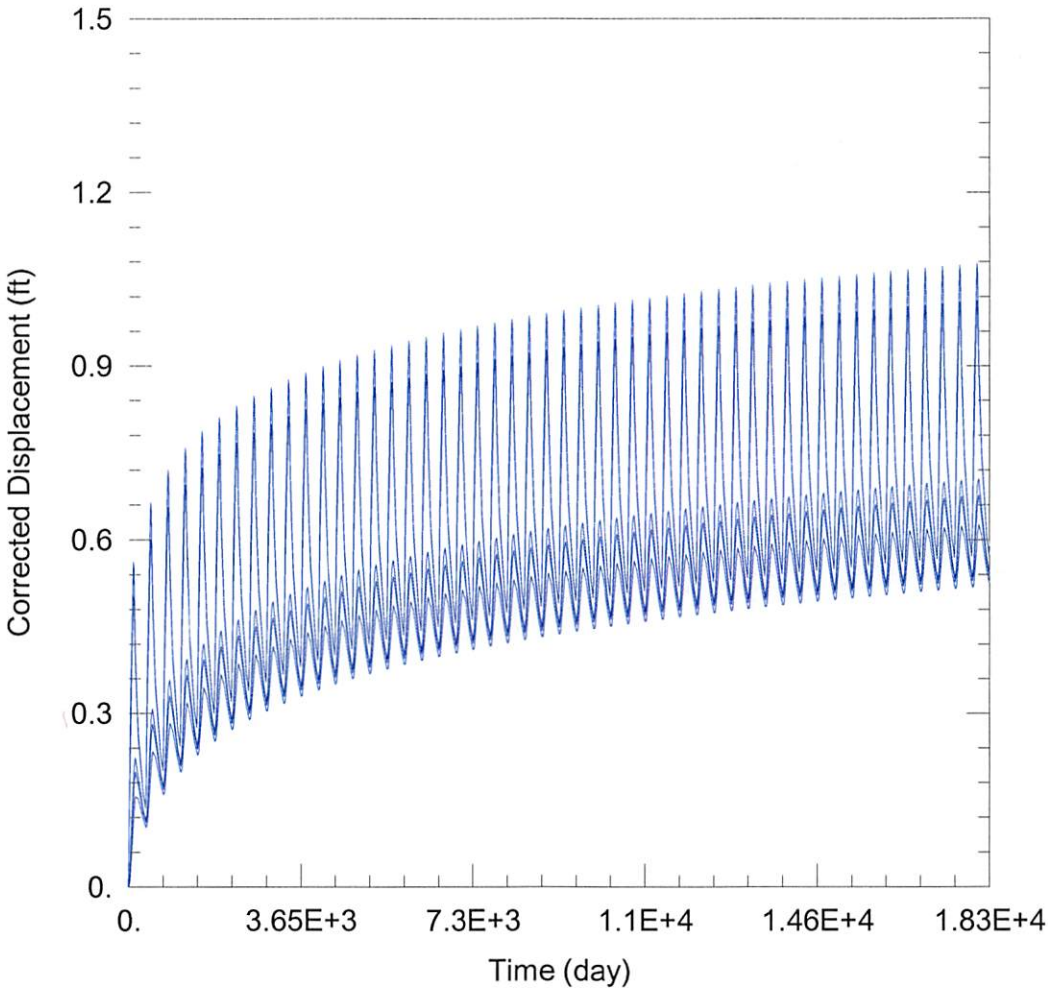
Observation Wells

Well Name	X (ft)	Y (ft)
▫	-141655	340325
▫ 14287 ID4	-140338	336436
▫ 14265	-137646	339062
▫ 17878 ID3	-140200	345146
▫ 17878 ID4	-140057	341917
▫ 17878 ID5	-137693	343370
▫ Domestic 5-26-36	-139387	344374

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 1.209E+4 ft^2/day
S = 0.1285
Kz/Kr = 1.
b = 138. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\14287\14287 Current.aqt
Date: 06/24/20 Time: 10:18:42

PROJECT INFORMATION

Company: GMD 3
Project: 14287 D1
Location: Kearny County
Test Well: 14287 D1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
14287 ID3	-140298	339054

Observation Wells

Well Name	X (ft)	Y (ft)
▫	-140298	339054
▫ 14287 ID4	-140338	336436
▫ 14265	-137646	339062
▫ 17878 ID3	-140200	345146
▫ 17878 ID4	-140057	341917
▫ 17878 ID5	-137693	343370
▫ Domestic 5-26-36	-139387	344374

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 1.209E+4 ft^2/day
S = 0.1285
Kz/Kr = 1.
b = 138. ft