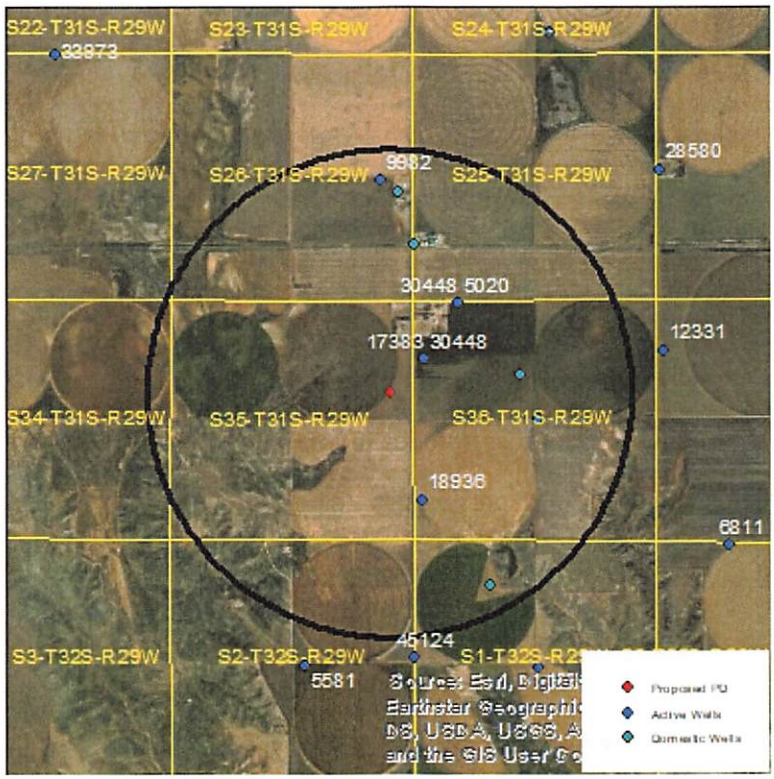
Evaluation of proposed move for Water Right Nos 17383 & 30448

Proposed: Move water right nos. 17383 and 30448 a distance of 1062 ft to the southwest.



Wells within 1 mile: 5020 & 30448, 9982, 30139, 18936, a domestic well in section 26-31-29, a domestic well in section 25-31-29, a domestic well in section 36-31-29, and a domestic well in section 1-32-29.

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 = 0.205, T = 13,864 ft^2/day, $tp_{current}$ = 114 days (based upon average use and observed rate), $Q_{current}$ = 538 gpm (based upon 2016 field inspection), $tp_{proposed}$ = 103 days, $Q_{proposed}$ = 1225 gpm

Theis drawdowns were calculated as follows:

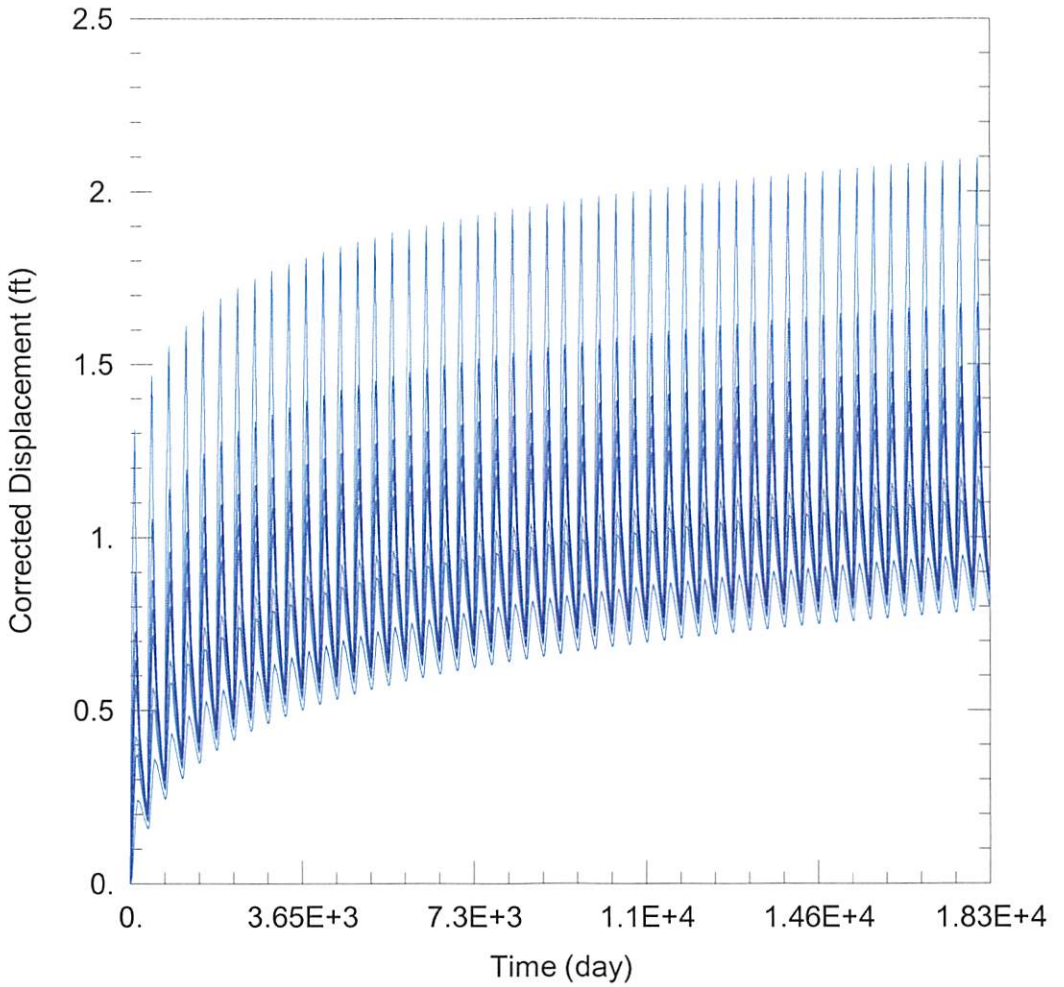
5020 & 30448:	Drawdown from current location = 2.09 ft
	Drawdown from proposed location = 3.17 ft
	Net drawdown = **1.1 ft**
9982:	Drawdown from current location = 1.11 ft
	Drawdown from proposed location = 2.11 ft
	Net drawdown = **1.0 ft**

30139:	Drawdown from current location = 1.41 ft
	Drawdown from proposed location = 2.63 ft
	Net drawdown = **1.2 ft**
18936:	Drawdown from current location = 1.33 ft
	Drawdown from proposed location = 3.20 ft
	Net drawdown = **1.9 ft**
Domestic 26-31-29:	Drawdown from current location = 1.18 ft
	Drawdown from proposed location = 2.18 ft
	Net drawdown = **1.0 ft**
Domestic 25-31-29:	Drawdown from current location = 1.50 ft
	Drawdown from proposed location = 2.65 ft
	Net drawdown = **1.2 ft**
Domestic 36-31-29:	Drawdown from current location = 1.68 ft
	Drawdown from proposed location = 2.89 ft
	Net drawdown = **1.2 ft**
Domestic 1-32-29:	Drawdown from current location = 0.95 ft
	Drawdown from proposed location = 2.07 ft
	Net drawdown = **1.1 ft**

Net drawdown does not exceed the drawdown allowance of 4.0 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\17383_30448\17383 & 30448 Current.aqt
Date: 09/28/20 Time: 14:12:53

PROJECT INFORMATION

Company: GMD 3
Project: 17383 & 30448
Location: Meade County
Test Well: 17383 & 30448

WELL DATA

Pumping Wells

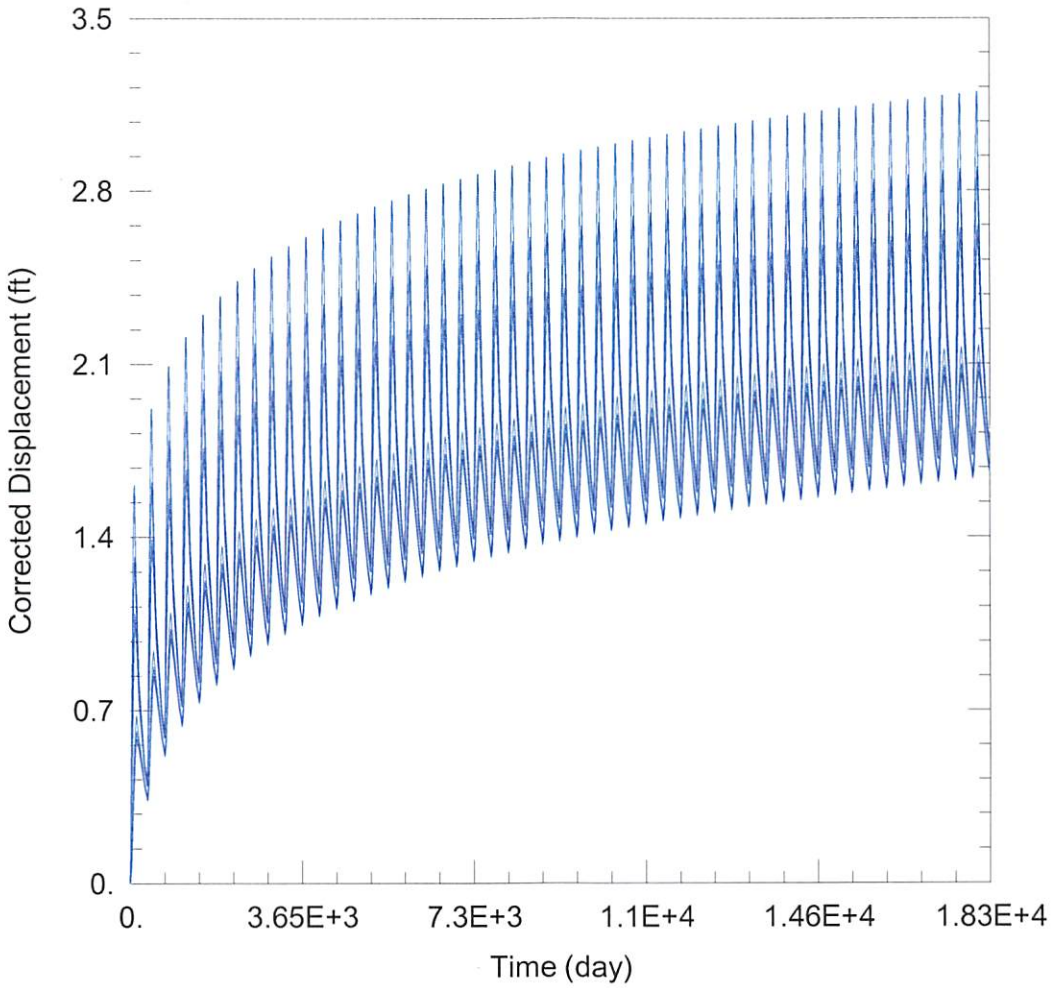
Well Name	X (ft)	Y (ft)
17383 & 30448	106217	158920

Observation Wells

Well Name	X (ft)	Y (ft)
▫	106217	158920
▫ 5020 & 30448	106958	160142
▫ 9982	105244	162784
▫ 30139	108693	157650
▫ 18936	106137	155874
▫ Domestic 26-31-29	105631	162544
▫ Domestic 25-31-29	105981	161411
▫ Domestic 36-31-29	108285	158594
▫ Domestic 1-32-29	107642	154013

SOLUTION

Aquifer Model: Unconfined Solution Method: Theis



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\17383_30448\17383 & 30448 Proposed.aqt
Date: 09/28/20 Time: 14:13:13

PROJECT INFORMATION

Company: GMD 3
Project: 17383 & 30448
Location: Meade County
Test Well: 17383 & 30448

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
17383 & 30448	105442	158195

Observation Wells

Well Name	X (ft)	Y (ft)
▫	105442	158195
▫ 5020 & 30448	106958	160142
▫ 9982	105244	162784
▫ 30139	108693	157650
▫ 18936	106137	155874
▫ Domestic 26-31-29	105631	162544
▫ Domestic 25-31-29	105981	161411
▫ Domestic 36-31-29	108285	158594
▫ Domestic 1-32-29	107642	154013

SOLUTION

Aquifer Model: Unconfined Solution Method: Theis