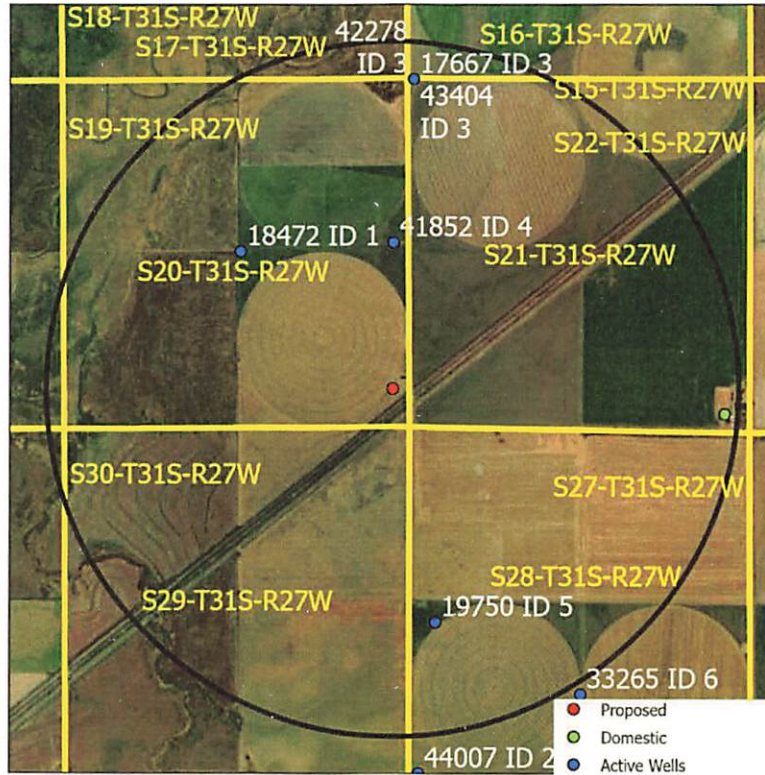# Evaluation of proposed move for Water Right No. 18472 & 41852

Proposed: Reduce water use on water right no. 18472 from 351 AF authorized at 580 gpm to 310 AF at 580 gpm. Reduce water right no. 41852 from 301 AF at 395 GPM to 105 AF at 295 gpm. Add an additional well under water right no. 41852 at a proposed quantity of 55 AF at 100 gpm, at the location indicted on the map below.

Wells within 1 mile: 18472, 17667 & 42278 & 43404, 41852, 19750, and one domestic well in S21-31-27

The saturated thickness at the proposed well location is estimated to be 164 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:

$S = 0.008$, $T = 10{,}974$ ft^2/day, $tp_{proposed} = 124$ days, $Q_{proposed} = 100$ gpm

Theis drawdowns were calculated as follows:

18472:   Net drawdown = **0.7 ft**

17667 & 42278 & 43404: Net drawdown = **0.6 ft**

41852:   Net drawdown = **0.8 ft**

19750:   Net drawdown = **0.7 ft**

Domestic 21-31-27:   Net drawdown = **0.6 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 appears unlikely to cause impairment. Any concerned neighbors should contact GMD3 at (620) 275-7147 or the Division of Water Resources at (620) 276-2901.
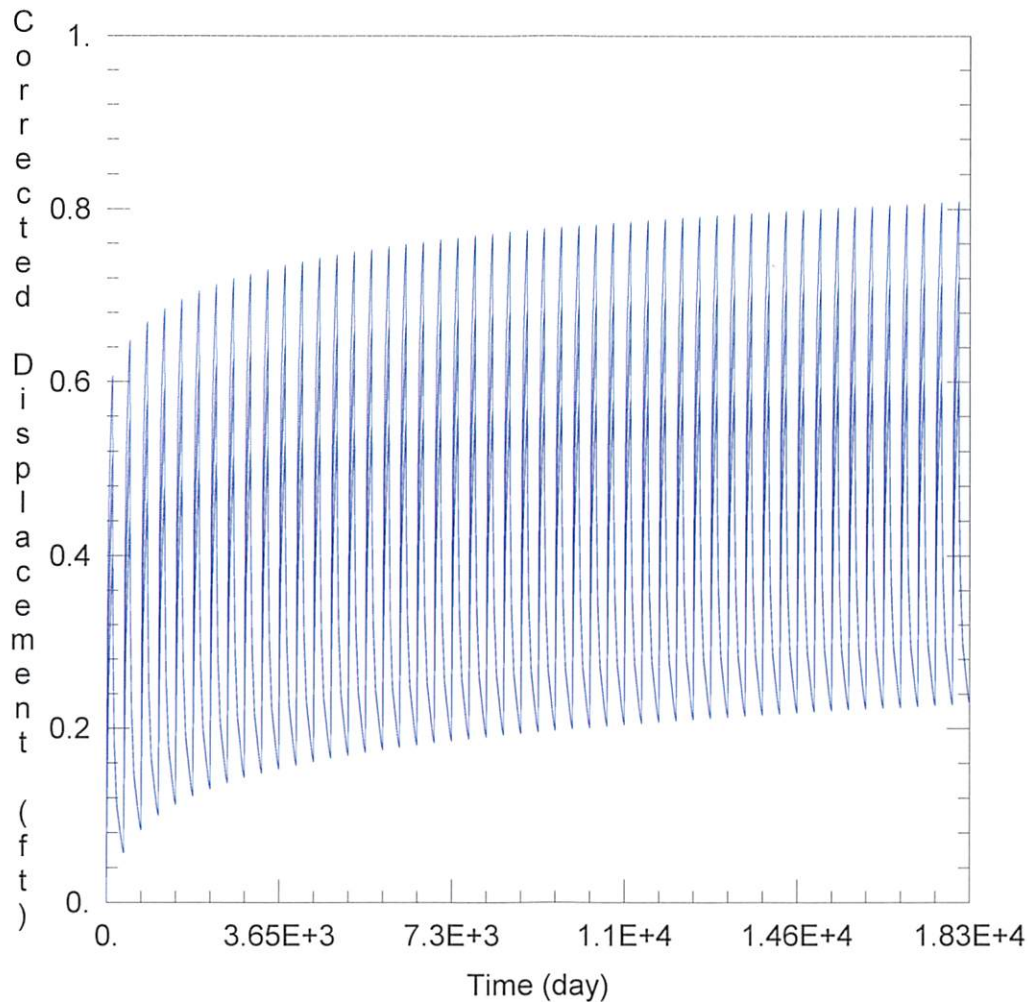
WELL TEST ANALYSIS

Data Set: C:\...\18472 & 41852 proposed.aqt

Date: 03/26/25   Time: 14:52:43

PROJECT INFORMATION

Test Well: 18472 & 41852

WELL DATA

Pumping Wells				Observation Wells		
Well Name	X (ft)	Y (ft)		Well Name	X (ft)	Y (ft)
41852 additional	152959	166285		□	152959	166285
				□ 18472	150645	168373
				□ 17667 & 42278 & 43404	153276	170984
				□ 41852	152970	168513
				□ 19750	153613	162742
				□ Domestic	158022	165912

SOLUTION

Aquifer Model: Unconfined   Solution Method: Theis

T   = 1.097E+4 ft²/day   S   = 0.008
Kz/Kr = 1.   b   = 163.7 ft