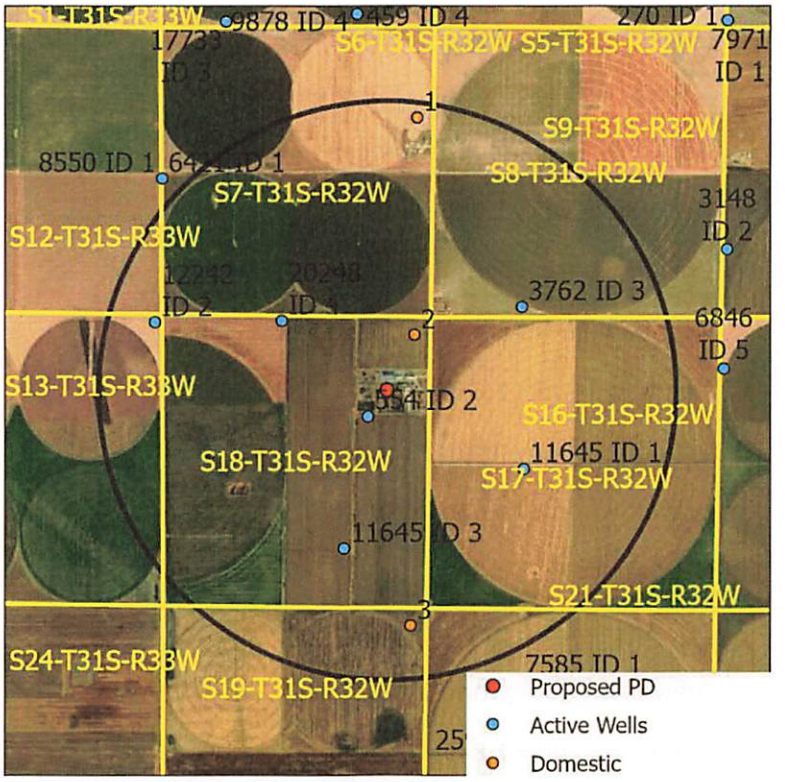
Evaluation of proposed move for Water Right No. 554

Proposed: Move water right no. 554 a distance of 584 ft to the northeast to a new location.



Wells within 1 mile: 12242, 20248, 3762, 11645 ID1, 11645 ID3, and three domestic wells labeled above.

The saturated thickness at the proposed well location is estimated to be 187 ft, based upon the GMD3 model. For saturated thickness greater 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 = 0.072, T = 72,151 ft^2/day, $tp_{current}$ = 119 days (based on average use and observed rate),

$Q_{current}$ = 571.7 gpm (based on 2024 field inspection), $tp_{proposed}$ = 151 days, $Q_{proposed}$ = 1795 gpm

Theis drawdowns were calculated as follows:

12242: Drawdown from current location = 0.50 ft

Drawdown from proposed location = 1.79 ft

Net drawdown = **1.3 ft**

20248: Drawdown from current location = 0.64 ft

Drawdown from proposed location = 2.24 ft

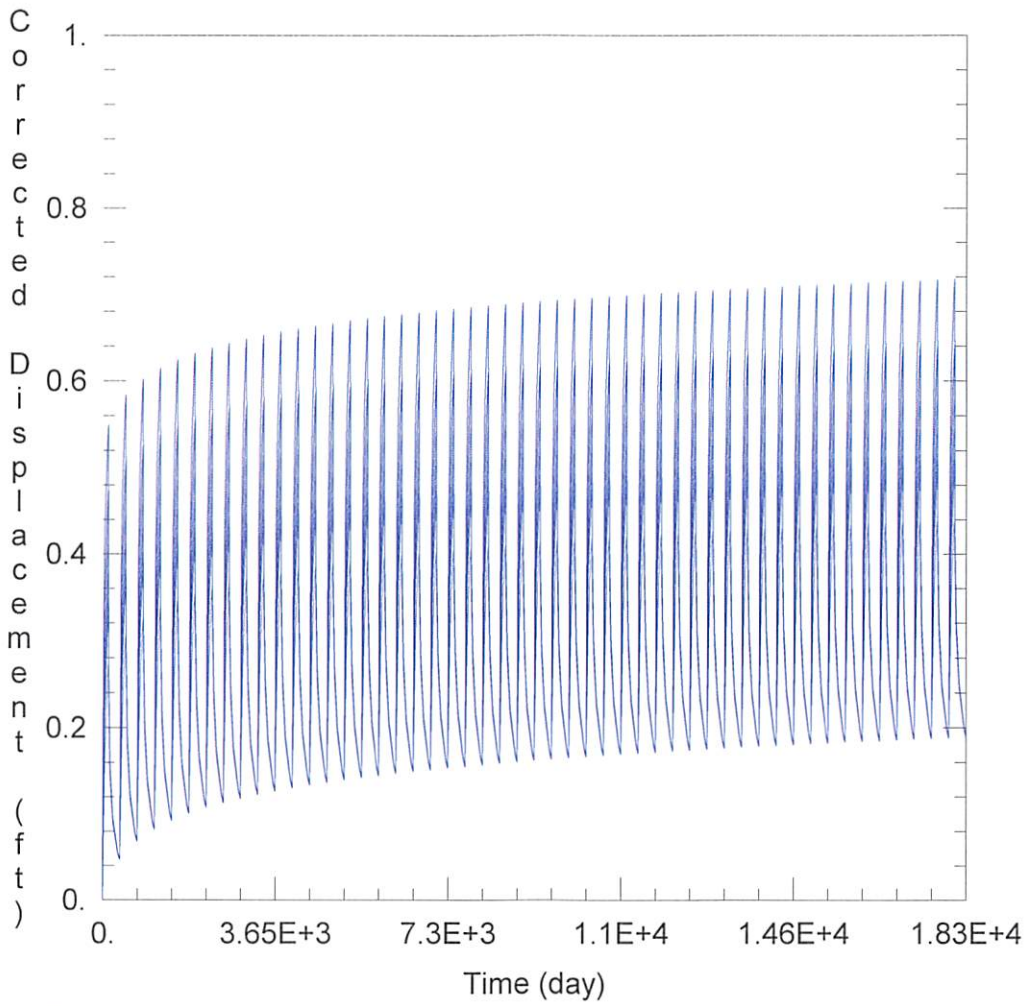
Net drawdown = **1.6 ft**

3762:	Drawdown from current location = 0.55 ft
	Drawdown from proposed location = 1.94 ft
	Net drawdown = **1.4 ft**
11645 ID1:	Drawdown from current location = 0.58 ft
	Drawdown from proposed location = 2.05 ft
	Net drawdown = **1.5 ft**
11645 ID3:	Drawdown from current location = 0.63 ft
	Drawdown from proposed location = 2.20 ft
	Net drawdown = **1.6 ft**
Domestic 1:	Drawdown from current location = 0.44 ft
	Drawdown from proposed location = 1.60 ft
	Net drawdown = **1.2 ft**
Domestic 2:	Drawdown from current location = 0.72 ft
	Drawdown from proposed location = 2.48 ft
	Net drawdown = **1.8 ft**
Domestic 3:	Drawdown from current location = 0.52 ft
	Drawdown from proposed location = 1.85 ft
	Net drawdown = **1.3 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:\Users\scanstation\Documents\move requests\554\554 current.aqt
Date: 01/20/25 Time: 16:11:52

PROJECT INFORMATION

Test Well: 554

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
554	-11178	174339

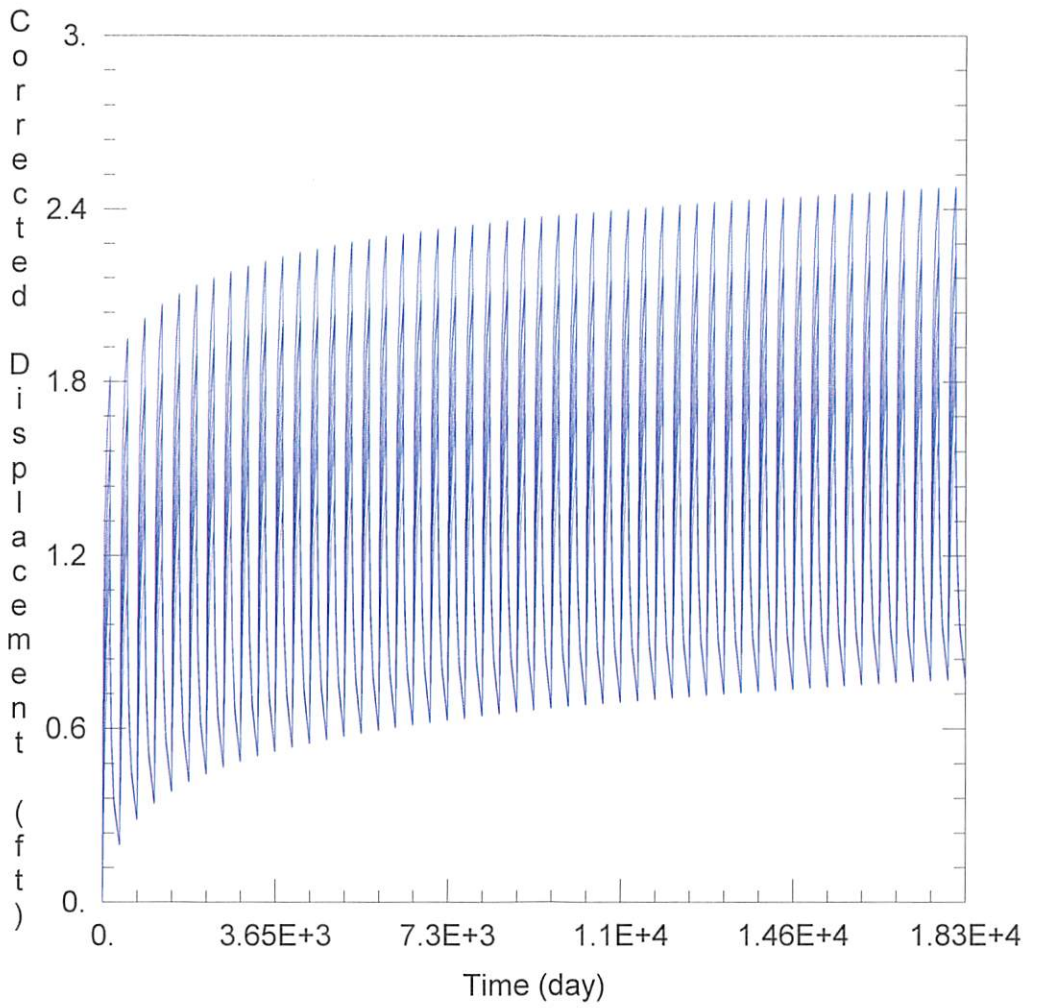
Observation Wells

Well Name	X (ft)	Y (ft)
▫	-11178	174339
▫ 12242	-15075	176052
▫ 20248	-12747	176080
▫ 3762	-8361	176340
▫ 11645 ID1	-8330	173391
▫ 11645 ID3	-11612	171932
▫ Domestic 1	-10284	179788
▫ Domestic 2	-10328	175819
▫ Domestic3	-10397	170520

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 7.215E+4 ft^2/day
S = 0.072
Kz/Kr = 1.
b = 186.8 ft



WELL TEST ANALYSIS

Data Set: C:\Users\scanstation\Documents\move requests\554\554 proposed.aqt
Date: 01/20/25 Time: 16:11:56

PROJECT INFORMATION

Test Well: 554

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
554	-11178	174339

Observation Wells

Well Name	X (ft)	Y (ft)
▫	-11178	174339
▫ 12242	-15075	176052
▫ 20248	-12747	176080
▫ 3762	-8361	176340
▫ 11645 ID1	-8330	173391
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SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 7.215E+4 ft^2/day
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