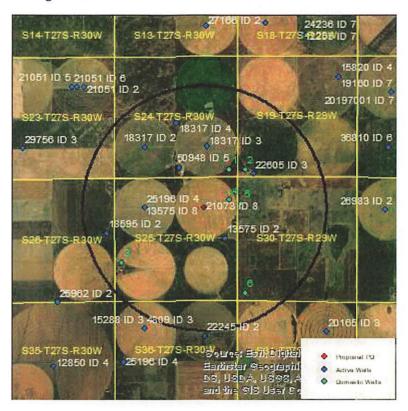
Evaluation of proposed move for Water Right No. 13575 ID2

Proposed: Move 80 AF of authority from the well authorized under water right no. 13575 ID2 to the well authorized under water right no. 13575 & 21073 ID8.



Wells within 1 mile: 18317 ID2, 18317 ID3, 18317 ID4, 50948, 22605, 18595, 13575, and six domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 83 ft, based upon the GMD3 model. For saturated thickness between than 75 ft and 100 ft, the drawdown allowance is 2.0 ft.

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

S = 0.1664, T = 3148 ft²/day, $tp_{current} = 77$ days, $Q_{current} = 650$ gpm, $tp_{proposed} = 132$ days, $Q_{proposed} = 650$ gpm Theis drawdowns were calculated as follows:

18317 ID2:

Drawdown from current location = 2.83 ft

Drawdown from proposed location = 4.85 ft

Net drawdown = 2.0 ft

18317 ID3:

Drawdown from current location = 3.49 ft

Drawdown from proposed location = 5.87 ft

Net drawdown = 2.4 ft

Domestic 4: Drawdown from current location = 6.46 ft

Drawdown from proposed location = 9.73 ft

Net drawdown = 3.3 ft

Domestic 5: Drawdown from current location = 5.00 ft

Drawdown from proposed location = 8.03 ft

Net drawdown = 3.0 ft

Domestic 6: Drawdown from current location = 2.66 ft

Drawdown from proposed location = 4.52 ft

Net drawdown = 1.9 ft

Net drawdown exceeds the drawdown allowance for the wells authorized under water right nos. 18317 ID3, 22605, 25196, 13575, and the domestic wells numbered 1, 2, 4, and 5. Critical well analysis was performed for those wells.

Critical Well Evaluation:

18317 ID3:

Water Column = 96 ft

DP = 2.4 ft (Net drawdown from the proposal indicated above)

DE = 32.9 ft (Water level decline from 2024 through 2049 based upon GMD3 model)

DD = $39.4 \text{ ft } (S = 0.1664, T = 3148 \text{ ft}^2/\text{day}, Q = 367 \text{ gpm, tp} = 120 \text{ days, efficiency} = 70\%)$

DT = 74.7 ft

Economic Drawdown Constraint (EDC) = 0.4 * 96 ft = 38.4 ft

Physical Drawdown Constraint (PDC) = 96 ft - 60 ft = 36.0 ft

Total drawdown of 74.7 ft is greater than the EDC and the PDC, so this well is critical.

Domestic 1:

Water Column = 96 ft

DP = 2.7 ft (Net drawdown from the proposal indicated above)

DE = 32.9 ft (Water level decline from 2024 through 2049 based upon GMD3 model)

DT = 35.6 ft

Economic Drawdown Constraint (EDC) = 0.4 * 96 ft = 38.4 ft

Physical Drawdown Constraint (PDC) = 96 ft - 20 ft = 76.0 ft

Total drawdown of 35.6 ft is less than the EDC and the PDC, so this well is not critical.

Domestic 2:

Water Column = 68 ft

DP = 2.5 ft (Net drawdown from the proposal indicated above)

DE = 38.0 ft (Water level decline from 2024 through 2049 based upon GMD3 model)

DT = 40.5 ft

Economic Drawdown Constraint (EDC) = 0.4 * 68 ft = 27.2 ft

Physical Drawdown Constraint (PDC) = 68 ft - 20 ft = 48.0 ft

Total drawdown of 40.5 ft is greater than the EDC, so this well is critical.

Domestic 4:

Water Column = 83 ft

DP = 3.3 ft (Net drawdown from the proposal indicated above)

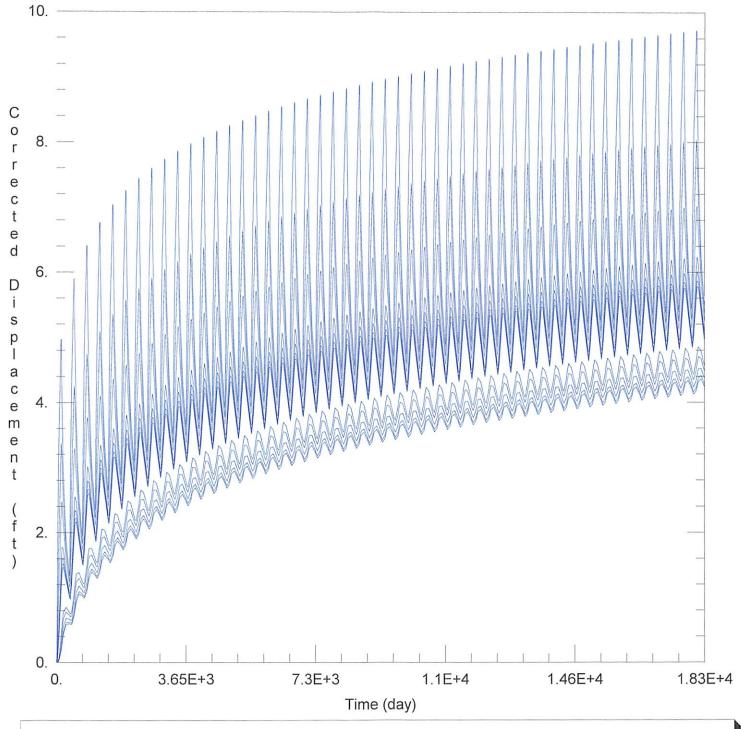
DE = 37.8 ft (Water level decline from 2024 through 2049 based upon GMD3 model)

DT = 41.1 ft

Economic Drawdown Constraint (EDC) = 0.4 * 83 ft = 33.2 ft

Physical Drawdown Constraint (PDC) = 83 ft -20 ft = 63.0 ft

Total drawdown of 41.1 ft is greater than the EDC, so this well is critical.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2024_moves\13575\13575 Proposed.aqt

Date: 02/14/24 Time: 14:59:17

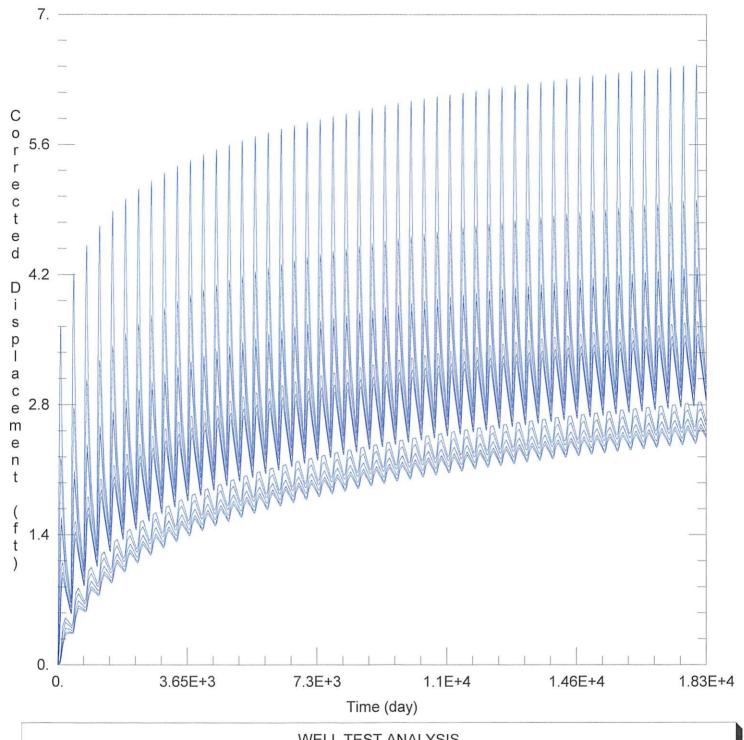
PROJECT INFORMATION

Company: GMD 3 Project: 13575

Location: Gray County

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
13575 & 21073	72803	291471		72803	291471
			- 40047 IDO	70047	204002



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2024_moves\13575\13575 Current.aqt

Date: 02/14/24 Time: 14:59:23

PROJECT INFORMATION

Company: GMD 3 Project: 13575

Location: Gray County

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
13575 & 21073	72803	291471		72803	291471
			- 10217 ID2	70247	204082