Evaluation of proposed move for Water Right No. 24050

Proposed: Move water right no. 24050 a distance of 2,168 ft to the southeast onto another well, 28620, both in section 24.

Wells within 1 mile: 22577 ID9, 22577 ID7, 22577 ID5, 28621 ID3, 30157, 24520 ID5, and one domestic well in S19-26-33.

The saturated thickness at the proposed well location is estimated to be 153.9 ft, based upon the GMD3 model. For saturated thickness between 150ft and 200ft, the drawdown allowance is 3.5 ft.

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

$S = 0.081$, $T = 14,154.94$ ft^2/day, $tp_{current} = 143$ days (based on average use and observed rate),

$Q_{current} = 357$ gpm (based on 2015 field inspection), $tp_{proposed} = 330$ days, $Q_{proposed} = 357$ gpm

Theis drawdowns were calculated as follows:

22577 ID9:	Drawdown from current location = 1.35 ft
	Drawdown from proposed location = 1.98 ft
	Net drawdown = **0.6 ft**
22577 ID7:	Drawdown from current location = 1.68 ft
	Drawdown from proposed location = 2.20 ft
	Net drawdown = **0.5 ft**

| 22577 ID5: | Drawdown from current location = 1.86 ft |
	Drawdown from proposed location = 2.46 ft
	Net drawdown = 0.6
28621 ID3:	Drawdown from current location = 1.58 ft
	Drawdown from proposed location = 2.24 ft
	Net drawdown = 0.7
30157:	Drawdown from current location = 1.47 ft
	Drawdown from proposed location = 2.17 ft
	Net drawdown = 0.7
24520 ID5:	Drawdown from current location = 1.74 ft
	Drawdown from proposed location = 2.20 ft
	Net drawdown = 0.7
Domestic S19-26-33:	Drawdown from current location = 1.37 ft
	Drawdown from proposed location = 2.09 ft
	Net drawdown = **0.7 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.
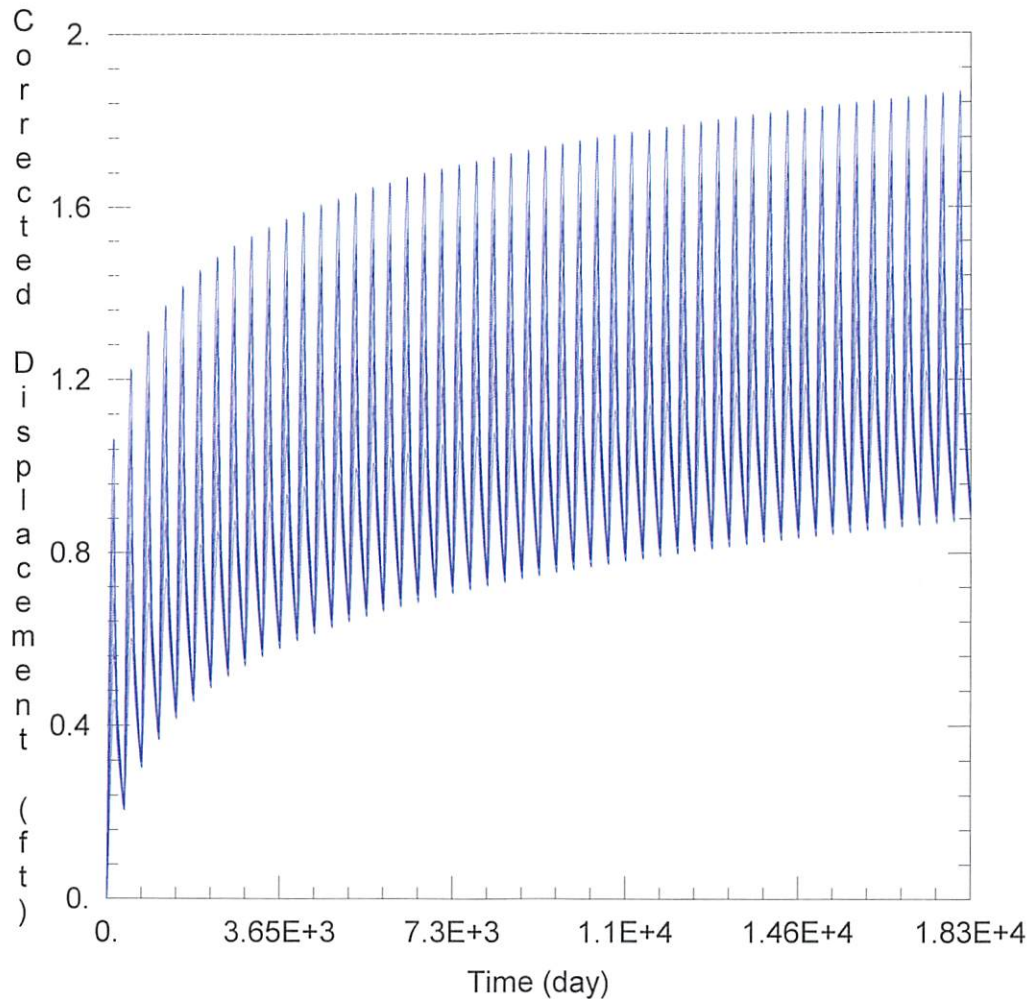
WELL TEST ANALYSIS

Data Set: C:\Users\scanstation\Documents\move requests\24050\24050 current.aqt

Date: 10/14/24   Time: 11:24:39

PROJECT INFORMATION

Test Well: 24050

WELL DATA

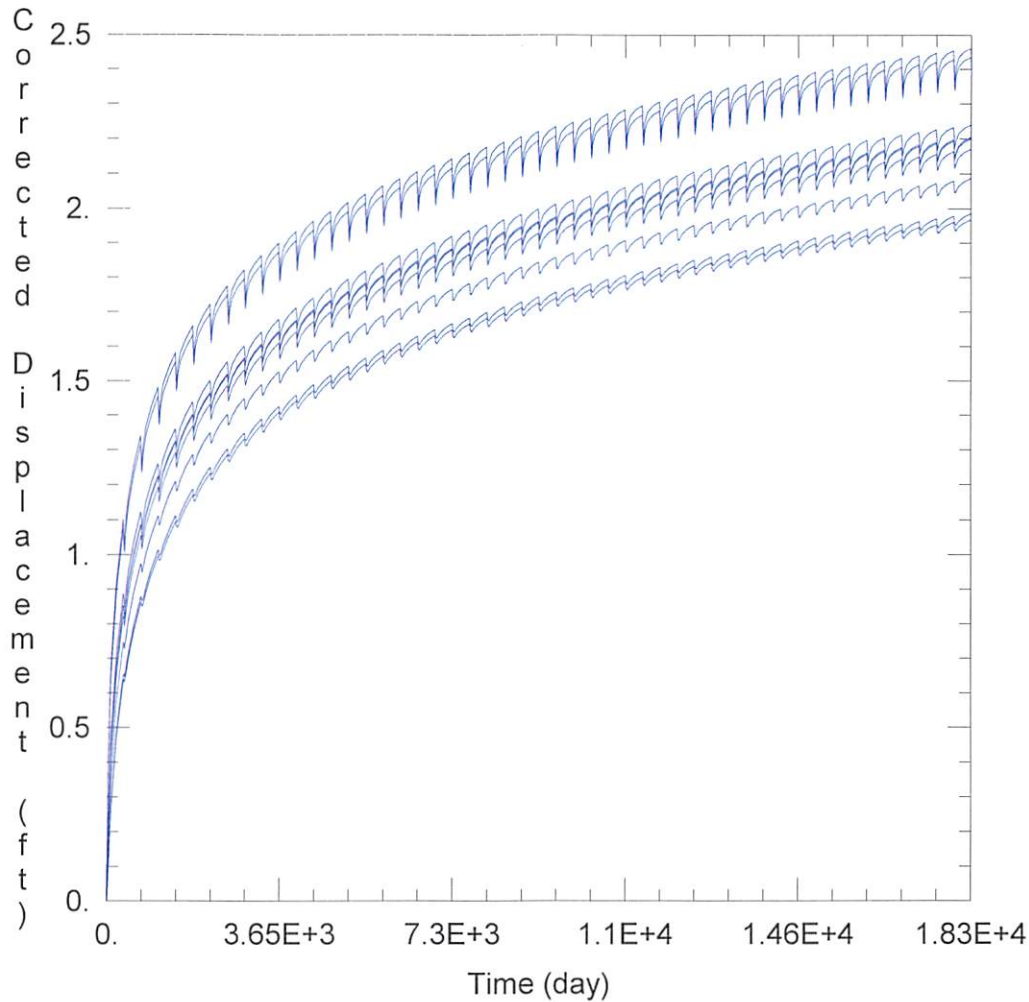| Pumping Wells				Observation Wells		
Well Name	X (ft)	Y (ft)		Well Name	X (ft)	Y (ft)
25040	-54570	327537		□	-54570	327537
28620	-53310	325772		□	-53310	325772
				□ 22577 ID9	-58027	327486
				□ 22577 ID7	-56025	328301
				□ 22577 ID5	-55863	325497
				□ 28621 ID3	-50915	328335
				□ 30157	-55949	322941
				□ 25420 ID7	-53353	323107
				□ 20890	-54335	320731
				□ 25420 ID5	-50809	323062
				□ Domestic	-49004	326406

SOLUTION

Aquifer Model: Unconfined   Solution Method: Theis

T   = 1.415E+4 ft^2/day   S   = 0.081

WELL TEST ANALYSIS

Data Set: C:\Users\scanstation\Documents\move requests\24050\24050 proposed.aqt

Date: 10/14/24   Time: 11:24:42

PROJECT INFORMATION

Test Well: 24050

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
28620	-53310	325772	□	-53310	325772
			□ 22577 ID9	-58027	327486
			□ 22577 ID7	-56025	328301
			□ 22577 ID5	-55863	325497
			□ 28621 ID3	-50915	328335
			□ 30157	-55949	322941
			□ 25420 ID7	-53353	323107
			□ 20890	-54335	320731
			□ 25420 ID5	-50809	323062
			□ Domestic	-49004	326406

SOLUTION

Aquifer Model: Unconfined   Solution Method: Theis

T = 1.415E+4 ft^2/day S = 0.081

K_z/K_r = 1. b = 153.9 ft