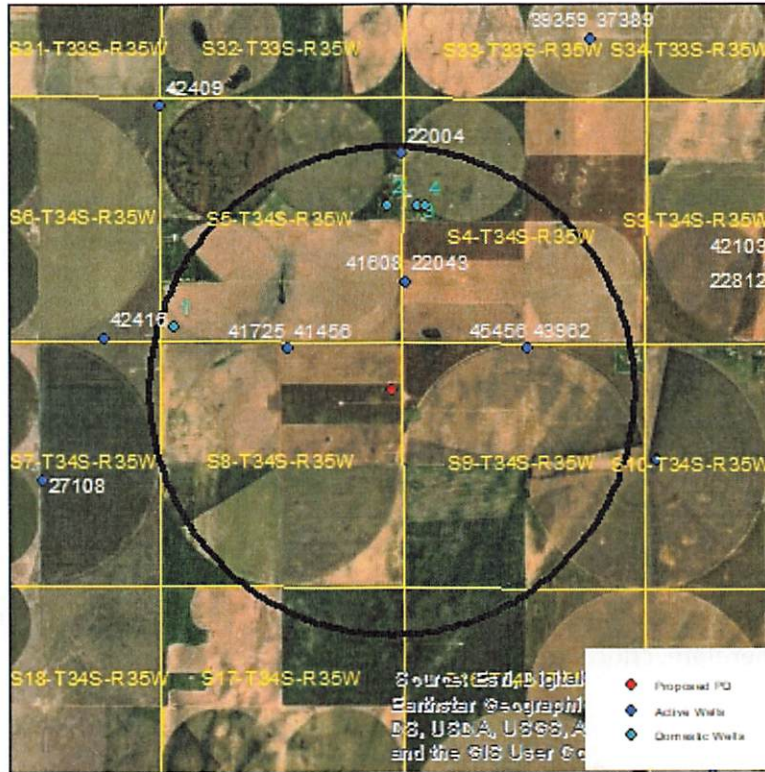**Evaluation of proposed move for Water Right Nos 41456 and 41725**

Proposed: Move water right nos. 41456 and 41725 a distance of 2,435 ft to the southeast.

Wells within 1 mile: 22043 & 41608, 43962 & 45456, and 4 domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 363 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:

$S = 0.2251$, $T = 13,372$ ft^2/day, $tp_{current} = 132$ days (based upon average use and observed rate), $Q_{current} = 588$ gpm (based upon 2015 field inspection), $tp_{proposed} = 132$ days, $Q_{proposed} = 990$ gpm

Theis drawdowns were calculated as follows:

22043 & 41608:	Drawdown from current location = 1.68 ft
	Drawdown from proposed location = 3.83 ft
	Net drawdown = **2.2 ft**
43962 & 45456:	Drawdown from current location = 1.17 ft
	Drawdown from proposed location = 3.33 ft
	Net drawdown = **2.2 ft**

| Domestic 1: | Drawdown from current location = 1.84 ft |
	Drawdown from proposed location = 2.56 ft
	Net drawdown = 0.7 ft
Domestic 2:	Drawdown from current location = 1.43 ft
	Drawdown from proposed location = 2.87 ft
	Net drawdown = 1.4 ft
Domestic 3:	Drawdown from current location = 1.34 ft
	Drawdown from proposed location = 2.85 ft
	Net drawdown = 1.5 ft
Domestic 4:	Drawdown from current location = 1.32 ft
	Drawdown from proposed location = 2.85 ft
	Net drawdown = 1.5 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.
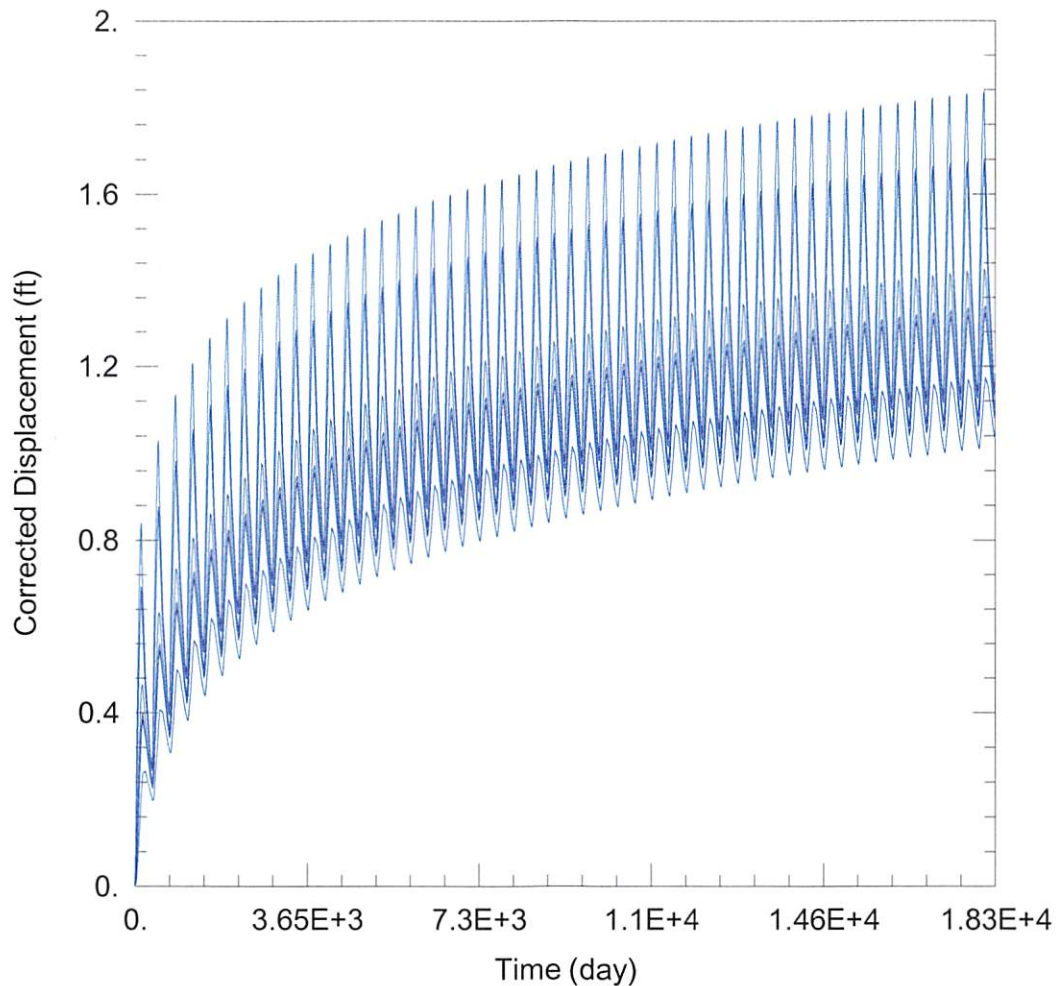
WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\41456_41725\41456 & 41725 Current.aqt
Date: 01/13/21   Time: 15:55:44

PROJECT INFORMATION

Company: GMD 3
Project: 41456 & 41725
Location: Stevens County
Test Well: 41456 & 41725

WELL DATA

Pumping Wells		
Well Name	X (ft)	Y (ft)
41456 & 41725	-101788	86361

Observation Wells		
Well Name	X (ft)	Y (ft)
▫	-101788	86361
▫ 22043 & 41608	-99231	87812
▫ 43962 & 45456	-96554	86356
▫ Domestic 1	-104246	86863
▫ Domestic 2	-99611	89467
▫ Domestic 3	-98951	89463
▫ Domestic 4	-98794	89444

SOLUTION

Aquifer Model: Unconfined   Solution Method: Theis

T   = 1.337E+4 ft²/day   S   = 0.2251
Kz/Kr = 1.   b   = 363. ft

Plot of Corrected Displacement (ft) versus Time (day), with axes ranging from 0 to 4 ft and 0 to 1.83E+4 days.

WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\41456_41725\41456 & 41725 Proposed.aqt

Date: 01/13/21   Time: 15:55:36

PROJECT INFORMATION

Company: GMD 3
Project: 41456 & 41725
Location: Stevens County
Test Well: 41456 & 41725

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
41456 & 41725	-99523	85467

Observation Wells

Well Name	X (ft)	Y (ft)
□	-99523	85467
□ 22043 & 41608	-99231	87812
□ 43962 & 45456	-96554	86356
□ Domestic 1	-104246	86863
□ Domestic 2	-99611	89467
□ Domestic 3	-98951	89463
□ Domestic 4	-98794	89444

SOLUTION

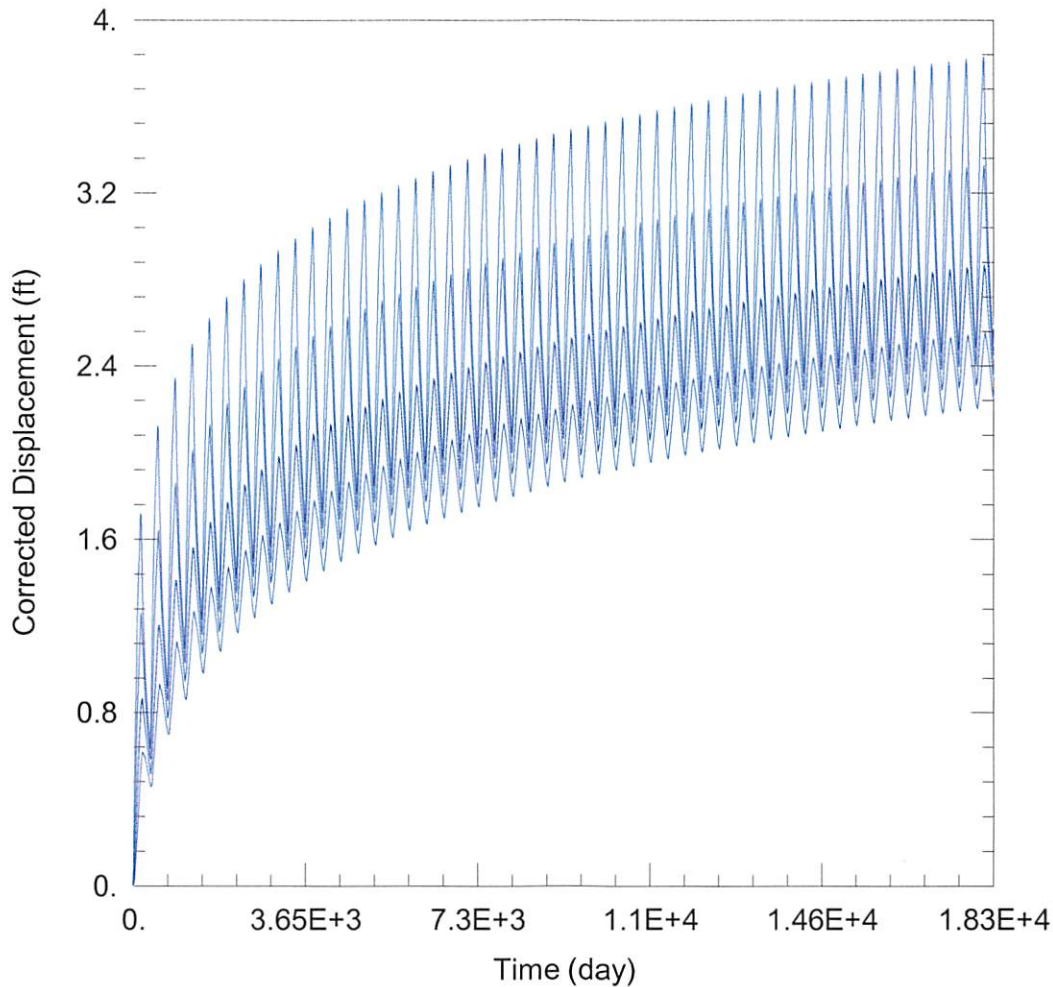Aquifer Model: Unconfined   Solution Method: Theis

T   = 1.337E+4 ft²/day   S   = 0.2251
Kz/Kr = 1.   b   = 363. ft