

## Assistant Manager's Report

March 11, 2025

Last week I spent an afternoon with Jesse Korus, a groundwater geologist and Associate Professor with UNL School of Natural Resources. We spent time gathering data for potential locations to continue the study into “rusty pivots” around Minden & Kearney County. You might recall during 2019-2020 timeframe, Tri-Basin NRD worked with Mikaela Cherry (now with USGS) who was investigating groundwater and geology in Tri-Basin and Little Blue NRDs. From that study, additional interests have continued to develop – which, long story short, is where we are today. We searched for a definitive line where ‘rusty pivots’ and ‘no rust’ pivots were present. Ideally, we would find a location where there might be an area to use Jesse’s new tTEM unit, which essential is a highly detailed survey of subsurface geology – similar to AEM survey with a helicopter, however his instrument is towed by an ATV and focuses on much more detailed results. The thought is, perhaps we would identify geological differences between ‘rusty’ and ‘non-rusty’ pivots – specifically in the vadose zone. If you know of any place with similar aged pivots within a mile of each other, one with ‘no rust’, one with ‘rust’, then we’d like to hear about it!

The NARD Groundwater Conference was also held last week. Despite our efforts for a full day of interesting topics and education, Mother Nature was sending afternoon blizzards and snow squalls across the state, which makes things tricky for NRD technicians who travel from all over the state for training. We were able to shorten the conference and get everyone on their way after lunch before the heart of the storm struck the state.

I’ll present the 2024 groundwater quantity data during the March board meeting. While I take pride in my cartographic integrity; I do have to admit that the 2024 map isn’t up to snuff. This isn’t due to one particular problem, but more so to a series of things that simply made data collection extremely difficult for proper results. If you’ve heard the expression GIGO – Garbage In, Garbage Out, you’ll understand quickly why some township averages are WAY high, while others have no data at all. Northern Phelps County has townships with no data because of total devastation of crops from hailstorms in June. Other portions of the district have substantially higher averages than past years due to lack of multiple samples collected in those townships. Not all areas of the district were significantly different, we did collect 45% of the samples we can (129 of 281), however that number falls well short of our 2023 efforts where we collected 251 of 281 samples or 89%.

That will do it for this month’s report. See you Wednesday at 1:30.