

Arsenic Treatment Proposals

Mike O'Day – O'Day Drilling

- Local well driller with extensive knowledge of water wells and water quality
- Reviewed the drillers logs for each of our water wells, sampling results for arsenic and total dissolved solids (2005 to current)
- Explained that arsenic lies within zones within the aquifer – rather than treating it after it is pumped, recommend a strategy to minimize arsenic level within the well
- Proposal: downhole camera survey, cleaning and conduct water quality study to identify the zone where arsenic is located
- Once the zone is determined the well can be blocked to minimize the arsenic level in the groundwater pumped
- Mr. O'Day is consulting with his colleagues to gather information on what company could conduct the water quality study (9/14/2022)
- Not on EPA's list of best available technologies – would have to verify with TCEQ

Update as of 11/29/2022

- Texas Commission on Environmental Quality did respond to my inquiry regarding Mr. O'Day's proposal. The Plan and Technical Review Team advised they would consider the approach. However, it would require a plans and specification submittal which must be prepared and submitted by a licensed engineer before any work is started.
- Points to consider:
 - Finding an engineer to prepare plans may be difficult since this is an atypical approach and not considered a best available technology
 - There is a possibility TCEQ may not approve the plans once submitted
- Gathering quotes for pulling the well, downhole camera survey and cleaning.
- Searching for a company that would conduct the water quality study to determine arsenic zone within the aquifer.

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David Burnett

- David Burnett – retired TAMU Engineer, wastewater treatment in oil/gas industry
- Greg Reymeke - Crusader Water Systems of Utah
- Keith McLeroy (College Station) - Retego Labs & Les Merrill
- Proposal: pilot water treatment using Crusader adsorbent technology
- Designed based on well configuration, water flow & quality data
- Mr. Burnett and Mr. Keith McLeroy would be local engineers assisting in monitoring and assessment of pilot
- Likely no cost for the proposal
- Will need to conduct a site visit – waiting for proposal and a confirmed date from Mr. Burnett to schedule the site visit
- This treatment is similar to Garver's proposal
- Will require TCEQ approval to ensure it meets approved treatment technologies

Update as of 11/29/2022

- No proposal received from Retego Labs/Crusader Water Systems of Utah
- Mr. Burnett recently recommended DeNora Water Services; office located in Sugarland. He has reached out to their office to arrange a meeting.
- In reviewing the information on their website, www.denora.com, their recommended treatment for arsenic is also adsorption.
 - Excerpts from their website:
 - The easiest way to remove arsenic is to use iron to adsorb it from the water. The iron is then removed and disposed of to a sanitary landfill.
 - If your groundwater already has iron present, by simply precipitating and filtering it out of the water, you can also remove the arsenic via co-precipitation/adsorption followed by filtration.