

An Additional Review by M. D. Campbell and Associates, L.P.
(<http://www.mdcampbell.com>)

Key to Comments:

Black = Original Article Content

Yellow = Particular Offending words or phrases

Red = C&A Mining Group Comments

Blue = Other Reviewer's Comments

Black = Blog Below - Comments from Article Readers

Article in Question:

Activists Want Mining Suspended

October 9, 2008

Lisa Sandberg - *Express-News in My SA News*

AUSTIN — A coalition of South Texas residents and environmentalists called Wednesday for a statewide moratorium on uranium mining, saying weak state laws are allowing uranium companies to threaten Texas drinking supplies.

"We want to put a stop to uranium mining until we have better protections in place," said Cyrus Reed, conservation director of the Lone Star Chapter of the Sierra Club. "For too long, we have allowed uranium miners to explore, mine and leave behind contaminants that poison our groundwater."

[This is typical diatribe coming from a paid anti-resource development chapter of the Sierra Club, no less. Why does such a group presume that the State Government is not acting on behalf of the people of the State? Because it suits their agenda to scare people into giving such adversarial groups money to pay the salaries, overhead, and travel expenses to make such self serving claims. Why should the State respond to baseless claims by a small minority of people who either have received no benefit from uranium royalties or who demand that there is no uranium development of any kind or who are attempting to obtain money from industry by creating a public noise magnified by fear-mongering news media in the area to sell air-time or newsprint? There is no basis for any violation of State regulations. If there is a basis, of course, the State should act. If there were wrong doings by the uranium industry, the State has the authority and the incentive to reprimand or halt such activities.

There has never been a case in Texas where residents' wells located in the general vicinity of uranium recovery activities have damaged the health of anyone or have been responsible for contaminated drinking water supplies. What these easily lead folks do not understand is that:

- 1) if samples taken from a particular water well shows anomalous radioactivity or other anomalous elements, that does not indicate that such substances necessarily came from uranium industry's activities because ground water flows very slowly in porous media and does not flow that far in the time specified,
- 2) such compounds have also been reported in ground-water supplies not known to contain uranium mineralization,
- 3) such radioactive compounds are more likely to come from brine leaks from producing or abandoned oil and/or gas wells, which are well known to release NORM products as a natural consequence of moving large volumes of brine from underground over many, many years of production, and
- 4) if a resident is living in the vicinity of uranium recovery operations, he(or she) should have their water supply tested when they moved in and regularly each year or so to make sure the drinking water is suitable for their family's consumption.]

South Texas has become a hotly contested battleground between companies scrambling to tap into rich uranium deposits and some residents fearful of harmful environmental consequences.

[Notice the fear-mongering language above. It is either the nearby residence's responsibility to sample and have the State laboratories test or the State's responsibility to sample and test the ground water for any harmful compounds, depending on whether the residents are of Liberal or Republican persuasion. However, most uranium recovery companies set up a sampling program for water wells within 0.5 miles of the uranium production authorization area.]

Ground zero is tiny Goliad County, where Uranium Energy Corp., of Austin, has begun exploratory drilling for uranium. No one at the company could be reached for comment. In the past, the company has denied its activities have had a negative impact on Goliad's drinking supplies.

[Again, notice the inflammatory language..."ground zero". The reporter apparently isn't aware that UEC has been drilling in the area for years in exploring for and finding significant uranium exploration in a sparsely populated area of northern Goliad County, Texas. We have observed in our independent assessments of these matters that UEC representatives have spoken often to the media, including sponsoring several town meetings on the subject, in an attempt to offset the misrepresentations and falsehoods perpetuated by a few neighbors who have been left out of the uranium-leasing activities because their lands just happened to be in the wrong place geographically.

The true motives for objecting of residents located in the general area are likely based on the typical human attitude: "if I can't get the money (i. e, royalty payments), neither will you," and as a result: "maybe if I object loud enough the uranium company will pay

me to shut up;" both attitudes are all too often present in developing such resources. It once occurred with the development of oil and gas properties but since so many people have benefited from developing oil and gas in Texas, there are few complaints now. Unfortunately, uranium is not as abundant in the subsurface as oil and gas.]

Ramona Nye, a spokeswoman with the Texas Commission on Environmental Quality, one of several state and federal agencies in charge of regulating mining, said that despite complaints, her agency has "no evidence that exploratory activity by the company has negatively impacted" Goliad's groundwater. She declined, however, to say the water is "drinkable."

Nye called the state regulations governing mining "adequate."

[And so should Ms. Nye after the State looked into the allegations made by opponents and found that they had no basis to indicate a problem was at hand. The reporter's innuendo about the regulations being "adequate" is another cheap shot to undermine the confidence of the public in State officials.]

Grassroots opponents, who launched the Alliance of Texans for Uranium Research and Action, strongly disagree. They complain that current law allows companies to test baseline groundwater conditions before they begin mining — but not before they begin exploration. Reed said contaminants can seep into groundwater during exploration. Reed said that companies that find contaminants can then apply for an exemption to the federal Safe Drinking Water Act. "We have to have true baseline testing at the front end," Reed told a group of supporters at the Texas Capitol.

[In our opinion, there is nothing inappropriate about requiring baseline sampling before uranium recovery operations are begun. Sampling the ground water in an exploration area prior to exploration drilling is impossible because you'd have to drill in order to sample the ground water, which opponents say is causing all problems. In addition, if uranium exploration were to cause problems, why hasn't anyone noted problems with oil and gas exploration and production, which not only penetrate the same aquifers, but go much deeper, into brines and other non-potable aquifers. However, today's regulations do require both local and area-wide base-line and periodic sampling as part of the mining permit process.]

The Goliad County Groundwater Conservation District documented a substantial increase in minerals and iron in area wells during exploratory drilling.

[We understand that the District leadership has lost all professional credibility because the staff made illegal and incorrect comments at public gatherings regarding the geological and hydrogeological conditions and the flow of surmised contaminants. The District has never produced the results of the sampling mentioned above or the methods involved in sampling, or the names of the professionals who allegedly conducted the sampling.]

Last year, the Legislature sought to simplify the state's Byzantine regulatory process for uranium mining, giving oversight to two state agencies, TCEQ and the Texas Railroad Commission, instead of three state agencies that had oversight. The Sierra Club applauded the move, but now insists that the Legislature needs to go one step further, giving only one agency oversight.

[Aside from calling the regulatory process "Byzantine" for reasons that are not clear, we have no objection to concentrating the regulations in one State agency, such as either the Texas Railroad Commission, especially since they already regulate and monitor the oil and gas activities in Texas, or the TCEQ, since they focus on environmental quality, including ground water. As with any other industry in Texas or in the U.S. industry can accomplish its goals with environmental accommodations, as it has done the past 20 years. The uranium exploration and recovery industry is no different.]

On Wednesday, the Alliance of Texans for Uranium Research and Action released a report that analyzed already mined uranium sites in Texas. The report found that in 51 of 80 sites, the TCEQ relaxed water quality standards "by failing to enforce initial requirements and/or amending restoration levels."

[Having reviewed the above report we have the following comments:

The report presents the information as if uranium mining has been conducted continuously over the past 20 years. In actuality, uranium production in Texas and the U.S. peaked in the late 1970s and then dropped off to the point where most mines were shut in by the mid-1980s. The rules and regulations that uranium mining originally took place under have become much more strict and protective of the environment, the result of lessons learned from the early days of uranium recovery. The report doesn't discuss that the original restoration values were based on drinking-water standards that were in affect at that time, even though the areas in and around uranium mineralization never were within drinking-water standards in the first place. Drinking-water standards have typically become more strict over the past 20 years. Also, even if only one constituent, such as uranium, or iron, or arsenic, etc. is above the drinking-water standard, that portion of the aquifer is considered to be non-potable:

1. The TCEQ appears to always approve all amended restoration values because those new values are typically negotiated prior to their official submission. That is, the company asks the TCEQ how the TCEQ will evaluate their request and then uses that same methodology to develop the alternative concentrations. A draft of the request is then submitted to the TCEQ for review and comment. The company then revises their request accordingly. There is no official rejection recorded because only the final, approved numbers are recorded.
2. Higher restoration values don't necessarily reflect the operators understanding of geochemistry of the hydrogeologic systems, as alleged by the report. It is more likely that these new restoration values reflect an over-all better understanding of the original conditions by the regulators who originally wanted the aquifers

remediated to conditions that never existed in the first place.

3. The report also suggests that there are inadequate pre-exploration background studies. Background studies are never conducted prior to exploration, in any exploration program, whether it be mining or oil and gas. The reasons are:
 - Drilling a hole to determine background samples uses the same technology as an exploration well. Therefore, if you install a boring or well to test the aquifer you are causing the same amount of disruption of the aquifer as an exploration well or boring, if not more, due to the additional testing involved.
 - If you have to conduct a background study of every potential exploration area, no exploration for anything would ever be conducted because most exploration areas eventually prove to be non-productive.
 - Thousands of oil and gas wells have been drilled and no one has ever complained of poor water quality from them (other than oil and gas or brine introduced into the drinking water aquifer. This doesn't happen with uranium exploration because these exploration wells are never drilled that deep).

Background studies should only be conducted after an area of economic mineralization has been found and prior to production of the area.]

Jim Blackburn, a Houston attorney hired by Goliad County, said the public's been told "time and time again that these aquifers will be restored if they're contaminated," which, he said, they usually aren't.

[Plaintiff Attorney Blackburn and a small group of retired academics are well known for plumbing the deep pockets of many Texas industries for many years. Apparently, the fledgling companies within the resurgent uranium industry in Texas have gained their attention with the hope of great riches to be siphoned out of the industry. This group is funded by a few uneducated residents who have been led to believe they have valid reasons for being against the uranium project in Goliad County.

First, the question arises whether Plaintiff Attorney Blackburn has been, or can be, hired by Goliad County, or by the Goliad Groundwater District, without taking the decision to the people for a local vote on the subject?

Second, just based on Plaintiff Attorney Blackburn's comment above, if reported accurately, he doesn't seem to understand that the aquifers containing the uranium have been naturally contaminated for millions of years, so restoring to "natural background" would now still be considered contaminated in regulatory terms. The presence of uranium in such aquifers had typically gone undetected until geoscientists began to understand where uranium may occur. Prior to the mid-1970s, most exploration efforts were aimed at shallow orebodies, to a depth where such ore could be

mined by opening a surface pit. Now, and in many cases by chance, uranium has been identified in deeper aquifers via the natural gamma logs used in oil and gas exploration. In some respects, oil and gas exploration goes hand-in-hand with uranium exploration. Both industries have the regulatory responsibility to properly abandon exploration holes.]

Original source

http://www.mysanantonio.com/news/local_news/30665509.html

VICTORIA ADVOCATE.COM

BLOGS ON THE SUBJECT:

Reply or Comment

Send to a Friend

Report a Violation

Comment From: GoliadChica

Sat Nov 8, 2008 11:51:39 CST

I don't have a problem with nuclear power plants. That is a different subject. The problem is mining uranium thru our drinking water.

Keep up.

Comment From: Southtexas

Sat Nov 8, 2008 10:22:26 CST

I am reminded of the uranium mining in Karnes County. We used to drive out there years ago just to check out the huge hole and the gigantic machinery used to do the mining.

There was a farm on the edge of the mine which was sold to the Uranium Co....For a very lucrative price by the way. The old man that had lived on that ranch was in his 90's....still married to his wife also in her 90's. During the digging there was a point where you could see a cutaway of the old farmer's water well....the water flowing through the uranium.

The farmer and his wife had been drinking the uranium water their whole life, as had their children. No three eyed babies, or kids with 5 noses; his children were all in their 70's and healthy. Explain that?

[It is interestingbut one still wouldn't want to drink it if you know it is naturally contamination with uranium, etc.]

You are placing yourself in more danger by eating weiners and bologna....the additives and preservatives in these cause all sorts of horrible things.

[The reviewer presents no evidence for this statement, which is also beyond the scope of our review as well]

What is the big deal about a nuclear power plant? It is the answer to our energy problems....uranium mining, again, most of the dangers are magnified beyond comprehension.

Comment From: GoliadChica

Sat Nov 8, 2008 07:53:00 CST

Did anyone else see how the media reacted to Bush allowing mining for uranium within 2 miles of the Grand Canyon, which happens to contain the Colorado River?

Nice going away present, President Bush....

Comment From: rollinstone

Tue Nov 4, 2008 08:53:44 CST

For the Record:

The slide presentation by UEC at the Goliad Conference on Uranium Mining indicated they used pure oxygen and pure carbon dioxide to mine uranium.

Secondly the hydrologist hired by the Kleberg County Review Board at that same conference indicated that all the private wells surrounding the mined area were suitable for any use except for one well. That well, he said, contained elevated levels of NATURALLY OCCURRING uranium.

Wells located near uranium deposits can expect to have elevated levels of uranium, this is a problem all along the Texas coast.

[OK...]

Comment From: GoliadChica

Tue Nov 4, 2008 08:28:03 CST

"Does the benefit outweigh the risk?"No, no, a thousand times NO. There can be no benefit (\$\$\$\$) that will outweigh the potential health DISASTER in Goliad County and downflow. You can't drill thru the "good" water and suck up toxic material without potential contamination and that is all it will take to ruin our water. It's too late when the contamination is detected and too late when UEC is cleaning up.

"We're sorry" just won't do after the damage is done. Reparations won't get it either.

[This person obviously has no understanding on the nature of in-situ uranium recovery. If what she says is true, then we shouldn't be recovering oil and gas for the same reasons.]

Comment From: KennethSchustereit

Mon Nov 3, 2008 22:52:13 CST

More talk! No need for talk. Mining for uranium in a drinking water is illegal according to codified state law. Someone swear out a warrant against Harry Anthony and the Sheriff can arrest him and confiscate his equipment. All other talk on this subject is moot.

[This person is typical of someone who has been fed mis-information designed to cause fear among the general populace. Obviously mining uranium is not illegal in the State of Texas. He also doesn't understand that drinking-water aquifers may have localized zones of naturally-occurring non-potable water within them because of localized mineralization initiated during original deposition of the sediments, e.g., plant masses, etc.]

Comment From: AltonEaston

Mon Nov 3, 2008 20:24:21 CST

I contend that the ppm measurement is a bunch of BS when used to determine levels of waste/pollution/discharge. A good example is you have gallon of waste, you can not dump it into the water system because is is 100 % waste, to get the measurement within the limit acceptable for regulators you add a lot of clean water. So if you have a million gallons of waste, you just have to add more pure clean water before you dump it. The actual tonnage or weight of the waste is totally ignored. It is like someone taking a leak into the bucket of water, it is not safe according to regulators, unless it is diluted to a set ppm before it is added to the bucket of water. I personally could care less, I don't want to drink it or have anyone in my family drinking it.

[Here too....and interesting point about the old adage...the solution to pollution... OK, don't drink it and buy bottled water... He obviously won't be visiting the International Space Station (or El Paso, where they treat and re-inject used water into the aquifer for future use) anytime soon.]

Comment From: markkrueger

Mon Nov 3, 2008 17:55:05 CST

Before I comment, I would like to state that I am neither pro-nuclear nor anti-nuclear, as I do not have enough information to substantiate an opinion. I am not an activist. I am not an extremist. I am a property owner who is concerned about the future of my family's water supply in northwest Victoria County in the Evangeline Aquifer recharge zone.

People who live around nuclear plants seem to be comfortable with it. People who live around uranium mines do not.

1) If the lixiviant is not composed of hydrogen peroxide and sodium carbonate or bicarbonate, then every single explanation including UEC's and Wikipedia is wrong.

[He doesn't know about the present chemistry...]

2) The Garcia Hill wells might have been questionable, but the levels still increased and went through the roof after mining commenced. They may have gone from bad to worse, but still used for human consumption. What made them worse? Since I have trace levels of uranium in my water, should I expect them to skyrocket as well?

[He's making some assumptions here and not providing a basis from likely hearsay information...needs an understanding of hydrogeology re transport times... He also needs to understand that uranium recovery hasn't commenced yet, so nothing's been injected and ground-water removal has been limited to developing the well so it's flow is maximized, and testing of the aquifer is of limited area]

3) I have never mentioned or indicated a conspiracy of any kind. I have simply questioned TCEQ's outdated and inadequate regulation, including baseline testing and the procedures involved.

[Who said you did? Who told you and how do you know that the TCEQ's regulation outdated and inadequate. Baseline testing is a standard procedure and has been so for many years....]

4) If uranium mining leaves higher levels of radionuclides in the water table that I drink from, and it's allowed by the State, should I be concerned? Will these things move to my water well? If not, prove it and I'll shut up.

[The baseline studies will determine ground-water flow rate and geochemistry. From these data a remediation plan can be developed that will determine safe levels that can be left behind and still not affect neighboring areas. Groundwater models have been developed over the previous 20 years that can predict if a plume will move or not. In addition, a period of time (measured in years) will be agreed to by both the company and the State whereby post-mining ground-water monitoring will be conducted to assure that the plume has stabilized and is not moving. Should movement be detected, the company will be responsible for all additional remedial activities....]

5) How hard would it be for uranium mining companies to dig the initial boreholes, wait ninety days or whatever period is necessary for the water and sediment to come to rest, and then test the water? How hard would that be? Then, continue to explore your Canadian hearts out but alas...the initial wells must be tested again! What would those test results show?

[What you are describing is part of the baseline studies required prior to recovery operations. These are not conducted for exploration holes because disturbance of the aquifers during exploration is well understood to be confined to the immediate vicinity of the borehole only].

6) I called Dr. Abitz about a year ago. I had recently (and accidentally) found out about the

proposed uranium mine close to our home and found his name while doing research. The ultimate result of this initial conversation was my over-education in this field. I have found nothing but negative after negative regarding this subject, and truthfully it is sucking the life out of me. I wish somebody could either produce scientific evidence that in-situ mining is safe and my water well will NOT be affected, or vice-versa and get the hell out of here...one or the other.

That's all I have to say about it, so if you don't live next to a uranium mine or a proposed uranium mine and your kids' and grandkids' water is not threatened then you have no opinion. None that counts with me, anyway.

[Unfortunately Mr. Kruger has found that research on the Internet is limited because most of what is written is by agenda-driven activists and journalists, or people who have no scientific understanding of geology, hydrogeology, geochemistry, or in-situ recovery. Almost everything negative that has been written is based on events that occurred over 20 years ago and don't take into account the fact that no appreciable amount of uranium exploration or mining has occurred since then or that new regulations are already in place that take into account the misunderstandings that occurred during the early days of in-situ recovery].

Comment From: rollinstone

Mon Nov 3, 2008 16:53:57 CST

Before I comment I would like to state that I would be the first to jump down the throat of the uranium mine owners if I thought they were harming the aquifer. But thirty years of experience indicates they have not. I am almost positive what we are seeing is anti-nuclear agitation by extreme environmental groups. From what I've researched in-situ uranium mining is harmless.

[About time someone speaks up]

There were some errors in Mr. Krueger's comments.

1. The mining companies do not inject hydrogen peroxide; they inject pure oxygen and carbon dioxide, two harmless chemicals. Oxygen does not kill bacteria.
2. The analysis of the Kleberg county wells was initially 0.05, 0.08 and 0.05 respectively. This is in parts per million (ppm), in parts per billion (ppb) they would be 50, 80 and 50 ppb respectively. The EPA lowered the permissible limit for uranium from 5000 to 30 parts per billion around 2002. So these wells were over the permissible limit even before mining started.
3. You say that even though there are no documented cases of well contamination this proves nothing but wild undocumented claims of contamination are valid. In addition you claim this is because there is a vast conspiracy between mine owners, state and federal regulators, and our state legislators, hmmm!

[Good points..]

4. Almost all mine restorations fail to meet baseline concentrations. This everyone knows to be true, it is a fact. Getting an exemption is not illegal, the law provides for this contingency. The TCEQ will not grant this exemption unless they are certain that further restoration efforts will be fruitless and the surrounding aquifer will not be harmed.

5. You claim more data is needed. I believe a pile of data the size of Mt. Everest would not be enough. To get more data more test wells are recommended, but yet isn't that a problem. Won't more drilling churn up the aquifer as you claim or is it only the wells used for exploration the problem. Drilling for any other reason is OK I guess.

6. You say Mr. Abitz opposes uranium mining only in drinking water aquifers. Mr. Abitz opposes all uranium mining in fact he opposes nuclear energy check his public statements and record. His call for more data is the same old tactic they used to keep Yucca Mountain closed. Each time data was provided they said more was required, more studies, more everything. They don't care what the data or studies concluded their goal is to increase costs and cause delays in any manner they can.

They may end up being successful in their efforts; ignorance and fear are hard to overcome. It is my firm belief that uranium mining is not a hazard. Extreme environmental groups have created enough fear and doubt that I'm afraid this industry is doomed along with the royalties, jobs, energy independence and opportunities that could have been, that's a shame.

[He doesn't realize that the groups of citizens who are opposed are small in number and loud in voice, which is picked up by the small and large print media....]

Comment From: BIGJ

Mon Nov 3, 2008 16:08:17 CST

Kenneth,

Where are our elected reps to the Texas House and Senate on this issue.?

[They are in place and doing a good job on the regulations]

Comment From: markkrueger

Mon Nov 3, 2008 15:02:00 CST

Kenneth, you have a valid point. Let's forget about the science, or lack of, for a few seconds. Let's forget about opinions regarding whether it's safe or not safe.

What does Texas Law say? The following quote I received from TCEQ in an email refers to the eligibility of an aquifer to be mined:

"In order to mine an orebody using Class III injection and recovery wells ("in situ" mining), one of the many requirements is that the applicant obtain an aquifer exemption for that portion of the aquifer that is to be mined using in situ techniques. Two criteria must be met for an exemption is granted: The aquifer does not currently serve as a source of drinking water for human consumption, and until the exempt status is removed, the aquifer will not in the future serve as a source of drinking water for human consumption."

OK, is it "aquifer" or "aquifer zone" or "portion of the aquifer"? **I don't see anything in the written law that says "zone" or "portion"**. (Ted Long referred to it as "the peeing section in the swimming pool". I think Pat Calhoun deserves rights to that!)

[**Actually, it does say, and so did you, that "the applicant obtain an aquifer exemption for that portion of the aquifer that is to be mined using in situ techniques portion of an aquifer"**].

If the Evangeline Aquifer supplies drinking water for human consumption, then "in situ" uranium mining in it is against Texas State law? Sure seems like it if you take the law literally. I wonder why government entities on a local basis haven't picked up on this. It seems that all they would have to do is ask the Attorney General of the State of Texas for a legal opinion on the letter of the law and how it translates.

Thank you, Kenneth, for pointing this out. If uranium mining in the Evangeline Aquifer is against Texas State law, then all the science one could spit out is irrelevant.

Comment From: KennethSchustereit

Mon Nov 3, 2008 12:16:00 CST

Mark,

I understand and agree with the science but science is not the consideration here. There is only one consideration: is the uranium permitted for exploration and possible mining in a drinking water table? Stop! Period! Consider no other facts! Only the LANGUAGE OF THE LAW! Since UEC has admitted the ore body they are exploring is indeed in the drinking water table it is the responsibility of the local county attorney, county judge, state representative of senator to ask for an opinion from the AG and ask that an order be sent to both the RRC and TCEQ to stop all operations. Period. Stop. No other considerations. This is not a matter of scientific discussion or justification, It's a matter of legal facts.

[**So? Where are the opinions on the regulations?**]

Comment From: markkrueger

Mon Nov 3, 2008 10:22:07 CST

Ken, this is a good point. However, the legislators have only the same limited information that we do to form an opinion.

The United States Geological Survey recently performed a study and prepared a report for the U.S. Nuclear Regulatory Commission on In Situ Leach uranium mining regarding the restoration of water after mining is complete. These are some excerpts from NUREG/CR-6870, which concluded that total restoration of water after mining is not possible, and that long-term monitoring (water testing) should be strongly considered.

NUREG/CR-6870 (excerpts)

“The long-term stabilization simulations suggest that if oxic (oxygenated) groundwater enters the mined zone by natural-gradient groundwater flow, the reducing conditions that cause the precipitation of these phases will eventually be overcome. This could result in the reoxidation of the reduced mineral phases, causing U, Se, and As to be mobilized again after many pore volumes of groundwater have passed.”

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“After the hydrogen sulfide injection was completed, the recirculation of groundwater /RO permeate was ceased and the aquifer was allowed to stabilize, with monthly groundwater sampling conducted for one year (Schmidt, 1989). The sampling results during the groundwater stabilization period suggest that the reducing conditions may have not been maintained for the entire year. Dissolved iron and manganese concentrations increased during the first 5 months and then abruptly began to decline. As this abrupt decline began, dissolved uranium, arsenic, and radium began to increase. Elevated uranium and vanadium (Table 6) were still observed after groundwater restoration was completed.”

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“The industry experience at the Highland A-wellfield (PRI, 2004) indicates that a long period (5 years) for the groundwater stabilization phase may sometimes be needed and that long-term monitoring (13 years) may be required to ensure that the concentrations of uranium, arsenic, selenium, and radium have stabilized at satisfactory levels.”

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(reference NUREG/CR-6870)

This study was performed within the mining zone. The question remains, though, what about the water surrounding the mining zone? Why were the monitor wells surrounding the site not tested subsequently? Did the elevated levels migrate outside the ring of monitor wells?

If a study were performed, say on ten mine closures in Texas, that showed zero migration or zero negative change in surrounding groundwater, then one could conclude that ISL uranium mining is SAFE up to "x" distance from a private water well. Why hasn't this been done?

Why has UEC all but abandoned operations except for Texas? Is it because the uranium is shallow and easier to get to? Or, is it because Texas is an easy state to mine in? Maybe a little of both.

Comment From: KennethSchustereit

Mon Nov 3, 2008 09:49:17 CST

We can discuss the damage done past and present all day but there is one sure way to stop this cold! Right now! In it's tracks!

TCEQ is mandated by state law to regulate and protect the groundwater resources of this state. That, thereby, makes their regulations state law. TCEQ has a regulation prohibiting in-situ mining in a drinking water aquifer. It's as simple as that. It is then, in the purview of the state senator and representative to ask the attorney general for a legal opinion and then direct the attorney general to order TCEQ to stop in-situ exploration and mining in Texas. It's as simple as that! Why has this not been thought of or done? A lot of lawyers are making a lot of money in the present situation. You may also want to look on the Texas Ethics Commission website and see who is lobbying for the uranium mining companies like Mike Sizemore of Victoria. Find out then to which legislators they have given money and you get closer to the reason those legislators have not contacted the attorney general.

If you're going to stop this you're going to have to look outside-the-box!

[What was that? Legislators are being bought off? Doubt it.]

Comment From: GoliadChica

Mon Nov 3, 2008 08:38:20 CST

Your final statement says it all - uranium mining is fine as long as it is far, far away from our drinking supply.

Comment From: markkrueger

Mon Nov 3, 2008 08:30:52 CST

OK, let's go through this one more time...

Can one well affect another? I asked David Gunn, manager of Texas Division of Licensing and Regulation, and this is what he said:

"Most all wells in an area can be connected as they are producing from the same water formation and it is possible that drilling activities on one property can influence what happens to a water well on the next property. Most areas of South Texas has a geology that is made up of soils and sand with fairly thick clay layers separating them, therefore, most substances cannot move up or down (geologically), but must follow the path of the gradient."

This statement is consistent with a few water well drillers' statements to me recently. If they find a fault or a fracture or a gravel bed, the water they're injecting can "lose circulation", essentially disappearing into the aquifer. Did this happen in Goliad? If it did, nobody's admitting it.

How far can liberated radionuclides travel in the aquifer? I asked Dr. Richard Abitz, Principal Geochemist, Geochemical Consulting Services, LLC. This is what he had to say:

"Unfortunately, I cannot give you an easy answer. As you know, the faults complicate the question of where the lixiviant will go, and an excursion along a fault plane may never be detected. Where uranium, arsenic, molybdenum and selenium are reduced and precipitated will be determined by the oxygen content along the flow path. As we do not know the exact flow path or the oxygen content along the flow path, one can only speculate as to where the contaminants will precipitate. Radium will adsorb onto the solids in the aquifer, but this will be inhibited by its complexation with chloride ion. Again, we do not know how far radium will travel from the mine zone."

"I need scientific data to answer your question. This data could be obtained if the mining companies returned to former ISL sites and placed a grid of monitoring wells across the area enclosed by the monitoring well ring and a tighter ring of monitoring wells outside of the initial ring. Of course, this is not about to happen because the companies only talk about the 'science', rather than collect the scientific data needed to support their statements. That they will not collect the data needed to support their statements tells me they have something to hide."

Dr. Abitz is not against uranium mining. He is against uranium mining in a drinking water supply.

TCEQ - "In 30 years of in situ uranium mining in Texas, there are no documented cases of offsite contamination, she said. Records show all amendment requests, except for one, were granted, Morrow (TCEQ) said."

The key word here is "documented". Of course there are none documented because mining companies are allowed to turn the aquifer into "swiss cheese", as Mr. Blackburn says, and then test the water afterwards. No notification whatsoever is required regarding surrounding property owners prior to exploration. This is absolutely absurd.

Teo Saenz of Kingsville says this is not true, that he has documented evidence:

"We had 3 water wells tested in Garcia Hill in Kleberg County by URI in 05/21/1987 before a great number of test wells were drilled. The water data (taken by URI) showed Uranium levels of .05, .08, and .05. (before test wells). After a great number of test wells were drilled, the uranium levels in 1997 were 0.176. EPA found levels of 15 picocuries (gross alpha) per liter in 2004 and EPA told the residents to not drink the water. I have made the same argument that Mark is making to TCEQ and EPA and nothing has been done. If you add oxygen to the water via massive exploratory drilling, it makes sense that uranium will be oxidized if become soluble."

[If this were true, then no oxygen would need to be added to the injection water because the uranium would already be mobilized. The fact is that the uranium doesn't move that readily without added oxygen. However, if you are very close (typically within 100 to 200 feet) and on the reduced side of the deposit, and you were constantly withdrawing water from your water well, you might re-mobilize the uranium simply by the act of withdrawing the water from the aquifer because you are moving the naturally-oxidized groundwater through the deposit. Uranium, iron, and sulfate become mobilized under oxidizing conditions and become fixed in place under reducing conditions. Radium is well known to become mobilized under reduced conditions and fixed in place under oxidizing conditions.]

UEC - "Uranium companies in Texas needed to request amendments to restoration targets because they failed to properly characterize the uranium ore zone, said Craig Holmes, physical scientist and regulatory consultant for Uranium Energy Corp. They would include wells not in the ore zone for baseline numbers and couldn't get levels in the ore zone down to the average, he said."

[It's interesting that UEC is being cited as a company who got rid of their mining operations outside Texas and that they had to request amendments to restoration targets, since UEC hasn't mined one pound of uranium as of yet and has been in operation only two years. Either the incorrect reference has been cited, or Mr. Holmes doesn't know what he's talking about.]

Well, isn't the whole point of baseline testing to establish water quality representative of the aquifer zone in question? The uranium mining companies want to show that the water is not fit for human consumption, so of course they're going to look for the highest numbers to show this.

UEC recently announced the completion of their Nichols Project initial boreholes just outside Falls City:

"34 generally wide-spaced exploration boreholes totaling 18,154 drilled feet, and one core hole, were completed during this program. 20 of the boreholes were completed on centers approximately 800 feet apart along lines approximately 1,000 feet apart. The exploration boreholes confirm widespread uranium mineralization in two sands along a 5,000 foot trend with high grade mineralization along at least 1,200 feet of that trend."

OK, why not test the water in those 20 boreholes NOW?...before massive exploration begins? Could it be that the water is still potable and safe to drink? Why wait until after the aquifer is stirred up by massive exploration?

Victoria County is fortunate enough to have the Victoria County Groundwater Conservation District, which tested more than a dozen private water wells out here in Northwest Victoria County. Did they find naturally existing contaminants? Yes, but only trace elements because 1) the entire column of water was tested, unlike mining companies isolating the ore body and 2) the thorium, uranium, radium etc. is in a reduced state. What if it gets stirred up? Will the levels increase?

[Again, a scientific discussion by a person who has no understanding of the science involved. There are many mis-statements/understandings in this diatribe]

Also, eighteen of us in a small area off FM 237 (Victoria County) had our water tested a year ago. Trace elements? Yes. Dangerous levels? No, and it damn sure better stay that way. We have our baseline numbers, and these have been shared with VCGCD, hence becoming public record. Rumor has it that some offers to mine uranium in our area have been retracted. Oops!

The vast majority of people who live around nuclear plants are very comfortable, while the vast majority of people who live around uranium mines are not. Why is this? Is it because the Feds regulate the nuclear plants, while the State regulates (barely) uranium mining? Is it because of undocumented incidences of radioactive contamination in private wells? Why has not one single person living around a uranium mine without potential monetary gain advocated uranium mining? Why?????

[He obviously has never been around when a nuclear power plant is undergoing permitting. The same activists come out of the woodwork to oppose it, based primarily on fear mongering]

It appears that the only people in favor of uranium mining in local drinking water supplies are those with economic potential (money) at stake. Until proper scientific research is implemented, uranium mining needs to be done in remote areas, far away from people's drinking water...PERIOD!

[Dear Miss Period, uranium only occurs in certain favorable areas, such as the Gulf Coast...]

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