Lisbon Valley water concerns
2 messages

shane deeter <[redacted]>
To: dearley@utah.gov
Sat, Oct 31, 2020 at 5:22 PM

To whom it may concern:
My life long friends are cattle ranchers in Lisbon Valley Utah and have water wells there for their survival. The copper mine there is proposing what we feel is a dangerous operation that will poison the wells and put my friends out of business. They have ranched there for 5 generations and should be protected. Please consider a public hearing on this matter.

Thank you,
Shane Deeter

Drummond Earley <[redacted]>
To: shane deeter <[redacted]>
Fri, Nov 20, 2020 at 12:13 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text is hidden]
I want to express my concern of the Lisbon Valley copper mine using slurry type mining. There are some families that use the water aquifer for drinking water and use it to water cattle. These folks have been there way before the copper mine. They are lying that know one uses it.

Any questions please call

Troy Pehrson

Sent from my iPad

---

Drummond Earley <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:14 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text redacted]
Kathy Rogers <dearley@utah.gov>

To: "dearley@utah.gov" <dearley@utah.gov>
Sat, Oct 31, 2020 at 5:55 PM

I am writing to you quite concerned about what the mine is trying or wanting to do. I know the Wilcox family and know what they went through to get water to their ranch for their own survival. It just infuriates me that the mine is falsifying information. Not only the Wilcox Ranch will be effected but what about the Three Step Hideaway? They depend on the water in that valley as well. I sincerely hope that you will stop this action from going through and endangering businesses.

So many of us in the country depend on well water, as we do.

Thank you for your time.

Ronnie and Kathy Rogers

Sent from Yahoo Mail on Android
San Juan County water issue

3 messages

To: *dearely@utah.gov*  <dearely@utah.gov>

Sat, Oct 31, 2020 at 7:15 PM

Please don't let Lisbon Valley Copper Mine destroy this water source:

I need everyone's help. My Mom and Dad Joan Krist Wilcox Mike Wilcox live in Lower Lisbon Valley next to the Lisbon Valley Copper mine. They have lived there for nearly 30 years. My brother Curtis Wilcox and his son Ricky Wilcox are the 4th and 5th generations to operate a cattle ranch there. In this area water is a very scarce and valuable resource. My family has worked for years to develop water. Several years ago we hit a really good well. We developed it and ran a water line to my parents home. Along the line we put in drinkers for our livestock and the wild game that live in the area. This water is our lifeblood. It is the only way we can sustain ourselves in the dry area. Currently the Lisbon Valley Copper Mine is applying for a permit to use In Situ type mining. Which means they inject acid into an aquifer and pump it out and collect the copper. If they do this, it will ruin our well. Generations of work will be lost forever. It won't take long and the Copper mine will go broke again and they will leave. Our way of life and possibly my parents health will be destroyed forever. From November 4th 2020 until December 4th of 2020 there is a public comment period. Please help me let the Utah Division of Water Quality know that this is a horrible idea. You can email dearely@utah.gov to voice your concerns. If they receive a lot of public comment in the first 15 days, they will have to hold a public hearing. The Division's own rules say that this can not happen when the aquifer is a source of drinking water. But the Copper mine has told them that the aquifer is not a source of drinking water. They are providing false information in their application. See images below that are from the application the Copper Mine submitted.

Sent from my LG G5, an AT&T 4G LTE smartphone

Drummond Earley  <dearely@utah.gov>

Fri, Nov 20, 2020 at 12:13 PM

To: *nobody@earthlink.net*

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


Fri, Nov 20, 2020 at 12:14 PM

Reply-To: nobody@earthlink.net

To: Drummond Earley  <dearely@utah.gov>

I apologize for this automatic reply to your email.

To control spam, I now allow incoming messages only from senders I have approved beforehand.

If you would like to be added to my list of approved senders, please fill out the short request form (see link below). Once I approve you, I will receive your original message in my inbox. You do not need to resend your message. I apologize for this one-time inconvenience.

Click the link below to fill out the request:

https://mail.google.com/mail/u/0?ik=d092bd7402&view=pt&search=all&permthid=thread-f%3A1682118783889743143&simplt=msg-f%3A1682118783889743143&simp=at%3A1682118783889743143&simplt=msg-e%3A1682118783889743143&simplt=msg-e%3A89161744739623214&simplt=msg-f%3A1683907825689430899

1/1
Lisbon Valley Mine
2 messages

roy gibreth <[REDACTED]>
To: "dearley@utah.gov" <dearley@utah.gov>

We object to them using injection at the mine in Lisbon Valley. We own property nearby and it would harm the water supply. We have seen the effects of it in other areas.

Roy and Rosanna Gibreth

Drummond Earley <dearley@utah.gov>
To: roy gibreth <[REDACTED]>

Fri, Nov 20, 2020 at 12:13 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]
Lisbon Valley Mine water issues

2 messages

Art <deanley@utah.gov>  Sat, Oct 31, 2020 at 9:56 PM

Currently the Lisbon Valley Copper Mine is applying for a permit to use In Situ type mining.

I believe this to be a very bad and harmful idea for the area and it's residents who depend on the water as a resource for them not only them to drink but also for their livestock and wildlife!

Let me Be very clear I am not against mining, I am not against the Coppermine itself but there's some things in its operations that need to be very careful with when dealing with peoples lives and livelihood. please deny them to tap into the aquifer as it could have long lasting and Catastrophic effects.

Thank you for your time and consideration. Hopefully they can find another way to continue operations without putting people at risk!

Art

Drummond Earley <dearley@utah.gov>  Fri, Nov 20, 2020 at 12:11 PM

To: Art  

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]
Karah Nay
To: dearley@utah.gov

Sun, Nov 1, 2020 at 7:23 AM

It has been brought to my attention that the Lisbon Valley Copper Mine is applying for a permit to use In Situ type mining. Which means they inject acid into an aquifer and pump it out and collect the copper. If they do this, wells in the local area will be ruined and families will have to completely relocate and their lives and livelihoods will be destroyed. Generations of work will be lost forever. It won’t take long and the Copper mine will go broke again and they will leave.

Karah Nay

Drummond Earley
To: Karah Nay

Fri, Nov 20, 2020 at 12:11 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:

[Quoted text hidden]
In regards to the Lisbon Valley Copper Mine. What they are proposing to do would destroy the lifeblood for cattle ranchers in the valley, it is the only way we can sustain ourselves in this dry area. Currently the Lisbon Valley Copper Mine is applying for a permit to use In Situ type mining. Which means they inject acid into an aquifer and pump it out and collect the copper. If they do this, it will ruin the wells. Generations of work will be lost forever. It won't take long and the Copper mine will go broke again and they will leave. The rancher's way of life and possibly their health will be destroyed forever. Allowing this to happen is a horrible idea. The Division's own rules say that this can not happen when the aquifer is a source of drinking water. The Copper mine has told you that the aquifer is not a source of drinking water. They are providing false information in their application. Please stop, do not allow this to happen, and protect our cattle ranchers. Go out and talk to the Wilcox family, they have a well that will be affected, this is where they get their water for their livestock and themselves. Please, do something for the people.
Cindy Sue

Drummond Earley <dearley@utah.gov>
To: Cindy Sue Hunter -*

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:
[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: Cindy Sue Hunter -*

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.
[Quoted text hidden]
Re: Lisbon valley copper mine
4 messages

Deanna King <deanna.king@sevalyutah.gov>
To: *dearley@utah.gov* <dearley@utah.gov>

Sun, Nov 1, 2020 at 2:12 PM

On Sun, Nov 1, 2020 at 2:10 PM Deanna King <deanna.king@sevalyutah.gov> wrote:
I recently became aware of a permit request from Lisbon valley copper mine to use the aquifer for new Situ type mining. This will contaminate and ruin the drinking water for nearby wells and future wells. I am greatly concerned about this area’s fragile water aquifer and do not approve of any mining especially Situ mining. Do what you can to protect Utah’s water aquifer from contamination. Please vote no, for the permit to Situ type mining!

–
Be the Love and the Light that you are!
Deanna

–

Be the Love and the Light that you are!
Deanna

Drummond Earley <dearley@utah.gov>
To: Deanna King <deanna.king@sevalyutah.gov>
Fri, Nov 20, 2020 at 12:12 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:
[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: Deanna King <deanna.king@sevalyutah.gov>
Fri, Nov 20, 2020 at 12:13 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:
[Quoted text hidden]
Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

I am writing to understand if the Lisbon Copper Mine's new operation for which they are seeking a permit will in fact impact the aquifer that provides water for the Wilcox Ranch in the area. The information I have received indicates that the Wilcox Ranch aquifer will be contaminated by the mine operation, but I want to be sure that is correct before I inform others on this issue.

All the best,

Cody Deeter
Drummond Earley <dearley@utah.gov>
To: Cody Deeter <deeter@utah.gov>

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Cited text hidden]

Cody Deeter <deeter@utah.gov>
To: Drummond Earley <dearley@utah.gov>

Thank you for the reply. Much appreciated.

[Cited text hidden]

Drummond Earley <dearley@utah.gov>
To: Cody Deeter <deeter@utah.gov>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Cited text hidden]
Lisbon Valley water
4 messages

ralph Nentwich
To: dearley@utah.gov

Sun, Nov 1, 2020 at 3:26 PM

Please reconsider allowing the cooper mine to disrupt the Lisbon valley any further. Poisoning the water in Lisbon valley would effect wildlife, livestock, as well humans. Thank you for your time.
Ralph w. Nentwich

Sent from Yahoo Mail for iPhone

Drummond Earley
To: ralph Nentwich
Fri, Nov 20, 2020 at 12:12 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:

[Quoted text hidden]

Drummond Earley
To: ralph Nentwich
Tue, Dec 1, 2020 at 4:27 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit,

[Quoted text hidden]

ralph Nentwich
To: Drummond Earley <dearley@utah.gov>
Tue, Dec 1, 2020 at 5:34 PM

Received, thank you.

Sent from Yahoo Mail for iPhone

[Quoted text hidden]
Concern for San Juan County
3 messages

steve wilcox <stevewilcox007@comcast.net>
To: "dearley@utah.gov" <dearley@utah.gov>
Sun, Nov 1, 2020 at 9:33 PM

My name is Steve Wilcox Clement. I am the grand daughter of Mike and Joan Wilcox. I’m writing this email because I am very concerned for their health and well-being if the Lisbon Valley Copper Mine does indeed go ahead with their plans of pumping acid into their land. This land has been in my family for going on five generations. My family has used this land to live on the raise livestock since my great grandfather Max Wilcox bought it. Not only does this land serve as my grandparents home it is where my father Curtis Wilcox and brother Ricky Wilcox winter their cattle. This land is also home to lots of wildlife. My grandparents along with my father have worked tirelessly to ensure that there is good water for them as well as the livestock. They put in a pipeline with tanks that insure the use of the land. Not only do the cattle use these tanks many elk, deer, bears, eagles, etc use these tanks to survive. If you have ever been down to Lisbon Valley you will know that water is scarce at best. If the Lisbon Valley Copper Mine does what they are planning on they could potentially ruin the water table, not to mention they could poison my grandparents and all the livestock. They have both already survived cancer in the past, I think they deserve the right to a healthy future. Please consider they consequences of letting this happen. This is their home, their life’s and livelihoods are on the line.

Sent from my iPhone

Drummond Earley <dearley@utah.gov>
To: steve wilcox <stevewilcox007@comcast.net>
Fri, Nov 20, 2020 at 12:11 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: steve wilcox <stevewilcox007@comcast.net>
Tue, Dec 1, 2020 at 4:27 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

https://dsq.uta.gov/legacy/edocs/docs/DWQ-2020-024490.pdf

[Quoted text hidden]
Lisbon valley copper mine

3 messages

Matt beh <dearley@utah.gov>
To: "dearley@utah.gov" <dearley@utah.gov>
Sun, Nov 1, 2020 at 10:00 PM

Hi,
I am concerned about the Lisbon valley copper mine. They are taking away an important water source for ranchers and they said that it isn’t a drinking water source when it actually is. Don’t allow this project to happen.

Drummond Earley <dearley@utah.gov>
To: Matt beh <dearley@utah.gov>
Fri, Nov 20, 2020 at 12:11 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: Matt beh <dearley@utah.gov>
Tue, Dec 1, 2020 at 4:26 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
On Mon, Nov 2, 2020 at 8:01 AM Arne Hultquist <arne.hultquist@gmail.com> wrote:

Hi Dan,
Hope you are well.
I received an inquiry about the Lisbon Valley's mine plans to inject a cyanide leaching agent into the ground to extract copper. The inquiry is wondering whether ground water will be protected. Can you provide me with the status of that project and what steps are being taken to protect groundwater?
Thank you,
Arne
Endangered by in situ mining

2 messages

Susan Smith <unnamed>
To: dearley@utah.gov
Mon, Nov 2, 2020 at 10:31 AM

Eastland Utah water is also endangered by in situ mining at Lisbon. These 2,000 chemical injection holes will be 20 miles from the community well. How can this be stopped?

Drummond Earley <dearley@utah.gov>
To: Susan Smith <unnamed>
Tue, Dec 1, 2020 at 4:26 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Quoted text hidden]
Minning permit in San Juan county

2 messages

Amanda Shupe

Reply-To: Amanda Shupe

To: "dearley@utah.gov" <dearley@utah.gov>

Mon, Nov 2, 2020 at 12:03 PM

I am a citizen of San Juan County. I have recently heard about a permit being applied for by Lisbon Copper Mine to utilize a type of acid that would effectively poison the drinking water for some local ranchers and their stock. This is such a terrible thing. Please block this permit and keep the limited drinking water clean. Our ranchers, like Mike and Joan Wilcox and hundreds of others see themselves as caretakers of our beautiful lands. And while I am in favor of mining and utilizing natural resources, once a well is poisoned it can never be brought back to life. Please take action to prevent this travesty.

Amanda Shupe

Sent from Yahoo Mail on Android

Drummond Earley

To: Amanda Shupe

Tue, Dec 1, 2020 at 4:25 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quote text hidden]
Lisbon Valley Copper mine
3 messages

Maxine and Steve Deeter

To: "dearley@utah.gov" <dearley@utah.gov>

Mon, Nov 2, 2020 at 12:09 PM

Drummond Earley <dearley@utah.gov>

To: Maxine and Steve Deeter

Fri, Nov 20, 2020 at 12:10 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


On Mon, Nov 2, 2020 at 12:09 PM Maxine and Steve Deeter wrote:

Drummond Earley <dearley@utah.gov>

To: Maxine and Steve Deeter

Tue, Dec 1, 2020 at 4:25 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
To whom it may concern:

I am writing with two concerns that deal with water in San Juan County, Utah. First I want to address the Lisbon Valley Copper Mine in Lisbon Valley Utah. They have applied to for a permit to use Situ type mining which means the company will inject acid into the aquifer, pump it out to collect the copper. Mike and Joan Wilcox have lived in the lower of Lisbon Valley for about 30 years. They are the 3rd generation ranchers in that area and have a son and grandson that are ranching there also, 4th and 5th generation. The Wilcox family were fortunate enough a few years ago to drill a well that has been used for livestock, wildlife and their home. The fear is this Situ type of mining will contaminate the well and that water from their well will no longer be safe for personal use, livestock and wildlife watering. The mine claims there is no pubic water wells within 14 miles, but there are at least 2 domestic water wells within 3 miles of this proposed action.

Second, in La Sal, Utah, a small old ranching town that was developed by Charlie Redd is now growing very fast. The aquifer that the wells used for domestic use depends on the amount of snowfall that falls on the La Sal Mountain. We have been a drought so many years now I have lost count of them. My concern is two fold. Legacy Subdivision has applied to build a subdivision that will have 117 new homes and families on approximately 120 acres. That could potentially mean 117 new water wells plus 117 new septic tanks or systems installed. The average depth of our wells is about 200 plus or minus feet. My son’s well has dropped 60 feet in the last few years. We had a well drilled in 2004 for the La Sal Community Center and La Sal Elementary School. That well was producing 56 gpm when drilled. It now is producing 12 gpm. I am not against someone developing the land and adding people to our population, but I do worry about our aquifer will dry up leaving many of us without water. Also, I worry about that many septic systems so close together that they could possibly contaminate our aquifer too. A well could be drilled into the Navajo sandstone that is about 1000 feet and could very easily have more than enough water for the subdivision. I also believe a sewer plant for the whole subdivision should be considered in order to alleviate any possible contamination to the aquifer.

I would appreciate any help you might suggest to help us on both of my concerns.

Thank you,
Steve Deeter, concerned citizen of San Juan County and La Sal, Utah.

Steve Deeter
To whom it may concern:

I am writing with two concerns that deal with water in San Juan County, Utah. First I want to address the Lisbon Valley Copper Mine in Lisbon Valley Utah. They have applied to for a permit to use Situ type mining which means the company will inject acid into the aquifer, pump it out to collect the copper. Mike and Joan Wilcox have lived in the lower of Lisbon Valley for about 30 years. They are the 3rd generation ranchers in that area and have a son and grandson that are ranching there also, 4th and 5th generation. The Wilcox family were fortunate enough a few years ago to drill a well that has been used for livestock, wildlife and their home. The fear is this Situ type of mining will contaminate the well and that water from their well will no longer be safe for personal use, livestock and wildlife watering. The mine claims there is no public water wells within 14 miles, but there are at least 2 domestic water wells within 3 miles of this proposed action.

Second, in La Sal, Utah, a small old ranching town that was developed by Charlie Redd is now growing very fast. The aquifer that the wells used for domestic use depends on the amount of snowfall that falls on the La Sal Mountain. We have been a drought so many years now I have lost count of them. My concern is two fold. Legacy Subdivision has applied to build a subdivision that will have 117 new homes and families on approximately 120 acres. That could potentially mean 117 new water wells plus 117 new septic tanks or systems installed. The average depth of our wells is about 200 plus or minus feet. My son’s well has dropped 60 feet in the last few years. We had a well drilled in 2004 for the La Sal Community Center and La Sal Elementary School. That well was producing 56 gpm when drilled. It now is producing 12 gpm. I am not against someone developing the land and adding people to our population, but I do worry about our aquifer will dry up leaving many of us without water. Also, I worry about that many septic systems so close together that they could possibly contaminate our aquifer too. A well could be drilled into the Navajo sandstone that is about 1000 feet and could very easily have more than enough water for the subdivision. I also believe a sewer plant for the whole subdivision should be considered in order to alleviate any possible contamination to the aquifer.

I would appreciate any help you might suggest to help us on both of my concerns.

Thank you,
Steve Deeter, concerned citizen of San Juan County and La Sal, Utah.
Lower Lisbon Valley Drinking Water
3 messages

Taralee Knight <dearley@utah.gov>
To: "dearley@utah.gov" <dearley@utah.gov>

Mon, Nov 2, 2020 at 1:07 PM

For the sake and health of the families and ranchers living in the Lower Lisbon Valley that use the water there to sustain their livestock, land, and drinking water for their own uses, I would like to voice a concern on the Lisbon Valley Copper Mine and their application for a permit to use in Situ Type mining. This permit should not be allowed in this area for the health and well-being of the water that is already in use to sustain the families and ranchers living in the area. It would be extremely irresponsible and life-threatening if the Copper Mine is allowed the permit. Again, please do not allow this permit to happen. Thank you, From a fellow concerned citizen.

Drummond Earley <dearley@utah.gov>
To: Taralee Knight <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:10 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: Taralee Knight <dearley@utah.gov>

Tue, Dec 1, 2020 at 4:25 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
I am writing with two concerns that deal with water in San Juan County, Utah. First I want to address the Lisbon Valley Copper Mine in Lisbon Valley near La Sal, Utah. The mine owners have applied for a permit to use Situ type mining which means the company will inject acid into the aquifer, and pump it out to collect the copper. Mike and Joan Wilcox have lived in the lower end of Lisbon Valley for about 30 years. They are the 3rd generation ranchers in that area and have a son and grandson that are ranching there also, 4th and 5th generation. The Wilcox family were fortunate enough a few years ago to drill a well that has been used for livestock, wildlife and their home. The fear is this Situ type of mining will contaminate the well and that water from their well will no longer be safe for personal use, livestock and wildlife watering. They live only 3 miles from the mine and there are others who live nearby as well. Allowing the mine to drill and extract using this method is of grave concern and a public hearing needs to be held as many citizens are opposed to what the mining company is proposing.

Second, in La Sal, Utah, the aquifer that the wells use for domestic water use depends on the amount of snowfall on nearby La Sal Mountain. We have been experiencing drought for many years and the aquifer's ability to recharge is affecting current existing wells. My concern is two fold, Legacy Subdivision has applied to build a subdivision that will have 117 new homes and families on approximately 120 acres. That could potentially mean 117 new water wells plus 117 new septic tanks or systems installed. The average depth of our wells is about 200 plus or minus feet. My neighbors well has dropped 60 feet in the last few years. A well was drilled in 2004 for the La Sal Community Center and La Sal Elementary School. That well was producing 56 gpm when drilled. It now is producing 12 gpm. I am not against someone developing the land and adding people to our population, but I do worry that our aquifer will dry up leaving many of us without water. Also, I worry that many septic systems so close together could possibly contaminate our aquifer. A possible solution might be that a well could be drilled into the Navajo sandstone that is about 1000 feet and could very easily have more than enough water for the subdivision. I also believe a sewer plant for the whole subdivision should be considered in order to alleviate any possible contamination to the aquifer. Both of these alternatives are expensive but need to be considered to protect existing water rights.

A water aquifer study needs to be conducted to determine what is potentially available and the continuation of drilling without that knowledge to plan responsibly for future growth is critical for responsible growth. As Utah owns the water rights, policy needs to be adopted so that existing residents' water usage will be protected. A fair and comprehensive plan that involves the state and county planning committee is critical. I would appreciate any help you might suggest to help us on both of my concerns and would be willing to meet with you about what is happening in the La Sal area.

Thank you,
Kelly and Julie Green, concerned citizens of San Juan County and La Sal, Utah.

Kelly M Green

Drummond Earley
To: Kelly and Julie Green
Fri, Nov 20, 2020 at 12:10 PM

https://mail.google.com/mail/u/0?ik=0926d7402&view=pt&search=all&permthid=thread-f%3A1682281294192410500&simple=msg-f%3A1682281294192410500&simple=msg-a%3A4716884242755927336&simple=msg-a%3A7256447584531316248
Drummond Earley <dearley@utah.gov>

To: Kellymike Green <kgreen@luc.org>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


Tue, Dec 1, 2020 at 4:25 PM
Lisbon Valley Copper - In Situ extraction application
3 messages

Anthony Mancuso <dearley@utah.gov>  
To: dearley@utah.gov  
Mon, Nov 2, 2020 at 3:17 PM

Good Afternoon,

I am writing today to express my extreme concern regarding Lisbon Valley Copper's recent proposal to use in situ extraction in the Lisbon Valley Area.

In simple terms, Lisbon Valley Copper has lied to you on their application. They deny that the BC Aquifer could be used in the future for drinking water development. In truth, this aquifer is already being used for the purposes of drinking and stock watering. The Wilcox Family Ranch has had a well developed there for years.

Literally every analysis of real property valuation trends in the SE Utah area shows that expansion of residential land uses is a virtual certainty. Lisbon Valley is no exception. The aquifer in Lisbon Valley is simply too valuable to allow tampering. Lisbon Valley Mining's proposal cannot be allowed.

--
Anthony Mancuso

"Conservation is a cure that has no end. There is no point in which we say our work is finished."
-- Rachel Carson

Drummond Earley <dearley@utah.gov>  
To: Anthony Mancuso <dearley@utah.gov>  
Fri, Nov 20, 2020 at 12:10 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:

[Quoted text hidden]

Drummond Earley <dearley@utah.gov>  
To: Anthony Mancuso <dearley@utah.gov>  
Tue, Dec 1, 2020 at 4:24 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Quoted text hidden]
Lisbon Valley Mining Permit

4 messages

Kerry Kelly <**********>
To: dearley@utah.gov

Dear Mr. Earley,

I am writing to request a public hearing for the Lisbon Valley Mining permit for several reasons:

1. There are users near this aquifer who are concerned about contamination of their drinking water. These users deserve to have their concerns heard.

2. The great potential for damage to the aquifer that taxpayers will eventually be required to pay or live with. This mining company owes approximately $250,000 in county taxes and has previously declared bankruptcy. I am very concerned that company required monitoring and mitigation will not occur or will cease as soon as copper prices drop.

Sincerely,

Kerry Kelly

Fri, Nov 20, 2020 at 12:10 PM

Drummond Earley <dearley@utah.gov>
To: Kerry Kelly <**********>

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


Fri, Nov 20, 2020 at 3:40 PM

Kerry Kelly <**********>
To: Drummond Earley <dearley@utah.gov>

Thank you ;)

Fri, Nov 20, 2020 at 3:40 PM

Drummond Earley <dearley@utah.gov>
To: Kerry Kelly <**********>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


Tue, Dec 1, 2020 at 4:23 PM
Dusty,
Hello My name is RL Wilcox. My family owns property next to the Lisbon Valley copper mine in San Juan County. My parents drink from a well near the copper mine. Has the Copper mine applied to do in-situ type mining? We are very concerned how this will affect our drinking water in the burrow canyon aquifer. I am trying to stay informed as to what is going on. Will you please help me do that?
My phone number is [redacted].
Thank you
RL Wilcox

Mr. Drummond,
My family is currently drinking water from the Burro Canyon formation very near the Lisbon Valley copper mine. The Utah Department of Environmental Quality Website section 3: Water Programs Part 8: Underground Injection control permits Utah DEQ permit wizard states "The UIC Program prohibits injection of fluid containing any contaminant if the presence of that contaminant may cause a violation of any primary drinking water regulation or which may adversely affect the health of persons. An USDW is an Aquifer, or a portion thereof, which currently supplies drinking water for human consumption"
We strongly protest the injection of any chemical used to mine copper into our drinking water. Please take note that we intend to protest any mining operation that will disrupt our livelihood in Lisbon Valley.
A response from you and Omar Sierra-Lopez would be appreciated.
Thank you,

RL Wilcox
Dusty:

This is the second letter.

Regards,

Omar Sierra-Lopez
Physical Scientist (Environmental)

U. S. Environmental Protection Agency (Region 8)
Underground Injection Control Program
Mail Code: BWD-SOU
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone 303.312.7045

EPA Region 8 UIC website:

From: Minter, Douglas <Minter.Douglas@epa.gov>
Sent: Monday, November 2, 2020 4:06 PM
To: Sierra-Lopez, Omar <Sierra-Lopez.Omar@epa.gov>
Subject: FW: Email #2 of 2: CMS AX-21-000-0514

From: Bahrman, Sarah <Bahrman.Sarah@epa.gov>
Sent: Monday, November 2, 2020 1:46 PM
To: Minter, Douglas <Minter.Douglas@epa.gov>; Hutchinson, Marcella <Hutchinson.Marcella@epa.gov>
Cc: Lucero, Adele <Lucero.Adele@epa.gov>; Bloom, Judy <Bloom.Judy@epa.gov>; Kahn, Lisa <Kahn.Lisa@epa.gov>; Pfeiffer, Tricia <Pfeiffer.Tricia@epa.gov>
Subject: Email #2 of 2: CMS AX-21-000-0514
The other control...Thanks Adele

From: Love, Shea <dove.shea@epa.gov>
Sent: Monday, November 2, 2020 8:04 AM
To: Lucero, Adele <Lucero.Adele@epagov>
Subject: CMS AX-21-000-0514

Hi Adele,

This seems to belong to the WD. Can you please take a look and let me know.

Thanks!
Shea

Shea Love
Staff Assistant to the Deputy Regional Administrator
Office of the Regional Administrator (BRA)
1595 Wynkoop Street
Denver, Colorado 80202
(303) 312-6162
love.shea@epagov

2 attachments

- AX-21-000-0514 CMS.pdf
- AX-21-000-0514 Control Slip.pdf
From: Maxine and Steve Deeter
Sent: Sunday, November 1, 2020 9:32 AM
To: Wheeler, Andrew <awheeler,awheeler@epa.gov>
Subject: Lisbon Valley Copper Mine and Legacy Field Subdivision

Mr. Wheeler,

I am writing with two concerns that deal with water in San Juan County, Utah. First I want to address the Lisbon Valley Copper Mine in Lisbon Valley Utah. They have applied to use Situ type mining which means the company will inject acid into the aquifer, pump it out to collect the copper, Mike and Joan Wilcox have lived in the lower of Lisbon Valley for about 30 years. They are the 3rd generation ranchers in that area and have a son and grandson that are ranching there also, 4th and 5th generation. The Wilcox family were fortunate enough a few years ago to drill a well that has been used for livestock, wildlife and their home. The fear is this Situ type of mining will contaminate the well and that water from their well will no longer be safe for personal use, livestock and wildlife watering.

Second, in La Sal, Utah, a small old ranching town that was developed by Charlie Redd is now growing very fast. The aquifer that the wells used for domestic use depends on the amount of snowfall that falls on the La Sal Mountain. We have been a drought so many years now I have lost count of them. My concern is two fold, Legacy Subdivision has applied to build a subdivision that will have 177 new homes and families on approximately 120 acres. That could potentially mean 177 new water wells plus 177 new septic tanks or systems installed. The average depth of our wells is about 200 plus or minus feet. My son’s well has dropped 60 feet in the last few years. We had a well drilled in 2004 for the La Sal Community Center and La Sal Elementary School. That well was producing 56 gpm when drilled. It now is producing 12 gpm. I am not against someone developing the land and adding people to our population, but I do worry that our aquifer will dry up leaving many of us without water. Also, I worry about that many septic systems so close together that they could possibly contaminate our aquifer. A well could be drilled into the Navajo sandstone that is about 1000 feet and could very easily have more than enough water for the subdivision. I also believe a sewer plant for the whole subdivision should be considered in order to alleviate any possible contamination to the aquifer. Both of these alternatives are expensive. But, I can’t see any other alternative that can save our aquifer.

I would appreciate any help you might suggest to help us on both my concerns.

Thank you,

Steve Deeter, concerned citizen of San Juan County and La Sal, Utah,
Citizen Information

Citizen/Originator: Deeter, Steve  
Organization: N/A  
Address:  
Constituent: N/A  
Committee: N/A  
Sub-Committee: N/A

Control Information

Control Number: AX-21-000-0514  
Alternate Number: N/A  
Status: Pending  
Closed Date: N/A  
Due Date: Nov 17, 2020  
# of Extensions: 0  
Letter Date: Nov 1, 2020  
Received Date: Nov 1, 2020  
Addressee: AD-Administrator  
Addressee Org: EPA  
Contact Type: EML (E-Mail)  
Priority Code: Normal  
Signature: DX-Direct Reply  
Signature Date: N/A  
File Code: 401_1006_a Administrative Management - Controlled and major correspondence for employees other than senior officials  
Subject: Lisbon Valley Copper Mine and Legacy Field Subdivision  
Instructions: DX-Respond directly to this citizen's questions, statements, or concerns  
Instruction Note: N/A  
General Notes: N/A  
State-Tribal CNTL: N/A  
CC: N/A

Lead Information

Lead Author: Shea Love  
Office: R8  
Due Date: Nov 17, 2020  
Assigned Date: Nov 2, 2020  
Complete Date: N/A  
Instruction: DX-Respond directly to this citizen's questions, statements, or concerns

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Supporting Author: N/A

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From: Maxine and Steve Deeter
Sent: Sunday, November 1, 2020 3:32 AM
To: Wheeler, Andrew <awheeler.andrew@epa.gov>
Subject: Lisbon Valley Copper Mine and Legacy Field Subdivision

Mr. Wheeler,

I am writing with two concerns that deal with water in San Juan County, Utah. First I want to address the Lisbon Valley Copper Mine in Lisbon Valley Utah. They have applied to use a permit to use Situ type mining which means the company will inject acid into the aquifer, pump it out to collect the copper, Mike and Joan WIlcox have lived in the lower of Lisbon Valley far about 30 years. They are the 3rd generation ranchers in that area and have a son and grandsons that are ranching there also, 4th and 5th generation. The Wilcox family were fortunate enough a few years ago to drill a well that has been used for livestock, wildlife and their home. The fear is this Situ type of mining will contaminate the well and that water from their well will no longer be safe for personal use, livestock and wildlife watering.

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I would appreciate any help you might suggest to help us on both my concerns.

Thank you,
Steve Deeter, concerned citizen of San Juan County and La Sal, Utah,

[Signature]
Citizen Information

Citizen/Originator: Deeter, Steve
Organization: N/A
Address: [Redacted]
Constituent: N/A
Committee: N/A
Sub-Committee: N/A

Control Information

Control Number: AX-21-000-0514
Alternate Number: N/A
Status: Pending
Closed Date: N/A
Due Date: Nov 17, 2020
# of Extensions: 0
Letter Date: Nov 1, 2020
Received Date: Nov 1, 2020
Addresser: AD-Administrator
Addresser Org: EPA
Contact Type: EML (E-Mail)
Priority Code: Normal
Signature: DX-Direct Reply
Signature Date: N/A
File Code: 401_1006_a
Subject: Administrative Management - Controlled and major correspondence for employees other than senior officials
Instructions: DX-Respond directly to this citizen's questions, statements, or concerns
Instruction Note: N/A
General Notes: N/A
State>TribalCNTL: N/A
CC: N/A

Lead Information

Lead Author: Shea Love
Office: R8
Due Date: Nov 17, 2020
Assigned Date: Nov 2, 2020
Complete Date: N/A
Instruction: DX-Respond directly to this citizen's questions, statements, or concerns

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Supporting Information

Supporting Author: N/A

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### Comments

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Sierra-Lopez, Omar <Sierra-Lopez.Omar@epa.gov>
To: "dearley@utah.gov" <dearley@utah.gov>

Dusty:

We also received these letters via email. We will be responding letting them know that they have an opportunity to express their concerns using the Utah DEQ PN https://deq.utah.gov/public-notices-archive/water-quality-public-notices

We would like to confirm that you have no objection to our mentioning UT DEQ’s comment period in our response.

I will be sending another email with the other letter.

Regards,

Omar Sierra-Lopez
Physical Scientist (Environmental)

U. S. Environmental Protection Agency (Region 8)
Underground Injection Control Program
Mail Code: BWD-5DU
1585 Wynkoop Street
Denver, Colorado 80202-1129
Phone: 303.312.7045

EPA Region 8 UIC website:

From: Minter, Douglas <Minter.Douglas@epa.gov>
Sent: Monday, November 2, 2020 4:05 PM
To: Sierra-Lopez, Omar <Sierra-Lopez.Omar@epa.gov>
Cc: Bahrman, Sarah <Bahrman.Sarah@epa.gov>; Lucero, Adele <Lucero.Adele@epa.gov>; Hutchinson, Marcella <Hutchinson.Marcella@epa.gov>; Pfeiffer, Tricia <Pfeiffer.Tricia@epa.gov>; Bloom, Judy <Bloom.Judy@epa.gov>; Kahn, Lisa <Kahn.Lisa@epa.gov>
Subject: Fw: Email #1 of 2: CMS AX-21-000-0516

Hi Omar: please take the UIC lead on this response as the UT DEQ contact. I will send the second email in a minute.

We will need to coordinate our response through Adele.

Please send me an invite so I can give you more direction working from a recent example.
Thanks,

Douglas

From: Bahrmann, Sarah <Bahrmann.Sarah@epa.gov>
Sent: Monday, November 2, 2020 1:46 PM
To: Minter, Douglas <Minter.Douglas@epa.gov>; Hutchinson, Marcella <Hutchinson.Marcella@epa.gov>
Cc: Lucero, Adele <Lucero.Adele@epa.gov>; Pfeiffer, Tricia <Pfeiffer.Tricia@epa.gov>; Bloom, Judy <Bloom.Judy@epa.gov>; Kahn, Lisa <Kahn.Lisa@epa.gov>
Subject: Email #1 of 2: CMS AX-21-000-0516

Hi Douglas and Marcella —
Please see the attached controlled correspondence. We received two very similar emails from the Administrator’s office today regarding some UIC issues in UT, as well as concerns about aquifer depletion.

Douglas – can you please coordinate within UIC to draft a response? Many of the points in the response are outside the scope of the UIC program (and outside EPA’s purview), so we can state that where necessary.

Marcella – Trish pointed out there may be a sole source aquifer – can you check? If so, please coordinate with Douglas on a response. Otherwise, no action needed from you.

I’ll forward the second letter in a separate email. I think the response can be the same.

Thanks,
Sarah

Sarah E. Bahrmann | Chief, Safe Drinking Water Branch | U.S. Environmental Protection Agency - Region 8
(p) 303.312.6243 | (c) 303.903.8515 | (f) 877.876.9101

From: Lucero, Adele <Lucero.Adele@epa.gov>
Sent: Monday, November 2, 2020 10:52 AM
To: Bahrmann, Sarah <Bahrmann.Sarah@epa.gov>; Pfeiffer, Tricia <Pfeiffer.Tricia@epa.gov>
Subject: FW: Another CMS AX-21-000-0516

Sarah/Tricia,...
I sent this control to Andrew Todd and Judy Bloom...Clean Water...Judy responded see below...let me know if SDW will be responding to this...there is an additional one that I will forward to you also control #0514 and #0154...Thanks Adele

From: Bloom, Judy <Bloom.Judy@epa.gov>
Sent: Monday, November 2, 2020 10:09 AM
To: Bahrmann, Sarah <Bahrmann.Sarah@epa.gov>; Pfeiffer, Tricia <Pfeiffer.Tricia@epa.gov>
Cc: Lucero, Adele <Lucero.Adele@epa.gov>
Subject: FW: Another CMS AX-21-000-0516

Adele – same concern/letter – sharing with Tricia and Sarah

Judy Bloom | Manager | Clean Water Branch | USEPA, R8 | 1595 Wynkoop St, 8WD-CW | Denver CO | 80202 | 303 312 6395 | bloom.judy@epa.gov

From: Lucero, Adele <Lucero.Adele@epa.gov>
Sent: Monday, November 2, 2020 9:18 AM
To: Todd, Andrew <Todd.Andrew@epa.gov>; Bloom, Judy <Bloom.Judy@epa.gov>
Subject: FW: Another CMS AX-21-000-0516

Please see control will your office be responding the due date is 11/17... please let me know and if not then what section in WD would be...Thanks Adele

From: Love, Shea <love.shea@epa.gov>
Sent: Monday, November 2, 2020 8:09 AM
To: Lucero, Adele <Lucero.Adele@epa.gov>
Subject: Another CMS AX-21-000-0516

Hi Adele,

This too, looks like it is for the WD.

Thank you!
Shea

Shea Love
Staff Assistant to the Deputy Regional Administrator
Office of the Regional Administrator (ORA)
1595 Wynkoop Street
Denver, Colorado 80220
(303) 312-6162
love.shea@epa.gov

2 attachments
- AX-21-000-0516 Control Slip.pdf
  72K
- AX-21-000-0516 CMS.pdf
  180K

Drummond Earley <dearley@utah.gov>
To: "Sierra-Lopez, Omar" <Sierra-Lopez.Omar@epa.gov>

We have no objections to your referral to the PN.

Thank you,

Dusty
[Quoted text hidden]
From: Kelly M Green

Sent: Sunday, November 1, 2020 9:39 PM

To: Wheeler, Andrew

Subject: Lisbon Valley Mine Proposal

Mr. Wheeler,

I am writing with two concerns that deal with water in San Juan County, Utah. First, I want to address the Lisbon Valley Copper Mine in Lisbon Valley Utah. They have applied for a permit to use Sluice-type mining which means the company will inject acid into the aquifer, and pump it out to collect the copper. Mike and Joan Wilcox have lived in the lower of Lisbon Valley for about 30 years. They are the 3rd generation ranchers in that area and have a son and grandson that are ranching there also. 4th and 5th generation. The Wilcox family were fortunate enough a few years ago to drill a well that has been used for livestock, wildlife and their home. The fear is this Sluice type of mining will contaminate the well and that water from their well will no longer be safe for personal use, livestock and wildlife watering. They live only 3 miles from the mine and there are others who live nearby as well. Allowing the mine to drill and extract using this method is of grave concern and a public hearing needs to be allowed as many citizens are opposed to what the mining company is proposing.

Second, in La Sal, Utah, a small old ranching town that was developed by Charlie Redd is now growing very fast. The aquifer that the town used for domestic water use depends on the amount of snowfall on nearby La Sal Mountain. We have been experiencing drought for many years and the aquifer's ability to recharge is affecting current existing wells. My concern is two fold. Legacy Subdivision has applied to build a subdivision that will have 117 new homes and families on approximately 120 acres. That could potentially mean 117 new water wells plus 117 new septic tanks or systems installed. The average depth of our wells is about 200 plus or minus feet. My neighbors well has dropped 60 feet in the last few years. A well was drilled in 2004 for the La Sal Community Center and La Sal Elementary School. That well was producing 56 gpm when drilled. It now is producing 12 gpm. I am not against someone developing the land and adding people to our population, but I do worry that our aquifer will dry up leaving many of us without water. Also, I worry that many septic systems so close together could possibly contaminate our aquifer. A possible solution might be that a well could be drilled into the Navajo Sandstone that is about 1000 feet and could very easily have more than enough water for the subdivision. I also believe a sewer plant for the whole subdivision should be considered in order to alleviate any possible contamination to the aquifer. Both of these alternatives are expensive but need to be considered.

A water quality study needs to be conducted. On the aquifer to determine what is potentially available and the continuation of drilling without that knowledge to plan responsibly for future growth is critical. As Utah owns the water rights, policy needs to be adopted so that existing residents' water usage will be protected. A fair and comprehensive plan that involves the state and county planning committee is critical.

I would appreciate any help you might suggest to help us on both of my concerns and would be willing to meet with you about what is happening in the La Sal area.

Thank you,

Kelly and Julie Green, concerned citizens of San Juan County and La Sal, Utah.
Correspondence Management System
Control Number: AX-21-000-0516
Printing Date: November 02, 2020

Citizen Information
Citizen/Originator: Green, Kellymike
Organization: N/A
Address: [Redacted]

Constituent: N/A
Committee: N/A
Sub-Committee: N/A

Control Information
Control Number: AX-21-000-0516
Alternate Number: N/A
Status: Pending
Closed Date: N/A
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# of Extensions: 0
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Addressee: AD-Administrator
Addressee Org: EPA
Contact Type: EML (E-Mail)
Priority Code: Normal
Signature: DX-Direct Reply
Signature Date: N/A
File Code: 401_1006_a Administrative Management - Controlled and major correspondence for employees other than senior officials
Subject: Lisbon Valley Mine Proposal
Instructions: DX-Respond directly to this citizen's questions, statements, or concerns
Instruction Note: N/A
General Notes: N/A
State-Tribal CNTL: N/A
CC: N/A

Lead Information
Lead Author: Shea Love
Office: R8
Due Date: Nov 17, 2020
Assigned Date: Nov 2, 2020
Complete Date: N/A
Instruction: DX-Respond directly to this citizen's questions, statements, or concerns

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Thank you,
Kelly and Julie Green, concerned citizens of San Juan County and La Sal, Utah,

Kelly M Green
Citizen Information

Citizen/Originator: Green, Kellymike
Organization: N/A
Address: 
Constituent: N/A
Committee: N/A
Sub-Committee: N/A

Control Information

Control Number: AX-21-000-0516
Alternate Number: N/A
Status: Pending
Closed Date: N/A
Due Date: Nov 17, 2020
# of Extensions: 0
Letter Date: Nov 1, 2020
Received Date: Nov 1, 2020
Addressee: AD-Administrator
Address Org: EPA
Contact Type: EML (E-Mail)
Priority Code: Normal
Signature: DX-Direct Reply
Signature Date: N/A
File Code: 401_1006_a Administrative Management - Controlled and major correspondence for employees other than senior officials
Subject: Lisbon Valley Mine Proposal
InSTRUCTIONS: DX-Respond directly to this citizen's questions, statements, or concerns
InSTRUCTION Note: N/A
General Notes: N/A
State-Tribal CNTL: N/A
CC: N/A

Lead Information

Lead Author: Shea Love
Office: R8
Due Date: Nov 17, 2020
Assigned Date: Nov 2, 2020
Complete Date: N/A
Instruction: DX-Respond directly to this citizen's questions, statements, or concerns

Lead Assignments:

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Supporting Information

Supporting Author: N/A

Supporting Assignments:

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### Comments

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To Whom it may concern,
I wanted to make my opinion known.
I am not for the Lisbon Valley Copper Mine contaminating the water source in Lisbon Valley.
This is a huge concern to me as I have family that live right next to the Copper Mine.
I feel like the mine has not been honest in past years and this is all about big money.
This will ruin the water source.
I am opposed to this,

Best,
Kim

--

Drummond Earley <dearley@utah.gov>
To: Kim Halls

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: Kim Halls

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]

Kim Halls
To: Drummond Earley <dearley@utah.gov>

Thank you!

Best,
Kim

[Quoted text hidden]
Drummond Earley <dearley@utah.gov>
To: Kim Halls <kim.halls@utah.gov>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Lisbon Valley Copper Mine
3 messages

Austin Wilcox <[REDACTED]>
To: dearley@utah.gov

To whom it may concern,

I am emailing in regards to the application made by the Lisbon Valley Copper Mine to do In Situ type mining in Lisbon Valley, Utah. This mining could be devastating to the area and more specifically to my family that lives there. I am the grandson of Mike and Joan Wilcox who have a well in Lisbon Valley that supplies them and their livestock with fresh drinking water. This acid injection mining would ruin their drinking water and drive them out of the area and ruin a huge portion of the drinking water for their livestock and the surrounding wildlife. I understand that they put on their application that the aquifer of concern is not a source of drinking water, which is simply not true.

As a person who has lived in the area and who still has family who resides there and uses that aquifer as their lifeline, please consider rejecting the application of the Lisbon Valley Copper Mine to do In Situ mining in Lisbon Valley.

Best Regards,

Austin Troy Wilcox

Fri, Nov 20, 2020 at 12:08 PM

Drummond Earley <[REDACTED]>

To: Austin Wilcox <[REDACTED]>

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:  

Tue, Dec 1, 2020 at 4:23 PM

Drummond Earley <[REDACTED]>

To: Austin Wilcox <[REDACTED]>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Drafted text hidden]
Lisbon Mine Application

4 messages

To: dearley@utah.gov

Wed, Nov 4, 2020 at 9:32 AM

As a community member, the water resources in our Grand/San Juan communities are challenged. I am writing to discourage the inaccurate application from Lisbon Valley Mine for In SITU mining. This area may be a direct resource for a small amount of people... however it IS a necessary drinking source and should not be compromised for short term gain. Please deny this application and protect our drinking waters and limited resources in the community.

Thank you,

Cinda Cullon

Sent from my Verizon, Samsung Galaxy smartphone

Drummond Earley <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:09 PM

To: ____________________________

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


Fri, Nov 20, 2020 at 12:10 PM

Drummond Earley <dearley@utah.gov>

To: ____________________________

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


Tue, Dec 1, 2020 at 4:23 PM

Drummond Earley <dearley@utah.gov>

To: ____________________________

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


Lisbon Valley copper Mine
3 messages

William Love <[redacted]> Thu, Nov 5, 2020 at 10:30 AM
To: dearley@utah.gov

There is a lot of concern about the Lisbon Valley Copper Mine. I have been trying to contact you about the status of the mine. Please contact me at [redacted] or email. We need a public hearing as there seems to be people living around Lisbon Valley water sources. We need a public hearing. I have been reading the EIS for the area and the area to the west seems open for pollution and the pits are near the sandstone aquifers.

Please Advise
Bill Love
San Juan county

Drummond Earley <[redacted]> Thu, Nov 5, 2020 at 11:29 AM
To: William Love <[redacted]>

Mr. Love,

Thank you for your inquiry. You can find out more about the Lisbon Valley UIC Class III permit application submitted by the mine at the following link which contains a link to the background information:

https://www.utah.gov/pmn/sitemap/notice/637499.html

With regard to the status of the mine I know it is operating at a limited capacity but the status of the existing operations is under the authority of the Utah Department of Natural Resources Division of Oil, Gas and Mining. You may wish to contact them for information on the current mine workings but the UIC permit is for proposed future operations as an in situ copper recovery facility that will not use open pit mining techniques but some of the existing copper processing facilities that refine copper will be used in the future.

Thank you,

Dusty Earley
[Quoted text hidden]

Drummond Earley <[redacted]> Tue, Dec 1, 2020 at 4:23 PM
To: William Love <[redacted]>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Quoted text hidden]
Lisbon copper Mine Comments

2 messages

William Love <dearley@utah.gov>
To: dearley@utah.gov

Thu, Nov 5, 2020 at 11:50 AM

Date: Thu, 5 Nov 2020 11:45:49 -0700
Subject: Copper Mine Lisbon Valley comments

A public hearing needs to be held in San Juan County for the proposed Lisbon Valley Mine. Your data used to evaluate the proposal on your website is incomplete as it does not include the EIS from 1997 by the Department of the Interior. This EIS is 376 pages long and includes information on Faulting (page 133), springs (page 145), hydraulics (page 151) and geological layers (Page 120). All of the above information is pertinent to your decision and needs to be discussed at a public meeting.

Website for information (Second item)

Bill Love
San Juan County, Utah

Drummond Earley <dearley@utah.gov>
To: William Love <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:09 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Gavel text below]
---------- Forwarded message ----------
From: Joan Wilcox <[redacted]>
Date: Mon, Nov 2, 2020 at 10:38 AM
Subject: Lisbon valley mine intent to destroy are water
To: <dearley@utah.gov>

Utah Division of Water Quality
We are writing to voice are concerns on the permitting Lisbon Mine has applied for to inject acid into an aquifer that we have a well in which supplies drinking water to are home. We have lived in Lisbon for nearly 30 yr and own land and grazing permits for a 5 generation going on 6 cattle ranch. We have worked for years to develop water and grass giving back to the land to leave it better then when we first purchased it. The water that has been developed is the lifeblood of are existence here in Lisbon, It is the only way we can sustain ourselves in this dry area if this is allowed it will ruin our well, and are heath, generations of work will be lost forever. They are gravely mistaken when saying there is no domestic water wells in the project area. This needs to be stopped we have worked years to find and develop this well and pipeline let alone the heath concerns. Keep in mind they are not purchasing the land they are permitting to take from and not give back to it and line their pockets.

The mine themselves say there is only 5 yrs of copper where they intend to mine. It won't take long and the copper will be gone and the mine will go broke again and they will leave. Their resources are not renewable ours are. That is our goal to leave the land in better condition then we found it for the next generation. If this permitting is allowed 5 generation family ranch that has been here working being good stewards of the land putting back into the land with planting grass, developing water, building ponds, we are working to maintain this renewable resource. The mine will take everything and give nothing back to the land. Fill their pockets and leave. They are always saying but we are bonded, the mess they leave will take millions more then the bond to reclaim and it will still be ruined. Take a look around the county the reclaiming is a joke. They have already had problems at the mine with the acid leaking from the leach field this was at the time of the shut down, the state had to come in and get it under control using the bound to do so. They have a hard time with the truth in early march they lied everyone off and closed the doors because they said they were broke. Then come April with the pandemic they put in for covid relief and got 2 million. It had nothing to do with the pandemic cooper prices and poor management is what closed the doors and now they are back in business sounds like fraud of the gov. They have also change a lease contract we had with them, not to mention they are 1.4 million behind on their county taxes just pointing some things out that makes them not very trustworthy and have poor business habits.

Our way of life and possibly our health will be destroyed forever for their short term rampage. They have visited many times about this even offering to drill a
new well up by the house but no guarantee of hitting water. But before drilling wanted us to sign the other well over to them. All this contradicts them saying there is no domestic water in the project area.

Back in history poisoning a man's well has been a shooting offence. Please you are in the position and is your polices and job to protect the water and not let them do this.
As a local resident to the Copper mine, myself and my family have concern in regards to the proposed plan for acid injection at the copper mine. First fact is water is rather scarce in the area and what we do have we depend upon it for survival. We depend upon having clean uncontaminated water, for our families, our livestock and for local wildlife. We view this as an issue that could greatly effect, and possibly destroy our way of life and our health, and for what? So the copper mine can make a few bucks until they go bankrupt, again, and shut down. Many families within this area are generational families. We are not moving away, even if the copper mine shuts down for good. I.E. the copper mine will do what they need to do to make money until they eventually close permanently. Meanwhile, the rest of us have to live with their actions for a lifetime, and it is carried onto our next generation. I am already not a fan of above ground mining as it has destroyed natural beauty of the land, but now to risk destroying the aquifer in my opinion is worse.

I read in the application for approval of acid injection into the aquifer, that was shared in a post, is claimed there are no domestic water wells in the area. While there may be no well within one mile, how do we residence know that the aquifer within or under the copper mine does not tie to others in the area, outside of a mile distance. It is said the BC aquifer does not provide drinking water. Again, an aquifer being underground, how do we know it does not connect to other aquifers and again, how can we know for sure it will not run the risk of contamination our wells, current and future wells. It is said the closes drinking well is 14 miles away, but in reality, 14 miles is not really that far away. It is also asked if there is a possibility of the aquifer being used in the future for drinking water and the answer provided was NO. So are they fortune tellers? If I was asked few decades ago if there was ever a chance of anyone building a home in Lisbon Valley, I could have said no, being that no one has settled in Lisbon Valley since the early settlers all moved out in early to mid 1900s, yet, a family did and build the Three Step Hideaway. How could they predict no one will move into area, within the next decade or two, in less than 14 miles away from the mine, that will need to drill a water well?

I ask that before considering any application to please consider and address the concerns of local residences. Rather than trust one side, that has everything to gain, please take in account of those who everything to lose.

Sincerely,
Athena Spigner
Fri, Nov 20, 2020 at 12:08 PM

Drummond Earley <dearley@utah.gov>
To: athena.spigner@utah.gov

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:
[Quoted text hidden]

Tue, Dec 1, 2020 at 4:22 PM

Drummond Earley <dearley@utah.gov>
To: athena.spigner@utah.gov

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.
[Quoted text hidden]
Lower Lisbon valley
3 messages

Brendee Kennah <dearley@utah.gov>
To: "dearley@utah.gov" <dearley@utah.gov>

Sat, Nov 7, 2020 at 6:57 AM

To whom it may concern,
I have recently learned about the copper mine's proposal to start In Situ mining in this area. I know a family that lives in that area and has so for the last 30 years I grew up with their son RL Wilcox. They have ranched and improved that land with wells and watering holes for their animals and wildlife not to mention for their own drinking water. With this type of mining this would poison not only the aquifer but the wells the cattle the wildlife and the family that has been working this land for the past 30 years. I grew up in Monticello and have watched family and friends be poisoned by the uranium tailings in that area even lost my own dad because of it and I wouldn't wish it on anyone. Please look into this before granting the permit. Visit with the family and see how harsh of an area Lisbon valley is and with out the wells and watering holes that this family has provided nothing would be able to flourish there.
Thanks Brendee Kennah

Drummond Earley <dearley@utah.gov>
To: Brendee Kennah <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:08 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: Brendee Kennah <dearley@utah.gov>

Tue, Dec 1, 2020 at 4:21 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Copper mine injections into aquifer

3 messages

Tessy Lammert <tessy.lammert@utah.gov>
To: "dearley@utah.gov" <dearley@utah.gov>

Sat, Nov 7, 2020 at 10:11 AM

To whom it may concern,

We want to go on record to say that We are against allowing the Copper Mine in Lisbon valley to inject Chemicals into the water wells.

At a time when Utah is calling for water conservancy because we need to take care of our water for future generations, it seems reckless and irresponsible to allow any contamination of any water in our state. we have a residence in Moab, Utah and in La Sal, Utah where both places are concerned about the water that exists for the people, due to reckless and irresponsible usage and rationing due to corporate greed. There is no legitimate reason to allow this.

The Copper mine has been trying to (or maybe has come to an agreement) with a family that has a water well in that area, to exchange good water for the water they are going to contaminate. To us, this says several things,

1. They know that they are poisoning the water.
2. They know that there are people at this moment using that water.
3. This is something they are doing for profit.
4. Which means Profit over people, which never turns out well.

There's a saying, "Some times you just don't know what you just don't know" This seems appropriate for this situation, because what you do know is that it is in fact, poisoning water. What you don't know for certain is how long it will last, how far it will spread or at what point the health and wellbeing of the people in the area or surrounding areas (present or future) will be affected. When it comes to water it seems appropriate to err on the side of caution. We can live without Copper but we cannot live without water.

Respectfully submitted
Skoot and Teresa Lammert
La Sal Utah

Drummond Earley <dearley@utah.gov>
To: Tessy Lammert <tessy.lammert@utah.gov>
Fri, Nov 20, 2020 at 12:09 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


Drummond Earley <dearley@utah.gov>
To: Tessy Lammert <tessy.lammert@utah.gov>
Tue, Dec 1, 2020 at 4:21 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class Ill Draft Permit,

Dave Focardi: Hi Mr Early,

I live in San Juan county and hearing about insitu copper recovery raises some immediate concerns.
Is there a publicly avaliable copy of their engineering documents regarding the injection and recovery of water?
My 25 years in the oilfield as a wellsite geologist inform me that the best laid plans regarding drilling, injection, and recovery provide the opportunity for many mishaps.
Particularly, the 'missing process' sounds like a lot of hope. Do they provide the quantities of water required at each stage?
How do they plan on containing the injection water in the mineralized zones while it picks up the copper?

This whole thing sounds like a wonderful opportunity to ruin the water in that area.

Please contact me at this email.

Drummond Earley: Dave,

The divisions website at the link below will provide you with access to these documents. If you have any questions after your review please let me know,

Utah Public Notice

Division of Water Quality

Public Notice - Lisbon Valley Mining Company

Notice Date & Time: 11/4/20 8:00 AM -12/4/20 5:00 PM

Description/Agenda:

Division of Water Quality
Utah Department of Environmental Quality
Public Notice of Intent to Issue Permit
Underground Injection Control Class III Area Permit
In Situ Copper Recovery

Purpose of Public Notice
The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to authorize a new Underground Injection Control (UIC) Class III permit as described below. The permit is issued by the Director of the Division of Water Quality (DWQ) under
authority of the Utah Water Quality Act, Section 19-5-106(g) Utah Code Ann. 1953, as amended and Utah Administrative Code R317-7. Under Section R317-7-13 the Director of DWQ will investigate and provide written response to all citizen complaints duly submitted. In addition, the Director shall not oppose intervention in any civil or administrative proceeding by any citizen where permissive intervention may be authorized by statute or rule. The Director will publish notice of and provide at least thirty (30) days of public comment on any proposed settlement of any enforcement action, Utah Administrative Code R317-7-13 can be viewed at the following Internet URL: https://rules.utah.gov/public/roeder/r317/r317-007.htm#R14.

Permit Information:

Permittee Name: Lisbon Valley Mining Co., LLC (Lisbon Valley)
Facility Location: Lisbon Valley, San Juan County
Mailing Address: PO Box 248
La Sal, UT 84532

Lisbon Valley is currently an existing open pit heap leach copper mine and has submitted a UIC Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in south central San Juan County, Utah. This permit will allow Lisbon Valley to continue extraction of copper from ore within mineralized zones of the Burro Canyon aquifer (including the Dakota and Burro Canyon Formations) generally between 200 and 900 feet below the ground’s surface. These resources are currently uneconomical to develop using open pit mining methods and Lisbon Valley is planning to extend the life of mine by adopting in-situ copper recovery technology. The permit requires the operator to utilize best available technology in the construction, operation and closure of the in-situ copper recovery facilities. It also provides for the monitoring of ground water and requires the operator to monitor the perimeter of the wellfield both laterally and beneath. Wellfield closure will follow copper recovery to restore groundwater quality by rinsing and plugging and abandonment of injection and recovery wells.

Public Comments:

Public comments are invited any time prior to Friday, December 4, 2020. Comments may be directed to the Division of Water Quality, PO Box 144870, Salt Lake City, UT 84114-4870. All comments received prior to close of business Friday, December 4, 2020, will be considered in the formulation of final determinations to be imposed on the permit. A public hearing may be held if written requests are received within the first 15 days of this public comment period that demonstrate significant public interest and substantive issues exist to warrant holding a hearing.

Additional Information:

Additional information may be obtained upon request by contacting Drummond Earley at (801) 536-4088 or dearley@utah.gov or by writing to the aforementioned address. Related documents are available for review on the DWQ web page at https://deq.utah.gov/water-quality/water-quality-public-notices.

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact the Utah State Accessibility website at https://www.utah.gov/accessibility.html.

Notice of Special Accommodations:

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Emily Canton at 801-536-4342.

Notice of Electronic or telephone participation:

NA

Other Information:

Location:

195 North 190 West, Salt Lake City, 84116
Hi Drumond, thanks for the reply,
Here are some comments/questions
I reference the Lisbon Valley Mine document called "Attachments" in the link

I'm not sure what the permit actually allows- is it set up so they can mess with an aquifer that they are calling unsuitable for potable water? There is a family out there that has a well for domestic and ranching purposes...Willcox 05-2589 is one of the wells, which is definitely inside the requested exemption boundary.

I reference Sections and sometimes page numbers going forward. The page numbers sometimes repeat in the 160's, and/or are out of sequence, like in Attachment L that references stuff from section 10, Mechanical Integrity. One of those pages says page 123, even though it is after page 183

In attachments, Fig 3.2 I have a couple comments-
- at the scale of the map, the location of the PW(Production Wells) are obscured by the proximity to the MW(Monitoring Wells)
- and it's not clear how the PWs relate to Injection Wells-Which in the Draft Permit, Page 9, are lumped together for purposes of the narrative.

Also comment on Fig 3.2, in the inset of the Area Exemption Boundary are 3 areas with additional stippling which are not identified in the Legend, I believe they are the zones of mineralization they want to pump? In Fig 12.2 page 149 the stippled areas are called ISR Well Fields.

In the Attachment supplement
'Corrective Action Plan' page 7 section 5.0 "company will use best professional practices - drill rig or tremie pipe" for Plugging improperly abandoned wells, My comments are these choices totally at the discretion of the Company? Are there plans for a DEQ representative or a third party monitor to be in the field with them? I know some of those old wells can be pretty obscure, and a tremie pipe might not get through whatever surface collapse has occurred, but a drill rig would punch right through into the old borehole. It seems the Company is interested in having any old holes sealed so maybe not necessary to have a third party monitor?

5.2 Mitigation and Avoidance- This section reads such that DEQ could require pretty extensive monitoring requirements- if I was the Company, I would want to have some kind of limitations on this. Where it says "may include monitor wells in addition to those provided for normal well field operations" is that at the discretion of DEQ? Can DEQ ask for more monitor wells?

Attachment D
6,3 two comments- what are the mitigation measures for the "process collection ponds" regarding bird and wildlife exclusion?

"The BC aquifer may not contain enough water supply to support ISR...does not recharge or have influential flow" This admission of the closed nature of the aquifer speaks volumes about how there may be issues with recovering the water to Baseline levels.

7.2.1.2 N Aquifer PW-7 regarding Monitoring well MW97-13, located 135' from PW-7, is the monitoring well water surface higher or lower than the water surface of PW-7? The pumping test information seems to indicate that either the two wells are not connected hydrologically, or there is enough water available that the amounts withdrawn from PW-7 don't affect the MW. However, the relative location of each well's water surface could affect that as well. The data from these transducer measurements are the linchpin of the process, and merits close scrutiny.

7.4.1 Background first paragraph end- "Well locations and GTO fault are shown on Fig 7.6 ?? Do they mean Fig 7.2? 4th paragraph - do they mean Fig 7.3? I think the figure numbers in the exhibit don't match the numbers in the text narrative.

7.4.2 Summary- no definition for "SGR material"

7.6 Pump Testing Design

https://mail.google.com/mail/u/0?ik=d002bd7402&view=p&search=all&permthid=thread-f%3A1682571474481536629&simp=%3A1682571474481536629&simp-a%3A683212613363716736&simp%3A1682822757070464005&simp=a...
2) Detailed mapping of ore bodies and lithology of overlying and underlying confining units. I am surprised this hasn't been done, is it possible that this exploration would reveal a lack of commercial viability? This is an enormous amount of work to be done itself before they start drilling monitor wells and production and injection wells? In Attachment J, Part M Financial Responsibility they seem to anticipate failure with remediation of 84 wells as part of their bonding costs. These estimated costs bear close scrutiny. Apparently the lack of available ore is one reason the original mining operation went belly up, leaving an unpaid property tax bill of about $2 Million to San Juan County.

7.8 Pump Test Evaluation
The Company says evaluation of the Pump Test Data will address several issues—basically proving their model is correct. Does DEQ (UDWQ) have the resources and expertise to verify the Company's assertions?

7.9 Well Field Hydrologic Data Packages
I see something slightly confusing in this section—It says data results will be included in data packages according to UDWQ requirements. The slightly confusing part is where it refers to "If anomalous conditions are present. potential to impact human health... the well field... data package will be submitted to UDWQ for review and approval" Aren't they already submitting everything to UDWQ? Does this mean UDWQ only has review and approval rights if there are anomalous conditions that might impact human health?

Data Package contents, 87) Baseline water quality information including proposed upper control limits for monitor wells and target restoration goals.
I emphasize target restoration goals—What happens when these goals can't be met?
If they can't be met, the water quality is degraded, the recovery/remediation methods are not adequate, and presumably they are out of money because mining operations have ceased. What is the bonding procedure to insure adequate funds for this remediation process? It better be ironclad (not just copper clad, heh heh)

9.0 Part G Injection well Construction Plan
When they say "Limited Additives" are they going to specify which additives they are considering? Just Bentonite or ?? Synthetic Polymers? Something compatible with potable water?

10.1 Well construction materials
3rd paragraph: The hole will be cased with 12 inch steel surface casing outside SDR 17. The next sentence says Fiberglass or steel casing may also be used—does that refer to the well casing or the Surface Casing? I would like to know how deep the surface casing goes on one of these wells, page 119 Figure 10,1 looks like 18' for the cement annular seal.

Question regarding cementing the pipe-10.1 paragraph 5 "The annulus materials will be emplaced using a tremie pipe..." then down in 10.12 Hydraulic Collapse Pressure Calculations, it seems they are talking about using water to displace cement and force it up the annulus (section 11.2). Which one are they using?

11.1 Overview of Operations Paragraph 3
"In addition, these ponds may be equipped with evaporation systems to concentrate TDS (I'm assuming Total Dissolved Solids) for deep well disposal. The deep well they reference later, do they have permission or a permit to use that well for this purpose? page 139 Figure 11.3.11.1 paragraph 5 This one has some hand waving on in terms of where the water is coming from—they talk about BC for most of it, but then throw in the Navajo (N aquifer). Is that OK with UDWQ? Do they have those rights to use N aquifer for rinsing?"

11.3 Injection and Production wells
"It is important to note that the spacing and and configuration can and will change in response to geologic structure and hydraulic activity" Does the plan or permit specifically say that monitor wells need to be in place before they begin to change the purpose of a well? For example, lets say they are drilling a "monitor well" that turns out to have excellent ore body indications, so they want to make that a production well. How is that change accounted for in this permit? Do they have to drill monitor wells around that before they can continue with the process?

11.4 Wellfield Installation and Operation Sequence
"No well fields will interact with any domestic water wells" Is that true? I have to say, when someone starts talking about drilling hundreds of wells, and pumping materials made to dissolve copper minerals and recirculating that, and then being able to restore the water, I have to be skeptical. This sounds like a lot of stuff to have got right all the time.

11.4 Process ponds
They did a good job of chemical equations showing how copper comes out of the ground, I would like to see what they are talking about in the aquifer restoration process with similar analysis. Specifically, when they say absence of makeup acid will quickly consume the remaining acid and solids will precipitate back into the aquifer, what does that look like? They reference gangue minerals (in 14.1 Wellfield Rinsing) neutralizing acid, can they provide a bit more chemistry on that?

11.7 Groundwater Restoration
Big question here—what comes first—the Permit, or the restoration plan? It seems like there is a bit of a leap of faith here—"Before and during the ongoing ISR operations, the Company will collect data in regard to baseline groundwater quality, natural acid neutralization as a function of swept, and other pertinent information that will be used to prepare a comprehensive Groundwater Restoration Plan" Does this mean they get the permit and can start with all this activity before they really understand how the restoration process is going to happen? What are the UDWQ methods to halt this if the restoration plan isn't coming together?

11.7.5 Land Application Process
Typically, there are other applications besides Cu that come out of an acid process, things like Arsenic, What are the accepted levels being proposed for Land Application? Is there some level above Baseline levels that's acceptable for Land Application?

11.9 Schedule
Can you tell me a bit about the "EPA aquifer exemption permit" that is referenced in the first paragraph pleease? Is its the same as Attachment M—Aquifer Exemption Request? Is there a federal exemption for State acceptance for Land Application?
Attachment F Monitoring, Recording, and Reporting Plan

Fig 12.2 and subsequent figures 12.3 thru 12.6 - In the 12.3-6 figures they reference Cross sections A-A’ to D-D’ I can’t find any figures with the surface location of those Cross Sections. Is that an omission in the application or am I just not seeing those? I looked closely at Fig 12.2 without success. I can see the wells referenced in the cross sections, LW N P1-4 from Cross section C-C’ for example, but no C-C’ on the Fig 12.2

12.7 Quality Assurance

Shouldn’t there be some level of a QA plan before the permit is issued? They recognize the need for a QA plan, but this is one of the ways the public can really have a handle on what’s going on.

13.2.1 Integrity Testing of Casing

They say they will run a Cement Bond Log, but don’t say what constitutes a failure of MIT. Who determines when the CBL shows too poor a bond and the well needs to be “repaired or P&A’d”, Does DWQ have the oversight for that? The pressure test of 10% loss in 10 minutes seems a bit lax, unless that is industry standard? I have little faith in a Tremie pipe down the annulus for getting a good cement job over a 500-900’ casing run. (Unless I misunderstand their process, which is quite possible)

14.0 Part L Wellfield closure Plan

Review of adequate financial bond should be a fairly regular activity, not just after three years. The number of remediation sites paid for by taxpayers due to insufficient bonding or oversight is some number that is really high.

Page 160 and 161 seem to be repeated

14.1.1 Mobilization $75,000 for preparation and planning? $20,000 to mob and demob from site? really? I want to hire that company for all my drilling projects.

14.1.5 Rinse Verification Sampling

Sample size of 10% for QA verification! if that’s just QA that’s probably ok, because all wells are tested, right? This 10% is just QA verifying, right?

14.1 Well Plugging and Abandonment plan page 164

Please get some estimates from other drilling companies for P&A on B4 wells, $708,000 sounds like a pretty aggressive bid,

Attachment L Mechanical Integrity Testing 10.5

A pressure drop of 10%, over 10 minutes, is that standard for this type of well? That seems kind of loose

16.2 Aquifer Serving as a Source of Drinking Water

"there are no domestic water wells in the Project Area" According to the local ranching family, Wilcox, there ARE domestic water wells in the area. Perhaps some tests of the Wilcox wells could determine if the quality is better than indicated by the Company on page 169 for that aquifer.

I see the Company is claiming the aquifer exemption based on the commercially producible amounts of minerals. The Wilcox wells are on the edge of the project. Perhaps some accommodation for those wells?

They seem pretty dismissive of the BC aquifer in regards to domestic use, There are plenty of people using it for crops and irrigation

16.4 Requested Aquifer Exemption Boundary

they state the nearest PUBLIC water supply, but I am sure there are other private domestic water supplies closer than that. Do private wells have no significance? That doesn’t seem right.

Thank you for taking the time to read my comments and questions.

David Focardi

in San Juan county

** David Focardi

Drummond Earley <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:05 PM

To: Dave Focardi <davefocardi@earthlink.net>

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


Drummond Earley <dearley@utah.gov>

Tue, Dec 1, 2020 at 4:20 PM

https://mail.google.com/mail/u/0?ik=d0926d7d402&view=pt&search=all&permthid=thread-f%3A1682571474481536629&simplt=msg-f%3A1682571474481536629&simplt=msg-a%3Ae863212613367316736&simplt=msg-f%3A1682571474481536629&simplt=msg-a%3Ae863212613367316736
To: Dave Focardi <[redacted]>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
When will a determination be made on a public hearing?  
Please advise  
Bill love
**Lisbon Valley Mine hearing**

5 messages

**Richard Collins**
To: dearley@utah.gov  
Cc: jkmackey@utah.gov

Mon, Nov 9, 2020 at 10:39 AM

Dear Mr. Earley and Mr. Mackey,

It has come to my attention that the Lisbon Valley Mining Company has made application for a permit to use SITU mining methods in the lower Lisbon Valley. It is extremely hard for me to understand. This is one of the driest parts of the country and water is at a premium. A good producing aquifer is of great importance not only for the present generation but also for the future. I presently know of two families who depend on the water from wells in the Burro Canyon aquifer. These wells are inside the projected mining area. I request a public hearing on this matter before it proceeds any further.

Sincerely, Richard Collins

**Drummond Earley**
To: Richard Collins <dearley@utah.gov>  
Cc: Daniel Hall <dhall@utah.gov>

Mon, Nov 9, 2020 at 10:56 AM

Mr. Collins,

DWQ will be holding a public hearing on this permit,

The announcement will be advertised in the November 18th publication of the San Juan Record. The date, time and method will be specified and we will also post the advertisement on our website.

It is likely the date will be at the beginning of the week of November 23rd, most likely on the 23 or 24,

Given the current situation with Covid-19 and the pandemic, the hearing will be held virtually with Adobe Connect similar to how DWQ has been holding the Water Quality Board hearings.

Thank you,

Dusty Earley

**Drummond Earley**
To: Richard Collins <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:07 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


**Drummond Earley**
To: Richard Collins <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:08 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:

Drummond Earley <dsarley@utah.gov>
To: Richard Collins

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

The Lisbon Valley Mining company has a proposal with the Utah Division of Water Quality for in situ mining on BLM property in San Juan County. The public notice is attached. The BLM has a 1997 EIS on the mine that does not address in situ mining and an amendment to the EIS would be appropriate. The BLM needs to ask for a public hearing on this proposal. The Division of Water Quality is not including information from the EIS that is pertinent to the new proposal. The area is not surrounded by faults especially to the west and there is a danger of polluting the sandstone aquifer below the area. please advise.

Bill love
San Juan County
Good Morning.

My name is Scott Stevenson and my wife and I own (along with 2 partners) and operate 3 Step Hideaway LLC located in Lower Lisbon Valley, San Juan County, Utah.  www.3stephideaway.com

Our well is located incorrectly on Lisbon Valley Mining CO. (Figure 3.2) Proposed Aquifer Exemption Boundary map. Stevenson 05-2970......Well name on map. See attached map.

I want to go on record as opposed to this Aquifer Exemption because our Domestic drinking water well is in the area. I and 3 Step Hideaway LLC are strongly opposed to any In Situ Recovery Mining in Lisbon Valley.

Please feel free to contact me and verify this info with your own equipment.

I would also like to request a public hearing on this matter as well.

Thanks for your consideration

Scott Stevenson
3 Step Hideaway LLC
§ 146.4 Criteria for exempted aquifers.

An aquifer or a portion thereof which meets the criteria for an "underground source of drinking water" in § 146.3 may be determined under 40 CFR 144.8 to be an "exempted aquifer" if it meets the following criteria:

(a) It does not currently serve as a source of drinking water; and:

(b) It cannot now and will not in the future serve as a source of drinking water because:

(1) It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible.

(2) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;

(3) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or

(4) It is located over a Class III well mining area subject to subsidence or catastrophic collapse; or

(c) The total dissolved solids content of the ground water is more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system.


--------- Forwarded message --------
From: Scott Stevenson <redacted>
Date: Sun, Nov 8, 2020 at 6:57 AM
Subject: Stevenson well location Lower Lisbon Valley
To: <dearley@utah.gov>, George Shaw <gshaw@lvmcholdings.com>

Gentlemen,

Here is a better pic and location map of our well, on our property.
Please adjust our well head location on your map titled: “Proposed Aquifer Exemption Boundary” So that the public is not mislead anymore.

I still strongly oppose In Situ Recovery Mining in Lisbon Valley. And the HUGE possibility of our well being polluted and or depleted. I would again request a public hearing on this matter ASAP.

Thanks for taking care of this matter
Scott Stevenson
3 Step Hideaway LLC
Comments from the Eastland Special Service District

3 messages

Janet Ross <dearley@utah.gov>
To: dearley@utah.gov

Drummond Earley
Utah Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870

November 10, 2020

Dear Drummond,

The Lisbon Valley Copper Mine has re-opened and is again applying for a permit to utilize In Situ Mining of copper in Lisbon Valley. They state that approximately 2,000 chemical acid injections may eventually occur into the aquifer. The Utah Division of Water Quality is seeking public comment, and as such ours is below.

The Eastland Special Services District (ESSD) is concerned that these injections will occur within about 20-30 miles north of our community well. The ESSD well hole has a depth of 4,000 feet (with water at 1,200-1,700 feet), and provides culinary drinking water to about 75-100 people through a public water system (both through the water system and people outside the community who use our public water stand). We request that an official study be conducted concerning the impact to the aquifer that supplies ours (and others water). If our water is contaminated by these chemical injections that may travel into our community well through the underground aquifer, we will no longer be able to use this water.

Currently, the application is not accurate regarding drinking water and in situ mining as the BLM EIS was done in 1997 and does not address in situ mining and chemical injections into the aquifer. An amendment to the EIS would be appropriate. A public hearing and technical study need to be done prior to when, and if, a permit is issued.

The Eastland Special Services District Board appreciates attention to this public comment. Our water source is crucial to our community. We need our culinary water to be protected. A great deal of information about our well can be found from Kim Coburn, Staff Engineer - Minerals Utah Division of Oil, Gas and Mining Office: 801-538-5310.

Thank you,

The ESSD Board
Janet Ross, Board Chair

Drummond Earley <dearley@utah.gov>
To: Janet Ross <dearley@utah.gov>

Fri, Nov 20, 2020 at 12:06 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

https://mail.google.com/mail/u/0?ik=0926d7402&view=pt&search=all&permthid=thread-f%3A1682996805616935955&simplt=msg-f%3A1682996805616935955&simplt=msg-a%3A2796574269168996855&simplt=msg-a%3A2412482164731480753
I am writing to request a public hearing regarding the permit application from the Lisbon Valley Mining Co. I have many concerns including the accuracy of the information provided by Lisbon Valley Copper Mine, there are two water wells in Lower Lisbon Valley that are used for domestic drinking water on a daily basis. Since 2013 myself and my wife have used the water out of the Burro Canyon aquifer for domestic drinking water, irrigation, livestock and wildlife watering. We have two different water rights numbers 05-3575 and 05-3807. Our neighbors also use their well for drinking water for their home and business, the 3 Step Hideaway, Hugh Hurfow from the Utah Geological Survey has confirmed with us that our water comes from the Burro Canyon aquifer. What the copper mine does in the Burro Canyon aquifer will have an impact on our wells.

I have other concerns regarding the Lisbon Valley Mining Company using In Situ type mining and an aquifer exemption in the Burro Canyon aquifer including the following:

- Loss of property value
- Loss of our grazing resources
- Hazardous spills on the surface
- Financial instability of Lisbon Valley Mining Company
- Separate bonding for ISR

Please schedule a public hearing to give us the opportunity to communicate with the Division of Water Quality, Lisbon Valley Copper Mine, and all other interested parties.

Sincerely,

Mike and Joan Wilcox

---

Ms. Wilcox,

DWQ will be holding a public hearing on this permit.

The announcement will be advertised in the November 18th publication of the San Juan Record. The date, time and method will be specified and we will also post the advertisement on our website.


It is likely the date will be at the beginning of the week of November 23rd, most likely on the 24th but please check the site for any updates.

Given the current situation with Covid-19 and the pandemic, the hearing will be held virtually with Adobe Connect similar to how DWQ has been holding the Water Quality Board hearings.

Thank you,

Dusty Earley

---

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:

https://mail.google.com/mail/u/0?ik=d0926d7402&view=pt&search=all&permthid=thread-f%3A1683005275022246518&sig=msg-a%3A1683005275022246518&simplt=msg-a%3A4883968559510508648&simplt=msg-a%3A48731676113865311559&simplt=msg-a...
Drummond Earley <dearley@utah.gov>
To: Joan Wilcox <jwilcox@utah.gov>

Tue, Dec 1, 2020 at 4:19 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quote text hidden]
Division of Water Quality  
PO Box 144870  
Salt Lake City, UT 84114-4870  
November 6, 2020

Mr. Mackey  
I am writing to request a public hearing regarding the permit application from The Lisbon Valley Mining Co. I have many concerns including the accuracy of the information provided by Lisbon Valley Copper Mine. There are two water wells in Lower Lisbon Valley that are used for domestic drinking water on a daily basis. Since 2013 my family has used the water out of the Burro Canyon aquifer for domestic drinking, irrigation, and livestock watering. We have two different water right numbers 05-3575 and 05-3907. Our neighbors also use their well for drinking water for their home and business, The 3 Step Hideaway. Hugh Hurlow from the Utah Geological Survey has confirmed with me that our water comes from the Burro Canyon aquifer. What the copper mine does in the Burro Canyon aquifer will have an impact on our well.

I have other concerns regarding The Lisbon Valley Mining Company using In Situ type mining and an aquifer exemption in the Burro Canyon aquifer including the following.
  - Loss of property value  
  - Loss of our grazing resources  
  - Hazardous spills on the surface  
  - Financial instability of Lisbon Valley Mining Company  
  - Separate bonding for ISR  

Please schedule a public hearing to give us the opportunity to communicate with The Division of Water Quality, Lisbon Valley Copper Mine, and all other interested parties.

Sincerely,

RL Wilcox  

DWQ-2020-023457
Good morning.

I co-own and operate OK RV Park (Grand County, Moab) & Funstays Redrock RV Park (San Juan County, Moab). I am sending you this email to express my strong opposition to the pending permit by Lisbon Valley Mining Company. I am very fearful for what it will do to the water wells in that area and the subsequent issues that it would cause.

We have a lot of guests that stay with us that go to that area for Hunting, Jeeping and Recreation, as it is a great contrast to terrain in Moab. Furthermore, I have friends and employees that live in that area that rely on those wells.

I look forward to attending the public hearing on this and I thank you for your time!

Adam Oris
Chief of Operations

www.fun-stays.com
Lisbon Valley Mine

3 messages

Erin Barry <dearley@utah.gov>    Thu, Nov 12, 2020 at 3:01 PM
To: "dearley@utah.gov" <dearley@utah.gov>

Sent from Outlook

To Whom it May Concern:

I am writing in concern of the Lisbon Valley Mine’s proposal to use in Situ mining in extracting copper from San Juan County.

Water in San Juan County is scarce, and a precious resource we ranchers and farmers count on for our livelihood. Their use of this technique will not only destroy our grazing land, it will poison our wells causing astronomical destruction not only to our businesses, but possibly to our health as well.

When they inject acid into an aquifer, they have no way of knowing how far the poison will travel. All of our underground water runs to the Dolores River, which provides culinary water, and irrigation to many counties along its path. Including Dolores and Montezuma counties in Colorado.

Their mining will last for only a moment, but the destructive results will last for years to come. I am asking on behalf of all the residence that will be affected to please hold a public hearing on this matter. Also, to please not give them the permits they are requesting. You have the authority to choose humanity over the almighty dollar. Please do the right thing.

Sincerely,

Allen and Erin Barry
Barry Ranch, Monticello

Drummond Earley <dearley@utah.gov>    Fri, Nov 20, 2020 at 12:07 PM
To: Erin Barry <dearley@utah.gov>

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


Drummond Earley <dearley@utah.gov>    Tue, Dec 1, 2020 at 4:18 PM
To: Erin Barry <dearley@utah.gov>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit,

Mr Mackey,

I have some concerns regarding the Lisbon Valley Copper Mine wanting to do an underground chemical injection to the water supply in Lisbon Valley.

I have family that lives very close to mine. Their water comes from the Burro Canyon aquifer. There is no doubt that the injection would contaminate this water source. Not only would it contaminate the water source for human consumption it would also kill off the wildlife and the vegetation. In turn completely changing the geological formation of the area.

I manage the CK RV park in Moab. The park is 50 miles from the copper mine. Off roading is a large attraction to the area and we have many guests that four wheel in the Lisbon Valley area.

I strongly oppose the permitting for the Lisbon Valley Copper Mine to inject chemicals into the water source in Lisbon Valley.

I strongly oppose the Aquifer Exemptions.

Best,
Kim

--

John Mackey, P.E. | Assistant Director
801.536.4347 (office) | 801.536.4301 (fax)
Office Hours: Monday-Friday, 8:30 a.m.–5:00 p.m.
Drummond Earley <dearley@utah.gov>
To: John Mackey <jmackey@utah.gov>

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]
Hi TJ,

Good question, I'm not certain. If you haven't reached out to Drummond (Dusty) Earley yet, he or Wynn John of the Division of Water Quality (both are cc'd here) could probably tell you which aquifer is used for stock/wildlife watering, and give you some perspective on the water quality.

Wynn/Dusty, see below.

Peter

On Fri, Nov 13, 2020 at 9:15 AM Paul Baker <paulbaker@utah.gov> wrote:
Do you know from what aquifer the water for wildlife comes? I'm not a hydrologist or geologist and don't know a lot about the geology or hydrology of the area. Since we don't yet have a proposal, we don't have the details of what aquifers would be involved or what impacts there might be. We might, though, be able to get some of this information from DWQ or the BLM.

On Fri, Nov 13, 2020 at 7:12 AM Kim Coburn <kcoburn@utah.gov> wrote:
Hi TJ,
It is great to hear from you and I am glad that they are looking at this. Our new biologist starts Monday that covers a lot of these questions. In the meantime, my boss Paul Baker is very familiar with this project and has a background in range ecology that might be able to help answer those wildlife questions. I'm also copying our project lead Peter on this. One of us should be able to help.
Thanks again!

-------- Forwarded message --------
From: TJ Cook <tcook@utah.gov>
Date: Friday, November 13, 2020
Subject: Lisbon Valley Mine In-Situ Copper Recovery
To: kcoburn@utah.gov

Kim, I had some questions with the attached proposed project occurring down by Monticello with Lisbon Valley Mining Company. I am approaching this from a wildlife standpoint trying to figure out how this will affect them. My understanding is that there are other water users in this aquifer, the water is pumped out of the
wells to troughs for livestock. Wildlife also utilize these troughs, so I am trying to figure out what those impacts may be. Would you be willing to discuss potential impacts or point me in the right direction?
Thanks

--
TJ Cook
Impact Analysis Biologist
Utah Division of Wildlife Resources
Price Utah (435) 650-0083

--
Kim Coburn, P.E.
Staff Engineer - Minerals
Utah Division of Oil, Gas and Mining
Office: 801-538-5310
ogm.utah.gov
Lisa Reynard  
To: dearley@utah.gov

To whom it may concern,
I am a resident of San Juan County. I live off of Summit Road.

I am vehemently opposed to allowing Lisbon Valley Copper Mine to use "in situ" type mining, in which they inject acid into an aquifer to remove copper.

Water in Utah is a much more precious commodity than copper. As is human safety.
Please consider this and do not allow ANY COMPANY to even potentially ruin fresh water.

The proposal is to operate injection wells over 4800 acres—No No No,

Lisbon Valley Mine will soon go broke again and be gone. They are already over one million dollars delinquent on their taxes to San Juan County. Don't allow these "takers" to ruin fresh water, and the lives of current and future generations of people, forever.

Sincerely
Lisa S. Renard

Sent from my iPhone

Drummond Earley  
To: Lisa Reynard  
Fri, Nov 20, 2020 at 12:04 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:

[Quoted text hidden]

Drummond Earley  
To: Lisa Reynard  
Tue, Dec 1, 2020 at 4:10 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Quoted text hidden]
Hi did you get this ok?

Janet Ross

Drummond Earley  
Utah Division of Water Quality  
P.O. Box 144870  
Salt Lake City, UT 84114-4870  

November 10, 2020  

Dear Drummond,  

The Lisbon Valley Copper Mine has re-opened and is again applying for a permit to utilize In Situ Mining of copper in Lisbon Valley. They state that approximately 2,000 chemical acid injections may eventually occur into the aquifer. The Utah Division of Water Quality is seeking public comment, and as such ours is below.

The Eastland Special Services District (ESSD) is concerned that these injections will occur within about 20-30 miles north of our community well. The ESSD well hole has a depth of 4,000 feet (with water at 1,200-1,700 feet), and provides culinary drinking water to about 75-100 people through a public water system (both through the water system and people outside the community who use our public water stand). We request that an official study be conducted concerning the impact to the aquifer that supplies ours (and others water). If our water is contaminated by these chemical injections that may travel into our community well through the underground aquifer, we will no longer be able to use this water.

Currently, the application is not accurate regarding drinking water and in situ mining as the BLM EIS was done in 1997 and does not address in situ mining and chemical injections into the aquifer. An amendment to the EIS would be appropriate. A public hearing and technical study need to be done prior to when, and if, a permit is issued.

The Eastland Special Services District Board appreciates attention to this public comment. Our water source is crucial to our community. We need our culinary water to be protected. A great deal of information about our well can be found from Kim Coburn, Staff Engineer - Minerals Utah Division of Oil, Gas and Mining
Thank you.

The ESSD Board
Janet Ross, Board Chair
Oppose ISR mining
3 messages

Yahoo Email <reddacted>  
To: dearley@utah.gov, jjackey@utah.gov  
Mon, Nov 16, 2020 at 12:45 PM

I am totally opposed to this operation in lower Lisbon Valley. No sulfuric acid to pollute our water!!
I enjoy the recreation available to me and Liz been Valley and hopefully will be able to enjoy that for years to come?

Yours truly, Vincent J Battaglia

Sent from my iPhone

Drummond Earley <dearley@utah.gov>  
To: Yahoo Email <reddacted>  
Cc: jjackey@utah.gov  
Fri, Nov 20, 2020 at 12:04 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:

Mail Delivery Subsystem <mailer-daemon@googlemail.com>  
To: dearley@utah.gov  
Fri, Nov 20, 2020 at 12:04 PM

Address not found
Your message wasn't delivered to jjackey@utah.gov because the address couldn't be found, or is unable to receive mail.

LEARN MORE

The response was:
550 5.1.1 The email account that you tried to reach does not exist. Please try double-checking the recipient's email address for typos or unnecessary spaces. Learn more at https://support.google.com/mail/?p=NoSuchUser q148sor1108920bqa.117 - gsmtp
On Mon, Nov 16, 2020 at 12:47 PM Yahoo Email <dearley@utah.gov> wrote:

I am totally opposed to this operation in in lower Lisbon Valley. No sulfuric acid to pollute our water!!

I enjoy the recreation available to me and Liz been Valley and hopefully will be able to enjoy that for years to come?

Yours truly, Vincent J Battaglia

Sent from my iPhone
Water permits for Lisbon Valley Mining Company

3 messages

To: dearley@utah.gov

Mon, Nov 16, 2020 at 6:57 PM

To whom it may concern,

I am writing to request a public comment period on this permit process. I worry for the purity of drinking water for Mike and Joan Wiboox whose home is not far from the mine. Their drinking water source is well water. Could their water be affected? It is reasonable to request that a

Public comment period be held so all aspects can be taken into consideration before this is approved or declined.

Thank you,

Kraig Black
Monticello, UT

Sent from my iPhone

Fri, Nov 20, 2020 at 12:03 PM

Drummond Earley <dearley@utah.gov>

To: "(null) kjasan" <null@null>


[Taken text hidden]

Tue, Dec 1, 2020 at 4:10 PM

Drummond Earley <dearley@utah.gov>

To: "(null) kjasan" <null@null>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Taken text hidden]
Lisbon Valley Permit to allow "in situ" mining

3 messages

Marc LaPine
To: dearly@utah.gov

Fri, Nov 20, 2020 at 12:04 PM

Lisbon Valley Mine Permit Application pages

348K

Drummond Earley <dearly@utah.gov>
To: Marc LaPine

Fri, Nov 20, 2020 at 12:04 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


On Tue, Nov 17, 2020 at 3:46 PM Marc LaPine <mlapine@gmail.com> wrote:

Drummond Earley <dearly@utah.gov>
To: Marc LaPine

Tue, Dec 1, 2020 at 4:09 PM

Please see our website notice of comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
November 16th, 2020

To whom it may concern,

I am a resident of San Juan County. I live off of West Summit Road, which is used by employees of the mine and some trucks from the mine. The Lisbon Valley mine has had a hard time of staying in business with the competition of other copper mines in the US and other countries. Mining is a destructive process, and little to no efforts are made to rehabilitate any mine because of the antiquated 1872 mining laws; which allow destruction and waste to the environment. This is not proper in a country where 330 million residents dwell and fresh water is becoming more and more scarce.

After reading about the destructiveness of “in situ” type mining, I am vehemently opposed to allowing Lisbon Valley Copper Mine to use it. It is destructive to the aquifer to allow acid to be injected into any aquifer to dissolve copper which is then extracted. Where is the guarantee the acid will not leech into the adjacent aquifer but will stay within the 4,800 acre proposed permit site? There is none, and it will leach into the aquifers, and ground water people rely on to water livestock and drink themselves. Out of sight out of mind. These are desperate measures from a nearly bankrupt mining company. Do not allow any permit.

To even the most uninformed, it’s clear Lisbon Valley Mining Co. just wants to make maximum profit at the cost of the existing and future environment. Just look at the land they have worked and surrounding country where millions of cubic yards of waste have been deposited. Where is any rehabilitation of the overburden, removed to access the minerals? It is spread out over top of what was grassland capable of grazing cattle. Now it’s a dead zone. Pinyon pine trees are dying at a much greater rate surrounding the mine than anywhere else in San Juan Co./Grand Co., Lisbon Valley Mine will soon go broke again and be gone. They are already over $1.4 million dollars delinquent on their taxes to San Juan County. Don’t allow these “takers” to ruin fresh water, and the lives of current and future generations of people, forever.

What I don’t get is this boom/bust economy we seem to be addicted to. The beautiful scenery and tourist attractions abound in this and adjacent Counties. Instead of embracing the potential tourism, County residents opposed the Bears Ears and Escalante Monuments, causing the Trump Administration to reduce their size. Look around at any mine in the 4 corners area. They come in, claiming to produce jobs, they last until the minerals are gone, and they abandon the area, leaving an environmental disaster. The West is dotted with superfund sites that used to be mines. Refuse the permit. Embrace tourism and all the economic benefits that will accrue from it, for San Juan Co.

Sincerely
Marc J LaPine
November 16th, 2020

To whom it may concern,

I am a resident of San Juan County. I live off of West Summit Road, which is used by employees of the mine and some trucks from the mine. The Lisbon Valley mine has had a hard time of staying in business with the competition of other copper mines in the US and other countries. Mining is a destructive process, and little to no efforts are made to rehabilitate any mine because of the antiquated 1872 mining laws; which allow destruction and waste to the environment. This is not proper in a country where 330 million residents dwell and fresh water is becoming more and more scarce.

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Lisbon Valley Mine will soon go broke again and be gone. They are already over $1.4 million dollars delinquent on their taxes to San Juan County. Don’t allow these “takers” to ruin fresh water, and the lives of current and future generations of people, forever. What I don’t get is this boom/bust economy we seem to be addicted to. The beautiful scenery and tourist attractions abound in this and adjacent Counties. Instead of embracing the potential tourism, County residents opposed the Bears Ears and Escalante Monuments, causing the Trump Administration to reduce their size. Look around at any mine in the 4 corners area. They come in, claiming to produce jobs, they last until the minerals are gone, and they abandon the area, leaving an environmental disaster. The West is dotted with superfund sites that used to be mines. Refuse the permit. Embrace tourism and all the economic benefits that will accrue from it, for San Juan Co.

Sincerely

Marc J LaPine
Lisbon Valley Mine opposition
3 messages

Matthew Cozart <dearley@utah.gov>
To: dearley@utah.gov
Tue, Nov 17, 2020 at 12:17 PM

I oppose the underground injection control method being used by the afore mentioned mining company. Potential contamination of groundwater would be devastating. As a San Juan County resident I highly oppose this permit.

Thanks,
Matthew Cozart
Monticello Utah

Drummond Earley <dearley@utah.gov>
Fri, Nov 20, 2020 at 12:04 PM

Lisbon Valley Draft UIC Permit Public Hearing, November 24, 2020, Notice:


[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
Tue, Dec 1, 2020 at 4:10 PM

To: Matthew Cozart <dearley@utah.gov>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Dear Mr. Earley,

As a land owner in Lisbon Valley, I am interested in making a public statement at the upcoming Public hearing being held virtually on November 24th. I have a few questions I was hoping you could answer to provide direction in how to proceed.

What is the format of the hearing? meaning:

1) Is there a registration period to reserve a time slot for each individual to speak on November 24th and if so when is the reservation period announced and to whom do you submit your request.

2) What is the allotted time for each individual that would like to make a public comment.

3) Must your public comment at the virtual hearing FIRST be submitted in writing to the Division of Water quality BEFORE you can speak to your concerns at the virtual hearing.

Appreciate your input prior to the 24th so I can plan accordingly.

Thank you for your time in clarifying the process.

Francine Osikowicz
Dear Sir:

My name is Andrew A Jones Jr. I live in North Richland Hills, Texas. I enjoy recreational Opportunities in Lisbon Valley and enjoy a CLEAN, CLEAR glass of WATER when I am there!!! Because of that, I strongly OPPOSE ISR Mining in Lisbon Valley!

Please oppose the proposal to allow ISR mining in Lisbon Valley!

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Lisbon Valley Mining

2 messages

Russ Rogers -
To: dearley@utah.gov

Sun, Nov 22, 2020 at 1:55 PM

Sir,

I am a resident of Hurst, TX. Every year some of my friends and I travel up to the Moab, UT area to visit friends and ride motorcycles. We pump a lot of money into that local economy each year, for every one of ME there are hundreds more who visit the area and do the same. We make it a regular habit to stay at Three Step Hideaway while we are there, even if we are just passing through. This place is an Oasis for folks involved in our sport.

Annual rallies are held at Three Step, hosting dozens of riders who, again, pump money into the local economy.

There are many places we could stay, but they do not catch the spirit of the sport as well as Three Step. The guys I ride with are generally older in age, having accomplished life goals and are looking for a place to go to to unwind, and enjoy the area. It would be a travesty to destory such a beautiful place, that brings lots of unseenn money into the economy, by destroying the water supply with toxic chemicals.

For these reasons and especially for all the residents of this peaceful valley, I strongly oppose ISR Mining in Lisbon Valley. I trust that the Department of Environmental Quality for the great state of Utah will keep Lisbon Valley Mining Co from expanding the use of in-situ recovery mining in this area.

Respectfully,

Russell S "Russ" Rogers

Drummond Earley <dearley@utah.gov>

To: Russ Rogers -

Tue, Dec 1, 2020 at 4:09 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Dear Matt,

I live in Nashville, TN and spend several weeks a year in Lisbon Valley for recreational purposes. As I'm sure you know, it is a beautiful, peaceful part of the country. I've been made aware of Lisbon Valley Mining Company's plans for expansion that could contaminate the water and negatively impact the land, people's livelihoods, animals, and lastly, those of us who enjoy the country and clean water. I strongly oppose ISR mining and would appreciate your support in this effort.

Sincerely,
Matt White

Drummond Earley

To: Matt White

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

Lisbon Valley mining concerns
3 messages

Rob Boohar
To: *dearley@utah.gov* / <dearley@utah.gov>

Mon, Nov 23, 2020 at 7:08 AM

Mr. Earley,
My name is Robert Boohar from Pennsylvania and I have spent time in Lisbon Valley on vacations for the past few years. A group of friends and I really enjoy the area.

I recently learned of Lisbon Valley Mining Company’s plan to use an environmentally detrimental mining technique. I like many others were dismayed to think that the water in the valley could be contaminated and jeopardize recreational opportunities in the area. Not to mention the impact on those nice folks living in the valley.

I sincerely hope that your office would also oppose a big corporation business squeezing out ‘the little guy’ all for the sake of profit. Please take a stand against this proposal, I wish my opinion and concerns carried more weight but believe me I am not alone in opposing this.

Sincerely,
- Robert Boohar

Drummond Earley <dearley@utah.gov>
To: Rob Boohar

Tue, Dec 1, 2020 at 4:09 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: Rob Boohar

Tue, Dec 1, 2020 at 4:09 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]

https://mail.google.com/mail/u/0?ik=d0928d7402&view=pt&search=all&permthid=thread-f%3A1684160403990385546&simpltmsg=f%3A1684160403990385546&simpltmsg=a%3A-3838071001721811767&simpltmsg=a%3A6658217939268864001 1/1
Lisbon Valley Mining Company - In situ Recovery mining

2 messages

Scott Lee -
To: dearley@utah.gov

Mon, Nov 23, 2020 at 8:15 AM

Mr. Earley -

My name is Scott Lee and I own a motorcycle tour and rental company in Denver, CO and Phoenix, AZ. It has been brought to my attention that the Lisbon Valley Mining Company in the Lisbon Valley has submitted for a permit to use In situ Recovery mining to extract copper from the area. I want to express to you my deepest opposition to the approval of this permit.

Myself personally, as well as my companies, visit the Lisbon Valley each year on motorcycle tours bringing many, many customers to the area who spend money in the local economy on food and lodging. From the article posted recently in the Salt Lake Tribune, it sounds as though this mining process will all but destroy that valley by polluting the wells of those who live and operate businesses there (3 Step Hidesway). Obviously clean, non-contaminated water is essential to the survival of people, wildlife, cattle and businesses in that area. Every person in that valley should have their basic rights of clean drinking water protected, even against the desire of a local mining company.

Additionally, as mentioned in that article, this very mine owes millions of dollars in back taxes at present, hardly a model for an upstanding business - especially one that should be granted additional rights to conduct further business in the area. As a current business owner, we work hard to be an upstanding, contributing member of our local communities, as well as the larger western US. Any and all businesses operating should be found "in good standing" with all local entities before ever being considered for further expansion, or granted new permits for dangerous and detrimental procedures and processes.

Please consider the basic human rights of the local community there, and the potential loss of economic business the many small businesses and residents of the area will suffer by the approval of this permit. I am sure you enjoy clean drinking water at your house, make sure these folks will retain that same right as you.

Sincerely,
Scott Lee
Owner, USA Motorcycle Adventures | Colorado Motorcycle Adventures | Arizona Motorcycle Adventures

Drummond Earley -
To: Scott Lee -

Tue, Dec 1, 2020 at 4:08 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Draft text hidden]
Lisbon Valley Mining needs to be stopped

5 messages

TAYLOR, STEVEN C <dearley@utah.gov>
To: "dearley@utah.gov" <dearley@utah.gov>
Mon, Nov 23, 2020 at 9:11 AM

Mr. Earley,

The state of Utah has a precious resource that many of us cherish. Your pristine beautiful outdoors. It needs to be preserved and not sacrificed at the expense of some cooper mine that doesn’t even pay its taxes. They can not be allowed to rape the Lisbon Valley and put good hard working people, people who pay their taxes, out of their livelihoods.

Although I am not a resident of Utah, I infinitely value the time I get to spend there. And when I am there, I also spend money in your state. I come several times per year, my children go as do my friends. We particularly love the Lisbon Valley for the many recreational pursuits it affords. It is a jewel that needs to be preserved for the community good. Not torn apart and destroyed by cooper mining practices.

If you allow Lisbon Valley Mining Company to utilize in situ recovery mining, you will destroy the lives of so many, destroy an ecological pristine area and destroy your tourist dollars that are attracted by the outdoors. This mining practice is so caustic that I would not dare drink a glass of water from a well. As you know, injecting sulfuric acid solution into the ground, just to extract the cooper, will contaminate the water for miles around. You can not allow this to happen.

I STRONGLY OPPOSE ISR Mining in Lisbon Valley! Please preserve the environment, peoples lifestyles and say no to the mining companies who are only taking and not giving in return.

Steve Taylor

Drummond Earley <dearley@utah.gov>
To: "TAYLOR, STEVEN C" <taylor@utah.gov>
Tue, Dec 1, 2020 at 4:08 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit,


(Typed text hidden)

TAYLOR, STEVEN C <taylor@utah.gov>
To: Drummond Earley <dearley@utah.gov>
Tue, Dec 1, 2020 at 4:16 PM

Seems a bit archaic but I will US Mail my letter
Thank you for your notice

[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: "TAYLOR, STEVEN C" <[REDACTED]>

You can send any comments to me via email.

Thank you,

Dusty
[Quoted text hidden]

TAYLOR, STEVEN C <[REDACTED]>
To: Drummond Earley <dearley@utah.gov>

Hi Dusty

I have already put my email in an envelope to mail, but if it does not make it, you have my view in this email

Thank you for your willingness to share my perspectives

I hate to see such a pristine region out at risk along with the people who live and recreate in the valley.

Steve

On Dec 1, 2020, at 6:47 PM, Drummond Earley <dearley@utah.gov> wrote:

[Quoted text hidden]
I oppose the ISR Mining in Lisbon Valley

2 messages

Naomi Tweddle <dearley@utah.gov>
To: dearley@utah.gov
Mon, Nov 23, 2020 at 9:16 AM

Hi,

As a mining engineer and recreation enthusiast I oppose the expansion proposal from ISR Mining in the Lisbon Valley area. Selecting a mining extraction method that contaminates the surrounding water and impacts the water security of the residents and people who enjoy this area is careless. Mining should be conducted in a responsible way and have minimal impact on the surrounding area.

Thank you for taking the time to read my email.

Sincerely,
Naomi Tweddle, PEng

Drummond Earley <dearley@utah.gov>
To: Naomi Tweddle <dearley@utah.gov>
Tue, Dec 1, 2020 at 4:08 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Quoted text hidden]
My name is Jarrid Hadland and I live in Glenwood Springs, CO. I am concerned with what I am hearing about Lisbon Mining Company and its proposal to engage in recovery mining for copper. Where could one find more information about their proposal and how it may affect the surrounding area / water table?

I recreate with my family in the area and am not in favor of that recreation being compromised or the livelihood of those in the community losing the life, liberty and pursuit of happiness they have the right to in the Lisbon Valley.

Thank you,

Jarrid Hadland

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

 Lisboa Valley Clean Water
2 messages

SAW <dearly@utah.gov>
To: dearly@utah.gov

Mon, Nov 23, 2020 at 12:39 PM

Dear Mr. Earley,

I wanted to write on behalf of 3 Step Hideaway and all the fine residents in the Lisboa Valley area, several of whom I have met. My name is Scott Williams, and I live in Tulsa, OK.

I had never visited the Moab area until the 3 Step Hideaway opened for business. My family was thrilled to experience the great outdoors in Utah with the "off the grid" natural resources offered by Scott & Julie Stevenson, at their wilderness ranch. We loved this area so much, we visited four more times over the next five years.

The 3 Step Hideaway has the best tasting clean well water I have ever enjoyed. It would be a travesty to see this natural resource contaminated by the proposed ISR mining operation.

I would like to encourage you in the strongest way to preserve & protect the fresh water table in the Lisboa Valley. Please do not let the Lisboa Valley Mining Company ruin the fresh water formation. We are looking forward to returning to this valley for many future visits.

Respectfully,

Scott Williams
Tulsa, OK

Sent from my iPhone

Drummond Earley <dearly@utah.gov>
To: SAW <dearly@utah.gov>

Tue, Dec 1, 2020 at 4:08 PM

Please see our website notice of public comment extension period for the Lisboa Valley UIC Class III Draft Permit.


[Quoted text hidden]
Injecting acid into the aquifer in Lisbon Valley

2 messages

Alan Norton <[REDACTED]>
To: dearley@utah.gov

Mon, Nov 23, 2020 at 12:42 PM

Nobody should be injecting acid into any aquifer in Lisbon Valley, that is being used now or could be used in the future. Alan Norton

Sent from my iPad

Drummend Earley <dearley@utah.gov>
To: Alan Norton <[REDACTED]>

Tue, Dec 1, 2020 at 4:08 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit,


[Quoted text hidden]
Dear Sir,

I am writing to state my strong opposition to the proposed ISR mining in the Lisbon Valley. I have been a yearly visitor to the area for many years. I bring groups to the Moab area and we always stay at 3 Step Hideaway for a week and support the local merchants. The need for clean, clear water to the residents, the ranchers and the visitors is critical.

The extremely poor record of the Lisbon Valley Mining Co. allows no assumption that they will be good stewards of the precious resource they seek to exploit. There is also no reason to assume that they will be financially capable of supporting any remediation if it becomes necessary.

Thank you for your consideration.
Sincerely:

[Name]

---

Drummond Earley <dearley@utah.gov>
To: Vince Fiona <[redacted]>

Tue, Dec 1, 2020 at 4:08 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Strongly oppose ISR mining in Lisbon Valley

2 messages

Matt Larson <dearley@utah.gov>

To: dearley@utah.gov

Mon, Nov 23, 2020 at 3:18 PM

Mr. Earley,

I recently became aware of proposed mining activity in Lisbon Valley that has a real possibility of causing long-term contamination of the groundwater. I took my first trip to this area in the Fall and was amazed at the fantastic recreation activities available. I told folks to skip Moab and keep going south for the real gem in the area. I sincerely hope the area keeps its natural resources and beauty. I would love to continue to frequent the area with family and friends. It is truly an amazing place.

My name is Matt Larson and I live in Lafayette, CO.

Thank you for your consideration.

Matt

Drummond Earley <dearley@utah.gov>

To: Matt Larson <dearley@utah.gov>

Tue, Dec 1, 2020 at 4:07 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Glued text hidden]
Dear Mr. Early,
Attached find my comment about the current ISR proposal from the Lisbon Valley Mining Company. Please let me know if you have any questions.

Bob Krantz, PhD
Adjunct Professor
Department of Geosciences
University of Arizona

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

To: Utah Department of Environmental Quality

Comment for Lisbon Valley Mining Company ISR Proposal
Nov 23, 2020

I have been engaged in academic study of the geology of the greater Lisbon Valley, including the area of the proposed ISR project, since 2017. This study has focused on specific geologic relationships that relate to the distribution and evolution of components that control ancient and modern subsurface fluids. These fluids include those that generated the copper deposits in the mine area as well as modern aquifers. The most important component in my analysis is the Lisbon Valley fault system.

For the past 3 years I have mapped faults in 3 dimensions, analyzed the distribution of offsets and impact on stratigraphic juxtapositions, and characterized the content of the fault zones and their altered permeability. In 2018 I supervised a number of student projects, including one that focused on fault gouge properties from samples collected in and around the current mine area.

Our collective results reveal a system of uniquely isolated aquifers in lower Lisbon Valley. Major valley-bounding faults locally drop permeable aquifer units against impermeable strata. In addition, all the fault zones we have sampled include thick gouge with high clay content and very low permeability. These observed gouge samples match predictions from well-established methods for predicting fault zone content and properties, methods that can be confidently used to characterize unexposed segments of the faults. In essence, the faults on both sides of lower Lisbon Valley provide significant barriers to lateral aquifer flow. I believe these faults, and other geologic relationships will provide effective containment for the ISR process.

For full disclosure, following the initial work done with my student in 2018, I completed additional fault zone analysis under contract with the LMCC, and reported on this work in reviews for the UDEQ and EPA. Please let me know if you have any questions or would like more information about our study results.

Sincerely,

Bob Krantz
Adjunct Professor of Geosciences, University of Arizona
Affiliate Faculty, Department of Geosciences, Fort Lewis College and
CEO, GeoStructure LLC

Utah Licensed Geologist #066
To: Utah Department of Environmental Quality

Comment for Lisbon Valley Mining Company ISR Proposal
Nov 23, 2020

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Sincerely,

Bob Krantz
Adjunct Professor of Geosciences, University of Arizona
Affiliate Faculty, Department of Geosciences, Fort Lewis College
and
CEO, GeoStructure LLC

Utah Licensed Geologist #066
Mining in Lisbon valley

2 messages

Michael <***@utah.gov>
To: dearley@utah.gov

Mon, Nov 23, 2020 at 8:58 PM

Michael Dyke
Sandpoint, Idaho

I bought land up on Deer Neck rd. Lived up there from 2004 through 2016. Seen a lot of change over the years along Lisbon valley road. The pavement was a good thing. The Copper mine not so much. It did give a lot of people temporary jobs. I watched it shutdown then start up again.

The mine did make a mess along both sides of the road.

I watched 3 Step hideaway build up and prosper. I saw lot of tourists come in to the valley. And enjoy the scenery. And then there is the ranchers that have been there a lot longer then any of us.

It would be a shame to destroy the water that has more value then copper.

I don't think it would be a good thing to destroy what is good like the water table.

I do not think the copper mine should do that.

Thanks. Michael Dyke

Sent from my iPad

Drummond Earley <dearley@utah.gov>
To: Michael <***@utah.gov>

Tue, Dec 1, 2020 at 4:07 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
I oppose ISR Mining in Lisbon Valley

3 messages

Dave Sharpe

To: dearley@utah.gov

Mon, Nov 23, 2020 at 9:10 AM

My name is Dave Sharpe. I'm a resident of Boulder, CO but a frequent visitor to Utah for recreation/vacation. I have recently discovered the Lisbon Valley and it is a treasure! I've recently become aware of the proposal of the Lisbon Valley Mining Company to use In Situ Recovery Mining and the risks and costs of that to the local area and residents. I strongly oppose this from an ecological, quality of life for the residents and quality of recreation standpoint. Especially considering the financial standing of the company in terms of taxes owed to the state of Utah. The risks seem to FAR outweigh the benefits to all except the company already indebted to the state. Thank you for your consideration of the opinion of an out of state visitor who hopes to return to the Lisbon Valley many, many more times with friends and family.

Dave Sharpe

Robert Reger

Cc: dearley@utah.gov

Tue, Nov 24, 2020 at 8:05 AM

I am a frequent visitor to Utah for recreation/vacation. I have visited 3 step hideaway and so have many of my friends. It is a very special place and serves an adventure motorcycle enthusiast base of thousands, I've recently become aware of the proposal of the Lisbon Valley Mining Company to use In Situ Recovery Mining and the risks and costs of that to the local area and residents. I strongly oppose this from an ecological, quality of life for the residents and quality of recreation standpoint. Especially considering the financial standing of the company in terms of taxes owed to the state of Utah. The risks seem to FAR outweigh the benefits to all except the company already indebted to the state. Thank you for your consideration of the opinion of an out of state visitor who hopes to return to the Lisbon Valley many, many more times with friends and family.

Robert B Reger

Boulder, CO

Drummond Earley

To: Robert Reger

Tue, Dec 1, 2020 at 4:07 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Clean Water and Oppose ISR Mining

2 messages

Rob Butler Maps
To: dearley@utah.gov

Mr Earley,

I'm Rob Watt and I live in Arvada Colorado. My family, friends and co-workers come to the Lisbon Valley many times a year to enjoy the recreational opportunities. It has been brought to our attention the water supply in the Lisbon Valley may be in jeopardy of us enjoying clean, clear water and the people who’s livelihood my also be in jeopardy if they don’t have clean water.

I strongly oppose ISR Mining in the Lisbon Valley!

Sincerely,

Rob Watt

---

Drummond Earley
To: Rob Butler Maps

Please see our website notice of public comment extension period for the Lisbon Valley U&C Class III Draft Permit.

[Link to document]

https://mail.google.com/mail/u/0?ik=d092bd7402&view=pt&search=all&permthid=thread-f%3A1684254913063018232&msgid=f%3A1684254913063018232&format=pt&sa=D&ust=16406012152595723968
Dear Mr. Earley,

The Division of Water Quality's public notice website regarding the Underground Injection Control (UIC) Permit for the Lisbon Valley Copper Mine contains several documents, however it does not include the actual application for the UIC permit. The "Attachment" included in the Notice documents is not the complete application. The attachment is the Lisbon Valley Mining Company LLC, Lower Lisbon Valley ISR Technical Report, starting at page 15. This is not the complete UIC Permit application, as required by Rule R317-7-9.

How can I obtain a copy of the complete application?

Also, missing is information about the application to the Bureau of Land Management and Utah Division of Oil, Gas & Mining for an in situ leach (ISL) copper recovery operation. R317-7-9 requires that a permit application include "a list of State and Federal environmental permits or construction approvals received or applied for and other relevant environmental permits." Can you provide such a list?

Thank you,

Sarah Fields
Program Director
Uranium Watch
Drummond Earley <dearley@utah.gov>
To: "sarah uraniumwatch.org" <sarah@uraniumwatch.org>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]

sarah uraniumwatch.org <sarah@uraniumwatch.org>
To: Drummond Earley <dearley@utah.gov>

Mr. Earley,

Thanks very much for the extension of the comment period and posting the full application.

Sarah

From: Drummond Earley <dearley@utah.gov>
Sent: Tuesday, December 1, 2020 4:06 PM
To: sarah uraniumwatch.org <sarah@uraniumwatch.org>
Subject: Re: Lisbon Valley Mining Company, LLC, UIC Permit Application

[Quoted text hidden]
William Alspach <williamalspach@gmail.com>
To: dearley@utah.gov
Cc: Don Riggle, Chad Hixon

Tue, Nov 24, 2020 at 1:49 PM

Dear Mr. Earley:

Please find attached our comments that we are submitting as part of the public record for the Public Hearing and decision action regarding the Draft Permit for Underground Injection Control (UIC) Class III Area, Draft Permit No. UTU-37-AP-5D5F693, In Situ Copper Recovery from the Lisbon Valley Mining Company, LLC, San Juan County, Utah. These comments are submitted on behalf of the Colorado Trails Preservation Alliance (TPA).

We would sincerely appreciate your acknowledgement of receipt of our comments.

On behalf of the Colorado Trails Preservation Alliance,

Bill Alspach, P.E.
Special Projects Consultant

Lisbon Valley Mine Permit Comments_TPA.pdf
134K

Drummond Earley <dearley@utah.gov>
To: William Alspach

Tue, Dec 1, 2020 at 4:06 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[From text hidden]

Fri, Feb 19, 2021 at 12:53 PM

Fri, Feb 19, 2021 at 2:58 PM

Fri, Feb 19, 2021 at 2:59 PM
Drummond Earley  
Utah Department of Environmental Quality Division of Water Quality  
UIC Program  
195 North 1950 West  
Salt Lake City, UT 84116

SUBJECT: Public Comments regarding the Draft Permit for Underground Injection Control (UIC) Class III Area, Draft Permit No. UTU-37-AP-5DSF693, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC

Dear Mr. Earley and members of the Utah Environmental Quality Division of Water Quality:

Please accept these comments as part of the public record for the Public Hearing and decision action regarding the Draft Permit for Underground Injection Control (UIC) Class III Area, Draft Permit No. UTU-37-AP-5DSF693, In Situ Copper Recovery from the Lisbon Valley Mining Company, LLC, San Juan County, Utah. These comments are submitted on behalf of the Colorado Trails Preservation Alliance (TPA). The TPA is a recreational advocacy organization created to be a viable partner with public lands managers to preserve the sport of motorized trail riding and multiple-use recreation.

The TPA does not endorse or support the often illogical and radical environmental ideas, goals, ideologies and policies of many of the conservation and environmental organizations that will very likely also be commenting on this permit application and eventual decision. The TPA is providing these comments out of our concern for the potential impacts to the unique recreational opportunities for motorcyclists in the Lisbon Valley and the possible adverse impacts to the domestic water supply of the 3 Step Hideaway and other local ranchers and residents.

The TPA and many of our affiliates cherish the opportunities to regularly visit and stay at the 3 Step Hideaway and enjoy their rustic 80-acre retreat. We especially embrace the unique qualities that the 3 Step Hideaway provides for motorcycle riders that are embarking upon long-distance rides that cross the Lisbon Valley and for those of us that choose to stay at this very special facility. The 3 Step Hideaway provides an oasis for food, fuel and lodging for travelers of all modes experiencing the adventure of the Trans America Trail and other regional adventure routes.

We realize that this decision will be based upon the Division’s diligent consideration of the technical and engineering information relating to ground water, aquifers and scientific mitigation measures and best management practices along with local economic forecasts and expectations. However, as a non-technical recreational advocacy group we still feel compelled to express our concerns for the very possibility of the potential for some very adverse impacts to the aquifer from which the 3 Step Hideaway extracts its domestic
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We would like to offer that perhaps this is just not the “right or best” location and time to try a new, experimental form of in-situ mining in Utah, utilizing the injection of sulfuric acid into the ground to dissolve the much desired copper deposits. The TPA understands and supports our world’s need and desire for copper and the usefulness that that this metal provides to our daily lives and especially to the operation of our motorcycles. We are in no way opposed to mining in general and the need that we all have for extractive processes of our natural resources. We just question whether this particular mine, operated by the Lisbon Valley Mining Company in the Lisbon Valley and the potential for adverse affects upon the domestic water supplies of the 3 Step Hideaway and other local ranchers is the right place and right time to conduct this “experiment”.

In summary the Trails Preservation Alliance emphatically asks that the Utah Environmental Quality Division of Water Quality gives this permit it’s upmost diligent consideration and we ask that your decision(s) adequately protects the vulnerable and essential domestic wells of the 3 Step Hideaway and other local residents.

Sincerely,

D. E. Riggle
Director of Operations
Trails Preservation Alliance
Drummond Earley  
Utah Department of Environmental Quality Division of Water Quality  
UIC Program  
195 North 1950 West  
Salt Lake City, UT 84116

SUBJECT: Public Comments regarding the Draft Permit for Underground Injection Control (UIC) Class III Area, Draft Permit No. UTU-37-AP-5DSF693, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC

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1
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In summary the Trails Preservation Alliance emphatically asks that the Utah Environmental Quality Division of Water Quality gives this permit it’s upmost diligent consideration and we ask that your decision(s) adequately protects the vulnerable and essential domestic wells of the 3 Step Hideaway and other local residents.

Sincerely,

D.E. Riggle
Director of Operations
Trails Preservation Alliance
Dear Mr. Earley,

I am writing to strenuously oppose Lisbon Valley Mining Company's application for permission to conduct in-situ copper mining in the valley. I have been a visitor to the area on many occasions; it's a beautiful place that sustains businesses that might or likely would be ruined by the mining operations. Light pollution would be a major issue. Moreover, the wells serving the ranch and 3-Step Hideaway would be contaminated. Clean water is one of the most precious resources we have.

Furthermore, the LVMC has a poor business and environmental track record, owes much in back taxes to the county, and has apparently benefited from the CARES act without putting that money toward its intended purpose.

The LVMC should not be granted this permit.

Sincerely,

Hillary Buchanan

---

Drummond Earley <dearley@utah.gov>

To: Hillary Buchanan

Tue, Dec 1, 2020 at 4:06 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

Dear Mr. Earley,

Attached please find our comments submitted as part of the public record for the Public Hearing and decision action regarding the Draft Permit for Underground Injection Control (UIC) Class III Area, Draft Permit No, UTU-37-AP-5D5F693, In Situ Copper Recovery from the Lisbon Valley Mining Company, LLC, San Juan County, Utah.

These comments are submitted on behalf of the Backcountry Discovery Routes (BDR).

We would sincerely appreciate your acknowledgement of receipt of our comments.

Best regards,

Inna Thon
Director of Operations
Backcountry Discovery Routes

info@ridebdr.com
www.RideBDR.com

Lisbon Valley Mine Permit Comments_BDR.pdf
269K

Drummond Earley <dearley@utah.gov>
To: "info@ridebdr.com" <info@ridebdr.com>
Tue, Dec 1, 2020 at 4:06 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Quoted text hidden]
November 24, 2020

Drummond Earley
Utah Department of Environmental Quality Division of Water Quality UIC Program
195 North 1950 West
Salt Lake City, UT 84116

SUBJECT: Public Comments regarding the Draft Permit for Underground Injection Control (UIC) Class III Area, Draft Permit No. UTU-37-AP-5DSF693, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC

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These comments are submitted on behalf of Backcountry Discovery Routes (BDR). The BDR is a non-profit organization that creates off-highway routes for dual-sport and adventure motorcycle travel. Our work includes rider education, safety campaigns and promoting responsible travel for motorcyclists traveling in the backcountry.

BDR is providing these comments out of our concern for the potential impacts to the unique recreational opportunities for motorcyclists in the Lisbon Valley and the possible adverse impacts to the domestic water supply of the 3 Step Hideaway and other local ranchers and residents.

The BDR and many of our affiliates cherish the opportunities to regularly visit and stay at the 3 Step Hideaway and enjoy their rustic 80-acre retreat. We especially embrace the unique qualities that the 3 Step Hideaway provides for motorcycle riders that are embarking upon long-distance rides that cross the Lisbon Valley and for those of us that choose to stay at this very special facility. The 3 Step Hideaway provides an oasis for food, fuel and lodging for travelers of all modes experiencing the adventure of the Utah Backcountry Discovery Route, the Trans America Trail, and other regional adventure routes.

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In summary, Backcountry Discovery Routes emphatically asks that the Utah Environmental Quality Division of Water Quality gives this permit it’s upmost diligent consideration and we ask that your decision(s) adequately protects the vulnerable and essential domestic wells of the 3 Step Hideaway and other local residents.

Sincerely,

[Signature]

Inna Thorn,  
Director of Operations
November 24, 2020

Drummond Earley
Utah Department of Environmental Quality Division of Water Quality UIC Program
195 North 1950 West
Salt Lake City, UT 84116

SUBJECT: Public Comments regarding the Draft Permit for Underground Injection Control (UIC) Class Ill Area, Draft Permit No. UTU-37-AP-5DSF693, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC

Dear Mr. Earley and members of the Utah Environmental Quality Division of Water Quality,

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Sincerely,

Inna Thorn,  
Director of Operations
Public Hearing Lisbon Valley Mine
5 messages

Sandberg, Nick <nsandberg@sanjuancounty.org>
To: dearly@utah.gov
Tue, Nov 24, 2020 at 9:35 AM

Mr. Earley,
Will there be a phone line set up so those who may not be able to use Adobe Connect can call in to tonight's public hearing?

--

Nick Sandberg
Public Lands Coordinator
435-587-3223 ext 4146

Drummond Earley <dearley@utah.gov>
To: "Sandberg, Nick" <nsandberg@sanjuancounty.org>
Tue, Nov 24, 2020 at 12:55 PM

Mr. Sandberg,
I believe this is the number and I am trying to verify.

Pass code : 782887#
Phone number : 1-877-820-7831

Sandberg, Nick <nsandberg@sanjuancounty.org>
To: Drummond Earley <dearley@utah.gov>
Tue, Nov 24, 2020 at 5:53 PM

Thank you. I’ll give it a try later.

Drummond Earley <dearley@utah.gov>
To: "Sandberg, Nick" <nsandberg@sanjuancounty.org>
Tue, Dec 1, 2020 at 4:06 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


Sandberg, Nick <nsandberg@sanjuancounty.org>
To: Drummond Earley <dearley@utah.gov>
Wed, Dec 2, 2020 at 9:07 AM

Thank you. We appreciate that.
Dear Mr. D Earley,

My name is Dragoslav Stajic and we live in Newport Beach, CA. My family enjoys spending vacation time in Lisbon Valley with our RV and motorcycles. 

We enjoy a CLEAN, CLEAR glass of WATER when we are there!!! We Strongly OPPOSE ISR Mining in Lisbon Valley!

Hopefully we will continue to visit and show our kids and grandkids the peaceful grandeur of your countryside.

Respectfully yours,

D. Stajic

Drummond Earley <dearley@utah.gov>
To: Dennis Stajic <d.stajic@gmail.com>

Tue, Dec 1, 2020 at 4:06 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Drafted text hidden]
Hello Men, I attended the meeting last night but did to have opportunity to speak so I am sending this letter to state my position on the subject.

Dear Mr. Earley and Mr. Mickey,
I am a concerned citizen of San Juan County, Utah. Six years ago I moved to San Juan County from Northern Kentucky. Coming from an area where water was very abundant, I never realized the incredible value of an aquifer and a good producing well. It is an invaluable resource in an area of the country where everything is determined by water availability. And that is no exaggeration.

After researching the type of mining which Lisbon Valley Copper Mine is proposing, I am compelled to plead with you to not allow them to inject sulfuric acid into the ground, even if there is only the slightest chance of poisoning our most valuable resource. This is not about a few families or even this generation. This is about our posterity, what will we leave them if we allow this?

Also I would also like to inform you that the Lisbon Valley Copper Mine has already shown irresponsible and lack of integrity by not paying it’s county taxes while the citizens have just experienced a tax increase. Something is very wrong with this whole situation and I am opposed to this and any other proposal that would pollute our water supply and condone such irresponsible.

I also request an extension of the public comment period and a meeting of the citizens of San Juan County, Lisbon Valley Mine, the Environmental Protection Agency, and the Utah Department of Water Quality. There are far too many questions surrounding this issue to move ahead without all concerns addressed and questions answered.

Sincerely,
Richard Collins

Drummond Earley <dearley@utah.gov>
To: Richard Collins <redacted>

Tue, Dec 1, 2020 at 4:06 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Good Evening,
My name is Scott Stevenson, myself and my wife Julie operate 3 Step Hideaway, a B&B In lower Lisbon Valley.

We are one of the few places in Utah that have a Great view of the Rocky Mountains by Telluride, With 8- 14,000 ft peaks, from our front porch!!!

Our property includes several refurbished structures from the original homestead of Frank Silvey, established in the mid to late 1800’s. In 2013 we purchased what is now known as 3 Step Hideaway in a bank foreclosure, including 2 years of back taxes, which were quickly paid in full. Our property is completely off-grid, utilizing green sustainable solar energy and a small water well. We have spent considerable effort enhancing and upgrading the infrastructures to achieve a somewhat self-sustainable lifestyle, including the addition of a large vegetable garden and greenhouse with grey-water irrigation, chicken house (for cane berries), and building our tourism-based business from scratch.

In LVMC’s original 1996 permit application under the heading “Recreational Resources” it says the following, which may have been true in 1996, but isn’t today, QUOTE, “The primary recreational use of Lisbon Valley is seasonal hunting and cottontail rabbit hunting... Minimal use of the Three Step Hill area for Christmas tree harvesting... An estimated maximum of 100-200 visitor days of use per year occurs in the study area,” END QUOTE. In 2019 we hosted 1560 overnight guests in addition to many day-use visitors. Our guests enjoy dirt biking, dual-sport motorcycling, taking their family to explore the local countryside in UTVs, mountain biking, horseback riding, hiking, hunting, as well as using 3 Step as a home base for day trips to Canyonslands, Arches and other area attractions and events. Our guests often comment on the peace and quiet of this beautiful valley and the unobstructed darkness of a sky filled with more stars than they’ve ever seen before. It is such a welcome respite from their everyday lives, and that is what brings them back year after year from all over the globe.

We highly respect, not just this ground we call home, but the entire pristine valley, and encourage our guests to enjoy it responsibly.

If Lisbon Valley Mining Company receives this permit for In Situ copper extraction, they will introduce untold amounts of traffic, noise pollution, air-quality pollution, and light pollution at all hours of the day and night, completely destroying the unspoiled, quiet serenity we and our guests are seeking. Not to mention the loss of our very livelihood and threat to our health and well-being in the probability that our only water source becomes contaminated from LVMC’s In Situ mining project in Lower Lisbon Valley.

On another note:
Mr. Early... you wrote in your 2006 paper “SUSTAINABLE MINING BEST PRACTICES AND CERTIFICATION”. That older mine sites should be kept active or be reactivated because... QUOTE “...these areas are already disturbed and production from these sites lessens the need to find and develop new resources in pristine areas,” I appreciate that you recognize the value of pristine areas like Lower Lisbon Valley, and I know you agree with me then in opposing ANY disturbance that in situ recovery mining would bring to the pristine Lower Lisbon Valley, and in supporting ONLY continuing mining operations at the open pit site, if warranted.

I also request an extension of the public comment period and a meeting of the citizens of San Juan County, Lisbon Valley Mine, the Environmental Protection Agency, and the Utah Department of Water Quality. There are far to many questions surrounding this issue to move ahead without all concerns addressed and questions answered.

Thanks for Listening
Scott Stevenson

https://mail.google.com/mail/u/0?ik=d092bd7402&view=pt&search=all&permthid=(thread-f%3A1684339579254938160&simplt=msg-f%3A1684339579254938160&simplt=msg-a%3A17949149332956220682)
Drummond Earley <dearley@utah.gov>

To: Scott Stevenson - [redacted]

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
My name is Joan Wilcox. I have lived in Lower Lisbon Valley for the past 30 years and yes, I do drink the water and yes, it comes from the Burro Aquifer. This information has been left out of Lisbon Valley Mine's Aquifer exemption application. I have strong opposition to the pending permitting to inject sulfuric acid into the aquifer that my water comes from.

When our surface lease was established with LVMC in the early 2000 it covered 283 acres ONLY including sections 9 and 10. To date, they have increased it to over 5000 acres which now includes sec. 8, 17, and 16 where my home and the 3-step hideaway’s B&B is located. This lease has clearly been altered to suit their benefits. I can assure you, we never agreed to them piling waste anywhere near our home. Add to their lack of integrity, the constant negotiations we have had to engage in with them over the last three years to pay their surface lease on time. At times, it has taken up to 2-3 months to receive payment that often was substantially short of funds owed.

In my opinion, they have been quite shady to say the least, in their dealings with us not only in our personal encounters but with San Juan County as well. From a 2019 Report on the Social Costs of Mining on Rural Communities: QUOTE: “Casual observation of local communities that are heavily dependent on mineral extraction, does not provide obvious evidence of superior economic well-being or vitality. Mining and oil & gas towns are often rundown, suffer out-migration, have high poverty and unemployment rates, poorer health, and lower educational attainment.” END QUOTE. We have been witnesses to all of this in our little town of La Sal 18 miles away. It's been the case for 50yrs.

Some have suggested that mining and the extractive industries reduce poverty by job creation, revenue generation, economic growth, and infrastructure development. The LVMC plays along with this fantasy that mineral-led development in local communities can counter poverty through their support of public schools, libraries, and new businesses. Neither La Sal or Monticello have seen any of these opportunities develop. This should come as no surprise when it is in the public records that the LVMC has been in tax arrears for the last 4 years owing the county more than 2 million dollars.

Regarding economic benefits from the mine, I would like to reference The World Bank's report titled “Attacking Poverty” that identifies four broad categories that encompass their definition of poverty. These categories are:

1. Material deprivation
2. Low levels of education and health
3. Vulnerability and exposure risks
4. Voicelessness and powerlessness.

First, no one here in Lisbon Valley is getting rich from the mine, if they were to ever generate profits, those would go to creditors in New York City and elsewhere.

Second, If they contaminate or deplete our water supply it will impact our health and well-being.
Third, any spill or accident or even near miss that they cause puts us at risk, which has already happened at the mine in March of this year. In addition, the truck traffic on the Lisbon Valley Road makes us all more vulnerable to motor vehicle accidents.

Fourth, none of us has ever had any voice or power. The mine has always gotten their way and have done what they wanted to do. In fact, our local taxes have increased while the LVMC remains in arrears.

By each of those 4 criteria, the mine’s operation in Lisbon Valley has been making us all poorer. —

I was told that the Department that oversees this permitting procedure does not want to hear our emotional feelings but I would like you to put yourselves in our shoes. I became a member of the Wilcox family when I was 16 years old and I love what we stand for: Trust in God, be honest in our dealings, and work hard to hang on to what he has provided for us as a family. I love where I live, and if this permitting exemption is allowed to proceed we will be gravely impacted, The sulfuric acid is a poison to my family, livestock and the natural beauty of where we live, Five generations, (going on 6), family ranchers have worked hard being good stewards of this land, We want to maintain and improve this renewable resource for generations to come, LVMC’s proposed in situ mining will enable them to fill their pockets and run, but in doing so, they will take away the ranching opportunities for our future generations.

Thank you for your time.

<https://static1.squarespace.com/static/571f8d69d51c0d4590b8328fa9d5d8f38781f6e4c0001145b5a1567569534257/Power+Report.pdf>

<https://openknowledge.worldbank.org/handle/10986/11856>
public meeting
2 messages

Joan Wilcox <password>
To: dearley@utah.gov, jkmackey@utah.gov, plyman@le.utah.gov, "David W. Paiz" <dpiaza@blm.gov>, dhinkins@le.utah.gov
Wed, Nov 25, 2020 at 9:48 AM

Hello my name is Mike Wilcox part owner in Wilcox Ranches, Wilcox Ranches was started by my grand father Ephraim Wilcox in 1917 when he homesteaded 160 acres in La Sal. My Dad Max Wilcox came home from war two and began putting together Wilcox Ranches by purchasing more private ground and permits. In 1968 Dad bought the private land in Lower Lisbon and the BLM permits around it. 
I went into business with him in 1976, We worked together for 25 yr, and we decided to go out on our own in 1994 and setup our headquarters in Lower Lisbon.

Wilcox Ranches have received four awards for being good stewards of the land by the NRCS and state trust land offices. Thus far we have cleared and planted over 40,000 acres funded mostly out of pocket. 
We have built and maintained numerous ponds on ground that would otherwise be unusable. In 2015 a well was drilled and 2 miles of pipe line across the valley with drinker for the livestock and wildlife and on to the home we live in. This water comes from the burro canyon aquifer. There is about 80 miles of fences on the ranch we have supplied the materials and labor to build them and maintain.

My son Curtis has purchased a permit in Lock hart Basin and has drilled a well to put in a pipe line for livestock watering. He has build a camp and all this is to improve and leave the land better then we found it. 
SJC is a place in the creation where the rain fall is sparse, summer are hot, winters are cold. Ranching and farming here is hard work we have to be able to adjust for the changes in the climate. We haul water in the dry years and buy hay in the deep snow winters. The lifestyle is amazing you have to love the land and what you do to live here, Joanie and my goal has always been to keep this ranch for our children and grand children. God has now blessed us with 2 great grand babies. We want them all to have this place to be able to enjoy as much as we have and go on ranching here if they desire to. 
I say this all to make a point that we are here to be the best steward to this land we call home. We have endured the hardships of living here because we have the genetics and the will to survive. Its one thing to fight mother nature and her elements. But when your up against someone wanting to do something that will poison it perpetually you stand for what is right.

History shows that cooper mining here is SJC is boom and bust with promises to reclaim the land but their reclaiming is subject to question. In 1970's Keystone and Wallace cooper came into the valley they were open pit said they were bonded for millions and would reclaim. They mined for 10 to 15yrs. There were jobs for all of men everything was booming then all the sudden they went bankrupt and their gone. 
Today the old mill is a pile of tailing's 5 sidling ponds on about 50 acres that nothing will grow on. In Lower Lisbon they left 3 big pits and over burden piles everywhere This is where LVM are now mining Sure makes me wonder about the bond money that seems to be a magic wand. LVM is making the same claims the cooper is running out at the existing operation so the want to move further down the valley and try the in-situ mining here's where we need to draw the line sulfuric acid poured into aquifers that are being used for drinking, watering livestock and drinking water for a B&B. I wonder about the employees that was layed off and didn't get their last pay check, I wounder how many vendors hasn't been paid. I wounder about the people that use the land for recreation are going to use the mine dump as a place to play with their families.

I thank you for the opportunity to voice our fillings we pray you make a decision that is the best for this land and the families that it impacts. 
God Bless

Drummond Earley <password>
To: Joan Wilcox <password>
Tue, Dec 1, 2020 at 4:05 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit,


[Quoted text hidden]
Lisbon Valley Copper Mine UIC Permit

4 messages

sarah uraniumwatch.org  To: Dusty Earley <dearley@utah.gov>

Wed, Nov 25, 2020 at 10:39 AM

Dear Mr. Earley,

I would appreciate it if you would post the full Lisbon Valley Mining Co., LLC application for a UIC permit, along with any Division of Water Quality Requests for additional information and LVM responses, on the public notice website.

Also, I note that the public notice does not include an e-mail address for submitting public comments. It only includes the Division's mailing address. I would expect that the Division would have also included an e-mail address for the submittal of public comments.

What is the e-mail address for the submittal of public comments?

I will be submitting a written request for an extension of time for submitting comments.

Thank you for your attention to this matter.

Sincerely,

Sarah Fields
Uranium Watch

Drummond Earley <dearley@utah.gov>
To: "sarah uraniumwatch.org"  Mon, Nov 30, 2020 at 8:28 AM

Ms. Fields,

We will be posting the application materials this week.

I am collecting public comments via my email. We will also respond to your GAMA request shortly.

The division is considering the extension request. Please check the public notice website for any updates.


Thank you,
Dusty Earley

[Quoted text hidden]

sarah.uraniumwatch.org <sarah.uraniumwatch.org>
To: Drummond Earley <dearley@utah.gov>

Dear Mr. Earley,

Thank you.

Sarah

From: Drummond Earley <dearley@utah.gov>
Sent: Monday, November 30, 2020 8:28 AM
To: sarah.uraniumwatch.org <sarah.uraniumwatch.org>
Subject: Re: Lisbon Valley Copper Mine UIC Permit

[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: "sarah.uraniumwatch.org" <sarah.uraniumwatch.org>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Dear Mr. Dearly,

Please find attached the comments of the Colorado Off-highway Vehicle Coalition (COHVCO) regarding the Lisbon Valley Mining Company, LLC Permit.

Regards,
Jerry Abboud
President
COHVCO

Drummond Earley <dearley@utah.gov>
To: Gerald Abboud <dearley@utah.gov>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text begins]
November 24, 2020

Mr. Drummond Earley
Utah Department of Environmental Quality
Division of Water Quality
UIC Program
195 North 1950
West Salt Lake City, UT 84116

SUBJECT: Public Comments regarding the Draft Permit for Underground Injection Control (UIC) Class III Area, Draft Permit No. UTU-37-AP-5D5F693, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC

Dear Mr. Earley and the Utah Environmental Quality Division of Water Quality:

Please accept these comments as part of the public record for the Public Hearing and decision action regarding the Draft Permit for Underground Injection Control (UIC) Class III Area, Draft Permit No. UTU-37-AP-5D5F693, In Situ Copper Recovery from the Lisbon Valley Mining Company, LLC, San Juan County, Utah. These comments are submitted on behalf of the Colorado Off-highway Vehicle Coalition (COHVCO). COHVCO is a recreational advocacy organization created to be a viable partner with public lands managers to preserve the sport of motorized trail riding and multiple-use recreation.

COHVCO is a statewide organization operating for 35 years, composed of members whose interests are in motorized recreation in Colorado and surrounding states including the profoundly beautiful state of Utah.

We have been an advocacy organization with a mission that includes protecting natural resources, as such, we consider ourselves a conservation organization. Without a healthy environment we all lose access. This brings us to our concerns about the proposed Drafty Permit referenced above.
Colorado Off-highway Vehicle Coalition (COHVCO). COHVCO is a recreational advocacy organization created to be a viable partner with public lands managers to preserve the sport of motorized trail riding and multiple-use recreation.

COHVCO does not share the often illogical, more radical environmental ideas, goals, ideologies and policies of many of the conservation and environmental organizations…we are not anti-commodities. COHVCO is providing these comments out of our concern for the potential impacts to the unique recreational opportunities for motorized recreationists in the Lisbon Valley and the possible adverse impacts to the domestic water supply of the 3 Step Hideaway and other local ranchers and residents.

COHVCO and our members cherish the opportunities to regularly visit and stay at the 3 Step Hideaway and enjoy their rustic 80-acre retreat. We especially embrace the unique qualities that the 3 Step Hideaway provides for motorcycle riders that are embarking upon long-distance rides that cross the Lisbon Valley and for those of us that choose to stay at this very special facility. The 3 Step Hideaway provides an oasis for food, fuel and lodging for travelers of all modes experiencing the adventure of the Trans America Trail and other regional adventure routes.

We realize that this decision will be based upon the Division’s diligent consideration of the technical and engineering information relating to ground water, aquifers and scientific mitigation measures and best management practices along with local economic forecasts and expectations. However, as a recreational advocacy, not as engineers or hydrologists, we still feel compelled to express our concerns for the very possibility of the potential for some very adverse impacts to the aquifer from which the 3 Step Hideaway extracts its domestic water supply from.

We implore the Division to thoroughly and carefully consider the myriad and complexity of the interconnected aquifers within the Lisbon Valley and the consequences if the engineering studies, conclusions and mitigations should fail or perform at a level less than expected from the injection of raffinate into the ore zone of the Burro Canyon aquifer. The potential for contamination of the vulnerable and limited domestic water supply of local residents and businesses could be devastating. We would like to offer that perhaps this is just not the “right or best” location and time to try a new, experimental form of in-situ mining in Utah, utilizing the injection of sulfuric acid into the ground to dissolve the much desired copper deposits.

COHVCO understands and supports our world’s need and desire for copper and the usefulness that that metal provides to our daily lives and especially to the operation of motorized recreational vehicles. We are in no way opposed to mining in general and the need that we all have for extractive processes of our natural resources. We just question whether this particular mine, operated by the Lisbon Valley Mining Company in the Lisbon Valley and the potential for adverse effects upon the domestic water supplies of the 3 Step Hideaway and other local ranchers is the right place and right time to conduct this “experiment”.

In summary COHVCO emphatically asks that the Utah Environmental Quality Division of Water Quality gives this permit its upmost diligent consideration and we ask that your decision(s)
adequately protects the vulnerable and essential domestic wells of the 3 Step Hideaway and other local residents.

Sincerely,

Jerry Abboud
President
Colorado Off-highway Vehicle Coalition
Colorado Off-Highway Vehicle Coalition

Organizing Members
Colorado Snowmobile Association
Rocky Mountain Enduro Circuit
Colorado Association of 4-Wheel Drive Clubs, Inc.
Rampart Range Motorized Management Committee

November 24, 2020

Mr. Drummond Earley
Utah Department of Environmental Quality
Division of Water Quality
UIC Program
195 North 1950
West Salt Lake City, UT 84116

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COHVCO understands and supports our world’s need and desire for copper and the usefulness that that this metal provides to our daily lives and especially to the operation of motorized recreational vehicles. We are in no way opposed to mining in general and the need that we all have for extractive processes of our natural resources. We just question whether this particular mine, operated by the Lisbon Valley Mining Company in the Lisbon Valley and the potential for adverse effects upon the domestic water supplies of the 3 Step Hideaway and other local ranchers is the right place and right time to conduct this “experiment”.

In summary COHVCO emphatically asks that the Utah Environmental Quality Division of Water Quality gives this permit its upmost diligent consideration and we ask that your decision(s)
adequately protects the vulnerable and essential domestic wells of the 3 Step Hideaway and other local residents.

Sincerely,

Jerry Abboud
President
Colorado Off-highway Vehicle Coalition
Proposed Mining Project

2 messages

Greg lafeliece <[redacted]>
To: dearley@utah.gov
Cc: [redacted]

Wed, Nov 26, 2020 at 6:26 AM

Mr. Earley,

I am writing AGAINST the proposed mine expansion and planned in situ mining in Lisbon Valley. I was introduced to the area while on a trip with friends when we stayed at 3 Step Hideaway. Since that trip I have returned to stay there at least once a year and recommend the area to others looking to escape the crowds of Moab. Time and again towns and areas are seeing the benefit of hiking, mountain biking, OHV users, hunters and etc as a revenue stream. Where mining was once king and then when the mine plays out or the market changes they pull out and leave without cleaning up or properly abating their operations. Millions has been lost in unpaid taxes and uncollected fees fees from the mining company and passed on to the people living in the area. The same people that will be impacted if this mining plan moves forward and businesses need to shut down or ranchers forced to leave generations long livelihoods because of contaminated water and unsightly mining operations.

The short-term gain of a few jobs does not outweigh the future impacts on tourism and the environment. The area is a hidden gem in Utah and money should be spent to promote tourism to the area which would bring more business, jobs and income to the region without making the area uninhabitable due to toxic runoff, dangerous abandoned mining operations and unsafe drinking water.

I live in Colorado Springs but travel to the area regularly and wanted to offer my views as a tourist that chooses to travel to and spend my money in the area. My travel and dollars would no longer come to the area if the mining operation expands.

Cheers,
Greg

"Accept it without arrogance and let it go with indifference," - Marcus Aurelius

Sent from my iPad

Drumond Earley <[redacted]>
To: Greg lafeliece <[redacted]>

Tue, Dec 1, 2020 at 4:04 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Lisbon Valley CLEAN WATER
2 messages

Andy Greene  
To: dearley@utah.gov

Attention Drummond Earley,

My name is Andy Greene and I live in Colorado. For several years I have been coming to the Lisbon Valley in particular 3 Step Hidaway with 5-6 friends to participate in recreational opportunities of all kinds, and we enjoy a GOOD, CLEAN, CLEAR glass of WATER and a CLEAN WATER shower while we visit the Lisbon Valley. Please keep our valley clean of such proposals that do harm to those of us who bring tourist dollars. We would very much appreciate your consideration to this very serious mistake you are considering.

Thank you,
Andy

Drummond Earley <dearley@utah.gov>
To: Andy Greene <dearley@utah.gov>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


Tue, Dec 1, 2020 at 4:04 PM
My name is David Roccaforte. I am a landowner in Lower Lisbon Valley. 

More money than brains. That is the short version of the economic history of copper mining in Lisbon Valley. Modern mining operations are capital intensive. Which is fine, if production costs are well below market price for the entire commodity cycle, but if not, there's trouble. Like an addict, the unprofitable ones always seem to need just one more hit of capital.

Losing money trying to extract copper from the valley dates back to the 1890's, but picking up the story in 1995 when the original permits were sought, the price of copper was near a historic high, $1.25 per pound. By the time the permits were issued in '97, and through 2004, the price remained below 95¢/lb. Based on the decision not to open between '97 and '04, we can assume that profitability was somewhere around $1/lb, maybe a bit less. Applying standard inflation metrics, that would translate to about $1.30 per lb, breakeven today.

In late 2005, LVMC commissioned a review to meet Canadian SEC requirements, (Link below)

Instead of that realistic $1 per lb, the report calculated the mine's all-in operating cost to be only 47¢ per lb, which was much more attractive to investors. The project, thus deemed commercially viable, secured millions in capital financing.

In '06, production began, and despite copper skyrocketing to over $4, by late '07, and with copper still above $3, the mine announced suspension of pit operations. Bankruptcy proceedings concluded in '09, when the mines assets were bought for pennies on the dollar by Mr. Shaw’s Renewal Capital LLC, and with sincere promises of lean production costs, and improved processing efficiency, they raised more capital and were allowed to restart operations. Not a bad deal.

From 2009, copper continued higher to $4.60/lb, however by 2013, the mine still needed another hit. Global Leveraged Capital Advisors injected $19 million, and yet, by 2015, the mine was in arrears for property taxes, and by 2016, LVMC idled the pit again, while continuing acid leach processing. Then this past March, prices dipped below $2.30/lb for a total of 16 trading days, and that was all it took: they couldn't even secure a bridge loan, basically the business equivalent of a desperate-added's short-term payday loan. At that point they failed to make payroll, still hadn't paid taxes, newly released millions of gallons of sulfuric acid into the ground, and The Division of Mines thankfully issued an emergency order of termination.

Given that their financial difficulties date back years, it is surprising that LVMC applied for and received a 1 and 2 million dollar CARES act loan. Surprising in the sense that CARES funds are restricted from businesses in legal bankruptcy, but apparently, moral bankruptcy is OK. Legal issues aside, their ethics in taking those public funds is highly questionable.

LVMC has demonstrated they are fully capable of losing money when the price of copper is low, and high. Remarkably, it is the one thing they do exceptionally well.

I draw two conclusions from this sad story. First, cost of production matters as much as market price, if not more. October of last year, requesting a property tax bailout, Mr. Shaw told the County Commission that breakeven was then $3/pound. In 2005 it was 47¢!

The long-term capital cost to extract copper from Lisbon Valley has been, is now, and will always be in excess of the price of copper, full-cycle, even more so with in situ, considering the expenses of insurance, bonding, and reclamation. In the last 25 years, almost $100 million of capital has been squandered in confirming the existence of the previous 100 years; that for anything but the shortest timeframe, copper mining is a money-losing enterprise in Lisbon Valley. If there were to be any profits, especially sustainable profits, they would have manifested by now.

The second conclusion is that since the financial crisis in 2008, low interest rates have dramatically subverted healthy market forces, As a consequence, those with idle capital, available to invest or loan, are so desperate for returns that their standards drop lower and lower until they finally have no other choice than to finance profitless boondoggles, destined for failure, and the recipients, like LVMC, become what are known as "Zombies" walking dead, soulless companies, which by rights should go out of business, but instead are sustained on a steady diet of bailouts and loans, not profits, (reference below)

Being generous, LVMC could be described as a wildly successful operation whose primary mission is to mine and extract capital from taxpayers, banks, and investors; and, also happens to have a small copper thing on the side.

My request is that those who are mandated to protect public interests consider the consequences that a perpetually insolvent business will have on water and surface resources, and that current and potential lenders consider the consequences to the capital they provide, which evacuates faster than acid solution on the leach pads.

I thank and command Director Baza, Deputy Director Dean, and the entire division for issuing the termination of operations order. Now please, let this zombie rest in peace.

Thank you for the opportunity to comment.

https://mail.google.com/mail/u/0?ik=d0926d7402&view=pt&search=all&permthid=thread-f%3A1684563767679142067&simple=msg-f%3A1684563767679142067&simple=msg-a%3A1837041906712488542
Drummond Earley <dearley@utah.gov>

To: *JDavidR@mail.com*

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
My name is Francine Osikowicz. I am a landowner in Lower Lisbon Valley.

From Lisbon Valley Mine’s own statement of Basis and Fact Sheet, Official Draft Public Notice, the copper ore resources in the Lower Lisbon Valley are under consideration for an aquifer exemption and in situ mining are QUOTE: “currently uneconomical to develop using open pit mining methods” end quote. So while in situ recovery may be preferable to open pit mining, that’s not a valid comparison here because the open pit mining option is not on the table. The choice here is in situ recovery or alternately, leave the Valley as it is.

I’d like to place into the record some material directly quoted from a US Environmental Protection Agency report specifically addressing in situ copper mining.

EPA Quote:
"Ore bodies may already contain naturally-occurring radioactive material (NORM). The most frequently occurring radionuclides (and their decay products) found in copper ore include: Uranium and Radium. Copper mining and processing methods can expose and/or concentrate NORM, transforming them into Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM)"

EPA Quote:
"Mining and extraction of copper by surface or underground methods can concentrate and expose radionuclides in the waste rock and tailings. Leaching and solvent extraction/electrowinning processes, as well as the practice of recycling raffinate at copper mines, may extract and concentrate soluble radioactive materials. In some cases, levels up to two orders of magnitude over background have been measured"

EPA Quote:
"In-situ leaching can transport uranium and thorium into groundwater or surface water at the processing site. High levels of TENORM have been found in the pregnant leach solution (PLS) of two in-situ leach operations in Arizona"

Why wasn’t this potential for radiation contamination highlighted in the presentation and in the mines’s permit application? Whose responsibility is it to raise these concerns BEFORE we have another superfund site? I appreciate the value of mixed use of public land, however, it is in all our best interest to have all available

https://mail.google.com/mail/u/0?ik=d092d7402&view=pt&search=all&permthid=thread-f%3A1684567624418367297&simp#msg-f%3A1684567624418367297&simp#msg-a%3Aci4131674224172557427
information on the table to be able to properly assess risks and benefits. When very real, and significant risks are NOT even mentioned, it brings into question the integrity of the process. The presentation highlighted the safety and benefits of in-situ mining, what other risks are being hidden?

The second part of my comment regards details of the Mine’s draft permit “PART III SPECIFIC PERMIT CONDITIONS. Section E REQUIREMENTS PRIOR TO IN-SITU COPPER RECOVERY (40 CFR 146.34 b) Specifically:

(A) Hydrologic data documenting the presence or absence of a USDW(s);
(B) Aquifer exemption for the Burro Canyon Aquifer (Attachment M) according to the requirements of 40 CFR 144.7 and 40 CFR 146.4

So first, attachment M, the Aquifer Exemption Request, lists the criteria for aquifer exemption contained in 40 CFR 146.4 which mandate that Quote: “(a) It does not currently serve as a source of drinking water; and (b) It cannot now and will not in the future serve as a source of drinking water.”

I would direct your attention to Sumno USA corporation’s original 1996 application (#A69971) to appropriate water, filed with the DNR Division of Water, water rights # 05-2593, which Lisbon Mine inherited. Under heading #9: Nature and Period of Use, BOTH Domestic and Mining are listed, valid from 8-1-96 until 8-1-2016. As late as May 2004, as listed on the application #T29010 for temporary change of water, the mine still had wells in the Burro Aquifer permitted for Domestic use.

By 2012, however, the Domestic designation had been dropped from their application #38285 for temporary change of water point of diversion. It is unclear from the record why that is. Had they already contaminated the Burro Aquifer? Did they realize that having the aquifer designated for Domestic use might be a future liability?

Even though the mine has given up on the Domestic use designation, there are currently two businesses and residences in the mine’s proposed aquifer exemption area which draw and use domestic drinking and livestock water daily. On the mine’s October 2019 plan of operations for in-situ mining, submitted to the Division of Oil, Gas, & Minerals, the mine failed to list the Wilcox and 3-Step Hideaway private property parcels as surface landowners in their proposed area of operation. This could be construed as fraudulent or malicious; but, giving LVMC the benefit of the doubt, we’ll simply call it negligent. It raises the question; however, what other details are they leaving out.

Given that the Wilcox’s and 3 step hideaway bed and breakfast are currently using the aquifers for drinking water, as well as the mine’s and DWQ’s original designation of the area aquifers as suitable for domestic use, clearly, the requirements for exemption outlined in 40 CFR 146.4 are NOT met, and the aquifer exemption request should be denied.

Thank you for this opportunity to comment.

Francine Osikowicz
Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

Protect the Water in the Lisbon Valley

2 messages

Matt Prowant
To: dearley@utah.gov
Fri, Nov 27, 2020 at 9:29 PM

Hello Mr. Early,

My name is Matt Prowant and I live in Colorado. For several years I have been coming to the Lisbon Valley in particular to visit 3 Step Hideaway with multiple friends to participate in recreational opportunities of all kinds, and we enjoy the ability to have clean water to drink and clean water to shower in, there in the Lisbon Valley. Please keep the valley clean of such proposals that do harm to those of us who bring our tourist dollars from out of state. It would be a shame if I could no longer support the area due to the disastrous proposals you are considering, I, along with my friends who enjoy visiting the Lisbon Valley, would very much appreciate your consideration in this matter.

Thank you,

Matt Prowant

Drummond Earley
To: Matt Prowant
Tue, Dec 1, 2020 at 4:04 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Lisbon Valley Mine
2 messages

Michael Bielecki <[redacted]>
To: dearley@utah.gov

Good morning,
My name is Michael, I am the Operations Manager for Colorado Motorcycle Adventures in Denver, one of the country's largest motorcycle rental and tour companies.

For almost 6 years I have been staying at 3 Step Hideaway with countless friends, family, and dozens of tour groups who then continue to bring their friends and family to the incredible Lisbon Valley.

People come here for the allure of what Utah and the expansive desert southwest was from the start; a place to look at the stars, live off the grid, be away from people, machinery, modern amenities, to feel a sense of the Wild West. With the mine nearby it's always been a symbiotic relationship but now with the threatening encroachment of the mine destroying the landscape and some of the best well water I've ever had, which is a tremendous asset to the allure and function and livelihood of this bed and breakfast, this just can't happen. This is one of the last places I've been, and I've spent years exploring the remote southwest, that still truly feels like a step back in time, and the effort that Scott and Julie have put into making this getaway is unfounded.

Let's keep it that way so the thousands of visitors and their thousands of tourist dollars can continue to come support a wonderful small business, and the businesses that surround. I strongly oppose the ISR mining in this valley, it threatens the way of life for this couple, and their neighbors who have been ranching this area for years and years. Let's do the right thing and not let yet another mining operation destroy the way of life for these people and those who come to see what Utah really is all about.

Thank you for your time,
Michael Bielecki

---

Drummond Earley <dearley@utah.gov>
To: Michael Bielecki <[redacted]>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Quote: text hidden]
My name is Nace Salomone and I live in Keller, TX, and enjoy recreational opportunities in Lisbon Valley. I stay at Three Step Hideaway and enjoy the clean, clear drinking water there. I am concerned that runoff from a mining operation in the Valley would contaminate the local supply of water.

I am opposed to ISR mining in Lisbon Valley.

Thank You

Nace Salomone

---

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

On Thu, Nov 26, 2020 at 9:09 AM doc and wyatt wrote:

Dear Director Earley. My name is Greg Aumann and currently live in the Williamson Valley area of Prescott, AZ. I am an avid outdoorsman with a prior career with the USFS as a Hotshot, and later as a Haz Mat investigator with the US Dept of Interior. Additionally, for many years I have been an avid user of recreation opportunities in the Lisbon Valley area including off roading, camping, hunting and fishing. It is undoubtedly one of my most favorite areas to visit. I am strongly concerned that the permit for groundwater injection by the Lisbon Valley Mining Co will affect the social, environmental and groundwater resources in the Lisbon Valley area. My experience with these processes tell me that this permit and the process will substantially lessen the recreational and economic value, life quality, and environmental sustainability for our and many future generations.

I oppose this permit and look forward to another clean, clear, unimpeded glass of water.
Dear Mr. Earley,

I am writing in response to some disturbing news I received about the Lisbon Valley Mining Company's plans to extract copper by injecting sulfuric acid into the ground.

For many years, the company I work for as a motorcycle tour leader and trainer, have enjoyed the tranquil and off-the-grid homestead at 3 Step Hideaway. We have brought dozens of guests to our clinics from all over the country to this spectacular location for multi-night stays and have used and loved the excellent quality of the well water at 3step Hideaway.

My understanding is that, should the mining company proceed with it's plans to mine in this fashion, this will poison the water and will likely prevent us from being able to bring our form of recreational tourism to the Lisbon Valley.

Therefore I ask that this plan by the mining company be strongly opposed to.

Thank you,

Sincerely,
Barak Naggan
Albuquerque, NM

Tour Specialist
Photographer/Videographer

Click Here to receive our Navigator Newsletter

Drummond Earley <dearley@utah.gov>
To: Barak Naggan <...>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit,

[uncated text hidden]
Hello,

My name is Paul Anzalone and I live in Denver, CO. I enjoy recreational Opportunities in Lisbon Valley and enjoy a CLEAN, CLEAR glass of water when I am there.

I Strongly OPPOSE ISR Mining in Lisbon Valley!

Paul Anzalone
Denver, CO

Drummond Earley <dearley@utah.gov>
To: Paul

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Lisbon Valley Mining Company in situ recovery mining
2 messages

Don Buscarello <dearley@utah.gov>
To: dearley@utah.gov

Mon, Nov 30, 2020 at 8:40 AM

I recently became aware of the above permitting process for sulphur water pumping and extraction of copper in the Lisbon Valley. I am crazed that any environmental agency would allow a mining operation that knowingly pollutes a water aquifer in a State that is challenged with water shortages.

And specifically with a mining operation area that has been prone to bankruptcy and dereliction of cleanup duties for the past one hundred years. Not to mention the operation is proposed by a company owing millions of dollars of past taxes for past operations in this area.

Please consider the ridiculousness of this unproven proposal and deny this permit request.

Don Buscarello

--

I'm so confused. I don't know whether I've found a rope,
or lost a horse?

Drummond Earley <dearley@utah.gov>
To: Don Buscarello <dearley@utah.gov>

Tue, Dec 1, 2020 at 4:02 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class Ill Draft Permit.


[Quoted texteldon]
Oppose ISR Mining Lisbon Valley

2 messages

Bob Crossman <**********>
To: dearley@utah.gov

Mon, Nov 30, 2020 at 8:42 AM

I live in Colorado and come to Utah to enjoy off-road recreational opportunities Utah affords me.

I particularly enjoy the Lisbon Valley area and AM STRONGLY OPPOSED to ISR Mining in Lisbon Valley.

Clean clear water is critical to me when I am there.

Any questions, please let me know.

Thanks

Bob Crossman

---

Drummond Earley <dearley@utah.gov>
To: Bob Crossman <**********>

Tue, Dec 1, 2020 at 4:02 PM

This email has been checked for viruses by Avast antivirus software.
www.avast.com
Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

Stop ISR Mining in Lisbon Valley

2 messages

Thane Davis <dearley@utah.gov>  
To: dearley@utah.gov  
Mon, Nov 30, 2020 at 9:35 AM

Hi Drummond,

I live in Littleton, Colorado, near Denver. Over the years I have made several trips to Utah to ride dirt bikes with my family and friends. We all like the beauty near Moab, Green River, and Lisbon Valley. So we oppose in situ recovery mining in Lisbon Valley.

---

Thanks,

Thane Davis

Drummond Earley <dearley@utah.gov>  
To: Thane Davis <dearley@utah.gov>  
Tue, Dec 1, 2020 at 4:02 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Lisbon Valley Mining ISR Opposition
2 messages

Jeff Graser <dearley@utah.gov>
To: dearley@utah.gov

Good Morning, My name is Jeff Graser. I'm from Castle Rock, Colorado and I frequently tour the Lisbon Valley area on motorcycle with my friends. I wish to express my opposition to the ISR mining process proposed in the area. This has the strong potential to destroy the water table in the area and render the area uninhabitable for business & people. This is a beautiful area and should not be damaged for the sake of a bankrupt mining operation.

Thank You for your consideration.

Jeff Graser

Drummond Earley <dearley@utah.gov>
To: Jeff Graser <dearley@utah.gov>

Tue, Dec 1, 2020 at 4:02 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Quoted text hidden]
Extension Request for Lisbon Valley Mine UIC Class III Area Permit Comment Period

3 messages

Carly Ferro <gadis@utah.gov>
To: gadis@utah.gov
Cc: dearley@utah.gov

Mon, Nov 30, 2020 at 10:33 AM

Ms. Gaddis,

I hope you had a great holiday.

On behalf of the Utah Sierra Club, I have attached a 60-day comment period extension for the proposed Underground Injection Control (UIC) Class III Area Permit for an In Situ Copper Recovery project at the Lisbon Valley Copper Mine (UT Mine ID 0370068), San Juan County Utah.

Thank you for your time and consideration,

Carly Ferro

---

Drummond Earley <dearley@utah.gov>
To: Carly Ferro <gadis@utah.gov>
Cc: Erica Gaddis <gaddis@utah.gov>

Tue, Dec 1, 2020 at 4:02 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Updated text hidden]

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Carly Ferro - gaddis@utah.gov

Wed, Dec 2, 2020 at 8:27 AM

https://mail.google.com/mail/u/0?pli=0&in=t&tf=1&sm=1&shld=1&ti=0&rsig=26Zk7d7402&view=pt&search=all&permthid=thread-f%3A1684807460205883705&simple=msg-f%3A1684807460205883705&simple=msg-a%3A22512418041026686202&simple=msg-f%3A1684980755695183289
Mr. Earley,

Thank you very much,

With appreciation,
Carly
November 30, 2020

Erica Gaddis
Director, Division of Water Quality
Utah Department of Environmental Quality
PO Box 144870
Salt Lake City, Utah 84114-4870
egaddis@utah.gov

cc: Drummond Earley, DWQ

RE: Request for Extension of Comment Period - Lisbon Valley Copper Mine, Underground Injection Control (UIC) Class III Area Permit for In Situ Copper Recovery

Dear Ms. Gaddis,

On behalf of the Utah Sierra Club, I respectfully request the Division of Water Quality (DWQ) extend by 60-days the comment period for the proposed Underground Injection Control (UIC) Class III Area Permit for an In Situ Copper Recovery project at the Lisbon Valley Copper Mine (UT Mine ID 0370088), in San Juan County Utah. Currently, the comment period is poised to close on December 4, 2020. The current comment period is inadequate because of the lack of publicly available information, the complexity of the proposed project and its technical documents posted with Notice, and the context and intensity of the potential environmental consequences of permitting the UIC Class III Area Permit.

An extension is necessary because the Division of Water Quality’s public Notice was incomplete. While the Notice included attachments, it did not include the full application for the UIC Permit and aquifer exemption. We request the DWQ make a complete application available and provide adequate time for review before closing the comment period.

Additionally, made prevalent during the public hearing held on November 24, there is substantial public interest, including the affected community’s significant concerns. This proposal stands to affect the health, livelihoods, water resources, and quality of life of the nearby residents. Ensuring those who will be most affected adequate time to weigh-in on their community’s future is critical. Therefore, more time is necessary to allow this community to submit comments.

Finally, the current holiday season and a public health crisis – and the lack of any immediate need to rush the public review and commenting process forward – compels a more deliberative comment period time frame. An extension of the comment period will not adversely affect Lisbon
Valley Mining Co., LLC. Our understanding is that a series of reviews remain necessary to take place for the mine even to consider moving forward on this project. To our knowledge, the Division of Oil, Gas, and Mining (DOGM) is not reviewing a Notice of Intent to develop an ISL copper recovery operation at the Lisbon Valley Copper Mine. As well, The Bureau of Land Management (BLM) has not posted an application for such an operation for public comment, nor has it commenced a National Environmental Policy Act (NEPA) review for such an application. Therefore, there is no time-sensitive need for the DWQ Lisbon Valley Copper Mine UIC permit application review.

In summary, we hereby request a 60-day extension for the proposed Underground Injection Control (UIC) Class III Area Permit for an In Situ Copper Recovery project at the Lisbon Valley Copper Mine (UT Mine ID 0370088), San Juan County, Utah. We appreciate your time and consideration.

Respectfully submitted,

[Signature]

Carly Ferro
Director, Utah Sierra Club
November 30, 2020

Erica Gaddis  
Director, Division of Water Quality  
Utah Department of Environmental Quality  
PO Box 144870  
Salt Lake City, Utah 84114-4870  
egaddis@utah.gov

cc: Drummond Earley, DWQ

RE: Request for Extension of Comment Period - Lisbon Valley Copper Mine, Underground Injection Control (UIC) Class III Area Permit for In Situ Copper Recovery

Dear Ms. Gaddis,

On behalf of the Utah Sierra Club, I respectfully request the Division of Water Quality (DWQ) extend by 90 days the comment period for the proposed Underground Injection Control (UIC) Class III Area Permit for an In Situ Copper Recovery project at the Lisbon Valley Copper Mine (UT Mine ID 0370088), in San Juan County Utah. Currently, the comment period is poised to close on December 4, 2020. The current comment period is inadequate because of the lack of publicly available information, the complexity of the proposed project and its technical documents posted with Notice, and the context and intensity of the potential environmental consequences of permitting the UIC Class III Area Permit.

An extension is necessary because the Division of Water Quality's public Notice was incomplete. While the Notice included attachments, it did not include the full application for the UIC Permit and aquifer exemption. We request the DWQ make a complete application available and provide adequate time for review before closing the comment period.

Additionally, made prevalent during the public hearing held on November 24, there is substantial public interest, including the affected community’s significant concerns. This proposal stands to affect the health, livelihoods, water resources, and quality of life of the nearby residents. Ensuring those who will be most affected adequate time to weigh-in on their community’s future is critical. Therefore, more time is necessary to allow this community to submit comments.

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Valley Mining Co., LLC. Our understanding is that a series of reviews remain necessary to take place for the mine even to consider moving forward on this project. To our knowledge, the Division of Oil, Gas, and Mining (DOGM) is not reviewing a Notice of Intent to develop an ISL copper recovery operation at the Lisbon Valley Copper Mine. As well, The Bureau of Land Management (BLM) has not posted an application for such an operation for public comment, nor has it commenced a National Environmental Policy Act (NEPA) review for such an application. Therefore, there is no time-sensitive need for the DWQ Lisbon Valley Copper Mine UIC permit application review.

In summary, we hereby request a 60-day extension for the proposed Underground Injection Control (UIC) Class III Area Permit for an In Situ Copper Recovery project at the Lisbon Valley Copper Mine (UT Mine ID 0370088), San Juan County, Utah. We appreciate your time and consideration.

Respectfully submitted,

Carly Ferro
Director, Utah Sierra Club
RE - Request For Extension of Comment Period: Lisbon Valley Copper Mine UIC Permit

2 messages

sarah uraniumwatch.org  To: "egaddis@utah.gov" <egaddis@utah.gov>
Cc: Drummond Earley <dearley@utah.gov>

Mon, Nov 30, 2020 at 11:06 AM

Dear Ms. Gaddis,

In regard to my request for Extension of the comment period on the Lisbon Valley Copper Mine:

I have submitted a GRAMA request to the Div. of Oil, Gas & Mining for any Lisbon Valley Mining Co. LLC, Notice of Intent for a proposal to operate an ISL copper recovery operation at the Lisbon Valley Mine. I have been informed that I will receive a response to this GRAMA request within 11 days.

Also, I have been informed that the BLM will expedite my FOIA request for any Plan of Operations associated with the proposed ISL copper recovery operation at the Lisbon Valley Copper Mine. However, I am not sure when I will receive that application, or if such an application has been submitted to the BLM.

Therefore, any application to a state or federal mining regulatory agency for an ISL operation at the Copper Mine will not be available before December 4.

Thank you,

Sarah Fields
Uranium Watch

Erica Gaddis <egaddis@utah.gov>

To: Meg Osswald <megosswald@ag.utah.gov>, Daniel Hall <dhall@utah.gov>, Drummond Earley <dearley@utah.gov>, "Mackey, John" <jmackey@utah.gov>

Mon, Nov 30, 2020 at 5:49 PM

[Quoted text hidden]

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Erica Brown Gaddis, PhD
Director | Division of Water Quality
M: (385) 228-5787

https://mail.google.com/mail/u/0/?ik=092bd7402&view=pt&search=all&permthid=thread-f%3A1684809547612287060&simple=1msg-f%3A1684809547612287060&simple=1msg-f%3A1684834930995410723
Emails to and from this email address may be considered public records and thus subject to Utah GRAMA requirements.
RE - Request For Extension of Comment Period: Lisbon Valley Copper Mine UIC Permit

To: "egaddis@utah.gov" <egaddis@utah.gov>
Cc: Drummond Earley <dearley@utah.gov>

Mon, Nov 30, 2020 at 11:06 AM

Dear Ms. Gaddis,

In regard to my request for Extension of the comment period on the Lisbon Valley Copper Mine:

I have submitted a GRAMA request to the Div. of Oil, Gas & Mining for any Lisbon Valley Mining Co. LLC, Notice of Intent for a proposal to operate an ISL copper recovery operation at the Lisbon Valley Mine. I have been informed that I will receive a response to this GRAMA request within 11 days.

Also, I have been informed that the BLM will expedite my FOIA request for any Plan of Operations associated with the proposed ISL copper recovery operation at the Lisbon Valley Copper Mine. However, I am not sure when I will receive that application, or if such an application has been submitted to the BLM.

Therefore, any application to a state or federal mining regulatory agency for an ISL operation at the Copper Mine will not be available before December 4.

Thank you,

Sarah Fields
Uranium Watch

Erica Gaddis <egaddis@utah.gov>
To: Meg Oswald <megoswald@ag.utah.gov>, Daniel Hall <dhall@utah.gov>, Drummond Earley <dearley@utah.gov>, "Mackey, John" <jmackey@utah.gov>
Mon, Nov 30, 2020 at 5:49 PM

[Quoted text hidden]
Emails to and from this email address may be considered public records and thus subject to Utah GRAMA requirements.
Reject ISR Mining in Lisbon Valley

2 messages

Bear Keithley <dearley@utah.gov>
To: dearley@utah.gov

Mon, Nov 30, 2020 at 11:14 AM

Hello Drummond,

I am writing to voice my opposition to mining in Lisbon Valley. The recreational opportunities in that area require access to clean water, and this copper mining will poison water wells. Please do not allow this to happen.

Sincerely,
Anthony Keithley

Drummond Earley <dearley@utah.gov>
To: Bear Keithley <dearley@utah.gov>

Tue, Dec 1, 2020 at 4:01 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.

[Draft text hidden]
OPPOSE ISR Mining in Lisbon Valley

2 messages

To: dearley@utah.gov

Drummond Earley

My friends and myself from Colorado frequently recreate and spend money in the Lisbon Valley area and stay at 3 Step Hideaway. If the ground water is contaminated we will have to go elsewhere. Please re-consider allowing this extraction to take place.

Fred Deboede
Boulder, Colorado.

Drummond Earley <dearley@utah.gov>

To: dearley@utah.gov

Tue, Dec 1, 2020 at 4:01 PM

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class III Draft Permit.


[Quoted text hidden]
Due to the restraint practices of the public commenters, my recorded comments were somewhat abbreviated from what I actually wanted to state for the record, but are included here in full.

Hello, my name is Julie Stevenson. I am a landowner and resident in Lower Lisbon Valley, and our domestic well is within the mine’s proposed area of operations. I would like to comment on and point out that the water quality and quantity impact analysis states that the various aquifers are most likely separate. The problem I have with that is that if this presumption is even a little bit wrong, our health and well-being will be tremendously affected. We drink the water from our well daily, and serve it to our guests. Our neighbors drink the water from their well, and also use it to water livestock.

In the material that the mine, in its various incarnations, has submitted to the DWQ over the last 25 years, some of the things I’ve read lead me to question the certainty of the mine’s presumptions.

Their original application in 1996 was for both Domestic and Mining use, The Mine hired Adrian Brown consultants who’s accompanying report stated, "QUOTE: "... the Burro Canyon ... and the Navajo Formation ... have moderate to high permeabilities and are expected to supply a significant portion of the project water needs. The SEMI-confining units between the two formations may also produce some water;" further, "QUOTE: "... faulting has resulted in significant vertical displacement of the bedded units, which juxtaposes permeable units against RELATIVELY impermeable units." END QUOTE. My understanding of the phrases "semi-confining" and "relatively impermeable" are that the two aquifiers in question are NOT absolutely confined NOR completely impermeable.

Further in the Adrian Brown report, "QUOTE: Some 500 feet of confining and SEMI-confining units separate the Navajo Formation from the Burro Canyon water-bearing zone, ... water will also be drawn from these units, according to the proposed well design. In addition to water supply, pumping these lower units will have some positive effect on mine dewatering, due to the vertical hydraulic connection in the flow system," END QUOTE. Vertical hydraulic connections in the aquifer flow system no longer seem to exist. How does that happen?

The mine’s maximum water usage is 1500 gallons per minute, "The well supplies our home and business, which is within their specified area of operations, produces one QUART per minute... that is correct, only 32 ounces per minute! So you can appreciate how sensitive our water supply would be to any reduction of our aquifer as a consequence of ANY connections between the various zones, especially when differential pumping is part of the mine’s plan of operations.

In temporary change application, #T290110, the mine consulted Wheatstone Associates who described at least one monitoring well, MW97-10, which experienced vertical fractures causing the borehole to cave, and which had to be abandoned due to concerns with cross-connecting the upper and lower aquifers.

For temporary change application #T30128, the mine again consulted with Wheatstone to assist with moving the locations of two wells, N-4 which was QUOTE "mislabeled in the water rights public notice... and is several miles from the mine on private property," and G-1 which was "mislabeled ... and plots on Three Step Hill, approximately two miles southeast of the mine." END QUOTE. We have also noted that the location of our domestic well is misplaced on the mine’s currently submitted maps, My questions are, 1. what kind of amateur-hour surveying is going on here, and 2. can we expect the same kind of inattention to detail across the board, or will it just be limited to the identification of well sites?

Our concerns increase discovering that the mine did not conform to appropriate gravel packing placed in the annular space between the borehole and the casing in the construction of well PW7, and that the Division of Water Rights authorized this "delegacy and variance from Rule R655-4-0.12.1, stating in their June 6, 2005 memo, "... given the fact that the deepened interval will be in FAIRLY well consolidated rock such as sandstone, the proposed design should meet the spirit of the deed with respect to the well and groundwater resource protection." END QUOTE. I’m sorry, but playing fast and loose with the regulations resulting in "fairly well" protected groundwater doesn’t sit well with us, but that seems to be how Lisbon Valley Mine rolls.

We are not looking at any new well sites in our untrine Lisbon Valley either, Alyseen Tarrant, who is the environmental manager for The Lisbon Valley Mining Company, LLC, who identified herself as only a citizen, not employee, spoke just before I did at the public hearing on November 24, 2020, stated in the mine’s outreach session on December 5, 2019 in Monticello, UT, and quoted in an article in the Salt Lake Tribune by Zak Podmore, published January 02, 2020, QUOTE "... if the permits are approved, Lisbon Valley will be the first place in Utah to implement the ISR method. It will also be the first time it has been used to extract copper from a sandstone-based deposit since most recoverable copper deposits worldwide are found in harder rock layers," further QUOTE "The operations plan predicts the first pilot project will be installed in 2021 and estimates 2,700 wells will eventually be drilled into the aquifer," END QUOTE. The first place in Utah to TRY ISR? The first time to extract copper from a sandstone-based deposit? Their FIRST PILOT PROJECT? 2,700 wells injecting sulfuric acid into the ground is that it is safe and won't affect the groundwater? I cannot fathom how this expensive and invasive experiment won't completely decimate the entire Lower Lisbon Valley including its wildlife, plant life, ranching, recreation, including the very livelihood of and potential killing of its residents.

Over the last quarter century, the mine has filed four Extension of Time requests, and 12 Temporary Change Applications. In the dozens of Division opportunities, and the 18 public notice opportunities for objections, there hasn't been a single time that the mine hasn't gotten their way. Despite their sloppy, inept, and unprofitable operations, they have been allowed to proceed, ignored and unopposed by the public, and with what has appeared to be rubber-stamp approval by the division, until recently.

After the fiasco this past March, when the mine had to call the state, begging for help to avert the release of millions of gallons of sulfuric acid into the water system, the Division of Oil Gas & Mining issued an almost unprecedented Emergency Order terminating operations at the Lisbon Valley Mine, Finally!
We call them Water "Rights." But in reality, the use of such a precious resource should be referred to as a privilege. Below is a link to a 2012 study examining 14 copper mines then operating in the U.S. for at least 5 years; every single one experienced failures that led to pollution spills that contaminated water, most with long-term consequences, and most actually experienced multiple failures. As evidenced by their record, Lisbon Valley no longer deserves the privilege. Their requests for an aquifer exemption and in situ recovery should be denied. After 25 years, and following this recent near miss, enough is enough.

Thank you.


Drummond Earley <dearley@utah.gov>
To: Julie Stevenson <jstevenson@deq.utm.gov>

Please see our website notice of public comment extension period for the Lisbon Valley UIC Class II Draft Permit.


Julie Stevenson <jstevenson@deq.utm.gov>
To: Drummond Earley <dearley@utah.gov>

Thank you.

https://mail.google.com/mail/u/0?ik=09f6d7402&view=pt&search=all&permthid=thread-f%3A1684817285470215222&sig=1msg-f%3A1684817285470215222&uri=1msg-a%3A-o-8825684911269565818&sig=1msg-f%3A1684925074002398791

Tue, Dec 1, 2020 at 4:01 PM

Tue, Dec 1, 2020 at 5:42 PM
Hi, I am Sam Kaffine from Westcreek, CO. I enjoy recreational opportunities in Lisbon Valley and enjoying a CLEAN, CLEAR glass of WATER when I am there!!! I Strongly OPPOSE ISR Mining in Lisbon Valley!

Thank you

Sam Kaffine

Sent from my iBrain

Drummond Earley <dearley@utah.gov>

To: Sam Kaffine

Tue, Dec 1, 2020 at 4:00 PM

Please see our website notice of public comment extension period for the Lisbon Valley UFC Class III Draft Permit.


[Quoted text hidden]
Ms Gaddis, Mr Earley,

I would like to respectfully request a 60 day extension period for public comments on the Proposed UIC class 3 area permit for an In Situ Recovery project @ the Lisbon Valley Copper Mine San Juan County, UT. The deadline is currently December 4, 2020.

I am a resident of Lower Lisbon Valley and we need more time to ask, and receive answers to our questions and concerns about this project.

Thank you for your Consideration in this matter.

Scott Stevenson
3 Step Hideaway LLC
Drummond-

My name is Chris Oppold and although I live in Denver, Colorado I spend a good amount of time enjoying recreational Opportunities in Lisbon Valley and enjoy a CLEAN, CLEAR glass of WATER when you are there!!!  Which is why I want you to know that I Strongly OPPOSE ISR Mining in Lisbon Valley! Also, who does an organization get to re-open its doors without paying the back taxes owed from when it was last open in 1965? Either way damage done to the ground water in this area will (in time) move through the land and aquifer systems to contaminate other areas. You know this as well as I do. Approving this land use would only bring continued water issues for generations to come.

Chris Oppold
Sulfuric acid injection
1 message

Anthony Shepperdson <dearley@utah.gov>
To: dearley@utah.gov
Mon, Nov 30, 2020 at 5:48 PM

Really? Is this company so upright and well planned that you would let them inject poison into the ground. I hope you can overlook your personal gain to take a minute to think about the consequences of this decision. Being a conservative, I understand the need for corporations to succeed, but never at the cost of an entire region being detrimented.

If they can just dig a hole and take some copper, then they should find another site. How many more places in our county have to be affected before we say enough.

How much money is this going to produce for the county. Can you answer that?
Public Comment re: UIC Class III area permit No. UTU-37-AP-5D5F693

1 message

To: dearley@utah.gov

Mon, Nov 30, 2020 at 5:56 PM

To: Drummond Earley

Re: Division of Water Quality, Utah Department of Environmental Quality, Notice Public Hearing on Draft Permit, Underground Injection Control Class III Area Draft Permit, No. UTU-37-AP-5D5F693, In Situ Copper Recovery

Dear Sir,

My name is Robert Stansfield, I am a U.S. citizen resident at [redacted]. I am also a Ph.D. chemist (retired). I am writing to strongly object to the application of Lisbon Valley Mining Company for a permit to perform In Situ Copper Recovery. If allowed, ISR will poison the drinking water and risk the viability of ranchers and hospitality in the Valley. For those of us who visit, Lisbon Valley is a precious place in nature and we enjoy its non-toxic water!

I understand that Lisbon Valley Mining Company currently owes the county $2.1 million in back taxes and shut down in March leaving 65 employees owed 2 weeks pay. Also that, according to an article in the local press: "the Utah State Tax Commission has filed multiple tax liens against the company, and four contractors have sued the company in district court over the last year for allegedly failing to pay invoices for equipment and machinery used at the mine." This hardly sounds like a company with a trustworthy reputation.

Regards,
Dr. Robert F.D. Stansfield
Ph: [redacted]
Dusty,

Attached is a copy of what I read at the Public Hearing. It is not word for word but I wanted it to be public record.

Thanks,
RL Wilcox
Good evening,

My name is RL Wilcox. I am Mike and Joan’s youngest son. When I left home in 1994, My parents went to work on fulfilling a lifelong dream of making a home in Lower Lisbon Valley. My grandfather purchased land and grazing permits in the 1950’s after his return from world war II. My parents wanted to improve on that part of the ranch. They have improved the area by developing water, installing a small solar power supply, seeding projects, creating new ponds and improving old ones, cross fencing for improved grazing, and building facilities to house and work livestock in a safe and efficient manner. Their biggest obstacle was always a reliable source of water. They drilled several wells that produced very little and hauled water for years. Finally, in 2013 they hit a good well. The water was good and there was plenty of it. They filed on the water and developed it. We ran a pipeline to the house and installed drinkers along the way to provide water for our livestock and the wildlife in the area. This water is our lifeblood. The water that sustains our lives in Lower Lisbon Valley comes from the Burro Canyon aquifer. The same aquifer that Lisbon Valley Copper mine wants to inject acid into.

The improvements that my family has made in Lower Lisbon Valley are not only ways to improve our business of producing American beef, but it is also their home. It is a place that my children spend time at grandpa and grandma’s. They learn how to be good stewards of the land or simply set on the porch and look at the stars. They learn how to ride and rope. They learn how to care for animals and be respectful of all of God’s creations. They learn how to work hard and play harder. We gather there for Holidays, birthdays, and brandings. My parents have made many sacrifices to improve our family business, care for the environment, be good neighbors, honor their ancestors, provide for future generations, and fulfill a lifelong dream.

LVMC was not the first copper mine that had came to the valley. As a young boy my parents and grand parents had taught me to always be on the lookout for holes in the ground that could swallow up a horse. Our old branding corral was what is now a huge waste dump for the mine. The previous mine had left a huge mess with old open pits and large spots of ground that grass could not grow. My Grandpa Max always used it as a teaching opportunity for my brother and me. He would always shake his head in disgust and say “Boys, don’t ever leave a mess like this when you are done. Always leave things better than they were before you found it. That way your grandkids will be able to be here.”

Around 1996 LVMC moved in just down the road. We have learned how to be neighbors to a Mine that does not share the same values that we do. Lisbon Valley Copper Mine wants to take everything they can, as cheap as they can, and then leave a mess for our future generations to deal with. We have accepted that fact and have done our best to live next to them. They have for the most part stayed on their side of the fence, and we stay on our side. But now they want to cross the fence and make a mess of our front yard and inject acid into our drinking water.

If the division of Water Quality issues this aquifer exemption to Lisbon Valley Copper Mine, it will be the beginning of the end for Wilcox Ranches in Lower Lisbon Valley. If they don’t poison our water, they will deplete our water. They will put settling ponds full of acid on our private ground so when the wind blows it will affect the air that we breath. And grass cannot grow on or near a pond of acid.

There will be pipelines of acid ran on the surface of the ground. When these pipes fail, either man-made failures or natural failures, acid will spill out on the ground and grass will not grow there ever
again. And when the copper has been extracted or more likely the copper Mine goes broke again due to poor management, low copper prices, lack of investor interest, or a global pandemic, they will be gone, and we will be left with a mess. But this time, not just big holes in the ground or large spots on the ground that grass cannot grow, but the aquifer that we depend on will be ruined.

The Division of water quality has drafted a permit based on information that they have received from Lisbon Valley Copper Mine. I hope the Division will now consider the other side of the story. This valley has changed since 1996. The entire western United States has changed when it comes to water. There is a battle waging in the west for drinking water. In the west, it is our most precious resource. How can you say that the Burro Canyon aquifer will never be used as a source for domestic drinking? It already is a source for domestic drinking, but The Lisbon valley Copper mine has declared that it does not serve as a source of drinking water. That simply is not true.

The Lisbon Valley copper mine does not even list us as surface landowners on the permit application. That is simply not true. The Lisbon Valley mining company is required to show that they are financially responsible. That is simply not true. What other false information have they supplied to the Division of Water Quality? They have done nothing to improve the environment in Lower Lisbon Valley and now they want the Division of water quality to give them permission to further deplete our most valuable resource.

The Lisbon Valley Copper mine has done nothing since 1996 to earn our trust. The Division is relying on the copper mine to monitor the water quality in the Burro Canyon aquifer. How can we be sure that they will do it with anyone’s best interest but their own? Lisbon Valley Copper Mine’s only interest is to get the copper out of the Burro Canyon aquifer. Not to protect the aquifer. How can they be trusted to monitor the quality and quantity of the aquifer?

Isn’t it the divisions responsibility to protect water quality in the State of Utah? What assurances do we have? If things go wrong who will make us whole? Who will be financially responsible for our water rights being infringed upon? Who will be responsible for our loss of grass on our private ground and our grazing allotment? The draft permit requires restoration of the aquifer upon completion, what about when something goes wrong during mining?

Does the Division of water quality have the burden of doing the research or do they rely only on the copper mine to feed them information? Upper Lisbon Valley and the La Sal area are spotted with supposedly reclaimed mines. They are a detriment to everyone in San Juan County. Please do not allow Lisbon Valley Copper mine to jump the fence and destroy one of the last pristine places in our state.

If they stay where they are currently permitted to mine copper and continue to operate the way they have, we will just accept the fact that they do not share the same values as we do. We ask the Division of water quality to reject the exemption, keep the current mining boundary, and prevent them from injecting acid into the same aquifer that we drink from. At some point, someone has to take a stand and say enough is enough.
Good evening,

My name is RL Wilcox. I am Mike and Joan’s youngest son. When I left home in 1994, My parents went to work on fulfilling a lifelong dream of making a home in Lower Lisbon Valley. My grandfather purchased land and grazing permits in the 1950’s after his return from world war II. My parents wanted to improve on that part of the ranch. They have improved the area by developing water, installing a small solar power supply, seeding projects, creating new ponds and improving old ones, cross fencing for improved grazing, and building facilities to house and work livestock in a safe and efficient manner. Their biggest obstacle was always a reliable source of water. They drilled several wells that produced very little and hauled water for years. Finally, in 2013 they hit a good well. The water was good and there was plenty of it. They filed on the water and developed it. We ran a pipeline to the house and installed drinkers along the way to provide water for our livestock and the wildlife in the area. This water is our lifeblood. The water that sustains our lives in Lower Lisbon Valley comes from the Burro Canyon aquifer. The same aquifer that Lisbon Valley Copper mine wants to inject acid into.

The improvements that my family has made in Lower Lisbon Valley are not only ways to improve our business of producing American beef, but it is also their home. It is a place that my children spend time at grandpa and grandma’s. They learn how to be good stewards of the land or simply set on the porch and look at the stars. They learn how to ride and rope. They learn how to care for animals and be respectful of all of God’s creations. They learn how to work hard and play harder. We gather there for Holidays, birthdays, and brandings. My parents have made many sacrifices to improve our family business, care for the environment, be good neighbors, honor their ancestors, provide for future generations, and fulfill a lifelong dream.

LVMC was not the first copper mine that had came to the valley. As a young boy my parents and grand parents had taught me to always be on the lookout for holes in the ground that could swallow up a horse. Our old branding corral was what is now a huge waste dump for the mine. The previous mine had left a huge mess with old open pits and large spots of ground that grass could not grow. My Grandpa Max always used it as a teaching opportunity for my brother and me. He would always shake his head in disgust and say “Boys, don’t ever leave a mess like this when you are done. Always leave things better than they were before you found it. That way your grandkids will be able to be here.”

Around 1996 LVMC moved in just down the road. We have learned how to be neighbors to a Mine that does not share the same values that we do. Lisbon Valley Copper Mine wants to take everything they can, as cheap as they can, and then leave a mess for our future generations to deal with. We have accepted that fact and have done our best to live next to them. They have for the most part stayed on their side of the fence, and we stay on our side. But now they want to cross the fence and make a mess of our front yard and inject acid into our drinking water.

If the division of Water Quality issues this aquifer exemption to Lisbon Valley Copper Mine, it will be the beginning of the end for Wilcox Ranches in Lower Lisbon Valley. If they don’t poison our water, they will deplete our water. They will put settling ponds full of acid on our private ground so when the wind blows it will affect the air that we breath. And grass cannot grow on or near a pond of acid.

There will be pipelines of acid ran on the surface of the ground. When these pipes fail, either man-made failures or natural failures, acid will spill out on the ground and grass will not grow there ever
again. And when the copper has been extracted or more likely the copper Mine goes broke again due to poor management, low copper prices, lack of investor interest, or a global pandemic, they will be gone, and we will be left with a mess. But this time, not just big holes in the ground or large spots on the ground that grass cannot grow, but the aquifer that we depend on will be ruined.

The Division of water quality has drafted a permit based on information that they have received from Lisbon Valley Copper Mine. I hope the Division will now consider the other side of the story. This valley has changed since 1996. The entire western United States has changed when it comes to water. There is a battle waging in the west for drinking water. In the west, it is our most precious resource. How can you say that the Burro Canyon aquifer will never be used as a source for domestic drinking? It already is a source for domestic drinking, but The Lisbon valley Copper mine has declared that it does not serve as a source of drinking water. That simply is not true.

The Lisbon Valley copper mine does not even list us as surface landowners on the permit application. That is simply not true. The Lisbon Valley mining company is required to show that they are financially responsible. That is simply not true. What other false information have they supplied to the Division of Water Quality? They have done nothing to improve the environment in Lower Lisbon Valley and now they want the Division of water quality to give them permission to further deplete our most valuable resource.

The Lisbon Valley Copper mine has done nothing since 1996 to earn our trust. The Division is relying on the copper mine to monitor the water quality in the Burro Canyon aquifer. How can we be sure that they will do it with anyone’s best interest but their own? Lisbon Valley Copper Mine’s only interest is to get the copper out of the Burro Canyon aquifer. Not to protect the aquifer. How can they be trusted to monitor the quality and quantity of the aquifer?

Isn’t it the division’s responsibility to protect water quality in the State of Utah? What assurances do we have? If things go wrong who will make us whole? Who will be financially responsible for our water rights being infringed upon? Who will be responsible for our loss of grass on our private ground and our grazing allotment? The draft permit requires restoration of the aquifer upon completion, what about when something goes wrong during mining?

Does the Division of water quality have the burden of doing the research or do they rely only on the copper mine to feed them information? Upper Lisbon Valley and the La Sal area are spotted with supposedly reclaimed mines. They are a detriment to everyone in San Juan County. Please do not allow Lisbon Valley Copper mine to jump the fence and destroy one of the last pristine places in our state.

If they stay where they are currently permitted to mine copper and continue to operate the way they have, we will just accept the fact that they do not share the same values as we do. We ask the Division of water quality to reject the exemption, keep the current mining boundary, and prevent them from injecting acid into the same aquifer that we drink from. At some point, someone has to take a stand and say enough is enough.
Oppose ISR Mining in Lisbon Valley...

1 message

Chris Vasiliotis : [REDACTED]
To: "dearley@utah.gov" <dearley@utah.gov>

Dear Mr. Drummond Earley,

My name is Chris Vasiliotis, and I live in Denver, Colorado. I am often in the Lisbon Valley area, and very frequently visit 3-Step Hideaway for motorcycle touring and training. Our business often brings tours through the area, and we definitely enjoy clean, clear water at facilities like 3-Step. We strongly oppose ISR Mining in Lisbon Valley!

Chris Vasiliotis

Mon, Nov 30, 2020 at 10:45 PM
OPPOSE ISR MINING IN LISBON VALLEY

1 message

Derren Thompson <dearley@utah.gov>
To: "dearley@utah.gov" <dearley@utah.gov>

Mr. Early, my name is Derren Thompson. I am from Scottsdale, AZ. I have enjoyed the recreational opportunities that 3 step hideaway has provided over the years. I am strongly opposed to the mining being proposed by Lisbon Valley Mining Company and what it will do to the water source in the Lisbon Valley.

Confidentiality Notice: This message is confidential and may be privileged. If you believe that this email has been sent to you in error, please notify the sender and delete this email. Thank you.

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the system manager. This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.
3 step water mine issue
1 message

Darrell Hiatt <[redacted]>
To: dearley@utah.gov

Tue, Dec 1, 2020 at 9:28 AM

Happy Holidays,

Please look into dead beat [back taxes]copper mine poisoning water for cattle and small businesses in the 3 Step Area.

Thank you

Darrell
Re: Utah Class III UIC Permit and Aquifer Exemption for Lisbon Valley Copper ISL

1 message

Sierra-Lopez, Omar <Sierra-Lopez.Omar@epa.gov>
To: "sarah uraniumwatch.org" <sarah uraniumwatch.org>, "Minter, Douglas" <Minter.Douglas@epa.gov>, "dearley@utah.gov" <dearley@utah.gov>

Tue, Dec 1, 2020 at 10:39 AM

Ms. Fields:

EPA Region 8 is aware of the UIC Permit application and aquifer exemption for the Lisbon Valley Mine and UDEQ's actions to date on the application. UTDEQ public notice of the proposed permit application is available on their website https://deq.utah.gov/public-notices-archive/water-quality-public-notices to afford an opportunity for the public to comment on the application. UTDEQ is the primary enforcement authority, often called primary, refers to state, territory, or tribal responsibilities associated with implementing EPA approved UIC programs. Please afford UTDEQ the opportunity to address your concerns by following the instructions below:

Public Comments Public comments are invited any time prior to Friday, December 4, 2020. Comments may be directed to the Division of Water Quality, PO Box 144870, Salt Lake City, UT 84114-4870. All comments received prior to close of business Friday, December 4, 2020, will be considered in the formulation of final determinations to be imposed on the permit. A public hearing may be held if written requests are received within the first 15 days of this public comment period that demonstrate significant public interest and substantive issues exist to warrant holding a hearing.

Direct Link for this specific Public Notice:

Regards,

Omar Sierra-Lopez
Physical Scientist (Environmental)

U. S. Environmental Protection Agency (Region 8)
Underground Injection Control Program
Mail Code: 8WD-SDU
1565 Wynkoop Street
Denver, Colorado 80222-1129
Phone 303-312-7045

EPA Region 8 UIC website:

From: sarah uraniumwatch.org <sarah uraniumwatch.org>
Sent: Tuesday, December 1, 2020 10:18 AM
To: Sierra-Lopez, Omar <Sierra-Lopez.Omar@epa.gov>
Subject: Utah Class III UIC Permit and Aquifer Exemption for Lisbon Valley Copper ISL
Dear Mr. Sierra-Lopez,

I would like to know if you would be the contact person for the Aquifer Exemption associated with a Class III Underground injection Control (UIC) Permit for a proposed ISL copper recovery operation at the Lisbon Valley Copper Mine, San Juan County, Utah. The information on the EPA Region 8 UIC Program webpage indicates that you are the "Class V Team Lead; Class II Permitting; State Oversight for NDEQ and UDEQ." I wondered, because this is a Class III UIC Permit and aquifer exemption process.

The Utah DEQ, Division of Water Quality, is in a comment period for the proposed UIC Permit for Lisbon Valley Mining Co, LLC, proposed ISL operation.

Thank you,

Sarah Fields
Program Director
Uranium Watch
Oppose ISR Mining in Lisbon Valley

1 message

William Bickel III <btoml@fghjkl.com>
To: dearley@utah.gov

Tue, Dec 1, 2020 at 12:14 PM

I enjoy recreational Opportunities in Lisbon Valley and enjoy a CLEAN, CLEAR glass of WATER when I am there!!! And that you Strongly OPPOSE ISR Mining in Lisbon Valley!

William Bickel III
via electronic mail

Erica Gaddis
Director
Division of Water Quality
Utah Department of Environmental Quality
PO Box 144870
Salt Lake City, Utah 84114-4870
egaddis@utah.gov

RE: Request for Extension of Comment Period - Lisbon Valley Copper Mine, Underground Injection Control Class III Area Permit for In Situ Copper Recovery

Dear Ms. Gaddis

I hereby request a 60-day extension of the public comment period for the proposed Underground Injection Control (UIC) Class III Area Permit for an In Situ Copper Recovery project at the Lisbon Valley Copper Mine (UT Mine ID 0370088), San Juan County Utah. Currently, the comment period ends December 4, 2020. Uranium Watch and the affected community need additional time to submit informed comments.

This request is based on the following:

1. The UIC draft permit and application document posted with the Notice are complex technical documents, which demand careful analysis and review. One month is not sufficient for all affected individuals and organizations to review and provide informed comments.

2. The Division of Water Quality Public Notice included attachments, but did not include the full application for a UIC Permit and aquifer exemption. Apparently, the Attachment provided in the Notice was only the attachment to the Application. The DWQ should make the full Application available.
3. The DWQ documents made no reference to, and did not include, a Lisbon Valley Mining Co., LLC. application to the Utah Division of Oil, Gas & Mining (DOGM) or Bureau of Land Management (BLM) for authorization to construct and operate an In Situ Leach (ISL) copper recovery project in Lower Lisbon Valley. There is no information about such an application or if such an application is under review by the state and federal agencies that must permit such a mining operation. The applications to the BLM and DOGM must be available as part of the UIC permitting process. They will provide important information on the scope and impacts of such a project.

4. As was apparent at last nights’ public hearing on the UIC Permit, there is intense public interest on the part of the affected community. This is a very serious proposal, which will affect the health, lively hoods, water resources, and quality of life of the nearby residents. More time is needed for this community to submit comments.

5. The extension of the comment period will not adversely affect Lisbon Valley Mining Co., LLC. To the best of my knowledge DOGM is not reviewing a Notice of Intent for the development of an ISL copper recovery operation at the Lisbon Valley Copper Mine. The BLM has not posted an application for such an operation for public comment, nor has it commenced a National Environmental Policy Act (NEPA) review for such an application. If and when the BLM receives such an application, the BLM review and NEPA process will take a couple of years. Therefore, there is no time-sensitive need for the DWQ Lisbon Valley Copper Mine UIC permit application review.

Thank you for your consideration of this extension request. Please let me know if you have any questions.

Sincerely,

/s/

Sarah Fields
Program Director

cc: Drummond Earley, DWQ
Chris Burns <dearley@utah.gov>  
To: "dearley@utah.gov" <dearley@utah.gov>  

Tue, Dec 1, 2020 at 6:17 PM

Mr. Earley,
We are writing to let you know that we strongly oppose ISR Mining in Lisbon Valley! We enjoy many recreational opportunities in Lisbon Valley and enjoy the clear water when there. We have visited the area many times and would be disappointed if water is contaminated ruins our ability to visit there.
Thank you!
Chris and Susan Burns
North Richland Hills, TX

Sent from my iPad
Mr. Earley,

My name is RL Wilcox. My parents live in Lower Lisbon Valley. Our family owns property and water rights near the Lisbon Valley Copper Mine. We have a working cattle ranch there that has been there for generations. We drink water from the Burro Canyon aquifer. I am requesting an extension of the public comment period for another 60 days. The public needs more time to effectively comment as there were technical difficulties with your presentation at the public hearing and there are data gaps in the attachments that have been provided to the public. The public has questions that need your response before we can comment further. Lisbon Valley Copper Mine has had years to prepare their application, the public deserves more than 30 days on an issue of such great importance. As I attended the public hearing, I was disappointed that there was not a question and answer session as part of the hearing. Here are a few of my questions.

1. Does the Lisbon Valley Mining Company need a permit from The Division of Oil, Gas, and Mining to operate outside of their current mining boundary for the In-Situ Recovery process?

2. Does the Lisbon Valley Mining Company need a permit from the BLM or SITLA to use the In-Situ Recovery process on their land? With Federal lands being involved, why has this not been through an environmental review based upon the National Environmental Policy Act? Are there indirect impacts to Federal, State, and private lands during and after the ISR process?

3. What are the requirements for Lisbon Valley Mining Company to show that they are financially responsible? Is it only a surety bond? Does the bond take into account past poor performance? How are private property owners and aquifer users protected with a surety bond?

4. Can the Division of Water Quality or Lisbon Valley Copper mine give us as land owners and domestic drinkers from the Burro Canyon Aquifer, a 100% assurance that our water rights will not be infringed upon? Can they guarantee that our water will not be depleted or contaminated? If not, I am requesting that a surety bond be established for the domestic drinkers of the Burro Canyon Aquifer and Navajo aquifer within the permit study boundary. Something that will protect our water rights and our health, in case something does go wrong.

5. In the draft permit from the Utah Division of Water Quality class III area permit underground injection control (UIC) program, Part III section I Mechanical Integrity, it states all of the requirements to maintain mechanical integrity for all of the ISR wells. But in Part II (D)(17)(c) it states "The Director may allow the owner/operator of a well which lacks internal mechanical integrity pursuant to Part III (I)(1)(a) of this permit to continue or resume injection, if the owner or operator has made a satisfactory demonstration that there is no movement of fluid into or between USDWs." This seems like some kind of loop hole. What are the criteria that the Director will use and does it still ensure protection of the water and the downstream water users? Also in Part III (I)(9)(b) Internal Mechanical Integrity Exception it states "According to 40 CFR 144.51(q)(3), The Director may allow the owner/operator of a well which lacks internal mechanical integrity (Part III (I)(1)(a) of this permit) to continue or resume injection, if the owner or operator has made a satisfactory demonstration of external mechanical integrity (that is, that there is no movement of fluid into or between USDWs.) Such proposals of satisfactory demonstration shall be reviewed and approved or denied on an individual basis." My question is, why would you allow
6. In the draft permit from the Utah Division of Water Quality class III area permit underground injection control (UIC) program, part II(D)(5) Proper Operation and Maintenance (40 CFR 144.51(e)) it states "Lisbon Valley shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by Lisbon Valley to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and performance controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit." In March of 2020 Lisbon Valley Copper Mine shut down due to lack of funding. They could not make payroll and still have not paid employees for their vacation pay. The employees had to use The Utah Department of Labor to get the money that was deposited by Lisbon Valley Copper Mine and then shortly thereafter removed from their bank accounts. The former employees are still fighting for the vacation pay that Lisbon Valley Copper Mine still owes them. Earlier this year the owner of Lisbon Valley Copper Mine struck a deal with the San Juan County Commission to start making payments on back taxes from 2014 to 2019 and was forgiven around $300,000 in penalties and interest. The Lisbon Valley Copper Mine agreed to start making payments to the county of around $200,000 per month. As of November 20th of 2020, the San Juan County Treasurers office reported that no payments from Lisbon Valley Copper Mine have been received and they owe over $2 million in taxes to San Juan County. Earlier this year the Division of Oil, Gas and Mining issued an emergency order to the Lisbon Valley Copper Mine. The mine was not capable of maintaining their facilities and nearly missed an environmental disaster. Has Lisbon Valley Mining Company demonstrated the requirements of part II(D)(5) of the draft permit? How can Lisbon Valley Mining Company move forward without properly addressing the past? The bond is for future work and liabilities, but clearly the financial integrity of the company is suspect and past performance is a pretty good indicator of future behavior. How has the Division of Water Quality accounted for this?

7. In the draft permit from the Utah Division of Water Quality class III area permit underground injection control (UIC) program, part II(D)(6)(b)1(ii) it states "The Lisbon Valley's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the Lisbon Valley's misrepresentation of any relevant facts at any time;" Has Lisbon Valley disclosed any of the facts that I presented in my question #6? Has Lisbon Valley Copper Mine disclosed that there is a sale pending upon approval of this permit? Because of the attachments that the Division of Water Quality has posted on their website, it is obvious to me that the public has not seen the entire application from Lisbon Valley Copper Mine. It starts with pages 15 and 16 and then jumps to page 97. I'm not sure where the missing pages are. Page 97 starts with 5.0 Part D-Corrective Action Plan. Where are 10.6 through 4.07 16.0 Part N-Aquifer Exemption. Who decides that an aquifer will NEVER be used as a source of drinking water? There are many examples across the West where pipelines are ran for miles to provide drinking water to areas that have outgrown their source of drinking water. Advancements in water treatment science is proving that water that was once deemed unusable can now be safe to drink. And did I mention that the Burro Canyon Aquifer is a source of drinking water for my parents every day? Does the Division of Water Quality really trust the information they have received from Lisbon Valley Copper Mine? Is there information that has not been made public?

8. In the draft permit from the Utah Division of Water Quality class III area permit underground injection control (UIC) program, part II(D)(6)(b)1(iii) it states "A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;" If there is any chance that this permit would allow Lisbon Valley Copper Mine to perform activities that endanger human health or the environment why would you even consider granting this permit in the first place? I am formally requesting a separate surety bond be put in place to protect the Burro Canyon Aquifer, Navajo Aquifer, and the people that drink from them; not just in the exempt portion of the aquifer. If the Lisbon Valley Copper Mine makes a mistake in this complicated ISR process and either depletes our source of drinking water or contaminates it, there should be monies set aside to make things whole.

9. In the draft permit from the Utah Division of Water Quality class III area permit underground injection control (UIC) program, part II(D)(12)(h) Other Information, it states "When Lisbon Valley becomes aware of a failure to submit any relevant facts in the permit application or submitted incorrect information in a permit application or in any report to the Director, Lisbon Valley shall submit such facts or information in 10 days after becoming aware of the failure to submit relevant facts." So, we all just hope that Lisbon Valley Copper Mine will be honest in their reporting? They are a copper mine that wants to extract as much copper from the Burro Canyon Aquifer as cheap as they can. Why would they report anything other than "Everything is going great! Don't worry about us. We are doing just fine." Why would the Division of Water Quality not require that a 3rd party do all of the monitoring of the water in the Burro Canyon Aquifer and Navajo Aquifer for quality and quantity before, during, and after Lisbon Valley Copper Mine uses the ISR process in Lower Lisbon Valley?

10. In the Attachments provided on your website page 106. (I am not sure if these attachments are part of the permit application or if they are just some information that has been shared with the public) 7.4.1 Background "PW-12 is an important supply well located in LLV near the GTO deposit in the BC aquifer. Since installation in 2012 pumpage from PW-12 has locally dewatered the BC aquifer including water levels in former BC production well PW-5. This well is currently used as piezometer with insufficient water for pumping." So, they dried up their own well by pumping too much water from PW-12? How far did water levels in PW-5 drop? Later it continues, "Well locations and GTO fault are shown on Figure 7.6 I can’t find figure 7.6. Later in the same section it continues, "The summer of 2019 was highly problematic with pump failures at PW-12 and pump cavitation issues at
the Woods well. This resulted in both wells being pumped intermittently and at separate times." What is happening here? Does the Copper mine already have water problems? They sure struggled in the summer of 2019. Later it continues, "Figure 7.7 shows the PW-5 pressure hydrograph I can't find figure 7.7 anywhere either. Later it continues "Woods well began its seasonal pumpage on July 8 at a rate of 150 gpm. At this time, PW-12 was pumping at a rate of 120 gpm, on July 14, the column pipe failed on PW-12 damaging the pump and taking the well out of service." "The pump was reinstalled in PW-12 on July 17 without knowledge that the pump was damaged." "Near the end of July, the flow rate from the damaged pump in PW-12 began to decline. PW-12 was taken out of service a 3rd time on July 31 and the pump replaced on August 11." All of this points out that these wells did not have mechanical integrity, and Lisbon Valley Copper Mine's competency comes into question when they put a damaged pump back down the well. The well had to be taken out of service three times in 15 days. The point of the study does show that what happens in one part of the aquifer really does affect what is going on in other parts of the aquifer. Our well is not separated by a naturally occurring fault or a natural aquitard of some sort. The only thing that separates our drinking water from the Lisbon Valley Copper Mine's acid is a blue line that someone drew on a map. Assurances need to be put in place by the Division of Water Quality that if anything goes wrong, the aquifer will be restored and our drinking water will be safe.

11. This ISR process obviously requires a lot of water. Where will Lisbon Valley Copper Mine get all of the water that is required? They already struggle to keep themselves supplied with a reliable source of water.

12. With the ISR process, what happens to the other minerals that are extracted, like uranium? Is the uranium separated somehow or is that what the settling ponds are for?

13. To create an inward flow to the wellfield, the aquifer is drawn down. How will that not affect our shallow well?

It is imperative that these questions and others raised by the public be adequately addressed before moving forward in this process. To effectively comment the public needs these questions answered and time to respond. The Division of Water Quality needs to reconsider this permit. It will give the Lisbon Valley Copper Mine the green light to make a mess for us to deal with for generations to come.

The Utah Division of Water Quality should protect the public interest, ensure that drinking water and water in general is safe. Water is an important and scarce commodity in the West and the Division of Water Quality should employ all measures to protect and minimize waste or contamination. Don’t let the Lisbon Valley Mining Company manipulate you like they have done to the citizens and Commissioners of San Juan County.

In previous public comment periods regarding the Lisbon Valley Copper Mine, there has not been a lot of public interest. This is simply because most of the public in San Juan County supports multiple use. The Lisbon Valley Copper Mine has a boundary set by the Division of Oil, Gas, and Mining that they must stay within. The difference this time, is the fact that this permit will allow them to jump the fence and inject acid into an aquifer that is currently being used for domestic drinking, irrigation, and livestock watering. If the Lisbon Valley Mining Company will stay within their current permitted boundary, and not inject acid into the Burro Canyon aquifer, we will continue to live, work, and play just down the road.

My family wants to feel safe living, working, and playing next to a copper mine that does not share our same values. We truly care about the environment and the water that we drink and sustain ourselves with in a part of the world that has a very limited amount of water and other resources.

Thank you for your consideration in this very important matter. I am requesting a written response to these questions and want to be included on all future correspondence as an affected public.

R. Wilcox
I am Marc Silverthorne from Longmont, Colorado and frequent and enjoy the recreational opportunities in Lisbon Valley and enjoy a CLEAN, CLEAR glass of WATER when myself and family. I Strongly OPPOSE ISR Mining in Lisbon Valley!

Thanks for reconsidering this decision.
Hello Mr. Earley,

Here are a few of my ideas on this topic.

1: If there is the slightest chance of damaging an aquifer with this process we should not be doing it at all. Water is one of our most precious resources and should never be sacrificed for monetary gain.

2: It appears that the Lisbon Valley Mining Company has a history of not being responsible or good stewards. They owe millions of dollars on back taxes. They should be shut down just for the taxes owed.

3: I've stayed in and have traveled through the Lisbon Valley many times and plan on doing so many more times in the future along with many other like minded traveling motorcycle people like myself. If the water was to be contaminated then how could the hundreds of people enjoy Lisbon Valley at the 3 Step Hideaway and spread their economic wealth in and around Utah. The tourist opportunities that start at the 3 Step Hideaway are amazing, wonderful and limitless.

Please lean on the side of caution and stop this permit application. Water is too valuable to take a chance on,

Sincerely,

Dean Duguay
Good Evening Mr. Earley,

I’m email you to express my concern, like many others, about the Lisbon Valley Mining Company’s experiment injecting sulfuric acid into the ground water. I believe that should this experiment go wrong and contaminate the water it would be detrimental to the local businesses and the ranchers in the area. 2020 has been a poor year for many people, so in an effort to prevent 2021 being another poor year for these people I urge you to choose not to let them experiment in this area and find somewhere else to test.

Respectfully,

Christian Tarr
Strongly OPPOSE ISR Mining in Lisbon Valley

1 message

Jim Wallin <jwallin@outlook.com>  To: "dearley@utah.gov" <dearley@utah.gov>

Wed. Dec 2, 2020 at 9:39 PM

Hello, my name is Jim Wallin and I live in Bedford, Texas. I had the great pleasure of spending some terrific vacation time at the 3 Step Hideaway a few years back and I fully intend return there someday. My visit to the Lisbon Valley area was wonderful and exhilarating and I had a great time there.

Please do not allow ISR mining to happen in Lisbon Valley!

Again, I Strongly OPPOSE ISR Mining in Lisbon Valley!!

Thank you...Jim Wallin

Jim Wallin
Have a Terrific Day!
To whom it may concern,

I oppose the underground injection control method being used by the afore mentioned mining company. Potential contamination of groundwater would be devastating. As a San Juan County resident I highly oppose this permit.

Debra McKee
Monticello, UT
No. UTU-37-AP-5D5F693 - Lisbon Valley Mining Public Comment

1 message

Peter Stockus <dearley@utah.gov>
To: "dearley@utah.gov" <dearley@utah.gov>

Thu, Dec 3, 2020 at 9:08 AM

Drummond Earley,

Please see my attached comments to be put on the record concerning No. UTU-37-AP-5D5F693, the Lisbon Valley mining operation. Thank you very much and please reach out with any questions.

Peter W. Stockus, Government Relations Manager, Off-Highway
American Motorcyclist Association

www.americanmotorcyclist.com

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Dec. 3, 2020

Drummond Earley
Utah Department of Environmental Quality Division of Water Quality
UIC Program
195 North 1950 West
Salt Lake City, UT 84116

Dear Mr. Earley and members of the Utah Environmental Quality Division of Water Quality:

This letter is being submitted to express our concern with the Draft Permit for Underground Injection Control Class III Area, Draft Permit No. UTU-37-AP-5D5F693, In Situ Copper Recovery from the Lisbon Valley Mining Company LLC, San Juan County, Utah.

Founded in 1924, the AMA is the premier advocate of the motorcycling community. We represent the interests of millions of on- and off-highway motorcyclists. Our mission is to promote the motorcycle lifestyle and protect the future of motorcycling.

The AMA is particularly worried about the impact this mining operation could have on the nearby 3 Step Hideaway, an 80-acre retreat focused on off-highway motor vehicle recreation. This retreat is very popular with the off-highway motorcycling community in Utah and is unique, in that it provides fuel, lodging and food.

While we realize your division's decision will be based on technical merits and considerations, we believe it necessary to express our concerns and ask for the utmost scrutiny when examining ground water and aquifer systems. If the aquifer system at 3 Step Hideaway were to be contaminated, the effects would be dire to their business and the motorcycle community at-large.

In conclusion, the AMA asks that you give this permit the utmost technical analysis in your consideration and that your decision appropriately addresses the aquifers and wells of the 3 Step Hideaway.

Sincerely,

[Signature]

Peter W. Stockus
Government Relations Manager, Off-Highway
Dec. 3, 2020

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Utah Department of Environmental Quality Division of Water Quality  
UIC Program  
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Sincerely,

[Signature]

Peter W. Stockus  
Government Relations Manager, Off-Highway
San Juan County Commissioners questions
2 messages

Scott Stevenson
To: Drummond Earley <dearley@utah.gov>

Mr. Earley,

I would like to respectfully request a Cc on your emailed answer to the San Juan County Commissioners attached Letter.
If you would like to have a "boots on the ground" perspective of this, please let me know and I would be happy to show you around.
Thanks

Scott Stevenson

Drummond Earley
To: Christopher Otto <cotto@utah.gov>, Daniel Hall <dhall@utah.gov>, Meg Osswald <megoswald@agutah.gov>, Erica Gaddis <egaddis@utah.gov>, John Mackey <jmackey@utah.gov>

Chris?

[Quoted text hidden]

Drummond Earley
To: Scott Stevenson

Thu, Dec 3, 2020 at 9:31 AM

Chris?

3603_001.pdf
99K
Mr. Drummond Earley
Utah Division of Water Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Re: Lisbon Valley Mining Company In Situ Copper Recovery Proposal

Dear Mr. Earley:

We thank you and the Division of Water Quality for holding the public hearing on Lisbon Valley Mine’s application for an Underground Injection Control Class III Permit for in situ recovery of copper on November 24, 2020. This gave citizens the opportunity to formally present their statements on the proposal. However, we were hopeful that the hearing would have also provided an opportunity for questions to be asked and answered. Since a question and answer opportunity was not provided some of our comments that follow include questions which we hope you will answer.

San Juan County has concerns about the potential effects the proposed in situ mining may have on groundwater quality and quantity in the area. Several county residents including those residing in Lower Lisbon Valley have expressed their serious concerns about the potential adverse effects of in situ mining on water in the Burro Canyon aquifer. Residents with water wells in the area are especially concerned about the potential adverse effect of underground injection of an acid solution into the aquifer that supplies their domestic and livestock wells.

We understand from your presentation at the hearing and documents provided with the application that the Burro Canyon aquifer in Lower Lisbon Valley is basically contained in the valley by faults and geologic structure. We don’t understand the rationale for the eastern boundary of the aquifer exemption. It appears to be a straight line running north/south whereas the other boundaries appear to follow topographic or fault lines. It is interesting that this eastern boundary is located a short distance west from the Wilcox well. We would like an explanation of how this boundary was determined.

The southern boundary of the aquifer exemption appears to include or be very close to the Stevenson well at the Three Step Hideaway. Is the Stevenson well inside or outside of the exemption area?

Regardless whether these private domestic wells are inside or near the exemption boundary, they are within the proposed in situ mining boundary. We share these well users concerns about potential contamination of their wells with the proposed mining solution.

Without more specific known likely effects of the proposed in situ mining operation on groundwater and more assurance that the proposed injection of a sulfuric acid solution into the ground water would not...
have adverse effects on groundwater quality and quantity we cannot support and oppose the issuance of a permit for underground injection of a recovery fluid as stated on the current application from Lisbon Valley Mine.

We respectfully request that the current comment period for this application be extended 60 days. The application includes a large amount of complex information difficult to understand leading to questions which have not been answered. Extension of the comment period would allow citizens and the County more time to study the information and get answers to questions which would better inform comments.

We appreciate this opportunity to comment and look forward to your response to our and residents questions.

Sincerely,

Kenneth Maryboy
Chairman
Mr. Drummond Earley  
Utah Division of Water Quality  
P.O. Box 144870  
Salt Lake City, Utah  84114-4870

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more time to study the information and get answers to questions which would better inform comments.

We appreciate this opportunity to comment and look forward to your response to our and residents
questions.

Sincerely,

Kenneth Maryboy
Chairman
My name is Tanya Zilberberg. I have been a guest at 3 Step Hideaway in Lisbon Valley many times and love the quiet remote solitude of Lisbon Valley. My comments relate to the permit requirement for Financial Responsibility. Attachment J for the draft permit is incomplete and I’m sure your office is struggling with this.

Obviously, there exists the risk of contaminating area water, otherwise there would be no need for monitoring wells, nor aquifer rinsing as part of the reclamation plan.

The acidic injectate is known to mobilize heavy metals and radioactive isotopes in addition to copper. Because the half-life of those radioactive elements can last centuries, the duration of monitoring and mitigation should at least equal that duration. It will be difficult, if not impossible for the DWQ to calculate the value of a surety bond required in order to monitor and reclaim radioactive contamination in perpetuity.

One strategy to help estimate surety and reclamation costs would be to evaluate the duration and costs of reclamation for other large scale, in situ copper recovery operations in similar sandstone geology. However none exist to compare. This project would be the first of its kind, anywhere.

A second strategy to assess these costs would be to utilize data from small scale, in situ copper recovery operations that have completed their reclamation phase, even if they are not in a similar sandstone geology. However none of those exist to compare either, since those in current operation have yet to reach their reclamation phase.

My next concern has to do with the financial responsibility for contingencies in the event that monitoring wells do detect contamination, or that as a consequence of the differential pumping used to create the hydrostatic gradient, the current landowners’ wells are depleted.

The fair approach would be for the LVMC to maintain funds to replace the losses to health and livelihood that the current users in the proposed area would suffer in the event of contamination or depletion to their drinking water. I don’t see that concern or consideration noted anywhere in the Financial responsibility section.

Given the cost of fulfilling these two Financial Responsibilities:
1. monitoring and mitigation in perpetuity, and
2. insuring fair compensation for the loss of health and livelihood in the event of water contamination or depletion,

It is inconceivable that any corporation could ever successfully demonstrate adequate financial responsibility.

Perhaps the bigger issue is this: In situ recovery of copper may prove one day to be the safest, most efficient, economical, and environmentally friendly method of extracting copper. In order for the technique to be used widely, the early adopters MUST meet with undisputed success. Even a modest failure here could set the field back decades.

I would ask the DEQ and other entities involved in the permitting process to consider that for even those who support and advocate for the technique, Lisbon Valley may not be the right proving grounds for in situ recovery’s debut in Utah, especially since for many reasons, the project appears to be a set-up for failure already.

Thank you,
Tanya Zilberberg

Get Outlook for iOS
I enjoy going to places like Lisbon Valley and recreating. I spend money in san Juan County every year and would like to continue. It sounds to me from what I read, that the copper mine is not interested in the best interests of San Juan County, Environmentally, or fiscally. With all of their owed taxes and other moneys. I enjoy the opportunities in Lisbon Valley and enjoy a CLEAN, CLEAR glass of WATER when you are there!!! And that you Strongly OPPOSE ISR Mining in Lisbon Valley!

Norm Yoast and Family
Craig Colorado
Dear Drummond Earley,

My name is Greg Babush and I live in Montrose County, CO which is adjacent to UT and San Juan County. I often find myself recreating in San Juan County, hiking, exploring and adventure motorcycling. The Lisbon Valley is a great stop on my way to Moab or SLC, and often is the destination itself. Recreational opportunities S of the La Sal Mountains in the Lisbon Valley are important, and clean, clear water and environment are very important to me and areas I visit.

I have visited the 3 Step Hideaway on many occasions, and I have heard that future mining poses risks to clean water and the environment.

I wanted to to express my opinion that I Strongly OPPOSE ISR Mining in Lisbon Valley

Please take this opinion to heart, and I ask you to act to protect the environment and water in San Juan County.

Thank You!

Greg Babush | Owner
Babush Productions Ltd.
www.babushproductions.com
Comments on proposed in-situ copper mining at Lisbon Valley

1 message

Ulrich Bishoff -
To: dearley@utah.gov

Fri, Dec 4, 2020 at 10:02 AM

To whom it may concern,

Learning of a proposal to use in-situ copper mining in sandstone formation in the Lisbon Valley is of great concern to me. This never before used process - in sandstone- carries risks with it that surely outweigh any potential temporary economic gains to the community.

In the West usable drinking water is a resource that is often under-appreciated, especially by those who only look only at raw potential money streams for rural communities. Ranchers know this too all too well.

As for myself, I spend several days each year in the Lisbon Valley, recreating and enjoying my time at the Three Step Hideaway lodging.

For temporary gain, damage to ground waters now, and far into the future, is a grave risk in the Lisbon Valley.

I ask you to please consider long term, as well as near term, damage to the ranching community, to the tourism in the area, and to the land when making any decisions about approvals of permits and exemptions that may further in-situ copper mining in the Lisbon Valley.

With kind regards,

Ulrich "Ull" Bishoff
Delta, Colorado
Oppose ISR Mining in Lisbon Valley

1 message

Austin Gore <dearly@utah.gov>
To: dearly@utah.gov

Fri, Dec 4, 2020 at 1:07 PM

Dear Mr. Earley,

I am writing to urge you to oppose the proposed ISR mining in Lisbon Valley. The Lisbon Valley Mining Company has a history of negligence and should not be trusted to manage this novel mining technique. If water is contaminated here it will be hugely damaging to the local community. Myself and many other motorcyclsts visit Utah and Lisbon Valley because of its recreational opportunities, and clean water is must.

Sincerely,
Austin Gore of Longmont, Colorado
Dear Drummond,

My name is Trevor LaBorde. I am writing asking to please consider the ranchers and property owners in the Lisbon Valley when looking at allowing mining and thus groundwater contamination. I have been a resident nearby, in Placerville, CO for over 20 years and we recreate frequently in the Lisbon, mostly dirt bikes and hiking. It would be sad to create hardships on the longtime residents that have been there before and will remain after, the boom and bust cycles that mining has. Making decisions that could run off the people that have endured there is a short sighted decision.

On our frequent drive to Lisbon Valley or on to Moab, the old, inactive remains from past mining attempts are very evident, and the vast majority are just left to rust, still big scars on the land. It would be sad to push out the good folks who inhabit that area.

Thank you for the time to consider my opinion, of strong opposition to ISR Mining in Lisbon Valley.

Have a nice day!

Trevor LaBorde
Dear sirs, I strongly oppose and expansion of mining in Lisbon valley. I am from Colorado and enjoy that area for its beauty and recreation. Please dont allow it to be compromised! J sheets
Opposing ISR Mining in Lisbon Valley and pollution of the water there.

Holly Nelson

To: dearley@utah.gov

 Sat, Dec 5, 2020 at 9:06 PM

My name is Holly Nelson, and I am very concerned about possible contamination of the aquifers in Lisbon Valley. It's not right to poison people's well water, endangering their health, livelihoods, and livestock. I strongly urge you to do the right thing and oppose ISR Mining in Lisbon Valley. Thank you for your consideration in this matter.

Sincerely,

Holly Nelson
Tucson, Arizona
Skip Mascorro

To: dearley@utah.gov, Alex J Moore, Scott Stevenson

Dec 7, 2020

TO: Mr. Drummond Earley
FR: Skip Mascorro
RE: No. UTU-37-AP-SD5F693 In Situ Copper Recovery  Lisbon Valley

It has come to my attention that an application for permit has been submitted to the Utah Department of Environmental Quality, requesting authorization for “In Situ Copper Recovery” mining in the Lisbon Valley area of San Juan County, Utah. As a promoter of group outdoor activities and personal visitor to the region, specifically the 3 Step Hideaway Ranch, I find this a disturbing development that without doubt will destroy the natural qualities that make the Lisbon Valley so inviting.

It can be argued that such projects create employment opportunities and generate tax revenues. But at what price? The very livelihoods of the surrounding ranchers, outdoor recreational and travel businesses and, more importantly, the health of families in the vicinity are at risk. The long term consequences of this copper extraction process will remain long after the mining company has reaped benefits and departed.

I join the many in requesting that this permit be denied, that those who make their livings from the pristine natural environment of Lisbon Valley carry the heaviest weight in making your decisions. I beg that you remember those whose very survival depend on preserving what is above the ground.

I look forward to returning to Lisbon Valley and bringing my guests to enjoy this beautiful little corner of Utah.

Skip Mascorro

MotoDiscovery.com
Dear Mr. Earley,

Please consider comments communicated in the attached draft, and pass them on to Dr. Gaddis and to others as you think to be appropriate. We are at your service for further discussion, as the process proceeds.

Although we were not able to isolate notice of the comments period extension, we have embraced the assumption that there is, indeed, an extension that expires in early January 2021. We are grateful for the extra time to review related materials, cited in our comments list (at the end).

Best wishes,
Ivan

Ivan Weber, Principal Owner (retired)
Weber Sustainability Consulting

Comments_Dec4_2020_LisbonValleyCulISLMine.docx
46K
Subject: Lisbon Valley Mining Company Permit
Copper In-Situ Leach-Water Recovery Project Proposal
San Juan County, Lisbon Valley, Utah

Dear Dr. Gaddis:

Please accept the following critical reflections on the proposal to convert the Lisbon Valley Copper Mine (aka Lisbon Valley) from a surface heap-leach extraction operation to a sulfuric acid injection ‘in situ leaching’ mine. The proposed permit would allow Lisbon Valley Mining Company to extract dissolved copper and related soluble metals from ore several hundred feet below the surface at multiple locations applying alleged ‘best available technology’ in construction, operation and closure of in situ copper recovery facilities. As the notice document states, “Wellfield closure will follow copper recovery to restore groundwater quality by rinsing and plugging and abandonment of injection and recovery wells.” This portion of descriptive text is highlighted by way of focusing our discussion on the efficacy of the proposal, and the lack thereof.

We have reviewed the October Statement of Basis, as well as the Lower Lisbon Valley ISR Technical Report document. I also draw on life-long personal experience with metals leaching, unknowing typically and knowing in a rare experience, for a multiplicity of purposes, including the following:

- As a community activist with the Sierra Club Utah Chapter in the 1980s, of which I was episodic chairman, I teamed with Earthworks Attorney David Mullon to lead the legal action, in cooperation with the Jordan Valley Water Conservancy District, focused on the South Jordan Valley ground water contamination by Kennecott historic facilities. This case addressed the massive ground water contamination occurrence downgradient of the Bingham Canyon Copper Mine waste rock dumps and south crusher/concentrator, and leach-water collection, impoundment in the then-unlined Large Bingham Reservoir, and transmission pipeline facilities.

- As environmental planner for the Kennecott Environmental Engineering Projects Group in the 1990s (1992-2001), I worked with the KUCC Environmental Engineering Projects Group on the thoroughgoing modernization of the wastewater interception/impoundment system that was consequent to the legal settlement of the Natural Resource Damage Claim among Kennecott, the Jordan Valley Water Conservancy District, the State of Utah, and EPA Region VIII. In this comprehensive effort at groundwater protection in the South Jordan Valley, east of the Bingham
Mine’s prodigious waste rock dumps, the primary concern was reduced to selenium removal from low-pH leach waters, for ecological protection purposes upstream of the Great Salt Lake. Recovery of copper and other metals was also accomplished through integration with the fluid management systems (including reverse osmosis) for metals recovery already in existence at Kennecott’s North Refinery Facilities. My decade of work with Kennecott essentially ended about the time when Rio Tinto acquired Kennecott Utah Copper, more or less coincident with finalizing the agreement among parties to the legal settlement by which the leach water interception and treatment process was configured.

- In childhood growing up in and around the infamous Tar Creek Superfund Site, located in the Tri-State lead-zinc mines near Joplin Mo and Picher Ok (I lived across the Kansas border near Galena and Baxter Springs Ks), most water supplies, consisting of streams, coal strip mines, reservoirs, and agricultural ponds, were heavily effected by acid rock drainage from minerals (chalcopyrite, sphalerite, galena and other sulfides, primarily) that were disseminated not only in the rich underground lead and zinc mines, but also in shale deposits in the coal that was the source of heat and electrical energy for most of the century that preceded my life there. Inadvertent acid leaching pervaded the area, and contaminated fish and wildlife that we consumed as a dietary staple. The neurological damage I have developed, diagnosed as epilepsy a decade or so ago, is thought by medical clinic staff to have originated in exposure to the sulfide ore minerals that lured me into mineralogical and geological studies at the University of Kansas, in the 1960s.

- My subsequent career in architecture, construction management and contracting led to work in and around mining towns in Utah, Colorado, Arizona, Nevada and Wyoming. Although some years minimized exposure to sulfide mines, I made up for that reduction by living with literally tons of mineral specimens from the great mining districts of the West, including Bisbee Az and Bingham Canyon in Utah, in addition to the pyrite-sphalerite-galena specimens from the Tri-State District I called ‘home’. These specimens populate my collections to this day. I worked for the US Geological Survey for more than a year in the late 1960s in a very old silver mining district on the Nevada-California border, and in similar areas at smaller scales in Utah and Wyoming.

References Consulted are listed at the end of these comments.

COMMENTS - Lisbon Valley Copper ISL Mining: The project for which permit application is occurring dooms wells, water supplies, seeps and habitat areas in the immediate vicinity and for many miles distant, for inestimable timeframes. Worst of all, only a very stable, extremely solvent parent company could be trusted with management, corrective actions that may be required, and most of all with closure and restoration. In paragraph “17.0 Part O - Expected Changes Due to Injection” the Technical Report (pp. 180-181 / p. 107 of the PDF file) states:

“Expected changes due to injection include changes in aquifer chemistry, head pressures, and local gradients. All changes are transient and will be restored after mining.”

The leap of faith required to accept this statement assuming aquifer(s) restoration literally is enormous. Of all the biogeochemical actions we can engineer to alter, or to transmit through, geological
formations, the injection of highly oxidizing sulfuric acid solutions is among the most rampant, the most uncontrollable, the least subject to the environmental engineering disciplines through whose lenses we see ourselves as being “civilized.”

‘Place’ is the basis of sustainability. Recognition of the attributes, the characteristics, the parameters of where we are, the location of our inquiries at the present moment, is fundamental to any questions we seek to answer --- assuming, that is, that we wish to find “sustainable” formulations in response to our inquiries. Given the complexity of, and the numbers of, variables inherent in these inquiries directed toward ground water flow and chemistry, we despair of our collective cultural strength to identify answers for the environmental policy questions presented by corporations that seem to be indifferent to human cultures, wild lives, and the systems that support cultures and lives into the indefinite future.

It follows that corporations and government agencies must become increasingly adept at recognizing the key elements of ‘place’ in sustainable technical and ethical analysis. This seems particularly true when acidic poisons are injected into hidden aquifers.

In the Lisbon Valley Mining in-situ leaching proposal case, if something approaching “sustainable mining” or “sustainable materials extraction and development” are to be approached, then critical processes and outcomes must be envisioned, and both qualitatively and quantitatively analyzed. That is asking a great deal of an industry that has, historically, not cared at all about effects on anything or anyone on the affected site or in surrounding environments. We cannot begrudge the company’s desire to capture mineral wealth from geologic strata that present themselves to exploratory drill rigs and geochemical experts capable of quantifying potential economic gains. What we can, and will, object to is the suspension of conscience by those who make choices for the future of a living place, as in this permit process, authorizing or not authorizing the injection of powerful solvents into the earth, while pretending to know --- with scientific certainty --- the consequences of that injection.

Phases of copper-targeting sulfuric acid “lixiviant” injection, circulation, and withdrawal break down into very complex geochemical diagrams and spreadsheets. This is unavoidable and, while unfortunate, it creates --- we suggest this with trepidation --- administratively untenable puzzles and challenges. If the challenge of the Lisbon Valley copper ISL mine is to be considered responsibly and with care for human and cultural values, hydrological values, ecological values, wildlife values, and values contingent on geospatial disciplines only recently emerging into public access, such as ArcGIS and advanced watershed studies, then you and your staff are presented with disciplinary challenges that are likely not to be prepared to meet with adequate time and preparation for these tasks.

Your office faces additional complexities, such as that described on page 136 of the Technical Report, under “11.7 Groundwater Restoration” (selecting from the text therein, and in following paragraphs):

“Groundwater restoration in each well field will be conducted in accordance with UDWQ Class III permit requirements. Per the UDWQ UIC Guidelines, the purpose of the Class III UIC Permit for which the Company is proposing, is to “Inject fluids for the in situ extraction of minerals or metals from the ore bodies that have not been previously mined by conventional methods.” [Description follows of data acquisition to characterize existing conditions, and to enable formulation of a ‘comprehensive Groundwater Restoration Plan.”]
11.7.1 Target Restoration Goals: Groundwater restoration, or aquifer restoration, will be performed pursuant to UDWQ requirements to protect USDWs. The groundwater restoration program for all well fields will be conducted pursuant to UAC R317.7. [Procedures follow for compilation of ‘indicator constituents’ in relevant strata of wells created for this purpose, and then the creation of ‘target restoration goals (TRGs).]

11.7.2 Groundwater Restoration Process: This and following subsections describe ‘groundwater rinse and neutralization’ (11.7.4) that are prerequisite to ‘closure of the wellfield’. This paragraph appears to offer numerous escape routes for the Company, culminating in the following sentence: “Rinsing, deep well disposal and land application will be continued until asymptotic TDS concentrations are identified, or as long as technically and economically feasible.”

It is our contention that this entire set of requirements is fundamentally unenforceable, for any of the sequence of “mine blocks” for which the procedure is undertaken.

What is at stake here is expressed in terminologies barely touched upon in this document that is under review: Watersheds, seeps, springs, drinking water wells, ecosystem protection --- terms that recognize the overarching importance of overall living ecosystem and hydro-system integrity, over timeframes that cannot possibly be enforced by administrative measures prescribed in this governing document. This is the nexus at which the ‘scale’ and ‘place’ awareness for which ‘sustainable mining’ legitimately campaigns must be explored, honored, and translated for each specific place into regulatory requirements that are legally and financially binding, in perpetuity. Without creating long-term burdens for public agencies, or that create biogeochemical exposures to metals either in Nature or through human uses of well-water or of natural waters emerging from the earth.

Climate change must also be accounted for, particularly in this prototypically arid region of the North American continent. How will dramatic reductions of already rare, biogeochemically safe water supplies in a seriously warmed environment, as is projected to be centered squarely upon the region in which the Lisbon Valley ISL project is situated, can wells and natural occurrences of water at surface be kept rendered healthful, non-toxic, and ‘sustainable’, not only for humans, but also for livestock and the full diversity of wildlife dependent on semi-desert and desert water supplies? The scale of our efforts to answer this question should consider the entire Dolores River watershed, as well as the parameters of the “wellfield” under permit consideration. It’s likely that background, contextual analyses and geospatial data accumulations are not adequate for this complex set of tasks, but there is no time like the present to begin. Climate change analysis must be carried out essentially everywhere, focusing on carbon balance calculations to account for transactions among aggressively oxidizing acids and various neutralized (reduced) carbon compounds.

At the very least, the proprietor of the ISL mine lease must demonstrate financial resources, to be administered according to a competent plan, adequate to execute, manage, close, and remediate injection leaching operations, as outlined in the plan --- in perpetuity.
This is a tall order, demanding both substantial technical and financial capabilities on the part of the mining company, but also technical and financial capabilities on the part of the surety structure backing up the mining company, itself. Needless to say, approval of this permit imposes enormous obligations, as well, on Federal, State and County administrative bodies. Bonds, moreover, must be capable of supporting the permit’s core objectives, though we harbor no illusions that the institutions that certify these bonds at present will remain in existence for the century or more into that future that will be required for meaningful support of closure and remediation of contaminated ground water resources in question. It would be a remarkable bond, indeed, to cover this set of obligations adequately.

Respectfully yours,

[Signature]

Ivan Weber
Principal/Owner, Weber Sustainability Consulting (Retired)

Cc:  Drummond Earley, UDWQ dearley@utah.gov
Carly Ferro, Chair, Utah Chapter Sierra Club carlyferro@sierraclub.org

References Consulted: In the course of preparation of these comments, I have reviewed the following materials from my personal and professional library:

- **Final Environmental Impact Statement Lisbon Valley Copper Project, February 1997.** USDOI Bureau of Land Management, Moab District.
- **Utah Road and Recreation Atlas**, Benchmark 2004. “Landscape” maps 78 and 79 are necessary for the understanding of the Lisbon Valley ISL proposal in appropriate geographic, watershed and cultural context, when considered in conjunction with other information resources.
- **Kennecott Utah Copper Corporation South Facilities Ground Water Remedial Action Preliminary Design.** Kennecott Utah Copper, January 31, 2002. With supporting draft reports on resolution of technical aspects of the Natural Resource Damage Claim:

- **Life Cycle of Copper, its Co-Products and By-Products,** Robert U. Ayres, Leslie W. Ayres and Ingrid Rade, MMSD (Mining, Minerals and Sustainable Development), No. 24 Jan. 2002.
November 29, 2020

Ivan Weber

Erica Brown Gaddis, PhD, Director
Division of Water Quality
Utah Department of Environmental Quality
195 North 1950 West / PO Box 144870
Salt Lake City, Utah 84114-4870

Subject: Lisbon Valley Mining Company Permit
Copper In-Situ Leach-Water Recovery Project Proposal
San Juan County, Lisbon Valley, Utah

Dear Dr. Gaddis:

Please accept the following critical reflections on the proposal to convert the Lisbon Valley Copper Mine (aka Lisbon Valley) from a surface heap-leach extraction operation to a sulfuric acid injection ‘in situ leaching’ mine. The proposed permit would allow Lisbon Valley Mining Company to extract dissolved copper and related soluble metals from ore several hundred feet below the surface at multiple locations applying alleged ‘best available technology’ in construction, operation and closure of in situ copper recovery facilities. As the notice document states, “Wellfield closure will follow copper recovery to restore groundwater quality by rinsing and plugging and abandonment of injection and recovery wells.”

This portion of descriptive text is highlighted by way of focusing our discussion on the efficacy of the proposal, and the lack thereof.

We have reviewed the October Statement of Basis, as well as the Lower Lisbon Valley ISR Technical Report document. I also draw on life-long personal experience with metals leaching, unknowing typically and knowing in a rare experience, for a multiplicity of purposes, including the following:

- As a community activist with the Sierra Club Utah Chapter in the 1980s, of which I was episodic chairman, I teamed with Earthworks Attorney David Mullon to lead the legal action, in cooperation with the Jordan Valley Water Conservancy District, focused on the South Jordan Valley ground water contamination by Kennecott historic facilities. This case addressed the massive ground water contamination occurrence downgradient of the Bingham Canyon Copper Mine waste rock dumps and south crushe/concentrator, and leach-water collection, impoundment in the then-unlined Large Bingham Reservoir, and transmission pipeline facilities.

- As environmental planner for the Kennecott Environmental Engineering Projects Group in the 1990s (1992-2001), I worked with the KUCC Environmental Engineering Projects Group on the thoroughgoing modernization of the wastewater interception/impoundment system that was consequent to the legal settlement of the Natural Resource Damage Claim among Kennecott, the Jordan Valley Water Conservancy District, the State of Utah, and EPA Region VIII. In this comprehensive effort at groundwater protection in the South Jordan Valley, east of the Bingham
Mine’s prodigious waste rock dumps, the primary concern was reduced to selenium removal from low-pH leach waters, for ecological protection purposes upstream of the Great Salt Lake. Recovery of copper and other metals was also accomplished through integration with the fluid management systems (including reverse osmosis) for metals recovery already in existence at Kennecott’s North Refinery Facilities. My decade of work with Kennecott essentially ended about the time when Rio Tinto acquired Kennecott Utah Copper, more or less coincident with finalizing the agreement among parties to the legal settlement by which the leach water interception and treatment process was configured.

- In childhood growing up in and around the infamous Tar Creek Superfund Site, located in the Tri-State lead-zinc mines near Joplin Mo and Picher Ok (I lived across the Kansas border near Galena and Baxter Springs Ks), most water supplies, consisting of streams, coal strip mines, reservoirs, and agricultural ponds, were heavily effected by acid rock drainage from minerals (chalcopyrite, sphalerite, galena and other sulfides, primarily) that were disseminated not only in the rich underground lead and zinc mines, but also in shale deposits in the coal that was the source of heat and electrical energy for most of the century that preceded my life there. Inadvertent acid leaching pervaded the area, and contaminated fish and wildlife that we consumed as a dietary staple. The neurological damage I have developed, diagnosed as epilepsy a decade or so ago, is thought by medical clinic staff to have originated in exposure to the sulfide ore minerals that lured me into mineralogical and geological studies at the University of Kansas, in the 1960s.

- My subsequent career in architecture, construction management and contracting led to work in and around mining towns in Utah, Colorado, Arizona, Nevada and Wyoming. Although some years minimized exposure to sulfide mines, I made up for that reduction by living with literally tons of mineral specimens from the great mining districts of the West, including Bisbee Az and Bingham Canyon in Utah, in addition to the pyrite-sphalerite-galena specimens from the Tri-State District I called ‘home’. These specimens populate my collections to this day. I worked for the US Geological Survey for more than a year in the late 1960s in a very old silver mining district on the Nevada-California border, and in similar areas at smaller scales in Utah and Wyoming.

References Consulted are listed at the end of these comments.

COMMENTS - Lisbon Valley Copper ISL Mining: The project for which permit application is occurring dooms wells, water supplies, seeps and habitat areas in the immediate vicinity and for many miles distant, for inestimable timeframes. Worst of all, only a very stable, extremely solvent parent company could be trusted with management, corrective actions that may be required, and most of all with closure and restoration. In paragraph “17.0 Part O - Expected Changes Due to Injection” the Technical Report (pp. 180-181 / p. 107 of the PDF file) states:

“Expected changes due to injection include changes in aquifer chemistry, head pressures, and local gradients. All changes are transient and will be restored after mining.”

The leap of faith required to accept this statement assuming aquifer(s) restoration literally is enormous. Of all the biogeochemical actions we can engineer to alter, or to transmit through, geological
formations, the injection of highly oxidizing sulfuric acid solutions is among the most rampant, the most uncontrollable, the least subject to the environmental engineering disciplines through whose lenses we see ourselves as being “civilized.”

‘Place’ is the basis of sustainability. Recognition of the attributes, the characteristics, the parameters of where we are, the location of our inquiries at the present moment, is fundamental to any questions we seek to answer --- assuming, that is, that we wish to find “sustainable” formulations in response to our inquiries. Given the complexity of, and the numbers of, variables inherent in these inquiries directed toward ground water flow and chemistry, we despair of our collective cultural strength to identify answers for the environmental policy questions presented by corporations that seem to be indifferent to human cultures, wild lives, and the systems that support cultures and lives into the indefinite future.

It follows that corporations and government agencies must become increasingly adept at recognizing the key elements of ‘place’ in sustainable technical and ethical analysis. This seems particularly true when acidic poisons are injected into hidden aquifers.

In the Lisbon Valley Mining in-situ leaching proposal case, if something approaching “sustainable mining” or “sustainable materials extraction and development” are to be approached, then critical processes and outcomes must be envisioned, and both qualitatively and quantitatively analyzed. That is asking a great deal of an industry that has, historically, not cared at all about effects on anything or anyone on the affected site or in surrounding environments. We cannot begrudge the company’s desire to capture mineral wealth from geologic strata that present themselves to exploratory drill rigs and geochemical experts capable of quantifying potential economic gains. What we can, and will, object to is the suspension of conscience by those who make choices for the future of a living place, as in this permit process, authorizing or not authorizing the injection of powerful solvents into the earth, while pretending to know --- with scientific certainty --- the consequences of that injection.

Phases of copper-targeting sulfuric acid “lixiviant” injection, circulation, and withdrawal break down into very complex geochemical diagrams and spreadsheets. This is unavoidable and, while unfortunate, it creates --- we suggest this with trepidation --- administratively untenable puzzles and challenges. If the challenge of the Lisbon Valley copper ISL mine is to be considered responsibly and with care for human and cultural values, hydrological values, ecological values, wildlife values, and values contingent on geospatial disciplines only recently emerging into public access, such as ArcGIS and advanced watershed studies, then you and your staff are presented with disciplinary challenges that are likely not to be prepared to meet with adequate time and preparation for these tasks.

Your office faces additional complexities, such as that described on page 136 of the Technical Report, under “11.7 Groundwater Restoration” (selecting from the text therein, and in following paragraphs):

“Groundwater restoration in each well field will be conducted in accordance with UDWQ Class III permit requirements. Per the UDWQ UIC Guidelines, the purpose of the Class III UIC Permit for which the Company is proposing, is to “Inject fluids for the in situ extraction of minerals or metals from the ore bodies that have not been previously mined by conventional methods.” [Description follows of data acquisition to characterize existing conditions, and to enable formulation of a ‘comprehensive Groundwater Restoration Plan.]
“11.7.1 Target Restoration Goals: Groundwater restoration, or aquifer restoration, will be performed pursuant to UDWQ requirements to protect USDWs. The groundwater restoration program for all well fields will be conducted pursuant to UAC R317.7.” [Procedures follow for compilation of ‘indicator constituents’ in relevant strata of wells created for this purpose, and then the creation of ‘target restoration goals (TRGs).]

“11.7.2 Groundwater Restoration Process: This and following subsections describe ‘groundwater rinse and neutralization’ (11.7.4) that are prerequisite to ‘closure of the wellfield’. This paragraph appears to offer numerous escape routes for the Company, culminating in the following sentence: “Rinsing, deep well disposal and land application will be continued until asymptotic TDS concentrations are identified, or as long as technically and economically feasible.”

It is our contention that this entire set of requirements is fundamentally unenforceable, for any of the sequence of “mine blocks” for which the procedure is undertaken.

What is at stake here is expressed in terminologies barely touched upon in this document that is under review: Watersheds, seeps, springs, drinking water wells, ecosystem protection --- terms that recognize the overarching importance of overall living ecosystem and hydro-system integrity, over timeframes that cannot possibly be enforced by administrative measures prescribed in this governing document. This is the nexus at which the ‘scale’ and ‘place’ awareness for which ‘sustainable mining’ legitimately campaigns must be explored, honored, and translated for each specific place into regulatory requirements that are legally and financially binding, in perpetuity. Without creating long-term burdens for public agencies, or that create biogeochemical exposures to metals either in Nature or through human uses of well-water or of natural waters emerging from the earth.

Climate change must also be accounted for, particularly in this prototypically arid region of the North American continent. How will dramatic reductions of already rare, biogeochemically safe water supplies in a seriously warmed environment, as is projected to be centered squarely upon the region in which the Lisbon Valley ISL project is situated, can wells and natural occurrences of water at surface be kept rendered healthful, non-toxic, and ‘sustainable’, not only for humans, but also for livestock and the full diversity of wildlife dependent on semi-desert and desert water supplies? The scale of our efforts to answer this question should consider the entire Dolores River watershed, as well as the parameters of the “wellfield” under permit consideration. It’s likely that background, contextual analyses and geospatial data accumulations are not adequate for this complex set of tasks, but there is no time like the present to begin. Climate change analysis must be carried out essentially everywhere, focusing on carbon balance calculations to account for transactions among aggressively oxidizing acids and various neutralized (reduced) carbon compounds.

At the very least, the proprietor of the ISL mine lease must demonstrate financial resources, to be administered according to a competent plan, adequate to execute, manage, close, and remediate injection leaching operations, as outlined in the plan --- in perpetuity.
This is a tall order, demanding both substantial technical and financial capabilities on the part of the mining company, but also technical and financial capabilities on the part of the surety structure backing up the mining company, itself. Needless to say, approval of this permit imposes enormous obligations, as well, on Federal, State and County administrative bodies. Bonds, moreover, must be capable of supporting the permit’s core objectives, though we harbor no illusions that the institutions that certify these bonds at present will remain in existence for the century or more into that future that will be required for meaningful support of closure and remediation of contaminated ground water resources in question. It would be a remarkable bond, indeed, to cover this set of obligations adequately.

Respectfully yours,

Ivan Weber
Principal/Owner, Weber Sustainability Consulting (Retired)

Cc: Drummond Earley, UDWQ dearley@utah.gov
Carly Ferro, Chair, Utah Chapter Sierra Club carlyferro@sierraclub.org

References Consulted: In the course of preparation of these comments, I have reviewed the following materials from my personal and professional library:

- **Final Environmental Impact Statement Lisbon Valley Copper Project, February 1997**. USDOI Bureau of Land Management, Moab District.
- **Utah Road and Recreation Atlas**, Benchmark 2004. “Landscape” maps 78 and 79 are necessary for the understanding of the Lisbon Valley ISL proposal in appropriate geographic, watershed and cultural context, when considered in conjunction with other information resources.
- **Kennecott Utah Copper Corporation South Facilities Ground Water Remedial Action Preliminary Design**. Kennecott Utah Copper, January 31, 2002. With supporting draft reports on resolution of technical aspects of the Natural Resource Damage Claim:


• Life Cycle of Copper, its Co-Products and By-Products, Robert U. Ayres, Leslie W. Ayres and Ingrid Rade, MMSD (Mining, Minerals and Sustainable Development), No. 24 Jan. 2002.


Don't ruin the water!

1 message

Nate Wessel -
To: dearley@utah.gov

Mon. Dec 7, 2020 at 4:39 PM

I like coming to Utah regularly from Colorado to enjoy the land and recreation, and enjoy drinking water while I'm there. Injecting sulfuric solution to extract copper is short sighted and would ruin a good chunk of land not only for the people living there but the people who like to travel to enjoy it as well.
I am concerned that Lisbon Valley Mining Company could further endanger the ground water supply of the valley. Their financial status is weak. I assume a small operation cannot compete with large operations and could cease operations. As you know that would leave another expensive toxic cleanup for the taxpayer.

I come to the valley for relaxation and feel the long-term tourism along with ranching will be a better benefit to the area. I have seen what pollution has done to some of Colorado’s streams.

Please do not grant Lisbon Valley Mining Companies request which will put ground water at risk.

Thank you,
Mel Tooley
Mr. Earley,
Hello my name is Richard Holcroft from Breckenridge Colorado and I would like to express my strong opposition to the proposed In situ recovery mining proposed in the Lisbon Valley. I frequently enjoy recreating in the Lisbon Valley and riding motorcycles through the area. I stay at the Three Step Hideaway with the Stevenson's quite a bit and am concerned about the potential impacts of this mining proposal to the quality of their drinking water.
I can't see how the State and EPA would even consider granting an aquifer exemption to allow this mining company to poison a neighboring aquifer with uranium and thorium.
Please oppose this project on my behalf.
Thank you,
Richard Holcroft
Dear Mr. Earley,

In reviewing the Class III Underground Injection Control Permit Application submitted by Lisbon Valley Mining Company LLC, Lower Lisbon Valley LLV Project posted for public notice, it appears that figure 3.1 (AOR) is missing. Page 28 of the Lower Lisbon Valley ISR Technical Report says only "[This page intentionally left blank. See attached fold-out of Figure 3.1]"

Could you please forward me a copy of figure 3.1 to review and/or post it to the DWQ website? <https://deq.utah.gov/businesses-facilities/lisbon-valley-mining-co-llc>

thanks,

David Roccaforte
Lisbon Valley Mining Company application for permit to use In-Situ type mining in Lower Lisbon Valley

1 message

Ann Hughes <dearley@utah.gov>

To: dearley@utah.gov

Wed, Dec 16, 2020 at 12:28 PM

To Whom It May Concern:

It is my opinion that this project needs to end and that any needed reclamation needs to begin as soon as possible. This project will damage the aquifer whose water the local landowners have used for yours for their drinking water and water for their livestock and crops. The company has shown it does not really have the resources to put the mine in place nor does it have the resources to repair the damage that the mine will do to the aquifer.

Thank you for your time!

Annie Hughes, Singer/Songwriter/Farmer
Red Wing Ranch

www.redwingranchco.com

https://mail.google.com/mail/u/0/?ik=d0928d7402&view=pt&search=all&permthid=thread-f%3A1686264118287481707&simpmsg-f%3A1686264118287481707
Mr. Drummond Earley,

With regards to the Lisbon Valley Mining Company's request for a UIC Class III Area permit, I am sure there are many issues that you are aware of that need much consideration by you and your department. As a long time resident of San Juan County, I want to emphasize a couple of things what I would consider to be major issues.

1) There is a rancher and a business owner in Lisbon Valley (Wilcox Ranch and Three Step Hideaway) that have and are using existing water wells for their livelihood. And it is my understanding that they plan to be in operation for many years to come. As I am sure you know, the code of Federal Regulations, 146.4 Criteria for exempted aquifers, states that the aquifer cannot be currently used as a source of drinking water.

2) While there are stipulations in the draft for the permit application, that there will be monitoring systems put in place to ensure that no injectate or leach solution escapes from the wellsfields and permit area, you need to know who the people are that you are trusting to oversee and report on the monitoring that will be done. The Lisbon Valley Mine Company has quite a history of conducting their business in an irresponsible manner, not paying taxes to San Juan County since 2014 is just one example. I don’t get a feeling that these are people who would raise their hand and let you know when the monitoring system is telling them that there is a problem.

The In-Situ copper recovery process is complicated and new to Utah. This is an extremely important decision for you and your department to make and I sincerely hope you do not take it lightly, especially when there are people and businesses already depending upon the water in Lisbon Valley for their livelihood.

Janet Curley
Lisbon mine shenanigans
1 message

JORGESTIES <jorge@example.com>
To: dearley@utah.gov

Sun, Dec 20, 2020 at 2:31 PM

Sir, I was quite surprised to hear we continue to Rape the Land in this way. Really? I strongly oppose ISR mining “experiment” in Lisbon Valley.

I live in CA and regularly travel to the area for recreation. I enjoy staying there because of it’s climate and remote nature from Moab. It’s no secret that more and more people are seeking isolation in their recreation since this pandemic. To risk polluting water sources is both foolish and irresponsible. I hope you oppose the efforts of this mine.

Jorge Jestes

Sent from my iPhone
Mr. Earley,

I recently became aware of the Lisbon Valley issue through a couple motorcycle riding buddies of mine. I’ve spent a bit of time in Lisbon Valley at 3 Step Hideaway and in the surrounding La Sal mountains and Moab area. I appreciate the beauty of the area but I’m also concerned about the lasting detrimental effects that mining has had on that area through history.

I’m greatly disappointed to hear about the latest proposal by the Lisbon Valley Mining Company to conduct in situ mining by injecting sulfuric acid into the aquifer. Sounds like the last ditch effort of a company trying to make a bit more profit out of a mine that has nothing left to offer at the risk of doing irreparable damage to the Lisbon Valley aquifer. And once the Lisbon Valley Mining Company have extracted all the copper they can get they will most likely disappear and potentially leave the Lisbon Valley aquifer contaminated and undrinkable.

Just doesn’t seem like an environmentally conscious direction to head. I’m hoping that long term environmental protection and the drinking water of Lisbon Valley win out over short term profits for a mining company that will most likely leave the area once they can no longer make a profit.

Thank you for taking the time to listen.

Respectfully,
Casey Reinking
Hello,

I writing to express my concerns with the filed permit application from the Lisbon Valley Mining Company to begin a new, experimental form of in-situ mining in the valley. The company is wanting to inject a sulfuric acid solution into the ground to mine copper. This action will either pollute or delete the 2 domestic water wells that Cattle Ranching neighbors depend on for their livelihood.

Temp jobs, brief prosperity, only to leave behind demeared land and environmental contamination, it’s not worth it. The only people who truly benefit are the executives of the company who take in millions. The Lisbon Valley Mining Company is operating as a money over anything model.

The mine also owes the county $2.1M for 6 years of back taxes, has lawsuits from several local vendors, owes state taxes and past employee wages. How can this company continue to operate?

Please do not let this project move forward.

Best Regards,
Jay Cortez
Do NOT allow Lisbon Valley Mining Co. to pollute the earth

To: dearley@utah.gov

Please do not allow Lisbon Valley Mining Co. to inject anything into the ground. They are not current on their taxes and if the current mine is not viable then it should be closed.

If they will not pay their current legal obligations then I doubt they will be truthful if they were allowed to pollute the earth. Please do NOT allow them to continue.

Thanks,
Gary Smith

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Hello, I'm a regular visitor to the Lisbon valley and three step plateau for its incredible recreational opportunities. My family and I visit the three step hideaway several times a year. I'm very concerned about the water wells being polluted if the mine is allowed to pursue this sulfuric acid mining operation. Thank you for your time,

Sincerely,

Matthew Maki, MD
Good Day

I am writing this to say that I oppose the plans for Lisbon Mining Company to use a sulfuric acid solution to mine copper in the area of San Juan County, Utah. I personally know the residents and business owners in the area south east of the current mine facility. I visit that area and enjoy and appreciate the natural resources provided by God and nature as they exist. There is an important family business there, 3-Step Hideaway that depends on their water wells to provide clean water for their family and many clients and guests that stay there. I agree with Scott Stevenson that this plan should not proceed. Also, the Mike Wilcox ranch nearby depends on water for their family and cattle operation. I have visited there and also want to return and be able to enjoy the natural resources of water and the beauty of the valley and mountains. These two families, their business, the visitors to the valley area, and the natural resources that exist are more important than this mining operation proposal. The risk is not worth it. The mining operation will mostly like shut down again and just leave even more of the devastation and negative environmental impacts that are already seen in this valley from prior mining operations. Please do not approve the plans to allow this in-situ mining operation.

Thank You

Kerry Bertsch
LVMI Proposed UIC Class III Area Permit Application

2 messages

Julie Stevenson: To: egaddis@utah.gov, jmackley@utah.gov, dearley@utah.gov

Dear Madam and Sirs,

In your consideration of the Class III Area Permit, Underground Injection Control (UIC) Program, UIC Permit Number UTU-37-AP-5D5F693, Lisbon Valley Mine (UT Mine ID 0370088), San Juan County, Utah, I would like to submit the following statement:

My name is Julie Stevenson and I am a full-time resident and co-owner/operator of 3 Step Hideaway in lower Lisbon Valley, San Juan County, Utah.

My husband and I came here 7 years ago to live a peaceful and quiet life. We have worked very hard and built a successful business from scratch, in addition, we are upstanding members in our community.

The second sentence in the Declaration of Independence declares our basic human rights as United States Citizens. It says, QUOTE: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness." END QUOTE

If Lisbon Valley Mining Company or ANY company is allowed to experiment in our county with these highly toxic chemicals in our sandstone soil, which by the way, neither process has EVER been tried before, they WILL contaminate our water and destroy the land along with EVERYTHING that lives here including plants, animals, and people. In Situ mining will strip the residents and our tourists of their basic human-rights of life, liberty, and the pursuit of happiness, because it will COMPLETELY destroy this pristine land and its limited water supply.

The entire region of San Juan County is presently in an EXTREME DROUGHT situation and has been for some time. We must be VERY mindful with the limited resources nature provides. Our land and water are precious resources, and without these, our very lives and livelihoods would cease.

In reviewing LVMI's UIC Class III Area Permit Draft, I have noticed SEVERAL falsifications, however I will only bring one to your attention in this communication:

In the Lisbon Valley Mining Company LLC, Lower Lisbon Valley ISR Technical Report, page 168, Section 16.0 Part N - Aquifer Exemption, it states, QUOTE: "This section summarizes data in support of an aquifer exemption request for the BC Aquifer in the Project Area. It is formatted to state 40 CFR requirements, identify how the Project meets these requirements, identify the horizontal and vertical AEB, and summarize information provided in previous sections for clarity.

40 CFR §146.4 allows EPA to exempt an aquifer or portion of an aquifer for the purpose of injection provided:
(a) It does not currently serve as a source of drinking water", END QUOTE

Page 169 of the same report states further, QUOTE: "16.2 Aquifer Serving as a Source of Drinking Water
Question: Does the aquifer serve as a source of drinking water?
Answer: No,
There are no domestic wells in the Project Area," END QUOTE

Our ENTIRE property is in included in LVMI's Project Area which encompasses our domestic water well.

Since our domestic water wells are in the Burro Canyon Aquifer and clearly in LVMI's Project Area, I am hopeful that The Division of Water Quality (DWQ) uphold their commitment to the citizens of the State of Utah as stated on the deq.utah.gov website to QUOTE: "protect[s] surface and groundwater through programs designed to protect, maintain, and enhance the quality of Utah's waters," END QUOTE.

Thank you for your diligence in thoroughly reviewing this Permit Application and all Public Comments regarding this very serious matter, that will affect not only the BC Aquifer and lower Lisbon Valley residents and visitors, but has the potential to contaminate the entire Dolores River watershed, as stated in LVMI's BLM Permit Application. I respectfully request that you completely reject and/or deny this Class III Area Permit, Underground Injection Control (UIC) Program, UIC Permit Number UTU-37-AP-5D5F693, Lisbon Valley Mine (UT Mine ID 0370088), San Juan County, Utah, Thank you,
Sincerely,

Julie Stevenson

A Step Hideaway LLC

Daniel Hall <dhall@utah.gov>
To: Drummond Earley <dearley@utah.gov>

Dan Hall, P.G., Manager
Individual Permits Section
Utah Division of Water Quality
195 N 1950 W, SLC UT
801.536.4356
Dhall@utah.gov
http://www.waterquality.utah.gov/

---------- Forwarded message ----------
From: Erica Gaddis <egaddis@utah.gov>
Date: Fri, Jan 8, 2021 at 11:58 AM
Subject: Fwd: LVMC Proposed UIC Class Ill Area Permit Application
To: Daniel Hall <dhall@utah.gov>, Meg Otswald <motswald@agutah.gov>

[Quoted text hidden]

---

Erica Brown Gaddis, PhD
Director | Division of Water Quality

M: (385) 228-5787
P: (801) 328-5310
waterquality.utah.gov

Emails to and from this email address may be considered public records and thus subject to Utah GRAMA requirements.
Underground Injection Control Class III Area Draft Permit No. UTU-37-AP-5D5F693

13 messages

Kristin Vinci Sent You a Personal Message <automail@knowhow.com> Thu, Jan 7, 2021 at 1:13 PM

To: dearley@utah.gov

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burr Canyon Aquifer’s mineralized zones.

The analysis of potential impacts presented in LVM’s application is inadequate. Permitting this project would threaten water quality in a region where resources are sensitive and diminishing, and it is not a risk the DWQ should be willing to take. The in-situ process, often used in uranium mining, is deeply flawed and cannot guarantee that quality can return to baseline levels once a project is complete. Southern Utah is a desert climate, and in the face of climate change, water resources should be protected—not jeopardized.

Additionally, in the request for exemption submitted by LVM, the portion of the Burr Canyon Aquifer (BCA) requested is hydrogeologically in continuity with the entirety of the BCA underlying Lower Lisbon Valley. Because of this continuity, it is suggested that the injected liquid medium would move freely throughout the aquifer. Within the aquifer exists an Underground Sources of Drinking water with at least one domestic well that serves as a source of drinking water. Under the Safe Drinking Water Act and existing Utah regulation, this would disqualify the Burr Canyon Aquifer from an exemption, and be a reason to deny the Lisbon Valley Mining Copermit request.

I request this permit to protect the safety of people and the quality of water.

Sincerely,

Kristin Vinci

This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Sierra Club. If you need more information, please contact Lillian Miller at Sierra Club at core.help@sierradub.org or (415) 977-5500.

Laura Cotts Sent You a Personal Message <automail@knowhow.com> Thu, Jan 7, 2021 at 2:49 PM

To: dearley@utah.gov

Dear Drummond Earley,

I have learned that Lisbon Valley Mining Co., LLC has submitted an Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request. Apparently they wish to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. I am opposed and I hope you will reject their application.

The drinking water of nearby ranchers will be jeopardized. And the future purity and beneficial uses of the associated aquifers may be damaged. From my research it is evident that LVM has not been always a responsible company and it is unwise to risk scarce desert water in such a potentially risky and damaging project. Utah has had too many mining operations that made their money and then left pollution and degradation behind.

The potential jobs would go mainly to out of state workers. The damages out weigh the benefits. Please do not grant this permit.

I enclose below a more detailed and knowledgeable analysis of the problems with this mining proposal. Please do not grant this permit. Thank you.

The analysis of potential impacts presented in LVM’s application is inadequate. Permitting this project would threaten water quality in a region where resources are sensitive and diminishing, and it is not a risk the DWQ should be willing to take. The in-situ process, often used in uranium mining, is deeply flawed and cannot guarantee that quality can return to baseline levels once a project is complete. Southern Utah is a desert climate, and in the face of climate change, water resources should be protected—not jeopardized.

Additionally, in the request for exemption submitted by LVM, the portion of the Burr Canyon Aquifer (BCA) requested is hydrogeologically in continuity with the entirety of the BCA underlying Lower Lisbon Valley. Because of this continuity, it is suggested that the injected liquid medium would move freely throughout the aquifer. Within the aquifer exists an Underground Sources of Drinking water with at least one domestic well that serves as a source of drinking water. Under the Safe Drinking Water Act and existing Utah regulation, this would disqualify the Burr Canyon Aquifer from an exemption, and be a reason to deny the Lisbon Valley Mining Copermit request.

https://mail.google.com/mail/u/0?ik=d092d7d402&view=pt&search=all&permthid=thread-f%3A1688260192403544667&simpl=msg-f%3A1688260192403544667&simpl=msg-f%3A1688266234808905192&simpl=msg-f%3A1688268417384822017&simpl=msg-f%3...
Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Laura Cotts

[J. R. Bess] Sent You a Personal Message <automail@knowwho.com>  Thu, Jan 7, 2021 at 3:23 PM

To: dearley@utah.gov

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

The analysis of potential impacts presented in LVM's application is inadequate. Permitting this project would threaten water quality in a region where resources are sensitive and diminishing, and it is not a risk the DWQ should be willing to take. The in-situ process, often used in uranium mining, is deeply flawed and cannot guarantee that quality can return to baseline levels once a project is complete. Southern Utah is a desert climate, and in the face of climate change, water resources should be protected—not jeopardized.

Additionally, in the request for exemption submitted by LVM, the portion of the Burro Canyon Aquifer (BCA) requested is hydrogeologically in continuity with the entirety of the BCA underlying Lower Lisbon Valley. Because of this continuity, it is suggested that the injected liquid medium would move freely throughout the aquifer. Within the aquifer exists an Underground Sources of Drinking water with at least one domestic well that serves as a source of drinking water. Under the Safe Drinking Water Act and existing Utah regulation, this would disqualify the Burro Canyon Aquifer from an exemption, and be a reason to deny the Lisbon Valley Mining Copermits request.

Reject this permit to protect the safety of people and the quality of water.

Sincerely,

J.R. Bess

[Eric Ewert] Sent You a Personal Message <automail@knowwho.com>  Thu, Jan 7, 2021 at 3:38 PM

To: dearley@utah.gov

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

The analysis of potential impacts presented in LVM's application is inadequate. Permitting this project would threaten water quality in a region where resources are sensitive and diminishing, and it is not a risk the DWQ should be willing to take. The in-situ process, often used in uranium mining, is deeply flawed and cannot guarantee that quality can return to baseline levels once a project is complete. Southern Utah is a desert climate, and in the face of climate change, water resources should be protected—not jeopardized.

Additionally, in the request for exemption submitted by LVM, the portion of the Burro Canyon Aquifer (BCA) requested is hydrogeologically in continuity with the entirety of the BCA underlying Lower Lisbon Valley. Because of this continuity, it is suggested that the injected liquid medium would move freely throughout the aquifer. Within the aquifer exists an Underground Sources of Drinking water with at least one domestic well that serves as a source of drinking water. Under the Safe Drinking Water Act and existing Utah regulation, this would disqualify the Burro Canyon Aquifer from an exemption, and be a reason to deny the Lisbon Valley Mining Copermits request.

Reject this permit to protect the safety of people and the quality of water.
Sincerely,

Leigh Fullmer

Sent You a Personal Message <automail@knowwho.com>

To: dearley@utah.gov

Thu, Jan 7, 2021 at 4:07 PM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer’s mineralized zones.

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Reject this permit to protect the safety of people and the quality of water! The time for recklessness with water resources and human health has LONG PASSED.

Sincerely,

Leigh Fullmer

Sent You a Personal Message <automail@knowwho.com>

To: dearley@utah.gov

Thu, Jan 7, 2021 at 4:16 PM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer’s mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,
Carmela Sudano Sent You a Personal Message <automail@knowwho.com>  
To: dearley@utah.gov  
Thu, Jan 7, 2021 at 4:16 PM

Carmela Sudano  
[Quoted text hidden]

Craig Gasser Sent You a Personal Message <automail@knowwho.com>  
To: dearley@utah.gov  
Thu, Jan 7, 2021 at 5:05 PM

Craig Gasser  
[Quoted text hidden]

Adam Stevenson Sent You a Personal Message <automail@knowwho.com>  
To: dearley@utah.gov  
Thu, Jan 7, 2021 at 5:08 PM

Adam Stevenson  
[Quoted text hidden]
Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Adam Stevenson

[Quoted text hidden]

Heather Jones (Sent You a Personal Message <automail@knowwho.com>)
To: dearly@utah.gov
Thu, Jan 7, 2021 at 5:20 PM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer’s mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Heather Jones

[Quoted text hidden]

Greg Thorne (Sent You a Personal Message <automail@knowwho.com>)
To: dearly@utah.gov
Thu, Jan 7, 2021 at 5:29 PM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer’s mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.
Sincerely,

Greg Thorne

Carol Wright [redacted] Sent You a Personal Message <automail@knowwho.com> Thu, Jan 7, 2021 at 5:53 PM
To: dearley@utah.gov

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Carol Wright [redacted]

Peggy Pierce [redacted] Sent You a Personal Message <automail@knowwho.com> Thu, Jan 7, 2021 at 8:00 PM
To: dearley@utah.gov

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,
Underground Injection Control Class III Area Draft Permit No. UTU-37-AP-5D5F693

9 messages

Kathryn Marti Sent You a Personal Message <automail@knowwho.com> To: dearly@utah.gov Fri, Jan 8, 2021 at 8:14 AM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Reject this permit to protect the safety of people and the quality of water,

Sincerely,

Kathryn Marti

This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Sierra Club. If you need more information, please contact Lillian Miller at Sierra Club at core.help@sierrclub.org or (415) 977-5500.

Carmen Mas Sent You a Personal Message <automail@knowwho.com> To: dearly@utah.gov Fri, Jan 8, 2021 at 9:05 AM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Reject this permit to protect the safety of people and the quality of water,

Sincerely,

Carmen Mas
Ken Smith Sent You a Personal Message <automail@knowwho.com> 
To: dearley@utah.gov

Fri, Jan 8, 2021 at 9:52 AM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer’s mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Ken Smith

Marion Klaus Sent You a Personal Message <automail@knowwho.com> 
To: dearley@utah.gov

Fri, Jan 8, 2021 at 9:54 AM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer’s mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Marion Klaus
Maureen Grossman (*****) Sent You a Personal Message <automail@knowwho.com>

To: dearly@utah.gov

Fri, Jan 8, 2021 at 10:52 AM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project will allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Maureen Grossman

----------

Debra Cense (*****) Sent You a Personal Message <automail@knowwho.com>

To: dearly@utah.gov

Fri, Jan 8, 2021 at 11:26 AM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer’s mineralized zones.

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Sincerely,

Debra Cense
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Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Robert Nyman
Gene Amarell Sent You a Personal Message <automail@knowwho.com>
To: dearley@utah.gov

Fri, Jan 8, 2021 at 3:01 PM
Mr. Earley,

I visited the beautiful Lisbon Valley in Eastern Utah in 2017 as a guest at the Three Step Hideaway. I feel that In Situ Recovery mining could, or would damage the area’s groundwater for years to come. Google lists numerous studies concerning the negative effects of sulphuric acid, including low concentrations in ground water. These findings should be seriously considered when humans and livestock are involved. Thank you for your consideration.

Kenneth Welsh

Sent from my iPhone
Underground Injection Control Class III Area Draft Permit No. UTU-37-AP-5D5F693

9 messages

Shirley Ray Sent You a Personal Message <automail@knowwho.com>
To: dearlay@utah.gov

Sat, Jan 9, 2021 at 8:27 AM

Dear Drummond Earley,

Destroying the land that nourishes humanity is no way to care for our natural blessings. Take you skills in another direction nurturing rather than exploiting. The unethical components of this proposal must keep you feeling guilty as you lie to promote it, I am writing you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,

Shirley Ray

This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Sierra Club. If you need more information, please contact Lillian Miller at Sierra Club at core.help@sierradub.org or (415) 977-5500.

Reba Rolsor Sent You a Personal Message <automail@knowwho.com>
To: dearlay@utah.gov

Sat, Jan 9, 2021 at 9:32 AM

Dear Drummond Earley,

I am writing you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,
Rebek Reiker
[Quoted text hidden]

Stanley Holmes
________________________
Sent You a Personal Message <automail@knowhow.com>
To: dearley@utah.gov

Sat, Jan 9, 2021 at 10:17 AM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Please reject this permit to protect the safety of people and the quality of water.

Sincerely,

Stanley Holmes
[Quoted text hidden]

C Clark
________________________
Sent You a Personal Message <automail@knowhow.com>
To: dearley@utah.gov

Sat, Jan 9, 2021 at 10:19 AM

Dear Drummond Earley,

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Reject this permit to protect the safety of people and the quality of water.

Sincerely,

C Clark
David R. Smith Sent You a Personal Message <automail@knowwho.com> Sat, Jan 9, 2021 at 11:56 AM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Additionally, in the request for exemption submitted by LVM, the portion of the Burro Canyon Aquifer (BCA) requested is hydrogeologically in continuity with the entirety of the BCA underlying Lower Lisbon Valley. Because of this continuity, it is suggested that the injected liquid medium would move freely throughout the aquifer. Within the aquifer exists an Underground Sources of Drinking water with at least one domestic well that serves as a source of drinking water. Under the Safe Drinking Water Act and existing Utah regulation, this would disqualify the Burro Canyon Aquifer from an exemption, and be a reason to deny the Lisbon Valley Mining Copermit request.

Reject this permit to protect the safety of people and the quality of water.

Sincerely,

David R. Smith

Devon Tomson-Moylan Sent You a Personal Message <automail@knowwho.com> Sat, Jan 9, 2021 at 4:14 PM

Dear Drummond Earley,

I am writing to you in opposition to Lisbon Valley Mining Co., LLC Underground Injection Control (UIC) Class III Area Permit Application and Aquifer Exemption Request to construct and operate Class III in-situ copper recovery injection wells in San Juan County, Utah. This project would allow Lisbon Valley to continue the extraction of copper from ore within the Burro Canyon Aquifer's mineralized zones.

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Sincerely,

Devon Tomson-Moylan
M. Honer-Orton
Sent a Personal Message <automail@knowwho.com>
To: dearley@utah.gov

Sat, Jan 9, 2021 at 6:38 PM

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M. Honer-Orton

Nicola Nelson
Sent a Personal Message <automail@knowwho.com>
To: dearley@utah.gov

Sat, Jan 9, 2021 at 11:28 PM

Dear Drummond Earley,

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Sincerely,

Jacob Baker

[Quoted text hidden]
Mr. Earley –

Attached is a letter with my comments regarding ISR Mining in Lisbon Valley. Please contact me if you have any questions.

George Stevenson Jr
9 January 2021

Drummond Earley
Division of Water Quality
Utah Department of Environmental Quality
195 North 1950 West
Salt Lake City, Utah 84114

Subject: Underground Injection Control Class III Area Draft Permit No. UTU-37-AP-5D5F693
         In-Situ Copper Recovery

Mr. Earley:

I am a frequent visitor to Lower Lisbon Valley and have family residing there.

I strongly oppose this project which would allow the pumping of concentrated sulfuric acid into
the ground to saturate the soil to a depth of up to 900 feet.

If the project is implemented as proposed, it would become an enormous liability to the state of Utah for a number of reasons, including the following:

1. The subject mining company, Lisbon Valley Mining Company, has a terrible track record
   and apparently has not paid applicable taxes to the County or State for many years. To
   grant this company an exemption to Division of Water Quality (DWQ) Standards so this
   project may proceed is poorly considered. Should containment be breached (which is
   certainly possible, even probable) LVMC cannot be relied upon for remediation work.
   This creates massive liability for the State of Utah.

2. Three-Step Hideaway, which is a bed-and-breakfast establishment in Lower Lisbon
   Valley, caters to motorcycle enthusiasts. Three-Step Hideaway is located on the Trans-
   America Trail and is known worldwide as a basecamp from which to explore
   southeastern Utah. They draw visitors from Europe, Australia, Canada, Asia, the Middle
   East, and South America. Should this project proceed, Three-Step Hideaway will surely
   be closed; the proposed acid-saturated area comes within a stone’s throw (literally) of
   their water well. Loss of this tourism would be detrimental to the State of Utah.
3. The proposed project is located along the Colorado border and will undoubtedly release massive amounts of sulfuric acid into the watershed of the Dolores River in Colorado. The entire Lisbon Valley, in fact, drains into Colorado and the Delores River watershed. This exposes the State of Utah to another source of considerable liability.

In addition to considering the liability this project incurs to the State of Utah, I ask you to consider the damage and detriment this project would cause the neighboring families and businesses. In the last century, poisoning a man’s water well was a hanging offense. In modern times it seems unlikely that one would seek out and righteously deal with those individuals responsible. Because these victims cannot fairly defend themselves from government decisions, I ask that you seriously consider the harm this project would inflict on them.

I ask you to NOT approve the permit for this project.

Sincerely,

George R. Stevenson Jr., P. E.
George R. Stevenson Jr, P.E.

9 January 2021

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Utah Department of Environmental Quality
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9 January 2021
Page 2

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Sincerely,

[Signature]

George R. Stevenson Jr., P. E.
Mr. Earley,

please find attached a .pdf file of a public comment submitted by myself.

Thanks,

J. David Roccaforté

Copper in Lisbon Valley.pdf
58K

Daniel Hall <dhall@utah.gov>
To: Drummond Earley <dearley@utah.gov>

Dan Hall, P.G., Manager
Individual Permits Section
Utah Division of Water Quality
195 N 1900 W, SLC UT
801.536.4356
dhall@utah.gov
http://www.waterquality.utah.gov/

-------- Forwarded message --------
From: Erica Gaddis <egaddis@utah.gov>
Date: Fri, Jan 8, 2021 at 3:09 PM
Subject: Fwd: Public comments on UIC Permit Number: UTU-37-AP-5D5F693

To: Daniel Hall <dhall@utah.gov>, Meg Osswald <megoswald@agutah.gov>

[Quoted text hidden]

Erica Brown Gaddis, PhD

https://mail.google.com/mail/u/0?ik=m0926d7402&view=pt&search=all&permthid=thread-f%3A1688352518546904750&simple=1&msg=f%3A1688352518546904750&simple=1&msg=f%3A1688593984994279044
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Since LVMC has presented their version, and are wrong about so many other things, I am compelled to present the corrected and annotated reality:

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“...the Blackbird mine prior to the 1950s...”

Reality: The Blackbird mine went bankrupt.
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“In 1974 **Centennial Development decided not to proceed** with development of the Project, citing weak copper prices and an inadequate return on investment.”

**Reality:** Centennial **remained solvent.** <https://thediggings.com/owners/1210174>

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**Reality:** Kennecott Exploration Inc. **remains in business.**
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“**St. Mary Minerals Inc., assigned the option** to a newly formed company, Summo Minerals Corporation…”

**Reality:** St. Mary’s **remains in business.**
<http://sm-energy.com/about-us/history-timeline/>

“2002 **Summo Minerals Corporation became Constellation Copper** Corporation by virtue of a name change”…

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**Reality:**  1.5 Health, Safety and Environmental Responsibilities

**Despite** regulation by the Mine Safety and Health Administration (MSHA), an agency of the United States Department of Labor, and multiple Federal and State environmental agencies since 2005, and **despite** maintaining exemplary compliance records for both safety and environmental compliance for fifteen years, The Company was unable to responsibly maintain control of millions of gallons of acidic leach solution in March 2020. This placed the entire area at extreme risk of a toxic release which would have cost millions of dollars between clean-up and litigation settlements, as well as placing at risk the lives of untold humans, livestock, and wildlife.

As a consequence, The Division of Oil, Gas, and Mining revoked The Company’s permit, and activated the surety bond. Following this near miss, The Company is now attempting to restart operations and to expand the facility, not from spending capital generated from profits, but rather using Federal funds earmarked for businesses affected by pandemic closures, even while remaining over $2 million in arrears to San Juan County for property taxes dating back to 2014. To date, The Company has not issued a public statement of apology for placing workers, the general public, and the environment in harm’s way. Given the history and ongoing status of financial insecurity, it is extremely unlikely that The Company will ever be able to maintain the health and safety of the workers, general public, or the environment.


“...(LVMC) company representatives noted the vast amounts of copper needed for renewable-energy projects, including wind and solar farms, make it likely that the Lisbon Valley Mine will continue to see extraction regardless of ownership.”


Copper is **NOT** one of the thirty-five “Minerals Deemed Critical to U.S. National Security and the Economy” listed by the Department of the Interior. While it IS a component of many manufactured goods, including those involved with so-called
“green” technology, the mining of copper, either by open pit or by in-situ recovery, is decidedly NOT a “green” endeavor.

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Conclusions:

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J. David Roccaforte,
Drummond Earley

I am writing to you as a citizen and resident of the area of San Juan County that is in question for the Lisbon Valley Mine down by the La Sal area here in Southeastern Utah and the particular way of processing and obtaining copper that will definitely put a strain on the aquifers of this area and wells that are in the vicinity. I am referring to the in-situ mining process for Lower Lisbon Valley that the Lisbon Valley Mining company have applied for.

As you already know, water is one of the most precious commodities that we can have. Especially down here in our South Eastern desert of Utah. Especially for people that live here and their five styles such as ranchers etc.. I believe that copper is a great resource and is valuable but I believe that water is far more valuable. Why would you put people at risk, their lives, their homes?

Maybe, there could be a win win resolution or situation in which those that are mining for copper in this very devastating way could do the mining process differently than the proposed method that puts such a strain on our valuable resources. It works great for those who don't live here and extract out what they can then leave it for how many years to rebuild back to the environment that was previous. I know some mines are still recovering in the areas around here and I don't need to remind you what happened a couple years back with the Animas San Juan rivers and how it's poisonous sludge from the mines effected many people down stream on the Navajo nation. Their farms and water they drink ruined.


This was from a mine close to Durango - Rico area, Colorado and that was a long time back from when the mine was operational. Look at the effects now and how much money it takes to clean it up. Why would we do this to people? It is devastating. It is hard enough to farm in the desert with good water? Because I am a farmer and rely on harvesting food from my garden I understand the needs for the best soil and water that can be available. Why should we give one person the right to ruin it for the money they make and make others suffer the consequences? Why can't it work in a way that works for the benefit for everyone. Meaning that there are better ways to mine or not at all if the effect will take away to much in the greater picture?

Why would you even consider to give a permit to hurt this area in this way? It has been ranching with cattle that feed many people for many years from this direct area. You are biting off the hand that is already feeding this state and already is a resource. How about tourism? I am sure that people who want to visit will need good drinking water. Is the value that comes from the copper really worth destroying a whole area that has minimal resources already and is the poorest county in the state, ruining it for all who inhabit the area? The question you may wish to ask is, would you want someone to do that to your drinking water? The long term effects could be disastrous for the whole ecology here for years? Again I think of the above situations and that is has been many many years and maybe back then they did not know better from death and statistics but today we should have enough wisdom from experience to know what the choice of destroying water resources means to others downstream.

This needs to be really thought out since water down here is a 'real' issue! Many people down here live on a water system that is well and tied to the aquifers that are available. We have drought systems down here that last longer with water having to travel great distances. Would you really compromise an area with so few aquifers that need years to be able to send water and distribute downstream? Many people here have to already use portable water have you done this? How far would we have to truck water with the effects of this decision? If it is the question of copper and income then look at Moab and the Colorado River? How much money has it taken to clean up that area and the discision plan? How many people actually lived downstream from the Colorado and who does it impact? The desert area of economy and income may be smaller to you but I propose to you to carefully consider the weighed in consequences, How far does the chemical poison travel anyway if water goes ultimately into the ocean from rivers? We should look more at how can we make the aquifers stronger? How to build up and utilize our natural resource in ways that do not tear down our living circumstances.

It has only been a couple of years ago in 2018 that most of the reserves down here Lloyd Lake for Monticello, Kens Lake in Moab are almost completely depleted by July when supplies needed to last until fall replenishment. Is it the intention of those thinking about this prospect to sicken those that are there in those areas? Surely you know the effects of challenging an already weak system for water and adding things that just do not go away to slowly go down stream. And another question I have for you is that if this much reserves are going to be almost completely depleted by July when supplies needed to last until fall replenishment. Is it the intention of those thinking about this prospect to sicken those that are there in those areas? Surely you know the effects of challenging an already weak system for water and adding things that just do not go away to slowly go down stream. And another question I have for you is that if this much reserves are going to be almost completely depleted by July when supplies needed to last until fall replenishment. Is it the intention of those thinking about this prospect to sicken those that are there in those areas? Surely you know the effects of challenging an already weak system for water and adding things that just do not go away to slowly go down stream.

We can live without a lot of things but water is something that we cannot live without! Do you agree? This letter is one of awareness and for consideration of the better good of all that live here that means all. Those who live in other areas would be effected by negative outcome because of cattle, because of wildlife because of consciousness of effecting the very thing that keeps people alive - WATER! Many people visit here for the beauty of the land, You should consider areas like Shoshone and Wyoming and what happened when their water resources were tampered with. You have the ability and power held in your hands to protect and keep precious and valuable resources of life such as water protected. Or, milk out every drop of life and turn the land to waste? Or, is it possible to find something in the middle that is less destructive and yet will yield protection for water, people and lives and yet manage to build something up? You can always choose to protect aquifers and not permit an exemption of quality?

Chose wisely, as your decision effects lives, eco-systems, other resources such as cattle, seeds, plants and yes the future. This is a letter to aspire awareness and positive planning of future resources that keep people and things alive. That everyone's choices have cause and effect and matter. I am only asking you to consider what this decision leads to in building the future but also to remember a good taste of water and all the life it creates!

I deeply appreciate the fact that you took the time to read this letter. My appreciation goes out to you for all you do to create better water of better quality that influences the quality of life of those around you and that you effect change for. May we all make excellent choices for the future with the knowledge and awareness of lives that our choices effect,

https://mail.google.com/mail/u/0?ik=d0926d7402&view=pt&search=all&permthid=thread-f%3A1686615947855027980&simg#msg-f%3A1686615947855027980
Mr. Earley,

please find attached a .pdf file of a public comment submitted by the group of Lower Lisbon Valley residents and landowners. We would appreciate a reply with confirmation of receipt. If the attached file is too large, it can be posted for download.

Thanks,

Mike and Joan Wilcox,

Julie and Scott Stevenson,

RL Wilcox,

Francine Osikowicz,

J. David Roccaforte,

-------- Forwarded message --------
From: Whittington, Jennifer K <jwhittington@blm.gov>
Date: Fri, Jan 8, 2021 at 2:17 PM
Subject: RE: [EXTERNAL] Re: Public comments from Lower Lisbon Valley residents on UIC Permit Number: UTU-37-AP-5D5F693
To: Drummond Earley <dearley@utah.gov>

Good afternoon Dusty,
Hello, I am the new geologist for the Moab Field Office. I have been working on LVCM and I met Mr. Wilcox while I was down in Lisbon Valley for a site inspection in November. I did not respond to his comments, as the letter was addressed to you, and I apologize that I did not reach out to you after I was cc’d on the email. I am glad to assist in any way with LVCM or to address the concerns Mr. Wilcox presents in his correspondence.

Regards,
Jennifer Whittington | Geologist
U.S. Department of the Interior | Region 7 | Bureau of Land Management
Moab Field Office | 82 East Dogwood Avenue, Moab, Utah 84532
Direct: (435) 259-2113 | Fax: (435) 259-2106
(8) N 1,552 feet E 175 feet from SW corner. Section 25, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
(9) N 1,914 feet E 1,612 feet from SW corner. Section 25, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
(10) N 3,208 feet E 63 feet from SW corner. Section 25, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 1,500 feet
(11) N 3,558 feet W 1,503 feet from SE corner. Section 26, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 570 feet
(12) N 4,328 feet W 2,099 feet from SE corner. Section 26, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 570 feet
(13) N 3,403 feet W 640 feet from SE corner. Section 26, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 570 feet
(14) N 4,715 feet W 815 feet from SE corner. Section 26, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 570 feet
(15) N 3,877 feet W 1,861 feet from SE corner. Section 26, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 570 feet
(16) N 4,862 feet W 1,985 feet from SE corner. Section 26, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 570 feet
(17) S 425 feet E 839 feet from NW corner. Section 36, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
(18) S 4,473 feet E 3,408 feet from NW corner. Section 36, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 680 feet
(19) S 837 feet E 2,007 feet from NW corner. Section 36, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
(20) S 4,783 feet E 1,861 feet from NW corner. Section 36, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 680 feet
(21) S 3,922 feet E 2,511 feet from NW corner. Section 36, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 680 feet
(22) S 546 feet E 3,036 feet from NW corner. Section 36, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
(23) S 3,692 feet E 1,594 feet from NW corner. Section 36, T 30S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 680 feet
(24) S 825 feet E 1,796 feet from NE corner. Section 31, T 30S, R 26E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 1,200 feet
(25) S 2,138 feet E 3,986 feet from S¼ corner. Section 31, T 30S, R 26E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 1,200 feet
(26) S 352 feet E 4,024 feet from S¼ corner. Section 01, T 31S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 680 feet
(27) S 1,052 feet E 3,713 feet from S¼ corner. Section 01, T 31S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 680 feet
(28) S 313 feet E 2,544 feet from S¼ corner. Section 01, T 31S, R 25E. SLBM
WELL DIAMETER: 6 inches WELL DEPTH: 680 feet

3. WATER USE INFORMATION.

OTHER MISCELLANEA from Jan 1 to Dec 31. For dust control, fire protection, heap leach and solvent extraction

OTHER MISCELLANEA from Jan 1 to Dec 31. Circuits, boiler feed, laboratory operations, showers, and toilet facilities.

*
4. PLACE OF USE. (Which includes all or part of the following legal subdivisions:

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<tr>
<th>BASE TOWN</th>
<th>RANG</th>
<th>SEC</th>
<th>NORTH-WEST 1/4</th>
<th>NORTH-EAST 1/4</th>
<th>SOUTH-WEST 1/4</th>
<th>SOUTH-EAST 1/4</th>
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* * *

THE FOLLOWING CHANGES ARE PROPOSED:

* * *

5. SOURCE INFORMATION.

A. QUANTITY OF WATER: 3,345 cfs OR 2.419.95 acre-feet

B. SOURCE: Underground Water Wells (28) COUNTY: San Juan

C. POINT(S) OF DIVERSION. Changed as follows:

POINTS OF DIVERSION -- UNDERGROUND:

1. N 2.151 feet E 597 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
   WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
2. N 303 feet E 375 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
   WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
3. N 809 feet E 32 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
   WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
4. N 1,552 feet E 175 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
   WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
5. N 1,914 feet E 1,612 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
   WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
6. N 3,208 feet E 63 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
   WELL DIAMETER: 6 inches WELL DEPTH: 1,500 feet
7. S 1,800 feet E 2,054 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
   WELL DIAMETER: 6 inches WELL DEPTH: 1,500 feet
8. N 1,102 feet E 2,674 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
   WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
   WELL DIAMETER: 6 inches WELL DEPTH: 450 feet
10. N 278 feet E 4,693 feet from Sw corner. Section 25, T 30S, R 25E. SLBM
    WELL DIAMETER: 6 inches WELL DEPTH: 1,500 feet
11. N 4,008 feet W 1,391 feet from SE corner. Section 26, T 30S, R 25E. SLBM
    WELL DIAMETER: 8 inches WELL DEPTH: 425 feet
12. N 4,328 feet W 2,099 feet from SE corner. Section 26, T 30S, R 25E. SLBM
    WELL DIAMETER: 6 inches WELL DEPTH: 570 feet
    WELL DIAMETER: 6 inches WELL DEPTH: 570 feet
    WELL DIAMETER: 6 inches WELL DEPTH: 331 feet
(15) N 3.877 feet W 1.861 feet from SE corner. Section 26, T 30S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 570 feet  

(16) N 4.862 feet W 1.985 feet from SE corner. Section 26, T 30S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 570 feet  

(17) S 425 feet E 839 feet from NW corner. Section 36, T 30S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 450 feet  

(18) S 4.473 feet E 3.408 feet from NW corner. Section 36, T 30S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 680 feet  

(19) S 837 feet E 2.007 feet from NW corner. Section 36, T 30S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 680 feet  

(20) S 4.783 feet E 1.861 feet from NW corner. Section 36, T 30S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 680 feet  

(21) S 546 feet E 3.036 feet from NW corner. Section 36, T 30S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 450 feet  

(22) S 3.692 feet E 1.594 feet from NW corner. Section 36, T 30S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 680 feet  

(23) S 825 feet E 1.796 feet from NE corner. Section 31, T 30S, R 26E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 1,200 feet  

(24) S 352 feet E 4.024 feet from S 1/4 corner. Section 01, T 31S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 680 feet  

(25) S 1.052 feet E 3.713 feet from S 1/4 corner. Section 01, T 31S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 680 feet  

(26) S 313 feet E 2.544 feet from S 1/4 corner. Section 01, T 31S, R 25E, SLBM  
WELL DIAMETER: 6 inches  
WELL DEPTH: 680 feet  

(27) S 2.680 feet E 14 feet from NW corner. Section 06, T 31S, R 25E, SLBM  
WELL DIAMETER: 8 inches  
WELL DEPTH: 600 feet  

(28) S 149 feet E 2.066 feet from NW corner. Section 06, T 31S, R 26E, SLBM  
WELL DIAMETER: 10 inches  
WELL DEPTH: 1,500 feet  

D. COMMON DESCRIPTION: 14 Miles SE of LaSal  

6. WATER USE INFORMATION. Same as HERETOFORE.  
OTHER MISCELLAN from May 14 to May 13. Dust control, fire protection, heap leach and solvent extraction  
OTHER MISCELLAN from May 14 to May 13. Circuits, boiler feed, laboratory operations, showers, and toilet facilities  

*-----------------------------------------------------------------*  

7. PLACE OF USE. Same as HERETOFORE.  

8. EXPLANATORY.  
The four new wells under this right are points of diversion Numbers 11, 14, 27, and 28 on the hereafter.  
Nature of Use and Period of Use:  
Domestic: 8-1-1996 to 8-1-2016  
Mining: 8-1-1996 to 8-1-2016  
Please see attached technical reports.
9. SIGNATURE OF APPLICANT(S).

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application, through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Robert V. [Signature]
Lisbon Valley Mining Co. LLC 11 May 2004
Opposition to LVMC UIC Permitting in Lisbon Valley

1 message

Nate Osikowicz
Mon, Jan 11, 2021 at 2:59 PM
To: dearley@utah.gov, dearley@c3geochem.com
Cc: jvmackey@utah.gov, jwhittington@blm.gov, dpals@blm.gov

Mr. Earley,

I am writing to you as a concerned visitor of San Juan County, Utah. It has recently come to my attention that the Lisbon Valley Mining Company is currently in the permitting process for UIC approval. After researching LVMC's long history of conducting irresponsible business and its plans to inject sulfuric acid into the ground, I strongly urge you to prevent LVMC from conducting further business in Lisbon Valley.

I first visited Lisbon Valley when I was 17 and quickly fell in love with the pristine landscape there. I was on a cross-country road trip from Pennsylvania and spent a week at 3 Step Hideaway. Over the course of my stay, I spent most of my time soaking up the valley's natural beauty, drinking the purest water I've ever tasted, and getting to know the business owners who simply love living in this beautiful place. I'll never forget looking up at the clear night sky and seeing the Milky Way for the first time in my life. This is a memory that I will remember forever. Since then, I have returned to the valley twice and hope to bring my family there to recreate in the future.

If LVMC establishes this operation in Lisbon Valley, the area's natural beauty will be ruined forever. The light pollution from the mine will prevent our view of the clear night sky. Our children will no longer be able to share this memory of seeing the beautiful Milky Way above Lisbon Valley. The mine's sulfuric acid will contaminate the local aquifer, causing problems for the surrounding businesses and ranchers. Personally, I will have less motivation to visit Lisbon Valley and will not invite my friends to visit. A decision to conduct further business with LVMC will hurt your local economy in the long run. Please don't let this company fool you as they have fooled others. They cannot be trusted.

Respectfully,
Nate Osikowicz
I was impressed with several of the comments made during the Dec. meeting. I know that personal feelings have little weight in this manner, but I do feel for the Wilcox and Stevenson families. However, my comments will not address those feelings.

My first objection to the proposed procedure is based on the false statement that the Aquifer exemptions have been met in that no private wells will be affected. The above wells mentioned are within 3 miles of proposed procedure.

At the Florence, AZ situ recovery, Dan Johnson, VP and GM claims each well is anchored in bedrock by acid resistant cement. The wells are sealed by two different casings, one steel the fiberglass. Here is his claim, quote "We're protecting the above ground zones, the water bearing zones we are penetrating to get to the bedrock." It is my understanding that situ at the Lisbon Valley Copper mine will be using the Burro Canyon aquifer. My question is where is the protection? There are no 100% guarantees and everyone knows that including the DEQ.

Lisbon Valley is nothing but faults upon faults. What guarantee can Lisbon Valley mine give that this will not contaminate the aquifer or aquifers below that? What will stop the acid from following a fault to a lower aquifer, the Navajo sandstone aquifer for example? None. If the situ acid does start following the burro canyon aquifer towards the private wells what is going to stop it from going onto springs that seep from this aquifer in Grassy Hills Grazing Allotment below and then drain into the Delores River?

To quote Barbara Manning of Florence, AZ. "Copper, yes it will be profitable for somebody, but water in the desert is Gold," Unquote.

San Juan county commissioners have made their statement against this and I stand with them.

Thank you,

Steve Deeter
From: sarah uraniumwatch.org <redacted>
Date: Mon, Jan 11, 2021 at 4:56 PM
Subject: LVMC UIC Class III Permit Comments
To: Dusty Earley <dearley@utah.gov>

Dear Mr. Early,

Attached please find Uranium Watch and Utah Sierra Club comments on Underground Injection Control (UIC) Class III Area Permit, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC, San Juan County, Utah. Draft Permit No. UTU-37-AP-5D5F693.

Sincerely,

Sarah Fields
Uranium Watch
via electronic mail

January 11, 2020

Erica Gaddis  
Director  
Division of Water Quality  
Utah Department of Environmental Quality  
P.O. Box 144870  
Salt Lake City, Utah 84114-4870  
Attn: Drummond Earley  
dearley@utah.gov

Re: Underground Injection Control (UIC) Class III Area Permit, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC, San Juan County, Utah. Draft Permit No. UTU-37-AP-5D5F693

Dear Ms. Gaddis:

Below are comments on the proposed Underground Injection Control (UIC) Class III Area Permit for a proposed in situ copper recovery operation proposed by the Lisbon Valley Mining Company, LLC (LVMC), in the Lower Lisbon Valley in San Juan County, Utah. These comments are responsive to Utah Division of Water Quality (DWQ, or Division) public notices dated November 7 and 18, 2020. The Division extended the comment period to January 11, by notice dated December 1, 2020.

Comments are submitted on behalf of Uranium Watch and the Utah Chapter of the Sierra Club.

Uranium Watch is a public interest 501c(3) non-profit that primarily addresses uranium mining and milling issues. However, UW Program Director, Sarah Fields, travels regularly though Lisbon Valley and recently lived south of the project area on West Summit Road, and extension of Lisbon Valley Road. Also, the proposed in situ leach
(ISL) copper recovery project will also recover uranium, although the uranium will not be produced as a saleable mineral product.

Utah Sierra Club is a non-profit organization that is a powerful collective of thousands of grassroots changemakers working together across the state to advance climate solutions, act for justice, get outdoors, and protect lands, water, air, and wildlife. Established in 1969, the Utah Chapter strives to protect and enjoy Utah’s outdoors and natural landscapes; Educate and advocate for the responsible preservation of clean air, water, and habitats; support the development of clean energy to benefit present and future generations; and advance principles of equity, inclusion, and justice throughout our organization and community.

Commenters incorporate by reference the comments on the Underground Injection Control (UIC) Class III Area Permit provided to the DWQ by the Lower Lisbon Valley Residents, dated January 10, 2020, and William P. Johnson, PhD., dated January 5, 2020.

1. Request for “Aquifer Exemption” Public Comment Period and Public Hearing

1.1. The Division did not make clear the process for obtaining an Aquifer Exemption and Environmental Protection Agency Regulations requirement for a public comment period and public hearing on Aquifer Exemption Requests. There was no proper Public Notice of an opportunity provide written and oral comments on a LVMC Aquifer Exemption Request.

1.2. The heading for the Public Notices of November 4 and December 1, 2020, states: “Public Notice of Intent to Issue Permit Underground Injection Control Class III Area Permit In Situ Copper Recovery.” The Notices state regarding the Purpose of Public Notice: “The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to authorize a new Underground Injection Control (UIC) Class III permit as described below.” The Notices do not state that the Purpose of the Public Notice is to obtain comments on an Aquifer Exemption Request.

1.3. The heading for the November 19, 2020, Notice states: “Notice Public Hearing on Draft Permit Underground Injection Control Class III Area Draft Permit.” The Notice states regarding the Purpose of the Public Hearing: “The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to authorize a new Underground Injection Control (UIC) Class III area permit as described below.” The Notices do not state that the Purpose of the Public Hearing is to obtain comments on an Aquifer Exemption Request.
1.4. The Division “Statement of Basis and Fact Sheet” is for an “Underground Injection and Control (UIC) Class III Draft Area Permit.” The “Statement of Basis and Fact Sheet” is not for an Aquifer Exemption Request. The Statement of Basis and Fact Sheet provides little information about an Aquifer Exemption Request. The Fact Sheet statement regarding an “Aquifer Exemption Request” gives the impression that the aquifer exemption is subject to Environmental Protection Agency (EPA) approval and an EPA public notice and comment process:

Lisbon Valley is seeking an Aquifer Exemption for the Burro Canyon Aquifer beneath the permit area (Figure 1) according to R317-7-4 and the Division has identified aquifers that may be exempted as sources of underground drinking water following the procedures and based on the requirements outlined in 40 CFR 144.7 and 40 CFR 146.4. The exemption is subject to approval by the Environmental Protection Agency (EPA) UIC Program Administrator following public notice and comment process.

The Statement of Basis and Fact Sheet does not provide any substantive information regarding the Aquifer to be exempted and the basis for such an exemption. The Fact Sheet states that “the Division has identified aquifers that may be exempted,” but does not provide any information about the aquifers it may exempt.

1.5. The Application documents posted on the Division Public Notice website\(^1\) contain maps and figures showing two (2) completely different Aquifer Exemption Boundaries. The Technical Report Attachments zip file contains other zip files, one of which is LVMC Technical Report Figures, which opens to a file of the ISR Maps and Figures. All of the maps and figures in this file show an Aquifer Exemption Boundary that extends east to the Utah/Colorado border.

The September 29, 2020, LLV Technical Report figures and maps show a completely different, smaller, Aquifer Exemption Boundary, except for one Figure. Figure 16.1 (page 172), Geologic Structure and Aquifer Extent, shows the Burro Canyon Aquifer and Aquifer Exemption Boundary extending to the Utah/Colorado border.

The Figures in the September 2020 LLV Technical Report also contain different information related to the Wilcox Well 05-3907/05-3575, which is within the Aquifer Exemption Boundary on the Technical Report Attachments maps and figures, but outside of the Boundary shown in maps and figures within the September 2020 LLV Technical Report.

1.6. In Sum: 1) the Application documents posted on the DWQ Public Notice webpage show 2 completely different Aquifer Exemption Boundaries; 2) The Division failed to notice an opportunity for public comment on an Aquifer Exemption Request; 3) the Division failed to provide for a public hearing on an Aquifer Exemption Request; and 4) The Division did not provide any bases for granting an Aquifer Exemption, with reference to the applicable aquifer exemption requirements and the administrative record. Therefore, the Division must clarify the Aquifer Exemption Boundary that is being requested and the basis for that Boundary, and provide Proper Public Notice of an opportunity for a public comment period and a public hearing on the LVMC Aquifer Exemption Request.

2. General Comments

2.1. At the beginning of the comment period the Division failed to make the full LVMC UIC Permit application available to the public on the Public Notice website. Nor was the full application available at the time of the public hearing held on November 24, 2020. It was not until after the public hearing that what appears to be the UIC Permit Application was posted on the DWQ public notice webpage. The Division, therefore, failed to make the full Application available to the public in a timely manner.

2.2. Although the Division posted some of the Application documents, the Division has not identified which documents are part of the Application under review by the DWQ. There are different Figures and Maps that have been included as part of the Application on the Division website. There is no document issued by the DWQ stating that the Application is complete. The Division should have provided a full list of the Application Documents, but did not. The Division should have created a separate LVMC Application webpage with links to each separate document and a list of all of the relevant application documents, including identification of original documents and subsequent revisions. It is not appropriate just to post large files, which contain zip files within zip files within zip files.

2.3. The Division recently posted a new document to the Lisbon Valley Mining Co., LLC, public notice documents. This is “ISR Figure 3.1 Area of Review.” It is very hard to tell the date of this document, but, apparently, it is dated June 24, 2020. This is not the

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same Figure 3.1, dated November 12, 2019, that was referenced in the LVMC September 29, 2020, Class III Underground Injection Control Permit Application. It is not the same Figure 3.1 that was included in the Technical Report Figures/ISR Maps and Figures that are part of the Technical Report Attachments posted on the DWQ Public Notice webpage. It is not appropriate for the Division to add a new, and very different, document to the administrative record to replace an earlier document—without explanation—at the last minute.

2.4. At the November 24 hearing and in a subsequent letter to the DWQ, UW requested a 60-day extension of the comment period suspense date of December 4, 2020. The extension request was based on the lack of availability of pertinent UIC Permit Application records, the complexity of the Application, and the winter holidays. The Division provided a 38-day extension of the comment period. While UW appreciates the extension, there was no basis for not providing a full 60-day extension. This project will take more than 2 years to fully permit. There is no need to rush this process.

3. Statement of Basis and Fact Sheet

3.1. As part of their response to the Class III UIC Permit Application, the Division produced a 4-page “Statement of Basis and Fact Sheet for a [sic] Underground Injection and Control (UIC) Class Draft Area Permit,” dated November 4, 2020. The Fact Sheet contains a very brief description of the type of facility, a brief description of the In-Situ Copper Recovery injectate, a brief discussion of Permit Conditions and some references, and a mention of the Aquifer Exemption Request to the Environmental Protection Agency (EPA). The Fact Sheet is not adequate and does not meet EPA requirements, as will be discussed below.

3.2. EPA regulation applicable to UIC Permits and State Programs, such as the DWQ regulation of UIC Permits, are found at 40 C.F.R. Part 124. Section 124.8 provides the requirements for a UIC Permit fact sheet:

(b) The fact sheet shall include, when applicable:

(1) A brief description of the type of facility or activity which is the subject of the draft permit;

4 https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_Map_Figure3.1_AreaofReview.png
(2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

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(4) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by §124.9 (for EPA-issued permits);

(5) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(6) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under §124.10 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(7) Name and telephone number of a person to contact for additional information.

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Clearly, the DWQ Fact Sheet does not meet these EPA requirements.

3.3. The Fact Sheet is supposed to provide a brief description of the type of facility or activity which is the subject of the draft permit. The description of the type of activity is minimal. The map provides no information about the number and location of ISL-related wells, location of ore bodies, location of wells used for domestic and agricultural purposes, surface impacts, and other relevant information.

3.4. A Fact Sheet should include a description of “the type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.” The Division’s Fact Sheet does not meet this requirement. There is only a mention of the fluids that will be injected. The chemical constituents and nature of the injectate is not included. There is no description of the type and quantity of wastes, fluids, and pollutants that will be treated, stored, disposed of, injected, emitted, or discharged. There is no description of the project as a whole. There is no analysis of the
uranium and other potential radionuclides that will be mobilized by the injectate and how those radioactive contaminants will be removed from the final copper product. There is no analysis of the extent and amount of radon emissions from the project, which is similar to uranium recovery ISL operations in Wyoming that emit radon. There is no mention of the disposal of wastes in a proposed Class V UIC well or possible land application of these wastes.

3.5. The Fact Sheet is supposed to contain a “brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record.” The Fact Sheet does not contain any information about the draft permit conditions, including references to applicable statutory and regulatory provisions, with supporting references to the administrative record. There is no discussion of how, exactly, the proposed project meets the applicable technical criteria and standards.

3.6. The Fact Sheet minimal information regarding the procedures for reaching a final decision on the draft permit.

3.7. The Fact Sheet contains various statements related to the proposed project, but does not provide any references or bases for those statements.

3.8. The Fact Sheet states that “Utah does not have specific statutes and regulations for the construction and operation of in-situ recovery wells and well fields, in general, and for copper recovery, specifically.” Therefore, the public in Utah has not had the opportunity to comment on specific statutes and regulations for the construction and operation of in-situ recovery wells and well fields for copper and other types of mineral recovery operations.

The State of Utah should not accept and review ISL mineral recovery applications until Utah has established applicable regulatory programs.

3.9. The Fact Sheet states: “Moreover the Draft Permit is justified on the basis of the limited extent and use of the Burro Canyon aquifer in the proposed permit area, the occurrence of mineralization of potential commercial value and relatively poor water quality.” This apparent conclusion does not identify and discuss the important use of the Burro Canyon Aquifer (BCA) for domestic, irrigation, and stock watering purposes. There is no discussion of the fact that the quality of the water varies within the BCA.

3.10. The Fact Sheet states that “Lisbon Valley will overproduce solution from production wells in order to maintain an inward hydraulic gradient and contain leach solutions within the permit area.” It states that, “monitoring wells will be installed to ensure that no injectate or leach solution escapes from the wellfields and permit area,”
and that “any vertical migration will also be detected by deep monitor wells within the Morrison and Navajo Formations.” These statements are unverified assumptions. The documentation does not support these conclusions. The monitoring wells will not, in themselves, ensure that no leach solutions escape from the well fields. They will only be able to identify excursions of leachate—if properly placed and operated. Monitoring wells do nothing to control those excursions. The wells serve to identify excursions, but trigger actions only after excursions are detected.

There are no explicit regulatory standards at the federal level for monitoring wells. Monitoring wells should be placed close enough to the well field to ensure timely detection of contamination. According to an Natural Resource Defense Council report, early detection of excursions may depend on a number of factors, including the thickness of the aquifer monitored, the distance between the monitor wells and the well field and the spacing of monitor wells, the frequency of monitor-well sampling, the water-quality parameters being sampled, and the concentrations of the parameters chosen to signal an excursion.

4. Availability Class III Area Permit Documents

4.1. The Division made available on the DWQ Public Notice website a draft Class III Area Permit, Underground Inject Control (UI) Program, UIC Permit Number: UTU-37-AP-5D5F692, Lisbon Valley Mine, San Juan County, Utah, October 2020. The 69-page Document references several attachments, which are part of the Permit: Attachment A, General Location Map of the Lisbon Valley Mine, San Juan County; Attachment B, Map of the UIC Area of Review including the Class III In-Situ Copper Recovery Injection Wells and the Project Area; Attachment C, Corrective Action Plan for Artificial Penetrations into Injection Zone within Area of Review; Attachment D, Injection Well Construction Plan with Injection Well Construction Details; Attachment E, Injection Well Operating Plan and Procedures; Attachment F, Monitoring, Recording, and Reporting Plan; Attachment G, Contingency Plan for Well Shut-ins or Well Failures; Attachment H, Groundwater Restoration Plan; Attachment I, Plugging and Abandonment Plan; Attachment J, Financial Responsibility (The Standby Trust Agreement along with Schedule A and the Associated Financial Guarantee Bond will be approved and delivered to the DEQ’s Office of Support Services prior to Director Authorization to Inject); Attachment K, Expected Changes Due to Injection; Attachment L, Mechanical Integrity Demonstration Protocols; and Attachment M, Aquifer Exemption.

Some of these Attachments are currently available, but were not included in the

UIC Permit documents. Other attachments that will become part of the Permit will only become available after the UIC Permit is issued, so will not be available for public comment. The Division should have made available any of the UIC Permit Attachments that are currently available.

5. Request for a New UIC Class III Permit Public Comment Period and Public Hearing

5.1. UW requests that the DWQ Notice a new 60-day public Comment Period and Public Hearing after the DWQ corrects the public record of this proceeding. This request is based on the following:

- The documents that the Division posted on the Public Notice website as part of the LVMC Application contain significant conflicting information regarding the Aquifer Exemption Boundary.
- The Statement of Basis and Fact Sheet provided by the Division does meet the EPA requirements.
- The proposed Class III Permit is missing the Attachments that are currently available and should have be available for public comment.

The new comment period and hearing should not commence until the Division has corrected these oversights and inadequacies. The Division must 1) make clear which documents, including maps and figures, are actually part of the Class III UIC Permit Application under review, 2) make publicly available the relevant Attachments to the proposed Class III UIC Permit; and 3) provide a Fact Sheet that fully conforms to EPA requirements.

6. Utah UIC Regulations - R317-7-5. Prohibition of Unauthorized Injection

6.1. Utah Rule R317-7. Underground Injection Control (UIC) Program, provides certain requirements for a Class III UIC Permit. Section defines Class III wells as wells that inject for extraction of minerals, including in situ production of uranium or other metals from ore bodies that have not been conventionally mined. R317-7-5 states:

5.1 Any underground injection is prohibited except as authorized by permit or as allowed under these rules.

5.2 No authorization by permit or by these rules for underground injection
shall be construed to authorize or permit any underground injection which endangers a drinking water source.

5.3 Underground injections are prohibited which would allow movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5), or which may adversely affect the health of persons. Underground injections shall not be authorized if they may cause a violation of any ground water quality rules that may be promulgated by the Utah Water Quality Board. Any applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.

6.2. The Division has not provided any information that demonstrates that the proposed Lower Lisbon Valley in-situ leach (ISL) copper recovery project would not endanger a drinking water source and would not allow movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5), or which may adversely affect the health of persons.

The BCA is currently an underground source of drinking water. The BCA 1) contains a sufficient quantity of ground water to supply a public water system; 2) currently supplies drinking water for human consumption; 3) contains fewer than 10,000 mg/l total dissolved solids (TDS); and is not an exempted aquifer. The BCA, as shown on the various Maps and Figures submitted by LVMC to the DWQ, supplies water for irrigation, stock watering, and domestic use in the Area of Review and within the original proposed Aquifer Exemption Boundary. LVMC has not established Baseline Water Quality in the South East area of the project.

6.3. The LVMC Internal Memo: Summary of the Ground Water Occurrences within the Lower Lisbon Valley Area, February 16, 2020? was “prepared in order to summarize the occurrence of ground water within the BC Aquifer of the Lower Lisbon Valley Area,

6 See Technical Report Attachments, Maps and Figures. And, Figure 3.1. 
https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_Map_Figure3.1_AreaofReview.png

7 https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_AppendixE_LLVGroundwater_021620.pdf

8 Appendix D to LVMC UIC Technical Report Appendices posted on DWQ Public Notice website.
and the rationale behind this conclusion.” LVMC investigated the Ground Water Occurrence in the Dakota-Burro Canyon Formations, SE UIC Project Area, Lower Lisbon Valley, San Juan County, Utah. The area investigated was South East area of the original proposed AEB, which ends at the Utah/Colorado border and includes the Wilcox domestic/agriculture Well 05-3907/05-3575 and the State Line Deposit. This Memo establishes the presence of ground water and hydrological connectivity in the BCA in this area. According to the Memo, page 5:

Exploration Groundwater Flows
The area from Flying Diamond to the Colorado Stateline has been extensively drilled. Figure 3 is a compilation of drilling records documenting depth at which groundwater flow was observed along with estimates of final flows at total depth using a 5-gallon bucket test. And although not monitoring wells, the number and areal extent of exploration holes document consistent groundwater occurrence and substantial flows over the greater than two-mile distance from Flying Diamond to Stateline.

Stock well 05-3575 is located near the Stateline deposit (see Figure 2). This well is screened in the upper BC Aquifer and documents a hydraulic head 45 feet below ground surface (bgs).

Groundwater flows attenuate and finally terminate on the SE end of the Stateline Deposit where geologic structure elevates the Morrison Formation above the BC Aquifer hydraulic head. Figure 3 includes an expanded view of exploration holes 06C-FLD-10 and 06R-FLD-5 (described further).

The Memo concludes:

The combined information supports the occurrence of BC Aquifer groundwater along an approximate 2.5 mile transect in the SE Project Area. This information suggests the occurrence of groundwater in the BC wherever it is down-dropped below 6200 feet amsl. These observations correlate well with the greater Project Area and support a common aquifer.

6.4. The LVMC Internal Memo–Summary of the Exploration Activities within the Lower
Lisbon Valley Area, and the subsequent delineation of mineralization found therefrom.\(^9\)\(^10\) February 16, 2020, shows that the Flying Diamond Deposit is close to the Wilcox Well 05-3907/05-3575, which has now been arbitrarily excluded from the AEB.

6.5. The injection of the proposed lixiviant, a raffinate containing a dilute sulfuric acid solution, into the Burrow Canyon Aquifer would allow movement of fluid containing sulfuric acid, uranium, and other contaminants into an underground source of drinking water. It would allow for the movement of contaminants from the well field to the Wilcox Well 05-3907/05-3575, used for domestic, irrigation, and stock watering. The Wilcox well draws water from the same aquifer that will receive the lixiviant. There are no geologic barriers between the proposed wellfield and the Wilcox Well outside the proposed Aquifer Exemption boundary. The LVMC has not proposed any monitoring well that would be able to determine if fluids and mobilized contaminants from the ISL project have reached the Wilcox Well.\(^11\)

The AEB in the area of the Wilcox Well does not include a buffer zone beyond the proposed monitoring well in that South East area. The monitoring well appears to be right on the edge of the AEB. There is no information in the Application regarding how far an excursion of the lixiviant and the contaminants mobilized by the lixiviant would travel before being detected and recovered. There is no information regarding the extensive history of ISL uranium recovery operation excursions, spills, leaks, mechanical failures, and other events.\(^12\) There is no data that would substantiate an assumption that any excursion would be recovered and the area would still be a clean, uncontaminated source of drinking water. Also, there is no evaluation of the long-term impacts from the ISL operation to the groundwater quality in the South East Area of ISL project.

6.6. The regulation states: “Underground injections shall not be authorized if they may cause a violation of any groundwater quality rules that may be promulgated by the Utah Water Quality Board.” The regulation here says “may cause” a violation of any groundwater quality rules. Because the proposed ISL operation will impact the existing BCA drinking water source and is extremely close to a well that is used for domestic purposes, LVMC and the Division have no basis for concluding that the underground injections associated with the ISL project will not cause a violation of any groundwater quality rules.

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9 [https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_AppendixE_ExplorationandMineralization_LLV_021620.pdf](https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_AppendixE_ExplorationandMineralization_LLV_021620.pdf)

10 Appendix D to LVMC UIC Technical Report Appendices posted on DWQ Public Notice website.


12 See Exhibit A. Uranium Recovery In-Situ Leach Operations License Violations and Reportable Events.
quality rules. The lack of any geological or hydrological barriers between the proposed well field and the Wilcox Well means that the proposed ISL project not only “may,” but most likely “will” cause of a violation of drinking water rules, will endanger a drinking water source, and will adversely affect the health of persons.

6.7. The Application and the DWQ Fact Sheet do not contain an analysis of the ability of the proposed monitoring plans to limit impacts of excursions to groundwater, existing wells, and areas outside the AEB.

6.8. The LVMC Technical Report Appendix J, is a 22-page Ground Water Resources Report, Lisbon Valley Mining Company LLC, Lower Lisbon Valley Project, Supplemental Environmental Impact Statement (SEIS), dated March 2020.\(^{13}\) It is unclear why this document is included as an Appendix. A UIC Class III Permit application does not require an Environmental Impact Statement. The SEIS states in regard to the scope of the proposed action: “The Company is planning to expand current conventional open pit mining operations as well as implement in-situ recovery (ISR) operations in the Lower Lisbon Valley Mining District of San Juan County, Utah.” Apparently, LVMC intended to submit SEIS to the Bureau of Land Management. The scope of the very brief and inadequate SEIS is for both an expanded open pit/heap leach operation and the proposed ISL operation.

The SEIS contains one relevant statement at Section 3.2.2 (page 10):

ISR activities would involve the exempting of the BC aquifer only as it exists within the LLV ground water study area. The localized and perched alluvial aquifer would not be exempted, nor would the N aquifer. As the BC aquifer is confined geologically and structurally within the study area, the effects to the BC aquifer would be considered major, localized, and long-term. [Emphasis added.]

6.9. In Sum: The proposed UIC Class III Permit must be denied because the proposed underground injections should be prohibited due to the fact that the injection would endanger a drinking water source and would allow movement of fluid containing contaminants into underground sources of drinking water. The presence of those contaminants would cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5). The presence of those contaminants would adversely affect the health of persons who live adjacent to the propose ISL site and to those who use nearby wells for drinking and agricultural purposes.

7. Aquifer Exemption

7.1. Utah Rule R317-7-4. Identification of USDW’s and Exempted Aquifers states:

The Director shall identify USDW’s and exempt aquifers following the procedures and based on the requirements outlined in 40 C.F.R. 144.7 and 40 C.F.R. 146.4.

Relevant Sections of 40 C.F.R. § 144.7:

(a) The Director may identify (by narrative description, illustrations, maps, or other means) and shall protect as underground sources of drinking water, all aquifers and parts of aquifers which meet the definition of “underground source of drinking water” in §144.3, except to the extent there is an applicable aquifer exemption under paragraph (b) of this section . . . .

(b) (1) The Director may identify (by narrative description, illustrations, maps, or other means) and describe in geographic and/or geometric terms (such as vertical and lateral limits and gradient) which are clear and definite, all aquifers or parts thereof which the Director proposes to designate as exempted aquifers using the criteria in §146.4 of this chapter.

EPA Regulations at 40 C.F.R. § 146.4 set out the criteria for exempted aquifers. The Division did not identify the Underground Sources of Drinking Water (USDW) or the proposed aquifer exemption area associated with the proposed Class III UIC Permit area. The Division did not provide any analysis of an Aquifer Exemption Request and the documents supporting that request. The Division has not explained how the proposed Aquifer Exemption meets the relevant criteria. The Division has not provided any basis for approving, amending, or not approving an Aquifer Exemption Request related to the proposed ISL Project.

7.2. The EPA has developed Guidelines for Reviewing Aquifer Exemption Requests.14 There is no evidence that the Division has reviewed an Aquifer Exemption Request in accordance with Guidelines, documented its review, and made the Request and Review documents available for public comment.

7.3. In sum: The Division’s draft analysis and response to that request for public comment. Therefore, at this, time there is no basis for the Division to grant an Aquifer Exemption for the proposed ISL operation in the Lower Lisbon Valley and the Division

14 Guidance for Review and Approval of State Underground Injection Control (UIC) Programs and Revisions to Approved State Programs. GWPB Guidance #34, Environmental Protection Agency.
must correct the record and provide for a comment period and hearing on the Aquifer Exemption.


8. Additional Comments

8.1. The Division has referenced and relied on State of Arizona and EPA consideration of copper recovery operations. The Division should also have reviewed and taken into consideration the long history of ISL uranium recovery operations, which have been regulated primarily by the Nuclear Regulatory Commission until 2018, when Wyoming became an Agreement State for uranium recovery and 11e.(2) byproduct material. There is no difference between the proposed LLV copper recovery ISL project and a ISL uranium recovery ISL project, except that uranium will not be removed from the recovery leachate. There is extensive documentation regarding spills, excursions, leaks, mechanical failures for these types of projects, a documented in Exhibit A. There is extensive information about the inability of the ISL operator to return the aquifer to the original water quality parameters. There is extensive information about the ability of the ISL operator to recover contaminants that went outside the well fields. There is extensive information regarding the success of different recovery techniques and how long recovery has taken.

8.2. In-Situ Leach Uranium Mining Process and Its Environmental Impacts
Commenter incorporates by reference the discussion of In-Situ Leach Uranium Mining Process and Its Environmental Impacts contained in “Nuclear Fuel’s Dirty Beginnings: Environmental Damage and Public Health Risks From Uranium Mining in the American West,” 15 pages 25 to 33.

8.3. The LVMC must conduct a Baseline Water Quality Assessment in the vicinity of the Wilcox and Stevenson wells, both of which are in the Burro Canyon Aquifer.

Thank you for providing this opportunity for comment,

Sincerely,

Sarah Fields
Program Director

Carly Ferro
Director
Utah Chapter
Sierra Club
EXHIBIT A

URANIUM RECOVERY IN-SITU LEACH OPERATIONS
LICENSE VIOLATIONS AND REPORTABLE EVENTS

Crow Butte, Highland, Lost Creek, Nichols Ranch, Ross, Smith Ranch, and Willow Creek In-Situ Leach Uranium Recovery Sites

Note: In 2018 Wyoming became a Nuclear Regulatory Commission (NRC) Agreement State for uranium recovery operations (11c.(2) byproduct material). Since that time the Public must submit a Wyoming Records Act Request for UIC Permit Documents: http://deq.wyoming.gov/wqd/underground-injection-control/resources/gem-database/

CROW BUTTE ISL - NEBRASKA
NRC Docket No. 40-8943 (enter 04008943 on ADAMS)

License Violations and reportable events at Crow Butte ISL Site

http://www.wise-uranium.org/umopusa.html#CROWBVIOL

Details on post-Nov.1,1999, events available through ADAMS, Docket No. 04008943)

- Sep. 22, 2020: Injection well fails 5-year mechanical integrity test
- May 29, 2020: Monitor well excursion
- May 21, 2020: Monitor well excursion
- Mar. 3, 2020: Production well fails 5-year mechanical integrity test
- Jan. 31, 2020: Production well fails 5-year mechanical integrity test
- Jan. 2, 2020: Evaporation Pond 1 liner leak
- Aug. 22, 2019: Monitor well excursion
- July 11, 2019: Production well fails 5-year mechanical integrity test
- June 24, 2019: Production well fails 5-year mechanical integrity test
- June 5, 2019: Monitor well excursion
- May 29, 2019: Evaporation Pond 1 liner leak
- May 2, 2019: Monitor well excursion
- Apr. 18, 2019: Monitor well excursion
- Apr. 9, 2019: Monitor well excursion
- Mar. 27, 2019: Monitor well excursion
- Mar. 25, 2019: Monitor well excursion
- Nov. 28, 2018: Monitor well excursion
- June 1, 2018: Monitor well excursion
- Sep. 12, 2017: 27,287 gallon spill of injection solution
- Aug. 29, 2017: Monitor well excursion
- July 27, 2017: Production well fails 5-year mechanical integrity test
- Mar. 14, 2017: Injection well fails 5-year mechanical integrity test
- June 8, 2016: Evaporation Pond 1 liner leak
- May 5, 2016: two Monitor well excursions
- Apr. 21, 2016: Monitor well excursion
- Apr. 20, 2016: Injection well fails 5-year mechanical integrity test
- Nov. 19, 2015: Monitor well excursion
- Oct. 27, 2015: Monitor well excursion
- Aug. 17, 2015: Injection well fails 5-year mechanical integrity test
- Aug. 13,2015: Monitor well excursion
- July 9, 2015: Monitor well excursion
- July 2, 2015: Injection well fails 5-year mechanical integrity test
• June 3, 2015: Monitor well excursion
• May 28, 2015: Monitor well excursion
• May 27, 2015: Monitor well excursion
• May 21, 2015: Monitor well excursions
• May 19, 2015: Monitor well excursion
• Apr. 14, 2015: Monitor well excursion
• Feb. 11, 2015: Monitor well excursion
• July 22, 2014: Monitor well excursion
• July 2, 2014: Failure to sample the underdrains of a leaking pond and to submit a corrective action plan
• May 20, 2014: Monitor well excursion
• May 8, 2014: Monitor well excursion
• May 7, 2014: Evaporation Pond 1 liner leak
• Dec. 10, 2013: Monitor well excursion
• Sep. 11, 2013: Monitor well excursion
• Aug. 22, 2013: Well fails 5-year mechanical integrity test
• Aug. 6, 2013: Well fails 15-year mechanical integrity test
• Jun. 5, 2013: Radiation dose in unrestricted area exceeds 0.02 mSv/h standard
• Mar. 14, 2013: Evaporation Pond 1 liner leak
• Jan. 18, 2013: Well fails mechanical integrity test
• Oct. 24, 2012: Well fails 20-year mechanical integrity test
• Aug. 20, 2012: Well fails 5-year mechanical integrity test
• June 4, 2012: Well fails 5-year mechanical integrity test
• May 25, 2012: Monitor well fails 15-year mechanical integrity test
• Oct. 7, 2011: Monitor well excursion
• Aug. 9, 2011: Exceedance of Well Head Manifold Pressure Limitations
• July 18, 2011: two wells fail 5-year mechanical integrity test
• June 1, 2011: Evaporation Pond 1 liner leak
• May 27, 2011: two Monitor well excursions
• May 24, 2011: Monitor well excursion
• Mar. 16, 2011: Monitor well excursion
• Jan. 13, 2011: Monitor well excursion
• July 8, 2010: Monitor well excursion
• July 6, 2010: Well fails 5-year mechanical integrity test
• June 22, 2010: Excursions at two monitor wells "due to increased groundwater levels"
• June 22, 2010: Monitor well excursion
• June 16, 2010: Excursions at three monitor wells "due to increased groundwater levels"
• June 11, 2010: Evaporation Pond 3 liner leak detected
May 10, 2010: Well fails 5-year mechanical integrity test
Apr. 13, 2010: Excursion at monitor well due to "natural conditions"
Dec. 31, 2009: Evaporation Pond 4 Liner Leak
Nov. 19, 2009: Well fails 15-year mechanical integrity test
Oct. 15, 2009: Mechanical integrity test missed for two wells
June 18, 2009: Evaporation Pond 4 liner leak detected
June 11, 2009: Monitor well excursion
June 5, 2009: Evaporation Pond 1 liner leak detected
April 27, 2009: Monitor well placed on excursion status
April 17, 2009: Production well fails 5-year mechanical integrity test
June 4, 2008: Exceedance of Well Head Manifold Pressure Limitations
May 31, 2008: Monitor well placed on excursion status
May 23, 2008: $50,000 penalty imposed for violations
May 19, 2008: Monitor well placed on excursion status
April 29, 2008: Five-year mechanical integrity test missed for 42 wells
September 26, 2006: Monitor well placed on excursion status
May 5, 2006: leak detected at Pond 4
January 19, 2006: Monitor well placed on excursion status
October 27, 2005: Injection well leak detected
August 4, 2005: Monitor well placed on excursion status
June 28, 2005: Monitor well placed on excursion status
June 17, 2005: Monitor well placed on excursion status
May 2, 2005: Monitor well placed on excursion status
May 14, 2004: leak detected at Pond 1
December 23, 2003: Monitor well placed on excursion status
December 26, 2002: Monitor well placed on excursion status
September 10, 2002: Monitor well placed on excursion status
April 4, 2002: Monitor well placed on excursion status
December 4, 2001: Monitor well placed on excursion status
March 2, 2001: Monitor well placed on excursion status
September 10, 2000: Monitor well placed on excursion status
May 26, 2000: Monitor well placed on excursion status
April 27, 2000: Monitor well placed on excursion status
March 6, 2000: Monitor well placed on excursion status
July 2, 1999: Monitor well placed on excursion status
August 7, 1998: Spill of 10,260 gallons of injection fluid
March 21, 1998: Monitor well placed on excursion status
August 12, 1997: Discovery of Pinhole Leaks in Upper Liner of Process Water Evaporation Pond
License violations and reportable events at Power Resources, Inc. Highland Uranium Project, Wyoming, USA

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)

- Mar. 16, 2014: 8,916 gallon spill of injection fluid (1 ppm U)
- Dec. 11, 2013: Monitor well placed on excursion status
- Dec. 5, 2013: 891 gallon spill of permitted waste water (0.7 ppm U)
- Aug. 6, 2013: Monitor well placed on excursion status
- Jul. 31, 2013: 1,048 gallon spill of production fluid (10 ppm U)
- May 5, 2013: 85,000 gallon spill of injection fluid (2 ppm U)
- Mar. 11, 2013: Monitor well placed on excursion status
- Feb. 17, 2013: 105 gallon spill of production fluid (5.7 ppm U)
- Dec. 20, 2012: 1,141 gallon spill of production fluid (23.1 ppm U)
- Aug. 8, 2012: Monitor well placed on excursion status
- Mar. 10, 2012: 344 gallon spill of production fluid (4.1 ppm U)
- Mar. 9, 2012: 1,202 gallon spill of injection fluid
- Mar. 7, 2012: 774 gallon spill of injection fluid
- Feb. 29, 2012: Monitor well placed on excursion status
- Jan. 12, 2012: Monitor well placed on excursion status
- Jun. 16, 2011: Monitor well placed on excursion status
- Mar. 8, 2011: Sampling missed for seven monitoring wells
- Mar. 8, 2011: Monitor well placed on excursion status
- Sep. 10, 2010: Monitor well placed on excursion status
- Jun. 8, 2010: Monitor well placed on excursion status
- Jan. 29, 2010: 224 gallon spill of injection solutions (1.3 ppm U3O8)
- Jan. 13, 2010: Monitor well placed on excursion status
- Nov. 23, 2009: Monitor well placed on excursion status
- Sep. 24, 2009: Release of 90,600 gallons of treated process water
- July 31, 2009: Monitor well placed on excursion status
- July 7, 2009: Monitor well failure
- May 26, 2009: 5,050 gallon spill of injection fluid (3 ppm U3O8)
- May 21, 2009: Monitor well placed on excursion status
- May 11, 2009: 6,500 gallon spill of production solutions (19.8 ppm U3O8)
- Apr. 16, 2009: Monitor well placed on excursion status
- Mar. 30, 2009: Monitor well placed on excursion status
- Feb. 13, 2009: Monitor well placed on excursion status
• Jan. 10, 2009: 1,820 gallon spill of injection/production water containing 15 ppm uranium
• Nov. 18, 2008: Monitor well placed on excursion status
• Nov. 12, 2008: Monitor well placed on excursion status
• July 10, 2007: Monitor well placed on excursion status
• June 28, 2007: 900 gallon spill of injection fluid (1.1 ppm U)
• June 25, 2007: 3,747 gallon spill of production fluid (21 ppm U)
• June 22, 2007: 198,500 gallon [751 cubic meters] spill of injection fluid (8.1 ppm U) (view details)
• June 19, 2007: 900 gallon spill of production fluid (41.2 ppm U)
• May 21, 2007: 700 gallon spill of injection fluid (1.2 ppm U)
• May 1, 2007: monitor well on excursion status
• Dec. 30, 2005: 1,000 gallon spill of restoration injection fluid, containing approx. 0.7 mg/L uranium
• Aug. 30, 2005: 1,000 gallon spill of production fluid (15.4 mg/L U)
• May 17, 2005: 20,700 gallon spill of injection fluid, containing approx. 1.1 mg/L uranium
• Feb. 26, 2005: 3,000 gallon spill of production fluid, containing 11.5 mg/L uranium
• Jan. 10, 2005: 300 gallon spill of injection fluid, containing 1 mg/L uranium
• Sep. 12, 2004: 1,000 gallon spill of production fluid (10.5 mg/L uranium)
• May 3, 2004: 800-1,000 gallon spill of production fluid, containing about 11 mg/L uranium
• Feb. 11, 2004: 400-600 gallon spill of injection fluid (1.3 mg/L U308)
• Feb. 8, 2004: 500-1,000 gallon spill of injection fluid (1.1 mg/L U308)
• December 20, 2003: Spill of 600 gallons of injection fluid containing approx. 1.5 mg/L of uranium
• October 20, 2003: Spill of 2,800 gallons of injection fluid containing approx. 1.5 mg/L of uranium
• September 29, 2003: Spill of 5,000 gallons of injection/recirculation fluid containing approx. 2.0 mg/L of uranium
• March 13, 2003: Spill of approx. 1,100 gallons of wellfield injection fluid
• November 7, 2002: Monitor well placed on excursion status
• July 1, 2002: Monitor well placed on excursion status
• March 21, 2002: Monitor well placed on excursion status
• July 7, 1999: Spillage of 3-5 Gallons of Water Containing LSA of Uranium Byproduct Material
• June 1, 1999: Spillage of 4,000 Gallons of waste fluid
• Feb. 5, 1999: Monitor well placed on excursion status
• Feb. 5, 1998: Monitor well placed on excursion status
The Nuclear Regulatory Commission has issued a Notice of Violation to Power Resources, Inc., of Denver, Colorado, for violations of NRC requirements at the Highland Uranium Project in Converse County, Wyoming.

> View Notice of Violation EA 97-218

**LOST CREEK ISL - WYOMING**

NRC Docket No. 40-9068 (enter 04009068 on ADAMS search)
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/lost-creek.html

License violations and reportable events at Lost Creek ISL site

http://www.wise-uranium.org/umopuswy.html#LOSTCREEKVIOL

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)

- Aug. 16, 2018: monitor well on excursion
- Jul. 28, 2018: 1,625 gallon spill of production fluid (84 mg/L U₃O₈)
- Jun. 21, 2018: monitor well on excursion
- Apr. 5-7, 2018: bleed rate lower than 0.5% requirement
- Oct. 9, 2017: monitor well on excursion
- Sep. 5, 2017: 10,000 gallon spill of injection fluid (1.1 ppm U)
- Aug. 19, 2017: 188,000 gallon [712 m³] spill of injection fluid (1.2 mg/L U) (view details) http://www.wise-uranium.org/umopuswy.html#LOSTCREEKSPILL17
- May 22, 2017: 1,100 gallon spill of injection fluid (1.5 mg/L U)
- Feb. 6, 2017: 3,360 gallon spill of injection fluid (0.5 ppm U)
- Jan. 9, 2017: 3,654 gallon spill of injection fluid (1.3 ppm U)
- Dec. 22, 2016: 582 gallon spill of injection fluid (1.5 ppm U)
- Sep. 29, 2016: vertical excursion at monitor well
- July 20, 2016: 13,650 gallon spill of production fluid (89.1 ppm U)
- Oct. 18, 2015: 367 gallon spill of production fluid (59.4 mg/L U)
- Sep. 11, 2015: NRC Notice of Violation (failure to issue Radiation Work Permits)
- Aug. 20, 2015: monitor well on excursion
- July 15, 2015: monitor well on excursion
- May 27, 2015: monitor well on excursion
- Apr. 8, 2015: 960 gallon spill of injection fluid (2.6 mg/L U)
- Mar. 11, 2015: 915 gallon spill of injection fluid (1.2 mg/L U)
- Mar. 6, 2015: 13,395 gallon spill of waste water (24.9 mg/L U)
- Jan. 13, 2015: 6,128 gallon spill of injection fluid (2.3 mg/L U)
- Dec. 16, 2014: 900 gallon spill of production fluid (146 mg/L U)
- Dec. 12, 2014: 2,835 gallon spill of injection fluid (3.8 mg/L U)
- Dec. 12, 2014: 5,520 gallon spill of production fluid (64.6 mg/L U)
Lost Creek Spill Map (excerpt), Annual Report 2014

Nov. 20, 2014: 700 gallon spill of injection fluid (3.1 mg/L U)

Nov. 14, 2014: NRC Notice of Violations (3 violations, see above)

Sep. 15, 2014: 370 gallon spill of injection fluid (5 mg/L U)

Jul. 13, 2014: 1,260 gallon spill of "raw groundwater" (2.3 mg/L U?)

Jun. 3, 2014: 57,000 gallon spill of production fluid (132 mg/L U)

May 30, 2014: 900 gallon spill of waste water

Mar. 29, 2014: 15,513 gallon spill of waste water

Mar. 25, 2014: 6,000 gallon spill of production fluid (194 mg/L U)

Mar. 20, 2014: 1,854 gallon spill of waste water

Feb. 25, 2014: 1,400 gallon spill of injection fluid (50.3 mg/L U)

Feb. 9 - Mar. 28, 2014: freeboard exceedance at two holding ponds (see above)

Jan. 18, 2014: 680 gallon spill of injection fluid

Jan. 18, 2014: 475 gallon spill of injection fluid (8.67 mg/L U)

Dec. 13, 2013: State orders halt of operation at Lost Creek uranium in situ leach mine for failure to maintain bleed (see above)

Nov. 23, 2013: 840 gallon spill of injection fluid (12 mg/L U)

Nov. 12, 2013: 3,360 gallon spill of injection fluid (0.08 mg/L U)

Aug. 4, 2013: 24,458 gallon spill of injection fluid (< 1 ppm U)

Aug. 3, 2013: 2,200 gallon spill of injection fluid (< 1 ppm U)

NICHOLS RANCH ISL - WYOMING

NRC Docket No. 40-9067 (enter 04009067 on ADAMS search)


License Violations and reportable events at Nichols Ranch ISL site

http://www.wise-uranium.org/umopuswy.html#NICHOLSRANCHVIOL

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)

Jun. 12, 2017: 4,500 gallon spill of injection fluid (< 1 mg/L U)

Dec. 7, 2016: 2,800 gallon spill of injection fluid (< 1 mg/L U)

Nov. 15, 2016: 55 gallon spill of production solution (27.4 mg/L U)

Aug. 11, 2016: 670 gallon spill of injection fluid

Nov. 5, 2015: 700 gallon spill of injection fluid

Dec. 2, 2014: 606 gallon release of injection solution (0.5 ppm U)

Nov. 2, 2014: 1,745 gallon release of injection fluid (0.201 ppm U)

Sep. 8, 2014: 12,975 gallon release of production solution (21.6 ppm U; the release flowed outside the permit boundary)
• July 17, 2014: 20,219 gallon release of production fluid (33 ppm U3O8; the release "appears" to have flown outside the permit boundary)
• June 5, 2014: 2,500 gallon release of injection fluid (0.04 ppm U)
• Apr. 28, 2014: injection well found to be still in use after failing mechanical integrity test in February
• Feb. 12, 2014: injection well fails mechanical integrity test
• Aug. 14, 2013: 500 gallon spill of "grey water"

ROSS ISL - WYOMING
NRC Docket No. 40-9091 (enter 04009091 on ADAMS search)

License violations and reportable events at Ross ISL site

http://www.wise-uranium.org/umopuswy.html#ROSSVIOL

post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
• Aug. 9, 2017: 4,316 gallon spill of injection fluid
• July 27, 2017: 10,008 gallon spill of injection fluid
• May 25, 2017: 800 gallon spill of injection fluid
• Feb. 28, 2017: Samples taken from Pond 1 Monitor Well in exceedance of limits
• Oct. 11, 2016: 1000 gallon spill of injection solution (1.46 mg/L U)
• July 19, 2016: 1620 gallon spill of retention pond water (2 mg/L U)
• June 1, 2016: 500 - 600 gallon spill of recovery solution (22.6 ppm U)
• April 27, 2016: Pond monitor well indicates release from Pond 1 (however, Strata Energy believes that the exceedance is likely a result of natural variation in shallow groundwater quality)
• March 3, 2016: 1200 gallon spill of waste water (0.7 mg/L U)

SMITH RANCH ISL - WYOMING
NRC Docket No. 40-8964 (enter 04008964 on ADAMS search)
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/smith-ranch.html

License violations and reportable events at Smith Ranch in-situ leaching site

http://www.wise-uranium.org/umopussr.html#SMITHRVIOL

post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
• Oct. 19, 2017: 533 gallon spill of restoration recovery fluid (4.2 ppm U)
• Feb. 20, 2016: 4,264 gallon spill of production fluid (11.5 ppm U)
• Dec. 4, 2015: Monitor well placed on excursion status
• Oct. 23, 2015: 41 gallon spill of production fluid (24 ppm U)
May 21, 2015: 480 gallon spill of discharge fluid (7 ppm U)
Jan. 16, 2015: 3,520 gallon spill of injection fluid (1.8 ppm U)
Oct. 30, 2014: 15 gallon spill of injection fluid (2.1 ppm U)
Aug. 19, 2014: 9,074 gallon spill of injection fluid (2.7 ppm U)
Mar. 12, 2013: Monitor well placed on excursion status
Feb. 19, 2013: Monitor well placed on excursion status
Oct. 20, 2012: 100 gallon spill of production fluid (31.1 ppm U)
Oct. 16, 2012: 50 gallon spill of injection fluid
Aug. 20, 2012: Monitor well placed on excursion status
Dec. 6, 2011: 1,779 gallon spill of injection fluid (0.7 ppm U3O8)
Nov. 7, 2011: Leak in East Evaporation Pond
Sep. 12, 2011: Monitor well placed on excursion status
Aug. 19, 2011: 85 gallon spill of injection fluid
Aug. 15, 2011: Leak in East Evaporation Pond (158 mg/L U)
July 22, 2011: 53 gallon spill of injection fluid
July 8, 2011: 1,190 gallon spill of restoration recovery fluid containing 2.4 ppm U3O8
June 13, 2011: Leak in East Evaporation Pond (248 mg/L U)
May 19, 2011: 790 gallon spill of solution containing 17 ppm U-nat, spill length 2,112 feet (644 m), width 3 feet (0.9 m)
May 3, 2011: 1,500 gallon spill of production fluid, impacting 12,077 square feet (1,122 m²)
Sep. 10, 2010: 960 gallon spill of solution containing 1.5 ppm U3O8
Jul. 20, 2010: leak in East Storage Pond
Jul. 8, 2010: 1,440 gallon spill of injection fluid containing 1 ppm U3O8
Nov. 19, 2009: 560 gallon spill of injection solutions containing 1.4 ppm U3O8
Aug. 26, 2009: 1,500 gallon spill of injection solutions containing 1.1 ppm U3O8
Jun. 11, 2009: 190 gallon spill of injection solutions containing 0.7 ppm U3O8
Apr. 23, 2009: leak in East Storage Pond (510 ppm U3O8)
Feb. 27, 2009: leak in East Storage Pond (263 ppm U3O8)
Feb. 9, 2009: 14,600 gallon spill of production solutions containing 7 ppm U3O8
Jan. 9, 2009: 2,169 gallon spill of production solutions containing 11 ppm U3O8
Dec. 29, 2008: 1,144 gallon spill of injection fluid containing 0.2 ppm uranium
Oct. 30, 2008: 5,500 gallon spill of injection fluid containing 2 ppm uranium
Sep. 17, 2008: 16,774 gallon spill of injection fluid
Aug. 17, 2008: 7,965 gallon spill of injection fluid containing 1.4 ppm uranium
July 24, 2008: 2,887 gallon spill of production water and 12,770 gallon spill of solution
Aug. 23, 2007: 11,600 gallon spill of deep disposal well fluid
June 27, 2007: 900 gallon spill of injection fluid containing 1.1 ppm uranium
• June 19, 2007: 900 gallon spill of fluid containing 41.2 ppm uranium
• Feb. 19, 2007: 6,000 gallon spill of production fluid (32.5 ppm uranium)
• Jan. 14, 2007: 5,000 gallon spill of injection fluid (2 ppm uranium)
• Dec. 13, 2006: 560 gallon spill of injection fluid (2 ppm uranium)
• Dec. 5, 2006: 10,000 gallon spill of mixed monitor well, restoration and waste fluids (1 ppm uranium)
• Nov. 22, 2006: 2,100 gallon spill of mine waste water
• Feb. 10, 2006: 1,000 gallon spill of production fluid, containing approx. 21 mg/L uranium
• Jan. 9, 2006: 6,240 gallon spill of injection fluid, containing approx. 1.7 mg/L uranium
• Oct. 21, 2005: 7,041 gallon spill of deep disposal well fluid
• Oct. 21, 2005: Leak detected in evaporation pond
• Sep. 2, 2005: 4,500 gallon spill of production fluid, containing approx. 8.6 mg/L uranium
• Aug. 16, 2005: 1,050 gallon spill of production fluid, containing approx. 2.1 mg/L uranium
• May 31, 2005: 4,700 gallon spill of injection fluid, containing approx. 1.1 mg/L uranium
• Oct. 9, 2004: 5,000 gallon spill of ground water sweep fluids containing 7 mg/L uranium
• Sep. 29, 2004: 2,000 gallon spill of injection fluid, containing 1.6 mg/L uranium
• Sep. 8, 2004: wellfield excursion at Mine Unit 4 monitoring well
• Sep. 6, 2004: 1,600 gallon spill of injection fluid
• July 22, 2004: 2,700-5000 gallon spill of production fluid
• Oct. 15, 2003: 5,000 gallon spill of injection fluid containing about 47 mg/L of U3O8
• Sep. 29, 2003: 5,000 gallon spill of injection fluid containing about 2 mg/L of U3O8
• Sep. 6, 2003: 20,800 gallon spill of injection fluid containing about 1.1 mg/L of uranium
• Feb. 9, 2003: 500 gallon spill of production fluid containing about 2 mg/L of uranium
• Jul. 30, 2002: 1,480 gallon spill of injection fluid
• Apr. 25, 2002: 3,500 gallon spill of injection fluid
• Apr. 24, 2002: 18,000 gallon spill of injection fluid
• Jan. 4, 2002: 1,800 gallon spill of production fluid containing about 18 ppm U3O8
• Dec. 5, 2001: 3,600 gallon spill of injection fluid
• Oct. 22, 2001: 62,400 gallon spill of injection fluid
• Jun. 18, 2001: 1,100 gallon spill of deep well disposal fluid
• Nov. 22, 2000: 1,870 gallon spill of injection fluid
• Oct. 22, 2000: 11,100 gallon spill of injection fluid
• Aug. 7, 2000: 780 gallon spill of production fluid
• Feb. 26, 2000: 3,780 gallon spill of production fluid
• Jan. 17, 2000: 6,900 gallon spill of production fluid
• Dec. 31, 1999: 3,000 gallon spill of injection fluid

(details available through ADAMS, Docket No. 04008964)

WILLOW CREEK - WYOMING
NRC Docket No. 40-8502
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/christensen-ranch.html

License violations and reportable events at Willow Creek (ex Christensen Ranch / Irigaray) in-situ leaching site

http://www.wise-uranium.org/umopuswy.html#CHRISVIOL


According to Cogema's "Quarterly Progress Report of Monitor Wells on Excursion Status" of Oct. 2, 2000 (available through ADAMS), 7 monitor wells at Irigaray remained on excursion status during the third quarter of 2000. The wells have been on excursion status for more than one year and up to 11 years. One other monitor well has been removed from excursion status.

Latest NRC Event Reports referring to Uranium One's Willow Creek (ex Christensen Ranch / Irigaray) ISL site in Wyoming:

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)

• Aug. 6, 2018: 4,130 gallon spill of recovery fluid (9.6 ppm U₃O₈)
• June 29, 2018: Monitor well placed on excursion status
• Aug. 9, 2017: 7,400 gallon spill of production fluid (8.9 ppm U)
• Jul. 25, 2017: 5,000 gallon spill of injection fluid (1.1 ppm U) and production fluid (9.7 ppm U)
• May 24, 2017: 3,600 gallon spill of injection fluid (0.41 - 0.81 ppm U)
• Nov. 29, 2016: 3,300 gallon spill of injection fluid (0.67 ppm U)
• Oct. 17, 2016: 3,500 gallon spill of injection fluid (0.5 ppm U)
• Oct. 11, 2016: 1,405 gallon spill of injection fluid
• June 1, 2016: Monitor well placed on excursion status
• Apr. 30, 2016: Monitor well placed on excursion status
• Dec. 7, 2015: 2,100 gallon spill of production fluid (3.3 ppm U)
• June 30, 2015: Monitor well placed on excursion status
• Mar. 10, 2015: 830 gallon spill of injection fluid (1.7 ppm U)
• Dec. 29, 2014: Monitor well placed on excursion status
• Aug. 15, 2014: 492 gallon spill of recovery fluid (11.2 ppm U)
• Aug. 13, 2014: 535 gallon spill of injection fluid (0.8 ppm U)
• Jul. 25, 2014: 946 gallon spill of injection fluid (0.92 ppm U)
• Jul. 7, 2014: Disposal well shut in due to apparent leaking of tubing in the well
• June 19, 2014: Deep disposal well fails mechanical integrity test
• May 15, 2014: "potential leak" at evaporation pond
• Apr. 19, 2014: 616 gallon spill of injection fluid (0.32 ppm U)
• Mar. 3, 2014: 665 gallon spill of injection fluid (0.6 ppm U)
• Jan. 15, 2014: 77,700 gallon spill of production fluid (12.7 ppm U)
• Nov. 26, 2013: 1,060 gallon spill of injection fluid (0.32 ppm U)
• Oct. 31, 2013: 740 gallon spill of injection fluid (1.2 ppm U)
• Jul. 22, 2013: 2,600 gallon spill of injection fluid (1.1 ppm U)
• Jun. 15, 2013: 1,400 gallon spill of injection fluid (0.8 ppm U)
• Mar. 7, 2013: Evaporation pond leak
• Mar. 5, 2013: "potential leaks" at two evaporation ponds
• Feb. 11, 2013: 2,100 gallon spill of injection fluid
• Dec. 23, 2012: 800 gallon spill of injection fluid (< 0.4 ppm U)
• Dec. 22, 2012: 950 gallon spill of disposal well fluid (2.1 ppm U)
• Dec. 9, 2012: 1,500 gallon spill of injection fluid (< 0.4 ppm U)
• Oct. 12, 2012: Monitor well placed on excursion status
• Sep. 10, 2012: spill of injection fluid from unplugged historic drillhole located near injection well
• Sep. 7, 2012: 1,000 gallon spill of injection fluid
• Jun. 30, 2012: 1,500 gallon spill of injection fluid (0.9 ppm U)
• Jun. 18, 2012: 1,200 gallon spill of recovery fluid (7.5 ppm U)
• Jun. 18, 2012: 300 gallon spill of injection fluid (1.0 ppm U)
• Jun. 17, 2012: 500-700 gallon spill of injection fluid (1.4 ppm U)
• Apr. 20, 2012: 1,020 gallon spill of injection fluid (1.0 ppm U)
• Apr. 12, 2012: Monitor well placed on excursion status
• Apr. 3, 2012: Two monitor wells placed on excursion status
• Mar. 29, 2012: Two monitor wells placed on excursion status
• Jan. 5, 2012: Monitor well placed on excursion status
• Dec. 14, 2011: 1,500 gallon spill of RO brine fluid (3.8 mg/L U)
• Oct. 2, 2011: Aerial release of yellowcake powder
• Sep. 23, 2011: 4,000 gallon spill of injection fluid (0.87 mg/L U)
• Aug. 24, 2011: Monitor well placed on excursion status
• "around August 4 or 5, 2011": approx. 7,000-10,000 gallon spill of NaCl brine solution
• Jun. 21, 2011: 1,500 gallon spill of injection solution (3.5 ppm U)
• Apr. 19, 2011: Monitor well placed on excursion status
• Apr. 12, 2011: Sampling missed for months at 24 monitoring wells, at least
• Mar. 29, 2011: 1,000 gallon spill of barren injection fluid
• Mar. 23, 2011: Monitor well placed on excursion status
• Mar. 8, 2011: Monitor well placed on excursion status
• Jun 10, 2010: Monitor well placed on excursion status
• Jun 8, 2010: 1,200 gallon spill of permeate water
• Jun 3, 2010: Evaporation pond leak
• Dec 16, 2009: Monitor well placed on excursion status
• Sep 15, 2009: Monitor well placed on excursion status
• Mar 12, 2009: Monitor well placed on excursion status
• Apr 17, 2008: Monitor well placed on excursion status
• Mar 11, 2008: Two monitor wells placed on excursion status
• Sep 5, 2007: Monitor well placed on excursion status
• Apr 25, 2007: Monitor well placed on excursion status
• Jul 22, 2004: Monitor well placed on excursion status
• Apr 28, 2004: Two leaks detected in evaporation ponds
• May 31, 2001: Monitor well placed on excursion status
• Jan 23, 2001: 13,392 Gallon spill of restoration water
• Aug 10, 2000: Monitor well placed on excursion status
• Oct 28, 1999: Monitor well placed on excursion status
• Oct 5, 1999: Monitor well placed on excursion status
• Jul 8, 1999: Monitor well placed on excursion status
• May 8, 1999: 15,000 Gallon Mining Injection Solution Spill
• Apr 12, 1999: 32,400 Gallon Injection Solution Spill
• Apr 3, 1999: 13,000 Gallon Spill of Restoration Water
• Mar 29, 1999: 23,520 Gallon Mining Injection Solution Spill
• Mar 26, 1999: 60,918 Gallon Mining Injection Solution Spill
• Feb 17, 1999: Monitor well placed on excursion status
• Dec 22, 1998: Monitor well placed on excursion status
• Nov 19, 1998: Monitor well placed in excursion status
• Sep 2, 1998: Shallow monitor well is in an excursion status
• Aug 6, 1998: Ground water monitor well placed in excursion status
• Jul 22, 1998: Minor leakage of byproduct solution from the evaporation pond
• Jul 8, 1998: 28,000 Gallons of water containing low level of U3O8 spilled onto ground
• Mar 5, 1998: Perimeter monitor well in excursion status
• Oct 3, 1997: Monitor well in excursion status
• Sep 16, 1997: Spilled 2,440 gallons of waste water containing 78.5 ppm natural uranium
• Sep 12, 1997: Well in excursion
• May 16, 1997: Two perimeter monitoring wells in excursion status
• Mar 12, 1997: Perimeter well in excursion status
• Dec 31, 1996: Perimeter well in excursion status

(details on post-November 1, 1999, events available through ADAMS, Docket No. 04008502)

Compiled by
Sarah Fields
Uranium Watch
December 16, 2020
Public Comment regarding LVMC

2 messages

Drummond Earley <dearley@utah.gov>
Sun, Jan 10, 2021 at 3:59 PM

To: Erica Gaddis <egaddis@utah.gov>
Cc: Drummond Earley <dearley@utah.gov>, "jkmackey@utah.gov" <jkmackey@utah.gov>

Director Gaddis,

Attached is a copy of my comments regarding LVMC’s permit application for Class III Area Permit Underground Injection Control UIC Permit Number UTU-37-AP-505F693.

Please let me know if these comments have been received and that they will be considered before a permit is issued.

With the public comment period ending tomorrow January 11th 2021, what are the next steps in this process? When will my family know our fate?

Please feel free to call me with any questions or concerns.

Respectfully,
R.L. Wilcox

DWQ 2021.docx
16K

Erica Gaddis <egaddis@utah.gov>
Tue, Jan 12, 2021 at 3:51 PM

To: Drummond Earley <dearley@utah.gov>, "jkmackey@utah.gov" <jkmackey@utah.gov>, Daniel Hall <dhall@utah.gov>
Cc: R.L. Wilcox

Mr. Wilcox,

Your comments have been received. All comments will be reviewed and considered before issuing a final permit decision.

Erica

[Quoted text hidden]

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Erica Brown Gaddis, PhD
Director | Division of Water Quality
M: (385) 228-5787
P: (801) 536-4310
waterquality.utah.gov

Emails to and from this email address may be considered public records and thus subject to Utah GRAMA requirements.
January 10, 2020

Erica Brown Gaddis, PhD
Director
Utah Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870
Submitted electronically via email to dearly@utah.gov

RE: Class III area permit underground injection control (UIC) program. Permit Number: UTU-37-AP-5D5F693 Lisbon Valley Mine San Juan County, Utah

Dear Director Gaddis,

Thank you for the opportunity for public comment regarding LVMC’s permit application for underground injection of sulfuric acid into my family’s drinking water. It is obvious that LVMC did not provide the Division of Water Quality with all the necessary information to make a wise decision on such an important matter. My comments will focus on the facts that exist beyond what LVCM has provided.

We have two different water rights on the same well within the Burro Canyon aquifer. Water right 05-3907 is our domestic, irrigation, and livestock watering right that reflects our use of water at my parents’ home and our livestock handling facilities. We use the water for domestic drinking and watering our livestock 365 days a year. My mom also uses the water for a small greenhouse and lawn. Water right 05-3575 is for 400 head of livestock for five months of the year. Our mother cows are in Lower Lisbon Valley during these months to give birth. These pregnant cows and new born calves need an abundant supply of water during calving season to ensure good health. Our use of water from the Burro Canyon aquifer sustains our lives and our livelihood in Lower Lisbon Valley.

On Appendix D- Well Inventory Summary Tables- Table 2- Other Wells within the AE boundary, provided by LVMC, it only lists our livestock right. This is a major oversight. The Burro Canyon aquifer not only supplies water for our livestock but is our source for domestic drinking.
Given the fact that the Burro Canyon aquifer does indeed serve as a source of drinking water, requirements for exemption cannot be met. Furthermore, Utah as a whole is experiencing record growth. Property values in San Juan and Grand Counties continue to grow. Just to the south of the copper mine, on top of three step hill, a subdivision exists with people from all over the country moving in and they are drilling wells for domestic drinking. A new subdivision in La Sal is currently under construction. The water source will be underground wells. Moab valley continues to grow toward Lisbon Valley. The need for drinking water in San Juan County grows every day. The Burro Canyon aquifer could easily become a source of drinking water for many people. Therefore, the Director shall protect it from exemption as required in 40 CFR 144.7 and 40 CFR 146.4.

My family owns approximately 900 acres of land in Lower Lisbon Valley that sits on top of the Burro Canyon Aquifer. We also own the grazing allotment on surrounding BLM and SITLA land. This is not just recreational property for my family, this is where we live and operate a business. In-situ mining and an aquifer exemption within the Burro Canyon aquifer will devalue our property substantially. Our grazing permit will be ruined. Generations of hard work will be gone forever. We have established our water rights through the State of Utah Division of Water rights and these rights must be protected. LVMC can not infringe on those rights in any way.

LVMC has gone to great lengths in the permit application to attempt to prove that they will not contaminate the Navajo Aquifer, even though it is hydrologically connected to the Burro Canyon Aquifer. They have provided no evidence of any kind that they will not contaminate the water in our well and infringe on the water rights that we have established. There is no fault, aquitard, or any kind of barrier between the proposed injection wells and our source of drinking water.

Though monitoring the aquifer while injecting acid into it is necessary, it gives us little comfort. If the monitoring system detects contaminants, it is too late. Our water will be ruined. If the In-situ process dewater our well, our livelihood is in serious jeopardy. The Division of Water Quality must protect our drinking water by not allowing LVMC to inject any chemicals into our drinking water.

On December 2nd 2020 I submitted questions to the Division of Water Quality in regards to this application and aquifer exemption. I have not received any
response. The Division of Water Quality should make it a priority to have an open
dialog with the public, especially during the public comment period. The fact that
I have received no response to my questions leaves me very frustrated. The
Division of Water Quality should not leave it to the public to find all of the false
information, lack of information, and shady practices provided by LVMC. When
the Division of Water Quality was made aware of our domestic drinking right, the
application should have been denied.

Current and past financial responsibility should be considered as part of this
permitting process. LVMC and copper mines in general in Lisbon Valley have a
very poor financial history. They currently owe San Juan County over $2 million in
property taxes. LVMC can not be trusted with this complicated In-situ process.

LVMC has no interest in the environment or a long-term outlook. They want to
take as much as they can, as cheap, easy, and as fast as they can. When they
have taken all that mother nature has given them, LVMC will be gone and they
will leave a mess for us to deal with. My family lives with and depends on the
environment as a whole. We can not take more than we put back. We are not in
it for any short-term gain or profit. We are in Lower Lisbon because our family
loves the land and wants it to be here for many generations to come. The
Division of Water Quality can not let LVMC destroy what we have worked so hard
to improve and leave for future generations. The Burro Canyon aquifer does not
belong to anyone. It is part of the earth. No one, not LVMC, DWQ, or the Wilcox
family has the right to contaminate and destroy it. We all must respectfully keep
it whole and clean for the Greater Good. We all suffer if a non-renewable
resource is destroyed.

Thank you for your consideration of this very important matter. I am requesting a
written response to these comments and want to be included on all future
correspondence as an affected public.

RL Wilcox
January 10, 2020

Erica Brown Gaddis, PhD
Director
Utah Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870
Submitted electronically via email to dearly@utah.gov

RE: Class III area permit underground injection control (UIC) program. Permit Number: UTU-37-AP-5D5F693 Lisbon Valley Mine San Juan County, Utah

Dear Director Gaddis,

Thank you for the opportunity for public comment regarding LVMC’s permit application for underground injection of sulfuric acid into my family’s drinking water. It is obvious that LVMC did not provide the Division of Water Quality with all the necessary information to make a wise decision on such an important matter. My comments will focus on the facts that exist beyond what LVCM has provided.

We have two different water rights on the same well within the Burro Canyon aquifer. Water right 05-3907 is our domestic, irrigation, and livestock watering right that reflects our use of water at my parents’ home and our livestock handling facilities. We use the water for domestic drinking and watering our livestock 365 days a year. My mom also uses the water for a small greenhouse and lawn. Water right 05-3575 is for 400 head of livestock for five months of the year. Our mother cows are in Lower Lisbon Valley during these months to give birth. These pregnant cows and new born calves need an abundant supply of water during calving season to ensure good health. Our use of water from the Burro Canyon aquifer sustains our lives and our livelihood in Lower Lisbon Valley.

On Appendix D- Well Inventory Summary Tables- Table 2- Other Wells within the AE boundary, provided by LVMC, it only lists our livestock right. This is a major oversight. The Burro Canyon aquifer not only supplies water for our livestock but is our source for domestic drinking.
Given that the Burro Canyon aquifer does indeed serve as a source of drinking water, requirements for exemption cannot be met. Furthermore, Utah as a whole is experiencing record growth. Property values in San Juan and Grand Counties continue to grow. Just to the south of the copper mine, on top of three step hill, a subdivision exists with people from all over the country moving in and they are drilling wells for domestic drinking. A new subdivision in La Sal is currently under construction. The water source will be underground wells. Moab valley continues to grow toward Lisbon Valley. The need for drinking water in San Juan County grows every day. The Burro Canyon aquifer could easily become a source of drinking water for many people. Therefore, the Director shall protect it from exemption as required in 40 CFR 144.7 and 40 CFR 146.4.

My family owns approximately 900 acres of land in Lower Lisbon Valley that sits on top of the Burro Canyon Aquifer. We also own the grazing allotment on surrounding BLM and SITLA land. This is not just recreational property for my family, this is where we live and operate a business. In-situ mining and an aquifer exemption within the Burro Canyon aquifer will devalue our property substantially. Our grazing permit will be ruined. Generations of hard work will be gone forever. We have established our water rights through the State of Utah Division of Water rights and these rights must be protected. LVMC can not infringe on those rights in any way.

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Though monitoring the aquifer while injecting acid into it is necessary, it gives us little comfort. If the monitoring system detects contaminants, it is too late. Our water will be ruined. If the In-situ process dewater our well, our livelihood is in serious jeopardy. The Division of Water Quality must protect our drinking water by not allowing LVMC to inject any chemicals into our drinking water.

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response. The Division of Water Quality should make it a priority to have an open
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information, lack of information, and shady practices provided by LVMC. When
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have taken all that mother nature has given them, LVMC will be gone and they
will leave a mess for us to deal with. My family lives with and depends on the
environment as a whole. We can not take more than we put back. We are not in
it for any short-term gain or profit. We are in Lower Lisbon because our family
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Division of Water Quality can not let LVMC destroy what we have worked so hard
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it whole and clean for the Greater Good. We all suffer if a non-renewable
resource is destroyed.

Thank you for your consideration of this very important matter. I am requesting a
written response to these comments and want to be included on all future
correspondence as an affected public.

RL Wilcox
Corrected LVMC UIC Permit Comments of Uranium Watch/Sierra Club

3 messages

sarah uraniumwatch.org <[redacted]>
To: "dearley@utah.gov" <dearley@utah.gov>
Fri, Jan 15, 2021 at 3:18 PM

Dear Mr. Earley,

Attached please find the corrected version of the Uranium Watch/Sierra Club comments on the Lisbon Valley Mining Company, LLC, Class III UIC Permit. There were 2 errors in comment 5.1, which changed the intent of the comments. I have bolded the corrected language in this version.

Sorry for any inconvenience.

Sincerely,

Sarah Fields
Uranium Watch

Corrected_UW_SCIClub_DWQ_LVMC_UICPermit_Comments_011121.pdf
480K

Drummond Earley <dearley@utah.gov>
To: "sarah uraniumwatch.org" <[redacted]>
Fri, Jan 15, 2021 at 4:24 PM

Ms. Fields,

We will file the corrected comments and replace the previous version.

Thank you.

Dusty Earley
[Quoted text hidden]

Drummond Earley <dearley@utah.gov>
To: Daniel Hall <dhall@utah.gov>, Meg Osswald <megoswald@agutah.gov>
Fri, Jan 15, 2021 at 4:27 PM

FYI, I replied indicating we would replace the original.
[Quoted text hidden]
Uranium Watch

via electronic mail

January 11, 2020

Erica Gaddis
Director
Division of Water Quality
Utah Department of Environmental Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Attn: Drummond Earley
dearley@utah.gov

Re: Underground Injection Control (UIC) Class III Area Permit, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC, San Juan County, Utah. Draft Permit No. UTU-37-AP-5D5F693

Dear Ms. Gaddis:

Below are comments on the proposed Underground Injection Control (UIC) Class III Area Permit for a proposed in situ copper recovery operation proposed by the Lisbon Valley Mining Company, LLC (LVMC), in the Lower Lisbon Valley in San Juan County, Utah. These comments are responsive to Utah Division of Water Quality (DWQ, or Division) public notices dated November 7 and 18, 2020. The Division extended the comment period to January 11, by notice dated December 1, 2020.

Comments are submitted on behalf of Uranium Watch and the Utah Chapter of the Sierra Club.

Uranium Watch is a public interest 501c(3) non-profit that primarily addresses uranium mining and milling issues. However, UW Program Director, Sarah Fields, travels regularly though Lisbon Valley and recently lived south of the project area on West Summit Road, and extension of Lisbon Valley Road. Also, the proposed in situ leach
(ISL) copper recovery project will also recover uranium, although the uranium will not be produced as a saleable mineral product.

Utah Sierra Club is a non-profit organization that is a powerful collective of thousands of grassroots changemakers working together across the state to advance climate solutions, act for justice, get outdoors, and protect lands, water, air, and wildlife. Established in 1969, the Utah Chapter strives to protect and enjoy Utah’s outdoors and natural landscapes; Educate and advocate for the responsible preservation of clean air, water, and habitats; support the development of clean energy to benefit present and future generations; and advance principles of equity, inclusion, and justice throughout our organization and community.

Commenters incorporate by reference the comments on the Underground Injection Control (UIC) Class III Area Permit provided to the DWQ by the Lower Lisbon Valley Residents, dated January 10, 2020, and William P. Johnson, PhD., dated January 5, 2020.

1. Request for “Aquifer Exemption” Public Comment Period and Public Hearing

1.1. The Division did not make clear the process for obtaining an Aquifer Exemption and Environmental Protection Agency Regulations requirement for a public comment period and public hearing on Aquifer Exemption Requests. There was no proper Public Notice of an opportunity provide written and oral comments on a LVMC Aquifer Exemption Request.

1.2. The heading for the Public Notices of November 4 and December 1, 2020, states: “Public Notice of Intent to Issue Permit Underground Injection Control Class III Area Permit In Situ Copper Recovery.” The Notices state regarding the Purpose of Public Notice: “The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to authorize a new Underground Injection Control (UIC) Class III permit as described below.” The Notices do not state that the Purpose of the Public Notice is to obtain comments on an Aquifer Exemption Request.

1.3. The heading for the November 19, 2020, Notice states: “Notice Public Hearing on Draft Permit Underground Injection Control Class III Area Draft Permit.” The Notice states regarding the Purpose of the Public Hearing: “The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to authorize a new Underground Injection Control (UIC) Class III area permit as described below.” The Notices do not state that the Purpose of the Public Hearing is to obtain comments on an Aquifer Exemption Request.
1.4. The Division “Statement of Basis and Fact Sheet” is for an “Underground Injection and Control (UIC) Class III Draft Area Permit.” The “Statement of Basis and Fact Sheet” is not for an Aquifer Exemption Request. The Statement of Basis and Fact Sheet provides little information about an Aquifer Exemption Request. The Fact Sheet statement regarding an “Aquifer Exemption Request” gives the impression that the aquifer exemption is subject to Environmental Protection Agency (EPA) approval and an EPA public notice and comment process:

Lisbon Valley is seeking an Aquifer Exemption for the Burro Canyon Aquifer beneath the permit area (Figure 1) according to R317-7-4 and the Division has identified aquifers that may be exempted as sources of underground drinking water following the procedures and based on the requirements outlined in 40 CFR 144.7 and 40 CFR 146.4. The exemption is subject to approval by the Environmental Protection Agency (EPA) UIC Program Administrator following public notice and comment.

The Statement of Basis and Fact Sheet does not provide any substantive information regarding the Aquifer to be exempted and the basis for such an exemption. The Fact Sheet states that “the Division has identified aquifers that may be exempted,” but does not provide any information about the aquifers it may exempt.

1.5. The Application documents posted on the Division Public Notice website contain 1 maps and figures showing two (2) completely different Aquifer Exemption Boundaries. The Technical Report Attachments zip file contains other zip files, one of which is LVMC Technical Report Figures, which opens to a file of the ISR Maps and Figures. All of the maps and figures in this file show an Aquifer Exemption Boundary that extends east to the Utah/Colorado border.

The September 29, 2020, LLV Technical Report figures and maps show a completely different, smaller, Aquifer Exemption Boundary, except for one Figure. Figure 16.1 (page 172), Geologic Structure and Aquifer Extent, shows the Burro Canyon Aquifer and Aquifer Exemption Boundary extending to the Utah/Colorado border.

The Figures in the September 2020 LLV Technical Report also contain different information related to the Wilcox Well 05-3907/05-3575, which is within the Aquifer Exemption Boundary on the Technical Report Attachments maps and figures, but outside of the Boundary shown in maps and figures within the September 2020 LLV Technical

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1.6. In Sum: 1) the Application documents posted on the DWQ Public Notice webpage show 2 completely different Aquifer Exemption Boundaries; 2) The Division failed to notice an opportunity for public comment on an Aquifer Exemption Request; 3) the Division failed to provide for a public hearing on an Aquifer Exemption Request; and 4) The Division did not provide any bases for granting an Aquifer Exemption, with reference to the applicable aquifer exemption requirements and the administrative record. Therefore, the Division must clarify the Aquifer Exemption Boundary that is being requested and the basis for that Boundary, and provide Proper Public Notice of an opportunity for a public comment period and a public hearing on the LVMC Aquifer Exemption Request.

2. General Comments

2.1. At the beginning of the comment period the Division failed to make the full LVMC UIC Permit application available to the public on the Public Notice website. Nor was the full application available at the time of the public hearing held on November 24, 2020. It was not until after the public hearing that what appears to be the UIC Permit Application was posted on the DWQ public notice webpage. The Division, therefore, failed to make the full Application available to the public in a timely manner.

2.2. Although the Division posted some of the Application documents, the Division has not identified which documents are part of the Application under review by the DWQ. There are different Figures and Maps that have been included as part of the Application on the Division website. There is no document issued by the DWQ stating that the Application is complete. The Division should have provided a full list of the Application Documents, but did not. The Division should have created a separate LVMC Application webpage with links to each separate document and a list of all of the relevant application documents, including identification of original documents and subsequent revisions. It is not appropriate just to post large files, which contain zip files within zip files within zip files.

2.3. The Division recently posted a new document to the Lisbon Valley Mining Co., LLC, public notice documents. This is “ISR Figure 3.1 Area of Review.” It is very hard to tell the date of this document, but, apparently, it is dated June 24, 2020. This is not the

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same Figure 3.1, dated November 12, 2019,⁴ that was referenced in the LVMC September 29, 2020, Class III Underground Injection Control Permit Application. It is not the same Figure 3.1 that was included in the Technical Report Figures/ISR Maps and Figures that are part of the Technical Report Attachments posted on the DWQ Public Notice webpage. It is not appropriate for the Division to add a new, and very different, document to the administrative record to replace an earlier document—without explanation—at the last minute.

2.4. At the November 24 hearing and in a subsequent letter to the DWQ, UW requested a 60-day extension of the comment period suspense date of December 4, 2020. The extension request was based on the lack of availability of pertinent UIC Permit Application records, the complexity of the Application, and the winter holidays. The Division provided a 38-day extension of the comment period. While UW appreciates the extension, there was no basis for not providing a full 60-day extension. This project will take more than 2 years to fully permit. There is no need to rush this process.

3. Statement of Basis and Fact Sheet

3.1. As part of their response to the Class III UIC Permit Application, the Division produced a 4-page “Statement of Basis and Fact Sheet for a [sic] Underground Injection and Control (UIC) Class Draft Area Permit,” dated November 4, 2020. The Fact Sheet contains a very brief description of the type of facility, a brief description of the In-Situ Copper Recovery injectate, a brief discussion of Permit Conditions and some references, and a mention of the Aquifer Exemption Request to the Environmental Protection Agency (EPA). The Fact Sheet is not adequate and does not meet EPA requirements, as will be discussed below.

3.2. EPA regulation applicable to UIC Permits and State Programs, such as the DWQ regulation of UIC Permits, are found at 40 C.F.R. Part 124. Section 124.8 provides the requirements for a UIC Permit fact sheet:

(b) The fact sheet shall include, when applicable:

(1) A brief description of the type of facility or activity which is the subject of the draft permit;

⁴ https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_Map_Figure3.1_AreaofReview.png
(2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

(4) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by §124.9 (for EPA-issued permits);

(5) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(6) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under §124.10 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(7) Name and telephone number of a person to contact for additional information.

Clearly, the DWQ Fact Sheet does not meet these EPA requirements.

3.3. The Fact Sheet is supposed to provide a brief description of the type of facility or activity which is the subject of the draft permit. The description of the type of activity is minimal. The map provides no information about the number and location of ISL-related wells, location of ore bodies, location of wells used for domestic and agricultural purposes, surface impacts, and other relevant information.

3.4. A Fact Sheet should include a description of “the type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.” The Division’s Fact Sheet does not meet this requirement. There is only a mention of the fluids that will be injected. The chemical constituents and nature of the injectate is not included. There is no description of the type and quantity of wastes, fluids, and pollutants that will be treated, stored, disposed of, injected, emitted, or
discharged. There is no description of the project as a whole. There is no analysis of the uranium and other potential radionuclides that will be mobilized by the injectate and how those radioactive contaminants will be removed from the final copper product. There is no analysis of the extent and amount of radon emissions from the project, which is similar to uranium recovery ISL operations in Wyoming that emit radon. There is no mention of the disposal of wastes in a proposed Class V UIC well or possible land application of these wastes.

3.5. The Fact Sheet is supposed to contain a “brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record.” The Fact Sheet does not contain any information about the draft permit conditions, including references to applicable statutory and regulatory provisions, with supporting references to the administrative record. There is no discussion of how, exactly, the proposed project meets the applicable technical criteria and standards.

3.6. The Fact Sheet minimal information regarding the procedures for reaching a final decision on the draft permit.

3.7. The Fact Sheet contains various statements related to the proposed project, but does not provide any references or bases for those statements.

3.8. The Fact Sheet states that “Utah does not have specific statutes and regulations for the construction and operation of in-situ recovery wells and well fields, in general, and for copper recovery, specifically.” Therefore, the public in Utah has not had the opportunity to comment on specific statutes and regulations for the construction and operation of in-situ recovery wells and well fields for copper and other types of mineral recovery operations.

The State of Utah should not accept and review ISL mineral recovery applications until Utah has established applicable regulatory programs.

3.9. The Fact Sheet states: “Moreover the Draft Permit is justified on the basis of the limited extent and use of the Burro Canyon aquifer in the proposed permit area, the occurrence of mineralization of potential commercial value and relatively poor water quality.” This apparent conclusion does not identify and discuss the important use of the Burro Canyon Aquifer (BCA) for domestic, irrigation, and stock watering purposes. There is no discussion of the fact that the quality of the water varies within the BCA.

3.10. The Fact Sheet states that “Lisbon Valley will overproduce solution from production wells in order to maintain an inward hydraulic gradient and contain leach solutions within the permit area.” It states that, “monitoring wells will be installed to
ensure that no injectate or leach solution escapes from the wellfields and permit area,” and that “any vertical migration will also be detected by deep monitor wells within the Morrison and Navajo Formations.” These statements are unverified assumptions. The documentation does not support these conclusions. The monitoring wells will not, in themselves, ensure that no leach solutions escape from the well fields. They will only be able to identify excursions of leachate—if properly placed and operated. Monitoring wells do nothing to control those excursions. The wells serves to identify excursions, but trigger actions only after excursions are detected.

There are no explicit regulatory standards at the federal level for monitoring wells. Monitoring wells should be placed close enough to the well field to ensure timely detection of contamination. According to an Natural Resource Defense Council report, Early detection of excursions may depend on a number of factors, including the thickness of the aquifer monitored, the distance between the monitor wells and the well field and the spacing of monitor wells, the frequency of monitor-well sampling, the water-quality parameters being sampled, and the concentrations of the parameters chosen to signal an excursion.

4. Availability Class III Area Permit Documents

4.1. The Division made available on the DWQ Public Notice website a draft Class III Area Permit, Underground Inject Control (UI) Program, UIC Permit Number: UTU-37-AP-5D5F692, Lisbon Valley Mine, San Juan County, Utah, October 2020. The 69-page Document references several attachments, which are part of the Permit: Attachment A, General Location Map of the Lisbon Valley Mine, San Juan County; Attachment B, Map of the UIC Area of Review including the Class III In-Situ Copper Recovery Injection Wells and the Project Area; Attachment C, Corrective Action Plan for Artificial Penetrations into Injection Zone within Area of Review; Attachment D, Injection Well Construction Plan with Injection Well Construction Details; Attachment E, Injection Well Operating Plan and Procedures; Attachment F, Monitoring, Recording, and Reporting Plan; Attachment G, Contingency Plan for Well Shut-ins or Well Failures; Attachment H, Groundwater Restoration Plan; Attachment I, Plugging and Abandonment Plan; Attachment J, Financial Responsibility (The Standby Trust Agreement along with Schedule A and the Associated Financial Guarantee Bond will be approved and delivered to the DEQ’s Office of Support Services prior to Director Authorization to Inject); Attachment K, Expected Changes Due to Injection; Attachment L, Mechanical Integrity Demonstration Protocols; and Attachment M, Aquifer Exemption.

Some of these Attachments are currently available, but were not included in the UIC Permit documents. Other attachments that will become part of the Permit will only become available after the UIC Permit is issued, so will not be available for public comment. The Division should have made available any of the UIC Permit Attachments that are currently available.

5. Request for a New UIC Class III Permit Public Comment Period and Public Hearing

5.1. UW requests that the DWQ Notice a new 60-day public Comment Period and Public Hearing after the DWQ corrects the public record of this proceeding. This request is based on the following:

• The documents that the Division posted on the Public Notice website as part of the LVMC Application contain significant conflicting information regarding the Aquifer Exemption Boundary.

• The Statement of Basis and Fact Sheet provided by the Division does not meet the EPA requirements.

• The proposed Class III Permit is missing the Attachments that are currently available and should have been available for public comment.

The new comment period and hearing should not commence until the Division has corrected these oversights and inadequacies. The Division must 1) make clear which documents, including maps and figures, are actually part of the Class III UIC Permit Application under review, 2) make publicly available the relevant Attachments to the proposed Class III UIC Permit; and 3) provide a Fact Sheet that fully conforms to EPA requirements.

6. Utah UIC Regulations - R317-7-5. Prohibition of Unauthorized Injection

6.1. Utah Rule R317-7. Underground Injection Control (UIC) Program, provides certain requirements for a Class III UIC Permit. Section defines Class III wells as wells that inject for extraction of minerals, including in situ production of uranium or other metals from ore bodies that have not been conventionally mined. R317-7-5 states:

5.1 Any underground injection is prohibited except as authorized by permit or as allowed under these rules.

5.2 No authorization by permit or by these rules for underground injection
shall be construed to authorize or permit any underground injection which endangers a drinking water source.

5.3 Underground injections are prohibited which would allow movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5), or which may adversely affect the health of persons. Underground injections shall not be authorized if they may cause a violation of any ground water quality rules that may be promulgated by the Utah Water Quality Board. Any applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.

6.2. The Division has not provided any information that demonstrates that the proposed Lower Lisbon Valley in-situ leach (ISL) copper recovery project would not endanger a drinking water source and would not allow movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5), or which may adversely affect the health of persons.

The BCA is currently an underground source of drinking water. The BCA 1) contains a sufficient quantity of ground water to supply a public water system; 2) currently supplies drinking water for human consumption; 3) contains fewer than 10,000 mg/l total dissolved solids (TDS); and is not an exempted aquifer. The BCA, as shown on the various Maps and Figures submitted by LVMC to the DWQ, supplies water for irrigation, stock watering, and domestic use in the Area of Review and within the original proposed Aquifer Exemption Boundary. LVMC has not established Baseline Water Quality in the South East area of the project.

6.3. The LVMC Internal Memo: Summary of the Ground Water Occurrences within the Lower Lisbon Valley Area, February 16, 2020, was “prepared in order to summarize the occurrence of ground water within the BC Aquifer of the Lower Lisbon Valley Area,

6 See Technical Report Attachments, Maps and Figures. And, Figure 3.1.  
https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_Map_Figure3.1_AreaofReview.png


8 Appendix D to LVMC UIC Technical Report Appendices posted on DWQ Public Notice website.
and the rationale behind this conclusion.” LVMC investigated the Ground Water Occurrence in the Dakota-Burro Canyon Formations, SE UIC Project Area, Lower Lisbon Valley, San Juan County, Utah. The area investigated was South East area of the original proposed AEB, which ends at the Utah/Colorado border and includes the Wilcox domestic/agriculture Well 05-3907/05-3575 and the State Line Deposit. This Memo establishes the presence of ground water and hydrological connectivity in the BCA in this area. According to the Memo, page 5:

Exploration Groundwater Flows
The area from Flying Diamond to the Colorado Stateline has been extensively drilled. Figure 3 is a compilation of drilling records documenting depth at which groundwater flow was observed along with estimates of final flows at total depth using a 5-gallon bucket test. And although not monitoring wells, the number and areal extent of exploration holes document consistent groundwater occurrence and substantial flows over the greater than two-mile distance from Flying Diamond to Stateline.

Stock well 05-3575 is located near the Stateline deposit (see Figure 2). This well is screened in the upper BC Aquifer and documents a hydraulic head 45 feet below ground surface (bgs).

Groundwater flows attenuate and finally terminate on the SE end of the Stateline Deposit where geologic structure elevates the Morrison Formation above the BC Aquifer hydraulic head. Figure 3 includes an expanded view of exploration holes 06C-FLD-10 and 06R-FLD-5 (described further).

The Memo concludes:

The combined information supports the occurrence of BC Aquifer groundwater along an approximate 2.5 mile transect in the SE Project Area. This information suggests the occurrence of groundwater in the BC wherever it is down-dropped below 6200 feet amsl. These observations correlate well with the greater Project Area and support a common aquifer.

6.4. The LVMC Internal Memo–Summary of the Exploration Activities within the Lower
Lisbon Valley Area, and the subsequent delineation of mineralization found therefrom, February 16, 2020, shows that the Flying Diamond Deposit is close to the Wilcox Well 05-3907/05-3575, which has now been arbitrarily excluded from the AEB.

6.5. The injection of the proposed lixiviant, a raffinate containing a dilute sulfuric acid solution, into the Burrow Canyon Aquifer would allow movement of fluid containing sulfuric acid, uranium, and other contaminants into an underground source of drinking water. It would allow for the movement of contaminants from the well field to the Wilcox Well 05-3907/05-3575, used for domestic, irrigation, and stock watering. The Wilcox well draws water from the same aquifer that will receive the lixiviant. There are no geologic barriers between the proposed wellfield and the Wilcox Well outside the proposed Aquifer Exemption boundary. The LVMC has not proposed any monitoring well that would be able to determine if fluids and mobilized contaminants from the ISL project have reached the Wilcox Well.

The AEB in the area of the Wilcox Well does not include a buffer zone beyond the proposed monitoring well in that South East area. The monitoring well appears to be right on the edge of the AEB. There is no information in the Application regarding how far an excursion of the lixiviant and the contaminants mobilized by the lixiviant would travel before being detected and recovered. There is no information regarding the extensive history of ISL uranium recovery operation excursions, spills, leaks, mechanical failures, and other events. There is no data that would substantiate an assumption that any excursion would be recovered and the area would still be a clean, uncontaminated source of drinking water. Also, there is no evaluation of the long-term impacts from the ISL operation to the groundwater quality in the South East Area of ISL project.

6.6. The regulation states: “Underground injections shall not be authorized if they may cause a violation of any ground water quality rules that may be promulgated by the Utah Water Quality Board.” The regulation here says “may cause” a violation of any groundwater quality rules. Because the proposed ISL operation will impact the existing BCA drinking water source and is extremely close to a well that is used for domestic purposes, LVMC and the Division have no basis for concluding that the underground injections associated with the ISL project will not cause a violation of any groundwater quality rules.

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10 Appendix D to LVMC UIC Technical Report Appendices posted on DWQ Public Notice website.


12 See Exhibit A. Uranium Recovery In-Situ Leach Operations License Violations and Reportable Events.
quality rules. The lack of any geological or hydrological barriers between the proposed well field and the Wilcox Well means that the proposed ISL project not only “may,” but most likely “will” cause of a violation of drinking water rules, will endanger a drinking water source, and will adversely affect the health of persons.

6.7. The Application and the DWQ Fact Sheet do not contain an analysis of the ability of the proposed monitoring plans to limit impacts of excursions to groundwater, existing wells, and areas outside the AEB.

6.8. The LVMC Technical Report Appendix J, is a 22-page Ground Water Resources Report, Lisbon Valley Mining Company LLC, Lower Lisbon Valley Project, Supplemental Environmental Impact Statement (SEIS), dated March 2020. It is unclear why this document is included as an Appendix. A UIC Class III Permit application does not require an Environmental Impact Statement. The SEIS states in regard to the scope of the proposed action: “The Company is planning to expand current conventional open pit mining operations as well as implement in-situ recovery (ISR) operations in the Lower Lisbon Valley Mining District of San Juan County, Utah.” Apparently, LVMC intended to submit SEIS to the Bureau of Land Management. The scope of the very brief and inadequate SEIS is for both an expanded open pit/heap leach operation and the proposed ISL operation.

   The SEIS contains one relevant statement at Section 3.2.2 (page 10):

   ISR activities would involve the exempting of the BC aquifer only as it exists within the LLV ground water study area. The localized and perched alluvial aquifer would not be exempted, nor would the N aquifer. As the BC aquifer is confined geologically and structurally within the study area, the effects to the BC aquifer would be considered major, localized, and long-term. [Emphasis added.]

6.9. In Sum: The proposed UIC Class III Permit must be denied because the proposed underground injections should be prohibited due to the fact that the injection would endanger a drinking water source and would allow movement of fluid containing contaminants into underground sources of drinking water. The presence of those contaminants would cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5). The presence of those contaminants would adversely affect the health of persons who live adjacent to the propose ISL site and to those who use nearby wells for drinking and agricultural purposes.

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7. **Aquifer Exemption**

7.1. Utah Rule R317-7-4. Identification of USDW’s and Exempted Aquifers states:

   The Director shall identify USDW's and exempt aquifers following the procedures and based on the requirements outlined in 40 C.F.R. 144.7 and 40 C.F.R. 146.4.

Relevant Sections of 40 C.F.R. § 144.7:

(a) The Director may identify (by narrative description, illustrations, maps, or other means) and shall protect as underground sources of drinking water, all aquifers and parts of aquifers which meet the definition of “underground source of drinking water” in §144.3, except to the extent there is an applicable aquifer exemption under paragraph (b) of this section . . . .

(b) (1) The Director may identify (by narrative description, illustrations, maps, or other means) and describe in geographic and/or geometric terms (such as vertical and lateral limits and gradient) which are clear and definite, all aquifers or parts thereof which the Director proposes to designate as exempted aquifers using the criteria in §146.4 of this chapter.

EPA Regulations at 40 C.F.R. § 146.4 set out the criteria for exempted aquifers. The Division did not identify the Underground Sources of Drinking Water (USDW) or the proposed aquifer exemption area associated with the proposed Class III UIC Permit area. The Division did not provide any analysis of an Aquifer Exemption Request and the documents supporting that request. The Division has not explained how the proposed Aquifer Exemption meets the relevant criteria. The Division has not provided any basis for approving, amending, or not approving an Aquifer Exemption Request related to the proposed ISL Project.

7.2. The EPA has developed Guidelines for Reviewing Aquifer Exemption Requests. There is no evidence that the Division has reviewed an Aquifer Exemption Request in accordance with Guidelines, documented its review, and made the Request and Review documents available for public comment.

7.3. In sum: The Division’s draft analysis and response to that request for public comment. Therefore, at this, time there is no basis for the Division to grant an Aquifer Exemption for the proposed ISL operation in the Lower Lisbon Valley and the Division

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14 Guidance for Review and Approval of State Underground Injection Control (UIC) Programs and Revisions to Approved State Programs. GWPB Guidance #34, Environmental Protection Agency.
must correct the record and provide for a comment period and hearing on the Aquifer Exemption.


8. Additional Comments

8.1. The Division has referenced and relied on State of Arizona and EPA consideration of copper recovery operations. The Division should also have reviewed and taken into consideration the long history of ISL uranium recovery operations, which have been regulated primarily by the Nuclear Regulatory Commission until 2018, when Wyoming became an Agreement State for uranium recovery and 11e.(2) byproduct material. There is no difference between the proposed LLV copper recovery ISL project and a ISL uranium recovery ISL project, except that uranium will not be removed from the recovery leachate. There is extensive documentation regarding spills, excursions, leaks, mechanical failures for these types of projects, a documented in Exhibit A. There is extensive information about the inability of the ISL operator to return the aquifer to the original water quality parameters. There is extensive information about the ability of the ISL operator to recover contaminants that went outside the well fields. There is extensive information regarding the success of different recovery techniques and how long recovery has taken.

8.2. In-Situ Leach Uranium Mining Process and Its Environmental Impacts
Commenter incorporates by reference the discussion of In-Situ Leach Uranium Mining Process and Its Environmental Impacts contained in “Nuclear Fuel’s Dirty Beginnings: Environmental Damage and Public Health Risks From Uranium Mining in the American West,”15 pages 25 to 33.

8.3. The LVMC must conduct a Baseline Water Quality Assessment in the vicinity of the Wilcox and Stevenson wells, both of which are in the Burro Canyon Aquifer.

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Thank you for providing this opportunity for comment,

Sincerely,

Sarah Fields
Program Director

Carly Ferro
Director
Utah Chapter
Sierra Club

EXHIBIT A
URANIUM RECOVERY IN-SITU LEACH OPERATIONS
LICENSE VIOLATIONS AND REPORTABLE EVENTS

Crow Butte, Highland, Lost Creek, Nichols Ranch, Ross, Smith Ranch, and Willow Creek In-Situ Leach Uranium Recovery Sites


CROW BUTTE ISL - NEBRASKA
NRC Docket No. 40-8943 (enter 04008943 on ADAMS)
License Violations and reportable events at Crow Butte ISL Site

http://www.wise-uranium.org/umopusa.html#CROWBVIOL

Details on post-Nov.1,1999, events available through ADAMS, Docket No. 04008943)

- Sep. 22, 2020: Injection well fails 5-year mechanical integrity test
- May 29, 2020: Monitor well excursion
- May 21, 2020: Monitor well excursion
- Mar. 3, 2020: Production well fails 5-year mechanical integrity test
- Jan. 31, 2020: Production well fails 5-year mechanical integrity test
- Jan. 2, 2020: Evaporation Pond 1 liner leak
- Aug. 22, 2019: Monitor well excursion
- July 11, 2019: Production well fails 5-year mechanical integrity test
- June 24, 2019: Production well fails 5-year mechanical integrity test
- June 5, 2019: Monitor well excursion
- May 29, 2019: Evaporation Pond 1 liner leak
- May 2, 2019: Monitor well excursion
- Apr. 18, 2019: Monitor well excursion
- Apr. 9, 2019: Monitor well excursion
- Mar. 27, 2019: Monitor well excursion
- Mar. 25, 2019: Monitor well excursion
- Nov. 28, 2018: Monitor well excursion
- June 1, 2018: Monitor well excursion
- Sep. 12, 2017: 27,287 gallon spill of injection solution
- Aug. 29, 2017: Monitor well excursion
- July 27, 2017: Production well fails 5-year mechanical integrity test
- Mar. 14, 2017: Injection well fails 5-year mechanical integrity test
- June 8, 2016: Evaporation Pond 1 liner leak
- May 5, 2016: two Monitor well excursions
- Apr. 21, 2016: Monitor well excursion
- Apr. 20, 2016: Injection well fails 5-year mechanical integrity test
- Nov. 19, 2015: Monitor well excursion
- Oct. 27, 2015: Monitor well excursion
- Aug. 17, 2015: Injection well fails 5-year mechanical integrity test
- Aug. 13, 2015: Monitor well excursion
- July 9, 2015: Monitor well excursion
- July 2, 2015: Injection well fails 5-year mechanical integrity test
- June 3, 2015: Monitor well excursion
- May 28, 2015: Monitor well excursion
- May 27, 2015: Monitor well excursion
• May 21, 2015: Monitor well excursions
• May 19, 2015: Monitor well excursion
• Apr. 14, 2015: Monitor well excursion
• Feb. 11, 2015: Monitor well excursion
• July 22, 2014: Monitor well excursion
• July 2, 2014: Failure to sample the underdrains of a leaking pond and to submit a corrective action plan
• May 20, 2014: Monitor well excursion
• May 8, 2014: Monitor well excursion
• May 7, 2014: Evaporation Pond 1 liner leak
• Dec. 10, 2013: Monitor well excursion
• Sep. 11, 2013: Monitor well excursion
• Aug. 22, 2013: Well fails 5-year mechanical integrity test
• Aug. 6, 2013: Well fails 15-year mechanical integrity test
• Jun. 5, 2013: Radiation dose in unrestricted area exceeds 0.02 mSv/h standard
• Mar. 14, 2013: Evaporation Pond 1 liner leak
• Jan. 18, 2013: Well fails mechanical integrity test
• Oct. 24, 2012: Well fails 20-year mechanical integrity test
• Aug. 20, 2012: Well fails 5-year mechanical integrity test
• June 4, 2012: Well fails 5-year mechanical integrity test
• May 25, 2012: Monitor well fails 15-year mechanical integrity test
• Oct. 7, 2011: Monitor well excursion
• Aug. 9, 2011: Exceedance of Well Head Manifold Pressure Limitations
• July 18, 2011: two wells fail 5-year mechanical integrity test
• June 1, 2011: Evaporation Pond 1 liner leak
• May 27, 2011: two Monitor well excursions
• May 24, 2011: Monitor well excursion
• Mar. 16, 2011: Monitor well excursion
• Jan. 13, 2011: Monitor well excursion
• July 8, 2010: Monitor well excursion
• July 6, 2010: Well fails 5-year mechanical integrity test
• June 22, 2010: Excursions at two monitor wells "due to increased groundwater levels"
• June 22, 2010: Monitor well excursion
• June 16, 2010: Excursions at three monitor wells "due to increased groundwater levels"
• June 11, 2010: Evaporation Pond 3 liner leak detected
• May 10, 2010: Well fails 5-year mechanical integrity test
• Apr. 13, 2010: Excursion at monitor well due to "natural conditions"
• Dec. 31, 2009: Evaporation Pond 4 Liner Leak
• Nov. 19, 2009: Well fails 15-year mechanical integrity test
• Oct. 15, 2009: Mechanical integrity test missed for two wells
• June 18, 2009: Evaporation Pond 4 liner leak detected
• June 11, 2009: Monitor well excursion
• June 5, 2009: Evaporation Pond 1 liner leak detected
• April 27, 2009: Monitor well placed on excursion status
• April 17, 2009: Production well fails 5-year mechanical integrity test
• June 4, 2008: Exceedance of Well Head Manifold Pressure Limitations
• May 31, 2008: Monitor well placed on excursion status
• May 23, 2008: $50,000 penalty imposed for violations
• May 19, 2008: Monitor well placed on excursion status
• April 29, 2008: Five-year mechanical integrity test missed for 42 wells
• September 26, 2006: Monitor well placed on excursion status
• May 5, 2006: leak detected at Pond 4
• January 19, 2006: Monitor well placed on excursion status
• October 27, 2005: Injection well leak detected
• August 4, 2005: Monitor well placed on excursion status
• June 28, 2005: Monitor well placed on excursion status
• June 17, 2005: Monitor well placed on excursion status
• May 2, 2005: Monitor well placed on excursion status
• May 14, 2004: leak detected at Pond 1
• December 23, 2003: Monitor well placed on excursion status
• December 26, 2002: Monitor well placed on excursion status
• September 10, 2002: Monitor well placed on excursion status
• April 4, 2002: Monitor well placed on excursion status
• December 4, 2001: Monitor well placed on excursion status
• March 2, 2001: Monitor well placed on excursion status
• September 10, 2000: Monitor well placed on excursion status
• May 26, 2000: Monitor well placed on excursion status
• April 27, 2000: Monitor well placed on excursion status
• March 6, 2000: Monitor well placed on excursion status
• July 2, 1999: Monitor well placed on excursion status
• August 7, 1998: Spill of 10,260 gallons of injection fluid
• March 21, 1998: Monitor well placed on excursion status
• August 12, 1997: Discovery of Pinhole Leaks in Upper Liner of Process Water Evaporation Pond

HIGHLAND ISL - WYOMING
NRC Docket No. 40-8857 (enter 04008857 on ADAMS search)
License violations and reportable events at Power Resources, Inc. Highland Uranium Project, Wyoming, USA

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)

- Mar. 16, 2014: 8,916 gallon spill of injection fluid (1 ppm U)
- Dec. 11, 2013: Monitor well placed on excursion status
- Dec. 5, 2013: 891 gallon spill of permitted waste water (0.7 ppm U)
- Aug. 6, 2013: Monitor well placed on excursion status
- Jul. 31, 2013: 1,048 gallon spill of production fluid (10 ppm U)
- May 5, 2013: 85,000 gallon spill of injection fluid (2 ppm U)
- Mar. 11, 2013: Monitor well placed on excursion status
- Feb. 17, 2013: 105 gallon spill of production fluid (5.7 ppm U)
- Dec. 20, 2012: 1,141 gallon spill of production fluid (23.1 ppm U)
- Aug. 8, 2012: Monitor well placed on excursion status
- Aug. 1, 2012: Monitor well placed on excursion status
- Mar. 10, 2012: 344 gallon spill of production fluid (4.1 ppm U)
- Mar. 9, 2012: 1,202 gallon spill of injection fluid
- Mar. 7, 2012: 774 gallon spill of injection fluid
- Feb. 29, 2012: Monitor well placed on excursion status
- Jan. 12, 2012: Monitor well placed on excursion status
- Jun. 16, 2011: Monitor well placed on excursion status
- Jun. 7, 2011: Monitor well placed on excursion status
- Mar. 8, 2011: Sampling missed for seven monitoring wells
- Mar. 8, 2011: Monitor well placed on excursion status
- Sep. 10, 2010: Monitor well placed on excursion status
- Jun. 8, 2010: Monitor well placed on excursion status
- Jan. 29, 2010: 224 gallon spill of injection solutions (1.3 ppm U3O8)
- Jan. 13, 2010: Monitor well placed on excursion status
- Nov. 23, 2009: Monitor well placed on excursion status
- Sep. 24, 2009: Release of 90,600 gallons of treated process water
- July 31, 2009: Monitor well placed on excursion status
- July 7, 2009: Monitor well failure
- May 26, 2009: 5,050 gallon spill of injection fluid (3 ppm U3O8)
- May 21, 2009: Monitor well placed on excursion status
- May 11, 2009: 6,500 gallon spill of production solutions (19.8 ppm U3O8)
- Apr. 16, 2009: Monitor well placed on excursion status
- Mar. 30, 2009: Monitor well placed on excursion status
- Feb. 13, 2009: Monitor well placed on excursion status
- Jan. 10, 2009: 1,820 gallon spill of injection/production water containing 15 ppm uranium
- Nov. 18, 2008: Monitor well placed on excursion status
• Nov. 12, 2008: Monitor well placed on excursion status
• July 10, 2007: Monitor well placed on excursion status
• June 28, 2007: 900 gallon spill of injection fluid (1.1 ppm U)
• June 25, 2007: 3,747 gallon spill of production fluid (21 ppm U)
• June 22, 2007: 198,500 gallon [751 cubic meters] spill of injection fluid (8.1 ppm U) (view details)
• June 19, 2007: 900 gallon spill of production fluid (41.2 ppm U)
• May 21, 2007: 700 gallon spill of injection fluid (1.2 ppm U)
• May 1, 2007: monitor well on excursion status
• Dec. 30, 2005: 1,000 gallon spill of restoration injection fluid, containing approx. 0.7 mg/L uranium
• Aug. 30, 2005: 1,000 gallon spill of production fluid (15.4 mg/L U)
• May 17, 2005: 20,700 gallon spill of injection fluid, containing approx. 1.1 mg/L uranium
• Feb. 26, 2005: 3,000 gallon spill of production fluid, containing 11.5 mg/L uranium
• Jan. 10, 2005: 300 gallon spill of injection fluid, containing 1 mg/L uranium
• Sep. 12, 2004: 1,000 gallon spill of production fluid (10.5 mg/L uranium)
• May 3, 2004: 800-1,000 gallon spill of production fluid, containing about 11 mg/L uranium
• Feb. 11, 2004: 400-600 gallon spill of injection fluid (1.3 mg/L U308)
• Feb. 8, 2004: 500-1,000 gallon spill of injection fluid (1.1 mg/L U308)
• December 20, 2003: Spill of 600 gallons of injection fluid containing approx. 1.5 mg/L of uranium
• October 20, 2003: Spill of 2,800 gallons of injection fluid containing approx. 1.5 mg/L of uranium
• September 29, 2003: Spill of 5,000 gallons of injection/recirculation fluid containing approx. 2.0 mg/L of uranium
• March 13, 2003: Spill of approx. 1,100 gallons of wellfield injection fluid
• November 7, 2002: Monitor well placed on excursion status
• July 1, 2002: Monitor well placed on excursion status
• March 21, 2002: Monitor well placed on excursion status
• July 7, 1999: Spillage of 3-5 Gallons of Water Containing LSA of Uranium Byproduct Material
• June 1, 1999: Spillage of 4,000 Gallons of waste fluid
• Feb. 5, 1999: Monitor well placed on excursion status
• Feb. 5, 1998: Monitor well placed on excursion status

The Nuclear Regulatory Commission has issued a Notice of Violation to Power Resources, Inc., of Denver, Colorado, for violations of NRC requirements at the Highland Uranium Project in Converse County, Wyoming.
> View Notice of Violation EA 97-218

LOST CREEK ISL - WYOMING
NRC Docket No. 40-9068 (enter 04009068 on ADAMS search)
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/lost-creek.html

License violations and reportable events at Lost Creek ISL site

http://www.wise-uranium.org/umopuswy.html#LOSTCREEKVIOL

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
- Aug. 16, 2018: monitor well on excursion
- Jul. 28, 2018: 1,625 gallon spill of production fluid (84 mg/L U₃O₈)
- Jun. 21, 2018: monitor well on excursion
- Apr. 5-7, 2018: bleed rate lower than 0.5% requirement
- Oct. 9, 2017: monitor well on excursion
- Sep. 5, 2017: 10,000 gallon spill of injection fluid (1.1 ppm U)
- Aug. 19, 2017: 188,000 gallon [712 m³] spill of injection fluid (1.2 mg/L U) (view details) http://www.wise-uranium.org/umopuswy.html#LOSTCREEKSPILL17
- May 22, 2017: 1,100 gallon spill of injection fluid (1.5 mg/L U)
- Feb. 6, 2017: 3,360 gallon spill of injection fluid (0.5 ppm U)
- Jan. 9, 2017: 3,654 gallon spill of injection fluid (1.3 ppm U)
- Dec. 22, 2016: 582 gallon spill of injection fluid (1.5 ppm U)
- Sep. 29, 2016: vertical excursion at monitor well
- July 20, 2016: 13,650 gallon spill of production fluid (89.1 ppm U)
- Oct. 18, 2015: 367 gallon spill of production fluid (59.4 mg/L U)
- Sep. 11, 2015: NRC Notice of Violation (failure to issue Radiation Work Permits)
- Aug. 20, 2015: monitor well on excursion
- July 15, 2015: monitor well on excursion
- May 27, 2015: monitor well on excursion
- Apr. 8, 2015: 960 gallon spill of injection fluid (2.6 mg/L U)
- Mar. 11, 2015: 915 gallon spill of injection fluid (1.2 mg/L U)
- Mar. 6, 2015: 13,395 gallon spill of waste water (24.9 mg/L U)
- Jan. 13, 2015: 6,128 gallon spill of injection fluid (2.3 mg/L U)
- Dec. 16, 2014: 900 gallon spill of production fluid (146 mg/L U)
- Dec. 12, 2014: 2,835 gallon spill of injection fluid (3.8 mg/L U)
- Dec. 12, 2014: 5,520 gallon spill of production fluid (64.6 mg/L U)
- Lost Creek Spill Map (excerpt), Annual Report 2014
- Nov. 20, 2014: 700 gallon spill of injection fluid (3.1 mg/L U)
- Nov. 14, 2014: NRC Notice of Violations (3 violations, see above)
- Sep. 15, 2014: 370 gallon spill of injection fluid (5 mg/L U)
- Jul. 13, 2014: 1,260 gallon spill of "raw groundwater" (2.3 mg/L U?)
- Jun. 3, 2014: 57,000 gallon spill of production fluid (132 mg/L U)
- May 30, 2014: 900 gallon spill of waste water
- Mar. 29, 2014: 15,513 gallon spill of waste water
- Mar. 25, 2014: 6,000 gallon spill of production fluid (194 mg/L U)
- Mar. 20, 2014: 1,854 gallon spill of waste water
- Feb. 25, 2014: 1,400 gallon spill of injection fluid (50.3 mg/L U)
- Feb. 9 - Mar. 28, 2014: freeboard exceedance at two holding ponds (see above)
- Jan. 18, 2014: 680 gallon spill of injection fluid
- Jan. 18, 2014: 475 gallon spill of injection fluid (8.67 mg/L U)
- Dec. 13, 2013: State orders halt of operation at Lost Creek uranium in situ leach mine for failure to maintain bleed (see above)
- Nov. 23, 2013: 840 gallon spill of injection fluid (12 mg/L U)
- Nov. 12, 2013: 3,360 gallon spill of injection fluid (0.08 mg/L U)
- Aug. 4, 2013: 24,458 gallon spill of injection fluid (< 1 ppm U)
- Aug. 3, 2013: 2,200 gallon spill of injection fluid (< 1 ppm U)

NICHOLS RANCH ISL - WYOMING
NRC Docket No. 40-9067 (enter 04009067 on ADAMS search)
License Violations and reportable events at Nichols Ranch ISL site
http://www.wise-uranium.org/umopuswy.html#NICHOLSRANCHVIOL

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
- Jun. 12, 2017: 4,500 gallon spill of injection fluid (< 1 mg/L U)
- Dec. 7, 2016: 2,800 gallon spill of injection fluid (< 1 mg/L U)
- Nov. 15, 2016: 55 gallon spill of production solution (27.4 mg/L U)
- Aug. 11, 2016: 670 gallon spill of injection fluid
- Nov. 5, 2015: 700 gallon spill of injection fluid
- Dec. 2, 2014: 606 gallon release of injection solution (0.5 ppm U)
- Nov. 2, 2014: 1,745 gallon release of injection fluid (0.201 ppm U)
- Sep. 8, 2014: 12,975 gallon release of production solution (21.6 ppm U; the release flowed outside the permit boundary)
- July 17, 2014: 20,219 gallon release of production fluid (33 ppm U₃O₈; the release "appears" to have flown outside the permit boundary)
- June 5, 2014: 2,500 gallon release of injection fluid (0.04 ppm U)
- Apr. 28, 2014: injection well found to be still in use after failing mechanical integrity test in February
• Feb. 12, 2014: injection well fails mechanical integrity test
• Aug. 14, 2013: 500 gallon spill of "grey water"

ROSS ISL - WYOMING
NRC Docket No. 40-9091 (enter 04009091 on ADAMS search)

License violations and reportable events at Ross ISL site

http://www.wise-uranium.org/umopuswy.html#ROSSVIOL

post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
• Aug. 9, 2017: 4,316 gallon spill of injection fluid
• July 27, 2017: 10,008 gallon spill of injection fluid
• May 25, 2017: 800 gallon spill of injection fluid
• Feb. 28, 2017: Samples taken from Pond 1 Monitor Well in exceedance of limits
• Oct. 11, 2016: 1000 gallon spill of injection solution (1.46 mg/L U)
• July 19, 2016: 1620 gallon spill of retention pond water (2 mg/L U)
• June 1, 2016: 500 - 600 gallon spill of recovery solution (22.6 ppm U)
• April 27, 2016: Pond monitor well indicates release from Pond 1 (however, Strata Energy believes that the exceedance is likely a result of natural variation in shallow groundwater quality)
• March 3, 2016: 1200 gallon spill of waste water (0.7 mg/L U)

SMITH RANCH ISL - WYOMING
NRC Docket No. 40-8964 (enter 04008964 on ADAMS search)
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/smith-ranch.html

License violations and reportable events at Smith Ranch in-situ leaching site
http://www.wise-uranium.org/umopussr.html#SMITHRVIOL

post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
• Oct. 19, 2017: 533 gallon spill of restoration recovery fluid (4.2 ppm U)
• Feb. 20, 2016: 4,264 gallon spill of production fluid (11.5 ppm U)
• Dec. 4, 2015: Monitor well placed on excursion status
• Oct. 23, 2015: 41 gallon spill of production fluid (24 ppm U)
• May 21, 2015: 480 gallon spill of discharge fluid (7 ppm U)
• Jan. 16, 2015: 3,520 gallon spill of injection fluid (1.8 ppm U)
• Oct. 30, 2014: 15 gallon spill of injection fluid (2.1 ppm U)
• Aug. 19, 2014: 9,074 gallon spill of injection fluid (2.7 ppm U)
• Mar. 12, 2013: Monitor well placed on excursion status
• Feb. 19, 2013: Monitor well placed on excursion status
• Oct. 20, 2012: 100 gallon spill of production fluid (31.1 ppm U)
• Oct. 16, 2012: 50 gallon spill of injection fluid
• Aug. 20, 2012: Monitor well placed on excursion status
• Dec. 6, 2011: 1,779 gallon spill of injection fluid (0.7 ppm U3O8)
• Nov. 7, 2011: Leak in East Evaporation Pond
• Sep. 12, 2011: Monitor well placed on excursion status
• Aug. 19, 2011: 85 gallon spill of injection fluid
• Aug. 15, 2011: Leak in East Evaporation Pond (158 mg/L U)
• July 22, 2011: 53 gallon spill of injection fluid
• July 8, 2011: 1,190 gallon spill of restoration recovery fluid containing 2.4 ppm U3O8
• June 13, 2011: Leak in East Evaporation Pond (248 mg/L U)
• May 19, 2011: 790 gallon spill of solution containing 17 ppm U-nat, spill length 2,112 feet (644 m), width 3 feet (0.9 m)
• May 3, 2011: 1,500 gallon spill of production fluid, impacting 12,077 square feet (1,122 m²)
• Sep. 10, 2010: 960 gallon spill of solution containing 1.5 ppm U3O8
• Jul. 20, 2010: leak in East Storage Pond
• Jul. 8, 2010: 1,440 gallon spill of injection fluid containing 1 ppm U3O8
• Nov. 19, 2009: 560 gallon spill of injection solutions containing 1.4 ppm U3O8
• Aug. 26, 2009: 1,500 gallon spill of injection solutions containing 1.1 ppm U3O8
• Jun. 11, 2009: 190 gallon spill of injection solutions containing 0.7 ppm U3O8
• Apr. 23, 2009: leak in East Storage Pond (510 ppm U3O8)
• Feb. 27, 2009: leak in East Storage Pond (263 ppm U3O8)
• Feb. 9, 2009: 14,600 gallon spill of production solutions containing 7 ppm U3O8
• Jan. 9, 2009: 2,169 gallon spill of production solutions containing 11 ppm U3O8
• Dec. 29, 2008: 1,144 gallon spill of injection fluid containing 0.2 ppm uranium
• Oct. 30, 2008: 5,500 gallon spill of injection fluid containing 2 ppm uranium
• Sep. 17, 2008: 16,774 gallon spill of injection fluid
• Aug. 17, 2008: 7,965 gallon spill of injection fluid containing 1.4 ppm uranium
• July 24, 2008: 2,887 gallon spill of production water and 12,770 gallon spill of solution
• Aug. 23, 2007: 11,600 gallon spill of deep disposal well fluid
• June 27, 2007: 900 gallon spill of injection fluid containing 1.1 ppm uranium
• June 19, 2007: 900 gallon spill of fluid containing 41.2 ppm uranium
• Feb. 19, 2007: 6,000 gallon spill of production fluid (32.5 ppm uranium)
• Jan. 14, 2007: 5,000 gallon spill of injection fluid (2 ppm uranium)
• Dec. 13, 2006: 560 gallon spill of injection fluid (2 ppm uranium)
• Dec. 5, 2006: 10,000 gallon spill of mixed monitor well, restoration and waste fluids (1 ppm uranium)
• Nov. 22, 2006: 2,100 gallon spill of mine waste water
• Feb. 10, 2006: 1,000 gallon spill of production fluid, containing approx. 21 mg/L uranium
• Jan. 9, 2006: 6,240 gallon spill of injection fluid, containing approx. 1.7 mg/L uranium
• Oct. 21, 2005: 7,041 gallon spill of deep disposal well fluid
• Oct. 21, 2005: Leak detected in evaporation pond
• Sep. 2, 2005: 4,500 gallon spill of production fluid, containing approx. 8.6 mg/L uranium
• Aug. 16, 2005: 1,050 gallon spill of production fluid, containing approx. 2.1 mg/L uranium
• May 31, 2005: 4,700 gallon spill of injection fluid, containing approx. 1.1 mg/L uranium
• Oct. 9, 2004: 5,000 gallon spill of ground water sweep fluids containing 7 mg/L uranium
• Sep. 29, 2004: 2,000 gallon spill of injection fluid, containing 1.6 mg/L uranium
• Sep. 8, 2004: wellfield excursion at Mine Unit 4 monitoring well
• Sep. 6, 2004: 1,600 gallon spill of injection fluid
• July 22, 2004: 2,700-5000 gallon spill of production fluid
• Oct. 15, 2003: 5,000 gallon spill of injection fluid containing about 47 mg/L of U3O8
• Sep. 29, 2003: 5,000 gallon spill of injection fluid containing about 2 mg/L of U3O8
• Sep. 6, 2003: 20,800 gallon spill of injection fluid containing about 1.1 mg/L of uranium
• Feb. 9, 2003: 500 gallon spill of production fluid containing about 2 mg/L of uranium
• Jul. 30, 2002: 1,480 gallon spill of injection fluid
• Apr. 25, 2002: 3,500 gallon spill of injection fluid
• Apr. 24, 2002: 18,000 gallon spill of injection fluid
• Jan. 4, 2002: 1,800 gallon spill of production fluid containing about 18 ppm U3O8
• Dec. 5, 2001: 3,600 gallon spill of injection fluid
• Oct. 22, 2001: 62,400 gallon spill of injection fluid
• Jun. 18, 2001: 1,100 gallon spill of deep well disposal fluid
• Nov. 22, 2000: 1,870 gallon spill of injection fluid
• Oct. 22, 2000: 11,100 gallon spill of injection fluid
• Aug. 7, 2000: 780 gallon spill of production fluid
• Feb. 26, 2000: 3,780 gallon spill of production fluid
• Jan. 17, 2000: 6,900 gallon spill of production fluid
• Dec. 31, 1999: 3,000 gallon spill of injection fluid

(details available through ADAMS, Docket No. 04008964)

WILLOW CREEK - WYOMING
NRC Docket No. 40-8502
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/christensen-ranch.html

License violations and reportable events at Willow Creek (ex Christensen Ranch / Irigaray) in-situ leaching site

http://www.wise-uranium.org/umopuswy.html#CHRISVIOL


According to Cogema's "Quarterly Progress Report of Monitor Wells on Excursion Status" of Oct. 2, 2000 (available through ADAMS), 7 monitor wells at Irigaray remained on excursion status during the third quarter of 2000. The wells have been on excursion status for more than one year and up to 11 years. One other monitor well has been removed from excursion status.

Latest NRC Event Reports referring to Uranium One's Willow Creek (ex Christensen Ranch / Irigaray) ISL site in Wyoming:

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)

• Aug. 6, 2018: 4,130 gallon spill of recovery fluid (9.6 ppm U₃O₈)
• June 29, 2018: Monitor well placed on excursion status
• Aug. 9, 2017: 7,400 gallon spill of production fluid (8.9 ppm U)
• Jul. 25, 2017: 5,000 gallon spill of injection fluid (1.1 ppm U) and production fluid (9.7 ppm U)
• May 24, 2017: 3,600 gallon spill of injection fluid (0.41 - 0.81 ppm U)
• Nov. 29, 2016: 3,300 gallon spill of injection fluid (0.67 ppm U)
• Oct. 17, 2016: 3,500 gallon spill of injection fluid (0.5 ppm U)
• Oct. 11, 2016: 1,405 gallon spill of injection fluid
• June 1, 2016: Monitor well placed on excursion status
• Apr. 30, 2016: Monitor well placed on excursion status
• Dec. 7, 2015: 2,100 gallon spill of production fluid (3.3 ppm U)
• June 30, 2015: Monitor well placed on excursion status
• Mar. 10, 2015: 830 gallon spill of injection fluid (1.7 ppm U)
• Dec. 29, 2014: Monitor well placed on excursion status
• Aug. 15, 2014: 492 gallon spill of recovery fluid (11.2 ppm U)
• Aug. 13, 2014: 535 gallon spill of injection fluid (0.8 ppm U)
• Jul. 25, 2014: 946 gallon spill of injection fluid (0.92 ppm U)
• Jul. 7, 2014: Disposal well shut in due to apparent leaking of tubing in the well
• June 19, 2014: Deep disposal well fails mechanical integrity test
• May 15, 2014: "potential leak" at evaporation pond
• Apr. 19, 2014: 616 gallon spill of injection fluid (0.32 ppm U)
• Mar. 3, 2014: 665 gallon spill of injection fluid (0.6 ppm U)
• Jan. 15, 2014: 77,700 gallon spill of production fluid (12.7 ppm U)
• Nov. 26, 2013: 1,060 gallon spill of injection fluid (0.32 ppm U)
• Oct. 31, 2013: 740 gallon spill of injection fluid (1.2 ppm U)
• Jul. 22, 2013: 2,600 gallon spill of injection fluid (1.1 ppm U)
• Jun. 15, 2013: 1,400 gallon spill of injection fluid (0.8 ppm U)
• Mar. 7, 2013: Evaporation pond leak
• Mar. 5, 2013: "potential leaks" at two evaporation ponds
• Feb. 11, 2013: 2,100 gallon spill of injection fluid
• Dec. 23, 2012: 800 gallon spill of injection fluid (< 0.4 ppm U)
• Dec. 22, 2012: 950 gallon spill of disposal well fluid (2.1 ppm U)
• Dec. 9, 2012: 1,500 gallon spill of injection fluid (< 0.4 ppm U)
• Oct. 12, 2012: Monitor well placed on excursion status
• Sep. 10, 2012: spill of injection fluid from unplugged historic drillhole located near injection well
• Sep. 7, 2012: 1,000 gallon spill of injection fluid
• Jun. 30, 2012: 1,500 gallon spill of injection fluid (0.9 ppm U)
• Jun. 18, 2012: 1,200 gallon spill of recovery fluid (7.5 ppm U)
• Jun. 18, 2012: 300 gallon spill of injection fluid (1.0 ppm U)
• Jun. 17, 2012: 500-700 gallon spill of injection fluid (1.4 ppm U)
• Apr. 20, 2012: 1,020 gallon spill of injection fluid (1.0 ppm U)
• Apr. 12, 2012: Monitor well placed on excursion status
• Apr. 3, 2012: Two monitor wells placed on excursion status
• Mar. 29, 2012: Two monitor wells placed on excursion status
• Jan. 5, 2012: Monitor well placed on excursion status
• Dec. 14, 2011: 1,500 gallon spill of RO brine fluid (3.8 mg/L U)
• Oct. 2, 2011: Aerial release of yellowcake powder
• Sep. 23, 2011: 4,000 gallon spill of injection fluid (0.87 mg/L U)
• Aug. 24, 2011: Monitor well placed on excursion status
• "around August 4 or 5, 2011": approx. 7,000-10,000 gallon spill of NaCl brine solution
• Jun. 21, 2011: 1,500 gallon spill of injection solution (3.5 ppm U)
• Apr. 19, 2011: Monitor well placed on excursion status
• Apr. 12, 2011: Sampling missed for months at 24 monitoring wells, at least
• Mar. 29, 2011: 1,000 gallon spill of barren injection fluid
• Mar. 23, 2011: Monitor well placed on excursion status
• Mar. 8, 2011: Monitor well placed on excursion status
• Jun 10, 2010: Monitor well placed on excursion status
• Jun 8, 2010: 1,200 gallon spill of permeate water
• Jun 3, 2010: Evaporation pond leak
• Dec 16, 2009: Monitor well placed on excursion status
• Sep 15, 2009: Monitor well placed on excursion status
• Mar 12, 2009: Monitor well placed on excursion status
• Apr 17, 2008: Monitor well placed on excursion status
• Mar 11, 2008: Two monitor wells placed on excursion status
• Sep 5, 2007: Monitor well placed on excursion status
• Apr 25, 2007: Monitor well placed on excursion status
• Jul 22, 2004: Monitor well placed on excursion status
• Apr 28, 2004: Two leaks detected in evaporation ponds
• May 31, 2001: Monitor well placed on excursion status
• Jan 23, 2001: 13,392 Gallon spill of restoration water
• Aug 10, 2000: Monitor well placed on excursion status
• Oct 28, 1999: Monitor well placed on excursion status
• Oct 5, 1999: Monitor well placed on excursion status
• Jul 8, 1999: Monitor well placed on excursion status
• May 8, 1999: 15,000 Gallon Mining Injection Solution Spill
• Apr 12, 1999: 32,400 Gallon Injection Solution Spill
• Apr 3, 1999: 13,000 Gallon Spill of Restoration Water
• Mar 29, 1999: 23,520 Gallon Mining Injection Solution Spill
• Mar 26, 1999: 60,918 Gallon Mining Injection Solution Spill
• Feb 17, 1999: Monitor well placed on excursion status
• Dec 22, 1998: Monitor well placed on excursion status
• Nov 19, 1998: Monitor well placed in excursion status
• Sep 2, 1998: Shallow monitor well is in an excursion status
• Aug 6, 1998: Ground water monitor well placed in excursion status
• Jul 22, 1998: Minor leakage of byproduct solution from the evaporation pond
• Jul 8, 1998: 28,000 Gallons of water containing low level of U3O8 spilled onto ground
• Mar 5, 1998: Perimeter monitor well in excursion status
• Oct 3, 1997: Monitor well in excursion status
• Sep 16, 1997: Spilled 2,440 gallons of waste water containing 78.5 ppm natural uranium
• Sep 12, 1997: Well in excursion
• May 16, 1997: Two perimeter monitoring wells in excursion status
• Mar 12, 1997: Perimeter well in excursion status
• Dec 31, 1996: Perimeter well in excursion status

(details on post-November 1, 1999, events available through ADAMS, Docket No. 04008502)

Compiled by
Sarah Fields
Uranium Watch
December 16, 2020
Corrected LVMC UIC Permit Comments of Uranium Watch/Sierra Club

3 messages

sarah uraniumwatch.org <[redacted]>  Fri, Jan 15, 2021 at 3:16 PM
To: "dearley@utah.gov" <dearley@utah.gov>

Dear Mr. Earley,

Attached please find the corrected version of the Uranium Watch/Sierra Club comments on the Lisbon Valley Mining Company, LLC, Class III UIC Permit. There were 2 errors in comment 5.1, which changed the intent of the comments. I have bolded the corrected language in this version.

Sorry for any inconvenience.

Sincerely,

Sarah Fields
Uranium Watch

Drummond Earley <dearley@utah.gov>  Fri, Jan 15, 2021 at 4:24 PM
To: "sarah uraniumwatch.org" <[redacted]>

Ms. Fields,

We will file the corrected comments and replace the previous version.

Thank you,

Dusty Earley

[Quoted text hidden]

Drummond Earley <dearley@utah.gov>  Fri, Jan 15, 2021 at 4:27 PM
To: Daniel Hall <dhall@utah.gov>, Meg Osswald <megosswald@agutah.gov>

FYI, I replied indicating we would replace the original.

[Quoted text hidden]
via electronic mail

January 11, 2020

Erica Gaddis
Director
Division of Water Quality
Utah Department of Environmental Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Attn: Drummond Earley
dearley@utah.gov

Re: Underground Injection Control (UIC) Class III Area Permit, In Situ Copper Recovery, Lisbon Valley Mining Company, LLC, San Juan County, Utah. Draft Permit No. UTU-37-AP-5D5F693

Dear Ms. Gaddis:

Below are comments on the proposed Underground Injection Control (UIC) Class III Area Permit for a proposed in situ copper recovery operation proposed by the Lisbon Valley Mining Company, LLC (LVMC), in the Lower Lisbon Valley in San Juan County, Utah. These comments are responsive to Utah Division of Water Quality (DWQ, or Division) public notices dated November 7 and 18, 2020. The Division extended the comment period to January 11, by notice dated December 1, 2020.

Comments are submitted on behalf of Uranium Watch and the Utah Chapter of the Sierra Club.

Uranium Watch is a public interest 501c(3) non-profit that primarily addresses uranium mining and milling issues. However, UW Program Director, Sarah Fields, travels regularly though Lisbon Valley and recently lived south of the project area on West Summit Road, and extension of Lisbon Valley Road. Also, the proposed in situ leach
(ISL) copper recovery project will also recover uranium, although the uranium will not be produced as a saleable mineral product.

Utah Sierra Club is a non-profit organization that is a powerful collective of thousands of grassroots changemakers working together across the state to advance climate solutions, act for justice, get outdoors, and protect lands, water, air, and wildlife. Established in 1969, the Utah Chapter strives to protect and enjoy Utah’s outdoors and natural landscapes; Educate and advocate for the responsible preservation of clean air, water, and habitats; support the development of clean energy to benefit present and future generations; and advance principles of equity, inclusion, and justice throughout our organization and community.

Commenters incorporate by reference the comments on the Underground Injection Control (UIC) Class III Area Permit provided to the DWQ by the Lower Lisbon Valley Residents, dated January 10, 2020, and William P. Johnson, PhD., dated January 5, 2020.

1. Request for “Aquifer Exemption” Public Comment Period and Public Hearing

1.1. The Division did not make clear the process for obtaining an Aquifer Exemption and Environmental Protection Agency Regulations requirement for a public comment period and public hearing on Aquifer Exemption Requests. There was no proper Public Notice of an opportunity provide written and oral comments on a LVMC Aquifer Exemption Request.

1.2. The heading for the Public Notices of November 4 and December 1, 2020, states: “Public Notice of Intent to Issue Permit Underground Injection Control Class III Area Permit In Situ Copper Recovery.” The Notices state regarding the Purpose of Public Notice: “The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to authorize a new Underground Injection Control (UIC) Class III permit as described below.” The Notices do not state that the Purpose of the Public Notice is to obtain comments on an Aquifer Exemption Request.

1.3. The heading for the November 19, 2020, Notice states: “Notice Public Hearing on Draft Permit Underground Injection Control Class III Area Draft Permit.” The Notice states regarding the Purpose of the Public Hearing: “The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to authorize a new Underground Injection Control (UIC) Class III area permit as described below.” The Notices do not state that the Purpose of the Public Hearing is to obtain comments on an Aquifer Exemption Request.
1.4. The Division “Statement of Basis and Fact Sheet” is for an “Underground Injection and Control (UIC) Class III Draft Area Permit.” The “Statement of Basis and Fact Sheet” is not for an Aquifer Exemption Request. The Statement of Basis and Fact Sheet provides little information about an Aquifer Exemption Request. The Fact Sheet statement regarding an “Aquifer Exemption Request” gives the impression that the aquifer exemption is subject to Environmental Protection Agency (EPA) approval and an EPA public notice and comment process:

Lisbon Valley is seeking an Aquifer Exemption for the Burro Canyon Aquifer beneath the permit area (Figure 1) according to R317-7-4 and the Division has identified aquifers that may be exempted as sources of underground drinking water following the procedures and based on the requirements outlined in 40 CFR 144.7 and 40 CFR 146.4. The exemption is subject to approval by the Environmental Protection Agency (EPA) UIC Program Administrator following public notice and comment.

The Statement of Basis and Fact Sheet does not provide any substantive information regarding the Aquifer to be exempted and the basis for such an exemption. The Fact Sheet states that “the Division has identified aquifers that may be exempted,” but does not provide any information about the aquifers it may exempt.

1.5. The Application documents posted on the Division Public Notice website contain maps and figures showing two (2) completely different Aquifer Exemption Boundaries. The Technical Report Attachments zip file contains other zip files, one of which is LVMC Technical Report Figures, which opens to a file of the ISR Maps and Figures. All of the maps and figures in this file show an Aquifer Exemption Boundary that extends east to the Utah/Colorado border.

The September 29, 2020, LLV Technical Report figures and maps show a completely different, smaller, Aquifer Exemption Boundary, except for one Figure. Figure 16.1 (page 172), Geologic Structure and Aquifer Extent, shows the Burro Canyon Aquifer and Aquifer Exemption Boundary extending to the Utah/Colorado border.

The Figures in the September 2020 LLV Technical Report also contain different information related to the Wilcox Well 05-3907/05-3575, which is within the Aquifer Exemption Boundary on the Technical Report Attachments maps and figures, but outside of the Boundary shown in maps and figures within the September 2020 LLV Technical

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Report.

1.6. In Sum: 1) the Application documents posted on the DWQ Public Notice webpage show 2 completely different Aquifer Exemption Boundaries; 2) The Division failed to notice an opportunity for public comment on an Aquifer Exemption Request; 3) the Division failed to provide for a public hearing on an Aquifer Exemption Request; and 4) The Division did not provide any bases for granting an Aquifer Exemption, with reference to the applicable aquifer exemption requirements and the administrative record. Therefore, the Division must clarify the Aquifer Exemption Boundary that is being requested and the basis for that Boundary, and provide Proper Public Notice of an opportunity for a public comment period and a public hearing on the LVMC Aquifer Exemption Request.

2. General Comments

2.1. At the beginning of the comment period the Division failed to make the full LVMC UIC Permit application available to the public on the Public Notice website. Nor was the full application available at the time of the public hearing held on November 24, 2020. It was not until after the public hearing that what appears to be the UIC Permit Application was posted on the DWQ public notice webpage. The Division, therefore, failed to make the full Application available to the public in a timely manner.

2.2. Although the Division posted some of the Application documents, the Division has not identified which documents are part of the Application under review by the DWQ. There are different Figures and Maps that have been included as part of the Application on the Division website. There is no document issued by the DWQ stating that the Application is complete. The Division should have provided a full list of the Application Documents, but did not. The Division should have created a separate LVMC Application webpage with links to each separate document and a list of all of the relevant application documents, including identification of original documents and subsequent revisions. It is not appropriate just to post large files, which contain zip files within zip files within zip files.

2.3. The Division recently posted a new document to the Lisbon Valley Mining Co., LLC, public notice documents. This is “ISR Figure 3.1 Area of Review.” It is very hard to tell the date of this document, but, apparently, it is dated June 24, 2020. This is not the

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same Figure 3.1, dated November 12, 2019,\textsuperscript{4} that was referenced in the LVMC September 29, 2020, Class III Underground Injection Control Permit Application. It is not the same Figure 3.1 that was included in the Technical Report Figures/ISR Maps and Figures that are part of the Technical Report Attachments posted on the DWQ Public Notice webpage. It is not appropriate for the Division to add a new, and very different, document to the administrative record to replace an earlier document—without explanation—at the last minute.

2.4. At the November 24 hearing and in a subsequent letter to the DWQ, UW requested a 60-day extension of the comment period suspense date of December 4, 2020. The extension request was based on the lack of availability of pertinent UIC Permit Application records, the complexity of the Application, and the winter holidays. The Division provided a 38-day extension of the comment period. While UW appreciates the extension, there was no basis for not providing a full 60-day extension. This project will take more than 2 years to fully permit. There is no need to rush this process.

3. **Statement of Basis and Fact Sheet**

3.1. As part of their response to the Class III UIC Permit Application, the Division produced a 4-page “Statement of Basis and Fact Sheet for a [sic] Underground Injection and Control (UIC) Class Draft Area Permit,” dated November 4, 2020. The Fact Sheet contains a very brief description of the type of facility, a brief description of the In-Situ Copper Recovery injectate, a brief discussion of Permit Conditions and some references, and a mention of the Aquifer Exemption Request to the Environmental Protection Agency (EPA). The Fact Sheet is not adequate and does not meet EPA requirements, as will be discussed below.

3.2. EPA regulation applicable to UIC Permits and State Programs, such as the DWQ regulation of UIC Permits, are found at 40 C.F.R. Part 124. Section 124.8 provides the requirements for a UIC Permit fact sheet:

\[(b)\] The fact sheet shall include, when applicable:

\[(1)\] A brief description of the type of facility or activity which is the subject of the draft permit;

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{4} https://uraniumwatch.org/lisbonvalleymine/ LVMC_UIC_TechReport_Map_Figure3.1_AreaofReview.png
\end{itemize}
\end{footnotesize}
(2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

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(4) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by §124.9 (for EPA-issued permits);

(5) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(6) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under §124.10 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(7) Name and telephone number of a person to contact for additional information.

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Clearly, the DWQ Fact Sheet does not meet these EPA requirements.

3.3. The Fact Sheet is supposed to provide a brief description of the type of facility or activity which is the subject of the draft permit. The description of the type of activity is minimal. The map provides no information about the number and location of ISL-related wells, location of ore bodies, location of wells used for domestic and agricultural purposes, surface impacts, and other relevant information.

3.4. A Fact Sheet should include a description of “the type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.” The Division’s Fact Sheet does not meet this requirement. There is only a mention of the fluids that will be injected. The chemical constituents and nature of the injectate is not included. There is no description of the type and quantity of wastes, fluids, and pollutants that will be treated, stored, disposed of, injected, emitted, or
discharged. There is no description of the project as a whole. There is no analysis of the uranium and other potential radionuclides that will be mobilized by the injectate and how those radioactive contaminants will be removed from the final copper product. There is no analysis of the extent and amount of radon emissions from the project, which is similar to uranium recovery ISL operations in Wyoming that emit radon. There is no mention of the disposal of wastes in a proposed Class V UIC well or possible land application of these wastes.

3.5. The Fact Sheet is supposed to contain a “brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record.” The Fact Sheet does not contain any information about the draft permit conditions, including references to applicable statutory and regulatory provisions, with supporting references to the administrative record. There is no discussion of how, exactly, the proposed project meets the applicable technical criteria and standards.

3.6. The Fact Sheet minimal information regarding the procedures for reaching a final decision on the draft permit.

3.7. The Fact Sheet contains various statements related to the proposed project, but does not provide any references or bases for those statements.

3.8. The Fact Sheet states that “Utah does not have specific statutes and regulations for the construction and operation of in-situ recovery wells and well fields, in general, and for copper recovery, specifically.” Therefore, the public in Utah has not had the opportunity to comment on specific statutes and regulations for the construction and operation of in-situ recovery wells and well fields for copper and other types of mineral recovery operations.

The State of Utah should not accept and review ISL mineral recovery applications until Utah has established applicable regulatory programs.

3.9. The Fact Sheet states: “Moreover the Draft Permit is justified on the basis of the limited extent and use of the Burro Canyon aquifer in the proposed permit area, the occurrence of mineralization of potential commercial value and relatively poor water quality.” This apparent conclusion does not identify and discuss the important use of the Burro Canyon Aquifer (BCA) for domestic, irrigation, and stock watering purposes. There is no discussion of the fact that the quality of the water varies within the BCA.

3.10. The Fact Sheet states that “Lisbon Valley will overproduce solution from production wells in order to maintain an inward hydraulic gradient and contain leach solutions within the permit area.” It states that, “monitoring wells will be installed to
ensure that no injectate or leach solution escapes from the wellfields and permit area,” and that “any vertical migration will also be detected by deep monitor wells within the Morrison and Navajo Formations.” These statements are unverified assumptions. The documentation does not support these conclusions. The monitoring wells will not, in themselves, ensure that no leach solutions escape from the well fields. They will only be able to identify excursions of leachate—if properly placed and operated. Monitoring wells do nothing to control those excursions. The wells serve to identify excursions, but trigger actions only after excursions are detected.

There are no explicit regulatory standards at the federal level for monitoring wells. Monitoring wells should be placed close enough to the well field to ensure timely detection of contamination. According to an Natural Resource Defense Council report, Early detection of excursions may depend on a number of factors, including the thickness of the aquifer monitored, the distance between the monitor wells and the well field and the spacing of monitor wells, the frequency of monitor-well sampling, the water-quality parameters being sampled, and the concentrations of the parameters chosen to signal an excursion.

4. Availability Class III Area Permit Documents

4.1. The Division made available on the DWQ Public Notice website a draft Class III Area Permit, Underground Inject Control (UI) Program, UIC Permit Number: UTU-37-AP-5D5F692, Lisbon Valley Mine, San Juan County, Utah, October 2020. The 69-page Document references several attachments, which are part of the Permit: Attachment A, General Location Map of the Lisbon Valley Mine, San Juan County; Attachment B, Map of the UIC Area of Review including the Class III In-Situ Copper Recovery Injection Wells and the Project Area; Attachment C, Corrective Action Plan for Artificial Penetrations into Injection Zone within Area of Review; Attachment D, Injection Well Construction Plan with Injection Well Construction Details; Attachment E, Injection Well Operating Plan and Procedures; Attachment F, Monitoring, Recording, and Reporting Plan; Attachment G, Contingency Plan for Well Shut-ins or Well Failures; Attachment H, Groundwater Restoration Plan; Attachment I, Plugging and Abandonment Plan; Attachment J, Financial Responsibility (The Standby Trust Agreement along with Schedule A and the Associated Financial Guarantee Bond will be approved and delivered to the DEQ’s Office of Support Services prior to Director Authorization to Inject); Attachment K, Expected Changes Due to Injection; Attachment L, Mechanical Integrity Demonstration Protocols; and Attachment M, Aquifer Exemption.

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Some of these Attachments are currently available, but were not included in the UIC Permit documents. Other attachments that will become part of the Permit will only become available after the UIC Permit is issued, so will not be available for public comment. The Division should have made available any of the UIC Permit Attachments that are currently available.

5. Request for a New UIC Class III Permit Public Comment Period and Public Hearing

5.1. UW requests that the DWQ Notice a new 60-day public Comment Period and Public Hearing after the DWQ corrects the public record of this proceeding. This request is based on the following:

- The documents that the Division posted on the Public Notice website as part of the LVMC Application contain significant conflicting information regarding the Aquifer Exemption Boundary.

- The Statement of Basis and Fact Sheet provided by the Division does not meet the EPA requirements.

- The proposed Class III Permit is missing the Attachments that are currently available and should have been available for public comment.

The new comment period and hearing should not commence until the Division has corrected these oversights and inadequacies. The Division must 1) make clear which documents, including maps and figures, are actually part of the Class III UIC Permit Application under review, 2) make publicly available the relevant Attachments to the proposed Class III UIC Permit; and 3) provide a Fact Sheet that fully conforms to EPA requirements.

6. Utah UIC Regulations - R317-7-5. Prohibition of Unauthorized Injection

6.1. Utah Rule R317-7. Underground Injection Control (UIC) Program, provides certain requirements for a Class III UIC Permit. Section defines Class III wells as wells that inject for extraction of minerals, including in situ production of uranium or other metals from ore bodies that have not been conventionally mined. R317-7-5 states:

5.1 Any underground injection is prohibited except as authorized by permit or as allowed under these rules.

5.2 No authorization by permit or by these rules for underground injection
shall be construed to authorize or permit any underground injection which endangers a drinking water source.

5.3 Underground injections are prohibited which would allow movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5), or which may adversely affect the health of persons. Underground injections shall not be authorized if they may cause a violation of any ground water quality rules that may be promulgated by the Utah Water Quality Board. Any applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.

6.2. The Division has not provided any information that demonstrates that the proposed Lower Lisbon Valley in-situ leach (ISL) copper recovery project would not endanger a drinking water source and would not allow movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5), or which may adversely affect the health of persons.

The BCA is currently an underground source of drinking water. The BCA 1) contains a sufficient quantity of ground water to supply a public water system; 2) currently supplies drinking water for human consumption; 3) contains fewer than 10,000 mg/l total dissolved solids (TDS); and is not an exempted aquifer. The BCA, as shown on the various Maps and Figures submitted by LVMC to the DWQ, supplies water for irrigation, stock watering, and domestic use in the Area of Review and within the original proposed Aquifer Exemption Boundary. LVMC has not established Baseline Water Quality in the South East area of the project.

6.3. The LVMC Internal Memo: Summary of the Ground Water Occurrences within the Lower Lisbon Valley Area, February 16, 2020, was “prepared in order to summarize the occurrence of ground water within the BC Aquifer of the Lower Lisbon Valley Area,

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6 See Technical Report Attachments, Maps and Figures. And, Figure 3.1. https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_Map_Figure3.1_AreaofReview.png

7 https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_AppendixE_LLVGroundwater_021620.pdf

8 Appendix D to LVMC UIC Technical Report Appendices posted on DWQ Public Notice website.
and the rationale behind this conclusion.” LVMC investigated the Ground Water Occurrence in the Dakota-Burro Canyon Formations, SE UIC Project Area, Lower Lisbon Valley, San Juan County, Utah. The area investigated was South East area of the original proposed AEB, which ends at the Utah/Colorado border and includes the Wilcox domestic/agriculture Well 05-3907/05-3575 and the State Line Deposit. This Memo establishes the presence of ground water and hydrological connectivity in the BCA in this area. According to the Memo, page 5:

**Exploration Groundwater Flows**
The area from Flying Diamond to the Colorado Stateline has been extensively drilled. Figure 3 is a compilation of drilling records documenting depth at which groundwater flow was observed along with estimates of final flows at total depth using a 5-gallon bucket test. And although not monitoring wells, the number and areal extent of exploration holes document consistent groundwater occurrence and substantial flows over the greater than two-mile distance from Flying Diamond to Stateline.

Stock well 05-3575 is located near the Stateline deposit (see Figure 2). This well is screened in the upper BC Aquifer and documents a hydraulic head 45 feet below ground surface (bgs).

Groundwater flows attenuate and finally terminate on the SE end of the Stateline Deposit where geologic structure elevates the Morrison Formation above the BC Aquifer hydraulic head. Figure 3 includes an expanded view of exploration holes 06C-FLD-10 and 06R-FLD-5 (described further).

The Memo concludes:

The combined information supports the occurrence of BC Aquifer groundwater along an approximate 2.5 mile transect in the SE Project Area. This information suggests the occurrence of groundwater in the BC wherever it is down-dropped below 6200 feet amsl. These observations correlate well with the greater Project Area and support a common aquifer.

6.4. The LVMC Internal Memo–Summary of the Exploration Activities within the Lower
Lisbon Valley Area, and the subsequent delineation of mineralization found therefrom,\textsuperscript{9,10} February 16, 2020, shows that the Flying Diamond Deposit is close to the Wilcox Well 05-3907/05-3575, which has now been arbitrarily excluded from the AEB.

6.5. The injection of the proposed lixiviant, a raffinate containing a dilute sulfuric acid solution, into the Burrow Canyon Aquifer would allow movement of fluid containing sulfuric acid, uranium, and other contaminants into an underground source of drinking water. It would allow for the movement of contaminants from the well field to the Wilcox Well 05-3907/05-3575, used for domestic, irrigation, and stock watering. The Wilcox well draws water from the same aquifer that will receive the lixiviant. There are no geologic barriers between the proposed wellfield and the Wilcox Well outside the proposed Aquifer Exemption boundary. The LVMC has not proposed any monitoring well that would be able to determine if fluids and mobilized contaminants from the ISL project have reached the Wilcox Well.\textsuperscript{11}

The AEB in the area of the Wilcox Well does not include a buffer zone beyond the proposed monitoring well in that South East area. The monitoring well appears to be right on the edge of the AEB. There is no information in the Application regarding how far an excursion of the lixiviant and the contaminants mobilized by the lixiviant would travel before being detected and recovered. There is no information regarding the extensive history of ISL uranium recovery operation excursions, spills, leaks, mechanical failures, and other events.\textsuperscript{12} There is no data that would substantiate an assumption that any excursion would be recovered and the area would still be a clean, uncontaminated source of drinking water. Also, there is no evaluation of the long-term impacts from the ISL operation to the ground water quality in the South East Area of ISL project.

6.6. The regulation states: “Underground injections shall not be authorized if they may cause a violation of any ground water quality rules that may be promulgated by the Utah Water Quality Board.” The regulation here says “may cause” a violation of any groundwater quality rules. Because the proposed ISL operation will impact the existing BCA drinking water source and is extremely close to a well that is used for domestic purposes, LVMC and the Division have no basis for concluding that the underground injections associated with the ISL project will not cause a violation of any groundwater quality rules.

\begin{itemize}
\item \textsuperscript{9} [https://uraniumwatch.org/lisbonvalleymine/LVMC_UIC_TechReport_AppendixE_ExplorationandMineralization_LLV_021620.pdf]
\item \textsuperscript{10} Appendix D to LVMC UIC Technical Report Appendices posted on DWQ Public Notice website.
\item \textsuperscript{11} See Lower Lisbon Valley IRS Technical Report, Figure 11.6. September 29, 2020.
\item \textsuperscript{12} See Exhibit A. Uranium Recovery In-Situ Leach Operations License Violations and Reportable Events.
\end{itemize}
quality rules. The lack of any geological or hydrological barriers between the proposed well field and the Wilcox Well means that the proposed ISL project not only “may,” but most likely “will” cause of a violation of drinking water rules, will endanger a drinking water source, and will adversely affect the health of persons.

6.7. The Application and the DWQ Fact Sheet do not contain an analysis of the ability of the proposed monitoring plans to limit impacts of excursions to groundwater, existing wells, and areas outside the AEB.

6.8. The LVMC Technical Report Appendix J, is a 22-page Ground Water Resources Report, Lisbon Valley Mining Company LLC, Lower Lisbon Valley Project, Supplemental Environmental Impact Statement (SEIS), dated March 2020. It is unclear why this document is included as an Appendix. A UIC Class III Permit application does not require an Environmental Impact Statement. The SEIS states in regard to the scope of the proposed action: “The Company is planning to expand current conventional open pit mining operations as well as implement in-situ recovery (ISR) operations in the Lower Lisbon Valley Mining District of San Juan County, Utah.” Apparently, LVMC intended to submit SEIS to the Bureau of Land Management. The scope of the very brief and inadequate SEIS is for both an expanded open pit/heap leach operation and the proposed ISL operation.

The SEIS contains one relevant statement at Section 3.2.2 (page 10):

ISR activities would involve the exempting of the BC aquifer only as it exists within the LLV ground water study area. The localized and perched alluvial aquifer would not be exempted, nor would the N aquifer. As the BC aquifer is confined geologically and structurally within the study area, the effects to the BC aquifer would be considered major, localized, and long-term. [Emphasis added.]

6.9. In Sum: The proposed UIC Class III Permit must be denied because the proposed underground injections should be prohibited due to the fact that the injection would endanger a drinking water source and would allow movement of fluid containing contaminants into underground sources of drinking water. The presence of those contaminants would cause a violation of any primary drinking water regulation (40 C.F.R. Part 141 and Utah Primary Drinking Water Standards R309-200-5). The presence of those contaminants would adversely affect the health of persons who live adjacent to the propose ISL site and to those who use nearby wells for drinking and agricultural purposes.

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7. Aquifer Exemption

7.1. Utah Rule R317-7-4. Identification of USDW’s and Exempted Aquifers states:

The Director shall identify USDW’s and exempt aquifers following the procedures and based on the requirements outlined in 40 C.F.R. 144.7 and 40 C.F.R. 146.4.

Relevant Sections of 40 C.F.R. § 144.7:

(a) The Director may identify (by narrative description, illustrations, maps, or other means) and shall protect as underground sources of drinking water, all aquifers and parts of aquifers which meet the definition of “underground source of drinking water” in §144.3, except to the extent there is an applicable aquifer exemption under paragraph (b) of this section . . . .

(b) (1) The Director may identify (by narrative description, illustrations, maps, or other means) and describe in geographic and/or geometric terms (such as vertical and lateral limits and gradient) which are clear and definite, all aquifers or parts thereof which the Director proposes to designate as exempted aquifers using the criteria in §146.4 of this chapter.

EPA Regulations at 40 C.F.R. § 146.4 set out the criteria for exempted aquifers. The Division did not identify the Underground Sources of Drinking Water (USDW) or the proposed aquifer exemption area associated with the proposed Class III UIC Permit area. The Division did not provide any analysis of an Aquifer Exemption Request and the documents supporting that request. The Division has not explained how the proposed Aquifer Exemption meets the relevant criteria. The Division has not provided any basis for approving, amending, or not approving an Aquifer Exemption Request related to the proposed ISL Project.

7.2. The EPA has developed Guidelines for Reviewing Aquifer Exemption Requests.\textsuperscript{14} There is no evidence that the Division has reviewed an Aquifer Exemption Request in accordance with Guidelines, documented its review, and made the Request and Review documents available for public comment.

7.3. In sum: The Division’s draft analysis and response to that request for public comment. Therefore, at this, time there is no basis for the Division to grant an Aquifer Exemption for the proposed ISL operation in the Lower Lisbon Valley and the Division

\textsuperscript{14} Guidance for Review and Approval of State Underground Injection Control (UIC) Programs and Revisions to Approved State Programs. GWPB Guidance #34, Environmental Protection Agency.
must correct the record and provide for a comment period and hearing on the Aquifer Exemption.


8. Additional Comments

8.1. The Division has referenced and relied on State of Arizona and EPA consideration of copper recovery operations. The Division should also have reviewed and taken into consideration the long history of ISL uranium recovery operations, which have been regulated primarily by the Nuclear Regulatory Commission until 2018, when Wyoming became an Agreement State for uranium recovery and 11e.(2) byproduct material. There is no difference between the proposed LLV copper recovery ISL project and a ISL uranium recovery ISL project, except that uranium will not be removed from the recovery leachate. There is extensive documentation regarding spills, excursions, leaks, mechanical failures for these types of projects, a documented in Exhibit A. There is extensive information about the inability of the ISL operator to return the aquifer to the original water quality parameters. There is extensive information about the ability of the ISL operator to recover contaminants that went outside the well fields. There is extensive information regarding the success of different recovery techniques and how long recovery has taken.

8.2. In-Situ Leach Uranium Mining Process and Its Environmental Impacts
Commenter incorporates by reference the discussion of In-Situ Leach Uranium Mining Process and Its Environmental Impacts contained in “Nuclear Fuel’s Dirty Beginnings: Environmental Damage and Public Health Risks From Uranium Mining in the American West,”15 pages 25 to 33.

8.3. The LVMC must conduct a Baseline Water Quality Assessment in the vicinity of the Wilcox and Stevenson wells, both of which are in the Burro Canyon Aquifer.

Thank you for providing this opportunity for comment,

Sincerely,

Sarah Fields  
Program Director

Carly Ferro  
Director  
Utah Chapter  
Sierra Club
URANIUM RECOVERY IN-SITU LEACH OPERATIONS  
LICENSE VIOLATIONS AND REPORTABLE EVENTS  

Crow Butte, Highland, Lost Creek, Nichols Ranch, Ross, Smith Ranch, and Willow Creek In-Situ Leach Uranium Recovery Sites


CROW BUTTE ISL - NEBRASKA  
NRC Docket No. 40-8943 (enter 04008943 on ADAMS)
License Violations and reportable events at Crow Butte ISL Site

http://www.wise-uranium.org/umopusa.html#CROWBVIOL

Details on post-Nov.1,1999, events available through ADAMS, Docket No. 04008943)

- Sep. 22, 2020: Injection well fails 5-year mechanical integrity test
- May 29, 2020: Monitor well excursion
- May 21, 2020: Monitor well excursion
- Mar. 3, 2020: Production well fails 5-year mechanical integrity test
- Jan. 31, 2020: Production well fails 5-year mechanical integrity test
- Jan. 2, 2020: Evaporation Pond 1 liner leak
- Aug. 22, 2019: Monitor well excursion
- July 11, 2019: Production well fails 5-year mechanical integrity test
- June 24, 2019: Production well fails 5-year mechanical integrity test
- June 5, 2019: Monitor well excursion
- May 29, 2019: Evaporation Pond 1 liner leak
- May 2, 2019: Monitor well excursion
- Apr. 18, 2019: Monitor well excursion
- Apr. 9, 2019: Monitor well excursion
- Mar. 27, 2019: Monitor well excursion
- Mar. 25, 2019: Monitor well excursion
- Nov. 28, 2018: Monitor well excursion
- June 1, 2018: Monitor well excursion
- Sep. 12, 2017: 27,287 gallon spill of injection solution
- Aug. 29, 2017: Monitor well excursion
- July 27, 2017: Production well fails 5-year mechanical integrity test
- Mar. 14, 2017: Injection well fails 5-year mechanical integrity test
- June 8, 2016: Evaporation Pond 1 liner leak
- May 5, 2016: two Monitor well excursions
- Apr. 21, 2016: Monitor well excursion
- Apr. 20, 2016: Injection well fails 5-year mechanical integrity test
- Nov. 19, 2015: Monitor well excursion
- Oct. 27, 2015: Monitor well excursion
- Aug. 17, 2015: Injection well fails 5-year mechanical integrity test
- Aug. 13,2015: Monitor well excursion
- July 9, 2015: Monitor well excursion
- July 2, 2015: Injection well fails 5-year mechanical integrity test
- June 3, 2015: Monitor well excursion
- May 28, 2015: Monitor well excursion
- May 27, 2015: Monitor well excursion
• May 21, 2015: Monitor well excursions
• May 19, 2015: Monitor well excursion
• Apr. 14, 2015: Monitor well excursion
• Feb. 11, 2015: Monitor well excursion
• July 22, 2014: Monitor well excursion
• July 2, 2014: Failure to sample the underdrains of a leaking pond and to submit a corrective action plan
• May 20, 2014: Monitor well excursion
• May 8, 2014: Monitor well excursion
• May 7, 2014: Evaporation Pond 1 liner leak
• Dec. 10, 2013: Monitor well excursion
• Sep. 11, 2013: Monitor well excursion
• Aug. 22, 2013: Well fails 5-year mechanical integrity test
• Aug. 6, 2013: Well fails 15-year mechanical integrity test
• Jun. 5, 2013: Radiation dose in unrestricted area exceeds 0.02 mSv/h standard
• Mar. 14, 2013: Evaporation Pond 1 liner leak
• Jan. 18, 2013: Well fails mechanical integrity test
• Oct. 24, 2012: Well fails 20-year mechanical integrity test
• Aug. 20, 2012: Well fails 5-year mechanical integrity test
• June 4, 2012: Well fails 5-year mechanical integrity test
• May 25, 2012: Monitor well fails 15-year mechanical integrity test
• Oct. 7, 2011: Monitor well excursion
• Aug. 9, 2011: Exceedance of Well Head Manifold Pressure Limitations
• July 18, 2011: two wells fail 5-year mechanical integrity test
• June 1, 2011: Evaporation Pond 1 liner leak
• May 27, 2011: two Monitor well excursions
• May 24, 2011: Monitor well excursion
• Mar. 16, 2011: Monitor well excursion
• Jan. 13, 2011: Monitor well excursion
• July 8, 2010: Monitor well excursion
• July 6, 2010: Well fails 5-year mechanical integrity test
• June 22, 2010: Excursions at two monitor wells "due to increased groundwater levels"
• June 22, 2010: Monitor well excursion
• June 16, 2010: Excursions at three monitor wells "due to increased groundwater levels"
• June 11, 2010: Evaporation Pond 3 liner leak detected
• May 10, 2010: Well fails 5-year mechanical integrity test
• Apr. 13, 2010: Excursion at monitor well due to "natural conditions"
• Dec. 31, 2009: Evaporation Pond 4 Liner Leak
• Nov. 19, 2009: Well fails 15-year mechanical integrity test
• Oct. 15, 2009: Mechanical integrity test missed for two wells
• June 18, 2009: Evaporation Pond 4 liner leak detected
• June 11, 2009: Monitor well excursion
• June 5, 2009: Evaporation Pond 1 liner leak detected
• April 27, 2009: Monitor well placed on excursion status
• April 17, 2009: Production well fails 5-year mechanical integrity test
• June 4, 2008: Exceedance of Well Head Manifold Pressure Limitations
• May 31, 2008: Monitor well placed on excursion status
• May 23, 2008: $50,000 penalty imposed for violations
• May 19, 2008: Monitor well placed on excursion status
• April 29, 2008: Five-year mechanical integrity test missed for 42 wells
• September 26, 2006: Monitor well placed on excursion status
• May 5, 2006: leak detected at Pond 4
• January 19, 2006: Monitor well placed on excursion status
• October 27, 2005: Injection well leak detected
• August 4, 2005: Monitor well placed on excursion status
• June 28, 2005: Monitor well placed on excursion status
• June 17, 2005: Monitor well placed on excursion status
• May 2, 2005: Monitor well placed on excursion status
• May 14, 2004: leak detected at Pond 1
• December 23, 2003: Monitor well placed on excursion status
• December 26, 2002: Monitor well placed on excursion status
• September 10, 2002: Monitor well placed on excursion status
• April 4, 2002: Monitor well placed on excursion status
• December 4, 2001: Monitor well placed on excursion status
• March 2, 2001: Monitor well placed on excursion status
• September 10, 2000: Monitor well placed on excursion status
• May 26, 2000: Monitor well placed on excursion status
• April 27, 2000: Monitor well placed on excursion status
• March 6, 2000: Monitor well placed on excursion status
• July 2, 1999: Monitor well placed on excursion status
• August 7, 1998: Spill of 10,260 gallons of injection fluid
• March 21, 1998: Monitor well placed on excursion status
• August 12, 1997: Discovery of Pinhole Leaks in Upper Liner of Process Water Evaporation Pond

HIGHLAND ISL - WYOMING
NRC Docket No. 40-8857 (enter 04008857 on ADAMS search)
License violations and reportable events at Power Resources, Inc. Highland Uranium Project, Wyoming, USA

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)

- Mar. 16, 2014: 8,916 gallon spill of injection fluid (1 ppm U)
- Dec. 11, 2013: Monitor well placed on excursion status
- Dec. 5, 2013: 891 gallon spill of permitted waste water (0.7 ppm U)
- Aug. 6, 2013: Monitor well placed on excursion status
- Jul. 31, 2013: 1,048 gallon spill of production fluid (10 ppm U)
- May 5, 2013: 85,000 gallon spill of injection fluid (2 ppm U)
- Mar. 11, 2013: Monitor well placed on excursion status
- Feb. 17, 2013: 105 gallon spill of production fluid (5.7 ppm U)
- Dec. 20, 2012: 1,141 gallon spill of production fluid (23.1 ppm U)
- Aug. 8, 2012: Monitor well placed on excursion status
- Aug. 1, 2012: Monitor well placed on excursion status
- Mar. 10, 2012: 344 gallon spill of production fluid (4.1 ppm U)
- Mar. 9, 2012: 1,202 gallon spill of injection fluid
- Mar. 7, 2012: 774 gallon spill of injection fluid
- Feb. 29, 2012: Monitor well placed on excursion status
- Jan. 12, 2012: Monitor well placed on excursion status
- Jun. 16, 2011: Monitor well placed on excursion status
- Jun. 7, 2011: Monitor well placed on excursion status
- Mar. 8, 2011: Sampling missed for seven monitoring wells
- Mar. 8, 2011: Monitor well placed on excursion status
- Sep. 10, 2010: Monitor well placed on excursion status
- Jun. 8, 2010: Monitor well placed on excursion status
- Jan. 29, 2010: 224 gallon spill of injection solutions (1.3 ppm U3O8)
- Jan. 13, 2010: Monitor well placed on excursion status
- Nov. 23, 2009: Monitor well placed on excursion status
- Sep. 24, 2009: Release of 90,600 gallons of treated process water
- July 31, 2009: Monitor well placed on excursion status
- July 7, 2009: Monitor well failure
- May 26, 2009: 5,050 gallon spill of injection fluid (3 ppm U3O8)
- May 21, 2009: Monitor well placed on excursion status
- May 11, 2009: 6,500 gallon spill of production solutions (19.8 ppm U3O8)
- Apr. 16, 2009: Monitor well placed on excursion status
- Mar. 30, 2009: Monitor well placed on excursion status
- Feb. 13, 2009: Monitor well placed on excursion status
- Jan. 10, 2009: 1,820 gallon spill of injection/production water containing 15 ppm uranium
- Nov. 18, 2008: Monitor well placed on excursion status
The Nuclear Regulatory Commission has issued a Notice of Violation to Power Resources, Inc., of Denver, Colorado, for violations of NRC requirements at the Highland Uranium Project in Converse County, Wyoming.
> View Notice of Violation EA 97-218

LOST CREEK ISL - WYOMING
NRC Docket No. 40-9068 (enter 04009068 on ADAMS search)
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/lost-creek.html

License violations and reportable events at Lost Creek ISL site

http://www.wise-uranium.org/umopuswy.html#LOSTCREEKVIOL

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
• Aug. 16, 2018: monitor well on excursion
• Jul. 28, 2018: 1,625 gallon spill of production fluid (84 mg/L U₃O₈)
• Jun. 21, 2018: monitor well on excursion
• Apr. 5-7, 2018: bleed rate lower than 0.5% requirement
• Oct. 9, 2017: monitor well on excursion
• Sep. 5, 2017: 10,000 gallon spill of injection fluid (1.1 ppm U)
• Aug. 19, 2017: 188,000 gallon [712 m³] spill of injection fluid (1.2 mg/L U) (view details) http://www.wise-uranium.org/umopuswy.html#LOSTCREEKSPILL17
• May 22, 2017: 1,100 gallon spill of injection fluid (1.5 mg/L U)
• Feb. 6, 2017: 3,360 gallon spill of injection fluid (0.5 ppm U)
• Jan. 9, 2017: 3,654 gallon spill of injection fluid (1.3 ppm U)
• Dec. 22, 2016: 582 gallon spill of injection fluid (1.5 ppm U)
• Sep. 29, 2016: vertical excursion at monitor well
• July 20, 2016: 13,650 gallon spill of production fluid (89.1 ppm U)
• Oct. 18, 2015: 367 gallon spill of production fluid (59.4 mg/L U)
• Sep. 11, 2015: NRC Notice of Violation (failure to issue Radiation Work Permits)
• Aug. 20, 2015: monitor well on excursion
• July 15, 2015: monitor well on excursion
• May 27, 2015: monitor well on excursion
• Apr. 8, 2015: 960 gallon spill of injection fluid (2.6 mg/L U)
• Mar. 11, 2015: 915 gallon spill of injection fluid (1.2 mg/L U)
• Mar. 6, 2015: 13,395 gallon spill of waste water (24.9 mg/L U)
• Jan. 13, 2015: 6,128 gallon spill of injection fluid (2.3 mg/L U)
• Dec. 16, 2014: 900 gallon spill of production fluid (146 mg/L U)
• Dec. 12, 2014: 2,835 gallon spill of injection fluid (3.8 mg/L U)
• Dec. 12, 2014: 5,520 gallon spill of production fluid (64.6 mg/L U)
• Lost Creek Spill Map (excerpt), Annual Report 2014
• Nov. 20, 2014: 700 gallon spill of injection fluid (3.1 mg/L U)
• Nov. 14, 2014: NRC Notice of Violations (3 violations, see above)
• Sep. 15, 2014: 370 gallon spill of injection fluid (5 mg/L U)
• Jul. 13, 2014: 1,260 gallon spill of "raw groundwater" (2.3 mg/L U?)
• Jun. 3, 2014: 57,000 gallon spill of production fluid (132 mg/L U)
• May 30, 2014: 900 gallon spill of waste water
• Mar. 29, 2014: 15,513 gallon spill of waste water
• Mar. 25, 2014: 6,000 gallon spill of production fluid (194 mg/L U)
• Mar. 20, 2014: 1,854 gallon spill of waste water
• Feb. 25, 2014: 1,400 gallon spill of injection fluid (50.3 mg/L U)
• Feb. 9 - Mar. 28, 2014: freeboard exceedance at two holding ponds (see above)
• Jan. 18, 2014: 680 gallon spill of injection fluid
• Jan. 18, 2014: 475 gallon spill of injection fluid (8.67 mg/L U)
• Dec. 13, 2013: State orders halt of operation at Lost Creek uranium in situ leach mine for failure to maintain bleed (see above)
• Nov. 23, 2013: 840 gallon spill of injection fluid (12 mg/L U)
• Nov. 12, 2013: 3,360 gallon spill of injection fluid (0.08 mg/L U)
• Aug. 4, 2013: 24,458 gallon spill of injection fluid (< 1 ppm U)
• Aug. 3, 2013: 2,200 gallon spill of injection fluid (< 1 ppm U)

NICHOLS RANCH ISL - WYOMING
NRC Docket No. 40-9067 (enter 04009067 on ADAMS search)
License Violations and reportable events at Nichols Ranch ISL site
http://www.wise-uranium.org/umopuswy.html#NICHOLSRANCHVIOL

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
• Jun. 12, 2017: 4,500 gallon spill of injection fluid (< 1 mg/L U)
• Dec. 7, 2016: 2,800 gallon spill of injection fluid (< 1 mg/L U)
• Nov. 15, 2016: 55 gallon spill of production solution (27.4 mg/L U)
• Aug. 11, 2016: 670 gallon spill of injection fluid
• Nov. 5, 2015: 700 gallon spill of injection fluid
• Dec. 2, 2014: 606 gallon release of injection solution (0.5 ppm U)
• Nov. 2, 2014: 1,745 gallon release of injection fluid (0.201 ppm U)
• Sep. 8, 2014: 12,975 gallon release of production solution (21.6 ppm U; the release flowed outside the permit boundary)
• July 17, 2014: 20,219 gallon release of production fluid (33 ppm U₃O₈; the release "appears" to have flown outside the permit boundary)
• June 5, 2014: 2,500 gallon release of injection fluid (0.04 ppm U)
• Apr. 28, 2014: injection well found to be still in use after failing mechanical integrity test in February
- Feb. 12, 2014: injection well fails mechanical integrity test
- Aug. 14, 2013: 500 gallon spill of "grey water"

ROSS ISL - WYOMING
NRC Docket No. 40-9091 (enter 04009091 on ADAMS search)

License violations and reportable events at Ross ISL site

http://www.wise-uranium.org/umopuswy.html#ROSSVIOL

post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
- Aug. 9, 2017: 4,316 gallon spill of injection fluid
- July 27, 2017: 10,008 gallon spill of injection fluid
- May 25, 2017: 800 gallon spill of injection fluid
- Feb. 28, 2017: Samples taken from Pond 1 Monitor Well in exceedance of limits
- Oct. 11, 2016: 1000 gallon spill of injection solution (1.46 mg/L U)
- July 19, 2016: 1620 gallon spill of retention pond water (2 mg/L U)
- June 1, 2016: 500 - 600 gallon spill of recovery solution (22.6 ppm U)
- April 27, 2016: Pond monitor well indicates release from Pond 1 (however, Strata Energy believes that the exceedance is likely a result of natural variation in shallow groundwater quality)
- March 3, 2016: 1200 gallon spill of waste water (0.7 mg/L U)

SMITH RANCH ISL - WYOMING
NRC Docket No. 40-8964 (enter 04008964 on ADAMS search)
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/smith-ranch.html

License violations and reportable events at Smith Ranch in-situ leaching site
http://www.wise-uranium.org/umopussr.html#SMITHRVIOl

post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)
- Oct. 19, 2017: 533 gallon spill of restoration recovery fluid (4.2 ppm U)
- Feb. 20, 2016: 4,264 gallon spill of production fluid (11.5 ppm U)
- Dec. 4, 2015: Monitor well placed on excursion status
- Oct. 23, 2015: 41 gallon spill of production fluid (24 ppm U)
- May 21, 2015: 480 gallon spill of discharge fluid (7 ppm U)
- Jan. 16, 2015: 3,520 gallon spill of injection fluid (1.8 ppm U)
- Oct. 30, 2014: 15 gallon spill of injection fluid (2.1 ppm U)
- Aug. 19, 2014: 9,074 gallon spill of injection fluid (2.7 ppm U)
- Mar. 12, 2013: Monitor well placed on excursion status
• Feb. 19, 2013: Monitor well placed on excursion status
• Oct. 20, 2012: 100 gallon spill of production fluid (31.1 ppm U)
• Oct. 16, 2012: 50 gallon spill of injection fluid
• Aug. 20, 2012: Monitor well placed on excursion status
• Dec. 6, 2011: 1,779 gallon spill of injection fluid (0.7 ppm U3O8)
• Nov. 7, 2011: Leak in East Evaporation Pond
• Sep. 12, 2011: Monitor well placed on excursion status
• Aug. 19, 2011: 85 gallon spill of injection fluid
• Aug. 15, 2011: Leak in East Evaporation Pond (158 mg/L U)
• July 22, 2011: 53 gallon spill of injection fluid
• July 8, 2011: 1,190 gallon spill of restoration recovery fluid containing 2.4 ppm U3O8
• June 13, 2011: Leak in East Evaporation Pond (248 mg/L U)
• May 19, 2011: 790 gallon spill of solution containing 17 ppm U-nat, spill length 2,112 feet (644 m), width 3 feet (0.9 m)
• May 3, 2011: 1,500 gallon spill of production fluid, impacting 12,077 square feet (1,122 m2)
• Sep. 10, 2010: 960 gallon spill of solution containing 1.5 ppm U3O8
• Jul. 20, 2010: leak in East Storage Pond
• Jul. 8, 2010: 1,440 gallon spill of injection fluid containing 1 ppm U3O8
• Nov. 19, 2009: 560 gallon spill of injection solutions containing 1.4 ppm U3O8
• Aug. 26, 2009: 1,500 gallon spill of injection solutions containing 1.1 ppm U3O8
• Jun. 11, 2009: 190 gallon spill of injection solutions containing 0.7 ppm U3O8
• Apr. 23, 2009: leak in East Storage Pond (510 ppm U3O8)
• Feb. 27, 2009: leak in East Storage Pond (263 ppm U3O8)
• Feb. 9, 2009: 14,600 gallon spill of production solutions containing 7 ppm U3O8
• Jan. 9, 2009: 2,169 gallon spill of production solutions containing 11 ppm U3O8
• Dec. 29, 2008: 1,144 gallon spill of injection fluid containing 0.2 ppm uranium
• Oct. 30, 2008: 5,500 gallon spill of injection fluid containing 2 ppm uranium
• Sep. 17, 2008: 16,774 gallon spill of injection fluid
• Aug. 17, 2008: 7,965 gallon spill of injection fluid containing 1.4 ppm uranium
• July 24, 2008: 2,887 gallon spill of production water and 12,770 gallon spill of solution
• Aug. 23, 2007: 11,600 gallon spill of deep disposal well fluid
• June 27, 2007: 900 gallon spill of injection fluid containing 1.1 ppm uranium
• June 19, 2007: 900 gallon spill of fluid containing 41.2 ppm uranium
• Feb. 19, 2007: 6,000 gallon spill of production fluid (32.5 ppm uranium)
• Jan. 14, 2007: 5,000 gallon spill of injection fluid (2 ppm uranium)
• Dec. 13, 2006: 560 gallon spill of injection fluid (2 ppm uranium)
• Dec. 5, 2006: 10,000 gallon spill of mixed monitor well, restoration and waste fluids (1 ppm uranium)
• Nov. 22, 2006: 2,100 gallon spill of mine waste water
• Feb. 10, 2006: 1,000 gallon spill of production fluid, containing approx. 21 mg/L uranium
• Jan. 9, 2006: 6,240 gallon spill of injection fluid, containing approx. 1.7 mg/L uranium
• Oct. 21, 2005: 7,041 gallon spill of deep disposal well fluid
• Oct. 21, 2005: Leak detected in evaporation pond
• Sep. 2, 2005: 4,500 gallon spill of production fluid, containing approx. 8.6 mg/L uranium
• Aug. 16, 2005: 1,050 gallon spill of production fluid, containing approx. 2.1 mg/L uranium
• May 31, 2005: 4,700 gallon spill of injection fluid, containing approx. 1.1 mg/L uranium
• Oct. 9, 2004: 5,000 gallon spill of ground water sweep fluids containing 7 mg/L uranium
• Sep. 29, 2004: 2,000 gallon spill of injection fluid, containing 1.6 mg/L uranium
• Sep. 8, 2004: wellfield excursion at Mine Unit 4 monitoring well
• Sep. 6, 2004: 1,600 gallon spill of injection fluid
• July 22, 2004: 2,700-5000 gallon spill of production fluid
• Oct. 15, 2003: 5,000 gallon spill of injection fluid containing about 47 mg/L of U3O8
• Sep. 29, 2003: 5,000 gallon spill of injection fluid containing about 2 mg/L of U3O8
• Sep. 6, 2003: 20,800 gallon spill of injection fluid containing about 1.1 mg/L of uranium
• Feb. 9, 2003: 500 gallon spill of production fluid containing about 2 mg/L of uranium
• Jul. 30, 2002: 1,480 gallon spill of injection fluid
• Apr. 25, 2002: 3,500 gallon spill of injection fluid
• Apr. 24, 2002: 18,000 gallon spill of injection fluid
• Jan. 4, 2002: 1,800 gallon spill of production fluid containing about 18 ppm U3O8
• Dec. 5, 2001: 3,600 gallon spill of injection fluid
• Oct. 22, 2001: 62,400 gallon spill of injection fluid
• Jun. 18, 2001: 1,100 gallon spill of deep well disposal fluid
• Nov. 22, 2000: 1,870 gallon spill of injection fluid
• Oct. 22, 2000: 11,100 gallon spill of injection fluid
• Aug. 7, 2000: 780 gallon spill of production fluid
• Feb. 26, 2000: 3,780 gallon spill of production fluid
• Jan. 17, 2000: 6,900 gallon spill of production fluid
• Dec. 31, 1999: 3,000 gallon spill of injection fluid

(details available through ADAMS, Docket No. 04008964)

WILLOW CREEK - WYOMING
NRC Docket No. 40-8502
https://www.nrc.gov/info-finder/materials/uranium/licensed-facilities/christensen-ranch.html

License violations and reportable events at Willow Creek (ex Christensen Ranch / Irigaray) in-situ leaching site

http://www.wise-uranium.org/umopuswy.html#CHRISVIOL


According to Cogema's "Quarterly Progress Report of Monitor Wells on Excursion Status" of Oct. 2, 2000 (available through ADAMS), 7 monitor wells at Irigaray remained on excursion status during the third quarter of 2000. The wells have been on excursion status for more than one year and up to 11 years. One other monitor well has been removed from excursion status.

Latest NRC Event Reports referring to Uranium One's Willow Creek (ex Christensen Ranch / Irigaray) ISL site in Wyoming:

Post Sep. 30, 2018: withheld (after Wyoming became an NRC agreement state)

• Aug. 6, 2018: 4,130 gallon spill of recovery fluid (9.6 ppm U₃O₈)
• June 29, 2018: Monitor well placed on excursion status
• Aug. 9, 2017: 7,400 gallon spill of production fluid (8.9 ppm U)
• Jul. 25, 2017: 5,000 gallon spill of injection fluid (1.1 ppm U) and production fluid (9.7 ppm U)
• May 24, 2017: 3,600 gallon spill of injection fluid (0.41 - 0.81 ppm U)
• Nov. 29, 2016: 3,300 gallon spill of injection fluid (0.67 ppm U)
• Oct. 17, 2016: 3,500 gallon spill of injection fluid (0.5 ppm U)
• Oct. 11, 2016: 1,405 gallon spill of injection fluid
• June 1, 2016: Monitor well placed on excursion status
• Apr. 30, 2016: Monitor well placed on excursion status
- Dec. 7, 2015: 2,100 gallon spill of production fluid (3.3 ppm U)
- June 30, 2015: Monitor well placed on excursion status
- Mar. 10, 2015: 830 gallon spill of injection fluid (1.7 ppm U)
- Dec. 29, 2014: Monitor well placed on excursion status
- Aug. 15, 2014: 492 gallon spill of recovery fluid (11.2 ppm U)
- Aug. 13, 2014: 535 gallon spill of injection fluid (0.8 ppm U)
- Jul. 25, 2014: 946 gallon spill of injection fluid (0.92 ppm U)
- Jul. 7, 2014: Disposal well shut in due to apparent leaking of tubing in the well
- June 19, 2014: Deep disposal well fails mechanical integrity test
- May 15, 2014: "potential leak" at evaporation pond
- Apr. 19, 2014: 616 gallon spill of injection fluid (0.32 ppm U)
- Mar. 3, 2014: 665 gallon spill of injection fluid (0.6 ppm U)
- Jan. 15, 2014: 77,700 gallon spill of production fluid (12.7 ppm U)
- Nov. 26, 2013: 1,060 gallon spill of injection fluid (0.32 ppm U)
- Oct. 31, 2013: 740 gallon spill of injection fluid (1.2 ppm U)
- Jul. 22, 2013: 2,600 gallon spill of injection fluid (1.1 ppm U)
- Jun. 15, 2013: 1,400 gallon spill of injection fluid (0.8 ppm U)
- Mar. 7, 2013: Evaporation pond leak
- Mar. 5, 2013: "potential leaks" at two evaporation ponds
- Feb. 11, 2013: 2,100 gallon spill of injection fluid
- Dec. 23, 2012: 800 gallon spill of injection fluid (< 0.4 ppm U)
- Dec. 22, 2012: 950 gallon spill of disposal well fluid (2.1 ppm U)
- Dec. 9, 2012: 1,500 gallon spill of injection fluid (< 0.4 ppm U)
- Oct. 12, 2012: Monitor well placed on excursion status
- Sep. 10, 2012: spill of injection fluid from unplugged historic drillhole located near injection well
- Sep. 7, 2012: 1,000 gallon spill of injection fluid
- Jun. 30, 2012: 1,500 gallon spill of injection fluid (0.9 ppm U)
- Jun. 18, 2012: 1,200 gallon spill of recovery fluid (7.5 ppm U)
- Jun. 18, 2012: 300 gallon spill of injection fluid (1.0 ppm U)
- Jun. 17, 2012: 500-700 gallon spill of injection fluid (1.4 ppm U)
- Apr. 20, 2012: 1,020 gallon spill of injection fluid (1.0 ppm U)
- Apr. 12, 2012: Monitor well placed on excursion status
- Apr. 3, 2012: Two monitor wells placed on excursion status
- Mar. 29, 2012: Two monitor wells placed on excursion status
- Jan. 5, 2012: Monitor well placed on excursion status
- Dec. 14, 2011: 1,500 gallon spill of RO brine fluid (3.8 mg/L U)
- Oct. 2, 2011: Aerial release of yellowcake powder
- Sep. 23, 2011: 4,000 gallon spill of injection fluid (0.87 mg/L U)
- Aug. 24, 2011: Monitor well placed on excursion status
• "around August 4 or 5, 2011": approx. 7,000-10,000 gallon spill of NaCl brine solution
• Jun. 21, 2011: 1,500 gallon spill of injection solution (3.5 ppm U)
• Apr. 19, 2011: Monitor well placed on excursion status
• Apr. 12, 2011: Sampling missed for months at 24 monitoring wells, at least
• Mar. 29, 2011: 1,000 gallon spill of barren injection fluid
• Mar. 23, 2011: Monitor well placed on excursion status
• Mar. 8, 2011: Monitor well placed on excursion status
• Jun 10, 2010: Monitor well placed on excursion status
• Jun 8, 2010: 1,200 gallon spill of permeate water
• Jun 3, 2010: Evaporation pond leak
• Dec 16, 2009: Monitor well placed on excursion status
• Sep 15, 2009: Monitor well placed on excursion status
• Mar 12, 2009: Monitor well placed on excursion status
• Apr 17, 2008: Monitor well placed on excursion status
• Mar 11, 2008: Two monitor wells placed on excursion status
• Sep 5, 2007: Monitor well placed on excursion status
• Apr 25, 2007: Monitor well placed on excursion status
• Jul 22, 2004: Monitor well placed on excursion status
• Apr 28, 2004: Two leaks detected in evaporation ponds
• May 31, 2001: Monitor well placed on excursion status
• Jan 23, 2001: 13,392 Gallon spill of restoration water
• Aug 10, 2000: Monitor well placed on excursion status
• Oct 28, 1999: Monitor well placed on excursion status
• Oct 5, 1999: Monitor well placed on excursion status
• Jul 8, 1999: Monitor well placed on excursion status
• May 8, 1999: 15,000 Gallon Mining Injection Solution Spill
• Apr 12, 1999: 32,400 Gallon Injection Solution Spill
• Apr 3, 1999: 13,000 Gallon Spill of Restoration Water
• Mar 29, 1999: 23,520 Gallon Mining Injection Solution Spill
• Mar 26, 1999: 60,918 Gallon Mining Injection Solution Spill
• Feb 17, 1999: Monitor well placed on excursion status
• Dec 22, 1998: Monitor well placed on excursion status
• Nov 19, 1998: Monitor well placed in excursion status
• Sep 2, 1998: Shallow monitor well is in an excursion status
• Aug 6, 1998: Ground water monitor well placed in excursion status
• Jul 22, 1998: Minor leakage of byproduct solution from the evaporation pond
• Jul 8, 1998: 28,000 Gallons of water containing low level of U3O8 spilled onto ground
• Mar 5, 1998: Perimeter monitor well in excursion status
• Oct 3, 1997: Monitor well in excursion status
• Sep 16, 1997: Spilled 2,440 gallons of waste water containing 78.5 ppm natural uranium
• Sep 12, 1997: Well in excursion
• May 16, 1997: Two perimeter monitoring wells in excursion status
• Mar 12, 1997: Perimeter well in excursion status
• Dec 31, 1996: Perimeter well in excursion status

(details on post-November 1, 1999, events available through ADAMS, Docket No. 04008502)

Compiled by
Sarah Fields
Uranium Watch
December 16, 2020
Please see my comment attached regarding Lisbon Valley Mining’s UIC permit. Thank you, Bill

William P. Johnson, Ph.D.
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Department of Geology & Geophysics
University of Utah
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Address: ■■■■■■■■

https://faculty.utah.edu/u0034962-WILLIAM_P_JOHNSON/research/index.html
https://scholar.google.com/citations?user=C9gBGgAAAAJ&hl=en&authuser=1
January 5th, 2021

Mr. Drummond Earley
Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870
dearley@utah.gov

RE: Underground Injection Control Class III Area Permit In Situ Copper Recovery, Lisbon Valley Mining Company, LLC

Dear Mr. Earley:

I have been asked by Uranium Watch (a non-profit organization in Monticello, Utah) to review Lisbon Valley Mine’s Underground Injection Control (UIC) Class III draft permit application. My qualifications for this review are that I am a hydrologist specializing in groundwater contaminant transport with forty years of experience as a researcher, first at the US Geological Survey and then at academic institutions with more than forty federal, state, and private sector funded research projects. I have produced more than one hundred peer-reviewed publications in the subject of groundwater contaminant transport, which you can view on Google Scholar (https://scholar.google.com/citations?user=C9gBGgAAAAJ&hl=en&authuser=1). I am also a Full Professor in the Department of Geology & Geophysics at the University of Utah, although my comments are not intended to represent any potential viewpoint on the part of the University.

Because LVM’s existing open-pit heap-leach operation are reported to utilize liners to prevent loss of lixiviant to the subsurface, the proposed subsurface injection of lixiviant directly into the Burro Canyon aquifer (BCA) represents a major change in operation. Consideration of permitting proposed in-situ recovery (ISR) must therefore be predicated on a careful analysis of potential impacts.

The application misrepresents both the current utilization of BCA groundwater as well as likelihood of potential impacts of ISR to users of both BCA and Navajo aquifer (NA) groundwater. There are at least two families with drinking water supplies potentially impacted by the proposed ISR process. The Wilcox and Stevenson families each have domestic water supply wells in the Burro Canyon aquifer (BCA) immediately adjacent to the proposed project area.

The analysis of potential impacts presented in LVM’s application is inadequate. The potential hydraulic and transport impacts to domestic water supply and quality were not genuinely assessed. Many of the statements made in the proposed application to suggest a lack of potential impact to current BCA and NA groundwater users were not adequately substantiated.

Regarding characterization of current use of BCA water, on Page 17 of the application, it was stated that “the BC groundwater quality is very poor, and there are no registered domestic, residential, municipal, or other commercial water wells in the BC aquifer in the Project Area besides LVMC.” This statement is not an accurate characterization in multiple respects: With respect to “BCA groundwater quality being very poor,” this statement is contradicted by substantiated statements in Appendix C, Noyes Thesis in which the quality groundwater in BCA is demonstrated to be comparable to that of NA, and that both aquifers demonstrate poor water quality depending on location. The major difference between them is whether their elevated trace elements are associated with ores (BCA) or not (NA). A direct excerpt from
the thesis demonstrates the distinction: “In general ore-forming trace elements such as Cu, Fe, Co, Mn, and U were found, on average, in higher concentrations in the BCA than in the NA. Additionally, trace element Rb was generally observed at higher concentrations in the BCA than the NA. Conversely, other trace elements such as V, Ni, Zn, and Ba were found at higher concentrations in the NA than the BCA on average. Al and As were found at generally comparable concentrations in the two aquifers. Of note, As exceeded the U.S. EPA’s drinking water standard for As (10 μg/L) in BCA well PW-4 (35.1 μg/L) and NA wells PW-7 (22.7 μg/L) and MW97-13 (10.7 μg/L). Additionally, exceedances of the U.S. EPA’s drinking water standard for U (30 μg/L) were observed at BCA wells PW-3 (41 μg/L) and PW-4 (86 μg/L).” The blanket characterization in the application that BCA water is “poor” does not reflect the variable quality with location in both BCA and NA, and current and previous use of BCA groundwater for domestic and drinking water purposes. Furthermore, the proposers’ own Table 12.4 (page 155) also shows comparable water quality between BCA and NA depending on location.

With respect to a lack of registered domestic or residential wells in the proposed project area, the application is technically correct, but does not accurately portray the water use situation relative to the proposed project area. The statement asserting no possible impact to USDW, and no possible use of the BCA aquifer in Section 16.2 on page 169 is highly inaccurate. According to Figures 3.2, 3.43, and 4.3, three domestic wells (Wilcox 05-3907 and 05-2589 (abandoned) and Stevenson 05-2970) lie immediately adjacent to the proposed project area boundaries. In fact, the project area boundaries encompassed the Wilcox domestic supply well in earlier versions available in 2020, demonstrating that the applicants became aware of this water use after their earlier versions of the project area boundary. While the applicants amended the project area boundary accordingly, the aquifer characteristics of course cannot be amended, and it is not clear in the application how the proposed ISR will protect against hydraulic and transport impacts to water availability and water quality for these wells immediately adjacent to the project boundary. The report does not seem to consider which aquifer (BCA or Navajo Aquifer, NA) is tapped by these wells, but available well records indicate that 05-3907 and 05-2970 are screened at depths of 151 ft and 220 ft below ground surface, respectively. These depths appear to place both wells within the BCA immediately adjacent to the project boundary, and therefore at significant risk of impact from ISR operations. On the basis of geologic observations, the application characterizes the BCA as a pocket that accepts water from all sides. However, there is no identified geologic or hydrologic feature that separates the domestic supply wells from the proposed ISR, as demonstrated in Figure 3.22 on page 62. Amending the proposed project boundary to barely exclude the domestic supply well provides no protection. The means to provide protection is to characterize zones of hydraulic and transport impact from ISR operations. This was not done. The zone of influence needs to be convincingly characterized for multiple pilot versions of their injection/recovery modules across different locations within the project area before any realistic assessment of potential risks to domestic supply wells can be made. Rather than provide this necessary information, LVM’s application unrealistically claims without sufficient substantiation that the hydrologic system is somehow protective of domestic water use across the scale of the graben. Notably, the potential hydraulic impacts to other users of BCA are amplified if the BCA is confined as argued by the proposers. Sensitivities of hydraulic heads (water levels in wells) to pumping is much greater and transmits across much larger areas in confined relative to unconfined aquifers. Therefore, the areal buffer needed between ISR and other BCA users can be expected to be much larger in BCA relative to other ISR applications in unconfined aquifers.
The proposers’ characterization of the hydrologic system within the graben as a “closed system” (e.g., pages 19, 25, and echoed in the Draft Permit) is based primarily on geologic rather than hydrologic considerations, and so is not reasonably substantiated and is not supported by groundwater age data. A primary line of reasoning regarding the “closed system” nature of BCA was geologic in nature, with statements made, for example on page 60, that the BC Aquifer “is discontinuous and segmented, lying at a depth of 200-900 feet below the surface, and approximately 450 feet in thickness.” On page 61 it is stated: “In the Project Area, faulting has limited the areal extent and the hydraulic connection of the N Aquifer, which lies at a depth of 800 to 2,200 feet below the surface. The Lisbon Valley Fault strikes N40°W and dips 30 to 55 degrees to the northeast. In addition, the Lisbon Valley Fault splays into numerous “horsetail” faults to the south. These faults have significant vertical displacement and juxtapose permeable units against relatively impermeable units. This juxtaposition, along with gouge material along the fault surfaces, causes the fault zones to behave as barriers to groundwater flow. As a result, there is substantial compartmentalization of the N-aquifer.” The proposers are using geologic arguments to draw conclusions regarding hydrologic processes. Whereas the geologic aspects are necessary, they are insufficient, since permeability is highly variable (heterogeneous) and so bulk characteristics of any particular unit do not define its permeability at all locations. Appendix C of the application provides an excellent example of the fact that local measurements cannot be extrapolated across entire units since, for example, on the bottom of page 23 of Appendix C the locally measured hydraulic conductivity of NA (the regional water supply aquifer) is far lower than that of the BCA, or even the Mancos and Morrison formations that were asserted in the application to be impermeable barriers to flow out of the BCA. As stated in Appendix C: “based upon various down-well methods (e.g. packer tests, bailer recovery tests, etc.) conducted around the region, hydraulic conductivity of the BCA ranges from 1.59x10⁻⁷ to 2.72x10⁻⁶ m/s; hydraulic conductivity of the Morrison Formation ranges from 1.27x10⁻⁶ to 3.46x10⁻⁶ m/s; and hydraulic conductivity of the NA is lower and ranges from 7.06x10⁻⁸ to 1.20x10⁻⁶ m/s.” The vast inaccuracy of extrapolating local hydraulic conductivity measurements across the scale of these geohydrologic units is why the proper method to determine flow directions and fluxes in hydrologic systems is to develop piezometric surfaces across the project and review areas, which the proposers have not done.

On page 61, the proposers link the geology to hydrology without providing data to support the links they propose. The text states: “The graben juxtaposes the younger BC Aquifer with older formations including Morrison and N-Aquifer formations … The BC aquifer is confined laterally by geologic structures and non-transmissive faults. Valley-bounding faults truncate the BC on north & south boundaries. Elevating structures dewater the BC on east & west boundaries. The BC Aquifer is vertically confined above and below by the Mancos Shale and Morrison Formation Brushy Basin Member.” No piezometric surface maps were provided to support these statements.

On page 65 and in Figures 3-25 and 3-26, the proposers further characterize the project area (the graben) as a regional hydrologic sink into which water flows laterally from all directions. Figure 3.14 depicts the graben-inward groundwater flow without substantiation by hydraulic head data. The proposers emphasize that this sink is also bounded from above and below by the Mancos and Morrison formations, respectively. They, therefore, argue that the graben accepts water from all sides, but does not emit water. As such, they argue that the graben acts like a pocket, or because they assert that this occurs indefinitely, the pocket is more akin to a black hole, indefinitely accepting mass without returning it. The challenge of this argument is obvious, and demonstrates a tendency to promote all arguments to
support their position rather than genuinely investigate how this hydrologic system works and determine the potential impacts to other users. Given the proposers’ arguments, it would seem that the graben filled with groundwater well before the current geologic age, likely when the graben formed in the Tertiary, that is during the Tertiary Period more than 1.6 million years ago. In contrast, geochemical and isotopic characterization of BCA ground water (Appendix C) demonstrates that the water age is Holocene (within past 11,000 years). The abstract states that: “Corrected radiocarbon ages in the BCA of 3,300-11,000 BP coupled with δ¹⁸O and δD values in the range of modern precipitation are indicative of recharge occurring during the Holocene.” This finding does not support the proposers’ assertion that the graben accepts and holds water indefinitely. Furthermore, the proposers’ hydrologic characterization is sparse, supported by a total of 10 hydraulic head measurements describing two transects representing the entire area within and outside the graben, as shown in Figures 3-25 and 3-26. Because seasonality may affect hydraulic heads, such comparisons need to account for season, in addition to year-to-year changes, whereas no such considerations were provided.

It is also not clear why so little quantitative hydraulic head data was provided, given that, as stated in Appendix C (the Noyes thesis), there exist at least 19 completed wells and 2 uncased boreholes in the project area that in the Noyes thesis alone were sampled during November 2017, March 2018, July 2018, and August 2018. Additionally, the Noyes thesis states that results from samples collected at these locations “extend back decades,” citing a report from Whetstone Associates, 2018.

Characterization of the hydraulic gradients across the boundaries of the graben requires compilation of hydraulic heads across those boundaries at a representative number of locations along the graben perimeter, which was not done in the application. If the majority of existing wells are concentrated in one zone of the project area such that they cannot represent the larger graben, then that places the responsibility on the proposers to develop the needed observations to support or refute their characterization. Confusingly, Appendix E of the application: Summary of the Ground Water Occurrences within the Lower Lisbon Valley Area (LVMC_UIC_TechReport_AppendixE_LLVGroundwater_021620.pdf) shows in its Figure 3 a large number of locations in BCA showing substantial groundwater flow that were not apparently included in the proposers’ analysis.

It should be noted that while the analysis in the Noyes thesis (Appendix C) may support the notion of limited ambient mixing between the BCA and NA, it does not speak to the proposers’ characterization of BCA flow, as presented in this proposal. The abstract of Appendix C provides the conclusion that the BCA and NA are not strongly hydrologically connected, which is not equivalent to stating that they are hydrologically separate. As stated in the Abstract: “All geochemical and isotopic results show that these distinct aquifers are not strongly hydrologically connected under current natural hydrologic condition.”

A limited analysis of shale gouge ratios (SGRs) supports the claim that fault gouge creates a locally impermeable zone. However, such findings cannot be assumed to apply across entire fault planes that bound the graben, as noted above for extrapolation of local measurements of hydraulic conductivities. Piezometric surface maps grounded in substantial numbers of measurements are needed to identify whether hydraulic heads across the site and with depth are consistent with the proposers’ claims.

A text summary of a 20-year Review of the Hydrogeologic System (Whetstone Associates 2019) was described that claimed to evaluate ground water flow direction and the communications (or lack thereof) between the aquifers that exist within the Project Area. The summary states that, according to
the report, there is a large unsaturated zone that exists between the BCA and NA, although no data were presented to support the assertion. Whereas, the Noyes thesis provides some support for the assertion of limited mixing between BCA and NA, the larger issue is the absence of information regarding piezometric surfaces and flow.

On page 31, underground uranium mine workings in the area were dismissed as having no impact because they are “either located in the footwall outside the project area or were beneath the Morrison confining unit.” However, Figure 3.3 in fact shows that the mine workings lie within the project area, at or near one of the ore zones (Figure 3.23 on page 63 and 3.41 page 89). Given that the proposers are asserting that the footwall is separated from the project area by an impermeable fault, it is surprising that they would show the mine workings to lay within the project area. Given that the mine workings extend “beneath the Morrison confining unit.” their potential role as a conduit between the BCA and NA must be carefully considered if the mine workings intercept the project area, as shown in Figure 3.23 on page 63 and Figure 3.42 on page 89. The analysis presented does not convincingly address the possibility of an impact from the mine workings. Assessment of potential impacts of mine workings on solution transmission from the project area (for example to the NA) needs to examine overlay of Lone Wolf ore zone and mine workings, as well as depth comparisons or wells and mine workings.

Section 5.0 Corrective Action Plan (starting on Page 97) initiates with the statement: “There are no USDW above the injection zone.” This statement is incorrect. There are domestic supply wells immediately adjacent to the project area (injection zone) in the same USDW in which injection is being proposed. The incorrect statements made in the application are worrisome in terms of indicating a potential unwillingness on the part of the proposers’ to genuinely consider and prevent potential impacts to other users of BCA. Section 5.0 explains that proposed injection rates per well will range between 50 to 500 gpm, individual well fields (injection/extraction) will operate for about 5 years, with multiple well fields operating at any given time. Concurrent copper recovery and aquifer restoration will begin about 5 years after initial well field operation.

The goal is to maintain an inward hydraulic gradient, which LVM proposes to accomplish by maintaining the injection flow by 0.5% to 5% less than the extraction flow. However, this is a negligible difference. Even if it does maintain an inward hydraulic gradient at the five measured points of hydraulic head, may not maintain inward flow and capture of injectate. Even with an inward hydraulic gradient, flow directions across the well field volume will be governed by both hydraulic head and hydraulic conductivity (primarily governed by rock permeability), where the latter can be expected to vary by orders of magnitude within the volume of a well field. Rather than assume that the proposed small differential between injection and extraction flow, the proposers should provide pilot studies demonstrating with a convincing number of monitoring wells the injection/extraction differential needed to recover a given fraction of the injectate. For a proposed five-well field, at least eight equally-spaced monitoring wells should surround the outer four wells. This should be done at multiple locations in the project area to capture spatial variation in BCA properties. While LVM’s proposal will maintain injection pressures designed to avoid BCA fracture, this does not guarantee in any way that all injected flow will be recovered by the extraction well, as explained above.

In Section 6.3, it is stated that BCA may not be able to provide sufficient water for operation “since it does not recharge or have influent flow.” This statement does not clearly align with the proposers’ argument that it is surrounded laterally by inward hydraulic gradients and the Holocene age of its
groundwater. Furthermore, in Section 7.2, it is stated that aquifer tests in BCA result in "good permeability ... which supports flow criteria required for successful ISR operations.” These seemingly self-contradictory statements within the same application highlights the need for a clearer hydrologic analysis to draw consistent conclusions with quantitative estimates rather than inaccurate blanket judgements such as “no recharge”, “good permeability”, “closed hydrologic system”, “no USDW”, etc. The pressure response described in Section 7.2 at well tapping the GTO fault does indeed indicate hydraulic connection to PW-12 in BCA, and lack of hydraulic connection to Woods well on the footwall. However, this observation at one location on the graben boundary is insufficient to prove the proposers’ assertions of inward hydraulic gradients and impermeable boundaries along the entire perimeter of the graben.

Quantitative results provided for the “pump” or “aquifer” tests showed continued head loss under constant pumping, consistent with limited groundwater storage in the BCA. However, the continued head loss is expected for confined aquifers because they are over-pressured, and extraction reduces that pressure. The proposer’s analysis did not clearly develop an estimate of water volume available for extraction relative to the volume needed for proposed ISR operations, and, most important, the potential impacts to water availability in adjacent domestic supply wells in the BCA and NA.

With respect to injectate (lixiviant), the normality of sulfuric acid and partial pressure of oxygen were not provided. It is not clear whether potential oxygen bubble coalescence and formation permeability reduction during injection were considered.

Table 6.2 provides the anticipated composition of the injection fluid, with no substantiation or explanation of how these estimates were developed. Equally important will be the composition of injected water AFTER reaction with BCA, since it has implications for the sustainability of reinjection (page 124), as well as potential impacts if equilibrated injectate is not recovered. Notably, the equilibrated injectate will have a pH of 1 (Figure 11.2 page 127). Section 11.2 provides an equation that portrays oxidative dissolution of copper sulfide. It does not portray the many other sulfide bound elements (As, Pb, Cd, etc.) that will be mobilized in this proposed process and the major ions produced (e.g., SO4^{2-}), which can also have health impacts. Nor does it portray the presence of organic matter and other reducing agents that maintain the current reducing conditions in the aquifer, and that will compete with copper sulfide for the oxidant (sulfuric acid, oxygen, Fe^{3+}). Furthermore, it does not portray the dissolution of abundant carbonate minerals that will consume added acid, greatly increase alkalinity and dissolved solids, and will likely confound reinjection and rinsing as proposed.

The injection depths are stated to range between 125 and 800 feet (page 101), or 200 and 900 feet (page 117). Given the stated (Figure 12.1 page 144) nominal 200 foot thickness of the Mancos Formation, 333 foot thickness of BCA, and the nominal 400 foot thickness of the Morrison Formation, these depths appear to have significant penetration into the Morrison Formation and possibly the NA. The proposed injection depths themselves appear to negate the proposers’ argument that Morrison will act as a barrier to flow between BCA and NA.

Determination of zones of hydraulic and transport impact to water availability and water quality is proposed to occur during operation following aquifer exemption. These concerns should be addressed BEFORE aquifer exemption is requested, and should be addressed in pilot scale studies provided in the application for aquifer exemption.
With respect to the Draft Permit (DWQ_LVM_UIC_DraftPermit_DWQ-2020-020464_110420.pdf), the listed elements to be monitored are Fe and Cu (page 24 bottom). It is not clear why the list does not include other elements expected to be mobilized by sulfuric acid addition, for example U, Mn, Cd, As, and Pb. It is surprising that these elements were not included for monitoring, given that these elements are demonstrated to be present in the mineralized zone and impact water quality in some areas of the BCA. Their concentrations are highly likely to be amplified in response to sulfuric acid injection in the proposed ISR. The restriction of monitoring to the target element Cu, and a relatively prevalent element (Fe) weakens confidence in the ability of the regulatory process to protect against transport and consequent water quality impacts.

With respect to the Statement of Basis (DWQ_LVC_UIC_StatementofBasis_FactSheet_DWQ-2020-020466_110420), the description of the Cu recovery process at the top of page 3 does not explain what sulfuric acid normality corresponds to “dilute.” This value is needed, since “dilute” depends on context and this context, with many competing dissolvable phases, likely requires a normality that would not be considered dilute in environmental settings.

This description mentions only Cu, whereas the other minerals comprising the ore are also likely subject to dissolution. The absence of recognition of mobilization of other trace elements within the mineralized zone reduces confidence in the regulatory process. It is stated (top of page 4) that “the Draft Permit is justified on the basis of the limited extent and use of the Burro Canyon aquifer in the proposed permit area, the occurrence of mineralization of potential commercial value and relatively poor water quality.” These statements are not accurate as reviewed above.

It was stated (page 4) that “the Burro Canyon aquifer is contained within a closed water recharge system by the regional geologic anticlinal structure within a graben bounded by faults with low hydraulic conductivity owing to the occurrence of fine grained fault gouge material.” These statements are not accurate as reviewed above. It is stated (page 4) that “Any vertical migration will also be detected by deep monitor wells within the Morrison and Navajo Formations.” This is an overly optimistic statement that fails to recognize the challenge in detecting leakage in the subsurface with limited wells given limited dispersion relative to the large transport scales involved. Such unrealistic statements weaken confidence in the regulatory process. Aquifer Exemption for the Burro Canyon Aquifer (page 4) does not seem to be based on an objective and substantiated analysis as reviewed above.

Sincerely,

William P. Johnson, Ph.D.
Dusty, (I hope that is the correct preferred name to use, if not, please correct me)

In response to our phone conversation today, the GIP project in Lisbon Valley was for stockwater use only and did not include any domestic use. Please let me know if you have any other questions.

Thanks,

Conner Peterson

On Mon, Jan 4, 2021 at 5:41 AM Conner Peterson wrote:

Drummond,

Attached is the formal comment letter from the Utah Department of Agriculture and Food (UDAF) to be submitted in response to the Lisbon Valley Mining Draft Permit. Please feel free to contact me with any questions. Thank you for the opportunity to provide comments and we look forward to continually working with you.

All the Best,

Conner Peterson
Drummond Earley  
Utah Division of Water Quality  
P.O. Box 144870  
Salt Lake City, UT 84114-4870

Subject- UDAF comments concerning the Lisbon Valley Mining Underground Injection Control Class III Area Draft Permit

Dear Ms. Clarke:

The Utah Department of Agriculture and Food (UDAF) has reviewed the Lisbon Valley Mining Underground Injection Control Class III Area Draft Permit. UDAF is desirous to work collaboratively with the Utah Division of Water Quality (DWQ) throughout this process. There are several concerns with issuing this draft permit.

The Lisbon Valley is an important area for livestock grazing. There are already various water systems established that utilize groundwater. If the draft permit is issued, there is a severe risk that the water may be contaminated, and once this happens it cannot be undone. Monitoring can be done to prevent water contamination; however, once the water is contaminated, nothing can be done to reverse the effects.

Livestock watering rights have existed in the area for many years and are older rights than what the mine has. This means that the livestock watering rights should be given priority. In addition to having first right of use, these rights should have unimpaired use of the water they are entitled to. Adding acid to a water system without control of where it goes with other users in the system is dangerous and reckless.

In addition to livestock watering rights, culinary wells in the area are at risk for contamination. There are residents in the area that receive their drinking water from the aquifer and could be exposed to contaminated water. The health and safety of humans and animals needs to be a priority consideration in this situation.

UDAF funded a Grazing Improvement project in 2014 in Lisbon valley, providing stock water to 1,089 acres. The project included 11,756 feet of HDE pipe, a 12,658 gallon storage tank, and 4 stock tanks. The water right 05-3575 providing the stock water is not
listed in the Lisbon Valley Mining Draft Permit. There are several water rights not listed in the draft permit that either fall within the project area or are adjacent to the project area. All are within the two-mile AQR boundary. Livestock require a certain level of water quality and are sensitive to copper and acids. UDAF is concerned that ejection of acids in the aquifer will impact both stock water and drinking water devastating the livestock industry in the area.

Water rights not listed in the draft permit:
- 05-3575: beneficial use, stock water, 400 ELUs
- 05-296: beneficial use, stock water, 75 ELUs
- 05-3692: beneficial use, municipal, 25 seat restaurant, 1 washer, 1 camp bath house, 3 cabins, 3 hard side tents, 2 teepees, and 25 people x 365 use
- 05-2970: beneficial use, domestic 1 EDU, stock water, 10 ELUs, irrigation .25 acres

If the permit is granted, it should include a plan to provide stock and drinking water to the affected parties. The permit should include a perfected water right with sufficient quality and quantity to meet the current needs and include funding for piping, drilling, and O&M cost.

The current draft permit could have serious negative economic impacts on the local communities. If livestock are getting sick or dying from the contaminated water, there will be significant economic losses to the agricultural industry. San Juan County is heavily dependent on agricultural production with 10.7% of all employment in the county coming from agriculture. This is a staggering amount compared to the rest of the country with just 1.3% of jobs coming from agriculture nationwide. Livestock production alone from San Juan County contributed over $10,994,000 to the local economies in 2018. This source of revenue is extremely important for the economic survival of this rural county. The median household income for San Juan County is $42,982, which is significantly lower than the state of Utah median household income of $71,381. This shows how heavily San Juan County relies upon agricultural production to sustain the local communities.

Overall, there are serious concerns from the people that this decision will directly affect, and this decision should not be rushed. UDAF appreciates the opportunity to provide comment and looks forward to continually working with the Utah Division of Water Quality.

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1 https://deq.utah.gov/public-notices-archive/water-quality-public-notices Attachment B, Figure 3.2 page 16-17
3 Ibid.
4 Ibid.
5 Utah Department of Workforce Services. 2018. Annual Income and Wages by County.
Sincerely,

R. Logan Wilde
Commissioner