

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Todd Parfitt, Director

September 6, 2013

Mr. John Cash – VP Regulatory Affairs Exploration and Geology Lost Creek ISR, LLC 5880 Enterprise Drive, Suite 200 Casper, WY 82609

Re: Summary of Bi-weekly Inspection of Lost Creek ISR LLC's Permit 788

Dear Mr. Cash:

On September 4, 2013 a bi-weekly Inspection of the Lost Creek ISR (LCI) project was conducted (see enclosed Inspection Report. The Inspection resulted in the following two tasks (minor action items):

- 1) Repair the erosion caused by the overfilling of the 80,000 gallon water suppression storage tank in the Plant Site and
- 2) Remove the trash that was observed around the Plant Site perimeter.

The next site Inspection is scheduled for Wednesday September 18, 2013. If there are any questions regarding the enclosed Inspection Memorandum, please contact Melissa Bautz in the Lander Land Quality Division office at (307) 332-3047.

Sincerely,

Melissa L. Bautz, P.G.

Natural Resources Analyst

Land Quality Division - District 2 (Lander)

Enclosure

9-page Inspection Memorandum

MLB:mlb

cc:

Mark Newman – BLM – P. O. Box 2407, Rawlins, WY 82301 (w/encl)

John Saxton – US Nuclear Regulatory Commission (w/encl)

Tanya King - WDEO-LOD, District II→ Permit 788 Inspection File (w/encl)

LQD Cheyenne → Permit 788 Inspection File (w/encl)

Chron (w/encl minus photos)

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Wyoming Department of Environmental Quality (WDEQ)- Land Quality Division (LQD) Inspection Memorandum

File:

Lost Creek ISR, LLC - Permit 788

Date of Inspection:

September 4, 2013

Date of Report:

September 6, 2013 MM L/A

Participants:

Eric Stonaker, Lost Creek ISR/Ur-Energy

Melissa Bautz, WDEQ-Land Quality Division

Report Prepared by:

Melissa Bautz – WDEQ-Land Quality Division

Subject:

Bi-weekly Site Inspection

Introduction

On September 4, 2013, a routine bi-weekly Inspection was conducted at the Lost Creek ISR (LCI) site. The last bi-weekly site Inspection was conducted on August 21, 2013 (see Report dated August 23, 2013). On Friday August 2, 2013 ISR mining commenced in MU1.

Inspection

Overflow of Fire Suppression Water Storage Tank during filling

Mr. Stonaker began the Inspection with a look at the 80,000 gallon water storage tank situated at the northwest corner of the Plant Site. Apparently, while the tank was being filled (from its designated water supply well), either the night before the Inspection or the morning of the Inspection, the tank became full and several hundred gallons of fresh ground water overflowed onto the ground before the flow of water was stopped.

The water that overflowed out of the storage tank caused some piping immediately adjacent to the storage tank and some rilling about 30 feet east of the storage tank (see attached photo addendum) resulting in a trench with the following approximate dimensions: 2' x 2' x 5'. The water then flowed downhill another 10 feet to an earthen drainage channel, then under the Plant Site's northeast entrance route (which is the alternate/emergency access route to the Plant Site) via a culvert, and then flowed another 50 feet (still within the drainage channel) before seeping into the ground. No erosion occurred in the drainage channel itself. The erosion was limited to the piping (hole) next to the tank and the rills about 30 feet east of the tank.

The attached photo addendum depicts the areas that incurred erosion due to this overflow. LCI is encouraged to reconsider the drainage needs around the water storage tank. If sumps or a lined drainage channel are needed to accommodate future mishaps with overfilling the tank, LCI staff should proceed with their construction. Any alterations made to this area to address the erosion that occurred as a result of this overflowing event can be addressed in the Annual Report.

Mining and MU1 Well Field

ISR mining in HH1-1 and HH1-2 has been ongoing in Mine Unit 1 (MU1) since lixiviant was injected into the project's injection wells on August 6, 2013. Now that the bicarbonate silo has

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been installed at the Plant Site, LCI will begin adding bicarbonate into the well field's injection wells.

The eastern portion of MU1 was inspected today (see photo addendum). The eastern portion of MU1 is currently a "sea" of drill sites, mud pits, and stockpiles (topsoil and subsoil). There were no concerns with the eastern portion of MU1. Mr. Stonaker indicated that plans continue for the establishment of travel routes within HH1-1 through HH1-3 in MU1 as well as fall seeding in the same areas. A brief discussion with LCI's Steve Loose at the end of today's Inspection indicated that Header House 4 in Mine Unit 1 (HH1-4) is not ready for authorization yet.

Field Laydown Area

Nearly all of the equipment from the field laydown area north of MU1 has been removed and relocated to the DDW-4 drill pad (see photo addendum). MU1 monitoring ring wells M-118 and M-119 are located within the field laydown area and have been sampled biweekly for several months. Mr. Stonaker indicated that the purge water from the biweekly sampling of monitoring wells M-118 and M-119 is currently discharged via a hose directly onto the ground (an acceptable practice). Mr. Stonaker further noted that previously-trampled sage brush that has been in the path of the well purge water is showing signs of life. As revealed in the attached photo addendum, some of the sage brush plants even have seed buds. This is a good indication that the sage brush plants, even the severely trampled ones, within the field laydown area are probably still alive and would benefit from sprinkler application of purge water. LQD encourages the sprinkler application of purge water as LCI personnel find it beneficial. Mr. Stonaker acknowledged that the seeding of the field laydown area will still be necessary this fall to reestablish grasses, however.

Drilling Activities

LCI recently decreased the number of onsite drill rigs from 12 to six (6). Additionally, LCI has a new drilling supervisor, Nate Fischer. This was necessary because the previous drilling supervisor, Allen Jones, is no longer working for LCI. During this Inspection the drill rigs were in MU2 and/or MU3. However, they will be returning to the east end of MU1 shortly to resume well installation.

Reclamation

As indicated in previous Inspection reports, LCI's Eric Stonaker has been taking inventory on all of the areas in need of reclamation at the site this fall (2013). That list includes but is not limited to the following areas: Plant Site reclamation, the topsoil stockpile at DDW-3, the DDW-1 drill site, portions of MU1 (e.g. HH1-1 through 1-3), the field laydown area north of MU1, reclaimed pipeline trenches, and heavily used travel routes to wells.

Establishment of Travel Routes

The last item on the list above (i.e. heavily used travel routes) is a new addition to the list since the last Inspection Report. It was added as a result of an observation made during this Inspection. Specifically, the water supply well at the southwest corner of DDW-4 is one that is heavily used and has significant trampling of native ground. Additionally, this well's

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(backfilled) mud pit is showing signs of subsidence. The subsidence will need to be repaired prior to the application of seed this fall.

Also, during fall seeding, when LCI plans to seed areas in and around this water supply well (and other wells), LCI should also plan to establish (via the installation of metal t-posts or some other type of deterrent to vehicular access) one travel route directly to the well head. The travel route itself need not be stripped of-topsoil; rather, it can be left as a two-track road. All of the affected areas outside the travel route (once it is established) should be seeded this fall. This method of travel route is referred to as a "tertiary road" (or two-track) in Section 2.6 of the Operations Plan of the Permit.

Annual Inspection

In the last Inspection Report, it was indicated that LQD staff will be seeking a demonstration from LCI staff on the specifics of how the raptor protection measures used on the site's power line meets the Permit commitments that address raptor protection. The date for the Annual Inspection has not been set, but it will occur several weeks after LQD receives the 2012/2013 Annual Report for the Permit, which is due on October 21, 2013, the anniversary date of the Permit's approval.

Housekeeping

Some wind-blown trash (mostly plastic bags) was noted around the perimeter of the Plant Site. Mr. Stonaker indicated that it would be picked up by day's end.

Conclusion

LCI personnel are in the progress of addressing 1) the erosion caused by the overfilling of the 80,000 gallon water suppression storage tank in the Plant Site and 2) the trash that was observed around the Plant Site perimeter. These are considered minor action items (or tasks) that are already being addressed by LCI. Follow-up on the progress of these two tasks will be addressed in the next site Inspection which is planned to occur on September 18, 2013, Wednesday, at 10am.

W/Photo Addendum (Pages 4 – 9)

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Photo Addendum to accompany the September 4, 2013 Inspection of Lost Creek ISR's Permit 788

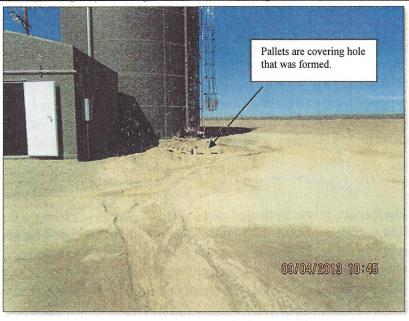


Photo Number 1: This depicts the fire-suppression water storage tank in the northwest corner of the plant site. The area covered with pallets is where some piping occurred (forming a 3' deep hole) where water pooled after overflowing out of the hose that was used to fill the storage tank from its associated water supply well.

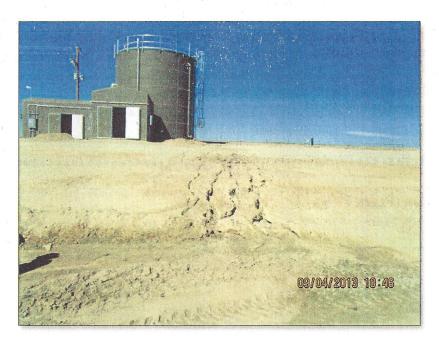


Photo Number 2: This is another depiction of the water storage tank in the Plant Site. The rills in the foreground were created by the overflowing of several hundred gallons of fresh groundwater while the tank was being filled earlier this day (or the previous night).

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Photo Addendum to accompany the September 4, 2013 Inspection of Lost Creek ISR's Permit 788 cont'd...



Photo Number 3: This depicts the upgradient side of the culvert that runs under the northwest access route into the Plant Site. The ground is saturated in the ditch to the right of this culvert due to the flowing of several 100 gallons of fresh groundwater that overflowed while the site's 80,000 gallon fire-suppression water storage tank was being filled. The culvert appeared to function properly during this event. However, as revealed by the wet soil above the culvert, water must have pooled here for some period of time. This culvert was sized for the drainage area upgradient from here (which is probably ~0.2 acres); not for a slug of several hundred gallons of water coming at it in a 20-30 minute time period. Therefore, it is not surprising to see that water pooled upgradient from this culvert. To prevent any problems in the event of future overfilling accidents, LCI personnel may consider installing a sump somewhere between the water storage tank and this culvert.

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Photo Addendum to accompany the September 4, 2013 Inspection of Lost Creek ISR's Permit 788 cont'd...

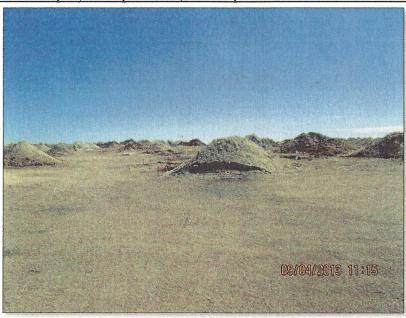


Photo Number 4: This depicts the eastern portion of MU1. No drill rigs were operating in MU1 today, which is unusual. LCI just recently reduced the number of onsite drill rigs from six (6) to 12. All six (6) drill rigs were in MU2 or MU3 during today's Inspection.

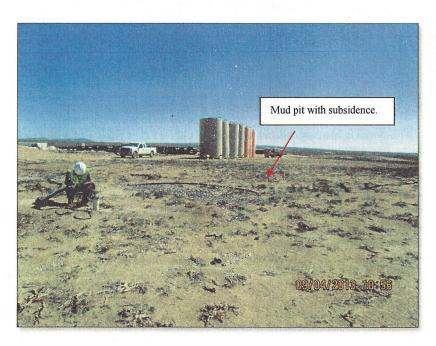


Photo Number 5: This depicts the southwest corner of the DDW-4 site. In the foreground can be seen LCI's Eric Stonaker taking a reading from the water supply well at this location. The red arrow indicates the location of the backfilled mud pit for this well. It has subsided since it was backfilled and will need to be graded before being seeded.

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Photo Addendum to accompany the September 4, 2013 Inspection of Lost Creek ISR's Permit 788 cont'd...



Photo Number 6: This is a closer view of the backfilled mud pit (with subsidence) for the water supply well at the southwest corner of the DDW-4 site.

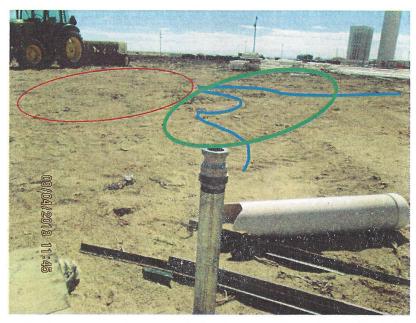


Photo Number 7: This depicts the well head for M118. It is at the west edge of the "field laydown area" just north of MU1, which is being cleared for fall reclamation. The area indicated by the circles are places where sage brush was trampled. The blue line indicates the approximate flow path of purge water from biweekly well sampling events. The area encircled in red does not receive any of the purge water (see Photo Number 9 on the following page). However, the area encircled in green does receive purge water. The sage in this area is showing signs of life (as depicted in Photos 9 and 10 on the following pages).

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Photo Addendum to accompany the September 4, 2013 Inspection of Lost Creek ISR's Permit 788 cont'd...



Photo Number 8: This is a close up view of the trampled sage that occurs within the area encircled in red in Photo Number 7 above. It appears to be dead. There are no leaves on these sage brush plants. This area does not receive purge water from the biweekly sampling of well M-118.



Photo Number 9: This depicts some of the trampled sage brush from the area encircled in green in Photo Number 7. This sage brush does receive purge water from the sampling of well M-118. It has a lot of new leaf growth on it.

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Photo Addendum to accompany the September 4, 2013 Inspection of Lost Creek ISR's Permit 788 cont'd...

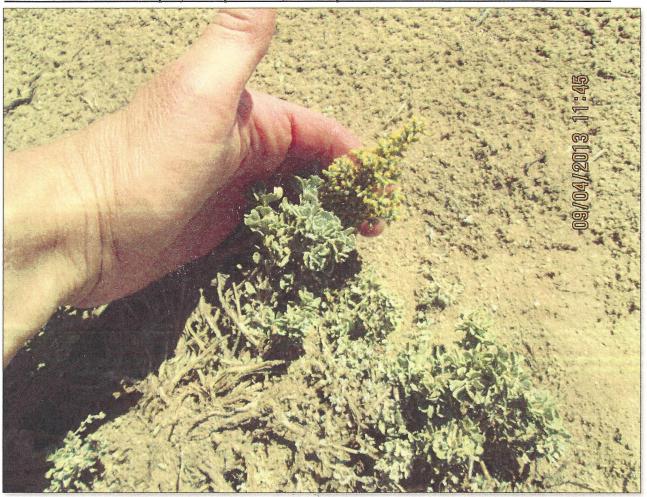


Photo Number 10: This depicts a sage brush plant that has gone to seed as a result of receiving purge water from the biweekly sampling of well M-118.