

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

July 19, 2013

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

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

Dear Mr. Cash:

On July 11, 2013 a bi-weekly Inspection of the Lost Creek ISR (LCI) project was conducted. The four (4) action items that resulted from the previous Inspection (see report dated June 20, 2013) have been addressed as indicated in the enclosed Inspection Memorandum. No new action items resulted from this Inspection. There are no concerns with the Lost Creek Project based on this Inspection.

The next site Inspection is scheduled for Wednesday July 24, 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

6-page Inspection Memorandum (plus one enclosure)

MLB:mlb

cc:

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

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

Tanya King - WDEQ-LQD, District II→ Permit 788 Inspection File (w/encls)

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

Chron (w/encls)

E:\MELISSA WDEQ WORK FOLDER\MLB Work Files\My WorkStuff\Mines\Fremont County Sites\Lost-Creek-ISR Pmt 788\Pmt 788\Pmt 788 Inspections\Pt 788 7-11-13 Inspec\Pt 788 7-11-13 CovLet.docx

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

File:

Lost Creek ISR, LLC - Permit 788

Date of Inspection:

July 11, 2013

Date of Report:

July 19, 2013 /M/B

Participants:

Mike Lueders, Mine Manager, Lost Creek ISR/Ur-Energy

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

Inspection

On July 11, 2013, a routine bi-weekly Inspection was conducted at the Lost Creek ISR (LCI) site. During the last Inspection conducted on June 19, 2013 (see report dated June 20, 2013), the following topics were discussed: Pipeline trenches, Future Well Fields, Deep Disposal Well #1, and Housekeeping. This Inspection provides a follow-up to those four topics as well as an overall documentation of the site status.

Pipeline Trenches

The use of a "trencher" to dig the narrow, deep trenches for the pipelines leading to the Deep Disposal Wells, resulted in mixing of topsoil and subsoil. This was noted as problematic in the June 19, 2013 Inspection. However, upon review of the Permit Document, the use of a "trencher" is authorized for the narrower pipeline trenches. Specifically, the last paragraph of Section OP 2.5.1 in the Operations Plan authorizes the use of a "trencher" for smaller pipelines. In light of this authorization, LQD's previous comment (Action Item 1 in the letter dated June 20, 2013 which accompanied the June 19, 2013 Inspection Report), is hereby rescinded.

Future Well Fields

During the Inspection of Mine Unit 1 (MU1) it was noted that the entire production zone portion of the well field is disturbed (see Photo Addendum). This was noted as problematic in the June 19, 2013 Inspection (Action Item 2). Some additional discussion transpired during this Inspection between LQD's Ms. Bautz and LCI's Mr. Stonaker. Mr. Stonaker indicated that LCI will make a formal written proposal to LQD regarding methods of preserving select portions (e.g. pedestals) of native ground in future well fields. It is hoped that these efforts will help reduce wind speed across the well fields and to act as a native wind-blown seed source for reclamation of the well fields. This will be an ongoing action item, a detailed discussion of which will be reserved for the Annual Report process and Permit revision process.

Deep-Disposal Well #1

The Deep Disposal Well #1 (DDW-1) drill pad was reclaimed in 2008 or 2009. The June 19, 2013 Inspection revealed that it needs to be reseeded. Additionally, the access road to DDW-1 is excessive in that it currently wraps around the west, south and east edges of the drill pad. During this Inspection Mr.

E:\MELISSA_WDEQ_WORK_FOLDER\MLB Work Files\My WorkStuff\Mines\Fremont_County_Sites\Lost-Creek-ISR_Pmt_788\Pmt_788\Pmt_788_Inspections\Pt_788_7-11-13_Inspec\Pt_788_7-11-13_Inspe

Inspection Date: July 11, 2013 Report Date: July 19, 2013

Page 2 of 6

Stonaker indicated that LCI plans to reclaim the east and southern reaches of the access road as well as the southern end of the west portion of the access road. This will reduce the footprint of the affected areas associated with the DDW-1 drill pad. LCI also plans to re-seed the previously-seeded portions of the DDW-1 drill pad in the fall of 2013 when they seed the reclaimed portions of the pad's access road. These plans adequately address Action Item 3 in the June 20, 2013 Inspection Report).

Housekeeping

The trash that was noted in the June 20, 2013 Inspection report had been picked up. There was no visible trash noted during this Inspection. This adequately addressed Action Item 4 in the June 20, 2013 Inspection Report.

Other Inspection Items

Disturbance associated with trenches

During this Inspection, the width of disturbance associated with the different types of pipeline trenches was analyzed. Two trench sizes were analyzed: A five foot wide trench and an 8 inch wide trench. Table 1 below reveals that the use of the "trencher" for the 8 inch wide pipeline trenches greatly reduces the affected area. While topsoil and subsoil do become mixed using the "trencher" approach, it was determined during the review of Permit 788, and found to be mutually agreeable to LQD and LCI personnel, that the trade-off between a decreased footprint of disturbance with the topsoil/subsoil mixing was a worthy one.

Table 1. Comparison of topsoil stripping methods with resulting footprint of disturbance

	Affected width using "normal" topsoil stripping methods	Affected width using "trencher"
5' wide trench	46 feet	*n/a
8" wide trench	32 feet	10 - 14 feet

^{*}The use of a "trencher" is not applicable to a 5-foot wide trench.

Discharge of purge water from well sampling events

During this Inspection, Mr. Stonaker asked whether LCI is authorized to discharge purge water from monitor well sampling onto the ground via sprinklers. It is LQD's understanding that LCI is currently discharging purge water from monitoring well sampling and from pump tests onto the ground via PVC pipe. And that this approach to discharging was previously authorized under a Temporary Discharge Permit issued to LCI by WQD. However, since the discharge of well. This topic is addressed by the Water Quality Division (WQD) of the WDEQ.

A letter dated March 15, 2012 (enclosed) from WQD's John Wagner to Wyoming Mining Association's Marion Loomis authorizes the land application of pump test water, provided it does not enter a "Water of the State". It is presumed that the land application of purge water from well sampling events is synonymous with "pump test water". The March 15, 2012 letter indicates that any discharge water that enters a "Water of the State" requires a WPDES permit from the WQD. If the water is applied to the land and does not enter a "Water of the State", it is outside WQD's jurisdiction.

As of the writing of this Inspection memorandum, LQD's Melissa Bautz is communicating with WQD personnel to verify the applicability of the March 15, 2012 letter to purge water from well sampling events. LCI personnel are encouraged to communicate directly with WQD regarding this topic if a quicker answer to this question is needed. Otherwise, LQD will attempt to have an answer to this question for LCI personnel within a week (by the next site Inspection, on July 24, 2013).

E\MELISSA_WDEQ_WORK_FOLDER\MLB Work Files\My WorkStuff\Mines\Fremont_County_Sites\Lost-Creek-ISR_Pmt_788\Pmt_788\Pmt_788\Pmt_788_Inspections\Pt_788_7-11-13 Inspec\Pt_788_7-11-13 Inspec\Pt_788_7-11-1

Inspection Date: July 11, 2013 Report Date: July 19, 2013

Page 3 of 6

Drilling activites

Well field development drilling continues in Mine Unit 1 (MU1) and the monitoring ring wells are under construction in Mine Unit 2 (MU2). Exploration and/or delineation drilling is occurring in Mine Unit 3. A total of 12 drill rigs are operating at the site now. There are no concerns with drilling practices. Mud pits that are not within the MU1/MU2 perimeter fence are adequately fenced to prevent wildlife or humans or livestock from accidentally entering the pit.

Conclusion

The Lost Creek site is in good condition. The four action items indicated in the last Inspection Report have either been addressed or will be addressed by the fall of 2013 reclamation activities and/or the 2013 Annual Report (as. Therefore, there are no outstanding or pending Action Items as a result of this Inspection. The next Inspection is scheduled for July 24, 2013, Wednesday, at 10am. It is anticipated that the next Inspection will include a well completion Inspection for Header House 3. But it will also constitute a standard bi-weekly site Inspection.

Enclosure Copy of March 15, 2012 letter from WQD to Marion Loomis

W/Photo Addendum (Pages 3 - 6)

Photo Addendum to accompany the July 11, 2013 Inspection of Lost Creek ISR's Permit 788



Photo Number 1: This is a view looking south along the pipeline trench that leads to DDW-1. The width of affected area for this trench is around 14 feet. This trench was dug via the use of a "trencher". The "trencher" results in the mixing of topsoil with subsoil but it affects substantially less area than traditional topsoil stripping methods.

Inspection Date: July 11, 2013 Report Date: July 19, 2013

Page 4 of 6

Photo Addendum to accompany the July 11, 2013 Inspection of Lost Creek ISR's Permit 788 cont'd...



Photo Number 2: This depicts the pump house (structure on left) and well head cover (structure on right) at Deep Disposal Well 1 (DDW-1). The trench between the two structures was open during this Inspection, as piping was being installed. This view is looking west.



Photo Number 3: This depicts the pump housed in the DDW-1 pump house.

Inspection Date: July 11, 2013 Report Date: July 19, 2013

Page 5 of 6

Photo Addendum to accompany the July 11, 2013 Inspection of Lost Creek ISR's Permit 788 cont'd...



Photo Number 4: This depicts the heater inside the DDW-1 pump house.



Photo Number 5: This is a panoramic view of the entire DDW-1 drill pad as seen from its northwest corner. The road on the right edge of this photo is the portion of access road that runs along the west edge of DDW-1.

Inspection Date: July 11, 2013 Report Date: July 19, 2013

Page 6 of 6

Photo Addendum to accompany the July 11, 2013 Inspection of Lost Creek ISR's Permit 788 cont'd...

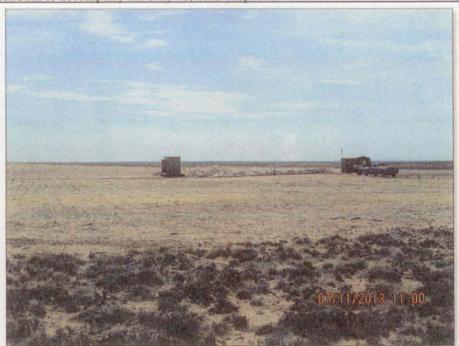


Photo Number 6: This depicts the vegetation growing on DDW-1 reclamation. It needs to be reseeded.



Photo Number 7: This depicts MU2 monitoring ring wells M-206 and M-206a. The associated mud pit is fenced because these wells are outside the MU1/MU2 perimeter fence.



Department of Environmental Quality

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



John Corra, Director

March 15, 2012

Mr. Marion Loomis **Executive Director** Wyoming Mining Assoc. P.O. Box 866 Cheyenne, WY 82003



Disposition of Pump Test Water Related to Uranium Mining RE:

Dear Mr. Loomis:

The purpose of this letter is to respond to your letter of August 26, 2011 regarding disposal of pump test water associated with uranium mining and exploration. I apologize for the long time it has taken me to respond, but as you are aware, this has been a difficult issue. However, thanks to Nancy Nuttbrock's initiative and the meeting we had in Casper on 3/14/12, it appears we now have a path forward.

In summary, here is my understanding of our agreement from the Casper meeting:

- 1. If an operator plans to discharge pump test water to a surface drainage, the operator will apply for a WYPDES permit using the procedures and mechanisms already in place;
- 2. If an operator plans to inject pump test water to the subsurface, the operator will apply for a UIC permit using the procedures and mechanisms already in place;
- 3. If the operator plans to apply the water to the land surface and takes the position that the water will not enter or threaten to enter either surface or groundwater, the operator shall submit documentation to the WQD administrator which provides justification for that position. If the administrator concurs with the operator, the administrator will send a letter of concurrence to the operator with a copy to the LQD. That letter will state that it is conclusion of the WQD administrator that the WQD lacks jurisdiction provided the pump test water is applied as described by the operator. If the WQD administrator does not concur with the operator's position that there will be no discharge or threat to discharge to waters of the state, the administrator will send a letter to the operator, with a copy to LQD, giving the basis for that decision.

As we discussed at the meeting, be aware that the WQD will clearly state in its letter of concurrence it is making a decision only on WQD's authority to require a permit. WQD will not be passing judgment on any other aspect of the disposal including authorizations or approvals that may be needed from the land owner or any other governmental agency. Also, be aware that WQD will retain its authority to inspect the operation to insure that it is being done as described.



My suggestion is that the first operator who chooses to take the land application approach and wishes to get a letter of concurrence from WQD, contact me early in the process so we can have a discussion on exactly what information WQD will require.

I would appreciate it if you would distribute a copy of this letter to the appropriate members of your organization.

Sincerely,

John F. Wagner Administrator

JFW/rm/12-0201

Nancy Nuttbrock, LQD Administrator, Cheyenne cc:

Kevin Frederick, WQD Cheyenne

John Passehl, WOD Cheyenne

Don Fischer, WQD Sheridan

Bill DiRienzo, WQD Cheyenne

Leah Coleman, WQD Cheyenne

Marcia Porter, WQD Cheyenne

Brian Lovett, WOD Chevenne

Rich Cripe, WOD Cheyenne

Dennis Lamb, WQD Casper