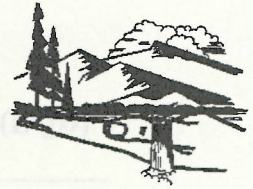


Department of Environmental Quality

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



Matt Mead, Governor

Todd Parfitt, Director

January 7, 2014

Mr. John Cash
Lost Creek ISR, LLC
5880 Enterprise Drive, Suite 200
Casper, WY 82609

Re: Summary of December 2013 Inspection, Lost Creek ISR Project, Permit #788

Dear Mr. Cash:

Enclosed is WDEQ/LQD's summary of the December 2013 Inspection conducted at the Lost Creek Project on December 18, 2013. The resulting Inspection Report is provided in the attached 12-page Memorandum. Based on this Inspection and a review of previous action items, there are now a total of eleven (11) Action Items for the site.

1. The arcuate swath of ground in MU1 just northwest of Header House 1 that has had topsoil reapplied must be protected from vehicular traffic.
2. The travel route to the water supply well west of DDW-3 (LC1008W) and its associated turn around area needs to be better-delineated
3. Secondary containment for the tote at the southwest corner of DDW-3 is needed.
4. The west edge topsoil stockpile TS-7 requires a silt fence or wattle.
5. The laydown yard "creep" north of MU1 needs to be reigned-in and controlled.
6. The turn-around areas around the header houses need to be better-defined.
7. Clean out the site's culverts.
8. Trash (drums & pallets) needs to be picked up around the Plant Site.
9. Develop SOP for trash pick-up at the site.
10. Remove equipment stored in the Plant Site's diversion channel.
11. Submit plan to address topsoil loss at site (deadline extended to January 15, 2014).

All of the action items listed above are expected to be addressed by March 31, 2014. The next site Inspection is scheduled for January 22, 2014. If you have any questions regarding this correspondence, please contact Melissa Bautz in the Lander Land Quality Division office at (307) 335-6943.

Sincerely,

Melissa L. Bautz, P.G.
Natural Resources Analyst
Land Quality Division - Lander

Enclosure Inspection Memorandum for December 2013 Inspection - Permit 788 (12 pages)

cc: Mark Newman – BLM, P. O. Box 2407, Rawlins, WY 82301(w/encl)
John Saxton – US Nuclear Regulatory Commission (w/encl)
Tanya King - WDEQ-LQD, District II Supervisor→Pt. 788 Inspection File (w/encl)
Miles Bennett – WDEQ-LQD Sheridan, Uranium Coordinator (w/encl)
Ramona Christensen - Cheyenne LQD Records Specialist→ Pt. 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: December 18, 2013

Date of Report: January 7, 2014

Participants: John Cash, Lost Creek ISR/Ur-Energy
Michael Gaither, Lost Creek ISR/Ur-Energy
Melissa Bautz, WDEQ-Land Quality Division

Report Prepared by: Melissa Bautz – WDEQ-Land Quality Division

Subject: Monthly Inspection

Introduction

On December 18, 2013, the Monthly Inspection of the Lost Creek ISR (LCI) site was conducted. The last site Inspection was conducted on November 6, 2013 (see Report dated November 25, 2013).

ISR mining commenced at the Lost Creek ISR Project on August 2, 2013 and has continued since that start-up date, with LCI seeing good results and success.

During the last Inspection, which was the site's Annual Inspection for 2013, the following 10 action items were indicated as remaining to be addressed from previous Inspections:

- Clean out culverts,
- Place backfill around down gradient side of culvert on west access road with erosion,
- Reclaim ground above main trunk line,
- Pick up loose trash downwind from the Plant Site,
- Build a toe ditch around the southern flank of the DDW-3 drill pad,
- Develop SOP for trash pick-up at site,
- Remove equipment stored in Plant Site drainage ditch,
- Complete construction of travel routes in MU1 – HH1 – 3,
- Document all short-term topsoil stockpiles, and
- Submit written plan to address site's topsoil loss problems.

During this Inspection, the status of the progress on the above-listed action items were assessed.

Pre-Inspection Meeting

Prior to the field inspection, LCI's John Cash and Mike Gaither discussed various topics with LQD's Melissa Bautz in the site's conference room. Among the topics discussed were the recent Letter of Violation (LOV) issued to Lost Creek ISR (LCI) by WDEQ/LQD, dated December 13, 2013. LCI personnel are in the process of formally responding to the LOV.

The LOV was issued for “failure to follow the Permit by failure to maintain a bleed at the...project.” The LOV requested that LCI comply with five requirements (see LOV for specifics). Based upon the pre-inspection meeting discussion and submittals received by LQD in the days following the pre-inspection meeting, the status of the five requirements is tabulated below in Table 1.

Table 1. Summary of Status of LCI’s responses to December 13, 2013 Letter of Violation.

Item#	Description of requirement	*Status
1	Cease injection.	Deemed not necessary because bleed was being maintained by the time the LOV was issued, then DDW-4 was approved by WQD on 12/17/13
2	Submit weekly potentiometric surface maps and water level graphs.	LCI began submitting weekly potentiometric surface maps starting 12/18/13. Water level data (graphs) were also submitted via e-mail on 12/18/2013.
3	Submit water balance	A water balance was submitted with the formal written response to the LOV as described below on, dated 12/18/2013, received by LQD on 12/23/13.
4	Written explanation of plant capacity problems	A written formal response to the LOV by LCI dated 12/18/2013 was received electronically on the same date and was received via regular mail at the WDEQ/LQD Lander office on 12/23/13.
5	Submittal of NSR to alter text in Section OP 3.6 of the Permit	LCI’s suggested text changes were submitted via letter dated 12/20/13, received on 12/24/13.

*NOTE: LQD will respond to LCI’s formal responses to the LOV under separate cover.

Based upon the above table, LCI has adequately responded to the LOV dated December 13, 2013.

Inspection

As indicated in the “Introduction” section of this Report (above), there were 10 outstanding action items identified prior to this Inspection. This Inspection focused on the status of those action items, as does this Report (see italicized section sub-headings below).

Culvert cleaning

None of the culverts previously-identified as needing to be cleaned out (in the September 2013 Inspection Report) have been cleaned out yet.

Trash

The wind-blown trash downwind from the Plant Site was not evident during this Inspection. It appears that trash had been recently picked-up prior to this Inspection. Trash pick-up needs to be an ongoing housekeeping priority and warrants a Standard Operating Procedure (SOP). The establishment of an SOP is being handled as a separate action item (below).

Toe ditch around DDW-3

Since the last Inspection, a toe ditch had been installed on the south and west flanks of the DDW-3 drill pad. This was necessary to ensure that drill pad materials do not spill onto native ground. It is apparent that topsoil was not adequately stripped in advance of the south and west flanks of the DDW-3 drill pad. While nothing can be done to fix this oversight now, LCI staff are reminded that thorough topsoil stripping is a Permit commitment. Future DDW drill pads will need better oversight prior to their construction to ensure that no fill materials are placed on native lands.

SOP for trash pick-up

As indicated above, there is a need for LCI to develop a SOP for trash pick-up at the site. This is essential, given the intense winds that pervade the region. As of this Inspection, it was not evident that an SOP had been established yet. However, LCI's Eric Stonaker, who is overseeing LCI's response to this action item, was not present for this Inspection. It is anticipated that Mr. Stonaker will be present for the next Monthly Inspection, scheduled for January 22, 2014, at which time he can indicate the status (existence) of this SOP.

Removal of equipment from plant site diversion channel

The equipment noted in the Annual Inspection as being stored in an informal laydown yard north of the ponds in the Plant Site area was located within and around the Diversion Ditch that runs along the northeast corner and eastern edge of the Plant Site. It is unacceptable to have equipment stored in this location. As of this Inspection, the equipment had not yet been moved. This action item is still in need of attention.

Travel routes in MU1

Several travel routes, graveled driving surfaces, have been established in Mine Unit 1. Specifically, they lead to the Mine Units header houses. This action item targeted the need to establish travel routes to header houses 1 – 3 in Mine Unit 1. Based upon this Inspection, those travel routes have been established (see Photo Addendum.) However, it was evident during this Inspection that great care will be necessary in ensuring that the travel routes are followed and that field personnel do not stray from them.

An example of field personnel driving outside an established travel route was noted at Header House 1. Just northwest of Header House 1, an arcuate swath of topsoil had been recently reapplied. Tire tracks were noted in the topsoil during this Inspection. It is recommended that the Mine Unit's travel routes be delineated with t-posts or some other means. This will be imperative when the denuded topsoil in Mine Unit 1 is scarified and seeded. For now, **the arcuate swath of ground in MU1 just northwest of Header House 1 that has had topsoil reapplied must be protected from vehicular traffic.**

Short term topsoil stockpiles

During the Annual Inspection of the site last month, the need to adequately catalog and document the site's short term topsoil stockpiles was identified. This was accomplished by the

provision of Figure 3.6-1A and Table 3.6-1B in the 2012/2013 Annual Report. This action item has been adequately addressed by that submittal.

Address topsoil loss problems

Nothing has been submitted by LCI to date regarding the topsoil loss topic. However, in electronic-mail correspondence between LCI's Mike Gaither and LQD's Melissa Bautz, an extension for LCI's submittal of a plan to address topsoil loss at the site was authorized. The new deadline for the submittal of this plan is January 15, 2014.

Table 2 below summarizes the status of those action items based upon the results of this Inspection. Five of the original 10 action items are still outstanding as of the end of this Inspection.

Table 2. Summary of outstanding action items

Action Item Description	Status of action item based upon the 12/18/13 Inspection
Clean out culverts	Not yet accomplished
Place backfill on down gradient side of select culvert	Culvert CW-1 had newly-emplaced rip-rap on its down gradient site.
Reclaim main trunk line	Main trunk line is now backfilled in all areas between the Plant and MU1
Pick up loose trash around Plant	Trash was noted during this Inspection (see Photo Addendum, Photo Number 4.)
Build a toe ditch on south flank of DDW-3 drill pad	A toe ditch has been created on the south and west flanks of the DDW-3 drill pad.
Develop SOP for trash pick-up	Accomplishment of this task was not evident.
Remove equipment stored in the Plant Site's diversion channel	This has not yet been accomplished.
Construct travel routes in MU1, Header Houses 1 – 3	This has been accomplished. However, as indicated in the "Other Topics" section below, the turn-around areas around the header houses need to be better delineated.
Document all short-term topsoil stockpiles	This has been accomplished.
Submit written plan to address site's topsoil loss problems	This has not yet been accomplished; however, an extension for its submittal has been authorized until January 15, 2014.

Bleed Rate

A brief stop at the Plant's control room during this Inspection revealed that the instantaneous injection rate was 649 gpm and the instantaneous production rate was 654 gpm. The difference between those rates (which was indicated as 8.6 gpm on the Plant's computer) was going to waste disposal (DDW-1). This represents a 1.3% bleed, which is in the required range of 0.5% and 1.5%.

Other topics

DDW-3: The travel route to the water supply well west of DDW-3 (LC1008W) and its associated turn around area should be well delineated to prevent vehicular traffic outside the travel route.

A large cube-shaped tote (which was probably containing heavy oil) was noted at the southwest corner of the DDW-3 drill pad. The tote was not in secondary containment. **Secondary containment for all hydrocarbons on site is a Permit requirement.**

TS-7: The toe-ditch around topsoil stockpile TS-7, just north of MU1 and east of the laydown yard, was noted as having been redefined since the last Inspection. The work was satisfactory in all areas except for the west edge of the stockpile, where it abuts against the north-south access road connecting MU1 with the Plant. **The proximity of TS-7 with the road's borrow ditch requires a silt fence or wattle** to prevent loss of topsoil into the road's ditch.

Laydown yard "creep": The south edge of the laydown yard (just north of MU1) has encroached (or "creeped") to the south such that it is outside its intended boundary and is now atop ground that is part of MU1. **This laydown yard "creep" needs to be reigned-in and controlled.** The laydown yard materials must either be moved back into the intended footprint of the laydown yard or the southern extent of the laydown yard must be delineated (with fencing) to prevent further "creep" southward.

Header House turn-around areas: The travel routes to header houses 1, 2, and 3 were inspected. While the travel routes were in good condition, the turn-around areas around each header house were less well defined. **It is imperative that the turn-around areas around header houses are well defined** and maintained so that vehicles are not driven across the well field.

Informal Laydown yard in MU1: An informal laydown area southeast of the north entrance to MU1 has been established. It may be that this laydown area is temporary. Temporary laydown areas within a well field are authorized by the Permit. LCI is reminded that these laydown areas must be temporary and must not be allowed to grow unchecked. Whenever possible, the established laydown yard north of MU1 should be used for staging equipment.

Preexisting two-track in MU1: During this Inspection, it was noted that a portion of the preexisting east-west two-track road that runs through the middle of MU1 has been graveled (just as the other well field travel routes have been graveled). The portion of that preexisting two-track that has been graveled should be indicated on the next Annual Report map. Eventually, at the end of the mine's life, this portion of the preexisting two-track will be required to be restored to its original construction (i.e. not covered with gravel). This is a BLM requirement that is incorporated into the LQD Permit as well.

Conclusion

Several of the required action items indicated in the last Inspection Report have been completed. Others have not; see highlighted items in Table 2 above for details on which action items from last Inspection are still pending. Six (6) new action items have resulted from this Inspection (see bold-faced items in this Report). Below is a list of those six new action items (1 – 6 in the list) as well as the five remaining action items from the last Inspection (7 – 11 in the list); there is now a total of 11 Action Items.

Current Action Items:

1. **The arcuate swath of ground in MU1 just northwest of Header House 1 that has had topsoil reapplied must be protected from vehicular traffic.**
2. **The travel route to the water supply well west of DDW-3 (LC1008W) and its associated turn around area needs to be better-delineated**
3. **Secondary containment for the tote at the southwest corner of DDW-3 is needed.**
4. **The west edge topsoil stockpile TS-7 requires a silt fence or wattle.**
5. **The laydown yard “creep” north of MU1 needs to be reigned-in and controlled.**
6. **The turn-around areas around header houses are well defined.**
7. **Clean out the site’s culverts.**
8. **Trash (drums & pallets) needs to be picked up around the Plant Site.**
9. **Develop SOP for trash pick-up at the site.**
10. **Remove equipment stored in the Plant Site’s diversion channel.**
11. **Submit plan to address topsoil loss at site.**

The next site Inspection is planned to occur on January 22, 2014, Wednesday, at 10am. Please contact WDEQ/LQD’s Melissa Bautz at (307) 335-6943 with any questions regarding this Report.

*****END OF MEMORANDUM*****

W/Photo Addendum (Pages 5 – 12)

Photo Addendum to accompany the December 2013 Monthly Inspection of Lost Creek ISR’s Pt 788



Photo Number 1: This depicts the laydown yard that has developed north of the ponds in the Plant Site. Much of this equipment has been placed within the channel of the diversion ditch that runs through the Plant Site’s eastern edge. This is unacceptable and these materials must be removed from this location. The diversion channel must be kept intact indefinitely. This view is looking east.

Photo Addendum to accompany the December 2013 Monthly Inspection of Lost Creek ISR's Pt 788 cont'd...



Photo Number 2: This is a view looking toward the west across the laydown yard depicted in Photo Number 1 above.



Photo Number 3: This depicts the west edge of topsoil stockpile TS-14 which is at the northeast corner of the Plant Site. A portion of this topsoil stockpile was used in the fall of 2013 for the reclamation of the land north of the shop building in the Plant Site. The toe ditch around this topsoil stockpile was noted as needing to be better defined in the last Inspection Report. It was noted as being better defined during this Inspection.

Photo Addendum to accompany the December 2013 Monthly Inspection of Lost Creek ISR's Pt 788 cont'd...



Photo Number 4: This depicts some stray items in the Plant Site (just west of TS-14) that need to be better contained: A couple of drums (presumed to be empty) and some pallets.



Photo Number 5: This is a view looking north along the main trunk line connecting MU1 to the Plant. This has been backfilled since the last Inspection. This photo was taken from the access road.

Photo Addendum to accompany the December 2013 Monthly Inspection of Lost Creek ISR's Pt 788 cont'd...



Photo Number 6: This depicts the recently emplaced rip-rap on the down gradient side of culvert CW-1.



Photo Number 7: This is another depiction of the new rip-rap on the down gradient side of CW-1.

Photo Addendum to accompany the December 2013 Monthly Inspection of Lost Creek ISR's Pt 788 cont'd...



Photo Number 8: This depicts a newly-installed wattle down gradient from (east of) culvert CW-2. View is looking east.



Photo Number 9: This depicts the newly-installed toe ditch on the south edge of the DDW-3 drill pad.

Photo Addendum to accompany the December 2013 Monthly Inspection of Lost Creek ISR's Pt 788 cont'd...



Photo Number 10: This depicts the water supply well (Well ID LC1008W) that is west of the DDW-3 drill pad. Its access route is in the foreground of this photo (area outlined in green). This travel route needs to be more clearly delineated to prevent vehicular traffic on native ground. The well head is located at the red arrow. The toe ditch along the southwest corner of DDW-3 drill pad is indicated by the black line.



Photo Number 11: This depicts a portion of the arcuate swath of ground in the northwest corner of MU1 where topsoil was recently reapplied. The excessive tire tracks on this topsoil speak to the dire need to delineate travel routes in MU1. This trampling of topsoil is an unacceptable practice.

Photo Addendum to accompany the December 2013 Monthly Inspection of Lost Creek ISR's Pt 788 cont'd...



Photo Number 12: This depicts the south edge of the laydown yard that is north of MU1. The brown structure is the maintenance shop within the laydown yard. When the laydown yard was constructed, the south edge of that structure (indicated by the red arrow) was in line with the south edge of the laydown yard. Since then, the laydown yard has encroached (or “creeped”) to the south and is now within the MU1 well field. The laydown yard’s southern boundary needs to be delineated so that it does not continue to encroach into MU1.



Photo Number 13: This is a view looking west across the informal laydown area that is just southeast of the north entrance to MU1. Temporary laydown yards such as this are authorized by the Permit but they must not be allowed to remain permanent.