Department of Environmental Quality

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

Matthew H. Mead, Governor

Todd Parfitt, Director

November 20, 2013

Mr. Tim McCullough
Uranium One USA, Inc.
907 N. Poplar Street, Suite 260
Casper, WY 82601

RE: Uranium One USA, Willow Creek ISR Operations, 2013 Annual Inspection Report, Permit No. 478

Dear Mr. McCullough:

Enclosed is a copy of the Annual Inspection Report conducted on October 24, 2013, at the Willow Creek Irigaray-Christensen ISR Operations, Permit #478. This inspection was conducted with your assistance and that of Jon Winters, and Kevin Filbert of Uranium One.

A copy of this report will be placed in the permanent inspection file for Permit #478, Willow Creek Irigaray-Christensen ISR Operations, as will any written comments you may have.

In summary, no compliance issues were noted. However, as discussed in the attached inspection report, Uranium One is reminded to implement BMP's to control erosion in disturbed areas as soon as possible following disturbance.

If you have any questions or comments, please contact me at 307-675-5619 or at luke.mcmahan@wyo.gov.

Regards,

Luke McMahan P.G.
Project Geologist

Attachment: 2013 Annual Inspection Report

cc: Cheyenne file w/attach.
Mr. Ron Linton, US Nuclear Regulatory Commission, Mail Stop T-8F5, 11545 Rockville Pike, Rockville, MD 20852 w/attach.

11/21/13

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WYOMING

ANNUAL INSPECTION REPORT

Company: Uranium One USA, Willow Creek ISR Project, Permit No. 478

Date of Inspection: October 24, 2013

Inspectors: Luke McMahan, Mark Taylor, Miles Bennett (LQD), and Jessica Barnes (WQD)

Company Rep.: Tim McCullough, Jon Winter, and Kevin Filbert (Uranium One)

Subject: 2013 Annual Field Inspection Report

INTRODUCTION

The 2013 Annual Inspection of Uranium One's Willow Creek ISR Project, Permit No. 478 was conducted on October 24, 2013. The inspection was conducted by LQD personnel Luke McMahan, Mark Taylor, and Miles Bennett and WQD personnel Jessica Barnes. The DEQ personnel were accompanied by Uranium One personnel Tim McCullough, Jon Winter and Kevin Filbert. The inspection consisted of a records review which was conducted at the Christensen Ranch field office and a field inspection which was conducted at both the Christensen Ranch Site and the Irigaray Ranch Site. Field conditions at the time of the inspection were favorable with good access to the areas viewed. Weather was clear and calm with temperatures in the mid-sixties.

RECORDS REVIEW

Records were kept on file in both electronic and hard copy formats at the Christensen Ranch office. The following records were reviewed as part of the inspection.

- Mechanical Integrity Testing (MIT) – MIT records are included in each Quarterly Report and are reviewed as part of each quarterly submittal. Copies of these reports are kept at the Christensen Ranch office. No active MIT testing was observed during the inspection.

- Spill Records & Reporting – Electronic spill records were viewed during the inspection and were found to be properly reported and recorded. These records included the documents submitted to WDEQ and NRC for reportable spills as well as a database/spreadsheet listing all spills including those of non-reportable quantities. A Spill Mitigation Plan (Standard Operating Procedures for Wellfield Solution Spills, dated 5/13/10) is kept on-site at the Christensen Ranch office and was viewed during the records review.

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- Quarterly & Annual Reports – Hard copies of the Quarterly and Annual Reports are kept on-site at the Christensen Ranch office.

- Current Mine Plan – A hard copy of the current Mine Plan is kept on-site at the Christensen Ranch office.

- Excursion Records – Electronic excursion records accessible at the Christensen Ranch office were viewed during the records review. Historical excursion data is accessible via electronic excursion files and monitoring well data files. Compiling historical excursion data is on-going.

- Well Completion Certifications – Hard copies of well completion certifications are kept on-site at the Christensen Ranch office. Recent records were viewed during the records review and noted to be properly certified.

- Monitoring Well Data – The monitoring well data viewed included both electronic and hard copy laboratory analytical reports and electronic trend graphing data. The process of data entry for daily laboratory analytical reports and graphing for trend and excursion monitoring was observed.

- Bond – Bond records were reviewed at the LQD office following the inspection. The bond for Permit No. 478 is Letter of Credit No BMCH278567OS written by the Bank of Montreal, Chicago in the amount of $21,075,000.00. This amount is currently being reviewed as part of the 2012-2013 Annual Report review process.

FIELD INSPECTION

The Willow Creek Mine consists of two primary areas of operation; the Christensen Ranch Site and the Irigaray Site. The Christensen Ranch Site currently consists of eight (8) mine units and a Satellite Plant. The Irigaray Site consists of nine (9) mine units and a Plant Facility. At the time of the inspection, both plant facilities were operational, however only the Christensen Ranch Site had active mine unit production.

Current mine projects and activities include one (1) rig working at the Christensen Ranch Site performing stimulation on select wells for improving injection and/or production. No active drilling was being conducted at the time of the inspection.

Permit identification signs carrying the required information were in place along the access roads to both the Irigaray and Christensen Ranch permit areas. Multiple topsoil stockpiles were viewed in passing at both the Christensen Ranch and Irigaray Sites. The stockpiles were observed to be well vegetated, stable and posted with the appropriate topsoil identification signs.

Uranium One continues to identify, plug, and mark historical drill holes. The methods used to identify and plug the historical drill holes were discussed in more detail in the 2012 annual

inspection report. The situation is acknowledged as being the result of historical mining exploration practices and does not represent current mining exploration practices or natural conditions.

No wells were on excursion at the time of inspection.

Christensen Ranch Site:

Groundwater restoration and stabilization efforts have been conducted in Mine Units 2 – 6, according to a 2008 restoration report on the effort. The 2008 groundwater restoration report remains in NRC and LQD review.

The office, satellite plant, and shop areas were viewed in passing. No concerns were noted. Evaporation Ponds 3 and 4, located at the satellite plant area were also viewed in passing. The ponds were observed to be containing water and no obvious concerns were noted.

Multiple roles (and unrolled sections) of black poly pipe were observed on the ground at various locations throughout Mine Unit 6 and Mine Unit 7. The condition of the pipe is believed to be variable, some used and some not used. Aerial images (Google Earth, Imagery Date August 30, 2013) also show multiple roles of poly pipe in areas of Mine Unit 5.

Growth of Russian Thistle (tumbleweeds) had been heavy during the reporting period. Uranium One has been implementing an aggressive weeds spraying program to control weeds at the mine.

Christensen Ranch Mine Unit 2, 3, 4, and 6

Units 2, 3, 4, and 6 well fields were driven through and/or observed from a distance with no notable concerns. These mine units were all inactive at the time of the inspection. However, monitor wells continue to be sampled in these mine units on a quarterly basis during post restoration/stabilization of the mine units.

Christensen Ranch Mine Unit 5

The Unit 5 well field was driven through with no notable concerns. Mining operations in Module 5-2 continue to be active. The remaining modules, 5-1, 5-3, 5-4, and 5-5 were inactive at the time of the inspection. However, monitor wells continue to be sampled in these modules on a quarterly basis during post restoration/stabilization of the mine units.

Christensen Ranch Mine Unit 7

The MU7 well field was active at the time of inspection. Overall, the area was observed to be well vegetated. Following interim seeding reclamation activities during the 2011-2012 reporting period, regrowth of seeded areas in Module 7-4 has been marginal, however it was noted that topsoil conditions are naturally thin in this area with bedrock outcropping at the surface. As noted in other disturbed areas of the mine, weed growth in Module 7-4, specifically Russian

Thistle, was heavy. Uranium One was cognizant of the problem and has been implementing a weed spraying program which was showing an effective kill in Module 7-4. Module 7-5, which also received interim seeding reclamation during the 2011-2012 reporting period was observed from a distance and noted to be showing strong regrowth of seed mix vegetation with no significant signs of weed infestation (**Photo #1**). Overall, weed control efforts observed in Mine Unit 7 appeared to be effective. No significant signs of erosion were noted while viewing Mine Unit 7.

Christensen Ranch Mine Unit 8

Mine Unit 8 was in active production at the time of inspection. In route to Mine Unit 8, construction activities were observed at the Mine Unit 8 Booster Station where the building was being expanded to accommodate larger pumps for the addition of the Mine Unit 10 trunkline connection to the trunkline from the Christensen Ranch Satellite. No concerns were noted with these activities (**Photo #2**). Seeding and erosion control work is on-going in the mine unit. Growth of interim seed mix vegetation in the areas viewed in Modules 8-1 and 8-2 has been marginal and as observed at other disturbed areas throughout the mine site, growth of Russian Thistle has been significant. However, it was evident that weed spraying efforts have been showing an effective kill. Overall, slope erosion control with matting appeared to be effective (**Photo #3**).

Seeding and sediment control work was active in Module 8-4/5 at the time of the inspection. The area had been effectively recontoured and placement of weed control matting and wattles was observed (**Photos #4 & #5**). Additionally, Uranium One has implemented bedrock cobbles and small boulders turned up during development of the mine unit as energy dissipating type structures to slow surface water run-off and sediment transport. At the time of the inspection, it was not certain how effective these rock structures will be and the Operator was advised to add additional rock energy dissipaters or other erosion control measures to some areas that were showing signs of minor erosion and potential topsoil loss (**Photo #6**).

Christensen Ranch Mine Unit 9

Reclamation of delineation holes in proposed Mine Unit 9 was viewed during the inspection. The sites were drilled in late 2011 and early 2012. The sites had been recontoured, topsoiled and reseeding had been performed within the past month (**Photo #7**). No concerns were noted. Locations where historical boreholes had been identified and plugged and abandoned were marked with a poly pipe riser (**Photo #8**).

Christensen Ranch Mine Unit 10

MU10 (MU-10A and MU-10B) is currently being developed by the Operator. All of MU-10A is currently in operation, and Modules 3, 4, 5, and 6 are in operation in Mine Unit 10B. The MU10 area was extensively disturbed during its development. At the time of the inspection, the area had been effectively recontoured and the disturbed areas seeded. Growth of interim seed mix vegetation was light and variable with some areas showing stronger revegetation than others.

Weed growth was very minimal in the areas observed. Sediment control structures were observed to be in place, most notably placed along drainage head-cuts and along the top of drainage side slopes. Some erosion control matting was observed along the side slopes in upland areas; however, due to the very limited vegetation in the disturbed areas, the Operator was advised to implement additional erosion control measures along these side slopes to prevent potential topsoil loss in the event of a significant precipitation event (**Photo #9**). No significant signs of erosion were observed during the inspection.

The Operator has been authorized by LQD (July 3, 2013 authorization letter from Mark Taylor) to temporarily surface cap approximately 200 pilot holes associated with Mine Unit 10B, Modules 10-7 and 10-8. Some of these temporarily surface capped holes were observed during the inspection. The pilot hole locations were observed to be marked with black poly pipe risers and wood lath labeled with the hole name and total depth (**Photo #10**). In accordance with LQD's approved method for temporarily capping the holes, remnants of the Styrofoam sealant used in the pilot hole were observed at the surface next to the hole marker (**Photo #11**). Per LQD's authorization letter, Uranium One is to re-enter these temporarily surface capped holes on or before January 1, 2015 in order to complete permanent reclamation or to complete as mine production or injection wells.

During inspection of the temporarily capped pilot holes, it was evident that additional sediment control was needed in this area of Mine Unit 10 following the recent surface disturbance from drilling operations. Specifically, sediment control is needed to prevent loss of topsoil and sedimentation into adjacent drainages (**Photo #12**). The following day after the inspection, Luke McMahan contacted Uranium One via email and stressed the importance of sediment control in this area. Please note, the email made reference to the subject area as "Mine Unit 11" which was in error. As discussed here, the area of concern is Mine Unit 10, Modules 10-7 and 10-8. The subject email has been placed in the permanent inspection file for Permit No. 478.

Irigaray Operations

No active mining is occurring in the Irigaray operation with mining units 1 through 9 having been restored as approved in November, 2005. Though, it should be noted that surface reclamation has yet to be finalized. During the inspection, the plant area and associated ponds were viewed in passing. No concerns were noted. On the ground at mine units 1 through 6 all wells appear to have been sealed and abandoned, the wellheads removed, and the surface piping removed a number of years ago, as noted in previous inspections. The restoration building remains for storage purposes at this time.

In Mine Units 7, 8 and 9, the well header houses, buried trunk lines, and manholes leading to the buried trunk lines had mostly been removed as noted in previous inspections. In Mine Units 8 and 9, areas where buried wellfield pipline has been removed were viewed during the inspection. The pipeline trenches had been backfilled and contoured. A radiation survey had been conducted in the area and survey points were marked with poly pipe risers per NRC requirements (**Photos #13 & 14**). To date, all remaining wellfield pipeline has been removed and is being prepared for shipment to Shirley Basin for 11(e) byproduct disposal. It was noted

while viewing the pipeline removal areas in Mine Unit 8 and 9 that an area where pipline had been removed in Mine Unit 7 still had open trenches which require backfill. Decommissioning activities are planned to continue throughout 2013 and in to 2014 to complete contouring and seeding in pipeline removal areas.

There is currently no plan to re-topsoil Mine Units 6-9 where the topsoil was salvaged and stockpiled over 30 years ago. Currently the land surface within Mine Units 6-9 appears to have recovered adequately and therefore the old top soil stockpiles may best be suited for other reclamation needs in the future.

CONCLUSIONS

The inspection did not uncover any significant compliance issues or violations and no Notices of Violation were outstanding at the time of this inspection.

Due to the much incised terrain in some of the development areas, specifically in Mine Unit 10 and the proposed Mine Unit 11, Uranium One is strongly encouraged to continue implementing aggressive efforts to control erosion which could potentially result in topsoil loss and sedimentation into drainages. Additionally, the Operator is strongly encouraged to exercise minimal disturbance of native vegetation in development areas in order to leave natural sediment control measures in place. LQD recognizes the difficulty of developing wellfields in this rough terrain and feels that close communication between LQD and the Operator at the beginning stages of extensive development activities will ultimately assist both parties in implementing successful best management practices. As a basis for future inspections, both LQD inspectors and the Operator should continue to focus on observing, discussing and implementing effective methods for sediment control in topographically challenging areas.

/lm

Attachments: Photo Log

cc: Cheyenne file w/attach.

PHOTO LOG

Photo #1 – View of vegetative regrowth in Christensen Ranch (CR) Mine Unit 7-5.

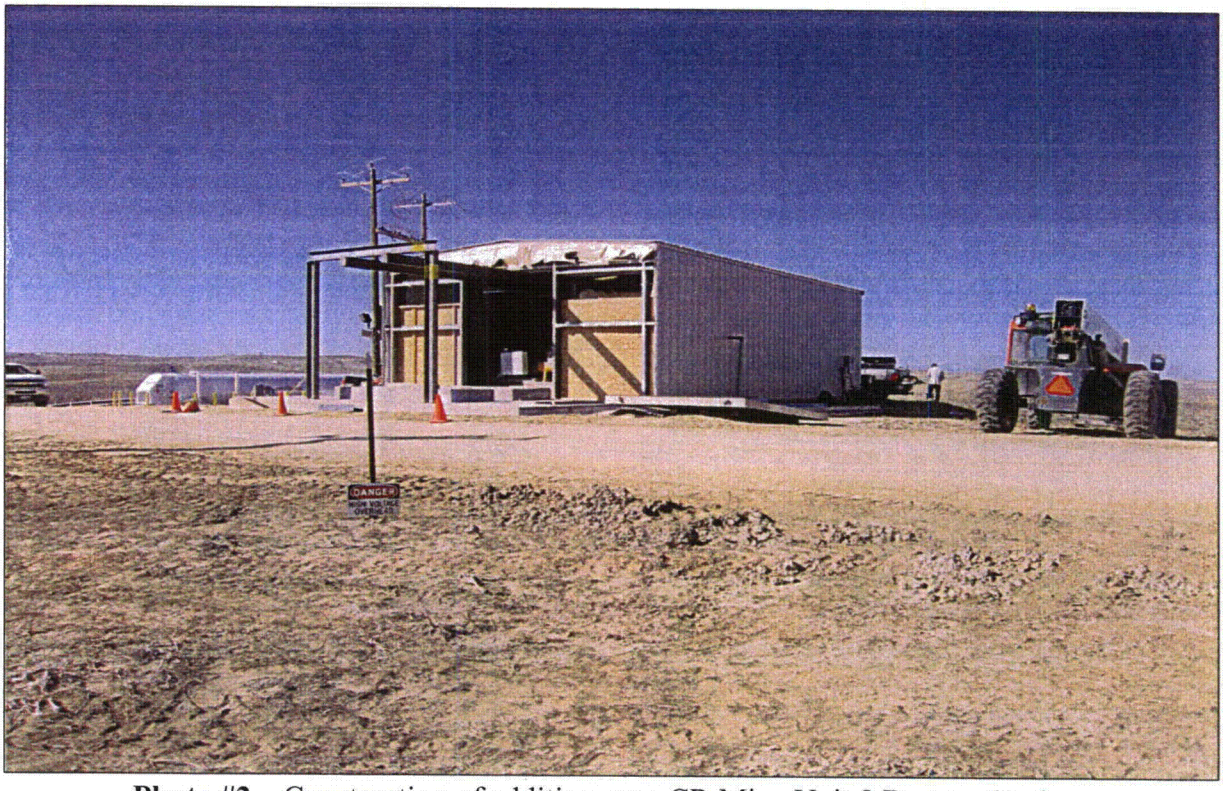

Photo #2 – Construction of addition onto CR Mine Unit 8 Booster Station.

Photo #3 – View of slope erosion control utilizing matting in CR Mine Unit 8.

Photo #4 – View of interim seeding operations in CR Mine Unit 8-4/5.

Photo #5 – Placement of erosion control matting in CR Mine Unit 8-4/5.

Photo #6 – View rock energy dissipater type structures in CR Mine Unit 8-4/5.

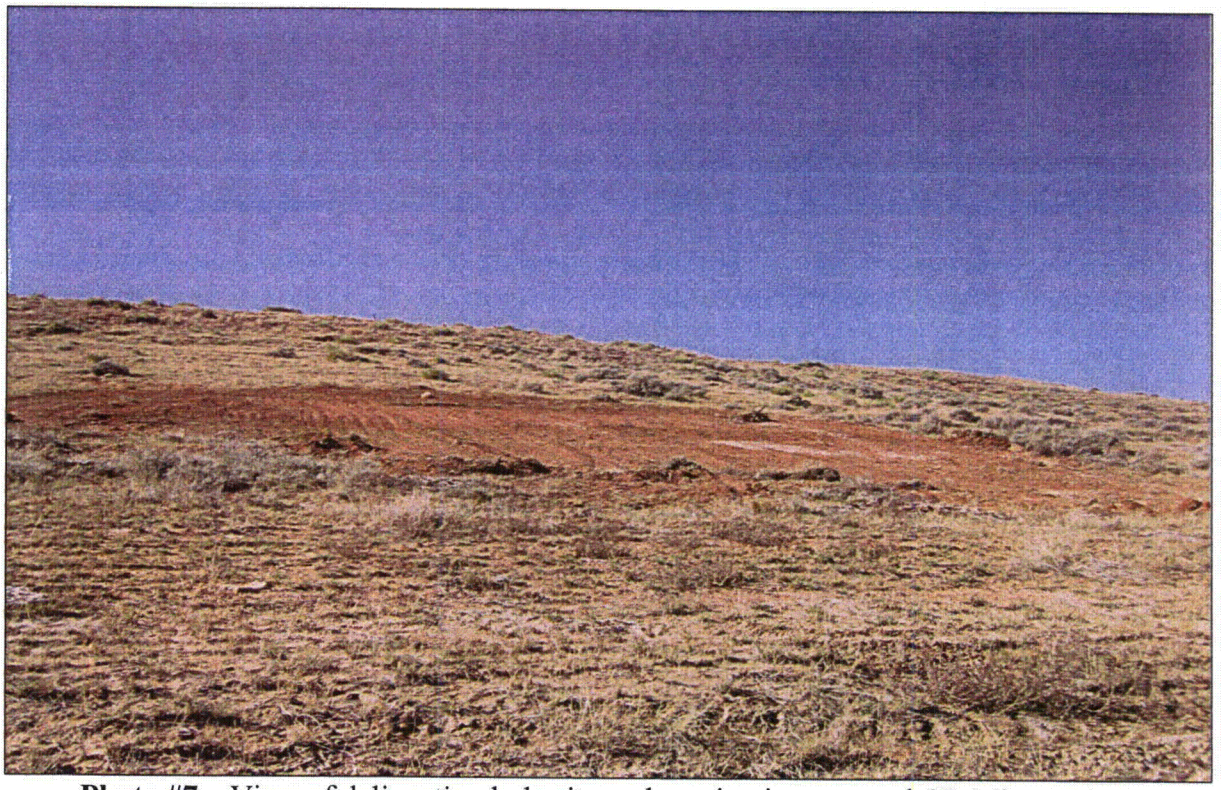

Photo #7 – View of delineation hole site reclamation in proposed CR Mine Unit 9.

Photo #8 – View of historic borehole marking in proposed CR Mine Unit 9.

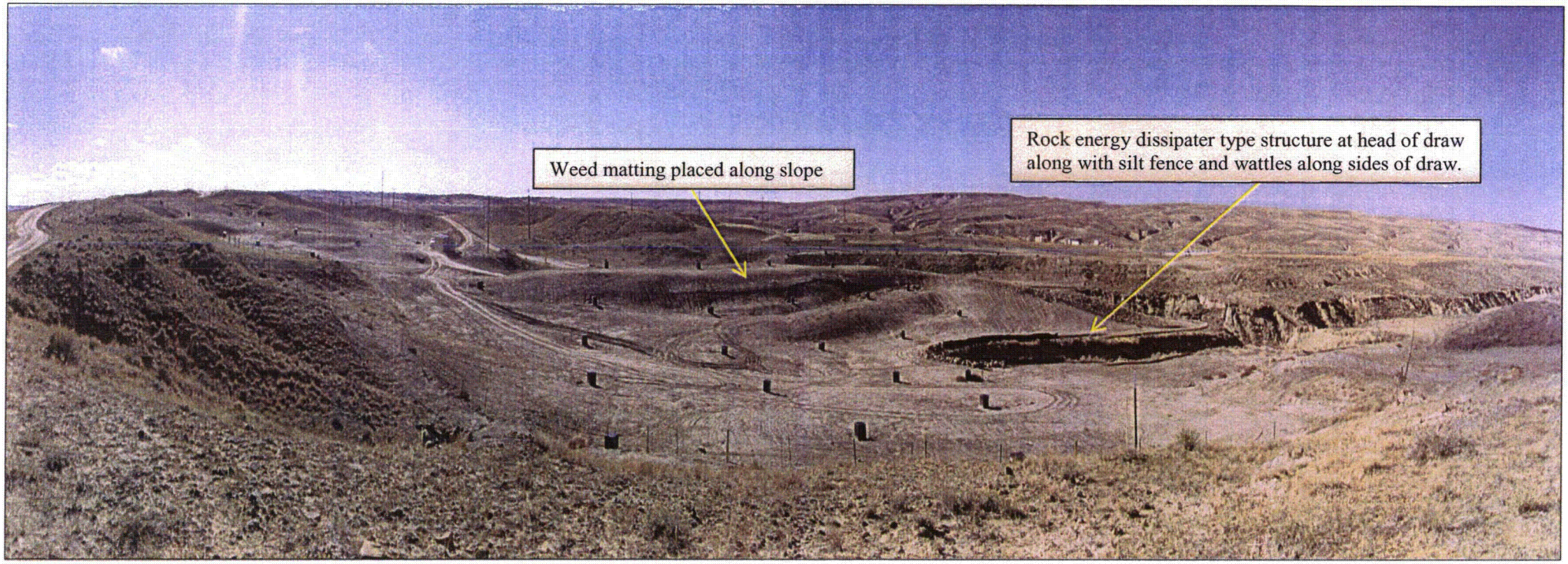

Photo #9 – View of site recontouring and erosion control measures placed around drainage in Christensen Ranch Mine Unit 10B.

Photo #10 – Temporarily surface capped pilot hole marking in CR Mine Unit 10B.

Photo #11 – View of remnant Styrofoam sealant next to temporarily surface capped pilot hole.

Photo #12 – Disturbance requiring additional sediment control in CR Mine Unit 10B.

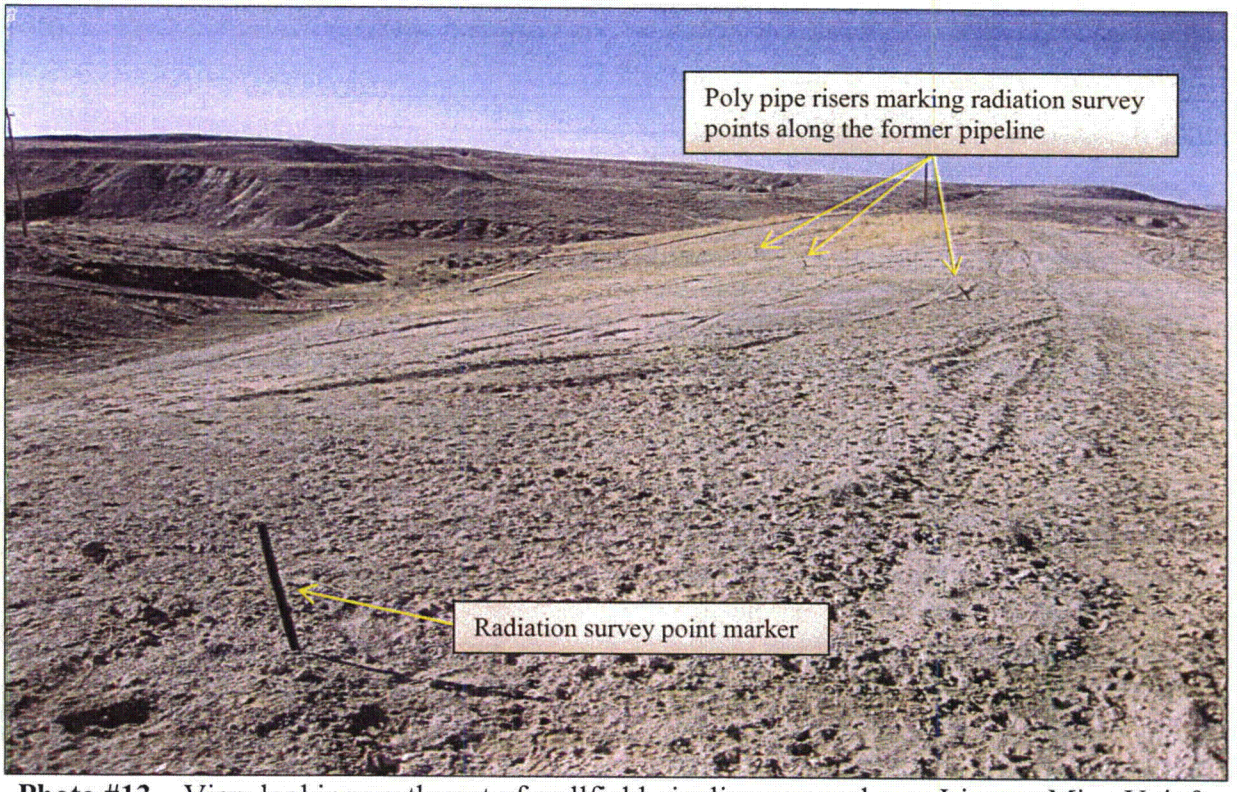

Photo #13 – View looking northwest of wellfield pipeline removal area Irigaray Mine Unit 9.

Photo #14 – View looking southwest of wellfield pipeline removal area Irigaray Mine Unit 9. Radiation survey point markers are present along the former pipeline corridors but not visible in this photograph.

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