



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

March 10, 2014

Mr. Kenneth Garoutte
Cameco Resources, Inc.
PO Box 1210
Glenrock, WY 82637

**Subject: October 2013 Inspection Report
Cameco Resources Permit 603**

Dear Mr. Garoutte:

The Land Quality Division conducted the October 2013 inspection with assistance from you and your staff on October 23, 2013. Please find the inspection report enclosed.

As a result of this inspection, the LQD requests that the Individual Mine Unit Restoration Plans where restoration is in progress, be finalized as soon as possible. Please note the *COMPLIANCE AND ASSESSMENT* section of the report requests responses to review comments under TFN 5 6/241 for Mine Unit C restoration **within 30 days** of receipt of the inspection report.

If you have any questions, please do not hesitate to contact me at pam.rothwell@wyo.gov or 777-7048.

Sincerely,

Pam Rothwell
District 1 Assistant Supervisor
Geologist
Land Quality Division

Enclosure

cc: Cameco Resources, Cheyenne, WY w/att
Matt Clark, BLM-CFO *w/ att*
Doug Mandeville, NRC *w/ att*

Herschler Building • 122 West 25th Street • Cheyenne, WY 82002 • <http://deq.state.wy.us>

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OCTOBER 2013 INSPECTION REPORT

PERMIT 603

COMPANY: Cameco Resources (CR)
LOCATION: North of Glenrock, Converse County (Highland)
DATE OF INSPECTION: October 23, 2013
DATE OF REPORT : February 6, 2014
INSPECTOR: Pam Rothwell, Permit Coordinator
CO. STAFF PRESENT: Ken Garoutte, CR SHEQ Manager

INTRODUCTION

Focus of Inspection

- Status of mining and restoration activities
- Inspect wellfields for operational control, leak detection of wells, general overview of surface disturbance in the wellfields and protection of topsoil

PRE-INSPECTION MEETING – October 17, 2013

Attendees: Ken Garoutte, Mike Beshore, Brett Henderson, Seth Barnes, Adrien Garcia, Arleen Founce, Larry Wilbanks, Craig Hiser, Pam Rothwell

Status of Wellfields:

- Mine Unit J – header houses (HH) J1 thru J7 in production;
- Mine Unit F – HH 1-3 in production, HH-37 bleed control on west end, new pattern F-47 in production;
- Mine Unit D – continuing to clean patterns. New infrastructure added (see annual report), will need added to the MU-D restoration plan;
- Mine Unit E – HH 1-10 circulating through IX at Satellite 2 to reduce uranium content, HH 12 in GWS, HH 12 in RO to reinject permeate, HH-15-18 restored and may proposed stability,
- Mine Unit I - all header houses (1-6) in production;
- Mine Unit H – all patterns in production; working on restoration plan to submit to LQD;

Status of Deep Disposal Wells:

- DDW-1 operating
- DDW-2 operating

- DDW-6 operating (testing annulus)
- DDW-10 operating (fall off test completed)
- DDW-9 operating
- Morton operating
- Vollman operating
- DDW-7 well pad construction completed, rig coming in next week to drill the well

Drilling Activity on Permit

Rigs in MU-10 extension (i.e., south),
May propose drill holes in F-Fringe in annual report

INSPECTION

Wellfield Inspections

The emphasis of the wellfield inspections was to verify operational control of the wellfield fluids. This was completed through inspection of header houses in each wellfield to confirm minimal pumping to establish inward gradient of the wellfield fluids. Due to time constraints, general observations of soil salvage and protection were made without extensive field inspection. Additionally, recent spills were not inspected or any operations in the Satellites.

- MU-J
 - Inspected HH J-5, no injection, production well P-98 pumping low rate to maintain inward gradient,
 - Inspected HH J-2, five patterns injecting at approx. 48gpm and producing at approx. 42 gpm
- MU-F
 - HH-46 Refurbished with new electric connection and pipes, not operating yet, ready for hoses. Refurbished for operational control and restoration
 - HH-43 Refurbished, not on
 - Control wells used in the MU include F-1, F-2, F-3, F11, F-16, F-18, F-21, F-22, F-23, F-24, F-37, F-38, F-44 and F-47
 - HH-11, P170 pumping @ 120 gpm,
 - New shallow investigation well (i.e., NOV Docket No. 5131-13) were being drilled at the time of the inspection (**Figure 1**)
- MU-E (South)
 - Inspected HH 13, Five wells turned on for RO injection
 - Inspected HH 12, GWS
 - Inspected HH E12 also used for HHD2-3, DP-22 operating
- MU-C
 - Six wells along the haulageway @ approx. 600' piped to HH C-19 (**Figures 2, 3 & 4**) Request to turn on the wells but need approval for converting the wells (will discuss at meeting with LQD Supervisor on 10-25-14)

- MU-H
 - Inspected HH 1, Four wells in operation to remove residual uranium
 - HH 4 and HH 14 not operating; remaining HHs are operating
 - Proposal for sixteen replacement wells – Mud pit construction ongoing during inspection – Note surface disturbance impacts due to heavy equipment on wet conditions (**Figure 3**)
 - HH 11, one well pumping

- MU-I
 - Inspected HH 6, twelve wells producing and twelve wells injecting

Radium Pond Reclamation

No progress had been made with the reclamation. An additional tool may be required to assess the reclamation. The project has been re-assigned to the Casper Office. Plans are to resume reclamation next year.

Satellite 1 Building

Inspector inquired about plans for the building. Cameco is assessing the use of the building for water storage to be used for Irrigator 1 if the irrigator resumes activity.

PHOTOS

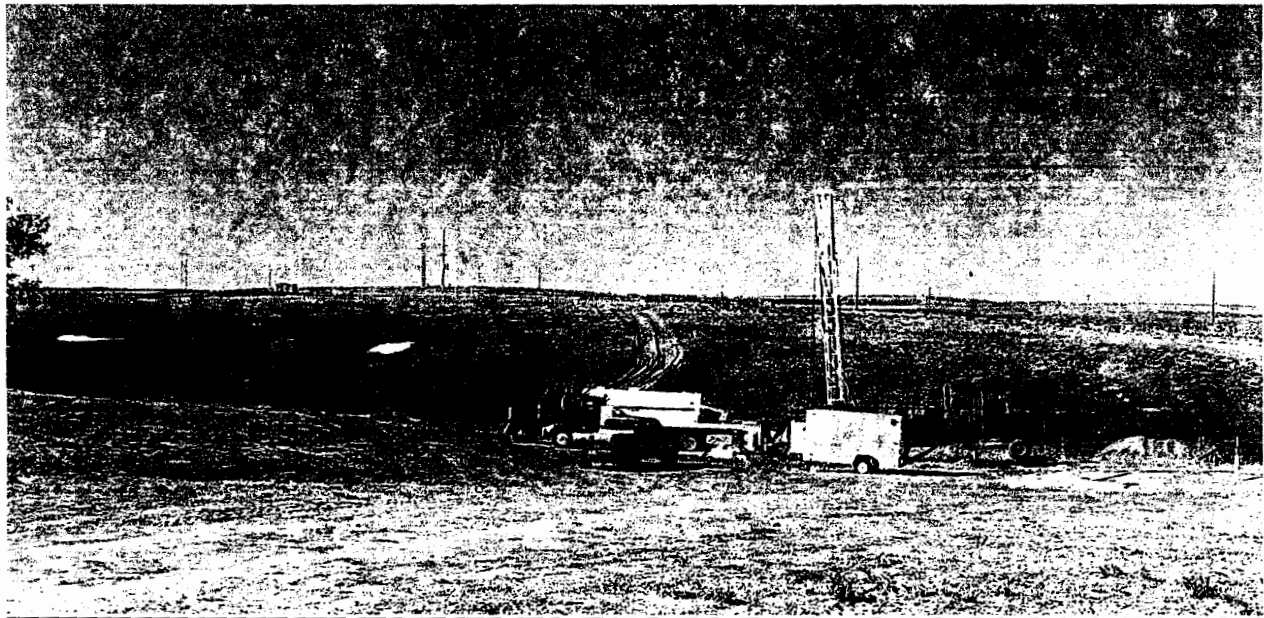


Figure 1 drill rig installing new shallow aquifer investigation wells

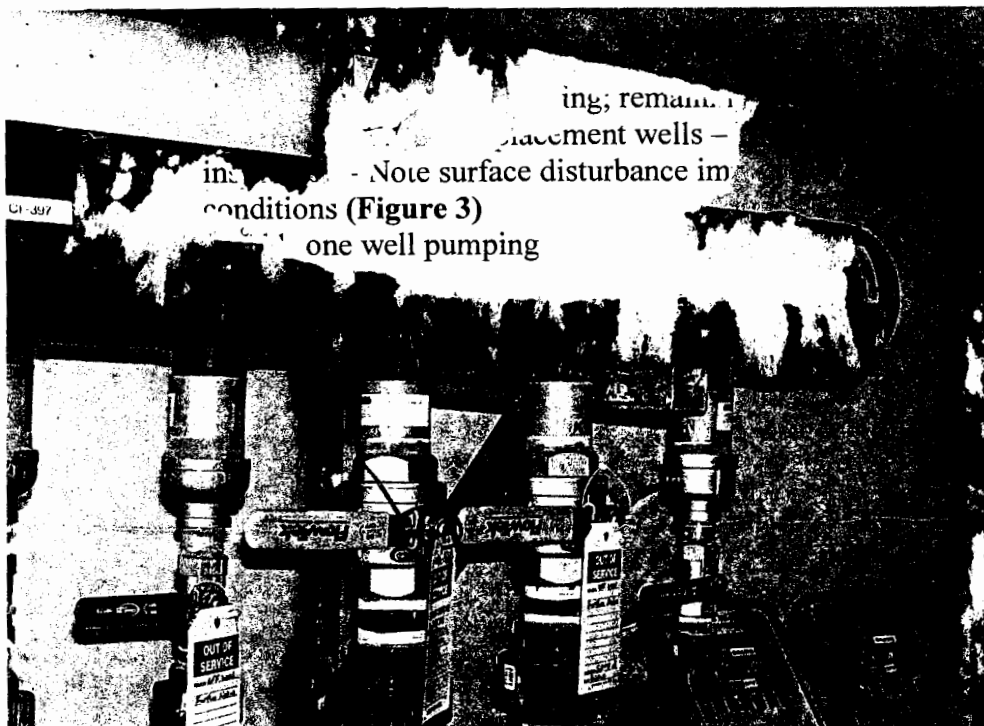


Figure 2 New piping for underground haulageway restoration wells CIMW-1 and CRMW-3

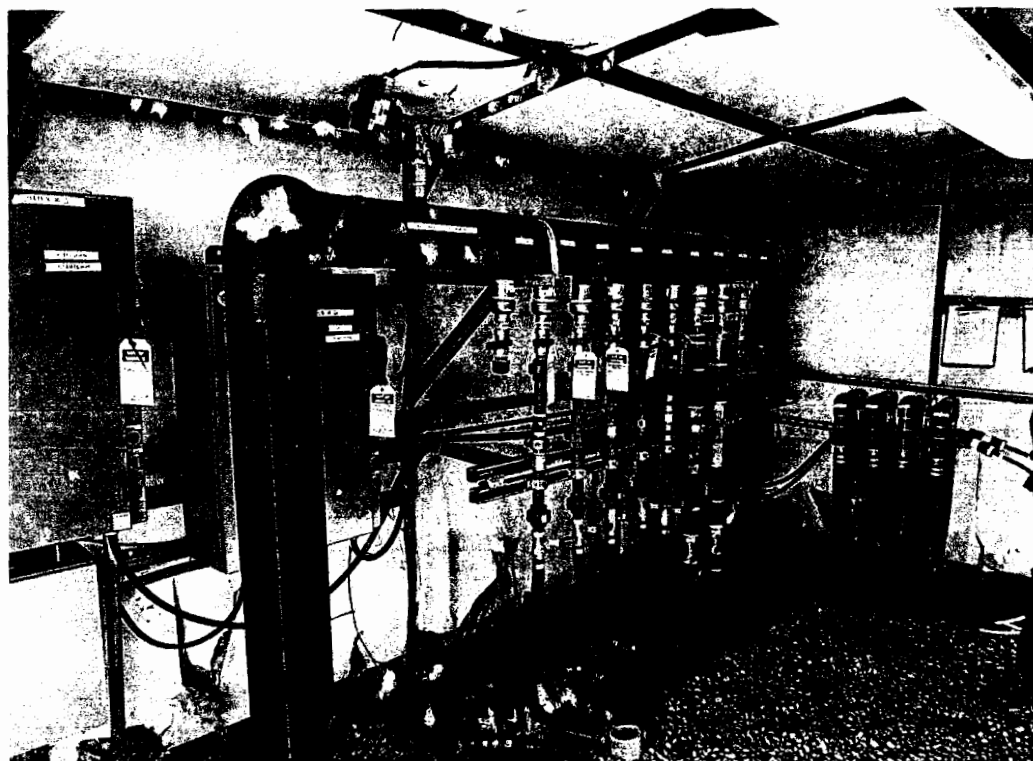


Figure 3 New piping for underground haulageway restoration wells CIMW-1 and CRMW-3



Figure 4 New piping for underground haulage restoration wells CRMW-2 and CRMW-4

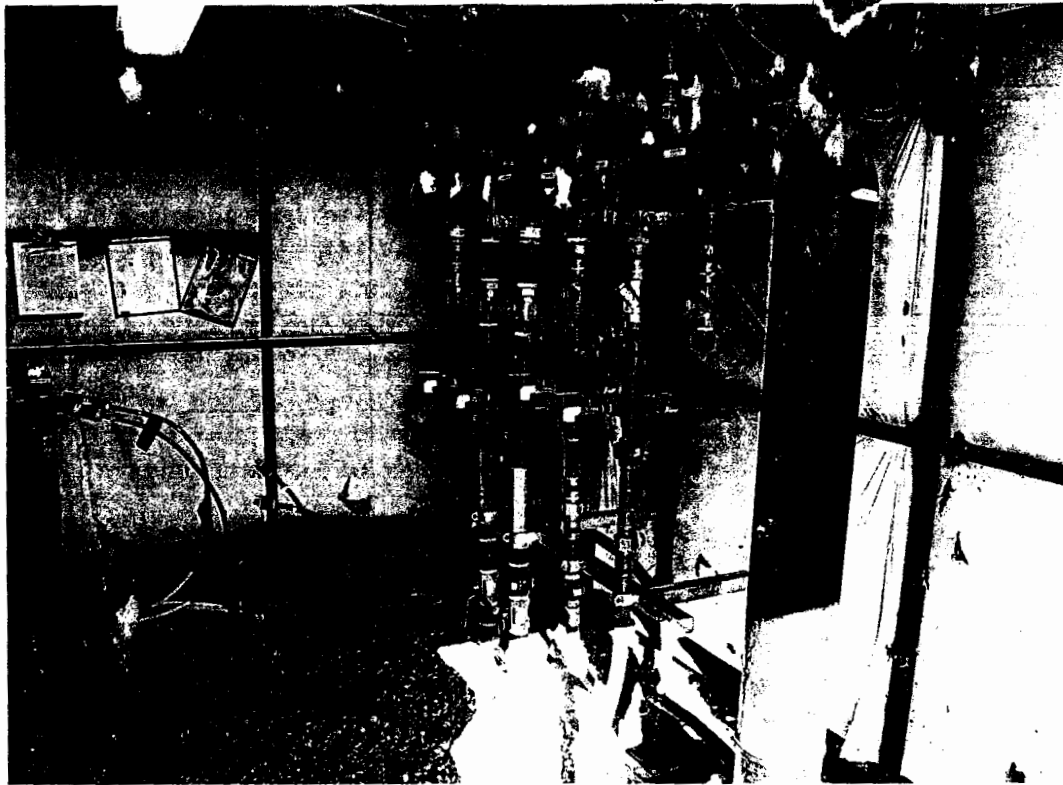


Figure 5 New piping for underground haulage restoration wells CRMW-2 and CRMW-4



Figure 6 Road disturbances to topsoil for construction of mud pits in MU-H (replacement wells)

COMPLIANCE AND ASSESSMENT

1. The wells used for the underground haulageway restoration (CIMW-1, CRMW-2, CRMW-3 and CRMW-4) were noted to be piped into HH -C19 during the inspection. To date, Cameco does not have an approved restoration plan for the haulageway. LQD sent review comments addressing the proposed plan on January 3, 2013. No response has been received. LQD agreed to allow Cameco to pursue restoration of some mine units while restoration plans and reviews are in progress. However, delays in the reviews to approve the restoration plans are not acceptable. Please submit the responses to comments within 30 days.
2. The surface disturbance in MU-H due to mud pit construction was noted. Cameco is reminded as stated in the permit, *Areas where topsoil has not been removed, such as temporary non-routine access to individual well drilling sites, is not intended for routine vehicular access. Regular access across such areas is restricted to foot traffic or low bearing pressure vehicles to prevent topsoil compaction.* Please continue to encourage the field operators to use designated pathways as much as possible to access the construction sites. Please ensure the appropriate reclamation work including chisel plowing or ripping of the soil is completed followed by reseeding the soil.