

CIMARRON CORPORATION

P.O. BOX 315 • CRESCENT, OK 73028

January 24, 2005

Mr. Kenneth Kalman
Low-Level Waste & Decommissioning Projects Branch
Division of Waste Management
Office of Nuclear Materials Safety & Safeguards
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket No. 70-925; License No. SNM-928
License Amendment Request – Well 1319 Area Post-Decommissioning Groundwater
Monitoring Plan (*Corrected Submittal*)

Dear Mr. Kalman:

As requested, please find attached the corrected document that replaces the document submitted to you by letter dated December 22, 2004. Please note that the only changes are the corrected dates in the letter and in the fourth paragraph of the monitoring plan.

Cimarron Corporation (Cimarron) completed groundwater assessment in the Well 1319 area at the Cimarron site. That assessment identified groundwater exceeding the decommissioning criteria of 180 pCi/l total uranium, stipulated in License Condition 27(b). Cimarron installed pumps in Wells 1319B-1 and 1319C-1, and extracted sufficient groundwater to reduce the uranium concentration in these zones to less than the license criteria. Cimarron is proposing a Post-Decommissioning Groundwater Monitoring Plan for the Well 1319 Area at the Cimarron Site to demonstrate compliance with license criteria (attached).

Cimarron requests that License Condition 27(b) be amended to read,

The release criteria for groundwater at the Cimarron site is 6.7 Bq/l (180 pCi/l) total uranium. NRC will not terminate Radioactive Material License SNM-928 until Cimarron demonstrates that the total uranium concentration in site groundwater is below the groundwater release criteria for eight consecutive samples over a minimum of two years. Cimarron will perform post-decommissioning monitoring for the Well 1319 area in accordance with the Post-Decommissioning Monitoring Plan submitted January 24, 2005. Cimarron will retain control of the property licensed under NRC Radioactive Material License SNM-928 until the groundwater release criteria are met. The Oklahoma Department of Environmental Quality may require continued groundwater monitoring of non-radioactive components under its authority.

If you have questions or comments, please call me at 405-642-5152.

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Sincerely,

A handwritten signature in cursive script, appearing to read "Jeff Lux".

Jeff Lux
Project Manager

cc: D. Blair Spitzberg, NRC Region IV

**POST-DECOMMISSIONING MONITORING PLAN FOR THE WELL 1319 AREA
CIMARRON CORPORATION SITE
CRESCENT, OKLAHOMA
NRC LICENSE SNM-928**

Introduction

Cimarron Corporation (Cimarron) identified uranium above license limits in groundwater in Well 1319 in June 2002. Cimarron submitted Proposal to Perform Groundwater Assessment Near Well 1319 in December 2002. NRC approved the work plan on March 18, 2003. Cimarron plugged and abandoned Well 1319, and performed two phases of well installation during 2003. Assessment Report for Well 1319 Area was submitted to NRC in December 2003.

The groundwater assessment report concluded that groundwater exceeding license criteria existed in two small areas in close proximity to former Well 1319. One area was contained within Sandstone B and the other was contained within Sandstone C. Because the zone of contamination was confined to a very small area and the concentrations were just slightly above the license criteria, groundwater extraction was initiated to determine if pumping would be an effective remedy.

Cimarron installed groundwater recovery wells in Wells 1319B-1 and 1319C-1 and monitored the gross alpha activity of recovered groundwater. When groundwater sample analytical results indicated that concentrations were well below the license criteria, groundwater extraction was terminated and periodic monitoring continued. Cimarron has provided this information to NRC on a periodic basis.

NRC commented on the groundwater assessment report in a letter dated November 24, 2004. Cimarron responded to NRC comments in a submittal dated December 22, 2004. In accordance with discussions between Cimarron and NRC, a Post-Decommissioning Monitoring Plan for the Well 1319 Area is proposed herein to demonstrate compliance with this limit.

Sampling Locations, Frequency, Analyses

Sandstone B – Potentiometric surface data from multiple groundwater monitoring events shows that groundwater in Sandstone B is flowing in a direction slightly west of north in the Well 1319 Area, as shown in Figure 1 (attached). Well 1319B-1 is screened in Sandstone B approximately 15 feet north of former Well 1319. This well is downgradient from former Well 1319, and is the only Sandstone B well that has yielded total uranium concentrations exceeding 180 pCi/l. Cimarron will utilize groundwater samples from this well to demonstrate compliance with the license criteria for Sandstone B.

Sandstone C – Potentiometric surface data from multiple groundwater monitoring events shows that, like Sandstone B, groundwater in Sandstone C is flowing in a direction slightly west of north in the former Well 1319 area, as shown in Figure 2 (attached). Well 1319C-1 is screened in Sandstone C approximately 15 feet northeast of former Well 1319. This well is downgradient from former Well 1319, and is the only Sandstone C well that has yielded total uranium concentrations exceeding 180 pCi/l. Cimarron will utilize groundwater samples from this well to demonstrate compliance with the license criteria for Sandstone C.

Groundwater samples will be collected on a quarterly basis. Samples will be analyzed for gross alpha activity and total uranium by alpha spectrum analysis. Sampling will continue on a quarterly basis until

eight consecutive quarters of data show that total uranium concentrations are consistently below the 180 pCi/l limit.

Groundwater samples will be obtained, packaged, transported, and analyzed in accordance with the site Sampling and Analysis Plan.

Monitor Well Abandonment

Cimarron will plug and abandon the following wells associated with the Well 1319 area:

1319A-1	1319A-2	1319A-3
1319B-2	1319B-3	1319B-4
1319B-5	1319C-2	1319C-3
1322	1323	1326
1327B	1328	1329
1330		

Monitor well plugging and abandonment will be performed in accordance with Oklahoma regulations and the site Sampling and Analysis Plan.

Documentation

Cimarron will provide NRC summary tables presenting groundwater elevations and laboratory results. Field logs generated during sampling events and copies of laboratory analytical results will be retained in the project office and will be available for inspection. Monitor well plugging records will be submitted to the Oklahoma Water Resources Board in accordance with State regulatory requirements. Copies of field logs and plugging reports will be retained in the project office and will be available for inspection.

Cimarron will also revise the environmental monitoring section of the Radiation Protection Plan to remove wells that have been plugged and abandoned from the environmental monitoring program. Because Wells 1319B-1 and 1319C-1 will continue to be sampled in accordance with this Post-Decommissioning Groundwater Monitoring Plan for the Well 1319 Area, these wells will also be removed from the environmental monitoring program.

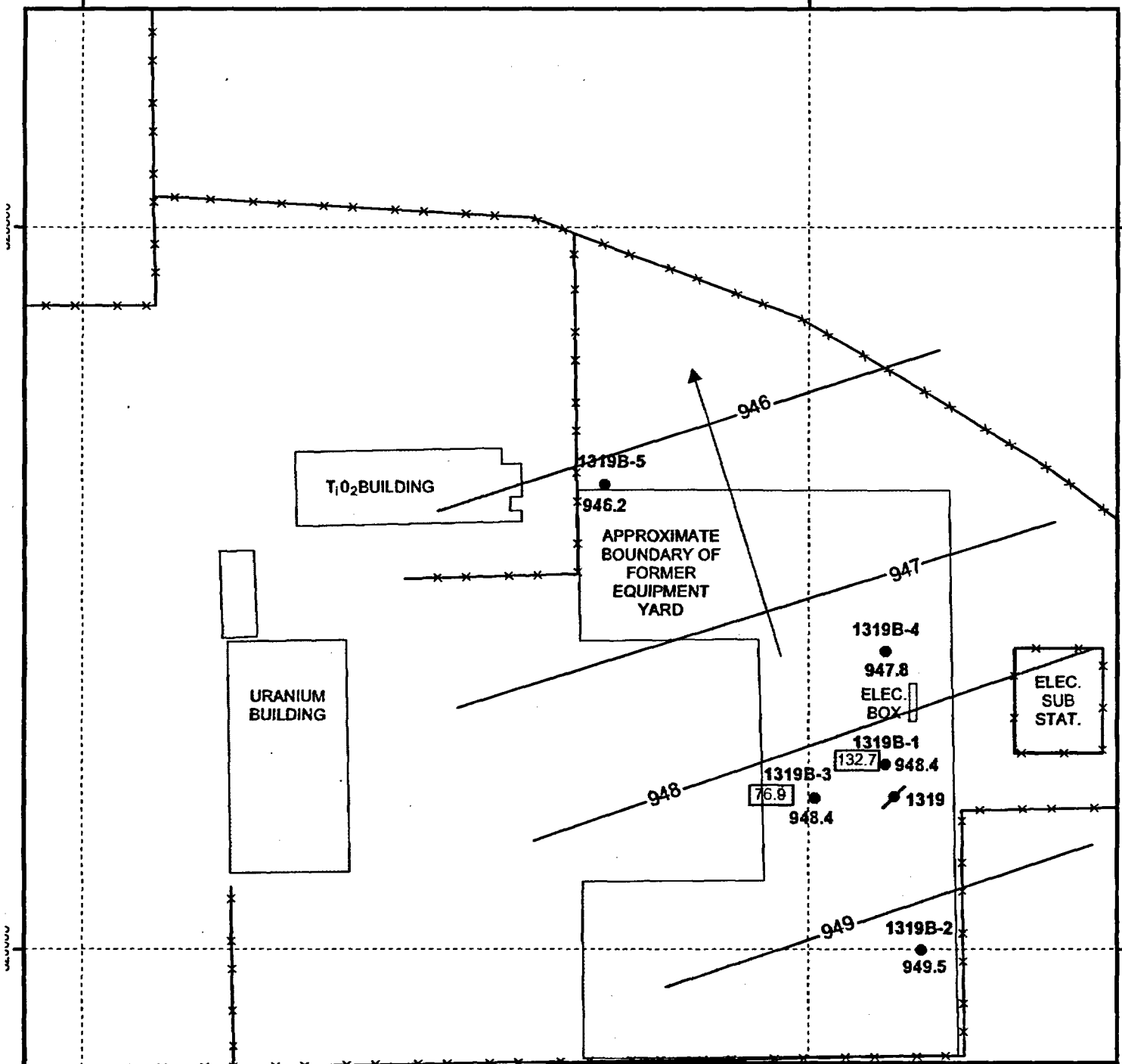
When eight consecutive quarters of data for either or both sandstone units are below the 180 pCi/l total uranium license criteria, Cimarron will discontinue groundwater monitoring for the area(s). Cimarron will submit a report to NRC documenting that the criteria in License Condition 27(b) have been met and will request that the license be amended to delete the Post-Decommissioning Groundwater Monitoring Plan for the Well 1319 Area.

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FIGURE: 1
SANDSTONE "B"
POTENTIOMETRIC SURFACE MAP
WELL 1319 AREA

971.5 AMSL WATER LEVEL DATA AS OF AUGUST 2004

- MONITOR WELL
- / ABANDONED MONITOR WELL
- 132.7 TOTAL U ALPHA SPEC pCi/l
- GROUNDWATER FLOW DIRECTION

GROUNDWATER CONTOUR INTERVAL 1 FOOT

1 inch = 100 feet




DATE: 10/25/04
 REVISED:

COORDINATES: NAD 83 FEET OKLAHOMA NORTH

FIG_1_SS_B_POT_SURF_10_04.mxd

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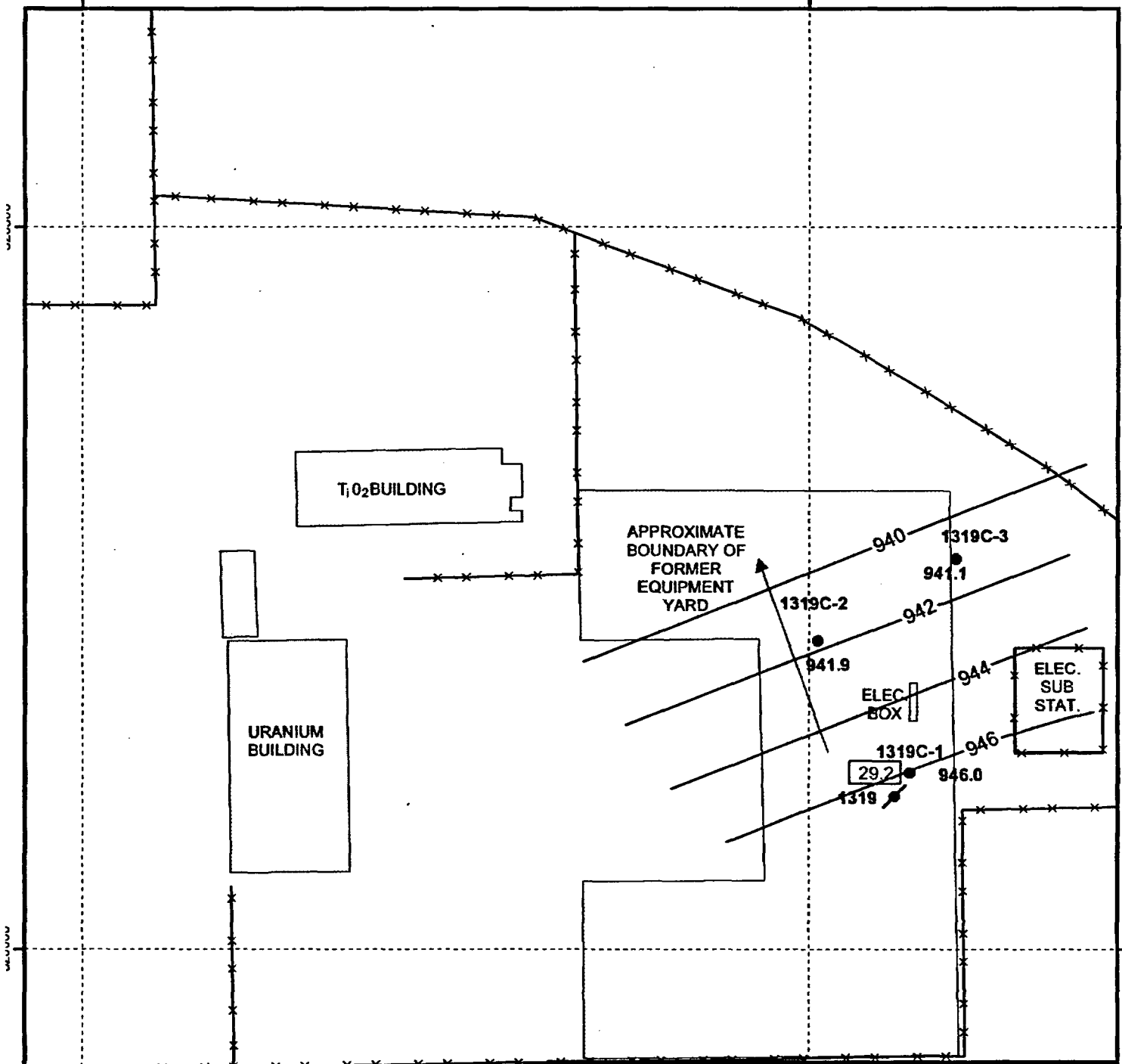
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FIGURE: 2
SANDSTONE "C"
POTENTIOMETRIC SURFACE MAP
WELL 1319 AREA

971.5 AMSL WATER LEVEL DATA AS OF AUGUST 2004

- MONITOR WELL
- ABANDONED MONITOR WELL
- 29.2 TOTAL U ALPHA SPEC pCi/l
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER CONTOUR INTERVAL 2 FEET

1 inch = 100 feet
 0 100 Feet



DATE: 10/25/04
 REVISED:

COORDINATES: NAD 83 FEET OKLAHOMA NORTH

FIG_2_SS_C_POT_SURF_10_04.mxd

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