May 3, 2021

Mr. James Smith
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Re: Docket No. 70-925; License No. SNM-928
License Amendment Request to Redefine the Licensed Area

Dear Sirs:

Solely as Trustee for the Cimarron Environmental Response Trust (CERT), Environmental Properties Management LLC (EPM) submits herein to the US Nuclear Regulatory Commission (NRC) this request to amend License SNM-928 to re-define the area under license. This license amendment request (LAR) supersedes the November 22, 2019 LAR to reflect the re-definition of the licensed area based on the two-phase remediation approach presented in the February 26, 2021 *Facility Decommissioning Plan – Rev 2* (the DP - ML21076A479).

The DP explains the phased approach in detail. This LAR proposes to include in the licensed area all areas which should be under license. It also identifies areas to which access will be controlled by the licensee based on the maximum potential infrastructure that could be installed and operated during any remediation phase.

<u>Basis for the Current Definition of the Licensed Area</u>
Based on knowledge of the processing, transport, and disposal activities that occurred during the facility's operating years, as well as information obtained during radiological site characterization, in 1994 the Cimarron Site was divided into the following three "Phase" areas:

1. "Phase I Unaffected Areas", defined as areas within which soil or surface contamination was not expected to exceed background levels.
2. "Phase II Affected and Unaffected Areas", defined as areas within with soil or surface contamination was expected to exceed background, but may not exceed license criteria.
3. "Phase III Affected Areas", defined as areas within which soil or surface contamination was known to exceed license criteria.

Each of these "Phase" areas were further divided into Subareas A through O. The boundaries of the Subareas were based on the locations of buildings, impoundments, roads, and former burial areas. No consideration was given to groundwater. The presence of uranium exceeding decommissioning criteria in groundwater was not known and was therefore not considered in the delineation of Subareas. The decommissioning of buildings, impoundments, roads, and former burial areas has been completed, and all but three of the 16 former Subareas have been released from the license, as reflected in SNM-928, Amendment 21.

The former Subarea designations are no longer relevant to the ongoing decommissioning of the Site. License SNM-928 retains three of the former Subareas under license, two of which

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(Subareas G and N) have been demonstrated to comply with the decommissioning criteria for both soil and groundwater.

When license SNM-928 was transferred to the CERT, the February 16, 2011 license transfer order stated, "Final status surveys and confirmatory surveys have confirmed that Subareas G and N are releasable for unrestricted use, but NRC has determined that these areas should not be released until groundwater remediation is complete." EPM proposes to re-define the licensed area based on knowledge of existing conditions and planned construction and operations that will support the remediation of groundwater. There is no reason to retain portions of former Subareas which have been demonstrated to be releasable for unrestricted use, and which no future decommissioning activities will impact. Consequently, this license amendment request proposes to retain only those portions of Subareas G and N in which decommissioning operations may be performed under license, as described in the DP.

Why Redefine the Area Under License?

When final status surveys were performed for the former Subareas, groundwater exceeding the decommissioning criteria was not expected to be present except in and around four disposal trenches located in Subarea F. Site-wide groundwater assessment (conducted ***after*** all Subareas except Subareas F, G, and N had been released from the license) identified groundwater exceeding the decommissioning criterion for uranium in portions of Subareas C, D, E, H, and M.

The purpose of this LAR is to bring back under license those portions of the site which had been released, but within which:

- Groundwater exceeds license criteria.
- Groundwater exceeding license criteria will be stored, transferred, or treated during the groundwater remediation effort.
- Licensed material generated during removal of uranium from groundwater, which has not yet been packaged for transportation in accordance with DOT regulations, may be transferred from a future Burial Area #1 (BA1) treatment facility to the Western Area Treatment Facility (WATF).
- Contaminated media, such as treatment resins containing concentrated uranium, will be stored and/or packaged for shipment for disposal.

This license amendment request proposes to retain only those portions of Subareas G and N in which decommissioning operations will be performed under license. Such an amendment would release most of Subareas G and N from the license, retaining only those portions of Subareas G and N subject to the above-stated conditions.

Subarea G

Subarea G was a "Phase II" area containing both affected and unaffected areas. The affected areas included the Site road over which licensed material had been transported, the surface water drainage channel east of Uranium Pond #1, and an area containing concrete rubble from the

former uranium processing building. Most of Subarea G was considered unaffected by former site operations and waste disposal activities.

Release survey data for concrete slabs placed in Subarea G was reported in a letter dated September 16, 1998. A report on an NRC confirmatory survey of the concrete during a September 1998 inspection concluded that the released concrete slabs comply with license criteria. After performing a final status survey for the road, drainage, and land areas, *Final Status Survey Report, Subarea G* (ML20043F258) was submitted to the NRC on October 21, 1999. The NRC performed a confirmatory survey for Subarea G in August 2001. The inspection included the collection and analysis of groundwater for both uranium and Tc-99. The November 26, 2001 NRC inspection report 70-925/01-01 concluded that Subarea G land ***and groundwater*** complies with license criteria.

In a letter dated March 12, 2002, the NRC stated, "U.S. Nuclear Regulatory Commission (NRC) staff has identified regulatory issues concerning the release of Subareas G and K, related to the occurrence of technetium-99 (Tc-99) in Subarea G, and a need for an approved decommissioning schedule in your license. In response, NRC staff has decided to … withhold release of Subarea G until Cimarron addresses the onsite Tc-99 contamination."

Subsequent assessment of Tc-99 in groundwater demonstrated that Tc-99 concentrations were well below the NRC criterion for groundwater, and the NRC approved the discontinuation of monitoring for Tc-99 in a letter dated April 22, 2013 (ML20171A868). Consequently, the "onsite Tc-99 contamination" has been addressed from a license compliance perspective.

<u>Subarea N</u>
Subarea N was a "Phase III" area. Subarea N included Burial Area #4. Burial Area #4 contains soil that complies with License Condition 23 of SNM-928, described as Option 2 material in the 1981 Branch Technical Position *Disposal or Onsite Storage of Residual Thorium or Uranium (Either as Natural Ores or Without Daughters Present) From Past Operations* (ML19363A009). Subarea N also included the site road on which Option 2 soil was transported from stockpiles located near the former process buildings to Burial Area #4.

After Burial Area #4 was closed in compliance with License Condition 23, a final status survey was conducted for Subarea N. *Final Status Survey Report for Subarea N* (ML20043F229) was submitted to the NRC on January 31, 2002. The NRC performed a confirmatory survey for Subarea N in June 2002. The inspection included the collection and analysis of groundwater for both uranium and Tc-99. The September 18, 2002 NRC inspection report 70-925/02-01 concluded that Subarea N land ***and groundwater*** complies with license criteria.

<u>Subarea F</u>
Subarea F was a "Phase III" area. Subarea F included trenches in which licensed material had been buried (then referred to as Burial Ground #1) and slabs of concrete removed from the

former uranium processing building that had been placed in Subarea F for erosion control. Final status survey reports were submitted for:

- The excavated burial trenches, in *Decontamination and Final Survey Report for Cimarron Facility Contaminated Waste Burial Ground* (ML19363A014).
- The concrete rubble, in *Final Status Survey Report for Concrete Rubble in Sub-Area F* (ML20043F213).
- Soil, in *Final Status Survey Report, Sub-Area F* (ML20043F208).

The NRC has performed confirmatory surveys for the formal burial trenches and the concrete rubble in Subarea F and collected confirmatory soil samples from soil borings in 2013. The confirmatory survey process has been completed for both surface and subsurface soil. Because uranium exceeds the decommissioning criterion in groundwater, EPM proposes herein to retain the entirety of Subarea F under license.

Definition of Licensed and Controlled Areas

Based on the above considerations, this LAR proposes to include in License Condition 9 of License SNM-928, "Authorized Place of Use" those areas within which:

- Groundwater exceeds license criteria.
- Groundwater exceeding license criteria will be stored, transferred, or treated during the groundwater remediation effort.
- If during the second phase of groundwater remediation, a separate ion exchange system is installed in Burial Area #1 (BA1), licensed material which has not yet been packaged for transportation in accordance with DOT regulations may be transferred from a BA1 treatment facility to the Western Area Treatment Facility (WATF).
- Contaminated media, such as treatment resins containing concentrated uranium, will be stored and/or packaged for shipment for disposal.
- All of Subarea F.

Attachment 1 to this license amendment request provides four figures depicting the proposed area to be included in License Condition 9. These figures depict the proposed "licensed" area and "controlled" areas. Licensed ***material*** cannot be accessed throughout most of the licensed area, because throughout the decommissioning of the site it will be present only in groundwater or in underground piping. Red dashed lines on Figures 1 through 4 depict the extent of the proposed licensed area. The licensed area will be delineated on site by the following:

1. Monitor wells.
2. Cairns installed at the locations of former monitor wells that have been abandoned or at other "corners".
3. A corridor extending perpendicularly 5 meters from the centerline of the site road.
4. Fencing around controlled areas will define a portion of the licensed area (after construction of water treatment infrastructure is complete).

Attachment 2 is a table listing the locations of the monitor wells, cairns, and fenceposts that will physically delineate the licensed area (excluding the site road).

Access to controlled areas will be controlled by a fence and locking gates, except where the exterior walls of the WATF building provide access control. Controlled areas are depicted by solid green lines, and include those areas to which access needs to be controlled because:

1. Groundwater containing licensed material is brought above ground to be treated.
2. Groundwater is treated to remove uranium and Tc-99 in ion exchange systems.
3. Treatment media is processed, packaged, and stored prior to shipment to a licensed disposal facility.

Figure 1 – Licensed and Controlled Areas in the Western Area

Figure 1 depicts the proposed licensed and controlled areas in the western portion of the Site. A black isopleth depicts the area within which uranium concentrations exceed 100 micrograms per liter (μg/L). The U-235 enrichment in this area varies, and 100 μg/L is a lower concentration than would yield a total uranium activity of 180 picoCuries per liter (pCi/L) at the highest conservatively estimated enrichment. Consequently, the black line represents a greater area than that within which groundwater contains exceeds the decommissioning criteria. The red dashed line extends beyond this area, providing additional "buffer" around the area within which groundwater exceeds the decommissioning criteria.

The licensed area also includes the area within which piping will transport groundwater exceeding the decommissioning criteria. All Phase I infrastructure is depicted in orange lines; Phase I infrastructure includes all piping which may transmit groundwater exceeding the decommissioning criteria as well as "clean" treated water that will be injected, such as in Subarea M. Finally, the roadway over which vessels of spent resin may later be transported from BA1 to the WATF (potentially during Phase II remediation) is included in the licensed area.

The area bounded by the solid green line represents the controlled area, and includes all areas within which:

- Groundwater containing uranium exceeding the decommissioning criteria is brought to the surface.
- Groundwater is treated to remove the uranium by ion exchange.
- Spent ion exchange resin is processed and packaged for shipment to a licensed disposal facility.
- Waste that contains concentrations of radioactive material requiring disposal as low level radioactive waste is stored or staged.

Figure 2 – Licensed and Controlled Areas in Burial Area #1

Figure 2 depicts the proposed licensed and controlled areas in the eastern portion of the Site. A black isopleth depicts the area within which uranium concentrations exceed 201 μg/L. The conservative estimate of the U-235 enrichment in this area is 1.3%, and 201 μg/L is the

concentration than would yield a total uranium activity of 180 pCi/L at that enrichment. Consequently, the black line represents the maximum potential extent of groundwater containing uranium exceeding the decommissioning criteria. The red dashed line extends beyond this area, providing additional "buffer" around the area within which groundwater contains uranium exceeding the decommissioning criteria.

The area within the red dashed line also includes the area in which piping will transport groundwater in which uranium exceeds the decommissioning criteria, including that which will transport groundwater to the WATF. All Phase I infrastructure is depicted in orange lines. Phase I infrastructure includes all piping which may transmit groundwater exceeding the decommissioning criteria as well as "clean" treated water that will be injected. Finally, if groundwater is treated to remove the uranium by ion exchange in BA1, the treatment area and the roadway over which vessels of spent resin may be transported from BA1 to the WATF are included in the licensed area. As explained on Page 4 above, the licensed areas will include all of former Subarea F.

The area within the solid green line is the controlled area, and includes all areas within which:

- Groundwater containing uranium exceeding the decommissioning criteria is brought to the surface. During Phase I, remediation infrastructure will consist of an influent tank, a pumping station, and equipment to inject treated water into injection trenches. All this will be located within the controlled area shown on Figure 2.
- Groundwater may be treated (during Phase II) to remove uranium from the groundwater by ion exchange within the controlled area.

If Phase II includes treatment for uranium in BA1, vessels containing spent resin will be removed from BA1 and transported to the WATF for processing, packaging, storage and shipment. Waste will not be stored or staged within BA1, except for incidental consumables such as gloves, filters, etc., that will be stored in a waste receptacle prior to transfer to the WATF; such waste will be transferred to the WATF at the end of each day.

<u>Figure 3 – Licensed and Controlled Areas – Site Wide</u>
This figure depicts the proposed licensed and controlled areas throughout the Site, including the entire extent of the Site road between BA1 and the WATF.

Cross-hatching provided in Figure 3 identifies those portions of Subareas G and N that would be licensed under License SNM-928 should the license be amended in accordance with this request. The table on Figure 3 provides the acreage that would be under license in each former Subarea.

<u>Figure 4 – Potential Land Disturbance</u>
A survey of potential cultural or historic resources was performed in 2019. Results were reported in the September 9, 2020 report, *Phase I Cultural Resources Survey of the Cimarron Environmental Response Trust Property* (ML20253A33). Figure 4 shows the relationship between the proposed licensed and controlled areas, the maximum area that could be disturbed

during both Phase I and potential Phase II activities, and the locations of identified potential historical resources. Decommissioning construction and operations will have no impact on any potential historic resources.

the CERT office is currently located outside of the licensed site and will continue to be outside of the licensed area until the Western Area Treatment Facility (WATF) is constructed several years from now. Licensed material and radioactive sources are stored in the CERT office; until the WATF is constructed, some provision for the receipt and storage of radioactive material in the CERT office is needed.

EPM proposes that the "Authorized Place of Use" in License Condition 9 be amended to that portion of the licensee's property depicted on Figure 3 of this LAR, as well as provide for temporary receipt and storage of materials at the street address of the CERT office, which is 100 Highway 74 North, Guthrie, OK 73044.

<u>License Condition 23 and the Release of Subarea N</u>
License Condition 23 provides authorization to bury up to 14,000 cubic meters (500,000 cubic feet) of soil contaminated with low-enriched uranium containing up to 100 picoCuries per gram (pCi/g) for soluble uranium and up to 250 pCi/g for insoluble uranium in the area now referred to as Burial Area #4 (BA4). BA4 is located in Subarea N.

BTP Option 2 On-Site Disposal Cell Report (ML20043F202) provides a description of the characterization, placement, and covering of contaminated soil in BA4. Three trenches, labeled "Pit #1", "Pit #2", and "Pit #3" were excavated, backfilled with soil containing less than 100 pCi/g uranium, and covered in BA4.

Pit #1 contains 164,518 cubic feet (ft^3) of soil containing an average uranium activity of 45.0 pCi/g. Pit #2 contains 155,950 ft^3 of soil containing an average uranium activity of 43.3 pCi/g. Pit #3 contains 131,718 ft^3 of soil containing an average uranium activity of 35.7 pCi/g. The total volume of contaminated soil in BA4 is therefore 452,185 ft^3 of soil containing an average uranium activity of 41.7 pCi/g. The total activity of uranium in the soil placed in BA4 is 0.989 Curies. Upon completing the placement of contaminated soil, each of the trenches was covered with a minimum of 4 feet of soil and vegetation was established over the soil cover.

License Condition 23(a) states, "The licensee shall periodically monitor the disposal area for subsidence, erosion, and status of the vegetative cover for at least 5 years, and promptly repair any problems noted." The disposal area was monitored for well over 5 years, and even 18 years after the cover was placed and vegetated, there is no evidence of subsidence or erosion. The vegetative cover remains effective, covering 100% of the area with a dense stand of grass.

License Condition 23(b) states, "Notification shall be placed on the land title to declare that uranium-contaminated soil has been buried on the site and to record the volume, average uranium concentration, and exact location of the buried soil. This notification is not to be

considered a restriction on the sale or future use of the site. Furthermore, cairns (permanent markers) placed at the corners of the disposal cell shall be maintained."

Cairns, consisting of concrete cylinders with brass plates, surrounded by steel bollards, were placed at the four corners of BA4. The brass discs were engraved with the coordinates of the corners, the words "Radioactive Disposal Area", and lines indicating the boundaries of BA4. The location of BA4, the total volume of soil, and the total activity of uranium (rather than the average uranium concentration) was recorded on the property deed filed with the County Recorder on September 19, 2002. Attachment 3 to this license amendment request includes a copy of the notification that was placed in the deed and a picture of the cairn that was installed at the southeast corner of BA4.

As described above, all work authorized by or required by License Condition 23 has been completed. The NRC's statement that the notification in the deed "is not to be considered a restriction on the sale or future use of the site" further supports EPM's recommendation for the unrestricted release of this portion of Subarea N.

<u>License Conditions 25, 28, 29, and 30 and Areas Already Released</u>
License Condition 25 released Subareas A through E for unrestricted use. License Condition 28 released Subareas J and O for unrestricted use. License Condition 29 released for unrestricted use Subareas H, I, L, and M. License Condition 30 released Subarea K for unrestricted use. For all of these Subareas, the NRC stated in those four license conditions, "It is no longer licensed by NRC."

If the NRC approves the re-designation of the licensed area as proposed herein. these four license conditions should be deleted. Portions of several of these former Subareas will be re-incorporated into the licensed site, and portions will remain released for unrestricted use. The former Subarea designations no longer serve any purpose and should no longer be referenced to define licensed portions of the site or areas that are no longer licensed by the NRC. *EPM requests that License Conditions 25, 28, 29, and 30 be deleted from License SNM-928.*

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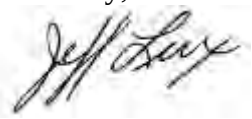
Please contact me at (405) 642-5152 or e-mail me at jlux@envpm.com if you have questions or desire clarification. Thank you.

Sincerely,



Jeff Lux, P.E.
Project Manager

Cc (electronic):
- Ron Burrows, NRC
- Robert Evans, NRC Region IV
- Paul Davis, DEQ
- Michael Broderick, DEQ
- NRC Public Document Room

ATTACHMENT 1
FIGURES 1 THROUGH 4

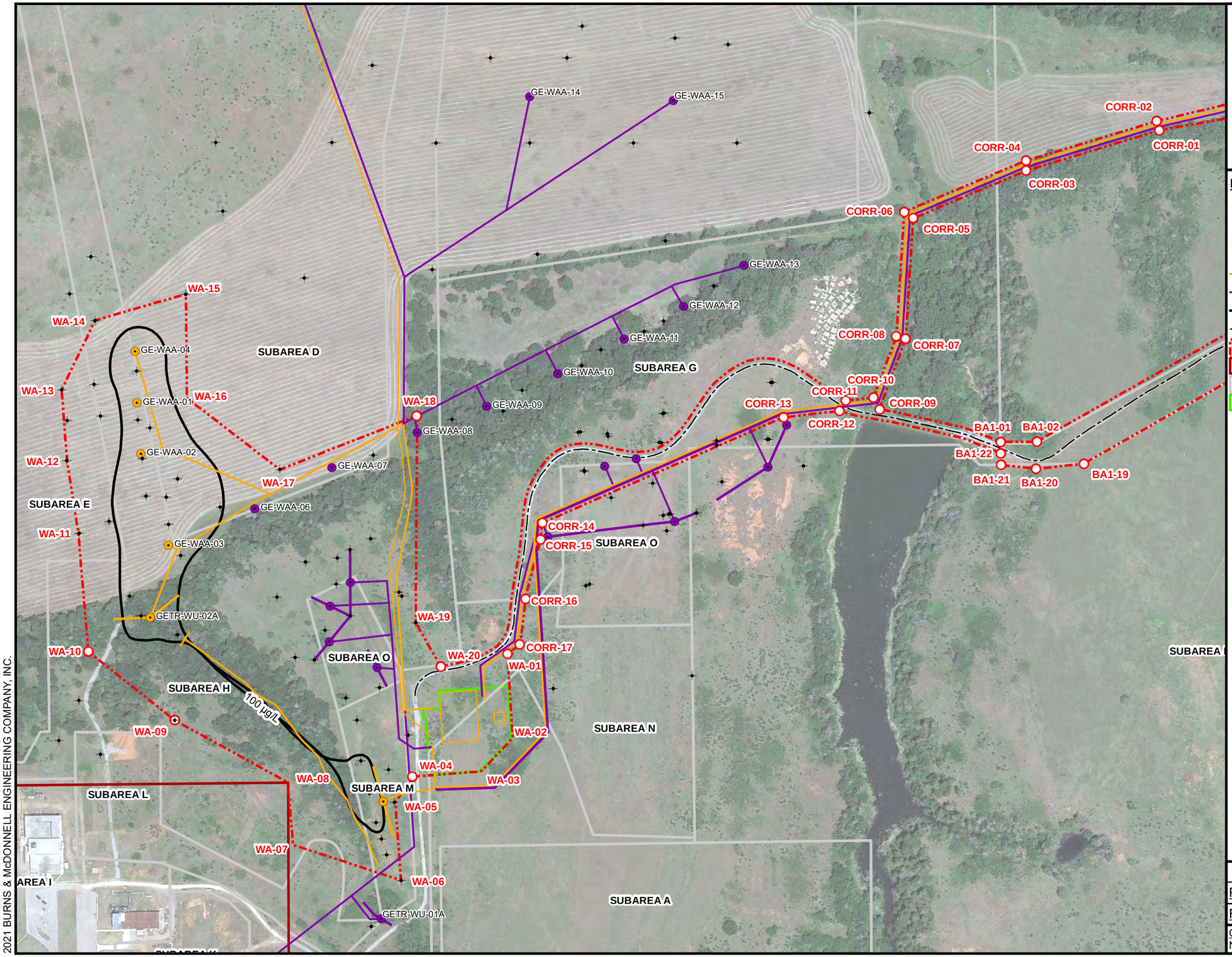


FIGURE 1
LICENSED AND CONTROLLED
AREAS IN THE WESTERN AREA

BURNS McDONNELL

environmental properties management, LLC

LEGEND

- MONITOR WELL
- CAIRN
- PHASE I REMEDIATION WELL
- PHASE II REMEDIATION WELL
- PHASE I REMEDIATION INFRASTRUCTURE
- PHASE II REMEDIATION INFRASTRUCTURE
- 100 µg/L URANIUM CONCENTRATION
- SURVEYED ROAD CENTERLINE
- LICENSED AREA
- CURRENT CERT PROPERTY LINE
- FINAL STATUS SURVEY SUBAREAS
- CONTROLLED AREA

NOTES

1) The controlled area is the fenced area.
2) µg/L - micrograms per liter.
3) 180 picoCuries per liter (pCi/L) in the WAA U > DCGL, 1206-NORTH, and BA3 areas was calculated at 119 micrograms per liter (µg/L). The 100 µg/L isopleth is shown for conservatism.
4) Basemap: Google Earth June 2017

0 300 600
SCALE IN FEET

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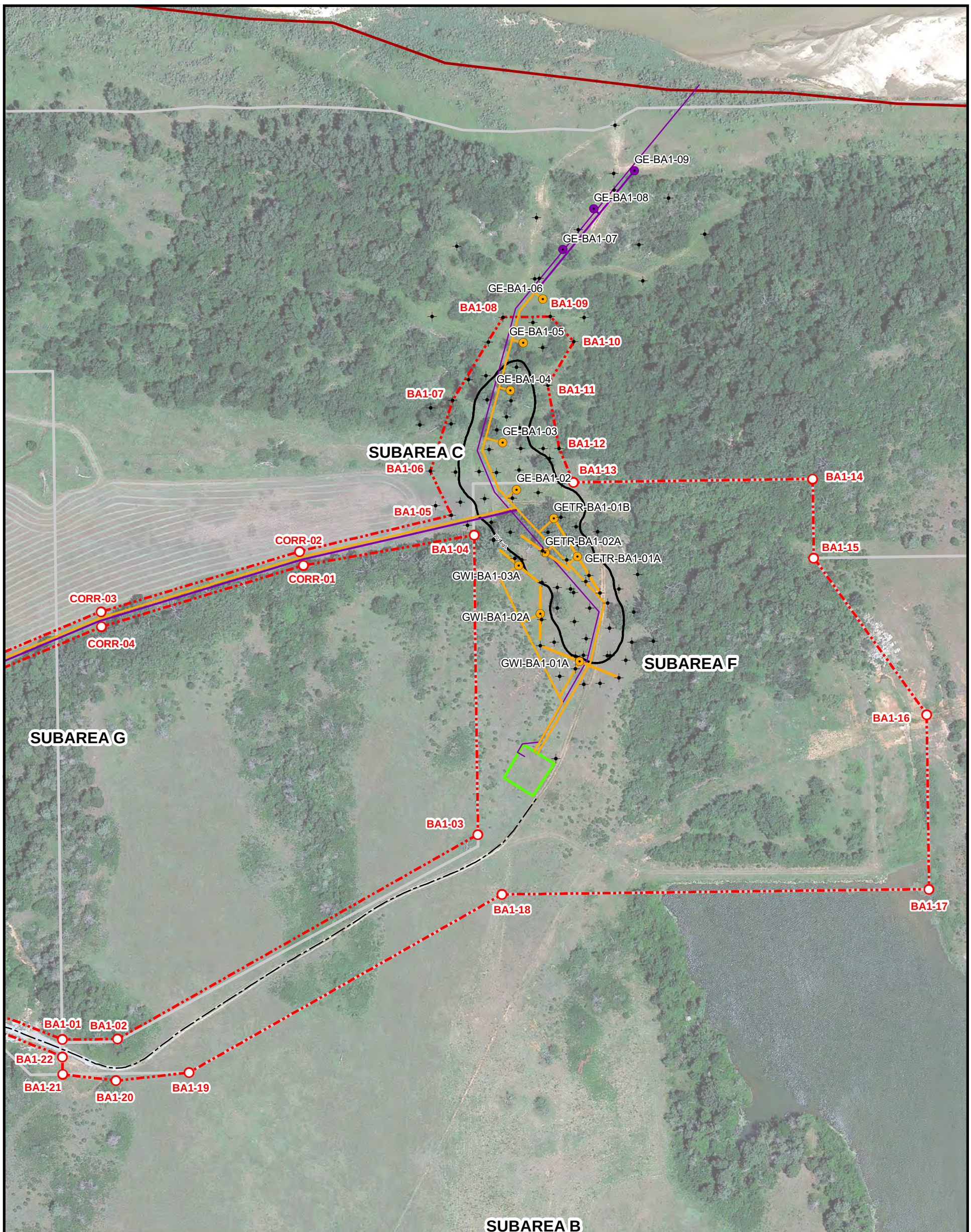
	Rev No: 0
Preparer: BELOCKWOOD	Date: 4/27/2021
Reviewer: EDULLE	Date: 4/27/2021

Coordinate System
NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet

2021 BURNS & McDONNELL ENGINEERING COMPANY, INC.

Z:\Clients\ENS\CERT_ClientInfo\Sites\Database\Geospatial\Maps & Dwgs\ArcGIS\BMCD_Files\Arcdocs\2020\2020 - Licensed and Controlled Figures\Figure 1_ Western Area Licensed and Controlled Areas



LEGEND

- MONITOR WELL
- CAIRN
- PHASE I REMEDIATION WELL
- PHASE II REMEDIATION WELL
- PHASE I REMEDIATION INFRASTRUCTURE
- PHASE II REMEDIATION INFRASTRUCTURE
- SURVEYED ROAD CENTERLINE
- 201 ug/L URANIUM ISOPLETH
- LICENSED AREA
- CURRENT CERT PROPERTY LINE
- FINAL STATUS SURVEY SUBAREAS
- CONTROLLED AREA

NOTES

1) The controlled area is the fenced area.
2) pCi/L - picoCuries per liter.
3) Isopleths are drawn based on "representative" uranium concentrations, expressed in micrograms per liter (µg/L). With a conservatively estimated value of 1.3% for U-235 enrichment, the 201 µg/L isopleth, as shown, represents the 180 pCi/L isopleth.
4) Basemap: Google Earth June 2017

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FIGURE 2
LICENSED AND CONTROLLED AREAS IN BURIAL AREA #1

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environmental properties management, LLC

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Reviewer: EDULLE	Date: 4/27/2021

Coordinate System
NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet

Z:\Clients\ENS\CERT_ClientInfo\Sites\Database\Geospatial\Maps & Dwgs\ArcGIS\BMCD_Files\Arcdocs\2020\2020 - Licensed and Controlled Figures\Figure 2_ Burial Area 1 Licensed and Controlled AreasFigure 2_ Burial Area 1 Licensed and Controlled Areas
2021 BURNS & McDONNELL ENGINEERING COMPANY, INC.

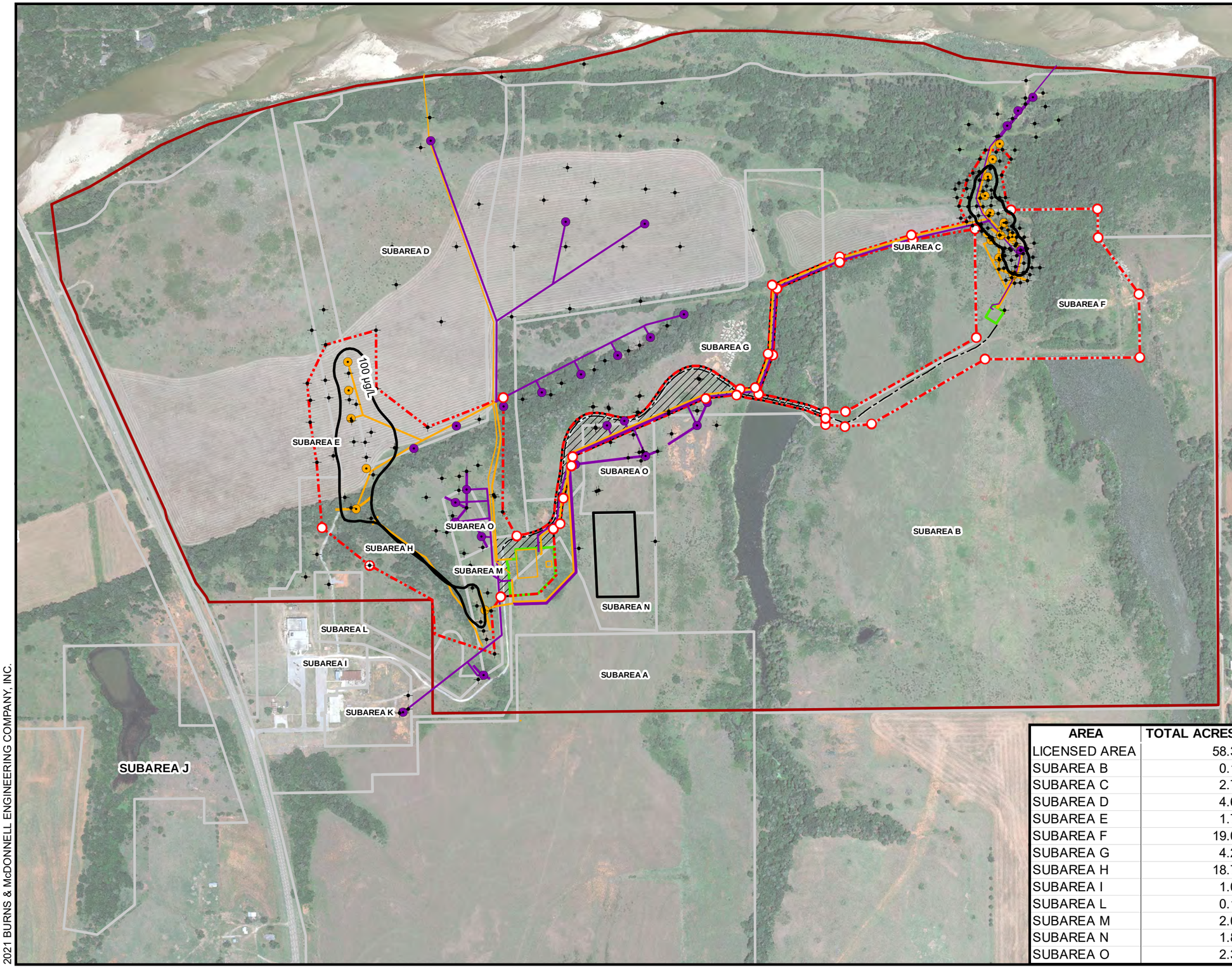

FIGURE 3
LICENSED AND CONTROLLED AREAS - SITE WIDE

BURNS McDONNELL
environmental properties management, LLC

LEGEND

- MONITOR WELL
- CAIRN
- PHASE I REMEDIATION WELL
- PHASE II REMEDIATION WELL
- PHASE I REMEDIATION INFRASTRUCTURE
- PHASE II REMEDIATION INFRASTRUCTURE
- EXTENT OF URANIUM > DCGL
- SURVEYED ROAD CENTERLINE
- LICENSED AREA
- CURRENT CERT PROPERTY LINE
- BURIAL AREA 4 (BA4)
- FINAL STATUS SURVEY SUBAREAS
- CONTROLLED AREA

AREA	TOTAL ACRES
LICENSED AREA	58.3
SUBAREA B	0.1
SUBAREA C	2.7
SUBAREA D	4.6
SUBAREA E	1.7
SUBAREA F	19.0
SUBAREA G	4.2
SUBAREA H	18.7
SUBAREA I	1.0
SUBAREA L	0.1
SUBAREA M	2.0
SUBAREA N	1.8
SUBAREA O	2.3

Notes

1) The controlled area is the fenced area.
2) Hatched areas denote parts of Subareas G and N that will remain under license.
3) Acreage listed in the table is acreage listed within the proposed license area that falls within that sub area.
4) Basemap: Google Earth June 2017

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SCALE IN FEET

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Reviewer: EDULLE	Date: 4/27/2021

Coordinate System
NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet

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Z:\Clients\ENS\CERT_ClientInfo\Sites\Database\Geospatial\Maps & Dwgs\ArcGIS\BMCD_Files\Arcdocs\2020\2020 - Licensed and Controlled Figures\Figure 3_ Licensed Corridor

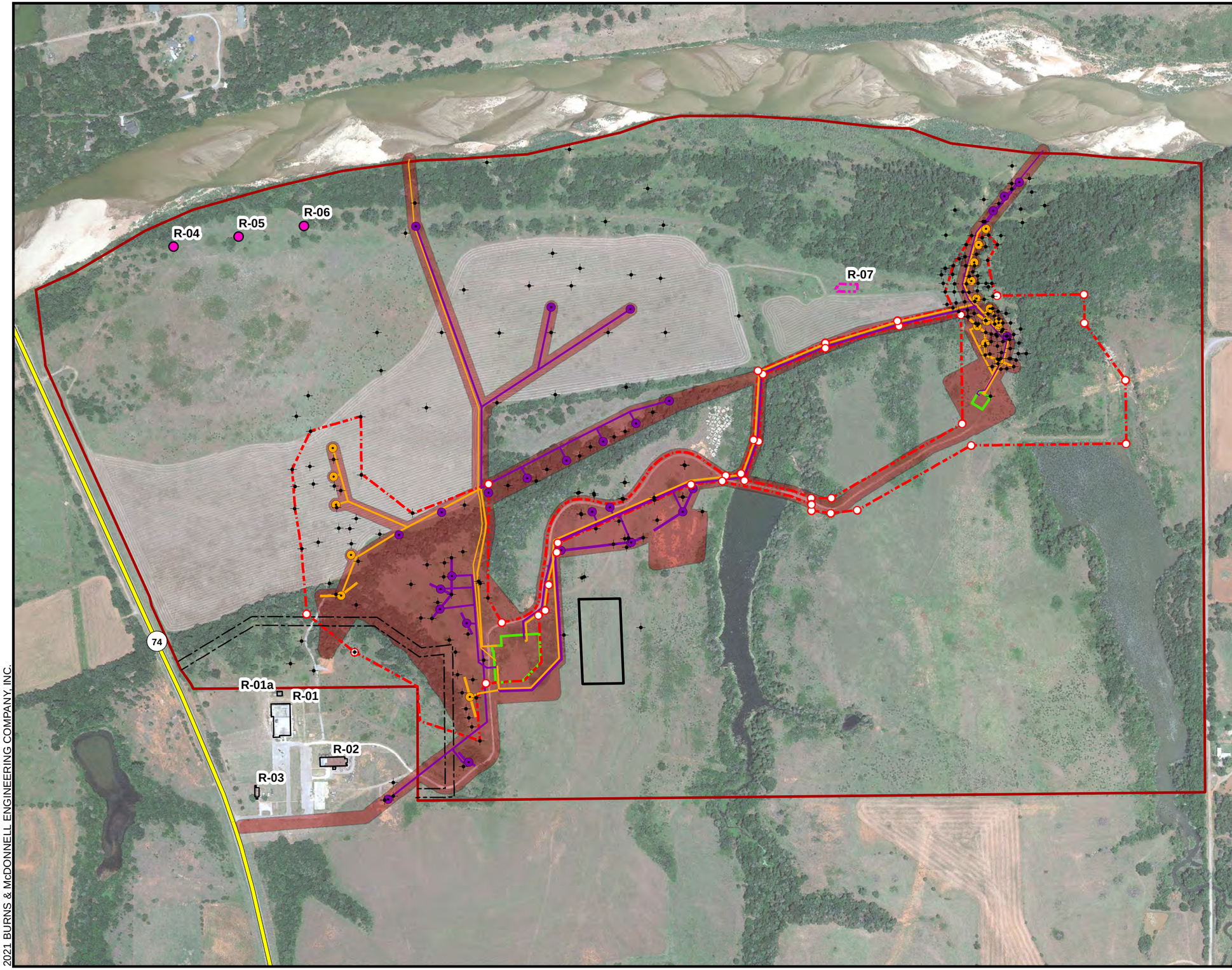

FIGURE 4
MAXIMUM POTENTIAL LAND DISTURBANCE
AND POTENTIAL HISTORIC RESOURCES

BURNS McDONNELL

environmental properties management, LLC

LEGEND

- MONITOR WELL
- CAIRN
- DIESEL PUMP
- PHASE I REMEDIATION WELL
- PHASE II REMEDIATION WELL
- PHASE I REMEDIATION INFRASTRUCTURE
- PHASE II REMEDIATION INFRASTRUCTURE
- OG & E EASEMENT (50 FEET)
- LICENSED AREA
- CURRENT CERT PROPERTY LINE
- BURIAL AREA 4 (BA4)
- HISTORIC CORRAL
- EXISTING BUILDING
- AREA OF POTENTIAL LAND DISTURBANCE
- CONTROLLED AREA

NOTES

R-01 - POTENTIAL HISTORIC RESOURCE

1) Basemap: Google Earth June 2017

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SCALE IN FEET

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	Rev No: 0
Preparer: BELOCKWOOD	Date: 4/28/2021
Reviewer: EDULLE	Date: 4/28/2021

Coordinate System
NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet

2021 BURNS & McDONNELL ENGINEERING COMPANY, INC.

Z:\Clients\ENS\CERT_ClientInfo\Sites\Database\Geospatial\Maps & Dwgs\ArcGIS\BMCD_Files\Arcdocs\2021\Licensed and Controlled AreasFigure 4_Maximum Potential Land Disturbance within the Licensed Area

ATTACHMENT 2
LOCATIONS OF CORNERS OF
PROPOSED LICENSED AREA

Preparer: B. Lockwood ; Date: 04/27/21
Reviewer: A. Anstaett; Date: 04/30/21

Cimarron Environmental Response Trust
Attachment 2
Locations of Corners of Proposed Licensed Area

Location	Marker	Easting (feet)	Northing (feet)
WA-01	Cairn	2,092,884	321,159
WA-02	Fencepost	2,092,901	320,893
WA-03	Fencepost	2,092,800	320,788
WA-04	Cairn	2,092,584	320,771
WA-05	Monitor Well	2,092,528	320,690
WA-06	Monitor Well	2,092,549	320,444
WA-07	Cairn	2,091,833	320,950
WA-08	Fencepost	2,092,191	320,753
WA-09	Monitor Well	2,091,833	320,950
WA-10	Cairn	2,091,560	321,167
WA-11	Monitor Well	2,091,531	321,541
WA-12	Monitor Well	2,091,492	321,771
WA-13	Monitor Well	2,091,476	321,994
WA-14	Monitor Well	2,091,582	322,213
WA-15	Monitor Well	2,091,869	322,295
WA-16	Monitor Well	2,091,872	321,962
WA-17	Monitor Well	2,092,165	321,742
WA-18	Cairn	2,092,598	321,911
WA-19	Monitor Well	2,092,595	321,258
WA-20	Cairn	2,092,675	321,119
BA1-01	Cairn	2,094,443	321,829
BA1-02	Cairn	2,094,558	321,830
BA1-03	Cairn	2,095,305	322,254
BA1-04	Cairn	2,095,298	322,876
BA1-05	Monitor Well	2,095,251	322,917
BA1-06	Monitor Well	2,095,207	323,008
BA1-07	Monitor Well	2,095,253	323,156
BA1-08	Monitor Well	2,095,358	323,328
BA1-09	Monitor Well	2,095,456	323,330
BA1-10	Monitor Well	2,095,505	323,277
BA1-11	Monitor Well	2,095,451	323,187
BA1-12	Monitor Well	2,095,474	323,056
BA1-13	Cairn	2,095,504	322,985
BA1-14	Cairn	2,096,000	322,992
BA1-15	Cairn	2,096,003	322,828
BA1-16	Cairn	2,096,237	322,503
BA1-17	Cairn	2,096,242	322,141
BA1-18	Cairn	2,095,356	322,130
BA1-19	Cairn	2,094,706	321,760
BA1-20	Cairn	2,094,554	321,743
BA1-21	Cairn	2,094,444	321,757
BA1-22	Cairn	2,094,443	321,793

Cimarron Environmental Response Trust
Attachment 2
Locations of Corners of Proposed Licensed Area

Location	Marker	Easting (feet)	Northing (feet)
CORR-01	Cairn	2,094,944	322,813
CORR-02	Cairn	2,094,935	322,842
CORR-03	Cairn	2,094,523	322,717
CORR-04	Cairn	2,094,524	322,685
CORR-05	Cairn	2,094,166	322,535
CORR-06	Cairn	2,094,138	322,556
CORR-07	Cairn	2,094,142	322,154
CORR-08	Cairn	2,094,113	322,162
CORR-09	Cairn	2,094,061	321,931
CORR-10	Cairn	2,094,041	321,969
CORR-11	Cairn	2,093,954	321,959
CORR-12	Cairn	2,093,934	321,926
CORR-13	Cairn	2,093,756	321,906
CORR-14	Cairn	2,092,995	321,573
CORR-15	Cairn	2,092,989	321,520
CORR-16	Cairn	2,092,942	321,333
CORR-17	Cairn	2,092,923	321,189

Note: Coordinates are NA 83 State Plane Oklahoma North feet

ATTACHMENT 3
BURIAL AREA #4
ADDENDUM TO WARRANTY DEED
AND
IMAGE OF DISPOSAL AREA CAIRN

After Recording, Return to:
Cimarron Corporation
Attn: Real Estate Dept. MT-1106
P.O. Box 25861
Oklahoma City, OK 73125

STATE OF OKLAHOMA
LOGAN COUNTY SS:
FILED FOR RECORD ON
2002 SEP 19 AM 10: 44
MARY LOU ORNDORFF
COUNTY CLERK

ADDENDUM TO WARRANTY DEED
NOTICE OF CONTAMINATED SOIL (CONTAINED)

KNOW ALL PERSONS BY THESE PRESENTS:

THAT, for the purposes of complying with the terms and conditions of that certain license known as SNM-928 (docket number 070-00925, Amendment 17) issued by the U. S. Nuclear Regulatory Commission to Cimarron Corporation, an Oklahoma corporation, notice is hereby provided that uranium-contaminated soil has been buried at the following location:

A piece, parcel, or tract of land located in the NW 1/4 of Section 12, Township 16 North, Range 4 West of the Indian Base and Meridian, Logan County, State of Oklahoma more particularly described as follows:

Beginning at a point 1,701.62 feet east and 682.23 feet north of the SW corner thereof

THENCE North 89 degrees 48 minutes 51 seconds East for a distance of 238.41 feet;
THENCE North 02 degrees 20 minutes 27 seconds West for a distance of 484.32 feet;
THENCE South 89 degrees 44 minutes 36 seconds West for a distance of 233.15 feet;
THENCE South 01 degrees 43 minutes 11 seconds East for a distance of 483.87 feet to the Point of Beginning.
Together with and subject to covenants, easements, and restrictions or records.
Said property contains 2.62 acres more or less.

The uranium-contaminated soil is buried in a containment cell at the following coordinates:

NW y 11145.87 N x 11718.84 SW y 10662.19 N x 11733.48
SE y 10663.04 x 11 971.91 NE y 11146.83 x 11952.29.

The total volume of uranium-contaminated soil in the containment cell is 452,186 cubic feet, and the total quantity of uranium is 0.98 curies. Markers are placed at the containment site.

The site owner and operator is Cimarron Corporation, P.O. Box 25861, Oklahoma City, OK 73125.

ATTEST:
SEAL
Assistant Secretary

CIMARRON CORPORATION

FORM APPROVED
LAW DEPT.

By: _____
S. Michael Logan, Vice President

STATE OF OKLAHOMA)
)
COUNTY OF OKLAHOMA)

RADIOACTIVE DISPOSAL AREA
OKLAHOMA
GRID
Y 10,663.04 N
X 11,971.91 E