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AUC LLC

The Reno Creek ISR Project
Campbell County, Wyoming

**ACCEPTANCE REVIEW
RESPONSE PACKAGE**

June 2013

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Water Resources***Item 1:******Please provide Addendum 2.7E (Hydrogeologic Integrity Test Report)*****Response**

The information has been included as a redacted version of the Hydrogeologic Integrity Test Report. The report has been redacted to remove references to properties that lie outside of the proposed Reno Creek Project boundary and to remove proprietary information not associated with the proposed project. The report is included as Appendix A to this response package.

Effluent Control Systems

Item 2:

Please provide Attachment I to Addendum 4-B (UIC 98-092 Permit)

Response:

This information has been consolidated into a single file and is included as Attachment B to this response package.

Item 3:

Please include a copy of the Reno Creek Project Class I UIC Draft Permit (09-621).

Response

AUC has included a copy of its Class I UIC Draft Permit (09-621) as Attachment C of this response package.

Public Health and Occupational Health***Item 3a:***

Please provide clarification in the Technical Report (TR) or the Environmental Report (ER) of the location of the nearest drinking water source (map or text references).

Response:

As discussed in TR Section 2.7.2.9- Groundwater Use (Page 2.7-62) the Taffner #1 well, located in Section 1, 42N, R74W, is the only domestic supply well within the proposed Reno Creek Project boundary making it the nearest domestic well to the project.

However, there are stock wells within the proposed project boundary and additional domestic and stock wells within two miles of the proposed project boundary. These wells are shown on Figure 2.7B-58, Groundwater Rights (excluding CBM, Oil, and Gas) within Two Miles of the Proposed Reno Creek Project Area (Page 2.7B-136), of Addendum 2.7- B.

Item 3b:

Please insert confirmatory text stating the Taffner domestic well will be properly abandoned.

Response

The application currently makes a commitment to plug and abandon the Taffner domestic well in both the TR and ER. Below are references to where in the application these commitments can be found and accompanying language:

- Reference – Technical Report Section 2.2.1 Current Land Use (Page 2.2-2)
“There currently is one residence (the Taffner homestead) located within the Proposed Project boundary (ER Figure 3.1-1), and five residential sites located within the five-mile land use review area outside of the Proposed Project boundary. Based on landowner correspondence, there are currently two occupants at the Taffner homestead and approximately eight occupants currently living in the five residences located outside the project boundary. The Taffner homestead is currently located where the proposed CPP will be located. AUC will acquire the Taffner property prior to construction and it will not thereafter be used as a residence. The domestic water well located at the Taffner residence will be plugged in accordance with all WDEQ Rules and Regulations and will not be used for consumption once construction begins.”
- Reference – Environmental Report Section 3.4.2.9 Groundwater Use (Page 3.4-64)
“There are 15 groundwater wells within the Proposed Project area that are noted on Table 2.7B-18. Six of these wells indicate that the water right has been cancelled. Of the nine wells with existing water rights, eight wells are appropriated for stock watering usage. The Taffner #1 well (located in Section 1, 42N, R74W) is the only domestic supply well in the Proposed Project area and is completed to the PZA at this location. AUC will acquire the Taffner property prior to construction and it will not thereafter be used as a residence. The domestic water well located at the Taffner residence will be plugged in accordance with all WDEQ Rules and Regulations and will not be used for consumption once construction begins.”

Item 3c:

Include a discussion on assumptions considered by the MILDOS-AREA model run for the Reno Creek Project for food pathways.

Response

As discussed in the Reno Creek Technical Report (TR) Section 7.3.2, food pathways considered by the MILDOS-AREA model include:

- Ingestion of vegetables
- Ingestion of meat
- Ingestion of milk

Doses are calculated using dose conversion factors, specified within the code, which are based on recommendations of the International Commission on Radiological Protection.

To address these food pathways, the following input parameters were included in the Reno Creek Project model runs:

- Areal Food-Production Rate (Ingestion of vegetables)
 - This is the vegetable production rate, in kg per year per km², at receptor locations. Section 2.2.1, Current Land Use, of the TR states that “In the surrounding five mile land use review area, surface use is nearly entirely livestock grazing rangeland, with some areas classified as non-irrigated cropland”. The non-irrigated cropland is for hay production. Since there are no vegetables known to be grown within the land use review area, this pathway was set to zero.
- Food Pathway Parameters (Ingestion of meat)
 - Pasture grass fraction – this is the fraction of the total livestock feed requirement that is assumed to be satisfied by pasture grass in the affected area. As discussed in TR Section 2.2.1, land use is primarily livestock grazing and hay production. This exposure pathway was set to the code’s default value of 0.5 for individual and population receptors.
 - Hay fraction – this pathway assumes that hay was grown in the affected area and was fed to cattle in the area. This exposure pathway was set to the code’s default value of 0.5 for individual and population receptors.
- Milk Pathway (Ingestion of milk)
 - The closest dairies are Brock Live Stock Company, 1145 Mayoworth Road, Kaycee WY, approximately 48 miles west of the project area, and Dale Mills & Sons, located

at 1313 State Highway 116, Sundance WY, approximately 73 miles northeast of the project area. Since there are no nearby dairy facilities no milk or milk products will be impacted by facility releases. This exposure pathway was set to zero.

- Impact of assumptions
 - The food pathway represents less than 1% of the estimated total effective dose equivalent (TEDE) associated with project operations.

Cultural and Visual Resources

Item 4a:

Include a description of the Area of Potential Effect (APE) and a map depicting this area.

Response:

The identified APE focuses on those portions within the Reno Creek Proposed Project Boundary which will contain all of the anticipated disturbance and ongoing activities of the project. The APE was developed after the completion of the license application; thus, includes all anticipated disturbance creating activities. It does not exactly correspond to several geographic areas specifically designated otherwise in the AUC license application. Three geographic areas related to disturbance were used in the license application:

1. Proposed Project Boundary. The Proposed Project Boundary comprises 6,057 acres, and all of the licensed activities of the project. However, AUC estimates that 92 percent of the Proposed Project area will not have licensed activities occurring on it;
2. Controlled Area. The Controlled Area incorporates the Central Processing Plant (CPP) and all of the Production Units which include the header houses and collector pipelines between wells and the header houses. It will also contain portions of the trunklines, deep disposal well pipelines, roads and powerlines. The Controlled Area consists of about 481 acres or approximately 8 percent of the Proposed Project area; and
3. Restricted Area. Restricted Areas lie solely within Controlled Areas; therefore, they will not contribute any additional acreage to the APE.

Anticipated Disturbed lands (all lands disturbed by AUC during construction, operation, restoration, and reclamation) will total an estimated 154 acres (License Application, Technical Report Table 2.1-2: Estimated Disturbance Calculations). While much of this is temporary, the lands are still disturbed to an extent that requires vigilance regarding cultural resources. Approximately 94 percent of the disturbance will occur within the Controlled Area.

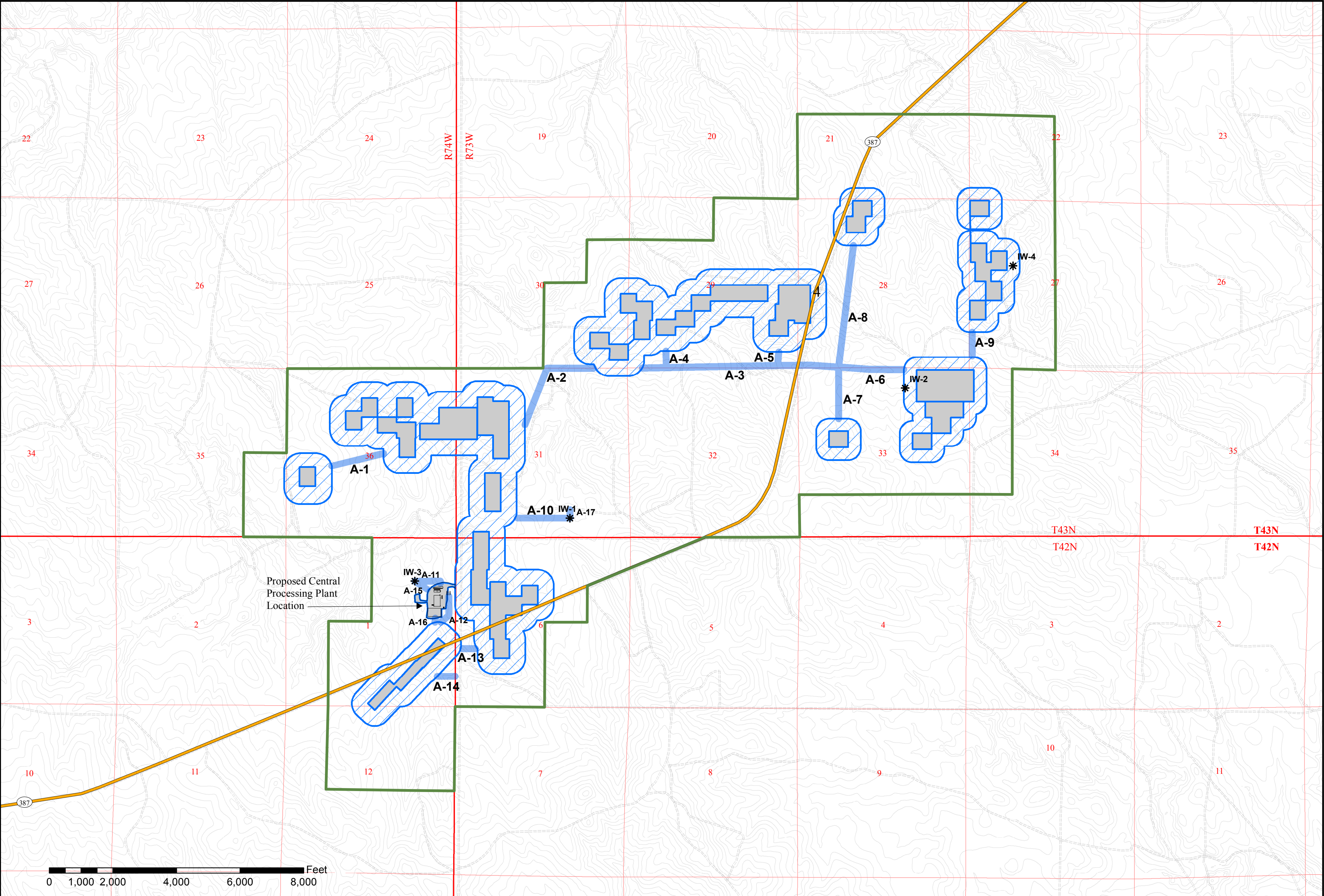
The boundary of the Controlled Area in the wellfield/production unit portion of the project is at the edge of the producing wellfield. Lying 400 to 500 feet outside of the wellfield/Control Area will be the ring monitor wells. While it is the intention of AUC to disturb only each monitor well site, limited road construction or other disturbance may occur between the wellfield and the monitor well ring and between each monitor well. Thus, the area between the monitor well ring and the Controlled Area should be included in the APE. This area incorporates approximately 1,119 acres, as shown on the attached figure titled "Area of Potential Effect".

In addition, pipelines and new roads and/or power lines may be constructed between the CPP and wellfields and between wellfields, in areas that are not in a Controlled Area. These limited areas should be incorporated in the area subject to tribal surveys. These corridors contain approximately 8.7 acres, as shown on figure “Area of Potential Effect”. The table below provides the estimated acreages for each of these corridors.

Thus, the total acreage that should be included in the APE is estimated to be 1,609 acres.

Table 1: Additional Area of Potential Effect

Additional Area of Potential Effect		Secondary Road	Main Trunkline	DDW Pipeline	Lateral Trunkline
Location	length (ft)	acres	acres	acres	acres
A-1	1,676	---	---	---	0.58
A-2	3,559	---	2.04	0.65	---
A-3	6,156	---	---	---	---
A-4	446	---	---	---	0.15
A-5	426	---	---	---	0.15
A-6	2,058	---	1.18	0.38	---
A-7	1,520	---	---	0.00	0.52
A-8	3,914	---	---	0.00	1.35
A-9	786	---	---	0.14	0.27
A-10	1,724	---	---	0.32	---
A-11	798	---	---	0.15	---
A-12	898	---	---	---	0.31
A-13	463	0.13	---	---	---
A-14	497	0.14	---	---	---
A-15	462	0.13	---	---	---
A-16	127	0.03	---	---	---
A-17	270	0.07	---	---	---
Subtotals		0.50	3.22	1.64	3.33
Total Acres	8.7				



Proposed Reno Creek Project
Cambell County, WY

AUC LLC
Lakewood, CO

Legend

Proposed Project Boundary

Controlled Area

Monitor Well Ring Area

Additional APE: Proposed Pipelines and/or Secondary Roads

*

Proposed Deep Disposal Well Locations

N

NAD 1983 StatePlane Wyoming East 4901 (Feet)

1"=2000'

Area of Potential Effect

FIGURE: TBD

Item 4b:

Include a viewshed map depicting the proposed operational areas potentially visible along the following public roads: Wyoming State Highway 387; Cosner Road; Turner Crest Road; and Clarkelen Road.

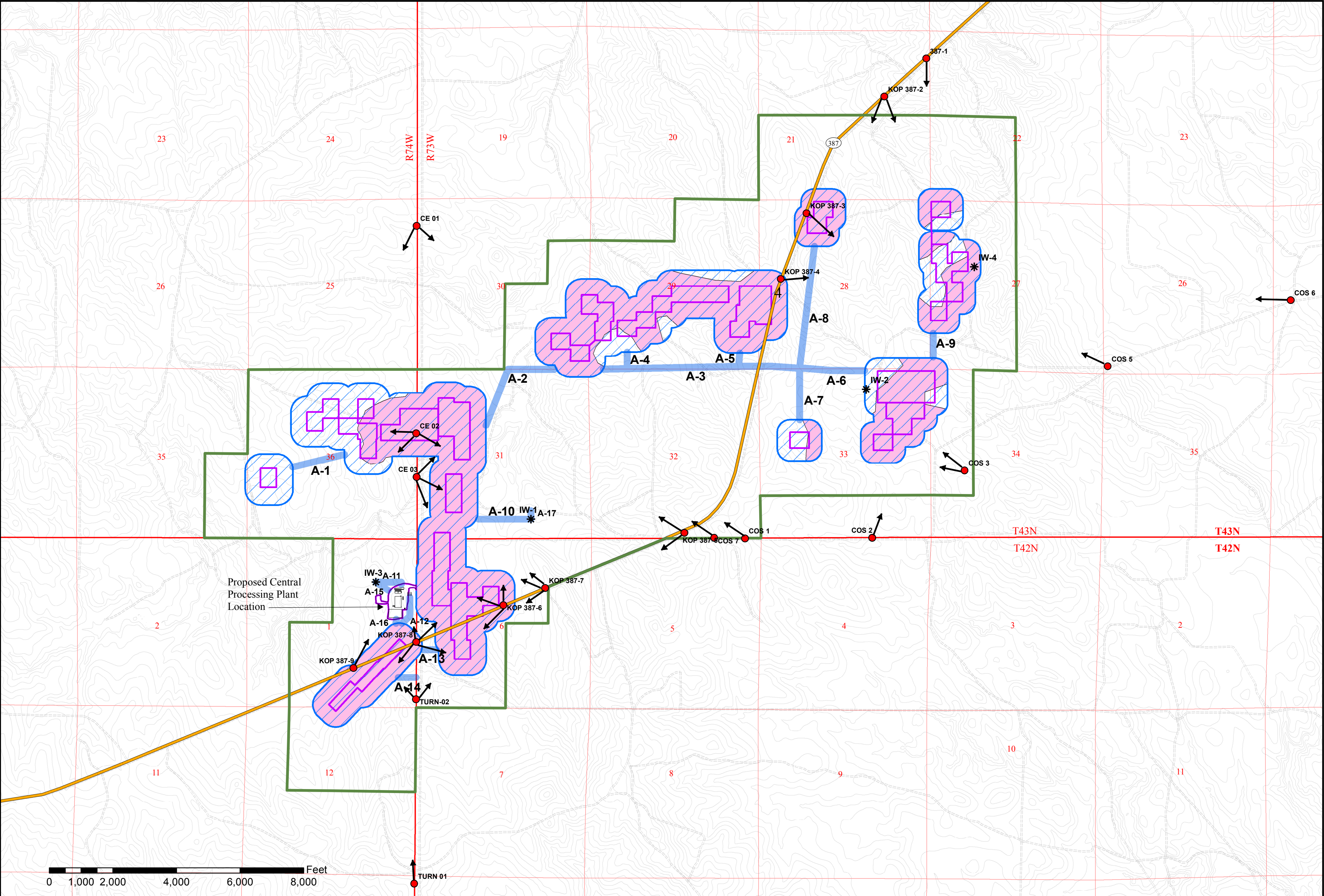
Response:

AUC conducted a visual APE evaluation along the proposed Reno Creek Project public roads on May 29, 2013. This evaluation was conducted to identify those portions of the proposed project operational areas which were noted to be visible, specifically along the following public roads: Wyoming State Highway 387; and Campbell County roads including Cosner Road; Turner Crest Road; and Clarkelen Road. AUC previously conducted a viewshed evaluation using the BLM Visual Resource Management (VRM) system (BLM Manual 8400, 2007) to evaluate the scenic resources for visual appeal of the Reno Creek Project area. The visual APE evaluation result is considered part of the VRM and does not alter the previous study results developed in July 2011, which shows the visual resource evaluation rating as 19 or less, a rating which does not require further evaluation for existing scenic resources and any changes to scenic resources from the proposed project facilities

AUC has also evaluated the potential for indirect visual impacts when the proposed processing and wellfield areas are viewed from the Pumpkin Buttes TCP, approximately 8.5 miles west northwest from the Proposed Reno Creek Project. The Pumpkin Buttes TCP was determined to be visible from mostly higher elevation areas across the proposed project area. Specifically, AUC conducted a visual evaluation looking towards the South Butte, which has communication towers on its top surface, from the proposed Central Processing Plant (CPP), which presently includes the Taffner house, shop structure and two 50-foot tall lifting cranes. AUC viewed the South Butte using the unaided eye and could not discern any visual details of the communication tower structures atop the South Butte or the south Middle Butte. However, AUC could visually identify the South Butte and South Middle Butte communication tower structures using a 20 power spotting scope when viewing from the proposed CPP area.

AUC then viewed the proposed CPP area from atop the South Middle Butte using the unaided eye. Again AUC could not discern any visual details of the proposed CPP area; however, AUC could visually identify the Taffner residence, shop and two cranes using a 20 power spotting scope when viewed from the South Middle Butte.

Below is a viewshed map depicting the APE visible along the public roads that traverse the proposed Reno Creek Project area.



Proposed Reno Creek Project
Cambell County, WY

AUC LLC
Lakewood, CO

Legend

- Proposed Project Boundary
- Controlled Area
- Monitor Well Ring Area
- Proposed Deep Disposal Well Locations

- Additional APE: Proposed Pipelines and/or Secondary Roads
- Potential View Areas
- View Location
- View Direction

NAD 1983 StatePlane Wyoming East 4901 (Feet) 1"=2000'

Visual APE Evaluation along
Reno Creek Project Public Roads

FIGURE: TBD

Item 4c:

Provide an explanation of the category headings in the “Site Summary Table” included in Addendum 3.8-A, Historic and Cultural Resources Report.

Response:

This table is a print out of an internet-based table developed by the State Historic Preservation Office (SHPO) for their record keeping. It is also used by federal agencies that have a cooperative agreement with the SHPO relative to the internet TRACKER system, which is used for such things as requesting and granting fieldwork authorizations and entering information on the SHPO cultural resource database. Each project must record all cultural resources on this table for use by the SHPO. These categories are set up for their use to accommodate entry into their digital database. The archeologists writing the report do the initial entry onto the internet database as part of the report writing process, and the database is updated and added to by participating federal agency archeologists (such as the BLM) and by the SHPO. As the report authors we do not change the categories or the way in which data is entered into them, which has been standardized by the SHPO.

1. ***Site/IR #:*** These are numbers assigned to cultural resources by the SHPO record’s division in Laramie. For an explanation of what constitutes a site, isolate, etc. see *Cultural Definitions* on page 11 of the report.
2. ***Site Type:*** Cultural resources must be designated a site, isolate, or isolated resource and for definitions of each see *Cultural Definitions* on page 11 of the report. A linear resource is a road or trail.
3. ***Prev Rec:*** Was the cultural resource previously recorded prior to the present recording. Y = yes; N = no.
4. ***Prev Eligibility:*** If the cultural resource was previously recorded, did the previous recorder evaluate the site as eligible for the National Register of Historic Places (NRHP), which is noted as *Eligible*, or not eligible for the NRHP and noted as *Not Eligible*. If there was no previous recording, this category is designated as *No previous eligibility*.
5. ***SHPO Concur:*** If the cultural resource was previously recorded, was the eligibility recommendation of that recorder reviewed by the federal agency and SHPO, and did the SHPO concur with that NRHP evaluation. Y = yes they did; N = no they did not concur or there was no previous eligibility with which to concur.

6. **Current Eligibility:** The evaluation of the site for the NRHP by the current recorder. As above in #4, it is either eligible for the NRHP and noted as *Eligible* or not eligible for the NRHP and noted as *Not Eligible*.

7. **Criteria:** There are four main criteria for evaluating sites as to whether or not they are eligible for the NRHP. If the site is evaluated as eligible, it will have an A, B, C, or D listed in this column regarding which criterion pertains. The criteria are briefly summarized below:

- Criterion A: The site is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: The site is associated with the lives of persons significant in our past.
- Criterion C: The site embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: The site has yielded, or may be likely to yield, information important in prehistory or history.

8. **Contrib?:** Sites, especially large sites, can have portions that contribute to their NRHP eligibility and portions that do not. If the site has a portion that contributes to either A, B, C, or D listed above to make it eligible for the NRHP, and that portion is within the present project area, the box is marked by Y (yes). If the site does not have a contributing portion within the project area, this box is marked N (no).

9. **In APE Y/N:** The APE refers to the Area of Potential Effect. If the cultural resource is within an area that could potentially be affected by the project, this box has a Y (yes). If it not within the Area of Potential Effect, the box is marked N (no).

10. **Collect Y/N:** A Y is placed in this category if artifacts were collected from the cultural locality during the project fieldwork. An N is placed in this category if artifacts were not collected from the cultural locality during the project fieldwork.

11. **Owner:** The surface ownership (i.e., BLM, Forest Service, Private) is shown here.

12. **T:** Township of the cultural resource legal location.

13. **R:** Range of the cultural resource legal location.

14. **S:** Section of the cultural resource legal location.

15. **Proposed Mitigation:** Recommendations for further work (or not) made by the field archeologists. This category includes such things as:

No further work. No further work is recommended for the cultural locality.

Avoid: Avoid the cultural locality by any earth disturbing activities associated with the undertaking.

Test. The cultural locality needs an archeological test before evaluation can be confirmed.

16. **Comments:** The field archeologist makes any comments that should be considered by the SHPO.

17. **¼'s:** Quarter section designations for the cultural resource legal location.

Item 4d and 4e:

Response:

This information is considered confidential since it includes cultural localities identified in the Historic and Cultural Resources Report and is provided to the NRC on its own CD-ROM in confidence under the provisions of 10 CFR 2.390.