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October 9, 1981

#0367507
REGISTERED - RETURN RECEIPT REQUESTED

Mr. Robert Hagen
Acting Director
Office of Surface Mining
Brooks Towers
1020 15th Street
Denver, Colorado 80202

RE: Determination of Apparent Completeness
Sage Point-Dugout Canyon Mine
ACT/007/009
Carbon County, Utah

Dear Mr. Hagen:

The Utah Division of Oil, Gas and Mining has completed the review of the Mining and Reclamation Plan (MRP) and amendments submitted by Eureka Energy Company for their Sage Point-Dugout Canyon Mine. This Division will determine the plan to be apparently complete and will notify the applicant and all appropriate State and local agencies having jurisdiction or interests in the area of mining operations according to UMC 786.11(b)(c) upon written receipt of OSM concurrence. It is our understanding that OSM will publish a notice in the Federal Register outlining a joint DOGM/OSM decision on this matter and therein notify all appropriate Federal agencies.

Mr. Nick Temnikov of Eureka Energy assures the Division that he can clear up the completeness questions that have tripple asterisks (***) within the next week. The Division is now proceeding with the Apparent Completeness Determination for the Genwall and C&W Mines.

Should any questions arise, please feel free to call myself or Leland Spencer of my staff.

Sincerely,

JAMES W. SMITH, JR.
COORDINATOR OF MINED LAND DEVELOPMENT

JWS/te

cc: Nick Temnikov

DETERMINATION OF COMPLETENESS
SAGE POINT-DUGOUT CANYON MINES
EUREKA ENERGY COMPANY

UMC 771.27 Verification of Application

The verification of the application has not been notarized or certified.

Determination of Completeness

The applicant has provided a notarized verification of the application.

UMC 782.13 Identification of Interest

(e) Kaiser Steel Corporation is shown on the coal ownership map (Figure D03-0005), but is not listed in the narrative (pages I-22 and 23). This oversight should be corrected.

Determination of Completeness

The applicant has inserted Kaiser Steel Corporation in the listing on page I-22A.

Coal ownership has been provided, but other subsurface owners of minerals other than coal have not been included. The regulation also requires the names and addresses of all subsurface owners contiguous to any part of the proposed permit area.

Determination of Completeness

The applicant has listed subsurface mineral owners on page I-17A(1) through I-17A(3). The areas of ownership are delineated on Map 003-0001.

UMC 782.15 Right of Entry and Operation Information

(a) A description must be provided to describe on what the applicant bases its legal right to enter land owned by LaRue Layne, et al., which appears to be designated for surface facilities (Drawing 03-0004). A surface owner consent agreement should be included on page I-39.

Determination of Completeness

The approval of the permit would require a condition that evidence of right-of-entry be provided by Eureka on lands owned by LaRoe Layne et al prior to any mining activities on these lands. The application is complete as possible by providing the status of negotiations on page I-38A.

A long-term lease is being sought from the State of Utah; however, right-to-enter information for State-owned surface areas is also required before a permit can be issued. Information as to the progress of this lease application is needed.

Determination of Completeness

The approval of the permit would require a condition that evidence of right-of-entry be provided by Eureka on State lands through special use leases and right-of-entry easements prior to any mining activities on State lands. The application is as complete as possible providing the status of these leases and easements on pages I-39A(1) and I-39A(2).

Descriptions of some of the lands do not seem to match their placement on the ownership map: Area 6 as shown on the map should be NW1/4 SW1/4, not NW1/4 SE1/4, and area 10 as shown on the map should be W1/2 SW1/4, not W1/2 SE1/4. The applicant must correlate the written descriptions with the map.

Determination of Completeness

The applicant has corrected these errors on pages I-35A and I-37A.

UMC 782.19 Identification of Other Licenses and Permit

The applicant should make application for drive-way permits to County or State highway authorities for roads entering or exiting public right of ways.

Determination of Completeness

The applicant has provided a revised Table II-G.1 including driveway permits and right-of-ways, as well as committing to make application to MSHA for permits six months prior to mining.

UMC 783.12(b) General Environmental Resources Information - Cultural Resources

1. The Division of State History finds the application is deficient in that historic work has not been completed on the project, and determination of the eligibility of some of the historic sites has not been completed. This should be done as part of the report before resubmitting it.

Determination of Completeness

The applicant provided a document entitled Historic Sites Evaluations in the Sage Point-Dugout Canyon Project, by T. Michael Smith. The report analyzes eligibility of the historic sites.

2. A complete description of each cultural resource site is needed. The descriptions should include the specific results of the artifact analysis relating to temporal placement and site function. Maps and illustrations where needed should be referenced.

Determination of Completeness

Updated site forms have been furnished to the Preservation Office.

3. Site collection techniques need to be discussed. Table IV-1.2, for example, indicates that some sites and certain artifact types were collected while others were not. What is the underlying rationale for collecting and not collecting?

Determination of Completeness

*** Collection policy is outlined in updated report, rationale for collecting or not collecting is not explained.

4. A statement that the National Register of Historic Places was checked as well as the results of the check is required.

Determination of Completeness

*** No mention of a National Register check and results of that check are mentioned in the submitted documents.

5. Discussions of site eligibility and significance are confusing and inconsistent. Sites that have the potential to yield scientific information, both on a site-specific basis and on a regional scale, are considered eligible for nomination to the National Register of Historic Places pursuant to criterion (d) in 36 CFR 60.6. Under this criterion, the sites do not warrant in-place preservation; in fact, they realize their significance only when the data is collected, analyzed and the information disseminated. Eligibility and significance determinations need to be done on a justified site-specific basis. Specific reasons for inclusions or exclusion of a site in regards to National Register status needs to be presented. Field "testing" for eligibility should be kept to a minimum both in numbers of sites and the extent of testing on each site. "Testing" should determine presence of subsurface materials, what types of materials and what type of information could be gained from the site.

Determination of Completeness

Clarification of eligibility has been submitted by AERC in updated reports.

6. If eligible sites will be impacted by construction of mine facilities, a site(s) specific plan to mitigate the impact will be necessary. This plan should be prepared in accordance with the Advisory Council on Historic Preservation Guidelines for Making "Adverse Effect" and "No Adverse Effect" Determinations for Archaeological Resources in Accordance with 36 CFR Part 800.

Determination of Completeness

The plan has been submitted referencing the handbook.

7. A single or several maps outlining the mine plan area, the areas surveyed (intensive, sample), area of potential surface disturbance and site locations is needed. The Proposed Permit Area in the mine plan could be used as the base map.

Determination of Completeness

The map has been submitted.

8. What is the status of the "Historic Sites" documentation?

Determination of Completeness

The documentation has been submitted.

UMC 783.14 Geology Description

Information included under geology (page II-36) and mining sections indicates that there may be geologic hazards (e.g., faults). Pursuant to 30 CFR 211.10(c)(2), the applicant should state their assessment of potential geologic hazards including practices to eliminate or mitigate these hazards where necessary.

Determination of Completeness

The USGS acknowledges that 30 CFR 211.10(c)2 as pursuant to Geologic hazards has adequately been covered by the applicant on pages 4 and II-36A of the addendum.

UMC 783.15 Ground Water Information

The estimate of the hydraulic gradient provided on page II-67 cannot be accurately utilized unless well completion information (including locations of the perforations) on the Walton Well is provided. Also, Table IV-B.1: Column heading "Altitude of Perforated Zone," should read "Depth from Surface to Perforated Zone."

Determination of Completeness

- * The applicant has corrected the table heading to read "Depth of Perforated Zone" on Table IV-B.1. The applicant has provided all of the available information for the Walton Well from the driller's log. The applicant has also included completion information from the Whitmore Park 1 and 2 wells.

Ground water quality has not been presented in such detail as to identify seasonal trends.

Determination of Completeness

- *** The applicant has provided additional available data for spring samples on Table IV-B.3. Figure IV-B.2 1/2 is a graph depicting seasonal variations in ground water quality for the regional and perched aquifer. The applicant justifies the rationale for using the spring samples for these two aquifers on page II-76A(1) and (2). Additional supporting information is contained on pages II-89A through II-92A (See DOC under UMC 783.16[b][2]).

UMC 783.16(b)(2) Surface Water Information

Water quality data from surface streams is presented for 1976-79 on a schedule of no more than three times a year during any one year. The adequacy of the surface water quality data as presented to identify seasonal variation is questionable. The applicant should assess the seasonal variation in the data in terms of the requirements of UMC 783.16(b)(1) and (2).

Determination of Completeness

- *** The applicant has included water quality in Table IV-B.14 and discussed seasonal variations on pages II-110A(1) and (2). The data appear to be adequate to identify some seasonal trends, but the regulatory authority requests the submission of sample analyses acquired since February 1981, prior to making a final determination on both the surface and ground water monitoring data base. The applicant has asked for a reduction in monitoring frequency and intensity from selected sites for the mine plan area. Prior to making a decision on this request, the regulatory authority requires the complete record of analyses to date for both surface and ground water monitoring sites.

UMC 783.17 Alternative Water Supply Information

Many of the springs located above the mine area are used for stock watering. If these are dried up by mining, what alternate water sources could be developed? This may apply to 784.14(a)(2).

Determination of Completeness

The applicant must commit to providing water for livestock at or near the springs if they dry up. The regulatory authorities may wish to condition this prior to approval of the permit. This may require a determination from the Utah Division of Water Rights.

The applicant discusses the operational impacts on surface springs and perched aquifers (Section 7.2.2); however, the applicant must discuss the potential impacts of mining on the interbedded sandstone units of the Blackhawk Formation and Castlegate Sandstone--which act as aquifers.

Determination of Completeness

The applicant has discussed the potential impacts of mining on the interbedded sandstone units of the Blackhawk Formation and the Castlegate sandstone on the additional pages II-89A through II-92A.

Will the "subsurface flow" from the regional aquifer(s) be intercepted and/or impacted by the mining operation?

Determination of Completeness

The applicant admits that the regional aquifer flow may be intercepted by subsidence fractures caused by mining. The regional aquifers of consequence are in the North Horn and Flagstaff formations which are perched above the Blackhawk and Castlegate formations where mining will proceed. The applicant suggests that the overall drainage basin would not be disturbed since the intercepted water would appear elsewhere, recharge may be enhanced if fractures reach the surface and the strata over the long-term may be self-healing due to shales becoming saturated and plugging fractures. The applicant also points out that the North Horn and Flagstaff aquifers are not developed by wells in the area.

UMC 783.19 Vegetation Information

Shrub density data is needed for the shrub-grass-juniper and greasewood-sagebrush communities to set a standard for shrub stocking rates for revegetation. The density of shrubs should be sampled at an intensity sufficient to detect a 10 percent change in the mean with 80 percent confidence.

Determination of Completeness

Shrub density data for the shrub-grass-juniper and greasewood-sagebrush communities are reported on pages 6, II-294A(3) and II-294A(4) of the addendum.

A reference area or alternative standard must be proposed for each potentially disturbed community. Specifically, a standard for the 6.4 acres of Farmland-Weed (Field and Weed?) community must be described and correlated to the revegetation plans on page II-304 through II-309.

Determination of Completeness

An acceptable standard and revegetation plan for the farmland-weed community is proposed on pages 6, II-300A and II-305A.

The applicant should indicate the specific sizes and range condition of each reference area selected.

Determination of Completeness

Sizes and range condition of the reference areas are presented on page II-300A.

[Note: Please be reminded of the sampling intensity requirements for determining revegetation success as set forth in UMC 817.116-.117. These performance standards require sufficient sampling to detect a 10 percent change in the mean with 90 percent statistical confidence, or for shrublands, an 80 percent confidence level. All calculations should utilize the two-tailed t-test values. Due to the nature of the vegetation, these parameters may be difficult to meet. If this occurs, the regulatory authority should be consulted.]

UMC 784.11 Operation Plan: General Requirements

Parameters used to calculate mineable reserves include a mining limit boundary of 500 feet from the outcrop. It is recognized that oxidation, including burning, may penetrate more or less than 500 feet from the actual outcrop of the coal seam. Before any mining is arbitrarily stopped 500 feet short of the outcrop, site specific plans will be submitted to the U. S. Geological Survey proposed that with the concurrences of the surface interest some coal within the 500 foot boundary can be recovered in a safe and environmentally acceptable manner. The applicant may wish to specify the minimum depth of overburden as a parameter due to the safety hazards associated with shear caving and subsequent subsidence damage. These locations may be site specific. Does the applicant intend to limit mining at outcrops based on overburden depth, i.e., subsidence.

Determination of Completeness

The USGS finds that the parameters for recovery of the reserves have been satisfactorily covered in the company's response to UMC 784.11 on page 7, I-202A(1) and I-202A(2) of the addendum. (30 CFR 211.10[c][6][x])

The mine plan for a logical mining unit under 30 CFR 211.10(c)(6)(ii) must show the mining of all the reserves in a period of not more than 40 years. The complete recovery period is shown as 46 years for the Dugout Canyon Mine #2. Rather than redraft the underground mine plans to reflect the 40-year depletion, USGS will accept a formal statement from Eureka of a proposal to reduce the mine life to 40 years. Future revisions of the mine plan maps can reflect this proposal.

Determination of Completeness

The USGS finds that the statement requested relative to a 40-year mine life has been properly submitted under the company's response to UMC 784.11 on pages 8 and I-233A(1) of the addendum. (30 CFR 211.10[c][6][ii])

Submit as a part of the mining and reclamation plan the complete Roof Control and Ventilation System and Methane and Dust Control Plans approved by Mine Safety and Health Administration (MSHA). Change any data or information in this submittal that may be in disagreement to the plans approved by MSHA.

Determination of Completeness

The USGS finds that the request for inclusion on an integral part of the mining plan copies of the approved Roof Control and Ventilation System and Methane and Dust Control plans has been adequately covered in the company's response to UMC 784.11 Operation Plan on page 8 of the addendum.

(b) The water supply system for fire protection and dust suppression along the overland belt conveyors must be protected against freezing during the winter months if it is to remain operational. The method for assuring this should be described.

Determination of Completeness

The applicants response to assure that dust suppression system will not freeze is adequate by use of antifreeze, insulation, burial and heating.

Formaldehyde treated wastes from chemical toilets would be transported to the sewage lagoons for disposal (page I-135) and biological and chemical sludges would be disposed (page I-136). Table II-G.1 suggests that the Environmental Protection Agency has approved these actions. What are their conditions on the approval? The applicant must demonstrate that use of sewage lagoon effluent for road dust suppression will not result in toxic impacts to biologic and hydrologic systems. The Utah State Division of Health, Bureau of Water Pollution Control must approve this use of sewage effluent.

Determination of Completeness

- * The applicant has abandoned the proposed use of sewage lagoon effluents for dust suppression. The applicant's disposal of evaporates (sludges) from the pond cannot be approved without testing at the time of disposal to assure these materials will be suitable for reclamation soils additives. The EPA and Utah's Division of Health must concur with this disposal procedure. The applicant agrees to monitor ground water surrounding the evaporation pond, if required.

The use of water on the coal storage piles may create a spontaneous combustion potential. The applicant might investigate this practice if the coal turns out to be reactive.

Determination of Completeness

The applicant acknowledges the hazard of wetting the coal storage pile and will remove hot spots and recompact during operations. The applicant will wet the coal for dust suppression and this practice is standard procedure.

UMC 784.13 Reclamation Plans: General Requirements

A definitive revegetation plan for the rock waste disposal site should be stated. Confusion exists in the plan as to the topsoil removal and replacement and subsequently revegetation. Conflicting statements and plans are located on pages I-170, I-299, I-314 and II-308.

Determination of Completeness

A definitive and acceptable revegetation plan for the rock waste disposal site is presented on pages 10, I-170A and I-314A.

The applicant should provide justification for not reclaiming the Fish Creek waste rock disposal area and the Dug Out Canyon waste rock disposal area contemporaneously with construction (UMC 817.100) over the live of these facilities.

Determination of Completeness

The applicant has submitted a contemporaneous reclamation plan for waste rock disposal areas in Fish Creek and Dugout Canyons on pages 10 and I-299A.

As noted under UMC 783.19, the plan is not definitive concerning the standard of revegetation success for the farmland-weed vegetation type. Specific plans are also not addressed under revegetation, pages II-304-309, although the maps indicate reclamation to the greasewood-sagebrush vegetation type. However, the fish and wildlife plan on page II-414 discusses restoration and possible enhancement of agricultural areas for wildlife use. Provide a definitive reclamation plan for this site.

Determination of Completeness

A definitive reclamation plan for the farmland-weed vegetation type is presented on pages 6, II-300A and II-305A.

Several citations are given in the narrative (Section IV) for references which are not listed in the "literature-cited" section. These omissions should be added to the literature-cited list.

Determination of Completeness

The missing citations are included on pages II-348A(1) through II-350A(2).

Accumulated sludge from the containment lagoons must be analyzed to show its toxicity or nontoxicity before utilizing it in reclamation. Submittal of this analysis upon initial operations will determine whether a special plan for disposal is required. The applicant must demonstrate that the coal processing waste/development waste is non-toxic and non-acid forming for evaluation of plans compliance with UMC 817.48 and UMC 817.85.

Determination of Completeness

The applicant states on page 11 that any soil or sludge to be used for reclamation will be tested beforehand to determine its suitability, along with its belief that development waste is nontoxic and nonacid, based upon the experience of other Utah mines.

UMC 784.14 Reclamation Plan: Protection of Hydrologic Balance

Application states: "observation wells will be completed in each of the several water-bearing geologic formations that may be affected by mining." What formations will be affected? When and where will the wells be drilled and completed?

Determination of Completeness

The applicant states that the monitoring wells have been completed. Information on completion zones, formations to be affected, etc., is provided on page II-91A and listed in Table IV-B.1 of the addendum.

(a)(3) The applicant states that all water intercepted in the mining activities will be utilized within the mine during operations with a large reservoir to form underground. There will be no discharge occurring to the outside. "If there was a discharge, it would be of better quality than the local springs." The water quality from older mines in the area tend to contradict this statement, exhibiting up to double the chemical concentrations of spring waters.

Determination of Completeness

*** On pages II-111A, 112A and Table IV-B.3 of the addendum, information has been presented in support of the statements made in the original MRP. The Division requests that any additional ground-water analyses taken since February of 1981, be submitted to further substantiate the information currently on file.

Applicant should justify the reasons for nondischarge with the use of profiles through the portals. As well as justify, that after coarsing through the mine and exposure to mined area contaminants such as oil, grease, etc. that water quality would be better than springs.

Determination of Completeness

The applicant has presented a cross section, Figure B03-0039 which represents the profile through any portal in any coal seam. The coal beds dip away (N 10° E) from the east-west facing coal outcrops. Monitoring of water level fluctuations in abandoned mines on the area has also shown no discharge from these mines (Table IV-B.7). The floor of the mine will slope downward from the portals at a five to seven degree angle.

Table IV-B.3 and pages II-111A through 114A of the addendum present water quality information from within abandoned mines and from a spring #63 representative of natural outflow from the regional aquifer below the coal mine.

(a)(4) Any discharges of waters from underground mine entries and access ways must be in accordance with UMC 817.50, and a NPDES permit must cover discharge points prior to discharge.

Determination of Completeness

On page 12 of the addendum, the applicant has committed to filing for an NPDES discharge permit within the month of this latest ACR resubmission. A copy of the application form or the issued NPDES permit number will be required by the regulatory authority prior to issuance of the mining permit.

(b)(3) Provision for monitoring collecting, recording and reporting of water quality and quantity data, per UMC 784.14(b)(3), is not included. Section IV b.1.2.2. of the application states that water quality sampling "will continue relatively unchanged"; however, more specific information (especially for streamflows) should be provided (e.g., sampling frequency, parameters monitored, etc.).

Determination of Completeness

The applicant has provided a new section to describe the proposed water monitoring plan during operations (Section IV-B.1.2.4, pages II-72A[1] to II-72A[4]). This plan has been deemed adequate by the regulatory authority.

Table IV-B.2 lists over 40 springs with varying water quality and quantity parameters (Table IV-B.11a). The applicant needs to provide rationale for selecting springs (D-13-12) 9ddc-S1 and (D-12-13) 23ccb-S1 as representative ground water quality sources for monitoring (page II-92).

Determination of Completeness

The applicant has provided rationale for the selection of these springs on page II-92A of the addendum.

The applicant should discuss the existing water use or diversion (including irrigation ditches) downstream of the project area. The impacts of decreased flow in Soldier and Dugout creeks below the surface facilities as a result of consumptive water use in the mining operation must be analyzed.

Determination of Completeness

- * On pages I-130A-130A(2) the applicant discusses existing water use downstream of the project area. The applicant states that consumptive use of Soldier Creek water due to mining operations will have little affect on downstream uses of water as there are no agricultural water rights below the permit area dependant upon Soldier Creek water not owned by Eureka. Also, the lower reaches of the Creek will continue to produce stockwater from recharge from the alluvial aquifer. Consumptive use on Dugout Creek water is extrapolated to be similar to the Soldier Creek situation. The applicant is currently applying for a change of its present irrigation rights to industrial. Ultimately, this issue may require resolution by the Utah Division of Water Rights.

It is proposed that the culvert in Fish Creek Canyon will be backfilled with suitable material at the conclusion of mining, and drainage will be allowed to cascade over the outslope of the portal pad. The applicant must submit calculations on longterm post reclamation stability of the gabion structures and erosion control. The regulatory authority will approve this type of plan with substantial evidence on longterm post-reclamation stability.

Determination of Completeness

- * The applicant has provided a response to this question, but no commitment to mitigation or a maintenance provision for long-term stability. A commitment from the BLM to provide responsibility and/or maintenance upon cessation of mining activities may be acceptable. Otherwise the applicant must provide some other means of minimizing the stability problem or justification why a plan is not necessary for compliance.

(c) Will seepage rates or ground water subsurface flow be monitored around the sewage lagoons? What is the potential for migration of contaminants to surface waters or contamination of any ground water in the area?

Determination of Completeness

The applicant has provided only preliminary design plans for the sewage lagoons. Initial studies would indicate low potential for contamination of surface or ground waters due to the nature of the terrain and geology within the area. More detailed soil testing and foundation analyses will be performed prior to development of final design plans and construction. Applicant has committed to monitor the surface and ground water if there is any migration of contaminants. These plans and designs must be submitted nine months prior to the tentative construction date.

(d) Applicant must submit proper maps and plans for sealing of entries to ensure stability under anticipated hydraulic heads developed after mine closure.

Determination of Completeness

The permanent plans and maps for sealing the entries are shown in Section III-D, Reclamation Plan 2.2 (784.13[b][8]) page I-281 through 283. See other related comments above in UMC 784.14.

UMC 784.15 Reclamation Plan: Postmining Land-Uses

In order for the regulatory authority to assure a satisfactory postmining land-use, the description of the proposed postmining land-use must be accompanied by a copy of the comments concerning the proposed uses from the legal or equitable owners of record of the surface areas to be reclaimed as well as state or local government agencies which would have to initiate, implement, approve or authorize the proposed uses.

Determination of Completeness

- * Since DOGM has not received a response from the BLM or the State concerning postmining land-use, the following may be included as a stipulation to the final approval:

"Postmining land-use will not be determined to be satisfactory until concurrence is received from the surface landowner and the appropriate and local government agencies."

UMC 784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams and Embankments

(a)(1)(iii) The applicant should provide data that was used to determine the seepage rates for the reservoirs for the underlying Mancos shale? Does the applicant propose the percolation tests.

Determination of Completeness

The applicant has provided preliminary design plans for the dams and reservoirs in the mining and reclamation plan. Justification for the seepage losses utilized in these preliminary designs is given on page 15-17 of the addendum. Final designs will be submitted for approval nine months prior to construction.

(a)(2) The applicant must clearly address MSHA and Division of Water Rights, Dam Safety requirements, including stability analysis, with regard to structures meeting or exceeding MSHA and State criteria (i.e., Anderson Reservoir, Dugout Reservoir).

Determination of Completeness

- * The applicant has committed to providing final design plans to the Utah State Engineer of the Division of Water Rights according to designs outlined in the document, "Requirements for Dam Construction in Utah."

The regulatory authority has contacted MSHA in reference to compliance with the 30 CFR 77.216 regulations concerning design of dams impounding greater than 20-acre feet of water. Their response indicated that since the reservoirs are tied to the mining operations, the Federal regulations will apply as well. The applicant must obtain approvals from both the State and Federal agencies and submit copies of approvals to the regulatory authority prior to issuance of a mining permit.

(a)(2)(iii) Dugout Reservoir would have a design capacity for 20 acre feet for sediment storage (page I-116). The applicant should provide a maintenance plan describing the method, frequency, and disposal of sediment for the Anderson Dam and the Dug Out Reservoir.

Determination of Completeness

The applicant has presented a general plan as required by UMC 784.16 for the maintenance of the reservoirs in the MRP and provided some additional information, as currently available, on pages 17 and 18 of the addendum. A detailed plan for maintenance and operation will be submitted for approval when the final design plans for both reservoirs are drafted. Plans must be received nine months prior to construction initiation.

Dugout Reservoir would be left intact at the end of mine life (page I-280). Assuming the reservoir would be cleaned of sediments at that time, how many years would lapse prior to the reservoir due to be cleaned of siltation. Who will assume responsibility for the reservoirs at that time?

Determination of Completeness

The applicant has presented information on page 18 of the addendum addressing this question. The applicant feels that the majority of sediment will be entrapped and fall out within the diversion canals. The sediments will be periodically removed during the life of the operations. After operations, the water rights and impounding structures will be sold as a package with maintenance responsibilities included. Final design plans and maintenance details must be submitted for both reservoirs nine months prior to construction.

UMC 784.18 Relocation of Use of Public Roads

The applicant describes belt lines, sewage lines, water lines, realignment, and possible subsidence effects to public roads. The applicant will be subject to conducting coal mining activities within 100 feet of a public road. "Underground coal mining activities" means surface operations incident to an underground coal mine. Pursuant to 761.11(d) the Board of Oil, Gas, and Mining must provide and opportunity for a public hearing. The applicant must delineate on a map the right-of-way boundaries for all existing and future public roads within the permit area.

Determination of Completeness

The applicant clarifies that Solider Creek Road does not have facilities within 100 feet; Dugout Canyon and Fish Creek roads have adjacent facilities such as waste disposal facilities, water lines and utilities and realignments for a mile or so. Therefore, the Board of Oil, Gas and Mining will need to provide an opportunity for a public hearing in accordance with UMC 781.11(d).

UMC 784.20(c) Subsidence Control Plan

The potential for subsidence damage to Mountain Fuel's pipeline requires additional clarification. The applicant should delineate the areas of selective mining on maps which show underground development, maps D03-0006-D03-0008. The applicant should justify the use of a 15 degree angle-of-draw or use 25 degrees (subject to change after subsidence experience's gained during early stages of mining and monitoring). The applicant should specify what factor-of-safety will be used for the selective mining under the pipeline. The applicant states that 50% extraction will be used in areas of selective mining, however, the extraction ratio will be based on the depth of overburden. The applicant should provide a bond amount for protection of the gas pipeline or provide proof that Mountain Fuel Supply is agreeable to an alternate solution for potential damages to the pipeline from subsidence.

Determination of Completeness

The applicant proposes to use a 25° angle of draw until actual subsidence experience can prove a lesser angle is sufficient for protection of the pipeline. The applicant proposes partial extraction under the pipeline in the W1/2 and W1/2 of E1/2 of Section 4. The extraction is to be 36 percent for mains and 50 percent in sections shown on maps A03-0186 through A03-0188. The applicant shows no extraction in the W1/2 of Section 5 proposed. The applicant has addressed mitigation of damage by providing a reiteration of the regulations. A stipulation for commitment to one of the mitigation measures as referenced on pages I-261(A)(1) and I-261(A)(2) will be required prior to approval of mining within a 25° angle of draw to the pipeline. The applicant may wish to delay this commitment until mining in Section 4 and 5 of T. 12 S., R. 12 E., is projected within five years.

UMC 784.22 Diversions

For those diversions designed to divert the drainage away from the disturbed areas where the area drainage is collected in a sedimentation pond designed for the 10 year-24 hour storm, the diversion must be designed to be compatible. The diversion must also be designed for the 10 year-24 hour design criteria, not 2-year, 24-hour (UMC 817.43(a)).

Determination of Completeness

On page I-129A, the applicant has revised the text to accommodate the 10-year, 24-hour design storm for sizing of the diversions.

Show location of the temporary overland diversion ditches above the portals and near preparation plan. The applicant should clarify what is meant by the term fastened when used in the context of ditches on slope faces, Ill. B, pg. I-75. Section 5.2.2. clarify location of surface facility diversions Section 5.2.2., Map D03-0033: Soldier Creek and Canal diversion entering Anderson Reservoir are not portrayed or labelled clearly on map.

Determination of Completeness

Page I-75A has been revised to clarify the "fastened" question. The reviewer is referred to maps D03-0026, D03-0027 and D03-0021 to clarify the questions on location of surface facility diversions and reservoir diversion canals.

Where will the self-cleaning overpour structure be placed in Soldier Creek for the Anderson Dam diversion? The applicant should clearly locate on a map of suitable scale the point of diversion on Soldier Creek and the existing diversion to Anderson Dam. Existing diversion plans must be presented to show that the diversion will comply with applicable requirements of the performance standards in 817.44. Plans must be shown for the permanent overpour structure. There are no design plans in submittal. The applicant should similarly discuss the permanent diversion and diversion structures for the Dugout Reservoir.

Determination of Completeness

- * The reviewer is referred to Drawing No. D03-0171 and D03-0172 for Anderson Reservoir design details for the diversion and overpour structures. There are no designs presented for the similar structures proposed for Dugout Reservoir.

The applicant must submit a statement as to the direct similarities between the diversion and overpour structure design drawings presented for Anderson Reservoir as related to the Dugout Creek Reservoir, or present a commitment to submit detailed designs to the regulatory authority at least nine months prior to anticipated construction dates.

Section III b.5.2.1 of the application states that there will be three diversions from Soldier Creek and Dugout Creek. Only two diversion channels are apparent on Maps D03-0021 and D03-0022. In addition, cross sections of these diversion channels are not provided.

Determination of Completeness

The applicant has corrected the error in Section III b.5.2.1 as outlined on page I-126A of the addendum. Typical cross sections for the diversion on Dugout Creek must be provided to the regulatory authority nine months prior to anticipated construction date.

UMC 784.24 Transportation Facilities

Although typical cross sections of Class I and II roads are presented, the applicant states that detailed design of roads will be submitted nine months prior to construction. No reference to gradients is made on specific roads and no specifications or sizing criteria were found for drainage culverts. It is, therefore, not possible to assess compliance for the roads. In addition, only very general information is included on the railroad.

Determination of Completeness

The applicant has presented criteria for Class II roads demonstrating an understanding of the road criteria. The applicant will need to provide detail design drawings of road alignment, grades, culverting, etc., nine months prior to construction. The applicant to date has committed to the design criteria of the performance standards, but does not intend to proceed with detail design and detail layout at this time. The applicant has provided Drawing D03-0170 for the railroad loop.

Preliminary engineering or other evidence of compliance with specifications in UMC 817.150-817.170, of road grade, pitch, vertical, horizontal alignment embankments, cuts, etc. should be furnished.

Determination of Completeness

The applicant addresses the Class II criteria on page 21 and page 22 of the addendum. Approval will require a stipulation for commitment to these standards and detail designs provided nine months in advance of construction as above.

Data should be furnished showing locations of existing drainage structures, including culverts and demonstration that they are sized for 10-year, 24-hour precipitation event.

Determination of Completeness

The applicant states that no existing drainage structures exist in the permit area.

A tunnel is proposed through Fish Creek Ridge for the conveyor (page I-84). The Bureau of Land Management has requested that the applicant provide information on sizing, stability, access safety and reclamation for this 580-foot tunnel. Permanent sealing of the tunnel must also be addressed.

Determination of Completeness

The applicant has addressed security and reclamation of the tunnel. The regulatory authority could stipulate that the tunnel be back's towed if the BLM feels that this is required.

UMC 785.17(c) Prime Farmlands

There is no indication that the Secretary of Agriculture, which authorized the SCS, has reviewed the protection and reclamation plans for prime farmlands. Applicant must obtain concurrence from SCS.

Determination of Completeness

Concurrence and suggested amendments from the SCS regarding the protection and reclamation plans for prime farmland are included on pages II-200A, II-202A and II-232A(3).

UMC 785.19 Alluvial Valley Floors

The Office of Surface Mining and the Division have found that an AVF exists pursuant to your submittal of July 30, 1980. The Office of Surface Mining's preliminary findings was forwarded to Eureka Energy Company. The Division recommends that the applicant demonstrate that the affected AVF in Soldier Creek is not significant pursuant to PL 95-87 510(b)(5). The applicant needs to evaluate the affect of withdrawing those croplands during mining from production on the overall farms agricultural production. The Division is at this time investigating the legal implications of Eureka Energy's ownership of the land and the water. The applicant should also address protection of this farmland during a period when irrigation waters will be withdrawn to preserve soils of this land, ie revegetation. The applicant should additionally show that the essential hyrologic functions of the AVF will be preserved.

Determination of Completeness

As of June 12, 1981 (letter from James W. Smith, Jr., to Paul B. Anderson, pp. II-243A[10]-[11]), DOGM withdrew the requirements for a finding of significance regarding the affected AVF. A decision from OSM on this matter is still pending. The plan will be considered complete in this respect unless OSM determines otherwise.

UMC 817.21 Topsoil: General Requirements

No laboratory data for soil analysis has been included in application, (Section 2.2.8) only summaries of data results. The applicant must submit original data for all parameters evaluated as justification for soils selected for reclamation. Data will also support salvagable depths and volumes proposed in accordance with 817.22(c) and (d).

Determination of Completeness

*** Applicant has submitted the original soil analysis, data with the exception of data on SAR and/or ESP, in Table IV-C.2(2). Because of this deficiency, the following may be included as a stipulation to the final approval:

"Data on SAR and/or ESP for all potential topsoil material must be submitted in order to make a determination on sodium hazard."

UMC 817.22(e) Topsoil: Removal

The applicant states there is a possibility of using substitute materials for reclamation. When will this be known? What materials will be used? There is a significant amount of leftover soil material from proposed replacement depth. The Division suggests that it may be better to maintain this material as an available supply rather than rely on substitutes now. Volume II, page 208, Table IVC.5.

Determination of Completeness

The applicant will no longer consider using substitute materials for reclamation, but will maintain excess topsoil as recommended. These issues are discussed on pages 24, II-208A and II-222A.

If overburden and topsoil analysis is provided, then a determination as to need for substitute materials can be made.

Determination of Completeness

Topsoil analysis is contained in Table IV-C.2(2).

The applicant states (II-207) there is no material removed from rockfill areas, yet I-161 states organic matter and topsoil removal is part of construction phase. Which is correct?

Determination of Completeness

Since soil from the rockfill areas is unsuitable for reclamation, no topsoil will be salvaged from these areas. Page I-170A discusses this matter and page I-161 has been revised to correspond with the rest of the application.

There is a correspondence page in Volume II, page 232 with a letter from Dr. T. B. Hutchings. Should this be enclosed in permit?

Determination of Completeness

The letter from Dr. T. B. Hutchings is now included in the application on page II-232A(2).

UMC 817.97 Protection of Fish and Wildlife

(a) Due to the value of the area to wintering mule deer, reclamation of the pinyon-juniper and shrub-grass-juniper communities should perhaps be reconsidered by the applicant to place more emphasis on replacement of grasses, forbs and shrubs instead of tree species. Shrub stocking densities should be 90 percent of the level of species measured as discussed under UMC 783.19.

Determination of Completeness

Since the applicant wishes to defer any revisions to the reclamation plan for the pinyon-juniper and shrub-grass-juniper communities (page 25), the following may be included as a stipulation to the final approval:

"Any revised reclamation plan that the applicant shall devise during the mine life shall be discussed with, and approved by, the regulatory authority."

(b) Note that the regulation requires the applicant to report threatened and endangered species and golden eagles not previously reported. An action to be taken "for example" (page II-410) does not meet this requirement.

Determination of Completeness

Reporting of threatened and endangered species sightings has been included as one of the requirements of the fish and wildlife plan on pages 25 and II-410A.

(c) The applicant must "ensure," not just request UP&L to use raptor-proof poles, (page II-410).

Determination of Completeness

On page II-410A, the applicant has stated that it "will ensure" that Utah Power & Light use raptor-proof poles.

(d)(1) The Utah Division of Wildlife Resources maintains that the substantial valued year long use area for pronghorn antelope does overlap the project area in the vicinity where the Dugout Canyon access road extends through a portion of Clark Valley. This is in contrast to the statement by the applicant on page II-385. A map and discussion should clear up this discrepancy and address any potential impacts.

Determination of Completeness

The applicant has referenced a map submitted by UDWR in maintaining that no impacts will occur to pronghorn antelope from the mine operation. This question is discussed on page II-385A(1).

(d)(2) Maps of mule deer migration routes in relation to the conveyer corridor and profile would strengthen the applicant's claim that such routes will be relatively unaffected.

Determination of Completeness

Trails and associated clearances along the control alignment, with references to the preferred alignment, are presented on page II-413A and II-413A(1). UDWR has not yet identified trails along the preferred conveyer alignment.

(d)(6) The applicant should further explain and document the permission by Utah DOGM to forego further aquatic macroinvertebrate study (Page I-322).

Determination of Completeness

Release from the requirement of conducting any aquatic macroinvertebrate studies is documented on pages I-414A(3)-(6).

It appears that several literature citations have been left out of the Fish and Wildlife Section: Verner 1975; USDA 1970; Kling 1977, Clark 1978, BLM 1979; Thomspon 1979.

Determination of Completeness

The missing citations are included on pages II-421A(1) through II-428A.