

Applicant has stated that all roads will be designed according to the criteria as shown on pages 21-22, August 1981, ACR Response. The proposed locations of all access roads are shown on Maps D03-0020, -0021, -0022, -0024, -0025, -0026, -0035 and -0036. Drawings A03-0176 through A03-0185 show typical examples of contour ditching and temporary berms, temporary slope drains, sediment structures, check dams, drainage diversions, road sections and pipe outlets that will be utilized in road construction.

All roads in the permit area used for access or the transportation of coal will be removed at the conclusion of mining operations with the exception of the county roads. The county roads which will be left at the conclusion of mining are shown on Map D03-0002 (includes Dugout Canyon, Fish Creek and Soldier Creek roads). Immediately following the use of access or haul roads which are no longer needed for operations, reclamation or environmental monitoring, restoration will be implemented. All surfacing materials, bridges and culverts will be removed and disposed of in a dump or landfill. Slopes will be rounded and shaped to conform to adjacent terrain and to meet natural drainage patterns. Roadbeds will be scarified with cross drains, dikes or water bars as necessary to minimize erosion. Topsoil, subsoil or other plant growth medium will be redistributed on the regraded roadbed and revegetated. Typical surface configuration for the roads that will be removed and reclaimed is shown on Figure III-D.3. (MRP, pages 280, 287 and 304).

Compliance

Applicant will comply when detailed designs for Class II roads are submitted and approved.

Stipulation 817.150-(1)-SL

1. At least 150 days prior to initiation of construction, the applicant must submit to the regulatory authority for approval detailed designs for all proposed Class II roads. Designs must include detailed drawings of road alignment, grades and sizing and location of culverting. The designs must comply with the criteria the applicant submitted on pages 21-22, August 1981 MRP Addendum.

UMC 817.180 Other Transportation Facilities

Applicant's Proposal

A railroad loop and train loadout facility will be constructed as part of the central facilities area. The loop will be the termination of the railroad spur line to be constructed and operated by D&RGWRR (see Map D03-0002, Volume I and Map D03-0170, Addendum). The portion of the railroad spur to be

permitted includes the loadout area, the rail loop and the portion of the railroad spur in the immediate area of the minesite (Volume I, page 114). The railroad corridor will be reclaimed after cessation of all operations. All track, tie and associated materials, including gravel fill, will be removed (Volume I, page 311).

Conveyors will be constructed to transport coal underground from the working face to the portals and from the portals to the central facilities. During initial mine development and early mining, trucks will be used to transport coal until construction of conveyors has been completed. Location of conveyors is shown on Maps D03-0002 and D03-0020 through -0023. The conveyor system is discussed in Volume I, pages 82-87. All conveyor systems will be removed after cessation of all operations.

Compliance

Applicant will comply with 817.180.

Stipulations

None.

UMC 817.181 Support Facilities and Utility Installations

Applicant's Proposal

Structures that will be constructed at each of the portal areas are listed in Volume I, page 81 and shown on Maps D03-0026 and D03-0027. The central facilities will include offices, a coal preparation plant and a train loadout. All facilities and their uses are discussed in Volume I, pages 52-56.

The proposed project will receive its electrical power from Utah Power & Light and a telephone system will be installed by Mountain Bell (Volume I, pages 155-156).

Compliance

Applicant will comply with 817.181.

Stipulations

None.

Applicant's Proposal

The applicant has mapped all active flood plains within the permit area. Also areas underlain by unconsolidated materials were mapped where identifiable stream channels were present. The total areal extent of stream-laid deposits was mapped, with the upslope contact drawn where the flat-lying deposits encounter sloping deposits of surrounding hillsides.

All areas which are presently or were historically flood irrigated were mapped for those areas identified on the above maps. In addition, areas were mapped where agricultural activities involve special management of the valley floor, such as cropped or harvested lands.

A determination of irrigable land was made, which also included those areas that are capable of being flood irrigated. Vegetation characteristics were examined to determine possible subirrigation. The assessment included a survey of vegetation and use of aerial photography. Possible subirrigation was also assessed on the basis of seepage and stream flow. Water rights were examined to determine whether the potential AVF could presently be flood irrigated.

Four major drainages are located in the permit area: Soldier Creek, Fish Creek, Dugout Creek, and Pace Creek. Fish Creek is an intermittent stream with no available water rights. The small area of alluvium in its downstream reach contains neither irrigated nor subirrigated croplands. Dugout Creek flows through alluvium only after it has exited the canyon. This alluvium contains neither subirrigated nor irrigated cropland. All planned surface disturbances in the Dugout Creek drainage are upland of any alluvium. Pace Creek flows through the northeast portions of the property. It is perennial above the Book Cliffs escarpment where the stream channel is rocky alluvium and short reaches of bedrock; it is intermittent below the cliffs where the creek bottom is Mancos shale or alluvium which is derived in part from Mancos shale. The small areas of alluvium along Pace Creek are not irrigable. Soldier Creek is the only drainage with alluvium deposits which may be affected by surface facilities. Consequently, the study focused on the central facilities area near Soldier Creek and the corresponding alluvial deposits. No other areas approximate the conditions required for an AVF.

Currently, the only cultivated lands in the permit area are planted in alfalfa and are flood irrigated. These lands provide supplementary feed for a local rancher's cattle herd during winter months. Most land adjacent to the currently flood-irrigated acreage is used as winter and spring rangeland.

The area of investigation is generally arid and sparsely vegetated. It is dominated by a greasewood-sagebrush plant community (see Section IV-F, Vegetation). This community is found throughout the region in valley bottoms where fill overlies Mancos Shale. Greasewood (Sarobatus vermiculatus) is dominant where the soils and available water are alkaline. Alkalinity results when surface or ground water comes in contact with the Mancos Shale after leaving the overlying Mesa Verde formations. Subirrigation of this plant community is not significant. The stream is incised into the alluvium several

tens of feet in most places. During late summer in 1978, the entire Soldier Creek drainage was walked by a trained geologist to note flow conditions and seepage zones. The creek was dry below its diversion point to Anderson Reservoir until the lower (southern) end of the flood irrigated land was reached. Here return flow from irrigation seeped into the stream in quantities sufficient to cause a small surface flow. Had there been a significant subirrigation flow, bank seepage and a small flow in the creek bed should have been present in the dry reach of the creek.

Soldier Creek is an intermittent stream where it traverses the proposed central facilities area (southwestern portion of the permit area); it is generally dry except in spring and early summer, depending on the amount of precipitation. Small-scale agricultural activities in the area of investigation have taken place periodically since the turn of the century.

Limited water availability, in both the physical and legal senses, and poor productivity appear to explain the limited acreage in cultivation today. The uppermost and eastern (across Soldier Creek) fields were irrigated without proper water rights; subsequently, they had to be abandoned because sufficient water was lacking to keep all of the irrigated lands in the area in cultivation.

Although accurate data of historical flow in Soldier Creek are not available for more than four years, the amount of potentially irrigable acreage adjoining the stream is far in excess of the total amount of water that is available for irrigation. Accordingly, the lands which have been irrigated over the past five years are the best indicator of the maximum amount of land that can be irrigated along Soldier Creek and the general areas that are best suited for such irrigation. These lands should be considered to approximate the area of alluvium along the Soldier Creek drainage within the permit area which is capable of being flood irrigated.

Impacts to the potential AVF described above will be limited to surface effects. Of the areas designated as alluvium in the permit area, the only area which would be directly affected lies just inside the south boundary of the permit area along the Soldier Creek drainage. A service road will cross this area, disturbing approximately nine acres. This superficial impact would have no effect on the physical integrity of an AVF. In addition, any such impacts would be greatly limited in areal extent.

Compliance

On March 17, 1981, the Region V, OSM requested an opinion from the Solicitor's Office in Washington, D. C., concerning this alluvial valley floor (AVF) issue. On May 14, 1981, a memorandum was provided to Mr. Donald Crane, Region V Director, from Suellen F. Kainer, Assistant Solicitor of the Washington office. This memo referenced another (March 3, 1981) memorandum to John Hardaway concerning an oral request from Mike Bishop for an informal opinion on the same AVF question.

The March 3 memorandum indicates that the proposed operation could obtain a permit in compliance with the Surface Mining Act if the following conditions are satisfied:

1. The operator demonstrates that the hydrologic balance of the downstream AVF will be preserved (Section 510[b][5][B] of the Act).
2. The proposed operations would not materially damage the quantity and quality of water in surface and underground water systems that supply those AVF's (30 CFR 785.19[e][1][ii]).

*This regulation was remanded for revision to exempt from its requirements undeveloped range lands and small farm acreage.

"Therefore, if the operator demonstrates that the diversion will not affect ongoing or prospective agricultural activities which are significant to farming on AVF lands (except undeveloped rangelands and small farm acreage), then the operator may obtain a permit."

3. "Although a priority right was created, this does not grant the operation unlimited use of the water. Limitations to that use will depend on the individual State's water law. Irrespective of the protection provided in the performance standards of the Act and the Department's regulations, actual diminution of water supply becomes a matter to be decided between users under State laws, as provided in Section 717(a) of the Act."

On May 7, 1981, the Division received a letter from Donald Crane to James Smith which presented a preliminary determination based upon a draft technical analysis of an AVF determination prepared by the OSM (see letter and draft TA attached).

The preliminary OSM determination suggested that the AVF to be affected by mining operations is significant to farming.

The significance determination was based upon a formula developed in Wyoming by the Department of Environmental Quality to determine at what point production loss is considered to be a negligible impact to a Wyoming farm. Application of this formula to the Utah farm yields a 27.5 percent loss of productivity from the entire ranching operation if the total section of irrigated land (38.1 acres) is removed from production. This is based on a comparison of productivity from the AVF versus the entire grazed parcel (@ 18,407 acres rangeland). A production loss of 10 percent or greater is assumed to be significant to the farm production.

It is the Division's opinion that the basic farming practices and conditions upon which the Wyoming formula is based are not necessarily representative of the conditions in Utah and consequently the use of this formula may not be directly applicable.

Perhaps the significance formula should take into account a factor for weighing or measuring how directly or indirectly the farmer's livelihood is dependant upon the farming operation?

It is the Division's opinion that the operator has satisfied the basic requirements pursuant to the conditions as outlined in the OSM solitor's memorandum and the regulations.

There apparently are a few other legal questions which may still require resolution. Among them one might consider the status of current land and water right ownership versus the temporary permit or agreement between the operator and the farmer which apparently allows continued use of the irrigable acreage to the extent possible for the interim period.

The DOGM has taken the position that the Act was not intended to adjudicate state water rights, which is a function performed by the State Engineer's Office, Division of Water Rights, and that the final decision and ultimate resolution to the issue at hand will most likely require a ruling by that office.

* * *

OSM has designated Soldier Creek as an alluvial valley floor. The designated area includes all areas mapped as alluvium (Qal) and colluvium (Qco) in the Soldier Creek drainage as shown on Figure #2, titled "Alluvial Valley Floor Determination: Alluvial Deposits" submitted to OSM on June 21, 1982 by Sunedco (file number UT0041-31). Areas of colluvium were included because the applicant did not provide sufficient data to prove that the colluvial areas were not underlain by, or mixed with, alluvial material.

The Soldier Creek AVF contains 158 acres of historically irrigated land, of which 58.1 acres have been irrigated within the past five years. Sunedco has proposed to surficially disturb 8.6 acres of previously irrigated land for a service road and central mine facilities. This level of disturbance will result in a 5.4% decrease in the farm's productivity, calculated as follows:

Significance Test

Soldier Canyon Grazing Allotment consists of 835 animal unit months (AUMs)
Productivity of the farmland is 8.33 AUM/acre (SCS, 4/21/81)

$$\begin{aligned} \text{Production} &= 835 + (58.1)(8.33 \text{ AUM/acre}) \\ &= 835 + 484 \\ &= 1319 \text{ AUM} \end{aligned}$$

$$\begin{aligned} \text{Lost acreage} &= 8.6 \text{ acres} \\ \text{Lost production} &= (8.6 \text{ acres})(8.33 \text{ AUM/acre}) \\ &= 71.6 \text{ AUM} \end{aligned}$$

$$\begin{aligned} \text{\% of production loss:} \\ 1 - (1319 - 71.6) / 1319 &= 5.4\% \end{aligned}$$

OSM considers this decrease in production insignificant for this site because the area of historically irrigable land (158 acres) is much larger than the amount of water available for irrigation at present (i.e., sufficient water to irrigate approximately 58 acres). It is concluded that the farmer could utilize management practices to compensate for the loss of production on the 8.6 acres to be affected.

OSM has concluded that the operator has demonstrated in the MRP application that there should not be any significant adverse impact to the hydrologic balance or the hydrologic function of the AVF during or after mining. The impact will be confined to the surface disturbance of 8.6 acres for a portion of the central facilities and a service road on the permit area. The central facilities will not impact the hydrologic function of the AVF and after mining the site will be reclaimed to the prior land use. There are no developed downstream agricultural practices which depend on the water which will be used by the operator, and the mining operations will not preclude farming off the permit area.

The operator will only divert that amount of water to which he has a water right. Since Sunedco has purchased rights to the water that had been used to irrigate this land, this would mean that approximately 58 acres of land previously irrigated in the past five years will not be utilized for agricultural purposes. This will not affect the capacity of this land to be used for agriculture in the future, by whomever holds the water rights in question. The use of this water by Sunedco will not affect the hydrologic function of the valley, and since there are no subirrigated lands in the valley, the potential agricultural value of the AVF remains intact.

Best available control technology will be implemented to protect and prevent the occurrence of adverse impact(s) to the hydrologic regime during operations and appropriate reclamation practices are proposed after cessation of operations to provide continued long-term protection.

Stipulation

None.

UMC 823.2-.15 Prime Farmland

Applicant's Proposal

A soil survey for the proposed permit area has been completed. It was carried out according to the standards of the National Cooperative Soil Survey.

Soil and land use investigations indicated that two mapping units within the proposed mine area could be prime farmlands. Both these units, HAC and HBC, have been historically used as cropland and have a dependable irrigation water supply. Both units are slope phases of the Haverson soil series. The Soil Conservation Service was contacted to determine whether any of these areas met the minimum requirements for prime farmlands. The Service found that "Field 2 - E1/2 of Sec. 1, T. 14 S., R. 11 E. (has) soil characteristics and qualities suitable for prime land."

This half-section is located along Soldier Creek Road at the southern boundary of the permit area (see Figure IV-C.1). The only planned surface disturbance in conjunction with the proposed mine plan and permit will be an access road (Fish Creek Ridge Road). This road will originate at Soldier Creek Road, proceeding to the east across the remainder of Section 1. The area of disturbance caused by the road within Section 1 will be less than two acres. The operations and reclamation plan for this area were designed to comply with the requirements of 30 CFR and UMC 785.17. The operation and reclamation plan for prime farmland has been approved by the Soil Conservation Service (see letter attached to TA).

Construction of Fish Creek Ridge Road (50 foot total disturbance width) will cross 1,500' of prime farmlands and disturb 1.72 acres (see Figure IV-C.1). Prime farmlands soil will be stockpiled separately as described below.

Immediately prior to road construction, soil materials will be salvaged from the road crown, shoulder, and borrow pits. Stripping will be accomplished with the use of motorized scrapers.

Soil will be salvaged by soil series according to the depths indicated in the following table. To facilitate salvage, the soil series boundaries will be staked prior to removal. Salvage depth stakes will also be placed on the area to assure soil salvage to the identified depth (Robbins, 1980).

Salvaged soil will be taken immediately to designated (prime farmland soils only) stockpile areas (see Map D03-0134) and protected from wind and water erosion by methods specified in Section IV-C.4.1.4, Topsoil Stockpile Protection and Stabilization. First and second lift soil materials will be segregated and stockpiled separately; different soil series may be mixed within a lift, but not mixed between lifts. All unnecessary compaction and contamination of stockpiles will be eliminated through limited soil handling and stockpile segregation. Once stockpiled, these soil materials will not be rehandled until reapplied prior to revegetation. The soils will be used only for reapplication to areas designated for prime farmland revegetation.

Following abandonment of the road, all cut and fill materials down to the level of the original soil will be hauled from the site. The soil surface will then be ripped to 24 inches by a dozer equipped with a ripper or a tractor and spike-tooth harrow (depending on site conditions) to eliminate compaction. The ripped soil surface will be graded level for application of soil materials.

Soils will then be reapplied in two lifts. Soil materials will be replaced in as thick lifts as possible to decrease compaction (Robbins, 1980). During resoiling operations, soil materials will be spread and graded in a manner which: achieves uniform thickness; minimizes compaction, erosion, and contamination of soil materials; and, minimizes deterioration of the biological, chemical, and physical properties of the topsoil.

During resoiling, each lift replaced (and the endemic subsoil) will be tested for excessive compaction (pending Federal regulation changes) by determining the field moist bulk density using the water balloon method. Compaction will be considered excessive if, on more than 10 percent of the area, any layer of reconstructed soil has a moist bulk density of 0.1 gram per cubic centimeter more than values on adjacent undisturbed prime farmland of the same soil type. Two moist bulk density samples shall be taken per acre for each soil layer. Soil lifts shall be ripped, disced, or harrowed to alleviate compaction where it is detected.

Following grading, compaction tests, and any required compaction alleviation measures, revegetation will begin. Phosphorus fertilizer will be broadcast on the soil surface, (and nitrogen fertilizer if crop planting will occur immediately after seedbed preparation) in amounts based on the soil tests conducted on these soils following soil application. The soil surface will be disced and harrowed to prepare a proper seedbed and incorporate fertilizer into the soil (USDA-FS, 1979). The soil will then be cultipacked. Drill seeding of the vegetation crop, using conventional drilling methods, will follow seedbed preparation. The area will then be straw mulched; the mulch will be anchored between the rows of the seeded crop.

Planting specifications for prime farmlands in the project area vary with the season of the year, seed availability, and postmining land use objectives at the time of revegetation. Prior to road abandonment, the Applicant will determine planting specifications. These specifications will include species mixture and planting rate, seeding depth, drill row spacing, fertilization method, and season of planting. The applicant will adopt these specifications as determinants for seeding the perennial mixture on affected prime farmlands. The target production rate to be attained on these lands is two tons of hay per acre based on production of adjacent undisturbed prime farmland.

To determine revegetation success, test plots will be established on the revegetated area. Production within these plots will be compared with production on established "comparison areas." Comparison areas will be sited on an adjacent undisturbed prime farmland such that comparison between the test plots and the comparison area will be representative of the same soils, and other pertinent characteristics in the immediate vicinity of the disturbance. Standard sampling and statistical methods for determining productivity on reclaimed prime farmlands will be used.

Compliance

Applicant has shown compliance with this section.

Stipulations

None.

LITERATURE CITED

- Robbins, L. 1980. Getting a handle on topsoil. In Adequate Reclamation of Mined Lands? - A symposium. Soil Conservation Soc. of Amer. Billings, Montana.
- Stokes, W. L. 1977. Subdivisions of the major physiographic provinces in Utah. Utah Geology, Vol. 4, No. 1, pp. 1-17.
- USDA-FS. 1979. User guide to soils - mining and reclamation in the west. Intermountain Forest and Range Experiment Station. Ogden, Utah. 85 pp.
- U. S. Geological Survey. 1979. Development of coal resources in central Utah, Final Environmental Statement.
- Utah Division of Wildlife Resources. January, 1982. Study to determine the effects of coal development on wildlife in southeastern Utah. 2nd annual report. 141 pp.

BOND ESTIMATE
SUNEDCO
Sage Point-Dugout Canyon Mine
AGI/007/009, Carbon County, Utah

	No. of Disturbed Acres	Backfilling and Grading	Ripping	Subsoil	Topsail	Seal Shaft	Backfill & Seal Entries	Remove Footings & Foundations	Remove Asphalt & Base	Fertilizer
Dugout Canyon Portal Area	17	\$118,584.00	\$1,534.00	\$15,413.00	\$23,192.00		\$17,319.00	\$1,948.00	\$1,389.00	\$1,624.00
Conveyor-Dugout Canyon Portal Area to Central Preparation Plant Waste Conveyor	9.1									
Water and Sewer Lines	7.9				754.00					754.00
Big Hole Road	11.4	14,850.00	1,433.00		9,120.00			6,578.00	1,089.00	
Fish Creek Ridge Road	11.3	13,500.00	1,295.00		8,240.00			6,878.00	984.00	
Sewage Lagoons	15	19,710.00	1,885.00		13,605.00					1,433.00
Preparation Plant	22	35,775.00	2,862.00	26,262.00	13,135.00			2,413.00	1,515.00	2,101.00
Administrative Offices	9	14,850.00		4,901.00	2,450.00			2,091.00	1,515.00	860.00
Railroad Corridor	1.7	2,400.00	158.00	567.00	648.00		(Ballast & Ties) 8,929.00			162.00
Waste Disposal Areas Dugout Canyon Durable Rock Fill	6.6	21,600.00								512.00
Anderson Reservoir	2.8				8,632.00					217.00
Monitoring (Vegetation & Water)										
TOTAL	113.8									

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	Prepare Seed Bed	Seed & Plant	Mulch	Irrigation	Gabion Riprap	Remove CMP	Prime Farm Land Addition	Total Cost	Cost Per Acre
Dugout Canyon Portal Area (17 ac)	\$1,199.00	\$24,847.00	\$6,442.00	\$8,480.00	\$4,166.00	\$1,808.00		\$227,946.00	\$13,408.00
Conveyor-Dugout Canyon Portal Area to Central Preparation Plant Waste Conveyor (9.1 ac)	819.00	13,040.00						16,335.00	1,795.00
Water and Sewer Lines (7.9 ac)	344.00	11,261.00	1,126.00					14,239.00	1,802.00
Big Hole Road (11.4 ac)	496.00	7,450.00	1,625.00					42,641.00	3,740.00
Fish Creek Ridge Road (11.3 ac)	448.00	13,282.00	1,468.00				\$64.00	46,159.00	4,085.00
Sewage Lagoons (15 ac)	653.00	9,803.00	2,138.00					49,227.00	3,282.00
Preparation Plant (22 ac)	957.00	39,875.00	3,135.00					128,030.00	5,820.00
Administrative Office (9 ac)	392.00	16,313.00	1,283.00					44,655.00	4,962.00
Railroad Corridor (1.7 ac)	74.00	275.00	242.00					13,799.00	8,117.00
Waste Disposal Areas Dugout Canyon Durable Rock Fill (6.6 ac)		1,234.00						23,346.00	3,537.00
Anderson Reservoir (2.8 ac)	252.00	437.00	399.00					9,973.00	3,562.00
Monitoring (Vegetation & Water)								127,000.00	
								SUBTOTAL	\$743,350.00
								10% Contingency	74,335.00
								TOTAL	\$817,685.00 (1983)

1984 - \$899,452; 1985 - \$989,398; 1986 - \$1,088,337; 1987 - \$1,197,171; 1988 - \$1,316,888.

9.2.2 UNIT COSTS

Equipment*

Caterpillar D8K Crawler Tractor

\$93/hr rental

\$15/hr operator

\$108/hr

Caterpillar 966C Loader

\$55/hr rental

\$15/hr operator

\$70/hr

Caterpillar 627-B Scraper

\$133/hr rental

\$15/hr operator

\$148/hr

Caterpillar 14-G Motor Grader

\$67/hr rental

\$15/hr operator

\$82/hr

Caterpillar 980-B Loader

\$60/hr rental

\$15/hr operator

\$75/hr

Labor

Equipment Operator - \$15.00/hour

*Rental includes operating cost of equipment per hour.

SUNEDCO TECHNICAL ANALYSIS ADDENDUM 1/

Sunedco Coal Company
Sage Point-Dugout Canyon
PRO/007/009, Carbon County, Utah

July 14, 1983

On June 13, 1983, Sunedco Coal Company submitted a number of revised pages to be inserted into the Mining and Reclamation Plan (MRP) for the Sage Point-Dugout Canyon Project. These revisions were made in response to issues discussed in a joint meeting between OSM, DOGM and Sunedco Coal Company on June 1, 1983. The issues raised at this meeting related to the stipulation list for the Sage Point-Dugout Canyon mining and reclamation plan approval. The applicant was asked to provide additional information in the MRP so that both the number and scope of stipulations could be reduced. This Addendum to the Technical Analysis evaluates Sunedco's June 13, 1983 MRP changes and documents the rationale for the resulting changes to the stipulation list originally generated by DOGM's Technical Analysis.

Section UMC 817.21-.25 Addendum

OSM found that the applicant had not addressed the requirements of UMC 817.22(b), (e), and (g). In particular, while OSM agrees that the Badlands, Shingle, and Haverson alkali soils are not adequate for salvage (TA. pg. 4), the applicant did not discuss use of topsoil substitutes required by UMC 817.22(e). This section must be addressed in order for the applicant to demonstrate that it will be possible to reclaim the Dugout Creek and Fish Creek rock waste disposal sites.

Final Stipulation 817.21-.25/OSM18

120 days prior to any surface disturbance the applicant shall provide a plan for regulatory authority approval which identifies the best available topsoil substitute material to utilize for final reclamation of the Fish Creek and Dugout Creek waste rock disposal sites, as required under UMC 817.22(e). In addition, and at the same time, the applicant shall provide a plan for seed bed preparation and planting materials to be used for revegetating the two waste rock disposal sites.

1/ This technical analysis addendum was prepared by the Utah Division of Oil, Gas, and Mining in July 1983 on Sunedco's proposed life-of-mine permit application (40 yrs. - 18,242 acres). All references herein to the permit area or mine plan area refer to the life-of-mine. In December 1983, Sunedco revised this PAP to include only 4,475 acres in the initial permit area. Accordingly, portions of the March 1983 TA and this Addendum have been changed to reflect Sunedco's revised PAP (see following addendums and revisions).

Section UMC 817.42 Addendum

Original Stipulation 817.42-(1)-DD

1. The applicant has established the degree of sediment entrapment that will take place at the coal and rock waste disposal sites during a 10-year, 24-hour precipitation event. The applicant shall also provide an estimate of anticipated sediment influent concentrations characteristic of the undisturbed drainage so as to determine the quality of effluents from both waste disposal sites and undisturbed drainages. Final designs for sedimentation ponds must show evidence of compliance with UMC 817.42 through design criteria that will meet State and Federal water quality and effluent limitations. The final pond designs shall be submitted to the regulatory authority at least 120 days prior to planned sedimentation pond construction.

The first sentence of Stipulation 817.42-(1)-DD was deleted from the Final Stipulation, since it merely restated an already established fact and was not necessary for the understanding of the rest of the stipulation's text. The clarified stipulation reads:

Final Stipulation 817.42-(1)-DD/OSM1

1. The applicant shall provide anticipated sediment influent concentrations characteristic of the undisturbed drainages so as to determine the quality of effluents from both waste disposal sites and undisturbed drainages. Final designs for sedimentation ponds must show evidence of compliance with UMC 817.42 through design criteria that will meet State and Federal water quality and effluent limitations. The final pond designs shall be submitted to the regulatory authority at least 120 days prior to planned sedimentation pond construction.

Section UMC 817.43-.45 Addendum

Original Stipulations 817.43-.45-(1, 2)-DD

1. The applicant must submit, at least 120 days prior to planned portal construction, longitudinal cross-sections and design calculations for culverts emplaced under the portal areas used to divert undisturbed runoff. (The Division suggests that the Dugout Creek culverts be sized to transmit at least a 50-year, 24-hour event). Culverts shall be fitted with trash racks at the inlet to help prevent plugging.
2. All culverts and diversions shall discharge onto a protected surface (i.e., riprap, conveyor belting, flexible downspouts, etc.) to prevent scouring and erosion.

On revised pages I-295 and I-296 of the MRP, the applicant committed to fit culverts emplaced under the portal areas with trash racks at the inlet and to install culverts sized to transmit runoff from a 100-year, 24-hour precipitation event. Therefore, the last two sentences of the original Stipulation 817.43-.45-(1)-DD were removed from the Final Stipulation. OSM found that the additions to the MRP satisfactorily addressed the requirements of 817.43-.45-(1)-DD, therefore this stipulation was dropped from the OSM stipulation list.

Final Stipulation 817.43-.45-(1)-DD

1. The applicant must submit, at least 120 days prior to planned portal construction, longitudinal cross-sections and design calculations for culverts emplaced under the portal areas used to divert undisturbed runoff.

Stipulation 817.43-.45-(2)-DD was not changed. OSM found that the requirements of 817.43-.45-(2)-DD are covered by regulation, therefore this stipulation was dropped from the OSM stipulation list.

Section UMC 817.45-.47 Addendum

Original Stipulations 817.45-.47-(1-6)-DD/DWH

1. At least 120 days prior to planned sedimentation pond construction, the applicant must demonstrate to the regulatory authority that the final designs for the sedimentation ponds at the central facilities, coal preparation plant and portal areas will meet all applicable State and Federal water quality effluent limitations. There shall be no outflow through the emergency spillway during the passage of runoff resulting from a 10-year, 24-hour or lesser precipitation event.
2. At least 120 days prior to surge pond construction, the applicant must submit for regulatory authority approval, final designs demonstrating that the emergency surge pond for the preparation plant is sized to contain the working volume of treatment fluids, with the appropriate freeboard, and constructed to meet design criteria for embankments and sediment removal designated in UMC 817.46.
3. Design of the sewage lagoon must be approved by the Division of Environmental Health. Prior to start of construction, the DEH letter must be forwarded to the regulatory authority.
4. At least 120 days prior to any pond construction, the applicant shall design and submit for regulatory authority approval, a plan for the disposal of dregs and waste from the sedimentation ponds, emergency surge ponds and sewage ponds. (The Division recommends disposal of this material at the coal or rock waste disposal sites, however, alternative methods may be suggested.)

5. The applicant shall construct diversion ditches to direct runoff away from settling ponds at drive and transfer stations pursuant to design standards of UMC 817.43. These diversion ditches must be constructed at the same time as the settling ponds.
6. The applicant shall obtain approvals from both the State Division of Water Rights, The Division of Environmental Health (Bureau of Water Pollution Control) and the Federal MSHA (30 CFR 77.216 regulations) as required for the construction of those ponds, dams and reservoirs (i.e., Anderson & Dugout reservoirs) which meet or exceed the appropriate regulation requirements. The applicant shall provide the regulatory authority with copies of the approvals prior to the construction of the same.

The final sentence of Stipulation 817.45-.47(1)-DD/DWH/OSM2 was found to be redundant, since it merely states the State of Utah's effluent limitations, which the applicant is required to meet in the previous sentence. Therefore, the last sentence was removed from the Final Stipulation.

Final Stipulation 817.45-.47-(1)-DD/DWH/OSM2

1. At least 120 days prior to planned sedimentation pond construction, the applicant must demonstrate to the regulatory authority that the final designs for the sedimentation ponds at the central facilities, coal preparation plant and portal areas will meet all applicable State and Federal water quality effluent limitations.

Stipulation 817.45-.47-(2)-DD/DWH/OSM3 was not changed.

On revised page I-138 of the MRP (revised June 2, 1983) the applicant committed to have the design of the sewage lagoon approved by the Division of Environmental Health (DEH) prior to construction, and to forward the DEH approval letter to the regulatory authority upon receipt. Therefore, Stipulation 817.45-.47-(3)-DD/DWH was removed from the Final Stipulations List.

On revised page I-139 of the MRP (revised June 2, 1983), the applicant committed to dispose of dregs and waste from sedimentation ponds, emergency surge ponds and sewage ponds in rock waste disposal sites, provided they are nonacid-forming and nontoxic and nonalkalinity producing. (The applicant has included rock waste disposal sites of adequate design and volume in the MRP.) Therefore, Stipulation UMC 817.45-.47-(4)-DD/DWH was removed from the Final Stipulations List.

On revised page I-140 of the MRP (revised June 2, 1983), the applicant commits to construct diversion ditches as required under stipulation 817.45 .47-(5)-DD/DWH. Therefore, this Stipulation was removed from the Final Stipulations List.

On revised page I-116 of the MRP (revised June 2, 1983) the applicant committed to obtain all necessary approvals as required for all ponds, dams and reservoirs, and to supply copies of such approvals to the regulatory authority prior to construction. Therefore, Stipulation 817.45-.47-(6)-DD/DWH was removed from the Final Stipulations List.

Section UMC 817.49 Addendum

Original Stipulations 817.49-(1, 2)-DD/DWH

Same as Stipulation 817.45-.47-(1, 2)-DD/DWH.

Stipulation 817.49-(1)-DD/DWH was modified to read the same as Final Stipulation 817.45-.47-(1)-DD/DWH.

Stipulation 817.49-(2)-DD/DWH was not changed.

Section UMC 817.50 Addendum

Original Stipulation 817.50-(1)-DD/OSM4

1. At least 120 days prior to construction of the portals, the applicant shall submit for regulatory authority approval, a plan for handling and treating all mine water discharges. This information is needed because actual quantities of ground water intercepted cannot be predicted at this time. This plan will be in accordance with UMC 817.50.

Stipulation 817.50-(1)-DD/OSM4 was not changed.

Section UMC 817.54 Addendum

Original Stipulation 817.54-(1)-DD

1. The applicant must submit to the regulatory authority copies of all appropriate water rights prior to development of such water rights.

On revised page I-115 of the MRP (revised June 2, 1983) the applicant committed to submit copies of all appropriate water rights to the regulatory authority prior to development of such water rights. Therefore, stipulation 817.54-(1)-DD was removed from the Final Stipulation list.

Section UMC 817.55 Addendum

Original Stipulations 817.55-(1-3)-DD

1. The applicant shall maintain and monitor a controlled flow rate into the mines and report flow rates (quantity) and quality of water discharged into the mine on a quarterly basis.
2. At least 120 days prior to initial construction (any construction related to mine development), the applicant shall provide to the regulatory authority the proper approval from MSHA.
3. At least 120 days prior to portal construction, the applicant shall submit an underground map of the Gilson workings depicting the location of water in the mine.

The applicant committed to Stipulation 817.55-(1)-DD on revised page I-131 of the MRP (revised June 2, 1983). Therefore, this stipulation was removed from the Final Stipulations list.

Also, on revised page I-131 of the MRP, the applicant committed to provide the regulatory authority with MSHA approval for discharge of water into the mine, at least 120 days prior to construction related to subsurface development. Therefore, Stipulation 817.55-(2)-DD was removed from the Final Stipulations list.

On June 13, 1983, the applicant submitted map D03-0010A showing the extent of water in the abandoned Gilson workings. Therefore, Stipulation 817.55-(3)-DD was removed from the Final Stipulations list.

Section UMC 817.56 Addendum

Original Stipulation 817.56-(1)-DD/OSM5

1. Prior to cessation of operations the applicant shall submit specific details of transfer of title to the Anderson and Dugout Reservoirs. This transfer agreement must incorporate any responsibilities the new owner will need to assume as part of reservoir maintenance.

Stipulation 817.56-(1)-DD/OSM5 was not changed.

Section UMC 817.57 Addendum

Original Stipulation 817.57-(1, 2)-DD

1. Prior to any construction in the area the applicant shall establish markers establishing a 100 foot buffer zone along the perennial and intermittent streams adjacent to approved activities.
2. The applicant shall submit plans and calculations on long-term postmining reclamation stability and erosion control for the drainage channel of Fish Creek Canyon across and over the outslope of the portal pad to the point where it enters the natural drainage again. The plan will be submitted at least 120 days prior to construction of any discharge structures and/or erosion control measures.

Stipulation 817.57-(1)-DD was not changed. OSM found that the requirements of 817.57-(1)-DD are met by regulation, therefore this stipulation was dropped from the OSM stipulation list.

The regulatory authority was concerned about the long-term postmining reclamation stability and feasibility of the proposed drainage channel across the portal pad in Fish Creek Canyon. Since final designs cannot be submitted at this time it was determined that the applicant should commit to restore the original drainage if the feasibility of this approach could not be successfully demonstrated to the RA at a later date. The applicant made this commitment and has described the restored drainage (if such will be required) on revised pp-I-297, I-312, I-326 (revised June 2, 1983). The revised stipulation reads:

Final Stipulation 817.57-(2)-DD/OSM6

2. The applicant shall submit final detailed plans and calculations on long-term postmining reclamation stability and erosion control for the drainage channel of Fish Creek Canyon across and over the outslope of the portal pad to the point where it enters the natural drainage again. The plan will be submitted at least 120 days prior to any construction in the Fish Creek Canyon portal area. If the applicant cannot successfully demonstrate the feasibility of this approach, then the applicant will be required to submit for regulatory authority approval a plan for pad and culvert removal and restoration of the original drainage.

Section UMC 817.61-.68 Addendum

Original Stipulation 817.61-.68-(SL)

1. At least 120 days prior to construction of any surface facilities, the applicant shall submit a plan for approval by the regulatory authority for storage, transportation and handling of explosives addressing the requirements of UMC 817.61-.68.

It was found that the language of the original stipulation was too narrow, as the applicant should address all parts of UMC 817.61-.68, therefore this stipulation was rewritten accordingly.

Final Stipulation 817.61-.68-(1)-SL/OSM7

1. At least 120 days prior to construction of any surface facilities, the applicant shall submit to the regulatory authority documentation of compliance with the requirements of UMC 817.61-.68.

Section UMC 817.86-.87 Addendum

Original Stipulation 817.86-.87-(1)-SL

1. The applicant shall provide, for approval by the regulatory authority, an operational plan for extinguishing potential waste fires in accordance with UMC 817.87 and MSHA regulations. This must be submitted 120 days prior to initial construction.

On revised page I-266 of the MRP (revised June 2, 1983), the applicant committed to comply with UMC 817.86-.87 and with MSHA regulations. A copy of MSHA approval will be sent to the regulatory authority upon receipt. Therefore, Stipulation 817.86-.87-(1)-SL was removed from the Final Stipulations List.

Section UMC 817.95 Addendum

Original Stipulation 817.95-(1)-PGL

1. The applicant shall submit a letter at least 120 days prior to initial construction stating that the conditions outlined in the Bureau of Air Quality conditional approval will be met. (Conditional approval letter from Brent C. Bradford to Nicolas K. Temnikov date May 18, 1981, attached to TA).

Stipulation 817.95-(1)-PGL was not changed. OSM found that the requirements of 817.95-(1)-PGL will be met under Bureau of Air Quality regulations, therefore this stipulation has been dropped from the OSM stipulation list.

Section UMC 817.97 Addendum

Original Stipulations UMC 817.97-(1-3)-SL

1. (This stipulation will be re-written based on new BLM, FWS letters).
2. At least 120 days prior to any conveyor construction, final detailed designs showing exact location of the conveyor corridor, height of the belt from the ground along the entire length of the conveyor and the location and design of any proposed big game crossings must be submitted to the regulatory authority for approval. The design must be correlated with data collected during the DWR study (Utah Division of Wildlife Resources, 1982) on big game movements through, and general use of the chosen conveyor corridors. The applicant has committed as a part of a wildlife mitigation plan to carry out a big game movement monitoring program post-construction. Design of this monitoring program must be submitted to the regulatory authority for review and approval at least 120 days prior to conveyor construction. Based on the results of this study the applicant may also be required to carry out certain big game mitigation practices, including but not limited to the construction of one or more big game crossings.
3. A final mitigation plan must be submitted to the regulatory authority at least 120 days prior to conveyor construction detailing all measures Sunedco will take to lessen impacts of mining on wildlife in the permit area. All sections of the proposed mitigation plan which were indefinite in the permit application must be committed to, or taken out of the plan.

Final Stipulation 817.97-(1)-SL/OSM8 consists of the stipulations submitted by the Bureau of Land Management, incorporating requirements of the U.S. Fish and Wildlife Service as stated on page 1 of their May 12, 1983 letter. The BLM/FWS stipulations are shown in the attached stipulation list. (Standard archaeological stipulations Nos. 5 and 6 have been removed from the BLM stipulation list, as agreed upon by Blaine Miller of the BLM Price office on 9/13/83).

The regulatory authority was concerned that any approval granted for the conveyor be consistent with the Bureau of Land Management's Special Use Permit for the conveyor. Therefore, a sentence was added to Stipulation 817.97-(2)-SL/OSM9 denoting the need for permitting consistency.

Final Stipulation 817.97-(2)-SL/OSM9

2. At least 120 days prior to any conveyor construction, final detailed designs showing exact location of the conveyor corridor, height of the belt from the ground along the entire length of the conveyor and the location and design of any proposed big game crossings must be submitted to the regulatory authority for approval. The design must be correlated with data collected during the DWR study (Utah Division of Wildlife Resources, 1982) on big game movements through, and general use of the chosen conveyor corridors. In no case shall minimum height of the conveyor above ground surface be less than that approved in the Bureau of Land Management's Special Use Permit for this conveyor. The applicant has committed, as part of a wildlife mitigation plan, to carry out a big game movement monitoring program post-construction. Design of this monitoring program must be submitted to the regulatory authority for review and approval at least 120 days prior to conveyor construction. Based on the results of this study, the applicant may also be required to carry out certain big game mitigation practices, including but not limited to the construction of one or more big game crossings.

The applicant revised pages II-407, II-408, II-409, II-410, II-411, II-414 and II-418 of the MRP (revised June 2, 1983) to remove all indefinite statements in the wildlife mitigation plan. Therefore, the last sentence of Stipulation 817.97-(3)-SL was removed from the Final Stipulation. In addition, OSM must respond to the concerns expressed in the FWS letter of May 12, 1983. The FWS requirements on page one of this letter are covered by BLM stipulations; certain additional concerns expressed by the FWS on page two of their May 12, 1983 letter must also be addressed. OSM found that of the ten items listed, items b, d and j were covered by BLM stipulations, item c is covered in the MRP, and item h is covered by MMS review and concurrence. Therefore OSM has required the applicant to address items a, e, f, g and i in their final wildlife mitigation plan.

Final Stipulation 817.97-(3)-SL/OSM10

3. A final mitigation plan must be submitted to the regulatory authority at least 120 days prior to conveyor construction detailing all measures Sunedco will take to lessen impact of mining on wildlife in the permit area. This mitigation plan must also address items a, e, f, g and i listed on page two of the May 12, 1983 U.S. Fish and Wildlife Service memorandum, "Review of Concerns - MRP, Sunedco, Sage Point-Dugout Canyon".

Section UMC 817.99 Addendum

Original Stipulation 817.99-(1)-SL

1. The applicant shall notify the regulatory authority of any slide or surface failures which may occur during operations.

Stipulation 817.99-(1)-SL was not changed. OSM found that the requirements of 817.99-(1)-SL would be met by regulation, therefore this stipulation was dropped from the OSM stipulation list.

Section UMC 817.101 Addendum

Original Stipulation 817.101-(1)-PGL

1. The applicant stated that some of the portal face cuts ("highwalls") would remain, but not all. A clear description (maps and cross sections with text) of which "highwalls" will be left and which will be graded and reclaimed must be submitted to the regulatory authority for approval at least 120 days prior to any portal construction. The description will include stability analyses of representative slopes for each of the highwall areas. Further, the applicant shall evaluate in these analyses the potential for use of material from other areas (mine development waste rock areas) to achieve less slope angles and acceptable slopes with a minimum static safety factor of 1.5. Since the portal areas to be reclaimed will be "graded before topsoil placement along the contour unless site-specific slope conditions would cause a safety hazard to the operator", a contingency plan for these described conditions must be submitted. Exactly how will a portal face be reclaimed where slope conditions are hazardous?

On revised page I-295 (revised June 2, 1983), the applicant committed to submit stability analyses of representative slopes for each of the highwall areas and to evaluate potential use of material from other areas to achieve acceptable slopes. A revised Map D03-0085 was also submitted showing which highwalls would remain following mining. Accordingly, these requirements were removed from Final Stipulation 817.101-(1)-PGL/OSM11.

Final Stipulation 817.101-(1)-PGL/OSM11

The applicant has shown in Map D03-0085 the locations of the portal face cuts ("highwalls") that would remain after reclamation. A detailed description of the "highwalls" that will be left (in accordance with UMC 817.101(8)) and those which will be finally graded and reclaimed must be submitted to the regulatory authority for approval at least 120 days prior to any portal construction. Since the portal areas to be reclaimed will be "graded before topsoil placement along the contour unless site-specific slope conditions would cause a safety hazard to the operator," a contingency plan for these described conditions must be submitted. Exactly how will a portal face be reclaimed where slope conditions are hazardous?

Section UMC 817.107 Addendum

Original Stipulation 817.107-(1)-PGL

1. A written commitment is needed from the operator that when rills or gullies deeper than nine inches form in areas that have been regraded or topsoiled, the rills and gullies shall be filled, graded or otherwise stabilized according to Section UMC 817.111-.117; or when rills and gullies form of a lesser size they will be stabilized and the area reseeded or replanted if the rills or gullies are disruptive to the approved postmining land-use or may result in additional erosion and sedimentation.

Stipulation 817.107-(1)-PGL was not changed. OSM found that the requirements of 817.107-(1)-PGL would be met by regulation, therefore this stipulation was dropped from the OSM stipulations list.

Section UMC 817.111-.117 Addendum

Original Stipulations 817.111-.117-(1, 2)-SL

1. At least 120 days prior to initial construction, the applicant must submit to the regulatory authority for approval a detailed plan for seed bed preparation and seeding for the waste rock disposal areas.
2. At least 120 days prior to initial construction, the applicant shall convey in writing to the regulatory authority its decision to utilize either the revegetation success standard proposed in Section UMC 817.117 of the Technical Analysis for the affected deciduous streambank community, or any alternative standard which can be demonstrated to be a practical way to measure success on this vegetation type. If the applicant elects to propose an alternate success standard, the concurrence of the regulatory authority must be obtained within the 120 day period.

The applicant revised pages I-299, I-314, II-308 and II-339 of the MRP (revised June 2, 1983) to indicate that waste rock disposal areas would not be seeded. This was accepted by the regulatory authority since a variance to retopsoiling waste rock disposal areas was already granted (TA Section 817.21-.25). Therefore, Stipulation 817.111-.117-(1)-SL was removed from the Final Stipulation List.

On revised pages I-324 and II-300 of the MRP (revised June 2, 1983), the applicant committed to use the success standard proposed in Section UMC 817.11-.17 of the Technical Analysis for the affected deciduous streambank community. Therefore, Stipulation 817.111-.117-(2)-SL was removed from the Final Stipulation List.

Section UMC 817.121 Addendum

Original Stipulations 817.121-(1, 2)-TNT

1. At least 120 days prior to initiation of mining, the applicant must provide to the regulatory authority a letter stating that the Mountain Fuel Supply Company has been made aware of potential subsidence under their pipeline.
2. Updated subsidence prevention plans must be provided to the regulatory authority for approval if deviation from forecasts in the MRP are developed. Should any surficial damage or fractures become apparent which may constitute a hazard, subsidence prevention plans must be updated immediately.

On revised page I-244 of the MRP (revised June 2, 1983), the applicant committed to notify Mountain Fuel Supply Company of potential subsidence under the pipeline at least one year prior to initiation of mining under the pipeline, and to provide the regulatory authority with a letter documenting notification. Therefore, Stipulation 817.121-(1)-TNT was removed from the Final Stipulation List.

Stipulation 817.121-(2)-TNT/OSM12 was not changed.

Section UMC 817.122-.126 Addendum

Original Stipulation 817.122-.126-(1)-TNT

1. Each owner of property or resident within the area above the underground workings and adjacent area that would be affected by subsidence if it occurred must be notified by mail at least six months prior to mining. The notification shall contain as a minimum:
 - A. Identification of specific areas in which mining will take place.
 - B. Dates of underground operations that could cause subsidence and affect specific structures; and
 - C. Measures to be taken to prevent or control adverse surface effects.

Stipulation 817.122-.126-(1)-TNT was not changed. OSM found that the requirements of 817.122-.126-(1)-TNT would be met by regulation, therefore Stipulation 817.122-.126-(1)-TNT was dropped from the OSM stipulation list.

Section UMC 817.150 Addendum

Original Stipulation 817.150-(1)-SL

1. At least 150 days prior to initiation of construction, the applicant must submit to the regulatory authority for approval detailed designs for all proposed Class II roads. Designs must include detailed drawings of road alignment, grades and sizing and location of culverting. The designs must comply with the criteria the applicant submitted on pages 21-22, August 1981 MRP Addendum.

The time frame of Stipulation 817.150-(1)-SL was changed to 120 days to make all stipulations consistent. The last sentence of this stipulation was removed from the Final Stipulation since the applicant had already committed to comply with the referenced criteria.

Final Stipulation 817.150-(1)-SL/OSM13

1. At least 120 days prior to initiation of construction, the applicant must submit to the regulatory authority for approval final detailed designs for all proposed Class II roads. Designs must include detailed drawings of road alignment, grades and sizing and location of culverting.

Cultural Resources

A. Description of Existing Environment 783.12(b)

Three cultural resources investigations have been performed for the previous owner of this property, Eureka Energy Company. Dale Berge (1976) outlined the potential for locating cultural resource sites. AERC (1980) performed an intensive inventory of 3,428 acres plus 30 linear miles of corridor right-of-way. During this survey 33 sites were located within the permit area. And in 1981, AERC performed an historic site evaluation.

Nine historic sites, 23 prehistoric and one prehistoric/historic sites were located. Of the 23 prehistoric sites five were temporary camps, fifteen were lithic scatters, two were petroglyph-pictograph sites, one rockshelter and one storage site. A number of isolated finds were also located. Sites were found in the greatest densities along the creeks and tributaries within the project area. Additionally there appeared to be a clustering or concentration of sites which were located within the Pinyon-Juniper ecozone of the lower foothills. Soldier Creek appears to have served as a main avenue of movement both prehistorically and historically.

The Post Archaic/Fremont is best represented culturally, however, there is some evidence of earlier Archaic and later Shoshonean occupations.

B. Description of Applicants Proposal 781.17

Cultural resource surveys were conducted by Archaeological Environmental Research Corporation (AREC) in all areas that are proposed to receive direct surface disturbance and a sample survey of areas that may be impacted by subsidence has also been conducted.

The eligibility criteria (36 CFR 60.6) has been applied to the thirty-three sites. OSM believes that 13 of these sites are eligible for listing on the National Register of Historic Places. However, only 8 of these sites will be directly or indirectly impacted by mining activities. Recommendations for site eligibility and for a "No Adverse Effect Determination" pursuant to 35 CFR 800 have been sent to the Utah State Historic Preservation Officer. The SHPO concurs with OSM's recommendations there will be "No Adverse Effect" by OSM's approval of the mine plan to any site listed or eligible for listing on the National Register of Historic Places. To prevent impact to the eight sites that may be directly or indirectly impacted OSM has proposed stipulations requiring the applicant to submit a data recovery or mitigation plan (see Section F Proposed Special Stipulations)

C. Evaluation of Compliance

1. Applicants Compliance

Cultural resource surveys were conducted on all areas of the mine plan that are proposed for surface disturbing activities. An adequate sample survey to locate sites that may be impacted by subsidence has also been conducted.

The applicant has not yet provided a site specific mitigation plan or data recovery proposal that would eliminate the adverse impacts to the eight eligible sites that will be impacted. However, the applicant has provided sufficient information necessary for OSM to begin the consultation process with the Utah SHPO, pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA).

2. OSM Compliance

OSM has complied with the procedures required by section 106 of NHPA by evaluating the eligibility of the thirty-three located cultural resources and making a recommendation, based on data provided by the applicant of "No Adverse Effect" to the Utah SHPO. If the Utah SHPO concurs with OSM's recommendations then the Section 106 compliance process will be completed.

D. Revisions to Applicants Proposal

If the mine plan is approved the applicant will be submitting additional information as required in Section F, Proposed Special Stipulations.

E. Re-Evaluation of Compliance

The Utah SHPO concurs with OSM's recommendations; a re-evaluation of the procedures will not be necessary.

F. Proposed Special Stipulations

1. The operator shall submit to the regulatory authority and the SHPO for review and approval, a site specific mitigation plan for sites 42 Cbl72, 173, 196, 135, 185, 188, 186 and 202. When approved, the operator shall implement the mitigation specified in the mitigation proposal. A draft report of the data recovery shall be submitted for review and approval to the regulatory authority and the SHPO no later than 4 months after completion of the data recovery. A final report shall be submitted within 4 months after receiving the comments and recommendations of the regulatory authority and the SHPO which incorporates these comments and recommendations.

Justification: In accordance with the PMOA and to minimize or prevent adverse impacts to significant cultural resource sites.

G. Summary of Compliance

The applicant will be in compliance with OSM regulations if the stipulation in Section F is adhered to. (Standard archeological stipulations Nos. 5 and 6, submitted in the BLM letter of October 23, 1981, were removed by permission of Blaine Miller of the BLM Price office on September 13, 1983, since these two stipulations have been fulfilled by the archaeological surveys and since the Utah SHPO has concurred as to the adequacy of the surveys.) OSM is in compliance with Section 106 of the National Historic Preservation Act of 1966. OSM has begun the compliance process by submission of Attachment #1 to the Utah SHPO, and by enforcing compliance with the Proposed Special Stipulations (Section F).

H. Proposed Departmental Action

Approve with proposed special stipulations.

I. Residual Impacts of Proposed Departmental Action

During mining operations 3 historic sites and 5 prehistoric sites will be impacted. Mitigation measures in the form of a data recovery plan will be necessary to mitigate adverse impacts. Even with a well-developed mitigation plan, however, some data will be lost. Furthermore, once the sites are destroyed they can never be re-examined. Thus, there would be a loss of potential data, as well as the physical loss of the sites.

Known and unknown cultural resources located in the vicinity may be impacted by mining activities as a result of increased population in the area. There may be increased vandalism and unauthorized collections associated with recreational activities and other pursuits.

J. Alternative to Proposed Action

One alternative would be not to mine. No cultural resources would be destroyed. Another alternative would be to move the mine facilities. There is no guarantee, however, that this would not impact other previously unknown, cultural resources.

SUPPLEMENT I TO THE TECHNICAL ANALYSIS

Sunoco Energy Development Company
Sage Point-Dugout Canyon Mine
ACT/007/009, Carbon County, Utah

September 19, 1983

Purpose

It has recently been determined that several regulations that the State of Utah had considered to be suspended or remanded are still in effect since the rule changes did not receive Secretarial approval. The Office of Surface Mining (OSM) requested that the Sage Point-Dugout Canyon Mine Mining and Reclamation Plan (MRP) and Decision Document be reviewed to determine if those regulations which were found to be still in effect were adequately addressed in the MRP and were determined to comply with the permitting requirements established by the State of Utah. The following document is an evaluation of each of these regulations, grouped by subject, to determine if the information in the MRP meets the regulatory requirements of completeness and technical adequacy.

Introduction

The Sage Point-Dugout Canyon Mine Plan was submitted in December of 1980. This was prior to Utah's Permanent Program approval; therefore, the mine plan was put together to address all of the regulations promulgated under Utah Code Annotated 40-10-1, et seq., 1979, including those regulations which were later thought to have been suspended or remanded. Thus, although it is to be expected that most, if not all of the regulations in question, were addressed by the original MRP, this Supplement to the Technical Analysis provides documentation of the Division's finding of compliance for those regulatory requirements not formally addressed in the Technical Analysis.

Sections Not Applicable to the Sage Point-Dugout Canyon Mine Final Permit Approval

UMC 761.5(c)	<u>Valid Existing Rights</u>
UMC 776.11(b) (5)	<u>Requirements of Exploration of Less Than 250 Tons</u>
UMC 700.11(a) (2)	<u>The Two Acre Exemption</u>
UMC 783.14(a) (1)	<u>Geology Description of Overburden to be Removed</u>
UMC 786.5--a definition of	<u>Irreparable Damage to the Environment</u>
UMC 805.13(a), (b), (c)	<u>Period of Liability for Performance Bonds</u>

The above-listed regulations were found to be inapplicable to the Sage Point-Dugout Canyon Decision Document for the following reasons: the applicant has not claimed valid existing rights; the application is not for exploration of less than 250 tons or for a two-acre exemption; no overburden will be removed since this is to be an underground mine; no response is required of the applicant concerning definitions; and, the requirements of UMC 805.13 do not come into effect until after mining ceases. The applicant indicates average annual precipitation is 10 inches (MRP, page II-249), therefore, the liability period will be 10 years.

Water Rights

UMC 817.54 (second paragraph) Authority of State Engineer

The Division of Oil, Gas and Mining (DOGM) has submitted a copy of the MRP to the State Engineer for review. Comments from the State Engineer's Office are included in the Decision Document as attachments to the Technical Analysis (TA). Therefore, the criteria of this section have been met in the review process.

Mining Within 300 Feet of an Occupied Dwelling

UMC 761.12(e)

The applicant shows existing structures within the permit area on Map D03-0010 in the MRP, which follows page I-70. Comparison of this map with Coal Ownership Map D03-0005, following page I-22 of the MRP, shows that no mining will occur within 300 feet of an occupied dwelling. Therefore, the applicant meets the requirements of this section.

Cultural and Historic Resources

UMC 783.12(b) Description of Cultural and Historic Resources

UMC 783.24(i) Map of Public Parks and Cultural or Historic Resources

UMC 786.19(e) Criteria for Permit Approval Pertaining to Parks or National Register of Historic Places.

The applicant describes the cultural and historic resources listed on the National Register of Historic Places and known archeological sites within the proposed mine plan and adjacent areas in a report on pages II-474 through II-511 of the MRP. Maps showing locations of sites eligible for National Register listing and known archeological sites within the mine plan and adjacent areas are included in the MRP on Figures IV-I.5 through IV-I.10, and analyzed for historic potential on pages II-489 through II-492. There are no public parks within the permit or adjacent area (MRP, Page II-484).

In a letter dated June 18, 1983, OSM determined that eight (8) sites with potential for National Register of Historic Places listing could be directly impacted by mining activities (see copy attached to this document). Two stipulations were included, which OSM believed if accepted by the applicant, would preclude adverse affects to the eligible sites. The Utah State Historic Preservation Office (SHPO) concurred with OSM's determination in a December 6, 1982 letter (attached to TA). The OSM's Technical Analysis of Cultural Resources included one of the stipulations from the June 18, 1982 letter. There are no performance standards for cultural resources in the Utah program.

Based on the information submitted in the MRP, and OSM and SHPO's review and analysis, these sections have been adequately covered.

Alternative Water Supply

UMC 783.17

The applicant states on page II-117 of the MRP, that little or no adverse effects to the water supply in the area of the proposed mine will occur due to coal mining or related activities. The application does not identify alternative sources of water supply to replace existing sources, should contamination, diminution or interruption of water sources occur due to mining activities.

The applicant has not responded completely to this section, and should at a minimum, be required to commit to replace any water sources affected by mining or related activities, for livestock, and wildlife utilization. This would ensure compliance with performance standard UMC 817.97(d)(4), regarding habitats of unusual value to wildlife, and could be a part of the mitigation plan required under Stipulation UMC 817.97-(3)-SL.

Alluvial Valley Floors

UMC 785.19(d) Application Contents for Operations Affecting Designated Alluvial Valley Floors

The application includes a section on Alluvial Valley Floors (AVF) (Section IV-D, pages II-236 through II-242). Vegetation, hydrology, geology, land-use and soil studies for potential AVF's are reported in these respective sections of the MRP. An AVF investigation per OSM guidelines was conducted by the applicant and a potential AVF determined along Soldier Creek. Potential impacts would be limited to surface effects from construction and operation of surface facilities nearby.

The information provided in the application is complete and enabled DOGM to determine the potential for an AVF and to evaluate potential effects of mining activities on the AVF. A detailed technical analysis of the applicant's compliance with AVF regulations (UMC 822.1-.14) is included in the TA document prepared by DOGM. The Division found that the applicant successfully demonstrated that the impacts to the AVF or the hydrologic regime during or after mining will be minimal. Appropriate reclamation practices are proposed to protect and restore, where necessary, the AVF.

Prime Farmlands

UMC 785.17(a) Scope

UMC 823.2 Objective

UMC 823.11(a), (b) Special Requirements

UMC 823.12(a), (b) Soil Removal

UMC 823.13 Soil Stockpiling

UMC 823.14(a), (b), (d), (e), (f) Soil Replacement

UMC 823.15(a) Revegetation

The applicant includes a discussion of Prime Farmland (pages II-199 through II-206). A half-section of land was determined to be suitable for prime farmland. This area will be disturbed by a mine access road. The application adequately describes soil removal, stockpiling, replacement and revegetation on the prime farmland area. A detailed technical analysis of the applicant's compliance with performance standards of UMC 823.2-.15 was done (see DOGM TA) and the application was found to comply with these sections.

Ground Water Monitoring

UMC 817.52(a)(1)

The applicant has set up a ground water monitoring study to determine recharge, storage and discharge characteristics of the underground aquifer, as well as ground water quality and quantity (MRP pages II-63 through 64). Guidelines prepared by DOGM were used to establish this monitoring plan. Compliance with UMC 817.52 was analyzed in DOGM's TA and the ground water monitoring plan was found to be adequate.

Backfilling and Grading

UMC 817.101(b)(1) Requirement

UMC 817.101(c)(1) Prohibition of Placing Spoil Downslope of a Steep Slope

The applicant has committed to return all areas affected by surface facilities within the permit area to a final configuration similar to the land surface present prior to mining (MRP, page I-289). Spoil material in Fish Creek and Dugout Canyon will be used to construct stable fills in the portal areas (MRP, page I-293). The applicant's compliance with UMC 817.101 was analyzed in the TA, and these sections were found to be adequately treated.

Covering Coal and Acid- and Toxic-Forming Materials

UMC 817.103(a)(1)

The applicant has committed to analyze dregs and waste from sedimentation ponds, emergency surge ponds and sewage ponds for potential acid-forming, toxic-forming or alkalinity-producing material prior to final disposal. Special handling will occur if any of these conditions are found to exist (MRP, page I-139). Waste from the preparation plant will be disposed of according to State and Federal regulations (MRP, page I-103). The application has been found to be technically complete and adequate in this area and to comply with the performance standards of UMC 817.103.

Revegetation Success Standards

UMC 817.116(a) Techniques

UMC 817.116(c) Management During Liability Period

The applicant will use vegetation reference areas to assess revegetation success. Reference areas will be monitored on a periodic basis to determine if they are being impacted detrimentally (MRP, page II-277). The applicant has submitted a plan to determine reclamation success, including methods to monitor soils, water and vegetation during the period of liability (MRP, pages II-90, II-113, II-222, II-341). The application was found to be technically adequate and to comply with these sections (see DOGM TA).

Roads

UMC 700.5 Definition

UMC 817.150-.156 Class I Roads

UMC 817.160-.166 Class II Roads

UMC 817.170-.176 Class III Roads

The application describes the location of Class I and II roads, and includes designs of typical contour ditching and temporary berms, temporary slope drains, sediment structures, check dams, drainage diversions, road sections and pipe outlets (MRP, pages I-107 through I-133). There will be no Class III roads in the permit area. All roads except county roads will be removed following conclusion of mining operations. The information submitted was found to be complete and technically adequate. Detailed designs for Class II roads are still required (see DOGM TA).

SUPPLEMENT II TO THE TECHNICAL ANALYSIS

Sunoco Energy Development Company
Sage Point-Dugout Canyon Mine
ACT/007/009, Carbon County, Utah

February 17, 1984

Technical Adequacy Determination

UMC 783.17 and 817.54 Alternative Water Supply and Water Rights Replacement

In the Division's September 19, 1983 Supplement I to the Technical Analysis (TA), it was determined that Sunoco had not complied with the requirement to replace any water sources affected by mining or related activities. In the December 21, 1983 submittal, the applicant has committed to construct ponds to provide water for domestic stock or wildlife, should adverse affects occur due to mining. Therefore, these sections have now been adequately addressed.

UMC 817.111-.117 Revegetation (Dugout Canyon Waste Rock Disposal Area)

With the December 21, 1983 submittal, the applicant has submitted a complete plan for reclamation of the Dugout Canyon Waste Rock Disposal Site, which will be disturbed during the initial five-year permit term. This reclamation plan includes applying topsoil lifted from the Dugout Canyon Reservoir site, fertilizing, discing and harrowing or compacting to prepare a seedbed, drilling the seed and straw mulching on gentle slopes, and broadcast seeding on steep slopes. Straw mulch, anchored with plastic netting or a chemical adhesive will be used on steep slopes. The proposed seed mix is acceptable to the regulatory authority. Shrub seedlings will also be planted on gentle slopes. Supplemental irrigation will be applied if warranted. The applicant has also addressed monitoring of reclaimed areas. Therefore, these sections have now been adequately addressed by the applicant.

UMC 817.101 Backfilling and Grading (Highwall Stability)

A geotechnical investigation of the highwall stability in the Dugout Canyon portal area was conducted by Seegmiller International, and submitted as part of the PAP on January 4, 1984. All results based on field and laboratory analyses conclude that the minimum static safety factors are in excess of 1.5. The applicant has committed to construct the Dugout Canyon portals in accordance with the contractor's recommendations. Therefore, the applicant has adequately addressed the concerns of Stipulation 817.101-(1)-PGL, and this stipulation has been withdrawn from the Final Permit Stipulations list.

UMC 817.22 Alluvial Valley Floors

An alluvial valley floor (AVF) has been determined to exist along Soldier Creek in the life-of-mine area. Within the initial SMCRA permit area, no mine related activity will occur on or adjacent such as to impact this AVF and sufficient water to irrigate this area will be available. Therefore, the regulatory authority has no further concerns about the AVF issue at this time.

UMC 817.49 Hydrologic Balance: Permanent and Temporary Impoundments

It was determined that Stipulation UMC 817.45-.47-(1)-DD/DWH did not address the requirements of UMC 817.49 insofar as these requirements would pertain to permanent impoundments, specifically, Dugout Reservoir. The applicant will utilize water from the old Knight-Ideal mine in Dugout Canyon for mining operations until Dugout Reservoir is constructed. Since only conceptual designs for Dugout Reservoir were submitted on pages I-116, I-117, Drawing DO3-0100 and Map DO3-0034 of the application, it will be necessary for the applicant to address all of the requirements of UMC 817.49 insofar as they would pertain to the Dugout Reservoir permanent impoundment.

2. Within 120 days of permit issuance the applicant shall submit information, to supplement the conceptual plan presented in the application, which demonstrates compliance with UMC 817.49 (Hydrologic Balance: Permanent and Temporary Impoundments) insofar as the requirements of this section relate to the Dugout Reservoir, a permanent impoundment. The required information shall be submitted to the regulatory authority for approval. The construction of Dugout Reservoir is not authorized until the applicant has complied with the requirements of this condition.

* * *

In addition to the above determination of technical adequacy, several stipulations have been removed from the Final Permit Stipulations list, because they deal with issues or areas that are not pertinent to or will not be impacted during the initial five-year permit term. These stipulations are listed below.

Stipulation 817.45-.47-(2)-DD/DWH

2. At least 120 days prior to surge pond construction, the applicant must submit for regulatory authority approval, final designs demonstrating that the emergency surge pond for the preparation plant is sized to contain the working volume of treatment fluids, with the appropriate freeboard, and constructed to meet design criteria for embankments and sediment removal designated in UMC 817.46.

Stipulation 817.49-(2)-DD/DWH

1. Same as Stipulation 817.45-.47-(2)-DD/DWH.

Stipulation 817.57-(2)-DD

2. The applicant shall submit final detailed plans and calculations on long-term postmining reclamation stability and erosion control for the drainage channel of Fish Creek Canyon across and over the outslope of the portal pad to the point where it enters the natural drainage again. The plan will be submitted at least 120 days prior to construction of any discharge structures and/or erosion control measures. If the applicant cannot successfully demonstrate to the regulatory authority the feasibility of this approach, then the pad and culvert will be removed and the drainage will be restored.

Stipulation 817.97-(1)-SL, which was a Federal Agency stipulation, has also been deleted from DOGM's Stipulation List.

Final Stipulations 817.45-.47-(1)-DD/DWY, 817.56-(1)-DD and 817.97-(2)-SL have been reworded slightly to reflect conditions of the five year permit area.

REVISED FINAL PERMIT STIPULATIONS

Stipulation 817.42-(1)-DD

1. The applicant shall provide anticipated sediment influent concentrations characteristic of the undisturbed drainages so as to determine the quality of effluents from both waste disposal sites and undisturbed drainages. Final designs for sediment ponds must show evidence of compliance with UMC 817.42 through design criteria that will meet State and Federal water quality and effluent limitations. The final pond designs shall be submitted to the regulatory authority at least 120 days prior to planned sediment pond construction.

Stipulation 817.43-.45-(1-2)-DD

1. The applicant must submit, at least 120 days prior to planned portal construction, longitudinal cross-sections and design calculations for culverts emplaced under the portal areas used to divert undisturbed runoff.
2. All culverts and diversions shall discharge onto a protected surface (i.e., riprap, conveyor belting, flexible downspouts, etc.) to prevent scouring and erosion.

Stipulation 817.45-.47-(1)-DD/DWH

1. At least 120 days prior to planned sedimentation pond construction, the applicant must demonstrate to the regulatory authority that the final designs for the sedimentation ponds at the portal areas will meet all applicable State and Federal water quality effluent limitations.

Stipulations 817.49-(1,2)-DD/DWH

1. Same as Stipulation 817.45-.47-(1)-DD/DWH.
2. Within 120 days of permit issuance the applicant shall submit information, to supplement the conceptual plan presented in the application, which demonstrates compliance with UMC 817.49 (Hydrologic Balance: Permanent and Temporary Impoundments) insofar as the requirements of this section relate to the Dugout Reservoir, a permanent impoundment. The required information shall be submitted to the regulatory authority for approval. The construction of Dugout Reservoir is not authorized until the applicant has complied with the requirements of this condition.

Stipulation 817.50-(1)-DD

1. At least 120 days prior to construction of the portals, the applicant shall submit for regulatory authority approval, a plan for handling and treating all mine water discharges. This information is needed because actual quantities of ground water intercepted cannot be predicted at this time. This plan will be in accordance with UMC 817.50.

Stipulation 817.56-(1)-DD

1. Prior to cessation of operations the applicant shall submit specific details of transfer of title to the Dugout Reservoir. This transfer agreement must incorporate any responsibilities the new owner will need to assume as part of reservoir maintenance.

Stipulation 817.57-(1)-DD

1. Prior to any construction in the area the applicant shall establish markers establishing a 100 foot buffer zone along the perennial and intermittent streams adjacent to approved activities.

Stipulation 817.95-(1)-PGL

1. The applicant shall submit a letter at least 120 days prior to initial construction stating that the conditions outlined in the Bureau of Air Quality conditional approval will be met. (Conditional approval letter from Brent C. Bradford to Nicolas K. Tennikov dated May 18, 1981, attached to TA.)

Stipulations UMC 817.97-(1-2)-SL

1. At least 120 days prior to any conveyor construction, final detailed designs showing exact location of the conveyor corridor, height of the belt from the ground along the entire length of the conveyor and the location and design of any proposed big game crossings must be submitted to the regulatory authority for approval. The design must be consistent with data collected during the DWR study (Utah Division of Wildlife Resources 1982) on big game movements through, and general use of the chosen conveyor corridors. In no case shall minimum height of the conveyor above ground surface be less than that approved in the Bureau of Land Management Special Use Permit for this conveyor. The applicant has committed as a part of a wildlife mitigation plan to carry out a big game movement monitoring program post-construction. Design of this monitoring program must be submitted to the regulatory authority for review and approval at least 120 days prior to conveyor construction. Based on the results of this study the applicant may also be required to carry out certain big game mitigation practices, including but not limited to the construction of one or more big game crossings.
2. A final wildlife mitigation plan must be submitted to the regulatory authority at least 120 days prior to any construction (other than initial road upgrading) detailing all measures Sunedco will take to lessen impacts of mining on wildlife in the permit area.

Stipulation 817.99-(1)-SL

1. The applicant shall notify the regulatory authority of any slide or surface failures which may occur during operations.

Stipulation 817.107-(1)-PGL

1. A written commitment is needed from the operator that when rills or gullies deeper than nine inches form in areas that have been regraded or topsoiled, the rills and gullies shall be filled, graded or otherwise stabilized according to Section UMC 817.111-.117; or when rills and gullies form of a lesser size they will be stabilized and the area reseeded or replanted if the rills or gullies are disruptive to the approved postmining land-use or may result in additional erosion and sedimentation.

Stipulation 817.121-(1)-TNT

1. Updated subsidence prevention plans must be provided to the regulatory authority for approval if deviations from forecasts in the MRP are developed. Should any surficial damage or fractures become apparent which may constitute a hazard, subsidence prevention plans must be updated immediately.

Stipulation 817.122-.126-(1)-TNT

1. Each owner of property or resident within the area above the underground workings and adjacent area that would be affected by subsidence if it occurred must be notified by mail at least six months prior to mining. The notification shall contain as a minimum:
 - A. Identification of specific areas in which mining will take place;
 - B. Dates of underground operations that could cause subsidence and affect specific structures; and
 - C. Measures to be taken to prevent or control adverse surface effects.

Stipulation 817.150-(1)-SL

1. At least 120 days prior to initiation of construction, the applicant must submit to the regulatory authority for approval final detailed designs for all proposed Class II roads. Designs must include detailed drawings of road alignment, grades and sizing and location of culverting.

REVISED BOND SUMMARY

The applicant's December 21, 1983 submittal contained revised disturbed acreage estimates, based upon facilities to be constructed only during the five-year initial permit term (PAP, Volume I, Table II-E.1). These figures were used to revise the Reclamation Bond Estimate. The revised bond estimate for the five-year permit term follows.

Dugout Canyon Portal Area	\$171,764
Water and Sewer Lines	13,855
Sewage Lagoons	40,940
Dugout Canyon Rock Fill	27,943
Dugout Canyon Reservoir	6,110
Total of Other Costs	<u>\$138,000</u>
Monitoring, Bid Preparation	\$398,612
10% Contingency	<u>\$ 39,861</u>
Total in 1980 Dollars	\$438,473

1980 - \$438,473 (9.5% inflation)
1981 - \$480,128 (9.4% inflation)
1982 - \$525,260 (5.9% inflation)
1983 - \$556,250 (not available - used 10%)
1984 - \$611,875 (This number will be revised when government figures are issued for inflation factor [third week of January]).

The applicant has already posted \$1,112,417 in December 1980.

Stipulations Proposed by the Division of Oil, Gas & Mining

Sunoco Energy Development Company
Sage Point-Dugout Canyon Mine
ACT/007/009, Carbon County, Utah

Stipulation 817.42-(1)-DD

1. The applicant shall provide anticipated sediment influent concentrations characteristic of the undisturbed drainages so as to determine the quality of effluents from both waste disposal sites and undisturbed drainages. Final designs for sedimentation ponds must show evidence of compliance with UMC 817.42 through design criteria that will meet State and Federal water quality and effluent limitations. The final pond designs shall be submitted to the regulatory authority at least 120 days prior to planned sedimentation pond construction.

Stipulations 817.43-.45-(1,2)-DD

1. The applicant must submit, at least 120 days prior to planned portal construction, longitudinal cross-sections and design calculations for culverts emplaced under the portal areas used to divert undisturbed runoff.
2. All culverts and diversions shall discharge onto a protected surface (i.e., riprap, conveyor belting, flexible downspouts, etc.) to prevent scouring and erosion.

Stipulations 817.45-.47-(1,2)-DD/DWH

1. At least 120 days prior to planned sedimentation pond construction, the applicant must demonstrate to the regulatory authority that the final designs for the sedimentation ponds at the central facilities, coal preparation plant and portal areas will meet all applicable State and Federal water quality effluent limitations.
2. At least 120 days prior to surge pond construction, the applicant must submit for regulatory authority approval, final designs demonstrating that the emergency surge pond for the preparation plant is sized to contain the working volume of treatment fluids, with the appropriate freeboard, and constructed to meet design criteria for embankments and sediment removal designated in UMC 817.46.

Stipulations 817.49-(1, 2)-DD/DWH

Same as Stipulations 817.45-.47-(1, 2)-DD/DWH.

Stipulation 817.50-(1)-DD

1. At least 120 days prior to construction of the portals, the applicant shall submit for regulatory authority approval, a plan for handling and treating all mine water discharges. This information is needed because actual quantities of ground water intercepted cannot be predicted at this time. This plan will be in accordance with UMC 817.50.

Stipulation 817.56-(1)-DD

1. Prior to cessation of operations the applicant shall submit specific details of transfer of title to the Anderson and Dugout Reservoirs. This transfer agreement must incorporate any responsibilities the new owner will need to assume as part of reservoir maintenance.

Stipulations 817.57-(1, 2)-DD

1. Prior to any construction in the area the applicant shall establish markers establishing a 100 foot buffer zone along the perennial and intermittent streams adjacent to approved activities.
2. The applicant shall submit final detailed plans and calculations on long-term postmining reclamation stability and erosion control for the drainage channel of Fish Creek Canyon across and over the outslope of the portal pad to the point where it enters the natural drainage again. The plan will be submitted at least 120 days prior to any construction in the Fish Creek Canyon portal area. If the applicant cannot successfully demonstrate to the regulatory authority the feasibility of this approach, then the applicant will be required to submit for regulatory authority approval a plan for pad and culvert removal and restoration of the the original drainage.

Stipulation 817.61-.68-(1)-SL

1. At least 120 days prior to construction of any surface facilities, the applicant shall submit to the regulatory authority documentation of compliance with the requirements of UMC 817.61-.68.

Stipulation 817.95-(1)-PGL

1. The applicant shall submit a letter at least 120 days prior to initial construction stating that the conditions outlined in the Bureau of Air Quality conditional approval will be met. (Conditional approval letter from Brent C. Bradford to Nicolas K. Temnikov dated May 18, 1981, attached to TA.)

Stipulations UMC 817.97-(1-3)-SL

1. 817.97-(1)-SL consists of the stipulations submitted by the Bureau of Land Management, incorporating requirements of the U.S. Fish and Wildlife Service as stated on page one of their May 12, 1983 memorandum. The BLM/FWS stipulations are as follows:
 - a. Widening of the existing roads along the riparian zone of Dugout Creek and Fish Creek shall be done opposite the side adjacent to the riparian zones to the maximum extent practicable as determined by the operator in consultation with the Authorized Officer.
 - b. Loss of riparian habitat on public lands through construction of facilities will be mitigated by upgrading adjacent riparian zones or establishing new riparian zones in conjunction with the Dugout Reservoir. Habitat upgrading will be accomplished by the operator prior to or during construction through coordination with the Authorized Officer.
 - c. Loss of critical winter habitat for deer by destruction or disturbance will be mitigated by upgrading adjacent winter range. Habitat upgrading will be accomplished prior to initiation of surface construction by the operator through coordination with the Authorized Officer.
 - d. Surface disturbances and facilities planned for the lease area shall be subject to Visual Resource Management considerations. Efforts shall be made to mitigate visual impacts by imitating the form, line, color and texture of the natural landscape to the greatest extent practical as determined by the Authorized Officer. This will include painting of surface structures to blend with the surrounding terrain and minimal removal of vegetation in areas of proposed surface facilities.

e. Speed of vehicular traffic associated with the mine project should be reduced to no more than 40 miles per hour throughout the mine project area (critical deer winter range) during the period November 1 through May 15 to minimize deer fatalities. The use of the Swareflex Wildlife Reflector Warning System (Streiter Corp.) is recommended to further minimize deer fatalities.

f. Dugout Reservoir will be left intact at the end of mine life if such action is determined to be in public interest. The determination will be made by the Authorized Officer at the end of mine life.

g. An inventory of areas of proposed surface disturbances shall be performed by the operator in consultation with the Authorized Officer to determine the presence of migratory birds. Mitigating measures will be prepared by the Authorized Officer to protect the habitat of migratory birds as required by 43 CFR 3461.1 (n)(1).

h. Three golden eagle nest sites were documented by the FWS and the UDWR as active by definition given in Washington Office Instruction Memorandum 80-346. A buffer zone, shown on map 1, has been established for protection of these nest sites. The area within this buffer zone is considered unsuitable for underground mining, according to Criterion 11 in the Unsuitability Criteria. Under this designation, surface occupancy or surface disturbance would not be allowed. However, an exception can be applied based on the following mitigating measures:

A. Prohibit all surface construction activity in Fish Creek Canyon within the established buffer zone during the critical nesting period, February 1 to May 15. Surface construction may be initiated on May 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on May 1 if a determination by the authorized officer, in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

B. Coordinate all nest visitation through the FWS and/or the authorized officer to minimize disturbances to nesting activity.

C. Reseed and control access to the exploration road constructed in 1979, which passes below the nest sites. Prohibit use of this road, vehicular or pedestrian, during the nesting period, February 1 to May 15.

j. Two Cooper's hawk nests have been documented as active by the BLM and the UDWR. A buffer zone established for the protection of these nest sites is outlined on map 3 and is unsuitable under Criterion 13. An exception can be applied with the following stipulations:

A. Coordinate all nest visitations with the FWS and/or the authorized officer to minimize disturbance to nesting birds.

B. Prohibit all surface construction activities within the buffer zone during the critical nesting period, April 15 to July 15. Surface construction may be initiated on July 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on July 1 if a determination by the authorized officer in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

C. Protect all shrubs, trees or other vegetation along the existing road shoulder (closest to the nest site) within the buffer zone.

k. The operator shall conduct raptor surveys (in close coordination with the U.S. Fish and Wildlife Service and the BLM) within .5 miles of proposed developments in Fish Creek Canyon in the nesting season prior to initiation of surface disturbing activity. Surveys must be acceptable to the Authorized Officer with respect to methods and qualified personnel.

2. At least 120 days prior to any conveyor construction, final detailed designs showing exact location of the conveyor corridor, height of the belt from the ground along the entire length of the conveyor and the location and design of any proposed big game crossings must be submitted to the regulatory authority for approval. The design must be consistent with data collected during the DWR study (Utah Division of Wildlife Resources, 1982) on big game movements through, and general use of the chosen conveyor corridors. In no case shall the minimum height of the conveyor above ground surface be less than that approved in the Bureau of Land Management Special Use Permit for this conveyor. The applicant has committed, as a part of a wildlife mitigation plan, to carry out a big game movement monitoring program post-construction. Design of this monitoring program must be submitted to the regulatory authority for review and approval at least 120 days prior to conveyor construction. Based on the results of this study the applicant may also be required to carry out certain big game mitigation practices, including but not limited to the construction of one or more big game crossings.

D. Construct surface facilities in Fish Creek Canyon as shown on the attached drawing (figure 1). Place topsoil and revegetate the retaining wall (shaded in on figure 1) with trees, shrubs and understory species. Where possible, use fullsize native trees and shrubs which are in areas to be disturbed. This will act as a visual block for activity in the parking area and for traffic along the portal road. Specific requirements for this revegetation will be provided to the company at the time of development.

i. One active prairie falcon eyrie, one suspected prairie falcon eyrie and one golden eagle nest site (old) was documented by the FWS and the UDWR. A buffer zone delineated on map 2 identifies the area considered unsuitable according to Criteria 11 and 13 of the Unsuitability Criteria. An exception can be applied to allow limited surface activity based on the following stipulations:

A. Allow construction of conveyor belt alignment (Alternative 6) as shown in figure 2, in Dugout Canyon.

B. Shield all lighting of the conveyor belt within the buffer zones in Dugout Canyon to minimize visibility of these lights from golden eagle and prairie falcon nest sites.

C. Prohibit all surface construction activities within the buffer zone (map 2) during the critical nesting period, March 15 to June 15. Surface construction may be initiated on June 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on June 1 if a determination by the authorized officer, in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

D. Coordinate all nest site visitations through the FWS and/or the authorized officer to minimize disturbance to nesting activity.

E. Use the minimum required number of sound warning devices on the conveyor belt within the buffer zone.

3. A final mitigation plan must be submitted to the regulatory authority at least 120 days prior to conveyor construction detailing all measures Sunedco will take to lessen impacts of mining on wildlife in the permit area.

Stipulation 817.99-(1)-SL

1. The applicant shall notify the regulatory authority of any slide or surface failures which may occur during operations.

Stipulation 817.101-(1)-PGL

1. The applicant has shown in map D03-0085 the locations of the portal face cuts ("highwalls") that would remain after reclamation. A detailed description of the "highwalls" that will be left (in accordance with 817.101(8)) and those which will be finally graded and reclaimed must be submitted to the regulatory authority for approval at least 120 days prior to any portal construction. Since the portal areas to be reclaimed will be "graded before topsoil placement along the contour unless site-specific slope conditions would cause a safety hazard to the operator," a contingency plan for these described conditions must be submitted. Exactly how will a portal face be reclaimed where slope conditions are hazardous?

Stipulation 817.107-(1)-PGL

1. A written commitment is needed from the operator that when rills or gullies deeper than nine inches form in areas that have been regraded or topsoiled, the rill and gullies shall be filled, graded or otherwise stabilized according to Section UMC 817.111-.117; or when rills and gullies form of a lesser size they will be stabilized and the area reseeded or replanted if the rills or gullies are disruptive to the approved postmining land-use or may result in additional erosion and sedimentation.

Stipulation 817.121-(2)-TNT

2. Updated subsidence prevention plans must be provided to the regulatory authority for approval if deviations from forecasts in the MRP are developed. Should any surficial damage or fractures become apparent which may constitute a hazard, subsidence prevention plans must be updated immediately.

Stipulation 817.122-.126-(1)-TNT

1. Each owner of property or resident within the area above the underground workings and adjacent area that would be affected by subsidence if it occurred must be notified by mail at least six months prior to mining. The notification shall contain as a minimum:
 - A. Identification of specific areas in which mining will take place;
 - B. Dates of underground operations that could cause subsidence and effect specific structures; and
 - C. Measures to be taken to prevent or control adverse surface effects.

Stipulation 817.150-(1)-SL

1. At least 120 days prior to initiation of construction, the applicant must submit to the regulatory authority for approval final detailed designs for all proposed Class II roads. Designs must include detailed drawings of road alignment, grades and sizing and location of culverting.

U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT
NOTICE OF A DECISION AND AVAILABILITY
OF BOTH A TECHNICAL ANALYSIS AND AN
ENVIRONMENTAL ASSESSMENT FOR
SUNOCO ENERGY DEVELOPMENT COMPANY
PERMANENT PROGRAM PERMIT
SAGE POINT - DUGOUT CANYON
CARBON COUNTY, UTAH

The United States Department of the Interior, Office of Surface Mining Reclamation and Enforcement (OSM), has approved, with conditions, a 5-year permit for Sunoco Energy Development Company to mine coal at its Sage Point - Dugout Canyon mine.

The Sage Point - Dugout Canyon mine surface coal mine is located in Carbon County, Utah, about 15 miles northeast of the town of Price. The proposed permit area will cover approximately 4,475 acres. Maximum mine production is at a rate of 1.2 million tons of coal during the fifth year of mining.

Any person with an interest which is or may be adversely affected by this Federal permit approval action may request an adjudicatory hearing on the final decision within 30 days after publication of this notice, in accordance with Section 514(c) of the Surface Mining Control and Reclamation Act (SMCRA). Any hearing will be governed by provisions of 5 U.S.C. Section 554. A petition for review of the OSM decision should be submitted to:

Hearings Division
Office of Hearings and Appeals
U.S. Department of the Interior
4015 Wilson Boulevard
Arlington, Virginia 22203

Pursuant to 40 C.F.R. Sections 1501.4(c) and 1506.6, notice is hereby given that the Utah Division of Oil, Gas and Mining has completed a technical analysis (TA) for the mining plan for the Sage Point - Dugout Canyon mine, Carbon County, Utah. OSM has supplemented this TA with its own environmental assessment (EA). OSM's recommendation to approve Sunoco Energy Development Company mining plan and the permit application with conditions is in accordance with Sections 510 and 523 of SMCRA. OSM's analysis is that no significant environmental impacts would result from such approval. For information or clarification concerning the approval of the Sage Point - Dugout Canyon mine plan, please contact Shirley Lindsay or Walter Swain at (303) 837-3806, Office of Surface Mining, Denver, Colorado.

Both the TA and the EA are available for public review at the following locations:

Office of Surface Mining Reclamation and Enforcement
Western Technical Center
1020 15th Street
Denver, Colorado 80202

Office of Surface Mining Reclamation and Enforcement
Albuquerque Field Office
219 Central Avenue NW
Albuquerque, NM 87102

Utah Division of Oil, Gas, and Mining
4241 State Office Building
Salt Lake City, UT 84114

AFFIDAVIT OF PUBLICATION

STATE OF UTAH }
 County of Carbon, } ss.

I, Robert L. Finney on oath, say that I am

the Publisher of The Sun-Advocate,

a weekly newspaper of general circulation, published at Price,

State and County aforesaid, and that a certain notice, a true copy

of which is hereto attached, was published in the full issue of

such newspaper for Four (4)

consecutive issues, and that the first publication was on the

9th day of June, 19 82 and that the

last publication of such notice was in the issue of such newspaper

dated the 30th day of June, 19 82

Robert L. Finney

 Subscribed and sworn to before me this

30th day of June, 19 82

Michelle Finney

 Notary Public.

My Commission expires My Commission Expires October 28, 1983

Publication fee, \$ 140.80

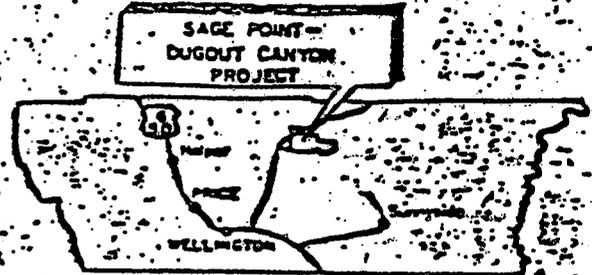
I hereby certify that this instrument is a true and correct copy of the original Affidavit of Publication.

In witness my hand and seal of office this the 16th day of August, 1982.

My Commission expires: 6/6/84

Bruce Vaughn

Sunoco Energy Development Co., 12700 Park Central Place, Suite 1500, Dallas, Texas 75251, has applied for the transfer of all applications, permits, licenses, and rights-of-way previously held by Eureka Energy Company of 77 Beale Street, San Francisco, California 94106, relating to constructing and operating a coal mining facility north of Wellington in Carbon County, Utah. (See figure.)



CARBON COUNTY

The project area is shown on the following U.S. Geological Survey 7.5-minute maps:

Deadman Canyon Quadrangle

Pine Canyon Quadrangle

Mount Bartles Quadrangle

Included is an application filed by the Eureka Energy Company with the Office of Surface Mining, U.S. Department of Interior, and the Division of Oil, Gas, and Mining, State of Utah, for a permit to conduct mining operations. The proposed permit area contains the following areas:

Township 13 South, Range 12 East, Salt Lake Baseline and Meridian

Secs. 2, 3, 4, 5, 9, 10, 11, 14, 15, 16, 21, 22, 24, 28, 29, 30, 31, 32, 33: All

Sec. 8: E $\frac{1}{2}$

Sec. 13: S $\frac{1}{2}$

Sec. 17: E $\frac{1}{2}$ and E $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 19: W $\frac{1}{2}$ SW $\frac{1}{4}$ and SW $\frac{1}{4}$ NW $\frac{1}{4}$

Sec. 20: NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, and SW $\frac{1}{4}$ NW $\frac{1}{4}$

Sec. 23: N $\frac{1}{2}$, SE $\frac{1}{4}$, and NW $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 26: N $\frac{1}{2}$ NE $\frac{1}{4}$

Sec. 27: W $\frac{1}{2}$ and W $\frac{1}{2}$ NE $\frac{1}{4}$

Sec. 34: W $\frac{1}{2}$

T12S, R12E, SLB&M

Sec. 32: W $\frac{1}{2}$, SE $\frac{1}{4}$, E $\frac{1}{2}$ NE $\frac{1}{4}$, and SW $\frac{1}{4}$ NE $\frac{1}{4}$

T13S, R13E, SLB&M

Sec. 18: S $\frac{1}{2}$

Sec. 19: N $\frac{1}{2}$, SW $\frac{1}{4}$, and NW $\frac{1}{4}$ SE $\frac{1}{4}$

Sec. 30: NW $\frac{1}{4}$ NW $\frac{1}{4}$

T13S, R11E, SLB&M

Sec. 25: E $\frac{1}{2}$ and E $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 36: All

T14S, R11E, SLB&M

Sec. 1: N $\frac{1}{2}$

T14S, R12E, SLB&M

Sec. 3: NW $\frac{1}{4}$

Sec. 4: N $\frac{1}{2}$

Sec. 5: N $\frac{1}{2}$

Sec. 6: N $\frac{1}{2}$

The application contains information regarding environmental resources and the proposed operations and reclamation plan. A copy of the application is available for public inspection at the following address:

Recorder's Office
 Carbon County Courthouse
 Price, Utah 84501

The public is welcome to review the application and offer any comments to the Office of Surface Mining and/or Utah Division of Oil, Gas, and Mining. Any written comments, objections, or requests for an informal conference should be sent to the following address:

Office of Surface Mining
 Brooks Towers
 1020 Fifteenth Street
 Denver, Colorado 80202
 Division of Oil, Gas, and Mining
 1583 West North Temple
 Salt Lake City, Utah 84118

CONTENTS

Sunoco Energy Development Company Sage Point/Dugout Canyon Mine

1. Memorandum from the Administrator, Western Technical Center, to the Director, Office of Surface Mining Reclamation and Enforcement (OSM).

Memorandum from the Director, OSM, to the Assistant Secretary for Energy and Minerals.
2. Maps.
3. Chronology of Events.
4. Findings
5. National Environmental Policy Act Compliance Documents.
6. Letters of Concurrence and Consultation:
 - a. U.S. Fish and Wildlife Service
 - b. Bureau of Land Management
 - c. Minerals Management Service
 - d. Utah State Department of Community and Economic Development
 - e. State Historic Preservation Office
7. Federal Permit with Stipulations.
8. Technical Analysis Addendum.
Technical Analysis.
9. Notification.



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

AUG 26 1983

MEMORANDUM

TO: Director, Office of Surface Mining

FROM: *DJS* Administrator, Western Technical Center *R. Danner*

SUBJECT: Recommendation for Approval of Sunoco Energy Development Company's Sage Point-Dugout Canyon Mining and Reclamation Permit, Carbon County, Utah, Federal Leases: U-07746; U-089096; U-092147; U-0144820; U-07064-027821.

I. Recommendation

I recommend approval with conditions of the Sunoco Energy Development Company's (Sunedco) Sage Point-Dugout Canyon mine permit for underground operation. This is an application for a new mine. The permit term is for five years and the permit area is 18,242 acres; the applicant will have the right to successive renewal for the life-of-mine. The mining plan and permit were approved under the Federal Lands and Utah State programs. My recommendation is based on the technical analysis and environmental assessment of the complete application. The applicant has proposed to commence underground mining within Federal coal leases U-07746; U-089096; U-092147; U-0144820; U-07064-027821, and in private (fee) and State coal during the 40-year life-of-mine. The permit with conditions included with this memorandum, will be in conformance with the applicable Federal regulations, the Utah State Program, and the Mineral Leasing Act, as amended. I also recommend that you advise the Assistant Secretary for Energy and Minerals, under 30 CFR 746.14 that the Sunoco Energy Development Company's Sage Point-Dugout Canyon mine life-of-mine mining plan is ready for approval. I concur that a performance bond in the amount of \$817,685 is adequate.

The Utah Division of Oil, Gas and Mining (UDOGM) and the Office of Surface Mining (OSM), identified elements of the applicant's proposal which require conditions to comply with State and Federal law. The State permit ACT/007/009 and conditions will be issued separately from the proposed Federal permit UT 0041, 9/83. The State Regulatory Authority will issue this permit concurrently with the Federal permit.

My recommendation for approval is based on the complete permit application package, updated to June 13, 1983. I have determined that this action will not have a significant impact on the human environment.

II. Background

The proposed Sage Point-Dugout Canyon mine is located in Carbon County, Utah, north of the town of Wellington, in Fish Creek and Dugout Canyons. The permit area contains 18,242 surface acres, of which 6,999 are Federal, 960 State, and 10,238 are private surface. The estimated 40-year life-of-operation contains 18,242 surface acres, broken down in the same manner. All of these acres have been leased except Lots 3, 4, and the W1/2 of Section 5, T. 12 S., R. 12 E. Map D03-005 shows this Federal coal to be within the 40-year permit area, but the coal has not yet been leased. This area is not included in either the mining plan approval or the permit approval. In addition, Maps D03-007 and D03-008 (which show the mining plan for the Rock Canyon and Gilson Seams respectively) depict underground mining of approximately 550 acres of coal which is unleased Federal coal lying outside the 40-year life-of-operation area. These unleased portions are in the north half of Section 13, and the north half of Section 18, T. 13 S., R. 13 E. A condition has been included which prohibits mining in either of the described unleased areas until a Federal lease and a permit have been acquired by the applicant.

This mine operation encompasses high quality wildlife habitat. Environmentally sensitive areas within the permit boundaries are raptor nesting sites, mule deer critical winter range, and the Soldier Creek alluvial valley floor. The proposed underground operations will utilize both room and pillar and longwall mining methods. The Sunnyside, Rock Canyon, and Gilson coal seams will be mined to yield an average annual production rate of 2.4 million tons per year. All underground mining operations are scheduled to cease around the year 2026.

It is not anticipated that there will be any significant issues in connection with this approval. The only noteworthy item is that ownership of this new mine changed hands from Eureka Energy Company to Sunoco Energy Development Company (Sunedco) in the middle of the mine plan approval process. It has taken Sunedco some time to familiarize themselves with the application prepared by Eureka, and it seems fairly certain that Sunedco will request changes after approval. OSM has been assured that these would be "minor engineering changes" that would not involve changes in the overall environmental impacts of the mining operation. The BLM is not willing to issue 8 special use permits at this time since Sunedco has not provided the information which BLM needs to issue these permits. Since the special use permits include the coal conveyor and rail loop, they are critical to project completion.

There was no informal conference or hearing requested. No issues have been raised by the public. Although construction is not scheduled to begin until March, 1984, the applicant has expressed concern that the application be approved as quickly as possible. A target approval date of September 30, 1983, is recommended.

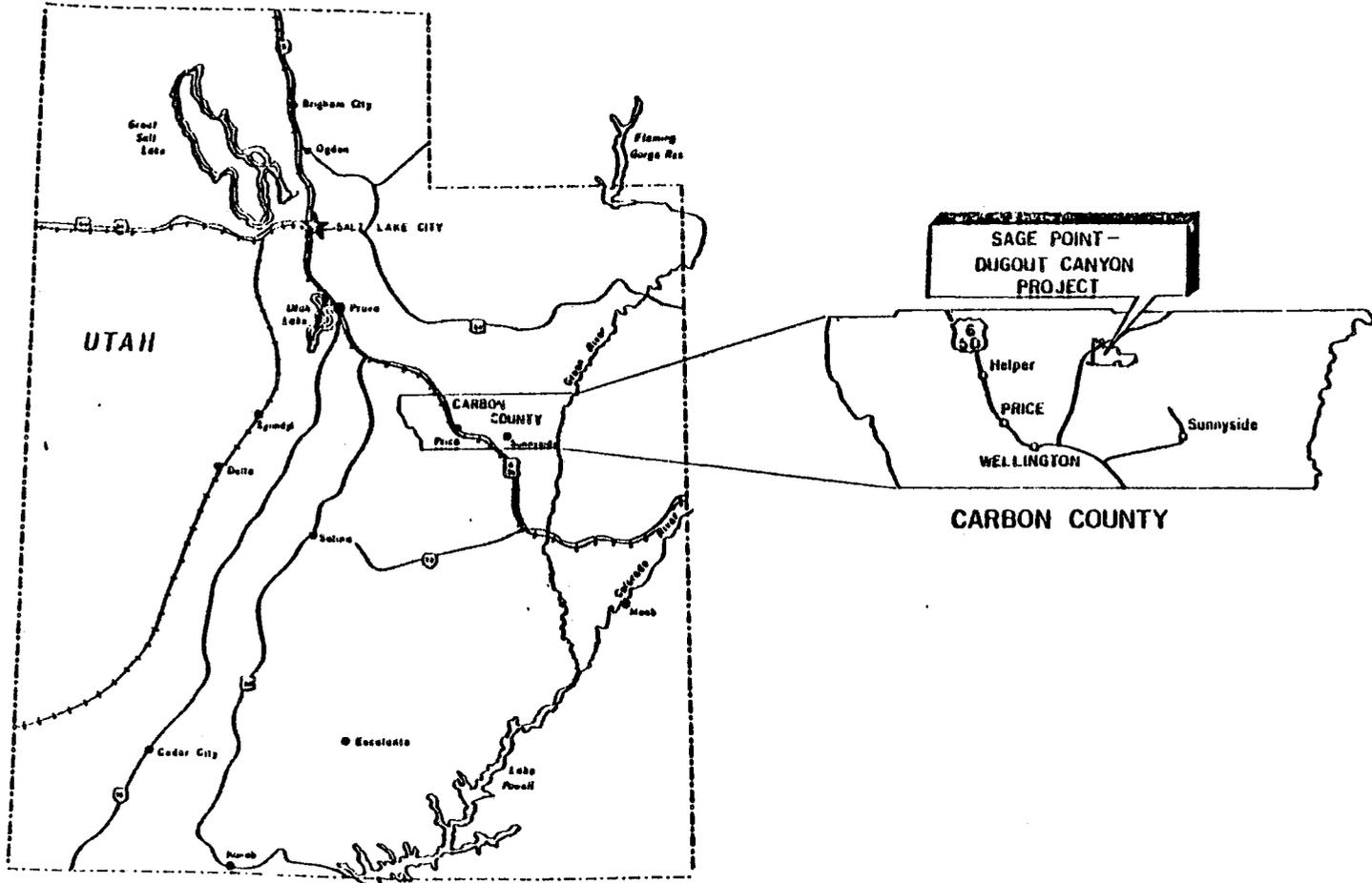
The Sage Point-Dugout Canyon mine permit application was reviewed by the Office of Surface Mining and UDOGM, using the approved Utah State Program and the Federal Lands Program (30 CFR Chapter VII, Subchapter D). The Mineral Leasing Act portion of the plan was also reviewed for compliance with the applicable portion of 30 CFR Part 211 (i.e., requirements and responsibilities of the Minerals Management Service). The technical analysis for this mine application was prepared by UDOGM and the environmental assessment was prepared by OSM. These documents, other documents prepared by UDOGM, the company's application, and other correspondence developed during the completeness and technical reviews are part of OSM's MRP and permit application file. The UDOGM and OSM jointly developed proposed conditions to assure compliance with State and Federal regulations, however, as UDOGM wanted to retain certain stipulations as conditions of approval which OSM deemed unnecessary, two separate condition lists were developed for the UDOGM and OSM permits.

A chronology of events related to this MRP application is enclosed. After Sunedco published the newspaper notice as required, no written comments, objections, or requests for an informal conference were received. Written concurrence was provided by Minerals Management Service; Bureau of Land Management (BLM); and letters from U.S. Fish and Wildlife Service (USFWS); the Utah State Department of Community and Economic Development; and the State Historic Preservation Officer. Conditions were incorporated from comments of the BLM, USFWS, Utah State Department of Community and Economic Development and the State Historic Preservation Office.

The information in the permit application and MRP, as well as other information documented in the recommendation package and made available to the applicant, has been reviewed by the UDOGM staff in coordination with the OSM Project Leader. Other information included: the 1979 U.S. Geological Survey Final Environmental Impact Statement (FEIS) titled "Development of Coal Resources in Central Utah".

In view of the fact that the status of Utah's suspended and remanded regulations is presently in question, I am attaching a Supplement to the Technical Analysis which discusses the suspended and remanded rules and their relationship to this decision document.

#2934A



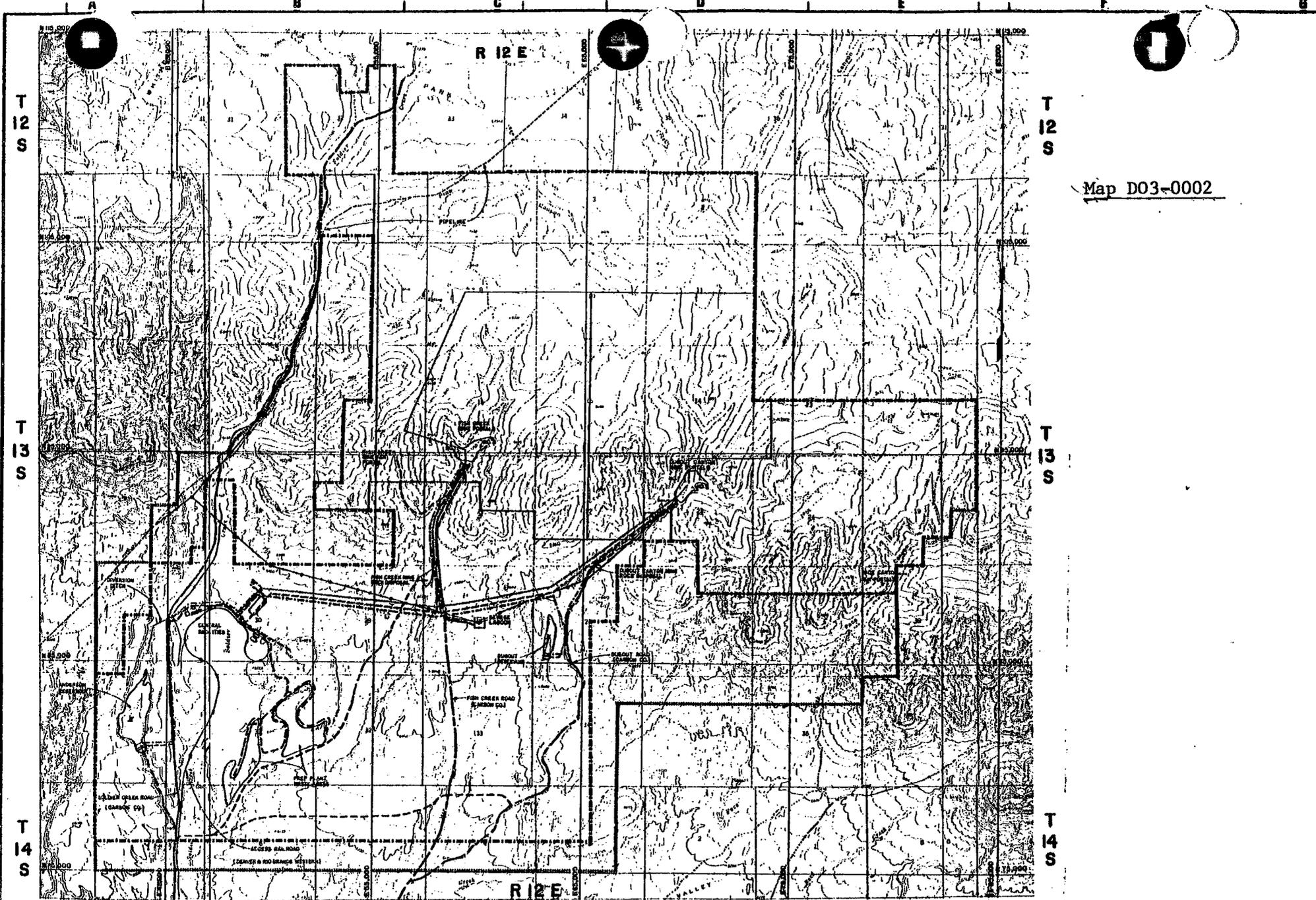
NO.	DATE	DESCRIPTION	GM	DWN	CHK'D	SUPV.	APVD.
1	7-22-80						

REVISIONS

APPROVED BY
 GM
 SUPV.
 DSGN.
 DWN. MDS
 CHKD. JAD
 O.K. JA
 DATE 7-22-80
 SCALES 1/4"

PROJECT LOCATION
 Figure I-A.1
EUREKA ENERGY COMPANY
 SAN FRANCISCO, CALIFORNIA

MICROFILM
BILL OF MATL
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. 1 OF 1 SHEET
REV.



Map D03-0002

<p>Proposed Permit Area</p> <p>Proposed Adjacent Area</p> <p>Sewage Line</p> <p>Water Line</p> <p>Overhead Conveyer</p>	<p>County Roads</p> <p>Improved/New Roads</p> <p>Railroad</p> <p>Existing Power Lines</p>
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NOTES

NO.	DESCRIPTION	DATE	BY	APPROVED BY
1	ISSUED FOR IVE	10/20/80	JAD	JAD
2	FOR INFORMATION	11/10/80	JAD	JAD
3				
4				
5				
6				
7				
8				
9				
10				

Scale: 1" = 400'

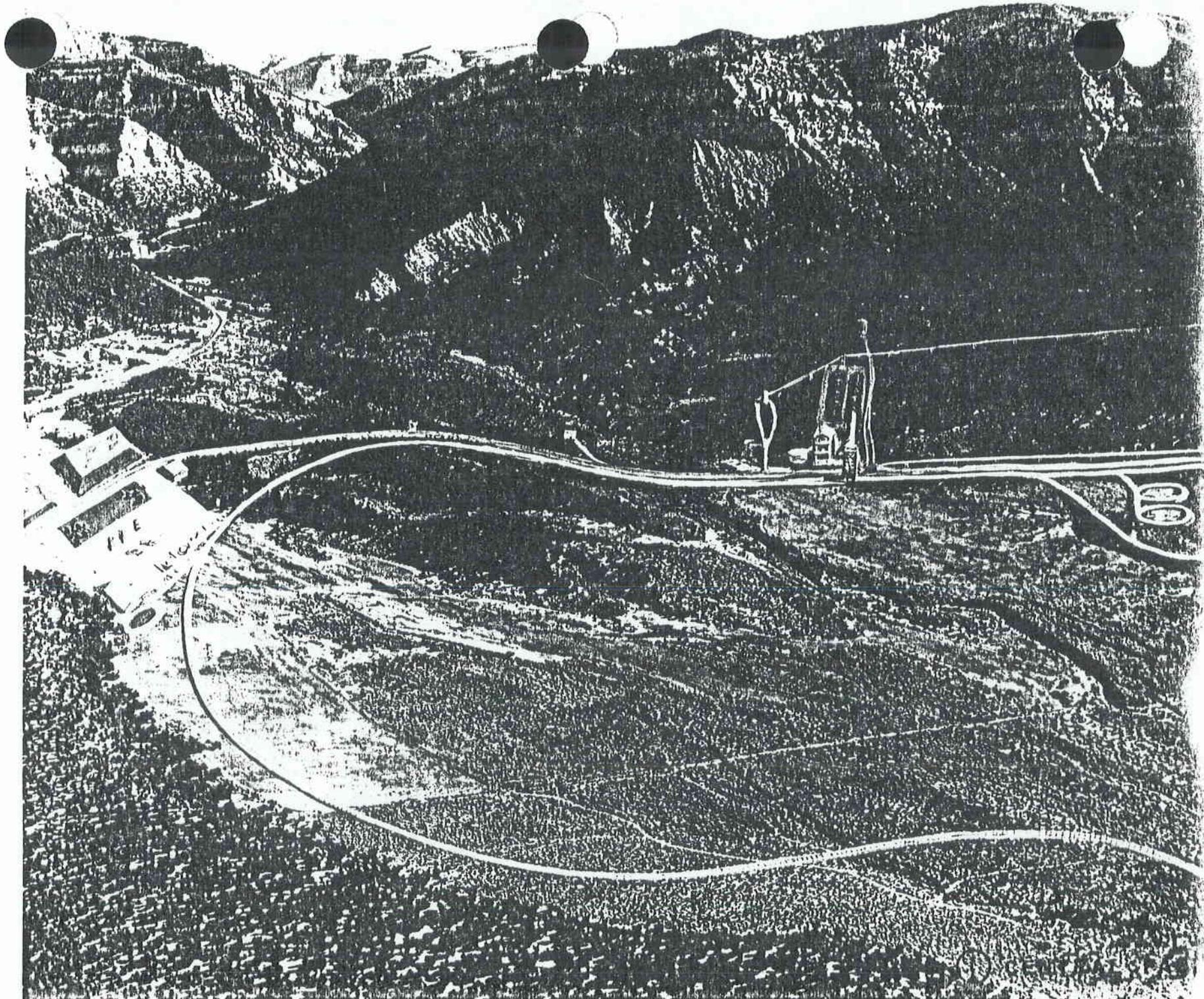
Drawn By: M. SHANNON

Checked By: J. D. SMITH

Approved By: *J. D. Smith*

PROPOSED PERMIT AREA

SURBERA ENGINEERS
 A MEMBER OF THE SURBERA GROUP
 1000 W. MAIN ST. - SPOKANE, IDAHO 83402
NORTH CARBON
 Carbon County
 Permit No. D03-0002



CENTRAL FACILITIES AERIAL PHOTO

LEGAL DESCRIPTIONS OF FEDERAL LEASES

Lease No. U-07746

T. 13 S., R. 12 E., Sec. 10: S1/2; Sec. 11: S1/2; Sec. 14: All; Sec. 15: All; Sec. 22: N1/2, N1/2 S1/2; Sec. 23: W1/2 NW1/4

Lease No. U-089096

T. 13 S., R. 12 E., Sec. 8: E1/2; Sec. 17: NEL/4

Lease No. U-092147

T. 13 S., R. 12 E., Sec. 17: E1/2 SW1/4, SE1/4; Sec. 20: E1/2 NW1/4, SW1/4 NW1/4, N1/2 NEL/4; Sec. 21: N1/2 NW1/4, NEL/4

Lease No. U-0144820

T. 13 S., R. 12 E., Sec. 3: Lots 1, 2, 3, 4 S1/2 (All); Sec. 4: Lots 1, 2, 3, 4, S1/2 (All); Sec. 5: Lots 1, 2, SE1/4; Sec. 9: All; Sec. 10: N1/2; Sec. 11: N1/2

Lease No. U-07064-027821

T. 13 S., R. 12 E., Sec. 13: S1/2; Sec 23: E1/2 E1/2, W1/2 SE1/4, NEL/4 SW1/4; Sec. 24: All; Sec. 25: N1/2 N1/2; Sec. 26: N1/2 NEL/4,

T. 13 S., R. 13 E., Sec. 18: Lots 3, 4, E1/2 SW1/4, SE1/4; Sec. 19: Lots 1, 2, 3, 4, E1/2 W1/2, NEL/4, NW1/4 SE1/4; Sec. 30: Lot 1

MINE PLAN INFORMATION

Mine Name Sage Point-Dugout Canyon State ID: ACT/007/009
 Operator Sunedco Coal Company County Carbon
 Controlled By Sunoco Energy Development Co.
 Contact Person(s) Charles Durrett Position Environmental Coordinator
 Telephone: (303) 989-9280
 New/Existing New Mining Method Room & Pillar; Longwall

Fed. Lease No.(s) U-07746; U-089096; U-092147; U-0144820; U-07064-027821
 Legal Description(s) See attached sheet.

State Lease No.(s) ML-22590; ML-22675; ML-21994
 Legal Descriptions(s) T. 13 S., R. 12 E., Sec. 2: Lots 1, 2, 3, 4, S1/2 (All);
T. 12 S., R. 12 E., Sec. 32: NE1/4 NE1/4, S1/2 NE1/4, NW1/4; T. 12 S., R. 12 E.,
Sec. 32: S1/2

Other Leases (identify) Fee Coal (Fish Creek Canyon); Fee Coal (Dugout Canyon)

Legal Descriptions T. 13 S., R. 12 E., Sec. 16: All; T. 13 S., R. 12 E.,
Sec. 23: W1/2 NE1/4, E1/2 NW1/4

Ownership Data:

<u>Surface Resources(acres)</u>	<u>Existing Permit Area</u>	<u>Proposed Permit Area</u>	<u>Total Life of Mine Area</u>
Federal	<u>NA</u>	<u>6,999</u>	<u>Unknown</u>
State		<u>960</u>	
Private		<u>10,243</u>	
Other		<u>40</u>	
TOTAL		<u>18,242</u>	

Coal Ownership(Acres)

Federal	<u>NA</u>	<u>15,186</u>	<u>Unknown</u>
State		<u>2,256</u>	
Private		<u>800</u>	
Other			
TOTAL		<u>18,242</u>	

CHRONOLOGY OF EVENTS

SUNOCO ENERGY DEVELOPMENT COMPANY SAGE POINT-DUGOUT CANYON MINE

Application for Mining and Reclamation Plan and Permit Approval

DATE	EVENT
December 17, 1980	Eureka Energy Company submits permit application and mining and reclamation plan (MRP), under the approved Utah program, to the Utah Division of Oil, Gas and Mining.
December 17, 1980	Eureka Energy Company files application in County Courthouse.
May 5, 1981	The Office of Surface Mining Reclamation and Enforcement (OSM) furnishes comments on the permit application, generated during its Administrative Completeness Review (ACR) for National Environmental Policy Act (NEPA), to UDOGM.
August 7, 1981 September 8, 1981	Eureka Energy Company submits additional material in response to ACR.
August 7, 1981 September 8, 1981	Eureka Energy Company amends application and MRP in County Courthouse.
December 2, 1981	UDOGM announces that Eureka Energy Company's permit application and MRP is complete and commences its technical analysis.
January 13, 1982	Eureka Energy Company publishes fourth consecutive weekly notice in the <u>Price Sun Advocate</u> that its permit application and MRP has been filed.
February 4, 1982	UDOGM notifies Eureka Energy Company of deficiencies discovered in the Sage Point-Dugout Canyon mine State permit application and MRP in course of preparation of the TA.

DATE	EVENT
February 16, 1982	The public comment and informal conference request period for the Sage Point-Dugout Canyon MRP expires.
March 12, 1982 April 2, 19, 1982	Eureka Energy Company responds to UDOGM concerning those February 4, 1982 deficiencies.
April 28, 1982	UDOGM submits the draft TA for the Sage Point-Dugout Canyon Mine to OSM for its review and comment.
May 28, 1982	Sunoco Energy Development Company (Sunedco) informs OSM of the purchase of the Eureka Energy Company's Sage Point-Dugout Canyon properties.
November 24, 1982	Eureka Energy Company supplies supplemental information to UDOGM and OSM.
December 9, 1982	OSM submits its comments regarding the draft TA for the Sage Point-Dugout Canyon mine to UDOGM.
March 16, 1983	UDOGM submits the final TA for the Sage Point-Dugout Canyon mine to OSM for its review and comment.
May 19, 1983	OSM submits its comments regarding the final TA for the Sage Point-Dugout Canyon mine to UDOGM.
June 13, 1983	Sunedco submits supplemental information to UDOGM.
July 15, 1983	UDOGM submits an addendum to the TA to OSM.
August 8, 1983	OSM prepares Final EA.
September, 1983	Utah and OSM recommend approval of Sunedco's permit application and each issues a permit.

FINDINGS

SUNOCO ENERGY DEVELOPMENT COMPANY SAGE POINT - DUGOUT CANYON MINE

Application for Mining and Reclamation Plan (MRP)

- I. The State of Utah has determined that the permit application, and the Office of Surface Mining (OSM) has determined that the permit application and MRP submitted on December 17, 1980 and updated through June 13, 1983, and the Federal permit with conditions is accurate and complete and complies with the requirements of the approved Utah State Program, the Surface Mining Control and Reclamation Act (SMCRA), and the Federal Lands Program. [UMC 786.19(a)]

- II. The Utah Division of Oil, Gas and Mining has reviewed the permit application and MRP, and prepared the technical analysis (TA). OSM has prepared the environmental analysis (EA) and reviewed the TA and incorporated documents and based on this has made the following findings:
 1. The applicant proposes acceptable practices for the reclamation of disturbed lands. These practices have been shown to be effective in the short-term; there are no long-term reclamation records utilizing native species in the Western United States. Nevertheless, the Utah Division of Oil, Gas and Mining staff has determined that reclamation, as required by the Act, can be feasibly accomplished under the MRP. [UMC 786.191(b); TA, Page 39, MRP pages II-303 to II-346]

 2. The probable cumulative hydrologic impact assessment (PCHIA) of all existing and anticipated mining by underground coal mines in the general area indicates that the surface facilities and underground mine operations proposed under the application have been designed to prevent damage to the hydrologic balance in associated off-site areas. See Cumulative Hydrologic Impact section, attached to this Findings Document. [UMC 786.19(c); TA, page 17, 18; MRP pages II-63 to II-118]

 3. After reviewing the description of the proposed permit area, Utah Division of Oil, Gas and Mining and OSM determine this area is:
 - a. Not included within an area designated unsuitable for surface facilities and underground coal mining operations, with the exception of a possible golden eagle nest site in Fish Creek Canyon, which has been adequately protected under condition provided by the U.S. Fish and Wildlife Service. (See Bureau of Land Management correspondence of October 23, 1981) [UMC 786.19(d)(1)].

- b. Not on or within an area under study for designating lands unsuitable for surface coal mining operations. (See Bureau of Land Management correspondence of October 23, 1981. [UMC 786.19(d)(2)]).
 - c. Not on any lands subject to the prohibitions or limitations of 30 CFR 761.11(a) (national parks, etc.), 761.11(f) (public buildings, etc.), and 761.11(g) (cemeteries). [UMC 786.19(d)(3); State Findings Document, 1]
 - d. Within 100 feet of the outside right-of-way of a public road, however, the conditions of UMC 761.12(d) have been met. A public hearing was noticed for December 3, 1981. No adverse comments were received. [UMC 786.19(d)(4); State Findings Document, page 1]
 - e. Not within 300 feet of any occupied dwelling. [UMC 786.19(d)(5); State Findings Document, page 2]
4. OSM's issuance of a permit and the Secretarial decision on the Mineral Leasing Act plan are in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800). [UMC 786.19(e); TA Addendum, page 13; State Historic Preservation Officer concurrence letter of December 6, 1982.]
 5. The applicant has the legal right to enter and begin surface mining activities in the permit area, except within T. 12 S., R. 12 E.; lots 3 and 4 and the W1/2, sec. 5. This half section contains unleased Federal coal and is therefore excluded from the approved mining plan area and the permit area. It cannot be mined until the applicant has obtained a Federal permit and lease to mine this coal. [UMC 786.19(f); MRP pages I-26 to I-38 and Coal Ownership Map D03-0005.]
 6. The applicant has submitted proof and OSM's records indicate that prior violations of applicable law and regulations have been corrected. [UMC 786.19(g); MRP, page I-25; personal communication with Jodi Merriman, OSM Reclamation Specialist, in OSM Albuquerque Field Office on August 9, 1983]
 7. OSM's records confirm that all fees for the Abandoned Mine Reclamation Fund have been paid. [UMC 786.19(h); personal communication with John Sender, OSM Fee Compliance Officer, in OSM Albuquerque Field Office on August 9, 1983]
 8. OSM records show that the applicant does not control and has not controlled mining operations with a demonstrated pattern of willful violations of the Act of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act. [UMC 786.19(i); personal communication with Jodi Merriman, OSM Reclamation Specialist, in OSM Albuquerque Field Office on August 9, 1983]

9. Surface coal mining and reclamation operations to be performed under the permit will not be inconsistent with the Soldier Creek underground mine in the immediate vicinity of the Sage Point - Dugout Canyon Mine. [UMC 786.19(j); State findings, page 2]
10. Soil and land-use investigations indicated that two mapping units within the proposed mine area could be prime farmlands. The Soil Conservation Service (SCS) was contacted to determine whether any of these areas met the minimum requirements for prime farmlands. The SCS found that "Field 2, T. 14 S., R. 11 E., sec. 1, E1/2, (has) soil characteristics and qualities suitable for prime farmland" (see attached SCS letter dated January 17, 1980). This half section is located along Soldier Creek Road at the southern boundary of the permit area (see Figure IV-C.1). The only planned surface disturbance in conjunction with the proposed mine plan and permit will be an access road. This road will originate at Soldier Creek Road, proceeding to the east, across the remainder of Section 1. The area of disturbance caused by the road within Section 1 will be less than two acres. The operations and reclamation plan for this area were designed to comply with the requirements of 30 CFR and UMC 785.17. The operation and reclamation plan for prime farmland has been approved by the SCS (see letter dated June 16, 1981 attached to the TA). [UMC 786.19(1)]
11. Soldier Creek drainage has been found to be an alluvial valley floor (AVF). Negative AVF determinations have been made for the other drainages in the proposed permit area and area for life-of-mine. These determinations were made on the basis of reviewing each of the drainages for alluvial deposits in the permit area and in adjacent areas. It was determined that of the drainages that contain alluvial deposits, only Soldier Creek met the criteria of being flood irrigable, or subirrigated, on flood irrigated developed land. Of the area designated as an AVF within the Soldier Creek drainage, the only portions which would be directly affected lie within the central facilities area and just inside the south boundary of the permit area, where a service road will be constructed. Total disturbance is approximately nine acres. The superficial impact of this construction will have no impact on the essential hydrologic functions of the AVF. [UMC 786.19(1); TA, page 45; and State findings, page 3]
12. The proposed postmining land use of the permit area has been approved by the Utah Division of Oil, Gas and Mining Bureau of Land Management and OSM. [UMC 786.19(m); letter of concurrence from Bureau of Land Management; State findings, page 3]
13. The Utah Division of Oil, Gas and Mining and OSM have made all specific approvals required by the Act, the approved Utah State program and the Federal lands program. [UMC 786.19(n); State findings, page 3]

14. The proposed operation will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats. [UMC 786.19(o); TA, page 35; December 23, 1982 memorandum from U.S. Fish and Wildlife Service]
15. Procedures for public participation have complied with requirements of the Act, the approved Utah State program, the Federal lands program, and Council on Environmental Quality regulations (40 CFR Part 1500 et seq.). (30 CFR 741.21(a)(2)(ii); Chronology of Events.)
16. The applicant has complied with all other requirements of applicable Federal laws and either has or has applied for permits from Environmental Protection Agency and State of Utah Department of Health and State of Utah Division of Water Rights; [30 CFR 741.17(d); Letters of Concurrence and Clearance are appended to the TA]

Dptg Richard E. Dawes
Administrator
Western Technical Center

Headquarters Reviewing Officer

CUMULATIVE HYDROLOGIC IMPACTS

Book Cliffs Coal Field, Sage Point-Dugout Canyon Mines
ACT/007/009, Carbon County, Utah

The most probable cumulative impacts to the hydrologic system have been assessed by the Utah Division of Oil, Gas and Mining (DOGM). The applicant's Mining and Reclamation Plan (MRP) proposals indicate the methods that will be used to comply with Utah State regulations to minimize diminution to the hydrologic regime on the minesite and adjacent areas. Based on the information presented in the MRP (and summarized in the Technical Analysis), the Division has established that Sunoco Energy Development Company (Sunedco) can implement mining operations that will not significantly impact the local or regional hydrologic system. The following is a worst case scenario of negative impacts which could potentially affect the hydrologic regime and the mitigative measures which will be implemented to minimize these potential impacts and/or justification as to why the significant impacts are not expected to occur.

Ground-Water Impacts

Mining will take place below and within strata that are units of a very low-yielding and undeveloped areal aquifer system. This areal aquifer includes the interbedded sandstone and shale units of the Blackhawk Formation, the Castlegate Sand sandstone and the Price River Formations. These formations lie beneath the North Horn and Flagstaff formations which create a perched aquifer system that is hydraulically discontinuous with the areal aquifer. Subsidence fractures in the roof of the mine could form and drain some areas within the overlying water-bearing beds of the areal aquifer. If the fractures were to extend into the perched aquifer, a conduit could form which would drain parts of the perched aquifer and increase flow to lower strata (coal beds). If fractures were to extend to the land surface, it may result in additional recharge from overland flow, particularly if the fractures intersect surface streams. This additional recharge could reduce the flow of streams by an approximately equal quantity, but due to the nature of the formations overlying the coal seams this reduction would only be temporary. Similarly, if the fractures extend to the perched aquifers there could be additional induced flow to the lower strata and a reduction of discharge now occurring at the springs. However, due to the nature of the formations overlying the coal and due to the very localized recharge area for the springs, the reduction in flow would be temporary, with only springs in a small area being affected at any one time.

There are several shale beds in the formations overlying the coal seams. These shales contain clays that expand when they become hydrated. If water is introduced to these clays from fractures caused by subsidence, these shales would become saturated and under lithostatic pressure would become plastic. The shale would tend to squeeze into fractures and restrict or limit the movement of ground water down and along fractures. As water seeps through the fractures it carries fine mineral particles that are deposited in the restrictions. Eventually the fractures are filled and water circulation ceases. Consequently, a potential interruption or reduction in discharge from any significant spring(s) would probably not be a long-term impact, but a short-term effect, if at all.

A surface subsidence study was performed near Duncan Mountain (southern Wasatch Plateau) on the Fishlake National Forest, Richfield, Utah, over a 20 acre area affected by an underground coal mine (DeGraff, Jerome V., 1981). This report involves, "Subsidence Tension Cracks: Initial Assessment of 'Self-Healing' Rates and Magnitude". Between 800 and 1,000 feet of interbedded sandstone and shale (Blackhawk Formation and Castlegate Sandstone) separate the mine workings from the surface. Numerous cracks of varying length and width (6-300 feet long, 1/8-6 inches wide) are widely distributed within the area. Cracks occur in both exposed bedrock and regolith. Maximum subsidence is about nine feet. Several monitoring stations were established over 22 different cracks and monitored weekly over a fifteen-week period in 1978. Initial analysis confirmed the "self-healing" phenomenon. Healing rates averaged slightly more than 1/6 inch per week. The average amount of crack closure was 56 percent over the study period. Only cracks which closed completely or ceased to move for the latter part of the monitoring period were used to calculate closure values.

These data are considered applicable to the proposed Sunedco project site. This phenomenon would tend to reduce or inhibit the transmittal of substantial increases of recharge from surface water sources to the ground-water system. This would again tend to support the assumption that any potential losses of flow from surface water sources would be of short duration and of probable insignificant volume.

In ascertaining information concerning the existing groundwater regime the Division contacted Kidd Waddell (pers. com., March, 1983), a hydrologist for the U.S. Geological Survey who has recently completed a study in the Wasatch Plateau and Book Cliffs area. During the study some information and data were collected which are specific to the proposed mine permit area. The following narrative describes his interpretation of groundwater movement in the area:

Ground water occurs as perched and unconfined aquifers in the Book Cliffs area. Perched springs occur at the contact between the Flagstaff Limestone and North Horn Formations. Water is transmitted within the Flagstaff Limestone until it comes in contact with the near impervious matrix of the North Horn Formation. The flow within the Flagstaff is generally parallel with the dip (northeastward) of the formation, except where some of the ground water moving down through the formation finds its way to openings along the escarpment of the Book Cliffs. During recharge periods (i.e., spring runoff and rainstorms) more water is contributed to the underground system, and the springs along the Flagstaff Limestone/North Horn Formations contact flow at greater rates. As the recharge decreases, the spring rates also decrease. This scenario also depicts the flow of water through the Price River Formation, Castlegate Sandstone and Blackhawk Formation above the coal seam. However, the transmissivities (T) of these formations are very low so that water reaching the coal seam is greatly inhibited. Transmissivities were calculated from slug tests within the upper and lower zones of the Castlegate Sandstone at 0.02 ft²/day and 0.003 ft²/day, respectively. A rate of 0.07 ft²/day was calculated from a slug test in the Price River Formation.

Other factors involved are the extent and characteristics of the recharge area, the extent of faulting in the area and location of streams relative to recharge area. The Flagstaff Limestone is exposed over large portions of the area. Recharge to the Flagstaff is estimated to be less than five percent of the snowpack. Hydrographs and calculations were developed from stream parameters which indicate that the combined recharge to the Castlegate Sandstone, Price River Formation and Blackhawk Formation is less than the recharge that occurs in the Flagstaff Limestone. The available data suggest that most recharge to the Price River Formation, Castlegate Sandstone and Blackhawk Formation occurs along the stream channels. A comparison of discharges show that the Flagstaff Limestone contributes 1.8 and 5 times more groundwater to Soldier Creek and Dugout Creek than do the Castlegate Sandstone, Price River Formation and Blackhawk Formation combined. In essence, low volumes of groundwater reaching the coal zones are the result of:

1. Low transmissivity rates within the Price River Formation, Castlegate Sandstone and Blackhawk Formations;
2. The limited areal exposure of the formations;
3. The fact that these formations make up the escarpment of the Book Cliffs and exhibit steep surface areas which contribute to reduced infiltration; and,
4. The North Horn Formation, an almost impermeable formation, overlies and restricts the downward flow to the Price River Formation, Castlegate Sandstone and Blackhawk Formations.

The reclamation measures discussed in other sections of the reclamation plan will have no adverse effect on the water rights of other surface or ground water users in the mine plan or adjacent area. As of 1980, ground water had not been developed in the mine plan or adjacent areas and it probably will not be developed in the foreseeable future because of the extremely low yield potential of the water-bearing formations. Also, the applicant either owns or is in the process of acquiring the private land in and adjacent to the mine plan area, therefore there are no other adjacent water users that can be affected.

Observation wells were completed in each of the several water-bearing geologic formations that may be affected by mining (areal and perched aquifers). The same observation wells monitored during the premining and mining phases will be monitored during the reclamation phase. By monitoring the same wells during all three phases, the effects of mining will be more easily recognized than if different wells were used during each phase.

An assessment of the MRP ground water sections dealing with past and present ground water interception by other existing coal mines in the surrounding region was made by the Division in an attempt to ascertain what might be expected to occur upon initiation of mine development on the Sunedco properties.

There are four active mines within an 8-14 mile radius of the proposed Sunedco project area:

1. Tower Resources - Pinnacle Mine (NW - @ 12 miles distant)
2. Soldier Creek - Soldier Canyon Mine (NNW - @ 8 miles distant)
3. Kaiser Steel - Sunnyside Mine (ESE - @ 10 miles distant)
4. U.S. Steel - Geneva Mine (SE - @ 14 miles distant)

A comparison of surrounding mines to the Sage Point-Dugout Canyon Mine may provide understanding of the hydrologic system and future impacts. Soldier Creek Coal Company's Soldier Canyon Mine lies adjacent and to the north northwest of Sunedco's proposed mine property, while Kaiser's Sunnyside Mine lies adjacent and to the east southeast of the property. Tower Resources' Pinnacle Mine (1981) lies adjacent and to the the northeast of Soldier Creek's property. The Pinnacle Mine is considered a dry mine. Very little water is produced in the mine and to maintain dust suppression and operate mine equipment, water has to be hauled in by truck. No faults occur on Tower's property. Tower Resources has attempted to drill water wells for a water supply, but those completed to date have not produced any significant flow to be of value.

Soldier Creek Coal Company (SCCC) produces water in their mine in quantities that allow them to operate their equipment and discharge an estimated 3/4 million to 1 1/4 million gallons per month from the mine. No faulting occurs on the mine property. It is the opinion of the mine engineers that water is produced from fractures in the rock matrix, and after the fractures drain (two to three weeks) no more significant amounts of water are produced. Dave Spillman (SCCC mining engineer, pers. com. of March, 1983) stated that most of the water is produced randomly in the mine at the working face and after a few weeks the source ceases to flow.

Kaiser Steel Corporation's Sunnyside Mines (1981) lie to the east southeast of Sunedco's property. This mine, although adjacent, exhibits characteristics different than the two previously mentioned mines. Several faults which trend in a northwest direction occur on the mine property. Vertical displacement ranges from 13 feet to 110 feet. In 1979, Kaiser discharged at an average rate of 740 gpm of mine water from their Sunnyside Mines. According to studies on deep percolation from surface precipitation performed by the Utah State University (Water Resources Planning Services, October 1980, UWRL/P-80/05), ground water discharge from the Kaiser mines should increase about 0.13 gpm for each acre of future underground development.

The relationship of ground water in the surrounding mines as compared to Sunedco's proposed mine is somewhat speculative. It is the opinion of the Division that some water will be encountered during mining. The quantities encountered at the Sage Point-Dugout Canyon mines should be less than that produced at the Sunnyside Mines due to the paucity of faults on the mine plan property. It is also anticipated that most of the water encountered will be at the working face produced from fractures in the rock matrix and that this water will reduce in flow as the fractures drain. In essence, the available data suggest that the proposed mines will encounter ground water volumes comparable to SCCC's operating mine.

Surface Water Impacts

There could be interception of surface waters into the mines through subsidence fractures, which may extend as much as several hundred feet above the mine roof. It is anticipated that intercepted underground water will be consumed inside the mine through various operations, none of the mine water will ever reach any surface streams or bodies of water until they are properly treated and meet State and Federal effluent criteria. Drainage into the mine through subsidence fractures may reduce the flow of some springs that have their source in the areal aquifer. If there is some reduction in spring discharge, it should be small, since most of the spring discharge is from alluvium and the upper most few feet of consolidated rock. This rock is weathered and highly fractured, consequently it has a relatively high permeability.

No pollution of water courses from mine drainage is expected because if mine water is intercepted it will be used inside the mine. The floor of the mine will slope downward from the portals at an angle of five to seven degrees so there will be no gravity discharge.

The chemical analyses of water from two mines in Dugout Canyon, sites 74 and 75, afford a comparison between the quality of water from abandoned coal mines in the area and from a spring which represents the natural outflow from the areal aquifer. Spring 63 is the only spring stratigraphically below the coal mine which is monitored for both flow and quality. The spring occurs at the base of the Aberdeen Member of the Blackhawk Formation or the base of the the sandy Mesa Verde Group and the top of the impermeable Mancos Shale. With the exception of pH (mine waters being about 0.1 units more acidic) the quality of the mine waters are better than spring 63. In the mines, the water has been standing since mining ceased in about 1962. No discharge has occurred from these abandoned mines.

Special precautions will be taken to protect the environment from any degraded water that is generated outside of the mine. Fluid wastes will be generated at various facilities, such as the portal areas, coal cleaning and storage area, along conveyor belts, waste piles and tailings ponds. Sewage lagoons and sedimentation ponds will be utilized to prevent contamination of streams and springs. If for some unforeseen reason, some acidic or high sulfur content water from the mine or facilities should enter water sources in the area, the acid would soon be buffered and the sulfur precipitated because of the moderately high pH and bicarbonate in the natural water of the area. A comprehensive study has confirmed those conclusions; the effects of mine water on the quality of some streams in Colorado show virtually no degradation resulting from the sulfur content in the coal (Wentz, 1974).

Sediment ponds are planned at facilities where soil disturbances may result in increased suspended sediment concentrations in streams. There will be some reduction in sediment discharge on Soldier Creek because more of its water will be cycled through Anderson Reservoir than in the past. Consequently, the net total suspended sediment leaving the project area may be less during mining than under existing conditions. According to the U.S. Geological Survey (1979), even under the worst possible conditions, mining in central Utah in general and specifically in the Dugout Canyon drainage, will have an insignificant detrimental effect on sediment movement.

The reclamation plan describes how Sunedco will restore the disturbed areas and streams. The flows beyond the permit area will continue during and after mining ceases with at least as good a quality and volume as existed prior to mining. Much of the water that flows beyond the mine plan area is dissipated by evapotranspiration far above any diversions. The only surface water that is now available for diversion or would be available after mining ceases are flood flows that reach the Price River. Consequently, even if there were small detrimental effects on some streams, there will be virtually no adverse effect on any downstream surface water user.

Based upon the information and data presented in the permit application concerning the previous description of the existing environment, the plan for mine development, the monitoring plans and protective measures to be implemented, it is the Division's opinion that the cumulative hydrologic impacts from this proposed operation should not present significant short or long-term changes to the existing hydrologic regime.

LITERATURE CITED

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FINDINGS DOCUMENT

SUNOCO ENERGY DEVELOPMENT COMPANY
Sage Point-Dugout Canyon Mine
ACT/007/009, Carbon County, Utah

Application for Mining and Reclamation Plan

1. The plan and the permit application are accurate and complete and all requirements of the Surface Mining Control and Reclamation Act (the "Act"), and the approved Utah State Program have been complied with (786.19[a]).
2. The applicant proposes acceptable practices for the reclamation of disturbed lands. These practices have been shown to be effective in the short-term; there are no long-term reclamation records utilizing native species in the western United States. Nevertheless, the Utah Division of Oil, Gas and Mining (DOGM) staff has determined that reclamation, as required by the Act, can be feasibly accomplished under the MRP (see TA, Section UMC 817.111-.117) (UMC 786.19[b]).
3. The assessment of the probable cumulative impacts of all anticipated coal mining in the general area on the hydrologic balance has been made by the DOGM. The mining operation proposed under the application has been designed to prevent damage to the hydrologic balance in the permit area and in the associated off-site areas (UMC 786.19[c]). (See Cumulative Hydrologic Impact Section, attached to this Findings Document.)
4. The proposed permit area is:
 - A. Not included within an area designated unsuitable for underground coal mining operations. A buffer zone area around the golden eagle nest site in Fish Creek Canyon could be considered unsuitable for surface disturbance. However, implementation of certain conditions (see Bureau of Land Management letter dated February 26, 1982 attached to the TA) will allow for an application of exception.
 - B. Not within an area under study for designated lands unsuitable for underground coal mining operations.
 - C. Not on any lands subject to the prohibitions or limitations of 30 CFR 761.11(a) (national parks, etc.), 761.11(f) (public buildings, etc.) and 761.11(g) (cemeteries).
 - D. Within 100 feet of the outside right-of-way line of a public road, however, the conditions of UMC 761.12(d) have been met. A public hearing was noticed for December 3, 1981. No adverse comment was received.

- E. Not within 300 feet of any occupied dwelling (UMC 786.19[d]).
5. DOGM's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800) (UMC 786.19[e]). See letter from SHPO dated December 6, 1982 attached to TA.
 6. The applicant has the legal right to enter and begin underground activities in the permit area through five Federal leases, three State leases and two fee leases (see MRP, pages I-26 through I-33) (UMC 786.19[f]).
 7. The applicant has shown that prior violations of applicable law and regulations have been corrected (UMC 786.19[g]).
 8. Sunedco is not delinquent in payment of fees for the Abandoned Mine Reclamation Fund for its active mining operations (UMC 786.19[h]).
 9. The applicant does not control and has not controlled mining operations with a demonstrated pattern of willful violations of the Act of such nature, duration and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act (UMC 786.19[i]).
 10. Underground coal mining and reclamation operations to be performed under the permit will not be inconsistent with other such operations anticipated to be performed in areas adjacent to the proposed permit area (UMC 786.19[j]). Soldier Creek Coal Company operates the Soldier Canyon Mine immediately to the northwest of the Sage Point-Dugout Canyon permit area. No other mines have been proposed for the immediate vicinity.
 11. A detailed analysis of the proposed bond had been made. The DOGM has made appropriate adjustments to reflect costs which would be incurred by the State, if it was required to contract the final reclamation activities for the minesite. The bond shall be posted (UMC 786.19[k]) with DOGM prior to final permit issuance or before any construction may begin. The bond will be incremental with only the amount for the first year's disturbance required to be posted prior to any development. A copy of the bond is attached to the TA.
 12. Soil and land-use investigations indicated that two mapping units within the proposed mine area could be prime farmlands. The Soil Conservation Service (SCS) was contacted to determine whether any of these areas met the minimum requirements for prime farmlands. The SCS found that "Field 2 - East 1/2 of Section 1, Township 14 South, Range 11 East (has) soil characteristics and qualities suitable for prime farmland" (see attached SCS letter dated January 17, 1980). This half section is located along Soldier Creek Road at the southern boundary of the permit area (see Figure IV-C.1). The only planned surface disturbance in conjunction with the proposed mine plan and permit will be an access road. This road will

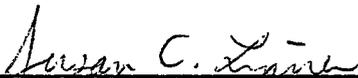
originate at Soldier Creek Road, proceeding to the east across the remainder of Section 1. The area of disturbance caused by the road within Section 1 will be less than two acres. The operations and reclamation plan for this area were designed to comply with the requirements of 30 CFR and UMC 785.17. The operation and reclamation plan for prime farmland has been approved by the SCS (see letter dated June 16, 1981 attached to the TA).

A potential Alluvial Valley Floor (AVF) has been identified on the central facilities area near Soldier Creek and corresponding alluvial deposits. Impacts to the potential AVF described above will be limited to surface effects. Of the areas designated as alluvium in the permit area, the only area which would be directly affected lies just inside the south boundary of the permit area along the Soldier Creek drainage. A service road will cross this area, disturbing approximately nine acres. This superficial impact would have no effect on the physical integrity of an AVF. In addition, any such impacts would be greatly limited in areal extent.

It was determined that the only significant impact to the AVF would be Sunedco's use of its water right thereby denying water for 60 acres which are irrigated. DOGM has taken the position that the Act was not intended to adjudicate water rights (UMC 786.19[q]).

13. The proposed postmining land-use of the permit area has been approved by DOGM (see TA, Section UMC 817.133) (UMC 786.19[n]).
14. The DOGM has made all specific approvals required by the Act, and the approved State Program (786.19[n]).
15. The proposed operation will not affect the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitats (786.19[o]).
16. All procedures for public participation required by the Act, and the approved Utah State Program have been complied with (741.21[a][2][ii]).

Prior to the permit taking effect, the applicant must forward a letter stating its compliance with the special stipulations in the permit and post the performance bond for reclamation activities.



DOGM Lead Reviewer



Coordinator of Mined Land Development

FINDING OF NO SIGNIFICANT IMPACT

Sunoco Energy Development Company
Sage Point/Dugout Canyon Mine

The technical analysis (TA), prepared by the State of Utah, and the environmental assessment (EA), prepared by the Office of Surface Mining (OSM) precedes this "Finding of No Significant Impact" statement, identifying certain environmental impacts that would result from the Federal approval of the mining and reclamation plan (MRP) for Sunoco Energy Development Company's Sage Point/Dugout Canyon mine. The 5-year permit application, submitted to the State under its approved permanent program, proposes a total permit area of 18,242 acres.

The regional impacts of coal mining in the Central Utah coal region are addressed in the Geological Survey's "Development of Coal Resources in Central Utah" environmental impact statement, 1979.

The State determined that impacts to the Sage Point/Dugout Canyon mine area would result from mining Sage Point/Dugout Canyon mine. However, OSM finds that impacts would not be significant.

Impacts identified by OSM and the State would be mitigated by those appropriate environmental protection measures detailed in the MRP and proposed conditions attached to the permit.

Based upon the evaluation of impacts given in the TA and EA, I find that no significant impacts to the human environment would result from the proposed mine. Therefore, an Environmental Impact Statement is not required.

Rich E. Dawes

acts Administrator
Western Technical Center
8/24/83
Date

Environmental Assessment
Sunedco Coal Company
Sage Point-Dugout Canyon Mines
Utah Permanent Program Permit/Mine Plan Application

Introduction

Eureka Energy Company (EEC), a subsidiary of Pacific Gas and Electric of San Francisco, California, submitted a mining and reclamation plan (MRP) for the Sage Point-Dugout Canyon Mines to the U.S. Geological Survey (USGS) on November 3, 1976, in accordance with Title 30 CFR part 211. The USGS in its Final Environmental Statement for the Development of Coal Reserves in Central Utah (1979) individually assessed the MRP for this mine as well as six others in the area. Since the MRP was submitted prior to promulgation of OSM's regulations, EEC was requested to revise the MRP in accordance with applicable OSM and State of Utah regulations. EEC submitted the 40 year life-of-mine plan/5 year permit application under Utah's permanent program. That submission is the subject of this environmental assessment.

The proposed Sage Point-Dugout Canyon underground coal mine project is located 15 miles northeast of Price, in Carbon County, Utah. The total surface disturbance over the life of the mine is 476 acres. The surface is 38% Federally owned and the mineral leases are 83% Federal (U-07746, U-089096, U-092147, U-0144820, and U-07064-027821) and 17% State and fee. EEC, on December 17, 1980, submitted an application for a permit supported by a mining and reclamation plan (MRP) to mine coal at the Sage Point-Dugout Canyon Mines in conformance with the requirements of the Surface Mining Control and Reclamation Act (SMCRA), the Utah State Program, the Federal Lands Program, and the Mineral Leasing Act. On February 10, 1982, EEC executed a definitive coal property sale and purchase agreement to sell the Sage Point-Dugout Canyon coal properties to Sunedco Coal Company, a unit of Sunoco Energy Development Company.

Purpose and Need of the Proposed Action

Pursuant to 30 CFR 746.14, the Secretary of the Interior must approve, disapprove, or conditionally approve the proposed mining plan. This Environmental Assessment is being written to assist the public officials to make decisions that are based on an understanding of the environmental consequences. The Utah Division of Oil, Gas and Mining (DOGGM) proposed to approve this permit application and has submitted a technical analysis (TA) of the MRP to the Office of Surface Mining (OSM), Department of the Interior.

ALTERNATIVES

Alternative #1 - No Action

The Federal Mineral Leasing laws require that the Secretary of the Interior respond to permit applications and approve, disapprove, or conditionally approve mining operations on Federal leases. Therefore, the alternative to take no action is not viable and will not be discussed further.

Alternative #2 - Proposed Action (preferred alternative)

The project includes four independent underground mines, two mines each in two box canyons, Fish Creek Canyon and Dugout Canyon. The four mines will be based on two portal pads, one in Fish Creek Canyon and one in Dugout Canyon. The portal pads will provide level areas for the parking, storage facilities, maintenance buildings and change houses necessary to support the two mines in each canyon.

The 775 miners to be employed at Sage Point-Dugout Canyon will extract coal from three seams, the Sunnyside, Rock Canyon and Gilson. Both room and pillar and longwall mining methods will be used. The maximum annual production, nearly 5 MTY, will not be reached until the fourteenth year of the mine operations. The expected life of each mine is as follows: Fish Creek No. 1, 36 years; Fish Creek No. 2, 28 years; Dugout Canyon No.1, 31 years; Dugout Canyon No. 2, 46 years. Newly mined coal will exit the mines on conveyor belts for transport down the canyons to the central facilities area for washing, preparation, and loadout. The overland conveyor, with a maximum length of four miles from Dugout Canyon to the central facilities, will be enclosed and will be elevated over approximately 95% of its length.

The central facilities, located southwest of Fish Creek Canyon on an outwash plain, will contain administrative offices, parking areas, two coal stockpile areas, a coal wash and preparation plant, a center for major equipment repair, a railroad loop and coal loadout structures. The railroad spur and loop will be constructed from a future Denver and Rio Grande Western Railroad line originating southeast of Wellington. This will provide access for unit trains to be used for transporting coal out of the permit area.

A mile west of the central facilities, Anderson Reservoir (an existing facility to be enlarged) will store water needed to operate the central facilities and Fish Creek portals. The water will be diverted from Soldier Creek, which flows south from the Book Cliffs through the western part of the project area. The Dugout mines will be supplied from a newly constructed reservoir near Dugout Creek.

OSM's preferred alternative is to approve the proposed MRP with conditions (Attachment I) and as recommended by the Utah Division of Oil, Gas and Mining in their letter of recommendation and Findings of Compliance.

Alternative #3 - Disapproval of Mine Plan

If the mining and reclamation plan is denied there will be a loss of approximately 94 million tons of coal production from five Federal leases and State and fee coal. There would be a loss of Federal royalties from the mining of the coal, 83% of which is under Federal lease. This coal might be mined at some future date.

Description of the Affected Environment

The striking aspect of the project area landscape is formed by the erosional features that have been carved into the Mesa Verde group forming the steeply rising palisades of the Book Cliffs. The central facilities are to be located at the base of the Book Cliffs on the outwash plain (pediment).

Predominant vegetative types range from pinyon-juniper, greasewood-sagebrush, and shrub-grass-juniper at the base of the Book Cliffs to Douglas fir and aspen at higher altitudes. Less extensive habitats include cottonwood and other streambank species along the creeks and rush-grass and salt cedar-willow communities at Anderson reservoir. Four parcels of cultivated lands lie in the permit area. The primary crop raised is alfalfa. No threatened or endangered species have been found in the permit area.

Structurally, the permit and adjacent areas lie along the northern extent of the San Rafael Swell and the southern flank of the Uintah Basin. Faulting in the permit area is minor. Some minor subsidence may occur under land used for grazing and recreation; it is not expected to be of such severity as to impact a natural gas pipeline and dirt road passing through the potential subsidence area. Streams or springs should not be affected. Six small drainage basins are contained within the permit area. Soldier, Pine and Dugout creeks flow year-round except during periods of unusually low precipitation. The upper reaches of Pace, Fish and Corbula creeks are maintained by springs that flow in direct response to precipitation.

The current land use for the project area is open range for cattle on the lower elevations and wildlife habitat on the higher elevations, with limited agricultural activity occurring in the vicinity of the proposed central administration facilities. Previous coal mining has occurred on the permit area. In the Dugout Canyon area, the Knight Ideal Coal Company mined the Rock Canyon and Gilson coal seams located in both sides of the canyon. The mine opened in 1940 and closed in 1965. Total coal extracted from the two seams was approximately 1,320,000 tons by conventional room and pillar methods.

Impacts of Alternative #2 - Proposed Action

Soils

Approximately 131 acres of soils will be disturbed for mining activities without topsoil removal because they have been identified as being without topsoil or excessively high in salt content. The applicant has been required to provide substitute topsoil material for these sites. Soil material that is to be salvaged will be removed in two lifts. The top layer will be six inches or more thick; the second will include soil that is not suitable for a seed bed material but will be useful as a spoil cover and increase the water holding capacity of the reclaimed area.

Vegetation

The vegetation on the 476 acre proposed surface disturbance area would be removed; revegetation on the majority of the area would not occur until the operation is abandoned in approximately 40 years. The retention of two permanent reservoirs (57 acres) and Fish Creek Road (26 acres) will result in small land tracts on which vegetation will not be replaced. The central facilities and preparation plant waste sites will mainly impact pinyon-juniper, greasewood-sagebrush, and shrub-grass-juniper types. Impacts to the deciduous-streambank vegetation in the Fish Creek and Dugout Canyon portal areas due to the facilities, roads, water lines, sewage lines, and overland conveyor will be more significant due to the limited extent of this vegetation type in the area. Little or no impact is anticipated on the vegetation overlying the underground workings due to subsidence.

Fish and Wildlife Resources

Aquatic habitat is limited in the project area. None of the streams on the project area are considered to be of value as a sport fishery, but nongame species do inhabit them. Physical and chemical characteristics of the streams that will be disturbed by mining activities were measured for the purpose of developing stream reclamation plans. Streams will be culverted as they pass through the two portal areas to minimize disturbance from construction and mining activities.

Construction of surface facilities will disturb approximately 335 acres of critical mule deer winter range. This is roughly three percent of the designated critical winter range in deer herd unit 27b. During a winter deer study on the permit area, heavy use was found in pinyon-juniper habitat and in areas adjacent to agricultural fields near proposed surface facilities. However, heavy snowfall forced the animals to move south of the proposed central facilities area into lower elevations.

Conveyors will be constructed to carry coal from the mine portals to the preparation plant. These conveyors, if not constructed properly, could impede passage of large mammals, particularly in areas of mule deer critical winter range. Preliminary data do not indicate a definitive migration movement, but rather daily feeding movements around the proposed conveyor.

Because proper design of the conveyor is considered a critical consideration for big game protection, a condition has been jointly written by DOGM and OSM which requires final detailed designs of the conveyor throughout its length, giving exact location and height. The design must take into account data collected by DWR, but in no case may be lower than that specified in the BLM's special use permit (not yet obtained). In addition, Sunedco must carry out a big game movement monitoring program post-construction and may be required to construct special big game crossings based on results of this study.

The BLM, USFWS and DWR have documented 3 golden eagle, 1 prairie falcon, and 2 Cooper's hawk active nests on the site. These have been protected by conditions provided by the BLM and USFWS. Three bald eagles have been sighted during winter on the mining plan area, but no roost trees have been located. The Endangered Species Office of the USFWS has confirmed that no species currently listed by the USFWS as threatened or endangered will be affected by the mine. It was noted, however, that the rare plant species Hedysarum occidentale var. canon may be affected by the proposed action.

Vegetation removal on the 476 acres of surface disturbance will degrade wildlife habitat. Noise, lights, activities, and traffic may further increase the acreage which will not be utilized by some wildlife species, particularly sensitive species such as black bears, mountain lions, and mule deer. Some riparian habitat will be lost. There will be a vehicle collision hazard for all wildlife. Illegal shooting may increase. The BLM has provided conditions for mitigating loss of riparian habitat, and reducing vehicular collisions and disturbance to nesting raptors by conveyor lights.

Surface Hydrology

The data from periodic measurements at 12 surface water monitoring sites in the project area are presented in the MRP. The data from recorder measurements taken on Soldier Creek and Dugout Creek suggest a mean annual flow estimated at 1,000 acre-feet per year and 558 acre-feet per year, respectively. The minimum uncontrolled flow in all reaches of all streams in the project area is less than one cubic foot per second for several months of the year. Maximum flows occur during spring snowmelt and summer torrential rainstorm periods.

Water sampling in the project area was initiated in July 1976, to determine baseline chemical constituents and suspended sediment in streams. Chemical and suspended sediment analyses for samples collected at 13 stream sites during 1976-81 are reported in the MRP. The quality of the surface water in the project area is better than that of the Price River. The observed range of dissolved-solids concentration in streams in the project area was 215 to 3,375 milligrams/liter, whereas in the Price River at Woodside during water years 1976-78, the observed range was 1,150 to 6,990 milligrams/liter. The difference is primarily a result of the concentration of sulfate which was 25 to 980 milligrams/liter in the project area streams and 640 to 4,300 milligrams/liter in the Price River. These higher concentrations of dissolved-solids and sulfates in the Price River are caused by the tributary streams dissolving sulfate (and to a lesser extent other constituents) as they flow across Mancos Shale or soils which are largely derived from that shale.

The wide variability of discharge rate, temperature, and specific conductance of most springs suggest a local body of ground water near the surface. The magnitude and duration of large discharges from springs occurs in early spring only after appreciable winter precipitation. Recharge derived from snowmelt is rapid, suggesting both high permeability and shallow depths to the water table. In addition, the large range in discharge rate over a short period of time, with a very low minimum in the summer, suggests that the body of ground water supplying the spring is small.

The mine plan calls for two permanent diversions of Soldier Creek (Fish Creek is a tributary) and Dugout Creek. The Soldier Creek diversion will divert flow from Soldier Creek to the proposed Anderson Reservoir (1675 acre-feet active storage capacity), and the Dugout Creek diversion will divert flow from Dugout Creek to the proposed Dugout Reservoir (525 acre-feet active storage capacity). It can be expected that there will be some loss of water presently available to downstream riparian habitats. (See also Alluvial Valley Floor section.) Temporary diversions will be installed to divert flow away from disturbed areas. Undisturbed drainages above the portal areas will be routed under the portal sites through large culverts. Sixteen sedimentation ponds will contain and settle sediments associated with runoff from disturbed areas. A sewage lagoon will be constructed to process waste water produced at the portal sites, central facilities, and coal preparation plant. A surface (13 sites) and ground water (5 wells, 10 springs) monitoring program will be carried out. Sediment ponds should prevent an increase in sediment concentration in most streams, but there may be some unavoidable increase in suspended sediment in streams during construction. Water discharge from underground workings is not anticipated.

Ground Water Hydrology

Ground water in the Sage Point-Dugout Canyon Project area, like ground water in other parts of the Price River drainage basin, occurs under both confined and unconfined conditions. Unconfined water exists primarily in shallow alluvial or colluvial deposits along the largest perennial and intermittent streams. It also exists in the soil mantle and the upper few tens of feet of the underlying consolidated rocks where the rocks have been extensively weathered and fractured. Confined water exists at greater depths where relatively impermeable beds are confining a more permeable water-bearing bed.

In the affected area, there has been no development of ground water in either the perched aquifers or the regional (areal) aquifer. Three wells were drilled in the north adjacent area, but these wells were for monitoring purposes only. Discharge occurs from natural sources such as widely scattered springs, seepage into streams and evapotranspiration by native vegetation. If the water supply of any owner of a vested water right is injured as a result of the mining activities, Sunedco will replace that water supply in a manner consistent with applicable State law.

As indicated by the long period of time required for ground water levels to stabilize following well perforation (see Table IV-B.7), the permeability of the aquifers is low. This low permeability makes well sampling difficult and precludes the collection of good ground water quality data from wells in the permit area. Consequently, the applicant has assessed the quality of ground water in the permit area by collecting and analyzing water samples from a wide variety of springs. Because the samples were taken immediately after the water emerged from the aquifer, the data provide a good indication of the quality of water within the aquifer.

Measurements of ground water levels in the permit area began in November 1979. Water levels in five exploration holes and in two idle mines in Dugout Canyon are measured at monthly intervals. The fluctuations in water levels and discharge may vary somewhat from one year to another. The variations result in response to the amount of winter precipitation and to the variability, in both time and length, of the snowmelt period. In the Sage Point-Dugout Canyon project area, the peak water levels in the unconfined aquifer should occur between late April and early June, approximately coinciding with or shortly following the peak snowmelt and runoff period.

Possible subsidence may impact Pine Creek. There may be drainage of surface waters into mines through subsidence fractures which may extend as much as a few hundred feet above the mine roof. Drainage into the mine through subsidence fractures may reduce the flow of some springs that have their sources in the regional aquifer. No mine drainage pollution is expected during the active operation because mine water will be used in the mine. The flow of Soldier and Dugout Creeks below Anderson Reservoir and Dugout Reservoir might be reduced.

Alluvial Valley Floors

Four major drainages are located in the permit area: Soldier Creek, Fish Creek, Dugout Creek, and Pace Creek. Fish Creek is an intermittent stream with no available water rights. The small area of alluvium in its downstream reach contains neither irrigated nor subirrigated croplands. Dugout Creek flows through alluvium only after it has exited the canyon. This alluvium contains neither subirrigated nor irrigated cropland. All planned surface disturbances in the Dugout Creek drainage are upland of any alluvium. Pace Creek flows through the northeast portions of the property. It is perennial above the Book Cliffs escarpment where the stream channel is rocky alluvium and short reaches of bedrock; it is intermittent below the cliffs where the creek bottom is Mancos shale or alluvium which is derived in part from Mancos shale. The small areas of alluvium along Pace Creek are not irrigable. Soldier Creek is the only drainage with alluvium deposits which may be affected by surface facilities. Consequently, the alluvial valley floor (AVF) investigation focused on the central facilities area near Soldier Creek and the corresponding alluvial deposits. No other areas approximate the conditions required for an AVF.

Soldier Creek is an intermittent stream where it traverses the proposed central facilities area (southwestern portion of the permit area); it is generally dry except in spring and early summer, depending on the amount of precipitation. Small-scale agricultural activities in the area of investigation have taken place periodically since the turn of the century.

Currently, the only cultivated lands in the permit area (38 acres) are planted in alfalfa and are flood irrigated. These lands provide supplementary feed for a local rancher's cattle herd during winter months. Most land adjacent to the currently flood-irrigated acreage is used as winter and spring rangeland.

OSM has designated Soldier Creek within the proposed permit area as an alluvial valley floor. The Soldier Creek AVF contains 158 acres of historically irrigated land (within the permit area), of which 58.1 acres have been irrigated within the past five years. Sunedco has proposed to surficially disturb 8.6 acres of previously irrigated land for a service road and central mine facilities. This level of disturbance is estimated to result in a 5.4% decrease in the farm's productivity.

This decrease in production is considered insignificant for this site because the area of historically irrigable land (158 acres) is much larger than the amount of water available for irrigation at present (i.e., sufficient water to irrigate approximately 58 acres). It is concluded that the farmer could utilize management practices to compensate for the loss of production on the 8.6 acres to be affected.

OSM has concluded that the applicant has demonstrated in the application that there should not be any significant adverse impact to the hydrologic balance or the hydrologic function of the AVF during or after mining. The impact will be confined to the surface disturbance of 8.6 acres for a portion of the central facilities and a service road on the permit area. These facilities will not impact the hydrologic function of the AVF and after mining the sites will be reclaimed to the prior land use.

In addition to the temporary small acreage loss described above, Sunedco has purchased rights to the water that is presently available for irrigation of that portion of the AVF within the permit area; thus, approximately 58 acres of land previously irrigated over the past five years will not be utilized for agricultural purposes during the mine life. The operator will only divert that amount of water to which he has a water right. This will not affect the capacity of this land to be used for agriculture in the future, by whomever holds the water rights in question. The use of this water by Sunedco will not affect the hydrologic function of the valley, and since there are no subirrigated lands in the valley, the potential agricultural value of the AVF remains intact. There are no developed downstream agricultural practices which depend on the water which will be used by the operator, and the mining operations will not preclude farming off the permit area.

Subsidence

Grazing lands used for cattle are not expected to be affected by subsidence. Potential subsidence effects should not impede the recreational use of the land, which is mainly for deer hunting. Selective mining will be employed providing for 50 percent or less extraction within a 25° angle of draw beneath a Mountain Fuel Supply Company pipeline and no subsidence effects are anticipated. Monitoring stations will be established to monitor the possible subsidence in the vicinity of the pipeline as well as near Soldier and Pine creeks, the only streams which may potentially experience any measureable subsidence. Uniform lowering of the surface area (less than three feet of total elevation decrease) may occur due to longwall mining, but no fracturing should occur. Possible subsidence effects which may occur to a single dirt road passing through the subsidence area will be slight and easily repaired.

Along with partial extraction methods being employed, barrier pillar columnization and harmonic extraction will be utilized to avoid surface subsidence effects while multiple seam mining practices are used.

In addition, natural features such as the 200 + foot thickness of the massive Castlegate sandstone and the extensive (generally 1,000'-2,500') depth of overburden should preclude the transference of subsidence effects to the surface.

Updated subsidence prevention plans must be provided to the regulatory authority for approval if deviations from forecasts in the MRP are developed. Should any surficial damage or fractures become apparent which may constitute a hazard, subsidence prevention plans must be updated immediately.

Backfilling and Grading

Sunedco proposed in the permit application that some of the portal face cuts should remain as part of the post-mining topography. Sunedco will submit stability analyses of representative slopes for each of the highwall areas and will evaluate potential use of material from other areas to achieve acceptable slopes.

Coal Processing and Underground Development Waste

Total coal waste from the preparation plant facility is estimated to be 807,000 TPY (tons per year). The applicant has selected two sites for coal preparation plant waste disposal. These areas are the Saddle Valley and Boot Valley waste dumps. Four sediment ponds are proposed for containing the runoff from the Saddle Valley area and three ponds for Boot Valley. Surface runoff diversions have been designed to divert upslope surface runoff away from the preparation plant waste. Other diversions within the waste areas will route disturbed runoff to the sedimentation ponds.

The coal preparation waste will be transported by conveyor belt to the northern end of the Boot Valley coal waste disposal site and be trucked to the Saddle Valley site or placed into the Boot Valley fill. The coal waste will be spread in lifts of less than 24 inches and compacted. An underdrain consisting of durable sandstone will be constructed to conduct infiltrated water to the sedimentation ponds. No springs or seeps are present in the area. These two sites will be reclaimed and revegetated.

Underground development waste from the Fish Creek and Dugout Canyon mines will be disposed of in two durable rock fill sites located in Fish Creek and Dugout canyons, respectively. Waste rock will be hauled by end-dump trucks to the disposal sites. Rock waste, at a maximum eight inch diameter, will be spread in two four-foot lifts followed by compaction. As the thickness of the fill increases, the fill will be benched into slightly weathered silt stone.

The maximum grade on the outslope of the fill will be 2h:1v. Twenty inch wide drainage terraces will be created on the fill at 40 feet vertical intervals. The terraces will be graded to a slope of 20h:1v toward the embankment. Any runoff collected on the benches will be routed downslope toward perimeter diversion ditches. Underdrains consisting of colluvial sandstone material will be installed below both rock fill sites to allow free-flow movement of subsurface drainage. The applicant has been required to provide substitute topsoil material for reclamation vegetation of these sites.

Air Quality

Modeling conducted by the applicant estimated the TSP annual average concentration to be 30 micrograms per cubic meter and the maximum 24-hour concentration to be 112 micrograms per cubic meter. This is less than the Federal standard of 60 micrograms per cubic meter and 150 micrograms per cubic meter, respectively. No significant impacts are expected to air quality.

Prime Farmland

The Fish Creek Ridge Road (50 foot width) will cross 1500 feet of prime farmland (1.72 acres disturbed). The Soil Conservation Service has approved the prime farmland operation and reclamation plan which addresses special handling and reclamation of these soils.

Postmining Land Use

In the area of the proposed mine, cattle grazing, recreation and hunting are the primary land uses. Farming (alfalfa cultivation) and coal mining also occur nearby.

Anderson Reservoir, Dugout Canyon Reservoir and their associated diversion structures will remain on the permit area as permanent features after the completion of underground mining activities. The county roads which were in existence prior to the development of the underground mine (Soldier Creek and Dugout Canyon roads) will also remain at the conclusion of the underground mining activities. Fish Creek Road, a new county road, Dugout Canyon Road and Soldier Creek Road will remain as paved roads.

The waste rock fills in Fish Creek and Dugout Canyons as well as the preparation plant processing waste sites in Saddle and Boot Valleys will be constructed as permanent features to blend into the existing topography. These areas will be contoured and revegetated upon completion of operations.

The portal face cuts will remain as permanent features after mining. They will not affect the anticipated postmining land uses.

In areas of surface disturbance, soil reclamation and revegetation will restore the areas to their premining use, rangeland and wildlife habitat. The value of present cropland will be restored or enhanced following mining, since Anderson Reservoir will be enlarged and water availability may increase.

Cultural and Historical Resources

The proposed Sage Point-Dugout Canyon permit area has been inventoried. Thirty-three cultural resource sites within the permit area were located. The sites included 9 historic structures, 23 prehistoric sites, and one site with both historic and prehistoric components.

During mining operations 3 historic sites and 5 prehistoric sites will be impacted. Mitigation measures in the form of a data recovery plan will be necessary to mitigate adverse impacts (see stipulation). Even with a well-developed mitigation plan, however, some data will be lost. Furthermore, once the sites are destroyed they can never be re-examined. Thus, there would be a loss of potential data, as well as the physical loss of the sites.

Known and unknown cultural resources located in the vicinity may be impacted by mining activities as a result of increased population in the area. There may be increased vandalism and unauthorized collections associated with recreational activities and other pursuits.

Socioeconomics

The socioeconomic impacts of the Sage Point/Dugout Canyon mine would be moderately significant. Assuming that mine development were to commence in 1983, the overall construction period would last six years, with peak construction employment occurring in 1985 at 150 workers. At peak production (5 MTY), a total operations work force of 775 would be required. The mine would induce approximately 600 secondary jobs and result in a total mine-related population of 3,126 by 1995.

The primary jurisdictions to be affected by the mine are Price and Wellington in Carbon County and, to a lesser extent, the communities of Helper and East Carbon, also in Carbon County. Without the mine, the population of Carbon County is projected to increase 54 percent from its 1982 population of 24,183 to 37,218 in 1995; with the mine, to 40,344. This represents an 8 percent increase over the county's projected total population without the mine in 1995.

Over this same period, the cities of Price and Wellington without the mine are forecast to nearly double in size from 10,043 to 17,659 and 1,550 to 2,777 respectively. With the mine, the 1995 population of Price is projected at 19,347, with Wellington's population reaching 3,621. This represents an increase over the Price and Wellington projected 1995 populations without the mine of 9.6 and 30 percent respectively. The annual growth rates without the mine from 1980-1995 average 3.5 percent, with the mine 4.5 percent. The greatest change will be felt in Wellington in 1984-1985 when the mine increases the town's projected growth rate from 6 percent to 11.2 percent.

The following is a summary of the important effects on public services and facilities attributable to the mine:

1. Education:

The mine would add approximately 809 students to the Carbon County School District by 1995. The projected mine-related student enrollment will require an additional elementary school, expansion of the junior and senior high schools and require 35-40 additional teachers over projected baseline demands.

2. Housing:

Approximately 900 housing units are forecast to be required for the mine-related population. Although the housing trade has historically been able to meet demands, service infrastructure and the financial market may inhibit the mine-related population from finding adequate housing.

3. Water:

The Price City water treatment system is projected to exceed current capacity by 1985. If improvement funds are not secured, the mine-related population capacity demand of 0.5 MGD would place an additional burden on the system.

4. Sewer:

The projected cost of improving the existing sewage treatment system has escalated from 4 to 6 million dollars. If improvements are further delayed, the mine related impact will exacerbate the problem.

5. Fiscal Impact:

The mine would have both positive and negative fiscal impacts on jurisdictions and service providers. The mine would generate a peak income between \$10 and \$11 million in direct sales tax and property tax to Carbon County jurisdiction over the 1984-1995 time frame. However, the lag time between revenue generation and project impact may exacerbate the county's financial problems under the baseline population forecast. Using a set of alternative assumptions, the state has projected that the mine could result in average annual County deficits of approximately \$1.5 million, reaching a cumulative deficit of \$17.5 million by 1995 (Utah Department of Community and Economic Development (DCED)). Using these assumptions, the project could have the net effect of reducing annual surpluses and increasing deficits in all of the affected jurisdictions.

The Utah Resource Development Code, Utah Code Ann. Section 63-51-1 et seq. (Supp. 1981), requires all major developers to file a socioeconomic impact and mitigation plan with the DCED 90 days prior to project construction. Sunedco has partially complied with this requirement by preparing a draft impact report. The review of this report by State and local officials has concluded that certain major issues exist which will need to be resolved during the mitigation planning phase. These issues include the report's assumptions and Sunedco's finding of no significant impacts related to the Sage Point/Dugout Canyon Mine. OSM's socioeconomic stipulation, agreed upon by Sunedco on May 9, 1983, will help ensure the company's compliance with applicable laws as well as the development and implementation of a mitigation plan in consultation with OSM, State and local officials.

Impacts of Alternative #3 - Disapproval

Disapproval of this mining permit would mean that 775 jobs directly related to the mine and about 600 secondary jobs in the area would not be made available to the local economy. There would be a loss of approximately 94 million tons of coal production over 40 years. This energy source would have to be substituted for by coal mined elsewhere or by oil and gas.

An average annual 1.5 million dollar deficit to the local economy in the early years of mine development and mining would be avoided. Potential subsidence would be avoided, although this is not expected to be a problem in the relatively stable overburden at this mine. The other cited impacts would not occur as a result of this action.

ATTACHMENT I

Conditions Proposed by the Office of Surface Mining

Sunoco Energy Development Company
Sage Point-Dugout Canyon Mine
Carbon County, Utah

817.42-(1)-DD/OSM1

The applicant shall provide anticipated sediment influent concentrations characteristic of the undisturbed drainages so as to determine the quality of effluents from both waste disposal sites and undisturbed drainages. Final designs for sedimentation ponds must show evidence of compliance with UMC 817.42 through design criteria that will meet State and Federal water quality and effluent limitations. The final pond designs shall be submitted to the regulatory authority at least 120 days prior to planned sedimentation pond construction.

817.45-.47-(1)-DD/DWH/OSM2

At least 120 days prior to planned sedimentation pond construction, the applicant must demonstrate to the regulatory authority that the final designs for the sedimentation ponds at the central facilities, coal preparation plant and portal areas will meet all applicable State and Federal water quality effluent limitations.

817.45-.47-(2)DD/DWH/OSM3

At least 120 days prior to surge pond construction, the applicant must submit for regulatory authority approval, final designs demonstrating that the emergency surge pond for the preparation plant is sized to contain the working volume of treatment fluids, with the appropriate freeboard, and constructed to meet design criteria for embankments and sediment removal designated in UMC 817.46.

817.50-(1)-DD/OSM4

At least 120 days prior to construction of the portals, the applicant shall submit for regulatory authority approval, a plan for handling and treating all mine water discharges. This information is needed because actual quantities of ground water intercepted cannot be predicted at this time. This plan will be in accordance with UMC 817.50.

817.56-(1)-DD/OSM5

Prior to cessation of operations the applicant shall submit specific details of transfer of title to the Anderson and Dugout Reservoirs. This transfer agreement must incorporate any responsibilities the new owner will need to assume as part of reservoir maintenance.

817.57-(2)-DD/OSM6

The applicant shall submit final detailed plans and calculations on long-term postmining reclamation stability and erosion control for the drainage channel of Fish Creek Canyon across and over the outslope of the portal pad to the point where it enters the natural drainage again. The plan will be submitted at least 120 days prior to any construction in the Fish Creek Canyon portal area. If the applicant cannot successfully demonstrate to the regulatory authority the feasibility of this approach, then the applicant will be required to submit for regulatory authority approval a plan for pad and culvert removal and restoration of the original drainage.

817.61-.68-(1)-SL/OSM7

At least 120 days prior to the construction of any surface facilities, the applicant shall submit to the regulatory authority documentation of compliance with the requirements of UMC 817.61-.68.

817.97-(1)-SL/OSM8

817.97-(1)-SL/OSM8 consists of the stipulations submitted by the Bureau of Land Management, incorporating U.S. Fish and Wildlife Service concerns. The BLM/FWS stipulations are as follows:

- a. Widening of the existing roads along the riparian zone of Dugout Creek and Fish Creek shall be done opposite the side adjacent to the riparian zones to the maximum extent practicable as determined by the operator in consultation with the Authorized Officer.
- b. Loss of riparian habitat on public lands through construction of facilities will be mitigated by upgrading adjacent riparian zones or establishing new riparian zones in conjunction with the Dugout Reservoir. Habitat upgrading will be accomplished by the operator prior to or during construction through coordination with the Authorized Officer.
- c. Loss of critical winter habitat for deer by destruction or disturbance will be mitigated by upgrading adjacent winter range. Habitat upgrading will be accomplished prior to initiation of surface construction by the operator through coordination with the Authorized Officer.
- d. Surface disturbances and facilities planned for the lease area shall be subject to Visual Resource Management considerations. Efforts shall be made to mitigate visual impacts by imitating the form, line, color and texture of the natural landscape to the greatest extent practical as determined by the Authorized Officer. This will include painting of surface structures to blend with the surrounding terrain and minimal removal of vegetation in areas of proposed surface facilities.

e. Speed of vehicular traffic associated with the mine project should be reduced to no more than 40 miles per hour throughout the mine project area (critical deer winter range) during the period November 1 through May 15 to minimize deer fatalities. The use of the Swareflex Wildlife Reflector Warning System (Streiter Corp.) is recommended to further minimize deer fatalities.

f. Dugout Reservoir will be left intact at the end of mine life if such action is determined to be in public interest. The determination will be made by the Authorized Officer at the end of mine life.

g. An inventory of areas of proposed surface disturbances shall be performed by the operator in consultation with the Authorized Officer to determine the presence of migratory birds. Mitigating measures will be prepared by the Authorized Officer to protect the habitat of migratory birds as required by 43 CFR 3461.1 (n)(1).

h. Three golden eagle nest sites were documented by the FWS and the UDWR as active by definition given in Washington Office Instruction Memorandum 80-346. A buffer zone, shown on map 1, has been established for protection of these nest sites. The area within this buffer zone is considered unsuitable for underground mining, according to Criterion 11 in the Unsuitability Criteria. Under this designation, surface occupancy or surface disturbance would not be allowed. However, an exception can be applied based on the following mitigating measures:

A. Prohibit all surface construction activity in Fish Creek Canyon within the established buffer zone during the critical nesting period, February 1 to May 15. Surface construction may be initiated on May 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on May 1 if a determination by the authorized officer, in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

B. Coordinate all nest visitation through the FWS and/or the authorized officer to minimize disturbances to nesting activity.

C. Reseed and control access to the exploration road constructed in 1979, which passes below the nest sites. Prohibit use of this road, vehicular or pedestrian, during the nesting period, February 1 to May 15.

D. Construct surface facilities in Fish Creek Canyon as shown on the attached drawing (figure 1). Place topsoil and revegetate the retaining wall (shaded in on figure 1) with trees, shrubs and understory species. Where possible, use fullsize native trees and shrubs which are in areas to be disturbed. This will act as a visual block for activity in the parking area and for traffic along the portal road. Specific requirements for this revegetation will be provided to the company at the time of development.

i. One active prairie falcon eyrie, one suspected prairie falcon eyrie and one golden eagle nest site (old) was documented by the FWS and the UDWR. A buffer zone delineated on map 2 identifies the area considered unsuitable according to Criteria 11 and 13 of the Unsuitability Criteria. An exception can be applied to allow limited surface activity based on the following conditions:

A. Allow construction of conveyor belt alignment (Alternative 6) as shown in figure 2, in Dugout Canyon.

B. Shield all lighting of the conveyor belt within the buffer zones in Dugout Canyon to minimize visibility of these lights from golden eagle and prairie falcon nest sites.

C. Prohibit all surface construction activities within the buffer zone (map 2) during the critical nesting period, March 15 to June 15. Surface construction may be initiated on June 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on June 1 if a determination by the authorized officer, in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

D. Coordinate all nest site visitations through the FWS and/or the authorized officer to minimize disturbance to nesting activity.

E. Use the minimum required number of sound warning devices on the conveyor belt within the buffer zone.

j. Two Cooper's hawk nests have been documented as active by the BLM and the UDWR. A buffer zone established for the protection of these nest sites is outlined on map 3 and is unsuitable under Criterion 13. An exception can be applied with the following conditions:

A. Coordinate all nest visitations with the FWS and/or the authorized officer to minimize disturbance to nesting birds.

B. Prohibit all surface construction activities within the buffer zone during the critical nesting period, April 15 to July 15. Surface construction may be initiated on July 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on July 1 if a determination by the authorized officer in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

C. Protect all shrubs, trees or other vegetation along the existing road shoulder (closest to the nest site) within the buffer zone.

k. The operator shall conduct raptor surveys (in close coordination with the U.S. Fish and Wildlife Service and the BLM) within .5 miles of proposed developments in Fish Creek Canyon in the nesting season prior to initiation of surface disturbing activity. Surveys must be acceptable to the authorized officer with respect to methods and qualified personnel.

817.97-(2)-SL/OSM9

At least 120 days prior to any conveyor construction, final detailed designs showing exact location of the conveyor corridor, height of the belt from the ground along the entire length of the conveyor and the location and design of any proposed big game crossings must be submitted to the regulatory authority for approval. The design must be correlated with data collected during the DWR study (Utah Division of Wildlife Resources, 1982) on big game movements through, and general use of the chosen conveyor corridors. In no case shall minimum height of the conveyor above ground surface be less than that approved in the Bureau of Land Management's Special Use Permit for this conveyor. The applicant has committed, as part of a wildlife mitigation plan, to carry out a big game movement monitoring program post-construction. Design of this monitoring program must be submitted to the regulatory authority for review and approval at least 120 days prior to conveyor construction. Based on the results of this study, the applicant may also be required to carry out certain big game mitigation practices, including but not limited to the construction of one or more big game crossings.

817.97-(3)-SL/OSM10

A final mitigation plan must be submitted to the regulatory authority at least 120 days prior to conveyor construction detailing all measures Sunedco will take to lessen impact of mining on wildlife in the permit area. This mitigation plan must also address items a, e, f, g and i listed on page two of the May 12, 1983 U.S. Fish and Wildlife Service memorandum, "Review of Concerns - MRP, Sunedco, Sage Point-Dugout Canyon".

817.101-(1)-PGL/OSM11

The applicant has shown in Map D03-0085 the locations of the portal face cuts ("highwalls") that would remain after reclamation. A detailed description of the "highwalls" that will be left (in accordance with UMC 817.101(8)) and those which will be finally graded and reclaimed must be submitted to the regulatory authority for approval at least 120 days prior to any portal construction. Since the portal areas to be reclaimed will be "graded before topsoil placement along the contour unless site-specific slope conditions would cause a safety hazard to the operator," a contingency plan for these described conditions must be submitted. Exactly how will a portal face be reclaimed where slope conditions are hazardous?

817.121-(2)-TNT/OSM12

Updated subsidence prevention plans must be provided to the regulatory authority for approval if deviation from forecasts in the MRP are developed. Should any surficial damage or fractures become apparent which may constitute a hazard, subsidence prevention plans must be updated immediately.

817.150-(1)-SL/OSM13

At least 120 days prior to initiation of construction, the applicant must submit to the regulatory authority for approval final detailed designs for all proposed Class II roads. Designs must include detailed drawings of road alignment, grades and sizing and location of culverting.

OSM14

The applicant shall comply with all applicable Federal, State and local laws, rules and regulations which impose duties with regard to socioeconomic analyses and/or mitigation plans that are required to be submitted prior to project construction. Such analyses and plans shall be developed and implemented in consultation with affected local governments, the Utah State Department of Community and Economic Development, the Utah State Division of Oil, Gas and Mining, and OSM.

OSM15

Lots 3, 4, and the W1/2 of Section 5, T.12S, R.12E may not be mined until the permittee has obtained a Federal lease and a permit to mine this coal.

OSM16

Maps D03-0007 and D03-0008 show mining in the N1/2 of Section 13 and N1/2 of Section 18, T.13S, R.13E; since coal underlying this area is unleased and outside the permit area, this area of approximately 550 acres may not be mined under this approval.

OSM17

The operator shall submit to the regulatory authority and the SHPO for review and approval, a site specific mitigation plan for sites 42 Cbl72, 173, 196, 135, 185, 188, 186 and 202. When approved, the operator shall implement the mitigation specified in the mitigation proposal. A draft report of the data recovery shall be submitted for review and approval to the regulatory authority and the SHPO no later than 4 months after completion of the data recovery. A final report shall be submitted within 4 months after receiving the comments and recommendations of the regulatory authority and the SHPO which incorporates these comments and recommendations. No surface disturbance activities related to mining will take place within 100 feet of these sites until mitigation and the resulting report has been approved.

817.21-.25/OSM18

120 days prior to any surface disturbance the applicant shall provide a plan for regulatory authority approval which identifies the best available topsoil substitute material to utilize for final reclamation of the Fish Creek and Dugout Creek waste rock disposal sites, as required under UMC 817.22(e). In addition, and at the same time, the applicant shall provide a plan for seed bed preparation and planting materials to be used for revegetating the two waste rock disposal sites.



United States Department of the Interior

U-07064

BUREAU OF LAND MANAGEMENT

Office of the Mining Supervisor
2040 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104



April 22, 1983

Memorandum

To: Office of Surface Mining, Denver
ATTENTION: Mrs. Shirley Lindsey, Utah Project Leader

From: Mining Supervisor

Subject: Sunedco Coal Company, Sage Point-Dugout Canyon Project,
Carbon County, Utah, Mining and Reclamation Plan (MRP)

The 12-volume Mining and Reclamation Plan, as amended, has been reviewed
again by this office for compliance with the new 30 CFR 211.10(b) rules. In
our opinion the plan is technically correct and should safely achieve
maximum economic recovery of the coal deposits within the plan area.

Jackson W. Moffitt
Jackson W. Moffitt



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District

P. O. Box 970

Moab, Utah 84532

IN REPLY
REFER TO: 3400
(U-066)



Memorandum

To: Center Administrator, Office of Surface Mining, Denver,
Colorado Attention: Shirley Lindsay

From: ^{ACTING} District Manager, Moab

Subject: Mine Plan Review - Sunedco's Sage Point-Dugout Project

Stipulation number 8 for subject mine plan approval in our memorandum dated October 23, 1981, has been reviewed at the request of Sunedco. As a result, the last sentence of the stipulation, relating to water rights associated with Dugout Reservoir, is hereby withdrawn. The remainder of the stipulation remains in effect.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
P.O. Box 970
Moab, Utah 84532

IN REPLY REFER TO: 3400
(U-066)

MAY 19 1983

Memorandum

To: Center Administrator, Office of Surface Mining, Denver, Colorado
Attention: Shirley Lindsay

From: ACTING District Manager, Moab

Subject: Mine Plan Review - Sunedco's Sage Point-Dugout Canyon Project

The following letter is provided as a followup response to the letter dated May 10, 1983 and to consolidate final comments on Sunedco's Sage Point-Dugout Canyon Mine Plan.

Previous correspondence dated October 23, 1981 and February 26, 1982 contain stipulations and concerns pertinent to the approval of the subject mine plan. One additional stipulation is provided to protect the concern that an active golden eagle nest may still exist unidentified in the Fish Creek Canyon area.

The operator shall conduct raptor surveys (in close coordination with the U.S. Fish and Wildlife Service and the BLM) within .5 miles of proposed developments in Fish Creek Canyon in the nesting season prior to initiation of surface disturbing activity. Surveys must be acceptable to the Authorized Officer with respect to methods and qualified personnel.

If you have any further questions please contact the appropriate staff personnel at our Price Office.

Daryl A. Trotter



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
136 E. SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

IN REPLY REFER TO

3400
U-05067-
08916
et al.
(U-942)

Certified Mail

MAY 1 2 1982

DECISION

Sunoco Energy Development Co. : Coal
12700 Park Central Pl., Suite 1500 : Utah 05067-08916, Utah 07064-027821,
Dallas, Texas 75251 : Utah 07746, Utah 089096, Utah 092147,
: and Utah 0144820

Assignments Approved Bonds Accepted

On March 5, 1982, assignments of coal leases Utah 05067-08916, Utah 07064-027821, Utah 07746, Utah 089096, Utah 092147, and Utah 0144820, dated March 4, 1982, between Sunoco Energy Development Co., as assignee, and Eureka Energy Company, as assignor, were filed in this office.

Satisfactory evidence of the qualifications and holdings of Sunoco Energy Development Co. have been filed, and the lease account is in good standing. The assignments appear to meet the requirements of the regulations and are hereby approved effective June 1, 1982. Approval of these assignments do not constitute approval of any of the terms therein which may be in violation of the lease terms.

As required by the regulations in 43 CFR 3474.2(a) lease bonds Nos. 8090-85-81, 8090-85-83, 8090-85-84, and 8090-85-85 in the amounts of \$5,000 covering coal leases U-05067-08916, U-0144820, U-092147, and U-089096 respectively and bonds Nos. 8090-85-82 and 8090-85-86 in the amounts of \$10,000 covering coal leases U-07064-027821 and U-07746 respectively, with Sunoco Energy Development Co., as principal and Federal Insurance Company, as surety, were filed in this office on May 7, 1982. The bonds are satisfactory and are accepted effective May 7, 1982, the date of filing.


Chief, Minerals Section

Memorandum

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Moab District

Price
IN REPLY REFER TO:

3400
(U-066)

To : Center Administrator, Office of Surface Mining Date: MAY 10 1983
Associate District Manager, Moab
FROM : Denver, Colorado Attn: Shirley Lindsay

SUBJECT: Mine Plan Review - Sunedco's Sage Point-Dugout Canyon Project

In accordance with your request, we hereby affirm that our previous correspondence dated October 23, 1981 and February 26, 1982 remain pertinent to the approval of subject mine plan. As you will note the stipulations provided by the second memorandum replaced two stipulations in the first.

Another active golden eagle nest is believed to be located in the area of the mine project and a field study is being conducted shortly. Should another active nest be identified, you will be advised as early as possible.

If you have any further questions, please feel free to contact the appropriate staff personnel at our Price Office.



/s/ Kenneth V. Rhea

SVogelpohl:ta:4/27/83
Mag Card II



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab District
P. O. Box 970
Moab, Utah 84532



FEB 26 1982

Memorandum

To: Regional Director, Office of Surface Mining, Denver, Colorado

From: District Manager, Moab

Subject: Mine Plan Review - Eureka Energy

The following stipulations were prepared through consultation with the U. S. Fish and Wildlife Service (FWS), the Utah Division of Wildlife Resources (UDWR), and Eureka Energy Company representatives to mitigate impacts to raptor nesting activities on the project area. These stipulations are provided to replace tentative stipulations numbers 1 & 2, identified in a previous memorandum dated October 23, 1981.

1. Three golden eagle nest sites were documented by the FWS and the UDWR as active by definition given in Washington Office Instruction Memorandum 80-346. A buffer zone, shown on map 1, has been established for protection of these nest sites. The area within this buffer zone is considered unsuitable for underground mining, according to Criterion 11 in the Unsuitability Criteria. Under this designation, surface occupancy or surface disturbance would not be allowed. However, an exception can be applied based on the following mitigating measures.

A. Prohibit all surface construction activity in Fish Creek Canyon within the established buffer zone during the critical nesting period, February 1 to May 15. Surface construction may be initiated on May 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on May 1 if a determination by the authorized officer, in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

B. Coordinate all nest visitation through the FWS and/or the authorized officer to minimize disturbances to nesting activity.

C. Reseed and control access to the exploration road constructed in 1979, which passes below the nest sites. Prohibit use of this road, vehicular or pedestrian, during the nesting period, February 1 to May 15.

D. Construct surface facilities in Fish Creek Canyon as shown on the attached drawing (figure 1). Place topsoil and revegetate the retaining wall (shaded in on figure 1) with trees, shrubs and understory species. Where possible, use fullsize native trees and shrubs which are in areas to be disturbed. This will act as a visual block for activity in the parking area and for traffic along the portal road. Specific requirements for this revegetation will be provided to the company at the time of development.

2. One active prairie falcon eyrie, one suspected prairie falcon eyrie and one golden eagle nest site (old) was documented by the FWS and the UDWR. A buffer zone delineated on map 2 identifies the area considered unsuitable according to Criteria 11 and 13 of the Unsuitability Criteria. An exception can be applied to allow limited surface activity based on the following stipulations.

A. Allow construction of conveyor belt alignment (Alternative 6) as shown in figure 2, in Dugout Canyon.

B. Shield all lighting of the conveyor belt within the buffer zones in Dugout Canyon to minimize visibility of these lights from golden eagle and prairie falcon nest sites.

C. Prohibit all surface construction activities within the buffer zone (map 2) during the critical nesting period, March 15 to June 15. Surface construction may be initiated on June 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on June 1 if a determination by the authorized officer, in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

D. Coordinate all nest site visitations through the FWS and/or the authorized officer to minimize disturbance to nesting activity.

E. Use the minimum required number of sound warning devices on the conveyor belt within the buffer zone.

3. Two Cooper's hawk nests have been documented as active by the BLM and the UDWR. A buffer zone established for the protection of these nest sites is outlined on map 3 and is unsuitable under Criterion 13. An exception can be applied with the following stipulations.

A. Coordinate all nest visitations with the FWS and/or the authorized officer to minimize disturbance to nesting birds.

B. Prohibit all surface construction activities within the buffer zone during the critical nesting period, April 15 to July 15. Surface construction may be initiated on July 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on July 1 if a determination by the authorized officer in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

C. Protect all shrubs, trees or other vegetation along the existing road shoulder (closest to the nest site) within the buffer zone.

Mitigating measures stipulated in this memorandum for protection of nesting raptors are a compromise of mitigating measures believed necessary for 100% mitigation. The compromise involved moving mine portals and facilities closest to nest sites while at the same time allowing some facilities to remain within the proposed nesting buffer zones. Monitoring of the success of this mitigation will be conducted by the authorized officer and the FWS.

If you have any questions regarding these requirements, please feel free to contact Dave Mills of my staff.



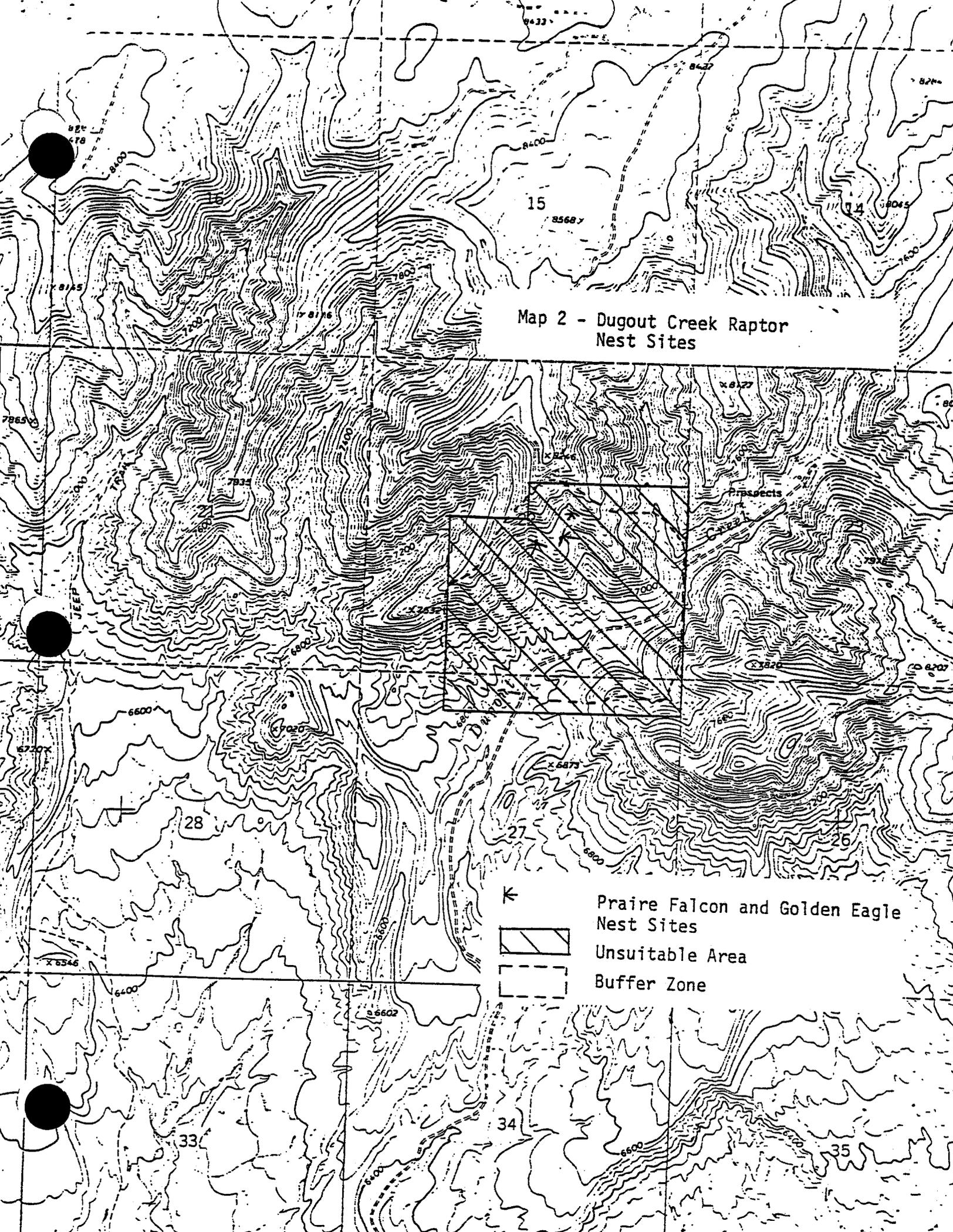
Enclosures (2)
1-Maps (3)
2-Figures (2)

cc:
Jim Smith
Division of Oil, Gas, & Mining
4241 State Office Bldg.
Salt Lake City, Utah 84138

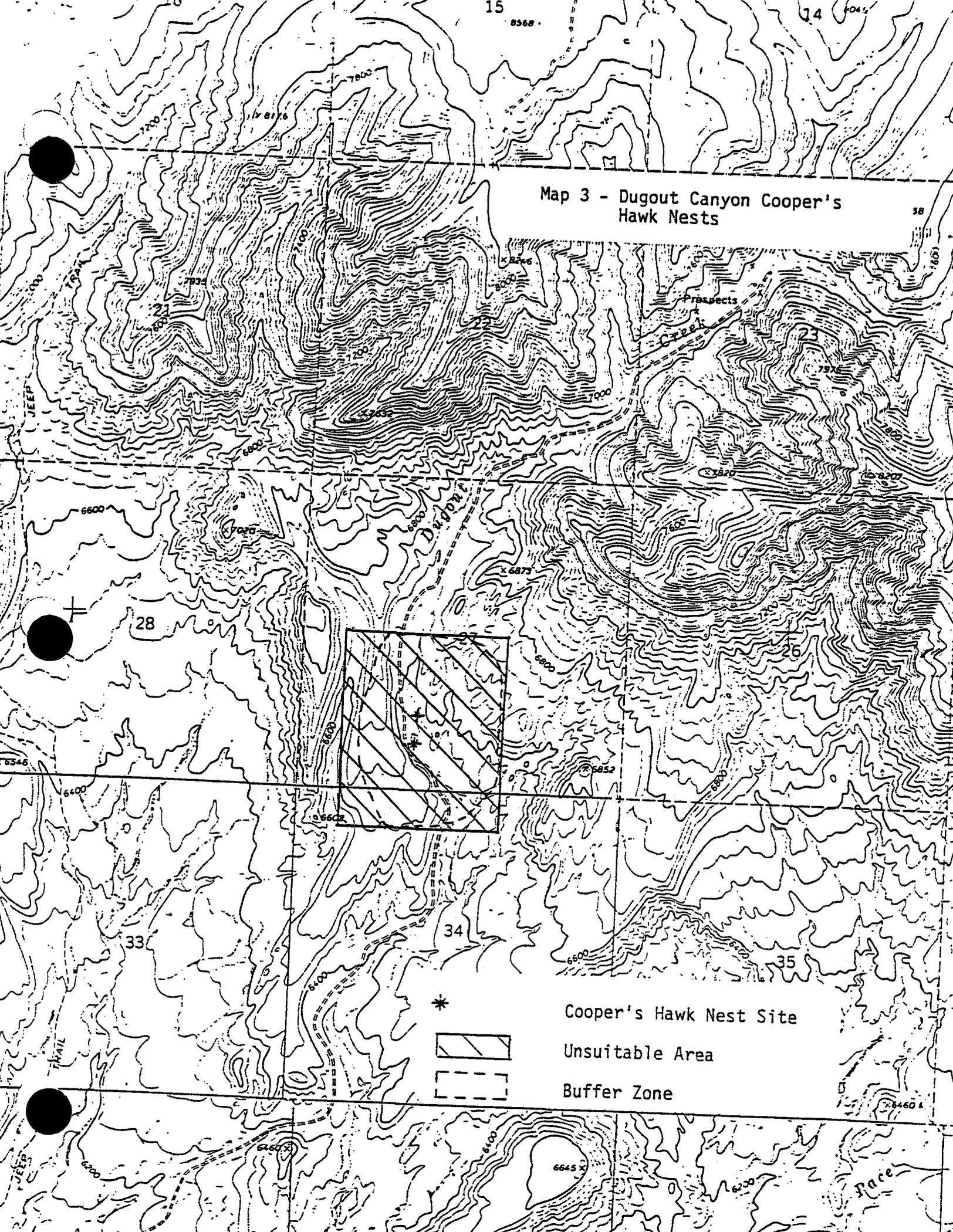
Clark Johnson
U. S. Fish and Wildlife Service
Area Office Colorado-Utah
1311 Federal Bldg.
125 South State Street
Salt Lake City, Utah 84138

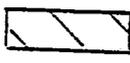
John Livesay
Utah Division of Wildlife Resources
455 West Railroad Avenue
Price, Utah 84501

Map 2 - Dugout Creek Raptor Nest Sites



Map 3 - Dugout Canyon Cooper's Hawk Nests



- * Cooper's Hawk Nest Site
-  Unsuitable Area
-  Buffer Zone

Cooper's Hawk Nest Site
Unsuitable Area
Buffer Zone

Face



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
P. O. Box 970
Moab, Utah 84532

IN REPLY REFER TO

3400
(U-066)

OCT 23 1981

Memorandum

To: Regional Director, Office of Surface Mining, Denver, Colorado

From: District Manager, Moab

Subject: Mine Plan Review - Eureka Energy

Eureka Energy's Mining and Reclamation Plan has been reviewed. The plan has been determined to be complete in regards to the protection of Federal resources not granted to the lessee and post-mining land use. The plan is recommended for approval conditioned on the following stipulations. Additional mitigating measures may be developed upon review of exploration plans or mine plan addendums.

1. Widening of the existing roads along the riparian zone of Dugout Creek and Fish Creek shall be done opposite the side adjacent to the riparian zones to the maximum extent practicable as determined by the operator in consultation with the Authorized Officer.
2. Loss of riparian habitat on public lands through construction of facilities will be mitigated by upgrading adjacent riparian zones or establishing new riparian zones in conjunction with the Dugout Reservoir. Habitat upgrading will be accomplished by the operator prior to or during construction through coordination with the Authorized Officer.
3. Loss of critical winter habitat for deer by destruction or disturbance will be mitigated by upgrading adjacent winter range. Habitat upgrading will be accomplished prior to initiation of surface construction by the operator through coordination with the Authorized Officer.
4. Surface disturbances and facilities planned for the lease area shall be subject to Visual Resource Management considerations. Efforts shall be made to mitigate visual impacts by imitating the form, line, color and texture of the natural landscape to the greatest extent practical as determined by the Authorized Officer. This will include painting of surface structures to blend with the surrounding terrain and minimal removal of vegetation in areas of proposed surface facilities.

5. Prior to surface disturbing activities, the lessee shall have had an archaeologist, acceptable to the Authorized Officer, conduct an archaeological survey of the area to be disturbed. The Authorized Officer retains the prerogative to require the relocation of proposed facilities to protect archaeological values located on leased lands, or the lessee may be required to have sites salvaged by a qualified archaeologist prior to proceeding with operations. If sites are uncovered by his operations, the operator shall not proceed further until additional clearance is granted by the Authorized Officer.

6. A predictive sample inventory of cultural resources shall be made by the lessee if subsidence is shown to have a negative impact on cultural resources.

7. Speed of vehicular traffic associated with the mine project should be reduced to no more than 40 miles per hour throughout the mine project area (critical deer winter range) during the period November 1 through May 15 to minimize deer fatalities. The use of the Swareflex Wildlife Reflector Warning System (Strieter Corp.) is recommended to further minimize deer fatalities.

8. Dugout Reservoir will be left intact at the end of mine life if such action is determined to be in public interest. The determination will be made by the Authorized Officer at the end of mine life. If the reservoir is left intact, the associated water rights will be transferred to the Surface Management Agency.

10. An inventory of areas of proposed surface disturbances shall be performed by the operator in consultation with the Authorized Officer to determine the presence of migratory birds. Mitigating measures will be prepared by the Authorized Officer to protect the habitat of migratory birds as required by 43 CFR 3461.1 (n)(1).

The following stipulations are tentatively presented; however, may be changed following a field examination of affected raptor nests. Scheduled for the week of October 26, 1981:

1. Construction activities will not occur in T. 13 S., R. 12 E., Section 27: E $\frac{1}{2}$ W $\frac{1}{2}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ W $\frac{1}{2}$ SE $\frac{1}{4}$; Section 34: NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ (200 acres) during the period of April 1 through July 15 (Cooper's hawk nest).

2. Areas indentified as falcon or eagle nest areas will be closed to surface occupancy with the exception of activities related to exploration, subsidence and ventilation. Exploration activities will not be allowed during the period between February 15 and July 15.

Surface construction for ventilation shafts and related access roads will not be accomplished during the aforementioned time period. Routine maintenance of ventilation fans may be accomplished yearlong. Additional mitigating measures will be developed, as needed, upon review of exploration and mine plans. Legal descriptions listed below provide an approximate .05 mile buffer zone around nest sites.

Prairie Falcon

T. 13 S., R. 12 E., Sec. 22: $SE\frac{1}{4}$, $S\frac{1}{2}NE\frac{1}{4}$, $E\frac{1}{2}SW\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$
 Sec. 27: $NW\frac{1}{4}NE\frac{1}{4}$, $NE\frac{1}{4}NW\frac{1}{4}$

Golden Eagle

T. 13 S., R. 12 E., Sec. 27: $E\frac{1}{2}NE\frac{1}{4}$, $NE\frac{1}{4}SE\frac{1}{4}$
 Sec. 26: $N\frac{1}{2}$, $SW\frac{1}{4}$, $N\frac{1}{2}SE\frac{1}{4}$
 Sec. 23: $S\frac{1}{2}SW\frac{1}{4}$, $SW\frac{1}{4}SE\frac{1}{4}$
 Sec. 25: $W\frac{1}{2}$, $NE\frac{1}{4}$, $N\frac{1}{2}SE\frac{1}{4}$, $SW\frac{1}{4}SE\frac{1}{4}$
 Sec. 24: $S\frac{1}{2}SE\frac{1}{4}$, $S\frac{1}{2}SW\frac{1}{4}$
 Sec. 21: $S\frac{1}{2}$, $S\frac{1}{2}NE\frac{1}{4}$, $N\frac{1}{2}NW\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$
 Sec. 28: $N\frac{1}{2}NE\frac{1}{4}$, $NE\frac{1}{4}NW\frac{1}{4}$
 Sec. 20: $NE\frac{1}{4}NE\frac{1}{4}$
 Sec. 17: $SE\frac{1}{4}$, $W\frac{1}{2}NE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$, $E\frac{1}{2}SW\frac{1}{4}$

The Federal coal leases have been found acceptable for mining under all the unsuitability criteria except #14 which will be resolved by compliance of stipulation 10 as presented above.



cc: State Director, Utah (U-931)



United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
1311 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UTAH 84138-1197

July 28, 1983



IN REPLY REFER TO:

MEMORANDUM

TO: Acting Deputy Administrator
Office of Surface Mining
Denver, Colorado
Attention: Shirley Lindsay

FROM: Acting Field Supervisor, Ecological Services
U.S. Fish and Wildlife Service
Salt Lake City, Utah

SUBJECT: June 13, 1983 Revisions to Sun Energy Development Company's
Sage Point-Dugout Canyon Mine Plan

We are encouraged by the apparent continued receptiveness of SUNEDCO Coal Co. to changes in the mine plan that are beneficial to wildlife and commend their efforts toward acquiring and updating wildlife data this year. We do wish to emphasize, however, our commitment to full compensation for wildlife losses that accrue due to the business of developing coal resources.

We request further consideration be given to recommendations a, b, e, f, g and j, set forth in our letter of May 12, 1983, that have not been committed to by the Company. Even with 100 percent implementation of these recommendations, we anticipate losses of wildlife on and off tract to be noteworthy due to the increased work force that will require housing, secondary developments and recreational opportunities, and who will also impact wildlife simply by their presence on roads and in the back country.

It is our understanding that these unaddressed recommendations may be developed later when the Company submits specific documents on sub-components of the mine plan, such as the conveyor system or railroad spur. The Service wishes to remain actively involved in the planning process. Specifically, we would like to coordinate with the Company in the selection of the final railroad alignment to assess impacts to species of particular management interest such as ferruginous hawks and burrowing owl nest sites.

We also want to assist in the assessment of the needs for nest boxes and their placement to mitigate for lost nest cavities in trees required to be removed for developments.

You are aware that the disturbance or destruction of nests of migratory birds being used for nesting activities would constitute a violation of the Migratory Bird Acts and involved persons are subject to prosecution under the law. Therefore, we propose to work with OSM and mine permittees in the design or early planning stages to eliminate detrimental impacts of mine development to migratory birds.

One specific comment we direct your attention to relates to page II-410. We are recommending use of:

Olendorff, R.R., A.D. Miller, and R.N. Lehman. 1981. Suggested Practices for Raptor Protection on Powerlines - The State of the Art in 1981. Raptor Research Report No. 4, Raptor Research Foundation, Inc. 111p.

Please contact us if we can be of further assistance.

Ronald L. Gust

cc: DOGM, SLC
DWR, SLC
RO/HR, DEN

United States Department of the Interior

FISH AND WILDLIFE SERVICE
AREA OFFICE COLORADO-UTAH
1311 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UTAH 84138
May 12, 1983

IN REPLY REFER TO:

MEMORANDUM

To: Acting Deputy Administrator
Office of Surface Mining
Denver, Colorado
Attn: Shirley Lindsay

From: ~~ACTING~~ Field Supervisor, Ecological Services
U.S. Fish and Wildlife Service
Salt Lake City, Utah

Subject: Review of Concerns - Mining Reclamation Plan (MRP), Sunedco,
Sage Point - Dugout Canyon



This memorandum summarizes our concerns for the MRP submitted by Sunedco for the Sage Point - Dugout Canyon Mine. We have not reviewed the plan in its entirety since our letter of August 13, 1981. Our concerns if they have not already been addressed, remain as stated in the August 13, 1981 memorandum and subsequent memoranda of December 5, 1981 (BLM), April 14, 1982 (BLM), August 18, 1982 (EPA), December 23, 1982 (OSM) and March 11, 1983 (OSM). What we believe are still unaddressed significant concerns will be briefly restated below. Additionally, the Service completed a resurvey of most of the tract for raptors in 1982 and selected nest sites in 1983.

Attached is a map showing the results of our 1982 raptor surveys. Other than change of status at some of the nests, little new data was found except for the active prairie falcon eyrie at NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 19, T. 15 S., R. 12 E. The Cooper's hawk nests in Section 27 were not checked in 1982.

Two field trips in 1983 did not identify active golden eagle nesting in Sections 16, 17, 21 or 22 (all of T. 13 S., R. 12 E.). One of the three nests in Section 16 was again maintained with fresh greenery. In addition, golden eagles were observed using this canyon during both field trips made in 1983. We therefore recommend that the stipulations recommended in the BLM's February 26, 1982 memorandum be carried forward into the mine plan. We further request that the Company resolve the issue as to the possible existence of another yet undetected nest in Fish Creek Canyon within 1 km of the proposed developments. This should be completed prior to the Company's entrenchment in the proposed development plan. This would allow them the opportunity to avoid the impact, or propose mitigation techniques before initiation of construction of the proposed developments.

Other issues we would like to highlight are:

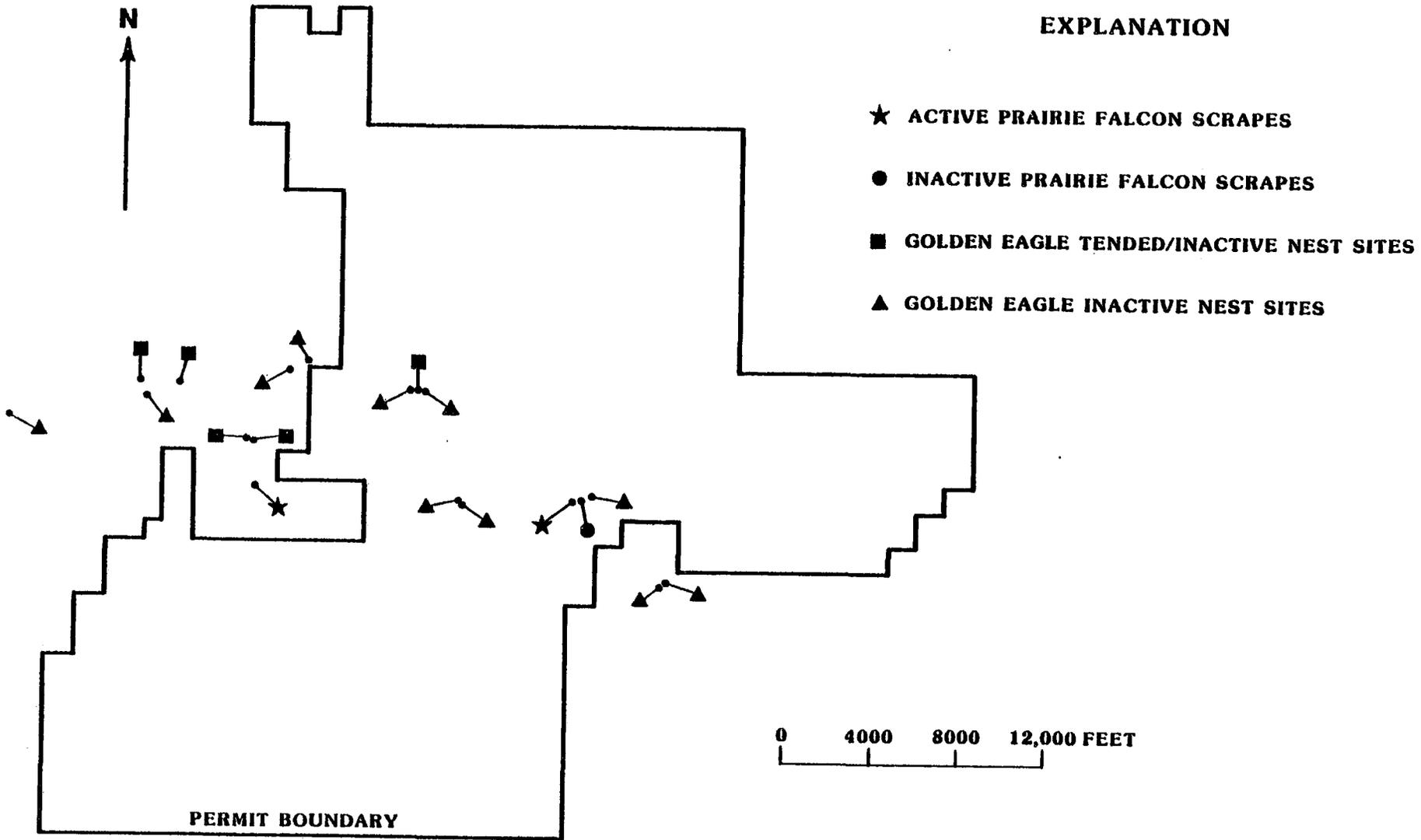
- a) Consideration by the Company to locate the conveyor system in Dugout Canyon in a manner that will minimize impacts to riparian vegetation, and the identified prairie falcon eyrie. Our preference for alignment would be for a location out of the riparian zone onto the adjacent benches. We would ask that the FWS be involved in discussion of design and alignment for the conveyor system.
- b) Stipulate seasonal avoidance of construction, surveys and maintenance operations, within raptor nest buffer zones if these nest sites are currently active.
- c) Require power pole designs that are not hazardous to raptors.
- d) Carry forward stipulations required by the BLM in their February 26, 1982 memorandum.
- e) Stipulate that reference plots (or other suitable methods) be maintained in riparian habitats of Dugout Creek downstream from the planned diversion to monitor impacts from diversion of Dugout Creek flows. Require the Company to maintain flows adequate to maintain these riparian habitats.
- f) Require the Company to replace all lost sources of wildlife water, lost due to mining activity.
- g) Require the Company to mitigate by replacement and maintenance of lost cavity nest sites at a rate of two nest boxes/cavity lost or impacted (within 50 yards of roads or developments).
- h) Provide stipulations adequate to prevent escarpment failure due to underground mining.
- i) Identify areas that are vegetated by Hedysarum occidentale var. canone and minimize disturbances if possible.
- j) Active mitigation (as opposed to passive or avoidance) should be proposed by the Company and required by your agency to offset impacts to raptors, other migratory birds, resident wildlife and riparian vegetation.

We assume these suggested stipulations can be implemented without delaying the permit process. Please don't hesitate to contact us if further clarification is required.

Attachment

cc: OGM, SLC
 BLM, Price
 BLM, SLC
 DWR, Price





1982 FWS NEST SURVEY



United States Department of the Interior

FISH AND WILDLIFE SERVICE
AREA OFFICE COLORADO-UTAH
1311 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UTAH 84138-1197



IN REPLY REFER TO:

March 11, 1983

MEMORANDUM

To: Regional Director, Office of Surface Mining
Denver, Colorado
Attn: Shirley Lindsay or Floyd Johnson

From: Field Supervisor, Ecological Services
U.S. Fish and Wildlife Service
Salt Lake City, Utah

Subject: Review of January 18, 1983 and February 4, 1983 Submittals
of Revisions to MRP by Sunedco for the Sage Point - Dugout
Canyon

We have reviewed these revisions and generally found them acceptable. However, Sunedco's response to question 5(b) of the February 4 submittal requires further discussion.

The Fish and Wildlife Service considers all surface sources of water extremely valuable to wildlife and that wildlife use is a legitimate vested use of this water. We are concerned that Sunedco has no intention of replacing water sources that are not currently developed or suitable for development, or that is not protected by "legal" water rights. We believe Sunedco should commit to replacement of any of these naturally occurring wildlife water sources that are lost through wells, guzzlers or other techniques.

We appreciate the opportunity to comment.

cc: DWR, SLC, UT
RO/HR, Denver, CO
OGM, SLC, UT

MEMORANDUM	
SE:	5 1 1982
ES:	Bolwahn
EOS:	
ORFP:	
AE:	
AS:	

23 December 1982

MEMORANDUM

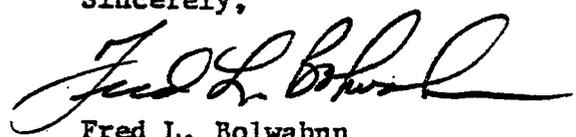
TO: Chief, Technical Support Branch
Office of Surface Mining, Denver, Colorado

FROM: Field Supervisor, Endangered Species Office
U. S. Fish and Wildlife Service

SUBJECT: Threatened and Endangered speices, Sage Point/Dugout Canyon Mine

We have reviewed your memorandum of 29 November 1982 concerning the Sage Point/ Dugout Mine in Carbon County, Utah. No species currently listed by the U. S. Fish and Wildlife Service (FWS) as threatened or endangered will be affected by the Sage Point/ Dugout Canyon Mine as described in your memorandum. We wish to bring to your attention the rare plant species Hedysarum occidentale var. canon which may be affected by your preposed action. This species is currently under review by the FWS for possible listing as an endangered species (see Federal Register Vol. 45, No. 242 pp 82480-82569 15 December 1980). This species is not at present protected by the Endangered Species Act, however we encourage you to consider it in your enviromental planing.

Sincerely,



Fred L. Bolwahn
Field Supervisor

cc: AFA/SE: W. Wathen
EOS/UT
Official file
Reading file

JLE/jg:12-23-82



SCOTT M. MATHESON
GOVERNOR



STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

December 6, 1982

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
300 RIO GRANDE
SALT LAKE CITY, UTAH 84101
TELEPHONE 801 / 533-5755

Division of Oil, Gas and Mining
Attn: Sue Lanier
1588 West North Temple
Salt Lake City, Utah 84116

RE: Sage Point-Dugout Canyon Mine Plan

Dear Ms. Lanier:

The Utah Preservation Office has received for consideration letters dated November 19, 1982, and June 18, 1982, outlining eligibility and effect questions for the Sage Point-Dugout Mine located in Carbon County, Utah.

After review of the material and consultation with the Division of Oil, Gas & Mining, the Utah Preservation Office concurs with the determination of eligibility and effect made by the Office of Surface Mining in their June 18, 1982 letter. During development of a mitigation plan to reach a determination of no adverse effect, our office would be willing to assist the applicant or the agency involved with any questions or help with development of a research design by the mining contractor.

The above is provided on request as information or assistance. We make no regulatory requirement, since that responsibility rests with the federal agency official. However, if you have questions or need additional assistance, please let us know. Contact Jim Dykman at 533-7039.

Sincerely,

Melvin T. Smith
Director and
State Historic Preservation Officer

JLD:jr:D969/5246c

cc: Allen D. Klein, Administrator, Attn: Judy Shafer, Office of
Surface Mining, Brooks Tower, 1020 15th Street, Denver,
Colorado 80202



SCOTT M. MATHESON
GOVERNOR



STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

August 3, 1982

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
300 RIO GRANDE
SALT LAKE CITY, UTAH 84101
TELEPHONE 801 / 533-5755

Jim Smith
Attn: Sally Keefer
Division of Oil, Gas, and Mining
1588 West North Temple
Salt Lake City, Utah 84116

RE: Sage Point-Dugout Canyon Mine Plan

Dear Ms. Keefer:

In reference to a mitigation plan for the Sage Point-Dugout Mine, the Office of Surface Mining has forwarded a letter dated June 18, 1982, which your office has, requesting concurrence with the determination of no adverse effect if the proper mitigation plan is presented in the context of the two stipulations outlined by the Office of Surface Mining.

Our office had believed that there was a mitigation plan submitted for the Sage Point-Dugout Canyon Mine and has not seen any review of that mitigation plan by the Office of Surface Mining. It is apparent from their letter that they are requesting either an update of the mitigation plan or a new mitigation plan to be submitted by the owners of the Sage Point-Dugout Canyon Mine. Our office is available for consultation on determination of no adverse effect.

The above is provided on request as information or assistance. We make no regulatory requirement, since that responsibility rests with the federal agency official. However, if you have questions or need additional assistance, please let us know. Contact Jim Dykman at 533-7039.

Sincerely,

Melvin T. Smith
Director and
State Historic Preservation Officer

JLD:jr:B969/4179c

June 13, 1982

Melvin T. Smith, Director and
State Historic Preservation Officer
Division of State History
Utah State Historical Society
300 Rio Grande
Salt Lake City, Utah 84101

Re: Sage Point-Dugout Canyon Mine Plan

Dear Mr. Smith:

The Office of Surface Mining (OSM) has determined through review of the Sage Point-Dugout Canyon Mine Plan that of the 33 sites located, 13 sites appear to be eligible for listing in the National Register of Historic Places. However, there are only eight which will be directly or indirectly impacted by mining activities. These included three historic sites (42cb172, 173 and 196) and five prehistoric sites (42cb135, 165, 188, 202 and 186). Should you concur with this recommendation, OSM will forward documentation to the Keeper of the National Register and seek a 10-day consensus determination of eligibility pursuant to 36CFR 63.3.

OSM believes that with an adequately developed and implemented data recovery program, there should be "No Adverse Effect" to these sites. We, therefore, ask your review and concurrence with the approval of the mine plan based on the company's acceptance of the following stipulations:

1. If during the course of mining operations, previously unidentified cultural resources are discovered, the applicant shall ensure that the site(s) is not disturbed and shall notify the regulatory authority. The operator shall ensure that the resource(s) is properly evaluated in terms of National Register Eligibility (36 CFR 60.6). Should a resource be found eligible for listing after consultation with the regulatory authority, the land-managing agency (if the site is located on Federal lands), and the State Historical Preservation Officer, the operator shall confer with and obtain the approval of those agencies concerning the development and implementation of mitigation measures.
2. The operator shall submit to the regulatory authority and the SHPO, for review and approval, a mitigation plan for sites 42cb172, 173, 196, 135, 185, 188, 186 & 202. When approved, the operator shall implement the mitigation procedures in strict adherence with the objectives, methods and techniques specified in the mitigation proposal. A

Letter to Melvin T. Smith

June 17, 1982

Page Two

draft report of the data recovery shall be submitted for review and approval to the regulatory authority and the SHPO no later than 4 months after completion of the data recovery. A final report shall be submitted within 4 months after receiving the comments and recommendations of the regulatory authority and the SHPO which incorporates those comments and recommendations.

Based on the company's acceptance of the above stipulations, we believe that approval of the Sage Point-Dugout Canyon Mine Plan should have "No Adverse Effect" to any site eligible for or listed in the National Register of Historic Places. Should you concur with our determination, we shall notify the Advisory Council on Historic Preservation of our joint concurrence as specified in the FMOA.

If you have any questions, please call Judy Shafer or Foster Kirby at (303) 937-5656. Thank you for your continuing cooperation.

Sincerely,

Allen D. Klein
Administrator
Western Technical Center

Enclosures

bcc: ADMIN
DIV
OFC

SHAHER:KIRBY:sfr:6/17/82



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dr. G. A. (Jim) Shirazi, Division Director

41 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

June 1, 1983



Mr. Allen D. Klein, Administrator
Western Technical Center
Office of Surface Mining
Brooks Towers
1020 Fifteenth Street
Denver, Colorado 80202

RE: Stipulations to Permit Approval
Sun Energy Development Company
(Sunedco)
Sage Point-Dugout Canyon Mine
ACT/007/009
Folder Nos. 2 and 4
Carbon County, Utah

Dear Mr. Klein:

Division staff have reviewed the Socioeconomics stipulation proposed by OSM for inclusion in Sunedco's Permit Approval Decision Document. We concur with the language of the proposed stipulation, and will require no further amendments to this section of the Decision Document.

Sincerely,

Dr. G. A. "Jim" Shirazi
Director

JS/SCL:btb

cc: Sarah Branson, OSM
S. Linner, DOGM



COMMUNITY DEVELOPMENT DIVISION

6233 STATE OFFICE BUILDING
SALT LAKE CITY, UTAH 84114
(801) 533-4054

M. MATHESON
GOVERNOR

STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

May 19, 1983

Ms. Shirley Lindsay, Project Leader
Sunedco-SP/DC Mine
U.S. Dept. of Interior
Office of Surface Mining
1020 - 15th Street
Denver, CO 80202

Dear Ms. Lindsay:

I would like to confirm our agreement with a draft stipulation to be included in the mine permit for the Sunedco Sage Point Mine. The stipulation, originally drafted by Sunedco and OSM, reads as follows:

"The applicant shall comply with all applicable federal, state and local laws, rules and regulations which impose duties with regard to socioeconomic analyses and/or mitigation plans that are required to be submitted prior to project construction.

Such analyses and plans shall be developed and implemented in consultation with affected local governments, the Utah State Department of Community and Economic Development, The Utah State Division of Oil, Gas and Mining, and OSM."

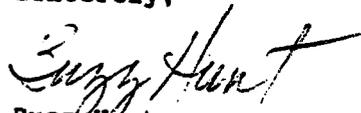
You will note that we have added the Utah Division of Oil, Gas and Mining as one of the consulting agencies with which socioeconomic analyses and mitigation plans shall be developed and implemented.

We support the stipulation, as modified above, and very much appreciate OSM's cooperation on this matter.

I would like to add that we have enjoyed an excellent working relationship with Sunedco in preparing for their proposed mine. We are following a mutually agreed upon process of analyzing impacts, reaching agreement on methods, assumptions, and analytical conclusions and negotiation of mitigation agreements. Although we are still working through this process, I believe Sunedco is proceeding in good faith and anticipate a mutually agreeable and amicable conclusion to our efforts.

Once again, we very much appreciate your cooperation and assistance.

Sincerely,


Buzz Hunt

H:aw



CARBON COUNTY

PRICE, UTAH 84501

June 20, 1983



Shirley Lindsay
Project Leader, Sunedco, Sage Point Mine
Office of Surface Mining
Brooks Towers
1020 15th St.
Denver, Colo. 80202

Dear Ms. Lindsay,

Carbon County wishes to express our approval of the Sunedco stipulation statement drafted by Sunedco and your staff. We feel that this particular project does not technically fit into the local planning process because of the way our ordinance is written. Therefore we are glad that your office has required that the Sunedco officials work closely with the local governments as far as socio-economic impacts are concerned. We would like to further stress that before construction is allowed to begin a Carbon County sign off letter be obtained stating that we feel comfortable with the mitigation plan which has developed and subsequent efforts to implement it.

The original socio-economic impact analysis which was done by Sunedco was a very good document, better than most which we have seen. However, it did have problems and we would like to see a mitigation plan based on some modified assumptions other than those presented in the original analysis. We have met with Sunedco in our planning and zoning commission and we agreed that the mitigation plan will really be the most important document because it will outline exactly what the company is willing to do to assist us in planning and providing for the Sunedco work force.

We hope we can continue the excellent dialogue we have had with your office into the future especially as it relates to impacts extremely important to our local governments.

Sincerely,

A handwritten signature in cursive script that reads "Richard E. Walker".

Richard E. Walker
County Planner

ATTACHMENTS*

Sunoco Energy Development Company
Sage Point-Dugout Canyon Mine
ACT/007/009, Carbon County, Utah

1. U. S. Bureau of Land Management letter dated February 26, 1982.
2. State Historic Preservation Officer's sign-off, December 6, 1982.
3. Soil Conservation Service letter on Prime Farmlands, January 17, 1980.
4. Soil Conservation Service letter on Prime Farmland Reclamation, June 16, 1981.
5. Sunedco Publication Notice and Affidavit of Publication.
6. Finding of No Significant Impact for New Source NPDES Permit.
7. U. S. Fish & Wildlife Service letter dated April 14, 1982.
8. Air Quality Approval Order dated May 18, 1981.
Air Quality Approval Order, amendment dated June 9, 1981.
9. Division of Water Rights review letter dated January 5, 1981.
Division of Water Rights review letter dated September 4, 1981.
10. Division of Environmental Health review letter dated February 5, 1981.
Division of Environmental Health review letter dated January 26, 1982.
11. Division of Wildlife Resources sign-off dated August 31, 1981.
12. Letter from Office of Surface Mining to Division of Oil, Gas and Mining concerning Alluvial Valley Floors.

* Concurrence letters provided by the Division of Oil, Gas & Mining



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

41 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

March 16, 1983

Mr. Allen Klein, Director
Western Technical Center
Office of Surface Mining
Brooks Towers
1020 Fifteenth Street
Denver, Colorado 80202

RE: Recommendations for Approval of MRP
Sunoco Energy Development Company
Sage Point-Dugout Canyon Mine
ACT/007/009
Folder No. 2
Carbon County, Utah

Dear Mr. Klein:

The Division of Oil, Gas and Mining has completed the Technical Analysis (TA) of the Sage Point-Dugout Canyon Mine, incorporating OSM's comments into the final document. We hereby recommend issuing a conditional approval to begin operations upon Sunoco Energy Development Company's written acceptance of the stipulations contained in the TA and posting of the required reclamation surety. The permit term is to be for a five-year period, with permit renewal and/or revision due at that time.

Enclosed is a copy of the final joint DOGM/OSM TA with stipulations and a brief findings document and a completed Mine Plan Information form. I trust this information will enable OSM to complete its final Environmental Assessment for the decision document to be forwarded to Washington, D. C., for Secretarial approval. We would greatly appreciate all you can do to expedite the final permitting process.

If you have any questions or need additional information, please contact myself or Susan Linner of my staff.

Sincerely,

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

JWS/SCL:btb

Enclosure

cc: Charles Durrett, Sunedco
Susan Linner, DOGM

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen



United States
Department of
Agriculture

Soil
Conservation
Service

4012 Federal Building
125 South State Street
Salt Lake City, UT 84138

January 17, 1980

To Whom It May Concern:

Soil survey data in the files of the Soil Conservation Service at Salt Lake City, Utah show that the parcels of land in Field 1 - East 1/2 of Section 12, T. 14 S., R. 11 E. and Field 2 - East 1/2 of Section 1, T. 14 S., R. 11 E., have soil characteristics and qualities suitable for prime land. If the parcels have an irrigation water right and have been cultivated within the past five years they are classed as prime agricultural land.

These soils have been mapped by Soil Conservation Service, soil scientist and tentatively named in the Haverson soil series.

Field 3 in the NE 1/4 of Section 36, and SE 1/4 of Section 25, T. 13 S., R. 11 E. has very strongly alkali affected layers within 40 inches and does not qualify as prime farmland.

Signed:

State Soil Scientist
Soil Conservation Service
Salt Lake City, Utah

January 17, 1980

United States
Department of
Agriculture

Soil
Conservation Service P. O. Box 11350
Salt Lake City, UT 84147

June 16, 1981

RECEIVED

JUN 22 '81

EUREKA ENERGY CO.
Salt Lake City

C. A. Slaboszewicz, Permit Analyst
Eureka Energy Company
1010 Kearns Building
136 South Main Street
Salt Lake City, Utah 84101

Dear Mr. Slaboszewicz:

I have reviewed the material submitted with your letter of June 9. There are two items I am suggesting for your consideration.

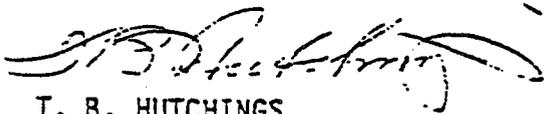
1. Page II-200; "When irrigated it is capability subclass IIe".
2. Page II-202; I could not interpret the statement 800 lbs. per acre, oven-dried weight.

I assumed this refers to native forage. I suggest you put "(range)" following the statement.

The alfalfa yields under irrigation ought to be 4,000-8,000 lbs. air dry weight. Normally, we record such yields as 2 to 4 tons.

With these additions, the proposal seems acceptable from our point of view.

Sincerely,



T. B. HUTCHINGS
State Soil Scientist

AFFIDAVIT OF PUBLICATION

STATE OF UTAH }
County of Carbon, } ss.

I, Robert L. Finney on oath, say that I am
the Publisher of The Sun-Advocate,
a weekly newspaper of general circulation, published at Price,
State and County aforesaid, and that a certain notice, a true copy
of which is hereto attached, was published in the full issue of
such newspaper for Four (4)
secutive issues, and that the first publication was on the
9th day of June, 19 82 and that the
last publication of such notice was in the issue of such newspaper
dated the 30th day of June, 19 82

Robert L. Finney
Subscribed and sworn to before me this

30th day of June, 19 82

Michelle Finney
Notary Public.

My Commission Expires October 26, 1983

Publication fee, \$ 140.80

I hereby certify that this instrument is a true and correct copy of the original Affidavit of Publication.

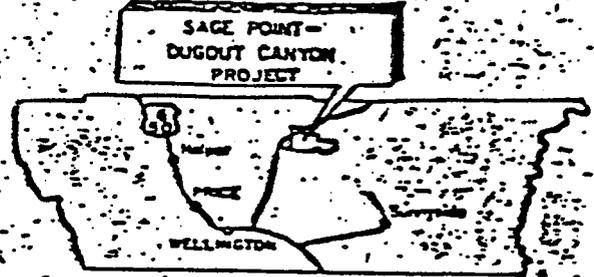
In witness my hand and seal of office this the 16th day of August, 1982.

Commission expires:

6/6/84

Bruce Vaughn

Sunoco Energy Development Co., 12700 Park Central Place, Suite 1500, Dallas, Texas 75251, has applied for the transfer of all applications, permits, licenses, and rights-of-way previously held by Eureka Energy Company of 77 Beale Street, San Francisco, California 94106, relating to constructing and operating a coal mining facility north of Wellington in Carbon County, Utah. (See figure.)



CARBON COUNTY

The project area is shown on the following U.S. Geological Survey 7.5-minute maps:

- Deadman Canyon Quadrangle
- Pine Canyon Quadrangle
- Mount Bartles Quadrangle

Included is an application filed by the Eureka Energy Company with the Office of Surface Mining, U.S. Department of Interior, and the Division of Oil, Gas, and Mining, State of Utah, for a permit to conduct mining operations. The proposed permit area contains the following areas:

- Township 13 South, Range 12 East, Salt Lake Baseline and Meridian
- Secs. 2, 3, 4, 5, 9, 10, 11, 14, 15, 16, 21, 22, 24, 28, 29, 30, 31, 32, 33: All
- Sec. 8: E $\frac{1}{2}$
- Sec. 13: S $\frac{1}{2}$
- Sec. 17: E $\frac{1}{2}$ and E $\frac{1}{2}$ SW $\frac{1}{4}$
- Sec. 19: W $\frac{1}{2}$ SW $\frac{1}{4}$ and SW $\frac{1}{4}$ NW $\frac{1}{4}$
- Sec. 20: NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, and SW $\frac{1}{4}$ NW $\frac{1}{4}$

- Sec. 23: N $\frac{1}{2}$, SE $\frac{1}{4}$, and N $\frac{1}{2}$ SW $\frac{1}{4}$
- Sec. 25: N $\frac{1}{2}$ NE $\frac{1}{4}$
- Sec. 27: W $\frac{1}{2}$ and W $\frac{1}{2}$ NE $\frac{1}{4}$
- Sec. 34: W $\frac{1}{2}$
- T12S, R12E, SLB&M
- Sec. 32: W $\frac{1}{2}$, SE $\frac{1}{4}$, E $\frac{1}{2}$ NE $\frac{1}{4}$, and SW $\frac{1}{4}$ NE $\frac{1}{4}$
- T13S, R13E, SLB&M
- Sec. 18: S $\frac{1}{2}$
- Sec. 19: N $\frac{1}{2}$, SW $\frac{1}{4}$, and NW $\frac{1}{4}$ SE $\frac{1}{4}$
- Sec. 30: NW $\frac{1}{4}$ NW $\frac{1}{4}$
- T13S, R11E, SLB&M
- Sec. 25: E $\frac{1}{2}$ and E $\frac{1}{2}$ SW $\frac{1}{4}$
- Sec. 36: All
- T14S, R11E, SLB&M
- Sec. 1: N $\frac{1}{2}$
- T14S, R12E, SLB&M
- Sec. 3: NW $\frac{1}{4}$
- Sec. 4: N $\frac{1}{2}$
- Sec. 5: N $\frac{1}{2}$
- Sec. 6: N $\frac{1}{2}$

The application contains information regarding environmental resources and the proposed operations and reclamation plan. A copy of the application is available for public inspection at the following address:

Recorder's Office
Carbon County Courthouse
Price, Utah 84501

The public is welcome to review the application and offer any comments to the Office of Surface Mining and/or Utah Division of Oil, Gas, and Mining. Any written comments, objections, or requests for an informal conference should be sent to the following address:

Office of Surface Mining
Brooks Towers
1020 Fifteenth Street
Denver, Colorado 80202
Division of Oil, Gas, and Mining
1523 West North Temple



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION VIII
 1860 LINCOLN STREET
 DENVER, COLORADO 80295-0699

JUN 23 1982

CC See SL
 FILE 007/009

FINDING OF NO SIGNIFICANT IMPACT

To All Interested Government Agencies and Public Groups:

As required by the EPA Regulation, "Preparation of Environmental Impact Statements for New Source NPDES Permits" (40 CFR 6.900), an environmental review has been performed on the proposed EPA action below:

Applicant: Sunoco Energy Development Company
 Location: Carbon County, Utah
 EPA Action: Issuance of a New Source NPDES water discharge permit
 Application No: UT-0024031

Sunoco Energy Development Company has proposed to construct and operate four underground coal mines in Carbon County, Utah. The anticipated production of coal at full capacity is 5,220,000 tons per year. The mines will employ approximately 1,800 people.

Facilities proposed to be developed include:

- . four independent underground mines with portal facilities
- . office and warehouse facilities
- . conveyors
- . coal preparation plant
- . waste rock disposal areas
- . raw coal storage areas
- . diversion structures
- . sediment ponds
- . roads
- . loadout facility

JUN 10 1982

DIVISION OF
 WATER POLLUTION CONTROL

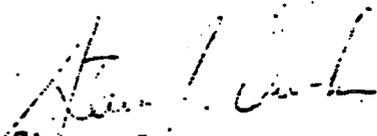
Approximately 446 acres of land will be disturbed by construction and operation of the facility. Some wildlife and vegetation habitats will be destroyed. Local topography will be permanently altered. Emissions and water discharges will meet New Source Performance Standards determined for this industrial category.

The review process indicated that no significant environmental impacts are expected from the proposed facilities. A site-specific analysis of this project (then called the Sage Point-Dugout Canyon Project) was contained in a final environmental impact statement, Development of Coal Resources in Central Utah, prepared under the leadership of the U.S. Geological Survey in 1979.

The decision has been made on the basis of a careful review of the environmental information and other supporting data which are on file in the office listed below and are available for public scrutiny upon request. This Agency will not take any administrative action on the project for at least 30 days from the above date.

Written comments on this decision may be submitted for consideration by EPA. Comments should be addressed to:

Samuel Berman
Chief, State Programs Management Branch
Environmental Protection Agency
Region VIII
1860 Lincoln Street
Denver, Colorado 80295



Steven J. Durham
Regional Administrator

U.S. FISH AND WILDLIFE SERVICE
1311 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UTAH 84133

April 14, 1982

MEMORANDUM

TO: Area Manager, Bureau of Land Management
Price, Utah

FROM: Acting Area Manager, Fish and Wildlife Service
Salt Lake City, Utah

SUBJECT: Mine Plan Review, Eureka Energy, UT-0041

We have reviewed your revised stipulations for the portal facility in Fish Creek Canyon, and are generally satisfied with the process involved in arriving at these stipulations as well as the results. We do have some reservations that full mitigation has been received, but we also realize that significant mitigation in terms of modifying the portal facilities has been offered by the Company. We offer the following comments.

- a. We support the written stipulations as stated and we recognize that you were successful in modifying the developmental design of the portal facility significantly. However, our concern is that it be understood that:
 1. Development of the portal facility as amended may still be a deterrent to imminent nesting by golden eagles.
 2. Due to the lateness of the planning effort when this nest site was found, historical predevelopment data on nest attendance and use is lacking.
 3. Further efforts to modify the portal site may only result in an application by the leasee to the Fish and Wildlife Service (FWS) to "take" the nest.
 4. The pair of eagles occupying this territory, unless particularly intolerant of human intrusions, may adapt to the mining disturbances over several years and return to the site to breed.

- b. We suggest that as a part of the revised portal development plan that the nest site be monitored in the years before development and for at least 3 years after development to evaluate the success of the proposed modifications.

Don't hesitate to contact us if we can be of further assistance.

JIMMIE L. TISDALE

cc: DWR, SLC
DWR, Moab
✓OGH, SLC
OSH, Denver

STATE OF UT.
DEPARTMENT OF HEALTH

DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110
533-6108

May 18, 1981

Alvin E. Rickers, Director
Room 426 801-533-6121



James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

Nicolas K. Temnikov
Eureka Energy Company
77 Beale Street
San Francisco, CA 94106

DIVISION OF
OIL, GAS & MINING

Re: Air Quality Approval Order
for Construction and Operation
of Sage Point-Dugout Canyon
Coal Mine Project

DIVISIONS

Community Health Services
Environmental Health
Family Health Services
Health Care Financing
and Standards

OFFICES

Administrative Services
Health Planning and
Policy Development
Medical Examiner
State Health Laboratory

Dear Mr. Temnikov:

On April 13, 1981 the Executive Secretary published a notice of intent to approve your portal construction and surface operations for two coal mines in Fish Creek Canyon and two in Dugout Canyon in Carbon County. The 30-day public comment period expired May 12, 1981 and no comments were received.

This air quality approval order authorizes the surface operations as proposed in your notice of intent dated January 2, 1981 with the following conditions:

1. All emission control equipment shall be maintained in good operating condition and control procedures shall be performed as proposed.
2. Visible emissions from point sources shall not exceed 20% opacity as per Section 4.1.2, Utah Air Conservation Regulations (UACR). Emissions from diesel engines shall not exceed 20% opacity except for starting motion no farther than 100 yards or for stationary operation not exceeding 3 minutes in any hour as per Section 4.1.4, UACR.
3. Total annual production of coal from the four mines shall not exceed 5,200,000 tons without prior approval from the Executive Secretary per Section 3.1, UACR.
4. All conveyors shall be enclosed and water sprays shall be operated at all transfer points including transfers to other conveyors, storage piles and into a surge bin. The spray system shall utilize a wetting agent to the water for minimizing fugitive emissions as proposed.

5. The unpaved sections of roadway shall be water sprayed to minimize fugitive dusts as dry conditions warrant or as determined necessary by the Executive Secretary. A record/log of treatments to include date, amount and treatment location shall be kept and made available to the Executive Secretary upon request.
6. The stack from each baghouse controlling emissions from the crusher, centrifuges and preparation plant conveyors shall be stack tested using EPA test methods 1-5 within 180 days after this approval date. The exhaust from each stack shall not exceed 0.02 gr/dscf. The Executive Secretary shall be contacted for technical input at least thirty days prior to the test(s) and State personnel shall be present for the test(s).
7. The rotary breaker in the preparation plant shall be controlled with water sprays with additives to minimize fugitive emissions.
8. The Executive Secretary shall be notified when start-up occurs as an initial compliance inspection is required.

As per Section 3.9, Utah Air Conservation Regulations, a fee for the cost associated with the processing of this approval order must be paid to the State of Utah upon receipt of this order. Enclosed is an itemized bill.

Sincerely,

Brent C. Bradford
Executive Secretary
Utah Air Conservation Committee

MRK:js

Enclosure

cc: Southeastern Dist. Health Dept.
EPA/Region VIII (N. Huey)
Div. of Oil, Gas & Mining (J. Smith);/

Scott M. Matheson
Governor



STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Director
Room 426 801-533-6121

533-6108

June 9, 1981

James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS

- Community Health Services
- Environmental Health
- Family Health Services
- Health Care Financing and Standards

OFFICES

- Administrative Services
- Health Planning and Policy Development
- Medical Examiner
- State Health Laboratory

Nicolas Temnikov
Eureka Energy Company
77 Beale Street
San Francisco, CA 94106

Re: Air Quality Approval Order for
Construction and Operation of
Sage Point-Dugout Canyon Mine
Dated May 18, 1981

Dear Mr. Temnikov:

Condition No. 6 of your air quality approval order is amended to read as follows:

"The stack from each baghouse controlling emissions from the crusher, centrifuges and preparation plant conveyors shall be stack tested using EPA test methods 1-5 within 180 days after startup. The exhaust from each stack shall not exceed .02 grains/dscf. The Executive Secretary shall be contacted for technical input at least thirty days prior to the test(s) and State personnel shall be present for the test(s)".

Enclosed you will find a copy of the additional road emissions which you submitted on June 5, 1981. The additional 2.93 ton/yr will not affect your permit conditions. Please be reminded, however, that these additional roads must also be controlled with water spraying as per condition No. 5.

Sincerely,

Burnell Gordon
Brent C. Bradford
Executive Secretary
Utah Air Conservation Committee

DR:il

cc: Southeastern District Health Dept.
EPA/Region VIII (N. Huey)
Div. of Oil, Gas & Mining (J. Smith)

Enclosure



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

DEE C. HANSEN
STATE ENGINEER

EARL M. STAKER
DEPUTY

200 EMPIRE BUILDING
231 EAST 400 SOUTH
SALT LAKE CITY, UTAH 84111
(801) 533-6071

DIRECTING ENGINEERS
HAROLD D. DONALDSON
DONALD C. NORSETH
STANLEY GREEN
ROBERT L. MORGAN

January 5, 1981

Mr. James W. Smith, Jr.
Coordinator of Mined Land and Development
Utah Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Re: Eureka Energy Company, Sage Point-Dugout Canyon Project,
Carbon County, Utah

Dear Mr. Smith:

This office has completed its review of the water impounding structures associated with the above mentioned project. This letter will serve as approval for the small sedimentation structures associated with the portal areas, the central facilities, and the disposal sites (Saddle Valley, Boot Valley, Fish Creek, and Dugout Canyon). These structures are small and do not threaten life or property. The sewage lagoons do not have any drainage areas plus they do not threaten life or property. No approval will be required from this office on the lagoons. Approval for Anderson Dam and Dugout Dam cannot be given at this time. These are larger structures and the following are required:

1. An approved water right for both structures.
2. Construction plans and specifications.
3. A design report which includes data on:
 - a. Hydraulics
 - b. Hydrology
 - c. Foundation Conditions
 - d. Embankment Materials
 - e. Concrete Structures
 - f. Foundation Treatment
 - g. Drainage and Seepage Control

UTAH DIVISION OF
OIL, GAS & MINING

Page 2

Mr. James W. Smith, Jr.

January 5, 1981

I would also request plans for the diversion structures. If you have any questions, please feel free to call me or Mr. Bob Morgan of my staff.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dee C. Hansen".

Dee C. Hansen, P.E.
State Engineer

DCH:RLM:sn

cc: Price Office



STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RIGHTS

1636 West North Temple
~~200 EMPIRE BUILDING~~

~~231 EAST 400 SOUTH~~

SALT LAKE CITY, UTAH 84444-84116

(801) 533-6071

DEE C. HANSEN
STATE ENGINEER

EARL M. STAKER
DEPUTY

DIVISION OF
OIL, GAS & MINING

DIRECTING ENGINEERS
HAROLD D. DONALDSON
DONALD C. NORSETH
STANLEY GREEN
ROBERT L. MORGAN

JIM

September 4, 1981

SEP 05 1981

Mr. James W. Smith, Jr.
Utah Division of Oil, Gas, and Mining
1588 West North Temple
Salt Lake City, Utah 84116

RE: Eureka Energy Corp. ACR
Sage Point-Dugout Canyon
ACT/007/009
Carbon County, Utah

Dear Mr. Smith:

This office has completed its review of the Mining and Reclamation Plan Addendum. We find no reasons to alter our previous approval of the sedimentation ponds. As soon as the construction drawings and specifications for the large dam are submitted, we will start our review and approval process.

If you have any questions, please feel free to contact Bob Morgan of my staff.

Sincerely,

Dee C. Hansen, P. E.
State Engineer

DCH/RLM/cpm

cc: Price Area Office
Eureka Energy Corp.

M. Matheson
Governor

STATE OF UTAH
DEPARTMENT OF HEALTH

DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110



533-6146
February 5, 1981

Alvin E. Rickers, Director
Room 426 801-533-6121

MEMORANDUM

James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS

Community Health Services
Environmental Health
Family Health Services
Health Care Financing
and Standards

OFFICES

Administrative Services
Health Planning and
Policy Development
Medical Examiner
State Health Laboratory

TO: Dennis R. Dalley, Associate Deputy Director *DRD*
Division of Environmental Health

THROUGH: Don A. Ostler, P.E., Chief *DAO*
Engineering & Construction Grants Section
Bureau of Water Pollution Control

FROM: Steven R. McNeal *SRM*
Public Health Engineer
Bureau of Water Pollution Control

SUBJECT: Eureka Energy Company, SMCRA Permit Application

I have reviewed the December 1980 Eureka Company Sage Point-Dugout Canyon Project Surface Mining Control and Reclamation Act Permit Application. This application discusses the conceptional location of a total containment lagoon for sanitary wastes and sediment ponds for each of the mine waste rock and central facility locations.

The locations of these wastewater facilities appear acceptable provided the soil conditions and groundwater conditions meet the requirements of the Utah Wastewater Disposal Regulations. Further information should be submitted so that a construction permit can be issued within a year of the commencement of continuous construction. For the sanitary system the information should include sewerline details, soil conditions to a depth of 4 feet below the lagoon bottom, maximum groundwater level, seepage rate, design parameters, plans, compaction specifications, etc.

Where possible, the sediment ponds should be designed to provide three feet of settling between the sediment level and a baffled outlet. Outlet baffles should not be perforated on the pond side. Soil conditions, seepage rate and compaction specifications will also need to be submitted for the sediment control ponds.

Taf

Scott M. Matheson
Governor



James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS

Community Health Services
Environmental Health
Family Health Services
Health Care Financing
and Standards

OFFICES

Administrative Services
Health Planning and
Policy Development
Medical Examiner
State Health Laboratory

STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110
FEB 03 1982

Alvin E. Rickers, Director
Room 474, 801-533-6121

File 447/0070
Copy to Sally
See 3
Mar 2
JIM

January 26, 1982

RECEIVED
FEB 02 1982

DIVISION OF
OIL, GAS & MINING

James W. Smith, Jr.
Coordinator of Mined Land Development
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

Re: Sage Point-Dugout Canyon Mine
Eureka Energy Company
Carbon County

Dear Mr. Smith:

In reviewing the information submitted in conjunction with the above referenced project, it appears that a public water supply system is being proposed to be developed to supply the mining facilities. Comments contained in this information indicates the company anticipates developing a surface water source to meet the culinary water demands for its employees. However, because the information submitted contained no plans or specifications, an engineering assessment is not possible.

Also, we still have not received detailed plans of the sanitary system and sediment ponds as indicated in our memo of February 5, 1981. This was attached to our letter to you of March 10, 1981.

Sincerely,

Dennis R. Dalley
Dennis R. Dalley
Assistant Director

state of utah

file 577007,007
copy for Lee, Sally, Sue



DIVISION OF WILDLIFE RESOURCES

EQUAL OPPORTUNITY EMPLOYER

DOUGLAS F. DAY
Director

1596 West North Temple/Salt Lake City, Utah 84116/801-533-9333

August 31, 1981

Mr. Cleon B. Feight, Director
Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Attention: James Smith

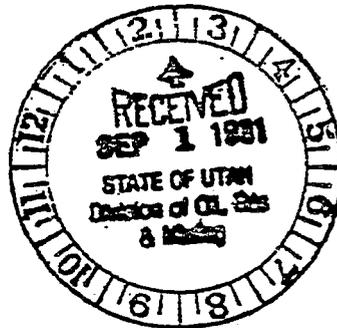
Dear Cleon:

We have reviewed the Addendum to the Mining and Reclamation Plan (MRP) for Eureka Energy Company's Sagepoint-Dugout Canyon mining project. Many of our comments on the original MRP are noted and the response is satisfactory. Some comments are not noted in the Addendum but nearly all of these are of a minor nature or, hopefully, will be answered as the ongoing "Deer-Mining Study" progresses. This study is being conducted in conjunction with this mining project, and we are hopeful that changes will be accepted in the operation if warranted by study results.

The Addendum addresses the most significant concerns we had and so we have no further comments.

Sincerely,

Douglas F. Day
Director





United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab District
P. O. Box 970
Moab, Utah 84532

File ACT/001/009

IN REPLY REFER TO

3400

(U-066)

Copy to Sue & Sally
w/ maps First

FEB 26 1982

JIM.

MAR 10 1982

Memorandum

To: Regional Director, Office of Surface Mining, Denver, Colorado

From: ^{ACTING} District Manager, Moab

Subject: Mine Plan Review - Eureka Energy

The following stipulations were prepared through consultation with the U. S. Fish and Wildlife Service (FWS), the Utah Division of Wildlife Resources (UDWR), and Eureka Energy Company representatives to mitigate impacts to raptor nesting activities on the project area. These stipulations are provided to replace tentative stipulations numbers 1 & 2, identified in a previous memorandum dated October 23, 1981.

1. Three golden eagle nest sites were documented by the FWS and the UDWR as active by definition given in Washington Office Instruction Memorandum 80-346. A buffer zone, shown on map 1, has been established for protection of these nest sites. The area within this buffer zone is considered unsuitable for underground mining, according to Criterion 11 in the Unsuitability Criteria. Under this designation, surface occupancy or surface disturbance would not be allowed. However, an exception can be applied based on the following mitigating measures.

A. Prohibit all surface construction activity in Fish Creek Canyon within the established buffer zone during the critical nesting period, February 1 to May 15. Surface construction may be initiated on May 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on May 1 if a determination by the authorized officer, in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

B. Coordinate all nest visitation through the FWS and/or the authorized officer to minimize disturbances to nesting activity.

C. Reseed and control access to the exploration road constructed in 1979, which passes below the nest sites. Prohibit use of this road, vehicular or pedestrian, during the nesting period, February 1 to May 15.

RECEIVED

MAR 09 1982

DIVISION OF
OIL, GAS & MINING

- D. Construct surface facilities in Fish Creek Canyon as shown on the attached drawing (figure 1). Place topsoil and revegetate the retaining wall (shaded in on figure 1) with trees, shrubs and understory species. Where possible, use fullsize native trees and shrubs which are in areas to be disturbed. This will act as a visual block for activity in the parking area and for traffic along the portal road. Specific requirements for this revegetation will be provided to the company at the time of development.
2. One active prairie falcon eyrie, one suspected prairie falcon eyrie and one golden eagle nest site (old) was documented by the FWS and the UDWR. A buffer zone delineated on map 2 identifies the area considered unsuitable according to Criteria 11 and 13 of the Unsuitability Criteria. An exception can be applied to allow limited surface activity based on the following stipulations.
- A. Allow construction of conveyor belt alignment (Alternative 6) as shown in figure 2, in Dugout Canyon.
- B. Shield all lighting of the conveyor belt within the buffer zones in Dugout Canyon to minimize visibility of these lights from golden eagle and prairie falcon nest sites.
- C. Prohibit all surface construction activities within the buffer zone (map 2) during the critical nesting period, March 15 to June 15. Surface construction may be initiated on June 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on June 1 if a determination by the authorized officer, in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.
- D. Coordinate all nest site visitations through the FWS and/or the authorized officer to minimize disturbance to nesting activity.
- E. Use the minimum required number of sound warning devices on the conveyor belt within the buffer zone.
3. Two Cooper's hawk nests have been documented as active by the BLM and the UDWR. A buffer zone established for the protection of these nest sites is outlined on map 3 and is unsuitable under Criterion 13. An exception can be applied with the following stipulations.
- A. Coordinate all nest visitations with the FWS and/or the authorized officer to minimize disturbance to nesting birds.

B. Prohibit all surface construction activities within the buffer zone during the critical nesting period, April 15 to July 15. Surface construction may be initiated on July 1 if a nesting attempt has not been documented by the authorized officer in consultation with the FWS. Surface construction may also be initiated on July 1 if a determination by the authorized officer in consultation with the FWS, shows the nesting attempt to be nonproductive. This determination may be ascertained by observed behaviors of the nesting pair or by presence or absence of eggs.

C. Protect all shrubs, trees or other vegetation along the existing road shoulder (closest to the nest site) within the buffer zone.

Mitigating measures stipulated in this memorandum for protection of nesting raptors are a compromise of mitigating measures believed necessary for 100% mitigation. The compromise involved moving mine portals and facilities closest to nest sites while at the same time allowing some facilities to remain within the proposed nesting buffer zones. Monitoring of the success of this mitigation will be conducted by the authorized officer and the FWS.

If you have any questions regarding these requirements, please feel free to contact Dave Mills of my staff.

Enclosures (2)
1-Maps (3)
2-Figures (2)

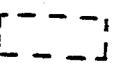
Jsl/Kenneth V. Rhea

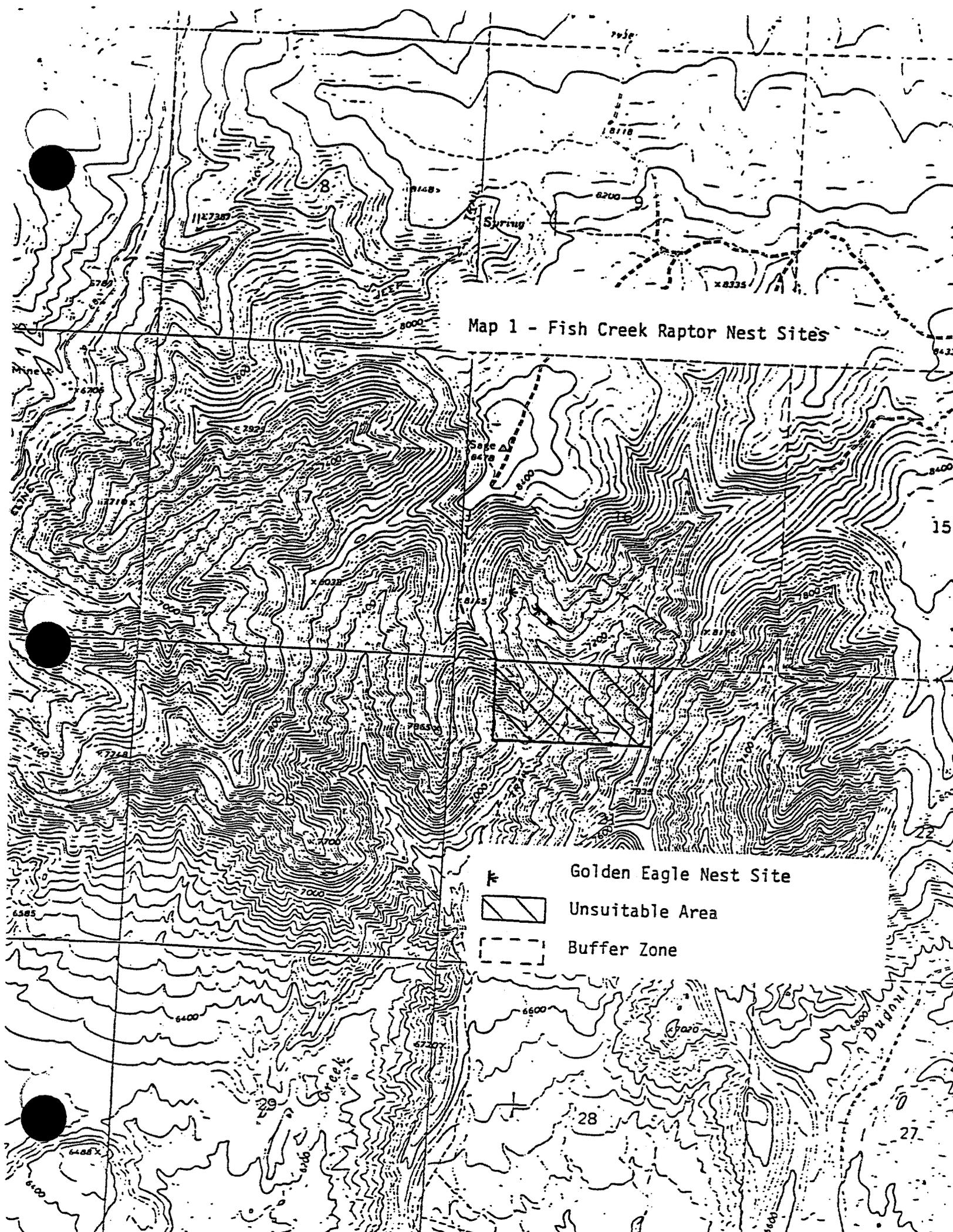
cc:
Jim Smith
Division of Oil, Gas, & Mining
4241 State Office Bldg.
Salt Lake City, Utah 84138

Clark Johnson
U. S. Fish and Wildlife Service
Area Office Colorado-Utah
1311 Federal Bldg.
125 South State Street
Salt Lake City, Utah 84138

John Livesay
Utah Division of Wildlife Resources
455 West Railroad Avenue
Price, Utah 84501

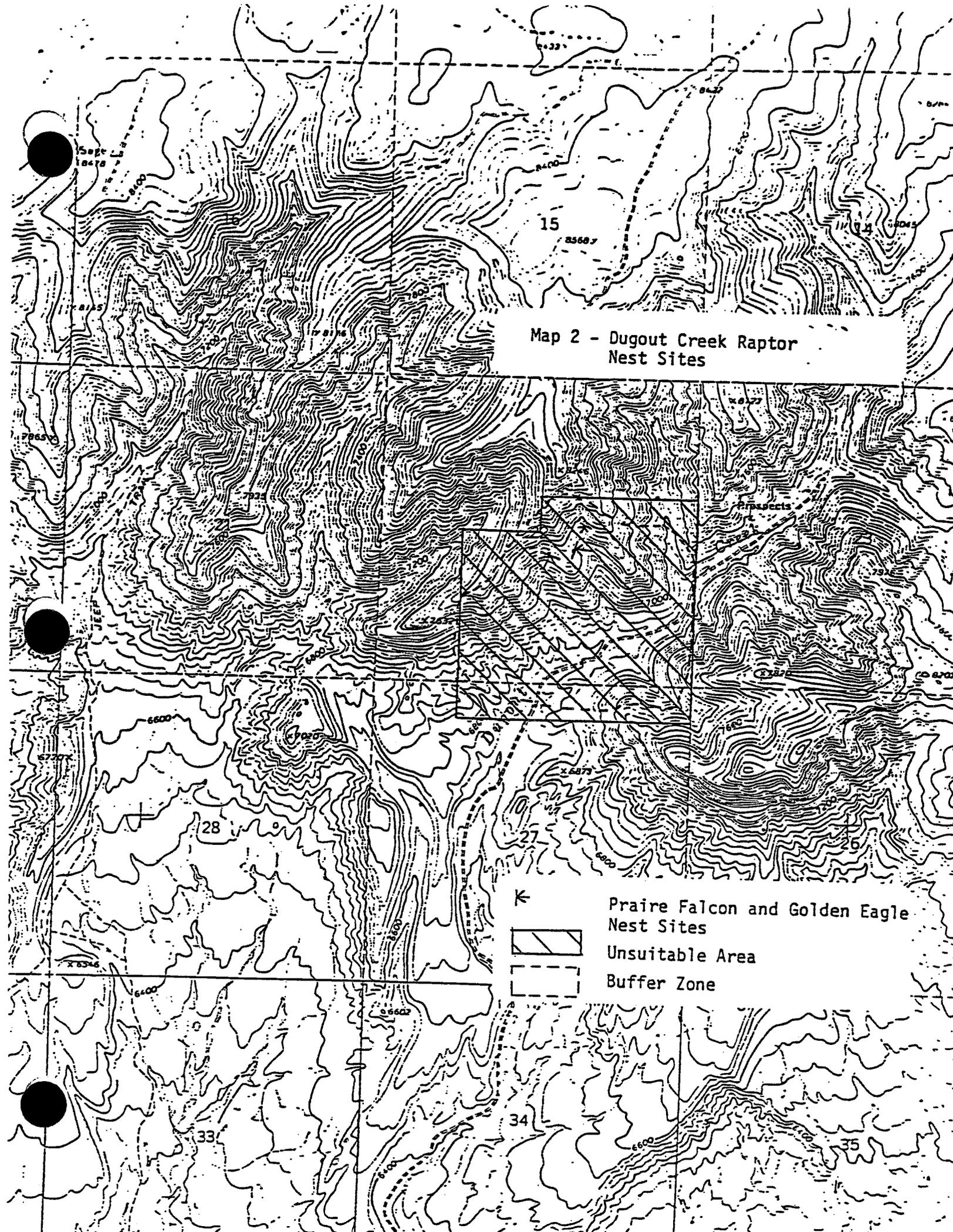
Map 1 - Fish Creek Raptor Nest Sites

-  Golden Eagle Nest Site
-  Unsuitable Area
-  Buffer Zone

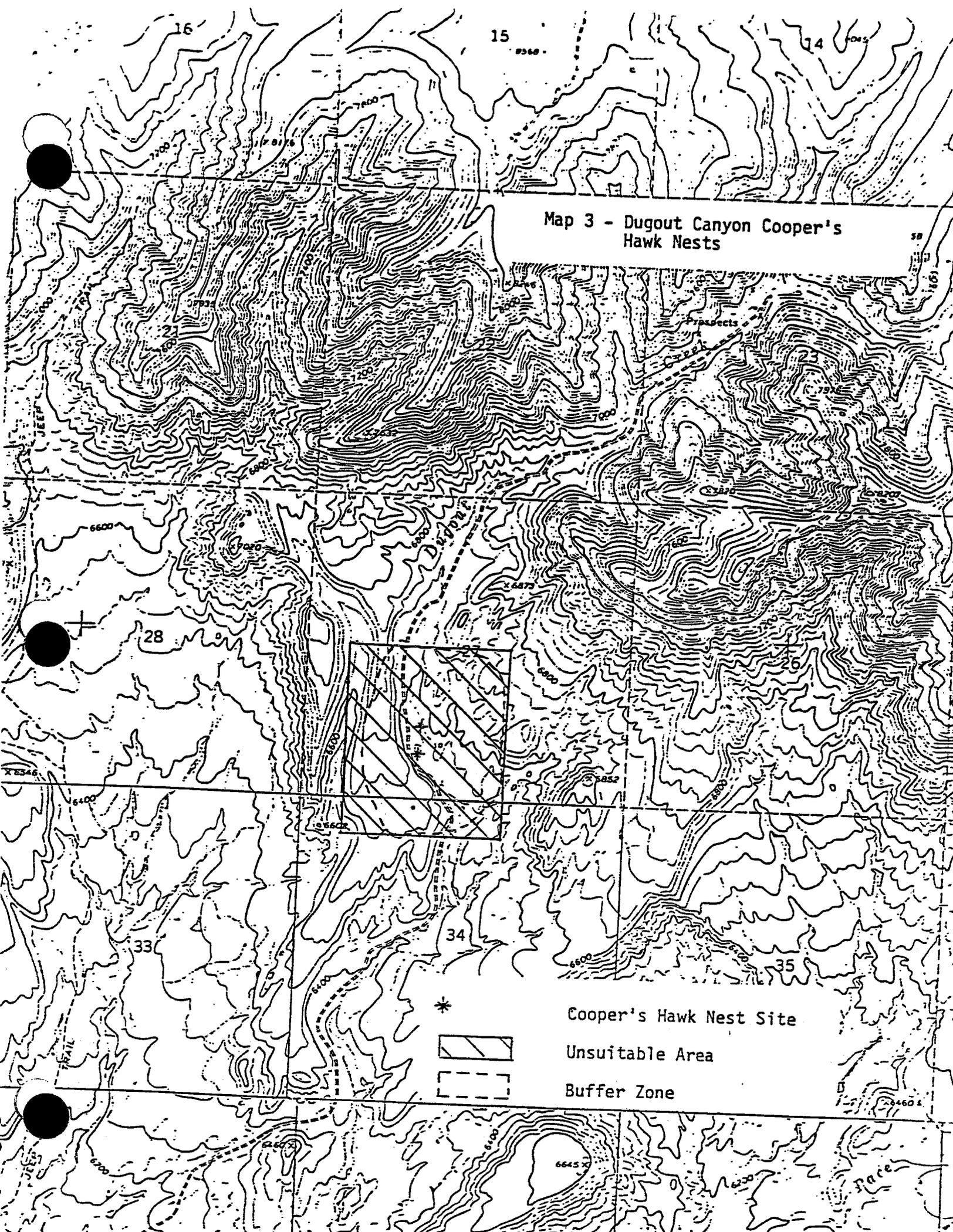


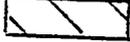
Map 2 - Dugout Creek Raptor Nest Sites

- ↖ Prairie Falcon and Golden Eagle Nest Sites
- ▨ Unsuitable Area
- ⋯ Buffer Zone



Map 3 - Dugout Canyon Cooper's Hawk Nests



- * Cooper's Hawk Nest Site
-  Unsuitable Area
-  Buffer Zone



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

Copy to A
Review S

OFFICE OF THE REGIONAL DIRECTOR

Mr. James Smith, Jr.
Coordinator of Mined Land Development
Utah Department of Natural Resources
Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116

05 MAY 1981

RECEIVED

MAY 7 1981

DIVISION OF
OIL, GAS & MINING

Dear Jim:

As you requested, my staff has completed an Apparent Completeness Review (ACR) of Eureka Energy Company's Sage Point-Dugout Canyon Mine. A preliminary draft of this ACR was sent to you by John Nadolski on March 3. This was followed up by a later draft which was sent to Ms. Sally Kefer of your staff on April 16.

Review of the plan indicates that the plan is incomplete and technically deficient (see Attachment No. 1). Comments from the U.S. Geological Survey (USGS) and the Bureau of Land Management (BLM) are incorporated into the ACR. Copies of this correspondence are also attached to this letter (see Attachments Nos. 2 and 3).

Eureka Energy should be complimented for their well-organized presentation which reflects the effort Eureka Energy put in the preparation of the mining and reclamation plan. The major deficiencies noted in the ACR are of a technical nature and should not involve more data collection. Exceptions to this may be cultural resources and vegetation baseline data for the disturbed areas.

Eureka Energy has requested a 40-year permit. As my staff has discussed with you, this request is being reviewed by OSM's Washington office. It is our understanding that the information submitted would not support a permit term longer than five years since the request does not provide evidence of a site-specific need for financing, equipping, or opening a mine.

Volume XI of the mining and reclamation plan is labeled confidential. I have previously requested Eureka Energy (by letter dated January 14, 1980) to reevaluate their request for confidentiality. Their response was a reaffirmation of the request for confidentiality. Based upon a review from our Regional Solicitor (see Attachment No. 4), I am declassifying with this letter the information pertaining to: (1) proposed production figures, (2) proposed mining sequence, (3) thickness of coal seam, (4) interburden thickness, and (5) outcrop maps. Mr. Nickolas Temnikov of Pacific Gas and Electric was notified of this in a conversation with John Nadolski on April 19, 1981, and we requested that this not be done before May 1, 1981.

Early last year, Eureka Energy requested your evaluation of a possible alluvial valley floor (AVF) in the permit area. Last fall, your staff requested OSM assistance in this matter. A field inspection of the permit area was made on November 6, 1980. Based upon the information obtained on the site visit. The information submitted in the mining and reclamation plan, and the additional information and methodology presented in this attachment, my staff has made a determination that there are several locations in Soldier Creek that are alluvial valley floors. Eureka Energy has purchased all of the land and water rights associated with this farmland. My staff has prepared a draft technical analysis of the AVF which is also attached to this letter (see Attachment No. 5). Based upon this analysis, I have made a preliminary determination that the alluvial valley floor which will be affected by the mine's operation is significant to farming. Our staffs are still working with the SCS and the BLM in order to gather more information regarding the questions of significance to farming.

Eureka Energy's proposed operation would impact the alluvial valley floor in two ways. First, I understand that the road, rail spur, parking lot, offices, and sedimentation pond are proposed to be built in the area previously farmed (two hay crops per year for a number of years). With the exception of the sedimentation pond, for which we have not yet evaluated, these proposed structures will not effect the hydrologic balance or the reclaimability of the area. However, all facilities would remove the hazards from production.

Second, and more importantly, the present Anderson Reservoir is proposed to be expanded in order to provide water for the mining operations. The reservoir would be expanded to have an active storage volume of 1675 acre feet. The water would be consumptively used in the mining operation, thus interrupting the hydrologic balance which provides flood irrigation water to the alluvial valley floor. As my staff has discussed with you, the Surface Mining Control and Reclamation Act prohibits the approval of a permit unless it is demonstrated that "the proposed surface mining operation...would not interrupt, discontinue, or preclude farming on alluvial valley floors...or not materially damage the quantity or quality of water in surface or underground water systems that supply the valley floors...." (P.L. 95-87, Section 510(b)(5)) This decision is supported by an opinion obtained from the Office of the Solicitor. This opinion is attached to this letter for your reference (see Attachment No. 6).

In summary, Eureka Energy must demonstrate that the affected alluvial valley floor in Soldier Creek is not significant to the farm's agricultural production, and if this demonstration is made, that the essential hydrologic functions will be preserved. If these demonstrations cannot be made, then the issuance of a permit incorporating the proposed diversion of surface water is prohibited. If my staff can be of any assistance in resolving this conflict, please call upon me or John Nadolski.

The Sage Point-Dugout Canyon Mines were addressed (as the Fish Creek and Dugout Canyon Mines) in Part 2 of the Final Environmental Statement for the Development of Coal Resources in Central Utah (DOI, 1979). The environmental impacts of the proposed operation were adequately addressed in Chapter FD-III of this environmental statement. Therefore, at this time, we are not proposing to prepare another site-specific environmental statement.

Sincerely,



DONALD A. CRANE

- Attachments
1. ACR
 2. USGS comments
 3. BLM comments
 4. Solicitor's memo on confidentiality
 5. AVF technical analysis
 6. Solicitor's memo on AVF

cc: Moffitt, USGS, SLC (w/attachments)
Berggren, BLM, Price (w/attachments)

Sage Point-Dugout Canyon Mine
Eureka Energy Company
Carbon County, Utah

Draft Technical Analysis of Alluvial Valley Floor Determination

Information used in this draft analysis, unless otherwise noted, was obtained from information submitted by Eureka Energy to Utah Division of Oil, Gas and Mining (DOG M) on July 30, 1980 (transmitted to OSM on September 15, 1980) and the Mining and Reclamation Plan submitted on December 8, 1980. A field examination was conducted on November 6, 1980. Those entities represented at the field examination were DOGM, Manti-LaSal National Forest, Eureka Energy and OSM.

Format for this analysis was taken from Wyoming Department of Environmental Quality Guideline No. 9.

I. IDENTIFICATION OF ALLUVIAL VALLEY FLOOR

A. Introduction

Eureka Energy Company has proposed the opening of the Sage Point-Dugout Canyon Mine near Price, Utah. Soldier Creek and Fish Creek (a tributary to Soldier Creek) drain the western half of the project area. Both of these streams are a perennial stream in the permit area; however, occasionally there is zero flow below the site. The confluence of Soldier Creek is about six miles south of the southern edge of the permit area.

The eastern half of the project area is drained by Dugout Creek, Corbula Creek (a tributary to Dugout Creek), and Pace Creek (another tributary to Dugout Creek). The three streams discharge into Grassy Train Creek approximately seven miles southeast of the permit area. Corbula and Pace Creeks are perennial above the Book Cliff escarpment and are intermittent below the cliffs. The lower reaches of the streams (southern part of the permit area and downstream) are ephemeral.

Water from Soldier Creek is partially diverted to and stored in Anderson Reservoir and used for irrigation. Eureka Energy proposes to enlarge Anderson Reservoir (to 1675 acre-feet of active storage) and use the water in the underground operation as well as the coal preparation plant. It is anticipated that these operations would comsumptively use all stream water for two to ten years. Water encountered in mining will eventually supplement the use of surface waters. A reservoir is also planned on Dugout Creek (active storage 525 acre-feet).

Eureka Energy has purchased the land and associated water rights from Messrs. John Mahlares and John Sampinos. Part of these lands are in the valley bottom of Soldier Creek. Water rights have also been obtained for Dugout Creek.

B. Identification of Unconsolidated Stream Laid Deposits

Eureka Energy has identified on a map (1 inch = 200 feet) alluvial deposits in the adjacent area. Soldier Creek, Fish Creek, Corbula Creek, and Dugout Creek drainages all contain areas of alluvium. Pace Creek flows completely out of the permit area prior to entering alluvial deposits.

C. Identification of Flood Irrigation and Subirrigation

Eureka Energy has identified on a map (1 inch = 200 feet) the present irrigation system, lands irrigated in the past five years, and land historically irrigated but not irrigated in the last five years. All currently irrigated lands are planted in alfalfa and irrigated by flood irrigation. All irrigation is in the Soldier Canyon Drainage. The vegetation and hydrology surveys identified no significant areas of subirrigation.

D. Identification of Water Quality and Water Quality Sufficient for Flood Irrigation or Subirrigation Agricultural Activities

There are approximately 30 acres (as measured by OSM from the Topographic and Hydrologic Exhibit) of land under irrigation. There is an existing reservoir (Anderson Reservoir) and diversion in place to provide irrigation water to the land.

E. Summary

Only Soldier Creek has been identified as having an alluvial valley floor. Fish Creek, Dugout Creek, Corbula Creek, and Pace Creek have not been identified as an alluvial valley floor because of lack of unconsolidated stream-laid deposits or irrigable lands.

II. EXTENT OF ALLUVIAL VALLEY FLOOR

The extent of the alluvial valley floor was not directly measured; however, it is assumed that the areas under irrigation are part of the alluvial valley floor.

III. IMPORTANCE OF ALLUVIAL VALLEY FLOOR TO FARMING

The area under irrigation is part of several parcels of land purchased by Eureka Energy from Messrs. John Mahlares and John Sampinos. This land transaction took place in 1980. Messrs. Mahlares and Sampinos used the alfalfa hay as winter feed to supplement their cattle operation (phone conversation with SCS, Price, Utah, 4/27/81). Messrs. Mahlares and Sampinos were also permitted for the Soldier Canyon Grazing Allotment from the Bureau of Land Management (phone conversation with BLM, 4/27 and 4/28/81). Eureka Energy presently leases the farmland and the grazing allotment back to Messrs. Mahlares and Sampinos.

The Soldier Canyon Grazing Allotment consists of 18,407 acres with a productivity on public lands of approximately 835 animal unit months (AUM) (BLM, 4/27/81). The productivity of the farmland in question has been three and one-half to four tons per acre (SCS, 4/27/81). In order to make a significance determination, OSM used a value of three and one-half tons per acre (2.38 AUM/ton) and 38.1 acres of farmland or 317 AUM's for the area to be removed from agricultural production.

Where developed lands are involved, the loss of such lands from a farm production capabilities must be assessed. The equation of:

$$P = 3 + 0.0014 X$$

Where: P = productive loss in percent

X = number of animal units in excess of 100

"P" is used to determine the threshold above which loss in production of an AVF would become significant. A production loss of 10 percent or greater is assumed to be significant to the farm production.

The equation was developed by Wyoming Department of Environmental Quality to determine at what point production loss is considered to be a negligible impact to a Wyoming farm. The method has directly been used on several mines in the Powder River Basin. OSM considers the extrapolation to a Utah farm as being acceptable because of the similar climates and farming activities. Also, there is no methodology established to date in Utah to determine significance in regard to alluvial valley floors.

The number of AUM for the entire ranch is:

X = productivity from grazing land + productivity for AVF

X = 835 AUM + 38.1 acres (8.33 AUM/acre)

X = 835 AUM + 317 AUM

X = 1152 AUM

Therefore, $P = 3 + 0.0014 (1052)$

$P = 3 + 1.47$

$P = 4.47\%$ for the entire ranch

The percentage of production from the AVF versus the entire ranch equals:

$$1 - \frac{1152-317}{1152} = 27.5\%$$

Therefore, assuming that all of the alluvial valley floor is taken out of production, there would be a loss of 27.5 percent of the productivity of the entire farm operation. This high of a productivity loss would be significant to the farm operation.



UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

MEMORANDUM

MAR 3 1981

To: John Hardaway, Assistant Regional Director,
Division of Technical Analysis and Research
Office of Surface Mining, Region V

From: Suellen T. Keiner, Assistant Solicitor,
Regulatory Programs
Division of Surface Mining *Suellen T. Keiner*

Subject: Mine permit applications: Diversion of water by a
proposed surface mining operation.

Issue

Mike Bishop of your staff requested that this office prepare a brief memorandum advising you whether a proposed surface mining operation, which has acquired an operating farm's water rights to a stream that irrigates alluvial valley floor lands of that farm may divert such water to its own use during the life of the mining operation.

Conclusion

Yes, the proposed operation could obtain a permit in compliance with the Surface Mining Act. The mere acquisition of a superior water right does not, however, relieve the surface mining operation from requirements of the Act or State law. The Act (Section 510(b)(5)(B)) still requires an operator to demonstrate that the hydrologic balance of the downstream alluvial valley floor (AVF) will be preserved.

Discussion

- a) General hydrology requirements under the Act and its regulations.

Based on the information provided to this office, it appears that an existing farm located on an AVF in a western State has transferred its stream water rights to a proposed surface mining operation located upstream from the farm.

The preamble to the Department's rule states that mining would be permitted if the operator can show that, "in the case of alluvial valley floors outside the permit area, the hydrologic balance of the valley floor will not be materially damaged during or after mining" (emphasis added). 44 F.R. 15094, March 13, 1979. This position was implemented in the permanent program rules at 44 Fed. Reg. 15376, and codified at 30 C.F.R. 785.19(e)(1)(ii)(B):

No permit ... shall be approved ...
unless:

(e)(1)(ii) The proposed operations would not materially damage the quantity and quality of water in surface and underground water systems that supply those alluvial valley floors that are -

...

(B) Outside the permit area of an existing or proposed surface coal mining operation.

This regulation, although generally upheld in litigation, has been remanded to the Department by the U.S. District Court for the District of Columbia for revision to exempt from its requirements undeveloped range lands and small farm acreage. In Re: Permanent Surface Mining Regulation Litigation, C.A. 79-1144 (D.D.C., February 26, 1980). The court found that the Secretary exceeded his statutory authority by not allowing the alluvial valley floor hydrology of undeveloped rangelands and small farm acreage outside the permit area to be damaged, just as it could be damaged inside the permit area. Slip op. at 53. In your review of mine plans and permit applications, you should be mindful, therefore, that interruption of small farm acreage and undeveloped rangelands on AVFs can be allowed as an exemption from the requirements of 30 C.F.R. 785.19(e)(1)(ii)(B).

In practical terms, this rule provides that, if the operator can demonstrate that the diversion will not affect ongoing or prospective agricultural activities which are significant to farming on AVF lands (except undeveloped rangelands and small farm acreage), then the operation may obtain a permit. If any ongoing or prospective agricultural activities on the AVF are not dependent on the diverted water or will not be impacted because of the development of alternative water sources, then the operation can also obtain a permit.

On the other hand, the Act still does not allow a mining operation to impair permanently the hydrologic balance of downstream areas, even undeveloped rangelands and small farm acreage. Section 515(b)(10)(F) of the Act requires operations to:

[preserve] throughout the mining and reclamation process the essential hydrologic functions of alluvial valley floors in the arid and semi-arid areas of the country.

The water resource performance standards that implement Section 515(b)(10)(F) are generally found at 30 C.F.R. 816.41 - 816.57. These require, inter alia, the planning of mining activities "to prevent long-term adverse changes in [the prevailing hydrologic balance] that could result from those activities." 30 C.F.R. 816.41(a). Thus, any permit issued to the proposed operation "shall require that such surface coal mining operation will meet [these] applicable performance standards" SMCRA Section 515(a). A careful and critical scrutiny of the hydrologic protection provisions contained in the mine plan and permit application is, therefore, advisable.

b) Relationship of hydrology requirements to State water law.

Mr. Bishop apparently had been advised that, in accordance with the applicable state law, the farm's transfer of its water rights to the proposed operation has created a priority or superior water right in the proposed mining operation. Although a priority right was created, this does not grant the operation the unlimited use of the water. Limitations to that use will depend on the individual State's water law. In Colorado, for example, certain limits may be placed on the priority user's water rights consistent with decreed rights of the District Water Court. See 45 Fed. Reg. 82181, December 15, 1980. Thus, Section 717(b), which requires the replacement of water supplies affected by a surface coal mine operation, "does not protect water users from the determination of their rights" in accordance with State water law. Ibid. Irrespective of the protections provided in the performance standards of the Act and the Department's regulations, actual diminution of water supply becomes a matter to be decided between users under State law, as provided in Section 717(a) of the Act.

Consequently, transfer of priority water rights to the proposed surface mining operation does not relieve that operation from the requirements and limitations of the Act and State water law. The permit applicant must still meet all applicable statutory and regulatory requirements. If problems of water supply (diminution, etc.) develop between the senior and junior water users, however, these become a matter to be determined through the application of State water law.



SCOTT M. MATHESON
GOVERNOR



STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

December 6, 1982

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
300 RIO GRANDE
SALT LAKE CITY, UTAH 84101
TELEPHONE 801 / 533-5755

Division of Oil, Gas and Mining
Attn: Sue Lanier
1588 West North Temple
Salt Lake City, Utah 84116

RE: Sage Point-Dugout Canyon Mine Plan

Dear Ms. Lanier:

The Utah Preservation Office has received for consideration letters dated November 19, 1982, and June 18, 1982, outlining eligibility and effect questions for the Sage Point-Dugout Mine located in Carbon County, Utah.

After review of the material and consultation with the Division of Oil, Gas & Mining, the Utah Preservation Office concurs with the determination of eligibility and effect made by the Office of Surface Mining in their June 18, 1982 letter. During development of a mitigation plan to reach a determination of no adverse effect, our office would be willing to assist the applicant or the agency involved with any questions or help with development of a research design by the mining contractor.

The above is provided on request as information or assistance. We make no regulatory requirement, since that responsibility rests with the federal agency official. However, if you have questions or need additional assistance, please let us know. Contact Jim Dykman at 533-7039.

Sincerely,

Melvin T. Smith
Director and
State Historic Preservation Officer

JLD:jr:D969/5246c

cc: Allen D. Klein, Administrator, Attn: Judy Shafer, Office of
Surface Mining, Brooks Tower, 1020 15th Street, Denver,
Colorado 80202

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF SURFACE MINING

This permit, UT0041, 7/83 which incorporates Utah Permit ACT/007/009 is issued for United States of America by the Office of Surface Mining (OSM) to

Sunoco Energy Development Company
7401 West Mansfield Ave., Suite 418
P.O. Box 35-B
Lakewood, CO 80235

for the Sage Point-Dugout Canyon mine. Sunoco Energy Development Company is the lessee of Federal Coal Leases U-07746; U-089096; U-092147; U-0144820; U-07064-027821. The permit is not valid until a performance bond is filed with the OSM in the amount of \$817,685, payable to the United States of America and the State of Utah, and the OSM has received a copy of this permit signed and dated by the permittee.

Sec. 1 STATUTES AND REGULATIONS - This permit is issued pursuant to the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. 1201 et seq., hereafter referred to as SMCRA, and the Federal coal leases issued pursuant to the Mineral Leasing Act of February 15, 1920, as amended, 30 U.S.C. 181 et seq., the Federal Coal Leasing Amendments Act of 1976, as amended 30 U.S.C. 201 et seq. and in the case of acquired lands, the Mineral Leasing Act for Acquired Lands of September 7, 1947, as amended, 30 U.S.C. 351 et seq. This permit is also subject to all regulations of the Secretary of the Interior including, but not limited to, 30 CFR 211 and Chapter VII and 43 CFR 3400, and to all regulations of the Secretary of Energy promulgated pursuant to Section 302 of the Department of Energy Organization Act of 1977, 42 U.S.C. 7152, which are now in force or, except as expressly limited herein, hereafter in force, and all such regulations are made a part hereof.

Sec. 2 The permittee is authorized to conduct surface coal mining and reclamation operations on the following described Federal lands (as shown on ownership map) within the permit area at the Sage Point-Dugout Canyon situated in the State of Utah, Carbon County, and located:

T. 13 S., R. 12. E., Salt Lake Meridian; sec. 3, Lots 1, 2, 3, 4, S1/2(All); sec. 4, Lots 1, 2, 3, 4 S1/2(All); sec. 5, Lots 1, 2, SE1/4; sec. 8, E1/2; sec. 9, All; sec. 10, S1/2, N1/2; sec. 11, S1/2, N1/2; sec. 13, S1/2; sec. 14, All; sec. 15, All; sec. 17, NE1/4, E1/2SW1/4, SE1/4; sec. 20, E1/2NW1/4, SW1/4NW1/4, N1/2NE1/4; sec. 21, N1/2NW1/4, NE1/4; sec. 22, N1/2, N1/2S1/2; sec. 23, W1/2NW1/4, E1/2E1/2, W1/2SE1/4, NE1/4SW1/4; sec. 24, All; sec. 25, N1/2N1/2; sec. 26, N1/2NE1/4;

T. 13 S., R. 13 E., Salt Lake Meridian; sec. 18, Lots 3, 4, E1/2SW1/4, SE1/4; sec. 19, Lots 1, 2, 3, 4, E1/2W1/2, NE1/4, NW1/4SE1/4; sec. 30, Lot 1;

and to conduct surface and reclamation operations connected with mining on the foregoing described property subject to the conditions of the leases, the approved mining and reclamation plan (MRP), and Utah State permit ACT/007/009, to be issued September, 1983, including all stipulations, and all other applicable conditions, laws and regulations.

- Sec. 3 This permit is issued for a term of 5 years commencing on the date the permit is signed by the permittee, except that this permit will terminate if the permittee has not begun the surface coal mining and reclamation operations covered herein within 3 years of the date of issuance.
- Sec. 4 The permit rights may not be transferred, assigned, or sold without the approval of the Director, OSM. Request for transfer, assignment, or sale of permit rights must be done in accordance with 30 CFR 741.25.
- Sec. 5 The permittee shall allow the authorized representatives of the Secretary, including, but not limited to, inspectors, fee compliance officers, and the Division of Oil, Gas and Mining without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay to:
- a. Have the rights of entry provided for in 30 CFR 840.12 and 842.13; and,
 - b. Be accompanied by private persons for the purpose of conducting an inspection in accordance with 30 CFR 842; when the inspection is in response to an alleged violation reported by the private person.
- Sec. 6 The permittee shall conduct surface coal mining and reclamation operations only on those lands specifically designated as within the permit area on the maps submitted in the MRP and permit application and approved for the term of the permit and which are subject to the performance bond.

- Sec. 7 The permittee shall minimize any adverse impact to the environment or public health and safety resulting from noncompliance with any term or condition of this permit, including, but not limited to:
- a. Accelerated monitoring to determine the nature and extent of noncompliance and the results of the noncompliance;
 - b. Immediate implementation of measures necessary to comply; and
 - c. Warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.
- Sec. 8 The permittee shall dispose of solids, sludge, filter backwash, or pollutants removed in the course of treatment or control of waters or emissions to the air in the manner required by the approved Utah state program and the Federal lands program which prevents violation of any applicable State or Federal law.
- Sec. 9 The lessee shall conduct its operations:
- a. In accordance with the terms of the permit to prevent significant, imminent environmental harm to the health and safety of the public; and
 - b. Utilizing methods specified as conditions of the permit by Division of Oil, Gas and Mining and OSM in approving alternative methods of compliance with the performance standards of the Act, the approved Utah state program, and the Federal lands program.
- Sec. 10 The permittee shall provide the names, addresses, and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.
- Sec. 11 The permittee shall comply with the provisions of the Water Pollution Control Act (33 U.S.C. 1151 et seq.) and the Clean Air Act (42 U.S.C. 7401 et seq.).
- Sec. 12 Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit in accordance with the Act, the approved Utah state program and the Federal lands program.

- Sec. 13 If during the course of mining operations previously unidentified cultural resources are discovered, the applicant shall ensure that the site(s) is not disturbed and shall notify OSM. The operator shall ensure that the resource(s) is properly evaluated in terms of National Register Eligibility Criteria (36 CFR 60.6). Should a resource be found eligible for listing in consultation with the OSM, the land managing agency (if the site is located on Federal lands), and the State Historic Preservation Officer (SHPO), the operator shall confer with and obtain the approval of these agencies concerning the development and implementation of mitigation measures.
- Sec. 14 APPEALS - The lessee shall have the right to appeal: (a) under 30 CFR 787 from actions or decisions of any official of OSM; (b) under 43 CFR 3000.4 from an action or decision of any official of the Bureau of Land Management; (c) under 30 CFR 290 from an action, order, or decision of any official of the Minerals Management Service; or (d) under applicable regulations from any action or decision of any other official of the Department of the Interior arising in connection with this permit.
- Sec. 15 SPECIAL CONDITIONS - In addition to the general obligations and of performance set out in the leases, Utah State permit ACT/007/009 and this permit, the permittee shall comply with the special conditions of Utah State permit ACT/007/009 and the conditions appended hereto as Attachment I.

These conditions are also imposed upon the permittee's agents and employees. The failure or refusal of any of these persons to comply with these conditions shall be deemed a failure of the permittee to comply with the terms of this permit and the lease. The permittee shall require his agents, contractors, and subcontractors involved in activities concerning this permit to include these conditions in the contracts between and among them. These conditions may be revised or amended, in writing, by the mutual consent of the grantor and the permittee at any time to adjust to changed conditions or to correct an oversight. The grantor may amend these conditions at any time without the consent of the permittee in order to make them consistent with any new Federal or State statutes and any new regulations.

THE UNITED STATES OF AMERICA

By: _____

Date _____

I certify that I have read and understand the requirements of this permit and any special conditions attached.

Authorized Representative of
the Permittee

Date