

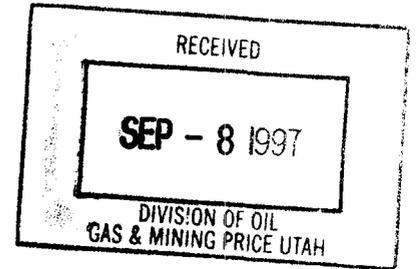
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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)



September 3, 1997

Johnny Pappas, Senior Environmental Engineer
AMAX Coal Company
P.O. Drawer PMC
Price, Utah 84501

Re: Dinosaur Canyon Exploration, Cyprus Plateau Mining, Willow Creek Mine,
ACT/007/038-97E, Folder #2, Carbon County, Utah

Dear Mr. Pappas:

The referenced amendment proposing to reopen an existing pre-SMCRA exploration road in order to obtain geologic data, and ascertain the plugging status of drill hole MC-129, is hereby approved effective August 27, 1997. A stamped approved copy is enclosed for insertion into your mining and reclamation plan.

Sincerely,

A handwritten signature in cursive script that reads 'Joseph C. Helfrich'.

Joseph C. Helfrich
Permit Supervisor

tat
Enclosure

cc: Ranvir Singh, OSM
Richard Manus, BLM
Mark Page, Water Rights, w/o
Dave Ariotti, DEQ, w/o
Bill Bates, DWR, w/o
David T. Terry, SITLA, w/o
Price Field Office

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**CYPRUS PLATEAU
MINING CORPORATION**
A Cyprus Amax Company

Cyprus Plateau Mining Corporation
Post Office Drawer PMC
Price, Utah 84501
(801) 637-2875

August 26, 1997



Mr. Pete Hess
Utah Division of Oil, Gas and Mining
451 East 400 North
Price, Utah 84501

Dear Mr.. Hess,

RE: EXPLORATION PROJECT REVISIONS - DINOSAUR CANYON PROJECT

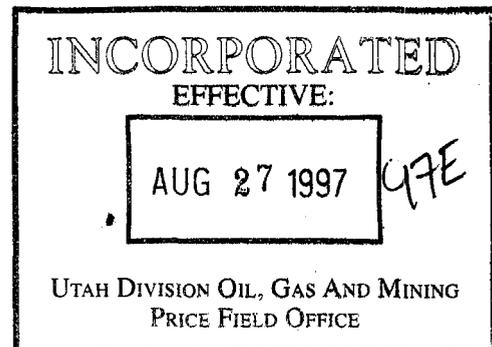
Attached are revisions to pages 7, 8, and 19 as discussed with you yesterday. I trust that these revision address your concerns.

As for your concern with the statement on page 9 about diversions, our intent was to cover the regulations in the unforeseen case that diversions became necessary. We do not anticipate that any diversions will be required, however, if they are we will construct them according to R645-301-742.300.

Please contact me if there is anything else that needs to be revised in the application.

Respectfully,

Ben Grimes
Sr. Staff Project Engineer



Attachment

File: WCENV2.5.2.9
Chron: BG970805

NOTICE OF INTENT TO CONDUCT
MINOR COAL EXPLORATION

Fee Coal

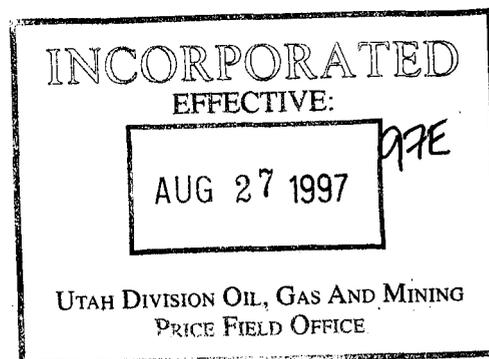
"Dinosaur Canyon"

Cyprus Plateau Mining Corporation

For

CYPRUS WESTERN COAL COMPANY

August 8, 1997



This Notice of Intention to Conduct Minor Coal Exploration has been prepared by Cyprus Plateau Mining Corporation for Cyprus Western Coal Company (a Delaware corporation) and submitted to the Utah State Division of Oil, Gas, and Mining for approval of a Minor Coal Exploration Permit to reopen, survey and seal (cement) a previously existing exploration drill hole completed in Fee Coal on Fee Surface Land. The previously drilled hole is suspected to be incompletely cemented/plugged and may pose a danger to proposed mining in the area through gas and water inflows.

Format of this application is:

Each regulation for which there is a response has been underlined.

Each regulation which apparently does not apply to coal exploration is presented in smaller type, and is not followed by a response or underlined.

Each response is left justified.

Report is completed in WordPerfect Win 6.1.

R645-200. Coal Exploration: Introduction.

R645-200-100. Scope.

122. Minor Coal Exploration. Coal exploration during which 250 tons of less of coal will be removed will require Division review of a Notice of Intention to Conduct Minor Coal Exploration under the requirements of R645-201-200.

This application qualifies as minor coal exploration because less than 250 tons of coal will be removed.

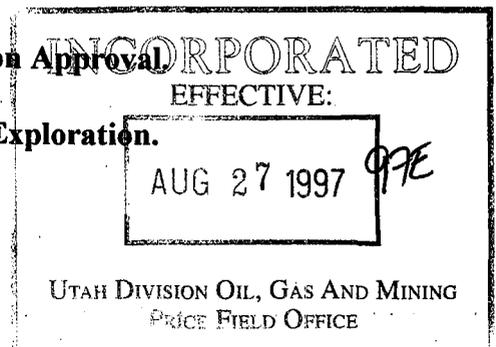
R645-200-200. Responsibilities

210. It is the responsibility of any person seeking to conduct coal exploration under the State Program to comply with the requirements of R645-200 through R645-203.

It is the intent of Cyprus Plateau Mining Corporation to comply with the coal exploration rules of the Utah State Division of Oil Gas and Mining (R645-200 through R645-203).

R645-201. Coal Exploration: Requirements for Exploration Approval.

R645-201-200. Notices of Intention to Conduct Minor Coal Exploration.



R645-201-210. Notices of Intention to Conduct Minor Coal Exploration when 250 tons or less of coal will be removed will require Division review prior to conducting exploration.

Cyprus Plateau Mining Corporation and its agents will not proceed without receiving written approval of this permit application.

R645-201-220. Notices of Intention to Conduct Minor Coal Exploration will include:

221. The name, address and telephone number of the applicant seeking to explore:

Cyprus Plateau Mining Corporation
P.O. Drawer 7007
Price, Utah 84501-7007
(801)637-2875

222. The name, address and telephone number of the applicant's representative who will be present at, and responsible for conducting the exploration operations:

John Mercier
Cyprus Plateau Mining Corp.
P.O. Drawer 7007
Price, UT 84501-7007
(801) 637-2875

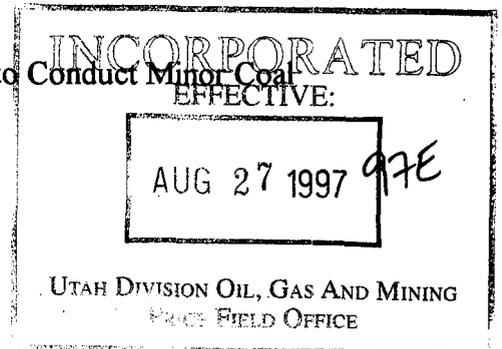
223. A narrative and map describing the exploration area and indicating where exploration will occur;

Narrative description of the proposed exploration area.

The proposed site, a previously drilled exploration core hole, named MC-129, is located in the Book Cliffs Coal Field, in the mouth of the steeply incised "Dinosaur" Canyon, a small tributary of Willow Creek Canyon,. In this area, erosion has carved steep, incised, narrow canyons, with topography ranging from 6000 to over 8000 feet above sea level on the plateau top. The old drill site is accessed by an pre-existing dirt road probably developed in the mid-1970s which was not reclaimed. (See attached maps)

Legal Land Description.

Legal description of the area of interest for this Notice of Intent to Conduct Minor Coal Exploration is as follows:



Fee Coal consisting of:
NE1/4,NE1/4 of Section 31, Township 12S., Range 10E., Salt Lake Meridian
(515042.91N, 2186522.26E, 6563.75' collar)

Surface ownership is in the control of Cyprus Plateau Mining Corp. (See Surface Ownership Map 1 in the Willow Creek Mine MRP.)

Legal Description of the Drill Hole

Legal description of the individual drill hole location is as follows:

MC-129, NE1/4,NE1/4 of Section 31, Township 12S., Range 10E., Salt Lake Meridian

224. A statement of the period of intended exploration, and

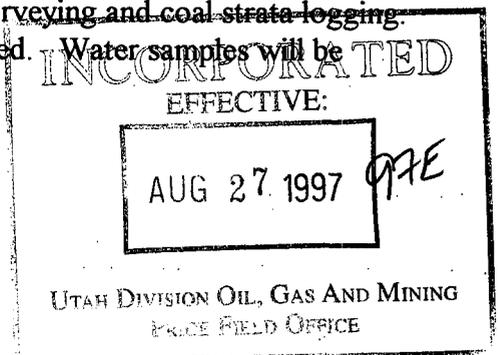
It is intended that exploration will commence in late July, or as soon as written approval of this application is received by Cyprus Plateau Mining Corporation, and proceed for approximately three weeks at the site. Reclamation activities may extend beyond the active exploration (drilling) phase but will be completed in the 1997 season.

225. A description of the method of exploration to be used, the amount of coal to be removed and the practices that will be followed to protect the area from adverse impacts of the exploration activities and to reclaim the area in accordance with the applicable requirements of R645-202.

Method of Exploration

Exploration (hole re-opening) may involve a combination of rotary drilling (or full-hole diamond plug drilling), or continuous wireline coring. The existing surface casing of hole MC-129 will be located on the surface, and a small core rig set up over the site. The suspected surface cement plug will be either cored or rotary drilled out and the hole re-entered. Available documentation on sealing the hole indicate using 18 bags of Portland cement to seal a 945 foot hole three inches in diameter or larger. This is estimated to be about 1/3 to 1/2 the volume necessary to completely cement the hole volume. An unknown amount of abandoned drill core may have been dumped down the drill hole prior to the cementing of the hole.

After the hole has been re-opened to a predetermined target depth, (possibly through the Kenilworth Seam at about 800 feet), the hole will be logged using geophysical bore hole equipment. The geophysical logging will include directional surveying and coal strata logging. The free standing water level in the hole will also be documented. Water samples will be collected if possible.



The drilling equipment required for the drill site will be a truck or trailer-mounted wire line drilling rig (Longyear 44 or LF-70); a water truck/pipe trailer, a power pack with lights, mud pump and tub, and possibly a parts car. Equipment used to clear the drill pad will include but not be limited to: a D-8 or similar track type dozer, a rubber tired backhoe or a crawler type backhoe. Access by personnel to the drill site will be by four-wheel drive pick up truck or similar vehicle.

Amount of Coal to be removed.

No new drill core or other strata is expected to be recovered during the program. The amount of coal removed will be less than 250 tons.

Practices that will be followed to protect the area from adverse impacts.

The drill pad for the hole will be that which was constructed for the initial drilling. Renovation of the pad should consist of skimming vegetation and debris and re-leveling. The drill pad will be made as small as is practical to accommodate the drill rig and necessary equipment. A mud pit, approximately 12 feet square by 8 feet deep, will contain the drilling medium, sediment produced from drilling, and all effluent drilling materials; preventing them from contaminating the surrounding surface water and ground water (see Figure "Generalized Detail of Proposed Drill Site" in the appendix). Site drainage will be controlled by berms, bales, and/or silt fencing.

R645-202. Coal Exploration: Compliance Duties.

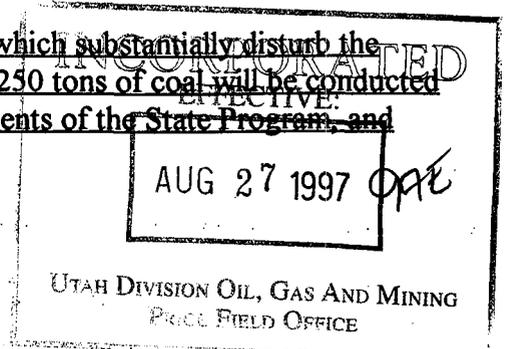
R645-202-100. Required Documents.

Each person who conducts coal exploration which substantially disturbs the natural land surface will while in the exploration area, have available a copy of the Notice of Intention to Conduct Minor Coal Exploration or Approved Major Coal Exploration Permit for review by an authorized representative of the Division upon request.

Since this project will be conducted on a previously disturbed road and drill pad, it will not create "substantial disturbance". However, vegetation will have to be removed from the road and drill pad. Minor earthwork including smoothing of the road and drill pad will also be required. Copies of the approved Notice of Intention to Conduct Minor Coal Exploration will be distributed to the Drillers, Geologists, and any other agents of the company, and they will be available on-site for review by an authorized representative of the Division upon request.

R645-202-200. Performance Standards.

210. All coal exploration and reclamation operations which substantially disturb the natural land surface or which remove more than 250 tons of coal will be conducted in accordance with the coal exploration requirements of the State Program, and



any conditions on approval for exploration and reclamation imposed by the Division.

As noted above, no fresh core samples are expected to be recovered during the program and the exploration activities will not substantially disturb the natural land surface. However, Cyprus Plateau Mining Corporation will reclaim the road by scarifying and seeding the road surface. The drill pad will be reclaimed by backfilling the mudpit, redistributing any soils moved during smoothing activities, scarifying and seeding. Any minor drainages affected by removing vegetation and smoothing activities will be reshaped to the pre-drilling (1997) project configuration. The seed mix to be used is the permanent seed mixture (upland) as shown on *table 5.3-2, page 5.3-7, volume 3* of the Willow Creek Mining and Reclamation Permit.

220. Any person who conducts any coal exploration in violation of the State Program will be subject to the provisions of 40-10-20 of the Act and the applicable inspection and enforcement provisions of the R645 Rules.

Cyprus Plateau Mining Corporation will not conduct coal exploration in violation of the State Program.

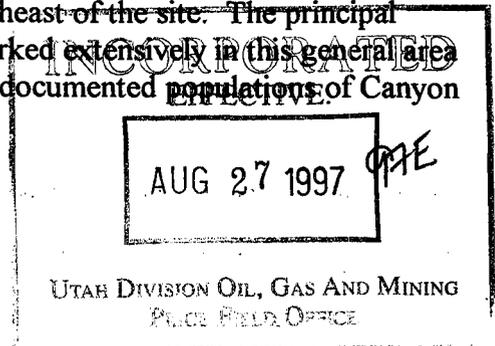
230. Operational Standards.

231. Habitats of unique or unusually high value for fish, wildlife, and other related environmental values and critical habitats of threatened or endangered species identified pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) Will not be disturbed during coal exploration.

Threatened or Endangered Species.

There are no known threatened or endangered species within the designated area of exploration.

In addition to vegetation community mapping and identification and characterization of plant communities, research was conducted to evaluate the potential or presence of any Threatened, Endangered or Protected (T&E) plant species. T&E evaluations included consultations under the Utah Natural Heritage Program and discussions with local botanists of both the BLM and USDA-Forest Service. The original 1981 Price River Coal Company Vegetation Inventory was reviewed, and reconnaissance level field surveys were also completed. Research indicated that while several T&E plants are known to occur in the Carbon County area, specific habitat preferences limit potential T&E occurrences within the proposed lease and project areas to only one specie of potential concern, the Canyon Western Sweetvetch, Hedysarum occidentale var. canone. The computer files of the Utah Natural Heritage Program show this specie as occurring in the upper reaches of Willow Creek several miles to the northeast of the site. The principal investigator for the recent vegetation inventories, who has worked extensively in this general area and is familiar with this species, has identified several small undocumented populations of Canyon



Western Sweetvetch near Kenilworth, but has never encountered this specie during field work on either the "Willow Creek North" Tract (Federal Lease UTU-73975) or the planned Willow Creek facility's area.

Wildlife and Fish

Some of the predominate mammals which may occur in the general area include elk, deer, black bear, cougar, bobcat, coyote, badger, porcupine, snowshoe hare, golden mantled squirrel, Andy ground squirrel, red fox, gray fox, marmot, flying squirrel, and other species of small rodents.

Data from UDWR Fish and Wildlife information indicate the following birds may be found in the ecological zone:

- Golden Eagle (protected, common)
- Bald Eagle (endangered, rare)
- Prairie Falcon (protected, common)
- American Peregrine (endangered, rare)
- Goshawk (protected, uncommon)
- Sharp-shinned Hawk (protected, uncommon)
- Cooper's Hawk (protected, transient)
- Red-tailed Hawk (protected, common)
- Swainsons's Hawk (protected, summer resident)
- Marsh Hawk (protected, common)

Various species of owls (essentially all are protected and most show an abundance designation of common, summer resident, or transient

- Blue Grouse (protected as a gamebird, common)
- Ruffed Grouse (protected as a gamebird, common)
- Sage Grouse (protected as a gamebird, common)
- California Quail (protected as a gamebird, common)
- Gambel's Quail (protected as a gamebird, common)
- Chukar (protected as a gamebird, common)
- Great Blue Heron (protected, abundance unknown)

Various species of geese, ducks, teal scaups, mergansers, and widgeons (essentially all are protected as game birds and most show an abundance designation of either common, summer resident, or transient).

A raptor inventory was conducted in the spring of 1997 and no active nest sites were found. A Goshawk inventory was conducted June 1996 in the proposed areas by E.I.S and is attached as Appendix A. This inventory was conducted in conjunction with Environmental Assessment No. UT-066-97-24, Environmental Assessment for dba 138 kV Carbon-Spanish Fork Number 2 Transmission Line re-route Right-of-Way application UTU-74309, May 1997. No Goshawks were observed. Since Goshawk nesting activity was not documented and the nesting season

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would be over for 1997, it is highly unlikely that any Goshawks are present in the exploration area.

The Price River and Willow Creek are the only perennial streams or bodies of water capable of supporting fish within or near the exploration area. Access to the drillsite will not cross or enter the waters of Willow Creek. Drilling water will be picked up from the Willow Creek portal water facilities for the project. Less than 10,000 gallons of water are expected to be used during the project.

Reptiles and amphibians of the area may include; boreal toad, leopard frog, northern sagebrush lizard, rocky mountain rubber boa, great basin gopher snake and great basin rattlesnake.

232. All roads or other transportation facilities used for coal exploration will comply with the applicable provisions of R645-301-358, R645-301-512.250, R645-301-526.200, R645-301-527.100, R645-301-527.230, R645-301-534.100 through R645-301-534.300, R645-301-742.420, R645-301-752.200, and R645-301-762.

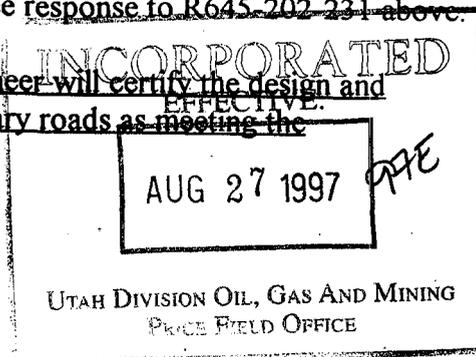
Access to the drill site will be made by opening up the original exploration road constructed in the 1970's. The road is a single two track road running along the north side of Willow Creek as shown on the attached maps. Access to the road is as shown on the maps. A temporary crossing of existing diversion ditch UD-3 will be required consisting of a temporary bridge over the ditch sufficient to support drilling equipment. Catapillar dozers can cross the riprapped ditch UD-3 without a bridge. However, other drilling equipment will require a bridge. The crossing of existing ditch DD-3a will consist of a dry crossing. A berm will be maintained on the east side of the ditch to prevent disturbed area drainage from leaving the disturbed area.

No major drainages are crossed by the access road. Silt fencing will be used in small drainages on the lower side of the road to prevent road drainage sediment from entering Willow Creek. These silt fences will be located in the field during road opening, and will remain in place until reclamation is complete, and vegetation has been determined to be established. No culverts are anticipated since major drainages are not crossed by the road.

- R645-301-358. Protection of Fish, Wildlife, and Related Environmental Values. The operator will, to the extent possible using the best technology currently available, minimize disturbances and adverse impacts on fish, wildlife, and related environmental values and will achieve enhancement of such resources where practicable.

Cyprus Plateau Mining Corporation will to the extent possible, minimize disturbances and adverse impacts to fish, wildlife, and related environmental values. See response to R645-202-231 above.

- R645-301-512.250 Primary Roads. The professional engineer will certify the design and construction or reconstruction of primary roads as meeting the



requirements of R645-301-534.200 and R645-301-742.420.

Primary roads will not be constructed during this project per definition in R645-301-527.120-123.

R645-301-526.200. The plan must classify each road.

The access road to be used is pre-existing. The access leaves the new mine propane tank bench and travels along the west side of the stream terrace of the Willow Creek. The road winds along the debris slopes of the sharply rising cliff faces and traverses some moderate slopes. Vegetation encountered typically consists of grasses and scattered clumps of oak brush and sage brush. The road is still well defined but locally impacted with new growth, slump debris, and occasional erosion.

R645-301-527.230. A maintenance plan describing how roads will be maintained throughout their life to meet the design standards throughout their use.

The roads will be graded prior to and during the exploration activities as needed. The roads will also be watered if needed to control dust caused by travel.

R645-301-534.100. Roads will be located, designed, constructed, reconstructed, used, maintained, and reclaimed so as to:

534.110. Prevent or control damage to public or private property;

Maintenance of the access road will be minor. The road transverses land owned by Cyprus Plateau Mining Corporation. No private property or public lands are involved in this exploration program.

534.120. Use non-acid-forming or non toxic-forming substances in road surfacing;

The roads will not be surfaced.

534.130. Have, at a minimum, a static safety factor of 1.3 for all embankments.

The existing roads have been in place for many years, so new construction would not be needed.

534.140. Have a schedule and plan to remove and reclaim each road that would not be retained under an approved postmining land use.

As discussed previously, the access road was constructed in the 1970's and will be opened for our use. No new road construction will be required. Reclamation of the road will consist of scarifying the road surface and seeding. The road in Dinosaur Canyon will require some erosion repair for use and upon reclamation will be left so that the channel will not erode the road in the future. The silt fences will remain in place until vegetation has been determined to be reestablished.

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534.150. Control or prevent erosion, siltation and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices.

Erosion control measures will be taken, including diverting overland flows around the road and drill pad where necessary, constructing berms, installing silt fences, and other measures as required.

534.200. To ensure environmental protection and safety appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and reconstruction of roads will incorporate appropriate limits for grade, width, surface materials, and any necessary design criteria established by the Division.

This existing road is of low quality but sufficient for mobilization of drill and construction equipment. After grading it will remain in roughly the same condition in which it was found unless improvements are necessary for completion of the project. Existing roads are generally less than 15 feet wide and composed of compacted sands and gravel. As discussed previously, the road will remain after scarifying and seeding. Since the road existed pre-law, it will remain but will be stabilized with vegetation. As necessary, berms will be used to divert flows that would cause erosion or other problems.

R645-202-233. Topsoil will be separately removed, stored, and redistributed on areas disturbed by coal exploration activities as necessary to assure successful revegetation or as required by the Division.

Since the road and drill pad are pre-law disturbance, no topsoil was salvaged. Based on current vegetative cover, the road and pad should adequately revegetate after our exploration project.

R645-202-234. Diversions of overland flows and ephemeral, perennial, or intermittent streams will be made in accordance with R645-301-742.300.

It is anticipated that no major diversions will be necessary for the duration of this project. Minor diversions may be necessary to control erosion or divert flows away from the road or drill pad. If it becomes necessary, diversions of overland flows will be made in accordance with R645-301-742.300. Water bars, ditches and/or culverts will be used if needed to control overland flow.

R645-202-235. Coal exploration will be conducted in a manner which minimizes disturbance of the prevailing hydrologic balance in accordance with R645-301-356.300 through R645-301-356.400, R645-301-512.240, R645-301-513.200, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-731.100 through R645-301-

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731.522, R645-301-731.800, R645-301-733.220, through R645-301-733.240, R645-301-742.200 through R645-301-742.300, R645-301-743, and R645-301-763. The Division may specify additional measures which will be adopted by the person engaged in coal exploration.

- 356.300. Siltation structures will be maintained until removal is authorized by the Division and the disturbed area has been stabilized and revegetated. In no case will the structure be removed sooner than two years after the last augmented seeding.
- 356.400 When a siltation structure is removed, the land on which the siltation structure was located will be revegetated in accordance with the reclamation plan and R645-301-353 through R645-301-357.

Minor siltation structures such as silt fences, straw bales or berms will be used to control erosion after drilling is completed, if reclamation is delayed beyond the period immediately after drilling, (i.e. if adverse weather conditions prevent reclamation from taking place before the close of the drilling season) or if it is needed.

- 512.240. Impoundments. The professional engineer will use current, prudent, engineering practices and will be experienced in the design and construction of impoundments and certify the design of the impoundment according to R645-301-743.
- 513.200. Impoundments and sedimentation ponds meeting the size of other qualifying criteria of MSHA, 30 CFR 77.216 (a) will comply with the requirements of MSHA, 30 CFR 77.216 (see R645-301-533.600, R645-301-742.222, and R645-301-742.223).
- 514.300. Impoundments.
- 515.200 Impoundment Hazards. The permit application will incorporate a description of notification when potential impoundment hazards exist. The requirements for the description are: If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment will promptly inform the Division of the finding and of the emergency procedures formulated for public protection and remedial formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, the Division will be notified immediately. The division will then notify the appropriate agencies that other emergency procedures are required to protect the public.
- 533.100. An impoundment meeting the size or other criteria of 30 CFR 77.216(a) or located where failure would be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.5 for a normal pool with steady state seepage saturation conditions and a seismic safety factor of at least 1.5

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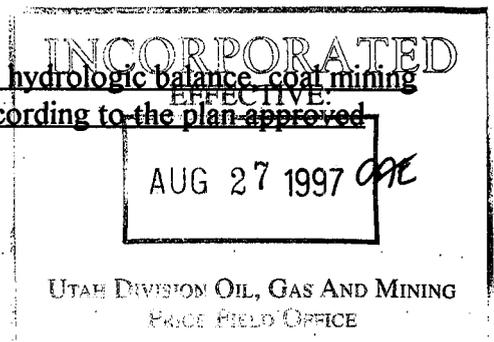
Impoundments not meeting the size or other criteria of 30 CFR 77.216(a), except for coal mine waste impounding structure, and located where failure would not be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.3 for normal pool with steady state seepage saturation conditions or meet the requirements of R645-301-733.210.

- 533.200. Foundation for temporary and permanent impoundments must be designed so that:
- 533.210. Foundation and abutments for the impounding structure will be stable under all conditions of construction and operation of the impoundment. Sufficient foundation investigations and laboratory testing will be performed in order to determine the design requirements for foundation stability; and
- 533.220. All vegetative and organic materials will be removed and foundations excavated and prepared to resist failure. Cutoff trenches will be installed if necessary to ensure stability.
- 533.300. Slope protection will be provided to protect against surface erosion at the site and protect against sudden drawdown.
- 533.400. Faces of embankments and surrounding areas will be vegetated except that faces where water is impounded may be riprapped or otherwise stabilized in accordance with accepted design practices.
- 533.500. The vertical portion of any remaining highwall will be located far enough below the low-water line along the full extent of highwall to provide adequate safety and access for the proposed water users.
- 533.600. Impoundments meeting the criteria of MSHA, 30 CFR 77.216(a) will comply with the requirements of MSHA, 30 CFR 77.216 and R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743. The plan required to be submitted to the District Manager of MSHA under 30 CFR 77.216 will also be submitted to the Division as part of the permit application.

Not applicable because impoundments, as managed under these regulations, will not be constructed for this exploration project.

731.100. Hydrologic-Balance Protection.

731.110. Groundwater Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R634-301-731 and the following:



731.111. Groundwater quality will be protected by handling earth materials and runoff in a manner that minimizes acidic, toxic or other harmful infiltration to groundwater systems and by managing excavations and other disturbances to prevent or control the discharge of pollutants into the groundwater;

Ground water quality will be protected by handling earth materials and runoff from the drilling activities in a manner that minimizes acidic, toxic, and other harmful materials; infiltration by impounding the drill water in an open air pit allowing maximum evaporation and thus, diminishing the chance of infiltrating into ground water systems. The drill hole will be plugged from top to bottom after exploration activities to prevent infiltration of surface water into the ground.

731.112. For the purposes of Surface coal mining and reclamation activities ground water quantity will be protected by handling earth materials and runoff in a manner that will restore approximate premining recharge capacity of the reclaimed area as a whole, excluding coal mine waste disposal areas and fills, so as to allow the movement of water to the ground water system.

Not applicable because this exploration project will not include surface coal mining.

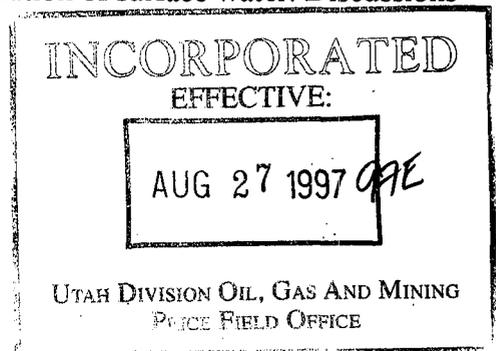
731.120. Surface Water Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R645-301-731 and the following:

731.121. Surface water quality will be protected by handling earth materials, ground water discharges and runoff in a manner that minimizes the formation of acidic or toxic drainage; prevents, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow outside the permit area; and, otherwise prevent water pollution. If drainage control, restabilization and revegetation of disturbed areas, diversion of runoff, mulching or other reclamation and remedial practices are not adequate to meet the requirements of R645-301-731.100 through R645-301-731.522, R645-301-731.800 and R645-301-751, the operator will use and maintain the necessary water treatment facilities or water quality controls; and

731.122. Surface water quantity and flow rates will be protected by handling earth materials and runoff approved under R645-301-731.

Surface water quality will be protected from acid forming runoff and surface flow rates will be protected by capturing all drilling fluids in a mud pit where evaporation will decrease the volume of fluids and the balance will be contained in the pit and the very near surface strata. The mud pit will be built in a manner that will ensure protection against pollution of surface water. Discussions of road and drill pad runoff have been presented previously.

731.200. Water Monitoring.



731.210. Ground Water Monitoring. Ground water monitoring will be conducted according to the plan approved under R645-301-731.200 and the following:

At this point in time, the project is only concerned with the re-opening, logging, sampling, and re-sealing of an existing drill hole (MC-129). The proposed site is not planned or designed to become a monitoring well. Water samples will be collected if encountered.

731.211. The permit application will include a ground water monitoring plan based upon the PHC determination required under R645-301-728 and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan will provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in R645-301-731. It will identify the quantity and quality parameters to be monitored, sampling frequency and site locations. It will describe how these data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25 degrees C, pH, total iron, total manganese and water levels will be monitored;

731.212. Ground water will be monitored and data will be submitted at least every three months for each monitoring location. Monitoring submittals will include analytical results from each sample taken during the approved reporting period. When the analyses of any ground water sample indicates noncompliance with the permit conditions, then the operator will promptly notify the Division and immediately take the actions provided for in R645-300-145 and R645-301-731;

731.213. If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the Division;

731.214. Ground water monitoring will proceed through mining and continue during reclamation until bond release. Consistent with the procedures of R645-303-220 through R645-303-228 the Division may modify the monitoring requirements including the parameters covered and the sampling frequency if the operator demonstrates, using the monitoring data obtained under R645-301-731.214 that:

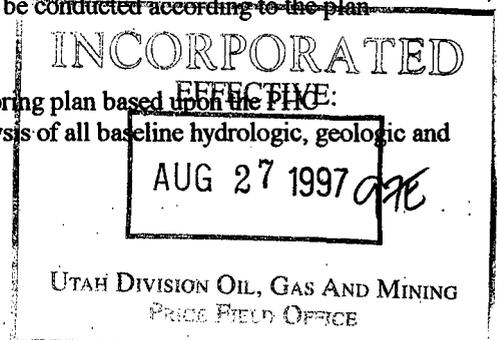
731.214.1 The coal mining and reclamation operation has minimized disturbance to the prevailing hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses and the surface coal mining and reclamation activity has protected or replaced the water rights of other users; or

731.214.2. Monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under R645-301-731.211.

731.215. Equipment, structures and other devices used in conjunction with monitoring the quality and quantity of ground water on-site and off-site will be properly installed, maintained and operated and will be removed by the operator when no longer needed.

731.220. ~~Surface Water Monitoring. Surface water monitoring will be conducted according to the plan approved under R645-301-731.220 and the following:~~

731.221. The permit application will include a surface water monitoring plan based upon the PHC determination required under R645-301-728 and the analysis of all baseline hydrologic, geologic and



other information in the permit application. The plan will provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses and to set forth in R645-301-731 as well as the effluent limitations found in R645-301-751;

731.222. The plan will identify the surface water quantity and quality parameters to be monitored, sampling frequency and site locations. It will describe how these data may be used to determine the impacts of the operation upon the hydrologic balance:

Regulation's 731.210 through 731.222 are not applicable to this coal exploration application.

731.800. Water Rights and Replacement. Any person who conducts surface coal mining and reclamation activities will replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source, where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from the surface mining activities. Baseline hydrologic information required in R645-301-624.100 through R645-301-624.200, R645-301-625, R645-301-626, R645-301-723 through R645-301-724.300, R645-301-724.500, R645-301-725 through R645-301-731, and R645-301-031.210 through R645-301-731.223 will be used to determine the extent of the impact of mining upon ground water and surface water.

Regulation 731.800 is not applicable to this coal exploration application.

742.200. Siltation Structures.

742.210. General Requirements.

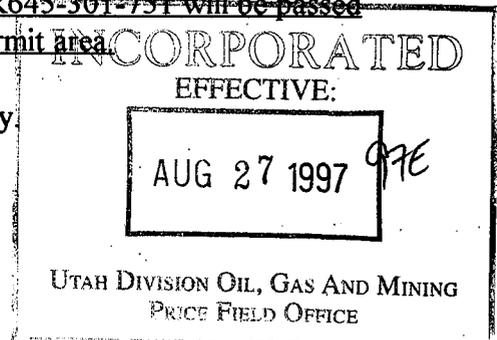
742.211. Additional contributions of suspended solids and sediment to streamflow of runoff outside the permit area will be prevented to the extent possible using the best technology currently available.

742.212. Siltation structures for an are will be constructed before beginning any coal mining and reclamation operations in that area and, upon construction, will be certified by a qualified registered professional engineer to be constructed as designed and as approved in the reclamation plan.

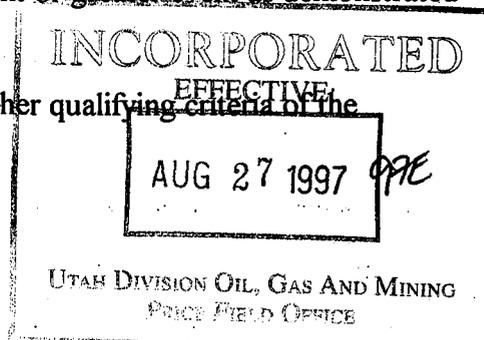
742.213. Any siltation structures which impounds water will be designed, constructed and maintained in accordance with R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301 through R645-301-733.224, and R645-301-743.

742.214. For the purposes of Underground coal mining and reclamation activities, any point-source discharge of water from underground workings to surface waters which does not meet the effluent limitations of R645-301-751 will be passed through siltation structure before leaving the permit area.

Construction of siltation structure has been discussed previously.

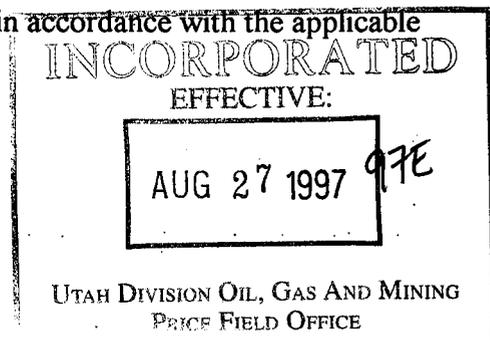


- 742.220. Sedimentation Ponds.
- 742.221. Sedimentation ponds, when used, will:
 - 742.221.1. Be used individually or in series;
 - 742.221.2. Be located as near a possible to the disturbed area and out off perennial streams unless approved by the Division; and
 - 742.221.3. Be designed, constructed, and maintained to:
 - 742.221.31. Provide adequate sediment storage volume;
 - 742.221.32. Provide adequate detention time to allow the effluent from the ponds to meet Utah and federal effluent limitations;
 - 742.221.33. Contain or treat the 10-year, 24-hour precipitation event ("design event") unless a lesser design event is approved by the Division based on terrain, climate, or other site-specific conditions and on a demonstration by the operator that the effluent limitations of R645-301-751 will be met;
 - 742.221.34. Provide a nonclogging dewatering device adequate to maintain the detention time required under R645-301-742.221.32.
 - 742.221.35. Minimize, to the extent possible, short circuiting;
 - 742.221.36. Provide periodic sediment removal sufficient to maintain adequate volume for the design event;
 - 742.221.37. Ensure against excessive settlement;
 - 742.221.38. Be free of sod, large roots, frozen soil, and acid or toxic forming coal processing waste; and
 - 742.221.39. Be compacted properly.
- 742.222. Sedimentation ponds meeting the size or other qualifying criteria of the MSHA, 30 CFR 77.216(a) will comply with all the requirements of that section, and will have a single spillway or principal and emergency spillways that in combination will safely pass a 100-year, 6-hour precipitation event or greater event as demonstrated to be necessary by the Division.
- 742.223. Sedimentation ponds not meeting the size or other qualifying criteria of the



MSHA, 30 CFR 77.216(a) will provide a combination of principal and emergency spillways that will safely discharge a 25-year, 6-hour precipitation event or greater event as demonstrated to be needed by the division. Such ponds may use a single open channel spillway if the spillway is:

- 742.223.1. Of nonerodible construction and designed to carry sustained flows; or
- 742.223.2. Earth or grass lined and designed to carry short-term infrequent flows at non-erosive velocities where sustained flows are not expected.
- 742.224. In lieu of meeting the requirements of R645-301-742.223.1 and 742.223.2 the Division may approve a sedimentation pond that relies primarily on storage to control the runoff from the design precipitation event when it is demonstrated by the operator and certified by a qualified registered professional engineer in accordance with R645-201-512.200 that the sedimentation pond will safely control the design precipitation event. The water will be removed from the pond in accordance with current, prudent, engineering practices and any Sediment pond so used will not be located where failure would be expected to cause loss of life or serious property damage.
- 742.225. An exception to the sediment pond location guidance in R645-301-742.224 may be allowed:
 - 742.225.1. In the case of a sedimentation pond meeting the size or other criteria of 30 CFR 77.216(a), if the pond is designed to control the precipitation of the probable maximum precipitation of a 6 hour event or greater event if specified by the Division; or 30 CFR 816.46 (c) (2) (ii) (A))
 - 742.225.2. In the case of a sedimentation pond not meeting the size or other criteria of 30 CFR 77.216 (a), if the pond is designed to control the precipitation of a 100-year 6-hour event or greater event if demonstrated to be needed by the Division.
- 742.230. Other Treatment Facilities.
- 742.231. Other treatment facilities will be designed to treat the 10-year, 24-hour precipitation event unless a lesser design event is approved by the Division based on terrain, climate, other site-specific conditions and a demonstration by the operator that the effluent limitations of R645-301-751 will be met.
- 742.232. Other treatment facilities will be designed in accordance with the applicable requirements of R645-30-1742.220.



742.240. Exemptions. Exemptions to the requirements of R645-301-742.200 and R645-301-763 may be granted if the disturbed drainage area within the total disturbed area is small and the operator demonstrates that siltation structures and alternate sediment control measures are not necessary for drainage from the disturbed areas to meet the Effluent limitations under R645-301-751 or the applicable Utah and federal water quality standards for the receiving waters.

Regulation's 742.200 through 7420 are not applicable to this coal exploration project.

742.300. Diversions.

Addressed previously.

763. Siltation Structures.

763.100. Siltation Structures will be maintained until removal is authorized by the Division and the disturbed area has been stabilized and revegetated. In no case will the structure be removed sooner than two years after the last augmented seeding.

763.200. When the siltation structure is removed, the land on which the siltation structure was located will be regarded and revegetated in accordance with the reclamation plan and R645-301-358, R645-301.356, and R645-301-357. Sedimentation ponds approved by the Division for retention as permanent impoundments may be exempted from this requirement.

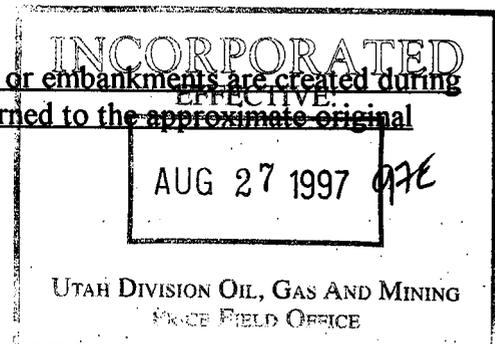
Alternate sediment control measures would consist of using straw bails and silt fences as temporary siltation structures, if needed.

R645-202-236. Acid- or toxic-forming materials will be handled and disposed of in accordance with R645-301-731.110, R645-301-731.300, and R645-301-553.260. The Division may specify additional measures which will be adopted by the person engaged in coal exploration.

Acid-forming or toxic-forming materials will not be used on this project. Drill cuttings will be contained and buried in the mud pit. Core samples of coal seams and surrounding roof and floor strata are not expected to be recovered. If fresh core is collected, it will be taken off site. Also, see response to 731.110 above. Fuel spill contamination will be contained, collected and disposed of, off property, in an approved manner.

R645-202-240. Reclamation Standards.

R645-202-241. If excavations, artificially flat areas, or embankments are created during exploration, these areas will be returned to the approximate original



contour promptly after such features are no longer needed for coal exploration.

R645-202-242. All areas disturbed by coal exploration activities will be revegetated in a manner that encourages prompt revegetation and recovery of a diverse, effective, and permanent vegetative cover. Revegetation will be accomplished in accordance with the following:

R645-202-242.100. All areas disturbed by coal exploration activities will be seeded or planted to the same seasonal variety native to the areas disturbed. If the land use of the exploration area is intensive agriculture, planting of the crops normally grown will meet the requirements of R645-202-242.100; and

R645-202-242.200. The vegetative cover will be capable of stabilizing the soil surface from erosion.

The exploration site will have trash and debris removed and the mud pit will be backfilled upon completion of exploration activity. The drill pad will be returned to the approximate original contour, scarified, and re-seeded with the seed mix shown on Table 5.3-2 in the Willow Creek MRP. Existing roads will be returned to a condition equal to or better than their condition prior to commencement of the exploration activities. Seeding of the rehabilitated drill pad and access road will be accomplished in the first season following completion of the exploration program.

R645-202-243. Each exploration hole, borehole, well, or other exposed underground opening created during exploration will be reclaimed in accordance with R645-301-529, R645-301-551, R645-301-631, R645-301-738, and R645-301-765.

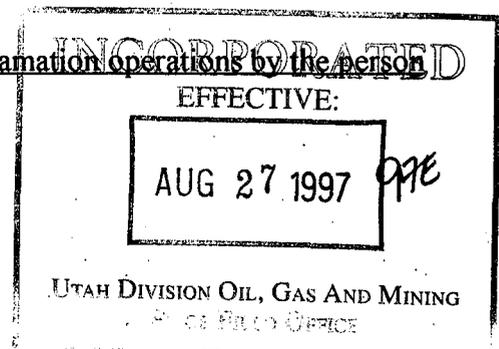
Upon completion of the drill hole and when all possible geologic and geophysical information has been gathered, the hole will be cemented from bottom to the collar of the hole (total depth). This will be the last task that the drillers will perform before the drill equipment is moved from the pad.

R645-202-244. All facilities and equipment will be promptly removed from the exploration area when they are no longer needed for exploration, except for those facilities and equipment that the Division determines may remain to:

R645-202-244.100. Provide additional environmental data;

R645-202-244-200. Reduce or control the on-site and off-site effects of the exploration activities; or

R645-202-244-300. Facilitate future coal mining and reclamation operations by the person conducting the exploration.



All equipment will be promptly removed from the exploration area upon completion of the well and reclamation will be conducted as described in response to 240-242.200 above.

Bonding

Since the access road and drill site were disturbed in the 1970's there will be no new disturbance with this project. CPMC will reclaim the road and drill site to the preexisting condition immediately after drilling, therefore no additional bonding is necessary. The disturbance is minor in nature and represents only a very small percentage addition to the disturbed area of the mine.

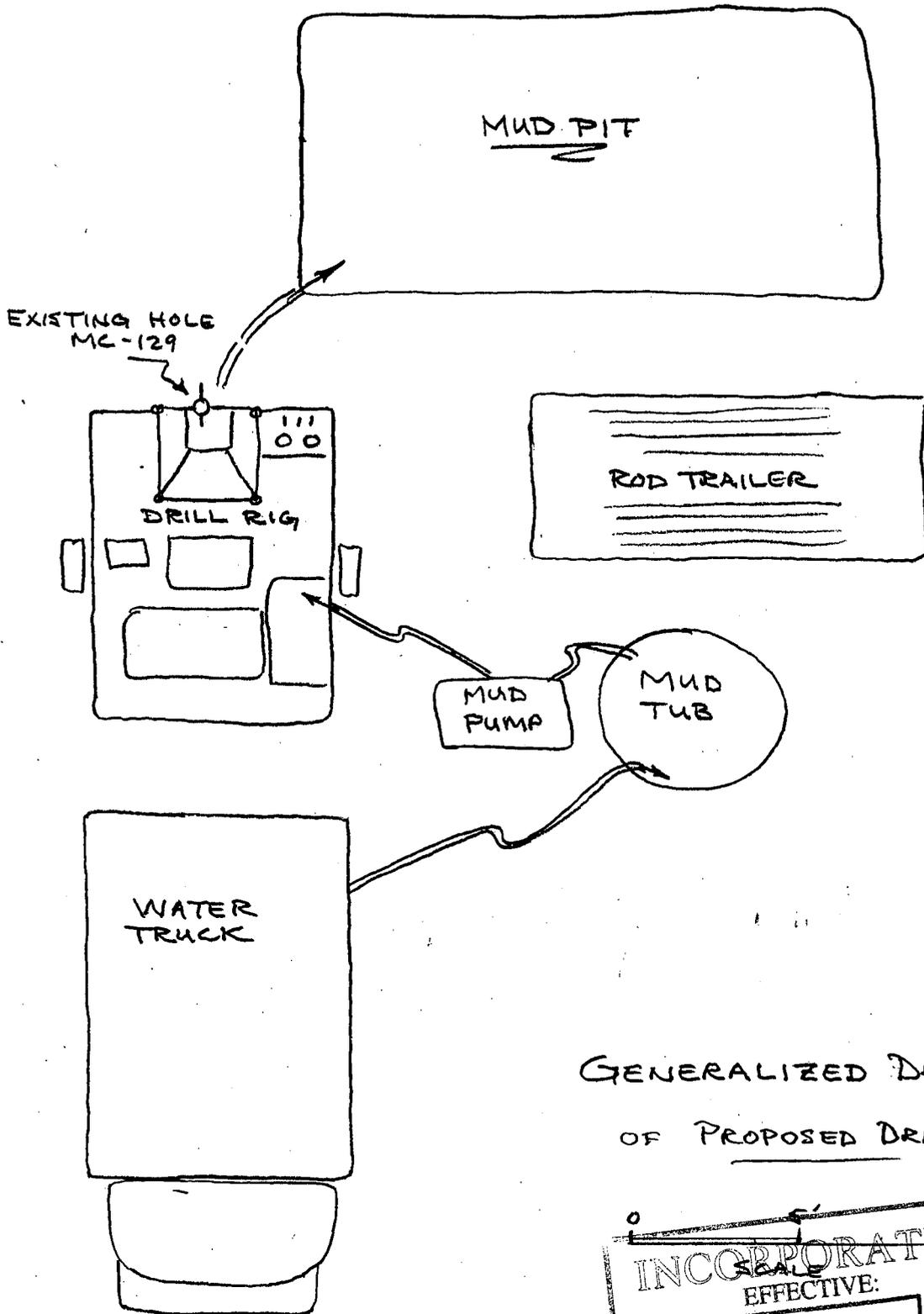
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UTAH DIVISION OIL, GAS AND MINING
PRICE FIELD OFFICE

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



GENERALIZED DETAIL
OF PROPOSED DRILL SITE

INCORPORATED
SCALE
EFFECTIVE:
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AWE
UTAH DIVISION OIL, GAS AND MINING
PRICE FIELD OFFICE

APPENDIX A

* From: ENVIRONMENTAL
ASSESSMENT FOR d
138 KV CARBON - SPANISH
FORK NUMBER 2
TRANSMISSION LINE RELOC
RIGHT-OF-WAY APPLICATION
UTU-74309 - MAY 1997
EA No. UT. 066 - 97-24

GOSHAWK INVENTORY FOR PROPOSED RELOCATION OF BARN CANYON POWERLINE

INTRODUCTION

Due to subsidence problems above the Willow Creek Mine area, UP&L has proposed three possible routes for the relocation of the Barn Canyon Powerline (SEE MAP 1). Route one would proceed west up Price Canyon and turn northeast up Sulphur Canyon to tie into the existing Spanish Fork Carbon #2 line. Route two would follow the established line up Willow Creek and turn northwest to join the existing Spanish Fork Carbon #1 line. Near the head of this canyon it would turn west and tie in with the Barn Canyon Line north of the subsidence area. Route three would follow the established right of way (ROW) of the Willow Creek Line and turn northwest and follow the existing Spanish Fork Carbon #1 line.

These areas are characterized by steep, rocky ridges and open cliff faces. Vegetation consists mostly of pinyon-juniper at the lower elevations and on south facing slopes, with Douglas fir, *Pseudotsuga menziesii*, and some intermittent ponderosa pine, *Pinus ponderosa*, occurring on the north facing slopes. The flatter and higher elevations, of the plateau, are dominated by big sagebrush, *Artemisia tridentata*, with stands of quaking aspen, *Populus tremuloides*, occupying the wetter areas. Sections of the area have been identified by the USDI Bureau of Land Management (BLM) and Utah Division of wildlife Resources (UDWR) as being potential nesting goshawk, *Accipiter gentilis*, and golden eagle, *Aquila chrysaetos*, habitat. Since the proposed project would occur prior to the date established by the BLM before which any construction activity could be started if active, nesting raptors are within a half-mile of the proposed activity; a specific inventory designed to locate the presence of, or use by nesting goshawks was implemented. A helicopter survey for golden eagle nests was conducted on 5/23/96 and is included as Attachment A.

METHODS

During the period of June 10th - 14th, 1996, an intensive goshawk survey was conducted by the staff of EIS. The area of the survey was determined by establishing a half-mile perimeter around each powerline route. Methodology followed techniques previously determined to be effective by the BLM, UDWR, and EIS. A taped nesting goshawk distress call and a taped rabbit distress call were played, using a portable Johnny Stewart MS512MR Wildlife Caller, for two minutes every ten minutes at various positions within the half mile buffer zones being surveyed. Areas of mature Douglas fir and or quaking aspen, the preferred goshawk habitat, were traversed with survey members listening for responses to the calls and attempting to identify the location of potential nest sites.

Survey team members identified access routes within the area,

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selecting those that allowed for the greatest coverage. The survey members remained within 200 - 300 yards of each other, with established meeting spots selected to discuss any spottings and determine site locations. Routes of each survey member are shown on the attached maps. In areas with open habitat not suited for goshawks, the surveyors spread out to cover a larger area, using both taped calls and monitoring the area with binoculars.

RESULTS

ROUTE 1

From the top of Sulphur Canyon survey members worked their way down the canyon (SEE MAP 2). The upper portion of the canyon and the south facing slopes are extensively covered with pinyon-juniper. This vegetation does not provide the closed canopy habitat suitable for goshawks, and was surveyed less intensely. The north/northwest facing slopes and the lower section of the canyon provide better habitat and were inventoried thoroughly. The survey within this canyon did not locate any goshawks or goshawk nests.

Price Canyon did not provide any goshawk habitat within the half mile buffer zone. The steep sparsely vegetated slopes were observed while calls were played. There were no sightings of goshawks.

ROUTE 2

On the northern plateau survey members followed the route of the Spanish Fork Carbon #2 line inventorying all forested patches within a half mile. The majority of the plateau area is covered with open sagebrush with pockets of quaking aspen, and gamble oak, *Quercus gambelii*. During these surveys a Swainson's hawk, *Buteo swainsoni*, and four red-tailed hawks, *Buteo jamaicensis*, were observed flying along the ridge line (SEE MAP 3). Below the plateau, where the proposed powerline runs east and west, the area is more forested but did not reveal any goshawks or nests.

The canyon in which Spanish Fork Carbon #1 line ascends to the plateau was inventoried from the top down. Goshawk habitat was sparse, occurring mainly in the bottom portion of the canyon and along the lower sections of the east facing slope where Douglas fir was present. The upper portion of the canon contained widely spaced junipers and the west facing slope was pinyon-juniper habitat. Two turkey vultures, *Cathartes aura*, were sighted at the upper reaches of the canyon when the distress rabbit call was being played. Two red-tailed hawks were observed flying back and forth across the canyon (SEE MAP 3).

The area adjacent to Willow Creek was inventoried from where the Spanish Fork Carbon #1 lines begins its descent down the canyon to the powerplant. Areas containing Douglas fir occur on the

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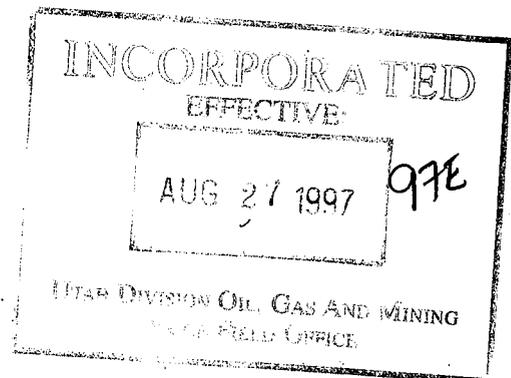
northwest facing slopes were walked while the steep barren cliffs facing to the southeast were observed through binoculars. A golden eagle, a red-tailed hawk, and a prairie falcon, *Falco mexicanus*, were seen at different locations within the Willow Creek area (SEE MAP 4).

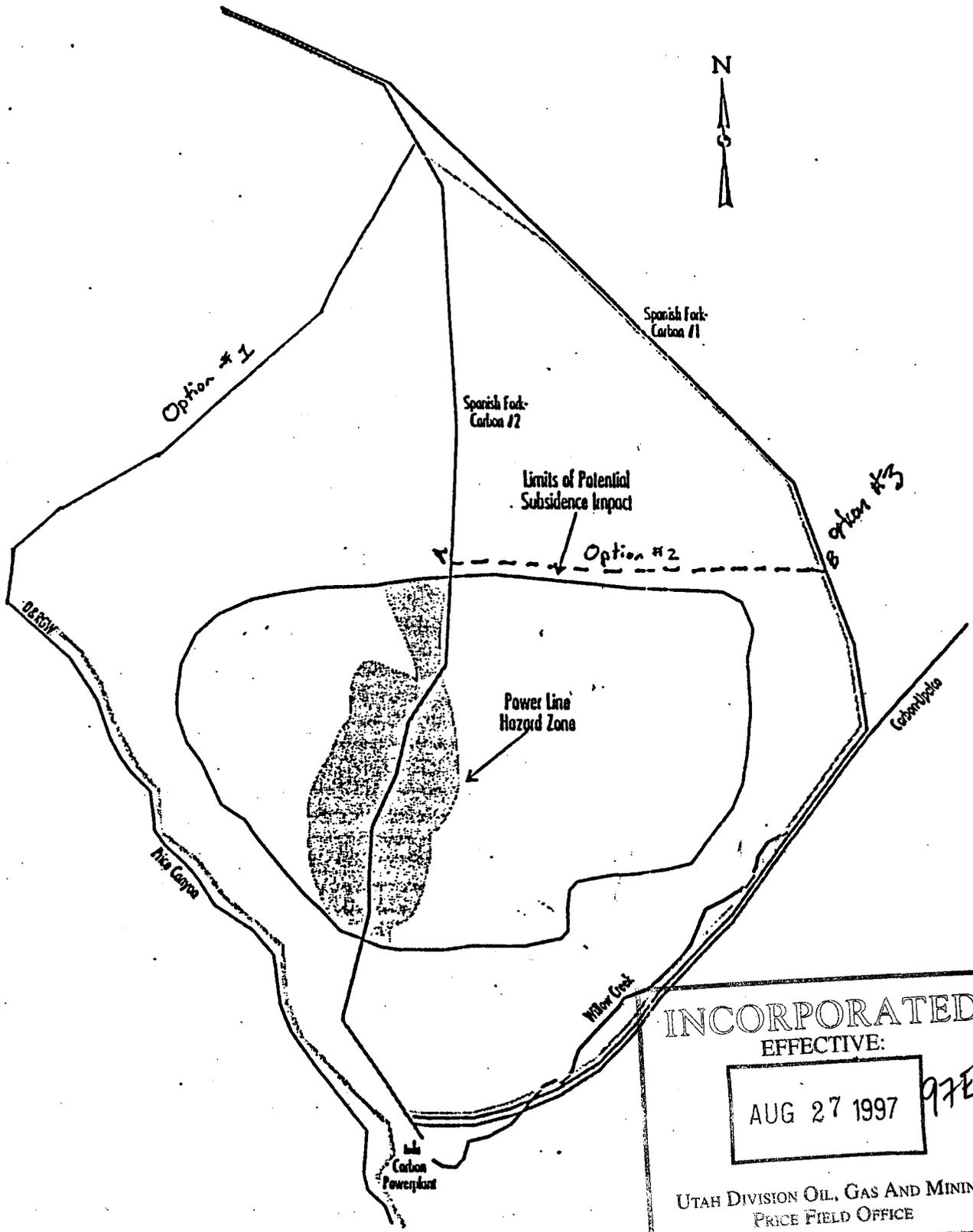
Surveys within the area of the plateau, the canyon, and Willow Creek each failed to reveal goshawks or goshawk nests.

ROUTE 3

On the northern plateau survey members followed the route of the Spanish Fork Carbon #1 line inventorying all forested patches within a half mile. The majority of the plateau area is open and dominated by big sagebrush with pockets of quaking aspen and gamble oak. During these surveys a mature and an immature northern harrier, *Circus cyaneus*, were spotted on the edge of different stands of quaking aspen (SEE MAP 3).

The remainder of Route 3 follows the same ROW as the lower portions of Route 2. As previously stated no goshawks or goshawk nests were located on the plateau, the canyon, or Willow Creek.



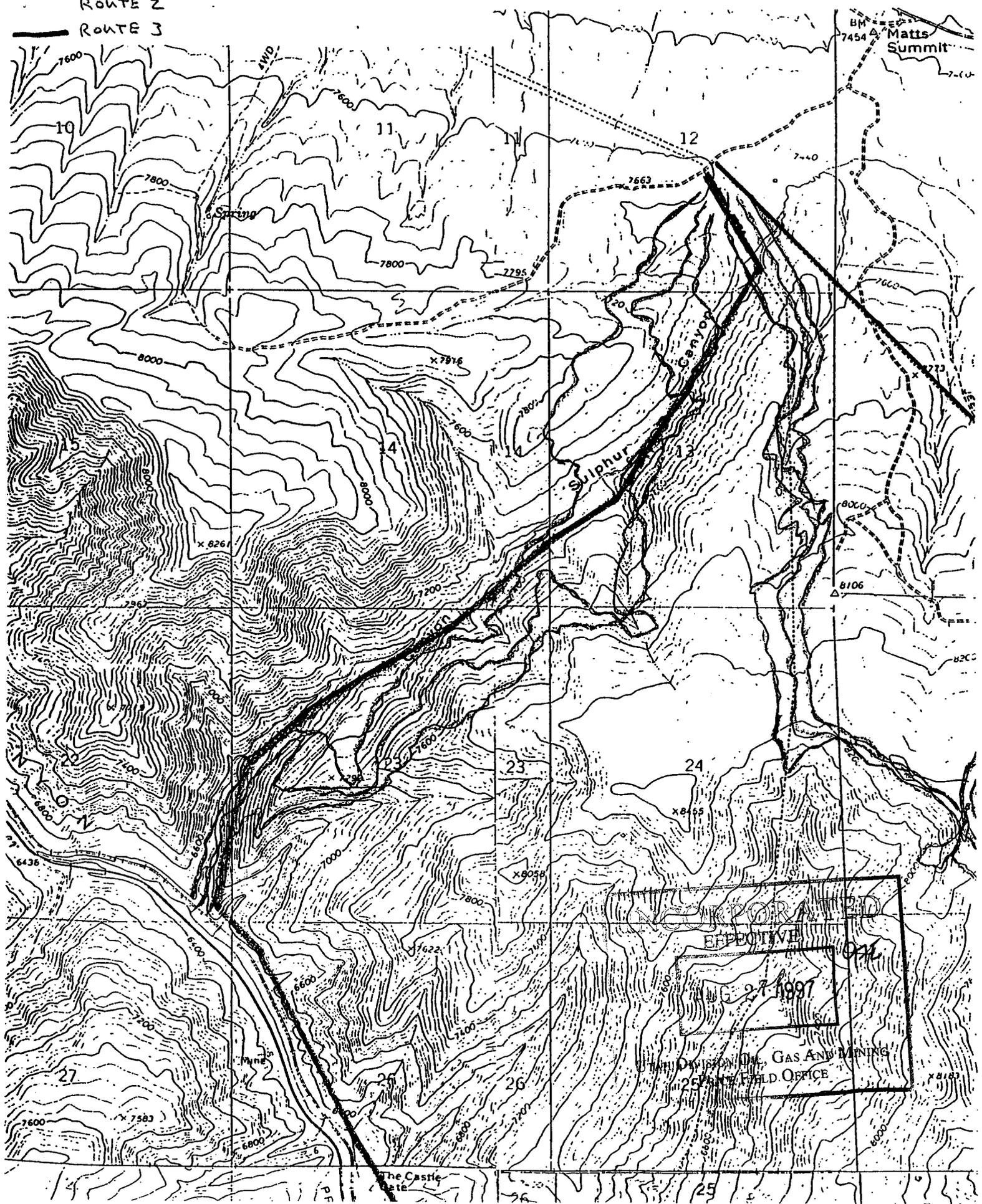


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ROUTE 1 — Surveyor Routes

ROUTE 2

ROUTE 3



MAP 3.

— Route 1

--- Route 2

— Route 3

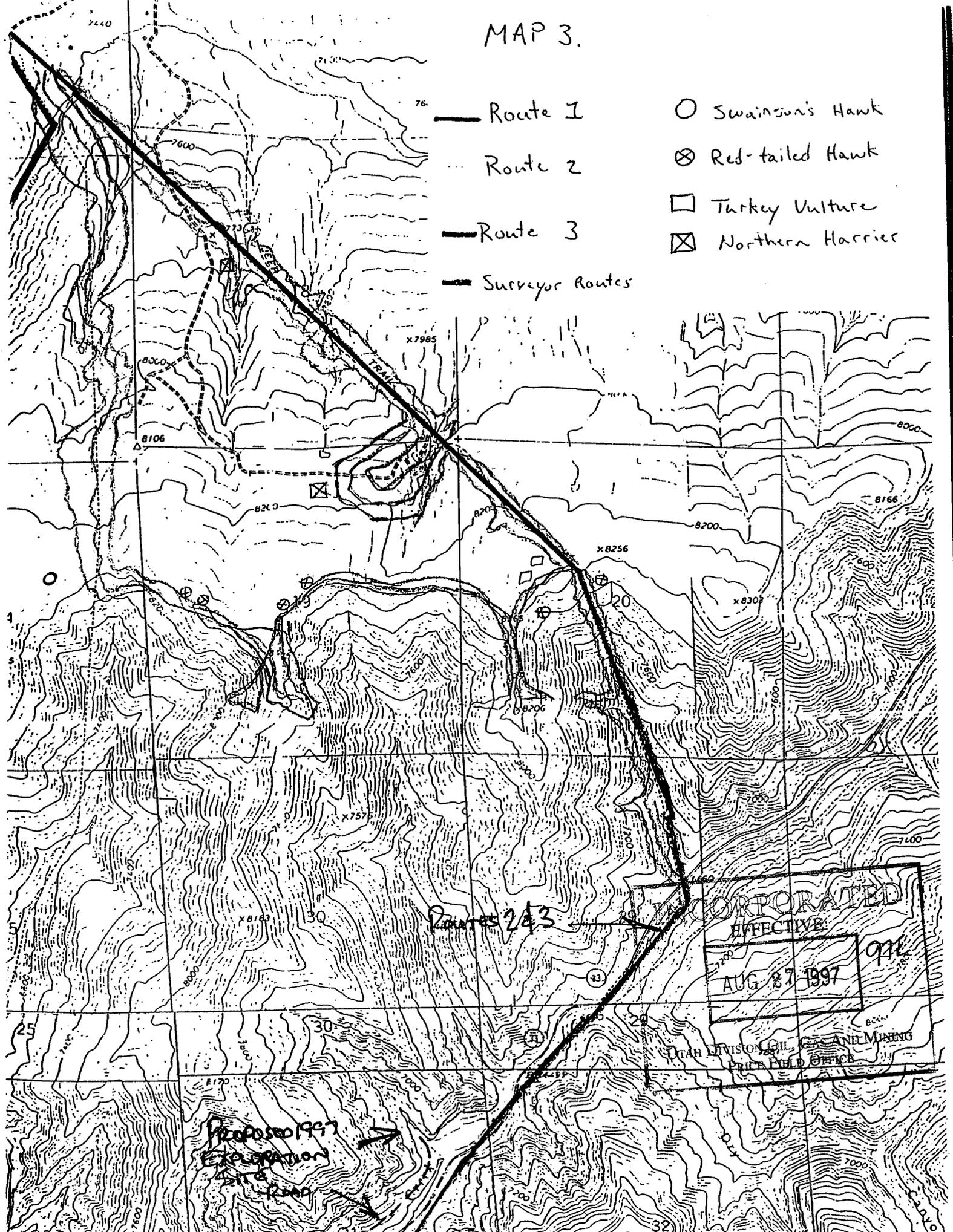
— Surveyor Routes

○ Swainson's Hawk

⊗ Red-tailed Hawk

□ Turkey Vulture

⊠ Northern Harrier



Routes 2 & 3

Proposed 1997
Excavation
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