

### Document Information Form

Mine Number: C/007/0038

File Name: Incoming

To: DOGM

**From:**

Person N/A

Company Willow Creek Mine

Date Sent: December 11, 1997

**Explanation:**

Notice of Intent to Conduct Minor Coal  
EXploration

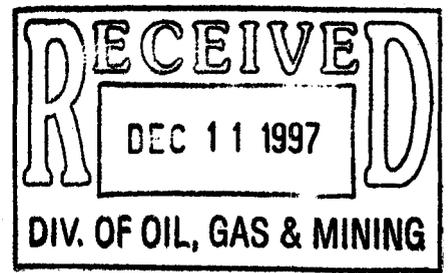
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C/007, 0038, Incoming

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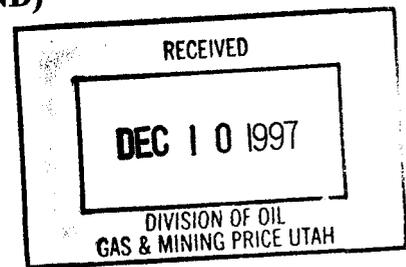
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Date \_\_\_\_\_ For additional information



NOTICE OF INTENT TO CONDUCT  
MINOR COAL EXPLORATION  
Willow Creek Mine

Holes P97-30-6 and P97-30-7  
Skinny Canyon (FEE LAND)



Cyprus Plateau Mining Corporation

December 10, 1997

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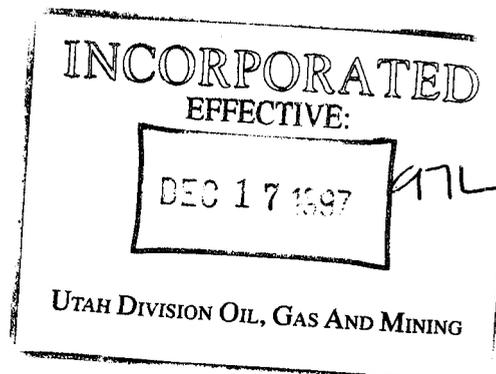
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This Notice of Intention to Conduct Minor Coal Exploration has been prepared by Cyprus Plateau Mining Corporation (a Delaware corporation) and submitted to the Utah State Division of Oil, Gas, and Mining for approval of a Minor Coal Exploration Permit to drill 2 coal exploration holes to investigate geology. The locations of the holes are shown on the attached Figure 1, Location Map. A generalized detail of the drill sites can be found on Figure 2.

Format of this application is:

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

Each regulation which apparently does not apply to this coal exploration project 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 or 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**

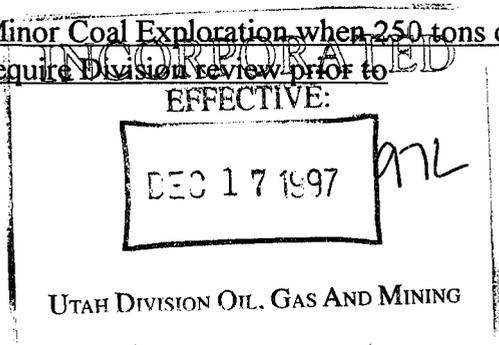
- 210. It is the responsibility of any person seeking to conduct coal exploration under the State Program to comply with the requirements of R645-200 through R645-203.

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  
(435) 472-0475

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  
(435) 472-4747

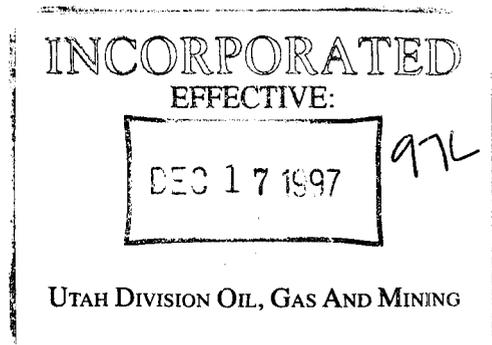
223. A narrative and map describing the exploration area and indicating where exploration will occur:

**Narrative description of the proposed exploration area.**

The exploration holes are proposed to investigate coal depths, stratigraphy, and the possible occurrence of rock. Rock encountered in the D-Seam is severely impacting mining operations and must be investigated for occurrence ahead of mining in the main entries.

**Hole Descriptions:**

Hole Number	Description	Purpose
P97-30-6	Coal exploration hole	Coal and presence of rock
P97-30-7	Coal exploration hole	Coal and presence of rock



**Legal Land Description.**

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

**Drill Hole/Monitoring Well Locations**

No.	Location	Land Ownership
	Township 12 South, Range 10 East	
P97-30-6	Section 30: SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$	Fee
P97-30-7	Section 30: NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$	Fee

See Regional Ownership Map 1 in the Willow Creek Mine MRP.

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

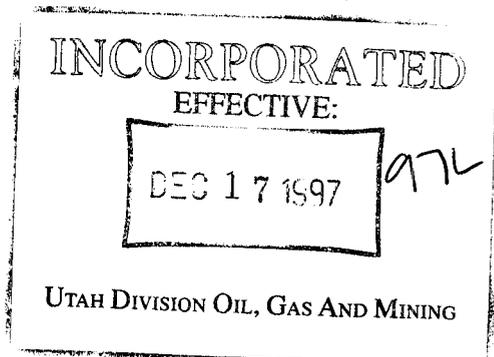
It is intended that exploration will commence in December, 1997, or as soon as written approval of this application is received by Cyprus Plateau Mining Corporation, and proceed for approximately three weeks at the sites. Reclamation activities may extend beyond the active exploration (drilling) phase and may be completed in the 1998 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 drilling may involve a combination of rotary drilling (or full-hole diamond plug drilling), or continuous wireline coring. Surface casings may be required to protect the upper portions of the holes to prevent caving.

The drilling equipment required for the drill sites will be a truck or trailer-mounted wire line drilling rig (Gardner Denver 2000 or 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 pads 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 to both sites will be by an existing road in Skinny Canyon. This road has existed for many years and has been used previously for other Cyprus drilling and drilling by other companies. Access by personnel to the drill sites will be by pick up trucks or similar vehicles.



**Amount of Coal to be removed.**

Drill core or other strata is expected to be recovered during the program as necessary. 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 pads will be kept as small and compact as practical to accommodate the drill rig and necessary equipment. Mud pits, approximately 12 feet X 20 feet X 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 2 "Generalized Detail of Proposed Drill Site" in the appendix). Site drainage will be controlled by berms, straw bales, and/or silt fencing as necessary. If air drill rigs are used no mud pits will be necessary.

**R645-202. Coal Exploration: Compliance Duties.**

**R645-202-100. Required Documents.**

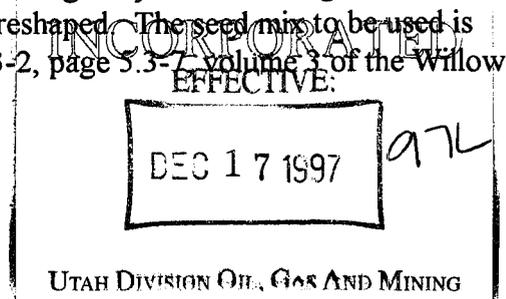
Each person who conducts coal exploration which substantially disturbs the natural land surface will while in the exploration area, have available a copy of the Notice of Intention to Conduct Minor Coal Exploration or Approved Major Coal Exploration Permit for review by an authorized representative of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

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.

Core samples are expected to be recovered during the program as necessary and the exploration activities will not substantially disturb the natural land surface. No new roads are required for the holes. The drill pads will be constructed on the existing road, with the exploration hole at the edge of the road. The drill sites will be reclaimed by backfilling the mud pits, redistributing any soils moved during construction activities, scarifying and seeding. Any minor drainages affected by removing vegetation and construction activities will be reshaped. 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.

Quoting from the Willow Creek MRP,

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 mine 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.

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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)
- Swainson'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 game bird, common)
- Ruffed Grouse (protected as a game bird, common)
- Sage Grouse (protected as a game bird, common)
- California Quail (protected as a game bird, common)
- Gambel's Quail (protected as a game bird, common)
- Chukar (protected as a game bird, common)
- Great Blue Heron (protected, abundance unknown)
- Various species of geese, ducks, teal scalps, 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 in June 1996 in the general areas by E.I.S. 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 would be over for 1997, it is highly unlikely that any Goshawks are present in the exploration area, and they would not be nesting during the winter.

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 drill site 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 per hole are expected to be used during the project, or from Willow Creek under permit from the Utah State Engineer.

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.

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Since the drill sites are located in the bottom of Skinny Canyon which is very narrow and contains very limited habitat for deer and elk there will be no impacts to these animals. During many trips to Skinny Canyon during the past three summers, CPMC personnel have not seen any evidence of elk presence at any time of the year in the bottom of Skinny Canyon and only a very few indications that deer use the canyon bottom. Droppings from elk have not been seen in the canyon bottom, and only a few deer droppings have been observed.

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 both drill sites will be gained from Highway 191 by using the existing dirt road in Skinny Canyon, no new roads will be necessary. Since this project is limited in duration, no additional coverage of the regulations is necessary to use 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.

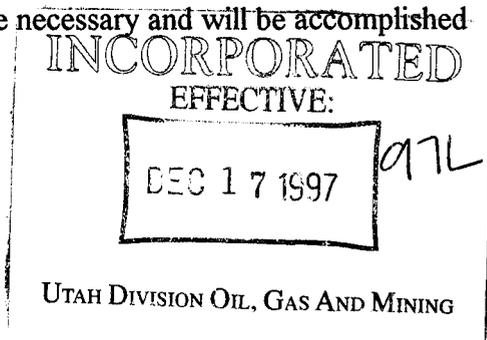
Primary roads will not be constructed during this project per definition in R645-301-527.120-123.

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

The access roads to be used are pre-existing.

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. It is not anticipated that watering will be necessary since the project will be conducted during winter conditions when precipitation and frozen ground should control dust. Snow removal may be necessary and will be accomplished with graders or crawler tractors as necessary.



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 roads will be minor. The road is located on 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 road has been in place for many years, so new construction will 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.

Since the access road exists no reclamation is necessary.

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 and drill pads 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.

The existing road is sufficient for mobilization of drill and construction equipment. The existing road is generally less than 12 feet wide and composed of compacted sands and gravel. 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.

The drill sites will be constructed by widening the existing road to approximately 30 feet at the drill sites. The length of the sites will be approximately 100 feet. Topsoil will be removed from

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each side of the road as necessary to achieve the width necessary for the pad site. Topsoil will be stored near the pads for use in reclamation.

Based on current vegetative cover, the road and pads 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 pads. 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 R645-301-731.522, 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.

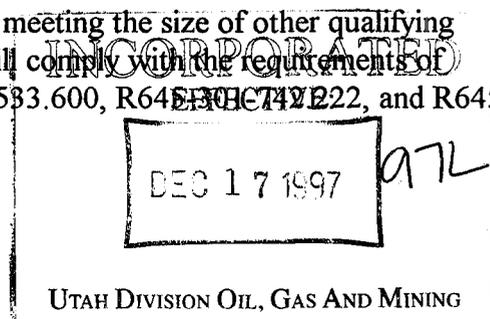
356.300. Siltation structures will be maintained until removal is authorized by the Division and the disturbed area has been stabilized and revegetated. In no case will the structure be removed sooner than two years after the last augmented seeding.

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.

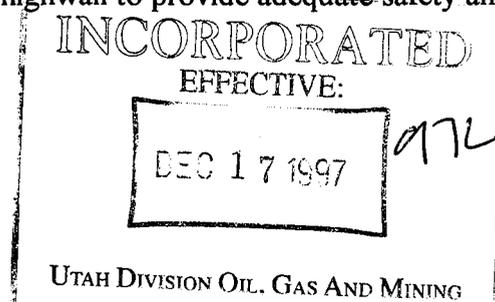
Minor siltation structures such as silt fences, straw bales or berms will be used to control erosion after drilling is completed, if reclamation is delayed beyond the period immediately after drilling, (i.e. if adverse weather conditions prevent reclamation from taking place before the close of the drilling 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, R645-301-731.522, 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 1.2. 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. Both drill holes will be plugged from bottom to top 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

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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 water 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 pits will be built in a manner that will ensure protection against pollution of surface water. Discussions of roads and drill pads runoff have been presented previously.

731.200. Water Monitoring.

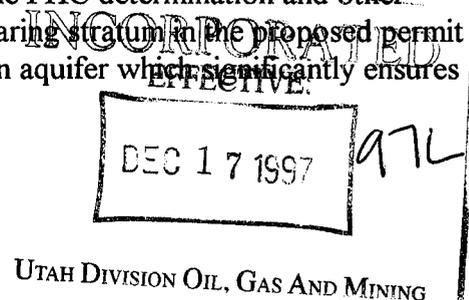
731.210. Ground Water Monitoring. Ground water monitoring will be conducted according to the plan approved under R645-301-731.200 and the following:

Ground water monitoring will not be included in this project; an extensive program of water monitoring is included in the Willow Creek Mining and Reclamation Permit.

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

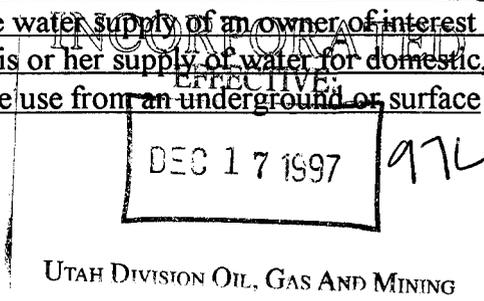


the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the Division;

- 713.214. 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:
- 713.214.1 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
- 713.214.2. 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.
- 713.220. 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



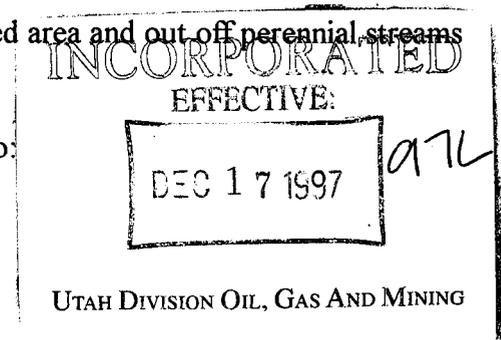
source, where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from the surface mining activities. Baseline hydrologic information required in R645-301-624.100 through R645-301-624.200, R645-301-625, R645-301-626, R645-301-723 through R645-301-724.300, 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.

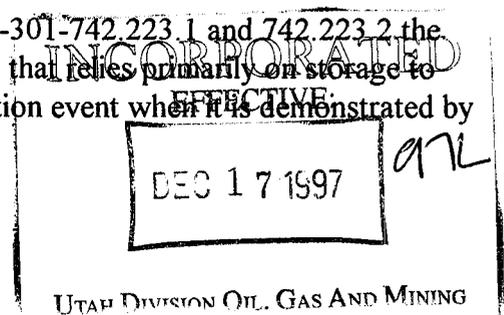
- 742.200. Siltation Structures.
- 742.210. General Requirements.
- 742.211. Additional contributions of suspended solids and sediment to streamflow of runoff outside the permit area will be prevented to the extent possible using the best technology currently available.
- 742.212. Siltation structures 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

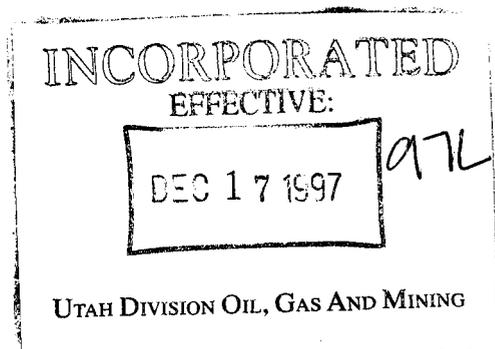


the operator and certified by a qualified registered professional engineer in accordance with R645-201-512.200 that the sedimentation pond will safely control the design precipitation event. The water will be removed from the pond in accordance with current, prudent, engineering practices and any Sediment 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, and by using berms to divert water to 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 pits. 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.

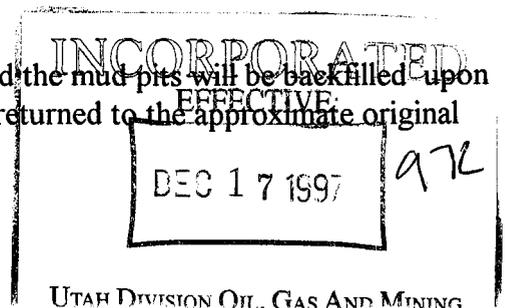
R645-202-241. If excavations, artificially flat areas, or embankments are created during exploration, these areas will be returned to the approximate original contour promptly after such features are no longer needed for coal exploration.

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 sites will have trash and debris removed and the mud pits will be backfilled upon completion of exploration activities. The drill pads 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 pads 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 holes they 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. Reclamation of roads and drill pads has been addressed previously.

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.

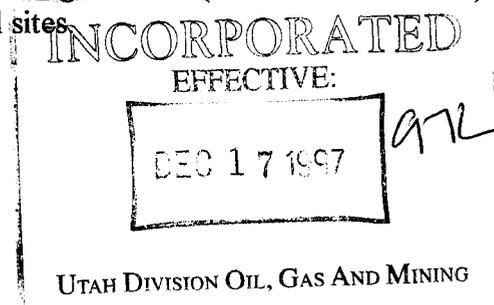
All equipment will be promptly removed from the exploration area upon completion of drilling and reclamation will be conducted as described in response to 240-242.200 above.

### **Bonding**

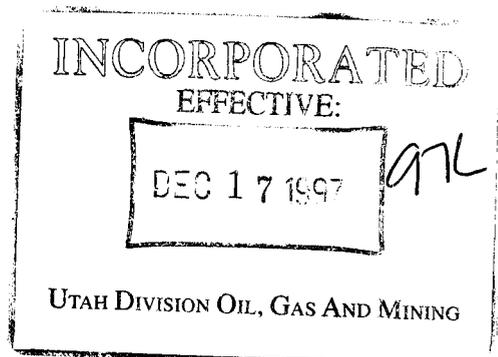
Since the Willow Creek Mine reclamation bond includes double coverage of the preparation plant area we do not believe it is necessary at this time to revise the bond for this exploration plan. When application is made to revise the bond to eliminate the double coverage we will adjust the bond estimate to cover any drilling projects that remain unreclaimed.

### **Cultural Resources**

A cultural resource survey was conducted covering the roadway where the drill sites will be located in 1994 by Abajo Archeology. A copy of the survey report is included as Exhibit A. The survey included coverage of a 100 foot wide corridor along the road (50' each side of road). This coverage is adequate to include widening for the drill sites.



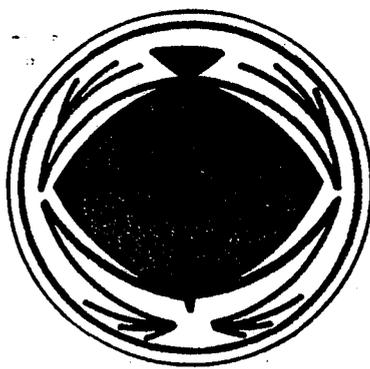
The report states, "Due to the absence of significant cultural or paleontological resources within the proposed project areas, a determination of "no effect" to historic properities (properties) is recommended for purposes of Section 106, 36 CFR 800.



# Exhibit A

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# ABAJO ARCHÆOLOGY

WILLIAM E. DAVIS, Director

October 23, 1994

John Borla  
Manager of Technical Services  
Cyprus-Plateau Mining Company  
P.O. Drawer PMC  
Price, Utah 84501

Dear Mr. Borla:

Abajo Archaeology conducted an archaeological and paleontological survey on October 20, 1994 for six drill locations in Carbon County, Utah. The inventory was performed upon the request of Mr. Gregory L. Hunt, consulting geologist, Castle Rock, Colorado. The project area is located in Township 12S, Range 9E, Section 25; and Township 12S, Range 10E, Section 30 (USGS Helper, UT 7.5', 1972 and Matts Summit, UT 7.5', 1969). The inventory area is situated on private land and public lands administered by the Bureau of Land Management (BLM), Price River Resource Area (Moab District).

The objectives of the inventory were to locate, document, and evaluate any cultural or paleontological resources occurring within the project area to attain compliance with a number of federal and state antiquities related laws including: the National Historic Preservation Act of 1966, the National Environmental Policy Act of 1969, the Archaeological and Historic Preservation Act of 1974, American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, and the Utah State Antiquities Act of 1973 (amended 1990).

The fieldwork was performed by Jacki A. Montgomery, consulting archaeologist with Abajo Archaeology under the authority of U.S. Department of the Interior (FLPMA) Permit No. U-94-56323 and State of Utah Antiquities Permit (Survey) No. U-94-AS-675b,p. A file search for previous archaeological surveys and recorded sites was carried out at the BLM Price River Resource Area Office on October 20, 1994. The results indicated that an inventory of seismograph lines (Harden 1984), and a proposed drill locations project for American Electric Power (Hauck 1979) have been conducted in the area. Various drill sites and

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October 23, 1994  
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access routes previously surveyed for American Electric Power are within the current project area, however no cultural resources have been documented within the confines of the Cyprus-Plateau Mining Company's project area. Also, no paleontological sites have been recorded in the area.

The Cyprus-Plateau Mining Company's six proposed drill locations and access roads are situated north of Helper, Utah in Carbon County. All drill locations are on lands administered by the BLM. Their locations are shown in Figure 1 and their legal descriptions are as follows:

PRP-1 NE1/4 of Section 25, Township 12S, Range 9E;  
PRP-2 SW1/4 of Section 25, Township 12S, Range 9E;  
PRP-3 SW1/4 of Section 30, Township 12S, Range 10E;  
PRP-4 SW1/4 of Section 30, Township 12S, Range 10E;  
PRP-6 SE1/4 of Section 30, Township 12S, Range 10E;  
PRP-7 SE1/4 of Section 30, Township 12S, Range 10E.

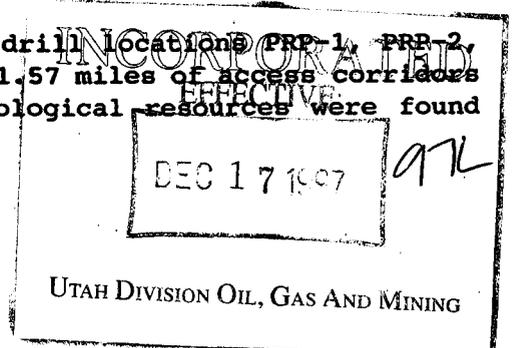
The project area lies within the Bookcliffs-Roan Plateau of the Colorado Plateau (Stokes 1986:232). It occurs within the Upper Sonoran Vegetation Zone in the Pinyon-Juniper and Mixed Conifer Forest vegetation zones. Basically both canyon systems have been impacted by previous bulldozed two-track roads and alluvial/colluvial erosion.

A 200 ft. by 200 ft. area (0.92 acre) was surveyed at each proposed drill location. A 100-foot wide corridor was surveyed along the access routes. The archaeologist walked parallel transects, spaced no more than 10 meters apart, across the drill location areas and the access corridors. This considered intensive, or 100%, coverage.

Locations PRP-1 and PRP-2 are situated in upper Burn Canyon and approximately 1.0 mile was surveyed along an existing two-track road that leads to these two locations. Locations PRP-6 and PRP-7 are situated in a side canyon of Willow Creek, and approximately 0.57 mile was surveyed from Highway 33 into these locations.

Based on the file search and consultation with the BLM Archaeologist Blaine Miller, it was decided that proposed locations PRP-3 and PRP-4 and associated access, located south of Matts Summit, were previously surveyed for cultural resources by AERC in 1979 for the American Electric Power project (Hauck 1979); therefore these proposed locations (e.g., PRP-3 and PRP-4) were excluded from the present inventory.

A total of 3.68 acres was inventoried for drill locations PRP-1, PRP-2, PRP-6, and PRP-7, and 19.0 acres along the total 1.57 miles of access corridors (total = 22.68 acres). No cultural or paleontological resources were found during the inventory.



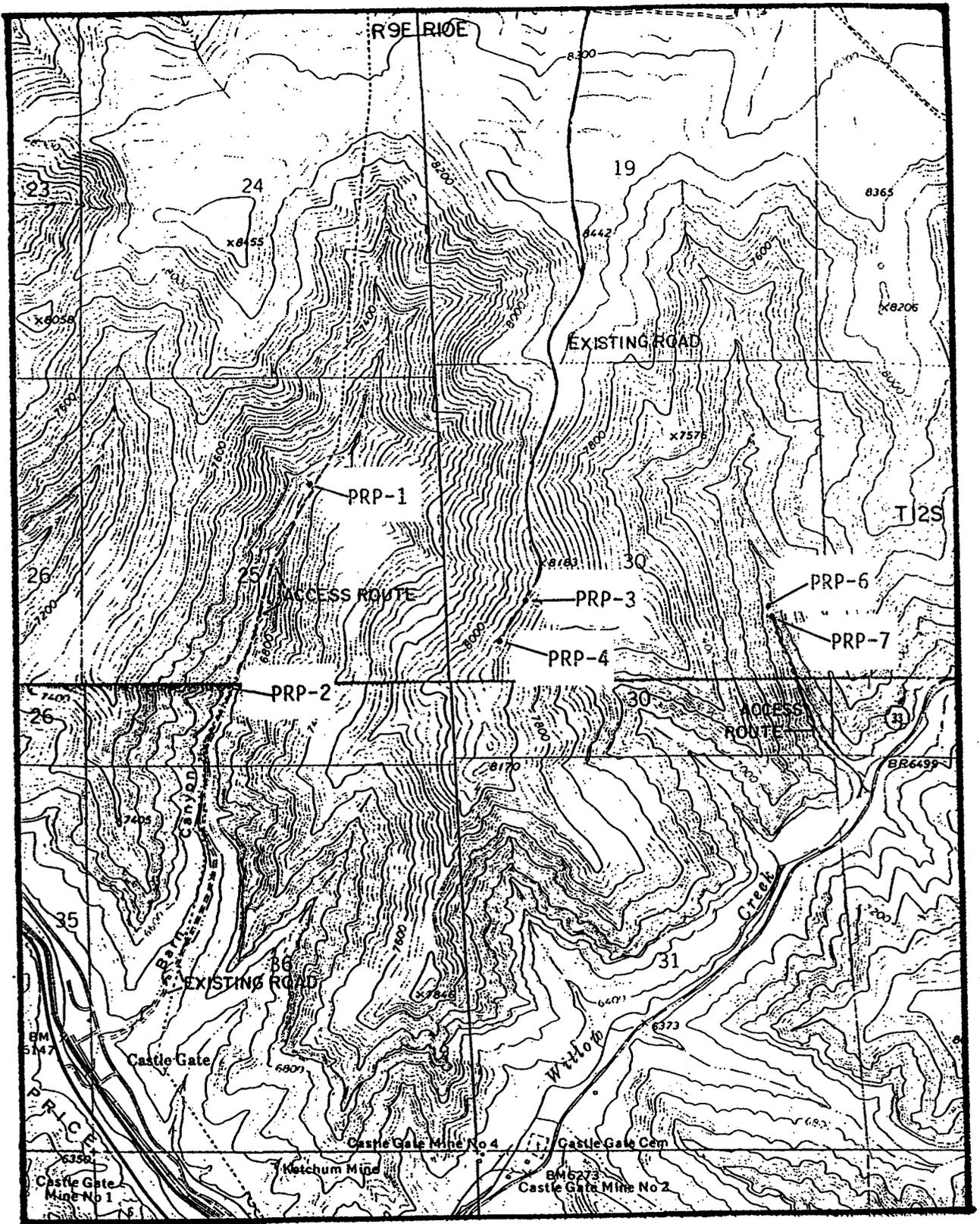


Figure 1. Cyprus-Plateau Mining Company's Proposed Drill Locations and Access Routes (USGS Matts Summit, UT, 7.5', 1969 and Helper, UT, 7.5', 1972)

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October 23, 1994  
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Due to the absence of significant cultural or paleontological resources within the proposed project areas, a determination of "no effect" to historic properities is recommended for purposes of Section 106, 36 CFR 800.

Sincerely,



William E. Davis, Director

cc: Miller, BLM  
Dykman, Utah SHPO

#### References Cited

Harden, Patrick

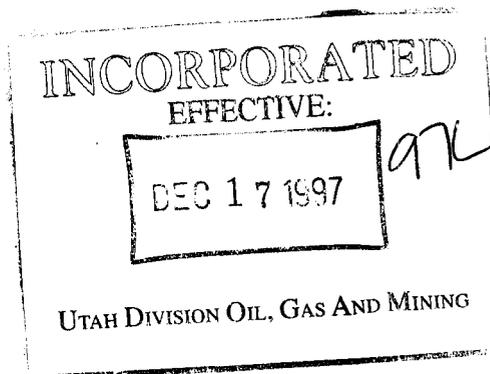
1984 An Archaeological Survey of Eleven Seismograph Lines for Seis-Port Explorations, Inc. in Emery and Carbon Counties, Utah. La Plata Archaeological Consultants, Dolores, Co. BLM Report No. 84-7, on file at the Price River Resource Area, Price, Utah.

Hauck, F.R.

1979 An Archaeological Reconnaissance of Proposed Well Locations and Access Roads in the Matt's Summit Locality of Carbon County, Utah. Archeological-Environmental Research Corporation, Bountiful, Utah. BLM Report No. 79-28, on file at the Price River Resource Area, Price, Utah.

Stokes, William L.

1986 Geology of Utah. Utah Museum of Natural History and Utah Geological and Mineral Survey. Salt Lake City.



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22-142 100 SHEETS  
22-144 200 SHEETS

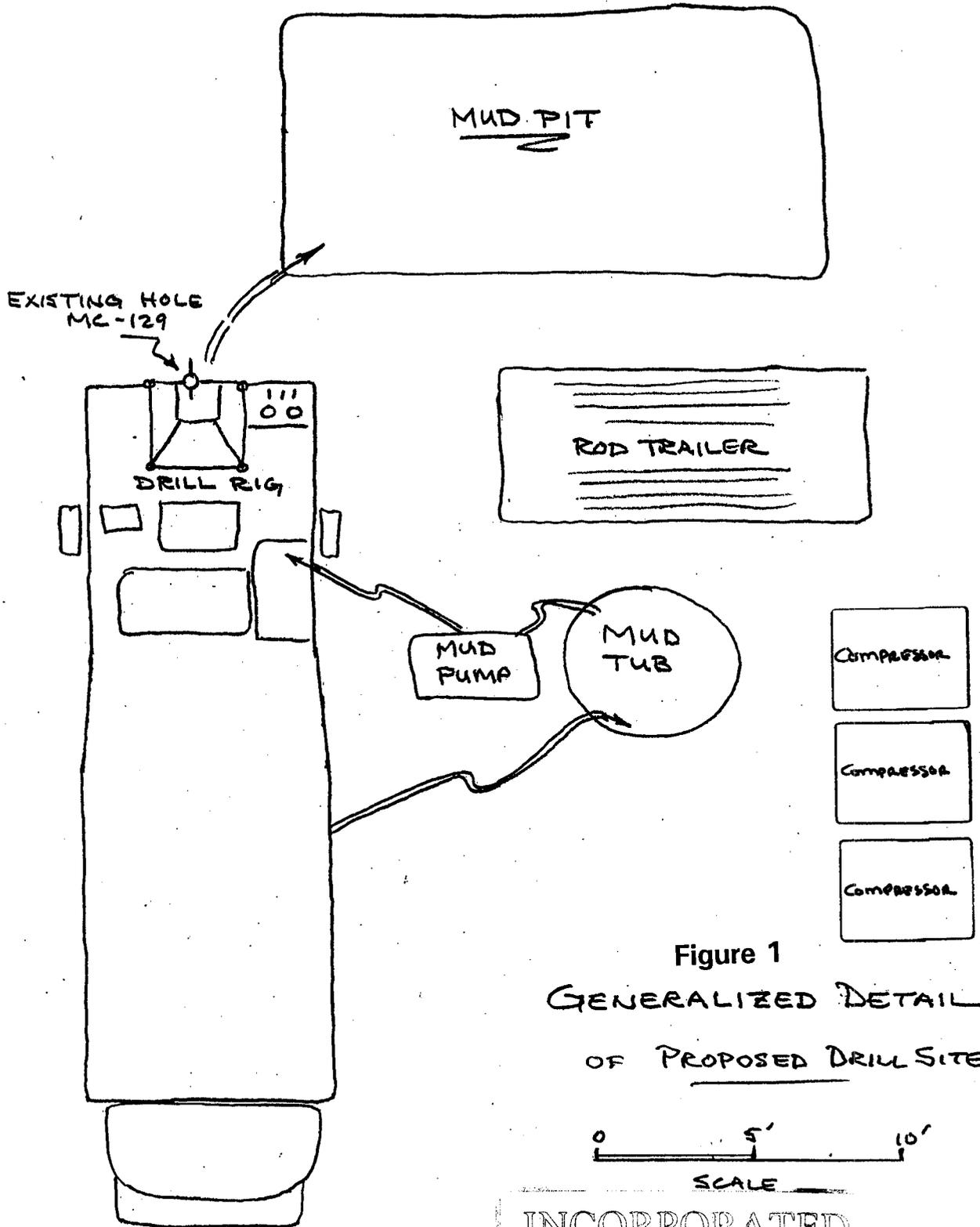


Figure 1  
GENERALIZED DETAIL  
OF PROPOSED DRILL SITE

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