

0040



Canyon Fuel Company, LLC  
Soldier Canyon Mine  
P.O. Box 1029  
Wellington, Utah 84542  
(435) 637-6360 Fax: (435) 637-0108

Incoming  
0070039  
#1916  
K

July 1, 2004

Ms. Pamela Grubaugh-Littig  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple  
Suite 1210  
Salt Lake City, UT 84114-5801

RE: Clean Copies of Notice of Intent to Conduct Minor Coal Exploration - SITLA Lease  
Task ID # 1916, Canyon Fuel Company, LLC, Dugout Mine, C/007/039

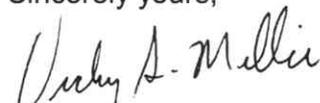
Dear Ms. Grubaugh-Littig:

Enclosed please find five clean copies of the Notice of Intent to Conduct Minor Coal  
Exploration - SITLA Lease - Task ID # 1916

An additional copy of the submittal has been delivered to the Price Field Office.

Please contact Mike Stevenson or Vicky Miller at (435) 636-2869, if there are any questions  
concerning this submittal.

Sincerely yours,

  
Vicky S. Miller

Cc: Dave Spillman (enclosures)  
Pete Hess (enclosures)

File in:

- Confidential
- Shelf
- Expandable

Refer to Record No. 0040 Date 07022004

In C 0070039 Concerning

For additional information See: Confidential

# APPLICATION FOR COAL PERMIT PROCESSING

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

**Committee:** Canyon Fuel Company, LLC  
**Mine:** Dugout Canyon Mine **Permit Number:** C/007/039  
**Title:** Clean Copies of Notice of Intent to Conduct Minor Coal Exploration - Task ID #1916  
**Description,** Include reason for application and timing required to implement:

**Instructions:** If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes  No 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_  increase  decrease.
- Yes  No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- Yes  No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes  No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes  No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes  No 6. Does the application require or include public notice publication?
- Yes  No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes  No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes  No 9. Is the application submitted as a result of a Violation? NOV # \_\_\_\_\_
- Yes  No 10. Is the application submitted as a result of other laws or regulations or policies?  
*Explain:* \_\_\_\_\_
- Yes  No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes  No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes  No 13. Does the application require or include collection and reporting of any baseline information?
- Yes  No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes  No 15. Does the application require or include soil removal, storage or placement?
- Yes  No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes  No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes  No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes  No 19. Does the application require or include certified designs, maps or calculation?
- Yes  No 20. Does the application require or include subsidence control or monitoring?
- Yes  No 21. Have reclamation costs for bonding been provided?
- Yes  No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes  No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

**Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you.** (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Mike Stevenson  
 Print Name

Mike Stevenson Sr. Hydrologist 6/29/04  
 Sign Name, Position, Date

Subscribed and sworn to before me this 29 day of June, 2004

Vicky Sue Miller  
 Notary Public

My commission Expires: 1-5, 2008  
 Attest: State of UTAH } ss:  
 County of CARBO

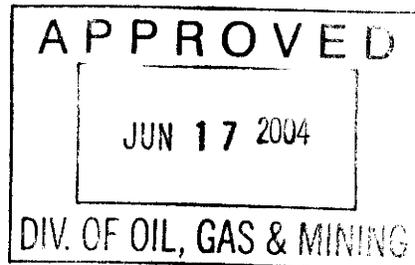


<b>For Office Use Only:</b>   	<b>Assigned Tracking Number:</b>  	<b>Received by Oil, Gas &amp; Mining</b>  <div style="font-size: 24px; font-weight: bold; margin: 10px 0;">RECEIVED</div> <div style="font-size: 24px; font-weight: bold; margin: 10px 0;">JUL 02 2004</div> <div style="font-weight: bold; margin: 10px 0;">DIV. OF OIL, GAS &amp; MINING</div>
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**NOTICE OF INTENT TO CONDUCT  
MINOR COAL EXPLORATION**

**SCHOOL AND INSTITUTIONAL TRUST LANDS  
ADMINISTRATION DUGOUT TRACT**



**ARK LAND COMPANY  
A Subsidiary of Arch Coal Inc.**

May 26, 2004

## **INTRODUCTION**

Ark Land Company (a subsidiary of Arch Coal Inc.) is submitting this Notice of Intent to Conduct Minor Coal Exploration on behalf of Canyon Fuel Company, LLC – Dugout Canyon Mine to the Utah Division of Oil, Gas, and Mining (UDOGM) in order to obtain approval to conduct coal exploration and reclamation activities in the summer of 2004. The type of exploration proposed is rotary-spot core, wireline core drilling, or a combination of both. All exploration activities will occur on private surface held by the Milton and Ardith Thayn Trust in wide spots in existing, previously disturbed roads. . This application is formatted to address the specific requirements of R645-201-200. Other related information is given in Appendix A and B. Five copies of this notice are submitted for distribution by the UDOGM to other agencies.

### **R645-201 Coal Exploration: Requirements for Exploration Approval**

The proposed exploration plan qualifies as minor exploration as described in the State of Utah Coal Mining Rules R645 section R645-201-200.

### **R645-201-130 - Notice to Thayn Trustee of proposed drilling activities 2004/2005**

Reference Attachment 4-2, Dugout Canyon Mine, Methane Degassification Amendment Wells G-1, G-2 and G-3 for surface use agreement between the Thayn Trust and Canyon Fuel Company, LLC. A copy of the landowner notification letter is located in Appendix B.

### **R645-201-221**

The name, address and telephone number of the applicant are:

Ark Land Company  
C/o Skyline Mines  
HC 35 Box 380  
Helper, Utah 84526  
(work) 435-448-2634

The applicant is the same as the operator of the proposed exploration plan. Correspondence regarding this exploration plan should be addressed to:

Mike Stevenson  
Ark Land Company  
C/o Skyline Mines  
HC 35 Box 380  
Helper, Utah 84526  
(work) 435-448-2634

### **R645-201-222**

The name, address and telephone number of the representative of the applicant who will be present during and be responsible for conducting the exploration is:

Mike Stevenson  
Ark Land Company

C/o Skyline Mines  
HC 35 Box 380  
Helper, Utah 84526  
(work) 435-448-2634  
(home) 435-636-8546

At times a consulting geologist may act as representative of the applicant. The UDOGM will be notified of the consulting geologist's name and address if one is used.

**R645-201-223**

The exploration area is located in Eastern Utah 15 miles northeast of Wellington, Utah (Map 1). The legal description of the SITLA Dugout Coal Tract is as follows:

State Lease ML 48435-OBA

T. 13 S., R 13 E., SLB&M

Sec: 17: SW/4, SW/4SE/4;  
Sec. 19: NE/4SE/4, S/2SE/4;  
Sec. 20: All;  
Sec. 21: SW/4NW/4, SW/4;  
Sec. 28: NW/4, N/2SW/4, SW/4SW/4;  
Sec. 29: All;  
Sec 30: E/2, E/2W2.

Containing 2,560.00 acres, more or less.

The tract is totally located in Carbon County, Utah, and is located in Eastern Utah approximately 15 miles northeast of Wellington, Map 1. Map 2 gives the location of drill sites and access routes. Heavy Equipment access to the exploration area will be via an improved, gravel road through Clark Valley east of Wellington, herein called the Clark Valley Road, then existing private ranch or logging roads.

Access routes to the drill sites will either use existing ranch or logging roads (Map 2). As necessary, existing roads will be made travelable by grading rutted areas. The drill sites are located in the roadways.

The elevation in the area ranges from 7,200 feet in the south along the base of the Book Cliffs to 8,700 feet in the north atop the high mesas. The terrain is rugged with relatively gently sloping mesas bounded by the steep slopes of the Book Cliffs. Relatively deep and narrow valleys bisect the highlands and drain southward away from the Book Cliffs. The major drainages in the area are the Right Fork of Dugout Creek and Pace Creek.

Rocks exposed in the exploration area belong to the Cretaceous age Blackhawk, Castlegate, and Price River Formations, and the Cretaceous-Tertiary age North Horn Formation. The rock types are predominantly sandstone, siltstone, shale, and coal. The major geologic features in the exploration area are the escarpments created by the various sandstone outcrops including the 150 ft thick Castlegate Sandstone.

**R645-201-224**

These holes are planned to be drilled as part of a 2-hole drilling project to be drilled in 2004. It should be noted that hole DUG0204 is also being permitted with the Bureau of Land Management (BLM). This hole will be drilled on an angle with the surface disturbance being located on private land with BLM coal ownership directly below the hole collar. Since the hole will be angled, the hole may end in coal owned by the School and Institutional Trust Lands Administration (SITLA). Therefore, the BLM recommended the hole be permitted by both agencies—UDOGM and BLM.

The timetable for all exploration related activities is given below. It is anticipated that exploration activities will start the second week of June 2004.

EVENT	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Prepare Access/Sites								
Core Drilling								
Reclamation								

**R645-201-225**

The general method to be followed during drill hole exploration, reclamation, and abandonment is: 1) grading rutted areas in ranch and logging roads and water roads as needed for dust suppression 2) set temporary water tank, pump, and water line as needed, 3) drill and log holes, 4) reclaim the drill sites and promptly remove all facilities and equipment including but not limited to waterlines, tank, and pump.

No blasting is planned.

Core drilling typically involves one truck-mounted 2000 ft rated core drill, one 3000 gallon water truck, one 1500 gallon water truck, one auxiliary air compressor, one supply trailer, four pick-up trucks, a geophysical logging truck and one covered trailer. The drilling procedure for the exploration holes will be either continuously core to total depth, rotary drilling and spot coring of selected zones, or a combination of both. If the rotary drilling and spot coring method is used, casing will be set in the hole to below the Price River Formation.

Water will be pumped and/or hauled from the Right Fork of Dugout Creek and/or Pace Creek to the drill sites (Map 2). Typically, the following pieces of equipment are used to complete the project. A supply trailer will carry drill steels, coring equipment, drilling additives, cutting and welding equipment, a dog house and other supplies. Two pick-up trucks will be used by the drillers to carry personnel, fuel, and supplies and two pickup trucks will be used by the dirt contractor. The geologic logging contractor will use a single axle 1 ton rated truck. The company representative and geological consultant will also use pick-up trucks for transportation.

The only coal removed during exploration activities will be cores. Cores will be a nominal three inches in diameter. Assuming an average thickness of 7 ft for the Rock Canyon Coal Seam and 8 ft for the Gilson Coal Seam, an estimated 300 pounds of coal will be removed.

Earth moving equipment may include a D-8 Cat, road grader and a track mounted backhoe and/or a rubber-tired backhoe for construction of mud pits. The only material disposed of at the drill sites will

be cuttings and any drilling foam and/or mud which will be placed in the mud pits. Following the drying of the mud pit materials, the dirt excavated to create the mud pit will be mixed with the drill cutting and returned to the pit to prevent a boundary of hard material from forming in the mud pit area and then compacted to minimize settling.

Reclamation is an integral part of the exploration activities and will progress as contemporaneously as practical with the other exploration activities. The exploration drill holes will be plugged with a cement, cement/bentonite slurry, or bentonite chips to their full depth. The completion method includes pulling surface casing when possible; but when not possible, cutting it flush with the ground, then pumping the cement/bentonite slurry through the drill pipe starting at the bottom of the hole. Plugging will then be done in stages by tripping-out of the hole 3-4 joints (60-80 ft) and pumping again. This process will be repeated to the surface. If bentonite chips are used, the chips will be dumped down the annulus of the hole in such a manner to prevent bridging in the hole and drilling water added to the hole as specified by the manufacturer. Spillage of bentonite and/or cement during the drill hole sealing process will be collected and buried in the mud pit or hauled from the sites for disposal at an approved location.

There will be no diversion of overland flows.

**Cultural Resources** - The permittee agrees to notify the Division and State Historical Preservation Office (SHPO) of previously unidentified cultural resources discovered in the course of operations. The permittee also agrees to have any such cultural resources evaluated in terms of NRHP eligibility criteria. Protection of eligible cultural resources will be in accordance with Division and SHPO requirements. The permittee will also instruct its employees that it is a violation of federal and state law to collect individual artifacts or to otherwise disturb cultural resources.

There are no known districts, sites, buildings, structures, or objects listed on, or eligible for listing on, the National Register of Historic Places in the proposed exploration area. There are no known archeological resources located in the proposed exploration area. An letter from archeologist John Senulis in provided in Appendix B. A site-specific cultural resource evaluation will be conducted in 2004 prior to drilling and submitted to the Division (Appendix B) and SHPO.

Access to the drill holes will not impact or disturb what remains of the archeological site (42CB292). The road in the bottom of Pace Canyon passes the archeological site, but the closed portal is not visible from the road, therefore there is nothing to draw attention to the site. The loadout referenced in the survey no longer exist at the site. Access to the drill holes is as follows: Turn left (north) off US Highway 6 (eastbound) 7 miles beyond the city of Wellington onto a dirt road, proceed on dirt road 8 miles to an intersection turn left (west) and proceed 1.5 miles to locked gate, proceed onto road in the bottom of Pace Canyon travel an additional 1 mile to intersection turn left (northwest), travel 0.5 miles to DUG0204. To proceed to DUG0104 do not make the left hand turn described above but proceed up Pace Canyon for approximately 0.75 miles, turn left on to a logging road and travel 0.1 of a mile. Both drill sites are located in a wide spot in the road. All mileage is approximate.

**Wildlife Protection Measure** - The permittee will apply all methods necessary to minimize disturbances or any adverse effects to threatened or endangered species and the species will be protected to the best of the permittee's ability.

May 2004

General control and mitigation measures addressing potential operational related biological impacts will include the following:

- Minimizing the total area of disturbance,
- Design, construction, and operation of drilling to minimize biological impacts including barriers to wildlife movements,
- Control, treatment and monitoring of surface discharges,
- Exclusion of wildlife from potentially hazardous areas, and
- Reclamation of disturbed areas when they are no longer needed.

Vegetation in the exploration area is comprised mostly of juniper, conifer timber, aspen, and sage communities. The streams do not support fish. The exploration area is important habitat for raptors, elk, mule deer, cougar, bobcat, black bear, and small mammals. The area is habitat for a limited number of reptiles and amphibians.

**Raptors** - An aerial raptor nest survey was done of the area by the Utah Division of Wildlife Resource (DWR, Chris Colt, Leroy Mead) and CFC personnel in May of 2003, refer to Attachment 3-3, Dugout Canyon Mine, Methane Degassification Amendment Wells G-1, G-2 and G-3.

A raptor survey will be conducted of the core hole site areas, during 2004 prior to the drilling. However, as stated previously the drill sites are on pre-disturbed road areas. A copy of the raptor survey and map will be incorporated into the mine's annual report. Excerpts from the survey will be included in Appendix B.

**Mexican Spotted Owl** - A calling point survey will be conducted in the exploration area by EIS Environmental and Engineering Consulting in 2004 and 2005 for Mexican spotted owl. Access to the areas for the survey should be available in April or May, depending on the snow and precipitation for each year. A copy of the survey will be incorporated into Appendix B.

**Threatened and Endangered Plant and Wildlife Species** - There are no known federally or state listed threatened and endangered plant and wildlife species within the sites planned for core holes. The drill holes are in wide spots in existing, previously disturbed roads. No habitat available in area for Utah State Listed Species as verified with Bill Bates, DWR (personal communication 7/17/03).

Threatened and endangered species in the exploration area include the bald eagle, which may use portions of the area as a winter resident/hunting area. Exploration and reclamation activities will not occur during breeding and nesting periods nor within one half mile of known breeding and nesting areas.

There are no known groundwater or surface water flows to the Colorado or Green Rivers with potential for impact by the drilling of the core holes. Potential adverse affects to the four Colorado River endangered fish species (refer to table below) would not be likely since there is no direct route to the Colorado River or Green River from the proposed drilling locations. Per the Windy Gap Process consumption estimates for the core holes: evaporation from ventilation - zero, holes will not intersect the mine area currently being extracted, therefore no access to mine ventilation; coal preparation - zero, no coal preparation at sites; sediment pond evaporation - zero, no sediment pond at sites; subsidence effects on springs - zero, no anticipated subsidence at sites; alluvial aquifer abstractions into mines - zero, no alluvial aquifer abstractions associated with holes; postmining inflow to workings - zero, no workings for postmining inflow associated with core holes; coal moisture loss - zero, limited coal

extraction therefore very limited moisture loss; direct diversion - zero, no direct diversions associated with core holes. Mitigation will not be required since the estimated loss for the construction and reclamation of the core holes is zero acre feet per year.

**Federally Listed, Threatened, Endangered and Candidate Species  
Plants and Wildlife - Carbon County, Utah**

Source: Utah Division of Wildlife Resources data base - created 09/25/03

Common Name	Scientific Name	Status	Habitat Present*
<b>Plants</b>			
Uinta Basin Hookless Cactus	<i>Sclerocactus glaucus</i>	T	No habitat available
Graham Beardtongue	<i>Penstemon grahamii</i>	C	No habitat available
<b>Fish</b>			
Humpback Chub	<i>Gila cypha</i>	E	No habitat available
Bonytail	<i>Gila elegans</i>	E	No habitat available
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	E	No habitat available
Razorback Sucker	<i>Xyrauchen texanus</i>	E	No habitat available
<b>Birds</b>			
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T	No habitat available, See Attachment 3-3**
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	C	No habitat available
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	T	See Appendix B and Attachment 3-3**
<b>Mammals</b>			
Black-footed Ferret	<i>Mustela nigripes</i>	EX	No habitat available

\* Habitat availability in Carbon County/Dugout Mine/Degas Well Sites/Core Hole Sites.

\*\* Methane Degassification Amendment, Dugout Canyon Mine, August 2003

E = A taxon that is listed by the U.S. Fish and Wildlife Service as "endangered" with the possibility of worldwide extinction.

T = A taxon that is listed by the U.S. Fish and Wildlife Service as "threatened" with becoming endangered.

C = A taxon for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threats to justify it being a "candidate" for listing as and endangered or threatened.

The method of revegetation is intended to encourage prompt revegetation and recovery of a diverse, effective, and permanent vegetative cover. The following seed mixture will be used on outside slopes

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of road berms which are adjacent to the drill holes and which existed prior to the drilling. The quantity of seed per acre for broadcast seeding will be doubled should the topsoil need to be replaced at drill site DUG0104, see R645-202-233 Soils for additional detail.

### Grasses, Forbs, and Shrubs Seed Mix

<u>SPECIES</u>	<u># pls/acre</u>	<u># pls/sq. ft.**</u>
Kentucky Bluegrass (1,390,000 seeds/lb)*	0.5	16
Mountain Brome (64,000 seeds/lb)*	2.0	3
Sandberg Bluegrass (1,100,000 seeds/lb)*	1.0	25
Bluebunch Wheatgrass (126,000 seeds/lb)*	4.0	12
Bottlebrush Squirreltail (192,000 seeds/lb)*	1.0	4
Rocky Mountain Penstemon (478,000 seeds/lb)*	1.0	11
Mountain Lupine (12,000 seeds/lb)*	3.0	1
Mtn. Snowberry (54,000 seeds/lb)*	4.0	5
Wyoming Big Sage (2,500,000 seeds/lb)*	<u>0.5</u>	<u>29</u>
<b>TOTAL</b>	17.0	106

\* Native Plants

\*\* Rounded nearest whole seed

The drill holes may range from a nominal 3 3/16 inches to 10 inches in diameter, depending on the drilling method. The estimated depths of the proposed drill holes and other drill hole information is given in the following table. Drill site acreage is estimated for a 100 ft X 100 ft pad. Access routes are estimated to be 14 ft wide.

			Disturbed Acreage		
Drill Hole	Location	Total Depth(ft)	Drill Site	Access Route	Total
DUG0104	T13S, R13E, Sec.20, SE	1,700	0.25	0	0.25
DUG0204	T13S, R13E, Sec.18, SE	1,900	0.25	0	0.25
Total		3,600	0.50	0	0.50

There are no occupied dwellings nor pipelines located in the exploration area. No trenches will be dug and no structures constructed nor debris disposed of in the exploration area. No utilities will exist at the drill hole sites.

The permittee or his representative will have a copy of this Notice of Intention To Conduct Minor Coal

Exploration while in the exploration area available for review by an authorized representative of the Division by request.

**R645-203-200**

Ark Land Company requests that the Division **not** make any drilling information available for public inspection relative to coal seam thickness or quality. This information is considered crucial to Ark Land's competitive rights.

**R645-202.230**

No adverse impacts to the stream channel will occur during pumping activities. No water will be pumped from the North Fork of Dugout or Pace Canyon Creeks without an approved "Temporary Change of Water" from the Division of Water Rights. A copy of the approved Temporary Change will be included in Appendix B and will be in possession of the on-site geologist. The "Temporary Change of Water" expires in August 2004, upon renewal a copy of the approval will be sent to the Division for incorporation into Appendix B.

**R645-202-231**

Approximately 500,000 gallons of water will be used during the drilling project. Refer to R645-201-225 for information pertaining to raptors and cultural resource data.

**R645-202-232**

No road construction is planned for this project. The existing roads were constructed and are maintained by the land owner. The existing roads are approximately 14 feet wide, with turnout/passing areas of approximately 60 feet in width.

**R645-202-233 Soils**

Drill site DUG0204 is a wide area in an existing road, topsoil is not available at the site therefore it will not be removed. Drill site DUG0104 may require topsoil to be excavated from a pocket on the adjacent hillside per a study performed by Dan Larson of EIS (Appendix B). The permittee will attempt not to disturb the hillside pocket of topsoil. No other topsoil was observed at the drill site. Should the pocket of topsoil (approximately 10 cubic yards) be removed it will be used to berm the site as shown on Figure 1. Following drilling the topsoil will be returned as close as possible to its original location, pocked and gouged and broadcast seeded.

If a subsurface mud pit is made at either site, the material will be excavated, stored immediately adjacent to the mud pit and returned to the pit and compacted, so the area can be used as road surface.

May 2004

A portable container for drilling fluids will be used if necessary, should there not be sufficient subsoil depth to excavate a mud pit.

Where not pre-existing, berms will be created in conjunction with the leveling of the drill pad area. Berms, straw bales and/or silt fences will be used for sediment control at the drill sites.

#### **R645-202-235**

Drawings of drill pads have been provided as Figures 1 and 2.

#### **Protection of Water (Runoff, Sediment Control)**

**Groundwater Protection** - The effect on groundwater at the drill hole sites is expected to be minimal. Groundwater encountered during drilling will be sealed off, unless developed as a monitoring well.

**Surface Water Protection** - To protect the hydrologic balance, construction, maintenance, and reclamation operations will be conducted to handle earth materials and runoff in a manner that prevents, to the extent possible, additional contributions of suspended solids to stream flow outside the permit area, and otherwise prevent water pollution.

During initial drilling, the sites will be graded to ensure that storm runoff will flow towards the lowest point(s) within the pad area where a silt fence and/or straw bale dike(s) will treat the runoff.

The silt fences and/or straw bale dikes will be periodically inspected, and accumulated sediment will be removed as needed to maintain functionality. The sediment from the silt fence and/or straw bale dikes will be piled on the pad and will be used for fill during final reclamation of the drill hole site.

Water encountered during drilling and runoff water will be treated using silt fence and/or straw bale dikes prior to leaving the site. Should it become necessary, the water encountered during drilling will be pumped into a tank and hauled from the site for disposal at a licensed facility.

Although, there are flowing springs above both drill sites, there are no springs immediately adjacent to or below the drill sites. No adverse impacts or necessary mitigation measures are anticipated.

No drill holes are planned for completion as water monitoring wells. However, should significant amounts of water (10+ gallons per minute of continuous flow) be encountered during drilling, Greg Galecki of the Utah Division of Oil, Gas and Mining will be contacted prior to the sealing of the hole.

May 2004

Determination will be made between Mr. Galecki and the permittee as to the potential for development of the drill hole as a monitoring well.

**R645-202-236**

It is not anticipated that acid- or toxic- forming materials will be encountered during exploration because none have been encountered previously. Should acid- or -toxic material be encountered it will be collected and hauled to an appropriate disposal facility.

**R645-202-241**

**Approximate Original Contour** - The drill hole sites will be returned to their approximate original contour after drill holes have been sealed.

**R645-202-244**

Permittee commits to promptly remove all facilities and equipment upon completion of exploration activities.

**R645-301-358**

Refer to Section R645-202-225 for information pertaining to wildlife and roads.

**R645-301-527.230**

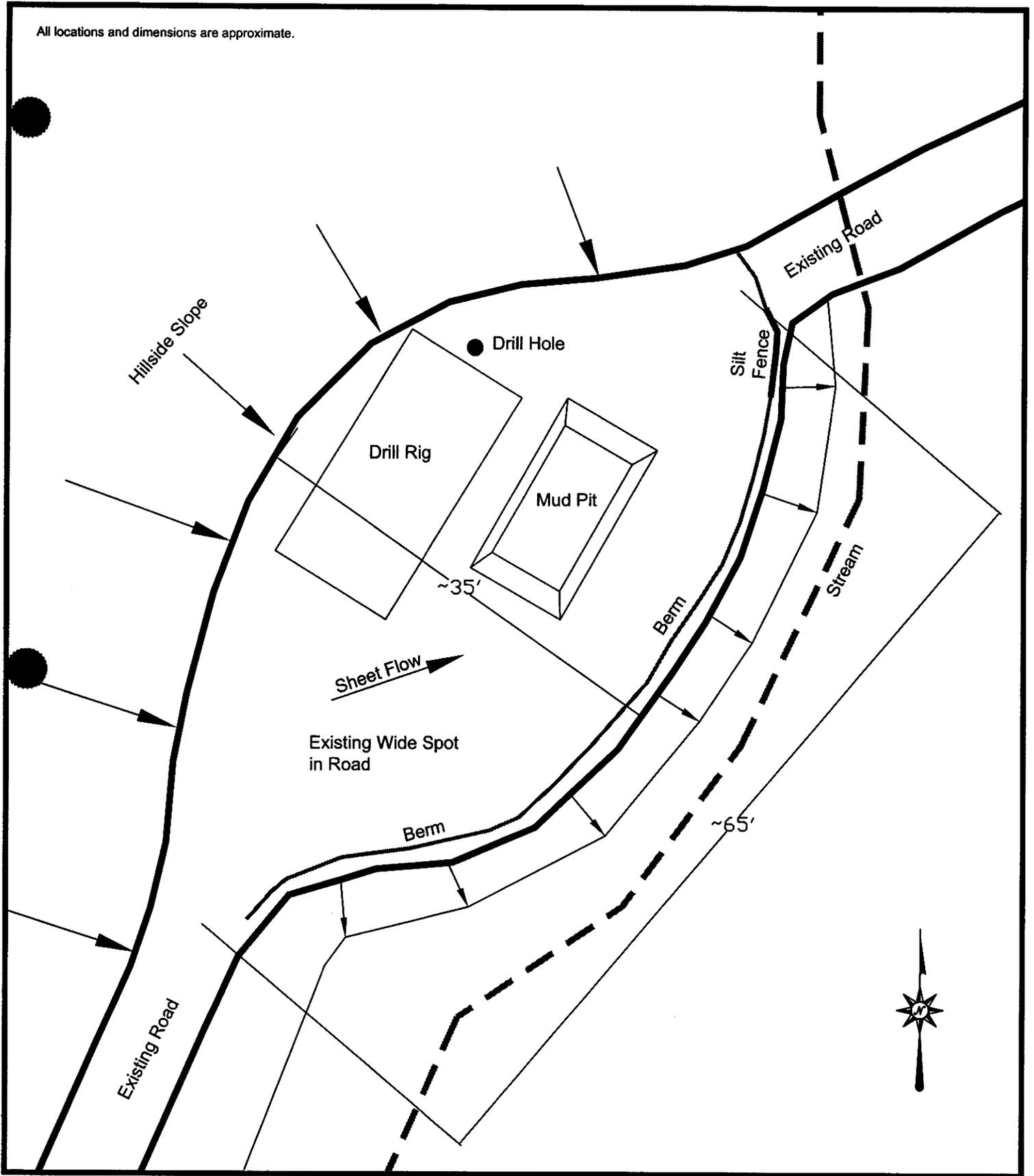
Refer to Section R645-202-225 for information pertaining to roads.

Appendix A

## APPENDIX A

1. The potential for water pollution will be minimized by keeping pollutants away from the drill hole and in their containers. Materials used during drilling operations will be selected to be as non-polluting as possible. All spills of polluting materials will be removed from the area and properly disposed of.
2. No mixing of surface and ground waters is possible because all drill sites will be above perennial and ephemeral stream drainages.
3. Dugout Canyon Mine will retain all drill and geophysical logs. The logs will note water encountered, noting the depth, geology, flow and any other information considered to be pertinent. Copies of the drill and geophysical logs will be provided to the School and Institutional Trust Lands Administration and to the Division.

All locations and dimensions are approximate.



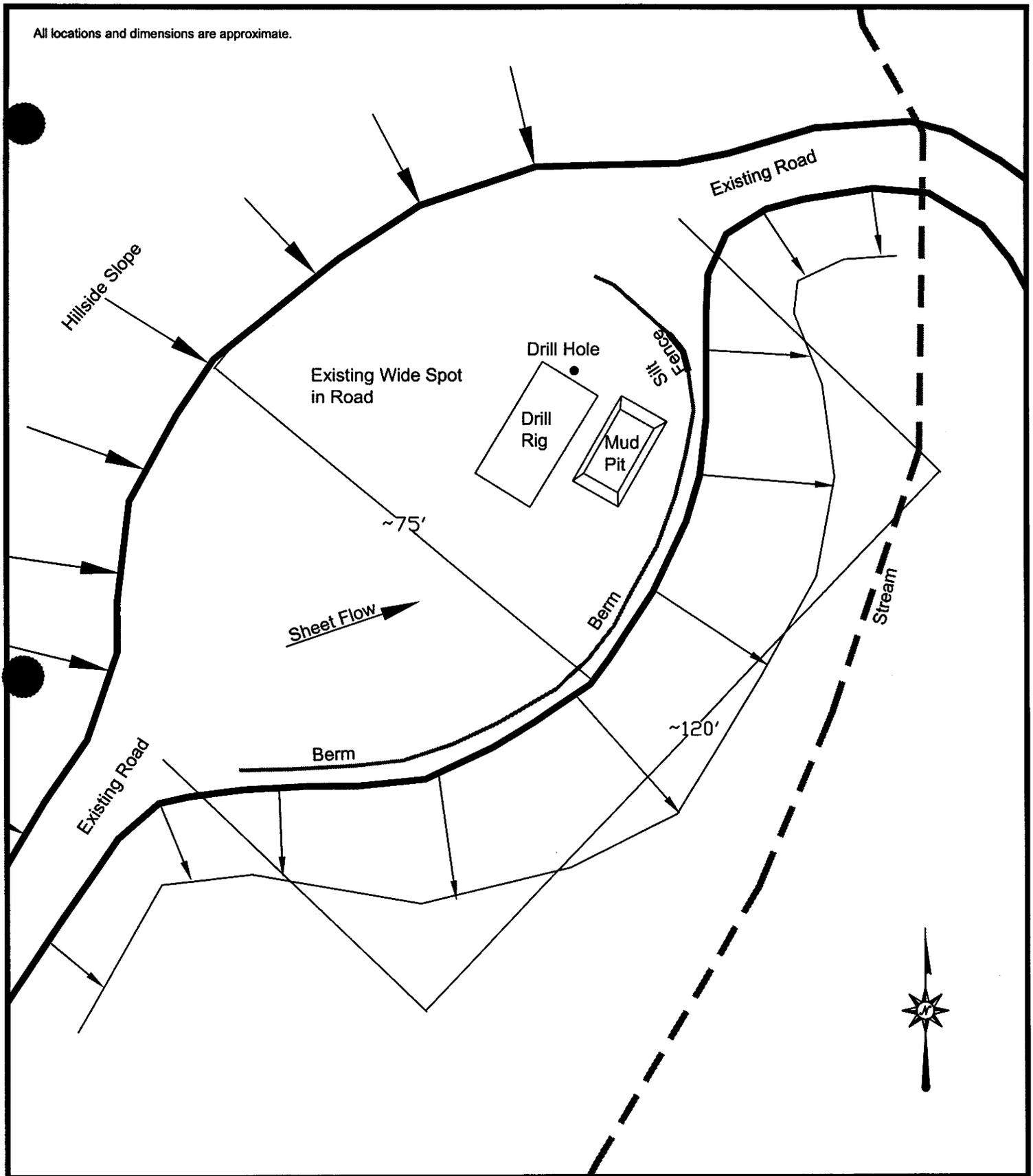
Notes:

1. The drill pad is located in an existing wide spot on an existing Road.
2. A berm will be constructed along the stream side of the pad with a silt fence installed at the down hill corner.
3. The pit will be lined and the hole cased a sufficient depth to prevent contamination of the stream by drilling fluids.
3. The location of the drill hole, drill rig, and mud pit may vary.
4. The road will be restored to the pre-drilling condition when drilling is complete.

Figure 1  
DUG0104 Pad Layout

<b>CF</b>	Canyon Fuel Company, LLC		
	Dugout Mine		
<small>P.A. AND/OR REGISTERED UNDER</small>	DATE: 04.22.2004	CK.BY:	REVISION:
<small>OR TITLE</small>	SCALE: 1 : 10	DR.BY: M. Stevenson	
DWG. NO.:			

All locations and dimensions are approximate.

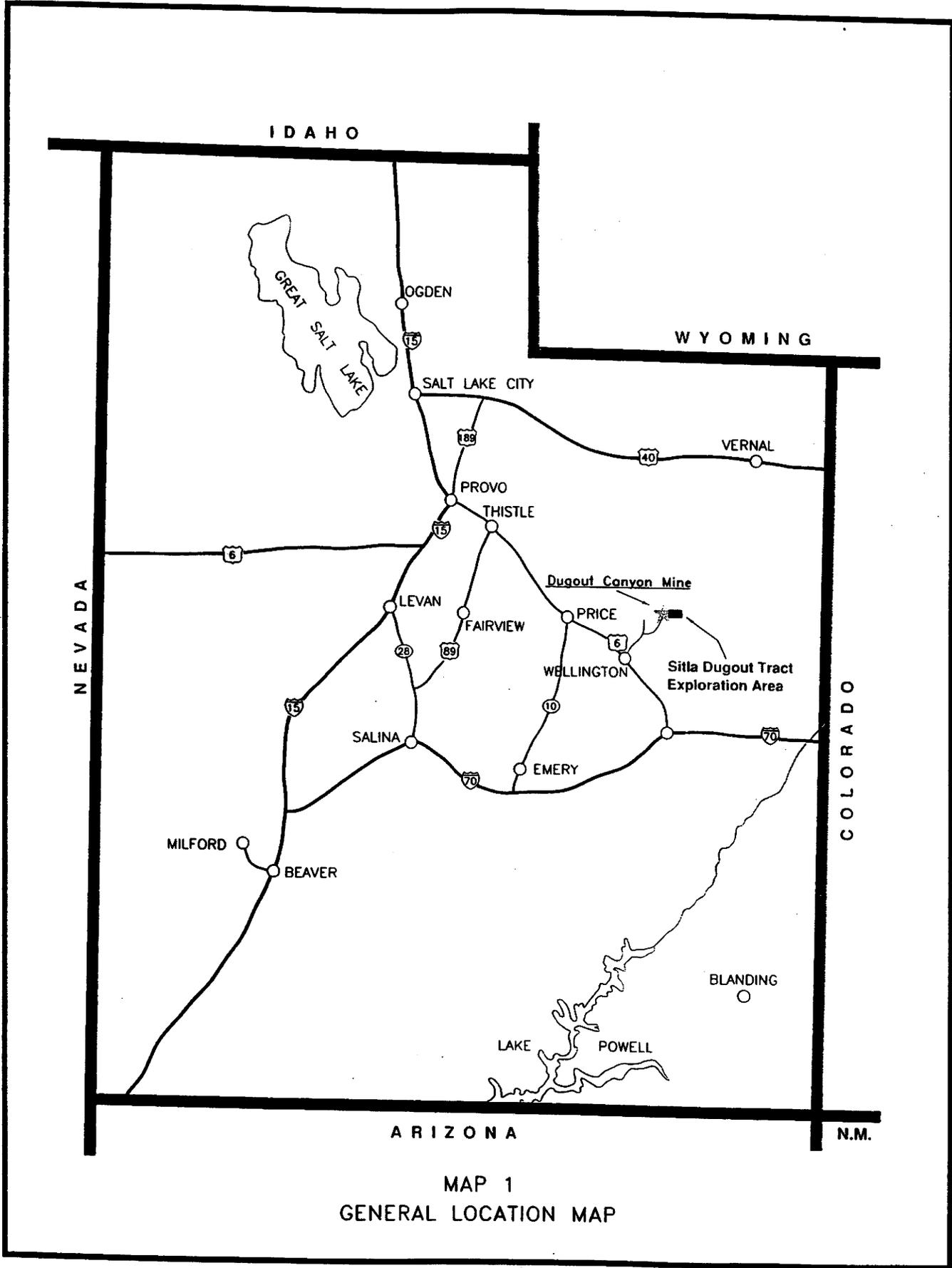


Notes:

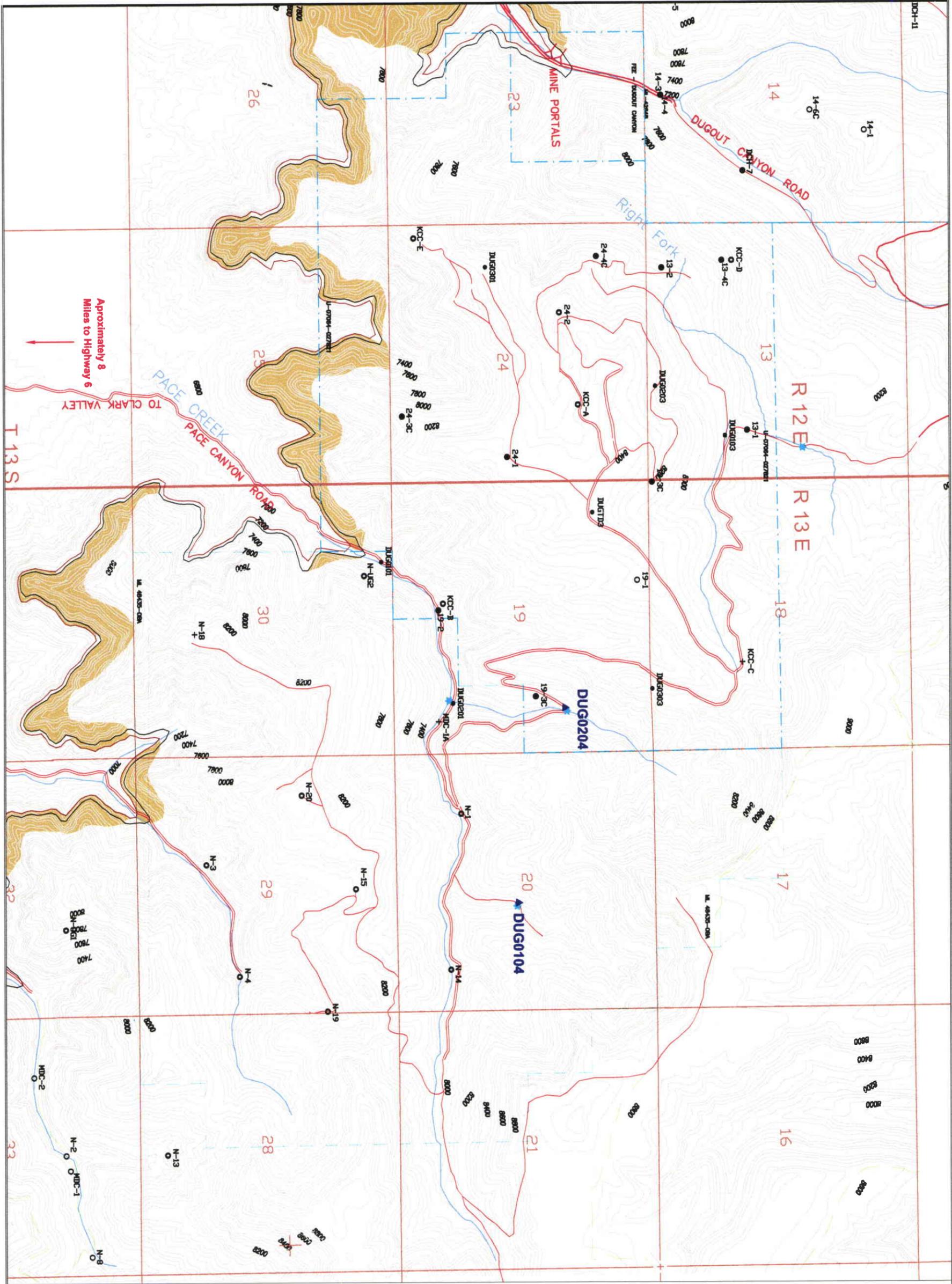
1. The drill pad is located in an existing wide spot on an existing Road.  
A berm will be constructed along the stream side of the pad with a silt fence installed at the down hill corner.
3. The pit will be lined and the hole cased a sufficient depth to prevent contamination of the stream by drilling fluids.
3. The location of the drill hole, drill rig, and mud pit may vary.
4. The road will be restored to the pre-drilling condition when drilling is complete.

Figure 2  
DUG0204 Pad Layout

<b>CF</b>	Canyon Fuel Company, LLC			REVISION:
	Dugout Mine			
PAK 600 100 000000 000 0000	DATE: 04.22.2004	CK.BY:		
000 FILE:	SCALE: 1 : 20	DR.BY: M. Stevenson		
OWG. NO.:				



MAP 1  
GENERAL LOCATION MAP



Approximately 8 Miles to Highway 6

- EXPLANATION**
- Existing Road
  - No Upgrade
  - Existing Road Requires Upgrade
  - Newly Constructed Road
  - Trail
  - Lease Boundary
  - Core Holes
  - Water Locations
  - Burn

Scale: 1" = 2000'



**CF** Canyon Fuel Co., LLC.  
Dugout Canyon Mine

Map 2  
Construction and Road Use Layout

P.O. BOX 1089  
WILLINGTON, UTAH 84642

DATE: 06-14-2004



Appendix B



## SENCO-PHENIX

April 20, 2004

Mr. Kenny Wintch  
SITLA Archeologist  
675 East, 500 South, Suite 500  
Salt Lake City, UT 84102-2818

RE: Dugout Canyon Permit Extension (U04SC0326)

Dear Kenny:

The Dugout Canyon Mine of Canyon Fuel LLC is proposing an extension of their mine permit area on SITLA land in Sections 17, 20, 21, 28, 29, 30, T13S, R13E, Carbon County, Utah. All of the disturbance will be subsurface. There are no surface disturbances planned within the permit extension area. A file search has been performed at the Price Field office of the BLM at various times, most recently April 20, 2004 for the permit extension and adjacent areas. The results of the file search are as follows:

- 1980, AERC surveyed several sample blocks in Sections 18, 19 and 30 T13S, R13E. They also surveyed the access road into the Snow Mine site. One archeological site was located: (80-69)
  - 42CB292 The site was described as "Coal mine located in Pace Canyon consists of one known mine portal which has been closed. Site of historic Snow Mine in Pace Canyon which was active in 1906 but had its primary production period from 1932-1940." The site was relatively pristine at the time and still contained a standing coal loadout and foundation with depth potential. Avoidance was recommended pending further historic research. As noted the site has since been extensively modified.
- 1983, Metcalf-Zier Archeologists surveyed several access roads and drill locations in Section 19, T13S, R13E. The only cultural resource located was an isolated prehistoric waste flake. (83-49)

- 2001, SENCO-PHENIX surveyed several drill holes and an extensive series of roads. Two new sites were recorded and one previously recorded site was re-recorded: (01-240)
  - 42CB292 The site was the historic Snow Mine in Pace Canyon, which was active in 1906 but had its primary production period from 1932-1940. The area has been heavily logged since the initial recordation and the area around the mine extensively disturbed by heavy equipment, probably dozed. The foundation has been destroyed and the coal loadout has been collapsed and pushed into the bed of Pace Creek. The rock-covered adit and adjacent stonewall are still there on the other side of Pace Creek. There are two 6 x 10 dugouts used as coal loadouts on the west side of the road. Other than recent trash no artifacts were observed. The integrity of the site has been basically destroyed. The site was not recommended for the NRHP.
  - 42CB1595 was a small wood framed one-room cabin that was probably related to the logging industry. It was not recommended for nomination to the NRHP.
  - 42CB1596 was a corral and Aspen art site. It was not recommended for nomination to the NRHP.
- 2003a, SENCO-PHENIX surveyed several drill holes and an extensive series of roads. One cultural resource in the general project area was located.(03-477)
  - 42CB1906 The site is a historic sawmill and log corral site. There wasn't a constructed sawmill building, a portable sawmill was set up on the site and then moved when the logging operations were finished. The site is located on the first southern terrace above a tributary of Dugout Creek. The major portion of the site has been removed; there is little potential for further information. The site is not recommended for nomination to the National Register of Historic Places.
- 2003b, SENCO-PHENIX surveyed a block area for drill holes and an access road. One cultural resource was located. (03-841)
  - 42CB1998: The site is a mid to late twentieth century temporary sawmill site. A portable sawmill was set up on the site and then moved when the logging operations were finished. The major portion of the site has been removed; there is little potential for further information. The site is not considered eligible for the NRHP. (03-841)

No sites eligible for nomination to the National Register of Historic Places (NRHP) have been found in or adjacent to the permit expansion area. It is very unlikely that future survey will reveal sites eligible for the NRHP. The permit extension area is in very steep mountainous terrain with narrow canyons. These areas were not favored by prehistoric

populations, which preferred the broader, more open areas of Nine Mile Canyon, north of the project area and Grassy Trail Creek, south of the project area. Historic populations used the narrow canyons for mining but the destroyed Snow Mine is the only known historic mine in the permit expansion area. Furthermore all activity will be underground with no surface disturbance. For these reasons a finding of "no effect on historic properties" is appropriate and archeological clearance without stipulations is recommended.

Sincerely,

A handwritten signature in cursive script that reads "John A. Senulis". The signature is written in black ink and is positioned above the typed name.

John A. Senulis  
Principal Investigator

Cc: Miller, Canyon Fuel; Dykman, Utah SHPO

## References Cited

Hauck, F. R. and D. G. Weder

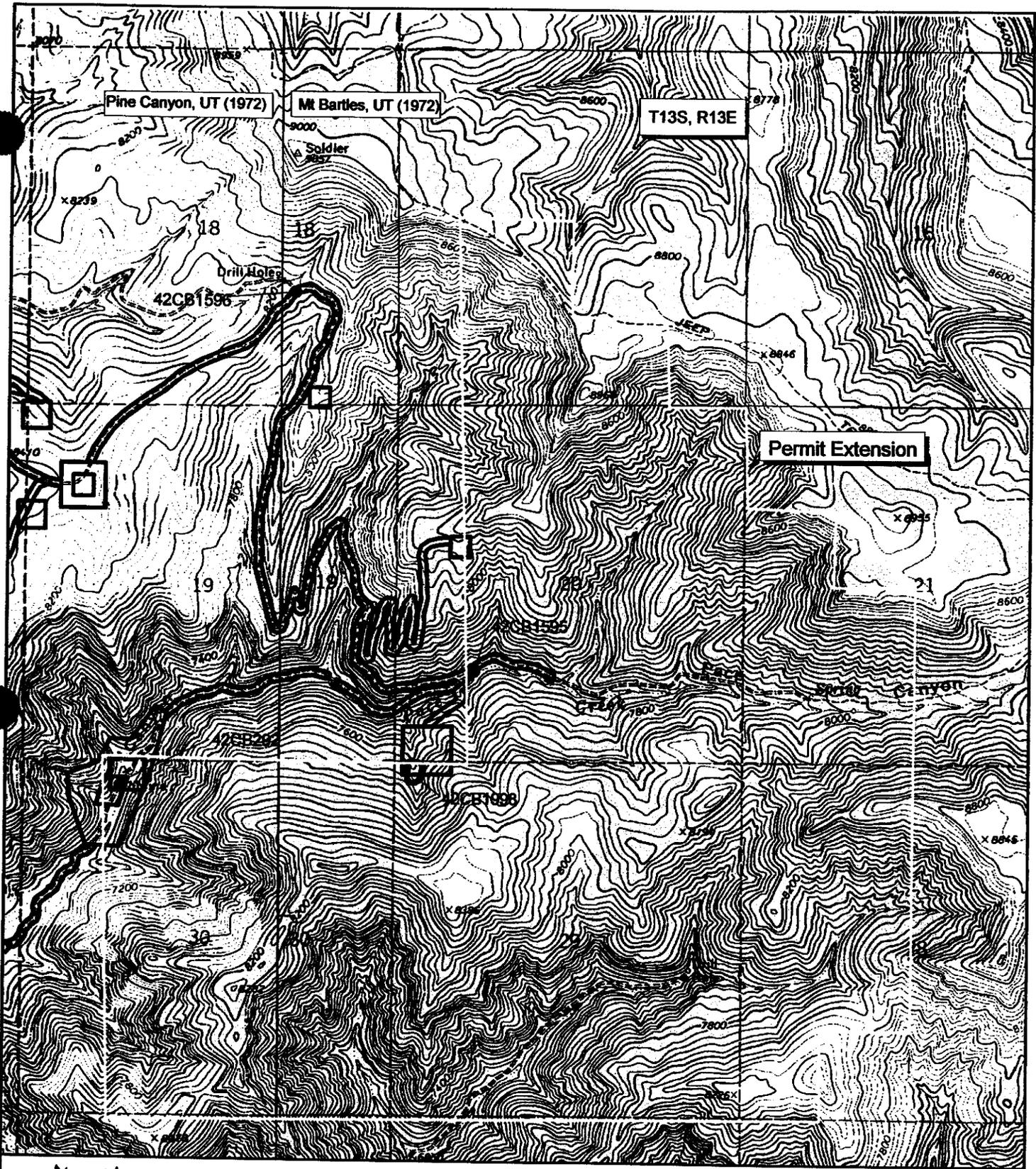
- 1980 *Intensive Archeological Surface Evaluations of the Proposed Sage Point-Dugout Canyon Project in Carbon County, Utah*. Archeological-Environmental Research Corporation, Salt Lake City, Utah. (80-69)

Metcalf, Michael

- 1983 *Cultural Resource Inventory of 1983 Drill Hole Locations at the Sage Point-Dugout Canyon Project, Carbon County, Utah*. Metcalf-Zier Archeologists, Inc., Eagle, Colorado. (83-49)

Senulis, John A.

- 2001 *An Intensive Cultural Resource Survey and Inventory of the Dugout Canyon Mine Drill Holes and Access Roads*, SENCO-PHENIX Archeological Consultants, Price, Utah. (01-240)
- 2003a *An Intensive Cultural Resource Survey and Inventory of the 2003 Dugout Canyon Mine Exploration Drill Holes and Access Roads*, SENCO-PHENIX Archeological Consultants, Price, Utah. (03-477)
- 2003b *An Intensive Cultural Resource Survey and Inventory of the 2003 Dugout Canyon Mine Pace Canyon Exploration Drill Holes Block Area and Access Roads*, SENCO-PHENIX Archeological Consultants, Price, Utah. (03-841)



**SENCO-PHENIX**



Scale 1:24,000  
1" = 2,000'

-  Current Survey
-  Previous Survey
-  Eligible Sites
-  Ineligible Sites

**Dugout Canyon Mine Permit Extension**  
**Dugout Mine of Canyon Fuel, LLC**  
**Carbon County, Utah**  
**Sections 17, 20, 21, 28, 29, 30,**  
**T13S, R13E**  
**April 2004**  
**SPUT-468**  
**(U04SC0326)**



# ARK LAND COMPANY

**JAN L. WOOTON**  
Senior Property Records Analyst

March 10, 2004

VIA: CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Milton and Ardith Thayn Trust  
Attn: David Thayn  
7730 East Highway 6  
Price, Utah 84501

## Re: Dugout Canyon Mine 2004 Drilling Activities

Dear Mr. Thayn,

Per the agreement between the Milton and Ardith Thayn Trust and Ark Land Company, this letter is provided to notify that in 2004 Ark Land Company and the Dugout Canyon Mine currently plan to conduct the following exploration, de-gassing, and permitting activities on the Thayn Lands:

### Ark Land Company Activities

The Ark Land exploration activities will include both exploration bore holes and other field exploration activities regarding faults.

As many as three (3) exploration bore holes will be drilled on the Thayn Lands, see enclosed Map 1. These holes will require grading of the access roads, preparation/building of the drill sites, and reclamation of the drill sites and roads as directed by the landowner and permit regulations. In addition, the drilling activities will require obtaining and hauling water from various streams and locations on the Thayn Lands, see Map 1.

The exploration activities pertaining to faults may consist of outcrop mapping/surveying and resistivity surveys. These methods consist of walking over the areas of interest while carrying the required survey equipment and are low impact. Therefore, this work will not require new roads, pads, or other surface disturbances. The areas of this work have not been selected as yet and are not identified on the enclosed maps.

A Subsidiary of



Mr. David Thayn  
March 10, 2004  
Page 2

In conjunction with the exploration activities listed above, there will be permitting activities including, but not limited to, endangered plant and animal surveys, environmental assessment activities, and cultural surveys. All of these activities will be conducted by third party contractors and require no surface disturbance.

### **Dugout Canyon Mine Activities**

The Dugout Mine has several activities planned in addition to the normal, ongoing water monitoring and other regulatory activities.

The Dugout Mine is planning to drill as many as five (5) de-gas boreholes to remove methane and other gases from the longwall panel gob areas, see Map 2. Similar to the exploration drilling, these boreholes will require road grading/improvements, site building/preparation, reclamation, and water hauling. Permitting activities similar to those required for the exploration drilling will also be conducted in association with the degas drilling. It has not been determined if all five (5) of the degas boreholes will be drilled or when. However, the Gil-2 hole may be drilled as early as March, 2004. This site was prepared in 2003.

Associated with the degas activities will be the installation of an exhaustor-blower unit on one or more of the degas sites to remove the gases from the mine. The number and duration of the installations are unknown at this time. While the exhaustor-blower unit(s) is in operation, the unit will require frequent inspections to maintain the unit. These inspections may range from daily to weekly depending on the effort required to maintain the unit(s).

Longwall mining under the Thayn Lands began in February, 2004. Therefore, subsidence monitoring activities will begin in 2004 and will continue on the Thayn Lands through most of the life of the mine. These activities will consist of the installation of survey monuments (rebar) at select locations on the surface with periodic resurveying of the monuments by either the Dugout Mine or a third party. The location of these installations has not been determined as of yet, and these installations will not require surface disturbance.

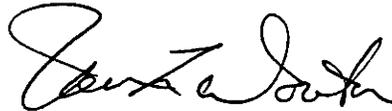
The Dugout Mine is planning to install a mine ventilation fan in the Pace Canyon, see Map 2. While the fan installation site is located on BLM surface, access to the fan site follows the main road access to the general area and crosses the Thayn Lands. In addition, the property line between the BLM and Thayn is less than 100 ft to the east of the proposed fan location. The Dugout Mine currently expects to begin construction of the site in 2005. Therefore, permitting and pre-construction activities will be carried out

Mr. David Thayn  
March 10, 2004  
Page 3

in 2004. These activities may include upgrades and enhancements to the access road that crosses Thayn Lands.

If you have any questions regarding the information or the maps or have concerns, please contact Mike Stevenson, Senior Geologist for the Dugout Canyon Mine at (435) 448-2634.

Sincerely,



Jan L. Wooton

Cc: Mike Stevenson  
Dave Spillman (Dugout Canyon Mine)  
Douglas M. Downing

**EXPLANATION**

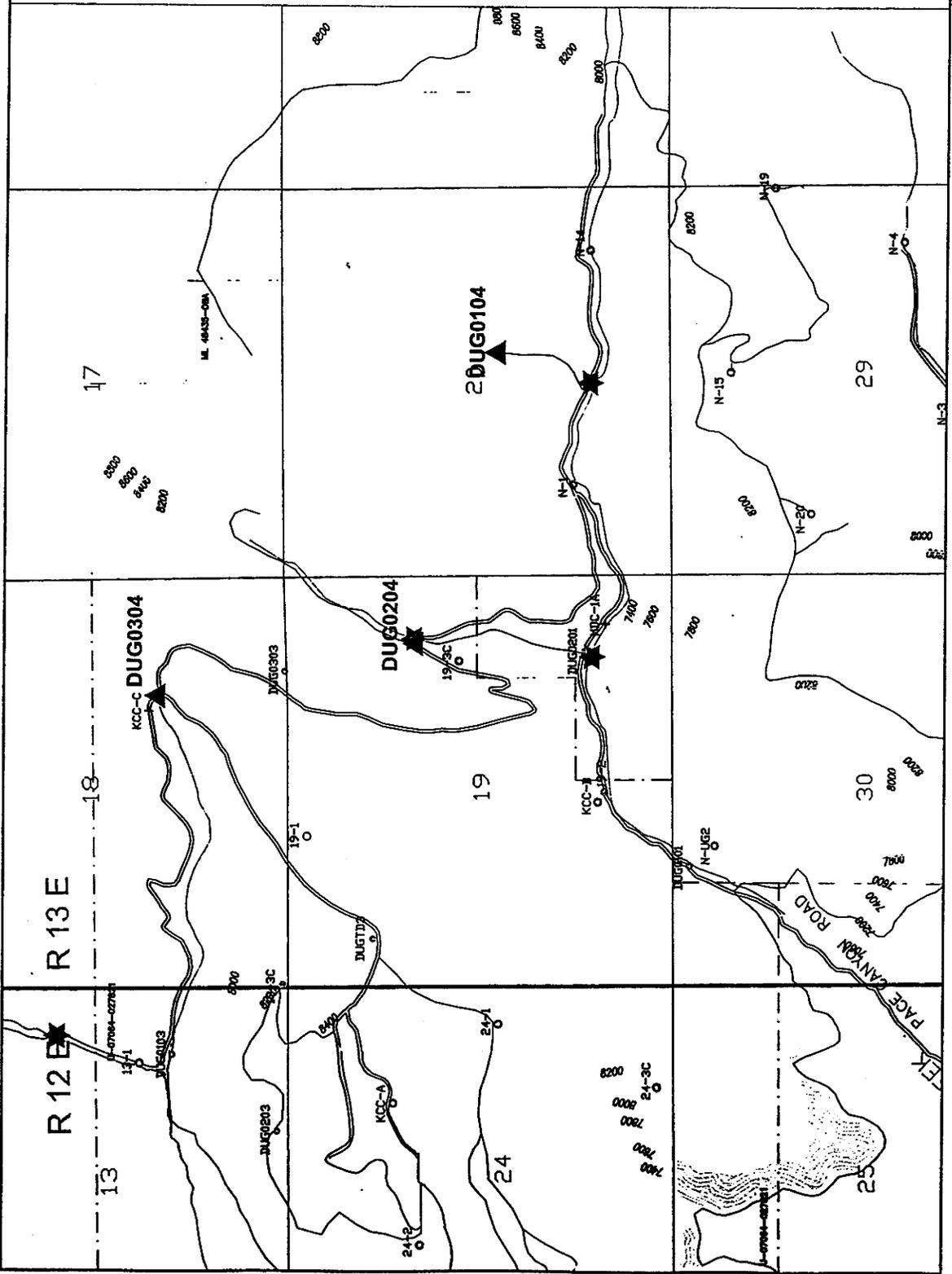
- Existing Road
- No Upgrade
- Existing Road Requires Upgrade
- Newly Constructed Road
- Trail
- Lease Boundary
- Core Holes
- Water Locations
- Burn

1" = 2000'

**CF** Canyon Fuel Co., LLC.  
Dugout Canyon Mine

Map 1  
Ark Land Company  
Theyn 2004s Surface Activity Locations

24 JUL 1999  
REVISED 02/01/2004

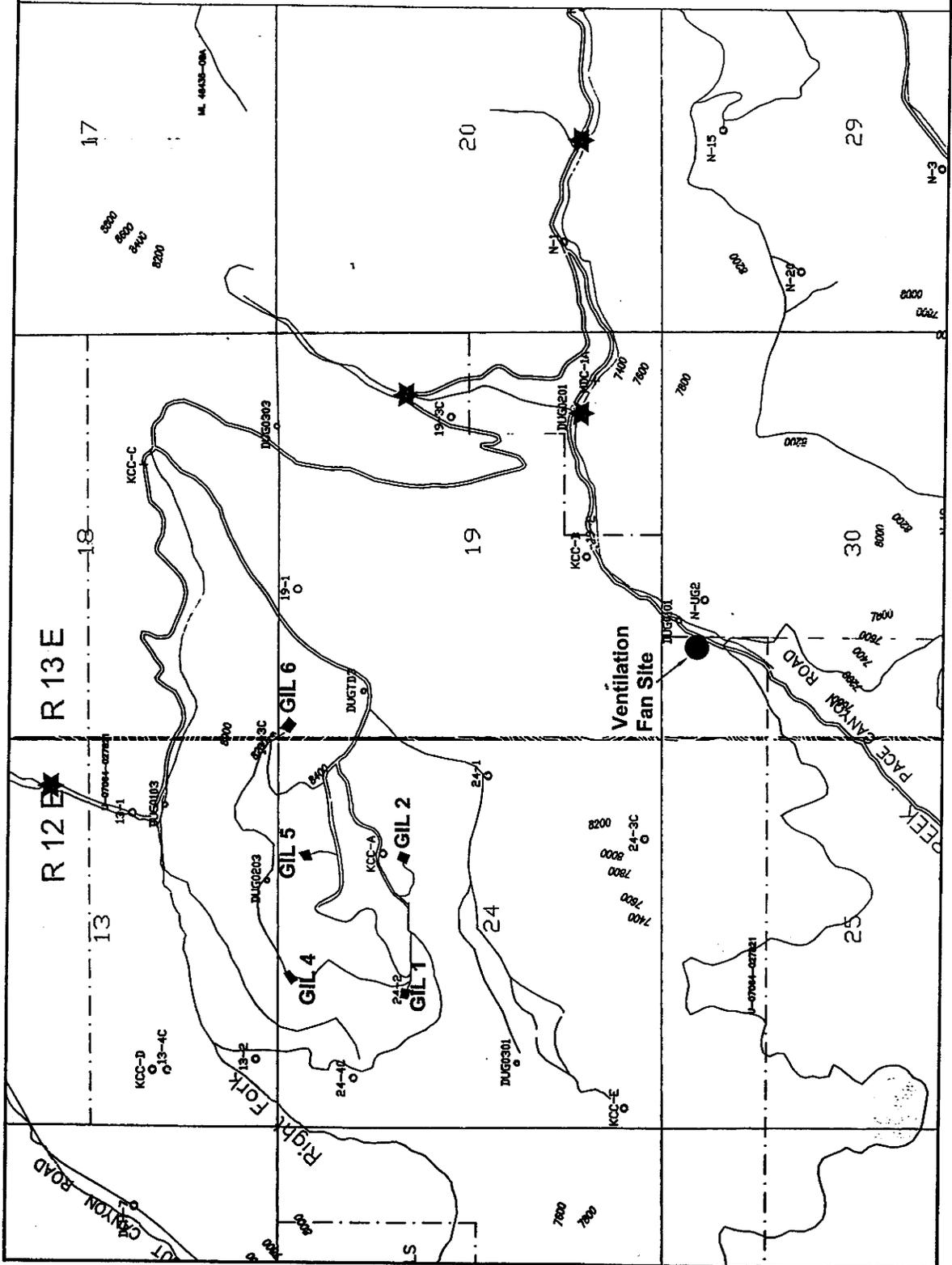


- EXPLANATION**
- Existing Road
  - No Upgrade
  - Existing Road Requires Upgrade
  - Newly Constructed Road
  - Trail
  - Lease Boundary
  - Degas Boreholes
  - Ventilation Fan Site
  - Water Locations
  - Burn

1" = 2000'

**CF** Canyon Fuel Co., LLC.  
 Dugout Canyon Mine

Map 2  
 Dugout Canyon Mine  
 Theoph 2004 Surface Activity Locations  
 2.0 ACRES  
 10/15/04





State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF WATER RIGHTS

Michael O. Leavitt  
Governor

Robert L. Morgan  
Executive Director

Jerry D. Olds  
State Engineer

Southeastern Area  
453 South Carbon Avenue  
PO Box 718  
Price, Utah 84501-0718  
(435) 637-1303 telephone  
(435) 637-7937 fax  
www.nr.utah.gov

August 7, 2003

Canyon Fuel Company  
HC 135 Box 380  
Helper, Utah 84526

Dear Applicant:

Re: Temporary Change Application  
Number t28160 (91-409)

The above referenced Temporary Change Application has been **APPROVED**. This application will expire **August 6, 2004**, and it is expected that no diversion or use of the water will be made after that date unless another proposal has been made and approved. A copy is enclosed for your information and records.

If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Mark P. Page".

Mark P. Page  
Regional Engineer

Enclosures  
MPP/mjk

# APPLICATION FOR TEMPORARY CHANGE OF WATER

RECEIVED

Rec. by MK Check #6462

AUG - 6 2003

Fee Paid \$ 75.00

Receipt # 03-03633

## STATE OF UTAH

WATER RIGHTS PRICE  
filmed \_\_\_\_\_  
Roll # \_\_\_\_\_

For the purpose of obtaining permission to make a temporary change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated 1953, as amended.

\*WATER RIGHT NO. 91-409 \*APPLICATION NO. t28160

Changes are proposed in (check those applicable)

point of diversion.  place of use.  nature of use.  period of use.

### 1. OWNER INFORMATION

Name: Canyon Fuel Company \*Interest: 100 %

Address: HC 35 Box 380

City: Helper State: Utah Zip Code: 84526

2. \*PRIORITY OF CHANGE: August 6, 2003 \*FILING DATE: August 6, 2003

3. RIGHT EVIDENCED BY: 91-409 (A9502) Cert. No. 2207

Prior Approved Temporary Change Applications for this right: t27967

\*\*\*\*\* HERETOFORE \*\*\*\*\*

4. QUANTITY OF WATER: \_\_\_\_\_ cfs and/or 2.5 ac-ft.

5. SOURCE: Pace Canyon Creek

6. COUNTY: Carbon

7. POINT(S) OF DIVERSION: N. 1280ft. & W. 1200ft. from SE Cor. sec. 3, T14S, R12E, SLB&M

Description of Diverting Works: \_\_\_\_\_

### 8. POINT(S) OF REDIVERSION

The water has been rediverted from \_\_\_\_\_ at a point: \_\_\_\_\_

Description of Diverting Works: \_\_\_\_\_

### 9. POINT(S) OF RETURN

The amount of water consumed is \_\_\_\_\_ cfs or 2.5 ac-ft.

The amount of water returned is \_\_\_\_\_ cfs or \_\_\_\_\_ ac-ft.

The water has been returned to the natural stream/source at a point(s): \_\_\_\_\_

\*These items are to be completed by the Division of Water Rights.

Temporary Change

20. NATURE AND PERIOD OF USE

Irrigation: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_
Stockwatering: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_
Domestic: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_
Municipal: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_
Mining: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_
Power: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_
Other: From 8/1/03 to 7/31/04

21. PURPOSE AND EXTENT OF USE

Irrigation: \_\_\_\_\_ acres. Sole supply of \_\_\_\_\_ acres.
Stockwatering (number and kind): \_\_\_\_\_
Domestic: \_\_\_\_\_ Families and/or \_\_\_\_\_ Persons.
Municipal (name): \_\_\_\_\_
Mining: \_\_\_\_\_ Mining District at the \_\_\_\_\_ Mine.
Ores mined: \_\_\_\_\_
Power: Plant name: \_\_\_\_\_ Type: \_\_\_\_\_ Capacity: \_\_\_\_\_
Other (describe): Exploration Drilling & dust suppression

22. PLACE OF USE

Legal description of place of use by 40 acre tract(s): NW1/4NW1/4 Sec. 19, T13S, R13E; NW1/4SE1/4, NE1/4SE1/4, SW1/4SE1/4 Sec. 13, T13S, R12E; SW1/4SE1/4 Sec. 18, T13S, R13E, all SLB&M

23. STORAGE

Reservoir Name: \_\_\_\_\_ Storage Period: from \_\_\_\_\_ to \_\_\_\_\_
Capacity: \_\_\_\_\_ ac-ft. Inundated Area: \_\_\_\_\_ acres.
Height of dam: \_\_\_\_\_ feet.
Legal description of inundated area by 40 tract(s): \_\_\_\_\_

24. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. Include any supplemental water rights used for the same purpose. (Use additional pages of same size if necessary):

The water will be use for August Canyon Mine exploration drilling and dust suppression.

\*\*\*\*\*

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Mike Stevenson
Signature of Applicant(s)

STATE ENGINEER'S ENDORSEMENT

TEMPORARY CHANGE APPLICATION NUMBER: t28160

WATER RIGHT NUMBER: 91 - 409

1. August 6, 2003      Change Application received by MKILLIAN.
  2. August 6, 2003      Priority of Change Application.
  3.                      Application reviewed and approved for advertising by .  
                            Publication began in .  
                            Publication completed and verified.
  4.                      End of protest period.  
                            Application protested: NO
  5. August 7, 2003      Application designated for APPROVAL by MPA and KJONES.
  6. Comments:
- 
- 

Conditions:

This application is hereby APPROVED, dated August 7, 2003, subject to prior rights and this application will expire on August 6, 2004.

  
\_\_\_\_\_  
Mark Page  
Regional Engineer

RECEIVED

AUG - 6 2003

WATER RIGHTS  
PRICE

APPLICANT'S MAP VERIFICATION STATEMENT

I/we, Canyon Fuel Company, hereby acknowledge that this map  
(or, the map attached to this application), consisting of 1 pages numbered \_\_\_\_\_  
to \_\_\_\_\_ was prepared in support of Application Number 91-409 (t28160).

I/we hereby accept and submit this map as a true representation of the facts shown thereon to the  
best of my/our knowledge and belief.

Mike Steenson  
Signature

**EXPLANATION**

- Existing Road
- No Upgrade
- Existing Road
- Requires Upgrade
- Newly Constructed Road
- Trell
- Lease Boundary
- Point of Use
- Point of Diversion
- Barn

Scale: 1" = 2000'

**RECEIVED**

AUG - 6 2003

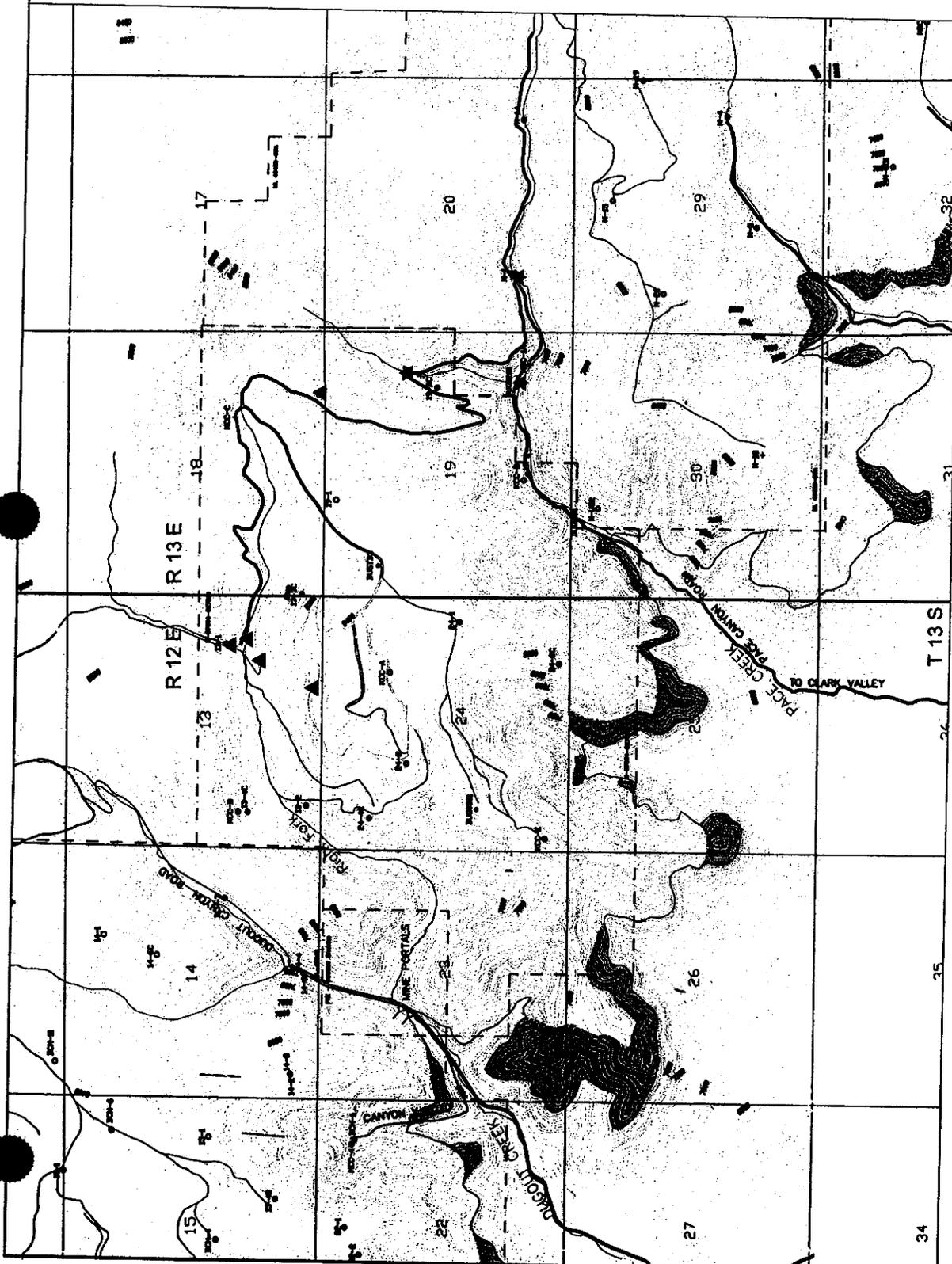
WATER RIGHTS  
PRICE

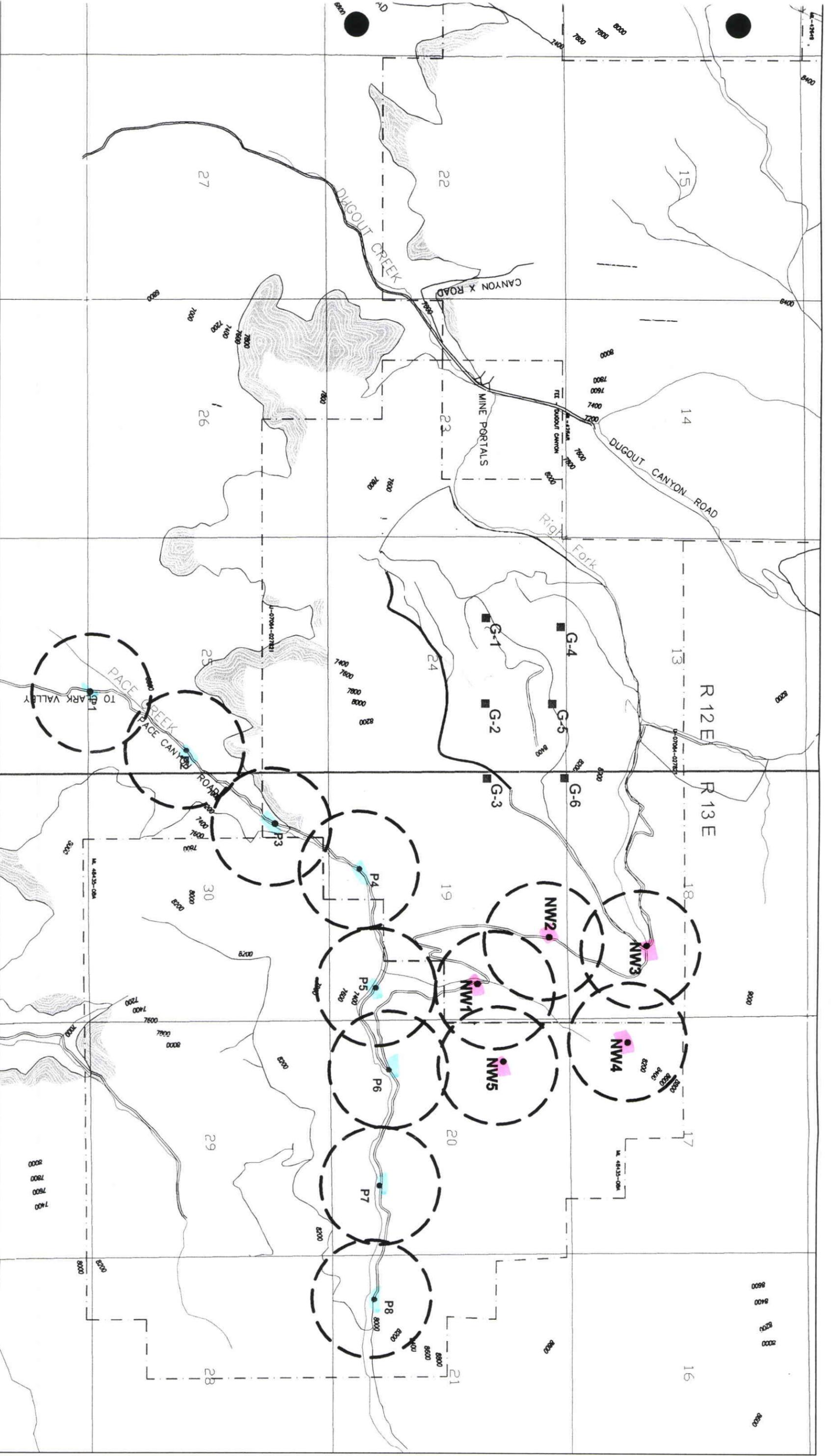
Temporary Change 91-109 (Issued)

**CF** Canyon Fuel Co., LLC.  
Dugout Canyon Mine

Face Creek  
Water Diversion and Use Map

P.O. BOX 4000  
MILLINGTON, TN 38456





**LEGEND**

- ▲ Exploration Drill Holes
- Potential Gas Vent Boreholes
- 2004 MSO Call Points
- 2 Years Completed



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Map Name:  
**MSO Location Map**

DATE: JUNE 2004  
SCALE: SCALE 1" = 2000'

PREPARED FOR:  
**Dugout Canyon Mine  
Canyon Fuel Company**

Map Title:  
**PLATE 1**

DRAWN BY: JOHN BENE  
AUTOCAD REF: DUGOUTCANYONFUEL\_CANYONFUEL\_MSD.DWG

