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324 South State
P.O. Box 26128
Salt Lake City, Utah 84126-0128

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ELECTRIC OPERATIONS GROUP

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DIVISION OF
OIL, GAS & MINING

January 12, 1990

Mr. Randy Heuscher, Chief
Mining Law & Solid Minerals
324 South State Street, Suite 301
Salt Lake City, Utah 84111-2303

Dear Mr. Heuscher:

Submitted is Utah Power and Light's application for an exploration license on Trail Mountain, Emery County, Utah. Text and map are included for descriptive purposes. It is planned to conduct drilling operations as soon as possible.

A proposed newspaper advertisement is enclosed. Please call if you have questions.

Sincerely,



David Smaldone
Director of Permitting,
Compliance & Services
Fuel Resources

DS:bb:6358
Enclosure

Proposed Newspaper Notice

Utah Power & Light Company plans to conduct exploration activities in area referenced as follows:

<u>Township 17 South, Range 6 East</u>		<u>Acres</u>
Section 21:	E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$	480.0
Section 22:	All	640.0
Section 23:	All	579.8
Section 24:	W $\frac{1}{2}$ W $\frac{1}{2}$	160.0
Section 25:	N $\frac{1}{2}$ NW $\frac{1}{2}$	80.0
Section 26:	W $\frac{1}{2}$ SW $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{2}$; NW $\frac{1}{2}$ SE $\frac{1}{4}$	380.0
Section 27:	N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$	480.0
Section 28:	All	640.0
Section 29:	E $\frac{1}{2}$ SE $\frac{1}{4}$	80.0
Section 32:	E $\frac{1}{2}$	320.0
Section 33:	All	<u>640.0</u>
Total		4,479.8

Anyone wishing to participate should notify the following in writing by (insert date).

State Director
BLM
324 South State, Suite 301
Salt Lake City, Utah 84111-2303

David Smaldone
Utah Power and Light - Fuel Resources
324 South State Street
P.O. Box 26128
Salt Lake City, Utah 84126-0128

UTAH POWER & LIGHT COMPANY
FUEL RESOURCES

TRAIL MOUNTAIN EXPLORATION LICENSE - EXPLORATION PLAN
JANUARY 1990

43 CFR Ch. 11 (10-1-88 Edition) Subpart 3482.1(a) - Exploration Plans

Applicant:

Utah Power and Light - Fuel Resources
324 South State Street
P.O. Box 26128
Salt Lake City, Utah 84126-0128

Representative of Applicant:

David Smaldone
Utah Power and Light - Fuel Resources
324 South State Street
P.O. Box 26128
Salt Lake City, Utah 84126-0128

Description of the Proposed Exploration Area and Project:

The following is a legal description of the lands recommended for inclusion in the Exploration License (reference Trail Mountain exploration license map).

<u>Township 17 South, Range 6 East</u>	<u>Acres</u>
Section 21: E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$	480.0
Section 22: All	640.0
Section 23: All	579.8
Section 24: W $\frac{1}{2}$ W $\frac{1}{2}$	160.0
Section 25: N $\frac{1}{2}$ NW $\frac{1}{2}$	80.0
Section 26: W $\frac{1}{2}$ SW $\frac{1}{2}$ NE $\frac{1}{2}$, NW $\frac{1}{2}$; N $\frac{1}{2}$ SW $\frac{1}{2}$; NW $\frac{1}{2}$ SE $\frac{1}{2}$	380.0
Section 27: N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$	480.0
Section 28: All	640.0
Section 29: E $\frac{1}{2}$ SE $\frac{1}{2}$	80.0
Section 32: E $\frac{1}{2}$	320.0
Section 33: All	640.0
TOTAL	4,479.8

Most of the holes to be completed are located in areas covered by Pinyon Juniper stands which are interspersed with sagebrush and grass covered flats. In addition to the Pinyon Pine and Utah Juniper, prevalent vegetation includes Serviceberry, Mormon Tea and Rabbit Brush. Drill holes TMTN-1, TMTN-2, TMTN-4 and TMTN-5 are all located in areas having this condition and are located adjacent to existing roads.

Drill hole TMTN-3 is located in a grass and sagebrush flat that is situated between stands of Mountain Mahogany and Juniper trees. A trail leads to this hole from drill hole TMTN-2 and will have to be upgraded to a road for access to this site.

Drill hole TMTN-6 is located in a grassy slope on the west side of Cottonwood Canyon. Vegetation in this area includes White Fir, Douglas Fir with Serviceberry, Elderberry, Mountain Snowberry, and Corymbed Eriogonum. Access to the site is through sagebrush flats and stands of aspen trees. A new road, 1½ miles in length, will be required to gain access to this site.

None of the drill holes are located within any eagle nest buffer zones.

A cultural and archeological exploration of the disturbed areas will be done prior to exploration activities.

Exploration Equipment:

Drill Rig:

- 1 - Gardner Denver 2000 Style, or equivalent, rotary type drilling

The drilling rig will require supporting vehicles as follows:

- 1 - Water truck, 80 to 100 barrel capacity
- 1 - Flat-bed truck for carrying drill pipe and casing
- 1 - D8H Crawler Tractor
- 1 - Landscape Tractor/Trailer
- 1 - Semi-Truck/Flat-Bed Trailer
- 1 - Logging Truck (Geophysical Probe Truck)
- 1 - Pickup Trucks (Crew Transportation)
- 1 - 700 CFM Compressor and Booster

Access roads, pads and mud pits are constructed using a crawler tractor and backhoe. On near flat areas blade work will be minimal, only the low growing brush will be removed by back-blading the surface.

Preservation of topsoil is managed by stripping the drill pads and stockpiling the topsoil adjacent to the drilling site.

Drilling sequence is as follows:

A crawler tractor constructs a minimum width road from the existing road system to the proposed site. This rough construction road is built balancing the cuts and fills. The drill pad, usually 50 x 75 feet is laid out to fit the slope of ground allowing for the least amount of cut.

If the drill site is level the area is back-bladed to remove the vegetation leaving the topsoil in place, otherwise, the site is cleared of brush and topsoil stripped and stockpiled awaiting reclamation work. Mud pits are then excavated. Upon completion of the site the drill rig is driven to the site and set up to begin drilling. Ancillary equipment such as compressors, booster, water truck and flat-bed (drill pipe) trucks are positioned on the pad.

Once drilling has begun it continues until the exploration hole is completed or in the case of a planned core hole, casing is set at the prescribed depth. During the drilling period, drilling materials and cement are delivered to the site awaiting plugging of the hole.

After reaching the planned depth the drill string is removed from the hole and the geophysical logging truck is positioned to probe the hole. Upon recording the necessary data (geophysical logs) the hole is plugged using a two to one cement/water slurry plugging the entire length of the hole drilled. The drilling rig and support equipment are then moved to the next prepared site. The drilling site is cleaned of waste and trash and reclamation of the site will begin as soon as the mud pits have lost their fluids.

Fire Prevention:

In the past fire hazard has not been a major problem. The clearing of drill sites reduces the chance of machine related ignitions and the storing of combustible fuels in a safe area further lessens any fire hazards associated to drilling. Each drilling rig is attended both day and night and if needed, a 3,000 gallon water truck is available for fire suppression.

Soil Erosion:

Short-term soil erosion protection is accomplished by road design, that is, during road construction the roads are designed to the minimum grade possible and out-sloped for drainage.

Reclamation work requires all roads not obliterated to have water bars installed and all disturbed areas will be seeded.

Water Pollution Control Measures:

What little surface water exists on Trail Mountain is found in the form of springs, seeps and small ponds. These waters are used primarily for stock and wildlife and some are developed with tanks and troughs. All access roads and pads located across or adjacent to live or intermittent streams will require culverts or other protective measures to safeguard water quality. Ground water encountered during drilling will be evaluated for monitoring purposes.

Present regulations are specific in monitoring ground water (hydrologic balance) for determining future impacts associated with mining. Measures to protect the migration of ground water will be to cement the hole completely.

Air Pollution:

We anticipate no significant impact to the air quality due to the drilling and other than watering roads for dust suppression no specific measures are planned.

Damage to Fish and Wildlife:

The area of drilling is abundant with wildlife and is known primarily for its deer and elk harvest each Fall. Past experience on nearby lands has proven that wildlife disturbance is minimal.

The drilling period occurs after the calving season and the area of drilling activities is small and isolated.

Fisheries:

There are no major fisheries within the drilling influence zone.

Other Natural Resources:

Of the planned six (6) drill pads and associated access roads, it is estimated that approximately five acres will be disturbed. For the most part, this disturbance will occur on open grass-covered range land. Some aspen and small conifer trees may be removed to provide access and some merchantable timber will be affected. Specific action to reduce this impact will be revegetative seeding and selective routing of the access roads and drill pads.

Public Health and Safety:

Due to the remoteness of the drilling area, public safety involvement is small.

As an operator, Utah Power & Light Company requires by contract that the drilling contractor is knowledgeable and complies with all state and local laws related to his drilling operations and that all equipment used in conjunction with this project meet the safety standards of the federal, state, and local governing agencies.

Method of Plugging Drill Holes:

Upon completion of the drill hole, a proper cement slurry shall be placed in the hole through the open-ended drill pipe using 200 foot segmented lifts for inducing a pressure grout for plugging the drill hole. A hole location marker shall be placed on the surface of the hole to witness its location. This hole plugging procedure is a stipulation of the Bureau of Land Management.

Reclamation Schedule:

It is planned to reclaim each site as soon after completion as possible. We have found from prior drilling in nearby areas that the mud pits require at least two weeks or more to dissipate their fluids. After the reclamation sequence has started it will continue until complete. The average time to drill a 2,000 foot hole in this area is about four days, reclamation work per site will average two days. We are planning to complete the reclamation work during 1990.

Grading and Backfilling:

Road removal will be in accordance with the U. S. Forest Service stipulations attached to the surface management agency's approval.

Using a crawler tractor, mud pits will be filled in, the drill pad bladed, contoured to its original shape and the previously stockpiled topsoil spread evenly over the disturbed area.

The main access roads will be completely removed. Where the road has grades in excess of 12% or side slopes too steep to safely work a crawler tractor will require a backhoe to pull back the fill areas.

Method of Soil Preparation and Fertilizer Application:

There is no special soil preparation planned excepting harrowing the disturbed areas after seeding. No fertilizer is planned.

Type and Mixture of Grass Seed:

	<u>Per Acre</u>
Intermediate Wheatgrass	8 lbs.
Smooth Brome	6 lbs
Yellow Sweet Clover	4 lbs

Method of Planting and Quantity:

All grass seeds are broadcast...by...a hand-held rotary broadcaster. Areas seeded are cultivated and raked with a tractor-drawn tooth harrow. The rate of application is approximately 18 pounds per acre.

Estimated Timetable and Completion Date for Reclamation Work:

Once reclamation of a drill site begins all phases are continuous, that is, cat work, spreading topsoil, ditching,

seeding, and harrowing. All drill sites and access roads will be reclaimed as soon as possible after the hole has been completed.

Completion is scheduled by November 15, 1990, or sooner, contingent on the drilling success and the starting drilling date anticipated at March 1, 1990.

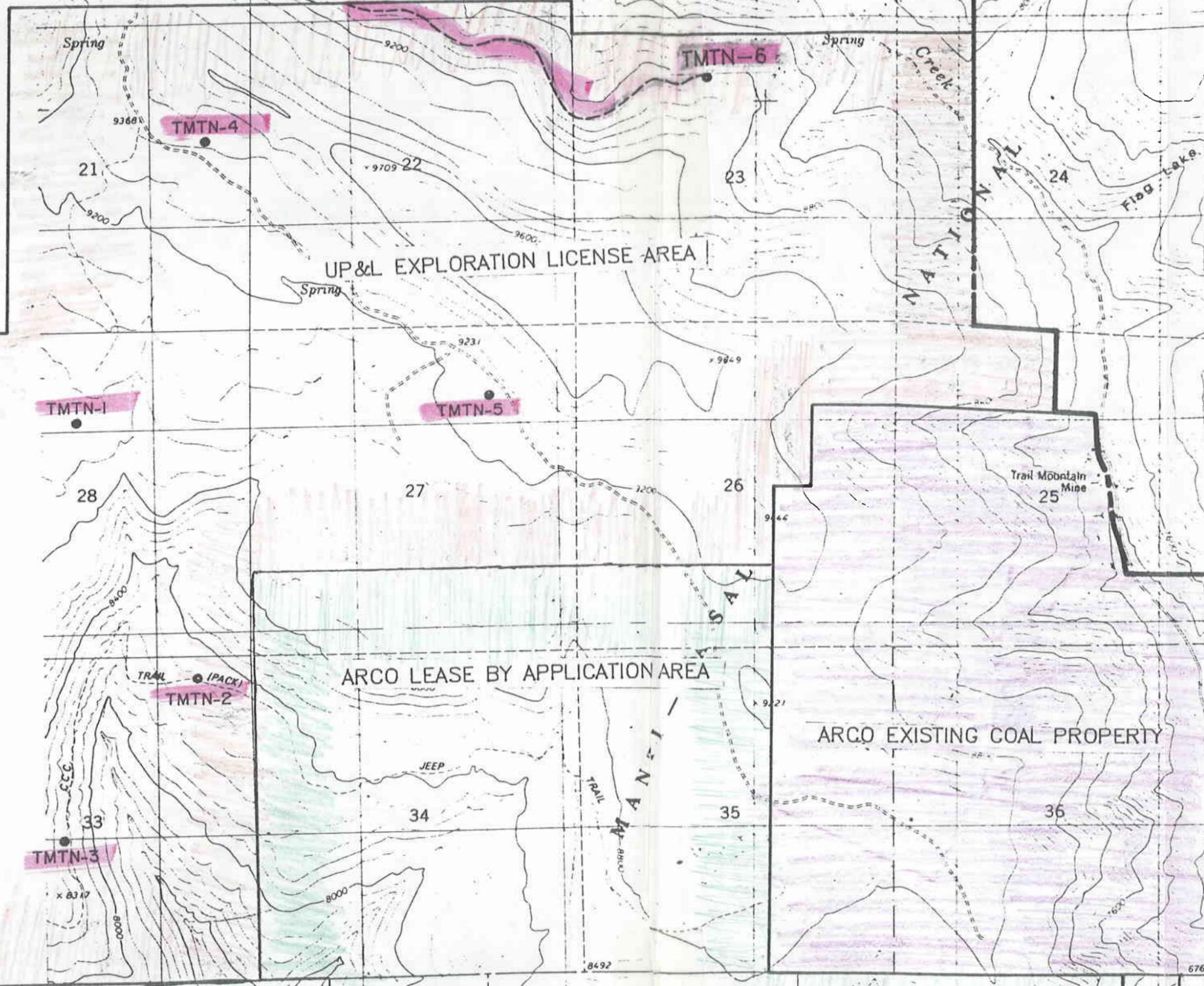
Included in this submittal is a topographical and land status map showing existing roads, major drainages, and the proposed drilling sites with proposed access roads.

1990 Proposed Drill Holes

<u>Hole No.</u>	<u>Location</u>	<u>Proposed Depth</u>
TMTN-1	NW $\frac{1}{4}$, Sec. 28, T17S, R6E	2,370
TMTN-2	NE $\frac{1}{4}$, Sec. 23, T17S, R6E	1,960
TMTN-3	SW $\frac{1}{4}$, Sec. 33, T17S, R6E	1,950
TMTN-4	NE $\frac{1}{4}$, Sec. 21, T17S, R6E	2,260
TMTN-5	NE $\frac{1}{4}$, Sec. 27, T17S, R6E	2,530
TMTN-6	NW $\frac{1}{4}$, Sec. 23, T17S, R6E	<u>1,910</u>
	Total	12,980



TMTN-5 ● PROPOSED DRILL HOLE
- - - NEW ACCESS ROAD
— EXPLORATION LICENSE BOUNDARY



UTAH POWER & LIGHT COMPANY
MINING DIVISION

TRAIL MOUNTAIN EXPLORATION LICENSE
PROPOSED DRILLING PLAN

DRAWN BY: KERRY LARSEN	DATE: NOV. 14, 1989	SCALE: 1" = 2000'
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