EXPLORA, N, INC. A SUBSIDIARY OF AMAX INC.

## GEOTHERMAL BRANCH

## INTER-OFFICE MEMORANDUM

SUBJECT: Generalized Lithologic Log - Pete Itcaina #1 Deeth, Nevada DATE: May 5, 1981

cc: A. L. Lange F. E. Berkman

<sup>TO:</sup> J. E. Deymonaz

FROM:

H. D. Pilkington

The well was drilled by Gulf Oil Corporation, was spudded on April 29, 1954 and completed on June 10, 1954. The location of the well is in the center of SENW Sec 3 T37N R59E, 1980 feet from N line and 3300 feet from E line. The well has a TD of 5465 feet. The following Schlumberger well logs are on file at the Nevada Bureau of Mines: Gamma Ray Neutron, SP and Resistivity (Am 16 and Am 64"). The BHT was reported to be 178°F fifteen days after completion.

- 0- 370' No samples
- 370-490' Clayey gray-green volcaniclastic sediment similar to that encountered in many of our shallow T holes. Alternating layers of fluvial sandstones occur throughout the interval - Humboldt Formation.
- 490- 740' Gray-brown conglomerate with clasts of gray chert and gray to white quartzite in a matrix of sand and silt.
- 740-1300' Gray-green to gray brown crystal lithic ash-flow tuff. Crystals of feldspars, quartz, biotite and hornblende. Lithic fragments of volcanics and minor amount of chert. Rocks have been altered clay, chlorite and some celadonite. The glassy portion of the rock has been devitrified into montmorillonite. The interval appears to be made up of a series of ash-flow units 10 to 60 feet thick.

1300-1600' A uniform crystal tuff unit, gray green to brown in color with only minor argillic alteration.

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- 1600-1765' Buff to gray, very fine-grained air-fall ash unit.
- 1765-2120' Intercolated ash-flow tuff, air-fall tuff and volcaniclastic sediment. The ash-flow units range from 20 to 60 feet in thickness and the interbedded units range from 10 to 30 feet thick.
- 2120-3370' Iron stained ash-flow tuff unit. Some interflow boundaries show more iron staining than others. Appears to have had alternating periods of groundwater flow and periods of oxidation.
- 3370-3510' Very fine-grained, dense white crystal tuff. Base of Humboldt Formation.
- 3510-4530' Black siltstone and shales with fracture fillings of quartz or carbonate. Paleontological studies indicate a Mississippian age, probably the rocks belong to the Chairman Shale formation.
- 4530-4690' Gray to tan fine-grained limestone. Some calcite veining minor pyrite.
- 4690-5465' Dolomitic limestone, gray to tan in color, medium grained, somewhat of a sucrose texture. Calcite fracture fillings, minor disseminated pyrite.

On June 6, 1954, a drill stem test was run. The packer was set at 5028/a 55 foot perforated anchor. The test was run 1 1/4 hours and recovered 3240 feet (45bbls) of drill mud and 1243' (17.7 bbls) of aerated water with a sulphur odor. The initial flow was at 625 psi and final flow was at 2020 psi. The hydrostatic pressure was 2500 psi.

H. D. Pilkington

HDP/c