

INTER-OFFICE MEMORANDUM

SUBJECT: New rock dates from the Mt. Princeton property and Virginia DATE October 30, 1974

TO: Geothermal files cc: M. H. Alldredge  
W. M. Dolan  
A. L. Lange ✓  
FROM: F. Dellechaie H. J. Olson  
H. D. Pilkington

-----

The following dates were received from Teledyne Isotopes and pertain to rocks of our Mt. Princeton property that were suspected to be quite young:

	<u>Age (M.Y.)</u>
Raspberry Gulch Rhyolite	22 <sup>±</sup> 1
Mt. Etna Porphyry	24 <sup>±</sup> 1
Mt. Princeton Quartz Monzonite	36 <sup>±</sup> 2

The youngest sample (22 M.Y.) is late Miocene while the Mt. Princeton Quartz Monzonite is indeed late Oligocene. Therefore, I see no surficial evidence for a young hot rock mass at depth that would serve as a heat source.

Another date for a sample of rhyolite that cuts the Mt. Princeton monzonite complex should be received shortly.

A date of 48.1 ± 2.2 M.Y. was received from Geochron Laboratories on a felsite collected at the Back Creek Damsite, Bath County, Virginia, approximate coordinates 38° 12.5W, 79° 48'W. This date agrees well with other middle Eocene dates (47 M.Y.) for felsites from the Monterey area.

A report on the whole rock composition and petrographic analysis for the same rock will be presented shortly.

*Frank Dellechaie*  
Frank Dellechaie