



New Mexico Bureau of Mines & Mineral Resources
Socorro, NM 87801

A DIVISION OF
NEW MEXICO INSTITUTE OF MINING & TECHNOLOGY

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February 20, 1996

Mr. Mike Kerr
Labrador Oil, Inc.
400 North St. Paul, Suite 400
Dallas, Texas 75201

Dear Mike:

The New Mexico Bureau of Mines and Mineral Resources is still anxiously awaiting the drill cuttings on the Labrador No. 1 State Jones well, located in Sec. 32-T7N-R23E. As you are well aware, this is the first well of this depth to be drilled in northeastern New Mexico. As such, it offers a unique opportunity for scientific study. Staff members at the Bureau are anxious to undertake a wide variety of cutting edge research projects on this well. This research will shed light on the geologic history of northeastern New Mexico and will have regional implications as well. Some of the research we plan on includes:

1. Fission-track dating, which will give us invaluable data on the thermal history of the area. A short article describing fission-track dating is enclosed for your perusal.
2. Ar⁴⁰/Ar³⁹ age dating of any igneous rocks (sills, dikes, etc.), encountered in the well. This Ar/Ar age dating is a new technique that provides more accurate ages than older dating methods and can be used on small samples such as well cuttings.
3. Hydrocarbon source rock analyses of significant shale sections penetrated by the well. This will identify potential oil and gas source rocks.

These analyses will, of course, be performed at Bureau expense. Although the data and conclusions resulting from these analyses will be in the public domain, we will transmit the results to Labrador Oil as soon as the analyses are completed, thereby giving Labrador priority of usage.

We would also like to reposit the cuttings from this well in our Subsurface Library. Although they will also be in the public domain, we will be more than happy to agree to a period of confidentiality of approximately one year if so requested by you or other personnel from Labrador.

Mr. Mike Kerr
February 20, 1996
Page 2

I hope to hear from you soon on this matter, Mike. We at the New Mexico Bureau of Mines and Mineral Resources are anxious to do cutting edge research on this well. We believe that this research will shed new light on the geologic history of northeastern New Mexico and will have significant implications for petroleum exploration.

Sincerely,

Ronald F. Broadhead
Assistant Director, Senior Petroleum Geologist

RFB/al
Encl

x.c. Dr. C. E. Chapin, Director & State Geologist
R. E. Johnson, NM Oil Conservation Division ✓