

REPORT ON A  
REFRACTION SEISMOGRAPH SURVEY  
IN  
TWISTED MOUNTAIN AREA, N. W. T.  
CONDUCTED FOR  
PACIFIC PETROLEUMS LTD.  
BY  
NORCANA EXPLORATION LTD.  
FROM  
AUG. 9/71 to SEPT. 10/71  
TO EVALUATE  
PETMITS NO. 4617 & 5590

667-06-04-051

By: S. Oczkowski

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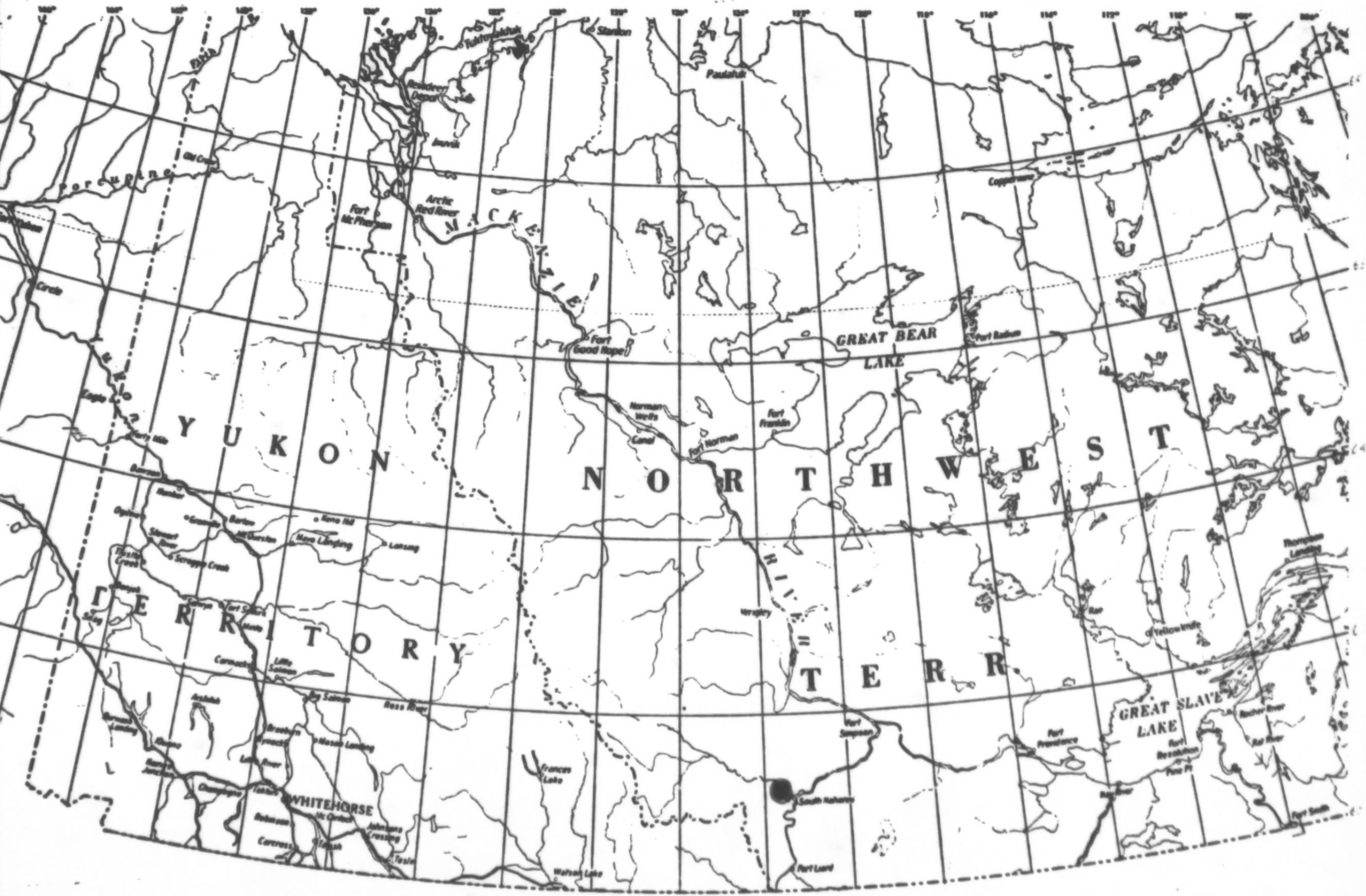
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## INTRODUCTION

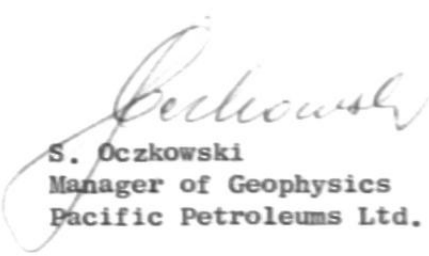
A refraction seismograph Survey was conducted in the Twisted Mountain Area to evaluate Permits 4617 & 5590. The survey was commenced on August 9, 1971 and completed on September 10, 1971.

Access to the area was by air and water from Ft. Simpson to a camp established near the Nahanni River. Canoes and a helicopter were used for transportation.

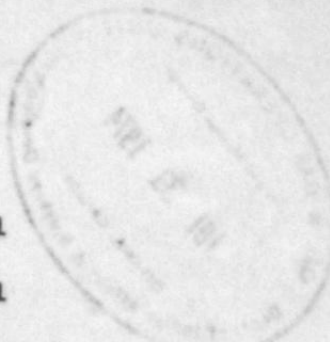
## INTERPRETATION

The in-line refraction method of seismic recording enabled us to map the Nahanni carbonate throughout the area. Wavefront diagrams were prepared for all lines shot and refraction profiles for this one refractor were prepared.

A map showing the structure on top of the Nahanni is enclosed to illustrate the results of the survey. North-south trending normal faults were noted and depths ranging from +1500 to -11,000 feet sub-sea on the Nahanni were calculated. No other horizons were mapped.

  
S. Oczkowski  
Manager of Geophysics  
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STATISTICAL DATA



DATES - Left Ft. Simpson	July 29, 1971
Arrived Camp	July 29, 1971
Commenced Shooting	August 7, 1971 (Aug. 20 - Aug. 31 Shut Down)
Completed Shooting	September 14, 1971
Demobilization Date	Sept. 17, 1971
No. of Miles of Surface Coverage	19 Miles
No. of Shots	143
No. of Shot Points	18
No. of Days Worked	37
Type of Equipment - Boats	30' River Boat (2 x 20 H.P. Outboard)
Planes	DC-3, Aztec
No. of Personnel	13
Survey Equipment	Wilde T1A Theodolite & Brunton Compass
Survey Base Control Points	Triangulation Pt. Approx. 61° 14.8'N 123° 33' W
Geophones	Mark Products L 1, 8 c.p.s.
Station Interval	330'
Shot Point Offsets	Variable; up to 10 mi.
Spread Length	7590'
Filter	Out - 33



