

SEISMIC REFLECTION SURVEY
TROUT LAKE AREA
FOR
BANNER PETROLEUMS LTD.

JEAN MARIE TO SLAVE POINT

Scale - 1 in. = 4000 ft.
Contour interval 10 miles

Date - January 1970
L.R. Boxendale

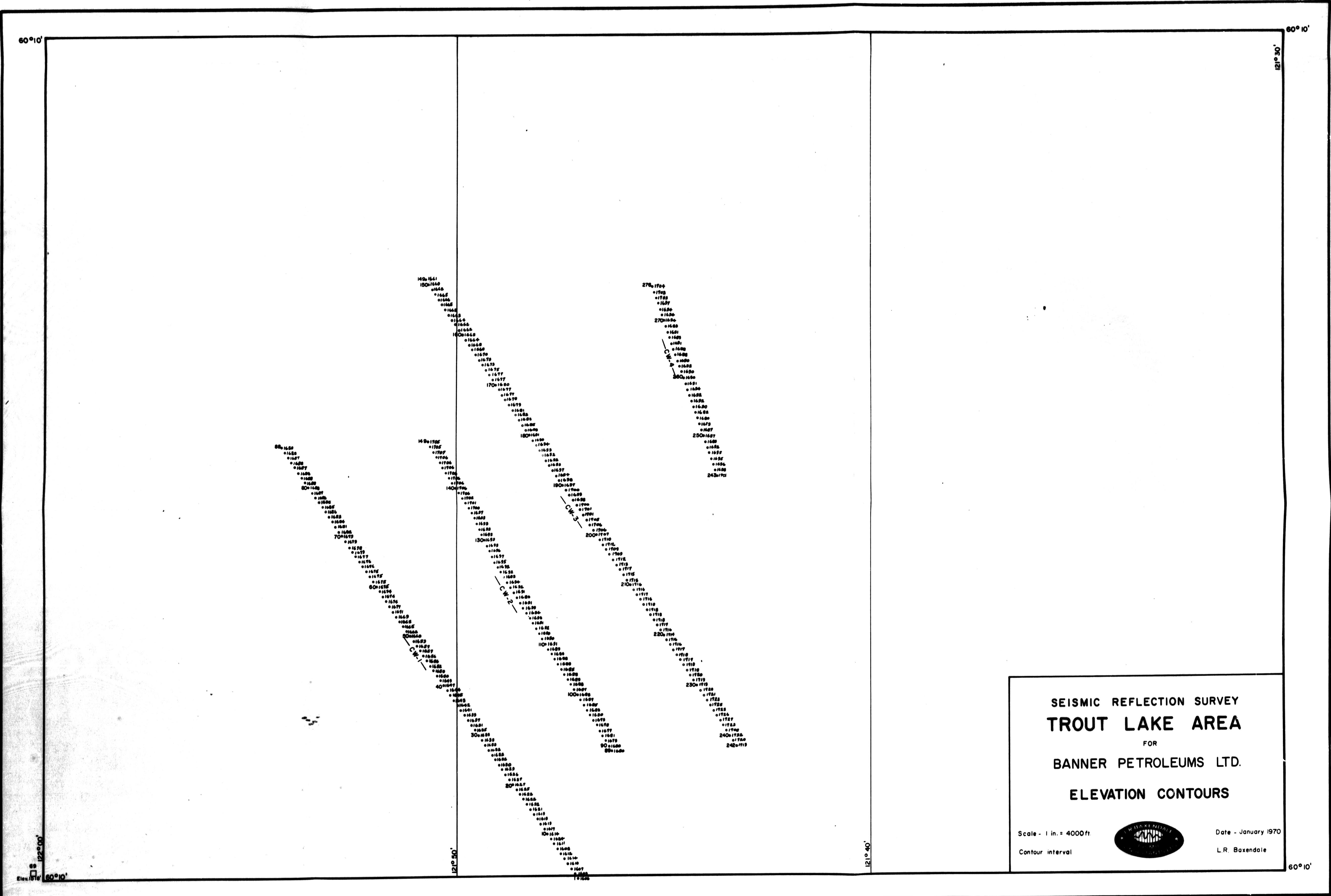
Elev. 1510'

60°00'

120°30'

120°40'

60°00'



799-6-4-1

Ottawa copy

GEOPHYSICAL REPORT

in the

TROUT LAKE, NORTHWEST TERRITORIES

Completed in January, 1970

for

BANNER PETROLEUMS LIMITED

by

CANWEST GEOPHYSICAL LIMITED

On Permits #389-68 to 391-68, 393-68

Project #799-6-4-70-1

Report Submitted in November, 1971

By

R.L. BAXENDALE SEISMIC CONSULTANTS LTD.



(-3)

STATISTICAL DATA

A total of 21 miles of 6-fold stack seismic program was obtained. Drilling commenced on January 22, 1970 using a two-hole pattern with patterns every 440 feet. Recording commenced on January 17, 1970 and finished on January 23, 1970 using split-spread (2530-110-0-110-2580 foot spread). A total of 248 profiles were shot with no time lost because of weather or breakdowns.

FIELD PROCEDURES

A conventional split-spread was used in which holes were shot every 440 feet and a geophone group interval of 220 feet was used to obtain 6-fold stack coverage. The field recording was done by Canwest Geophysical Ltd. and the processing by Teledyne Exploration Ltd. Access was by the winter road from Ft. Nelson to Ft. Simpson and along the boundary road between Alberta and the Northwest Territories.

DATA PROCESSING

Processing was straight forward because there were no multiple problems. The data was flattened to a shallow reflection at 0.700 secs. and filtered using a 12 to 56 cycle per second filter.

INTERPRETATION

Time interval maps were made using the Devonian flattened reflection as datum. The four reflections that were consistent throughout the prospect were identified as the Mississippian, Devonian, Jean Marie and Slave Point formations. A basement reflection could not be mapped. The prospect is situated on a large reef complex and therefore, shows minimal contour relief. Two seismic interval maps are enclosed:

- 1) Devonian to Jean Marie
- 2) Jean Marie to Slave Point