

25-6-4-8.

HORN PLATEAU AREA
N. W. T.

PERMITS: 4244, 4246, 4247, 4250, 4251
4316, 4319, 4320
4460, 4461



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Prepared by:

CANADIAN SUPERIOR OIL LTD.

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Attached:

GEOPHYSICAL MAPS

HORN PLATEAU AREA

LOCATION:

Seismic field operations were conducted in the Horn Plateau Area in the North West Territories in an area bounded by longitude $120^{\circ} 00'$ to $120^{\circ} 45'$ and latitude $61^{\circ} 10'$ to $61^{\circ} 40'$.

ACCESSIBILITY:

The area is accessible by bulldozed trails from two winter roads - Caltex Road and C. N. T. Road which branch off the Yellowknife Highway at points North and South respectively of Fort Providence and join at Fort Simpson. An airstrip suitable for landing wheeled aircraft was constructed at latitude $61^{\circ} 21'$ and longitude $120^{\circ} 20'$ while one suitable for ski equipped aircraft was situated at Jean Marie. An ice bridge was built across the Mackenzie River at Jean Marie.

TOPOGRAPHY:

The Mackenzie River elevation 450' above sea level flows to the north-west bisecting the area into the north-east portion (elevation 700') and the south portion (elevation 950'). The area to the north of Spence River and near the Jean Marie River is covered by heavy stands of spruce and poplar. The remainder of the area is covered by lighter timber and muskeg.

GEOLOGY:

SURFACE GEOLOGY:

The Upper Devonian Tetcho, Kakisa and Fort Simpson formations occur near the surface overlain by recent fill material and muskeg. The Tetcho and the Kakisa formations are present in the south 20% of the area but are absent to the north where the underlying Fort Simpson shales represent the top of the Devonian.

STRATIGRAPHY:

The stratigraphic sequence in the vicinity of the Horn Plateau area is summarized in the following table:

GENERALIZED STRATIGRAPHIC SECTION

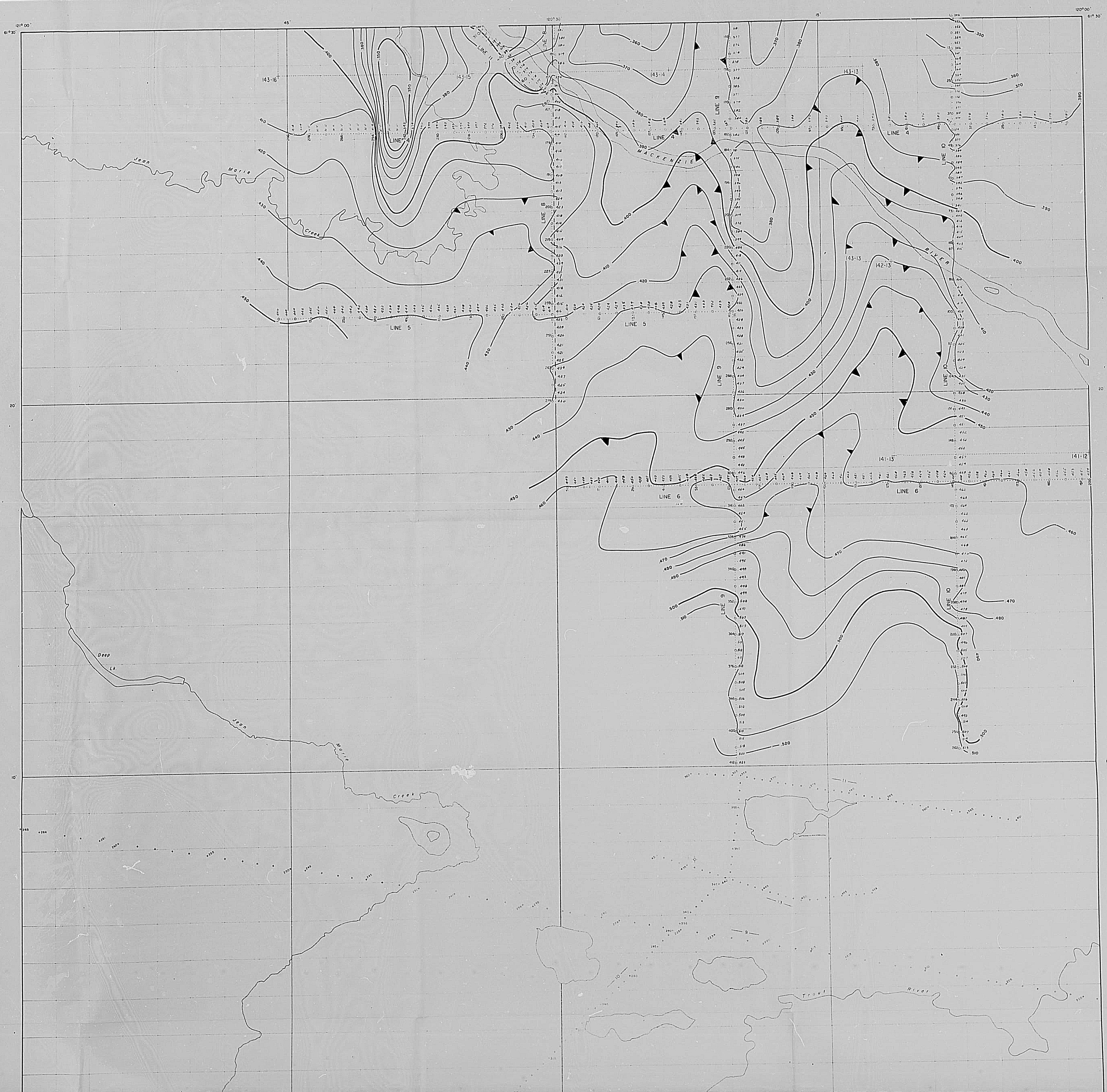
AGE	FORMATION	LITHOLOGY	THICKNESS
Pleistocene		Poorly consolidated Gravels	110'
-----Erosional Unconformity-----			
Upper Devonian	Ft. Simpson	Shale, Light Green, Calcareous	1330'
	Spence River	Shale brown	160'
	Slave Point	Limestone, some Dolomite	120'
	Fort Vermillion	Interbedded Shale and Dolomite	30'
	Hume	Dolomite, Interbedded Shale	200'
	Precambrian		

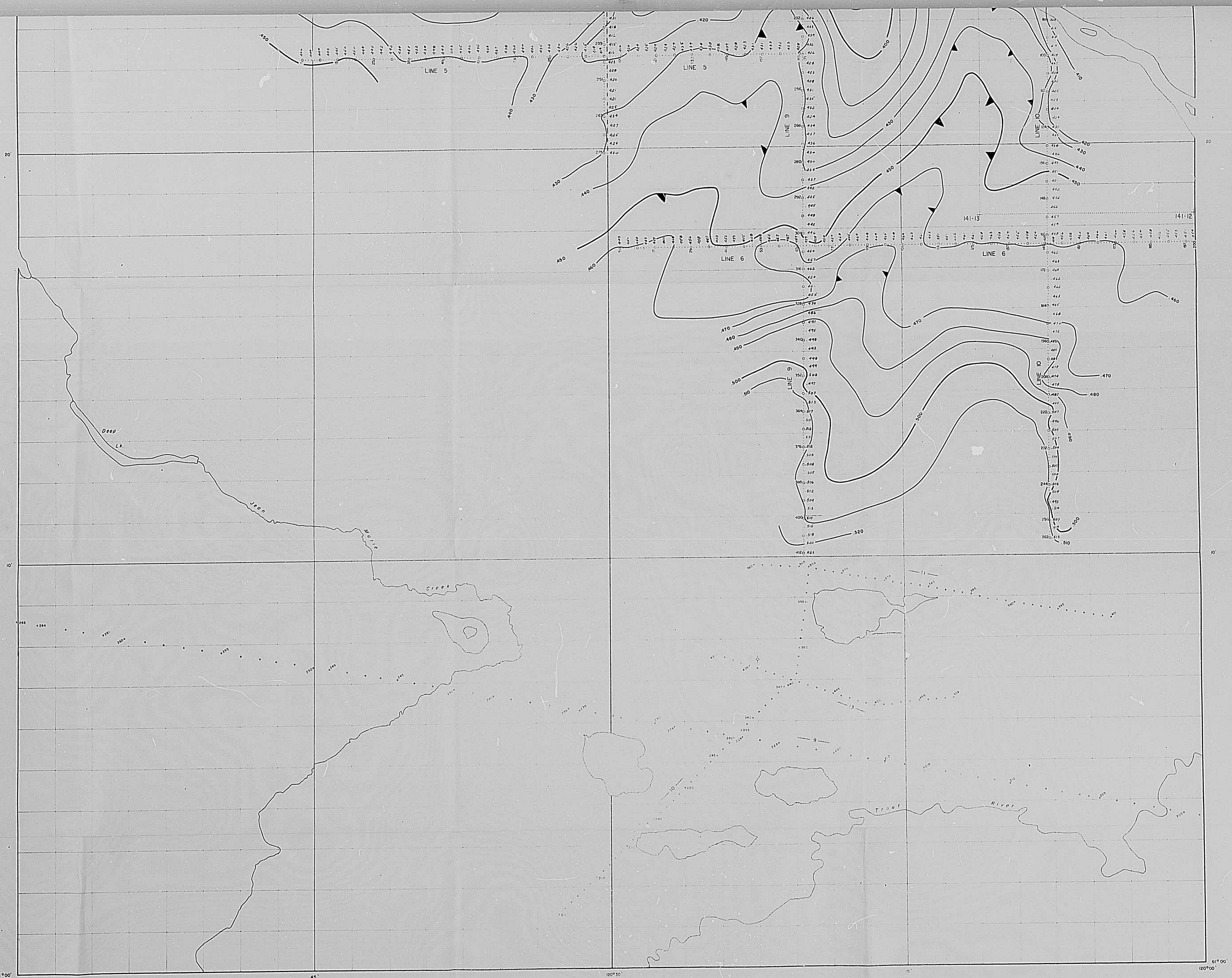
GEOPHYSICAL:

Results from a seismic survey conducted in the area indicate three reversals in the southerly regional dip of the Hume formation. The presence of these north-south trending anticlinal structures appears to reflect similar but larger PreCambrian basement features.

The attached seismic maps show details of locations.

RWT/1mg





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DEEP LAKE
HORN PLATEAU AREA

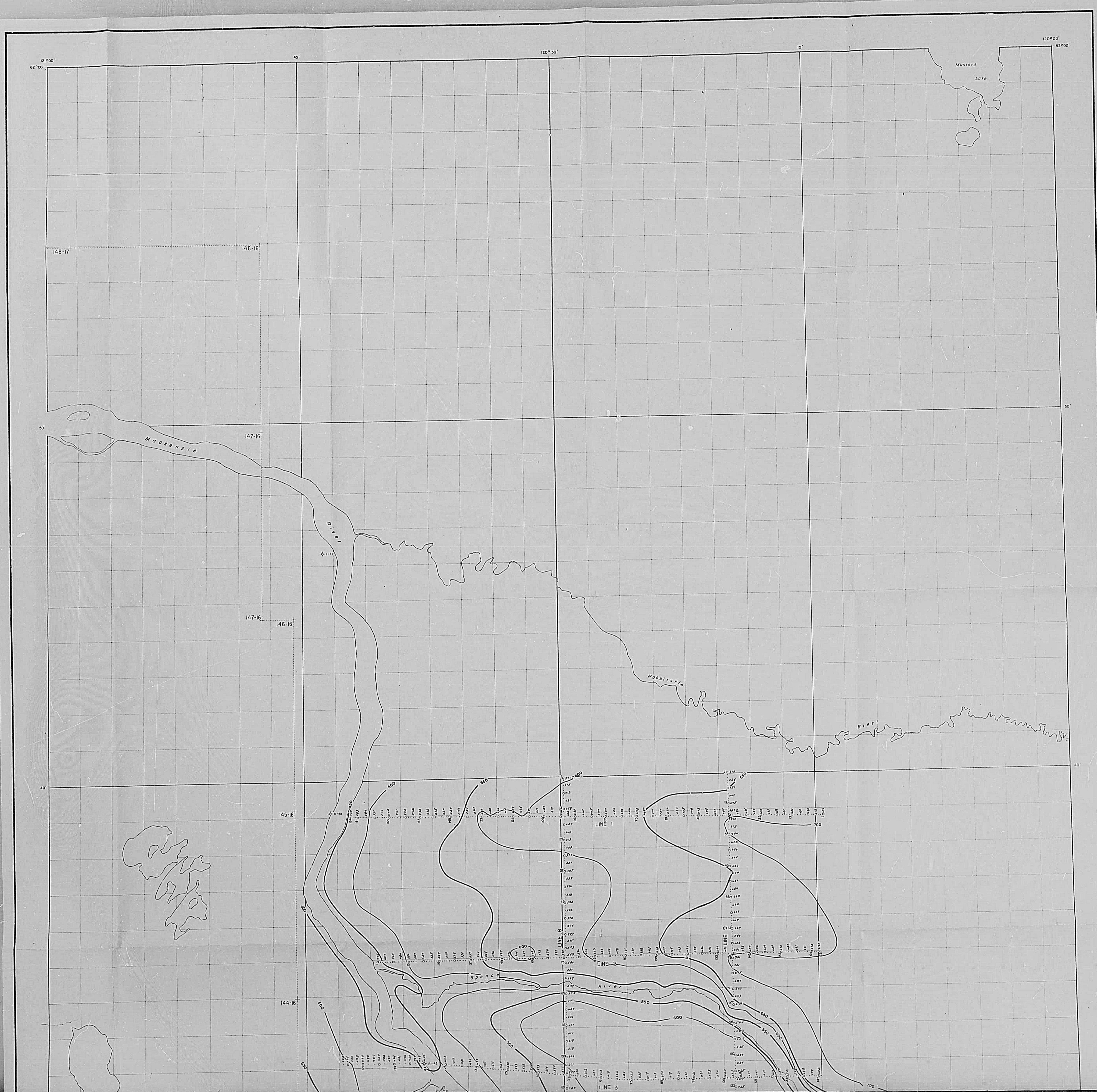
HUME

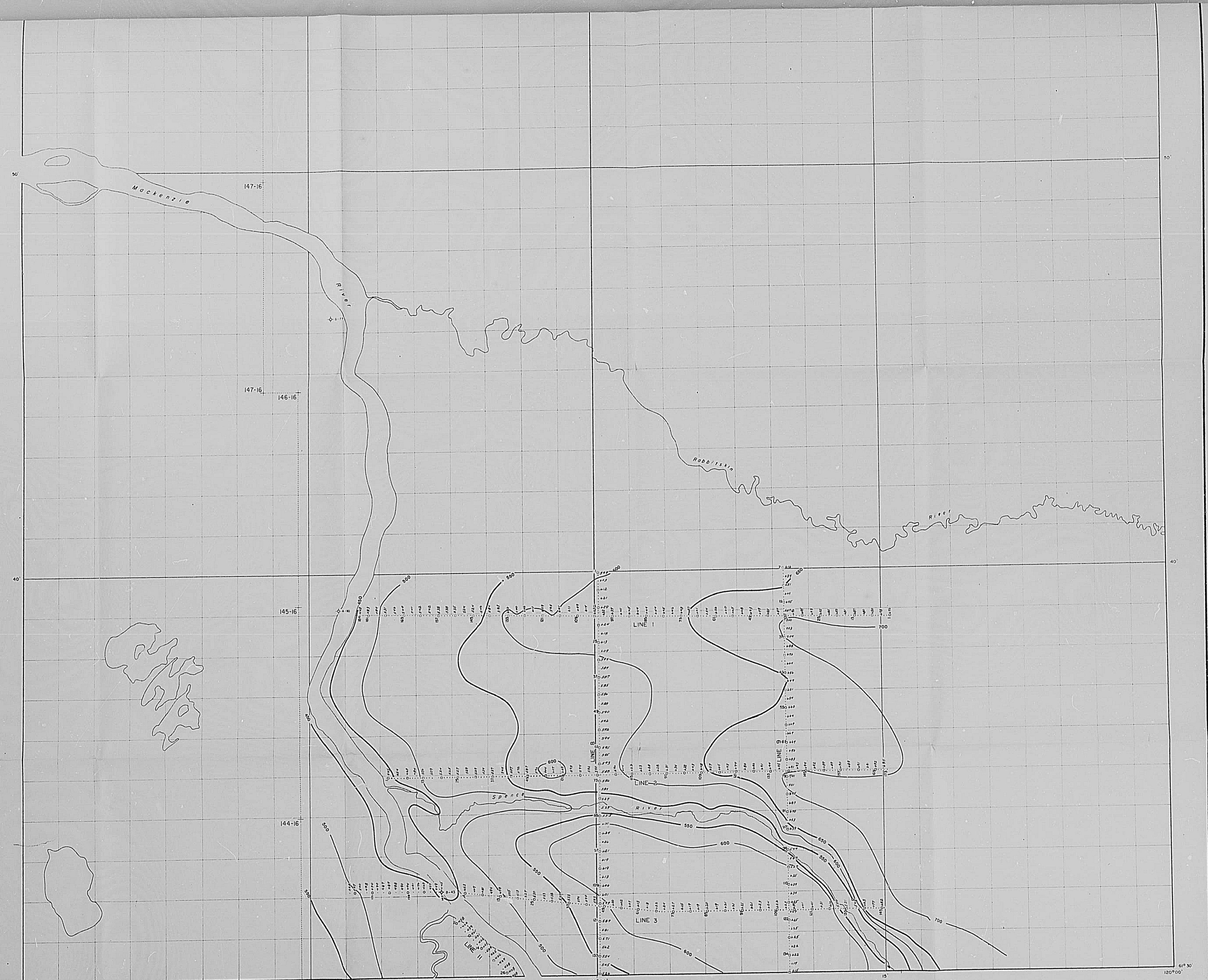
Requested by G. REYNOLDS Date FEB-MARCH 1968 Date 500'
Received by Date May 1968
Contour interval 100' SEC Date 95 H.S.E.
Shots by RAY GEOPHYSICAL LIMITED Party 49-84

100' 500' 95-H-S.E.









CANADIAN SUPERIOR OIL LTD
RABBITSKIN RIVER
HORN PLATEAU AREA
SURFACE ELEVATIONS

Interpreted by G. REYNOLDS Date FEB - MARCH 1958
Revised by G. REYNOLDS Date 1958
Scale 1:50,000 Date 1958
Survey by RAY GEOPHYSICAL LTD Date 1958

95 H N.E.

27/10/1963

