

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.

September, 1968

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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

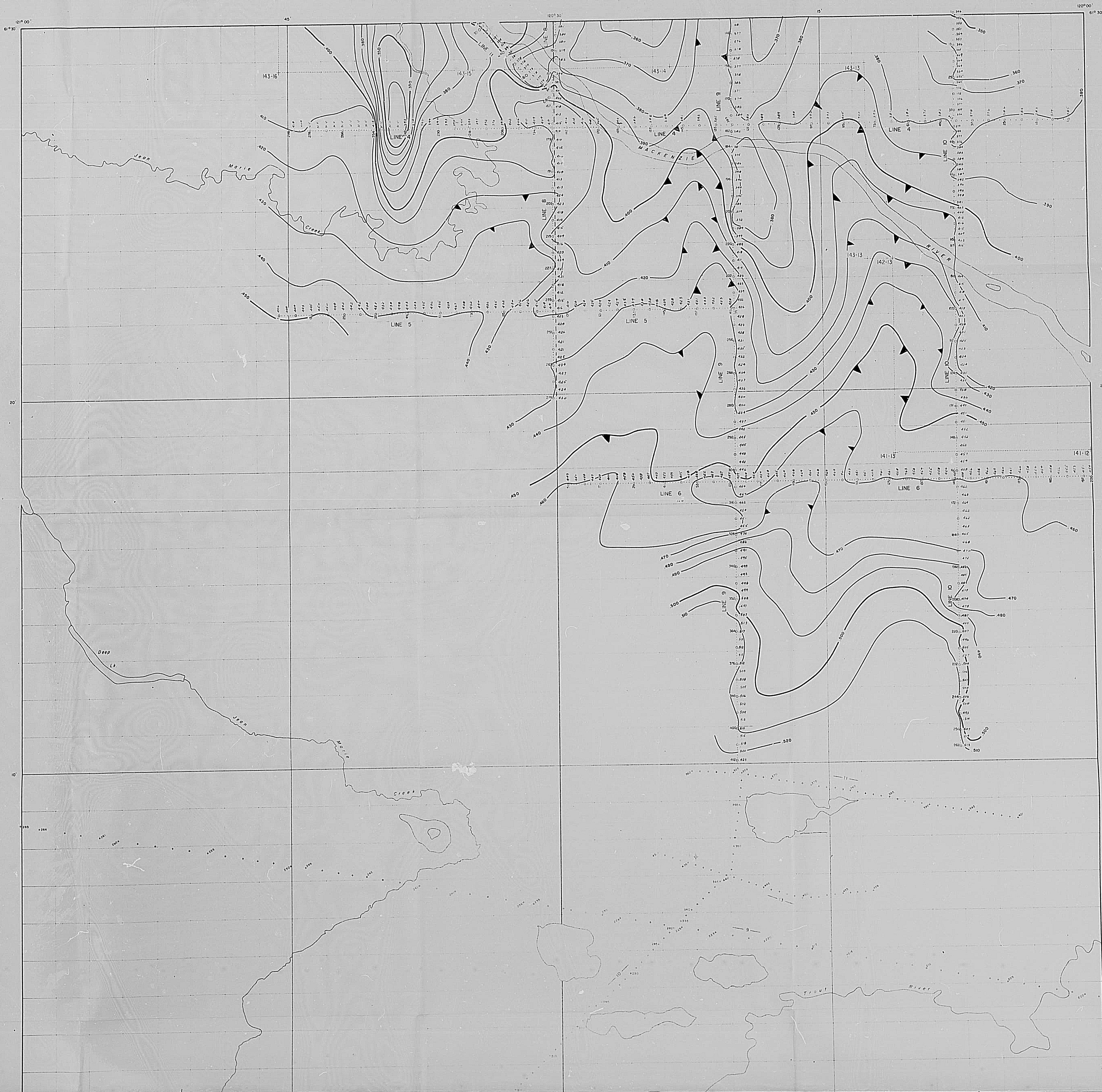
AGE	FORMATION	LITHOLOGY	THICKNESS
Pleistocene		Poorly consolidated Gravels	110'
-----Erosional Unconformity-----			
Upper Devonian	Ft. Simpson	Shale, Light Green, Calcareous	1330'
	Spence River	Shale brown	160'
	Slave Point	Limestone, some Dolomite	120'
	Fort Vermilion	Interbedded Shale and Dolomite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





CANADIAN SUPERIOR OIL LTD
DEEP LAKE
HORN PLATEAU AREA
HUME

Prepared by G. REYNOLDS Date FEB. MARCH 1968 Scale 200'
Checked by G. SEC. Date 11-1-68 Map No. C-439/4
Shaded by RAY GEOPHYSICAL LIMITED Date 11-1-68 Scale 95 H.S.E.
Sheet No. 11





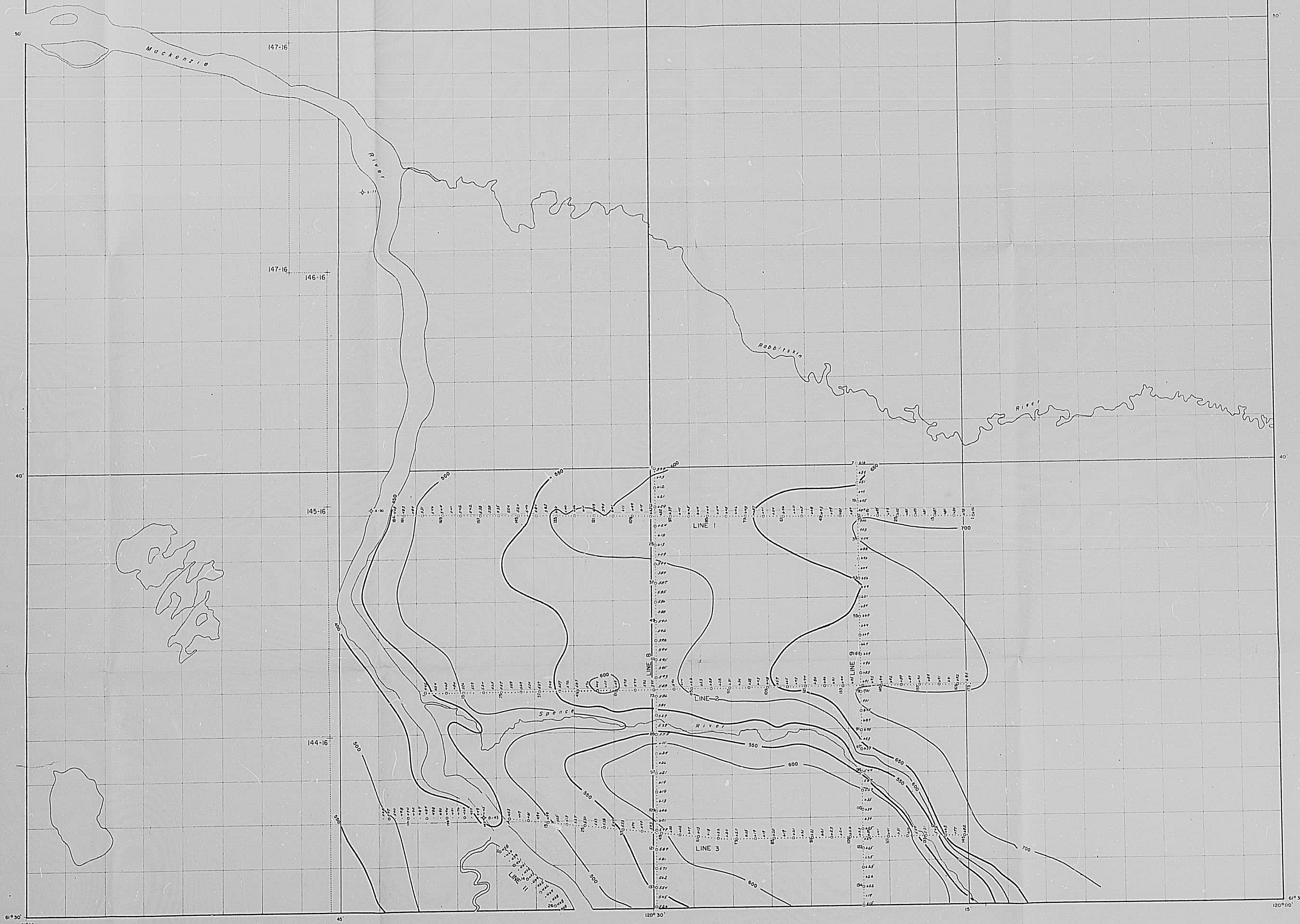
CANADIAN SUPERIOR OIL LTD.
RABBITSKIN RIVER
HORN PLATEAU AREA
HUME

Prepared by G. REYNOLDS FEB-MARCH 1968, Sheet 500
Checked by G. SEC. Map No. G-440/4
Scale 1:100,000 Base 95-H.N.E.
Drawn by RAY GEOPHYSICAL LIMITED. Map No. 104.

95-H.N.E.

27.1.1963



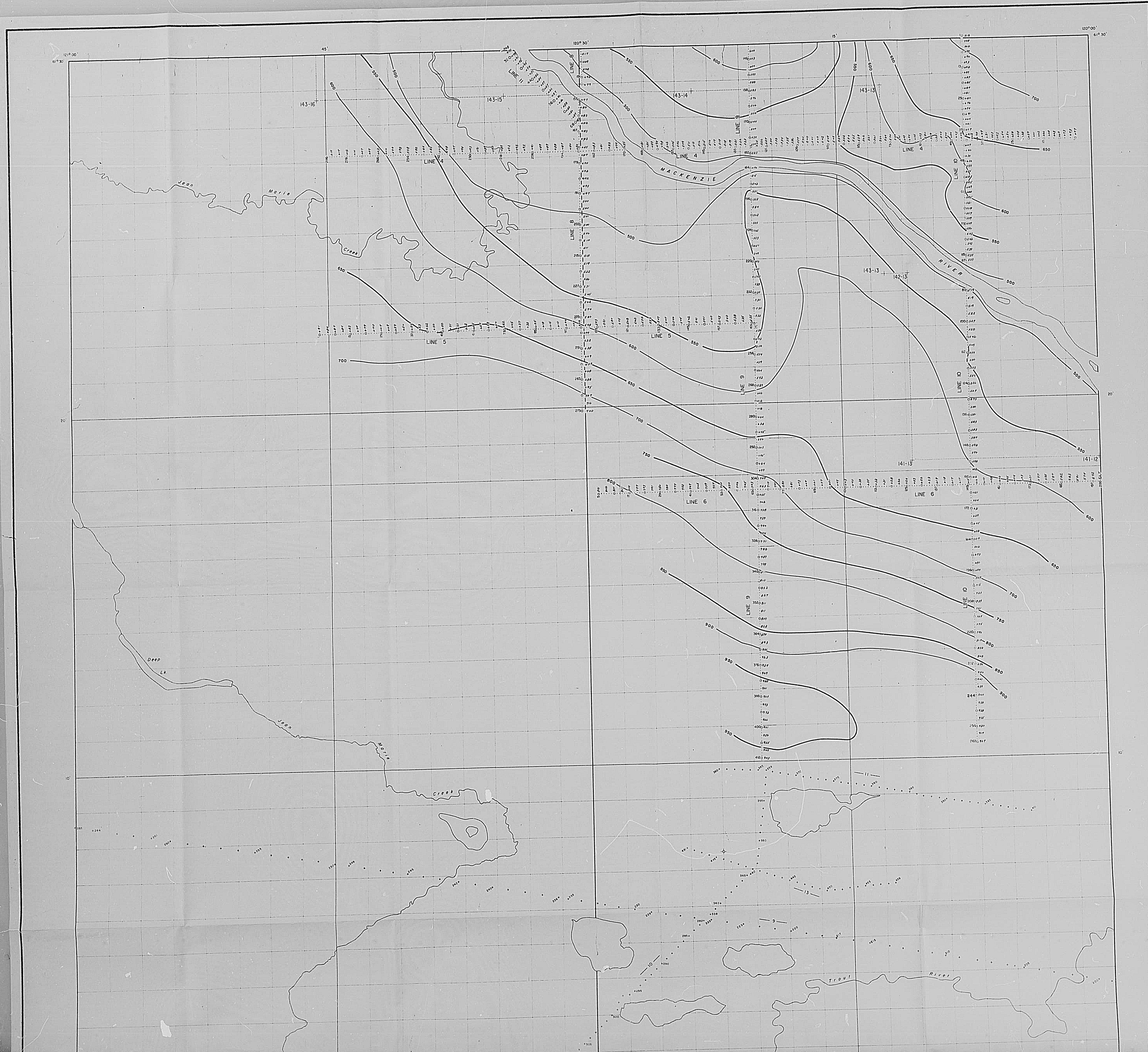


CANADIAN SUPERIOR OIL LTD.
RABBITSKIN RIVER
HORN PLATEAU AREA
SURFACE ELEVATIONS

Prepared by G. REYNOLDS Date FEB - MARCH 1956
Scale 50' Contour Interval 50' Map No. G-440/1
Drawn by RAY GEOPHYSICAL LTD. Date 11-11-56

95-H-N-E

27.115.1743





CANADIAN SUPERIOR OIL LTD.
DEEP LAKE
HORN PLATEAU AREA
SURFACE ELEVATIONS

Prepared by: G. REYNOLDS Date: FEB-MARCH 1968
Checked by: J. G. 439/1
Drawn by: J. G. 439/1
Scale: 1" = 1/4 MI.
Sheet No. 1 of 1