

WESTERN DECALTA PETROLEUM LIMITED

Report on a Seismic Survey

of the

BIRCH ISLAND AREA

N.W.T. PERMITS: 5361, 5509, 5510, 5816 & 5817

D.I.A.N.D. PROJECT No. 19-65-71-2



WESTERN DECALTA PETROLEUM LIMITED

Report on a Seismic Survey
of the

BIRCH ISLAND AREA

N.W.T. PERMITS: 5361, 5509,
5510, 5816 & 5817

OPERATOR - WESTERN DECALTA PETROLEUM LIMITED

CONTRACTOR - SIGMA EXPLORATION LTD.

D.I.A.N.D. PROJECT NUMBER - 19-65-71-2

Submitted by *[Signature]*

Date *March 16/73*

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Enclosures -

Time structure map "Horizon X"

Time structure map "Horizon Y"

65°00'

SOBC-CS Great Bear R. N-30

SOBC-CS St Charles Co. M-61

ConDel-Dec KMG et al Policersand L-66

P 5407

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P. 5817

64°30'

P 5424

SHELL KEELE R.

P 5423

P 5510

P 5816

Decora-LR Kee e River B.C.

P 5422

P 5421

P 5420

IMP REDSTONE L.

P 5509

P 5418

A-28

P 5417

P 5520

MACKENZIE RIVER

P 5508

P. 5818

64°00'

SHELL CLOVERLEAF

I-46

P 5361

Decora et al Crispin Dan... D-55

P 5593

ConDel et al Danadim... M-43

63°50'

125°30'

125°00'

124°00'

SCALE 1 INCH = 8 MILES

Surveying Method: Transit

FIELD PROCEDURES

Recording System	<u>DFS-III</u>
Source	<u>Dynamite</u>
Spread Geometry	<u>1500-125-0-125-1500</u>
Number of Traces	<u>24</u>
Group Interval	<u>125'</u>
Fold	<u>300 %</u>
Geophones Per Group	<u>9</u>
Source Size	<u>5#</u>
Hole depth	<u>50'</u>
Field Filter	<u>8-124</u>
Shotpoint Interval	<u>440</u>

DATA PROCESSING:

Bandpass - 18-25/55-60

Time domain deconvolution 56 ms operator
length over a window of 0.350 - 1.350
utilizing a whitening factor of 120%.

300% structural sections utilizing a datum
elevation 1000' ASL and replacement
velocity of 10,000'/sec.

RESULTS:

Record quality was generally poor to very poor
on this project.

Correlation across the river is most difficult
as a result maps were drawn on two horizons "X"
and "Y". The identification of these horizons
is unknown.

23,450,000

MT. CLARK

23,400,000

23,350,000

23,300,000
300,000

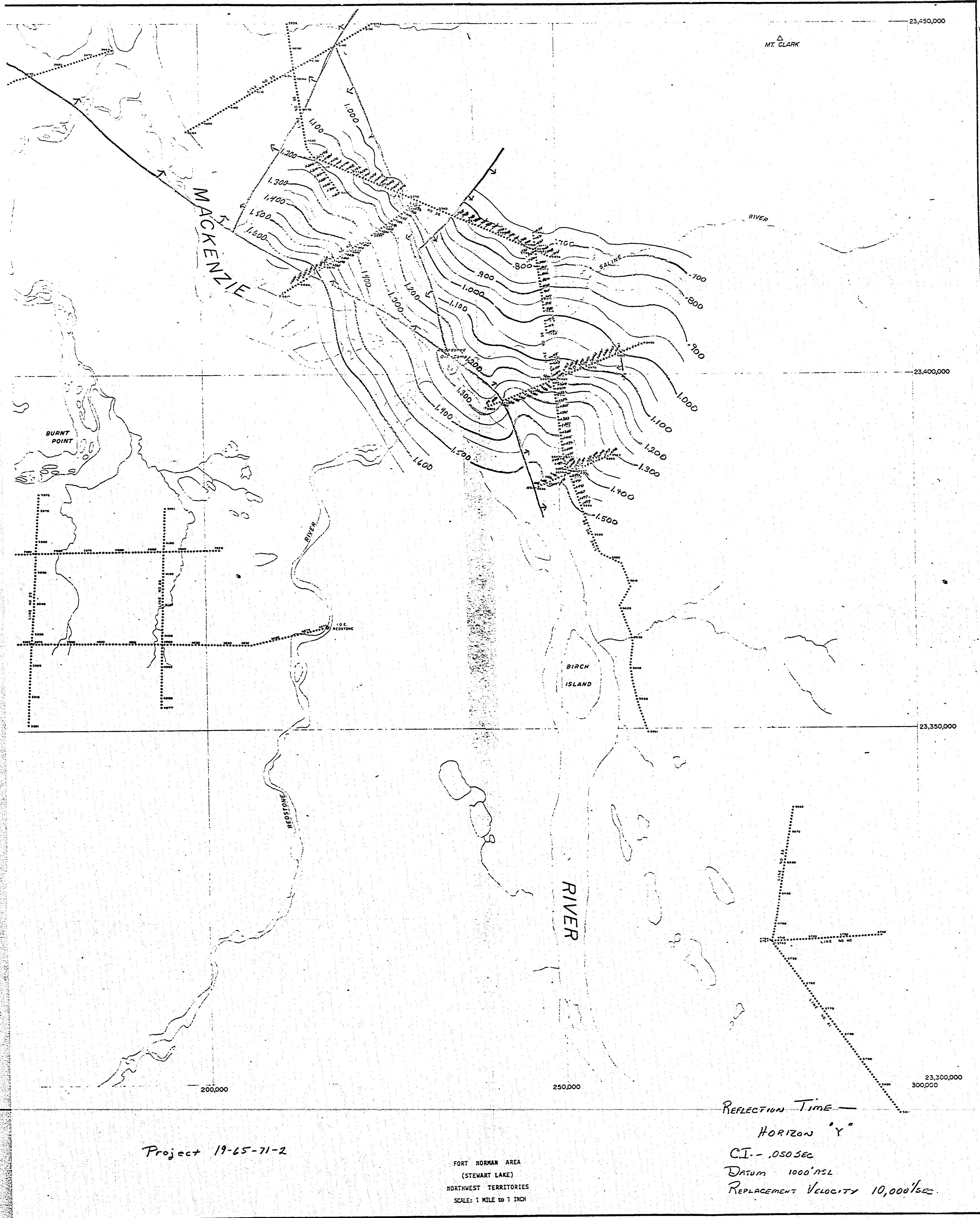
200,000

250,000

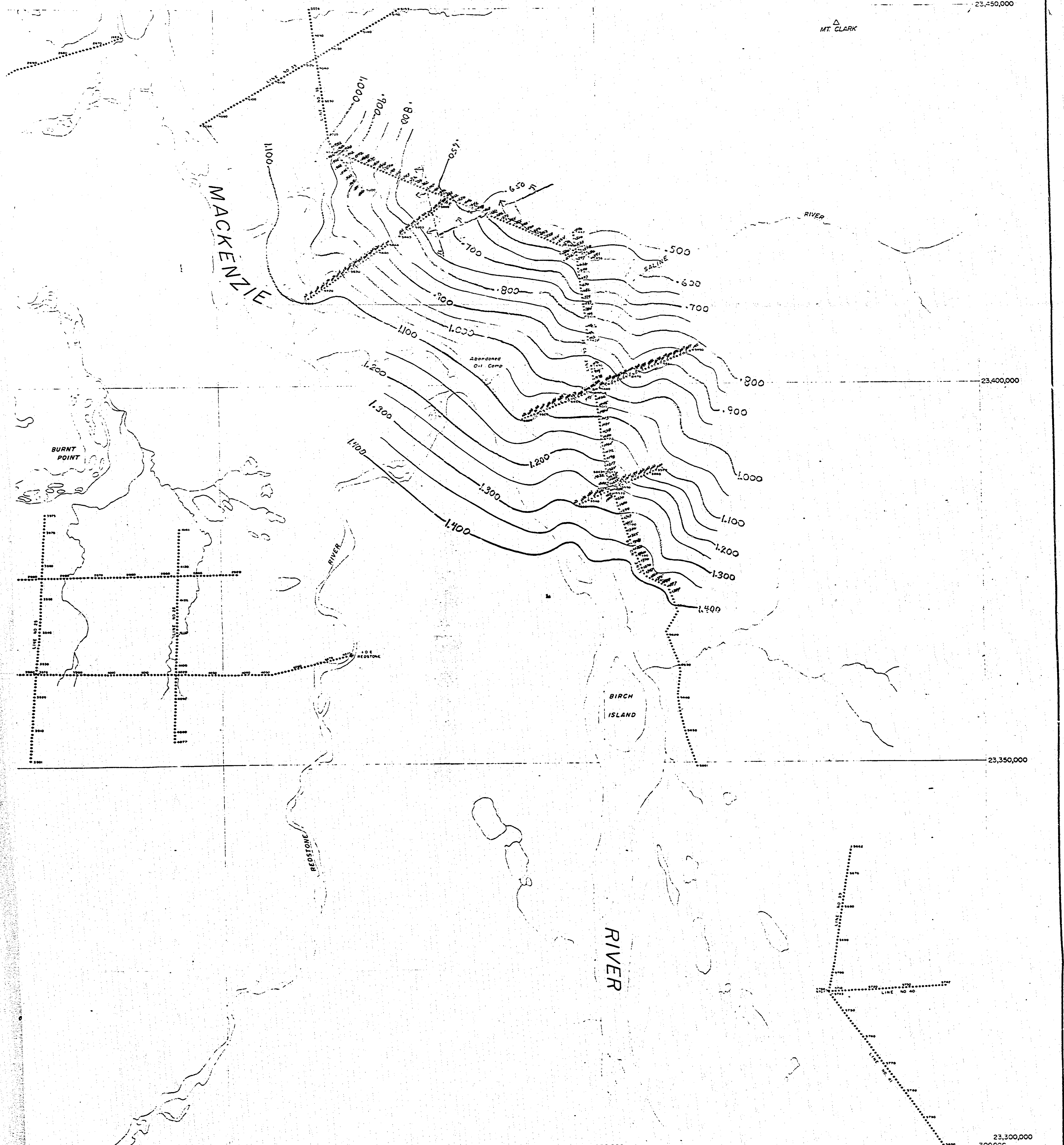
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FORT NORMAN AREA
(STEWART LAKE)
NORTHWEST TERRITORIES
SCALE: 1 MILE TO 1 INCH

REFLECTION TIME —
HORIZON "Y"
C.I. — .050 SEC
DATUM 1000' ASL
REPLACEMENT VELOCITY 10,000'/SEC.



MT. CLARK



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FORT NORMAN AREA
 (STEWART LAKE)
 NORTHWEST TERRITORIES
 SCALE: 1 MILE TO 1 INCH

REFLECTION TIME
 HORIZON "X"
 C.I. - .050 SEC
 DATUM 1000' ASL
 REPLACEMENT VELOCITY 10,000' / SEC

P