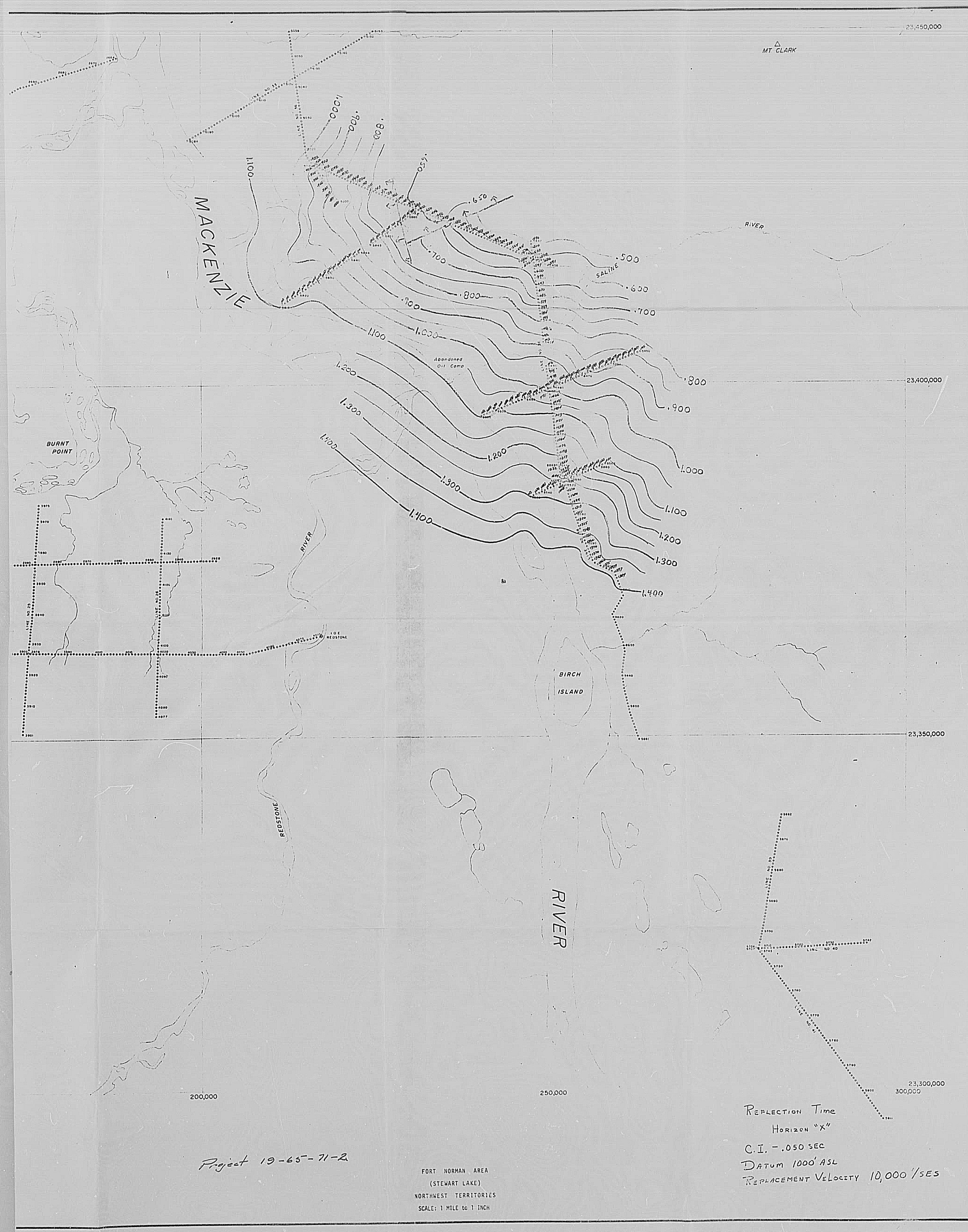






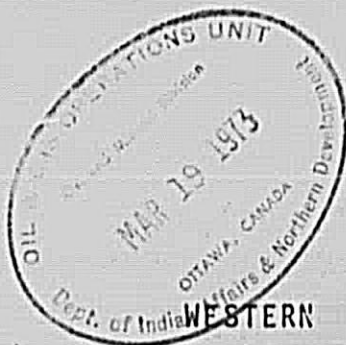
WESTERN DECALTA PETROLEUM LIMITED

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



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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

C O N T E N T S

Index Map	1
Dates	2
Production	2
Equipment	2
Personnel	2
Surveying	3
Field Procedures	3
Data Processing	4
Results	4

Enclosures -

Time structure map "Horizon X"

Time structure map "Horizon Y"

65°00'

QBC-C5 Great Bear R N-30

SOBC-C5 St Charles Ck H-61

CanDel-Dee KYG et al Police Island L-66

P 5407

P 5817

Project
19-65-71-2

64°30'

P 5424
SHELL KEELE R

P 5425

P 5510

P 5816

DeCaita-LR Keele River H-61

P 5423

P 5421

P 5420

IMR REDSTONE I.

P 5509

P 5418
A-28

P 5417

P 5520

MACKENZIE

P 5508

P 5818

64°00'

SHELL CLOVERLEAF
I-46

P 5361

DeCaita et al Chaspin Island D-65

P 5593

CanDel et al Dahadinni M-43

RIVER

63°50'

123°30'

124°00'

125°00'

125°30'

SCALE 1 INCH = 8 MILES

Statistical Data

Dates:	Commencement	<u>April 18, 1971</u>
	Completion	<u>April 26, 1971</u>

Production:	Total mileage	<u>24</u>
	Total shots	<u>288</u>
	Average production	<u>3 mi./D.</u>

Downtime:	Weather	<u>0 Days</u>
	Equipment	<u>0 Days</u>

Equipment:

Complete track seismic crew consisting of:

<u>1</u>	Recording Unit
<u>2</u>	Line Unit
<u>1</u>	Shooting Unit
<u>1</u>	Survey Unit
<u>4</u>	Party Manager Unit
<u>2</u>	Drills
<u>1</u>	Bulldozers
<u>1</u>	Camp

Instruments	<u>Geospace 1590</u>
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Personnel:	<u>1</u>	Supervisor
	<u>1</u>	Party Manager
	<u>1</u>	Computer
	<u>1</u>	Observer
	<u>1</u>	Shooter
	<u>2</u>	Surveyor
	<u>5</u>	Line Helper
	<u>4</u>	Drillers
	<u>1</u>	Mechanic
	<u>3</u>	Camp

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.