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Report of Progress - *STRUCTURE TESTS*
Permit No. 516
Tathlina Lake N.W.T. - *AUG. 1957*

Merrill Petroleums Limited is the holder of Permit No. 516 in the Tathlina Lake area. The permit date is August 8, 1952.

Pursuant to Section 30 (1) of the regulations pertaining to the permits of Petroleum and Natural Gas rights, we submit a report of progress of our exploration work on the permit to date.

A structure test program was conducted of Petroleum and Natural Gas Permit No. 516 in the Northwest Territories during a period from March 12th to 27th, 1957. Personnel and equipment used for the structure test program were taken over from the D. Todd Briggs Group. G.K. Williams, of J.C. Sproule and Associates was the geologist in charge. Surveying was done by Stewart Weir and Stewart of Edmonton. The electric logging unit was supplied by Electronic Logging and Velocity Co. Ltd. of Calgary. Roads were constructed by R. & H. Construction Ltd., who were subcontracted from Location Clearing Ltd. The rig used was contracted from Big Indian Drilling Co. Ltd. of Calgary.

A total of 17 structure tests were drilled on Permit No. 516. The test holes were drilled to an average depth of 205 feet. Structure test correlations were made by electric logs supplemented by sample examination.

Drilling in Permit No. 516 was all within the Grumbler formation. The section drilled is a sequence of interbedded green shale and argillaceous limestone. Correlation between logs is good.

The most significant feature is the southwest plunging 'nose' in the northern portion of the permit. This feature has been named the 'Heart Lake Anticline'. (See accompanying map).

Expenditures on Permit 516 to August 31, 1957, shown on the accompanying Statutory Declaration of Expenditures, total \$20,100.21.

We forward herewith:

- (1) Prints of 17 electrical logs of holes drilled on Permit 516.
- (2) Structure contour map of a specific geological marker (ie. marker "Z").



A. M. Patterson, P. Eng.,
Exploration Manager.

ELECTRONIC*Logging & Velocity*

CALGARY, ALBERTA

Co. Ltd.

STRUCTURE TEST HOLE SURVEY

Location

APPROX.

N 60° 33' 07"

W 116° 53' 17"

COMPANY MERRILL PETROLEUMS LTD.WELL S.T. HOLE No. 6-57 FILE

FIELD

PROVINCE N.W.T. LSDSec. Twp. Rge. W Log Measured From GROUND LEVEL Elevation 944'Run No. 1Date MARCH 19, 1957

Footage Logged

Total Depth, Logged 148'Total Depth, Driller 148'

Csg Shoe, Logged

Csg Shoe, Driller

Csg Size

Bit Size 4 1/4"Mud Kind Natural

Treatment

Weight

Viscosity

Ph.

Resist. Ohms m2m @ °F @ °F

Loss ml/30 min

Max Temp

Recorded By G. GUNHOLDWitnessed By D. LEWIS

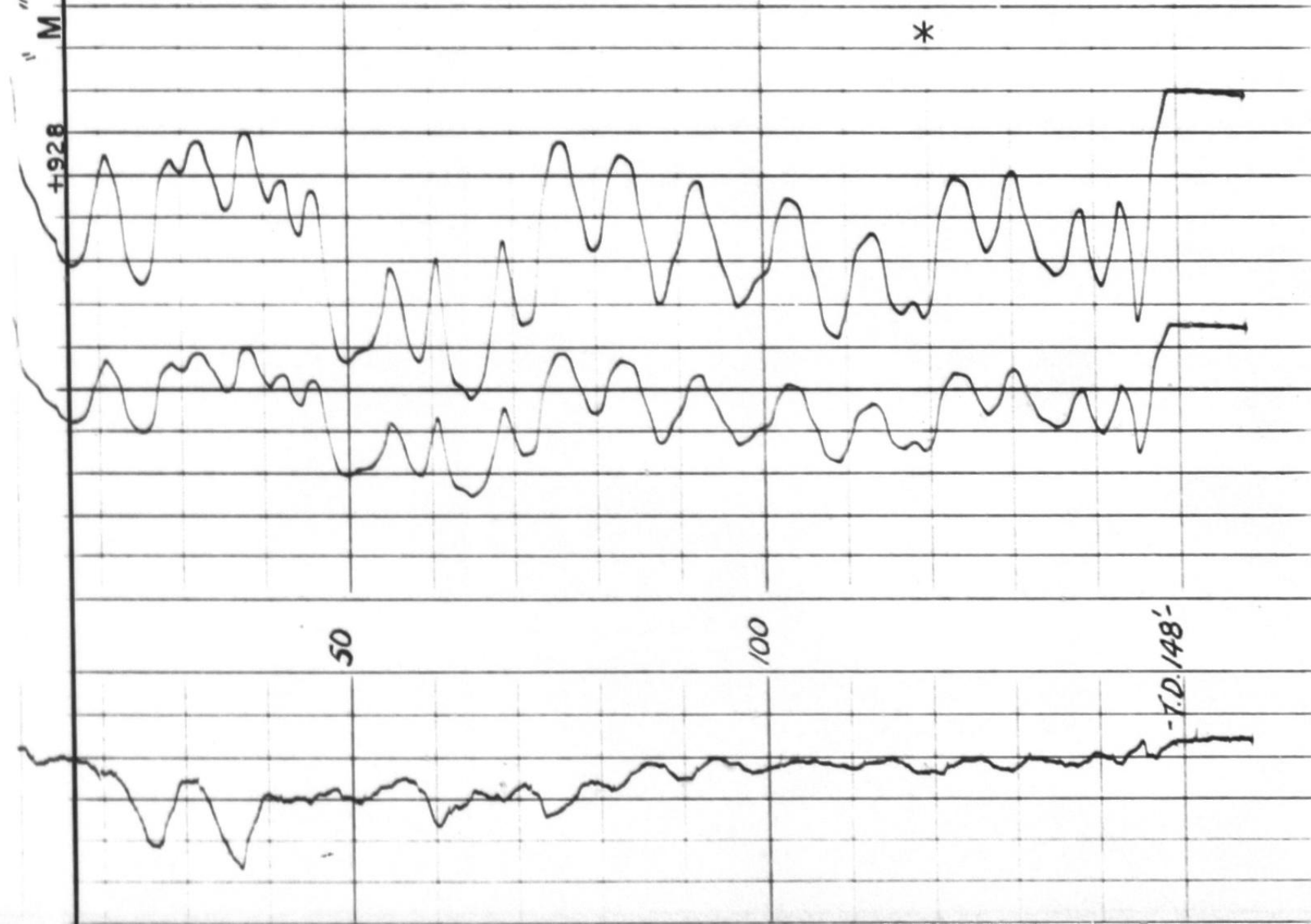
REMARKS OR OTHER DATA

DEVIATION - 2°-145'

POTENTIAL

30

RESISTANCE

400200

ELECTRONIC**Logging & Velocity**

CALGARY, ALBERTA

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STRUCTURE TEST HOLE SURVEYLocation
APPROX.

N 60° 36' 20"

W 116° 53' 25"

COMPANY MERRILL PETROLEUMS LTD.WELL ST. HOLE No. 7-57 FILE

FIELD

PROVINCE N.W.T. LSDSec. Twp. Rge. W Log Measured From GROUND LEVEL Elevation 935'Run No. 1Date MARCH 20, 1957

Footage Logged

Total Depth, Logged 153'Total Depth, Driller 153'

Csg Shoe, Logged

Csg Shoe, Driller

Csg Size

Bit Size 4 1/2"Mud Kind NATURAL

Treatment

Weight

Viscosity

Ph.

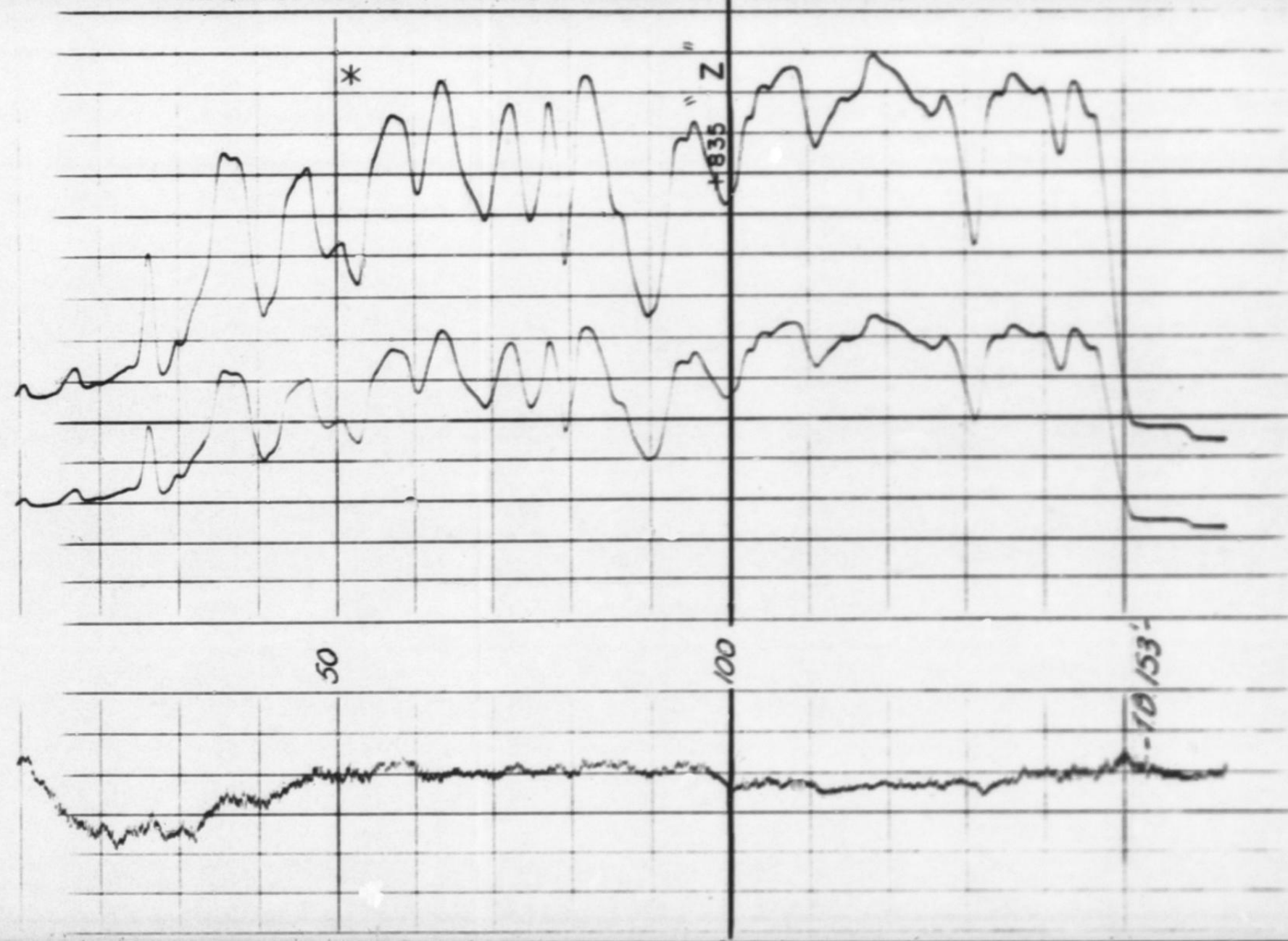
Resist. Ohms m2m @ °F @ °F

Loss ml/30 min

Max Temp

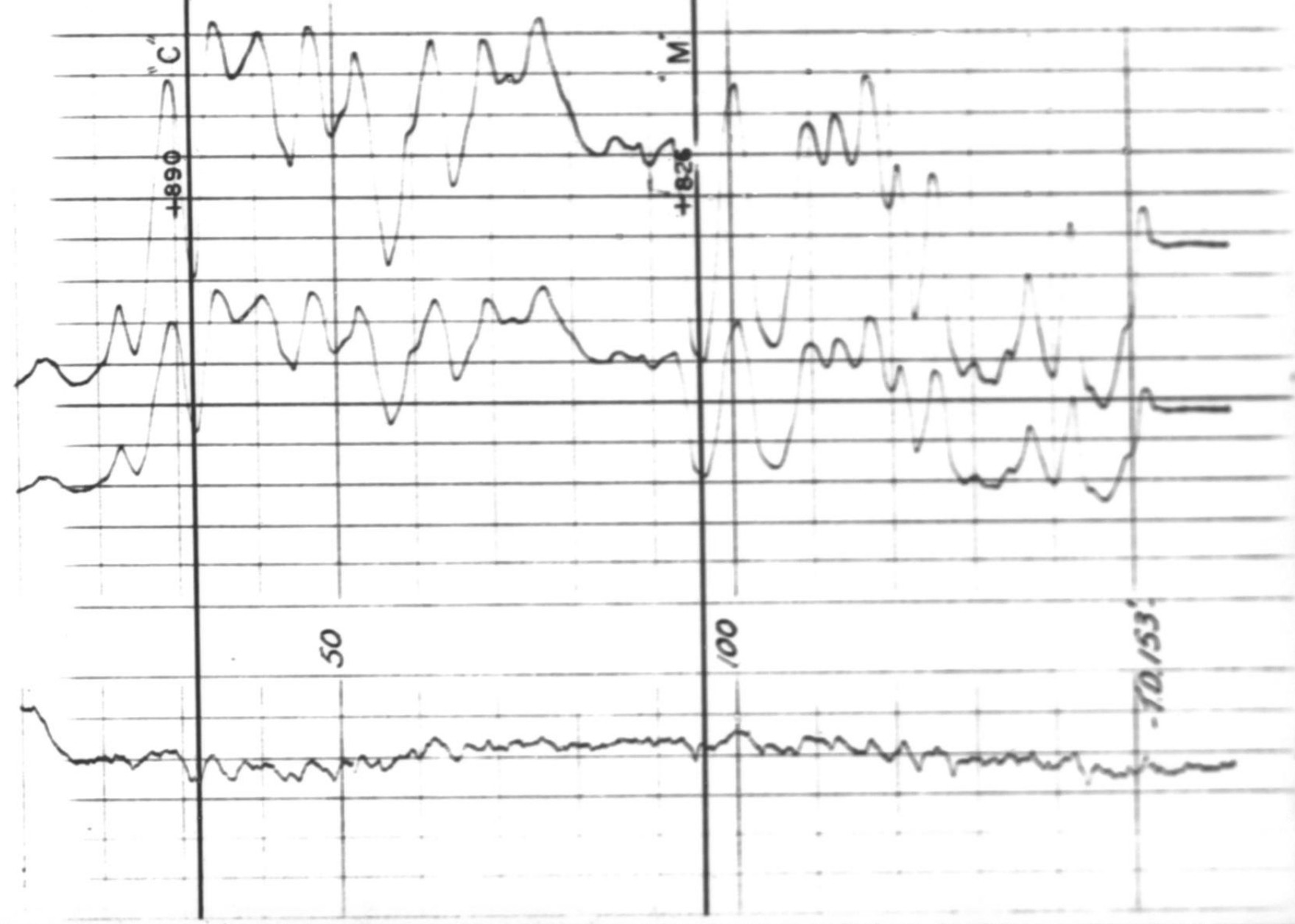
Recorded By C. GUNHOLDWitnessed By M. HANSON

REMARKS OR OTHER DATA

DEVIATION - 60°-145'POTENTIAL
30400RESISTANCE 200

STRUCTURE TEST HOLE SURVEY

Location APPROX.	COMPANY <u>MERRILL PETROLEUMS LTD</u>					
N 60° 36' 30"	WELL <u>S.T. HOLE No. B-57</u>		FILE			
W 116° 59' 00"	FIELD		PROVINCE <u>N.W.T.</u>		LSD	
	Sec.	Twp.	Rge.	W		
Log Measured From <u>GROUND LEVEL</u> Elevation <u>922'</u>						
Run No.	<u>1</u>					
Date	<u>MARCH 20, 1957</u>					
Footage Logged						
Total Depth, Logged	<u>153'</u>					
Total Depth, Driller	<u>153'</u>					
Csg Shoe, Logged						
Csg Shoe, Driller						
Csg Size	<u>4 1/2"</u>					
Bit Size						
Mud Kind	<u>NATURAL</u>					
Treatment						
Weight						
Viscosity						
Ph.						
Resist. Ohms m2m	@	°F	@	°F		
Loss ml/30 min						
Max Temp						
Recorded By	<u>C. CUNYHALD</u>					
Witnessed By	<u>M. McQUEEN</u>					
REMARKS OR OTHER DATA						
<u>DEVIATION - 2° - 145'</u>						
POTENTIAL <u>30</u>					RESISTANCE	<u>200</u>



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STRUCTURE TEST HOLE SURVEY

Location

APPROX.

COMPANY MERRILL PETROLEUMS LTD.

N 60° 44' 35"

WELL S.T. HOLE No. 11-57 FILE

W 117° 03' 31"

FIELD

PROVINCE ALTA LSD

Sec. _____

Twp. _____

Rge. _____

W _____

Log Measured From GROUND LEVEL Elevation 844'

Run No. _____

Date MARCH-22, 1957

Footage Logged _____

Total Depth, Logged 173'Total Depth, Driller 173'

Csg Shoe, Logged _____

Csg Shoe, Driller _____

Csg Size _____

Bit Size 3 1/2"

Mud Kind _____

Treatment _____

Weight _____

Viscosity _____

Ph. _____

Resist. Ohms m2m @ _____ °F @ _____ °F

Loss ml/30 min _____

Max Temp _____

Recorded By C. GUNDAWitnessed By D. LEWIS

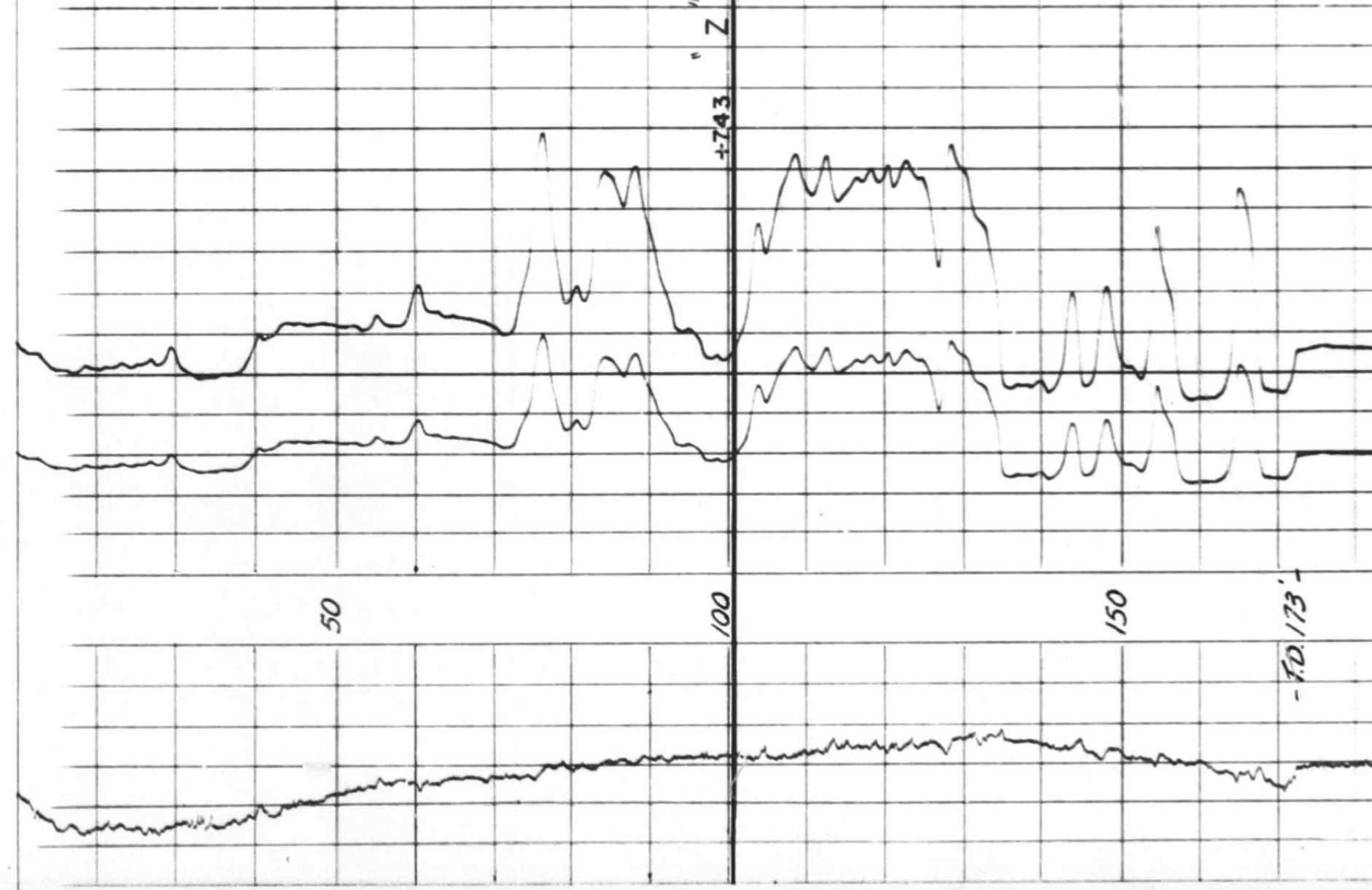
REMARKS OR OTHER DATA

DEVIATION - 2°-165'

POTENTIAL

50

RESISTANCE

400200

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STRUCTURE TEST HOLE SURVEY

Location
APPROX.

N 60° 43' 25"

W 116° 56' 49"

COMPANY MERRILL PETROLEUMS LTD.WELL S.T. HOLE No. 14-57 FILE

FIELD

PROVINCE MAN. LSDSec. Twp. Rge. W Log Measured From GROUND LEVEL Elevation 852'Run No. 6Date MARCH, 23, 1957

Footage Logged

Total Depth, Logged 163'

Total Depth, Driller

163'

Csg Shoe, Logged

Csg Shoe, Driller

Csg Size

4 1/2"

Bit Size

4 1/2"Mud Kind NATURAL

Treatment

Weight

Viscosity

Ph.

Resist. Ohms m2m @ °F @ °F

Loss ml/30 min

Max Temp

Recorded By C. GUNHOLDWitnessed By M. HANSON

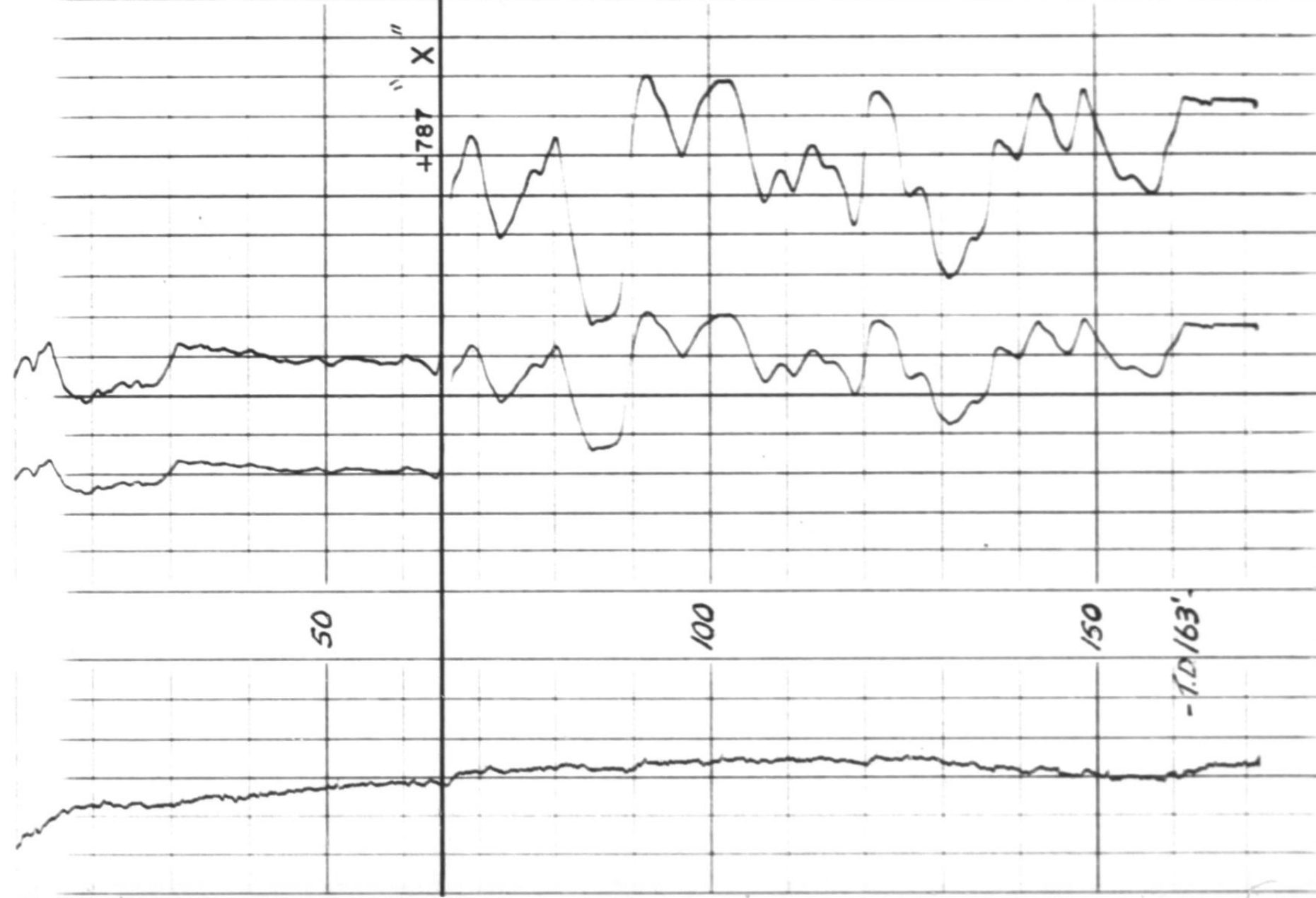
REMARKS OR OTHER DATA

DEVIATION - 1/2° - 155'

POTENTIAL

30

RESISTANCE

200400

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STRUCTURE TEST HOLE SURVEY

Location

APPROX.

COMPANY MERRILL PETROLEUMS LTD.

N 60° 44' 35"

WELL S.T. HOLE No. 11-57 FILE

W 117° 03' 31"

FIELD

PROVINCE N.W.T. LSD

Sec. _____

Twp. _____

Rge. _____

W _____

Log Measured From GROUND LEVEL Elevation 844'Run No. 1Date MARCH 22, 1957

Footage Logged _____

Total Depth, Logged 173'Total Depth, Driller 173'

Csg Shoe, Logged _____

Csg Shoe, Driller _____

Csg Size _____

Bit Size 3 1/2"Mud Kind NATURAL

Treatment _____

Weight _____

Viscosity _____

Ph. _____

Resist. Ohms m2m @ _____ °F @ _____ °F

Loss ml/30 min _____

Max Temp _____

Recorded By C. GUNHARDWitnessed By D. LEWIS

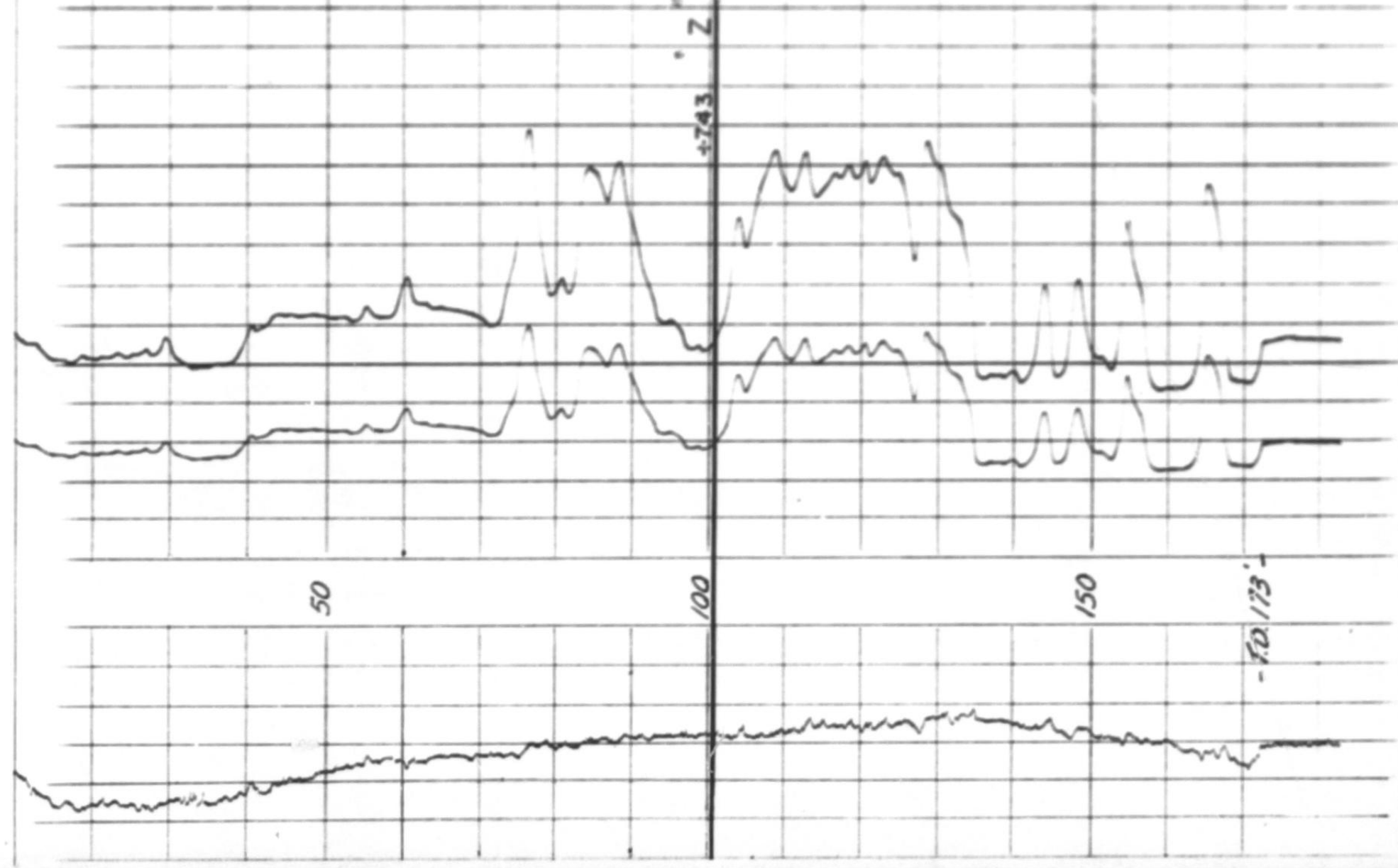
REMARKS OR OTHER DATA

DEVIATION - 2°-165'

POTENTIAL

50

RESISTANCE

400200

ELECTRONIC**Logging & Velocity**

CALGARY ALBERTA

STRUCTURE TEST HOLE SURVEYLocation
APPROX.

N 60° 43' 05"

W 116° 54' 14"

COMPANY MERRILL PETROLEUMS LTD.WELL S.T. HOLE No. 15-57 FILE

FIELD _____

PROVINCE N.W.T. LSD

Sec. _____ Twp. _____ Rge. _____ W _____

Log Measured From GROUND LEVEL Elevation 853'Run No. 1Date MARCH, 23, 1957

Footage Logged _____

Total Depth, Logged 153'Total Depth, Driller 153'

Csg Shoe, Logged _____

Csg Shoe, Driller _____

Csg Size _____

Bit Size 3 1/2"Mud Kind NATURAL

Treatment _____

Weight _____

Viscosity _____

Ph. _____

Resist. Ohms m2m @ _____ °F @ _____ °F

Loss ml/30 min _____

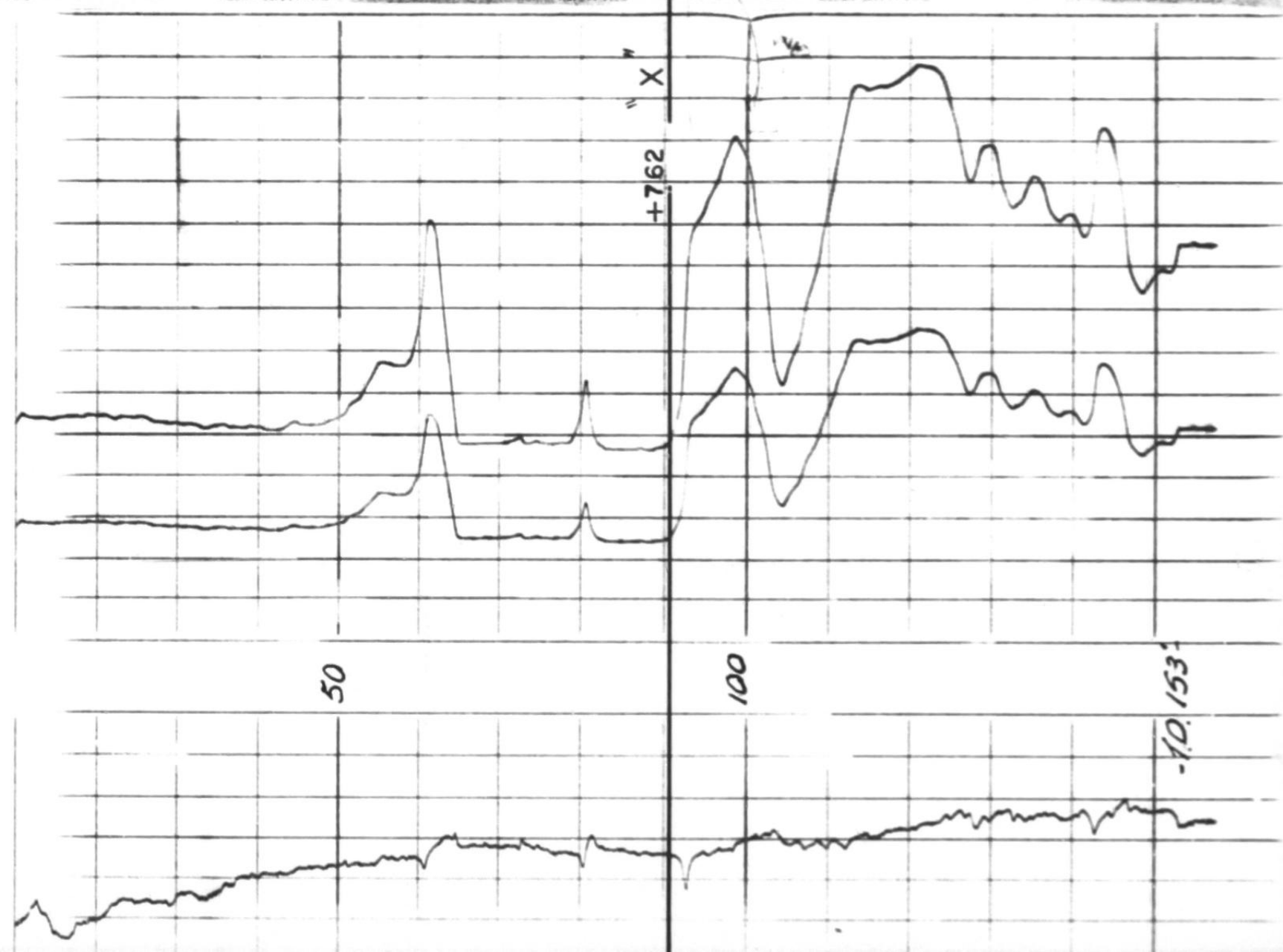
Max Temp _____

Recorded By C. GUNHOLDWitnessed By M. HANSON

REMARKS OR OTHER DATA

DEVIATION - 1°-145'POTENTIAL
30

400

RESISTANCE 200

ELECTRONIC*Logging & Velocity*

CALGARY, ALBERTA

STRUCTURE TEST HOLE SURVEY

Location
APPROX.

N 60° 43' "

W 117° 02' 07"

COMPANY MERRILL PETROLEUMS LTD.WELL S.T. HOLE No. 16-57 FILE

FIELD

PROVINCE N.W.T. LSDSec. Twp. Rge. W Log Measured From GROUND LEVEL Elevation 849'Run No. 1Date MARCH 23, 1957

Footage Logged

Total Depth, Logged 153'

Total Depth, Driller

153'

Csg Shoe, Logged

Csg Shoe, Driller

Csg Size

Bit Size

3 1/2"NATURAL

Mud Kind

Treatment

Weight

Viscosity

Ph.

Resist. Ohms m2m @ °F @ °F

Loss ml/30 min

Max Temp

Recorded By

Witnessed By

C. GUNHOLDD. LEWIS

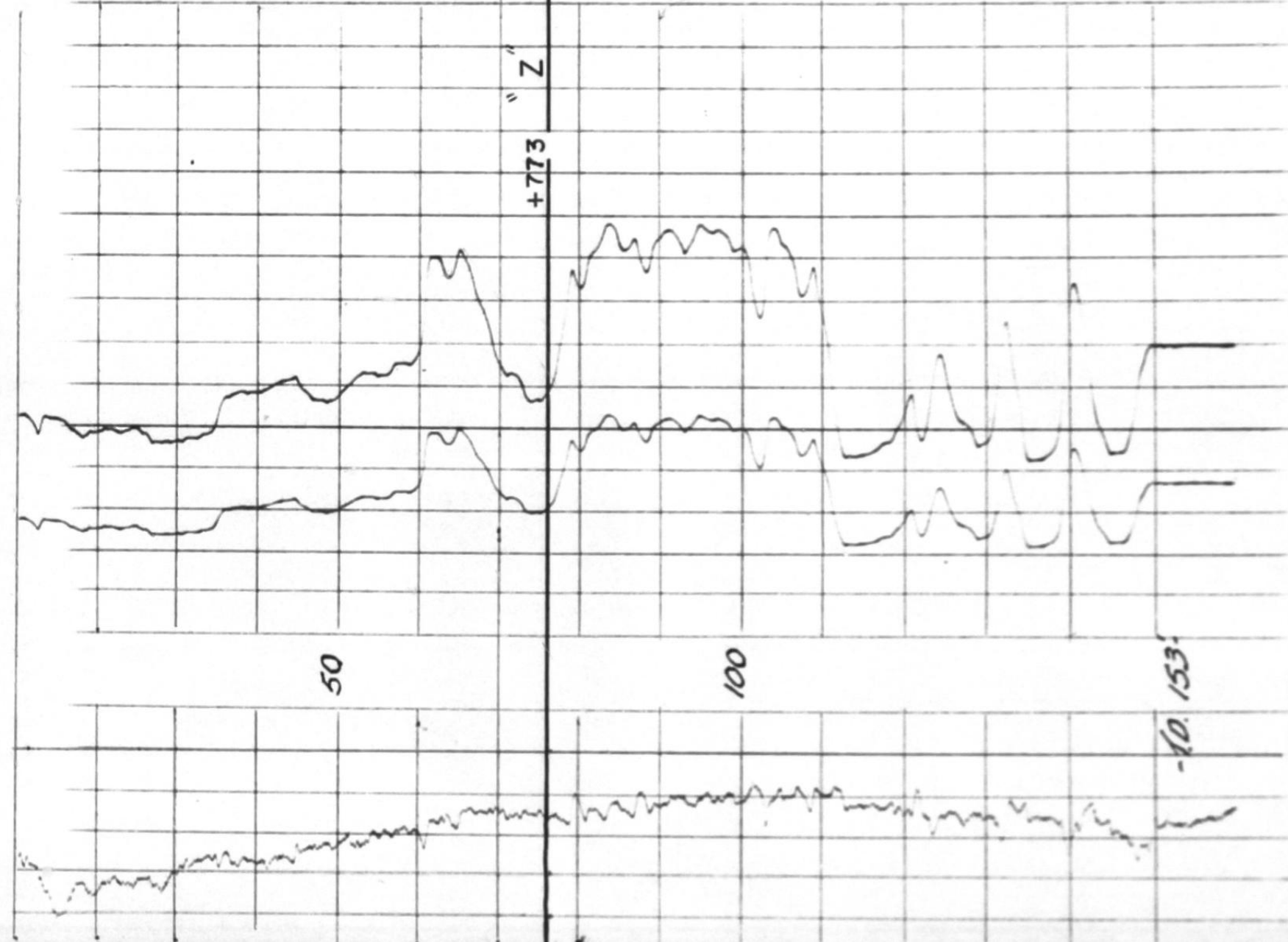
REMARKS OR OTHER DATA

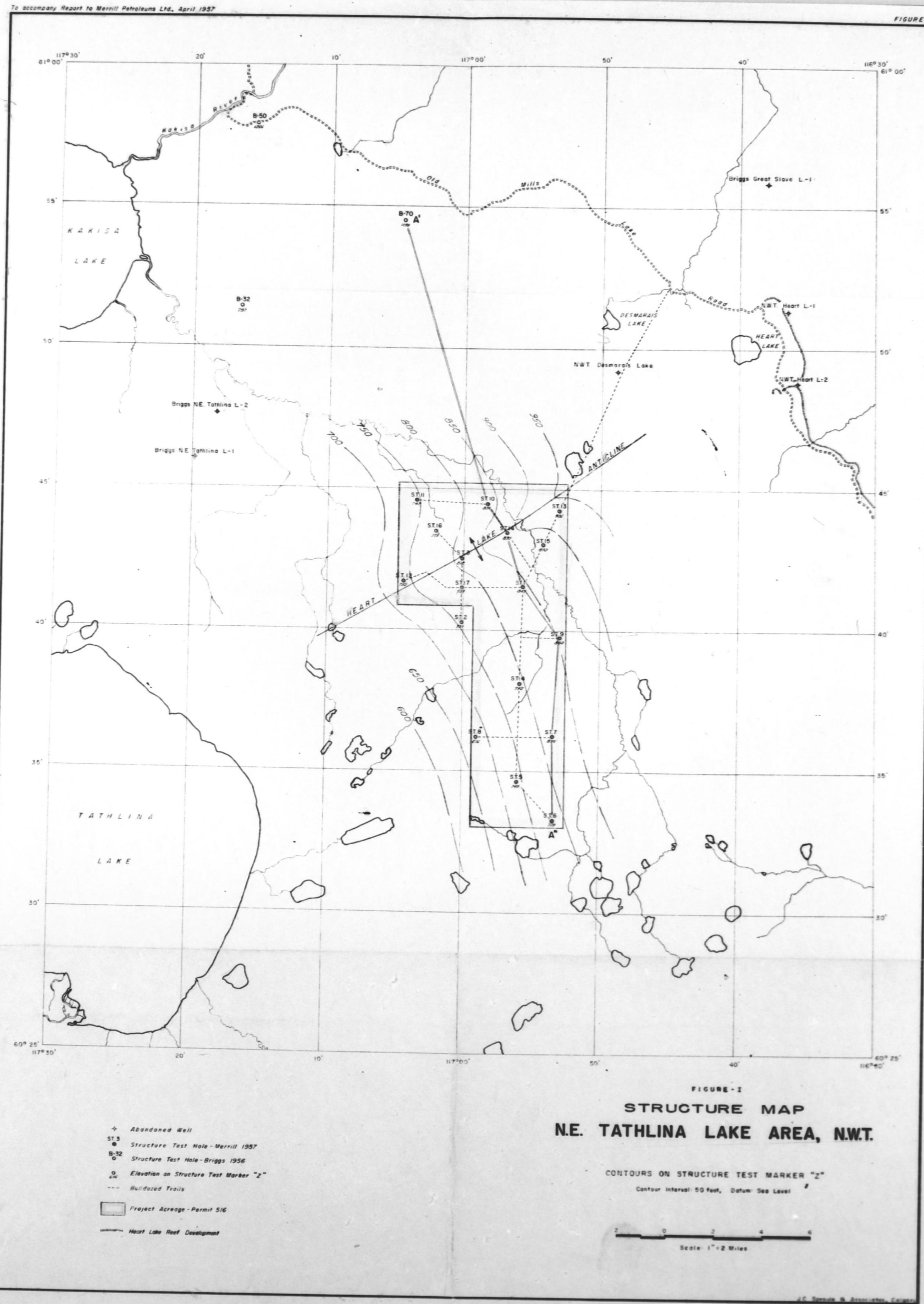
DEVIATION - 1/2° - 145'

POTENTIAL

30

RESISTANCE

400200



30x