

REPORT OF GEOPHYSICAL AND
SEISMOGRAPH REFLECTION SURVEY

Conducted by
United Geophysical Company of America
for
Pan American Petroleum Corporation

ON POINTED MOUNTAIN PERMITS 998 AND 3240

PERIOD: JUNE 4, 1964 TO SEPTEMBER 20, 1964

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On Pointed Mountain Permits 998 and 3240



Prepared by

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Exploration Group Supervisor

July 7, 1965

Submitted in accordance with Government Regulations

Under Section 29(C) of the Territorial Lands Act

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Permits 998 and 3240
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998 and 3240
(Maps are enclosed in envelope at back of report)

T E X T

INTRODUCTION

During the period June 4, 1964 to September 20, 1964, a seismograph reflection program was conducted by United Geophysical Company of America for Pan American Petroleum Corporation, on Pointed Mountain Permits 998 and 3240. United Geophysical Company of America worked continuously during the months of June to September, 1964 spending approximately 83.90 days in the above mentioned area.

The lines shot by United Geophysical Company of America were bulldozed trails cut by Bruce Rome Construction Ltd., simultaneously with the crew's operations.

United Geophysical Company of America was under the supervision of G. T. Curzon (August) and J. Lebeau (June, July and September). The camp was located in the Pointed Mountain area. The interpretation was carried on simultaneously with the field work. The interpretation offices were located in Calgary.

Equipment used by United Geophysical Company of America in this area was track mounted (Nodwell Tractors and Trailers). The crew operated out of a mobile track mounted camp which was moved periodically throughout the area surveyed.

Supply was largely conducted by an aircraft and river barge. The most unusual operating problem encountered was that presented by prevalence of rock in the area due to the operations being conducted above the timberline on rock outcrops.

T E X T (Continued)

SEISMIC TECHNIQUE

Shot holes were drilled to depths up to 100 feet. Depth of shot was directly affected by the requirement for heavy charges whereby a relatively great depth was required for the length of power used. Three to six holes were used generally, with approximately 100 pounds of charge being used in the extreme where shots were detonated in a solid rock bore-hole. Below the timberline where there was soil, principally clay, some of it covered with muskeg, charge sizes averaged downwards to 5 to 10 pounds per hole. One Mayhew 1000 Drill was used to drill the holes operating on a double shift basis where required. Circulation was maintained by using an air compressor in the rock drilling.

Special configuration is shown on Figure #1.

The instruments used were United Geophysical Type 1-38A Amplifiers using Techno Type magnetic tape and oscillograph camera display.

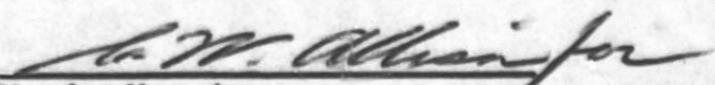
The reflection method was used to obtain subsurface data and the refraction method was used to correct near surface weathering and drift irregularities.

The data appearing on the subsurface maps are vertical two way times between an arbitrary reference plane and the particular level mapped.

Respectfully submitted,

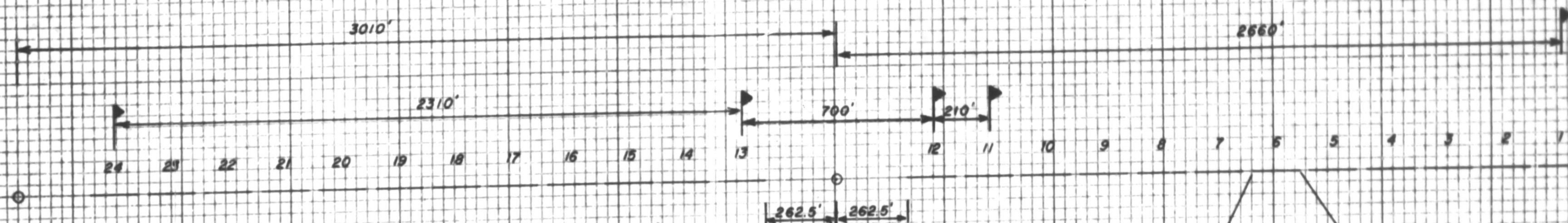
PAN AMERICAN PETROLEUM CORPORATION

By:


M. A. Knock

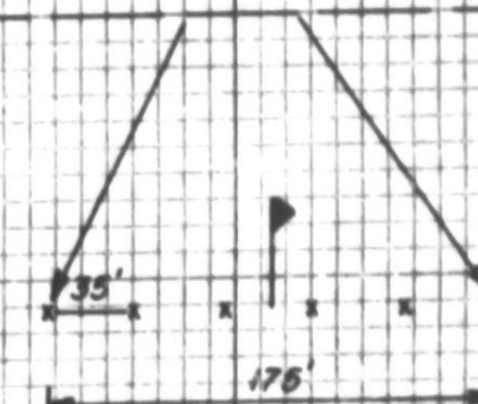
Exploration Group Supervisor

POINTED MOUNTAIN N.W.T.
PTY. U-559, 1964.
BASIC LAYOUT FOR
SINGLE HOLE & 6 SEIS/GRP.



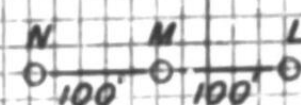
SCALE - 1" = 400'

GROUP OF
6 SEIS.



SHOT HOLE PATTERNS

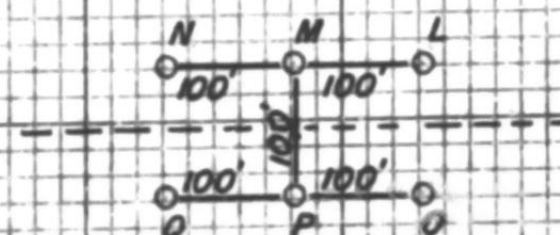
A. 3 HOLE PATTERN - IN LINE



B. 3 HOLE PATTERN - CROSS LINE



C. 6 HOLE PATTERN - IN LINE, OFFSET



SEIS LAYOUTS

A. 18 SEIS/GROUP - IN LINE



B. 18 SEIS/GROUP - CROSS LINE

