

CONTINUOUS VELOCITY LOG

AND

GEOPHONE SURVEY

SOCONY MOBIL WESTERN MINERALS BLACKIE NO. 1

137° 11' 10.87" WEST LONG. 65° 58' 54.92" NORTH LAT.

YUKON TERRITORY

FOR

SOCONY MOBIL OIL OF CANADA LIMITED

CALGARY, ALBERTA



*Seismograph Service Corporation of Canada*

*Calgary, Alberta*

OPERATIONAL STATISTICS

Client: Socony Mobil Oil of Canada Ltd.

Well Name: Socony Mobil Western Minerals Blackie No. 1

Location:  $137^{\circ} 11' 10.87''$  West Long.  $65^{\circ} 58' 54.92''$  North Lat.

Date Surveyed: March 18, 1964

Type of Survey: Continuous Velocity Log & Abbreviated Geophone Survey

Geophone and Logging Tool Run: Simultaneously

Total Depth of Well: Cable Truck 6,250 feet  
Driller 6,251 feet

Kelly Bushing Elevation: 1,839 feet Above Sea Level

Casing Record:  $13\frac{3}{8}$  inch casing to 1,100 feet (K. B.)

Maximum Depth Surveyed: C. V. L. 6,248  
Geophone 6,240

Cable Truck Used: S.O.C.

C. V. L. Tool Spacing: 6.0 ft. x 3.0 ft.

Well Available: 12:30 March 17, 1964

Geophone Survey: 15:15 to 23:00

Well Released: 5:00 March 18, 1964

Total Operating Time: 16 hours, 30 minutes

S.S.C. Engineer: G.S. Samchuck

Operational Difficulties: Unable to obtain normal geophone breaks below 3,500 ft. using heavy charges.  
(Pattern Shooting)



Geophone Survey:

Geophone Levels Surveyed: Ten

Check Shots Recorded: Twelve

Maximum Shot Hole Depth: 54 feet

Shot Hole Charges: Maximum - 65 Pounds  
Minimum - 5 pounds

Shot Hole Offset: 420 feet to 585 feet

Datum Elevation: +635 feet Above Sea Level

Elevation Velocity: 10,000 feet per second

Geophone Survey - C. V. L. Comparison:

To obtain deviation between Velocity Log and Geophone Survey (In microseconds per foot), check shot level 3,500 feet (K. B.) was used.

CONCLUSION

Suggested faulty instrument grounding was responsible for unusual geophone breaks on this portable survey.

Upon request, the amplifier gains were trimmed on check shots 5150, 5700 and 6240. In order to tie these levels in with Geophone Survey, the tangent method of picking was used on the first strong leg, with the exception of level 5150 feet, which was not used.

The "C. V. L. Geophone Survey Comparison" computations showed a deviation of 7.46 microseconds per foot.


The interval time on the Velocity Log was increased by 7.46 microseconds per foot from Csg. to T.D. to obtain a calibrated Velocity Log.

All computed data and graphs have been attached to this Calibrated Log and a continuous print has been enclosed in the covers.

A Synthetic Seismogram will be constructed from this Survey, correlated to your field record on S.P. 1549, Line 50, which will follow in a week.

Yours very truly,

Seismograph Service Corporation  
of Canada

By   
L. G. Morris, Manager

LGM:ae

