

CHEMICAL & GEOLOGICAL LABORATORIES LTD.



Operator Socony Mobil Oil Of Canada Limited Interval Cored Core #1: 944' 964'
Core #2: 1289' To 1309'
 Well No. S.M.W.M. Birch Y.T. B-34 Coring Fluid ---
 Lab. No. F2323 Elevation --- Formation ---

Comments The following analysis shows a total of 266.61 porosity feet with an average of 14.5 % porosity and 253 md.

Sample numbers 25 and 26 were fractured and unsuitable for horizontal permeability measurements.

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EDMONTON, ALBERTA

PHONES: 25624

42562

FULL DIAMETER CORE STUDY

OPERATOR Socony Mobil Oil of Canada Limited FIELD Eagle Plain, Yukon WELL NO. S.M.W.M. Birch Y.T. B-34

LOCATION FORMATION --- DEPTHS Core #1: 944' - 964' DATE Received: LAB NO. F2323
 Core #2: 1289' - 1309' June 11, 1965

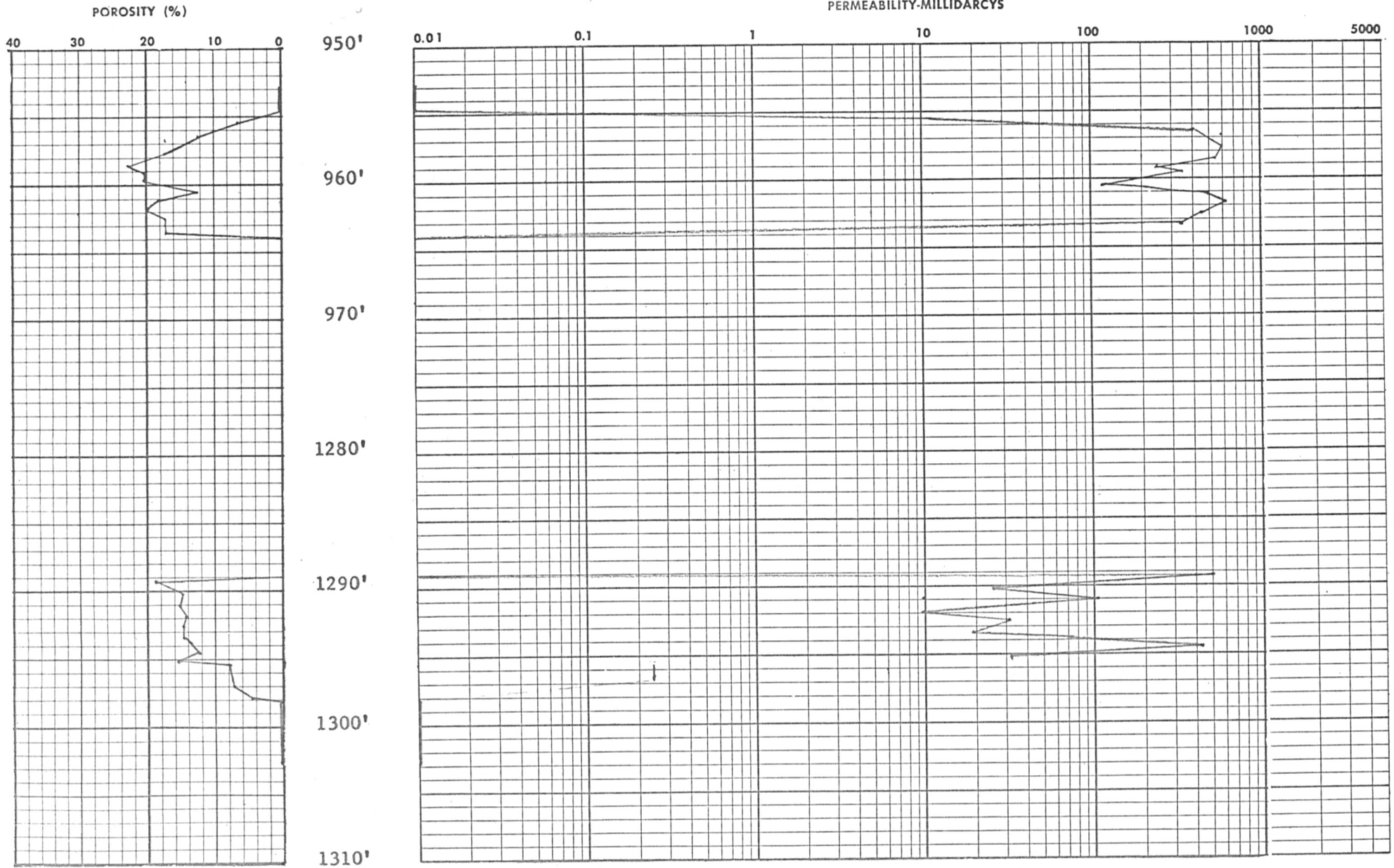
Footage of formation cored	40.0'	No. of representative samples selected for analysis	25.
<u>FEET OF CORE:</u>			
Received at laboratory for analysis	24.9'	Compared (to tested samples)	---
Not Accounted For	15.1'	Dense sections not represented	6.5'
Represented by samples	18.4'	Badly fractured sections not represented	---
<u>SUMMARY OF REPRESENTED SECTIONS:</u>		(1) $\frac{\text{represented}}{\text{received}} = \frac{18.4'}{24.9'}$	(2) $\frac{\text{represented}}{\text{cored}} = \frac{18.4'}{40.0'}$
Weighted average porosity	14.5 %	Maximum porosity	22.6 %
Weighted average K_H permeability on 16.6'	253. md.	Minimum porosity	4.7 %
Weighted average K' permeability on 16.2'	242. md.	Maximum K_H permeability	628. md.
Weighted average vertical permeability on 18.0'	68. md.	Minimum K_H permeability	0.25 md.
Weighted average maximum permeability	md.	Maximum vertical permeability	296. md.
Porosity Feet	266.61	Minimum vertical permeability	0.03 md.

CORE WITH MAXIMUM PERMEABILITY:

	10.0 md. or greater	between 1.0 and 9.9 md. inclusive	less than 1.0 md.
Footage	15.0	1.9	1.5
Weighted average porosity	15.8 %	10.2 %	6.8 %
Weighted average K_H permeability	280. md.	9.9 md. on 0.6'	0.25 md. on 1.0'
Weighted average vertical permeability	83. md. on 14.6'	2.8 md.	0.20 md.
Porosity feet	236.94	19.42	10.25

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Operator Sbcony Mobil Oil Of Canada Limited Well No. S.M.W.M. Birch Y.T. B-34 Lab. No. F2323 Date Received: June 11, 1965

Sample Number	Midpoint of Sample in Ft.	Representative of Feet	Footage Rep.	Permeability md.			% Porosity	Porosity Feet	Description
				Vertical	$\frac{K}{H}$	K'			
		CORE #1	944' - 964'		CORED 20.0'		RECEIVED IN LABORATORY 11.2'		
No Sample		952.8-954.7	1.9	---	---	---	---	---	Sh
2	955.4	954.7-955.8	1.1	0.24	11.	8.2	6.4	7.04	Cg
3	956.4	955.8-956.6	0.8	73.	400.	385.	12.5	10.00	Cg
4	956.7	956.6-957.3	0.7	260.	468.	444.	21.4	14.98	CSS-Cg I
5	957.6	957.3-958.2	0.9	185.	592.	548.	17.2	15.48	CSS-Cg I
6	958.5	958.2-958.7	0.5	296.	549.	526.	22.6	11.30	CSS I
7	959.1	958.7-959.4	0.7	145.	257.	243.	20.1	14.07	CSS I
8	959.6	959.4-960.0	0.6	159.	353.	336.	20.3	12.18	CSS-Cg I
9	960.5	960.0-960.9	0.9	15.	111.	101.	12.5	11.25	Cg
10	961.2	960.9-961.5	0.6	117.	499.	466.	18.5	11.10	CSS-Cg I
11	961.8	961.5-962.1	0.6	45.	628.	592.	19.9	11.94	CSS-Cg I
12	962.5	962.1-962.9	0.8	132.	448.	410.	17.1	13.68	CSS-Cg I
13	963.4	962.9-964.0	1.1	89.	348.	325.	17.2	18.92	Cg-CSS I

CORE DESCRIPTION SYMBOLS

(a) Unsuitable for test
 A Anhydrite

(b) Fractured during test
 BlSh Black Shale
 Bit Bitumen
 Bn Bentonite
 Br Brecciated
 Bt Buttoned

Ca Calcite
 Cg Conglomerate
 Ch Chert
 Co Coralline Fragments
 CSS Coarse Sandstone

D Dense
 Dol Dolomite
 ds Dense Siderite

FD Full diameter
 Fg Fragmental
 fSL Fine Sand Lenses
 fSS Fine Sandstone
 foss Fossiliferous
 fSSL Fine Sandstone Lenses
 Gl Glauconitic

HC Horizontal Crack
 HF Horizontal Fracture

I Intergranular
 InB Interbedded

K^o Taken 90° to K_H
 K_H Maximum Horizontal Permeability Measured

Ls Limestone
 LV Large Vugs

MSS Medium Sandstone
 mudst Mudstone

NR Not reactive to cold 15% HCl

O Open
 OccV Occasional Vugs
 ool oolitic

PV
 PPV Pin Point Vugs
 PTSL Paper Thin Shale Laminations
 Py Pyrites
 Pyb Pyrobitumen

R1 Slightly reactive to cold 15% HCl
 R2 Reactive to cold 15% HCl
 RC Random Cracks
 RF Random Fractures

S Stained
 Sd Sand
 Sdy Sandy
 Sh Shale
 ShL Shale Lenses
 Shy Shaly
 Sil Siltstone
 SI Slightly Intergranular
 SL Sand Lenses
 SP Small Plug
 St Stylolite
 SV Slightly Vuggy

TR Trace

U Unconsolidated

V Vuggy
 VC Vertical Crack
 VF Vertical Fracture
 VSI Very Slightly Intergranular

X Crystals

NB_o K_H and K^o are transverse permeability measurements on full diameter samples.