



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

January 28, 1954

REPLY TO
1020 PATTERSON BLDG.
DENVER, COLORADO

F. Kirk Johnson
310 Continental Oil Building
Denver, Colorado

Attention: Mr. T. C. Hiestand

Subject: Core Analysis
Tribelhorn No. 1 Well
Padroni Field
Logan County, Colorado

Gentlemen:

Diamond conventional cores from the subject well in the "D" Sand have been sampled and quick-frozen by a representative of F. Kirk Johnson, and analyzed in our Sterling, Colorado laboratory. Results of analysis are presented in tabular and graphical form on the attached Coregraph. Water base mud was used as the drilling fluid.

"D" Sand analyzed from 4483 to 4489 feet is interpreted to be primarily gas productive. The foot of sand analyzed from 4489 to 4490 feet is characterized by higher than normal water saturations and is believed to be primarily water productive. It is recommended that completion be limited to the sand between 4483 and 4489 feet. Sand analyzed from 4495 to 4497 feet is believed to be essentially nonproductive due to low permeability.

Average data for the zone, 4483 to 4489 feet, are presented on page one.

We hope these data prove beneficial in the evaluation of this well.

Very truly yours,

Core Laboratories, Inc.

4489
J. D. Harris (128)
J. D. Harris,
District Engineer

JDH:ma

5cc. - Addressee

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS

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 File STL-424 FC
 Well Tribelhorn No. 1

CORE SUMMARY AND CALCULATED RECOVERABLE OIL

CORE SUMMARY

FORMATION NAME	"D" Sand			
DEPTH, FEET	4483.0-4489.0			
% CORE RECOVERY	100			
FEET OF PERMEABLE, PRODUCTIVE FORMATION RECOVERED	6.0			
AVERAGE PERMEABILITY MILLIDARCY	466			
CAPACITY — AVERAGE PERMEABILITY X FEET PRODUCTIVE FORMATION	2796			
AVERAGE POROSITY, PERCENT	20.4			
AVERAGE RESIDUAL OIL SATURATION, % PORE SPACE	0.4			
GRAVITY OF OIL, °A.P.I.				
AVERAGE TOTAL WATER SATURATION, % PORE SPACE	42.4			
AVERAGE CALCULATED CONNATE WATER SATURATION, % PORE SPACE	34			
SOLUTION GAS-OIL RATIO, CUBIC FEET PER BARREL (1)				
FORMATION VOLUME FACTOR—VOLUME THAT ONE BARREL OF STOCK TANK OIL OCCUPIES IN RESERVOIR (1)				

CALCULATED RECOVERABLE OIL { Prediction dependent upon complete isolation of each division. Structural position of well, total permeable thickness of oil zone and drainage area of well should be considered.

BY NATURAL OR GAS EXPANSION, BBLs. PER ACRE FOOT (2)	(4)			
INCREASE DUE TO WATER DRIVE, BBLs. PER ACRE FOOT	(4)			
TOTAL AFTER COMPLETE WATER DRIVE, BBLs. PER ACRE FOOT (3)	(4)			

Core Laboratories, Inc.

J D Harris (pg)
 J. D. Harris

NOTE:

- (*) REFER TO ATTACHED LETTER.
- (1) REDUCTION IN PRESSURE FROM SATURATION PRESSURE TO ATMOSPHERIC PRESSURE.
- (2) AFTER REDUCTION FROM ORIGINAL RESERVOIR PRESSURE TO ZERO POUNDS PER SQUARE INCH.
- (3) RESERVOIR PRESSURE MAINTAINED BY WATER DRIVE AT OR ABOVE ORIGINAL SATURATION PRESSURE.
- (4) NO ESTIMATE FOR GAS PHASE RESERVOIRS.

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