

ENG'R DEPT.

FILE COPY

EXD

CORE ANALYSIS REPORT
FOR
AMERADA PETROLEUM CORPORATION

JICARILLA APACHE NO. B-4 WELL

WILDCAT

RIO ARriba COUNTY, NEW MEXICO

LOCATION: SEC. 19 - T24N - R5W

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Amerada
CASE 754

CORE



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY AMERADA PETROLEUM CORPORATION DATE ON 9/19/55 FILE NO. RP-3-197 FC
WELL JICARILLA APACHE NO. B-4 DATE OFF 9/19/55 ENGRS. WJC
FIELD WILDCAT FORMATION PICTURED CLIFFS ELEV. 6618' KB
COUNTY RIO ARriba STATE NEW MEXICO DRLG. FLD. DIESEL CORES DIAMOND
LOCATION 990' FSL, 990' FEL, SEC. 19-24N-5W REMARKS SERVICE NO. 4

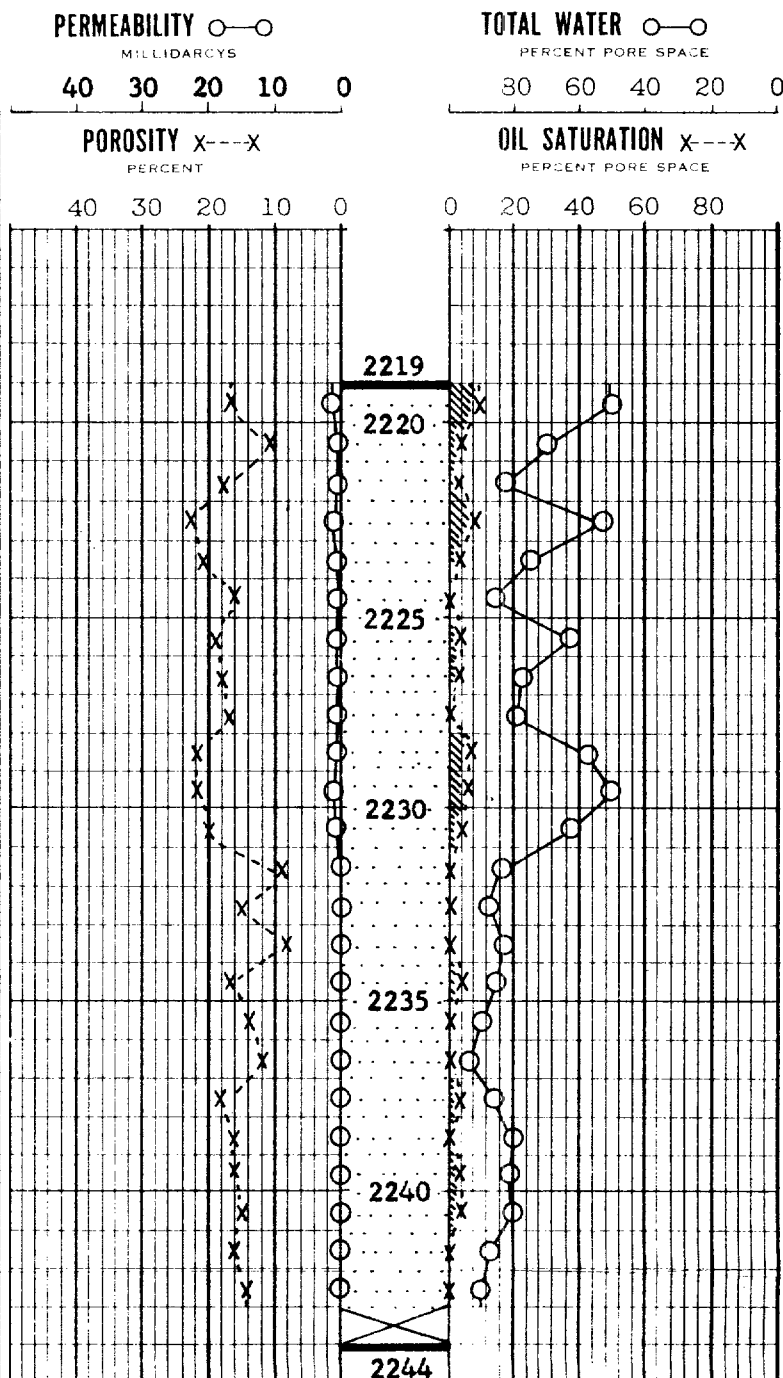


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COMPLETION COREGRAPH

TABULAR DATA and INTERPRETATION

SAMPLE NUMBER	DEPTH FEET	PERM MD AIR	POROSITY %	RESIDUAL SATURATION % PORE SPACE		CHLORIDE PPM	PROD
				OIL	TOTAL WATER		
1	2219.5	1.76	17.4	10.4	51.1		GAS
2	2220.5	0.21	11.3	5.3	69.9		GAS
3	2221.5	0.21	17.5	3.4	82.9		GAS
4	2222.5	1.20	23.4	9.0	52.6		GAS
5	2223.5	0.72	21.4	2.8	75.3	12,600	GAS
6	2224.5	0.47	16.1	0.0	85.1		GAS
7	2225.5	0.55	18.7	3.2	63.8		GAS
8	2226.5	0.38	17.8	3.4	77.0		GAS
9	2227.5	0.55	16.7	0.0	79.7		GAS
10	2228.5	0.47	22.0	6.8	57.7		GAS
11	2229.5	1.20	21.8	6.4	51.9		GAS
12	2230.5	0.85	20.4	4.4	62.9		GAS
13	2231.5	0.0	9.3	0.0	83.9		
14	2232.5	0.0	14.7	0.0	87.8		
15	2233.5	0.0	8.2	0.0	83.0	9,120	
16	2234.5	0.0	16.6	5.4	85.5		
17	2235.5	0.0	13.6	0.0	89.0		
18	2236.5	0.0	12.2	0.0	93.5		
19	2237.5	0.0	18.3	3.3	85.9		
20	2238.5	0.0	16.3	0.0	80.0		
21	2239.5	0.0	16.0	3.8	80.6		
22	2240.5	0.0	15.4	3.9	80.0		
23	2241.5	0.0	15.9	0.0	86.9		
24	2242.5	0.0	13.6	0.0	89.8		



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

September 26, 1955

REPLY TO
1020 PATTERSON BLDG.
DENVER, COLORADO

*Calculated Reserves @ 105 Res.
abandonment. = 1,810 McF Ac*

Amerada Petroleum Corporation
Box 2040
Tulsa 2, Oklahoma

Attention: Mr. Richard J. O. Hathaway

Subject: Core Analysis
Jicarilla Apache No. B-4 Well
Wildcat
Rio Arriba County, New Mexico
Location: Sec. 19-T24N-R5W

Gentlemen:

Diamond coring equipment and diesel oil mud were used to core the interval from 2219 to 2244 feet in the subject well. Samples of recovered formation were selected and quick-frozen by engineers of Core Laboratories, Inc., and were transported to the Farmington laboratory for analysis. The results of the analysis are presented in this report.

Pictured Cliffs formation between 2219 and 2231 feet is interpreted to be gas productive where permeable. The zone is characterized by very low permeability, which ranged from 0.21 to 1.76 millidarcys and averages 0.71 millidarcy. The total productive capacity of the 12 feet of gas productive formation is 8.5 millidarcy-feet, and a commercial producer would be dependent upon the success of a formation fracturing treatment. A summary of the average core analysis data for the gas productive interval from 2219 to 2231 feet is presented on page one of the report.

The remainder of the Pictured Cliffs formation recovered from 2231 to 2243 feet is impermeable and nonproductive.

We sincerely appreciate the opportunity to be of service to you.

Very truly yours,

Core Laboratories, Inc.

J D Harris (P8)
J. D. Harris,
District Manager

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS

Page 1 of 1
File RP-3-197 FC
Well Jicarilla Apache No. B-4

CORE SUMMARY AND CALCULATED RECOVERABLE OIL

CORE SUMMARY

FORMATION NAME	Pictured Cliffs			
DEPTH, FEET	2219.0-2231.0			
% CORE RECOVERY	100			
FEET OF PERMEABLE, PRODUCTIVE FORMATION RECOVERED	12.0			
AVERAGE PERMEABILITY MILLIDARCS	0.71			
CAPACITY — AVERAGE PERMEABILITY X FEET PRODUCTIVE FORMATION	8.5			
AVERAGE POROSITY, PERCENT	18.7			
AVERAGE RESIDUAL OIL SATURATION, % PORE SPACE	4.6			
GRAVITY OF OIL, °A.P.I.				
AVERAGE TOTAL WATER SATURATION, % PORE SPACE	67.5			
AVERAGE CALCULATED CONNATE WATER SATURATION, % PORE SPACE	63			
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 (PE)

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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Distribution of Final Reports

2 Copies	Amerada Petroleum Corporation Box 2040 Tulsa 2, Oklahoma Attention: Mr. Richard J. O. Hathaway
2 Copies	Amerada Petroleum Corporation Box 2040 Tulsa 2, Oklahoma Attention: Mr. J. E. Lowe
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1 Copy	Amerada Petroleum Corporation c/o Avery Hotel Farmington, New Mexico Attention: Mr. Darrell Hopkins

Case 959 - Sept. 1955

1. What Proportion formula are you requesting?

2. Do you have an ^{Information} (opinion) as to whether S. & S. Sec. #1-2, SE 33-25N-5W and Steamboat #4 - Sec. Contiant. 146 are in the same source of supply?

3. Allowable comparison for 1-160 Ac. wells and 1-320 wells.

August proportion schedule for South Blenco, P.C.

Ac. factor = 2854.05

AD " = 14.653973

assuming: 1 well on 160 with a Del of 1000.

1 " on 320 " " " " 1000.

$$160 = (100 \times 2854.05) + 1000 \times 14.653973 = 17,507.52$$

$$320 = (200 \times 2854.05) + 2000 \times 14.653973 = 35,015.09$$

relationships should be 2:1

4. Do you have information or an opinion as to whether the producing wells in 24N-5W are same source of supply as now designated Canyon Largo Pool.

Agts: Case production on Basin 320 in 24-5 only. Established Pool in the Area. Handle #111.

ILLEGIBLE

County _____ Pool _____

TOWNSHIP _____ South, RANGE _____ East, NEW MEXICO PRINCIPAL MERIDIAN

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

23N

☐ Case 949-Order 684

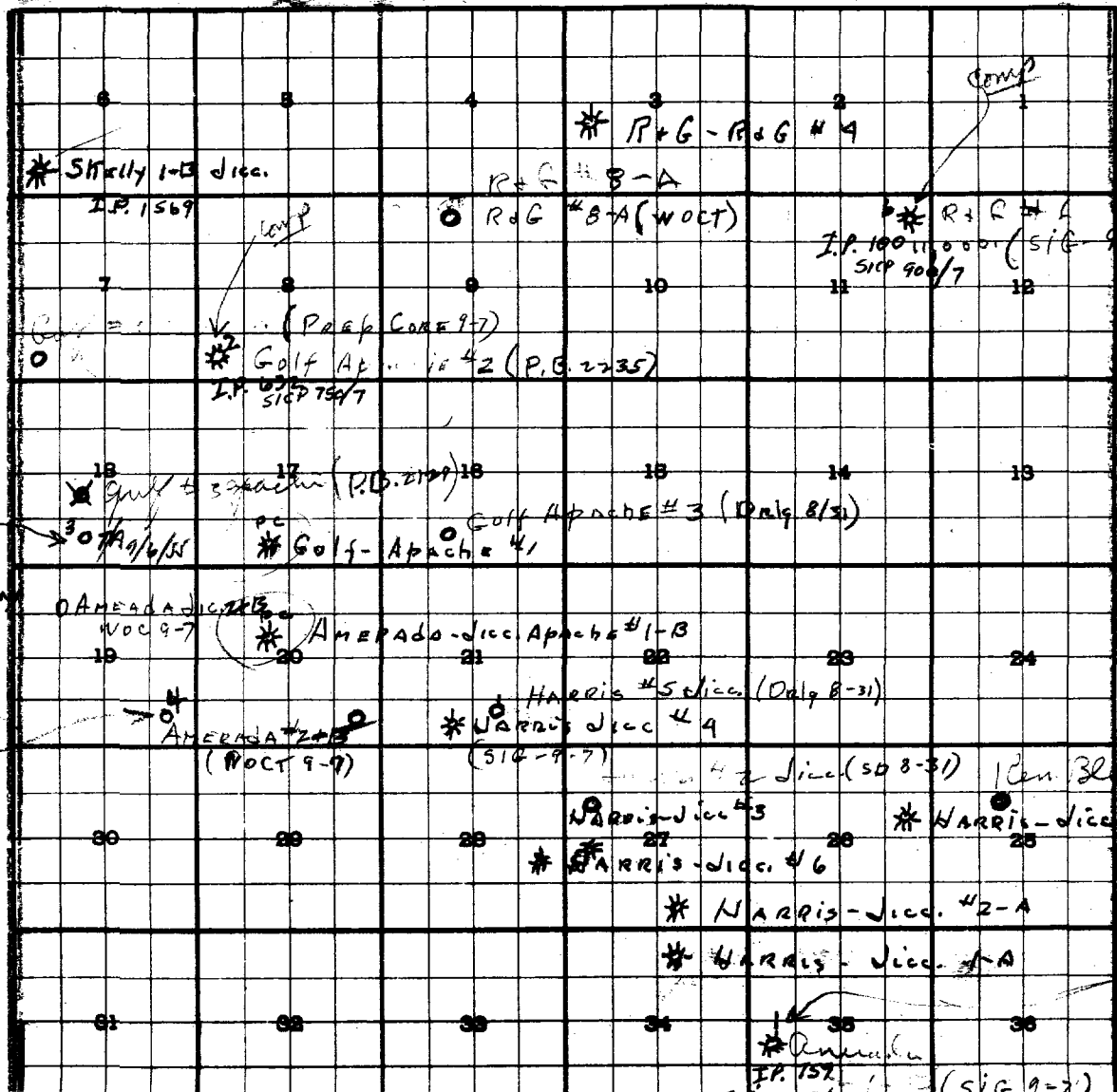
☒ Recommended For SEPT. 55 HEARING.

All Harris Wells ARE REPORTED CONNECTED TO E.P.

County _____

Pool _____

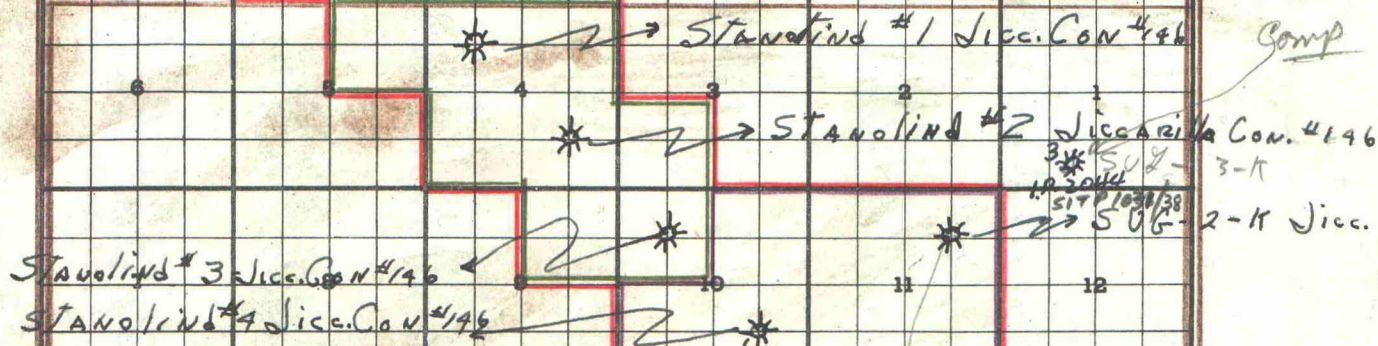
TOWNSHIP _____ RANGE _____ East, NEW MEXICO PRINCIPAL MERIDIAN



24N

Legend
#1-25
#1 (Only Plug
9+7)

comps



County Rio Arriba

Pool

CASE 959

TOWNSHIP

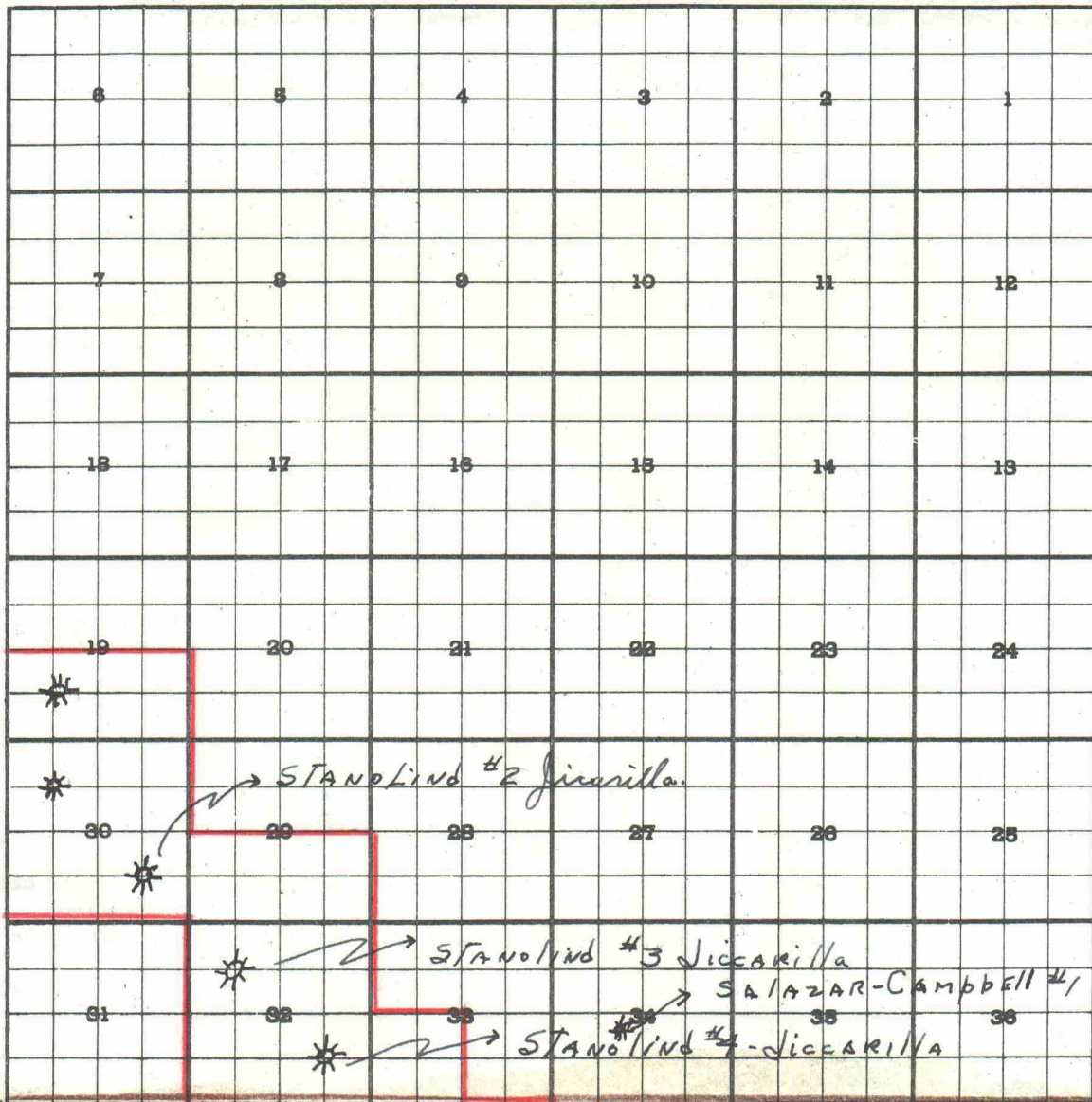
South

RANGE

5

West

NEW MEXICO PRINCIPAL MERIDIAN



Donalula
#1 Jicarilla
N 10-26-9
T D 19300

26N

Shut in Pressures on Delhi Omler Wells
in Sec 26 + 35 - T28N, R10W as of 5-7-55
and Initial Shut in Pressures on McMillan - White
Omler wells in Sec. 25 + 36, T28N - R10W.

Delhi Omler Wells have been producing
since 1951

* 505#	* 480#	* 614#	* 671#
* 477	* 460#	* 609#	* 629#
* 478#	* 378#	* 572#	* 498#
		* 572	* 598#

TOWNSHIP 28N RANGE 10W COUNTY San Juan STATE N. M.

REMARKS:

COMPANY

ILLEGIBLE

Handwritten signature
Date 9-5-55



SKELLY OIL COMPANY

PRODUCTION DEPARTMENT
J. S. FREEMAN, VICE PRESIDENT

TULSA 2, OKLAHOMA

September 9, 1955

AIRMAIL

Mr. Elvis A. Utz
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

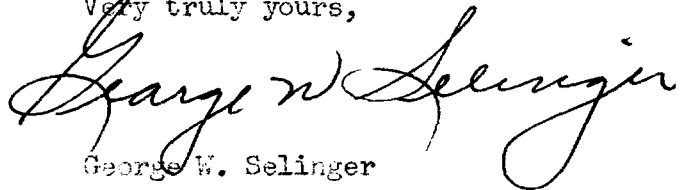
We have your letter of September 7, 1955, regarding our Jicarilla No. 1 C in the SE/4 Section 22-T25N-R5W, and our Jicarilla No. 1 B, Section 6-T24N-R5W.

With respect to our C well, it was completed as a gas distillate well in the Dakota Sand with a potential of $9\frac{1}{2}$ million/day and approximately 62 barrels/million of 58° gravity distillate. The Pictured Cliffs formation in this well was tested from 2892-2957 (top Pictured Cliffs 2887), tool open 4 hours, recovered 80' drilling mud, initial flow test 95#, final flowing pressure 95#. 30 minute shut-in bottom-hole pressure 190#.

On our B No. 1, it was completed as a Pictured Cliffs well. 7" casing set 2456', plugged back total depth 2500', 0 natural potential, potential after frac 1569 MCF/D, shut-in gas pressure 740#, shut-in tubing pressure 760#. This well was not cored in any formation and completed in August 1955.

By carbon copy of this letter to our superintendent, Mr. P. E. Cosper, we are asking him to send direct to you as soon as possible, copies of each of the two electric logs run on these wells and also to give you any corrections as to the above information for the respective wells.

Very truly yours,


George W. Selinger

GWS:meh
cc: Mr. P. E. Cosper