CHEMICAL & GEOLOGICAL LABORATORIES

CHEMISTS CORE ANALYSTS ENGINEERS

P. O. BOX 279
CASPER, WYOMING

January 5, 1959

Mr. Tom Bolack
1010 North Dustin
Farmington, New Mexico

Re: Bolack No. 10
Horseshoe-Gallup Field
San Juan Co., New Mexico

Dear Sir:

Attached are results of flowing and Productivity Index tests on the subject well made December 29, 1958.

Pressure recorded at a depth of 1550 feet while flowing at an average rate of 3012 BOPD for 2 hours duration was 163 psig. Static pressure at 1550 feet was recorded by the El Paso bomb December 24 as 255 psig.

The calculated productivity index at this flow rate is 32.74 BOPD per pound pressure drop at the sand face, giving an open flow capacity at the sand face of 8,349 BOPD.

It has been reported that approximately 1,000 barrels of oil had been produced prior to 5:15 A.M. December 29, 1958. From 5:15 A.M. to 10:15 A.M. December 29th an additional 519 barrels was produced. It is thus reasonable to assume that all frac oil had been produced prior to this test.

We are happy to have been of service to you and trust that our work has been completed to your satisfaction.

Very truly yours,

CHEMICAL & GEOLOGICAL LABORATORIES

F. R. Wheeler,
Manager, Engineering Dept.

FRW:lc
Encl.

CHEMICAL & GEOLOGICAL LABORATORIES

CHEMISTS GEOLOGISTS ENGINEERS

P. O. BOX 279
CASPER, WYOMING

220 West Broadway
Farmington, New Mexico

December 29, 1958

The Chemical & Geological Laboratories' engineer, Mr. J. B. Ballack, arrived at the location of the Bolack No. 10 well in Horseshoe-Gallup field at 8:30 A.M., December 28, 1958 to perform the following tests on the subject well:

Humble type pressure instrument No. 1091 (calibration factor - 368 r 123 X inches extension) was placed in the well to a depth of 1550 feet at 10:15 A.M., 12-29-58 for a period of five hours. The pressure recorded at the accompanying flow rate of 125 1/2 Bbls/Hr. was 0.108 inches extension or 163 psig.

At 10:15 A.M., 12-29-58, and each one-half hour thereafter until 1:15 P.M. 12-29-58, the barrels flowed were measured by actual tank guages and were found to be as indicated in the accompanying data.

Signed Jack B Ballack
Jack B. Ballack, Service Engineer

Witness A. J. Dudenhoeffer
A. J. Dudenhoeffer,
Registered Professional Engr.
State of New Mexico, No. 3116

Witness P. T. McGrath
Phil McGrath
U. S. G. S.
District Engineer

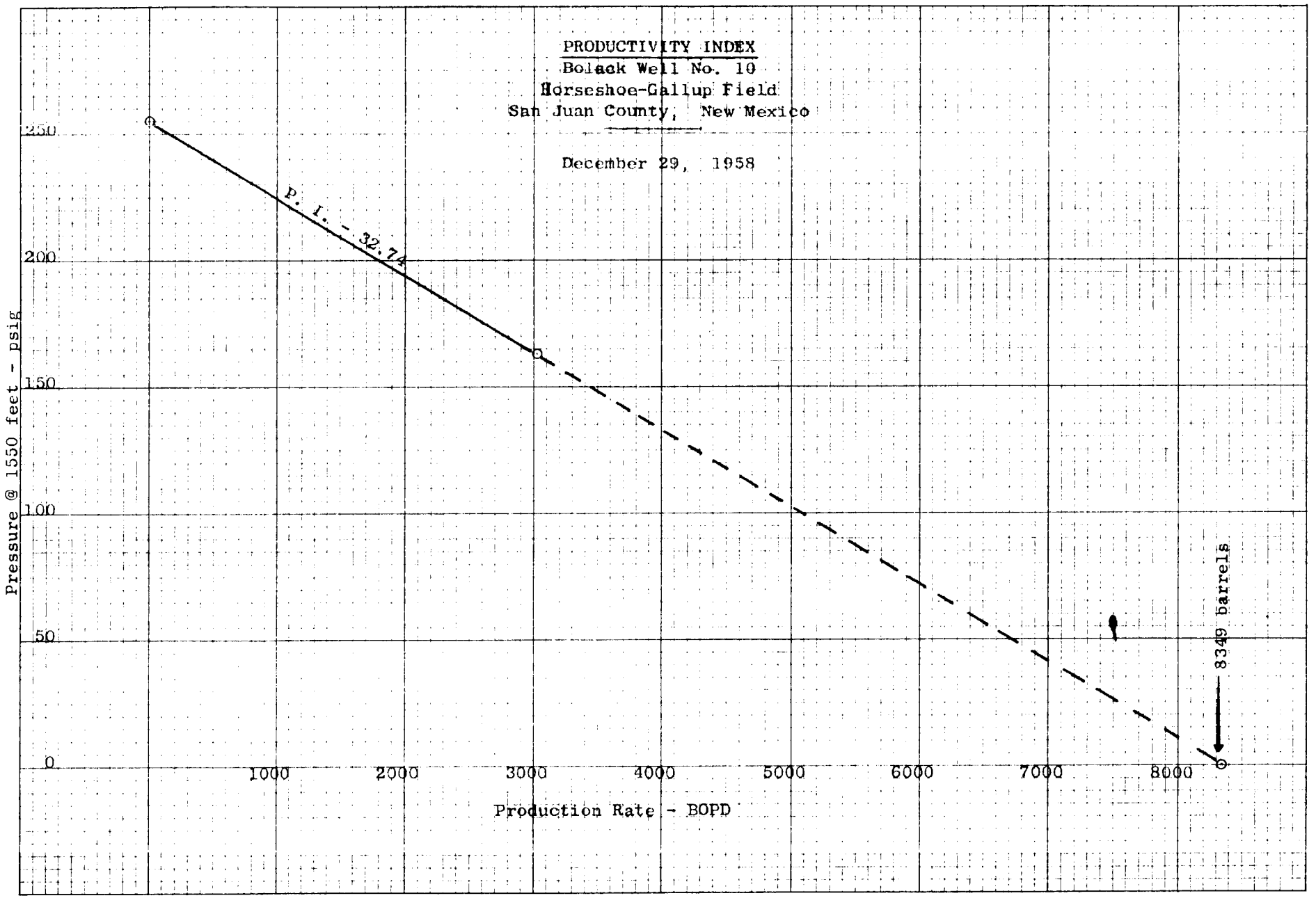
SUMMARY OF FLOW TESTS
December 29, 1958

Bolack No. 10

Time	Tank Gauge No. 1	Tank Gauge No. 2	Tank Gauge No. 3	Tank Gauge No. 4	Barrels	Rate per hour	Choke size	Calculated Daily Rate	Average Daily Rt.	Flowing Pressure @ 1550	Remarks
5:15 AM	0	0	0	0							
10:15 AM	10'- 3"	10'- 3"	2'- 7"	2'-10"	519	103.8	--	--			Static pressure recorded @ 1550 by El Paso pressure gauge - 255 psig
10:45 AM	11'-10½"	11'-10½"	2'- 7"	2'-10"	65	130.0	open	3120			
11:15 AM	13'- 7½"	13'- 7½"	2'- 7"	2'-10"	70	140.0	open	3360			
11:45 AM	14'-11½"	14'-11½"	2'- 7"	2'-10"	54	108.0	open	2592			
12:15 PM	16'- 6"	16'- 6"	2'- 7"	2'-10"	62	124.0	open	2976	3012	163 psig	
12:45 PM	17'- 5"	17'- 5"	2'- 7"	2'-10"	36	72.0	1¼"	1728			
1:15 PM	10"- 9"	10'- 5"	10'- 4"	10"- 3"	30	60.0	1¼"	1440	1584	--	

Summary:

Producing rate of well not restricted by choke:	3012	BOPD
Static shut in pressure @ 1550 feet:	255	psig
Flowing pressure @ 1550 feet @ 3012 BOPD:	163	psig
Pressure difference -(ΔP):	92	psig
Productivity Index:	32.74	BOPD/ΔP
Calculated open flow potential at sand face:	8349	BOPD



CHEMICAL & GEOLOGICAL LABORATORIES

CHEMISTS CORE ANALYSTS ENGINEERS

TOM BOLACK

BOLACK NO. 10

HORSESHOE-GALLUP FIELD

SAN JUAN COUNTY

NEW MEXICO

Productivity Index