

MULTIPOINT AND ONE POINT BACK PRESSURE TEST OR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 2-17-82		AUG 20 1982	
Company Western Reservoirs, Inc.		Correction To Air		O. C. D.	
Well Pecos SLOPE 2150		Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 2-2-82		Total Depth 3950		Plug Back TD 3940	
Elevation 3946 KB		Farm or Lease Name Beverly "24" Fld.		Well No. 1	
Casing Size 4 1/2"		Well # 10.5		Set At 3780 To 3800	
Tubing Size 2 3/8"		Well # J-55		Set At 3650	
Type well - Single - Blindhead - G.C. or G.O. Multiple Single		Packer Set At None		County Chaves	
Producing thru TBG		Reservoir Temp. °F 112° 3990		Mean Annual Temp. °F 60°	
Baro. Press. - P _g 13.2		State New Mexico			
L 3650		H 3650		G _g .992	
% CO ₂ 12.7		% N ₂ 8.1		% H ₂ S 2"	
Prover 2"		Meter Run		Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Flow Rate	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							910		890	
1.	2.0	X	.250	780		40°	860	51°	840	45 min
2.	2.0	X	.250	830		46°	842	55°	815	45 min
3.	2.0	X	.500	480		40°	635	59°	600	60 min
4.	2.0	X	.500	535		47°	540	63°	525	60 min
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1	1.087		793.2	1.020	1.138	1.091	1092
2	1.087		843.2	1.019	1.138	1.095	1158
3	4.279		493.2	1.020	1.138	1.055	2584
4	4.279		548.2	1.013	1.138	1.058	2861
5							

NO.	$\bar{r}$	Temp. °R	T_r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	1.12	500	1.35	.840			.772		709	371
2	1.19	506	1.36	.834						
3	.69	500	1.35	.899						
4	.77	507	1.37	.893						
5										

NO.	P_c	P_c^2	P_w^2	$P_c^2 - P_w^2$
1	762.5	581,406	780.7	71,600
2	731.4	534,946	751.9	100,400
3	420.2	176,568	525.2	327,100
4	306.0	93,636	436.5	415,800
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.050$$

$$AOR = 0 \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.173$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.459$$

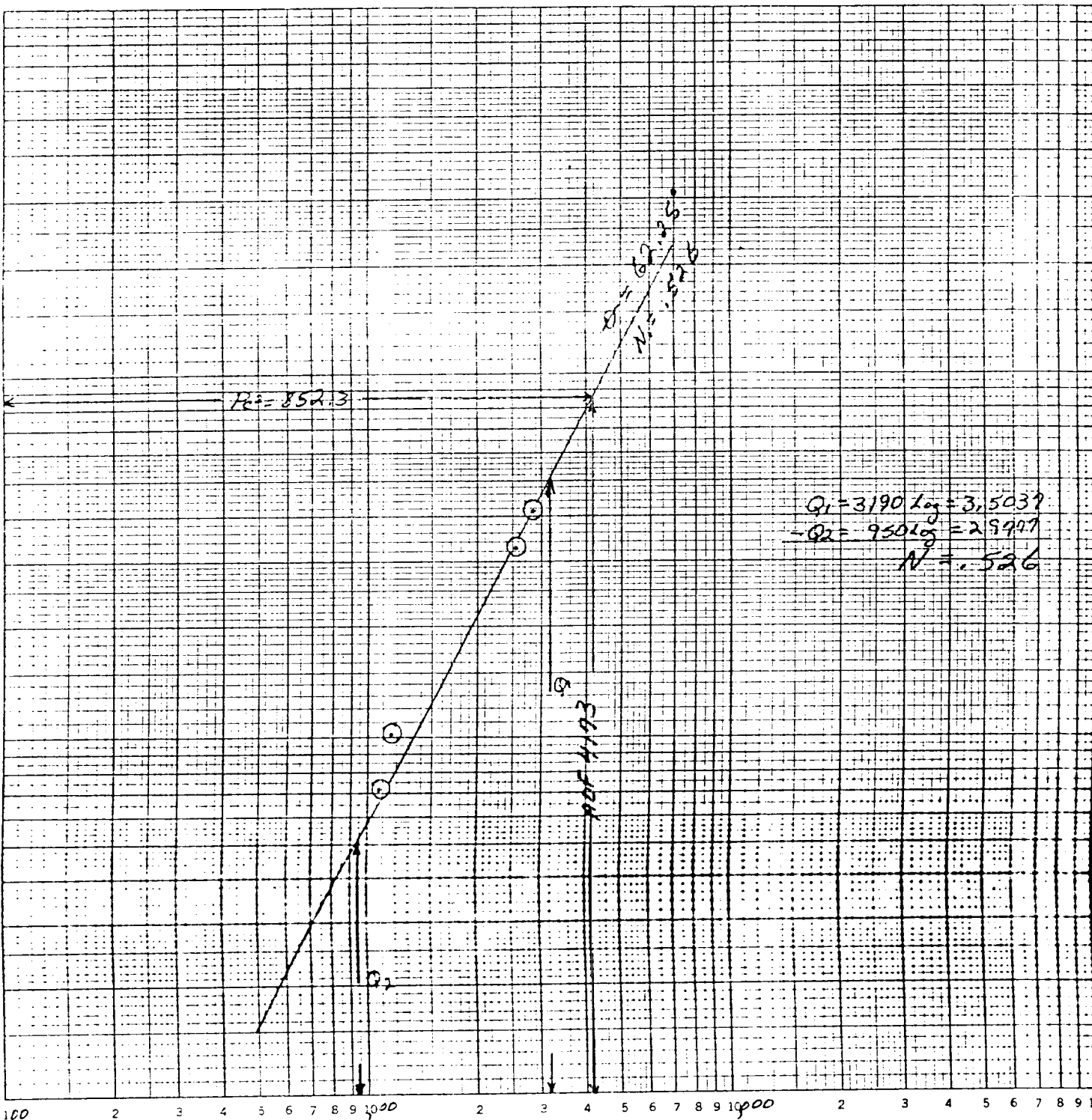
Absolute Open Flow	4173	Mcfd @ 15.025	Angle of Slope	62.25	Slope, n	526
Remarks: made No Flow during Test						
Approved by Division	Conducted by:	Calculated by:	Checked by:			
	M.R.	B.R.	B.R.			

K.O.S. LOGARITHMIC 3 X 3 CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

$P_{e2} - P_w$

46 7400

10
9
8
7
6
5
4
3
2
1
10
9
8
7
6
5
4
3
2
1
100 2 3 4 5 6 7 8 9 1000 2 3 4 5 6 7 8 9 10



$Q, \text{mcf/day}$

NEW-TEX LAB
P.O. BOX 1161
HOBBS NM 88241-1161
505-393-3561

ANALYSIS NUMBER: 6718
DATE OF RUN: 02/18/82
DATE SECURED: 02/17/82.

ANALYSIS CERTIFICATE

SAMPLE IDENT: WESTERN RESERVES OIL CO-BEVWOR "24" FED #1
CLIENT: BABER WELL SERVICING CO
ADDRESS: P O BOX 1772
CITY, STATE: HOBBS NM 88240

SAMPLING PRESS: 0 PSIG SAMPLING TEMP: 0 DEG F
STATION NUMBER:

***** GAS ANALYSIS *****

	MOLE PERCENT	GAL/ MCF
NITROGEN	8.0849622	
CARBON DIOXIDE	12.7093496	
METHANE	71.8952942	
ETHANE	4.1614304	1.1098500
PROPANE	1.6969796	0.4658210
ISO-BUTANE	0.2861799	0.0933905
NORMAL BUTANE	0.5852544	0.1840040
ISO-PENTANE	0.1729818	0.0631557
NORMAL PENTANE	0.1796955	0.0649420
HEXANES	0.1090624	0.0488394
HEPTANES PLUS	0.1088099	0.0500743
TOTAL	100.0000000	2.0800700

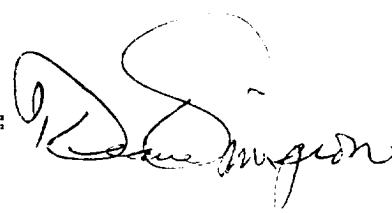
PROPANE GPM:	0.47	BUTANES GPM:	0.28
ETHANE GPM:	1.11	PENTANES PLUS GPM:	0.23

SPECIFIC GRAV (CALC): .7719
MOLE WEIGHT: 22.36

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
14.696		881	897
14.650		878	894
14.730		883	897
14.735		884	899

ANALYZED BY:

APPROVED BY:



LOCATION: Unit _____ Section 24 Township 5 Range 24

d 1.995 F_r 1.018231 GH 2818

P_{Cr} 709 T_{Cr} 371
TABLE IX & X TABLE IX & X

[illegible]

SUGGESTED FIELD DATA SHEET (Instructions To File)

2-17-82

Test Date

Test Type

☒ Initial

☐ Annual

☐ Special

Lease No. or Serial No.

WESTERN RESERVE OIL CO.

Connection TO AIR

Allottee

PERCOS SLOPE

Reservoir 280

Location

Unit

Comp. No. 2-2-82

Total Depth 3,925

Perforation Depth 3,940

Elevation 3944 K.B

Form or Lease Name

SEVMOR "24" FED.

Comp. No. 4 1/2"

Wt. 10.5

Set At

Perforation From 3780 To 3800

Well No. 1

Test Log 2 3/8"

Wt. 55 1/2"

Set At 3650

Perforation From To

Sec. 24

Two-Blk. 58

Page 24E

Type Connection (Describe)

SINGLE

Packer Set At

County or Parish

CHAPES

Producing Test

Reservoir Temp. 98°

Atm. Press. - P_a 68°

Atm. Press. - P_a

State

N.M.

TUBING

98°

68°

68°

% H₂S

Prover

2"

Water Run

DATE	ELAP. TIME	Wellhead Working Pressure			PRESSURE ON PROVER				REMARKS
Time of Reading	Hrs.	Tbg. P.s.i.g.	Cas. P.s.i.g.	Temp. F.	Pressure P.s.i.g.	CHL	Temp. F.	Orifice	(Include liquid production data) Type-A.P.I. Gravity-Amount
9:30		710	890	54					SHUT-IN PRESSURE
9:45								1/4"	Begin Test
10:00		869	849	55	800		42°	.250	10/64 CHOKE SETTING
10:15		860	840	55	785		42°		
10:30		860	840	57	780		42°		198 MCF/D
10:45		841	820	56	805		42°	1/4"	NOTE TO
11:00		842	815	54	800		45°	.250	10/64 CHOKE
11:15		842	815	55	800		46°		201 MCF/D
11:30		687	650	55	570		41°	1/2"	NOTE TO
11:45		643	630	55	480		40°	.500	14/64 CHOKE
12:00		647	615	56	480		40°		
12:15		635	600	56	480		40°		247 MCF/D
12:30		562	530	60	550		47°	1/2"	NOTE TO
12:45		548	525	60	540		47°	.500	20/64 CHOKE
1:00		540	545	62	535		47°		
1:15		540	525	63	530		47°		274 MCF/D
									NO LIQUID