N MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: ☐ Initial ☐ Annual ☒ Special				Test Date: 10-7-83	
Company: AMOCO PRODUCTION (USA)			Connection: PHILIPS		
Pool: ANTELOPE RIDGE			Formation: MORROW		Unit
Completion Date: 8-6-82	Total Depth: 13,600		Plug Back TD: 13,242	Elevation: 3364	Farm or Lease Name: State ME Com
Csg. Size: 7.000 / Wt.: 35.0 / d: 5.879 / Set At: 13,360			Perforations: From 13,214 To 13,250		Well No.: 1-Y
Tbg. Size: 2.875 / Wt.: 6.5 / d: 2.441 / Set At: 13.010			Perforations: From 0 To 0		Unit: W / Sec.: 11, / Twp.: 23, / Rge.: 34
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 12,950		County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 180. @ 13,242	Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
13,242	13,242	0.605	0.65	1.20	0.0	0.0	4.0	Flange

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size 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.	Temp. °F	Duration of Flow
SI					2600	70			96.0
1.	4.03 x 1.000	500	6.0	100	2467	70	0	0	1.0
2.	4.03 x 1.000	500	21.0	92	2322	70	0	0	0.8
3.	4.03 x 1.000	500	35.0	82	2215	70	0	0	0.8
4.	4.03 x 1.000	500	41.0	73	1866	70	0	0	0.8
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	4.87	55.49	513.2	0.9636	1.2853	1.0332	346
2.	4.87	103.81	513.2	0.9706	1.2853	1.0353	654
3.	4.87	134.02	513.2	0.9795	1.2853	1.0379	854
4.	4.87	145.06	513.02	0.9877	1.2853	1.0404	934
5.							

NO.	P_t	Temp. °R	T_r	Z
1	0.76	560	1.57	0.937
2.	0.76	552	1.55	0.933
3.	0.76	542	1.52	0.928
4.	0.76	533	1.50	0.924
5				

Gas Liquid Hydrocarbon Ratio 0.0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0.0 Deg.
Specific Gravity Separator Gas 0.605 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.605
Critical Pressure 673 P.S.I.A. 673 P.S.I.A.
Critical Temperature 356 R 356 R

P_c 2602 P_c^2 6771

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	6151	2470	6100	671
2	5453	2326	5408	1363
3	4965	2219	4926	1845
4	3531	1873	3508	3262
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.0755$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5783$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1474$

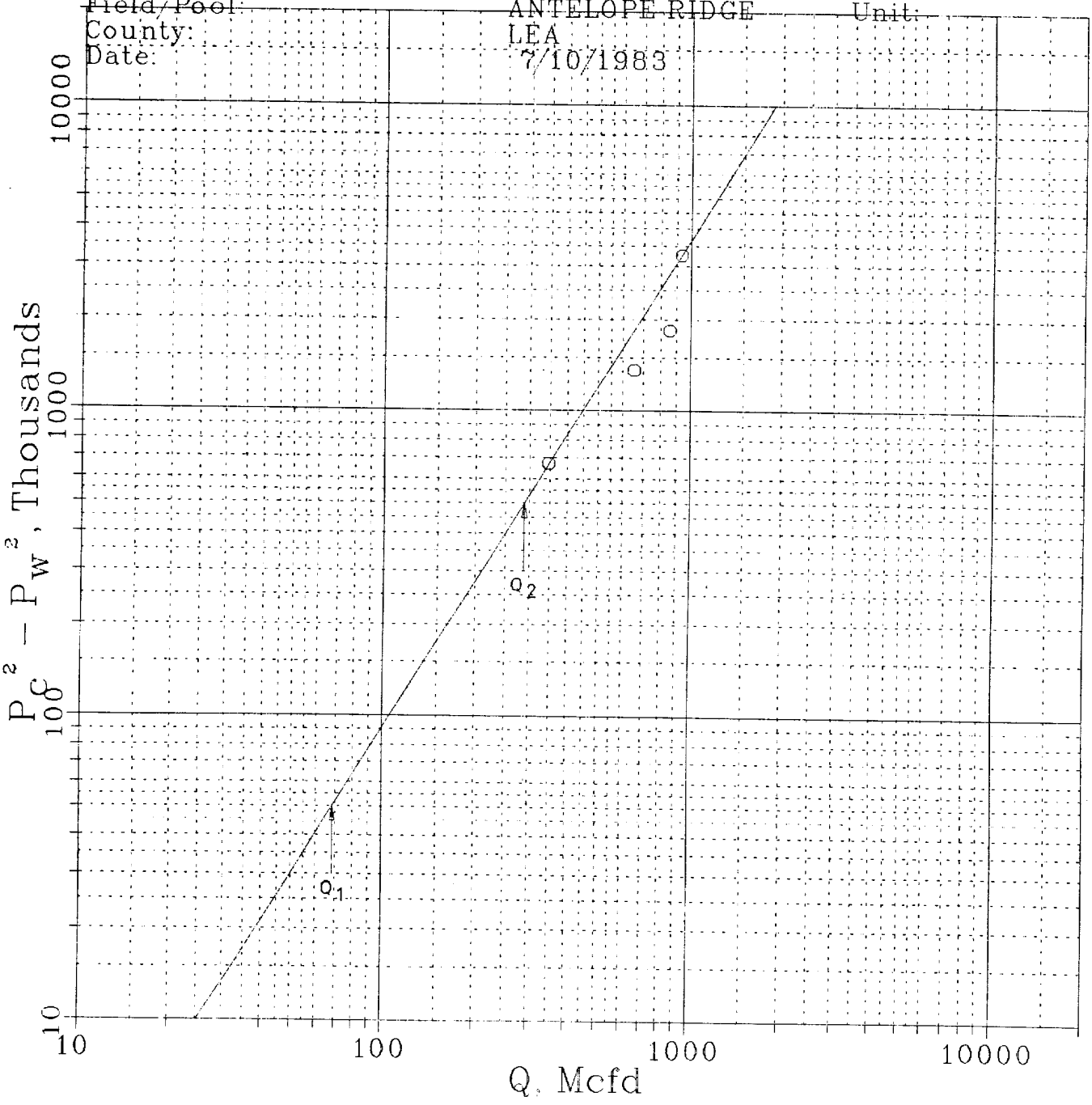
Absolute Open Flow 1474 Mcfd @ 15.025 Angle of Slope θ 58.0 Slope, n 0.625

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John West Engineering	Richard E. Roeth	Richard E. Roeth

GAS WELL
BACK PRESSURE TEST

Company: AMOCO PRODUCTION usa
Well: 1-Y Pool No:
Field/Pool: ANTELOPE RIDGE Unit:
County: LEA
Date: 7/10/1983



Q_1 = 69. Mcfd; LOG Q_1 = 1.83614
Q_2 = 289. Mcfd; LOG Q_2 = 2.46116
n = 0.62502 = 0.625

SUGGESTED FIELD DATA SHEET (Not Required To File)

Type Test: ☐ INITIAL ☐ ANNUAL ☐ SPECIAL — Test Date: 10-7-83 — Lease No. or Serial No.:

Company: Amoco Production Co — Connection: To AIR — Allottee:

Field: N. Antelope Ridge — Reservoir: — Location: — Unit: N

Completion Date: — Total Depth: 13,600' — Plug Back TD: 13,360' — Elevation: 3364G.L. 3388,RDB — Farm or Lease Name: STATE M.E.COM

Csg. Size: 7" Liner — Wt.: 34.58# d 6.004" — Set At: 13,360 — Perforation: From 13,214 To 13,250 — Well No.: 1-Y

Tbg. Size: 2 1/8 — Wt.: 6.5# d 2.441" — Set At: 13,010' — Perforation: From Open-Ended To — Sec.: 11 — Twp-Blk.: 23S — Rge.: 34E

Type Completion (Describe): Single — Packer Set At: 12,950' — County or Parish: LEA

Producing Thru: Tubing — Reservoir Temp. F: 207° 13,200' — Mean Annual Temp. F: 60° — Baro. Press. – Pa: 13.2 — State: New Mexico

L: 13,200' H: 13,200' G_g: .6055 — % CO_2: 0.655 — % N_2: 1.198 — % H_2S: — Prover: — Meter Run: 4.026 Flange

DATE Time of Reading	ELAPSED TIME Hrs.	Wellhead Working Pressure Tbg. Psig	Csg. Psig	Temp F	METER OR PROVER Pressure Psig	Diff.	Temp F	Orifice	REMARKS (Include liquid Production data Type–A.P.I. Gravity–Amount)
		2600							Shut-in
9:20			Bomb set at 13,200						1500# - 100# Recorder
10:30			open choke Beg test						
10:45		2521			500	8"	96°	1.000	6/64
11:00		2494			500	8"	100°	1.000	6/64
11:15		2478			500	7"	100°	1.000	6/64
11:30		2467			500	6"	100°	1.000	6/64 326.8 MCF/DAY
									End Rate I
11:45		2407			495	20"	100°	1.000	8/64
12:00		2370			500	22"	95°	1.000	8/64
12:15		2343			500	23"	94°	1.000	8/64
12:30		2322			500	21"	92°	1.000	8/64 615.9 MCF/DAY
									End Rate II
12:45		2215			500	60"	84°	1.000	10/64
1:00		2160			500	45"	84°	1.000	10/64
1:15		2118			500	40"	82°	1.000	10/64
1:30		2095			500	35"	82°	1.000	10/64 802.4 MCF/DAY
1:45		1958			500	65"	72°	1.000	12/64
2:00		1925			500	50"	73°	1.000	12/64
2:15		1895			500	45"	73°	1.000	12/64
2:30		1866			500	41"	73°	1.000	12/64 875.7 MCF/DAY
									End Rate IV
									1 BBL Condensate
									API Grav. 59.8 @ 60° F.

Page 1 of 1 — Data By WINN SUTTON

NEW-TEX LAB

PHONE 505/393-3561 • P. O. BOX 1161 • 611 W. SNYDER • HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: JOHN WEST ENGINEERING
ADDRESS: 412 NO. DAL PASO ST.
CITY, STATE: HOBBS NM 88240

ANALYSIS NUMBER : 7539
DATE OF RUN : 6/02/82
DATE SECURED : 6/01/82

SAMPLE IDENT: AMOCO PRODUCTION CO. - STATE "ME" NO.1-Y
SAMPLING PRESS: SAMPLING TEMP:

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

	MOLE PERCENT	GAL/ MCF
NITROGEN	1.198	
CARBON DIOXIDE	0.655	
METHANE	93.364	
ETHANE	3.111	0.830
PROPANE	0.833	0.229
ISO-BUTANE	0.127	0.041
NORMAL BUTANE	0.185	0.058
ISO-PENTANE	0.080	0.029
NORMAL PENTANE	0.078	0.028
HEXANES	0.108	0.044
HEPTANES PLUS	0.261	0.120
TOTAL	100.000	1.379

PROPANE GPM: 0.23 BUTANES GPM: 0.10
ETHANE GPM: 0.83 PENTANES PLUS GPM: 0.22

SPECIFIC GRAV (CALC): 0.6053
MOLE WEIGHT: 17.56

HHV-BTU/CU FT PRESSURE (PSIA)	WET	DRY
14.696	1037	1055
14.650	1033	1052
14.730	1039	1058
14.735	1039	1058

ANALYZED BY: R.A. HAMILTON

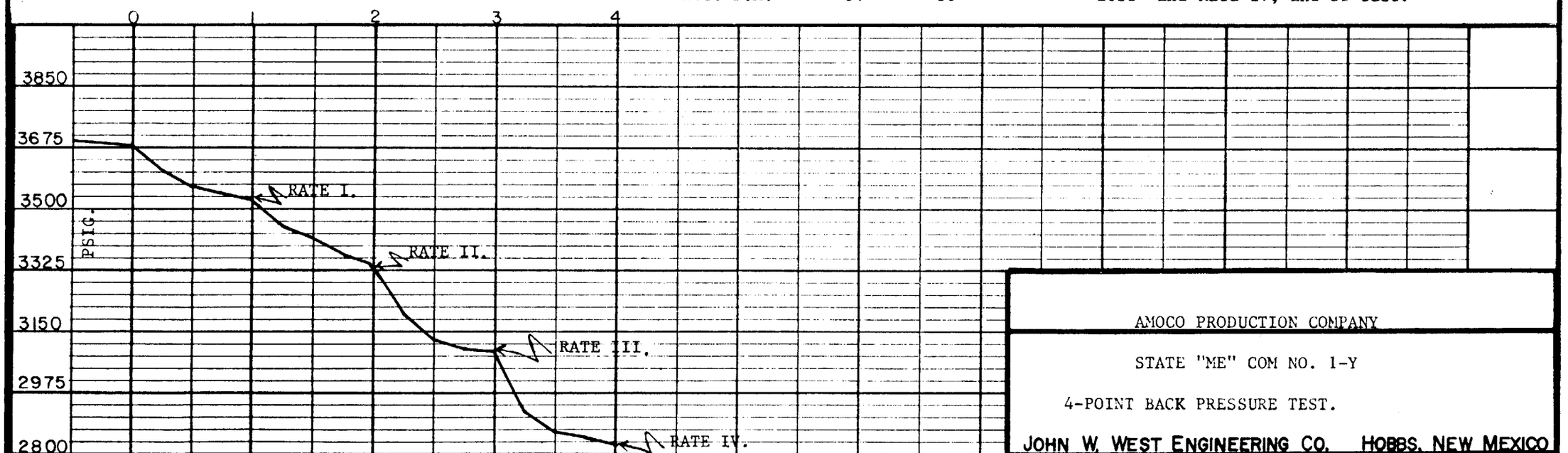
APPROVED BY

TEST DATE: OCTOBER 7, 1983
TEST DEPTH: 13,200 FEET

ELEMENT NO: 23057
RANGE: 0-5125 PSI
CLOCK NO: B-12174
RANGE: 0-12 Hours

TEST CONDUCTED BY:
JOHN WEST ENGINEERING COMPANY

DATE	TIME	CUM HRS./MIN.		PSIG @ 13,200 FEET
10-7-83	9:15 A.M.			3691 gauge reached 13,200 feet
	10:30 A.M.	00 Hrs.	00 Min.	3678 Shut-In, Begin 4-Point
	10:45 A.M.	00	15	3605 6/64 Choke
	11:00 A.M.	00	30	3565
	11:15 A.M.	00	45	3542
	11:30 A.M.	01	00	3532 End Rate I
	11:45 A.M.	01	15	3456 8/64 Choke
	12:00 Noon	01	30	3403
	12:15 P.M.	01	45	3365
	12:30 P.M.	02	00	3337 End Rate II
	12:45 P.M.	02	15	3197 10/64 Choke
	1:00 P.M.	02	30	3142
	1:15 P.M.	02	45	3106
	1:30 P.M.	03	00	3096 End Rate III
	1:45 P.M.	03	15	2918 12/64 Choke
	2:00 P.M.	03	30	2867
	2:15 P.M.	03	45	2844
	2:30 P.M.	04	00	2831 End Rate IV, End of test.



AMOCO PRODUCTION COMPANY

STATE "ME" COM NO. 1-Y

4-POINT BACK PRESSURE TEST.

JOHN W. WEST ENGINEERING CO. HOBBS, NEW MEXICO

Date: 10-10-83 | Drawn by: bsm | Scale: as shown

JOHN W. WEST ENGINEERING COMPANY
412 NORTH DAL PASO, HOBBS, NEW MEXICO

TELEPHONES 393-3942
393-3117

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR AMOCO PRODUCTION COMPANY
LEASE STATE "ME" COM
WELL NO. 1-Y
FIELD
DATE 10-7-83 TIME 2:30 P.M.

STATUS Shut-In TEST DEPTH 13,200'
TIME S.I. LAST TEST DATE
CAS. PRES. BHP LAST TEST
TUB. PRES. 2593 BHP CHANGE
ELEV. FLUID TOP
DATUM WATER TOP
TEMP 207° F. RUN BY W.S.
CLOCK NO. B-12174 GAUGE NO. 19389
ELEMENT NO. 23057 (0-5125 psi)

DEPTH	PRESSURE	GRADIENT
000	2593	
2000	2757	.082
5000	3000	.081
8000	3248	.083
11000	3494	.082
12000	3577	.083
13000	3661	.084
13200	3691	.150

Max. Depth reached: 13,242 Feet.