

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-29-81		AUG 19 1981	
Company Amoco Production Company /				Connection Conoco			
Pool Undesignated Shugart Morrow				Formation Morrow		Unit O. C. D. ARTESIA, OFFICE	
Completion Date 11/2/80		Total Depth 11876.		Plug Back TD 11548.		Elevation 3653.	
Csg. Size 5.500		Wt. 15.5		Set At 4.950		Perforations: From 11512. To 11516.	
Tub. Size 2.375		Wt. 4.7		Set At 1.995		Perforations: From 0. To 0.	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 11266.		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 193.8 11514.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 11514		H 11514.		G _g 0.686		% CO ₂ 0.52	
				% N ₂ 0.70		% H ₂ S 0.	
				Prover 0.		Meter Run 4.0	
						Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
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
1.	4.03 x 2.875			435.	1.7	67.	1004.	68.			3.0
2.	4.03 x 2.875			428.	3.6	65.	780.	68.	0.	0.	1.0
3.	4.03 x 2.875			435.	4.4	68.	606.	68.	0.	0.	0.7
4.	4.03 x 2.875			435.	4.8	67.	494.	68.	0.	0.	0.7
5.							471.	69.	0.	0.	0.5

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. Factor F _{pv}	Rate of Flow Q, Mcfd
1.	46.01	27.60	448.2	0.9933	1.2078	1.0485	1598.
2.	46.01	39.85	441.2	0.9952	1.2078	1.0485	2311.
3.	46.01	44.41	448.2	0.9924	1.2078	1.0481	2567.
4.	46.01	46.38	448.2	0.9933	1.2078	1.0485	2685.
5.							

NO.	P _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.	0.67	527.	1.38	0.910	136.4	64.6	0.686	X X X X X X X X	669.	382.
2.	0.66	525.	1.37	0.910				X X X X X	668.	388.
3.	0.67	528.	1.38	0.910						
4.	0.67	527.	1.38	0.910						
5.										

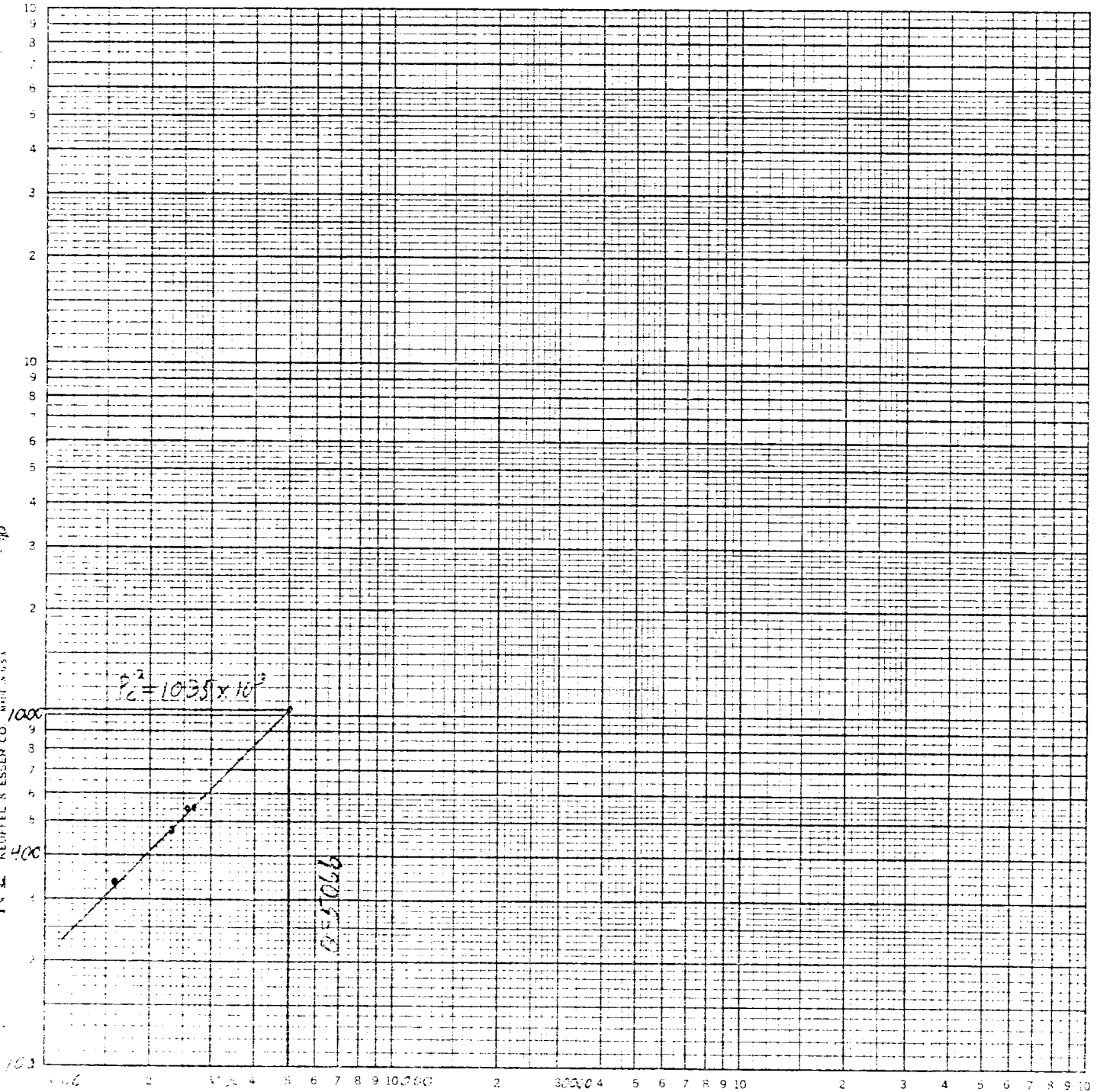
P _c 1017.2 P _c ² 1035.		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.899$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.887$	
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²	
1.	629.	842.	710.	325.	
2.	383.	752.	565.	470.	
3.	257.	699.	489.	546.	
4.	234.	700.	490.	545.	
5.					

Absolute Open Flow 5066.		Angle of Slope θ 45.3		Slope, n 0.990	
Remarks:					
Approved by Commission:					
Conducted By: John West Engr.		Calculated By: W. Tim Sexton		Checked By: L. W. Sheppard	

GREENWOOD D

46 7400

LOGARITHMIC 3 X 3 CYCLES
NEUFEL & ESSER CO. MFG. NO. 5A



3.0000

SUGGESTED FIELD DATA SHEET (Not to be used to file)

Type of Well		☒ Initial ☐ Annual ☐ Special		Test Date 7-29-81		Lease No. or Serial No.	
Company		Connection		Company		Allottee	
Amoco Production Co.		CONOCO					
Field		Reservoir		Location		Unit	
Completion Date		Total Depth		Elevation		Farm or Lease Name	
		11,548'		3653.4 GL		C	
Casing Size		WT.		Set At		Casing/Producing Unit	
		d		11,512' - 11,516'		Well No.	
Tubing Size		WT.		Set At		Sec.	
		d		11,398'		Two-Box	
Type Completion (Describe)		Packer Set At		County or Parish		Hgt.	
Single				Eddy		26 195 318	
Producing Type		Reservoir Type		Well Pressure		State	
Tubing		1932 1/2" 11,514'		60 13.2		New Mexico	
		h .6855		w .516		Prover	
				.705		Meter Run	
						4" Flange	

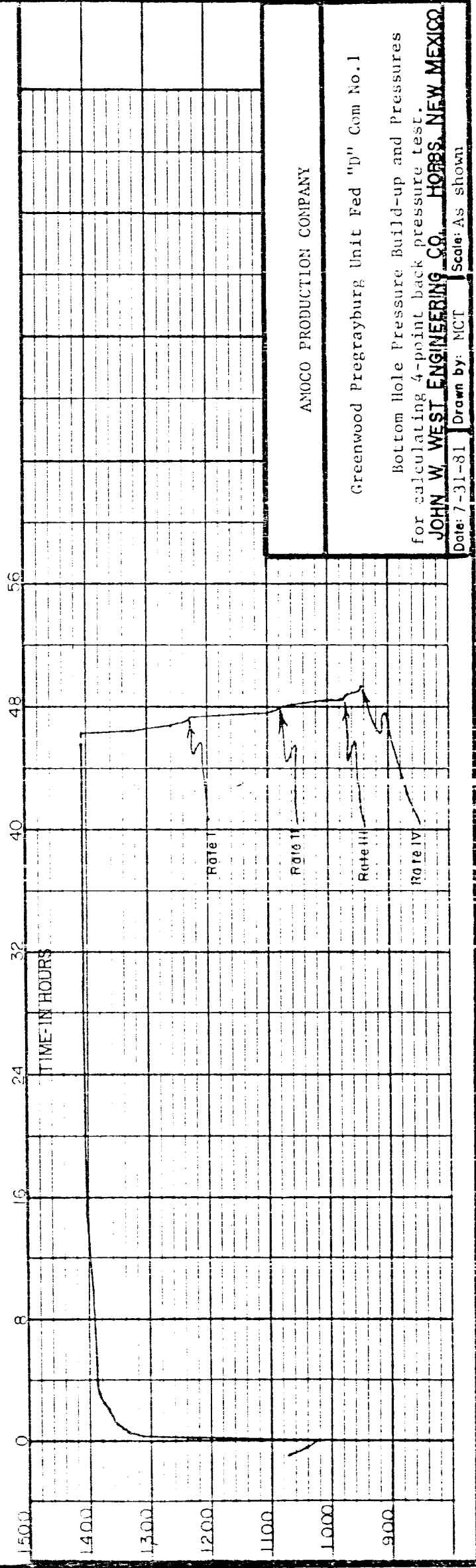
DATE	ELAP. TIME	Wellhead Working Pressure			WATER CUT				REMARKS
		Twb. Psg.	Csg. Psg.	Temp. F	Pressure Psg.	Flow	Temp. F	Gravim.	
9:30 AM		1004		68°			67		Shut-in 4" BK Tank Gauge
									2.50 Tank
10:15									
10:30		815		69	435	1.7"	66		
10:45		804		69	435	1.7"	66		1577 met / Day
11:00		787		69	435	1.7"	66		
11:15 AM		780		69	435	1.7"	67		End Rate I
11:30		618		69	435	4.0	67		
11:45 AM		602		69	428	3.6	65		2202 met / Day
12:00 PM		606		69	428	3.6	65		End Rate II
12:15 PM		491		69	435	4.4	68		
12:30		487		69	435	4.4	69		2448 met / Day
12:45 PM		484		69	435	4.4	69		End Rate III
1:00		472		69	435	4.8	67		2558 met / Day
1:15		471		69	435	4.8	67		End Rate IV
									End Tank Gauge
									4" 9"
									Made 2 Bbls
									Condensate Sample Test
									API Grav. 64.6 @ 60°F

Page 1 of 1 Data By WINN S. #2 N

Test Date: July 27-29, 1981
Test Depth: 11,514 Feet

Element No.: 34911
Range: 0-6050 psi
Clock No.: 10835
Range: 0-72 Hour

Note: See tabulation of Pressure and Time on attached sheet.



AMOCO PRODUCTION COMPANY

Greenwood Pregrayburg Unit Fed "D" Com No.1

Bottom Hole Pressure Build-up and Pressures
for calculating 4-point back pressure test.

JOHN W. WEST ENGINEERING CO. HOBBBS, NEW MEXICO
Date: 7-31-81 Drawn by: MCT Scale: As shown

Amoco Production Company
 Greenwood Pregrayburg Unit Fed "D" Com No. 1
 Bottom Hole Pressure Build-up and Pressures for
 calculating 4-point Back Pressure Test
 Tabulation of Pressure and Time

Test conducted by:
 John West Engineering Company

Test Date: July 27-29, 1981
 Test Depth: 11,514 Feet
 Element No.: 34911 (0-6050 psi)
 Operator: J.B.

<u>DATE</u>	<u>TIME</u>	<u>CUM. HRS./MIN.</u>		<u>PSIG @ 11,514 FEET</u>
7-27-81	11:00 AM			1073 Gauge reached 11,514'
	11:30 AM			1043 flowing
	12:00 Noon	00 Hrs.	00 Min.	1021 Shut-in, Beg. Build-up
	12:15 PM	00	15	1315
		00	30	1339
		00	45	1346
	1:00 PM	01	00	1355
	2:00 PM	02	00	1367
	3:00 PM	03	00	1382
	4:00 PM	04	00	1388
	5:00 PM	05	00	1388
7-27-81	10:00 PM	10	00	1394
7-28-81	3:00 AM	15	00	1401
	8:00 AM	20	00	1404
7-28-81	6:00 PM	30	00	1407
7-29-81	9:30 AM	45	30	1407 Gauge off bottom to mak Grad. stops
7-29-81	10:00 AM	46	00	1407 Gauge back to 11,514'
	10:15 AM	00	00	1407 Begin Test
		00	15	1327
		00	30	1263
		00	45	1235
	11:15 AM	01	00	1229 End Rate I
		01	15	1116
		01	30	1092
	12:00 Noon	01	45	1073 End Rate II
		02	00	1006
		02	15	975
	12:45 PM	02	30	969 End Rate III
		02	45	951
7-29-81	1:15 PM	03	00	942 End Rate IV, Gauge out, End Test

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 Greenwood Pregrayburg Unit Fed "D" Com.
WELL NO. 1
FIELD _____
DATE 7-29-81 TIME 9:30 AM

DEPTH	PRESSURE	GRADIENT
000	1004	
11014	1378	.034
11414	1391	.033
11514	1407	.160

STATUS shut-in TEST DEPTH 11,514'
TIME S.I. _____ LAST TEST DATE _____
CAS. PRES. _____ BHP LAST TEST _____
TUB. PRES. 1004 BHP CHANGE _____
ELEV. _____ FLUID TOP _____
DATUM _____ WATER TOP _____
TEMP _____ RUN BY J.B.
CLOCK NO. 10835 GAUGE NO. 19389
ELEMENT NO. 34911 (0-6050 psi)

