

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

API No. 30-025-26421

OIL CONSERVATION DIVISION									
P. O. BOX 2088 SANTA FE, NEW MEXICO 87501									
WELL COMPLETION OR RECOMPLETION REPORT AND LOG									
API No. 30-025-26421									
1. TYPE OF WELL		OIL WELL ☐		GAS WELL ☒		DRY ☐		OTHER _____	
2. TYPE OF COMPLETION		NEW WELL ☐		WORK OVER ☐		DEEPEN ☐		FLUG BACK ☒	
3. Name of Operator		Phillips Oil Company		4. Address of Operator		Room 401, 4001 Penbrook Street, Odessa, Texas 79762		5. Location of Well	
6. State		TX		7. Unit Agreement Name		8. Farm or Lease Name		9. Well No.	
						Leamex		20 North Corbin Qa	
								10. Field and Pool, or Wildcat	
								Undesignated/Queen R-1554 6-1-84	
11. LETTER		B		12. LOCATED		550		13. FEET FROM THE	
								North	
								LINE AND	
								1703	
								FEET FROM	
14. THE EAST		LINE OF REC.		23		TWP.		17-S	
								33-E	
15. Date Spudded		11-03-79		16. Date T.D. Reached		11-29-79		17. Date Compl. (Ready to Prod.)	
								reperf'd 6-29-83	
18. Elevation (DF, RKB, RT, GR, etc.)		4116.3'		19. Elev. Casinghead					
20. Total Depth		4760'		21. Plug Back T.D.		4661'		22. If Multiple Compl., How Many	
23. Intervals Drilled By		Rotary Tools		24. Cable Tools					
		X							
25. Producing Interval(s) of this completion - Top, Bottom, Name		Queen		Top: 3770'		Bottom: 4290'		26. Was Directional Survey Made	
								No	
27. Type Electric and Other Logs Run		None		28. Was Well Cored					
								No	
CASING RECORD (Report oil strings set in well)									
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD	
8-5/8"		24#, K-55		410'		12-1/4"		600 sx Class H, 2% CaCl	
+ 1/4# cello-seal. Circ 50		sx cmt to surface.							
4-1/2"		11.6#, N-80		4704'		7-7/8"		1200 sx TLW 10% DD, 12#/sx salt	
1 1/4#/sx cello-seal, 3#/sx gilsonite. Tail w/250 sx Class H + 8#/sx salt. Circ to surface									
LINER RECORD									
SIZE		TOP		BOTTOM		SACKS CEMENT		SCREEN	
				N - O - N - E					
TUBING RECORD									
SIZE		DEPTH SET		PACKER SET					
2-3/8"		3706'		3698'					
								Baker Model R	
31. Perforation Record (Interval, size and number)					32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.				
Perf'd 4-12/" csg 2JSPF (total 23--1/2" holes) at: 3778'-3801',					DEPTH INTERVAL				
					AMOUNT AND KIND MATERIAL USED				
					3778'-3801'				
					Trtd w/2500 gals 15% NEFE HCL				
33. SEE ATTACHED C-122					34. PRODUCTION				
First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)		Well Status (Prod. or Shut-in)					
7-5-83		flowing		SI					
Date of Test		Hours Tested		Choke Size		Prod'n. For Test Period		Oil - Bbl.	
3-19-84		5						Gas - MCF	
								Water - Bbl.	
								Gas - Oil Ratio	
Flow Tubing Press.		Casing Pressure		Calculated 24-Hour Rate		Oil - Bbl.		Gas - MCF	
960		-440						Water - Bbl.	
								Oil Gravity - API (Corr.)	
35. Disposition of Gas (Sold, used for fuel, vented, etc.)								Test Witnessed By	
SI pending gas connection								Wes Stinson	
36. List of Attachments									
Dresser Atlas furnished logs when well was initially drilled.									
37. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.									
SIGNED		Neal Porter		TITLE		Sr. Gas Engineer		DATE	
								3-29-1984	

INSTRUCTIONS

This form is to be filled with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by a copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depth shall also be reported. For multiple completions, items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Ancho	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Rustler 1490'	T. Strawn	T. Kirland-Fruitland	T. Penn. "C"
T. Salado 1675'	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates 2785'	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen 3770'	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg 4290'	T. Montoya	T. Mancos	T. McCracken
T. San Andres 4590'	T. Simpson	T. Gallup	T. Ignacio Quito
T. Glorieta	T. McKee	T. Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinberry	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Granite	T. Tediito	T.
T. Brinkard	T. Delaware Sand	T. Entrada	T.
T. Aba	T. Bone Springs	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn.	T.	T. Pennian	T.
T. Cinco (Bough C)	T.	T. Penn. "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from _____ to _____	No. 4, from _____ to _____
No. 2, from _____ to _____	No. 5, from _____ to _____
No. 3, from _____ to _____	No. 6, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from _____ to _____ feet	_____ feet
No. 2, from _____ to _____ feet	_____ feet
No. 3, from _____ to _____ feet	_____ feet
No. 4, from _____ to _____ feet	_____ feet

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	410	410	Surface				
410	1640	1239	Red beds				
1640	3000	1360	Anhydrite				
3000	3420	420	Anhydrite and Lime				
3420	3802	382	Lime				
3802	4213	411	Anhydrite				
4213	4490	277	Anhydrite & lime				
4490	4704	214	Lime				
	TD						

APR 2 - 1984
C.C.D.
HOBBBS OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION AT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

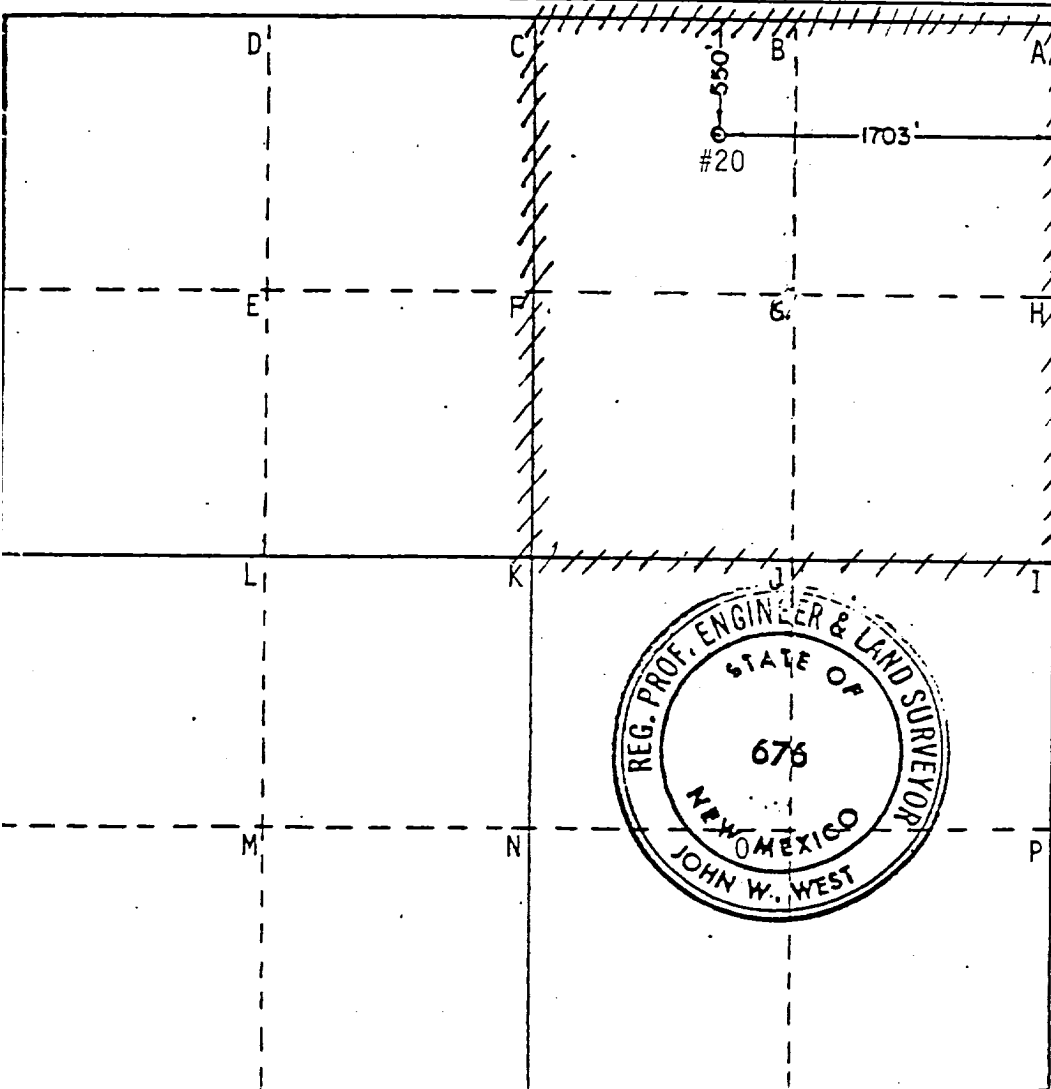
Operator PHILLIPS PETROLEUM COMPANY		Lease LEAMEX		Well No. 20	
Unit Letter B	Section 23	Township 17 SOUTH	Range 33 EAST	County LEA	
Actual Footage Location of Well:					
550 feet from the NORTH line and		1703 feet from the EAST line			
Ground Level Elev. 4116.3	Producing Formation Queen	Pool Wildcat	Dedicated Acreage: 160 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No . If answer is "yes;" type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name

Neal Porter

Position

Senior Gas Engineer

Company

Phillips Oil Company

Date

March 29, 1984

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

JULY 24TH, 1979

Registered Professional Engineer
and/or Land Surveyor

John W. West

NEW 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 3-19-84			
Company Phillips Oil Company				Connection To-Air					
Pool Maljamar				Formation Queen				Unit	
Completion Date 7/5/83		Total Depth 4700		Plug Back TD 4247		Elevation RKB-4129'		Farm or Lease Name Lea Mex.	
Casing Size 4 1/2"	Wt. 11.6	d 4.000	Set At 4700	Perforations: From 3778 To 3801		Well No. 20			
Tubg. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 3706'	Perforations: From To		Unit Sec. Twp. Rge. R 23 17S 33E			
Type Well - Single - Airhead - G.G. or G.O. Multiple Single						Packer Set At 3698'		County	
Producing Thru Tubing		Reservoir Temp. °F 111° 3697'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 3697'	H 3697'	Gg .799	% CO ₂ -0-	% N ₂ 39.146	% H ₂ S	Prover	Meter Run 3"	Tape 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
SI							960	50	440		72 Hrs
1.	3"	x	1.00	50	12	51	895	53	475		1 Hr
2.	3	x	1.00	50	24	48	864	59	480		1 Hr
3.	3	x	1.00	50	38	45	832	60	480		1 Hr
4.	3	x	1.00	50	56	42	795	62	485		1 Hr
5.	3	x	1.00	50	70	41	776	62	490		1 Hr

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 _{pv}	Rate of Flow Q, Mcfd
1	4.789	27.54	63.2	1.009	1.119	NIL	149
2	4.789	38.95	63.2	1.012	1.119	NIL	211
3	4.789	49.01	63.2	1.015	1.119	NIL	267
4	4.789	59.49	63.2	1.018	1.119	NIL	325
5	4.789	66.51	63.2	1.019	1.119	NIL	363

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.
1	.10	511	1.56	NIL	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	.10	508	1.56	NIL	Specific Gravity Separator Gas .799 XXXXXXXXXXXX
3	.10	505	1.56	NIL	Specific Gravity Flowing Fluid XXXXX
4	.10	502	1.56	NIL	Critical Pressure 604 P.S.I.A. _____ P.S.I.A.
5	.10	501	1.56	NIL	Critical Temperature 326 R _____ R

P_r 975.9 P_c² 952.4

NO	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1		912.9	833.4	119.0
2		883.6	780.7	171.7
3		852.6	726.9	225.5
4		816.1	666.0	286.4
5		793.9	630.3	322.1

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.957$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.524$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .916$

Absolute Open Flow _____ 916 _____ Mcfd @ 15.025	Angle of Slope @ _____ 49.5 _____	Slope, n _____ 854 _____
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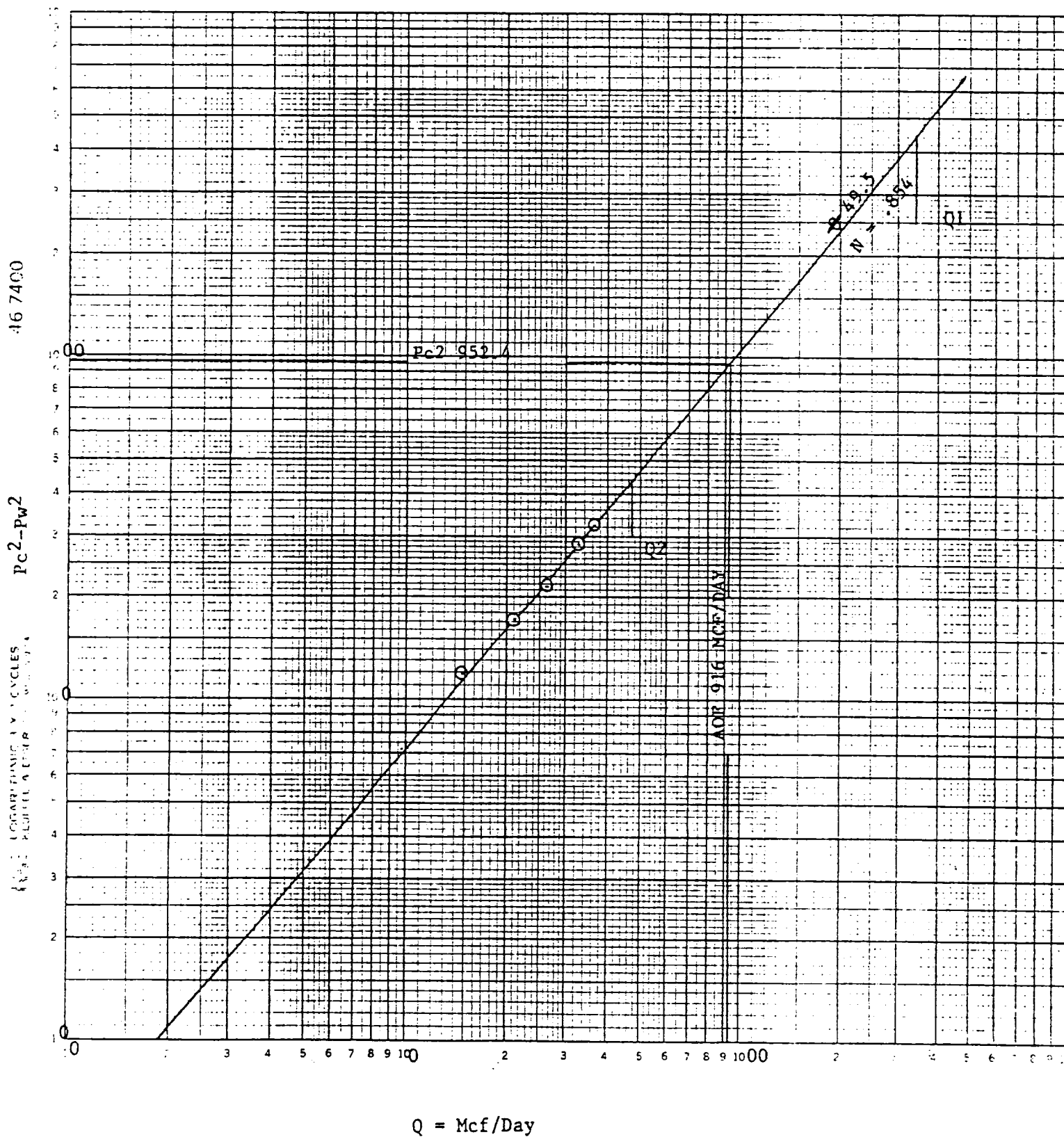
Remarks: Calculated from known Bottom Hole Pressures, measured with a Kuster Gauge.

Approved by Commission:	Conducted By: W.S.	Calculated By: R.R.	Checked By: R.R.
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$$\text{CAOF} = 363 \frac{(952.4)}{322.1} \cdot 854 = 91 \text{ Mcf/Day}$$

PHILLIPS OIL COMPANY
LEAMEX NO. 20
B. SEC. 23-T17S-R33E
LEA COUNTY, N.M.
3/19/84

$$\begin{aligned} Q_1 &= 3400 = 3.531479 \\ Q_2 &= 476 = 2.677479 \\ N &= .854000 \end{aligned}$$



WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_w or P_{ws})

Form C-122F
Adopted 9-1-65

FROM KNOWN BOTTOM HOLE PRESSURE (P_b or P_s)

COMPANY Phillips LEASE Leant WELL NO. 1 DATE 3-19-84

LOCATION: Unit B Section 23 Township 17 S Range 33 E

L 3697 H 3697 L/H 1.00 G 1.799 % CO₂ 0 % N₂ 39.146 % H₂S

GH 2954 P_{CT} 604 T_{CT} 326

LINE	1	2	3	4	5	6	7	8
1	T _w (W.H. °R)	534	534	534	534	534	534	534
2	T _s (B.H. °R)	571	571	571	571	571	571	571
3	T = $\frac{T_w + T_s}{2}$	552	552	552	552	552	552	552
4	Z (Est.)	906	910	909	913	916	915	919
5	TZ	500.6	502.8	502.2	504.4	506.1	505.5	507.7
6	GH/TZ	5.90	5.88	5.88	5.86	5.84	5.84	5.82
7	e ^s (Table XIV)	1.25	1.25	1.25	1.25	1.24	1.24	1.24
8	P ₄ or P _s	1019.2	1019.2	986.2	986.2	951.2	910.2	910.2
9	P ₂ or P _s ²	1038.8	1038.8	972.6	972.6	904.8	828.5	828.5
10	P _c ² = P _f ² /e ^s or P _w ² = P _s ² /e ^s	832.5	833.4	780.1	780.8	726.2	665.4	666.1
11	P _w or P _w	912.4	912.9	883.2	883.6	852.2	815.7	816.1
12	P _w = $\frac{P_w + P_s}{2}$ or $\frac{P_c + P_f}{2}$	965.8	966.0	934.7	934.9	901.7	863.0	863.2
13	P _r = (P/P _{CT})	1.60	1.60	1.55	1.55	1.49	1.43	1.43
14	T _r = (T/T _{CT})	1.69	1.69	1.69	1.69	1.69	1.69	1.69
15	Z (Table XI)	910	910	913	913	916	919	919

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c & P_w)

Form C-122F
Adopted 9-1-65

COMPANY Phillips LEASE Leavitt WELL NO. 1 DATE 3-19-84
 LOCATION: Unit B Section 23 Township 17S Range 33E
 L 3697 H 3697 L/H 1.00 G .799 % CO₂ 0 % N₂ 37.146 % H₂S

GH 2954 P_{cr} 604 T_{cr} 326
 RATE #5

Sheet - 1N

LINE	1	2	3	4	5	6	7	8
1	T _w (W.H. • R)	534	534				534	534
2	T _s (B.H. • R)	571	571				571	571
3	T = $\frac{T_w + T_s}{2}$	552	552				552	552
4	Z (Est.)	917	921				900	905
5	TZ	506.6	508.9				497.3	500.0
6	GH/TZ	5.83	5.81				5.94	5.91
7	e ^S (Table XIV)	1.24	1.24				1.25	1.25
8	P _f or P _s	885.2	885.2				1090.2	1090.2
9	P _f ² or P _s ²	783.6	783.6				1188.5	1188.5
10	P _c ² = P _f ² /e ^S or P _w ² = P _s ² /e ^S	629.7	630.3				951.2	952.4
11	P _c or P _w	793.5	793.9				975.3	975.9
12	P = $\frac{P_w + P_s}{2}$ or $\frac{P_c + P_f}{2}$	839.4	839.6				1032.7	1033.0
13	P _r = (P/P _{cr})	1.39	1.39				1.71	1.71
14	T _r = (T/T _{cr})	1.69	1.69				1.69	1.69
15	Z (Table XI)	921	921				905	905