

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-105
Revised 1-1-89

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO. 30-015-33053
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. 33040

WELL COMPLETION OR RECOMPLETION REPORT AND LOG					
1a. Type of Well: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER _____				7. Lease Name or Unit Agreement Name State 1724	
b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER ☐ RECEIVED					
2. Name of Operator Perenco LLC				8. Well No. 311	
3. Address of Operator 6 Desta Drive, Suite 6800 Midland, TX 79705				9. Pool name or Wildcat Wildcat Abo	
4. Well Location Unit Letter <u>N</u> : <u>660</u> Feet From The <u>South</u> Line and <u>1980</u> Feet From The <u>West</u> Line Section <u>31</u> Township <u>17S</u> Range <u>24E</u> NMPM <u>Eddy</u> County					
10. Date Spudded 12/26/03	11. Date T.D. Reached 01/09/04	12. Date Compl. (Ready to Prod.) 02/04/04	13. Elevations (DF & RKB, RT, GR, etc.) 3861' GR 3875' RKB		14. Elev. Casinghead
15. Total Depth 4980'	16. Plug Back T.D. 4923	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By	Rotary Tools ☒	Cable Tools
19. Producing Interval(s), of this completion - Top, Bottom, Name 4753-4763' (20 holes) 4778-4788' (20 holes) 4810-4920' (20 holes)					20. Was Directional Survey Made No
21. Type Electric and Other Logs Run Micro-CFL/ CBL				22. Was Well Cored No	
23. CASING RECORD (Report all strings set in well)					
CASING SIZE		WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD
13-3/8"		48#	225'	17-1/2"	650 sx Class "C" + additives
9-5/8"		36#	1208'	12-1/4"	1015 sx Class "C" + additives
7"		26#	4977'	8-3/4"	487 sx Class "C" + additives
					TOC @ 1300'
24. LINER RECORD					
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	
25. TUBING RECORD					
SIZE	DEPTH SET	PACKER SET			
2-3/8"	4630'	4630'			
26. Perforation record (interval, size, and number) 4753-4763' 20 4" holes 4778-4788' 20 4" holes 4810-4820' 20 4" holes					27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.
					DEPTH INTERVAL
					AMOUNT AND KIND MATERIAL USED
					4753-4820'
					5000 gals HCL acid with a 30% Nitrogen quality (74,766 scf Nitrogen pumped)
					Total of 7,407 gals
28. PRODUCTION					
Date First Production 02/04/04		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing			Well Status (Prod. or Shut-in) Shut in waiting on pipeline
Date of Test 02/07/04	Hours Tested 4 pt test attached	Choke Size	Prod'n For Test Period	Oil - BbL.	Gas - MCF
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - BbL.	Gas - MCF 357	Water - BbL.
29. Disposition of Gas (Sold, used for fuel, vented, etc.) Vented					Test Witnessed By Casey Davidson
30. List Attachments C-122, C-122D, Deviation report, Gas Analysis, Logs, Log confidentiality request					
31. 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					
Signature <u>Robin S. McCarley</u>		Printed Name <u>Robin S. McCarley</u>		Title <u>Eng. Tech.</u>	Date <u>02/20/04</u>

INSTRUCTIONS

This form is to be filed 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 one copy of all electrical and radio-activity logs run on the well and a summary of all specific tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 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

T. Anhy _____
 T. Salt _____
 B. Salt _____
 T. Yates _____
 T. 7 Rivers _____
 T. Queen _____
 T. Grayburg _____
 T. San Andres _____
 T. Glorieta _____ 1717.0
 T. Paddock _____
 T. Blinebry _____
 T. Tubb _____ 3024.0
 T. Drinkard _____
 T. Abo _____ 3678.0
 T. Wolfcamp _____ 4821.0
 T. Penn _____
 T. Cisco (Bough C) _____

T. Canyon _____
 T. Strawn _____
 T. Atoka _____
 T. Miss _____
 T. Devonian _____
 T. Silurian _____
 T. Montoya _____
 T. Simpson _____
 T. McKee _____
 T. Ellenburger _____
 T. Gr. Wash _____
 T. Delaware Sand _____
 T. Bone Springs _____
 T. _____
 T. _____
 T. _____
 T. _____

Northwestern New Mexico

T. Ojo Alamo _____
 T. Kirtland-Fruitland _____
 T. Pictured Cliffs _____
 T. Cliff House _____
 T. Menefee _____
 T. Point Lookout _____
 T. Mancos _____
 T. Gallup _____
 Base Greenhorn _____
 T. Dakota _____
 T. Morrison _____
 T. Todilto _____
 T. Entrada _____
 T. Wingate _____
 T. Chinle _____
 T. Permain _____
 T. Penn. "A" _____

T. Penn. "B" _____
 T. Penn. "C" _____
 T. Penn. "D" _____
 T. Leadville _____
 T. Madison _____
 T. Elbert _____
 T. McCracken _____
 T. Ignacio Otzte _____
 T. Granite _____
 T. _____
 T. _____
 T. _____
 T. _____
 T. _____
 T. _____
 T. _____
 T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from 4746 to 4816
 No. 2, from to
 No. 3, from to
 No. 4, 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
 No. 2, from to feet
 No. 3, from to feet

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
1520.0	1600.0	80.0	Anhydrite, Dolomite, Shale	2040.0	2170.0	130.0	Anhydrite, Dolomite, Sand, Shale
1600.0	1630.0	30.0	Anhydrite, Sand, Shale	2170.0	2370.0	200.0	Anhydrite, Dolomite, Shale
1630.0	1640.0	10.0	Anhydrite, Dolomite, Sand, Shale	2370.0	2450.0	80.0	Anhydrite, Dolomite, Shale, Silt
1640.0	1660.0	20.0	Anhydrite, Dolomite, Shale	2450.0	2880.0	430.0	Anhydrite, Dolomite, Shale
1660.0	1680.0	20.0	Dolomite	2880.0	3080.0	200.0	Anhydrite, Dolomite, Sand, Shale
1680.0	1760.0	80.0	Anhydrite, Dolomite	3080.0	4565.0	1485.0	Anhydrite, Dolomite, Shale
1760.0	1770.0	10.0	Dolomite				
1770.0	1810.0	40.0	Anhydrite, Dolomite, Shale				
1810.0	1840.0	30.0	Dolomite, Shale				
1840.0	2040.0	200.0	Anhydrite, Dolomite, Shale				

OPERATOR: PERENCO, LLC
WELL/LEASE: STATE 1724 #311
COUNTY: EDDY

495-5066

STATE OF NEW MEXICO
DEVIATION REPORT

228	3/4
374	1/2
601	1
836	1/4
1,077	1 1/4
1,501	1 1/4
1,749	3/4
2,032	1
2,280	1/2
2,530	1
2,808	3/4
3,120	1 1/2
3,368	1/2
3,616	1
3,867	1
4,118	1
4,364	1 1/4
4,611	1 1/2
4,859	3/4
4,980	3/4

RECEIVED

FEB 23 2004

OCD-ARTESIA

By: Steve Moore

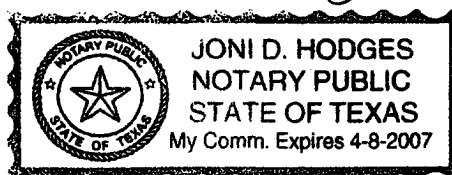
STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on this 12th day of January, 2004, by Steve Moore on behalf of Patterson-UTI Drilling Company LP, LLLP.

Joni D. Hodges
Notary Public for Midland County, Texas

My Commission Expires: 4/08/2007



Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
RECEIVED Revised October, 1999

FEB 23 2004

OCD-ARTESIA

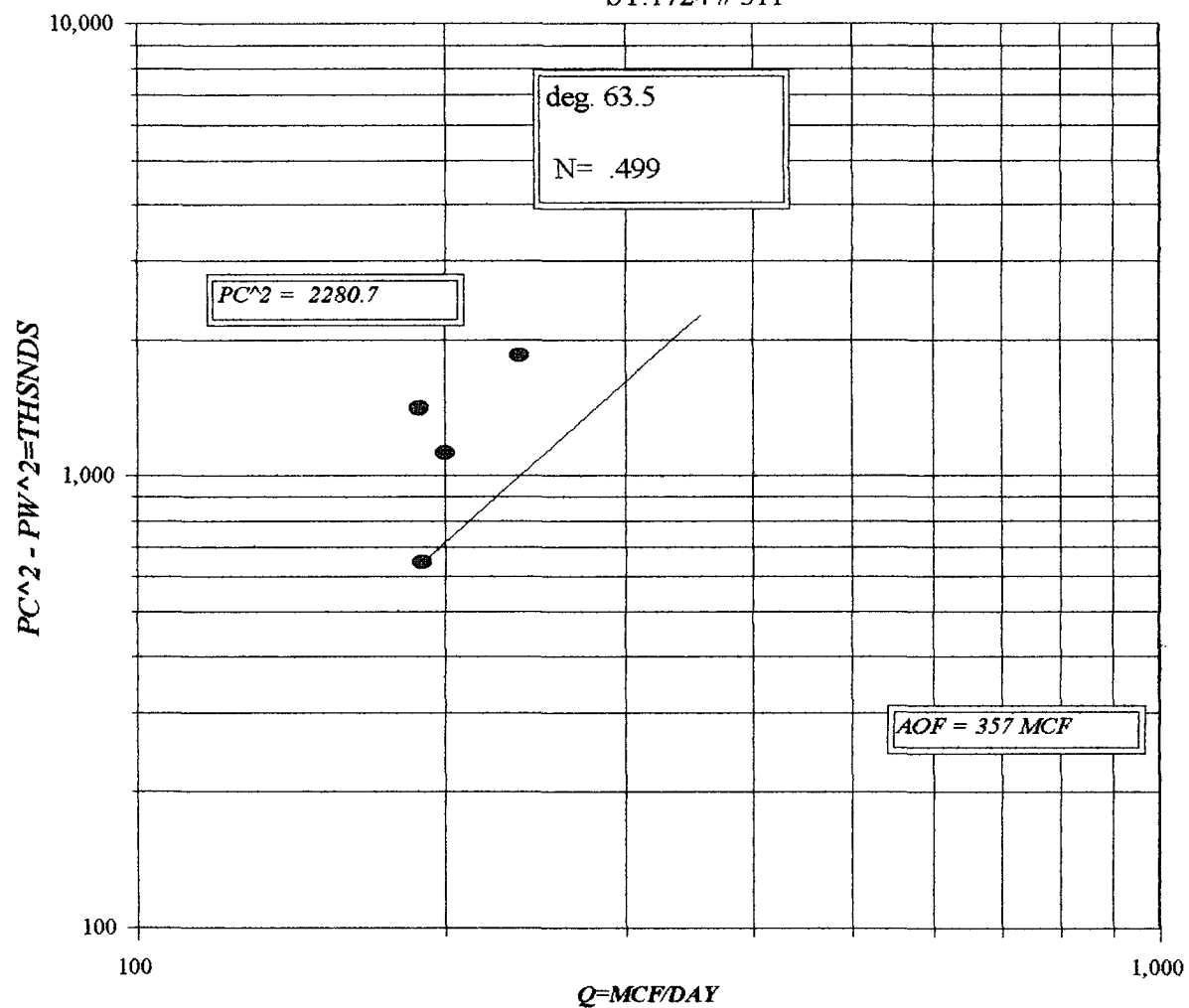
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PERENCO				Lease or Unit Name ST. 1724					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2/7/04		Well No. 311	
Completion Date 02/04/04		Total Depth 4980'		Plug Back TD 4923		Elevation 3861 GL		Unit Ltr - Sec - TWP - Rge N, Sec. 31, T17S R24E	
Csg. Size 7"	Wt. 26#	d 1.995	Set At 4980	Perforations: From: 4753 To: 4820				County EDDY	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 4630'	Perforations: From: To:				Pool Wildcat Abo	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 4630'				Formation ABO	
Producing Thru TBG		Reservoir Temp. °F 121.5 @ 4746		Mean Annual Temp. °F 60		Baro. Press. -P _a 13.2		Connection VENTED	
L 4746	H 4746	Gg 0.675	%CO ₂ 1.793	%N ₂ 4.876	%H ₂ S N/A	Prover N/A	Meter Run 4.026	Taps FLG	
FLOW DATA				TUBING DATA				CASING DATA	
No.	Prover Line Size	Orifice x 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						1497		PKR	
1	4 X	.625	141	42.3	74	1266		"	
2	4 X	.625	141	51.8	80	1062		"	
3	4 X	.625	141	46.2	76	920		"	
4	4 X	.625	141	72.3	78	643		"	
5									
RATE OF FLOW CALCULATIONS									
No.	COEFFICIENT (24 Hour)		h _w P _m	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q. Mcfd	
1	1.845		84.5	154.2	0.9868	1.217	1.015	190	
2	1.845		89.37	154.2	0.9813	1.217	1.015	200	
3	1.845		84.4	154.2	0.985	1.217	1.015	189	
4	1.845		105.59	154.2	0.9831	1.217	1.015	237	
5									
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio DRY GAS Mcf bbl.				
1	0.23	534	1.42	0.971	A.P. I. Gravity of Liquid Hydrocarbons DRY Deg.				
2	0.23	540	1.43	0.971	Specific Gravity Separator Gas 0.675 XXXXXXXX				
3	0.23	536	1.42	0.971	Specific Gravity Flowing Fluid N/A XXXXXX N/A				
4	0.23	538	1.43	0.971	Critical Pressure * .666 P.S.I.A. P.S.I.A.				
5					Critical Temperature * 376 R. R				
P _c 1510.2 P _{c2} 2280.7									
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{3.543}{\quad}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.88}{\quad}$				
1		1279.4	1636.9	643.8	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{79825}{\quad} \frac{0.357}{\quad}$				
2		1075.5	1156.7	1124					
3		933.5	871.4	1409.3					
4		656.9	431.6	1849.1					
5									
Absolute Open Flow 357 Mcfd @ 15.025					Angle of Slope (°): 63.5		Slope n: 0.499		
Remarks: NO FLUID PRODUCED---* CORRECTED TO 1.793 CO2 & 4.876 N2									
Approved By Division:		Conducted By: METERING & TSTNG.		Calculated By: BM		Checked By: BM			

UNIT : PERENCO		LEASE : ST. 1724		WELL NO. : 311		Pc = 1510.2		Pc2 = 2280.7		*
SECTION :		TOWNSHIP :								*
L :	4746	H :	4746	L/H :	1	G/GMIX :	0.675	Pt2 = 1636.4	Pw = 1279.4	*
%CO2 :	1.793	%N2 :	4.876	H2S :		DATE :	2-7-04	1156.1	1075.5	*
d :	1.995	Fr :	0.018231	GH :	3203.6	RANGE :		870.9	933.5	*
								430.6	656.9	*
										*
VOL 1 :	190	PSIA 1 :	1279.2	RESV.TEMP		121.5	Pc2-Pw2=	643.8	Pw2 = 1636.9	*
VOL 2 :	200	PSIA 2 :	1075.2					1124.0	1156.7	*
VOL 3 :	189	PSIA 3 :	933.2	SHUT-IN PR=		1510.2		1409.3	871.4	*
VOL 4 :	237	PSIA 4 :	656.2					1849.1	431.6	*
										*
PCR : 666								n = 0.499		*
TCR : 376										*
								Pc2/(Pc2-Pw2) =	3.543	*
									2.029	*
									1.618	*
									1.233	*
										*
LINE	RATE 1		RATE 2		RATE 3		RATE 4			*
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND		*
1 QM	0.190	0.190	0.200	0.200	0.189	0.189	0.237	0.237		*
2 TW	534	534	534	534	534	534	534	534	[Pc2/Pc2-Pw2]n = 1.880	*
3 Ts	581.5	581.5	581.5	581.5	581.5	581.5	581.5	581.5	1.423	*
4 T	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	1.272	*
PR (est)	1.92		1.61		1.40		0.99		1.110	*
5 Z(est)	0.798	0.789	0.822	0.813	0.840	0.832	0.878	0.872		*
6 TZ	445.2	439.8	458.3	453.2	468.4	463.8	489.7	486.2	AOF= Q 0.357	*
7 GH/TZ	7.196	7.283	6.990	7.068	6.839	6.908	6.542	6.588	0.285	*
8 eS	1.310	1.314	1.300	1.303	1.292	1.296	1.278	1.280	0.240	*
9 l-e-S	0.237	0.239	0.231	0.233	0.226	0.228	0.218	0.219	0.263	*
10 Pt	1279.2	1279.2	1075.2	1075.2	933.2	933.2	656.2	656.2		*
11 Pt2 /1000	1636.4	1636.4	1156.1	1156.1	870.9	870.9	430.6	430.6		*
12 Fr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231		*
13 Fc=FrTZ	8.116	8.019	8.356	8.263	8.540	8.455	8.927	8.865		*
14 FcQm	1.54	1.52	1.67	1.65	1.61	1.60	2.12	2.10		*
15 L/H(FcQm)	2.4	2.3	2.8	2.7	2.6	2.6	4.5	4.4		*
16 Fw	0.562396	0.554800	0.643934	0.635922	0.589300	0.582758	0.973889	0.9662725		*
17 Pw2	1636.9	1636.9	1156.7	1156.7	871.5	871.4	431.6	431.6		*
18 Ps2	2144.0	2151.0	1503.3	1507.7	1126.2	1129.1	551.6	552.5		*
19 Ps	1464.2	1466.6	1226.1	1227.9	1061.2	1062.6	742.7	743.3		*
20 P	1371.7	1372.9	1150.7	1151.6	997.2	997.9	699.4	699.8		*
21 Pr	2.06	2.06	1.73	1.73	1.50	1.50	1.05	1.05		*
22 Tr	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48		*
23 Z	0.789	0.789	0.813	0.813	0.832	0.831	0.872	0.872	FORM C122-D	*

PERENCO

ST.1724 # 311





Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Metering & Testing Services Inc.
Attention: Mr. Tom Duncan
2807 West County Road
Hobbs, New Mexico 88240

SAMPLE: Abo Formation
IDENTIFICATION: New Mexico State 1724 #311
COMPANY: Perenco
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 2/5/04 10:00 am
ANALYSIS DATE: 2/6/04
PRESSURE - PSIG 25
SAMPLE TEMP. °F
ATMOS. TEMP. °F 50

GAS (XX) LIQUID ()
SAMPLED BY: Al Lewis
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	4.876	
Carbon Dioxide (CO2)	1.798	
Methane (C1)	83.986	
Ethane (C2)	5.292	1.412
Propane (C3)	2.013	0.553
I-Butane (IC4)	0.319	0.104
N-Butane (NC4)	0.585	0.184
I-Pentane (IC5)	0.182	0.066
N-Pentane (NC5)	0.180	0.065
Hexane Plus (C6+)	0.774	0.336
	100.000	2.720
BTU/CU.FT. - DRY	1073	MOLECULAR WT. 19.6077
AT 14.650 DRY	1070	
AT 14.650 WET	1051	
AT 14.73 DRY	1076	
AT 14.73 WET	1057	
SPECIFIC GRAVITY -		
CALCULATED	0.675	
MEASURED		