

Submit To Appropriate District Office State Lease - 6 copies Fee Lease - 5 copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised June 10, 2003 WELL API NO. 30-015-33055 5. Indicate Type of Lease STATE ☒ FEE ☐ State Oil & Gas Lease No. 33039
WELL COMPLETION OR RECOMPLETION REPORT AND LOG		
1a. Type of Well: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER _____ b. Type of Completion: NEW ☒ WORK ☐ DEEPEN ☐ PLUG ☐ DIFF. WELL OVER BACK RESVR. ☐ OTHER		7. Lease Name or Unit Agreement Name RECEIVED State 1624 JAN 21 2004
2. Name of Operator Perenco LLC		8. Well No. 291 OCD-ARTESIA
3. Address of Operator 6 Desta Dr., Suite 6800 Midland, TX 79705		9. Pool name or Wildcat Wildcat Abo
4. Well Location Unit Letter C : 660 Feet From The North Line and 1980 Feet From The West Line Section 29 Township 16S Range 24E NMPM Eddy County		
10. Date Spudded 12/04/03	11. Date T.D. Reached 12/18/03	12. Date Compl. (Ready to Prod.) 01/09/04
13. Elevations (DF& RKB, RT, GR, etc.) 3699' GR 3713' RKB		14. Elev. Casinghead
15. Total Depth 4565'	16. Plug Back T.D. 4516'	17. If Multiple Compl. How Many Zones? X
18. Intervals Drilled By X		19. Producing Interval(s), of this completion - Top, Bottom, Name 4322 - 4377' (Abo)
20. Was Directional Survey Made No		21. Type Electric and Other Logs Run Micro-CFL/HNGS, CBL
22. Was Well Cored No		23. CASING RECORD (Report all strings set in well)
CASING SIZE	WEIGHT LB./FT.	DEPTH SET
13-3/8"	48#	168'
9-5/8"	36#	1520'
7"	26#	4562'
24. LINER RECORD		25. TUBING RECORD
SIZE	TOP	BOTTOM
26. Perforation record (interval, size, and number) 4322-4377' 4" holes, 60 holes		27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.
		DEPTH INTERVAL
		AMOUNT AND KIND MATERIAL USED
		4322-4377 5000 gals 15% HCl
		5000 gals CO2
28. PRODUCTION		
Date First Production 01/09/04		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 01/12/04	Hours Tested 4 Pt test	Choke Size attached
Flow Tubing Press. 554	Casing Pressure Pkr	Calculated 24-Hour Rate 0
Prod'n For Test Period 0		Oil - Bbl 0
Gas - MCF 314		Water - Bbl. 0
Oil Gravity - API - (Corr.) NA		Gas - Oil Ratio
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		
31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief		
Signature <i>Robin S. McCarley</i> Robin S. McCarley		Title Eng. Tech.
E-mail Address rmccarley@us.perenco.com		Date 1/19/04

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 special 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		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta 1717' MD	T. McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinberry	T. Gr. Wash	T. Morrison	T.
T. Tubb 3024' MD	T. Delaware Sand	T. Todilto	T.
T. Drinkard	T. Bone Springs	T. Entrada	T.
T. Abo 3678' MD	T.	T. Wingate	T.
T. Wolfcamp 4821' MD	T.	T. Chinle	T.
T. Penn	T.	T. Permian	T.
T. Cisco (Bough C)	T.	T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from.....4746' MD.....to.....4816' MD.....
 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	1600	80'	Anhydrite, Dolomite, Shale	2040	2170	130'	Anhydrite, Dolomite, Sand Shale
1600	1630	30'	Anhydrite, Sand, Shale	2170	2370	200'	Anhydrite, Dolomite, Shale
1630	1640	10'	Anhydrite, Dolomite, Sand Shale	2370	2450	80'	Anhydrite, Dolomite, Shale, Silt
1640	1660	20'	Anhydrite, Dolomite, Shale	2450	2880	430'	Anhydrite, Dolomite, Shale
1660	1680	20'	Dolomite	2880	3080	200'	Anhydrite, Dolomite, Sand Shale
1680	1760	80'	Anhydrite, Dolomite	3080	4565	1485'	Anhydrite, Dolomite, Shale
1760	1770	10'	Dolomite				
1770	1810	40'	Anhydrite, Dolomite, Shale				
1810	1840	30'	Dolomite, Shale				
1840	2040	200'	Anhydrite, Dolomite, Shale				

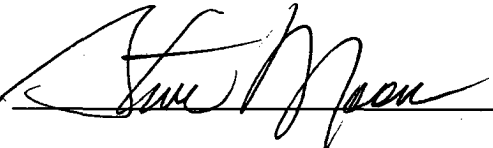
OPERATOR: PERENCO, LLC
WELL/LEASE: STATE 1624 #291
COUNTY: EDDY

495-5065

STATE OF NEW MEXICO
DEVIATION REPORT

184	3/4
406	3/4
640	1/2
722	3/4
811	1/2
896	3/4
982	3/4
1,070	3/4
1,165	1
1,256	1 1/2
1,351	1 1/4
1,507	1
1,701	1 1/4
1,949	1
2,197	3/4
2,385	1
2,570	1
2,786	1
2,974	3/4
3,159	3/4
3,345	1
3,530	1 1/4
3,714	1 1/4
3,932	3/4
4,120	1
4,335	1
4,566	1/4

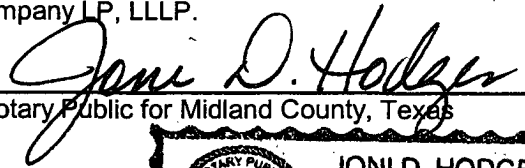
RECEIVED
JAN 21 2004
OCD-ARTESIA

By: 

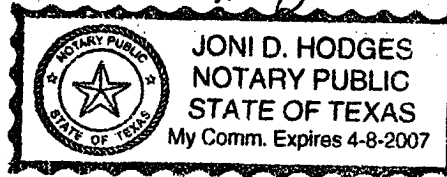
STATE OF TEXAS

COUNTY OF MIDLAND

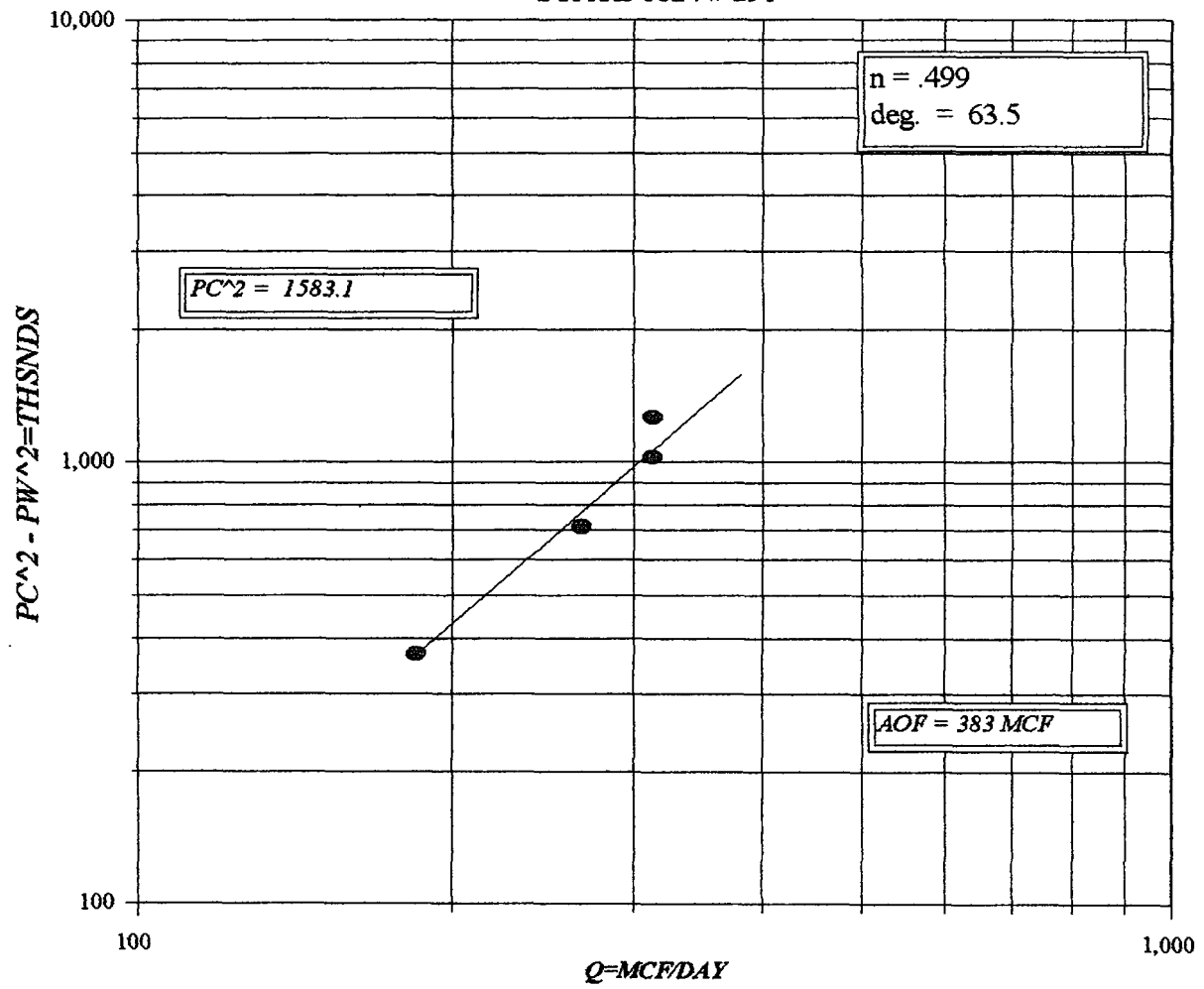
The foregoing instrument was acknowledged before me on this 24th day of December, 2003, by Steve Moore on behalf of Patterson-UTI Drilling Company LP, LLLP.


Notary Public for Midland County, Texas

My Commission Expires: 4/08/2007



PERENCO LLC
STATE 1624 # 291



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

RECEIVED Form C-122
Revised October, 1999
JAN 21 2004
OCD-ARTESIA

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PERENCO LLC				Lease or Unit Name STATE 1624			
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1-12-04	Well No. 291
Completion Date 01/09/04		Total Depth 4565'		Plug Back TD 4516		Elevation 3699'	Unit Ltr - Sec - TWP - Rge C, Sec.29,T16S,R24E
Csg. Size 7"	Wt. 26#	d 	Set At 4516	Perforations: From: 4322 To: 4373		County EDDY	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 4209	Perforations: From: To: 		Pool Wildcat	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 4209		Formation Abo	
Producing Thru TBG		Reservoir Temp. °F 116.1 @ 4209	Mean Annual Temp. °F 60	Baro. Press. -P _a 13.2		Connection	
L 4209	H 4209	Gg 0.763	%CO ₂ 12.355	%N ₂ 1.706	%H ₂ S N/A	Prover N/A	Meter Run 4.026
Taps FLG							

FLOW DATA				TUBING DATA				CASING DATA				Duration of Flow
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						1245		PKR		48 HRS		
1	4 X .750		445	7.84	90	1089		"		1 HR		
2	4 X .750		764	9	88	920		"		1 HR		
3	4 X 1.250		140	9	85	734		"		1 HR		
4	4 X 1.250		140	9	86	554		"		1 HR		
5												

RATE OF FLOW CALCULATIONS

No.	COEFFICIENT (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q. Mcfd
1	2.661	59.94	458.2	0.9723	1.145	1.043	185
2	2.661	83.63	777.2	0.9741	1.145	1.074	267
3	7.469	37.13	153.2	0.9768	1.145	1.013	314
4	7.469	37.13	153.2	0.9759	1.145	1.013	314
5							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcf bbl.
1	0.63	550	1.43	0.92	A.P. I. Gravity of Liquid Hydrocarbons	DRY	Deg.
2	1.07	548	1.43	0.867	Specific Gravity Separator Gas	0.763	XXXXXXX
3	0.21	545	1.42	0.974	Specific Gravity Flowing Fluid	XXXXXX	
4	0.21	546	1.42	0.974	Critical Pressure	* 723	P.S.I.A.
5					Critical Temperature	* 382	R.

No.	P _t ²	P _w	P _w ²	P _c ² -P _w ²
1		1102.4	1215.4	367.7
2		933.8	872	711
3		748.3	560	1023.1
4		568.7	323.4	1259.6
5				

(1) $P_c^2 = \frac{4.306}{P_c^2 - P_w^2}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 0.383$

79825

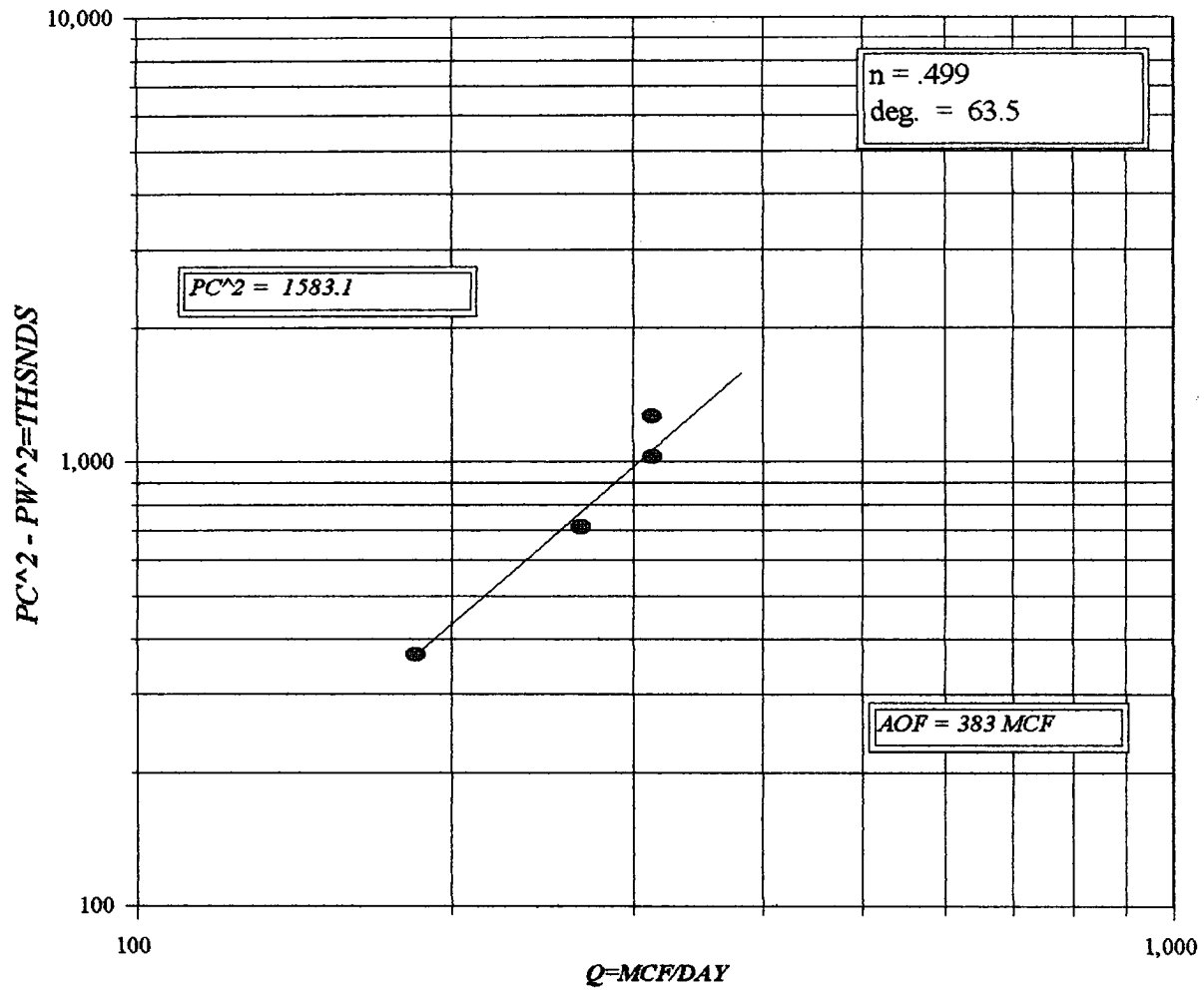
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.072$

Absolute Open Flow 383	Mcf/d @ 15.025	Angle of Slope (°): 63.5	Slope n: 0.499
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Remarks: *** CORRECTED TO 12.355 CO2 & 1.706 N2---NO FLUID PRODUCED**

Approved By Division:	Conducted By: METERING & TSTING	Calculated By: BM	Checked By: BM
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PERENCO LLC
STATE 1624 # 291





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:
IDENTIFICATION: State 1624 #291
COMPANY: Perenco LLC
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 1/12/04 1:45 pm
ANALYSIS DATE: 1/14/04
PRESSURE - PSIG 110
SAMPLE TEMP. °F 86
ATMOS. TEMP. °F 69

GAS (XX) LIQUID ()
SAMPLED BY: Floyd Davis
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	1.706	
Carbon Dioxide (CO2)	12.355	
Methane (C1)	75.880	
Ethane (C2)	5.921	1.580
Propane (C3)	2.308	0.634
I-Butane (IC4)	0.382	0.125
N-Butane (NC4)	0.688	0.216
I-Pentane (IC5)	0.198	0.072
N-Pentane (NC5)	0.203	0.073
Hexane Plus (C6+)	0.359	0.156
	100.000	2.856
BTU/CU.FT. - DRY	997	MOLECULAR WT. 22.1280
AT 14.650 DRY	994	
AT 14.650 WET	977	
AT 14.73 DRY	1000	
AT 14.73 WET	982	
SPECIFIC GRAVITY -		
CALCULATED	0.763	
MEASURED		