

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. 30-015-33134
		5. Indicate Type of Lease STATE ☒ FEE ☐
		State Oil & Gas Lease No.
WELL COMPLETION OR RECOMPLETION REPORT AND LOG		
1a. Type of Well: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER _____		7. Lease Name or Unit Agreement Name Jake State RECEIVED NOV 17 2004
b. Type of Completion: NEW ☒ WORK ☐ DEEPEN ☐ PLUG ☐ DIFF. WELL OVER BACK RESVR. ☐ OTHER		
2. Name of Operator Chesapeake Operating, Inc.		8. Well No. OCD-ARTESIA 004
3. Address of Operator P. O. Box 11050 Midland, TX 79702-8050		9. Pool name or Wildcat Black River;Morrow, Southwest
4. Well Location Unit Letter E 1650 Feet From The North Line and 660 Feet From The West Line Section 36 Township 24S Range 26E NMPM Eddy County		
10. Date Spudded 04/28/2004	11. Date T.D. Reached 06/04/2004	12. Date Compl. (Ready to Prod.) 07/21/2004
13. Elevations (DF& RKB, RT, GR, etc.) 3323 GR		14. Elev. Casinghead
15. Total Depth 11800	16. Plug Back T.D. 11470	17. If Multiple Compl. How Many Zones?
18. Intervals Drilled By 0 - 11800		19. Producing Interval(s), of this completion - Top, Bottom, Name 11,128 - 11,424 Morrow
20. Was Directional Survey Made yes		21. Type Electric and Other Logs Run HR LL/M CFL, LD, N/GR/IC
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#	360'
9 5/8"	36#	2000'
7"	26#	8,913'
24. LINER RECORD		25. TUBING RECORD
SIZE	TOP	BOTTOM
4 1/2"		11,800
SACKS CEMENT		SCREEN
810 sx		
26. Perforation record (interval, size, and number)		27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.
11,498 - 11,566 2 spf set CIBP @ 11,480 + 10' cmt		DEPTH INTERVAL
11,358 - 11,424 (30 holes 2 spf)		AMOUNT AND KIND MATERIAL USED
11,128 - 11,273 (2 spf 290 holes)		500 gals 7.5% HCL+Frac w/2000
		7.5% NeFe + 4500 gals pad, +
		45100# 18/40 Versaprop
28. PRODUCTION		
Date First Production 08/05/2004		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing
Well Status (Prod. or Shut-in) producing		
Date of Test	Hours Tested	Choke Size
08/13/2004	24	10/64
Prod'n For Test Period	Oil - Bbl	Gas - MCF
	0	3582
Flow Tubing Press.	Casing Pressure	Water - Bbl.
2950	210	0
Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF
	0	3582
29. Disposition of Gas (Sold, used for fuel, vented, etc.)		Test Witnessed By
Sold		
30. List Attachments Logs, Inclination Report, C-104		
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		Printed Name Brenda Coffman
E-mail Address bcoffman@chkenergy.com		Title Regulatory Analyst
		Date 11/16/2004

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	10184	T. Ojo Alamo	T. Penn "B"
T. Salt	T. Strawn	10284	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	10603	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	T. McKee		Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger		T. Dakota	T.
T. Blinbry	T. Gr. Wash		T. Morrison	T.
T. Tubb	T. Delaware Sand		T. Todilto	T.
T. Drinkard	T. Bone Springs		T. Entrada	T.
T. Abo	T. 11146		T. Wingate	T.
T. Wolfcamp 8548	T.		T. Chinle	T.
T. Penn	T.		T. Permian	T.
T. Cisco (Bough C) 9998	T.		T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from.....to..... No. 3, from.....to.....
 No. 2, 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
0	2110	2110	Evaporities				
2110	5556	3446	Sand and Shale				
5556	7110	1554	Lime and Shale				
7110	7283	173	Sand and Shale				
7283	8780	1497	Lime, Sand and Shale				
8780	10420	1640	Shale, Lime and Sand				
10420	10580	160	Lime and Shale				
10580	10724	144	Shale, Lime and Sand				
10724	11166	442	Lime, Sand and Shale				
11166	11757	591	Sand, Shale and Lime				

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-33134		Pool Code	Pool Name Black River Morrow, Southwest	
Property Code 33125	Property Name Jake State		Well Number 004	
OGRID No. 147179	Operator Name Chesapeake Operating, Inc.		Elevation 3323 GR	

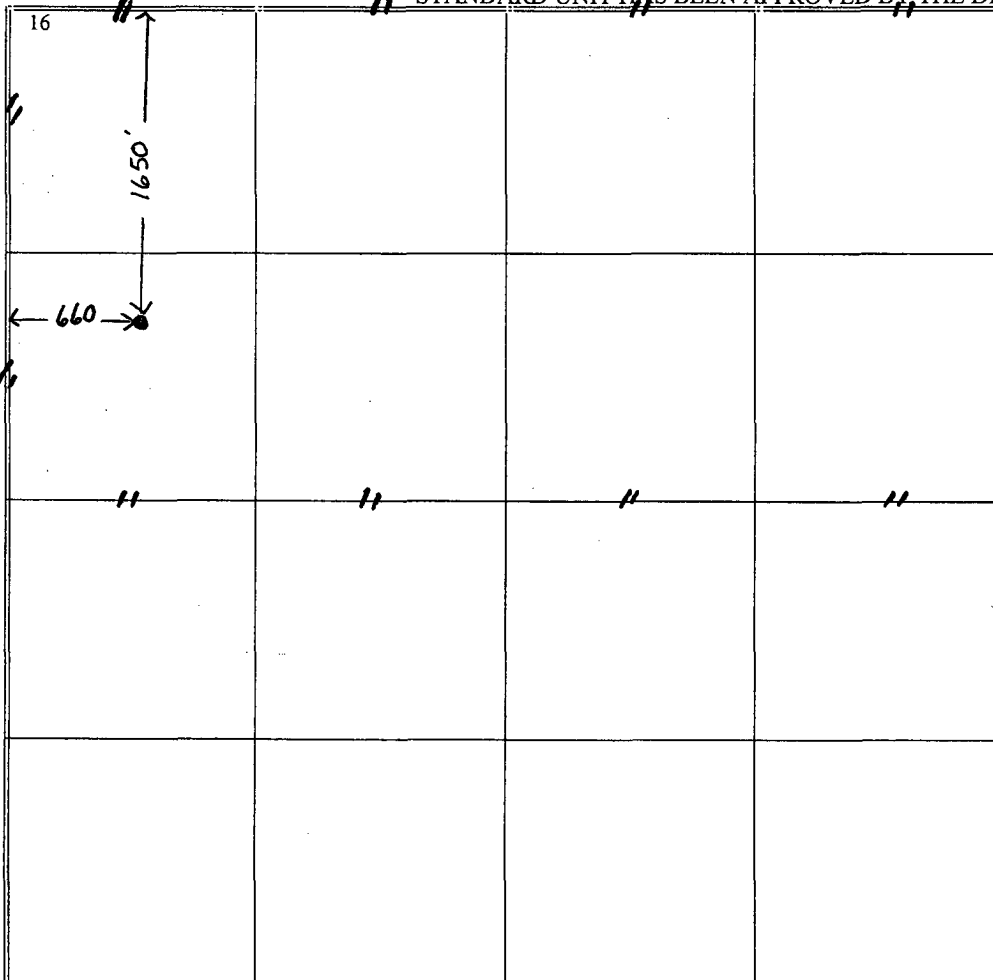
¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	36	24S	26E		1650	North	660	West	Eddy

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320		Joint or Infill		Consolidation Code		Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Brenda Coffman</i> Signature Brenda Coffman Printed Name Regulatory Analyst bcoffman@chkenergy.com Title and E-mail Address 11/01/2004 Date
	¹⁸ SURVEYOR CERTIFICATION 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 belief.
	Date of Survey Signature and Seal of Professional Surveyor:
	Certificate Number

**McVAY DRILLING COMPANY**

Post Office Box 924
Hobbs, New Mexico 88241
(505) 397-3311
FAX: 39-DRILL

Well Name and Number: Jake State 36-4

Location: Sec. 36, T24S, R26E, Eddy County NM

Operator: Chesapeake Operating

Drilling Contractor: McVay Drilling Company

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

Degrees @ Depth		Degrees @ Depth		Degrees @ Depth	
1/2	238	1 1/4	5081	1	8719
3/4	326	1 1/2	5571	3/4	8869
1	813	1 3/4	6097	1 1/2	9383
3/4	1323	2 1/2	6621	1	9872
1 1/4	1861	2 3/4	6805	1	10330
1 3/4	1954	2 3/4	6836	1 1/2	10791
1 1/2	2247	2	6974	1 1/4	10987
2	2746	2 1/2	7150	1/2	11341
1/4	2344	2 1/4	7335	2	11732
1/4	3741	1 3/4	7580		
1/2	4240	1 3/4	7888		
1	4739	1 3/4	8196		

Drilling Contractor: McVay Drilling Company

By: Jan Hlyan

Subscribed and sworn to before me this 9th day of June, 2004

Tina Hlyan
Notary Public

My Commission Expires: 8-16-05

Lea County, New Mexico

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
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator CHESAPEAKE ENERGY				Lease or Unit Name JAKE ST.			
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7/8/2004	Well No. 4
Completion Date		Total Depth 11800		Plug Back TD 11752		Elevation 3223 GL	Unit Ltr - Sec - TWP - Rge 36 24 26
Csg. Size 7' 4' 1/2"	Wt. 26 - 8.95	d 	Set At 8814 - 2976	Perforations: From: 11139 To: 11272		County EDDY	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 11078	Perforations: From: To: 		Pool BLACK RIVER (SW)	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11078		Formation MORROW	
Producing Thru TUBING		Reservoir Temp. 166.3 @ 11078	Mean Annual Temp. 60	Baro. Press.-P _a 13.2		Connection SALES	
L 11078	H 11078	Gg 0.576	%CO ₂ 0.912	%N ₂ 0.64	%H ₂ S N/A	Prover N/A	Meter Run
						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.	Press p.s.i.g.	Temp.	Press p.s.i.g.	Temp.	
SI						1274				48 HRS
1	3 x 1.250		667	1.2	67	1268				1 HR
2	3 x 1.250		673	4.5	78	1257				2 HRS
3	3 x 1.250		680	17.7	86	1192				3 HRS
4	3 x 1.250		688	38.1	85	1066				4 HRS
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							286
2	TOTAL	FLOW	METER				569
3							1129
4							1897
5							

No.	P _r	Temp. R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcf bbl.
1					A.P. I. Gravity of Liquid Hydrocarbons	DRY	Deg.
2					Specific Gravity Separator Gas	0.576	XXXXXXX
3			N/A		Specific Gravity Flowing Fluid	XXXXXX	N/A
4					Critical Pressure	672	P.S.I.A.
5					Critical Temperature	346	R

P _c 1287.2		P _{c2} 1656.9	
No.	P _t ²	P _w	P _w ²
1		1282.2	1644
2		1274.1	1623.5
3		1221.6	1492.3
4		1130.5	1278.1
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{4.374}{\quad}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{4.219}{\quad}$

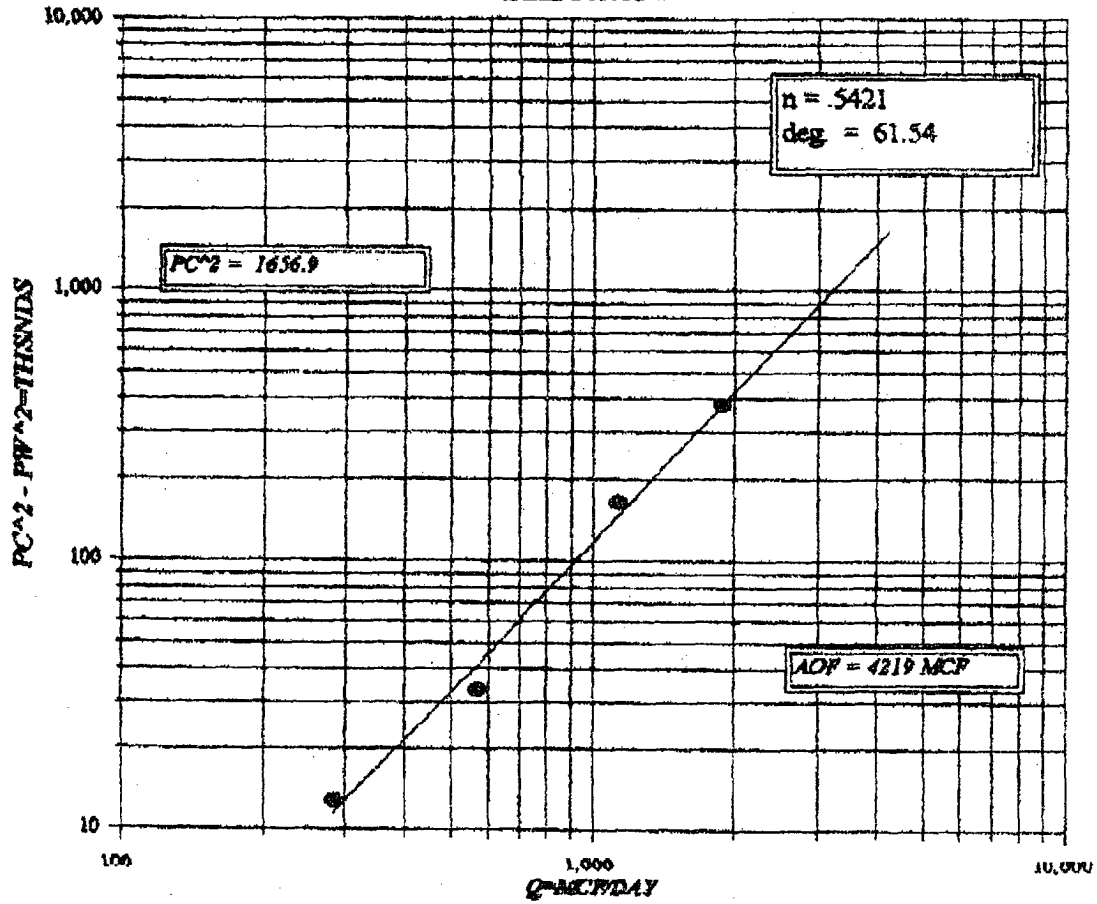
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{2.225}{\quad}$

Absolute Open Flow	4.219	Mcf/d @ 15.025	Angle of Slope (°)	0.5421	Slope, n:	61.54
--------------------	--------------	----------------	--------------------	---------------	-----------	--------------

Remarks: WELL PRODUCED 1 BBL H2O			
Approved By Division:	Conducted By: PRO WELL TESTING	Calculated By: MERV BUECKER	Checked By: BM

CHESAPEAKE ENERGY

JAKE STATE # 4





Laboratory Services, Inc.

2609 West Marland
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Pro Well Testing & Wireline
P.O. Box 791
Hobbs, New Mexico 88241

SAMPLE:
IDENTIFICATION Jake St. #4
COMPANY: Chesapeake Energy
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED 10/25/04 10:am
ANALYSIS DATE: 10/26/04
PRESSURE - PSIA 660
SAMPLE TEMP. °F 65
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: Ben Pena/Pro Well
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.640	
Carbon Dioxide (CO2)	0.912	
Methane (C1)	97.007	
Ethane (C2)	1.111	0.296
Propane (C3)	0.117	0.032
I-Butane (IC4)	0.025	0.008
N-Butane (NC4)	0.035	0.011
I-Pentane (IC5)	0.010	0.004
N-Pentane (NC5)	0.010	0.004
Hexane Plus (C6+)	0.133	0.058
	100.000	0.413

BTU/CU.FT. - DRY 1011
AT 14.650 DRY 1008
AT 14.650 WET 991
AT 14.73 DRY 1014
AT 14.73 WET 996

MOLECULAR WT. 16.6984

SPECIFIC GRAVITY -
CALCULATED 0.576
MEASURED