

OCD-ARTESIA

A75-10-812
11-147Form 3160-3
(April 2004)FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM-94839
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Cimarex Energy Co. of Colorado 162683		7. If Unit or CA Agreement, Name and No.
3a. Address 600 N. Marienfeld St., Ste. 600; Midland, TX 79701		8. Lease Name and Well No. Oracle 21 Federal No. 4
3b. Phone No. (include area code) 432-571-7800		9. API Well No. 30-015-38597
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 400 FNL & 1980 FWL At BHL 330 FSL & 1980 FWL At proposed prod. Zone 688 FNL & 1978 FWL Horizontal Bone Spring Test		10. Field and Pool, or Exploratory Bone Spring Wildcat
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area 22-25S-26E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 400		12. County or Parish Eddy
16. No of acres in lease 1480		13. State NM
17. Spacing Unit dedicated to this well E2W2 160 acres		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A		19. Proposed Depth Pilot Hole 8150 MD 12184 TVD 7642
20. BLM/BIA Bond No. on File NM-2575		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3402' GR		22. Approximate date work will start* 01.15.11
23. Estimated duration 20-25 days		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator Certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature Zeno Farris	Name (Printed/Typed) Zeno Farris	Date 11.09.10
Title Manager Operations Administration		
Approved By (Signature) Is/ Don Peterson	Name (Printed/Typed)	Date MAR 2 2011
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.S. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

* (Instructions on page 2)

Carlsbad Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVALApproval Subject to General Requirements
& Special Stipulations Attached

Application to Drill
Oracle 21 Federal No. 4
Cimarex Energy Co. of Colorado
Unit C, Section 21
T25S-R26E, Eddy County, NM

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

1. Location: SHL 400 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL

2. Elevation above sea level: 3402' GR

3. Geologic name of surface formation: Quaternary Alluvium Deposits

4. Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5. Proposed drilling depth: MD 12184 TVD 7642

6. Top Salt	1179'	Bone Spring "C" Shale	5914'
Base Salt	1730'	1st Bone Spring Ss	6390'
Delaware	1918'	2nd Bone Spring Ss	6937'
Cherry Canyon	2926'	2nd BS Ss Lower	7683'
Brushy Canyon	3955'	3rd Bone Spr Carb "C"	7856'
Bone Spring	5428'	3rd Bone Spr Carb "B"	8040'
Bone Spring "A" Shale			

7. Possible mineral bearing formations:
Bone Spring Oil

8. Proposed drilling Plan

Drill 8¾" hole to pilot hole TD @ 8250 and log. Set 250 sx Class H cement plug from 8250 to 7412 and dress off. Kick off lateral @ 7472 and drill to lateral TD (12458 MD, 7750 TVD). Run cemented 5½" production casing from 0-12458.

Application to Drill
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9. Mud Circulating System:

Depth	Mud Wt.	Visc.	Fluid Loss	Type Mud
0' to 450'	8.4 - 8.6	30-32	NC	FW spud mud.
450' to 1838'	9.9 - 10	28-29	NC	Brine
1,838' to 12184'	8.6 - 9.2	28-30	NC	Cut brine.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

10. Casing Program:

	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17½"	0' to 450'	New 13½"	48#	STC	H-40
Intermediate	12½"	0' to 1838'	New 9½"	36#	LTC	J-55
Production	8½"	0' to 12184'	New 5½"	17#	LTC	P-110

11. Cementing Program:

Surface Casing	Lead: 200 sx (Class C) + 4% D20 + 0.2% D46 + 2% S1, 12.9 ppg, 1.97 cuft/sx, 10.87 gps. Tail: 150 sx (Class C) + 2% S1, 14.80 ppg, 1.34 cuft/sx, 6.29 gps. TOC Surface
Intermediate <i>See COA</i>	Lead: 2000 sx Econocem + 3% Salt + 2% CaCl ₂ + 3# Gilsonite (wt 11.7, yld 2.06) Tail: 610 sx Premium Plus + 1% CaCl ₂ (wt 14.8, yld 1.34) TOC Surface
Production <i>See COA</i>	Lead: 620 sx Interfill H + 0.3% HR-601 + 5# Gilsonite + 0.125# Poly-e-flake (wt 11.9, yld 2.47) Tail: 480 sx Super H + 0.5% Halad-344 + 0.25% D-AIR 3000 + 0.4% CFR-3 + 1# Salt + 5# Gilsonite + 0.125# Poly-e-flake + 0.35% HR-7 (wt 13.2, yld 1.61) TOC Surface

Fresh water zones will be protected by setting 13½" casing at 450' and cementing to surface. Hydrocarbon zones will be protected by setting 9½" casing at 1838' and 5½" casing at 12184' and cementing to surface.

<u>Collapse Factor</u>	<u>Burst Factor</u>	<u>Tension Factor</u>
1.125	1.125	1.6

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12. Pressure control Equipment:

Exhibit "E". A 13 $\frac{5}{8}$ " 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 450.' A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP unit will be hydraulically operated. BOP will be nipped up and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 psi BOP system.

Test BOP equipment and choke manifold to 250 psi low and 5000 psi high and annular BOP to 250 psi low and 2500 psi high by an independent service company.

13. Testing, Logging and Coring Program: *See COA*

- A. Mud logging program: No mud logging program.
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

14. Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex has encountered H₂S in a one-time encounter in an Intra-salt Pocket and while drilling and completing wells in the Delaware Mountain Group. In this regard, attached is an H₂S Drilling Operations Plan. The ROEs encountered do not meet the BLM's minimum requirements for the submission of a "Public Protection Plan" for the drilling and completion of this well. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP **3000 psi** Estimated BHT **115°**

15. Roa

Drilling expected to take 25-35 days

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

16. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.

Bone Spring pay will be perforated and stimulated.

The proposed well will be tested and potentialized as **an oil well.**



Cimarex Energy Co.

Eddy County (NM83E)

Sec 21 - T25S - R26E

Oracle 21 Federal #4

Wellbore #1

Plan: Plan #1

Standard Planning Report

08 November, 2010





Great White Directional Services Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Oracle 21 Federal #4
Company:	Cimarex Energy Co.	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 21 - T25S - R26E	North Reference:	Grid
Well:	Oracle 21 Federal #4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project	Eddy County (NM83E)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 21 - T25S - R26E		
Site Position:		Northing:	408,062.90 usft
From:	Map	Easting:	551,684.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 7' 18.622 N
		Longitude:	104° 17' 59.683 W
		Grid Convergence:	0.02 °

Well	Oracle 21 Federal #4		
Well Position	+N/-S	0.0 usft	Northing: 408,062.90 usft
	+E/-W	0.0 usft	Easting: 551,684.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level: 0.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF200510	10/06/10	7.98
			Dip Angle
			60.00
			Field Strength
			48,601

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			180.27

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,378.0	0.00	0.00	7,378.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,829.5	90.30	180.27	7,664.5	-288.0	-1.4	20.00	20.00	0.00	180.27	
12,183.8	90.30	180.27	7,641.7	-4,642.1	-21.9	0.00	0.00	0.00	0.00	Oracle #4 PBHL



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Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 21 - T25S - R26E	North Reference:	Grid
Well:	Oracle 21 Federal #4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,378.0	0.00	0.00	7,378.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP 20°/100 DLS @ 180.27° AZI									
7,400.0	4.40	180.27	7,400.0	-0.8	0.0	0.8	20.00	20.00	0.00
7,425.0	9.40	180.27	7,424.8	-3.8	0.0	3.8	20.00	20.00	0.00
7,450.0	14.40	180.27	7,449.2	-9.0	0.0	9.0	20.00	20.00	0.00
7,475.0	19.40	180.27	7,473.2	-16.3	-0.1	16.3	20.00	20.00	0.00
7,500.0	24.40	180.27	7,496.3	-25.6	-0.1	25.6	20.00	20.00	0.00
7,525.0	29.40	180.27	7,518.6	-36.9	-0.2	36.9	20.00	20.00	0.00
7,550.0	34.40	180.27	7,539.9	-50.1	-0.2	50.1	20.00	20.00	0.00
7,575.0	39.40	180.27	7,559.8	-65.1	-0.3	65.1	20.00	20.00	0.00
7,600.0	44.40	180.27	7,578.4	-81.8	-0.4	81.8	20.00	20.00	0.00
7,625.0	49.40	180.27	7,595.5	-100.0	-0.5	100.0	20.00	20.00	0.00
7,640.0	52.41	180.27	7,605.0	-111.7	-0.5	111.7	20.00	20.00	0.00
2nd Bone Spring Ss Lower									
7,650.0	54.40	180.27	7,610.9	-119.7	-0.6	119.7	20.00	20.00	0.00
7,675.0	59.40	180.27	7,624.6	-140.6	-0.7	140.6	20.00	20.00	0.00
7,700.0	64.40	180.27	7,636.4	-162.7	-0.8	162.7	20.00	20.00	0.00
7,725.0	69.40	180.27	7,646.2	-185.7	-0.9	185.7	20.00	20.00	0.00
7,750.0	74.40	180.27	7,653.9	-209.4	-1.0	209.4	20.00	20.00	0.00
7,775.0	79.40	180.27	7,659.6	-233.8	-1.1	233.8	20.00	20.00	0.00
7,800.0	84.40	180.27	7,663.1	-258.5	-1.2	258.5	20.00	20.00	0.00
7,825.0	89.40	180.27	7,664.5	-283.5	-1.3	283.5	20.00	20.00	0.00
7,829.5	90.30	180.27	7,664.5	-288.0	-1.4	288.0	20.00	20.00	0.00
EOC - Hold to TD									
7,900.0	90.30	180.27	7,664.1	-358.5	-1.7	358.5	0.00	0.00	0.00
8,000.0	90.30	180.27	7,663.6	-458.5	-2.2	458.5	0.00	0.00	0.00
8,100.0	90.30	180.27	7,663.1	-558.5	-2.6	558.5	0.00	0.00	0.00
8,200.0	90.30	180.27	7,662.5	-658.5	-3.1	658.5	0.00	0.00	0.00
8,300.0	90.30	180.27	7,662.0	-758.5	-3.6	758.5	0.00	0.00	0.00
8,400.0	90.30	180.27	7,661.5	-858.5	-4.0	858.5	0.00	0.00	0.00
8,500.0	90.30	180.27	7,661.0	-958.5	-4.5	958.5	0.00	0.00	0.00
8,600.0	90.30	180.27	7,660.4	-1,058.5	-5.0	1,058.5	0.00	0.00	0.00
8,700.0	90.30	180.27	7,659.9	-1,158.5	-5.5	1,158.5	0.00	0.00	0.00
8,800.0	90.30	180.27	7,659.4	-1,258.5	-5.9	1,258.5	0.00	0.00	0.00
8,900.0	90.30	180.27	7,658.9	-1,358.4	-6.4	1,358.5	0.00	0.00	0.00
9,000.0	90.30	180.27	7,658.3	-1,458.4	-6.9	1,458.5	0.00	0.00	0.00
9,100.0	90.30	180.27	7,657.8	-1,558.4	-7.3	1,558.5	0.00	0.00	0.00
9,200.0	90.30	180.27	7,657.3	-1,658.4	-7.8	1,658.5	0.00	0.00	0.00
9,300.0	90.30	180.27	7,656.8	-1,758.4	-8.3	1,758.5	0.00	0.00	0.00
9,400.0	90.30	180.27	7,656.3	-1,858.4	-8.8	1,858.5	0.00	0.00	0.00
9,500.0	90.30	180.27	7,655.7	-1,958.4	-9.2	1,958.5	0.00	0.00	0.00
9,600.0	90.30	180.27	7,655.2	-2,058.4	-9.7	2,058.5	0.00	0.00	0.00
9,700.0	90.30	180.27	7,654.7	-2,158.4	-10.2	2,158.5	0.00	0.00	0.00
9,800.0	90.30	180.27	7,654.2	-2,258.4	-10.6	2,258.5	0.00	0.00	0.00
9,900.0	90.30	180.27	7,653.6	-2,358.4	-11.1	2,358.5	0.00	0.00	0.00
10,000.0	90.30	180.27	7,653.1	-2,458.4	-11.6	2,458.4	0.00	0.00	0.00
10,100.0	90.30	180.27	7,652.6	-2,558.4	-12.1	2,558.4	0.00	0.00	0.00
10,200.0	90.30	180.27	7,652.1	-2,658.4	-12.5	2,658.4	0.00	0.00	0.00
10,300.0	90.30	180.27	7,651.5	-2,758.4	-13.0	2,758.4	0.00	0.00	0.00
10,400.0	90.30	180.27	7,651.0	-2,858.4	-13.5	2,858.4	0.00	0.00	0.00
10,500.0	90.30	180.27	7,650.5	-2,958.4	-13.9	2,958.4	0.00	0.00	0.00
10,600.0	90.30	180.27	7,650.0	-3,058.4	-14.4	3,058.4	0.00	0.00	0.00
10,700.0	90.30	180.27	7,649.4	-3,158.4	-14.9	3,158.4	0.00	0.00	0.00



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Site:	Sec 21 - T25S - R26E	North Reference:	Grid
Well:	Oracle 21 Federal #4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,800.0	90.30	180.27	7,648.9	-3,258.4	-15.4	3,258.4	0.00	0.00	0.00
10,900.0	90.30	180.27	7,648.4	-3,358.4	-15.8	3,358.4	0.00	0.00	0.00
11,000.0	90.30	180.27	7,647.9	-3,458.4	-16.3	3,458.4	0.00	0.00	0.00
11,100.0	90.30	180.27	7,647.4	-3,558.4	-16.8	3,558.4	0.00	0.00	0.00
11,200.0	90.30	180.27	7,646.8	-3,658.4	-17.2	3,658.4	0.00	0.00	0.00
11,300.0	90.30	180.27	7,646.3	-3,758.4	-17.7	3,758.4	0.00	0.00	0.00
11,400.0	90.30	180.27	7,645.8	-3,858.4	-18.2	3,858.4	0.00	0.00	0.00
11,500.0	90.30	180.27	7,645.3	-3,958.4	-18.7	3,958.4	0.00	0.00	0.00
11,600.0	90.30	180.27	7,644.7	-4,058.4	-19.1	4,058.4	0.00	0.00	0.00
11,700.0	90.30	180.27	7,644.2	-4,158.4	-19.6	4,158.4	0.00	0.00	0.00
11,800.0	90.30	180.27	7,643.7	-4,258.4	-20.1	4,258.4	0.00	0.00	0.00
11,900.0	90.30	180.27	7,643.2	-4,358.4	-20.5	4,358.4	0.00	0.00	0.00
12,000.0	90.30	180.27	7,642.6	-4,458.4	-21.0	4,458.4	0.00	0.00	0.00
12,100.0	90.30	180.27	7,642.1	-4,558.4	-21.5	4,558.4	0.00	0.00	0.00
12,183.7	90.30	180.27	7,641.7	-4,642.1	-21.9	4,642.2	0.00	0.00	0.00

TD at 12183.8 - Oracle #4 PBHL

Design Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Oracle #4 PBHL	0.00	0.00	7,645.0	-4,642.1	-22.0	403,420.78	551,661.97	32° 6' 32.683 N	104° 17' 59.956 W
- plan misses target center by 3.3usft at 12183.7usft MD (7641.7 TVD, -4642.1 N, -21.9 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,314.0	6,314.0	1st Bone Spring Ss		0.00	
6,873.0	6,873.0	2nd Bone Spring Ss		0.00	
7,640.0	7,605.0	2nd Bone Spring Ss Lower		0.00	

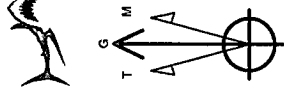
Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
7,378.0	7,378.0	0.0	0.0	KOP 20°/100 DLS @ 180.27° AZI
7,829.5	7,664.5	-288.0	-1.4	EOC - Hold to TD
12,183.8	7,641.7	-4,642.1	-21.9	TD at 12183.8



Project: Eddy County (NM83E)
Site: Sec 21 - T25S - R25E
Well: Oracle 21 Federal #4
Wellbore: Oracle #4
Design: Plan #1

GREAT WHITE
ANALYTICAL SERVICES, L.L.C.



Azimuths to Grid North
Total Correction: 7.95°
Magnetic Field
Strength: 50.00
Date: 10/05/2010
Model: IGRF200510

WELL DETAILS: Oracle 21 Federal #4

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	408062.90	551684.00	32° 7' 18.622 N	104° 17' 59.683 W
SHL: 400' FNL / 1980' FWL					
BHL: 660' FSL / 1980' FWL					

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
Oracle #4 PBHL	7645.0	-4642.1	-22.0	403420.78	551661.97

PLAN DETAILS

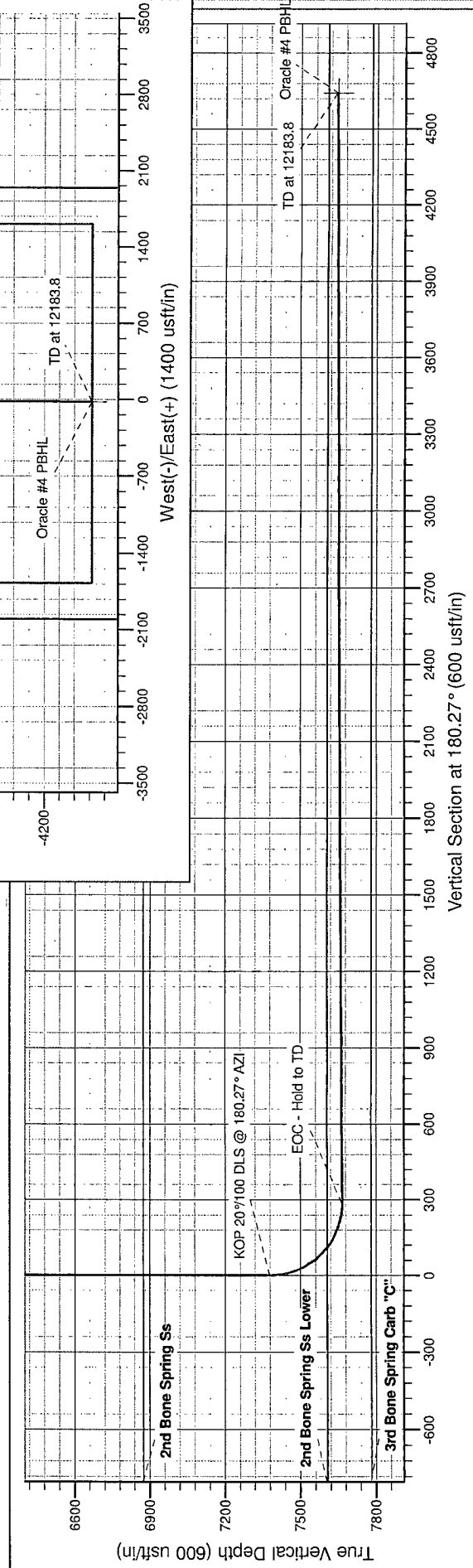
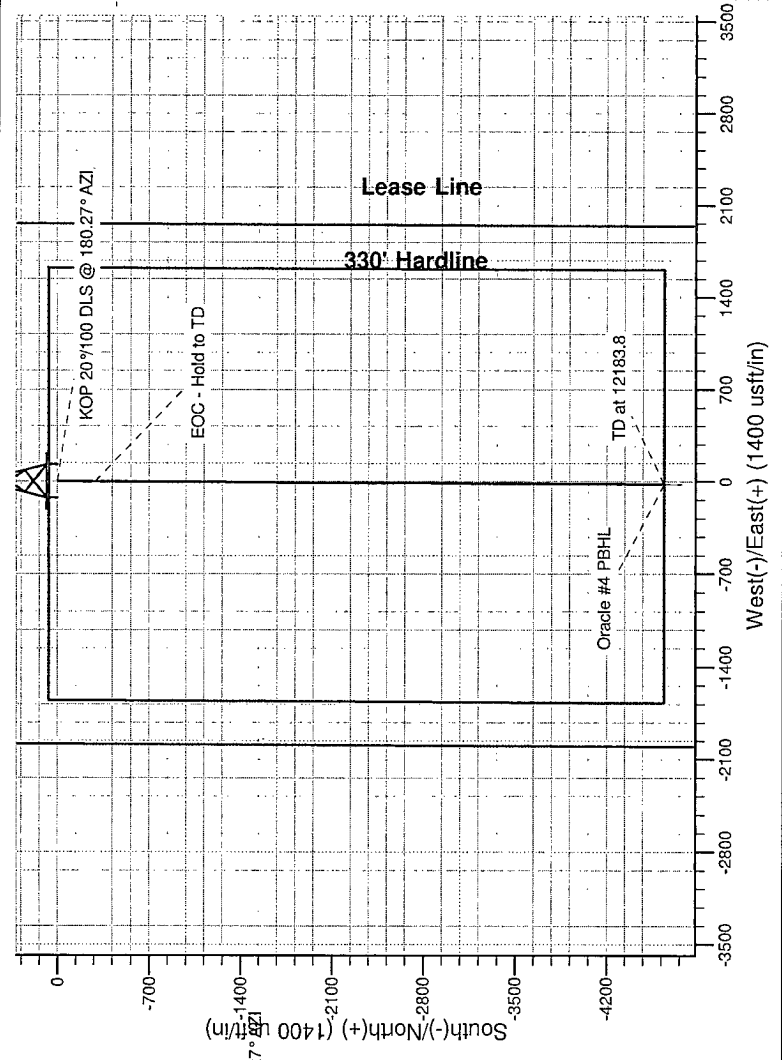
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
7378.0	0.00	0.00	7378.0	0.0	0.0	0.00	0.00	0.0	
7829.5	90.30	180.27	7664.5	-288.0	-1.4	20.00	180.27	288.0	
412183.8	90.30	180.27	7641.7	-4642.1	-21.9	0.00	0.00	4642.2	Oracle #4 PBHL

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSecl	Departure	Annotation
7378.0	7378.0	0.00	0.00	0.0	0.0	0.0	0.0	KOP 20°/100 DLS @ 180.27° AZI
7664.5	7829.5	90.30	180.27	-288.0	-1.4	288.0	288.0	EOC - Hold to TD
7641.7	12183.8	90.30	180.27	-4642.1	-21.9	4642.2	4642.2	TD at 12183.8

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	Dip/Angle
6314.0	6314.0	1st Bone Spring Ss	0.00
6873.0	6873.0	2nd Bone Spring Ss	0.00
7605.0	7640.0	2nd Bone Spring Ss Lower	0.00



SR & A

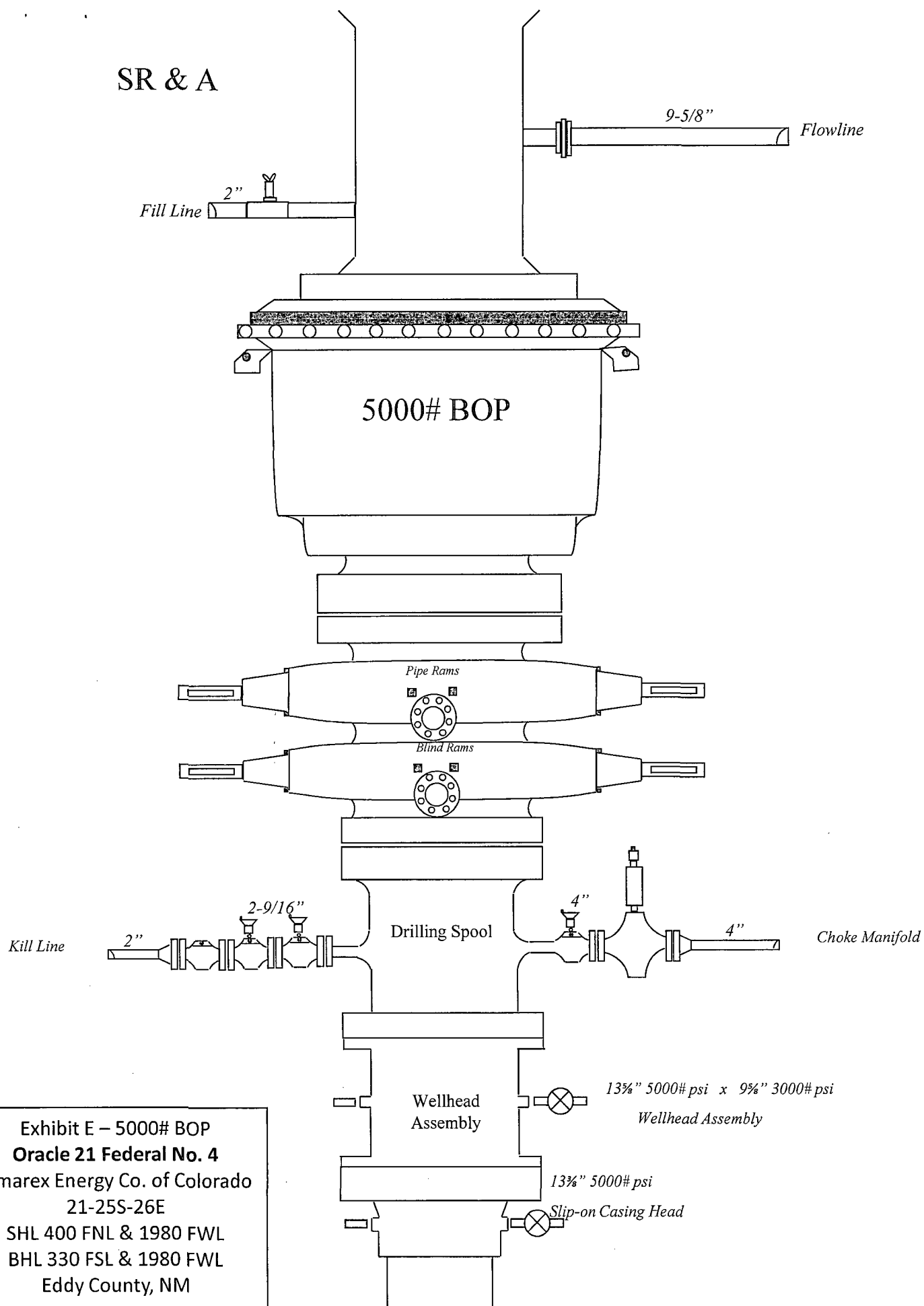


Exhibit E – 5000# BOP
Oracle 21 Federal No. 4

Cimarex Energy Co. of Colorado
21-25S-26E
SHL 400 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Eddy County, NM

Drilling Operations Choke Manifold 5M Service

Exhibit E-1 – Choke Manifold Diagram

Oracle 21 Federal No. 4

Cimarex Energy Co. of Colorado

21-25S-26E

SHL 400 FNL & 1980 FWL

BHL 330 FSL & 1980 FWL

Eddy County, NM

