

ATS-10-574

OCD Hobbs

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

OCT 21 2010

HOBBSOCD

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

5. Lease Serial No.

NM-124210

BHL:12413 ✓

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

East Lusk 24 Federal Com No. 1

<38358>

9. API Well No.

30-025- 025-39957

10. Field and Pool, or Exploratory

Lusk; Bone Spring, E

<41442>

11. Sec., T. R. M. or Blk. and Survey or Area

24-19S-32E

12. County or Parish

Lea

13. State

NM

1a. Type of Work: ☒ DRILL

☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other

☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Cimarex Energy Co. of Colorado

3a. Address

600 N. Marienfeld St., Ste. 600; Midland, TX 79701

3b. Phone No. (include area code)

432-571-7800

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At Surface 330 FNL & 660 FWL

At proposed prod. Zone 330 FSL & 660 FWL

Unit D
Horizontal Bone Spring test

14. Distance in miles and direction from nearest town or post office*

15 Distance from proposed*

location to nearest
property or lease line, ft.
(Also to nearest drig. unit line if
any)

330'

16. No of acres in lease

160

17. Spacing Unit dedicated to this well

W2W2 160

18 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

N/A

19. Proposed Depth

Pilot Hole 10200

20. BLM/BIA Bond No. on File

NM-2575

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3614' GR

22. Approximate date work will start*

08.15.10

23. Estimated duration

25-30 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
2. A Drilling Plan
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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator Certification
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

06.03.10

Title

Manager Operations Administration

Approved By (Signature)

/s/ Don Peterson

Name (Printed/Typed)

/s/ Don Peterson

Date

OCT 20 2010

Title

FOR
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)

CAPITAN CONTROLLED WATER BASIN
SEE ATTACHED FOR
CONDITIONS OF APPROVAL

K2 11/23/10

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

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

RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

OCT 21 2010
HOBBSDO

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☒ AMENDED REPORT

API Number 38-025-39957	Pool Code 41449 41442	Pool Name Lusk; Bone Spring, E
Property Code 38358	Property Name EAST LUSK "24" FEDERAL COM	Well Number 1 FE
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3610'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	24	19 S	32 E		660	NORTH	660	WEST	LEA

Bottom 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
M	24	19 S	32 E		660	SOUTH	660	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320		P	

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

SURFACE LOCATION Lat - N 32°39'04.53" Long - W 103°43'34.14" NAD83 NMSPCE- E 728215.603 (NAD-83) PROPOSED BOTTOM HOLE LOCATION Lat - N 32°38'25.35" Long - W 103°43'34.08" NAD83 NMSPCE- E 728243.679 (NAD-83) East Lusk 24 Fed Com 1 SHL & P.P. Bone Spring 660 FNL & 660 FWL EOC/Beg of Prod Interval 851 FNL & 660 FWL BHL/End of Prod Interval 660 FSL & 660 FWL East Lusk 24 Fed Com 2 SHL & P.P. Bone Spring 660 FNL & 1980 FWL EOC/Beg of Prod Interval 851 FSL & 1980 FWL BHL/End of Prod Interval 660 FSL & 1980 FWL	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Zeno Farris</i> 8/17/2010 Signature Date Zeno Farris Printed Name 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 Surveyed Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS
---	---

Application to Drill
East Lusk 24 Federal Com No. 1
 Cimarex Energy Co. of Colorado
 Unit D, Section 24
 T19S-R32E, Lea 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 ⁶⁶⁰ 330' FNL & 660 FWL
 BHL ⁶⁶⁰ 330' FSL & 660 FWL

2 Elevation above sea level: 3614' 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: Pilot Hole 10200 MD 14529' TVD 9990'

6 Estimated tops of geological markers:

Rustler	1200'	Bone Spring	7850'
Yates	3020'	Wolfcamp	11100'
Capitan	3650'	Strawn	12110'
Delaware	5180'	Morrow	12820'

7 Possible mineral bearing formation:

Bone Spring	Oil
Delaware	Oil
Yates/7 Rivers	Oil

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 575'	8.4 - 8.6	28	NC	FW
575' to 5200'	10.0	30-32	NC	Brine water - See COA
5200' to 10200'	8.4 - 9.5	30-32	NC	FW, brine
9800' to 14529'	8.4	28-32	NC	2% KCl

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.

Proposed drilling Plan

After drilling and setting surface casing, drill to vertical TD 10200' and log. Set 7" casing to 9740' and cross over to 2½" 2000 psi IJ fiberglass tubing underneath to 10200' and cement in place. Drill out of the bottom of the 7" with a 6½" bit and through cement and fiberglass tubing to KOP @ 9800' and kick off to drill the lateral. The fiberglass tubing effectively circulates cement to surface and plugs back the open hole.

Application to Drill
East Lusk 24 Federal Com No. 1
 Cimarex Energy Co. of Colorado
 Unit D, Section 24
 T19S-R32E, Lea County, NM

9 Casing & Cementing Program:

See
COA

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17½"	0' to 1179' - 575'	New 13¾"	48#	STC	H-40
Intermediate	12¼"	0' to 5200'	New 9⅝"	40#	LTC	J/K 55
Production	8¾"	0' to 9740'	New 7"	26#	LTC	P-110
Production	8¾"	9740' to 10200'	New 2⅞"	2.18#	0	IJ
Lateral Pt. 1	6⅞"	9640' to 10100'	New 4½"	11.6#	BTC	P-110
Lateral Pt. 2	6⅞"	10100' to 14529'	New 4½"	11.6#	LTC	P-110

N-80 per operator
RGH
9/30/2010

10 Cementing:

Surface 650 sx Premium Plus + 2% CaCl₂ (wt 14.8, yld 1.35)
TOC Surface - See COA

Intermediate Lead: 415 sx Econocem + 3% Salt + 2% CaCl₂ + 3 lbm/sk Gilsonite (wt 11.7, yld 2.06)
Tail: 650 sks Premium Plus + 1% CaCl₂ (wt 14.8, yld 1.34)
TOC Surface - See COA

Production Lead: 660 sx EconoCem + 3% Salt + 5 lbm/sk gilsonite (wt 13.0, yld 1.71)
Tail: 500 sx HalCem (wt 14.8, yld 1.34)
TOC ~~5100'~~ See COA 50' Above the top of the Capitan Reef

Lateral No cement needed. Peak completion assembly.

Fresh water zones will be protected by setting 13¾" casing at 1179' and cementing to surface. Hydrocarbon zones will be protected by setting 9⅝" casing at 5200' and cementing to surface, and by setting 7" casing at 9740' and fiberglass to 10200' and cementing to 5100'. See COA

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

11 Pressure control Equipment:

Exhibit "E". A 13¾" 5000 PSI working pressure BOP tested to 3000 psi 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 as needed. 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 tested to 3000 psi.

BOPS will be tested by an independent service company to 250 psi low and 3000 psi high. Hydril will be tested to 250 psi low and 1500 psi high.

Application to Drill
East Lusk 24 Federal Com No. 1
Cimarex Energy Co. of Colorado
Unit D, Section 24
T19S-R32E, Lea County, NM

12 Testing, Logging and Coring Program:

- See COA*
- A. Mud logging program: 2 man unit from 5200' to TD
 - B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
 - C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." 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. *See COA*

Estimated BHP **3000 psi** Estimated BHT **130°**

- 14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.

Drilling expected to take 30-35 days

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

15 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.**



Planned Wellpath Report

Prelim_1
Page 1 of 4



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(East 24) Sec 24, T19S, R32E	Wellbore	No. 1H PWB
Facility	East Lusk 24 Fed Com No. 1H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999949	Report Generated	6/1/2010 at 2:27:20 PM
Convergence at slot	0.33° East	Database/Source file	WA_Midland/No. 1H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	728213.10	601522.90	32°39'07.795"N	103°43'34.152"W
Facility Reference Pt			728213.10	601522.90	32°39'07.795"N	103°43'34.152"W
Field Reference Pt			728213.10	601522.90	32°39'07.795"N	103°43'34.152"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 1H SHL (GL) to GL	0.00ft
Horizontal Reference Pt	SL	Rig on No. 1H SHL (GL) to Mean Sea Level	3614.00ft
Vertical Reference Pt	Rig on No. 1H SHL (GL)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.59°

RECEIVED

OCT 21 2010

HOBBSOCD



Planned Wellpath Report

Prelim_1
Page 2 of 4



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(East 24) Sec 24, T19S, R32E	Wellbore	No. 1H PWB
Facility	East Lusk 24 Fed Com No. 1H		

WELLPATH DATA (51 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	179.594	0.00	0.00	0.00	0.00	728213.10	601522.90	32°39'07.795"N	103°43'34.152"W	0.00	Tie On
9800.00	0.000	179.594	9800.00	0.00	0.00	0.00	728213.10	601522.90	32°39'07.795"N	103°43'34.152"W	0.00	EST. KOP
9900.00†	30.000	179.594	9895.49	25.59	-25.59	0.18	728213.28	601497.31	32°39'07.541"N	103°43'34.152"W	30.00	
10000.00†	60.000	179.594	9965.40	95.49	-95.49	0.68	728213.78	601427.41	32°39'06.850"N	103°43'34.150"W	30.00	
10100.00†	90.000	179.594	9990.99	190.99	-190.98	1.35	728214.45	601331.93	32°39'05.905"N	103°43'34.149"W	30.00	
10100.04	90.013	179.594	9990.99	191.03	-191.02	1.35	728214.45	601331.89	32°39'05.904"N	103°43'34.149"W	30.00	END OF CURVE
10200.00†	90.013	179.594	9990.96	290.99	-290.98	2.06	728215.16	601231.94	32°39'04.915"N	103°43'34.147"W	0.00	
10300.00†	90.013	179.594	9990.94	390.99	-390.98	2.77	728215.87	601131.94	32°39'03.926"N	103°43'34.146"W	0.00	
10400.00†	90.013	179.594	9990.92	490.99	-490.97	3.48	728216.58	601031.95	32°39'02.937"N	103°43'34.144"W	0.00	
10500.00†	90.013	179.594	9990.90	590.99	-590.97	4.19	728217.29	600931.96	32°39'01.947"N	103°43'34.143"W	0.00	
10600.00†	90.013	179.594	9990.87	690.99	-690.97	4.90	728218.00	600831.97	32°39'00.958"N	103°43'34.141"W	0.00	
10700.00†	90.013	179.594	9990.85	790.99	-790.97	5.60	728218.70	600731.98	32°38'59.968"N	103°43'34.139"W	0.00	
10800.00†	90.013	179.594	9990.83	890.99	-890.96	6.31	728219.41	600631.98	32°38'58.979"N	103°43'34.138"W	0.00	
10900.00†	90.013	179.594	9990.81	990.99	-990.96	7.02	728220.12	600531.99	32°38'57.989"N	103°43'34.136"W	0.00	
11000.00†	90.013	179.594	9990.79	1090.99	-1090.96	7.73	728220.83	600432.00	32°38'57.000"N	103°43'34.135"W	0.00	
11100.00†	90.013	179.594	9990.76	1190.99	-1190.96	8.44	728221.54	600332.01	32°38'56.010"N	103°43'34.133"W	0.00	
11200.00†	90.013	179.594	9990.74	1290.99	-1290.95	9.15	728222.25	600232.01	32°38'55.021"N	103°43'34.131"W	0.00	
11300.00†	90.013	179.594	9990.72	1390.99	-1390.95	9.85	728222.95	600132.02	32°38'54.032"N	103°43'34.130"W	0.00	
11400.00†	90.013	179.594	9990.70	1490.99	-1490.95	10.56	728223.66	600032.03	32°38'53.042"N	103°43'34.128"W	0.00	
11500.00†	90.013	179.594	9990.67	1590.99	-1590.95	11.27	728224.37	599932.04	32°38'52.053"N	103°43'34.127"W	0.00	
11600.00†	90.013	179.594	9990.65	1690.99	-1690.94	11.98	728225.08	599832.05	32°38'51.063"N	103°43'34.125"W	0.00	
11700.00†	90.013	179.594	9990.63	1790.99	-1790.94	12.69	728225.79	599732.05	32°38'50.074"N	103°43'34.123"W	0.00	
11800.00†	90.013	179.594	9990.61	1890.99	-1890.94	13.40	728226.50	599632.06	32°38'49.084"N	103°43'34.122"W	0.00	
11900.00†	90.013	179.594	9990.59	1990.99	-1990.94	14.11	728227.21	599532.07	32°38'48.095"N	103°43'34.120"W	0.00	
12000.00†	90.013	179.594	9990.56	2090.99	-2090.93	14.81	728227.91	599432.08	32°38'47.105"N	103°43'34.119"W	0.00	
12100.00†	90.013	179.594	9990.54	2190.99	-2190.93	15.52	728228.62	599332.09	32°38'46.116"N	103°43'34.117"W	0.00	
12200.00†	90.013	179.594	9990.52	2290.99	-2290.93	16.23	728229.33	599232.09	32°38'45.126"N	103°43'34.115"W	0.00	
12300.00†	90.013	179.594	9990.50	2390.99	-2390.93	16.94	728230.04	599132.10	32°38'44.137"N	103°43'34.114"W	0.00	
12400.00†	90.013	179.594	9990.47	2490.99	-2490.92	17.65	728230.75	599032.11	32°38'43.148"N	103°43'34.112"W	0.00	
12500.00†	90.013	179.594	9990.45	2590.99	-2590.92	18.36	728231.46	598932.12	32°38'42.158"N	103°43'34.111"W	0.00	



Planned Wellpath Report

Prelim_1
Page 3 of 4



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(East 24) Sec 24, T19S, R32E	Wellbore	No. 1H PWB
Facility	East Lusk 24 Fed Com No. 1H		

WELLPATH DATA (51 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12600.00†	90.013	179.594	9990.43	2690.99	-2690.92	19.07	728232.16	598832.12	32°38'41.169"N	103°43'34.109"W	0.00	
12700.00†	90.013	179.594	9990.41	2790.99	-2790.92	19.77	728232.87	598732.13	32°38'40.179"N	103°43'34.107"W	0.00	
12800.00†	90.013	179.594	9990.38	2890.99	-2890.91	20.48	728233.58	598632.14	32°38'39.190"N	103°43'34.106"W	0.00	
12900.00†	90.013	179.594	9990.36	2990.99	-2990.91	21.19	728234.29	598532.15	32°38'38.200"N	103°43'34.104"W	0.00	
13000.00†	90.013	179.594	9990.34	3090.99	-3090.91	21.90	728235.00	598432.16	32°38'37.211"N	103°43'34.103"W	0.00	
13100.00†	90.013	179.594	9990.32	3190.99	-3190.91	22.61	728235.71	598332.16	32°38'36.221"N	103°43'34.101"W	0.00	
13200.00†	90.013	179.594	9990.30	3290.99	-3290.90	23.32	728236.41	598232.17	32°38'35.232"N	103°43'34.099"W	0.00	
13300.00†	90.013	179.594	9990.27	3390.99	-3390.90	24.02	728237.12	598132.18	32°38'34.243"N	103°43'34.098"W	0.00	
13400.00†	90.013	179.594	9990.25	3490.99	-3490.90	24.73	728237.83	598032.19	32°38'33.253"N	103°43'34.096"W	0.00	
13500.00†	90.013	179.594	9990.23	3590.99	-3590.90	25.44	728238.54	597932.19	32°38'32.264"N	103°43'34.095"W	0.00	
13600.00†	90.013	179.594	9990.21	3690.99	-3690.89	26.15	728239.25	597832.20	32°38'31.274"N	103°43'34.093"W	0.00	
13700.00†	90.013	179.594	9990.18	3790.99	-3790.89	26.86	728239.96	597732.21	32°38'30.285"N	103°43'34.091"W	0.00	
13800.00†	90.013	179.594	9990.16	3890.99	-3890.89	27.57	728240.67	597632.22	32°38'29.295"N	103°43'34.090"W	0.00	
13900.00†	90.013	179.594	9990.14	3990.99	-3990.89	28.28	728241.37	597532.23	32°38'28.306"N	103°43'34.088"W	0.00	
14000.00†	90.013	179.594	9990.12	4090.99	-4090.88	28.98	728242.08	597432.23	32°38'27.316"N	103°43'34.087"W	0.00	
14100.00†	90.013	179.594	9990.10	4190.99	-4190.88	29.69	728242.79	597332.24	32°38'26.327"N	103°43'34.085"W	0.00	
14200.00†	90.013	179.594	9990.07	4290.99	-4290.88	30.40	728243.50	597232.25	32°38'25.338"N	103°43'34.083"W	0.00	
14300.00†	90.013	179.594	9990.05	4390.99	-4390.88	31.11	728244.21	597132.26	32°38'24.348"N	103°43'34.082"W	0.00	
14400.00†	90.013	179.594	9990.03	4490.99	-4490.87	31.82	728244.92	597032.26	32°38'23.359"N	103°43'34.080"W	0.00	
14500.00†	90.013	179.594	9990.01	4590.99	-4590.87	32.53	728245.62	596932.27	32°38'22.369"N	103°43'34.079"W	0.00	
14528.98	90.013	179.594	9990.00†	4619.97	-4619.85	32.73	728245.83	596903.29	32°38'22.082"N	103°43'34.078"W	0.00	No. 1H PBHL



Planned Wellpath Report

Prelim_1
Page 4 of 4



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(East 24) Sec 24, T19S, R32E	Wellbore	No. 1H PWB
Facility	East Lusk 24 Fed Com No. 1H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 1H PBHL	14528.98	9990.00	-4619.85	32.73	728245.83	596903.29	32°38'22.082"N	103°43'34.078"W	point

SURVEY PROGRAM Ref Wellbore: No. 1H PWB Ref Wellpath: Prelim_1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	14528.98	NaviTrak (Standard)		No. 1H PWB



Cimarex Energy Co.

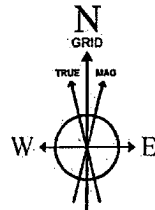
Location: Lea County, NM
Field: (East 24) Sec 24, T19S, R32E
Facility: East Lusk 24 Fed Com No. 1H

Slot: No. 1H SHL
Well: No. 1H
Wellbore: No. 1H PWB



Well Profile Data

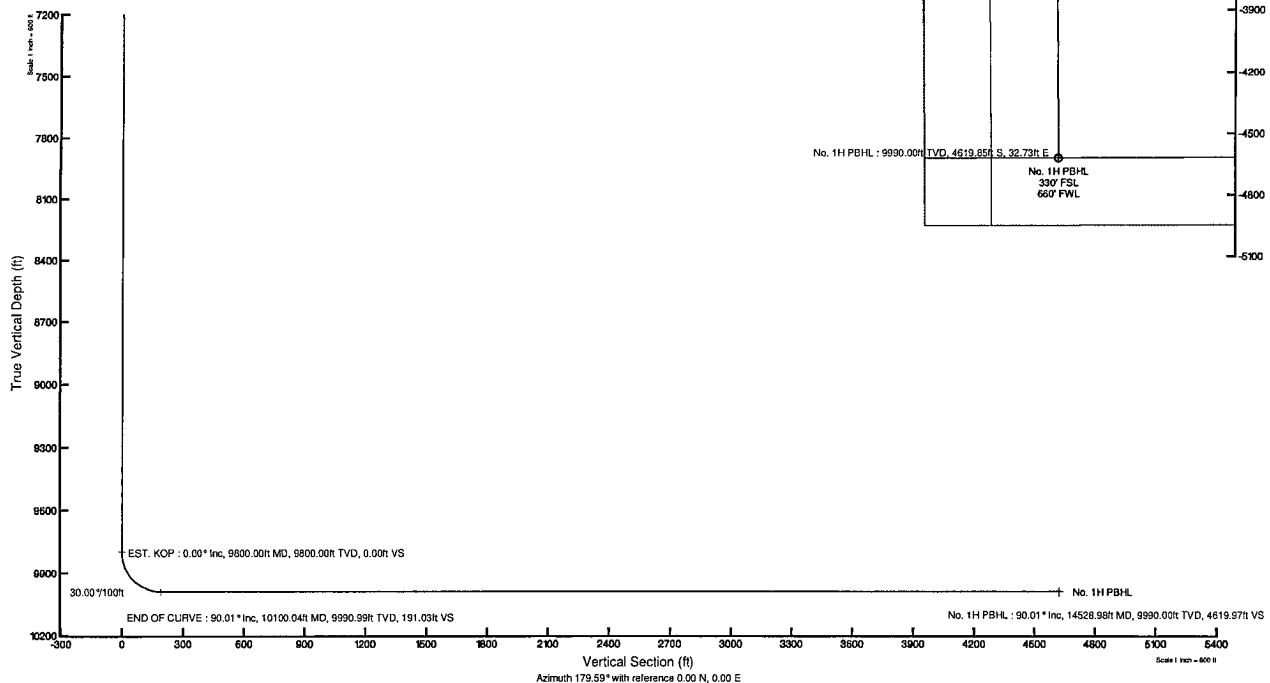
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	179.594	0.00	0.00	0.00	0.00	0.00
EST. KOP	9800.00	0.000	179.594	9800.00	0.00	0.00	0.00	0.00
END OF CURVE	10100.04	90.013	179.594	9990.99	-191.02	1.35	30.00	191.03
No. 1H PBHL	14528.98	90.013	179.594	9990.00	-4619.85	32.73	0.00	4619.97

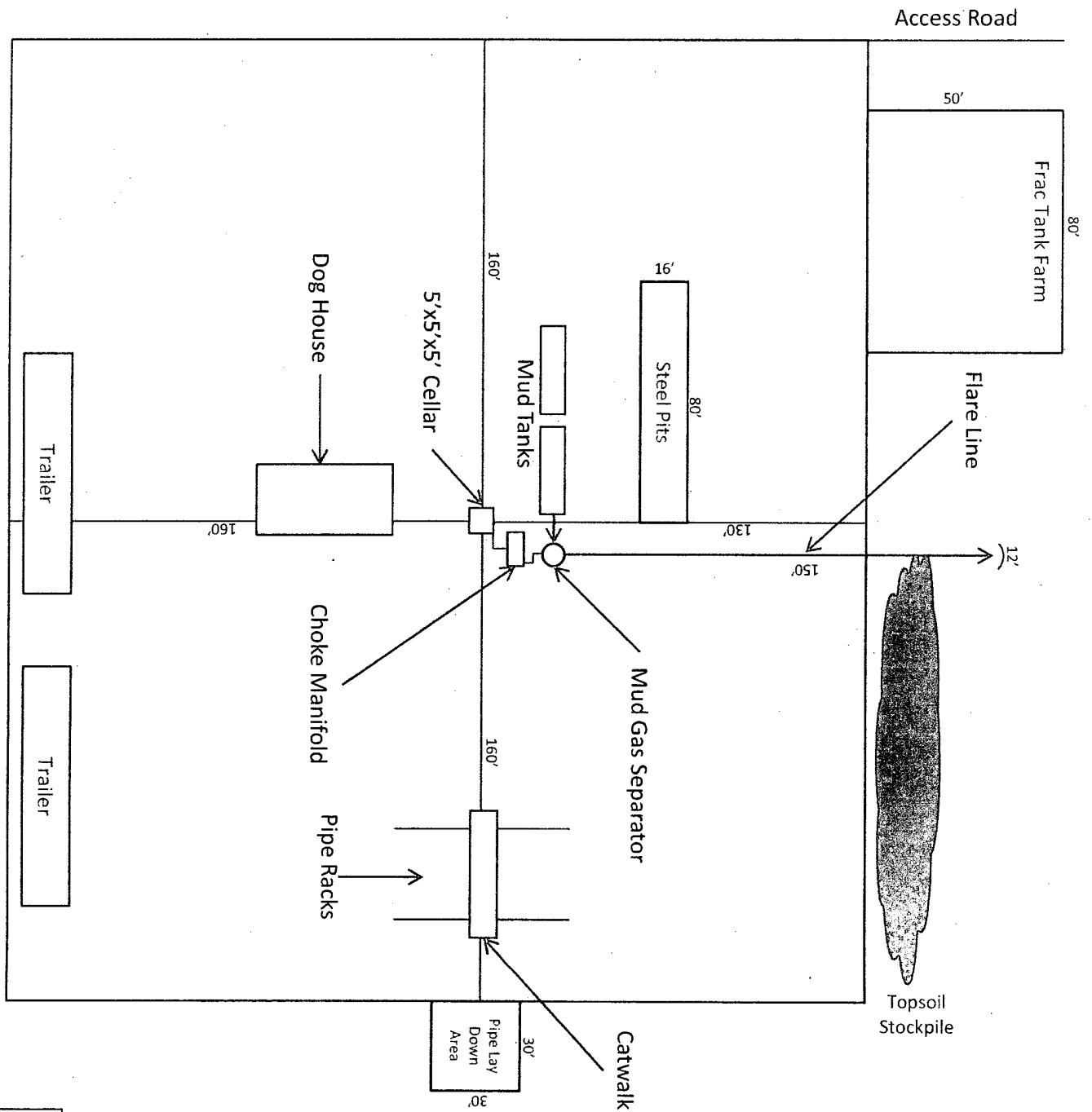


BGGM (1945.0 to 2011.0) Dip: 60.60° Field: 49026.8 nT
Magnetic North is 7.85 degrees East of True North (at 6/1/2010)
Grid North is 0.33 degrees East of True North
To correct azimuth from True to Grid subtract 0.33 degrees
To correct azimuth from Magnetic to Grid add 7.53 degrees

For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.53 = 97.53

Plot reference wellpath is Prelim 1	
True vertical depths are referenced to Rig on No. 1H SHL (GL)	Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 1H SHL (GL)	North Reference: Grid north
Rig on No. 1H SHL (GL) to Mean Sea Level: 3614 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: East Lusk 24 Fed Com No. 1H): -3614 feet	Depths are in feet
Coordinates are in feet referenced to SL	Created by: Victor Hernandez on 6/1/2010





1"=50'



Exhibit D – Rig Diagram
East Lusk 24 Federal Com No. 1
 Cimarex Energy Co. of Colorado
 24-19S-32E
 SHL 660 FNL & 660 FWL
 BHL 660 FSL & 660 FWL
 Lea County, NM

SR & A

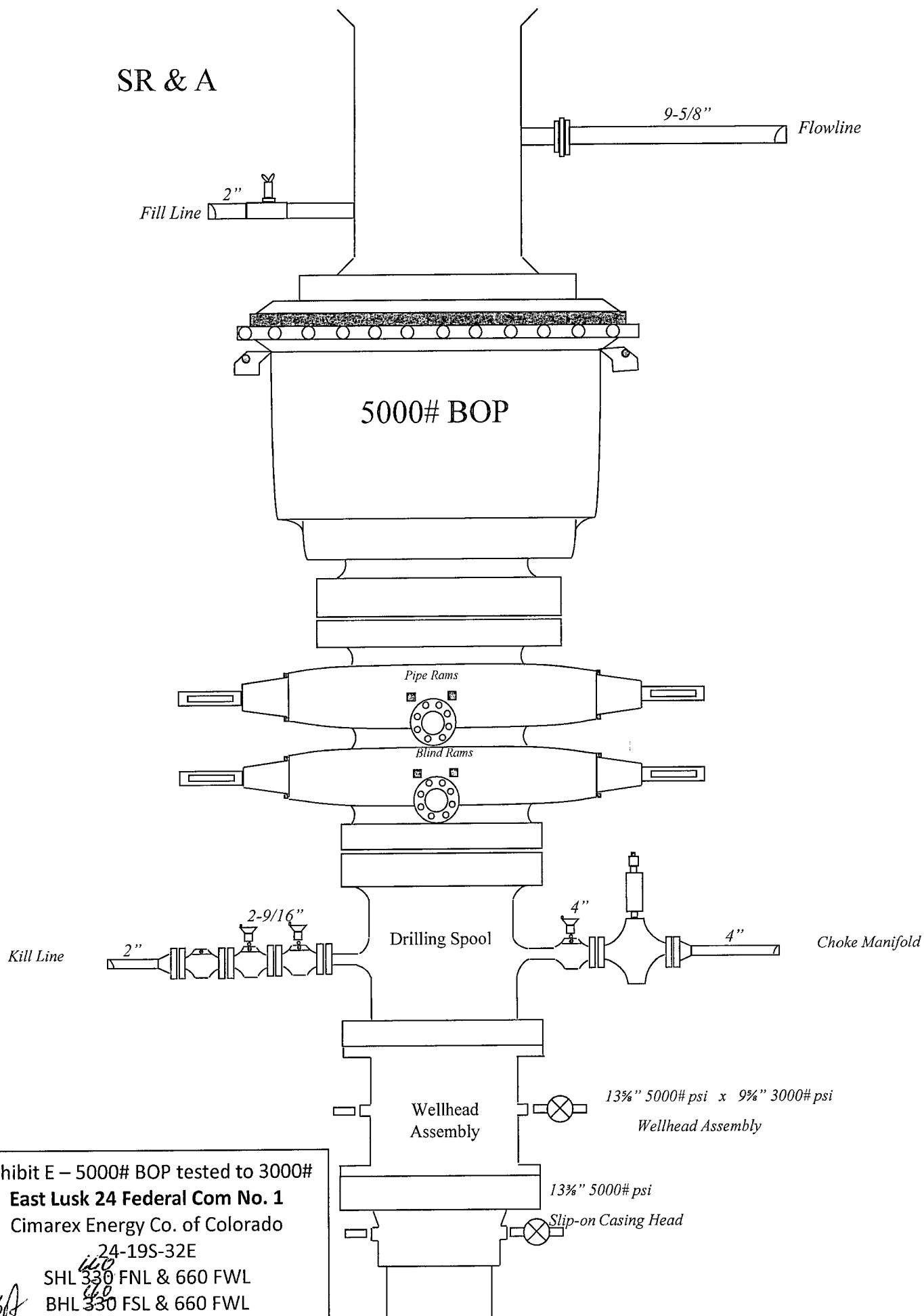


Exhibit E – 5000# BOP tested to 3000#

East Lusk 24 Federal Com No. 1

Cimarex Energy Co. of Colorado

24-19S-32E

SHL 330 FNL & 660 FWL

BHL 330 FSL & 660 FWL

Lea County, NM

Drilling Operations Choke Manifold 5M Service (tested to 3M)

Exhibit E-1 – Choke Manifold Diagram

East Lusk 24 Federal Com No. 1

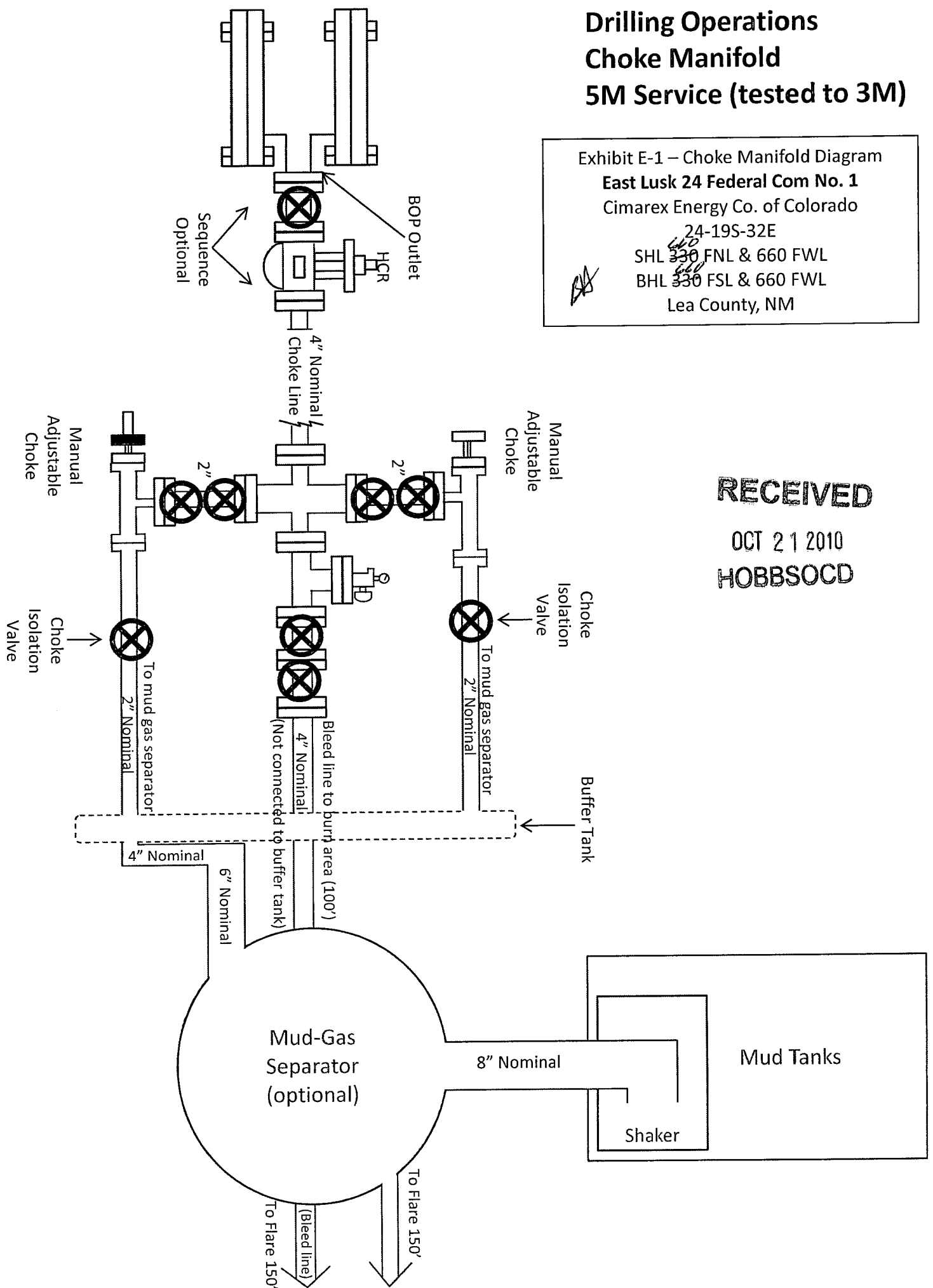
Cimarex Energy Co. of Colorado

24-19S-32E

SHL 330 FNL & 660 FWL

BHL 330 FSL & 660 FWL

Lea County, NM



RECEIVED

OCT 21 2010

HOBBSOCD