

OCD-HOBBS

ATS-12-778

HOBBS OCD

Form 3160-3
(April 2004)

SEP 20 2012

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Cimarex Energy Co.

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 430 FNL & 1915 FEL Unit B

At proposed prod Zone 330 FSL & 1650 FEL Unit D Horizontal Bone Spring test

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

5. Lease Serial No

NMNM 127895

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No

8. Lease Name and Well No

Double X 25 Federal No. 6 #39348

9. API Well No

30-025-40766

10. Field and Pool, or Exploratory

WC025 5-07 5243225C; 77964

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

25-24S-32E LWRAS

12. County or Parish

13. State

Lea

NM

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

640 acres

17. Spacing Unit dedicated to this well

W2E2 160 acres

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

150' from #5

19. Proposed Depth

MD 15382' TVD 10975'

20. BLM/BIA Bond No. on File

COB000011

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

3564' GR

22. Approximate date work will start*

05.01.13

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

Name (Printed/Typed)

Celeste G. Dale

Date

5.10.12

Title

Regulatory Analyst

Approved By (Signature)

/s/ Don Peterson

Name (Printed/Typed)

/s/ Don Peterson

Date

SEP 18 2012

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)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Carlsbad Controlled Water Basin

SEP 25 2012

Approval Subject to General Requirements
& Special Stipulations Attached

Drilling Plan
Double X 25 Federal No. 6
Cimarex Energy Co.
Unit B, Section 25
T24S-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 430 FNL & 1915 FEL
BHL 330 FSL & 1650 FEL
- 2 **Elevation above sea level:** 3564' 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 15382' TVD 10975'
- 6 **Estimated tops of geological markers:**
- | | |
|----------------|--------|
| Rustler | 1080' |
| Top of Salt | 1400' |
| Castile | 3400' |
| Base of Salt | 4680' |
| Delaware Sands | 5000' |
| Brushy Canyon | 8660' |
| Bone Spring | 8900' |
| Avalon | 9275' |
| FBSS | 10000' |
- 7 **Possible mineral bearing formations:**
- | | |
|-------------|-----|
| Bone Spring | Oil |
| Delaware | Oil |

8 **Proposed Mud Circulating System:**

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 1125' 190	8.4 - 8.6	28	NC	FW
1125' to 4900'	10.0	30-32	NC	Brine
4900' to 10689'	8.4-9.0	28-29	NC	FW and brine, use hi-vis sweeps to keep hole clean
10689' to 15382'	8.5-9.5	27-45	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

Drill 8¾" hole to 10689'. Continue drilling lateral through the curve to TD @ 15382' MD, 10975' TVD. Run 5½" 17# P-110 LTC from 0-15382' and cement.

Drilling Plan
Double X 25 Federal No. 6
 Cimarex Energy Co.
 Unit B, Section 25
 T24S-R32E, Lea County, NM

9 Casing & Cementing Program:

see COA
 1190

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface 1	17 1/2"	0' to 1125'	New 13 3/8"	48#	STC	H-40
Intermediate	12 1/4"	0' to 4900'	New 9 5/8"	40#	LTC	J-55
Production	7 7/8" or 8 3/4"	0' to 15382'	New 5 1/2"	17#	LTC	P-110

10 Cementing:

Surface

Lead: 545SKS Halcem C + 4% Bentomite + 2% CaCl 13.5ppg 1.75 yield 100% Excess
 Tail: 420SKS Halcem C + 2% CaCl 14.2ppg 1.34 yield 50% Excess

TOC Surface Centralizers per Onshorder 2.III.B.1.f

Intermediate

Lead: 1655SKS Econocem + 5% Salt + 5# Gilsonite 14.6ppg 1.54 yield 70% Excess
 Tail: 200SKS Halcem + 1% CaCl 14.8ppg 1.34 yield 25% Excess

TOC Surface

Production

Lead: 1030SKS Econocem H + 0.5% CFR-3 + 0.1% HR-601 11.9ppg 2.44 yield 50% Excess
 Tail: 1305SKS Versacem H + 0.5% Halad-344 + 0.4% CFR-3 + 1# Salt + 0.1% HR-601 14.5ppg 1.22 yield 25% Excess
 Cement volumes will be adjusted according to hole size.

TOC 3800' Centralizers every 3rd joint in lateral to provide adequate cement coverage every 100' unless lateral doglegs require greater spacing between centralizers.

According to the NM State Engineer, depth to ground water is 100 feet. Fresh water zones will be protected by setting 13 3/8" casing at 1125' and 9 5/8" casing at 4900' and cementing to surface. Hydrocarbon zones will be protected by setting 5 1/2" casing at 15382' and cementing to 3800'.

<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 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of 10K blind rams and two sets of 10K 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 4900'. 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. Mud gas separator will be available if drilling in H2S areas.

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.

Before drilling out of the surface casing BOPs will be tested to 250 psi low and 3000 psi high by an independent service company. Hydril will be tested to 250 psi low and 1500 psi high. Before drilling out of the intermediate casing BOPs will be tested to 250 psi low and 5000 psi high. Hydril will be tested to 250 psi low and 2500 high.

Cimarex Energy Co. (operator) requests a variance if Scandril Eagle (rig name) is used to drill this well to use a co-flex line between the BOP and choke manifold.

Manufacturer: Gates E&S North America

Serial Number: L31853011112

Length: 35' Size: 3-1/16" Ends - flanges/clamps

WP rating: 10,000 psi Anchors required by manufacturer - Yes/No

Drilling Plan
Double X 25 Federal No. 6
Cimarex Energy Co.
Unit B, Section 25
T24S-R32E, Lea County, NM

12 Testing, Logging and Coring Program: *See COA*

- A. Mud logging program: 2 man unit from 4900 to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR Surface to TD
- 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.

Estimated BHP **4810 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.

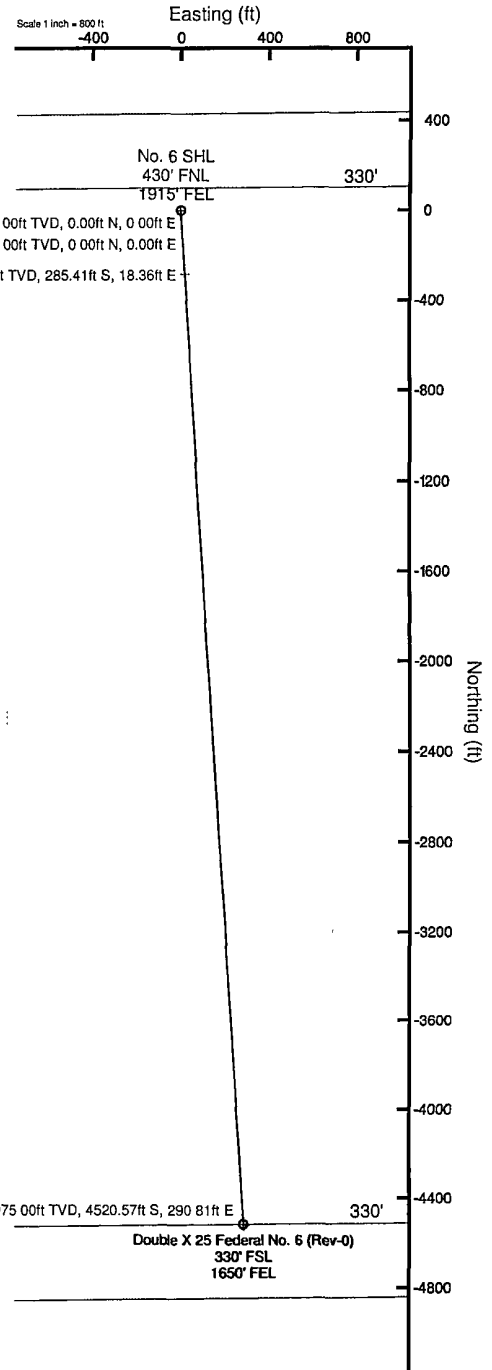
The proposed well will be tested and potential as **an oil well.**



Cimarex Energy Co.

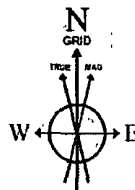
Location: Lea County, NM
Field: (Double X) Sec 25, T24S, R32E
Facility: Double X 25 Federal No. 6

Slot: No. 6 SHL
Well: No. 6
Wellbore: No. 6 PWB

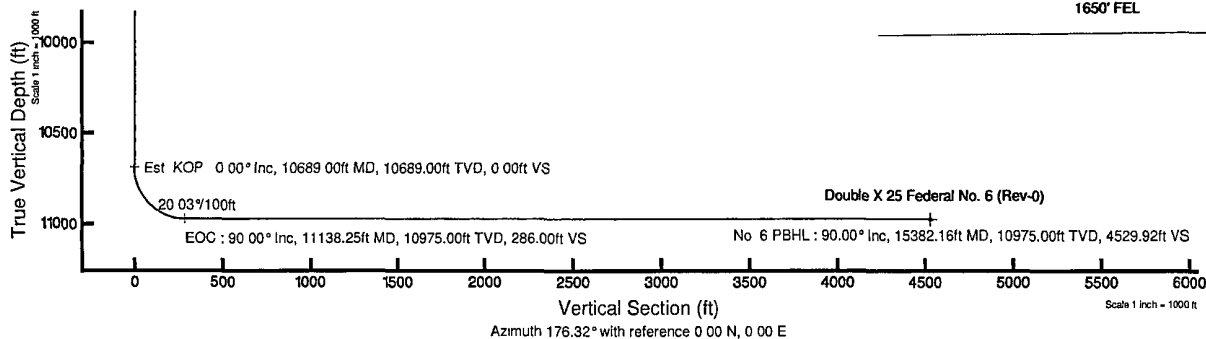


Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	176.319	0.00	0.00	0.00	0.00	0.00
Est KOP	10689.00	0.000	176.319	10689.00	0.00	0.00	0.00	0.00
EOC	11138.25	90.000	176.319	10975.00	-285.41	18.36	20.03	286.00
No. 6 PWB	15382.16	90.000	176.319	10975.00	-4520.57	290.81	0.00	4529.92

Plot reference wellpath is Rev-A-0	
True vertical depths are referenced to Rig on No. 6 SHL (RT)	Grid System NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 6 SHL (RT)	North Reference Grid north
Rig on No. 6 SHL (RT) to Mean Sea Level 3564 feet	Scale True distance
Mean Sea Level to Mud Line (At Slot No. 6 SHL) -3564 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by harrkot on 4/18/2012



BGGM (1945.0 to 2013.0) Dip: 60.09° Field: 48510.7 nT
Magnetic North is 7.58 degrees East of True North (at 4/18/2012)
Grid North is 0.38 degrees East of True North
To correct azimuth from True to Grid subtract 0.38 degrees
To correct azimuth from Magnetic to Grid add 7.21 degrees
For example: If the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.21 = 97.21





Planned Wellpath Report

Rev-A.0
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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(Double X)Sec 25, T24S, R32E	Wellbore	No. 6 PWB
Facility	Double X 25 Federal No. 6		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect@ 3.0.0
North Reference	Grid	User	Harrkol
Scale	0.999964	Report Generated	4/18/2012 at 4:35:27 PM
Convergence at slot	0.38° East	Database/Source file	WA Midland/No._6_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W
Facility Reference Pt			760141.50	435305.10	32°11'41.110"N	103°37'33.583"W
Field Reference Pt			758836.50	435394.30	32°11'42.077"N	103°37'48.763"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 6 SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No. 6 SHL (RT) to Mean Sea Level	3564.00ft
Vertical Reference Pt	Rig on No. 6 SHL (RT)	Rig on No. 6 SHL (RT) to Mud Line at Slot (No. 6 SHL)	0.00ft
MD Reference Pt	Rig on No. 6 SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	176.32°



Planned Wellpath Report

Rev-A.0
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(Double X)Sec 25, T24S, R32E	Wellbore	No. 6 PWB
Facility	Double X 25 Federal No. 6		

WELLPATH DATA (160 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	176.319	0.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Tie On
100.00†	0.000	176.319	100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
200.00†	0.000	176.319	200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
300.00†	0.000	176.319	300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
400.00†	0.000	176.319	400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
500.00†	0.000	176.319	500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
600.00†	0.000	176.319	600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
700.00†	0.000	176.319	700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
800.00†	0.000	176.319	800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
900.00†	0.000	176.319	900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1000.00†	0.000	176.319	1000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1080.00†	0.000	176.319	1080.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Rustler
1100.00†	0.000	176.319	1100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1200.00†	0.000	176.319	1200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1300.00†	0.000	176.319	1300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1400.00†	0.000	176.319	1400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Salt
1500.00†	0.000	176.319	1500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1600.00†	0.000	176.319	1600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1700.00†	0.000	176.319	1700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1800.00†	0.000	176.319	1800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
1900.00†	0.000	176.319	1900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2000.00†	0.000	176.319	2000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2100.00†	0.000	176.319	2100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2200.00†	0.000	176.319	2200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2300.00†	0.000	176.319	2300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2400.00†	0.000	176.319	2400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2500.00†	0.000	176.319	2500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2600.00†	0.000	176.319	2600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2700.00†	0.000	176.319	2700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2800.00†	0.000	176.319	2800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
2900.00†	0.000	176.319	2900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3000.00†	0.000	176.319	3000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3100.00†	0.000	176.319	3100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3200.00†	0.000	176.319	3200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3300.00†	0.000	176.319	3300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3400.00†	0.000	176.319	3400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Castille
3500.00†	0.000	176.319	3500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3600.00†	0.000	176.319	3600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3700.00†	0.000	176.319	3700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3800.00†	0.000	176.319	3800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
3900.00†	0.000	176.319	3900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
4000.00†	0.000	176.319	4000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
4100.00†	0.000	176.319	4100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
4200.00†	0.000	176.319	4200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
4300.00†	0.000	176.319	4300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	



Planned Wellpath Report

Rev-A.0
Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(Double X)Sec 25, T24S, R32E	Wellbore	No. 6 PWB
Facility	Double X 25 Federal No. 6		

WELLPATH DATA (160 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4400.00†	0.000	176.319	4400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
4500.00†	0.000	176.319	4500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
4600.00†	0.000	176.319	4600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
4700.00†	0.000	176.319	4700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Base Salt
4800.00†	0.000	176.319	4800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
4900.00†	0.000	176.319	4900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5000.00†	0.000	176.319	5000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Delaware Sands
5100.00†	0.000	176.319	5100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5200.00†	0.000	176.319	5200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5300.00†	0.000	176.319	5300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5400.00†	0.000	176.319	5400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5500.00†	0.000	176.319	5500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5600.00†	0.000	176.319	5600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5700.00†	0.000	176.319	5700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5800.00†	0.000	176.319	5800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
5900.00†	0.000	176.319	5900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6000.00†	0.000	176.319	6000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6100.00†	0.000	176.319	6100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6200.00†	0.000	176.319	6200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6300.00†	0.000	176.319	6300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6400.00†	0.000	176.319	6400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6500.00†	0.000	176.319	6500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6600.00†	0.000	176.319	6600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6700.00†	0.000	176.319	6700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6800.00†	0.000	176.319	6800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
6900.00†	0.000	176.319	6900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7000.00†	0.000	176.319	7000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7100.00†	0.000	176.319	7100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7200.00†	0.000	176.319	7200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7300.00†	0.000	176.319	7300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7400.00†	0.000	176.319	7400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7500.00†	0.000	176.319	7500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7600.00†	0.000	176.319	7600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7700.00†	0.000	176.319	7700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7800.00†	0.000	176.319	7800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
7900.00†	0.000	176.319	7900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8000.00†	0.000	176.319	8000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8100.00†	0.000	176.319	8100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8200.00†	0.000	176.319	8200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8300.00†	0.000	176.319	8300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8400.00†	0.000	176.319	8400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8500.00†	0.000	176.319	8500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8600.00†	0.000	176.319	8600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8660.00†	0.000	176.319	8660.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Basal Brushy Canyon
8700.00†	0.000	176.319	8700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(Double X)Sec 25, T24S, R32E	Wellbore	No. 6 PWB
Facility	Double X 25 Federal No. 6		

WELLPATH DATA (160 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8800.00†	0.000	176.319	8800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
8900.00†	0.000	176.319	8900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Bone Spring
9000.00†	0.000	176.319	9000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9100.00†	0.000	176.319	9100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9200.00†	0.000	176.319	9200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9270.00†	0.000	176.319	9270.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Avalon Shale
9300.00†	0.000	176.319	9300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9400.00†	0.000	176.319	9400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9500.00†	0.000	176.319	9500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9600.00†	0.000	176.319	9600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9700.00†	0.000	176.319	9700.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9800.00†	0.000	176.319	9800.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
9900.00†	0.000	176.319	9900.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
10000.00†	0.000	176.319	10000.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	1st BSS
10100.00†	0.000	176.319	10100.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
10200.00†	0.000	176.319	10200.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
10300.00†	0.000	176.319	10300.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
10400.00†	0.000	176.319	10400.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
10500.00†	0.000	176.319	10500.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	
10600.00†	0.000	176.319	10600.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	2nd BSS
10689.00	0.000	176.319	10689.00	0.00	0.00	0.00	760141.50	435305.10	32°11'41.110"N	103°37'33.583"W	0.00	Est. KOP
10700.00†	2.204	176.319	10700.00	0.21	-0.21	0.01	760141.51	435304.89	32°11'41.108"N	103°37'33.583"W	20.03	
10800.00†	22.237	176.319	10797.23	21.27	-21.23	1.37	760142.87	435283.87	32°11'40.900"N	103°37'33.569"W	20.03	
10900.00†	42.271	176.319	10881.37	74.37	-74.21	4.77	760146.27	435230.89	32°11'40.375"N	103°37'33.534"W	20.03	
11000.00†	62.304	176.319	10942.23	153.07	-152.76	9.83	760151.33	435152.35	32°11'39.598"N	103°37'33.481"W	20.03	
11100.00†	82.338	176.319	10972.45	247.87	-247.35	15.91	760157.41	435057.75	32°11'38.662"N	103°37'33.417"W	20.03	
11138.25	90.000	176.319	10975.00	286.00	-285.41	18.36	760159.86	435019.70	32°11'38.285"N	103°37'33.392"W	20.03	EOC
11200.00†	90.000	176.319	10975.00	347.75	-347.03	22.32	760163.82	434958.08	32°11'37.675"N	103°37'33.350"W	0.00	
11300.00†	90.000	176.319	10975.00	447.75	-446.83	28.74	760170.24	434858.29	32°11'36.687"N	103°37'33.283"W	0.00	
11400.00†	90.000	176.319	10975.00	547.75	-546.62	35.16	760176.66	434758.50	32°11'35.699"N	103°37'33.216"W	0.00	
11500.00†	90.000	176.319	10975.00	647.75	-646.42	41.58	760183.08	434658.71	32°11'34.711"N	103°37'33.149"W	0.00	
11600.00†	90.000	176.319	10975.00	747.75	-746.21	48.00	760189.50	434558.92	32°11'33.723"N	103°37'33.082"W	0.00	
11700.00†	90.000	176.319	10975.00	847.75	-846.00	54.42	760195.92	434459.13	32°11'32.735"N	103°37'33.015"W	0.00	
11800.00†	90.000	176.319	10975.00	947.75	-945.80	60.84	760202.34	434359.34	32°11'31.748"N	103°37'32.948"W	0.00	
11900.00†	90.000	176.319	10975.00	1047.75	-1045.59	67.26	760208.76	434259.55	32°11'30.760"N	103°37'32.881"W	0.00	
12000.00†	90.000	176.319	10975.00	1147.75	-1145.38	73.68	760215.18	434159.76	32°11'29.772"N	103°37'32.814"W	0.00	
12100.00†	90.000	176.319	10975.00	1247.75	-1245.18	80.10	760221.60	434059.97	32°11'28.784"N	103°37'32.747"W	0.00	
12200.00†	90.000	176.319	10975.00	1347.75	-1344.97	86.52	760228.02	433960.18	32°11'27.796"N	103°37'32.680"W	0.00	
12300.00†	90.000	176.319	10975.00	1447.75	-1444.77	92.94	760234.44	433860.39	32°11'26.808"N	103°37'32.613"W	0.00	
12400.00†	90.000	176.319	10975.00	1547.75	-1544.56	99.36	760240.86	433760.60	32°11'25.820"N	103°37'32.545"W	0.00	
12500.00†	90.000	176.319	10975.00	1647.75	-1644.35	105.78	760247.28	433660.81	32°11'24.832"N	103°37'32.478"W	0.00	
12600.00†	90.000	176.319	10975.00	1747.75	-1744.15	112.20	760253.70	433561.02	32°11'23.845"N	103°37'32.411"W	0.00	
12700.00†	90.000	176.319	10975.00	1847.75	-1843.94	118.62	760260.12	433461.23	32°11'22.857"N	103°37'32.344"W	0.00	
12800.00†	90.000	176.319	10975.00	1947.75	-1943.73	125.04	760266.54	433361.44	32°11'21.869"N	103°37'32.277"W	0.00	
12900.00†	90.000	176.319	10975.00	2047.75	-2043.53	131.46	760272.96	433261.65	32°11'20.881"N	103°37'32.210"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(Double X)Sec 25, T24S, R32E	Wellbore	No. 6 PWB
Facility	Double X 25 Federal No. 6		

WELLPATH DATA (160 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13000.00†	90.000	176.319	10975.00	2147.75	-2143.32	137.88	760279.38	433161.86	32°11'19.893"N	103°37'32.143"W	0.00	
13100.00†	90.000	176.319	10975.00	2247.75	-2243.12	144.30	760285.80	433062.07	32°11'18.905"N	103°37'32.076"W	0.00	
13200.00†	90.000	176.319	10975.00	2347.75	-2342.91	150.72	760292.21	432962.28	32°11'17.917"N	103°37'32.009"W	0.00	
13300.00†	90.000	176.319	10975.00	2447.75	-2442.70	157.14	760298.63	432862.49	32°11'16.929"N	103°37'31.942"W	0.00	
13400.00†	90.000	176.319	10975.00	2547.75	-2542.50	163.56	760305.05	432762.70	32°11'15.942"N	103°37'31.875"W	0.00	
13500.00†	90.000	176.319	10975.00	2647.75	-2642.29	169.98	760311.47	432662.91	32°11'14.954"N	103°37'31.808"W	0.00	
13600.00†	90.000	176.319	10975.00	2747.75	-2742.08	176.40	760317.89	432563.12	32°11'13.966"N	103°37'31.741"W	0.00	
13700.00†	90.000	176.319	10975.00	2847.75	-2841.88	182.82	760324.31	432463.33	32°11'12.978"N	103°37'31.674"W	0.00	
13800.00†	90.000	176.319	10975.00	2947.75	-2941.67	189.24	760330.73	432363.54	32°11'11.990"N	103°37'31.607"W	0.00	
13900.00†	90.000	176.319	10975.00	3047.75	-3041.47	195.66	760337.15	432263.75	32°11'11.002"N	103°37'31.540"W	0.00	
14000.00†	90.000	176.319	10975.00	3147.75	-3141.26	202.08	760343.57	432163.96	32°11'10.014"N	103°37'31.473"W	0.00	
14100.00†	90.000	176.319	10975.00	3247.75	-3241.05	208.50	760349.99	432064.17	32°11'09.026"N	103°37'31.405"W	0.00	
14200.00†	90.000	176.319	10975.00	3347.75	-3340.85	214.92	760356.41	431964.38	32°11'08.039"N	103°37'31.338"W	0.00	
14300.00†	90.000	176.319	10975.00	3447.75	-3440.64	221.34	760362.83	431864.59	32°11'07.051"N	103°37'31.271"W	0.00	
14400.00†	90.000	176.319	10975.00	3547.75	-3540.43	227.76	760369.25	431764.80	32°11'06.063"N	103°37'31.204"W	0.00	
14500.00†	90.000	176.319	10975.00	3647.75	-3640.23	234.18	760375.67	431665.01	32°11'05.075"N	103°37'31.137"W	0.00	
14600.00†	90.000	176.319	10975.00	3747.75	-3740.02	240.60	760382.09	431565.22	32°11'04.087"N	103°37'31.070"W	0.00	
14700.00†	90.000	176.319	10975.00	3847.75	-3839.82	247.02	760388.51	431465.43	32°11'03.099"N	103°37'31.003"W	0.00	
14800.00†	90.000	176.319	10975.00	3947.75	-3939.61	253.44	760394.93	431365.64	32°11'02.111"N	103°37'30.936"W	0.00	
14900.00†	90.000	176.319	10975.00	4047.75	-4039.40	259.86	760401.35	431265.85	32°11'01.123"N	103°37'30.869"W	0.00	
15000.00†	90.000	176.319	10975.00	4147.75	-4139.20	266.28	760407.77	431166.06	32°11'00.135"N	103°37'30.802"W	0.00	
15100.00†	90.000	176.319	10975.00	4247.75	-4238.99	272.70	760414.19	431066.27	32°10'59.148"N	103°37'30.735"W	0.00	
15200.00†	90.000	176.319	10975.00	4347.75	-4338.78	279.12	760420.61	430966.48	32°10'58.160"N	103°37'30.668"W	0.00	
15300.00†	90.000	176.319	10975.00	4447.75	-4438.58	285.54	760427.03	430866.69	32°10'57.172"N	103°37'30.601"W	0.00	
15382.16	90.000	176.319	10975.00	4529.92	-4520.57	290.81	760432.30	430784.70	32°10'56.360"N	103°37'30.546"W	0.00	No. 6 PBHL



Planned Wellpath Report

Rev-A.0
Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(Double X)Sec 25, T24S, R32E	Wellbore	No. 6 PWB
Facility	Double X 25 Federal No. 6		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) Double X 25 Federal No. 6 (Rev-0)	15382.16	10975.00	-4520.57	290.81	760432.30	430784.70	32°10'56.360"N	103°37'30.546"W	point

SURVEY PROGRAM - Ref Wellbore: No. 6 PWB Ref Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	15382.16	NaviTrak (Standard)		No. 6 PWB

SR & A

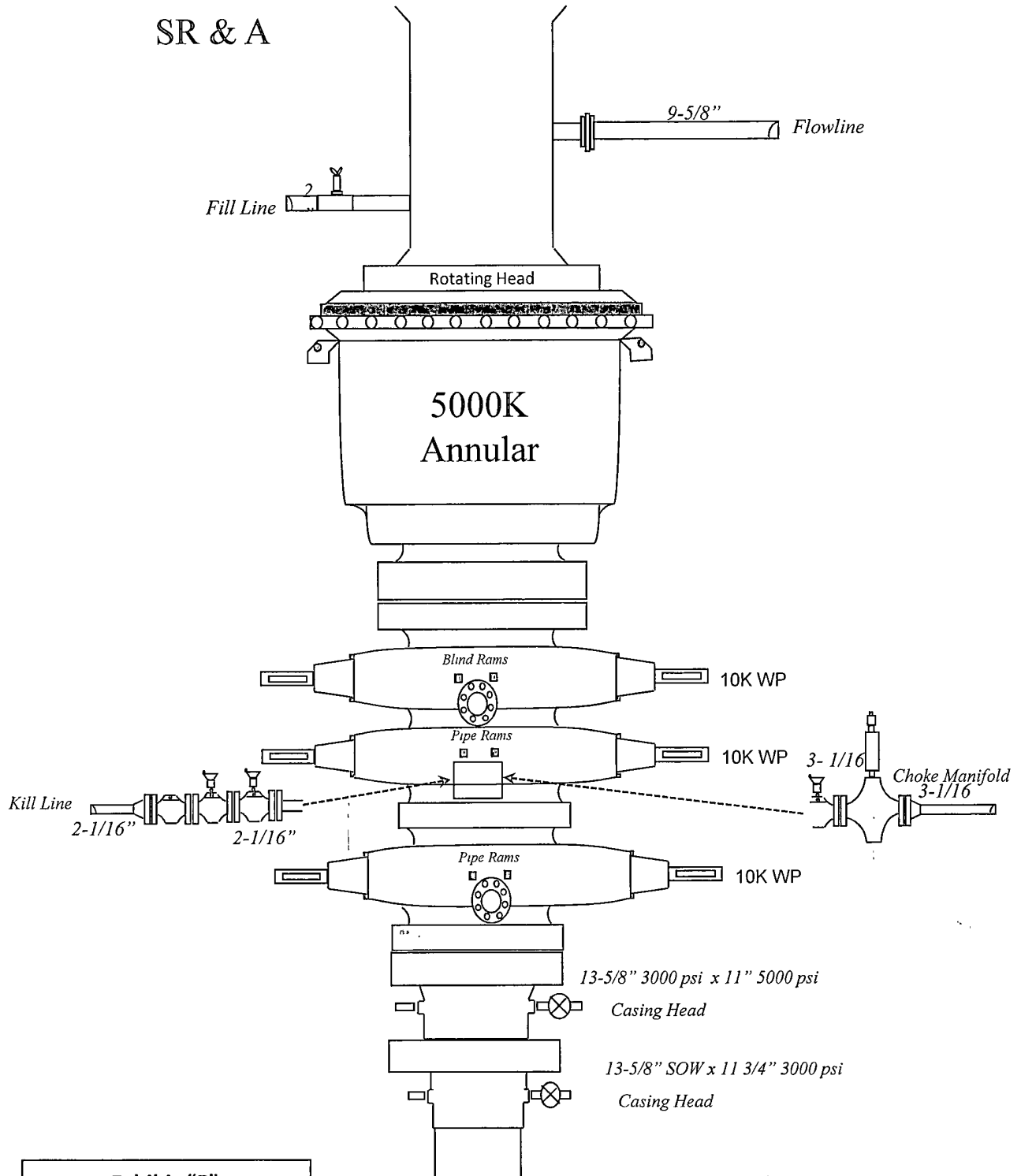


Exhibit "E"

5M BOP

Double X 25 Federal 6

Cimarex Energy Co.

25-24S-32E

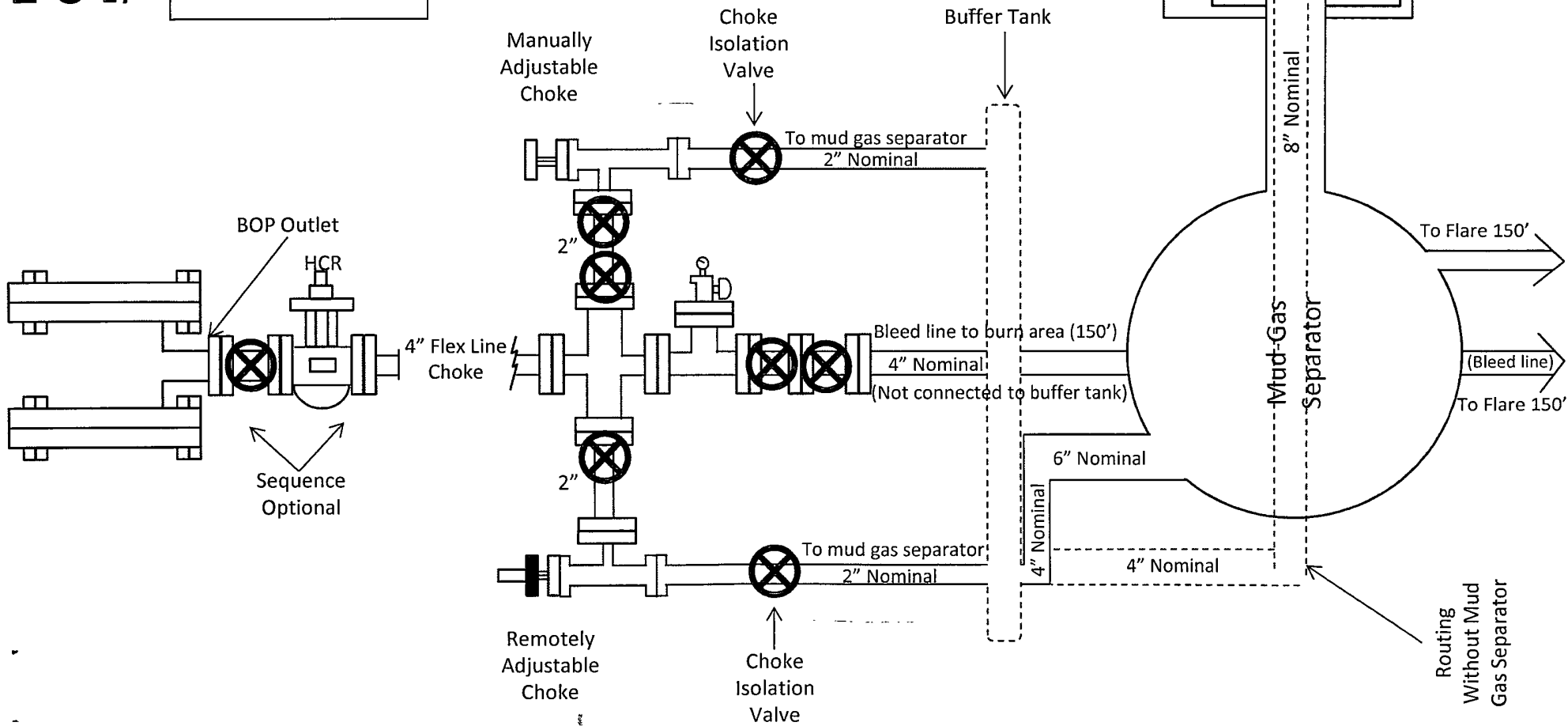
SHL 430' FNL & 1915' FEL

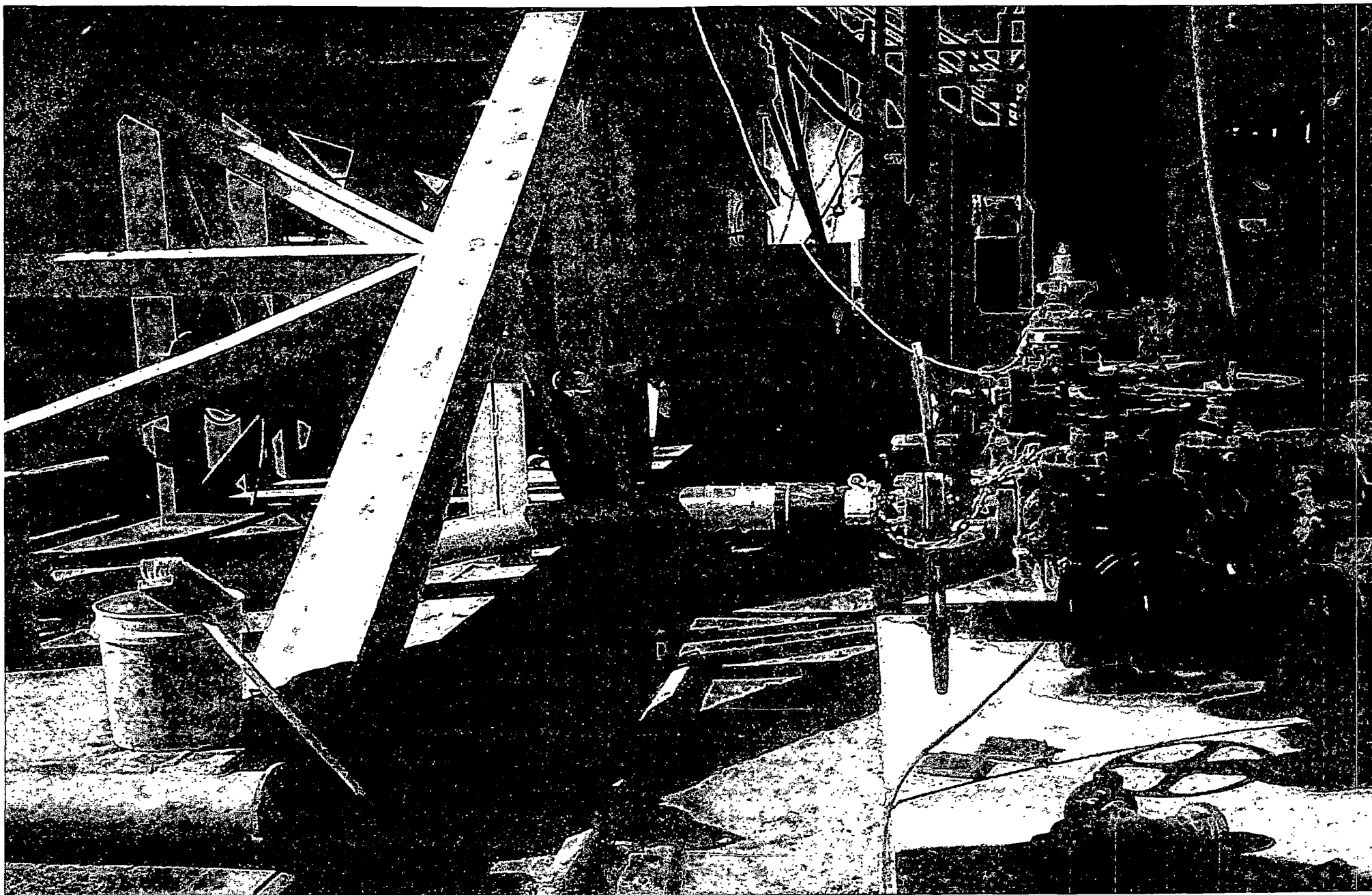
BHL 330' FSL & 1650' FEL

Lea County, NM

Drilling Operations Choke Manifold 5M Service

Exhibit "E-1"
Choke Manifold Diagram
Double X 25 Federal 6
Cimarex Energy Co.
25-24S-32E
SHL 430' FNL & 1915' FEL
BHL 330' FSL & 1650' FEL
Lea County, NM

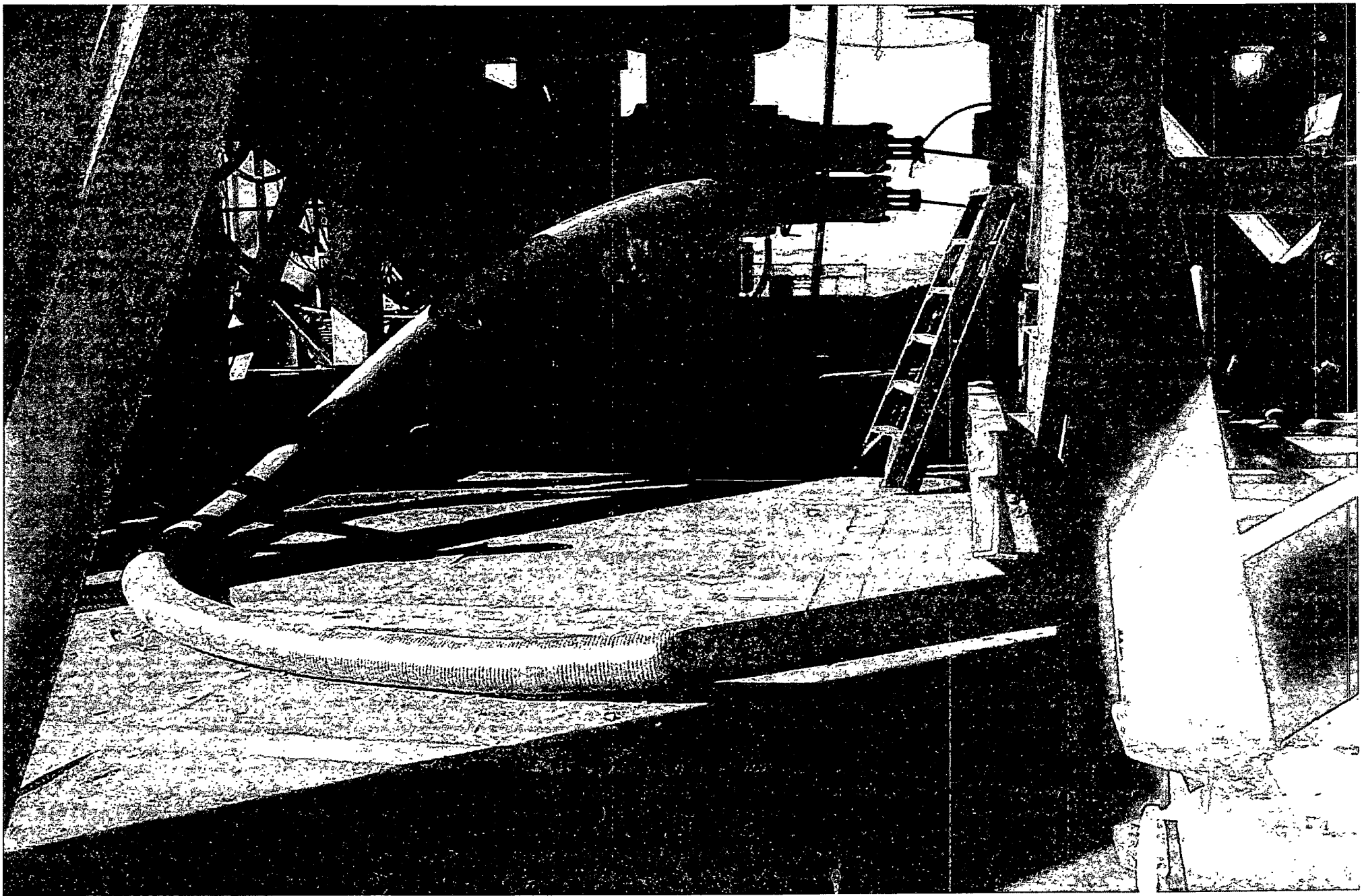




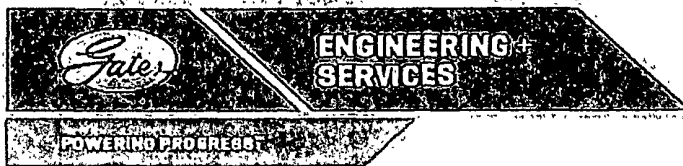
Scandrell Eagle

Serial #

L31853011112D



Scandrell Eagle
Serial # L31853011112D



GATES E & S NORTH AMERICA, INC
DU-TEX
134 44TH STREET
CORPUS CHRISIT, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: crpe&s@gates.com
WEB: www.gates.com

GRADE E PRESSURE TEST CERTIFICATE

Customer :	SPECIALTY SALES	Test Date :	3/13/2012
Customer Ref. :	44479-S	Certificate No. :	D-031312-2
Invoice No. :	184955	Created By :	RORY BOYD
Product Description:	10K3.542.0CK41/1610K FLANGES		
End Fitting 1 :	4 1/16 10K FLANGE	End Fitting 2 :	4 1/16 10K FLANGE
Gates Part No. :	4773-6291	Hose Serial No. :	L31853011112D-031312-2
Assembly Code :	L31853011112	Test Pressure :	15,000 PSI
Working Pressure :	10,000 PSI		

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to API 7K requirements and passed the hydrostatic test per API Spec 7K, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Technician :	JOE R.	Technical Supervisor :	RAM V.
Date :	3/13/2012	Date :	3/13/2012
Signature :		Signature :	
Quality Manager :	RORY B.	Testing Operator :	MARK M.
Date :	3/13/2012	Date :	3/13/2012
Signature :		Signature :	

Cimarex Energy Co. of Colorado – Closed-Loop System Design Plan

Equipment List

- Primary Shakers
- Mud Cleaner – hydro-cyclones
- 1 or 2 Centrifuges (depending on well depth)
- De-watering system with pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing (may not be necessary for shallower wells)
- Drying Augur
- Sump Drying Augur
- Sump
- Cuttings Boxes
- Reserve Fluids Tank Farm
- Wire Mesh Trash Enclosure (spent motor oils kept in separate containers and later sent to approved landfill)

Operation and Maintenance

The Cimarex Zero Discharge system is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This ensures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

These closed loop operations can be monitored by our service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

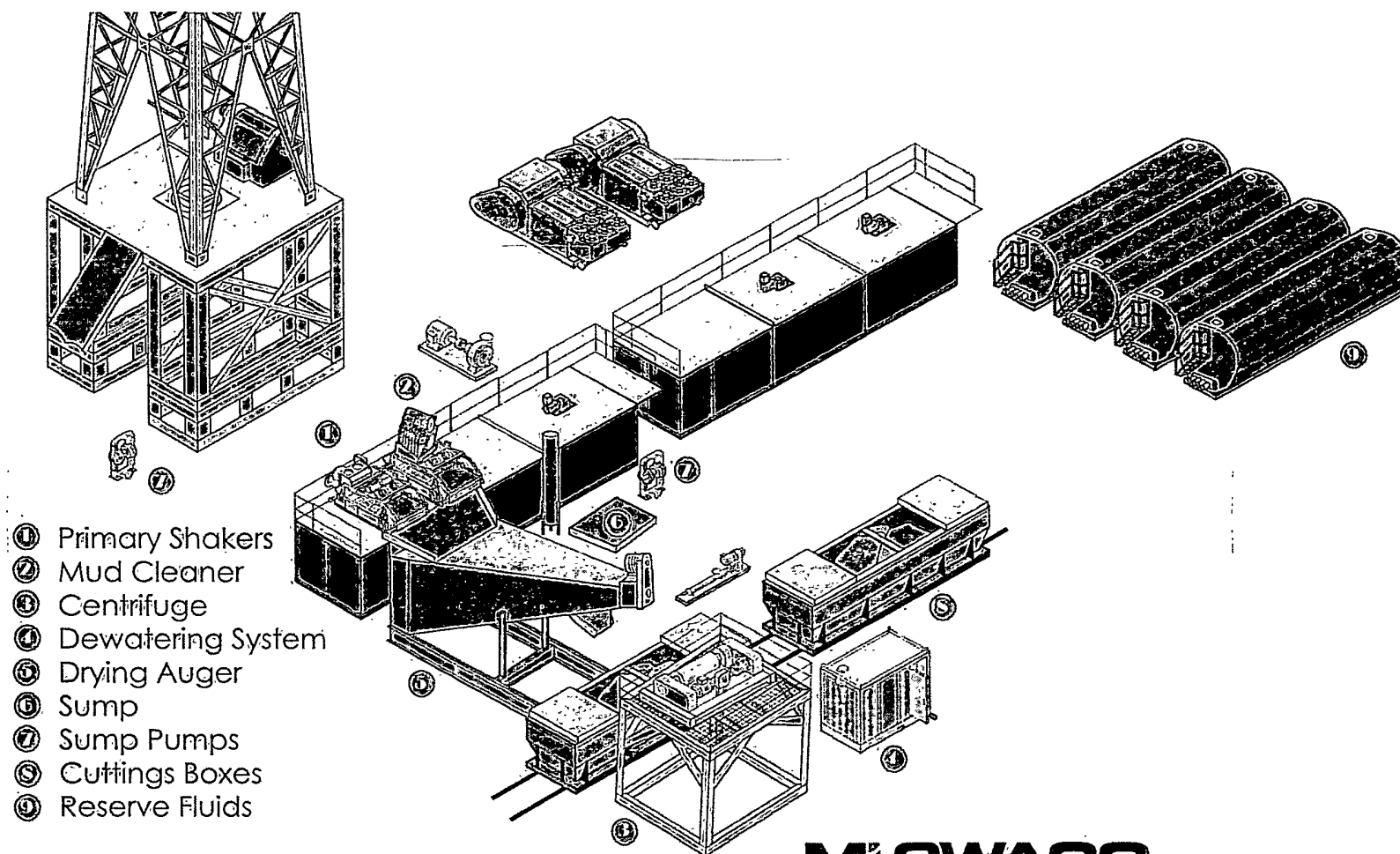
Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and tested for all regulated toxic materials. If found they are removed and disposed of per regulatory requirements.

Closure Plan

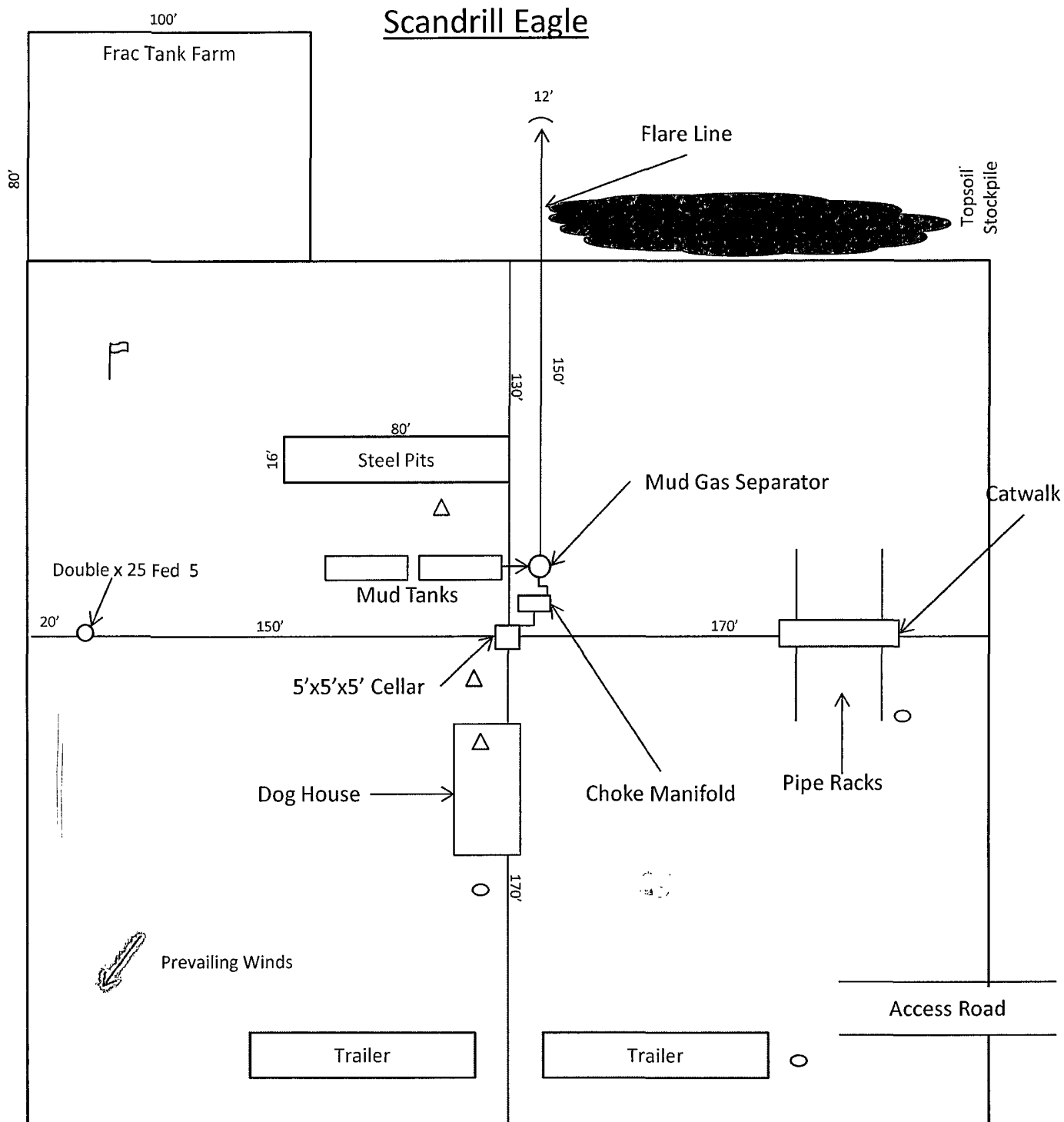
During drilling operations, all liquids, drilling fluids, and cuttings will be hauled off via CRI (Controlled Recovery Incorporated, Permit R-9166).



Closed Loop with Drying Auger and Dewatering System



Mi SWACO



Wind Direction Indicators
(wind sock or streamers)



• H2S Monitors
(alarms at bell nipple and shale shaker)



Briefing Areas

Exhibit "D"

Rig Diagram

Double X 25 Fed 6

Cimarex Energy Co.

25-24S-32E

SHL 430' FNL & 1915' FEL

BHL 330' FSL & 1650' FEL

Lea County, NM

N

