

Split Estate

OCD Hobbs

HOBBS OCD

Form 3160-3
(March 2012)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SEP 12 2014

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

1a. Type of Work ☒ DRILL ☐ REENTER		5. Lease Serial No. SHLABHL: NMNM 031224	
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.		7. If Unit or CA Agreement, Name and No.	
3a. Address 202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103		8. Lease Name and Well No. (39896) Triste Draw 30 Federal #5H	
3b. Phone No. (include area code) 918-585-1100		9. API Well No. 30-025-42106-96674	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 350 FSL & 1310 FWL At proposed prod. Zone 330 FNL & 440 FWL Bone Spring		10. Field and Pool, or Exploratory TRIPLE X; BONE SPRING, WEST	
14. Distance in miles and direction from nearest town or post office* 28 miles NW of Jal, NM		11. Sec., T. R. M. or Blk. and Survey and Area 30, 23S, 33E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 350		12. County or Parish Lea	
16. No of acres in lease NMNM 031224=591.68 acres		13. State NM	
17. Spacing Unit dedicated to this well 191.68			
18. Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft. 20' to the #6H		20. BLM/BIA Bond No. on File NM2575: NMB000835	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3694 GR		22. Approximate date work will start* 5/5/14	
		23. Estimated duration 35 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) |
| 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 |

25. Signature 	Name (Printed/Typed) Terri Stathem	Date 3/12/14
Title Regulatory Compliance		
Approved By (Signature) Steve Caffey	Name (Printed/Typed) Office CARLSBAD FIELD OFFICE	Date SEP - 5 2014
Title FIELD MANAGER		

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.

(Continued on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

SEP 16 2014

E-PERMITTING - New Well ☒
Comp P&A ☐ TA ☐
CSNG ☐ Loc Chng ☐
ReComp ☐ Add New Well ☐
Cancl Well ☐ Create Pool ☐

Operator Certification Statement

Triste Draw 30 Federal #5H

Cimarex Energy Co.

UL: N, Sec. 30, 23S, 33E

Lea Co., NM

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Operator's Representative

Cimarex Energy Co. of Colorado

600 N. Marienfeld St., Ste. 600

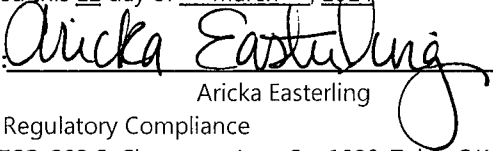
Midland, TX 79701

Office Phone: (432) 571-7800

CERTIFICATION: I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 12 day of March, 2014

NAME:


Aricka Easterling

TITLE: Regulatory Compliance

ADDRESS: 202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103

TELEPHONE: 918-585-1100

EMAIL: AEasterling@cimarex.com

Field Representative: Same as above

Application to Drill
Triste Draw 30 Federal #5H
 Cimarex Energy Co.
 UL: N, Sec. 30, 23S, 33E
 Lea Co., NM

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

1. **Location:** SHL 350 FSL & 1310 FWL
 BHL 330 FNL & 440 FWL
2. **Elevation Above Sea Level:** 3,694' 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:** 14,355 MD 9,875 TVD Pilot Hole TD: N/A
6. **Estimated Tops of Geological Markers:**

Formation	Est Top	Bearing
Rustler	1250'	N/A
Salt	1740'	N/A
Castille	3600'	N/A
Base Last Salt	4815'	N/A
Lamar	5060'	N/A
Bell Canyon	5110'	N/A
Cherry Canyon	6150'	N/A
Brushy Canyon	7200'	Hydrocarbons
Bone Spring	8900'	Hydrocarbons
Avalon Shale	9350'	Hydrocarbons

7. **Possible Mineral Bearing Formation:** Shown above

7A. **OSE Ground Water Estimated Depth:** 425'

8. **Casing Program:**

Name	Casing Depth From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Open Hole Size (inches)	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	BHP (psig)	Anticipated Mud Weight (ppg)	Collapse SF at Full Evacuation (1.125)	Collapse SF at 1/3 Evacuation (1.125)	Burst SF (1.125)	Cumulative Air Weight	Cumulative Bouyed Weight (lbs)	Bouyant Tension SF (1.8)
Surface	0	1300 1300	1300	17 1/2	13-3/8"	48.00	H-40	ST&C	New	594	8.8	1.24		2.91	62,400	54,016	5.96
Intermediate	0	5080	5080	12 1/4	9-5/8"	36.00	J-55	LT&C	New	2668	10.1		1.17	1.32	182,880	154,680	2.93
Production	0	9398	9398	8 3/4	5-1/2"	17.00	L-80	LT&C	New	4496	9.2	1.40		1.72	167,875	144,295	2.34
Production	9398	14355 14355	9875	8 3/4	5-1/2"	17.00	L-80	BT&C	New	4724	9.2	1.33		1.64	8,109	6,970	56.96

14603

Note: Operator may drill a 8-1/2" OH from end of curve to TD of the well. This is to reduce the need to ream the conventionally drilled curve to run a RSS assembly into the lateral.

Application to Drill
Triste Draw 30 Federal #5H
Cimarex Energy Co.
UL: N, Sec. 30, 23S, 33E
Lea Co., NM

8A. Casing Design and Casing Loading Assumptions:

Surface	Tension	A 1.8 design factor with effects of buoyancy: 8.30 ppg.
	Collapse	A 1.125 design factor with full internal evacuation and a collapse force equal to a 8.30 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.
Intermediate	Tension	A 1.8 design factor with effects of buoyancy: 10.00 ppg.
	Collapse	A 1.125 design factor evacuated 1/3 TVD of next casing string with a collapse force equal to a 10.00 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.
Production and/or Production Completion System	Tension	A 1.8 design factor with effects of buoyancy: 9.00 ppg.
	Collapse	A 1.125 design factor with full internal evacuation of next casing string with a collapse force equal to a 9.00 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.

9. Cementing Program:

Casing Type	Type	Sacks	Yield	Weight	Cubic Feet	Cement Blend
Surface	Lead	619	1.75	13.50	1083	Class C + Bentonite + Calcium Chloride + LCM, 8.829 gps water
	Tail	168	1.34	14.80	225	Class C + LCM, 6.32 gps water
	TOC: 0		45% Excess			Centralizers per Onshore Order 2.III.B.1f
Intermediate	Lead	912	1.88	12.90	1714	35:65 (poz/C) + Salt + Bentonite + LCM + retarder, 9.65 gps water
	Tail	292	1.34	14.80	391	Class C + retarder + LCM, 6.32 gps water
	TOC: 0		44% Excess			
Production	Lead	524	2.40	11.90	1257	35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder, 13.80 gps water
	Tail	1224	1.24	14.50	1517	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder, 5.55 gps water
	TOC: 4880		16% Excess			No centralizers planned in the lateral section. 1 every jt from EOC to KOP. 1 every 4th joint from KOP to 500' inside previous casing.

Cement volumes will be adjusted depending on hole size

9a. Proposed Drilling Plan:

Pilot Hole TD: No Pilot KOP: 9,398' EOC: 10,148'

Set Surface and Intermediate casing strings. Drill production hole to KOP. Continue drilling lateral through the curve to TD. Run prod casing & cement.

10. Pressure Control Equipment:

Exhibit "E-1". A BOP consisting of two rams with blind rams and pipe rams, and one annular preventer. Below the surface casing, a 2M system will be used. Below the intermediate casing, a 3M system will be used. See attachments for BOP and choke manifold diagrams. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A Rotating head may be installed 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 and associated equipment will be installed; used, maintained, and tested in a manner necessary to assure well control and shall be in place and operational prior to drilling the surface casing shoe. The Annular Preventer shall be functioned at least weekly. The pipe and blind rams will be operated each trip. No abnormal pressure or temperature is expected while drilling.

BOPS will be tested by an independent service company. The ram preventers, choke manifold, and safety valves will be tested as follows: On the surface casing, pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate casing, pressure tests will be made to 250 psi low and 3000 psi high.

The Annular Preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 low and 1500 high on the intermediate casing.

Cimarex Energy Co. of Colorado requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (please see Exhibit F, F-1, F-2, F-3). The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

Application to Drill
Triste Draw 30 Federal #5H
Cimarex Energy Co.
UL: N, Sec. 30, 23S, 33E
Lea Co., NM

11. Proposed Mud Circulating System:

Depth	Mud Weight	Visc	Fluid Loss	Type Mud
0' to 1300'	7.80 - 8.30	28	NC	FW Spud Mud
1300' to 5080'	9.50 - 10.00	30-32	NC	Brine Water
5080' to 14603	8.50 - 9.00	30-32	NC	FW/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.

The Mud Monitoring System is an electronic Pason System satisfying requirements of Onshore Order 1.

12. Testing, Logging and Coring Program:

- A. Mud logging program: 2 man unit from 5080 to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL /GR -- Inter. Csg to TD
CNL /GR -- Surf to Inter. Csg
- C. No DSTs or cores are planned at this time
- D. CBL w/ CCL from as far as gravity will let it fall to TOC

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: 4444 psi

Estimated BHT: 159°

14. Construction and Drilling:

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

Drilling expected to take: 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:

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

Bone Spring pay will be perforated and stimulated.

The proposed well will be tested and potentialized as **Oil**



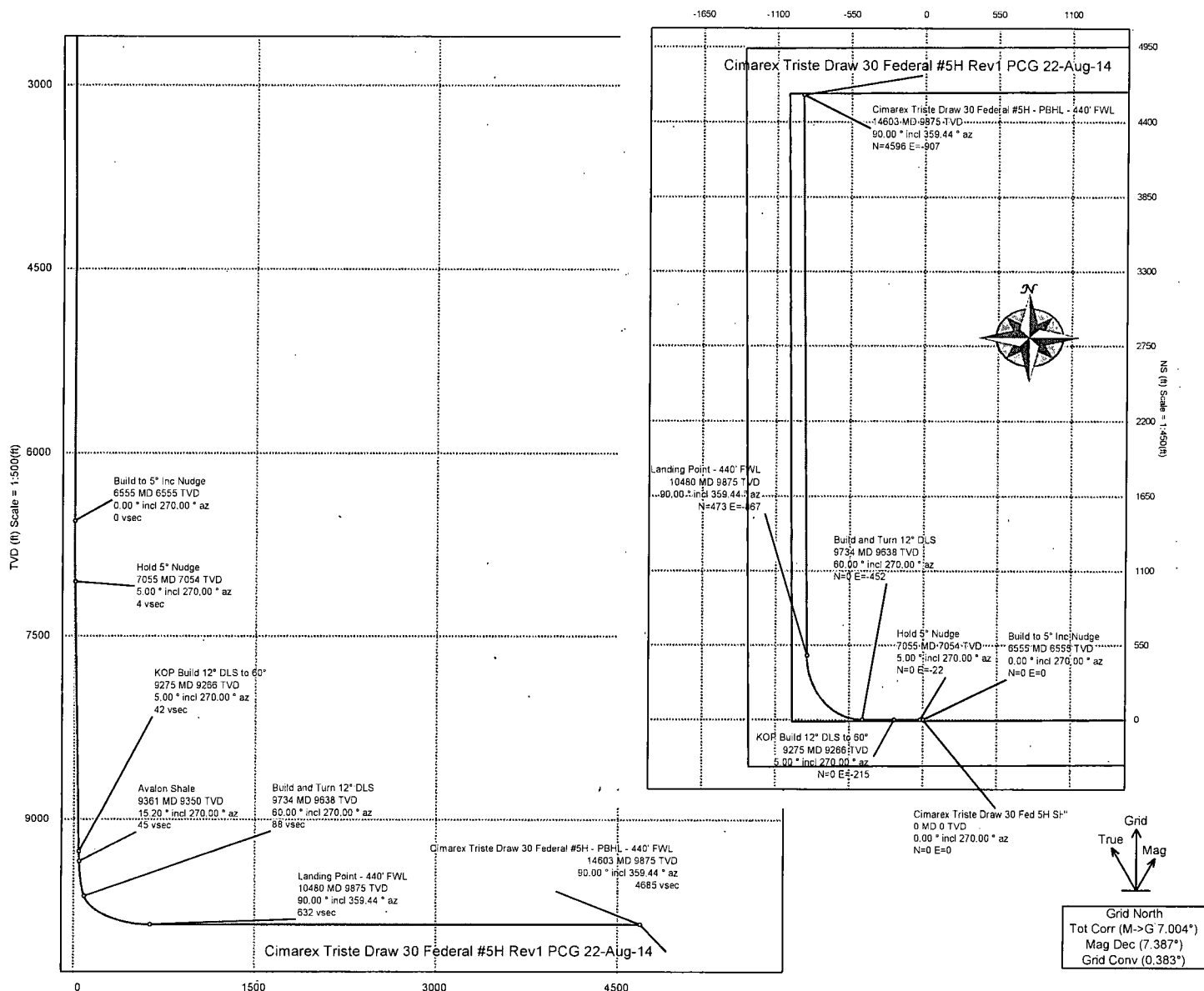
Cimarex

PATHFINDER
A Schlumberger Company

Borehole:	Well:	Field:	Structure:
Original Borehole	Triste Draw 30 Federal #5H	NM Lea County (NAD 83)	TBD

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: BGGM 2013 Dip: 60.14° Date: 03-Mar-2014	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Triste Draw 30
MagDec: 7.387° FS: 48346.005nT Gravity FS: 998.09mgm (9.80665 Based)	Lat: N 32 16 10.03 Northing: 462501.5RUS Grid Conv: 0.3833°	Slot: Federal 85H
	Lon: W 103 36 55.85 Easting: 763202.6RUS Scale Fact: 0.99996547	Plan: Rev1 PCG 22-Aug-14

EW (ft) Scale = 1:450(ft)



Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Cimarex Triste Draw 30 Fed 5H SHL	0.00	0.00	270.00	0.00	0.00	0.00	0.00	
Build to 5" Inc Nudge	6555.00	0.00	270.00	6555.00	0.00	0.00	0.00	0.00
Hold 5" Nudge	7055.00	5.00	270.00	7054.37	4.22	0.00	-21.80	1.00
KOP Build 12" DLS to 60°	9275.48	5.00	270.00	9266.40	41.69	0.00	-215.33	0.00
Avalon Shale	9360.51	15.20	270.00	9350.00	44.58	0.00	-230.22	12.00
Build and Turn 12" DLS	9733.82	60.00	270.00	9638.28	87.57	0.00	-452.25	12.00
Landing Point - 440° FWL	10479.77	90.00	359.44	9875.00	632.30	473.41	-866.88	12.00
Cimarex Triste Draw 30 Federal #5H - PBHL - 440° FWL	14602.92	90.00	359.44	9875.00	4685.03	4596.37	-907.13	0.00

CONTROLLED	
Plan ref	Cimarex Triste Draw 30 Federal #5H Rev1 PCG 22-Aug-14
Drawing ref	
Copy number	of 3
Date	22-Aug-2014
1	Originator
2	DE Sign Off Authority
3	D&M Line Manager
4	Client
Copy number for	



Cimarex Triste Draw 30 Federal #5H Rev1 PCG 22-Aug-14 Proposal
Geodetic Report 100ft Interpolated
(Non-Def Plan)



Report Date: August 22, 2014 - 04:36 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Triste Draw 30 Federal #5H / Triste Draw 30 Federal #5H
Well: Triste Draw 30 Federal #5H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Triste Draw 30 Federal #5H Rev1 PCG 22-Aug-14
Survey Date: March 03, 2014
Tort / AHD / DDI / ERD Ratio: 149,516' / 5272.548 ft / 6.067 / 0.534
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 16' 10.02530", W 103° 36' 55.84623"
Location Grid N/E Y/X: N 462501.500 ftUS, E 763202.600 ftUS
CRS Grid Convergence Angle: 0.3833°
Grid Scale Factor: 0.99996547
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 348.836° (Grid North)
Vertical Section Origin: 0,000 ft, 0,000 ft
TVD Reference Datum: Unknown
TVD Reference Elevation: 3694.000 ft above MSL
Seabed / Ground Elevation: 3694.000 ft above MSL
Magnetic Declination: 7.387°
Total Gravity Field Strength: 998.6904mgn (9.80665 Based)
Gravity Model: DOX
Total Magnetic Field Strength: 48346.005 nT
Magnetic Dip Angle: 60.140°
Declination Date: March 03, 2014
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.3833°
Total Corr Mag North->Grid North: 7.0039°
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Cimarex Triste Draw 30 Fed 5H SHL	0.00	0.00	270.00	0.00	0.00	0.00	0.00	N/A	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	100.00	0.00	270.00	100.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	200.00	0.00	270.00	200.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	300.00	0.00	270.00	300.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	400.00	0.00	270.00	400.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	500.00	0.00	270.00	500.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	600.00	0.00	270.00	600.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	700.00	0.00	270.00	700.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	800.00	0.00	270.00	800.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	900.00	0.00	270.00	900.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1000.00	0.00	270.00	1000.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1100.00	0.00	270.00	1100.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1200.00	0.00	270.00	1200.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1300.00	0.00	270.00	1300.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1400.00	0.00	270.00	1400.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1500.00	0.00	270.00	1500.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1600.00	0.00	270.00	1600.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1700.00	0.00	270.00	1700.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1800.00	0.00	270.00	1800.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	1900.00	0.00	270.00	1900.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2000.00	0.00	270.00	2000.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2100.00	0.00	270.00	2100.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2200.00	0.00	270.00	2200.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2300.00	0.00	270.00	2300.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2400.00	0.00	270.00	2400.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2500.00	0.00	270.00	2500.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2600.00	0.00	270.00	2600.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2700.00	0.00	270.00	2700.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2800.00	0.00	270.00	2800.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	2900.00	0.00	270.00	2900.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3000.00	0.00	270.00	3000.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3100.00	0.00	270.00	3100.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3200.00	0.00	270.00	3200.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3300.00	0.00	270.00	3300.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3400.00	0.00	270.00	3400.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3500.00	0.00	270.00	3500.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3600.00	0.00	270.00	3600.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3700.00	0.00	270.00	3700.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3800.00	0.00	270.00	3800.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	3900.00	0.00	270.00	3900.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4000.00	0.00	270.00	4000.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4100.00	0.00	270.00	4100.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4200.00	0.00	270.00	4200.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4300.00	0.00	270.00	4300.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4400.00	0.00	270.00	4400.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4500.00	0.00	270.00	4500.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4600.00	0.00	270.00	4600.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4700.00	0.00	270.00	4700.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4800.00	0.00	270.00	4800.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	4900.00	0.00	270.00	4900.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5000.00	0.00	270.00	5000.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5100.00	0.00	270.00	5100.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5200.00	0.00	270.00	5200.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5300.00	0.00	270.00	5300.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5400.00	0.00	270.00	5400.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5500.00	0.00	270.00	5500.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5600.00	0.00	270.00	5600.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5700.00	0.00	270.00	5700.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5800.00	0.00	270.00	5800.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	5900.00	0.00	270.00	5900.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	6000.00	0.00	270.00	6000.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	6100.00	0.00	270.00	6100.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	6200.00	0.00	270.00	6200.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	6300.00	0.00	270.00	6300.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85

Comments	MD (ft)	Incl (°)	Azin Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6400.00	0.00	270.00	6400.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
Build to 5° Inc Nudge	6500.00	0.00	270.00	6500.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	6555.00	0.00	270.00	6555.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
	6600.00	0.45	270.00	6600.00	0.03	0.00	-0.18	1.00	462501.50	763202.42	N 32 16 10.03	W 103 36 55.85
	6700.00	1.45	270.00	6699.98	0.36	0.00	-1.83	1.00	462501.50	763200.77	N 32 16 10.03	W 103 36 55.87
	6800.00	2.45	270.00	6799.93	1.01	0.00	-5.24	1.00	462501.50	763197.36	N 32 16 10.03	W 103 36 55.91
Hold 5° Nudge	6900.00	3.45	270.00	6899.79	2.01	0.00	-10.38	1.00	462501.50	763192.22	N 32 16 10.03	W 103 36 55.97
	7000.00	4.45	270.00	6999.55	3.34	0.00	-17.27	1.00	462501.50	763185.33	N 32 16 10.03	W 103 36 56.05
	7055.00	5.00	270.00	7054.37	4.22	0.00	-21.80	1.00	462501.50	763180.80	N 32 16 10.03	W 103 36 56.10
	7100.00	5.00	270.00	7099.19	4.98	0.00	-25.72	0.00	462501.50	763176.88	N 32 16 10.03	W 103 36 56.15
	7200.00	5.00	270.00	7198.81	6.67	0.00	-34.44	0.00	462501.50	763168.16	N 32 16 10.03	W 103 36 56.25
	7300.00	5.00	270.00	7298.43	8.36	0.00	-43.16	0.00	462501.50	763159.45	N 32 16 10.03	W 103 36 56.35
	7400.00	5.00	270.00	7398.05	10.04	0.00	-51.87	0.00	462501.50	763150.73	N 32 16 10.03	W 103 36 56.45
	7500.00	5.00	270.00	7497.87	11.73	0.00	-60.59	0.00	462501.50	763142.02	N 32 16 10.03	W 103 36 56.55
	7600.00	5.00	270.00	7597.29	13.42	0.00	-69.30	0.00	462501.50	763133.30	N 32 16 10.03	W 103 36 56.65
	7700.00	5.00	270.00	7696.91	15.11	0.00	-78.02	0.00	462501.50	763124.58	N 32 16 10.03	W 103 36 56.75
	7800.00	5.00	270.00	7796.53	16.79	0.00	-86.73	0.00	462501.50	763115.87	N 32 16 10.03	W 103 36 56.86
	7900.00	5.00	270.00	7896.15	18.48	0.00	-95.45	0.00	462501.50	763107.15	N 32 16 10.03	W 103 36 56.96
	8000.00	5.00	270.00	7995.77	20.17	0.00	-104.16	0.00	462501.50	763098.44	N 32 16 10.03	W 103 36 57.06
	8100.00	5.00	270.00	8095.39	21.86	0.00	-112.88	0.00	462501.50	763089.72	N 32 16 10.03	W 103 36 57.16
	8200.00	5.00	270.00	8195.01	23.54	0.00	-121.60	0.00	462501.50	763081.01	N 32 16 10.03	W 103 36 57.26
	8300.00	5.00	270.00	8294.63	25.23	0.00	-130.31	0.00	462501.50	763072.29	N 32 16 10.03	W 103 36 57.36
	8400.00	5.00	270.00	8394.25	26.92	0.00	-139.03	0.00	462501.50	763063.58	N 32 16 10.03	W 103 36 57.47
	8500.00	5.00	270.00	8493.87	28.61	0.00	-147.74	0.00	462501.50	763054.86	N 32 16 10.04	W 103 36 57.57
	8600.00	5.00	270.00	8593.49	30.29	0.00	-156.46	0.00	462501.50	763046.15	N 32 16 10.04	W 103 36 57.67
	8700.00	5.00	270.00	8693.11	31.98	0.00	-165.17	0.00	462501.50	763037.43	N 32 16 10.04	W 103 36 57.77
	8800.00	5.00	270.00	8792.73	33.67	0.00	-173.89	0.00	462501.50	763028.72	N 32 16 10.04	W 103 36 57.87
	8900.00	5.00	270.00	8892.34	35.36	0.00	-182.61	0.00	462501.50	763020.00	N 32 16 10.04	W 103 36 57.97
	9000.00	5.00	270.00	8991.96	37.04	0.00	-191.32	0.00	462501.50	763011.29	N 32 16 10.04	W 103 36 58.07
	9100.00	5.00	270.00	9091.58	38.73	0.00	-200.04	0.00	462501.50	763002.57	N 32 16 10.04	W 103 36 58.18
	9200.00	5.00	270.00	9191.20	40.42	0.00	-208.75	0.00	462501.50	762993.86	N 32 16 10.04	W 103 36 58.28
KOP Build 12° DLS to 60°	9275.48	5.00	270.00	9266.40	41.69	0.00	-215.33	0.00	462501.50	762987.28	N 32 16 10.04	W 103 36 58.35
Avalon Shale	9300.00	7.94	270.00	9290.76	42.23	0.00	-218.09	12.00	462501.50	762984.51	N 32 16 10.04	W 103 36 58.39
	9360.51	15.20	270.00	9350.00	44.58	0.00	-230.22	12.00	462501.50	762972.38	N 32 16 10.04	W 103 36 58.53
	9400.00	19.94	270.00	9387.63	46.88	0.00	-242.14	12.00	462501.50	762960.47	N 32 16 10.04	W 103 36 58.67
	9500.00	31.94	270.00	9477.39	55.34	0.00	-285.81	12.00	462501.50	762916.80	N 32 16 10.04	W 103 36 59.17
Build and Turn 12° DLS	9600.00	43.94	270.00	9556.11	67.22	0.00	-347.18	12.00	462501.50	762855.43	N 32 16 10.05	W 103 36 59.89
	9700.00	55.94	270.00	9620.35	82.02	0.00	-423.58	12.00	462501.50	762779.03	N 32 16 10.05	W 103 37 0.78
	9733.82	60.00	270.00	9638.28	87.57	0.00	-452.25	12.00	462501.50	762750.37	N 32 16 10.06	W 103 37 1.11
	9800.00	60.36	279.15	9671.25	103.12	4.58	-509.39	12.00	462506.08	762693.23	N 32 16 10.10	W 103 37 1.78
	9900.00	62.06	292.71	9719.59	142.97	28.63	-593.35	12.00	462530.13	762609.28	N 32 16 10.35	W 103 37 2.75
	10000.00	65.04	305.70	9764.28	200.89	72.30	-671.19	12.00	462573.79	762531.44	N 32 16 10.79	W 103 37 3.66
	10100.00	69.08	317.98	9803.38	274.33	133.67	-739.51	12.00	462635.16	762463.12	N 32 16 11.40	W 103 37 4.45
	10200.00	73.95	329.55	9835.18	360.09	210.07	-795.33	12.00	462711.56	762407.30	N 32 16 12.16	W 103 37 5.09
	10300.00	79.41	340.54	9858.28	454.42	298.15	-836.20	12.00	462799.64	762366.43	N 32 16 13.03	W 103 37 5.56
	10400.00	85.23	351.13	9871.68	553.20	394.08	-860.35	12.00	462895.56	762342.28	N 32 16 13.98	W 103 37 5.84
Landing Point - 440' FWL	10479.77	90.00	359.44	9875.00	632.30	473.41	-866.88	12.00	462974.89	762335.75	N 32 16 14.77	W 103 37 5.91
	10500.00	90.00	359.44	9875.00	652.19	493.64	-867.08	0.00	462995.13	762335.55	N 32 16 14.97	W 103 37 5.91
	10600.00	90.00	359.44	9875.00	750.48	593.64	-868.05	0.00	463095.12	762334.58	N 32 16 15.96	W 103 37 5.91
	10700.00	90.00	359.44	9875.00	848.77	693.63	-869.03	0.00	463195.11	762333.60	N 32 16 16.95	W 103 37 5.91
	10800.00	90.00	359.44	9875.00	947.07	793.63	-870.01	0.00	463295.10	762332.62	N 32 16 17.94	W 103 37 5.92
	10900.00	90.00	359.44	9875.00	1045.36	893.63	-870.99	0.00	463395.09	762331.65	N 32 16 18.93	W 103 37 5.92
	11000.00	90.00	359.44	9875.00	1143.65	993.62	-871.96	0.00	463495.08	762330.67	N 32 16 19.91	W 103 37 5.92
	11100.00	90.00	359.44	9875.00	1241.94	1093.62	-872.94	0.00	463595.08	762329.69	N 32 16 20.90	W 103 37 5.93
	11200.00	90.00	359.44	9875.00	1340.23	1193.61	-873.92	0.00	463695.07	762328.71	N 32 16 21.89	W 103 37 5.93
	11300.00	90.00	359.44	9875.00	1438.53	1293.61	-874.89	0.00	463795.06	762327.74	N 32 16 22.88	W 103 37 5.94
	11400.00	90.00	359.44	9875.00	1536.82	1393.60	-875.87	0.00	463895.05	762326.76	N 32 16 23.87	W 103 37 5.94
	11500.00	90.00	359.44	9875.00	1635.11	1493.60	-876.85	0.00	463995.04	762325.78	N 32 16 24.86	W 103 37 5.94
	11600.00	90.00	359.44	9875.00	1733.40	1593.59	-877.83	0.00	464095.03	762324.81	N 32 16 25.85	W 103 37 5.95
	11700.00	90.00	359.44	9875.00	1831.69	1693.59	-878.80	0.00	464195.03	762323.83	N 32 16 26.84	W 103 37 5.95
	11800.00	90.00	359.44	9875.00	1929.99	1793.58	-879.78	0.00	464295.02	762322.85	N 32 16 27.83	W 103 37 5.95
	11900.00	90.00	359.44	9875.00	2028.28	1893.58	-880.76	0.00	464395.01	762321.88	N 32 16 28.82	W 103 37 5.96
	12000.00	90.00	359.44	9875.00	2126.57	1993.57	-881.73	0.00	464495.00	762320.90	N 32 16 29.81	W 103 37 5.96
	12100.00	90.00	359.44	9875.00	2224.86	2093.57	-882.71	0.00	464594.99	762319.92	N 32 16 30.80	W 103 37 5.96
	12200.00	90.00	359.44	9875.00	2323.15	2193.56	-883.68	0.				

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	14400.00	90.00	359.44	9875.00	4485.58	4393.46	-905.15	0.00	466894.80	762297.48	N 32 16 53.56 W 103 37 6.05	
	14500.00	90.00	359.44	9875.00	4583.87	4493.45	-906.13	0.00	466994.79	762296.50	N 32 16 54.55 W 103 37 6.05	
	14600.00	90.00	359.44	9875.00	4682.16	4593.45	-907.10	0.00	467094.78	762295.53	N 32 16 55.54 W 103 37 6.05	
Cimarex Triste Draw 30 Federal #5H - PBHL - 440' FWL	14602.92	90.00	359.44	9875.00	4685.03	4596.37	-907.13	0.00	467097.70	762295.50	N 32 16 55.57 W 103 37 6.05	

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	14602.919	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Triste Draw 30 Federal #5H Rev1 PCG



Cimarex Triste Draw 30 Federal #5H Rev1 PCG 22-Aug-14 Proposal
Geodetic Report
 (Non-Def Plan)



Report Date: August 22, 2014 - 04:35 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Triste Draw 30 Federal #5H / Triste Draw 30 Federal #5H
Well: Triste Draw 30 Federal #5H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Triste Draw 30 Federal #5H Rev1 PCG 22-Aug-14
Survey Date: March 03, 2014
Tort / AHD / DDI / ERD Ratio: 149.516 ° / 5272.548 ft / 6.067 / 0.534
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 16' 10.02530", W 103° 36' 55.84623"
Location Grid NE Y/X: N 462501.500 ftUS, E 763202.600 ftUS
CRS Grid Convergence Angle: 0.3833 °
Grid Scale Factor: 0.99996547
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 348.836 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Unknown
TVD Reference Elevation: 3694.000 ft above MSL
Seabed / Ground Elevation: 3694.000 ft above MSL
Magnetic Declination: 7.387 °
Total Gravity Field Strength: 998.6904mgn (9.80665 Based)
Gravity Model: DOX
Total Magnetic Field Strength: 48346.005 nT
Magnetic Dip Angle: 60.140 °
Declination Date: March 03, 2014
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.3833 °
Total Corr Mag North->Grid North: 7.0039 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Cimarex Triste Draw 30 Fed 5H SHL	0.00	0.00	270.00	0.00	0.00	0.00	0.00	N/A	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
Build to 5° Inc Nudge	6555.00	0.00	270.00	6555.00	0.00	0.00	0.00	0.00	462501.50	763202.60	N 32 16 10.03	W 103 36 55.85
Hold 5° Nudge KOP Build 12°	7055.00	5.00	270.00	7054.37	4.22	0.00	-21.80	1.00	462501.50	763180.80	N 32 16 10.03	W 103 36 56.10
DLS to 60°	9275.48	5.00	270.00	9266.40	41.69	0.00	-215.33	0.00	462501.50	762987.28	N 32 16 10.04	W 103 36 58.35
Avalon Shale	9360.51	15.20	270.00	9350.00	44.58	0.00	-230.22	12.00	462501.50	762972.38	N 32 16 10.04	W 103 36 58.53
Build and Turn 12° DLS	9733.82	60.00	270.00	9638.28	87.57	0.00	-452.25	12.00	462501.50	762750.37	N 32 16 10.06	W 103 37 1.11
Landing Point - 440° FWL	10479.77	90.00	359.44	9875.00	632.30	473.41	-866.88	12.00	462974.89	762335.75	N 32 16 14.77	W 103 37 5.91
Cimarex Triste Draw 30 Federal #5H - PBHL - 440° FWL	14602.92	90.00	359.44	9875.00	4685.03	4596.37	-907.13	0.00	467097.70	762295.50	N 32 16 55.57	W 103 37 6.05

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	14602.919	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Triste Draw 30 Federal #5H Rev1 PCG

Drilling 12-1/4" hole
below 13 3/8" Casing

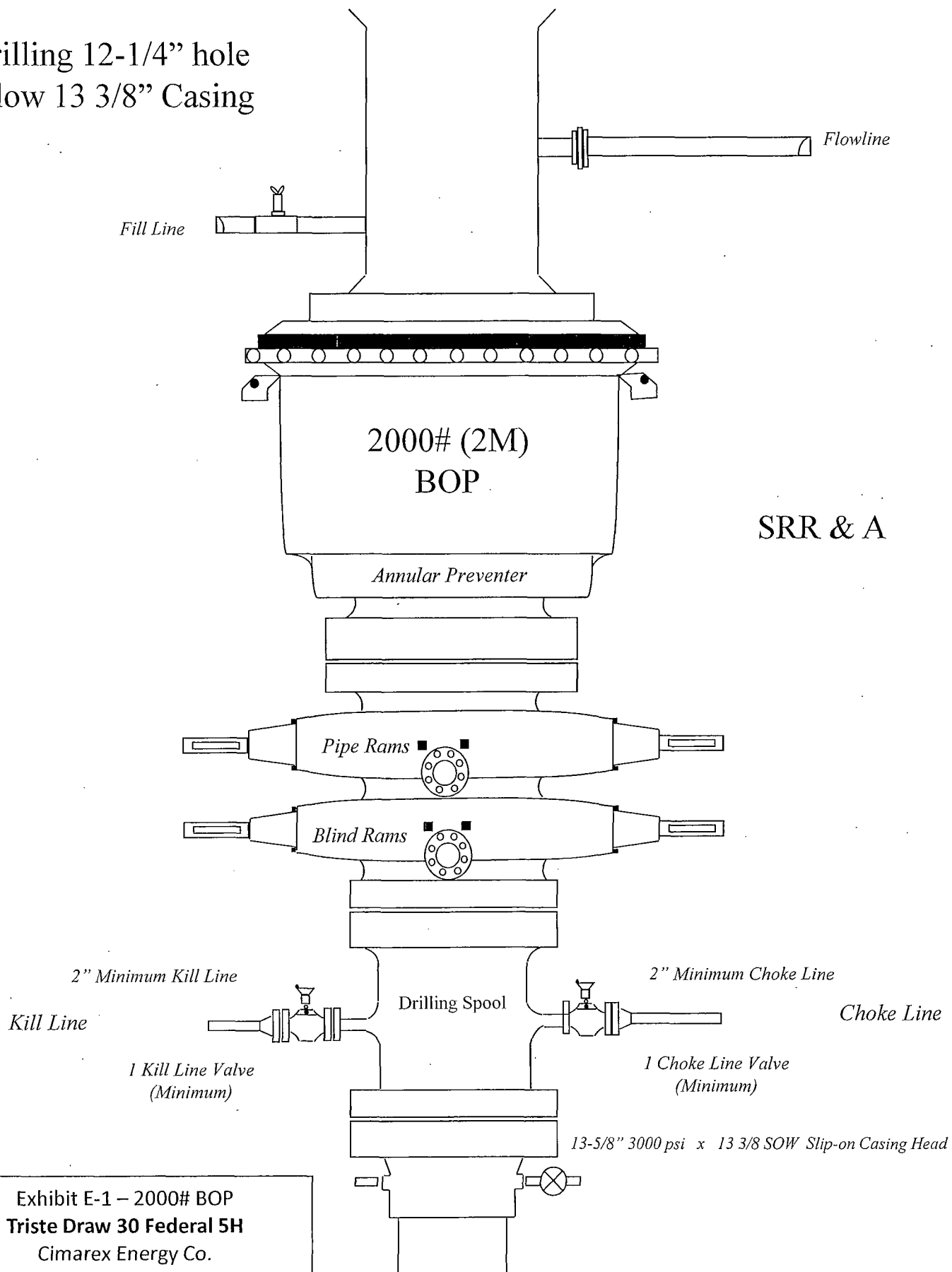
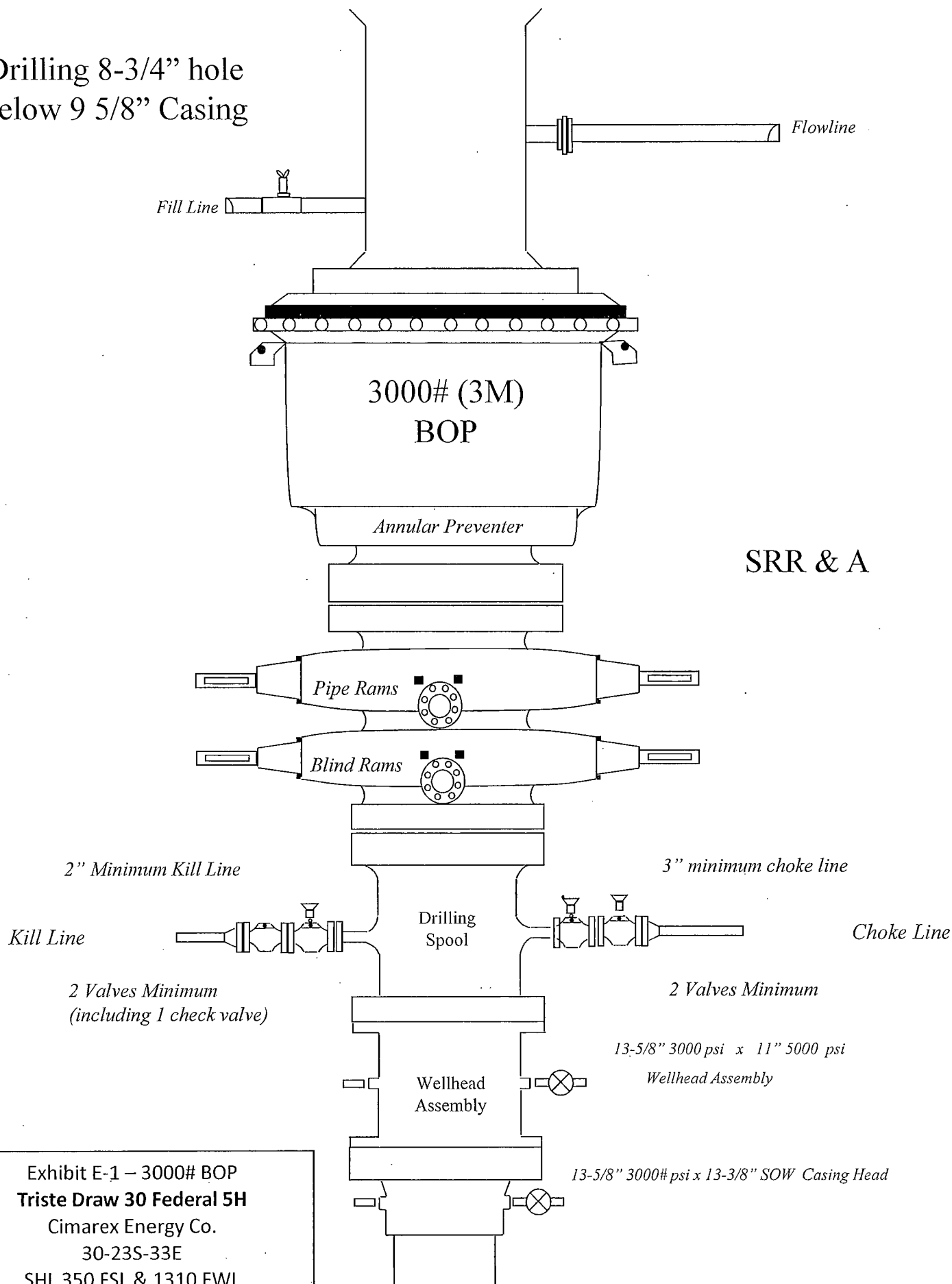


Exhibit E-1 – 2000# BOP
Triste Draw 30 Federal 5H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1310 FWL
BHL 330 FNL & 440 FWL
Lea County, NM

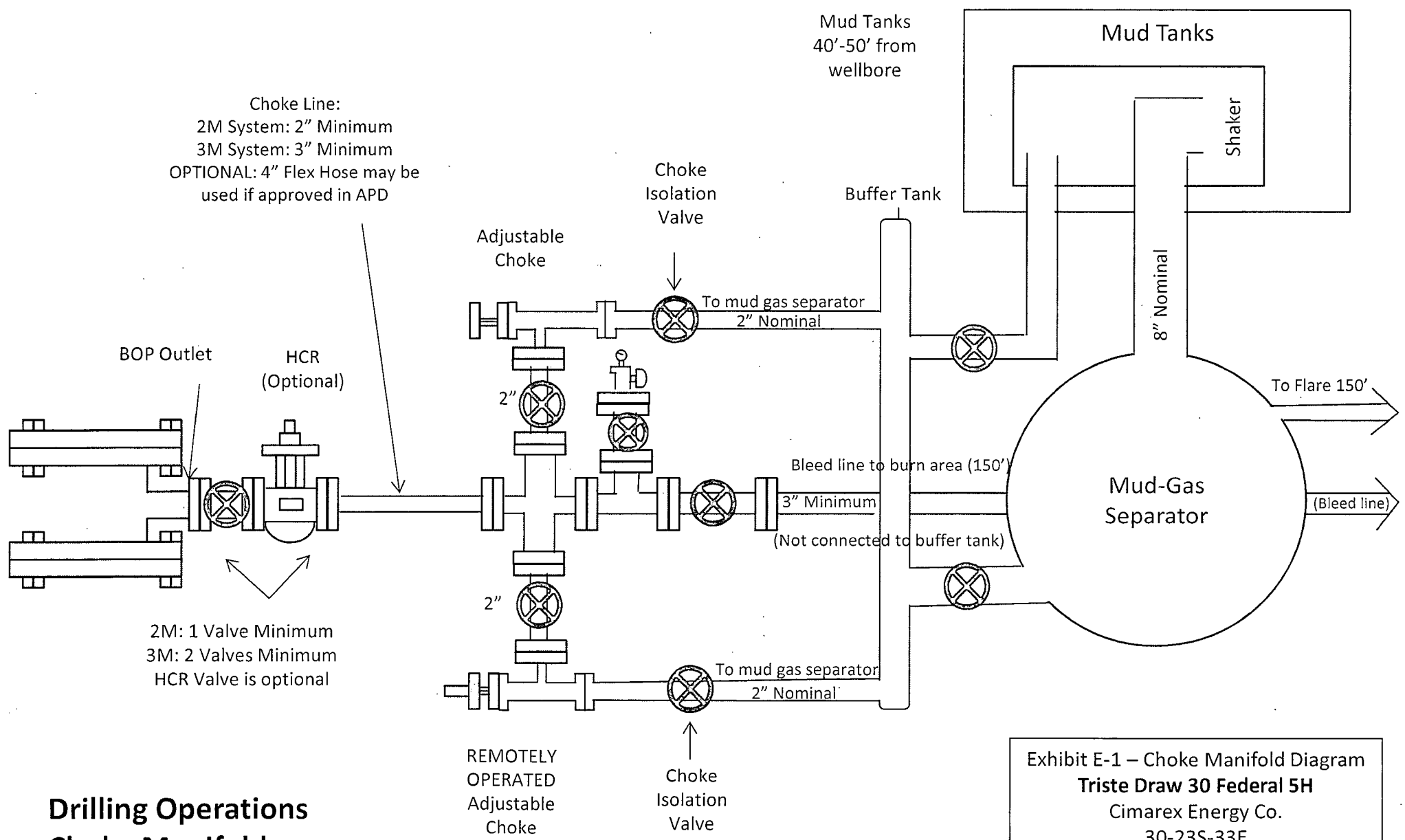
Drilling 8-3/4" hole
below 9 5/8" Casing



SRR & A

Exhibit E-1 – 3000# BOP
Triste Draw 30 Federal 5H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1310 FWL
BHL 330 FNL & 440 FWL
Lea County, NM

Choke Line:
 2M System: 2" Minimum
 3M System: 3" Minimum
 OPTIONAL: 4" Flex Hose may be
 used if approved in APD



2M: 1 Valve Minimum
 3M: 2 Valves Minimum
 HCR Valve is optional

Drilling Operations **Choke Manifold** **2M/3M Service**

Exhibit E-1 – Choke Manifold Diagram
Triste Draw 30 Federal 5H
 Cimarex Energy Co.
 30-23S-33E
 SHL 350 FSL & 1310 FWL
 BHL 330 FNL & 440 FWL
 Lea County, NM

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Triste Draw 30 Federal 5H

Cimarex Energy Co.

30-23S-33E

SHL 350 FSL & 1310 FWL

BHL 330 FNL & 440 FWL

Lea County, NM



Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer: Oderco Inc		P.O. Number: odyd-271
HOSE SPECIFICATIONS		
Type: Stainless Steel Armor Choke & Kill Hose		Hose Length: 45'ft.
I.D. 4 INCHES		O.D. 9 INCHES
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE 0 PSI
COUPLINGS		
Stem Part No. OKC OKC		Ferrule No. OKC OKC
Type of Coupling: Swage-It		
PROCEDURE		
<u>Hose assembly pressure tested with water at ambient temperature.</u>		
TIME HELD AT TEST PRESSURE 15 MIN.		ACTUAL BURST PRESSURE: 0 PSI
Hose Assembly Serial Number: 79793		Hose Serial Number: OKC
Comments:		
Date: 3/8/2011	Tested: <i>A. James Jones</i>	Approved: <i>Kevin Lee</i>



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: Houston

Pick Ticket #: 94260

Hose Specifications

Hose Type
C&K
1 1/2"

Working Pressure
4"
10000 PSI

Length
45'

O.D.
6.09"

Burst Pressure
Standard Safety Multiplier Applies

Verification

Type of Fittings
4 1/2" 10K

Die Size
6.30"

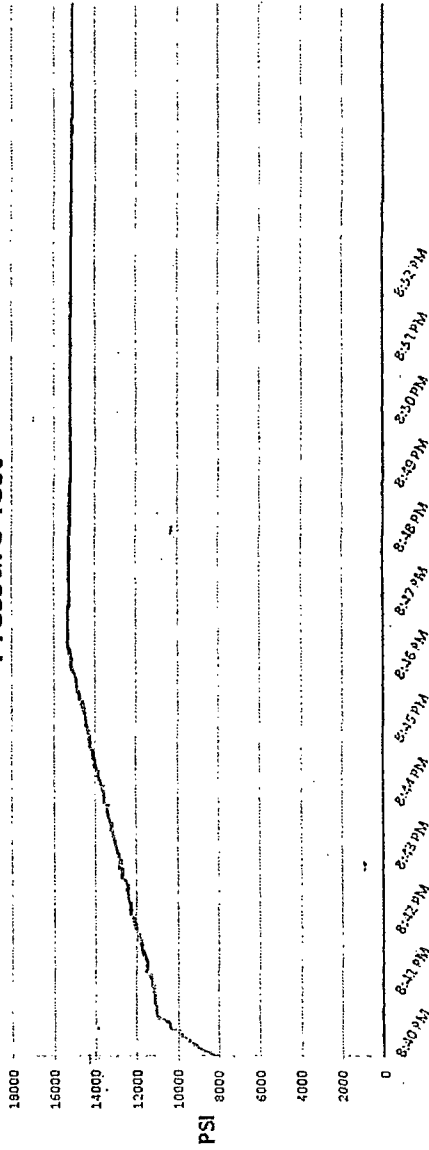
Hose Serial #
5544

Coupling Method
Swage

Final O.D.
6.25"

Hose Assembly Serial #
79793

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
11 Minutes

Actual Burst Pressure

Peak Pressure
15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Zac McConnell

Approved By: Kim Thomas

Zac McConnell

Kim Thomas

March 3, 2011

Exhibit F-1 – Co-Flex Hose Hydrostatic Test
Triste Draw 30 Federal 5H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1310 FWL
BHL 330 FNL & 440 FWL
Lea County, NM

Exhibit F-2 – Co-Flex Hose
Triste Draw 30 Federal 5H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1310 FWL
BHL 330 FNL & 440 FWL
Lea County, NM



Midwest Hose & Specialty, Inc.

Certificate of Conformity

Customer:		PO
DEM		ODYD-271
SPECIFICATIONS		
Sales Order	Dated:	
79793	3/8/2011	
We hereby certify that the material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards Supplier: Midwest Hose & Specialty, Inc. 10640 Tanner Road Houston, Texas 77041		
Comments:		
Approved:		Date:
<i>James Garcia</i>		3/8/2011



Midwest Hose
& Specialty, Inc.

Exhibit F -3- Co-Flex Hose
Triste Draw 30 Federal 5H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1310 FWL
BHL 330 FNL & 440 FWL
Lea County, NM

Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2", 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

Exhibit F – Co-Flex Hose
Triste Draw 30 Federal 5H

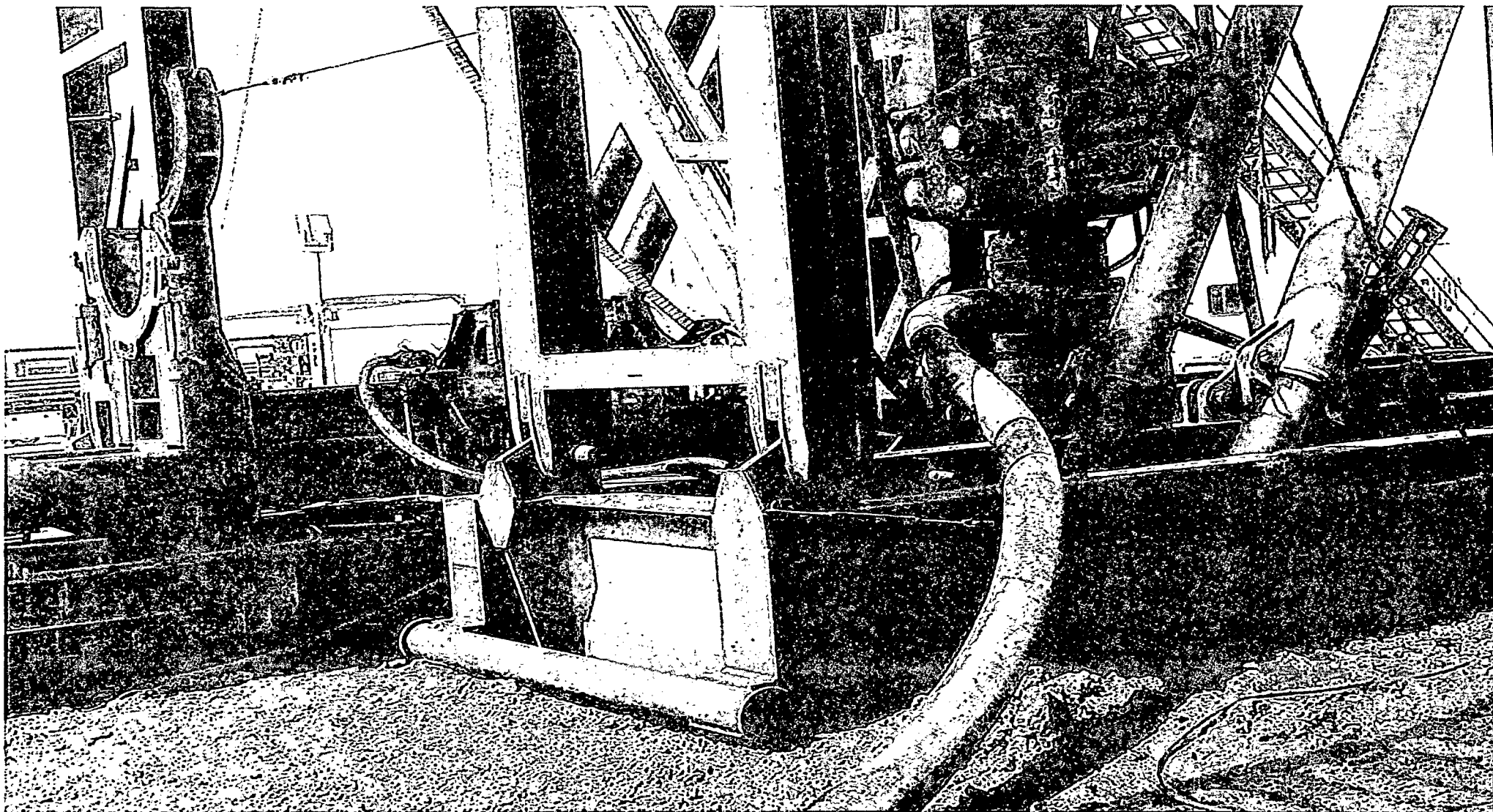
Cimarex Energy Co.

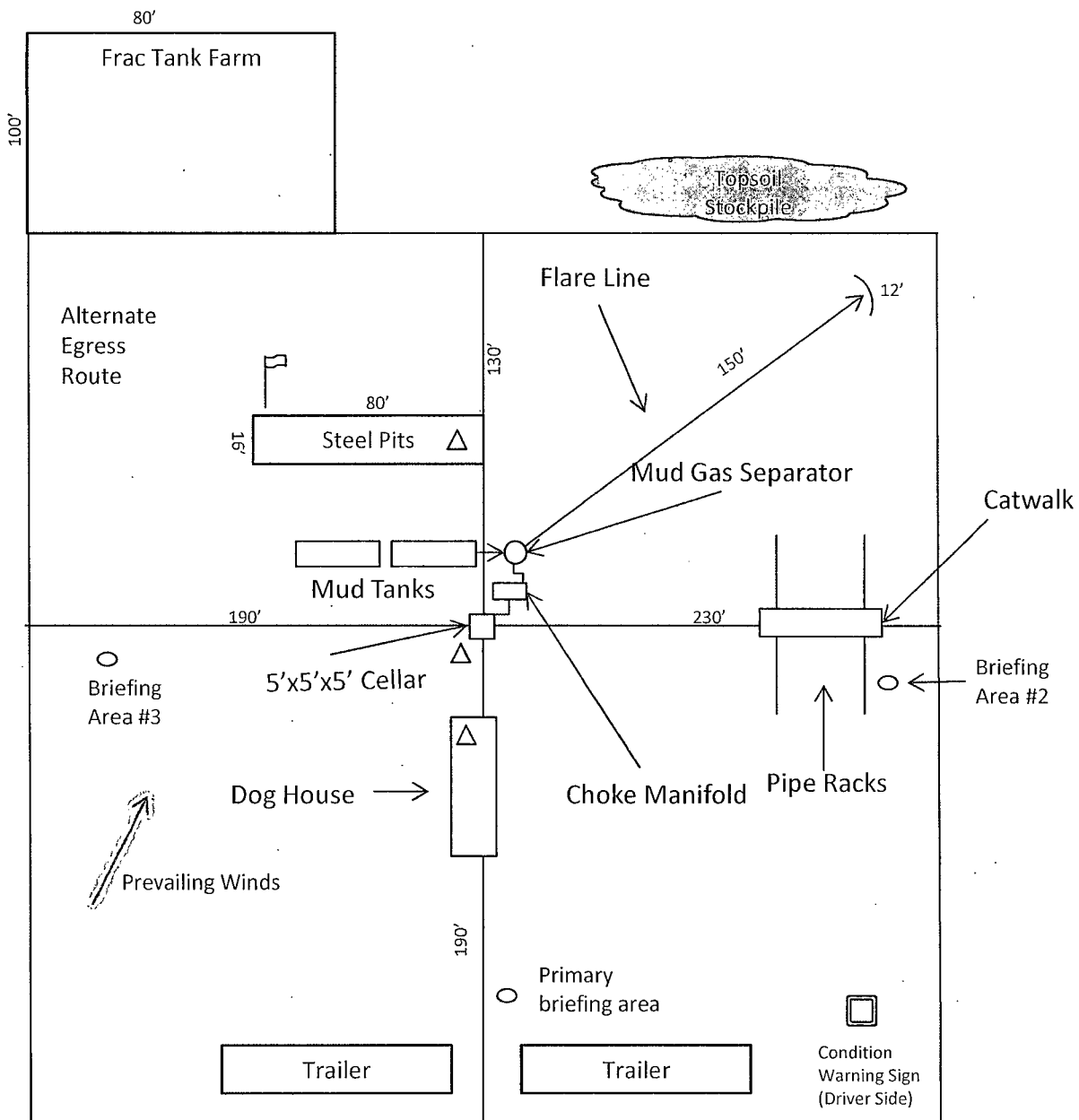
30-23S-33E

SHL 350 FSL & 1310 FWL

BHL 330 FNL & 440 FWL

Lea County, NM





-  Wind Direction Indicators (wind sock or streamers)
-  • H2S Monitors (alarms at bell nipple and shale shaker)
-  Briefing Areas



Exhibit D-1 – Rig Diagram
Triste Draw 30 Federal 5H
 Cimarex Energy Co.
 30-23S-33E
 SHL 350 FSL & 1310 FWL
 BHL 330 FNL & 440 FWL
 Lea County, NM