

HOBBS OCD

12 T167

Form 3160-3
(March 2012)

JAN 13 2014

RECEIVED

UNITED STATES

OCD Hobbs

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.

NM118722

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.

Fuggles 24 Federal Com 2H

9. API Well No.

30-025-

10. Field and Pool, or Exploratory

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

24-25S-32E

12. County or Parish

Lea

13. State

NM

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 797013b. 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 & 1980 FWL

At proposed prod. zone 330 FSL & 1980 FWL

Horizontal Bone Spring test

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

Approx 26 miles West from Jal, NM

15. Distance from proposed*
location to nearest
property or lease line, ft. 330
(Also to nearest drig. unit line, if any)16. No. of acres in lease
NMLC 071986 - 440
NMNM 110836 - 1160
NMNM 15317 - 1160.84

17. Spacing Unit dedicated to this well

160

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. 1600' to #1H19. Proposed Depth
MD 15177; TVD 10760

20. BLM/BIA Bond No. on file

NM2575;NMB000835

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

GR: 3465'

22. Approximate date work will start*

03/01/2013

23. Estimated duration

30-35 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must 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
BLM.

25. Signature

Name (Printed/Typed)

Tracie J Cherry

Date

09/28/2012

Title

Sr. Regulatory Analyst

Approved by (Signature)

/S/ STEPHEN J. CAFFEY

Name (Printed/Typed)

Date

JAN - 6 2014

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.C. 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)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

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

JAN 15 2014

PM

Drilling Plan
Fuggles 24 Federal Com 2H
 Cimarex Energy Co. of Colorado
 Unit C, Section 24
 T25S-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 330 FNL & 1980 FWL
 BHL 330 FSL & 1980 FWL

- 2 **Elevation above sea level:** 3465 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 15177 TVD 10760

- 6 **Estimated tops of geological markers:**

Water per OSE	235	
Rustler	783	
T. Salt	1014	
B. Salt	4600	
Delaware	4847	Hydrocarbons
Cherry Canyon	5889	
Brushy Canyon	7759	
Bone Spring	8969	Hydrocarbons
1st BSS	10002	
2nd BSS	10498	

- 7 **Possible mineral bearing formations:**
 Shown above

8 **Proposed Mud Circulating System:**

Depth		Mud Wt	Visc	Fluid Loss	Type Mud
0'	to 900' 808'	8.4 - 8.6	28	NC	FW
808'	to 4827'	10.0	30-32	NC	Brine water
4827'	to 15177'	8.6-8.8	28-32	NC	FW/KCL

See
COA

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 setting surface & intermediate csg, drill 8 3/4" or 7 7/8" hole to KOP @ 10283, log and kick off. Drill through the curve to lateral TD @ 15177' MD, 10760' TVD. Run 5-1/2" csg to TD per program.

Drilling Plan
Fuggles 24 Federal Com 2H
 Cimarex Energy Co. of Colorado
 Unit C, Section 24
 T25S-R32E; Lea County, NM

9 Casing & Cementing Program:

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17 1/2"	0' to 808'	New 13 3/8"	48#	STC	H-40
Intermediate	12 1/4"	0' to 3400'	New 9 5/8"	36#	LTC	J-55
Intermediate	12 1/4"	3400' to 4827'	New 9 5/8"	40#	LTC	J-55
Production	8 3/4" or 7 7/8"	0' to 10283'	New 5 1/2"	17#	LTC	P-110
Production	8 3/4" or 7 7/8"	10283' to 15177'	New 5 1/2"	17#	BTC	P-110

10 Cementing:

Surface Lead: 403 sx Class C + Bentonite + Calcium Chloride + LCM – mw 13.5 ppg yield 1.75
 Tail: 194 sx Class C + LCM – mw 14.8 ppg yield 1.34
 Excess 72% **TOC Surface Centralizers per Onshorder 2.III.B.1.f**

Intermediate Lead: 1152 sx 35:65 (poz/C) + Salt + Bentonite + LCM + retarder – mw 12.9 ppg yield 1.88
 Tail: 282 sx Class C + retarder + LCM – mw 14.8 ppg yield 1.32
 Excess 82% **TOC Surface**

Intermediate Lead: 483 sx 35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM +
Production Retarder - MW 11.9 ppg yield 2.4
 Tail: 942 sx Class C + retarder + LCM – mw 14.8 ppg yield 1.32
 Excess 25% **TOC 4327' Centralizers every 3rd joint through the curve or legal location hardline to provide adequate cement coverage every 100' unless hole conditions require greater spacing between centralizers.**

Cement volumes will be adjusted depending on hole size.

<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 BOP system 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. Mud gas separator will be installed before drilling out of surface casing.

BOP unit will be hydraulically operated. BOP will be installed 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 13 3/8" casing through the running of production casing, the well will be equipped with a 5000 psi BOP system.

BOPs will be tested by an independent service company to 250 psi low and 5000 psi high on the surface casing and 250 psi low and 5000 psi high on the intermediate. Hydril will be tested to 250 psi low and 2500 psi high on the surface and intermediate casings.

Cimarex Energy Co. of Colorado requests a variance to use a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. 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.

Drilling Plan
Fuggles 24 Federal Com 2H
Cimarex Energy Co. of Colorado
Unit C, Section 24
T25S-R32E; Lea County, NM

12 Testing, Logging and Coring Program:

- A. Mud logging program: 2 man unit from 4736' 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:

See
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 **4842** Estimated BHT **140°**

- 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.**



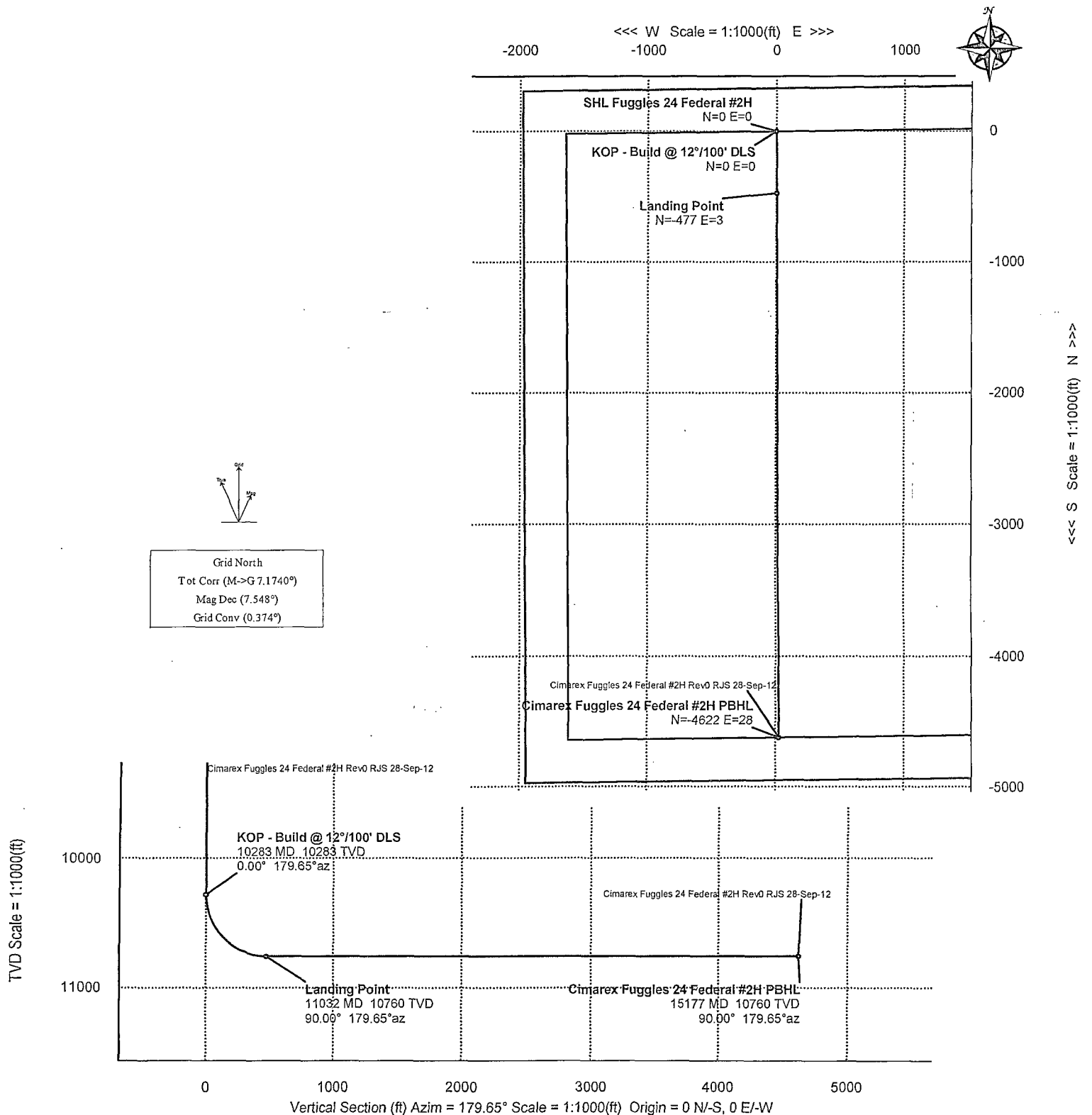
Cimarex

PATHFINDER
A Schlumberger Company

WELL	Fuggles 24 Federal #2H		FIELD	NM Lea County		STRUCTURE	TBD	
Magnetic Parameters	Dip:	60.01°	Date:	September 28, 2012	Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Miscellaneous	
Model: BGGM 2012	Mag Dec: 7.548°		FS: 48408.7NT	Lat: N 32 7 20.621	Long: W 103 37 50.368	Northings: 408972.60 RUS	Slot: Fuggles 24 Federal #2H	TVD Ref: Ground Level 13465ft above MSL
						Easting: 756871.10 RUS	Plan: Rev0 RJS 28-Sep-12	Srvy Date: September 28, 2012



Grid North
Tot Corr (M->G 7.1740°)
Mag Dec (7.548°)
Grid Conv (0.374°)



Critical Point	MD	INCL	AZIM	TVD	YSEC	N(E)/S(W)	E(S)/W(N)	DLS
SHL Fuggles 24 Federal #2H	0.00	0.00	179.65	0.00	0.00	0.00	0.00	
KOP - Build @ 12°/100' DLS	10282.60	0.00	179.65	10282.60	0.00	0.00	0.00	0.00
Landing Point	11032.50	90.00	179.65	10760.00	477.40	-477.39	2.88	12.00
Cimarex Fuggles 24 Federal #2H PBHL	15177.06	90.00	179.65	10760.00	4621.96	-4621.88	27.90	0.00



Cimarex Fuggles 24 Federal #2H Rev0 RJS 28-Sep-12 Proposal Report 100' **Interpolated** (Non-Def Plan)



Report Date: September 28, 2012 - 10:46 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Cimarex Fuggles 24 Federal #2H
Well: Cimarex Fuggles 24 Federal #2H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Fuggles 24 Federal #2H Rev0 RJS 28-Sep-12
Survey Date: September 28, 2012
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 4621.963 ft / 5.768 / 0.430
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 7' 20.62141", W 103° 37' 50.36769"
Location Grid N/E Y/X: N 408972.600 ftUS, E 758871.100 ftUS
CRS Grid Convergence Angle: 0.3736 °
Grid Scale Factor: 0.99996329

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.654 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3465.000 ft above MSL
Seabed / Ground Elevation: 3465.000 ft above MSL
Magnetic Declination: 7.548 °
Total Gravity Field Strength: 999.1505 mgn (9.8 based)
Total Magnetic Field Strength: 48408.663 nT
Magnetic Dip Angle: 60.010 °
Declination Date: September 28, 2012
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.3736 °
Total Corr Mag North->Grid North: 7.1740 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
SHL Fuggles 24 Federal #2H	0.00	0.00	179.65	0.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	N/A
	100.00	0.00	179.65	100.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	200.00	0.00	179.65	200.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	300.00	0.00	179.65	300.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	400.00	0.00	179.65	400.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	500.00	0.00	179.65	500.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	600.00	0.00	179.65	600.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	700.00	0.00	179.65	700.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	800.00	0.00	179.65	800.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	900.00	0.00	179.65	900.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1000.00	0.00	179.65	1000.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1100.00	0.00	179.65	1100.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1200.00	0.00	179.65	1200.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1300.00	0.00	179.65	1300.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1400.00	0.00	179.65	1400.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1500.00	0.00	179.65	1500.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1600.00	0.00	179.65	1600.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1700.00	0.00	179.65	1700.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1800.00	0.00	179.65	1800.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	1900.00	0.00	179.65	1900.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2000.00	0.00	179.65	2000.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2100.00	0.00	179.65	2100.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2200.00	0.00	179.65	2200.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2300.00	0.00	179.65	2300.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2400.00	0.00	179.65	2400.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2500.00	0.00	179.65	2500.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2600.00	0.00	179.65	2600.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2700.00	0.00	179.65	2700.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	2800.00	0.00	179.65	2800.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00

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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
	8400.00	0.00	179.65	8400.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	8500.00	0.00	179.65	8500.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	8600.00	0.00	179.65	8600.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	8700.00	0.00	179.65	8700.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	8800.00	0.00	179.65	8800.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	8900.00	0.00	179.65	8900.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9000.00	0.00	179.65	9000.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9100.00	0.00	179.65	9100.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9200.00	0.00	179.65	9200.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9300.00	0.00	179.65	9300.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9400.00	0.00	179.65	9400.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9500.00	0.00	179.65	9500.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9600.00	0.00	179.65	9600.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9700.00	0.00	179.65	9700.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9800.00	0.00	179.65	9800.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	9900.00	0.00	179.65	9900.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	10000.00	0.00	179.65	10000.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	10100.00	0.00	179.65	10100.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	10200.00	0.00	179.65	10200.00	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
KOP - Build @ 12"/100' DLS	10282.60	0.00	179.65	10282.60	0.00	0.00	0.00	408972.60	758871.10	N 32 7 20.62	W 103 37 50.37	0.00	0.00	0.00
	10300.00	2.09	179.65	10300.00	0.32	-0.32	0.00	408972.28	758871.10	N 32 7 20.62	W 103 37 50.37	0.32	179.65	12.00
	10400.00	14.09	179.65	10398.82	14.36	-14.36	0.09	408958.24	758871.19	N 32 7 20.48	W 103 37 50.37	14.36	179.65	12.00
	10500.00	26.09	179.65	10492.56	48.65	-48.65	0.29	408923.95	758871.39	N 32 7 20.14	W 103 37 50.37	48.65	179.65	12.00
	10600.00	38.09	179.65	10577.13	101.68	-101.68	0.61	408870.92	758871.71	N 32 7 19.62	W 103 37 50.37	101.68	179.65	12.00
	10700.00	50.09	179.65	10648.82	171.14	-171.14	1.03	408801.47	758872.13	N 32 7 18.93	W 103 37 50.37	171.14	179.65	12.00
	10800.00	62.10	179.65	10704.50	253.98	-253.98	1.53	408718.63	758872.63	N 32 7 18.11	W 103 37 50.37	253.98	179.65	12.00
	10900.00	74.10	179.65	10741.73	346.60	-346.59	2.09	408626.02	758873.19	N 32 7 17.19	W 103 37 50.37	346.60	179.65	12.00
	11000.00	86.10	179.65	10758.89	444.93	-444.92	2.69	408527.70	758873.79	N 32 7 16.22	W 103 37 50.37	444.93	179.65	12.00
Landing Point	11032.50	90.00	179.65	10760.00	477.40	-477.39	2.88	408495.23	758873.98	N 32 7 15.90	W 103 37 50.37	477.40	179.65	12.00
	11100.00	90.00	179.65	10760.00	544.90	-544.89	3.29	408427.73	758874.39	N 32 7 15.23	W 103 37 50.37	544.90	179.65	0.00
	11200.00	90.00	179.65	10760.00	644.90	-644.89	3.89	408327.73	758874.99	N 32 7 14.24	W 103 37 50.37	644.90	179.65	0.00
	11300.00	90.00	179.65	10760.00	744.90	-744.89	4.50	408227.74	758875.60	N 32 7 13.25	W 103 37 50.37	744.90	179.65	0.00
	11400.00	90.00	179.65	10760.00	844.90	-844.89	5.10	408127.75	758876.20	N 32 7 12.26	W 103 37 50.37	844.90	179.65	0.00
	11500.00	90.00	179.65	10760.00	944.90	-944.88	5.70	408027.75	758876.80	N 32 7 11.27	W 103 37 50.37	944.90	179.65	0.00
	11600.00	90.00	179.65	10760.00	1044.90	-1044.88	6.31	407927.76	758877.41	N 32 7 10.28	W 103 37 50.37	1044.90	179.65	0.00
	11700.00	90.00	179.65	10760.00	1144.90	-1144.88	6.91	407827.76	758878.01	N 32 7 9.29	W 103 37 50.37	1144.90	179.65	0.00
	11800.00	90.00	179.65	10760.00	1244.90	-1244.88	7.52	407727.77	758878.62	N 32 7 8.30	W 103 37 50.37	1244.90	179.65	0.00
	11900.00	90.00	179.65	10760.00	1344.90	-1344.88	8.12	407627.77	758879.22	N 32 7 7.31	W 103 37 50.38	1344.90	179.65	0.00
	12000.00	90.00	179.65	10760.00	1444.90	-1444.88	8.72	407527.78	758879.82	N 32 7 6.32	W 103 37 50.38	1444.90	179.65	0.00
	12100.00	90.00	179.65	10760.00	1544.90	-1544.87	9.33	407427.79	758880.43	N 32 7 5.33	W 103 37 50.38	1544.90	179.65	0.00
	12200.00	90.00	179.65	10760.00	1644.90	-1644.87	9.93	407327.79	758881.03	N 32 7 4.34	W 103 37 50.38	1644.90	179.65	0.00
	12300.00	90.00	179.65	10760.00	1744.90	-1744.87	10.53	407227.80	758881.63	N 32 7 3.36	W 103 37 50.38	1744.90	179.65	0.00
	12400.00	90.00	179.65	10760.00	1844.90	-1844.87	11.14	407127.80	758882.24	N 32 7 2.37	W 103 37 50.38	1844.90	179.65	0.00
	12500.00	90.00	179.65	10760.00	1944.90	-1944.87	11.74	407027.81	758882.84	N 32 7 1.38	W 103 37 50.38	1944.90	179.65	0.00
	12600.00	90.00	179.65	10760.00	2044.90	-2044.86	12.34	406927.81	758883.44	N 32 7 0.39	W 103 37 50.38	2044.90	179.65	0.00
	12700.00	90.00	179.65	10760.00	2144.90	-2144.86	12.95	406827.82	758884.05	N 32 6 59.40	W 103 37 50.38	2144.90	179.65	0.00
	12800.00	90.00	179.65	10760.00	2244.90	-2244.86	13.55	406727.83	758884.65	N 32 6 58.41	W 103 37 50.38	2244.90	179.65	0.00
	12900.00	90.00	179.65	10760.00	2344.90	-2344.86	14.16	406627.83	758885.25	N 32 6 57.42	W 103 37 50.38	2344.90	179.65	0.00
	13000.00	90.00	179.65	10760.00	2444.90	-2444.86	14.76	406527.84	758885.86	N 32 6 56.43	W 103 37 50.38	2444.90	179.65	0.00
	13100.00	90.00	179.65	10760.00	2544.90	-2544.86	15.36	406427.84	758886.46	N 32 6 55.44	W 103 37 50.38	2544.90	179.65	0.00
	13200.00	90.00	179.65	10760.00	2644.90	-2644.85	15.97	406327.85	758887.07	N 32 6 54.45	W 103 37 50.38	2644.90	179.65	0.00
	13300.00	90.00	179.65	10760.00	2744.90	-2744.85	16.57	406227.85	758887.67	N 32 6 53.46	W 103 37 50.38	2744.90	179.65	0.00
	13400.00	90.00	179.65	10760.00	2844.90	-2844.85	17.17	406127.86	758888.27	N 32 6 52.47	W 103 37 50.38	2844.90	179.65	0.00
	13500.00	90.00	179.65	10760.00	2944.90	-2944.85	17.78	406027.87	758888.88	N 32 6 51.48	W 103 37 50.38	2944.90	179.65	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
	13600.00	90.00	179.65	10760.00	3044.90	-3044.85	18.38	405927.87	758889.48	N 32 6 50.49	W 103 37 50.38	3044.90	179.65	0.00
	13700.00	90.00	179.65	10760.00	3144.90	-3144.84	18.98	405827.88	758890.08	N 32 6 49.50	W 103 37 50.39	3144.90	179.65	0.00
	13800.00	90.00	179.65	10760.00	3244.90	-3244.84	19.59	405727.88	758890.69	N 32 6 48.51	W 103 37 50.39	3244.90	179.65	0.00
	13900.00	90.00	179.65	10760.00	3344.90	-3344.84	20.19	405627.89	758891.29	N 32 6 47.52	W 103 37 50.39	3344.90	179.65	0.00
	14000.00	90.00	179.65	10760.00	3444.90	-3444.84	20.80	405527.89	758891.90	N 32 6 46.53	W 103 37 50.39	3444.90	179.65	0.00
	14100.00	90.00	179.65	10760.00	3544.90	-3544.84	21.40	405427.90	758892.50	N 32 6 45.54	W 103 37 50.39	3544.90	179.65	0.00
	14200.00	90.00	179.65	10760.00	3644.90	-3644.84	22.00	405327.91	758893.10	N 32 6 44.55	W 103 37 50.39	3644.90	179.65	0.00
	14300.00	90.00	179.65	10760.00	3744.90	-3744.83	22.61	405227.91	758893.71	N 32 6 43.56	W 103 37 50.39	3744.90	179.65	0.00
	14400.00	90.00	179.65	10760.00	3844.90	-3844.83	23.21	405127.92	758894.31	N 32 6 42.57	W 103 37 50.39	3844.90	179.65	0.00
	14500.00	90.00	179.65	10760.00	3944.90	-3944.83	23.81	405027.92	758894.91	N 32 6 41.59	W 103 37 50.39	3944.90	179.65	0.00
	14600.00	90.00	179.65	10760.00	4044.90	-4044.83	24.42	404927.93	758895.52	N 32 6 40.60	W 103 37 50.39	4044.90	179.65	0.00
	14700.00	90.00	179.65	10760.00	4144.90	-4144.83	25.02	404827.93	758896.12	N 32 6 39.61	W 103 37 50.39	4144.90	179.65	0.00
	14800.00	90.00	179.65	10760.00	4244.90	-4244.82	25.62	404727.94	758896.72	N 32 6 38.62	W 103 37 50.39	4244.90	179.65	0.00
	14900.00	90.00	179.65	10760.00	4344.90	-4344.82	26.23	404627.95	758897.33	N 32 6 37.63	W 103 37 50.39	4344.90	179.65	0.00
	15000.00	90.00	179.65	10760.00	4444.90	-4444.82	26.83	404527.95	758897.93	N 32 6 36.64	W 103 37 50.39	4444.90	179.65	0.00
	15100.00	90.00	179.65	10760.00	4544.90	-4544.82	27.44	404427.96	758898.53	N 32 6 35.65	W 103 37 50.39	4544.90	179.65	0.00
Cimarex Fuggles 24 Federal #2H PBHL	15177.06	90.00	179.65	10760.00	4621.96	-4621.88	27.90	404350.90	758899.00	N 32 6 34.89	W 103 37 50.39	4621.96	179.65	0.00

Survey Type: Non-Def Plan

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

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	15177.061	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Fuggles 24 Federal #2H Rev0

SR & A

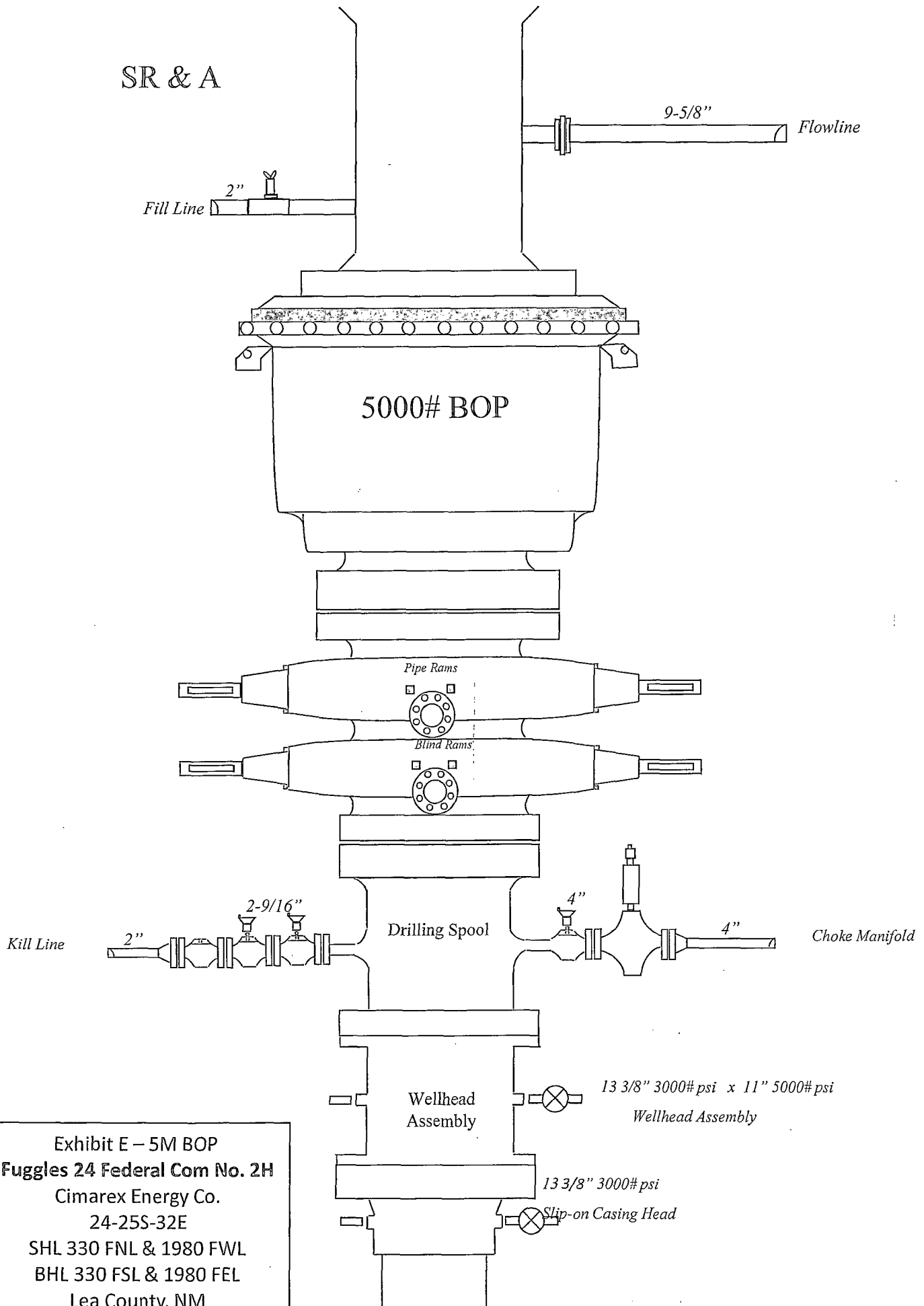


Exhibit E – 5M BOP
Fuggles 24 Federal Com No. 2H
Cimarex Energy Co.
24-25S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FEL
Lea County, NM

Drilling Operations Choke Manifold 5M Service

Exhibit E-1 – Choke Manifold Diagram

Fuggles 24 Federal Com No. 2H

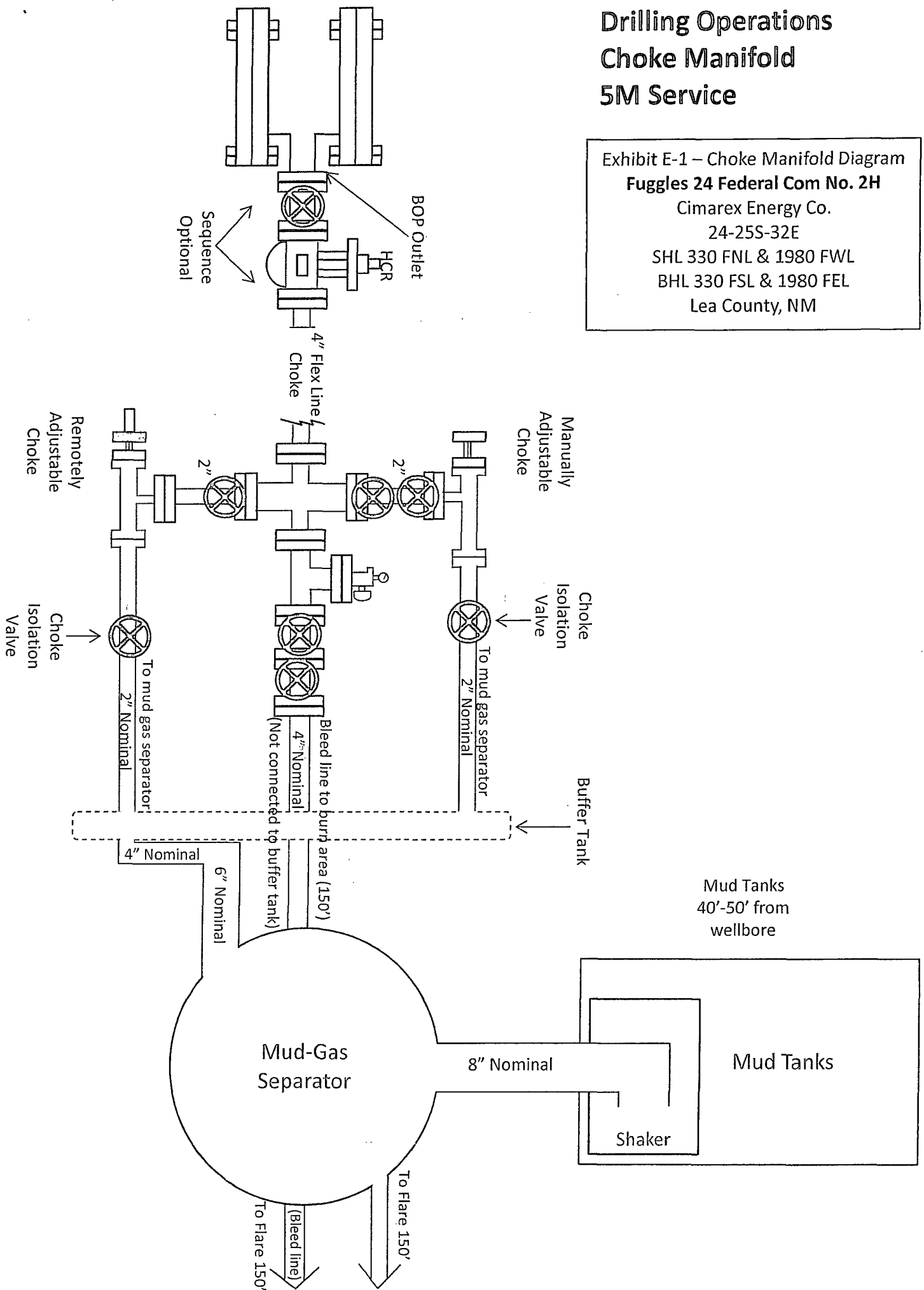
Cimarex Energy Co.

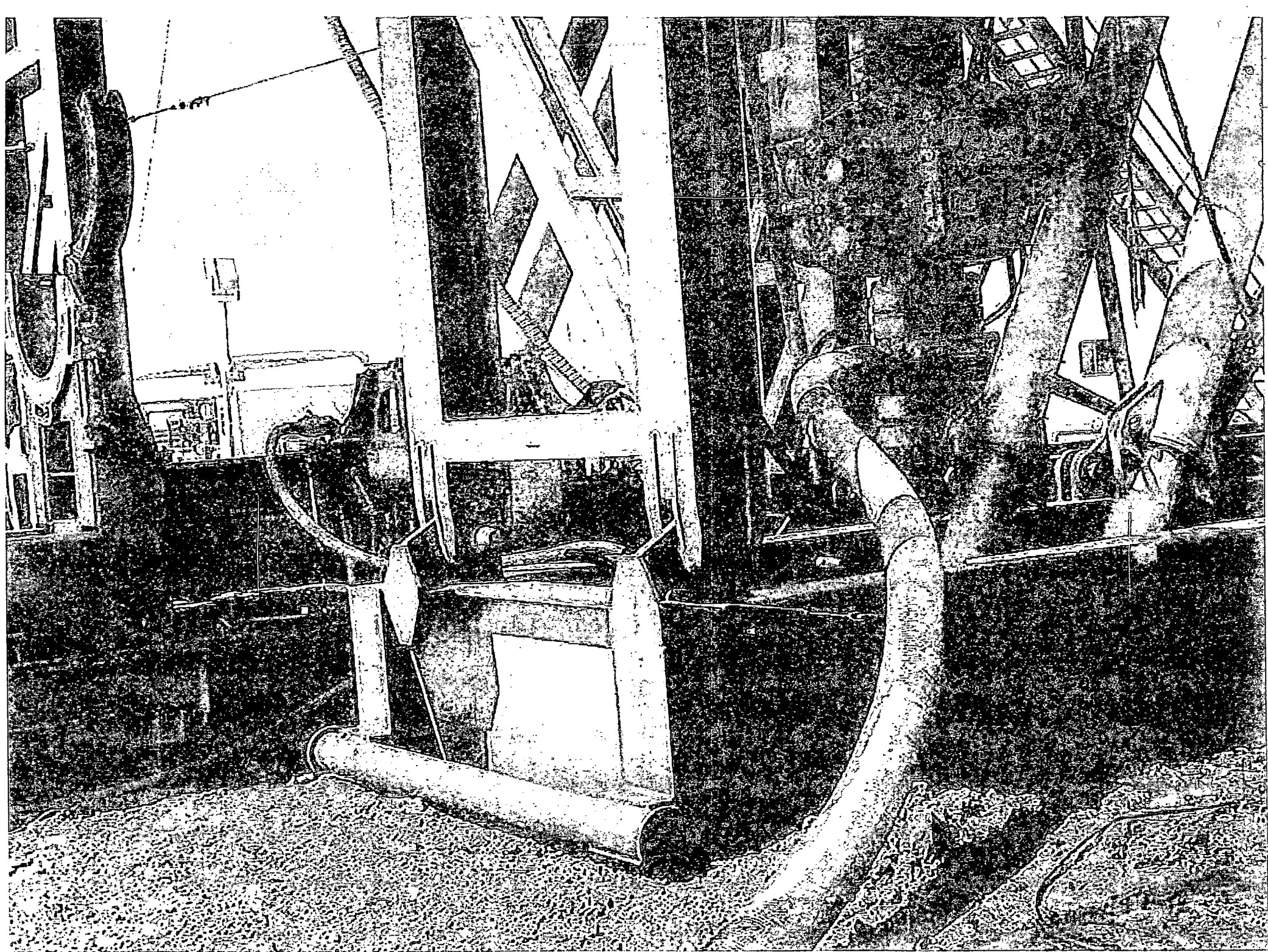
24-25S-32E

SHL 330 FNL & 1980 FWL

BHL 330 FSL & 1980 FEL

Lea County, NM







Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:		P.O. Number:	
Oderco Inc		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	TEST PRESSURE	BURST PRESSURE	
10,000 PSI	15,000 PSI	0 PSI	
COUPLINGS			
Stem Part No.		Ferrule No.	
OKC OKC		OKC OKC	
Type of Coupling:			
Swage-It			
PROCEDURE			
<i>Hose assembly pressure tested with water at ambient temperature.</i>			
TIME HELD AT TEST PRESSURE		ACTUAL BURST PRESSURE:	
15 MIN.		0 PSI	
Hose Assembly Serial Number:		Hose Serial Number:	
79793		OKC	
Comments:			
Date:	Tested:	Approved:	
3/8/2011	<i>A. J. J. J.</i>	<i>[Signature]</i>	



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

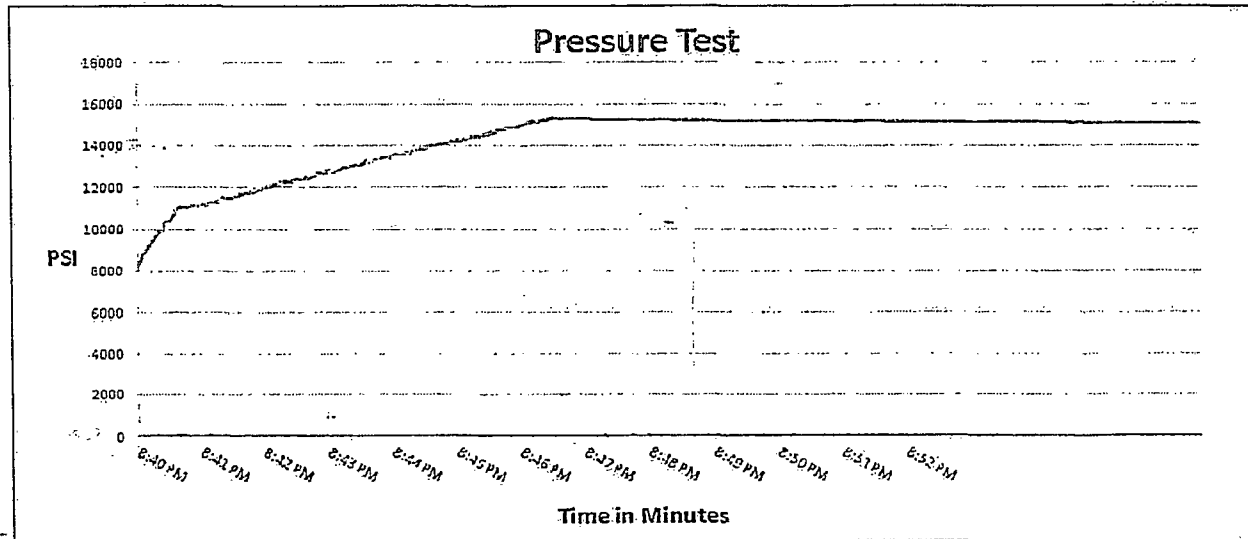
Pick Ticket #: 94260

Hose Specifications

<u>Hose Type</u>	<u>Length</u>
C & K	.45'
<u>I.D.</u>	<u>O.D.</u>
4"	6.09"
<u>Working Pressure</u>	<u>Burst Pressure</u>
10000 PSI	Standard Safety Multiplier Applies

Verification

<u>Type of Fitting</u>	<u>Coupling Method</u>
41/16 10K	Swage
<u>Die Size</u>	<u>Final O.D.</u>
6.38"	6.25"
<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u>
5544	79793



Test Pressure
15000 PSI

Time Held at Test Pressure
11 Minutes

Actual Burst Pressure

Peak Pressure
15403 PSI

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

Tested By: Zac McConnell

Approved By: Kim Thomas



Midwest Hose & Specialty, Inc.

Certificate of Conformity

Customer:

DEM

PO

ODYD-271

SPECIFICATIONS

Sales Order

79793

Dated:

3/8/2011

We hereby cerify 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

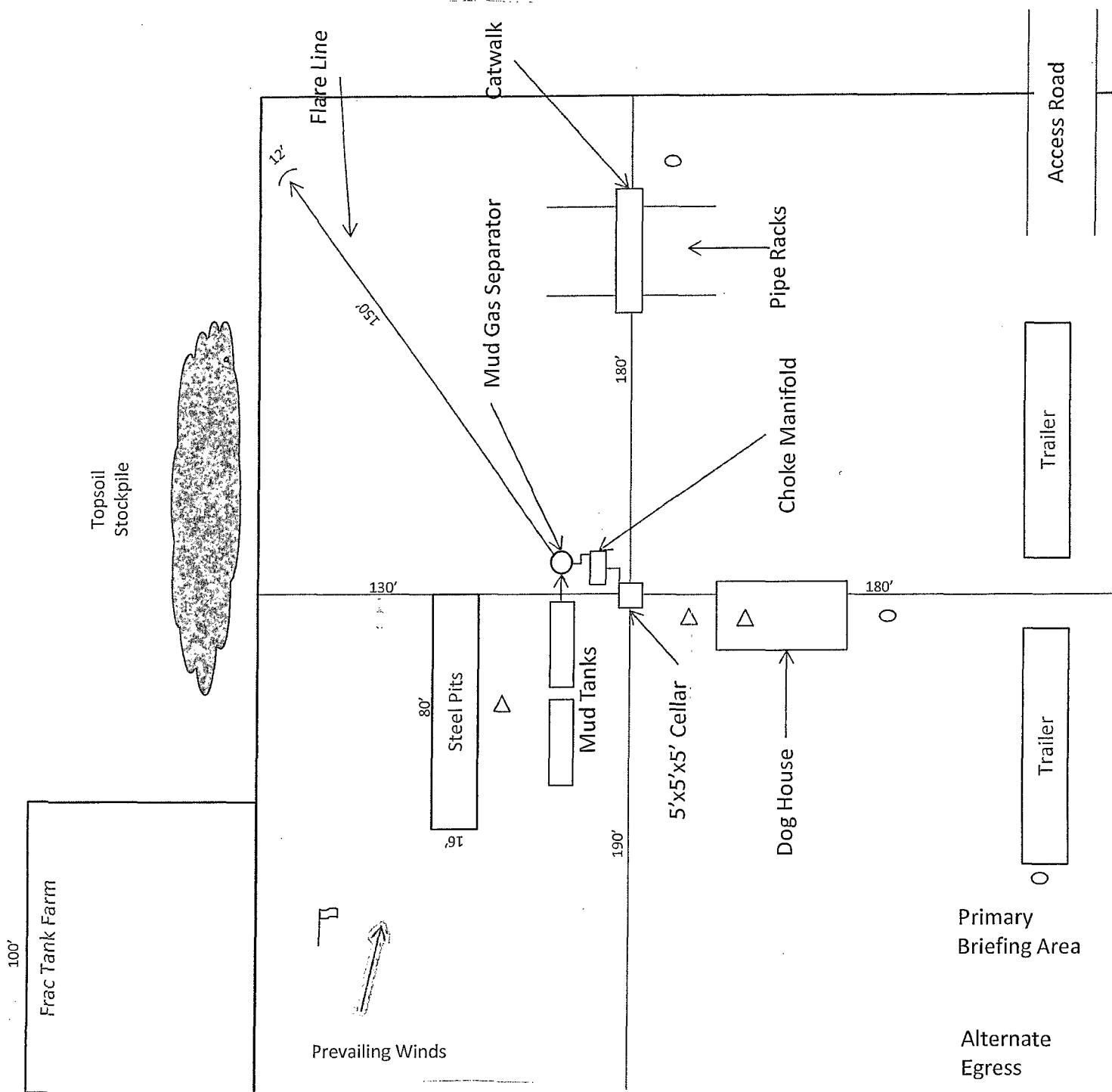
Comments:

Approved:

Samuel Garcia

Date:

3/8/2011



.08

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

Exhibit D – Rig Diagram
Fuggles 24 Federal Com 2H
 Cimarex Energy Co. of Colorado
 24-25S-32E
 SHL 330 FNL & 1980 FWL
 BHL 330 FSL & 1980 FEL
 Lea County, NM

