R-111-POTASH

Form 3160-3
(March 2012)

HOBBS OCD
OCD Hobbs
FEB 11 2013
RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM006766; NM006765; NM004350

6. If Indian, Allotee or Tribe Name

TRS 2/14/2013

1a. Type of work: [✓] DRILL [ ] REENTER

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

1b. Type of Well: [✓] Oil Well [ ] Gas Well [ ] Other [✓] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.
Hackberry 23 Federal Com #1H <34225>

2. Name of Operator Cimarex Energy Co. <162683>

9. API Well No.
30025- 41115

3a. Address 600 N. Marienfeld St Ste 600; Midland, Tx 79701

3b. Phone No. *(include area code)*
432571-7800

10. Field and Pool, or Exploratory
Hackberry; Bone Spring NW <97020>

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

At surface 1980' FNL & 180' FWL, 24 19S, 30E

At proposed prod. zone 1980' FNL & 330' FWL, 23 19S 30E

11. Sec., T. R. M. or Blk. and Survey or Area
SHL: 24 19S 30E
BHL: 23 19S 30E

14. Distance in miles and direction from nearest town or post office*
22 Miles NE of Carlsbad

12. County or Parish
Lea

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 180'

16. No. of acres in lease
NM006766 - 480 Acres
NM006765 - 240 Acres
NM004350 - 240 acres

17. Spacing Unit dedicated to this well
160 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 467'

19. Proposed Depth
MD: 13500; TVD 8580
Pilot Hole - 10,000

20. BLM/BIA Bond No. on file
NM2575; NMB000835

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
GR 3255'

22. Approximate date work will start*
01/29/2013

23. Estimated duration
25-30 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)* Terri STathem
Date 11/12/2012

Title
Coordinator Regulatory Compliance

Approved by *(Signature)*
/s/ Aden L Seidlitz
Name *(Printed/Typed)*
Date JAN 31 2013

Title
STATE DIRECTOR
Office
NM STATE 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)

Capitan Controlled Water Basin

RECEIVED
FEB 13 2013
NMOCD ARTESIA

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

HOBBS OCD

FEB 11 2013

RECEIVED

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102
Revised July 16, 2010

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015- 41115	97020	Hackberry; Bone Spring, NW

Property Code	Property Name	Well Number
34225	HACKBERRY 23 FEDERAL COM	1H

OGRID No.	Operator Name	Elevation
162683	CIMAREX ENERGY CO. OF COLORADO	3255'

Surface Location

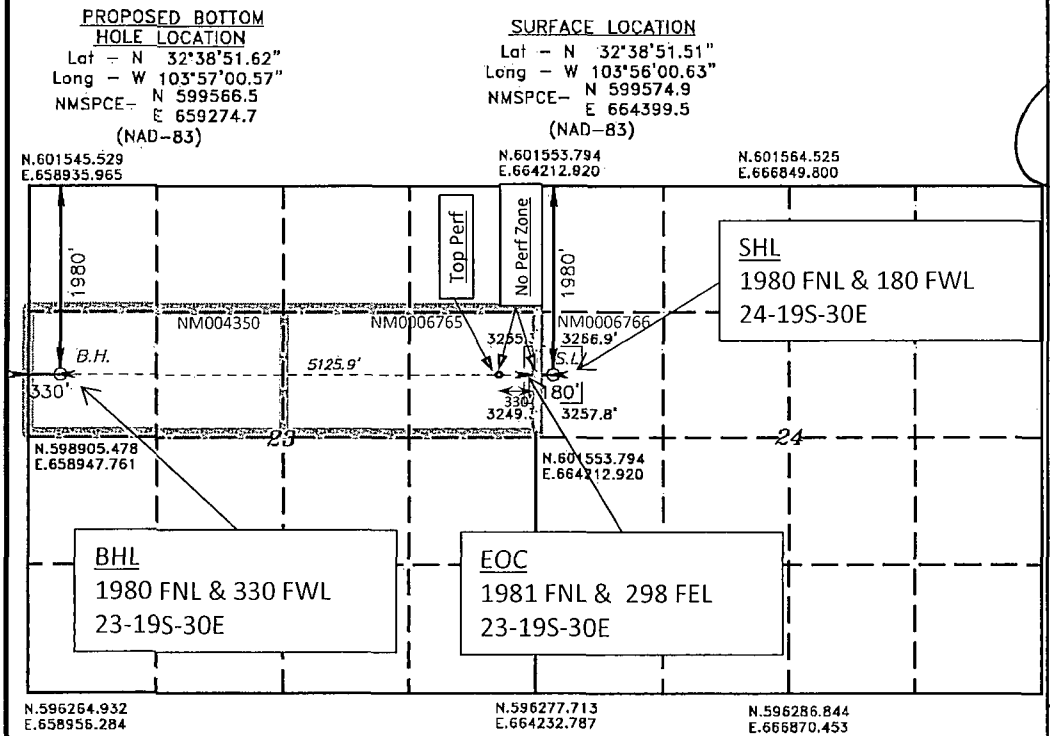
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	24	19 S	30 E		1980	NORTH	180	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	23	19 S	30 E		1980	NORTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 11/7/2012

Terri Stathem
Printed Name

tstathem@cimarex.com
Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

SEPTEMBER 10, 2012
Date Surveyed

Signature & Seal of Professional Surveyor

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 27260

Operator Certification Statement
Hackberry 23 Federal Com 1H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T19S-R30E, Lea County, NM

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 28th day of August, 2012

NAME: Paula Brunson

Paula Brunson

TITLE: Regulatory Analyst

ADDRESS: 600 N Marienfeld St Ste 600
Midland Tx 79701

TELEPHONE: Office Phone: (432) 571-7800

EMAIL: pbrunson@cimarex.com

Field Representative: Same as above

Drilling Plan
Hackberry 23 Federal Com 1H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T19S-R30E, Lea County, NM

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

1 **Location:** SHL 1980 FNL & 180 FWL, 24-T19S-30E
BHL 1980 FNL & 330 FWL, 23-T19S-30E

2 **Elevation above sea level:** 3255' 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 13500' TVD 8580' Pilot Hole 10000'

6 **Estimated tops of geological markers:**

Water	50'	
Rustler	270'	
Top Salt	580'	
Base Salt	1650'	
Yates	1700'	
Seven Rivers	1910'	
Capitan Reef	2000'	
Bell Canyon	3500'	
Cherry Canyon	3870'	
Brushy Canyon	4795'	
Bone Spring	6240'	
1st Bone Spring SS	7600'	
2nd Bone Spring	8400'	Possible hydrocarbons
3rd Bone Spring Carb	8800'	
Wolfcamp	9850'	
TD Pilot Hole	10000'	

7 **Proposed Mud Circulating System:**

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 325'	8.4 - 8.6	28	NC	FW
325' to ~~2000'~~ 1750	8.4-10.0	30-32	NC	FW
~~2000'~~ 1750 to ~~8102'~~ 3480	8.4-10.1	30-33	NC	FW and ~~cut brine~~ * See COA Fresh water mud
~~8102'~~ 3480 to 13500'	8.4-10.1	28-29	NC	FW and 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.

Proposed Drilling Plan
After drilling and setting surface and intermediate casing, drill 7 7/8" hole to 10000' and log. Pump 30 bbls MUDPUSHII 12 ppg, followed by ~~495~~ 700 sks Type H cement, D080 (Dispersant) 0.080 gal/sk, D177 (Retarder) 0.045 gal/sk 17.5 ppg yield 0.95 & 0% excess from 10000' to 8102'. Set whipstock and kick off 7 7/8" lateral @ 8102' and drill to TD @ 13500' MD, 8580' TVD. Run 5 1/2" 17# BTC P110 in lateral from 8580' to 13500', and 5 1/2" 17# LTC P-110 from surface to 8580'.

Drilling Plan

Hackberry 23 Federal Com 1H

Cimarex Energy Co. of Colorado

Unit E, Section 24

T19S-R30E, Lea County, NM

1/18/13 CRW

8 **Casing & Cementing Program:** Per Operator

String	Hole Size	Depth			Casing OD		Weight	Collar	Grade
Surface	20"	0'	to	325'	New	16"	65#	STC	H-40
Intermediate 1	14-3/4"	0'	to	~~2825'~~ 1750'	New	11-3/4"	42#	STC	H-40
Intermediate 2	11"	0'	to	3480'	New	8-5/8"	32#	STC	J-55
Production	7 7/8"	0'	to	8102'	New	5 1/2"	17#	LTC	P-110
Production	7 7/8"	8102'	to	13500'	New	5 1/2"	17#	BTC	P-110

9 **Cementing:**

Surface	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	100	1.75	13.5	175	Class C + Bentonite + Calcium Chloride + LCM
Tail	220	1.34	14.8	295	Clas C + LCM

TOC: Surface 84% Excess **Centralizers per Onshore Order 2.III.B.1f**

Intermediate 1 11 3/4"	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	514	1.88	12.9	967	35:65 (poz/C) + Salt + Bentonite + LCM + retarder
Tail	146	1.34	14.8	195	Class C + retarder + LCM

TOC: Surface 59% Excess

Intermediate 2 8 5/8"	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	510	1.88	12.9	958	35:65 (poz/C) + Salt + Bentonite + LCM + retarder
Tail	165	1.34	14.8	221	Class C + retarder + LCM

TOC: Surface 71% Excess

Production 5 1/2"	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	491	2.4	11.9	1179	35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder
Tail	1030	1.24	14.5	1277	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder

TOC: 1950' 25% Excess **Centralizers every 3rd joint through the curve or legal location hardline to provide adequate cement coverage every 100' unless hole conditions require greater spacing**

Cement volumes will be adjusted depending on hole size.

Collapse Factor	*Burst Factor*	*Tension Factor*
1.125	1.125	1.6

10 **Pressure Control Equipment:**

Exhibit "E". A 13⅝" 5000 PSI working pressure BOP 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. On the 16" Surface casing, Cimarex Energy request a variance to allow us to install a diverter system, consisting of an annular preventer and rotating head.

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.

Before drilling out the 16" surface casing, the diverter system will be tested to 250 psi low and 1000 psi high. Before drilling out the 11-3/4" intermediate #1 casing, BOP's will be tested by an independent service company to 250 psi low and 3000 psi high. Before drilling out the 8-5/8" Intermediate #2 casing, BOP's will be tested by an independent service company to ~~250 psi low and 3000 psi high~~ 250 psi low and ~~3000~~ 5000 psi high on the 8-5/8" Intermediate #2 Casing. Hydril will be tested to 250 psi low and 2500 psi high on both intermediate casings.

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. 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.

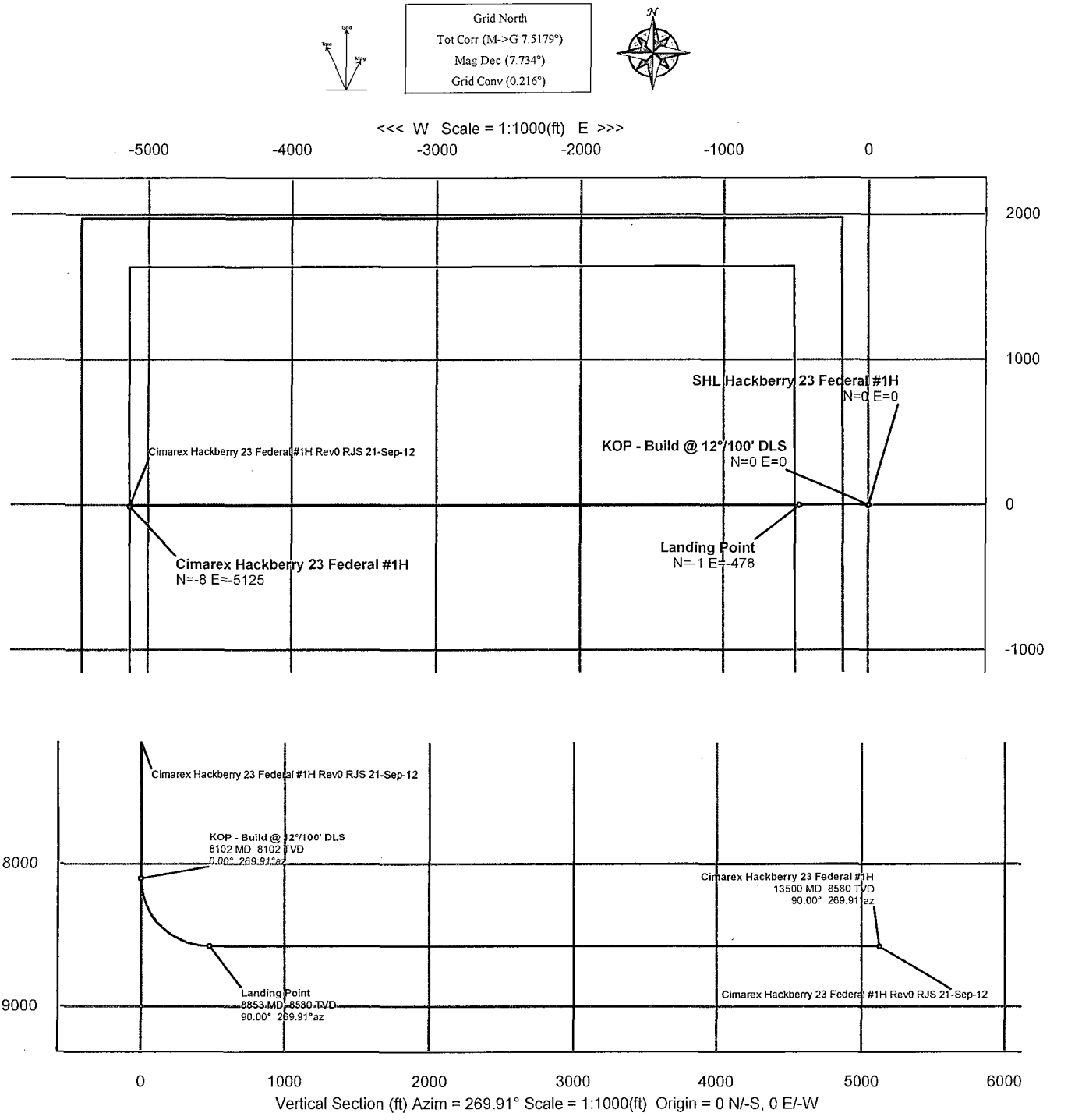
Cimarex

PATHFINDER
A Schlumberger Company

WELL	FIELD	STRUCTURE
Hackberry 23 Federal #1H	NM Eddy County	TBD

Magnetic Parameters				Surface Location				Miscellaneous			
Model: BGGM 2012	Dip: 60.450°	Date: September 21, 2012		Lat: N 32 36 51.513	Northing: 599574.90 ftUS	Grid Conv: 0.216°		Slot: Hackberry 23 Federal #1H	TVD Ref: Ground Level(3255ft above)		
	Mag Dec: 7.734°	FS: 48694.5nT		Lon: W 103 56 0.633	Easting: 664399.50 ftUS	Scale Fact: 0.99992643		Plan: Rev0 RJS 21-Sep-12	Srvy Date: September 21, 2012		

NAD83 New Mexico State Plane, Eastern Zone, US Feet



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+) / S(-)	E(+) / W(-)	DLS
SHL Hackberry 23 Federal #1H	0.00	0.00	269.91	0.00	0.00	0.00	0.00	
KOP - Build @ 12°/100' DLS	8102.00	0.00	269.91	8102.00	0.00	0.00	0.00	0.00
Landing Point	8852.84	90.00	269.91	8580.00	478.00	-0.78	-478.00	11.99
Cimarex Hackberry 23 Federal #1H	13500.03	90.00	269.91	8580.00	5125.19	-8.40	-5125.19	0.00

Cimarex Hackberry 23 Federal #1H Rev0 RJS 21-Sep-12 Proposal Report
100' Interpolated
(Non-Def Plan)

Report Date:	September 21, 2012 - 11:01 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex	**Vertical Section Azimuth:**	269.906 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	TBD / Cimarex Hackberry 23 Federal #1H	**TVD Reference Datum:**	Ground Level
Well:	Cimarex Hackberry 23 Federal #1H	**TVD Reference Elevation:**	3255.000 ft above
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3255.000 ft above
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.734 °
Survey Name:	Cimarex Hackberry 23 Federal #1H Rev0 RJS 21-Sep-12	**Total Gravity Field Strength:**	999.2145 mgn (9.8 based)
Survey Date:	September 21, 2012	**Total Magnetic Field Strength:**	48694.545 nT
Tort / AHD / DDI / ERD Ratio:	90.000 ° / 5125.194 ft / 5.861 / 0.597	**Magnetic Dip Angle:**	60.450 °
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Declination Date:**	September 21, 2012
Location Lat / Long:	N 32° 38' 51.51284", W 103° 56' 0.63345"	**Magnetic Declination Model:**	BGGM 2012
Location Grid N/E Y/X:	N 599574.900 ftUS, E 664399.500 ftUS	**North Reference:**	Grid North
CRS Grid Convergence Angle:	0.2157 °	**Grid Convergence Used:**	0.2157 °
Grid Scale Factor:	0.99992643	**Total Corr Mag North->Grid North:**	7.5179 °
		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 Hackberry 23 Federal #1H	0.00	0.00	269.91	0.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	N/A
	100.00	0.00	269.91	100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	200.00	0.00	269.91	200.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	300.00	0.00	269.91	300.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	400.00	0.00	269.91	400.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	500.00	0.00	269.91	500.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	600.00	0.00	269.91	600.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	700.00	0.00	269.91	700.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	800.00	0.00	269.91	800.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	900.00	0.00	269.91	900.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1000.00	0.00	269.91	1000.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1100.00	0.00	269.91	1100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1200.00	0.00	269.91	1200.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1300.00	0.00	269.91	1300.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1400.00	0.00	269.91	1400.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1500.00	0.00	269.91	1500.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1600.00	0.00	269.91	1600.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1700.00	0.00	269.91	1700.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1800.00	0.00	269.91	1800.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	1900.00	0.00	269.91	1900.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2000.00	0.00	269.91	2000.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2100.00	0.00	269.91	2100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2200.00	0.00	269.91	2200.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2300.00	0.00	269.91	2300.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2400.00	0.00	269.91	2400.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2500.00	0.00	269.91	2500.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2600.00	0.00	269.91	2600.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2700.00	0.00	269.91	2700.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	2800.00	0.00	269.91	2800.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	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)
	2900.00	0.00	269.91	2900.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3000.00	0.00	269.91	3000.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3100.00	0.00	269.91	3100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3200.00	0.00	269.91	3200.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3300.00	0.00	269.91	3300.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3400.00	0.00	269.91	3400.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3500.00	0.00	269.91	3500.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3600.00	0.00	269.91	3600.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3700.00	0.00	269.91	3700.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3800.00	0.00	269.91	3800.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	3900.00	0.00	269.91	3900.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4000.00	0.00	269.91	4000.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4100.00	0.00	269.91	4100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4200.00	0.00	269.91	4200.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4300.00	0.00	269.91	4300.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4400.00	0.00	269.91	4400.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4500.00	0.00	269.91	4500.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4600.00	0.00	269.91	4600.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4700.00	0.00	269.91	4700.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4800.00	0.00	269.91	4800.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	4900.00	0.00	269.91	4900.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5000.00	0.00	269.91	5000.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5100.00	0.00	269.91	5100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5200.00	0.00	269.91	5200.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5300.00	0.00	269.91	5300.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5400.00	0.00	269.91	5400.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5500.00	0.00	269.91	5500.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5600.00	0.00	269.91	5600.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5700.00	0.00	269.91	5700.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5800.00	0.00	269.91	5800.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	5900.00	0.00	269.91	5900.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6000.00	0.00	269.91	6000.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6100.00	0.00	269.91	6100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6200.00	0.00	269.91	6200.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6300.00	0.00	269.91	6300.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6400.00	0.00	269.91	6400.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6500.00	0.00	269.91	6500.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6600.00	0.00	269.91	6600.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6700.00	0.00	269.91	6700.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6800.00	0.00	269.91	6800.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	6900.00	0.00	269.91	6900.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7000.00	0.00	269.91	7000.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7100.00	0.00	269.91	7100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7200.00	0.00	269.91	7200.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7300.00	0.00	269.91	7300.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7400.00	0.00	269.91	7400.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7500.00	0.00	269.91	7500.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7600.00	0.00	269.91	7600.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7700.00	0.00	269.91	7700.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7800.00	0.00	269.91	7800.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	7900.00	0.00	269.91	7900.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	8000.00	0.00	269.91	8000.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
	8100.00	0.00	269.91	8100.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	0.00
KOP - Build @ 12°/100' DLS	8102.00	0.00	269.91	8102.00	0.00	0.00	0.00	599574.90	664399.50	N 32 38 51.51	W 103 56 0.63	0.00	0.00	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)
	8200.00	11.75	269.91	8199.31	10.01	-0.02	-10.01	599574.88	664389.49	N 32 38 51.51	W 103 56 0.75	10.01	269.91	11.99
	8300.00	23.73	269.91	8294.39	40.43	-0.07	-40.43	599574.83	664359.08	N 32 38 51.51	W 103 56 1.11	40.43	269.91	11.99
	8400.00	35.72	269.91	8381.07	89.92	-0.15	-89.92	599574.75	664309.59	N 32 38 51.51	W 103 56 1.69	89.92	269.91	11.99
	8500.00	47.71	269.91	8455.58	156.34	-0.26	-156.34	599574.64	664243.17	N 32 38 51.52	W 103 56 2.46	156.34	269.91	11.99
	8600.00	59.69	269.91	8514.67	236.79	-0.39	-236.79	599574.51	664162.73	N 32 38 51.52	W 103 56 3.40	236.79	269.91	11.99
	8700.00	71.68	269.91	8555.77	327.75	-0.54	-327.75	599574.36	664071.77	N 32 38 51.52	W 103 56 4.47	327.75	269.91	11.99
	8800.00	83.67	269.91	8577.08	425.27	-0.70	-425.27	599574.20	663974.27	N 32 38 51.52	W 103 56 5.61	425.27	269.91	11.99
Landing Point	8852.84	90.00	269.91	8580.00	478.00	-0.78	-478.00	599574.12	663921.54	N 32 38 51.52	W 103 56 6.22	478.00	269.91	11.99
	8900.00	90.00	269.91	8580.00	525.16	-0.86	-525.16	599574.04	663874.38	N 32 38 51.52	W 103 56 6.78	525.16	269.91	0.00
	9000.00	90.00	269.91	8580.00	625.16	-1.03	-625.16	599573.87	663774.39	N 32 38 51.53	W 103 56 7.94	625.16	269.91	0.00
	9100.00	90.00	269.91	8580.00	725.16	-1.19	-725.16	599573.71	663674.40	N 32 38 51.53	W 103 56 9.11	725.16	269.91	0.00
	9200.00	90.00	269.91	8580.00	825.16	-1.35	-825.16	599573.55	663574.40	N 32 38 51.53	W 103 56 10.28	825.16	269.91	0.00
	9300.00	90.00	269.91	8580.00	925.16	-1.52	-925.16	599573.38	663474.41	N 32 38 51.53	W 103 56 11.45	925.16	269.91	0.00
	9400.00	90.00	269.91	8580.00	1025.16	-1.68	-1025.16	599573.22	663374.42	N 32 38 51.53	W 103 56 12.62	1025.16	269.91	0.00
	9500.00	90.00	269.91	8580.00	1125.16	-1.84	-1125.16	599573.06	663274.43	N 32 38 51.54	W 103 56 13.79	1125.16	269.91	0.00
	9600.00	90.00	269.91	8580.00	1225.16	-2.01	-1225.16	599572.89	663174.43	N 32 38 51.54	W 103 56 14.96	1225.16	269.91	0.00
	9700.00	90.00	269.91	8580.00	1325.16	-2.17	-1325.16	599572.73	663074.44	N 32 38 51.54	W 103 56 16.13	1325.16	269.91	0.00
	9800.00	90.00	269.91	8580.00	1425.16	-2.34	-1425.16	599572.56	662974.45	N 32 38 51.54	W 103 56 17.30	1425.16	269.91	0.00
	9900.00	90.00	269.91	8580.00	1525.16	-2.50	-1525.16	599572.40	662874.46	N 32 38 51.54	W 103 56 18.47	1525.16	269.91	0.00
	10000.00	90.00	269.91	8580.00	1625.16	-2.66	-1625.16	599572.24	662774.47	N 32 38 51.55	W 103 56 19.64	1625.16	269.91	0.00
	10100.00	90.00	269.91	8580.00	1725.16	-2.83	-1725.16	599572.07	662674.47	N 32 38 51.55	W 103 56 20.81	1725.16	269.91	0.00
	10200.00	90.00	269.91	8580.00	1825.16	-2.99	-1825.16	599571.91	662574.48	N 32 38 51.55	W 103 56 21.98	1825.16	269.91	0.00
	10300.00	90.00	269.91	8580.00	1925.16	-3.16	-1925.16	599571.74	662474.49	N 32 38 51.55	W 103 56 23.15	1925.16	269.91	0.00
	10400.00	90.00	269.91	8580.00	2025.16	-3.32	-2025.16	599571.58	662374.50	N 32 38 51.55	W 103 56 24.32	2025.16	269.91	0.00
	10500.00	90.00	269.91	8580.00	2125.16	-3.48	-2125.16	599571.42	662274.50	N 32 38 51.56	W 103 56 25.49	2125.16	269.91	0.00
	10600.00	90.00	269.91	8580.00	2225.16	-3.65	-2225.16	599571.25	662174.51	N 32 38 51.56	W 103 56 26.66	2225.16	269.91	0.00
	10700.00	90.00	269.91	8580.00	2325.16	-3.81	-2325.16	599571.09	662074.52	N 32 38 51.56	W 103 56 27.83	2325.16	269.91	0.00
	10800.00	90.00	269.91	8580.00	2425.16	-3.98	-2425.16	599570.92	661974.53	N 32 38 51.56	W 103 56 29.00	2425.16	269.91	0.00
	10900.00	90.00	269.91	8580.00	2525.16	-4.14	-2525.16	599570.76	661874.53	N 32 38 51.56	W 103 56 30.17	2525.16	269.91	0.00
	11000.00	90.00	269.91	8580.00	2625.16	-4.30	-2625.16	599570.60	661774.54	N 32 38 51.57	W 103 56 31.34	2625.16	269.91	0.00
	11100.00	90.00	269.91	8580.00	2725.16	-4.47	-2725.16	599570.43	661674.55	N 32 38 51.57	W 103 56 32.50	2725.16	269.91	0.00
	11200.00	90.00	269.91	8580.00	2825.16	-4.63	-2825.16	599570.27	661574.56	N 32 38 51.57	W 103 56 33.67	2825.16	269.91	0.00
	11300.00	90.00	269.91	8580.00	2925.16	-4.79	-2925.16	599570.11	661474.57	N 32 38 51.57	W 103 56 34.84	2925.16	269.91	0.00
	11400.00	90.00	269.91	8580.00	3025.16	-4.96	-3025.16	599569.94	661374.57	N 32 38 51.58	W 103 56 36.01	3025.16	269.91	0.00
	11500.00	90.00	269.91	8580.00	3125.16	-5.12	-3125.16	599569.78	661274.58	N 32 38 51.58	W 103 56 37.18	3125.16	269.91	0.00
	11600.00	90.00	269.91	8580.00	3225.16	-5.29	-3225.16	599569.61	661174.59	N 32 38 51.58	W 103 56 38.35	3225.16	269.91	0.00
	11700.00	90.00	269.91	8580.00	3325.16	-5.45	-3325.15	599569.45	661074.60	N 32 38 51.58	W 103 56 39.52	3325.16	269.91	0.00
	11800.00	90.00	269.91	8580.00	3425.16	-5.61	-3425.15	599569.29	660974.60	N 32 38 51.58	W 103 56 40.69	3425.16	269.91	0.00
	11900.00	90.00	269.91	8580.00	3525.16	-5.78	-3525.15	599569.12	660874.61	N 32 38 51.59	W 103 56 41.86	3525.16	269.91	0.00
	12000.00	90.00	269.91	8580.00	3625.16	-5.94	-3625.15	599568.96	660774.62	N 32 38 51.59	W 103 56 43.03	3625.16	269.91	0.00
	12100.00	90.00	269.91	8580.00	3725.16	-6.11	-3725.15	599568.79	660674.63	N 32 38 51.59	W 103 56 44.20	3725.16	269.91	0.00
	12200.00	90.00	269.91	8580.00	3825.16	-6.27	-3825.15	599568.63	660574.63	N 32 38 51.59	W 103 56 45.37	3825.16	269.91	0.00
	12300.00	90.00	269.91	8580.00	3925.16	-6.43	-3925.15	599568.47	660474.64	N 32 38 51.59	W 103 56 46.54	3925.16	269.91	0.00
	12400.00	90.00	269.91	8580.00	4025.16	-6.60	-4025.15	599568.30	660374.65	N 32 38 51.60	W 103 56 47.71	4025.16	269.91	0.00
	12500.00	90.00	269.91	8580.00	4125.16	-6.76	-4125.15	599568.14	660274.66	N 32 38 51.60	W 103 56 48.88	4125.16	269.91	0.00
	12600.00	90.00	269.91	8580.00	4225.16	-6.93	-4225.15	599567.97	660174.67	N 32 38 51.60	W 103 56 50.05	4225.16	269.91	0.00
	12700.00	90.00	269.91	8580.00	4325.16	-7.09	-4325.15	599567.81	660074.67	N 32 38 51.60	W 103 56 51.22	4325.16	269.91	0.00
	12800.00	90.00	269.91	8580.00	4425.16	-7.25	-4425.15	599567.65	659974.68	N 32 38 51.60	W 103 56 52.39	4425.16	269.91	0.00
	12900.00	90.00	269.91	8580.00	4525.16	-7.42	-4525.15	599567.48	659874.69	N 32 38 51.60	W 103 56 53.56	4525.16	269.91	0.00
	13000.00	90.00	269.91	8580.00	4625.16	-7.58	-4625.15	599567.32	659774.70	N 32 38 51.61	W 103 56 54.73	4625.16	269.91	0.00
	13100.00	90.00	269.91	8580.00	4725.16	-7.75	-4725.15	599567.16	659674.70	N 32 38 51.61	W 103 56 55.90	4725.16	269.91	0.00
	13200.00	90.00	269.91	8580.00	4825.16	-7.91	-4825.15	599566.99	659574.71	N 32 38 51.61	W 103 56 57.06	4825.16	269.91	0.00
	13300.00	90.00	269.91	8580.00	4925.16	-8.07	-4925.15	599566.83	659474.72	N 32 38 51.61	W 103 56 58.23	4925.16	269.91	0.00
	13400.00	90.00	269.91	8580.00	5025.16	-8.24	-5025.15	599566.66	659374.73	N 32 38 51.61	W 103 56 59.40	5025.16	269.91	0.00
	13500.00	90.00	269.91	8580.00	5125.16	-8.40	-5125.15	599566.50	659274.73	N 32 38 51.62	W 103 57 0.57	5125.16	269.91	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)
Cimarex Hackberry 23 Federal #1H	13500.03	90.00	269.91	8580.00	5125.19	-8.40	-5125.19	599566.50	659274.70	N 32 38 51.62	W 103 57 0.57	5125.19	269.91	0.00

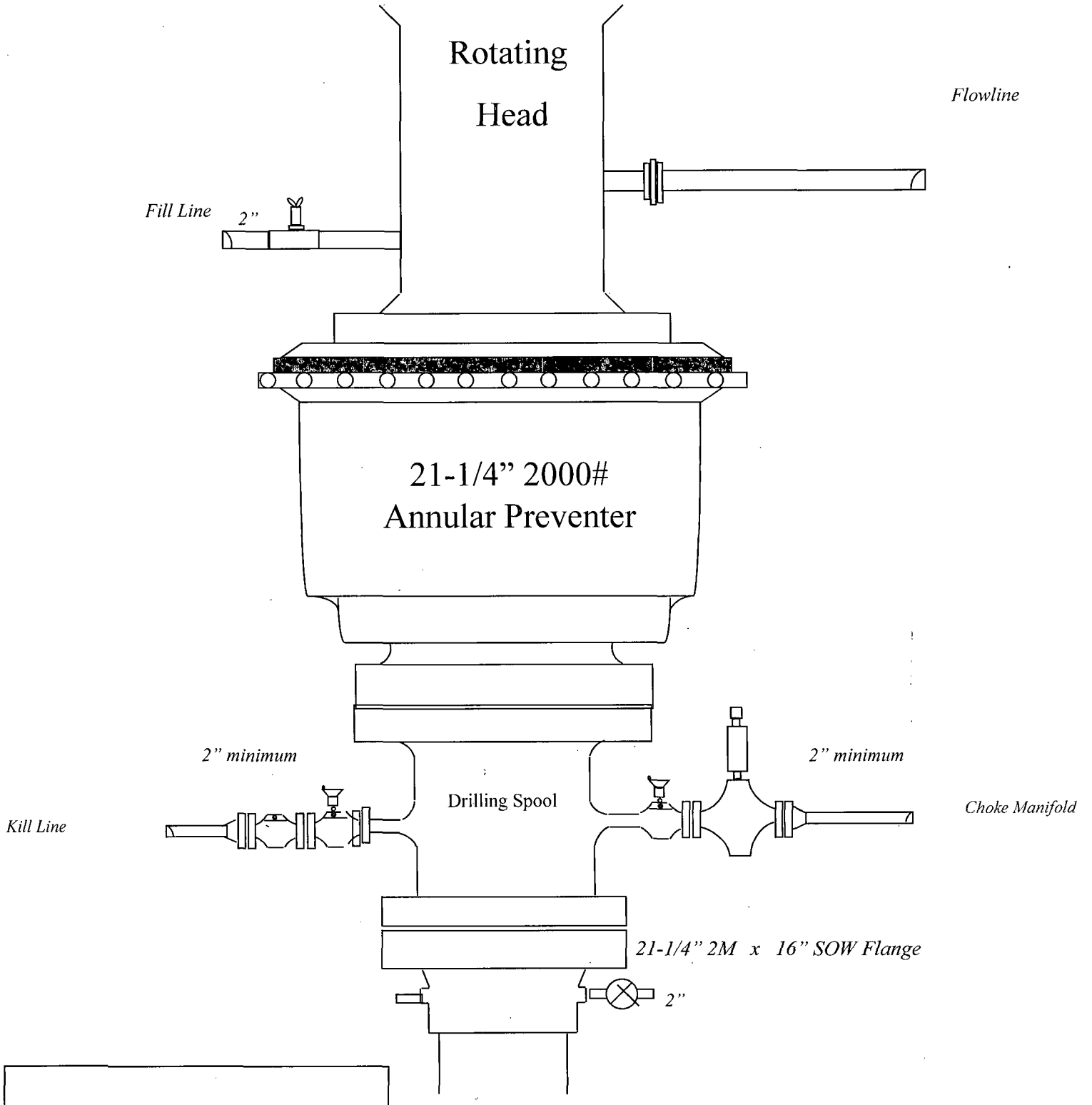
Survey Type: Non-Def Plan

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

Survey Program:

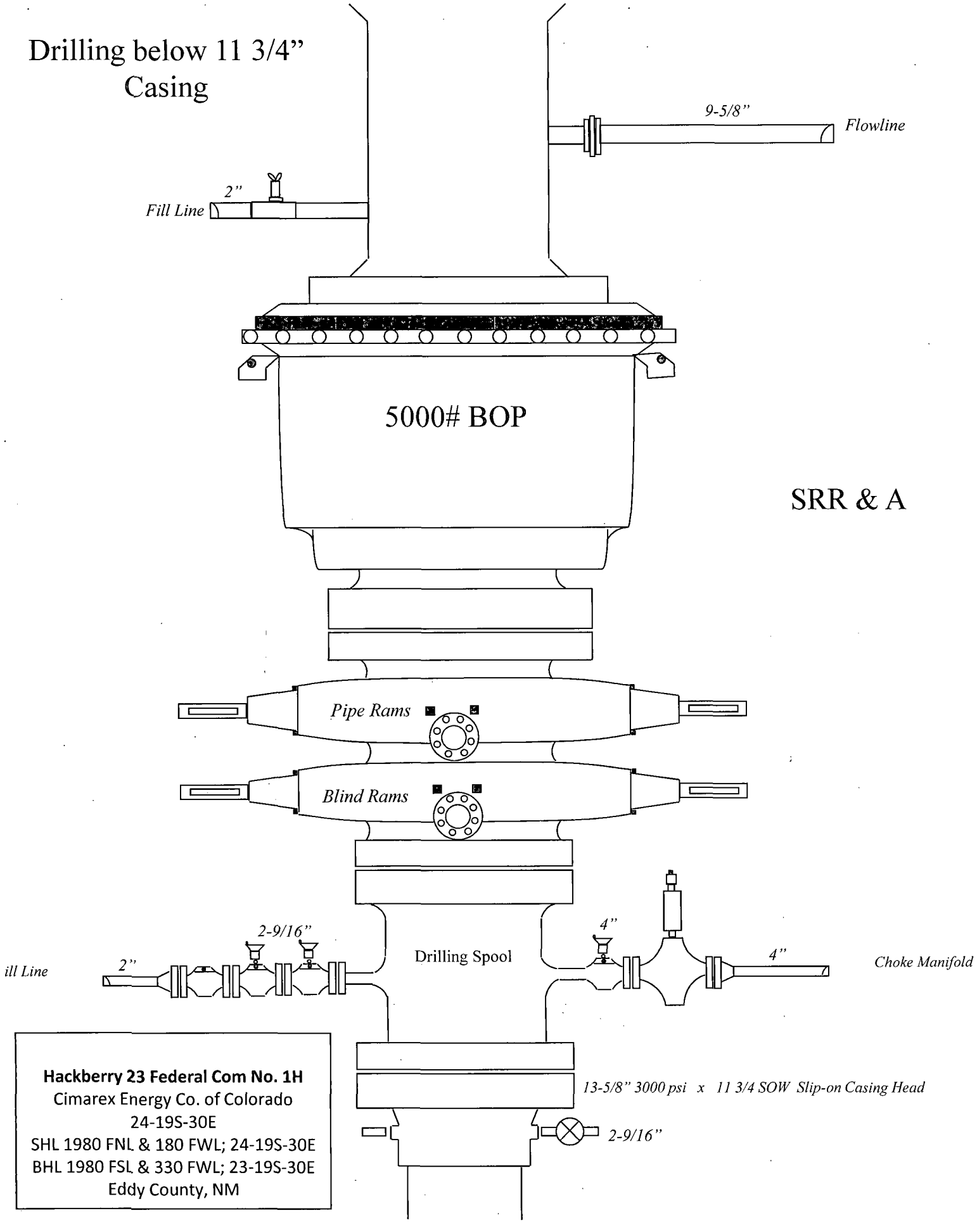
Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	13500.035	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Hackberry 23 Federal #1H Rev0

2M BOP to be installed on 16" Casing



Hackberry 23 Federal Com No. 1H
Cimarex Energy Co. of Colorado
24-19S-30E
SHL 1980 FNL & 180 FWL; 24-19S-30E
BHL 1980 FSL & 330 FWL; 23-19S-30E
Eddy County, NM

Drilling below 11 3/4" Casing

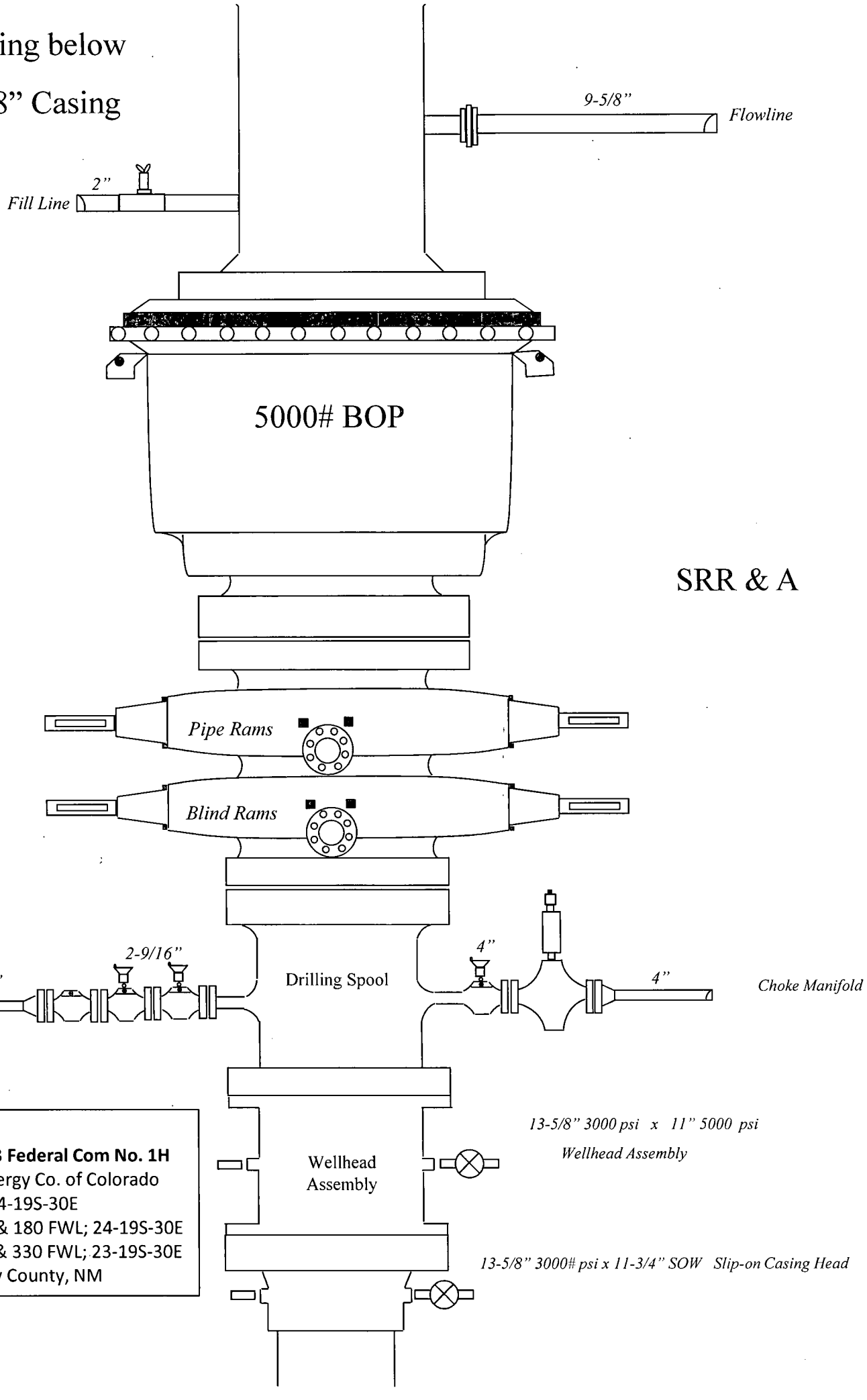


SRR & A

Hackberry 23 Federal Com No. 1H
Cimarex Energy Co. of Colorado
24-19S-30E
SHL 1980 FNL & 180 FWL; 24-19S-30E
BHL 1980 FSL & 330 FWL; 23-19S-30E
Eddy County, NM

Drilling below

8 5/8" Casing

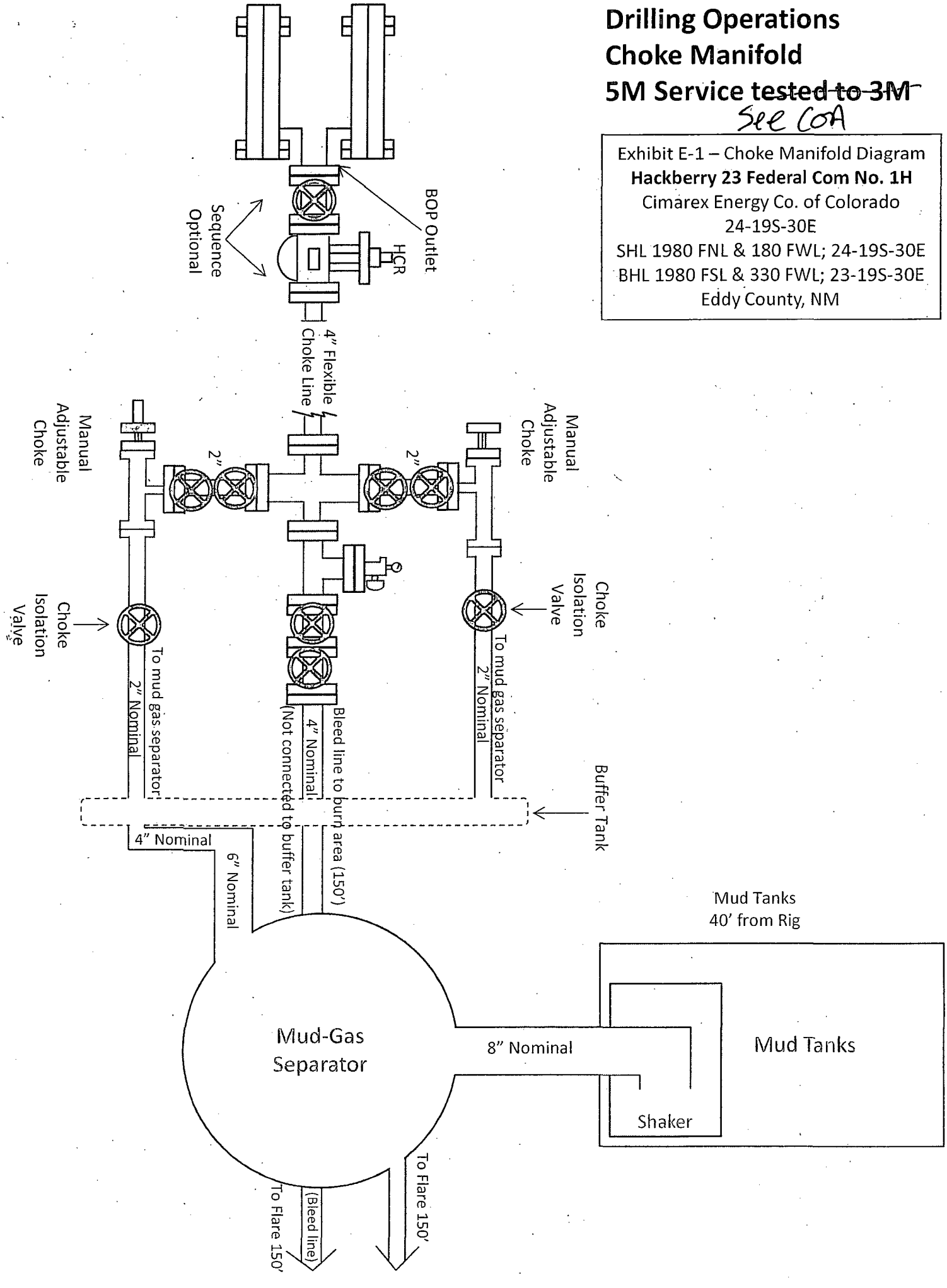


SRR & A

Hackberry 23 Federal Com No. 1H
Cimarex Energy Co. of Colorado
24-19S-30E
SHL 1980 FNL & 180 FWL; 24-19S-30E
BHL 1980 FSL & 330 FWL; 23-19S-30E
Eddy County, NM

Drilling Operations
Choke Manifold
5M Service ~~tested to 3M~~ See COA

Exhibit E-1 – Choke Manifold Diagram
Hackberry 23 Federal Com No. 1H
Cimarex Energy Co. of Colorado
24-19S-30E
SHL 1980 FNL & 180 FWL; 24-19S-30E
BHL 1980 FSL & 330 FWL; 23-19S-30E
Eddy County, NM



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer:	PO
DEM	ODYD-271

SPECIFICATIONS

Sales Order	Dated:
79793	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:	Date:
Jamal Hancin	3/8/2011

Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
Oderco Inc	odyd-271

HOSE SPECIFICATIONS

Type:	Hose Length:
Stainless Steel Armor Choke & Kill Hose	45'ft.

I.D.	O.D.
4 *INCHES*	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

Hose assembly pressure tested with water at ambient temperature.

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	A. Jairo Sanchez	

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

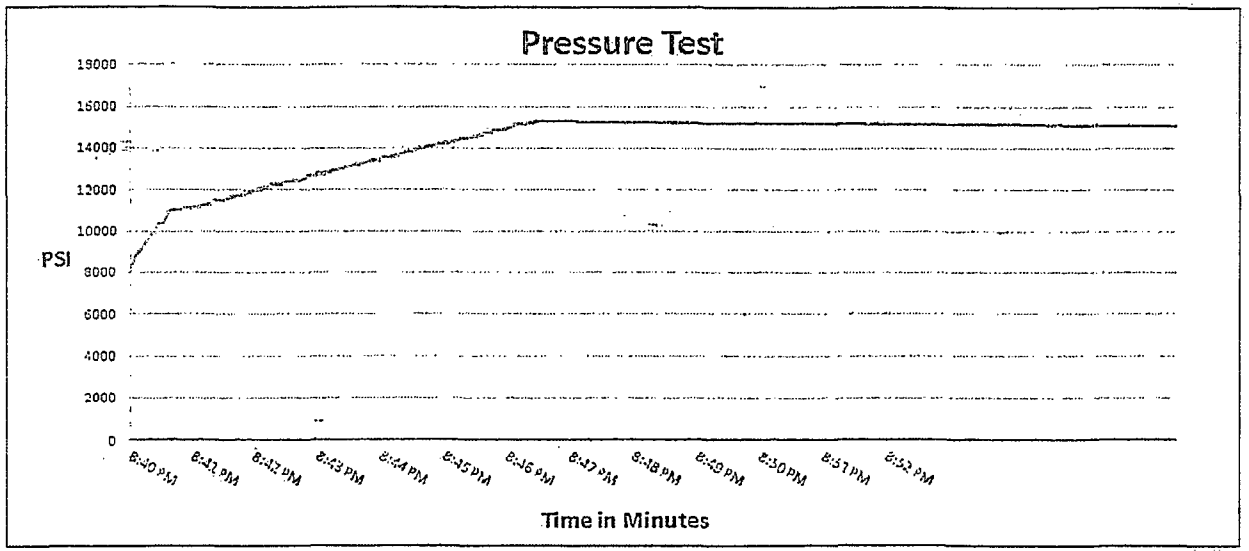
Pick Ticket #: 94260

Hose Specifications

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

Verification

Type of Fitting	Coupling Method
4 1/16 10K	Swage
Die Size	Final O.D.
6.38"	6.25"
Hose Serial #	Hose Assembly Serial #
5544	79793

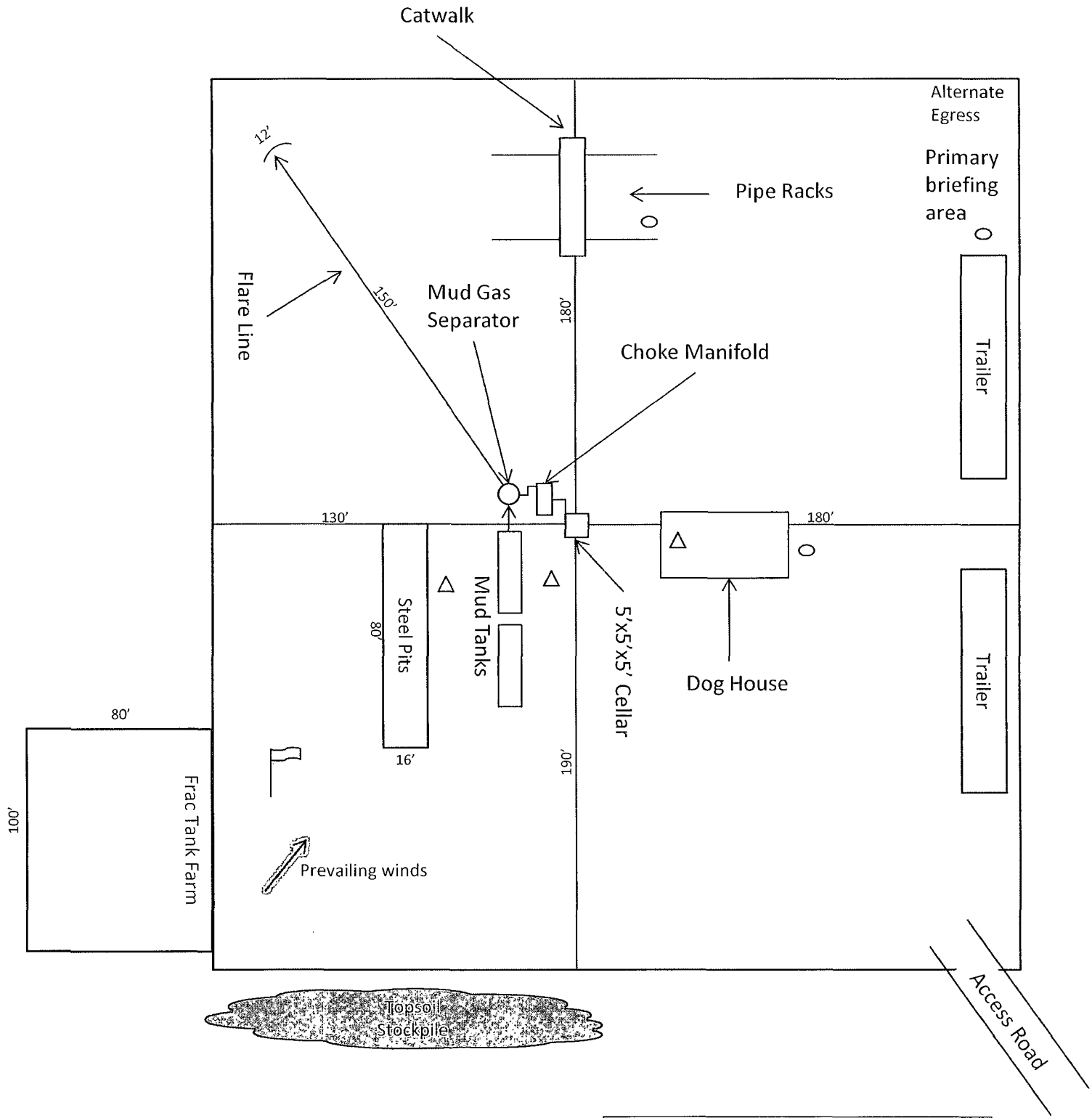


Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 Minutes		15483 PSI

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

Tested By: *Zac Mcconnell*

Approved By: *Kim Thomas*



Wind Direction Indicators (wind sock or streamers)

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

Briefing Areas

N

Exhibit D – Rig Diagram
Hackberry 23 Federal Com No. 1H
Cimarex Energy Co. of Colorado
24-19S-30E
SHL 1980 FNL & 180 FWL; 24-19S-30E
BHL 1980 FSL & 330 FWL; 23-19S-30E
Eddy County, NM

Hydrogen Sulfide Drilling Operations Plan
Hackberry 23 Federal Com 1H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T19S-R30E, Lea County, NM

HOBBS OCD
FEB 11 2013
RECEIVED

1 All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:
   A. Characteristics of H_2S
   B. Physical effects and hazards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2 **H_2S Detection and Alarm Systems:**
   A. H_2S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.

3 **Windsock and/or wind streamers:**
   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.

4 **Condition Flags and Signs:**
   A. Warning sign on access road to location.
   B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H_2S present in dangerous concentration). Only emergency personnel admitted to location.

5 **Well control equipment:**
   A. See exhibit "E"

6 **Communication:**
   A. While working under masks chalkboards will be used for communication.
   B. Hand signals will be used where chalk board is inappropriate.
   C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 **Drillstem Testing:**
No DSTs or cores are planned at this time.

8 Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9 If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

H_2S Contingency Plan
Hackberry 23 Federal Com 1H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T19S-R30E, Lea County, NM

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must:

- ★ Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- ★ Evacuate any public places encompassed by the 100 ppm ROE.
- ★ Be equipped with H_2S monitors and air packs in order to control the release.
- ★ Use the "buddy system" to ensure no injuries occur during the response.
- ★ Take precautions to avoid personal injury during this operation.
- ★ Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- ★ Have received training in the:
  - ♦ Detection of H_2S, and
  - ♦ Measures for protection against the gas,
  - ♦ Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air=1	2 ppm	N/A	1000 ppm

Contacting Authorities

Stata Production Company's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Stata Production Company's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H_2S Contingency Plan Emergency Contacts
Hackberry 23 Federal Com 1H
Cimarex Energy Co. of Colorado
Unit E, Section 24
T19S-R30E, Lea County, NM

Company Office

Cimarex Energy Co. of Colorado Co. Office and After-Hours Menu	800-969-4789

Key Personnel

Name	Title	Office	Mobile
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8285
Scott Lucas	Drilling Superintendent		432-894-5572
Roy Shirley	Field Superintendent		432-634-2136

Artesia	
Ambulance	911
State Police	575-746-2703
City Police	575-746-2703
Sheriff's Office	575-746-9888
Fire Department	**575-746-2701**
Local Emergency Planning Committee	575-746-2122
New Mexico Oil Conservation Division	575-748-1283

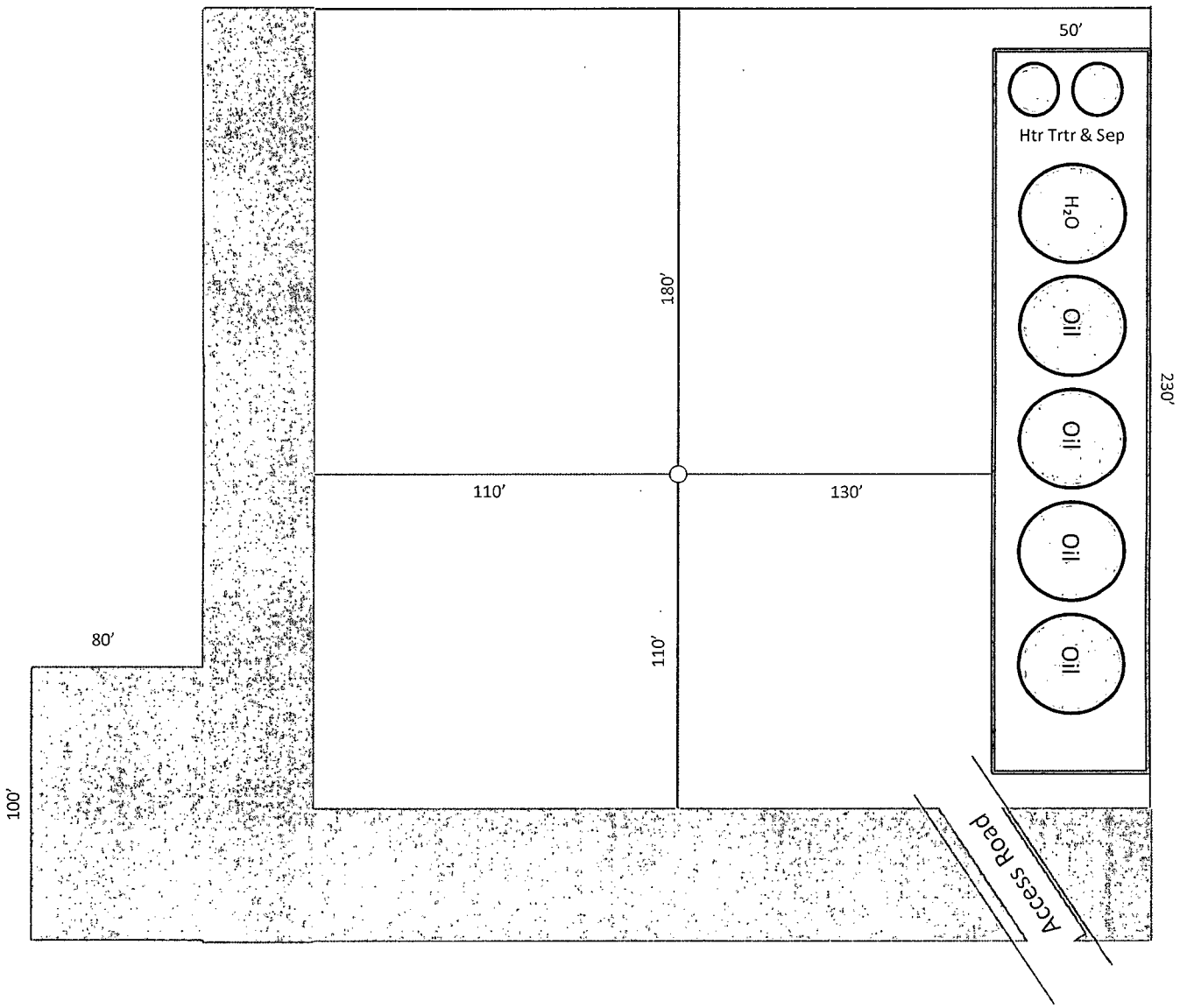
Carlsbad	
Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	**575-887-3798**
Local Emergency Planning Committee	575-887-6544
US Bureau of Land Management	575-887-6544

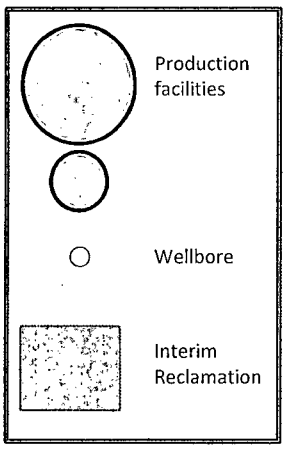
Santa Fe	
New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

National	
National Emergency Response Center (Washington, D.C.)	800-424-8802

Medical	
Flight for Life - 4000 24th St.; Lubbock, TX	806-743-9911
Aerocare - R3, Box 49F; Lubbock, TX	806-747-8923
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM	505-842-4433
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM	505-842-4949

Other			
Boots & Coots IWC	800-256-9688	or	281-931-8884
Cudd Pressure Control	432-699-0139	or	432-563-3356
Halliburton	575-746-2757		
B.J. Services	575-746-3569		





N

Exhibit D-1
Production Facilities and
Interim Reclamation Diagram
Hackberry 23 Federal Com No. 1H
Cimarex Energy Co. of Colorado
24-19S-30E
SHL 1980 FNL & 180 FWL; 24-19S-30E
BHL 1980 FSL & 330 FWL; 23-19S-30E
Eddy County, NM

HOBBS OCD

FEB 11 2013

RECEIVED

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CIMAREX ENERGY
LEASE NO.:	NM4350
WELL NAME & NO.:	1H-HACKBERRY 23 FEDERAL
SURFACE HOLE FOOTAGE:	1980'/N. & 180'/W.
BOTTOM HOLE FOOTAGE	1980'/N. & 330'/W. (Sec. 23)
LOCATION:	Section 24, T. 19 S., R. 30 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.