ATS-14-266

HOBBS OCD
NOV 03 2014
RECEIVED

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SHL: 0559539; BHL: 116573
NM

6. If Indian, Allotee or Tribe Name

1a. Type of Work: [X] DRILL [ ] REENTER

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

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

8. Lease Name and Well No. (313194)
James 20 Federal Com #26H

2. Name of Operator
Cimarex Energy Co. (215099)

9. API Well No.
30-025-42225

3a. Address
202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103

3b. Phone No. *(include area code)*
918-585-1100

10. Field and Pool or Exploratory (53805)
Wildcat Bone Spring South

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

At Surface: 330 FNL & 1980 FWL Unit C

At proposed prod. Zone: 330 FSL & 1980 FWL Unit N *Bone Spring*

11. Sec., T. R. M. or Blk. and Survey and Area
20, 23S, 32E

14. Distance in miles and direction from nearest town or post office*
Malaga, NM is 22.4 miles westerly

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)
330

16. No of acres in lease
NM 0559539=1440.00 acres
NM 116573=40.00 acres

17. Spacing Unit dedicated to this well
160.00

18. Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft.
330' from the # 24

19. Proposed Depth
Pilot Hole TD: 12,150
15,164 MD 10,750 TVD

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3678 GR

22. Approximate date work will start*
1/13/14

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
2. A Drilling Plan
3. A Surface Use Plan (if the location is on National Forest System Lands , the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator Certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature: Hope Knauls
Name *(Printed/Typed)*: Hope Knauls
Date: 12/10/13

Title: Regulatory Compliance

Approved By *(Signature)*: James A. Amos
Name (Printed/Typed)
Date: OCT 30 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.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)

(Instructions on page 2)

Carlsbad Controlled Water Basin

11/03/14

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NOV 04 2014

Application to Drill
James 20 Federal Com #26H
Cimarex Energy Co.
UL: C, Sec. 20, 23S, 32E
Lea Co., 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: 3,678' 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: 15,164 MD 10,750 TVD Pilot Hole TD: 12,150

6. Estimated Tops of Geological Markers:

Formation	Est Top	Bearing
Rustler	1200	N/A
Salt	2300	N/A
Castille	3300	N/A
Base Last Salt	4550	N/A
Lamar	4760	N/A
Bell Canyon	4805	N/A
Cherry Canyon	5630	N/A
Brushy Canyon	6960	N/A
Basal Brushy Canyon	8100	N/A
Bone Spring	8600	Hydrocarbons
Avalon Shale	9100	Hydrocarbons
1st BSS	9800	Hydrocarbons
2nd BSS	10475	Hydrocarbons
3rd BS Carbonate	10925	Hydrocarbons
3rd BSS	11650	Hydrocarbons
Wolfcamp	12000	Hydrocarbons

7. Possible Mineral Bearing Formation: Shown above

7A. OSE Ground Water Estimated Depth: 400'

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	Conditon	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	1250	1250	17 1/2	13-3/8"	48.00	H-40	ST&C	New	539	8.3	1.37		3.21	60,000	52,397	6.15
Intermediate	0	~~4775~~ 4700	~~4775~~ 4700	12 1/4	9-5/8"	40.00	J-55	LT&C	New	2483	10.0		1.22	1.59	191,000	161,840	3.21
Production	0	10273	10273	8 3/4	5-1/2"	17.00	L-80	LT&C	New	4807	9.0	1.31		1.61	182,750	157,639	2.14
Production	10273	15164	10750	8 3/4	5-1/2"	17.00	L-80	BT&C	New	5031	9.0	1.25		1.54	8,109	6,995	56.76

See COA

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
James 20 Federal Com #26H
Cimarex Energy Co.
UL: C, Sec. 20, 23S, 32E
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	794	1.75	13.50	1389	Class C + Bentonite + Calcium Chloride + LCM, 8.829 gps water
	Tail	162	1.34	14.80	217	Class C + LCM, 6.32 gps water
	TOC: 0		**85% Excess**			**Centralizers per Onshore Order 2.III.B.1f**
Intermediate	Lead	1065	1.88	12.90	2002	35:65 (poz/C) + Salt + Bentonite + LCM + retarder, 9.65 gps water
	Tail	279	1.34	14.80	373	Class C + retarder + LCM, 6.32 gps water
	TOC: 0		**80% Excess**			
Production	Lead	679	2.40	11.90	1629	35:65 (poz/H) + salt + Sodium Metasilcate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder, 13.80 gps water
See COA	Tail	1374	1.24	14.50	1703	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder, 5.55 gps water
	TOC: 4575		**25% 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: 12,150' KOP: 10,273' EOC: 11,023'

Set OH mechanical whipstock w/ 1827 ft of 2.875 tubing and pump 30 bbls of Mudpush @ 12 ppg, followed by 833 sks Type H cement, dispersant 0.080 gals/sk, retarder 0.045 gals/sk @ 17.50 ppg, 0.94 cuft/sk, & 0% excess from pilot hole TD to KOP. KO lateral and drill through the curve to TD. Run production csg to TD and cement.

Application to Drill
James 20 Federal Com #26H
Cimarex Energy Co.
UL: C, Sec. 20, 23S, 32E
Lea Co., NM

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.

11. Proposed Mud Circulating System:

Depth	Mud Weight	Visc	Fluid Loss	Type Mud
0' to 1250'	8.30	28	NC	FW Spud Mud
1250' to 4775' 4700	10.00	30-32	NC	Brine Water
4775' to 15164'	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 4775 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 H_2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H_2S Safety package on all wells, attached is an "H_2S 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: 4838 psi Estimated BHT: 166°

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 potentialed as **Oil**

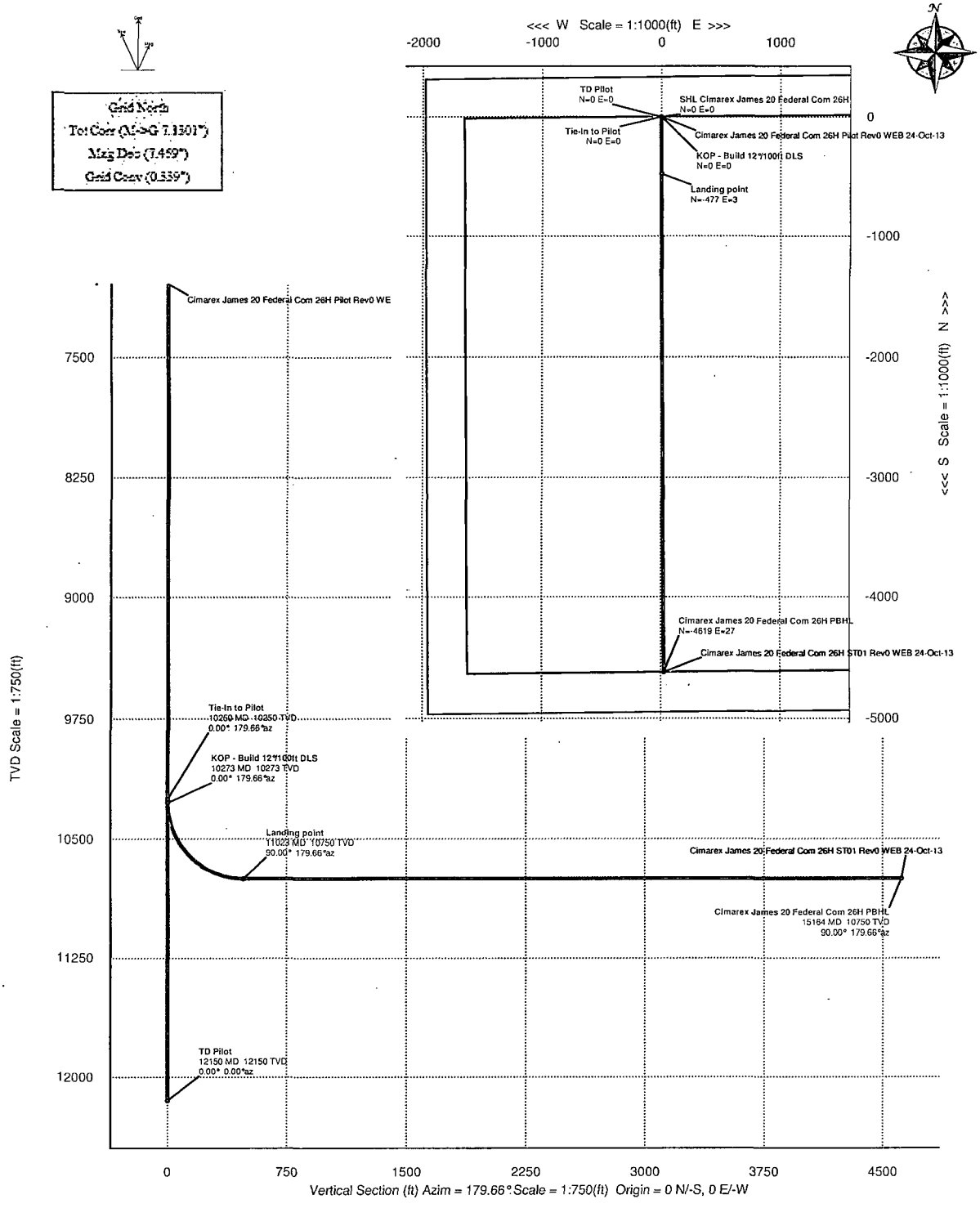
Cimarex

PATHFINDER
A Schlumberger Company

WELL	FIELD	STRUCTURE
James 20 Federal Com 26H	NM Lea County	TBD

Magnetic Parameters				Surface Location					Miscellaneous	
Model: BGGM 2013	Dip: 60.161°	Date: October 24, 2013		Lat: N 32 17 46.951	Northing: 472134.04 flUS	Grid Conv: 0.339°			Slot:	Cimarex James 20 Federal Com26H: Ground level(3678ft above MSL)
	Mag Dec: 7.469°	FS: 48393.7nT		Lon: W 103 41 55.689	Easting: 737400.86 flUS	Scale Fact: 0.99995312			Plan:	ST01 Rev0 WEB 24-Oct-13 Srvy Date: October 24, 2013

NADB3 New Mexico State Plane, Eastern Zone, US Feet



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+) / S(-)	E(+) / W(-)	DLS
Tie-In to Pilot	10250.00	0.00	179.66	10250.00	0.00	0.00	0.00	
KOP - Build 12°/100ft DLS	10272.54	0.00	179.66	10272.54	0.00	0.00	0.00	0.00
Landing point	11022.54	90.00	179.66	10750.00	477.47	-477.46	2.79	12.00
Cimarex James 20 Federal 26H PBHL	15164.11	90.00	179.66	10750.00	4619.03	-4618.96	27.03	0.00

Cimarex James 20 Federal Com 26H ST01 Rev0 WEB 24-Oct-13 Proposal
Report 100' Interpolated
(Non-Def Plan)

PATHFINDER
A Schlumberger Company

Report Date:	October 24, 2013 - 05:52 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex	**Vertical Section Azimuth:**	179.665 ° (Grid North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	TBD / Cimarex James 20 Federal Com 26H	**TVD Reference Datum:**	Ground level
Well:	Cimarex James 20 Federal Com 26H	**TVD Reference Elevation:**	3678.000 ft above MSL
Borehole:	ST01 Borehole	**Seabed / Ground Elevation:**	3678.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.469 °
Survey Name:	Cimarex James 20 Federal Com 26H ST01 Rev0 WEB 24-Oct-13	**Total Gravity Field Strength:**	998.4670mgn (9.80665 Based)
Survey Date:	October 24, 2013	**Total Magnetic Field Strength:**	48393.674 nT
Tort / AHD / DDI / ERD Ratio:	90.000 ° / 4619.035 ft / 5.768 / 0.430	**Magnetic Dip Angle:**	60.161 °
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Declination Date:**	October 24, 2013
Location Lat / Long:	N 32° 17' 46.95135", W 103° 41' 55.68895"	**Magnetic Declination Model:**	BGGM 2013
Location Grid N/E Y/X:	N 472134.040 ftUS, E 737400.880 ftUS	**North Reference:**	Grid North
CRS Grid Convergence Angle:	0.3390 °	**Grid Convergence Used:**	0.3390 °
Grid Scale Factor:	0.99995312	**Total Corr Mag North->Grid North:**	7.1301 °
		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 Cimarex James 20 Federal Com 26H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	N/A
	100.00	0.00	179.66	100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	200.00	0.00	179.66	200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	300.00	0.00	179.66	300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	400.00	0.00	179.66	400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	500.00	0.00	179.66	500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	600.00	0.00	179.66	600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	700.00	0.00	179.66	700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	800.00	0.00	179.66	800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	900.00	0.00	179.66	900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1000.00	0.00	179.66	1000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1100.00	0.00	179.66	1100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1200.00	0.00	179.66	1200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1300.00	0.00	179.66	1300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1400.00	0.00	179.66	1400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1500.00	0.00	179.66	1500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1600.00	0.00	179.66	1600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1700.00	0.00	179.66	1700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1800.00	0.00	179.66	1800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	1900.00	0.00	179.66	1900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2000.00	0.00	179.66	2000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2100.00	0.00	179.66	2100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2200.00	0.00	179.66	2200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2300.00	0.00	179.66	2300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2400.00	0.00	179.66	2400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2500.00	0.00	179.66	2500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2600.00	0.00	179.66	2600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2700.00	0.00	179.66	2700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	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)
	2800.00	0.00	179.66	2800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	2900.00	0.00	179.66	2900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3000.00	0.00	179.66	3000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3100.00	0.00	179.66	3100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3200.00	0.00	179.66	3200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3300.00	0.00	179.66	3300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3400.00	0.00	179.66	3400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3500.00	0.00	179.66	3500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3600.00	0.00	179.66	3600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3700.00	0.00	179.66	3700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3800.00	0.00	179.66	3800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	3900.00	0.00	179.66	3900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4000.00	0.00	179.66	4000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4100.00	0.00	179.66	4100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4200.00	0.00	179.66	4200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4300.00	0.00	179.66	4300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4400.00	0.00	179.66	4400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4500.00	0.00	179.66	4500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4600.00	0.00	179.66	4600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4700.00	0.00	179.66	4700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4800.00	0.00	179.66	4800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	4900.00	0.00	179.66	4900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5000.00	0.00	179.66	5000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5100.00	0.00	179.66	5100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5200.00	0.00	179.66	5200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5300.00	0.00	179.66	5300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5400.00	0.00	179.66	5400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5500.00	0.00	179.66	5500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5600.00	0.00	179.66	5600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5700.00	0.00	179.66	5700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5800.00	0.00	179.66	5800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	5900.00	0.00	179.66	5900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6000.00	0.00	179.66	6000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6100.00	0.00	179.66	6100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6200.00	0.00	179.66	6200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6300.00	0.00	179.66	6300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6400.00	0.00	179.66	6400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6500.00	0.00	179.66	6500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6600.00	0.00	179.66	6600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6700.00	0.00	179.66	6700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6800.00	0.00	179.66	6800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	6900.00	0.00	179.66	6900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7000.00	0.00	179.66	7000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7100.00	0.00	179.66	7100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7200.00	0.00	179.66	7200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7300.00	0.00	179.66	7300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7400.00	0.00	179.66	7400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7500.00	0.00	179.66	7500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7600.00	0.00	179.66	7600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7700.00	0.00	179.66	7700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7800.00	0.00	179.66	7800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	7900.00	0.00	179.66	7900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8000.00	0.00	179.66	8000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8100.00	0.00	179.66	8100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8200.00	0.00	179.66	8200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	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)
	8300.00	0.00	179.66	8300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8400.00	0.00	179.66	8400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8500.00	0.00	179.66	8500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8600.00	0.00	179.66	8600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8700.00	0.00	179.66	8700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8800.00	0.00	179.66	8800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	8900.00	0.00	179.66	8900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9000.00	0.00	179.66	9000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9100.00	0.00	179.66	9100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9200.00	0.00	179.66	9200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9300.00	0.00	179.66	9300.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9400.00	0.00	179.66	9400.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9500.00	0.00	179.66	9500.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9600.00	0.00	179.66	9600.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9700.00	0.00	179.66	9700.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9800.00	0.00	179.66	9800.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	9900.00	0.00	179.66	9900.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	10000.00	0.00	179.66	10000.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	10100.00	0.00	179.66	10100.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	10200.00	0.00	179.66	10200.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
Tie-In to Pilot	10250.00	0.00	179.66	10250.00	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
KOP - Build 12°/100ft DLS	10272.54	0.00	179.66	10272.54	0.00	0.00	0.00	472134.04	737400.88	N 32 17 46.95	W 103 41 55.69	0.00	0.00	0.00
	10300.00	3.30	179.66	10299.98	0.79	-0.79	0.00	472133.25	737400.88	N 32 17 46.94	W 103 41 55.69	0.79	179.66	12.00
	10400.00	15.30	179.66	10398.49	16.91	-16.91	0.10	472117.13	737400.98	N 32 17 46.78	W 103 41 55.69	16.91	179.66	12.00
	10500.00	27.30	179.66	10491.49	53.16	-53.16	0.31	472080.88	737401.19	N 32 17 46.43	W 103 41 55.69	53.16	179.66	12.00
	10600.00	39.30	179.66	10574.93	107.96	-107.96	0.63	472026.09	737401.51	N 32 17 45.88	W 103 41 55.69	107.96	179.66	12.00
	10700.00	51.30	179.66	10645.14	178.90	-178.90	1.05	471955.15	737401.93	N 32 17 45.18	W 103 41 55.69	178.90	179.66	12.00
	10800.00	63.30	179.66	10699.08	262.90	-262.89	1.54	471871.16	737402.42	N 32 17 44.35	W 103 41 55.69	262.90	179.66	12.00
	10900.00	75.30	179.66	10734.37	356.27	-356.26	2.08	471777.80	737402.96	N 32 17 43.43	W 103 41 55.69	356.27	179.66	12.00
	11000.00	87.30	179.66	10749.47	454.93	-454.93	2.66	471679.14	737403.54	N 32 17 42.45	W 103 41 55.69	454.93	179.66	12.00
Landing point	11022.54	90.00	179.66	10750.00	477.47	-477.46	2.79	471656.61	737403.67	N 32 17 42.23	W 103 41 55.69	477.47	179.66	12.00
	11100.00	90.00	179.66	10750.00	554.92	-554.92	3.25	471579.15	737404.13	N 32 17 41.46	W 103 41 55.69	554.92	179.66	0.00
	11200.00	90.00	179.66	10750.00	654.92	-654.91	3.83	471479.16	737404.71	N 32 17 40.47	W 103 41 55.69	654.92	179.66	0.00
	11300.00	90.00	179.66	10750.00	754.92	-754.91	4.42	471379.17	737405.30	N 32 17 39.48	W 103 41 55.69	754.92	179.66	0.00
	11400.00	90.00	179.66	10750.00	854.92	-854.91	5.00	471279.17	737405.88	N 32 17 38.49	W 103 41 55.69	854.92	179.66	0.00
	11500.00	90.00	179.66	10750.00	954.92	-954.91	5.59	471179.18	737406.47	N 32 17 37.50	W 103 41 55.69	954.92	179.66	0.00
	11600.00	90.00	179.66	10750.00	1054.92	-1054.91	6.17	471079.18	737407.05	N 32 17 36.51	W 103 41 55.69	1054.92	179.66	0.00
	11700.00	90.00	179.66	10750.00	1154.92	-1154.91	6.76	470979.19	737407.64	N 32 17 35.52	W 103 41 55.69	1154.92	179.66	0.00
	11800.00	90.00	179.66	10750.00	1254.92	-1254.90	7.34	470879.20	737408.22	N 32 17 34.53	W 103 41 55.69	1254.92	179.66	0.00
	11900.00	90.00	179.66	10750.00	1354.92	-1354.90	7.93	470779.20	737408.81	N 32 17 33.54	W 103 41 55.69	1354.92	179.66	0.00
	12000.00	90.00	179.66	10750.00	1454.92	-1454.90	8.51	470679.21	737409.39	N 32 17 32.55	W 103 41 55.69	1454.92	179.66	0.00
	12100.00	90.00	179.66	10750.00	1554.92	-1554.90	9.10	470579.22	737409.98	N 32 17 31.57	W 103 41 55.69	1554.92	179.66	0.00
	12200.00	90.00	179.66	10750.00	1654.92	-1654.90	9.68	470479.22	737410.56	N 32 17 30.58	W 103 41 55.69	1654.92	179.66	0.00
	12300.00	90.00	179.66	10750.00	1754.92	-1754.89	10.27	470379.23	737411.15	N 32 17 29.59	W 103 41 55.69	1754.92	179.66	0.00
	12400.00	90.00	179.66	10750.00	1854.92	-1854.89	10.86	470279.24	737411.73	N 32 17 28.60	W 103 41 55.69	1854.92	179.66	0.00
	12500.00	90.00	179.66	10750.00	1954.92	-1954.89	11.44	470179.24	737412.32	N 32 17 27.61	W 103 41 55.69	1954.92	179.66	0.00
	12600.00	90.00	179.66	10750.00	2054.92	-2054.89	12.03	470079.25	737412.91	N 32 17 26.62	W 103 41 55.69	2054.92	179.66	0.00
	12700.00	90.00	179.66	10750.00	2154.92	-2154.89	12.61	469979.26	737413.49	N 32 17 25.63	W 103 41 55.69	2154.92	179.66	0.00
	12800.00	90.00	179.66	10750.00	2254.92	-2254.89	13.20	469879.26	737414.08	N 32 17 24.64	W 103 41 55.69	2254.92	179.66	0.00
	12900.00	90.00	179.66	10750.00	2354.92	-2354.88	13.78	469779.27	737414.66	N 32 17 23.65	W 103 41 55.69	2354.92	179.66	0.00
	13000.00	90.00	179.66	10750.00	2454.92	-2454.88	14.37	469679.28	737415.25	N 32 17 22.66	W 103 41 55.69	2454.92	179.66	0.00
	13100.00	90.00	179.66	10750.00	2554.92	-2554.88	14.95	469579.28	737415.83	N 32 17 21.67	W 103 41 55.69	2554.92	179.66	0.00
	13200.00	90.00	179.66	10750.00	2654.92	-2654.88	15.54	469479.29	737416.42	N 32 17 20.68	W 103 41 55.69	2654.92	179.66	0.00
	13300.00	90.00	179.66	10750.00	2754.92	-2754.88	16.12	469379.30	737417.00	N 32 17 19.69	W 103 41 55.69	2754.92	179.66	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)
	13400.00	90.00	179.66	10750.00	2854.92	-2854.88	16.71	469279.30	737417.59	N 32 17 18.70	W 103 41 55.69	2854.92	179.66	0.00
	13500.00	90.00	179.66	10750.00	2954.92	-2954.87	17.29	469179.31	737418.17	N 32 17 17.71	W 103 41 55.69	2954.92	179.66	0.00
	13600.00	90.00	179.66	10750.00	3054.92	-3054.87	17.88	469079.32	737418.76	N 32 17 16.72	W 103 41 55.69	3054.92	179.66	0.00
	13700.00	90.00	179.66	10750.00	3154.92	-3154.87	18.46	468979.32	737419.34	N 32 17 15.73	W 103 41 55.69	3154.92	179.66	0.00
	13800.00	90.00	179.66	10750.00	3254.92	-3254.87	19.05	468879.33	737419.93	N 32 17 14.74	W 103 41 55.69	3254.92	179.66	0.00
	13900.00	90.00	179.66	10750.00	3354.92	-3354.87	19.63	468779.34	737420.51	N 32 17 13.75	W 103 41 55.69	3354.92	179.66	0.00
	14000.00	90.00	179.66	10750.00	3454.92	-3454.87	20.22	468679.34	737421.10	N 32 17 12.76	W 103 41 55.69	3454.92	179.66	0.00
	14100.00	90.00	179.66	10750.00	3554.92	-3554.86	20.80	468579.35	737421.68	N 32 17 11.78	W 103 41 55.69	3554.92	179.66	0.00
	14200.00	90.00	179.66	10750.00	3654.92	-3654.86	21.39	468479.36	737422.27	N 32 17 10.79	W 103 41 55.69	3654.92	179.66	0.00
	14300.00	90.00	179.66	10750.00	3754.92	-3754.86	21.97	468379.36	737422.85	N 32 17 9.80	W 103 41 55.69	3754.92	179.66	0.00
	14400.00	90.00	179.66	10750.00	3854.92	-3854.86	22.56	468279.37	737423.44	N 32 17 8.81	W 103 41 55.69	3854.92	179.66	0.00
	14500.00	90.00	179.66	10750.00	3954.92	-3954.86	23.14	468179.38	737424.02	N 32 17 7.82	W 103 41 55.69	3954.92	179.66	0.00
	14600.00	90.00	179.66	10750.00	4054.92	-4054.86	23.73	468079.38	737424.61	N 32 17 6.83	W 103 41 55.69	4054.92	179.66	0.00
	14700.00	90.00	179.66	10750.00	4154.92	-4154.85	24.32	467979.39	737425.19	N 32 17 5.84	W 103 41 55.69	4154.92	179.66	0.00
	14800.00	90.00	179.66	10750.00	4254.92	-4254.85	24.90	467879.40	737425.78	N 32 17 4.85	W 103 41 55.69	4254.92	179.66	0.00
	14900.00	90.00	179.66	10750.00	4354.92	-4354.85	25.49	467779.40	737426.36	N 32 17 3.86	W 103 41 55.69	4354.92	179.66	0.00
	15000.00	90.00	179.66	10750.00	4454.92	-4454.85	26.07	467679.41	737426.95	N 32 17 2.87	W 103 41 55.69	4454.92	179.66	0.00
	15100.00	90.00	179.66	10750.00	4554.92	-4554.85	26.66	467579.42	737427.53	N 32 17 1.88	W 103 41 55.69	4554.92	179.66	0.00
Cimarex James 20 Federal Com 26H PBHL	15164.11	90.00	179.66	10750.00	4619.03	-4618.96	27.03	467515.31	737427.91	N 32 17 1.25	W 103 41 55.69	4619.03	179.66	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	10250.000		1/100.000	30.000	30.000	SLB_MWD-POOR	Pilot Borehole / Cimarex James 20 Federal Com 26H Pilot Rev0
	10250.000	15164.110		1/100.000	30.000	30.000	SLB_MWD-STD	ST01 Borehole / Cimarex James 20 Federal Com 26H ST01 Rev0

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

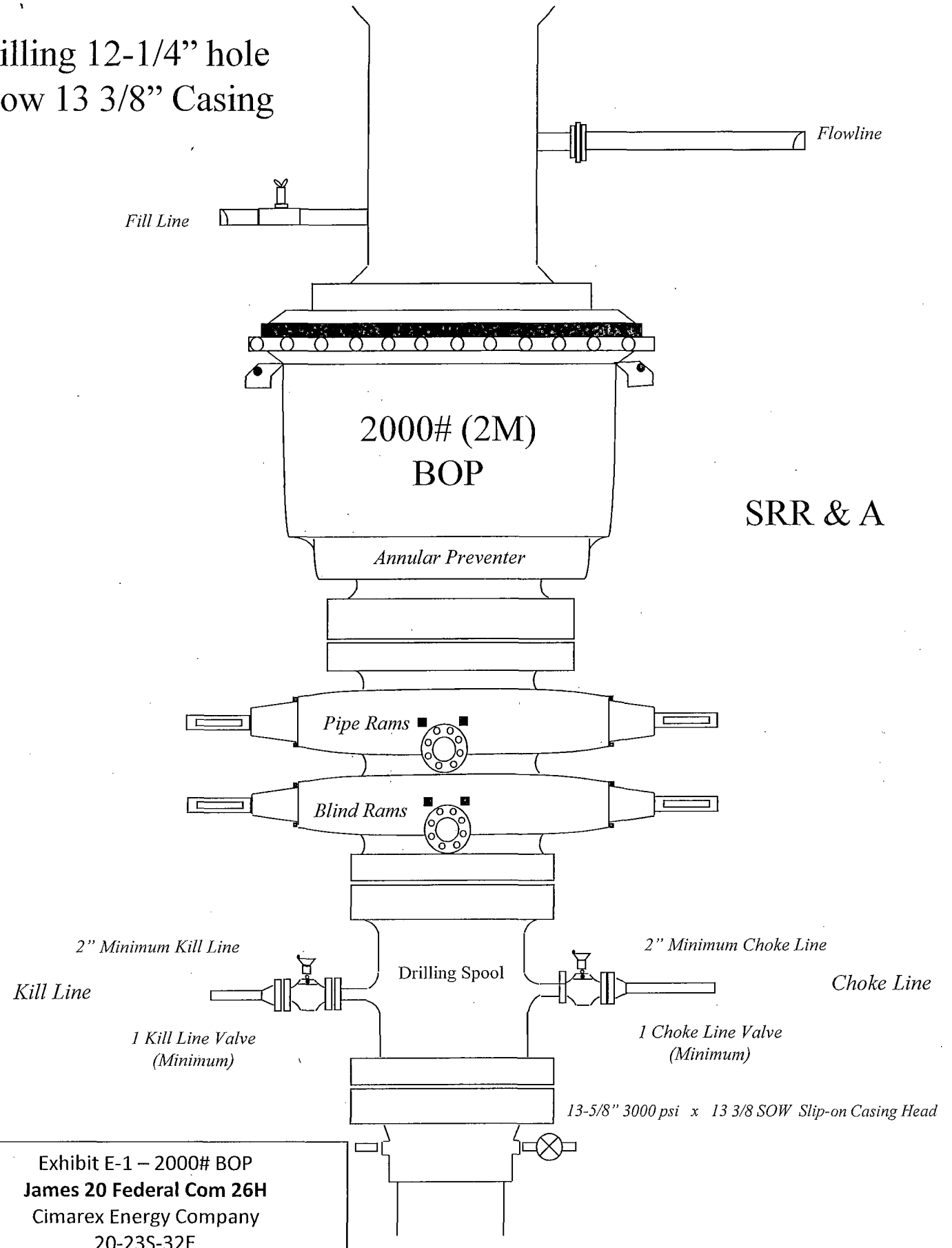
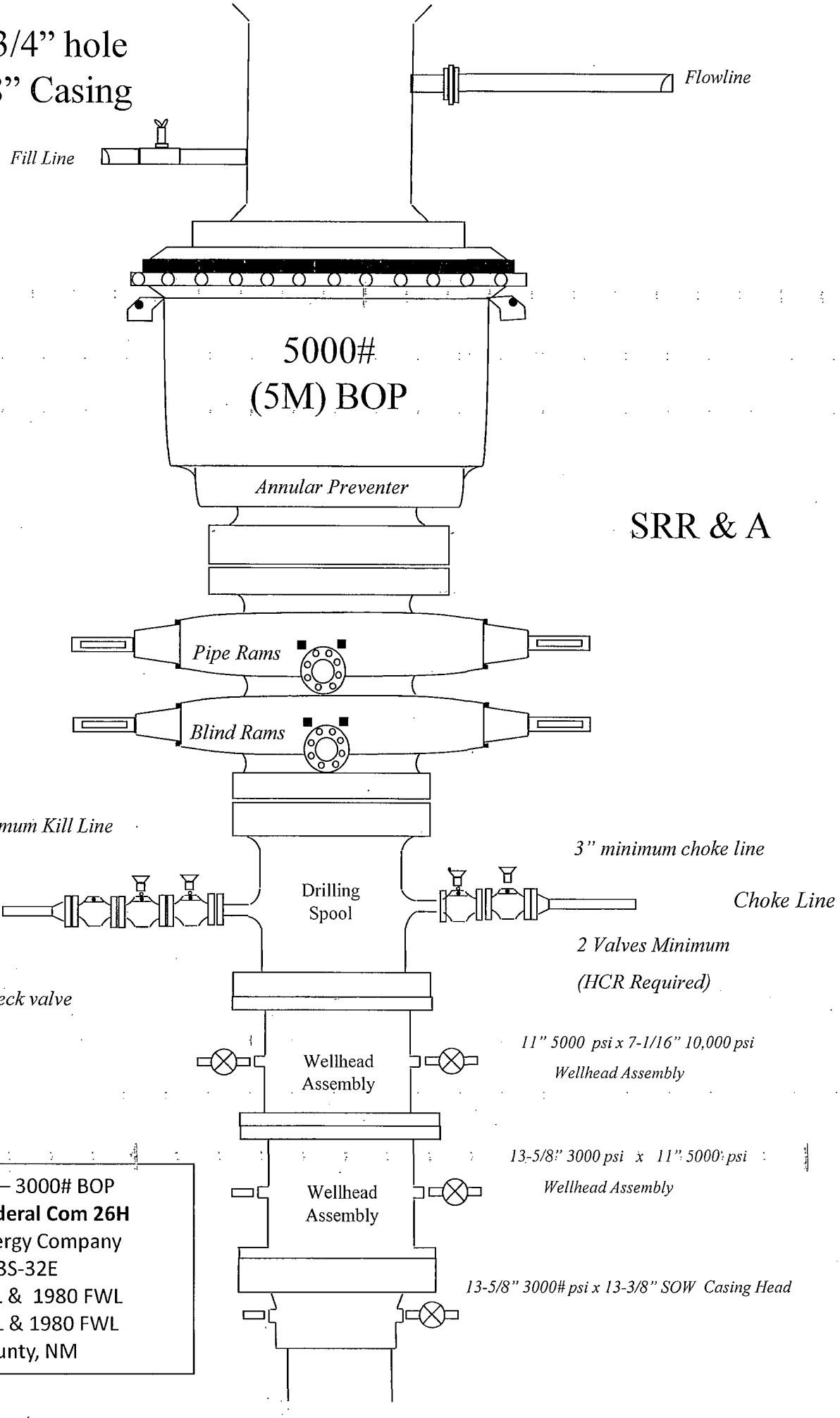


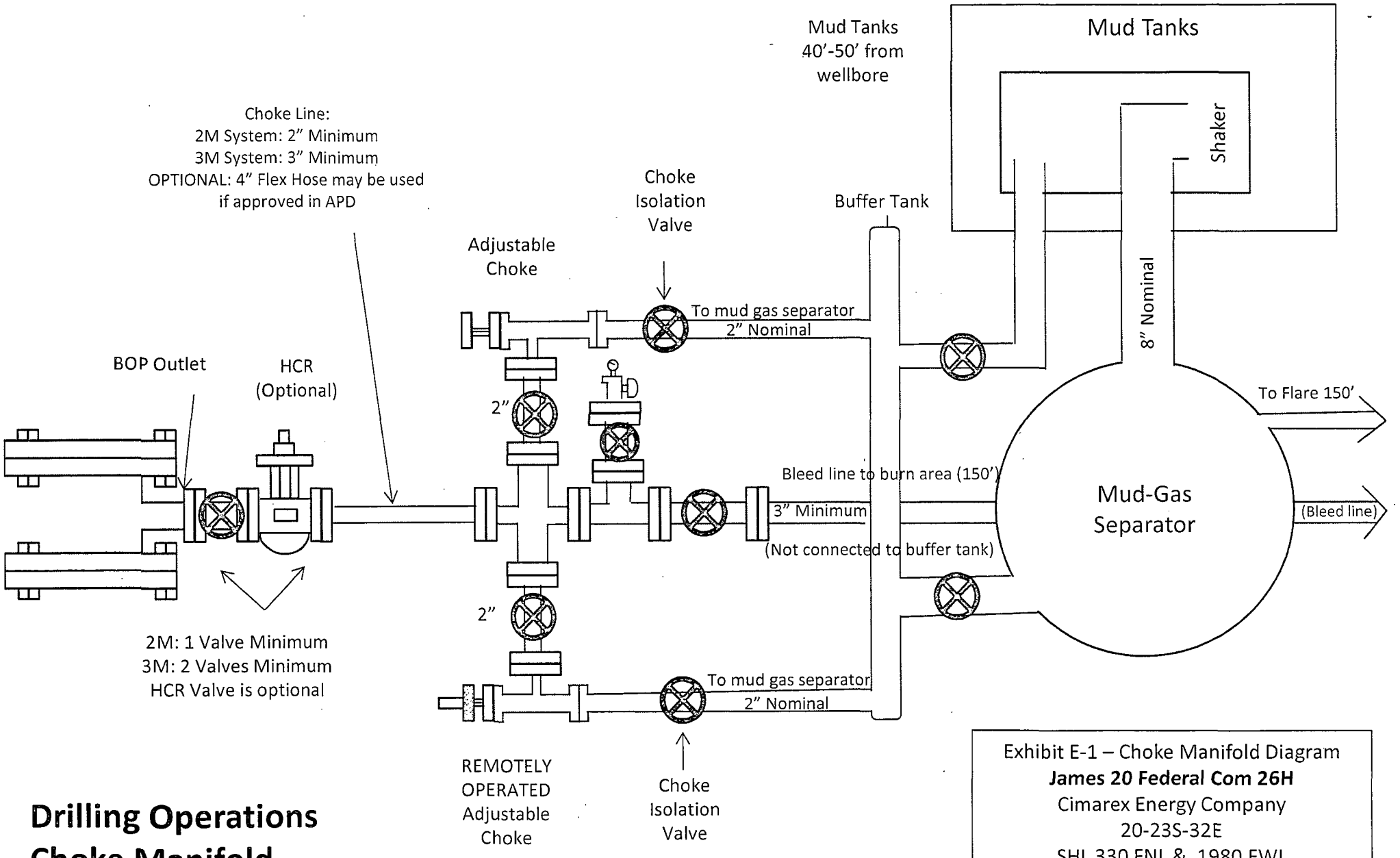
Exhibit E-1 – 2000# BOP
James 20 Federal Com 26H
Cimarex Energy Company
20-23S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM

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



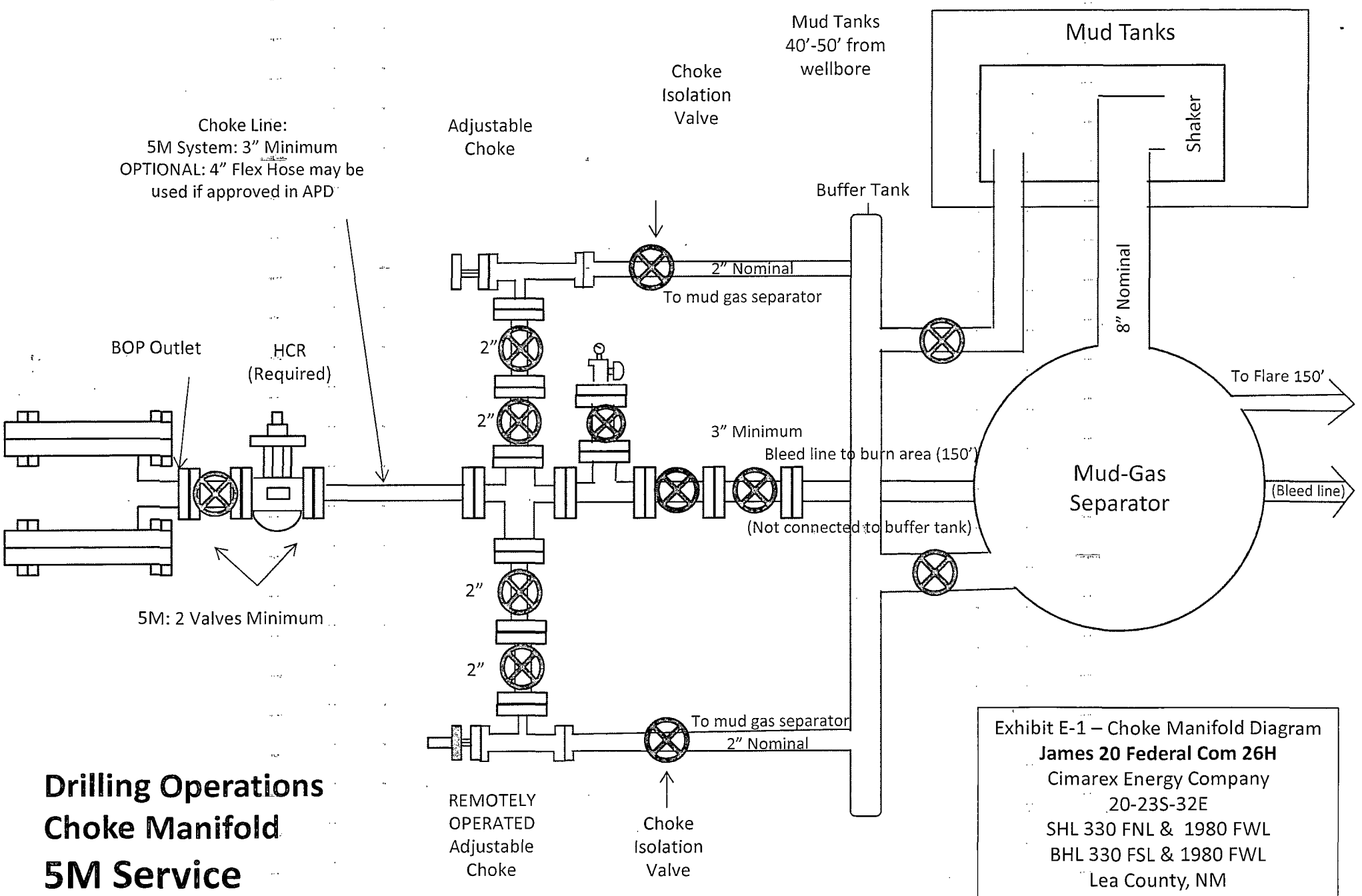
SRR & A

Exhibit E-1 – 3000# BOP
James 20 Federal Com 26H
Cimarex Energy Company
20-23S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM



Drilling Operations
Choke Manifold
2M/3M Service

Exhibit E-1 – Choke Manifold Diagram
James 20 Federal Com 26H
Cimarex Energy Company
20-23S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM



Drilling Operations
Choke Manifold
5M Service

Exhibit E-1 – Choke Manifold Diagram
James 20 Federal Com 26H
Cimarex Energy Company
20-23S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM

Exhibit F-1
James 20 Federal 25H
Cimarex Energy Company
20-23S-32E
SHL 330 FNL & 860 FWL
BHL 330 FSL & 660 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	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: 79793	Hose Serial Number: OKC
Comments:	

Date: 3/8/2011	Tested: A. Jaime Sanchez	Approved:

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

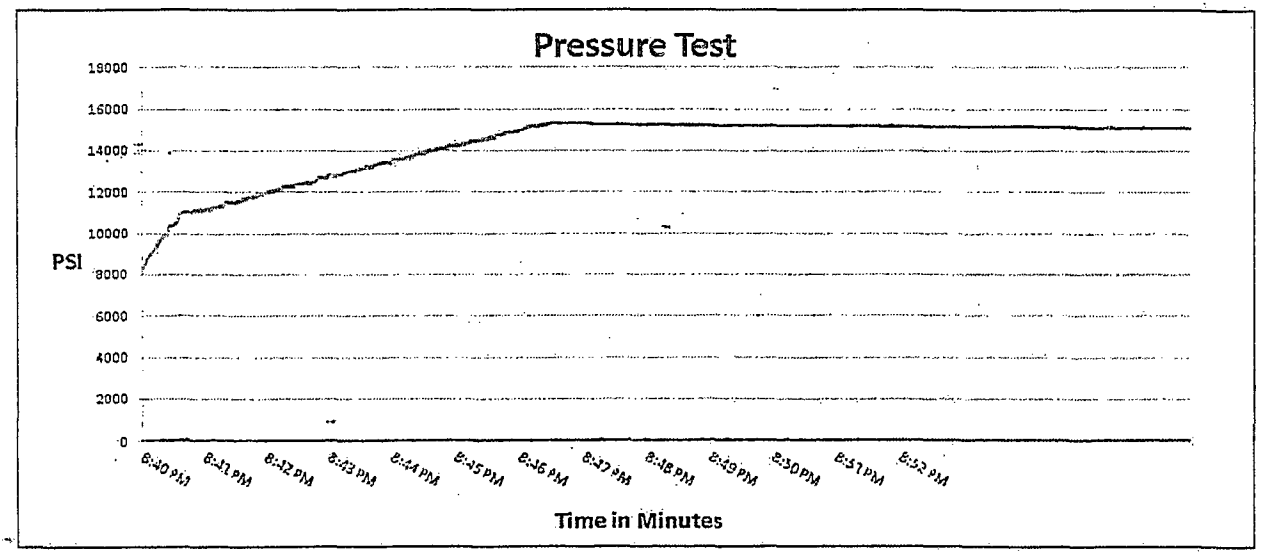
Pick Ticket #: 94260

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*

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

James 20 Federal Com 26H

Cimarex Energy Company

20-23S-32E

SHL 330 FNL & 1980 FWL

BHL 330 FSL & 1980 FWL

Lea County, NM

Exhibit F-2 – Co-Flex Hose
James 20 Federal Com 26H
Cimarex Energy Company
20-23S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM

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:	**Date:** 3/8/2011

Midwest Hose & Specialty, Inc.

Exhibit F -3– Co-Flex Hose
James 20 Federal Com 26H
Cimarex Energy Company
20-23S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM

Specification Sheet
Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium componets.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 vermculite 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, unibolt 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)

P.O. Box 96558 – 1421 S.E. 29th St. Oklahoma City, OK 73143 * (405) 670-6718 * Fax: (405) 670-6816

Exhibit F – Co-Flex Hose

James 20 Federal Com 26H

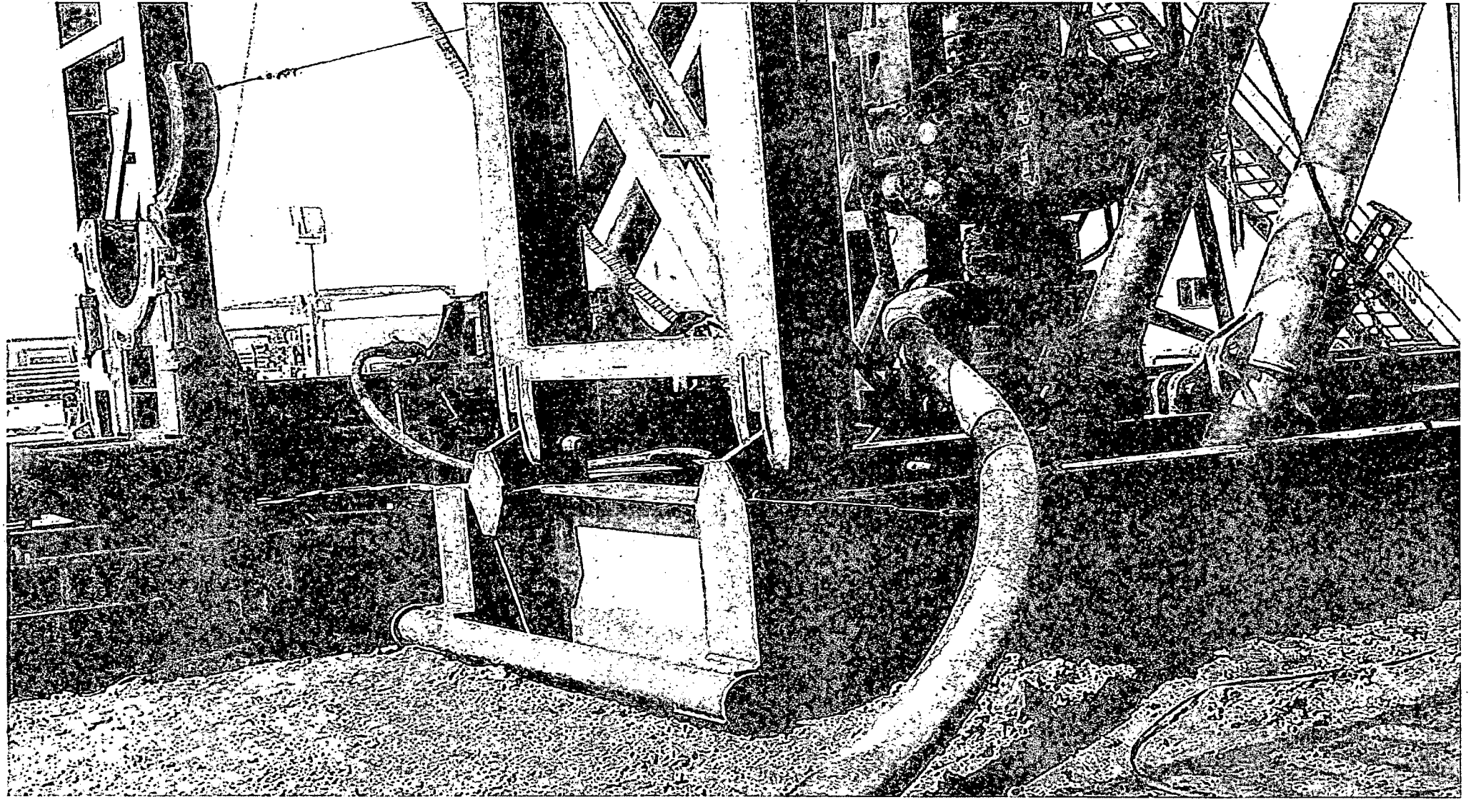
Cimarex Energy Company

20-23S-32E

SHL 330 FNL & 1980 FWL

BHL 330 FSL & 1980 FWL

Lea County, NM



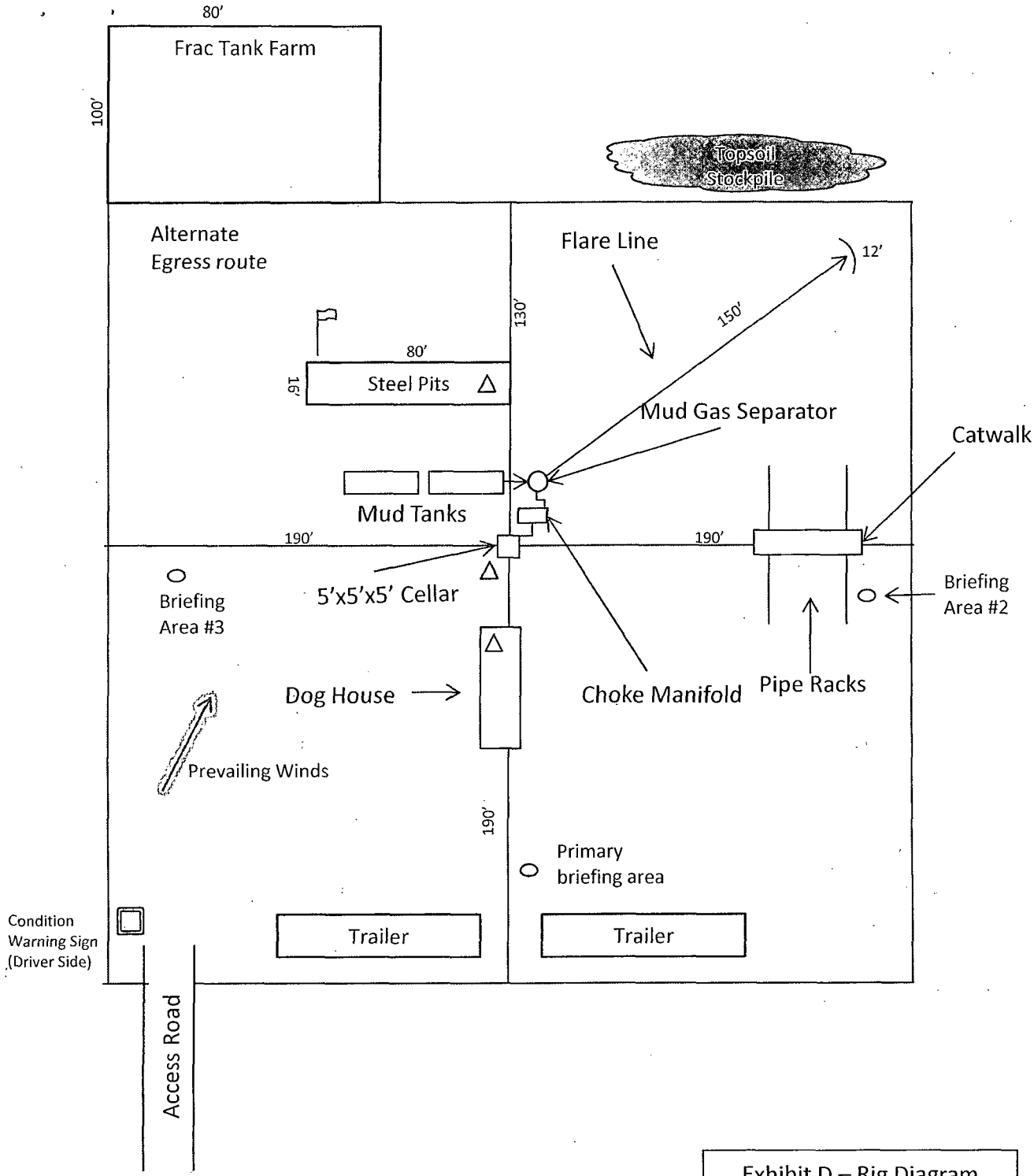
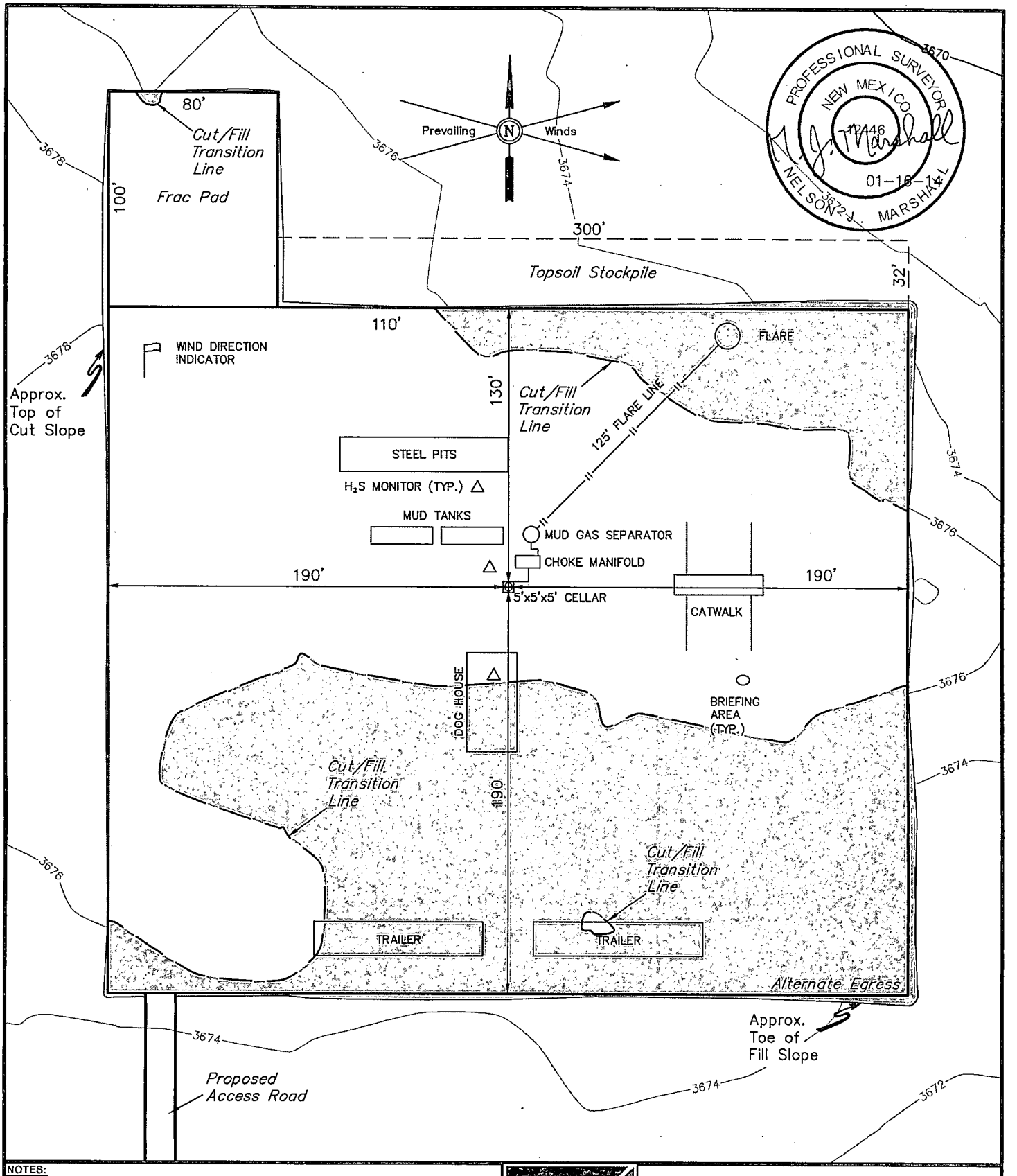


Exhibit D – Rig Diagram
James 20 Federal Com 26H
Cimarex Energy Company
20-23S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM



NOTES:

- Flare pit is to be located a min. of 160' from the well head.

CIMAREX ENERGY CO.

JAMES 20 FEDERAL COM 26H
SECTION 20, T23S, R32E, N.M.P.M.
330' FNL 1980' FWL

DRAWN BY: J.S.	SCALE: 1" = 60'	REV: 01-16-14 B.D.H.
DATE: 09-13-13	REV: 11-27-13 B.D.H.	

TYPICAL RIG LAYOUT — EXHIBIT D

UINTAH ENGINEERING & LAND SURVEYING
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

Hydrogen Sulfide Drilling Operations Plan

James 20 Federal Com 26H

Cimarex Energy Co.

UL: C, Sec. 20, 23S, 32E

Lea Co., NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H_2S
B. Physical effects and hazards
C. Principal and operation of H2S detectors, warning system and briefing areas.
D. Evacuation procedure, routes and first aid.
E. Proper use of safety equipment & life support systems
F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

2 H_2S Detection and Alarm Systems:

A. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may play placed as deemed necessary.

B. An audio alarm system will be installed on the derrick floor and in the top doghouse.

3 Windsock and/or wind streamers:

A. Windsock at mudpit area should be high enough to be visible.

B. Windsock on the rig floor and / or top doghouse 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 H2S trained and certified personnel admitted to location.

5 Well control equipment:

A. See exhibit "E-1"

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 r 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.