

HOBBS OCD

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAR 18 2013
OCD Hobbs

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

RECEIVED

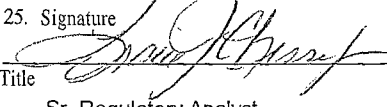
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM0302802A 0392082A
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Cimarex Energy Co. of Colorado		7. If Unit or CA Agreement, Name and No.
3a. Address 600 N. Marienfeld St. Ste 600 Midland, TX 79701		8. Lease Name and Well No. Hallertau 5 Federal No. 7H 387787
3b. Phone No. (include area code) 432-687-7800		9. API Well No. 30-025 -41063
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 330 FSL & 1830 FWL Unit N At proposed prod. zone 330 FNL & 1710 FWL Unit C Horizontal Bone Spring Test		10. Field and Pool, or Exploratory Bone Spring Wildcat <97903>
11. Sec., T. R. M. or Blk. and Survey or Area 5-26S-32E		12. County or Parish Lea Co.
13. State NM		14. Distance in miles and direction from nearest town or post office* 29 miles West of 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 1720.49	17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 150 TO #3	19. Proposed Depth MD 13403 TVD 8923	20. BLM/BIA Bond No. on file NM2575; NMB000835
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GR 3273'	22. Approximate date work will start* 04/01/2013	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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 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 10/12/2012
Title Sr. Regulatory Analyst		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date MAR 15 2013
Title fcm 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)

Carlsbad Controlled Water Basin

*(Instructions on page 2)

Ko 02/19/13

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

MAR 20 2013

Application to Drill
Hallertau 5 Federal No. 7H
 Cimarex Energy Co. of Colorado
 Unit N, Section 5
 T26S-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 FSL & 1830 FWL
 BHL 330 FNL & 1710 FWL
- 2 Elevation above sea level: 3273 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 13403 TVD 8923
- 6 Estimated tops of geological markers:

Water per OSE	275	
Rustler	1109	
T. Salt	1434	
B. Salt	4183	
Delaware	4437	Hydrocarbons
Cherry Canyon	5394	
Brushy Canyon	7131	
Bone Spring	8449	Hydrocarbons
- 7 Possible mineral bearing formation:
 See above
- 8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 1134'	8.4 - 8.6	28	NC	FW
1134' to 4412'	10.0	30-32	NC	Brine water
4412' to 8446'	8.4-9.0	28-29	NC	FW and brine, use hi-vis sweeps to keep hole clean
8446' to 13403'	8.4 - 9.5	27-45	NC	FW, brine, and 2% KCl in the lateral

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

Set surface and intermediate casing. Drill 7 7/8" or 8 3/4" to 8446' and log. Kick off 7 7/8" or 8 3/4" lateral @ 8446' and drill to TD @ 13403' MD, 8923' TVD. Run 5 1/2" and cement per casing and cement program.

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T26S-R32E; Lea County, NM

9 Casing & Cementing Program:

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17½"	0' to 1134' ^{115' see COA}	New 13½"	48#	STC	H-40
Intermediate	12¼"	0' to 3400'	New 9½"	36#	LTC	J-55
Intermediate	12¼"	3400' to 4412'	New 9½"	40#	LTC	J-55
Production	8¾"	0' to 8446'	New 5½"	17#	LTC	P-110
Production	8¾"	8446' to 13403'	New 5½"	17#	BTC	P-110

10 Cementing:

Surface 702 sx Class C + Bentonite + Calcium Chloride + LCM – mw 13.5 ppg yield 1.75
143 sx Clas C + LCM – mw 14.8 ppg yield 1.34
85% Excess TOC Surface Centralizers per Onshorder 2.III.B.1.f

Intermediate Lead: 1122 sx 35:65 (poz/C) + Salt + Bentonite + LCM + retarder – mw 12.9 ppg yield 1.88
Tail: 286 sx Class C + retarder + LCM – mw 14.8 ppg yield 1.32

81% Excess TOC Surface

Note: Casing will be kept filled with liquid/mud while running casing in hole

see COA

Production Lead: 347 sx Class H + Microsheres + LCM + Fluid Loss + Retarder – MW 10.8 ppg yield 2.05
Tail: 1065 sx 50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder – MW 14.2 ppg yield 1.28
25% Excess TOC 3912' 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.

see COA

<u>Collapse Factor</u>	<u>Burst Factor</u>	<u>Tension Factor</u>
1.125	1.125	1.6

11 Pressure control Equipment:

A 13½" 5000 PSI working pressure BOP tested to 3000 psi 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 to be used when drilling in H2S areas.

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 13½" casing through the running of production casing, the well will be equipped with a 5000 psi BOP system tested to 3500 psi on surface and 5000 psi on intermediate and production.

BOPs will be tested by an independent service company to 250 psi low and 5000 psi high. Hydril will be tested to 250 psi low and 1500 psi high.

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.

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Cimarex Energy Co. of Colorado
Unit N, Section 5
T26S-R32E; Lea County, NM

12 Testing, Logging and Coring Program:

- A. Mud logging program: 2 man unit from 4412' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR Surface to TD
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP **4015** Estimated BHT **130°** ,

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

Drilling expected to take 30-35 days

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

15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.

Bone Spring pay will be perforated and stimulated.

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

Critical Bints								
<u>Critical Bint</u>	<u>MD</u>	<u>INCL</u>	<u>AZIM</u>	<u>TVD</u>	<u>YSEC</u>	<u>N(+) / S(-)</u>	<u>E(+) / W(-)</u>	<u>DLS</u>
SHL Hallertau 5 Federal #7H	0.00	0.00	357.98	0.00	0.00	0.00	0.00	
KOP - Build @ 12°/100' DSL	8445.50	0.00	357.98	8445.50	0.00	0.00	0.00	0.00
Landing Point	9195.56	90.00	357.98	8923.00	477.50	477.20	-16.83	12.00
Cimarex Hallertau 5 Federal #7H FBHL	13402.69	90.00	357.98	8923.00	4684.64	4681.73	-165.11	0.00



Cimarex Hallertau 5 Federal #8H ST01 Rev0 RJS 24-Sep-12 Proposal Report
100' Interpolated
(Non-Def Plan)



Report Date: September 24, 2012 - 01:34 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Cimarex Hallertau 5 Federal #8H
Well: Cimarex Hallertau 5 Federal #8H
Borehole: ST01
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Hallertau 5 Federal #8H ST01 Rev0 RJS 24-Sep-12
Survey Date: September 24, 2012
Tort / AHD / DDI / ERD Ratio: 90.001 * / 4513.828 ft / 5.758 / 0.428
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 3' 58.56577", W 103° 42' 17.10550"
Location Grid N/E Y/X: N 388413.000 ftUS, E 736051.800 ftUS
CRS Grid Convergence Angle: 0.3337 °
Grid Scale Factor: 0.99995251

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 0.083 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3271.000 ft above MSL
Seabed / Ground Elevation: 3271.000 ft above MSL
Magnetic Declination: 7.579 °
Total Gravity Field Strength: 999.1645 mgn (9.8 based)
Total Magnetic Field Strength: 48368.165 nT
Magnetic Dip Angle: 59.944 °
Declination Date: September 24, 2012
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.3337 °
Total Corr Mag North->Grid North: 7.2453 °
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 Hallertau 5 Federal #8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	388413.00	736051.80	N 32 3 58.57	W 103 42 17.11	0.00	0.00	N/A
Tie-In	10000.00	0.00	0.08	10000.00	0.00	0.00	0.00	388413.00	736051.80	N 32 3 58.57	W 103 42 17.11	0.00	0.00	N/A
KOP - Build @ 12"/100' DLS	10063.50	0.00	0.08	10063.50	0.00	0.00	0.00	388413.00	736051.80	N 32 3 58.57	W 103 42 17.11	0.00	0.00	0.00
	10100.00	4.38	0.08	10099.96	1.39	1.39	0.00	388414.39	736051.80	N 32 3 58.58	W 103 42 17.11	1.39	0.08	12.00
	10200.00	16.38	0.08	10198.15	19.38	19.38	0.03	388432.38	736051.83	N 32 3 58.76	W 103 42 17.10	19.38	0.08	12.00
	10300.00	28.38	0.08	10290.45	57.38	57.38	0.08	388470.38	736051.88	N 32 3 59.13	W 103 42 17.10	57.38	0.08	12.00
	10400.00	40.38	0.08	10372.83	113.74	113.74	0.16	388526.74	736051.96	N 32 3 59.69	W 103 42 17.10	113.74	0.08	12.00
	10500.00	52.38	0.08	10441.70	186.00	186.00	0.27	388598.99	736052.07	N 32 4 0.41	W 103 42 17.09	186.00	0.08	12.00
	10600.00	64.38	0.08	10494.04	270.99	270.99	0.39	388683.98	736052.19	N 32 4 1.25	W 103 42 17.08	270.99	0.08	12.00
	10700.00	76.37	0.08	10527.56	365.01	365.01	0.53	388777.99	736052.33	N 32 4 2.18	W 103 42 17.07	365.01	0.08	12.00
	10800.00	88.37	0.08	10540.81	463.95	463.95	0.67	388876.92	736052.47	N 32 4 3.16	W 103 42 17.07	463.95	0.08	12.00
Landing point	10813.56	90.00	0.08	10541.00	477.50	477.50	0.69	388890.48	736052.49	N 32 4 3.29	W 103 42 17.07	477.50	0.08	12.00
	10900.00	90.00	0.08	10541.00	563.94	563.94	0.82	388976.92	736052.62	N 32 4 4.15	W 103 42 17.06	563.94	0.08	0.00
	11000.00	90.00	0.08	10541.00	663.94	663.94	0.96	389076.91	736052.76	N 32 4 5.14	W 103 42 17.05	663.94	0.08	0.00
	11100.00	90.00	0.08	10541.00	763.94	763.94	1.11	389176.91	736052.91	N 32 4 6.13	W 103 42 17.04	763.94	0.08	0.00
	11200.00	90.00	0.08	10541.00	863.94	863.94	1.25	389276.90	736053.05	N 32 4 7.11	W 103 42 17.03	863.94	0.08	0.00
	11300.00	90.00	0.08	10541.00	963.94	963.94	1.40	389376.90	736053.20	N 32 4 8.10	W 103 42 17.02	963.94	0.08	0.00
	11400.00	90.00	0.08	10541.00	1063.94	1063.94	1.54	389476.89	736053.34	N 32 4 9.09	W 103 42 17.02	1063.94	0.08	0.00
	11500.00	90.00	0.08	10541.00	1163.94	1163.94	1.69	389576.89	736053.48	N 32 4 10.08	W 103 42 17.01	1163.94	0.08	0.00
	11600.00	90.00	0.08	10541.00	1263.94	1263.94	1.83	389676.88	736053.63	N 32 4 11.07	W 103 42 17.00	1263.94	0.08	0.00
	11700.00	90.00	0.08	10541.00	1363.94	1363.94	1.97	389776.88	736053.77	N 32 4 12.06	W 103 42 16.99	1363.94	0.08	0.00
	11800.00	90.00	0.08	10541.00	1463.94	1463.94	2.12	389876.87	736053.92	N 32 4 13.05	W 103 42 16.98	1463.94	0.08	0.00
	11900.00	90.00	0.08	10541.00	1563.94	1563.94	2.26	389976.87	736054.06	N 32 4 14.04	W 103 42 16.97	1563.94	0.08	0.00
	12000.00	90.00	0.08	10541.00	1663.94	1663.94	2.41	390076.86	736054.21	N 32 4 15.03	W 103 42 16.96	1663.94	0.08	0.00
	12100.00	90.00	0.08	10541.00	1763.94	1763.94	2.55	390176.86	736054.35	N 32 4 16.02	W 103 42 16.96	1763.94	0.08	0.00
	12200.00	90.00	0.08	10541.00	1863.94	1863.94	2.70	390276.85	736054.50	N 32 4 17.01	W 103 42 16.95	1863.94	0.08	0.00
	12300.00	90.00	0.08	10541.00	1963.94	1963.94	2.84	390376.85	736054.64	N 32 4 18.00	W 103 42 16.94	1963.94	0.08	0.00
	12400.00	90.00	0.08	10541.00	2063.94	2063.94	2.98	390476.84	736054.78	N 32 4 18.99	W 103 42 16.93	2063.94	0.08	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)
	12500.00	90.00	0.08	10541.00	2163.94	2163.94	3.13	390576.84	736054.93	N 32 4 19.98	W 103 42 16.92	2163.94	0.08	0.00
	12600.00	90.00	0.08	10541.00	2263.94	2263.94	3.27	390676.83	736055.07	N 32 4 20.97	W 103 42 16.91	2263.94	0.08	0.00
	12700.00	90.00	0.08	10541.00	2363.94	2363.94	3.42	390776.83	736055.22	N 32 4 21.96	W 103 42 16.91	2363.94	0.08	0.00
	12800.00	90.00	0.08	10541.00	2463.94	2463.94	3.56	390876.82	736055.36	N 32 4 22.95	W 103 42 16.90	2463.94	0.08	0.00
	12900.00	90.00	0.08	10541.00	2563.94	2563.94	3.70	390976.82	736055.50	N 32 4 23.94	W 103 42 16.89	2563.94	0.08	0.00
	13000.00	90.00	0.08	10541.00	2663.94	2663.94	3.85	391076.81	736055.65	N 32 4 24.93	W 103 42 16.88	2663.94	0.08	0.00
	13100.00	90.00	0.08	10541.00	2763.94	2763.94	3.99	391176.81	736055.79	N 32 4 25.92	W 103 42 16.87	2763.94	0.08	0.00
	13200.00	90.00	0.08	10541.00	2863.94	2863.94	4.14	391276.80	736055.94	N 32 4 26.90	W 103 42 16.86	2863.94	0.08	0.00
	13300.00	90.00	0.08	10541.00	2963.94	2963.94	4.28	391376.79	736056.08	N 32 4 27.89	W 103 42 16.86	2963.94	0.08	0.00
	13400.00	90.00	0.08	10541.00	3063.94	3063.94	4.42	391476.79	736056.22	N 32 4 28.88	W 103 42 16.85	3063.94	0.08	0.00
	13500.00	90.00	0.08	10541.00	3163.94	3163.94	4.57	391576.78	736056.37	N 32 4 29.87	W 103 42 16.84	3163.94	0.08	0.00
	13600.00	90.00	0.08	10541.00	3263.94	3263.94	4.71	391676.78	736056.51	N 32 4 30.86	W 103 42 16.83	3263.94	0.08	0.00
	13700.00	90.00	0.08	10541.00	3363.94	3363.94	4.85	391776.77	736056.65	N 32 4 31.85	W 103 42 16.82	3363.94	0.08	0.00
	13800.00	90.00	0.08	10541.00	3463.94	3463.94	5.00	391876.77	736056.80	N 32 4 32.84	W 103 42 16.81	3463.94	0.08	0.00
	13900.00	90.00	0.08	10541.00	3563.94	3563.94	5.14	391976.76	736056.94	N 32 4 33.83	W 103 42 16.80	3563.94	0.08	0.00
	14000.00	90.00	0.08	10541.00	3663.94	3663.94	5.28	392076.76	736057.08	N 32 4 34.82	W 103 42 16.80	3663.94	0.08	0.00
	14100.00	90.00	0.08	10541.00	3763.94	3763.94	5.43	392176.75	736057.23	N 32 4 35.81	W 103 42 16.79	3763.94	0.08	0.00
	14200.00	90.00	0.08	10541.00	3863.94	3863.94	5.57	392276.75	736057.37	N 32 4 36.80	W 103 42 16.78	3863.94	0.08	0.00
	14300.00	90.00	0.08	10541.00	3963.94	3963.94	5.71	392376.74	736057.51	N 32 4 37.79	W 103 42 16.77	3963.94	0.08	0.00
	14400.00	90.00	0.08	10541.00	4063.94	4063.94	5.86	392476.74	736057.66	N 32 4 38.78	W 103 42 16.76	4063.94	0.08	0.00
	14500.00	90.00	0.08	10541.00	4163.94	4163.94	6.00	392576.73	736057.80	N 32 4 39.77	W 103 42 16.75	4163.94	0.08	0.00
	14600.00	90.00	0.08	10541.00	4263.94	4263.94	6.14	392676.73	736057.94	N 32 4 40.76	W 103 42 16.75	4263.94	0.08	0.00
	14700.00	90.00	0.08	10541.00	4363.94	4363.94	6.29	392776.72	736058.09	N 32 4 41.75	W 103 42 16.74	4363.94	0.08	0.00
	14800.00	90.00	0.08	10541.00	4463.94	4463.94	6.43	392876.72	736058.23	N 32 4 42.74	W 103 42 16.73	4463.94	0.08	0.00
Cimarex Hallertau 5 Federal #8H PBHL	14849.88	90.00	0.08	10541.00	4513.83	4513.82	6.50	392926.60	736058.30	N 32 4 43.23	W 103 42 16.72	4513.83	0.08	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	10000.000	1/100.000	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Cimarex Hallertau 5 Federal #8H Pilot
	10000.000	14849.883	1/100.000	30.000	30.000	SLB_MWD-STD	ST01 / Cimarex Hallertau 5 Federal #8H ST01 Rev0 RJS 24-

SR & A

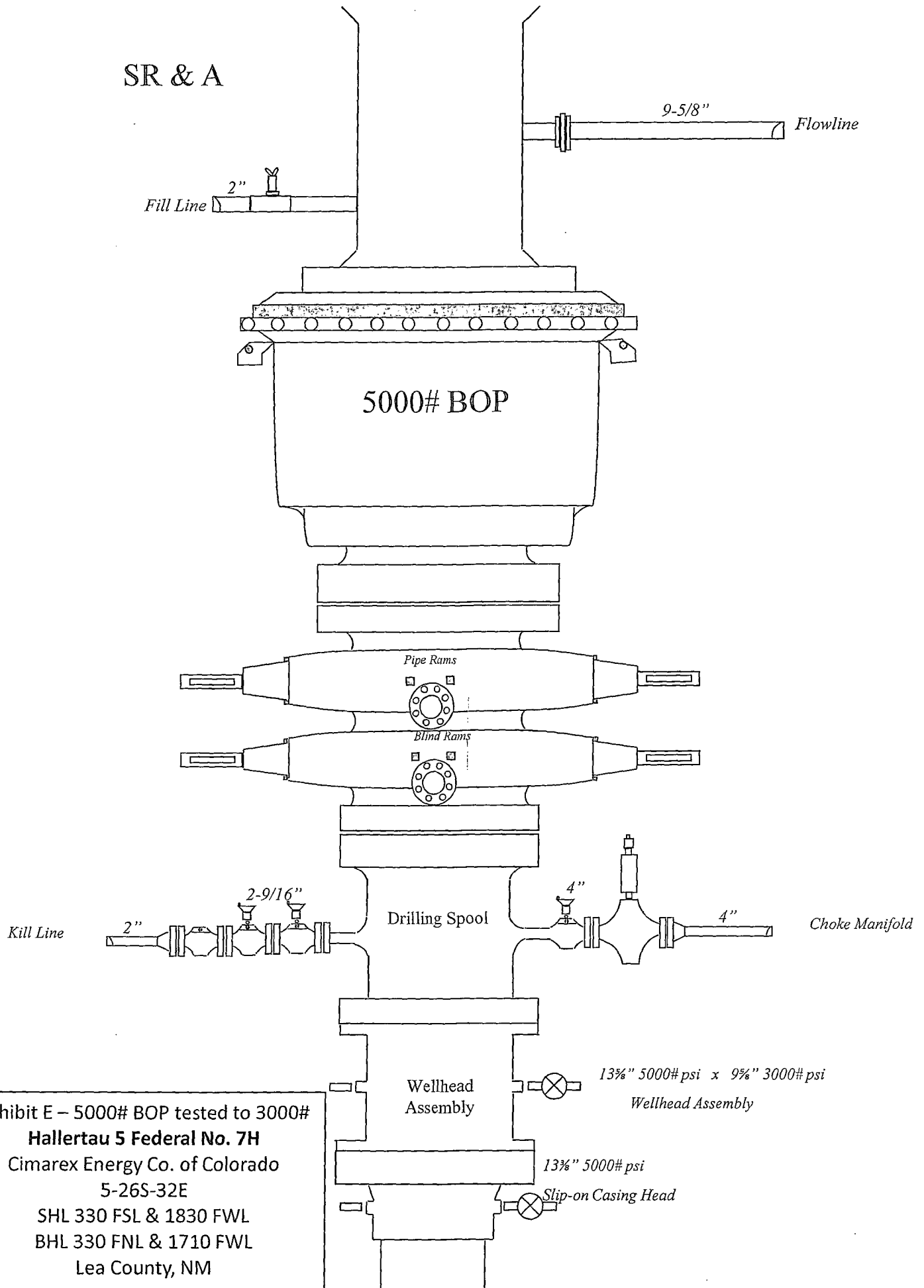
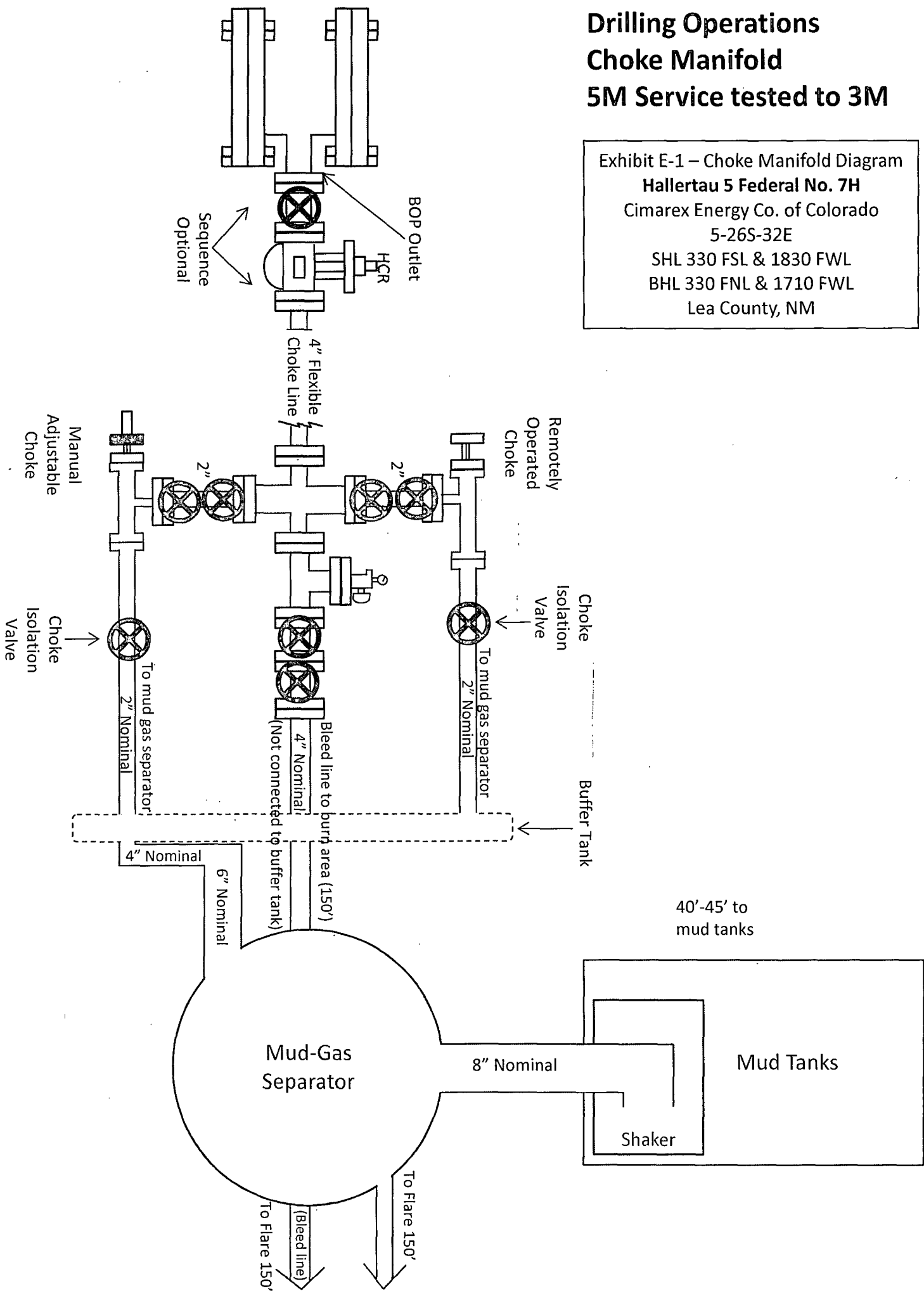
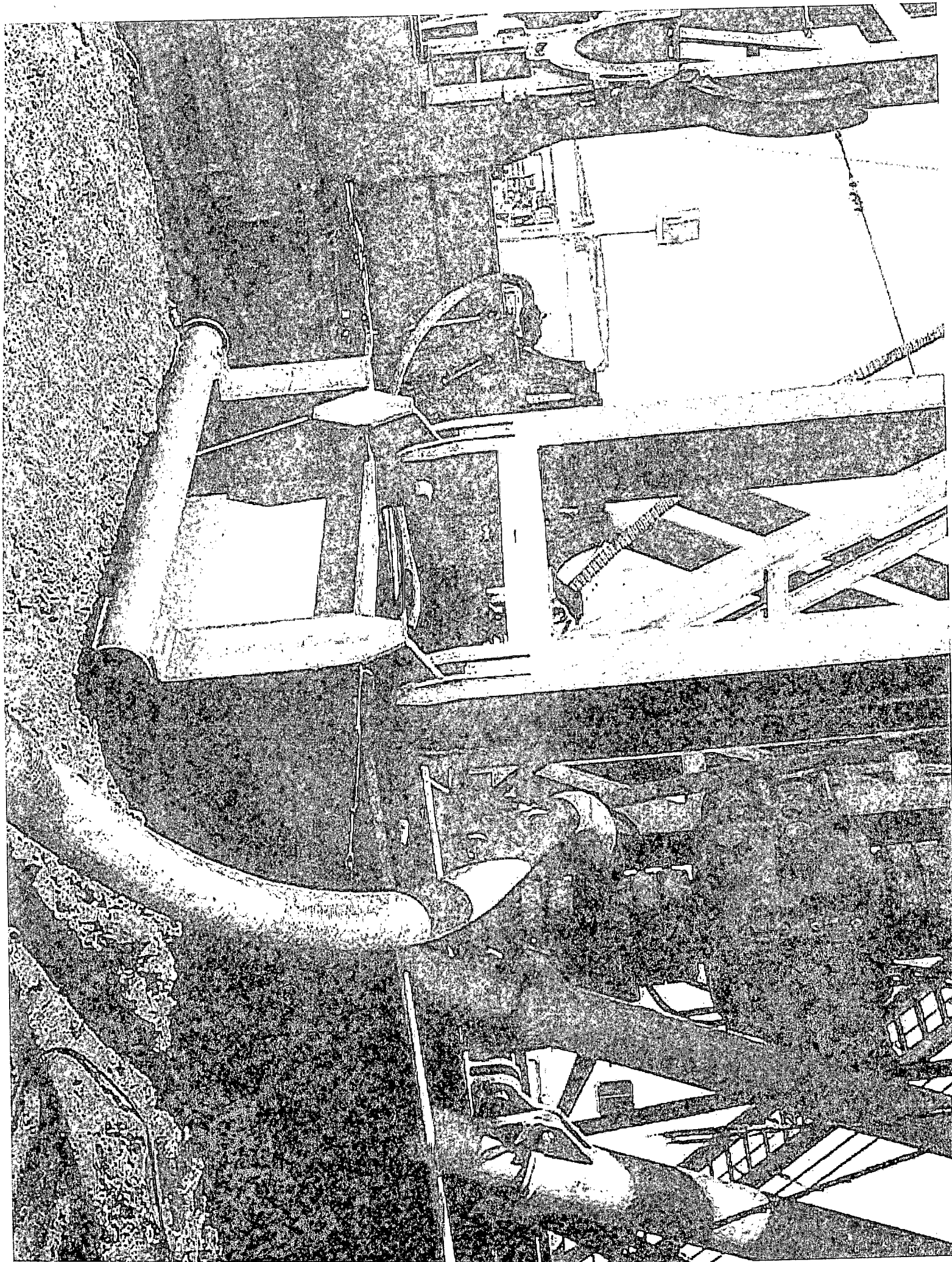


Exhibit E – 5000# BOP tested to 3000#
Hallertau 5 Federal No. 7H
Cimarex Energy Co. of Colorado
5-26S-32E
SHL 330 FSL & 1830 FWL
BHL 330 FNL & 1710 FWL
Lea County, NM

Drilling Operations
Choke Manifold
5M Service tested to 3M

Exhibit E-1 – Choke Manifold Diagram
Hallertau 5 Federal No. 7H
Cimarex Energy Co. of Colorado
5-26S-32E
SHL 330 FSL & 1830 FWL
BHL 330 FNL & 1710 FWL
Lea County, NM







Midwest Hose & Specialty, Inc.

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



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

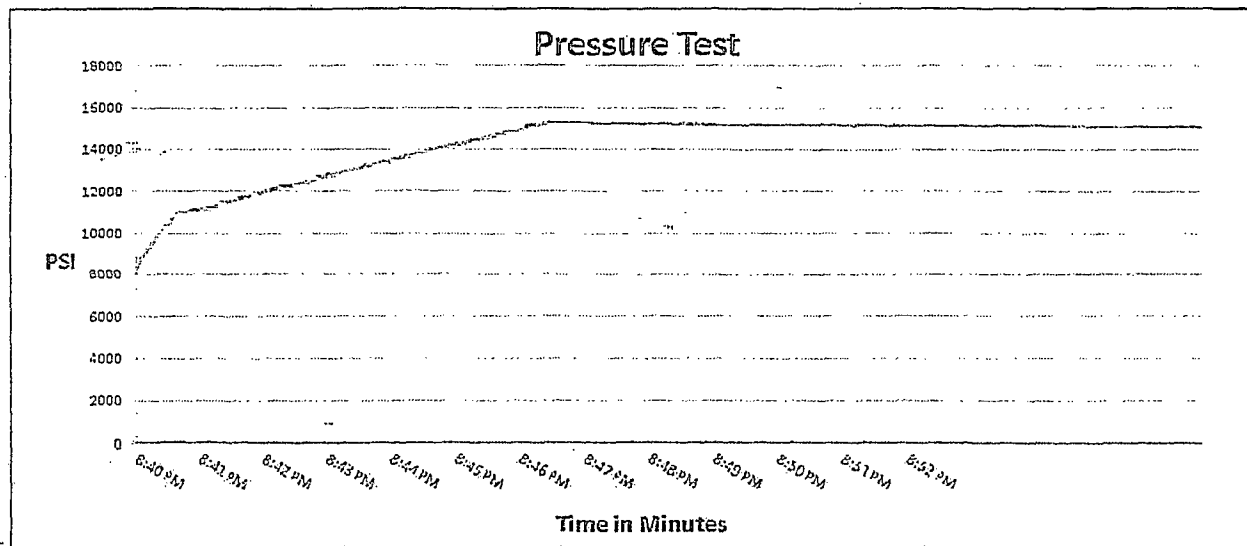
Pick Ticket #: 94260

Hose Specifications

<u>Hose Type</u>	<u>Length</u>
C.S.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>
6.30"	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
15483 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
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SPECIFICATIONS

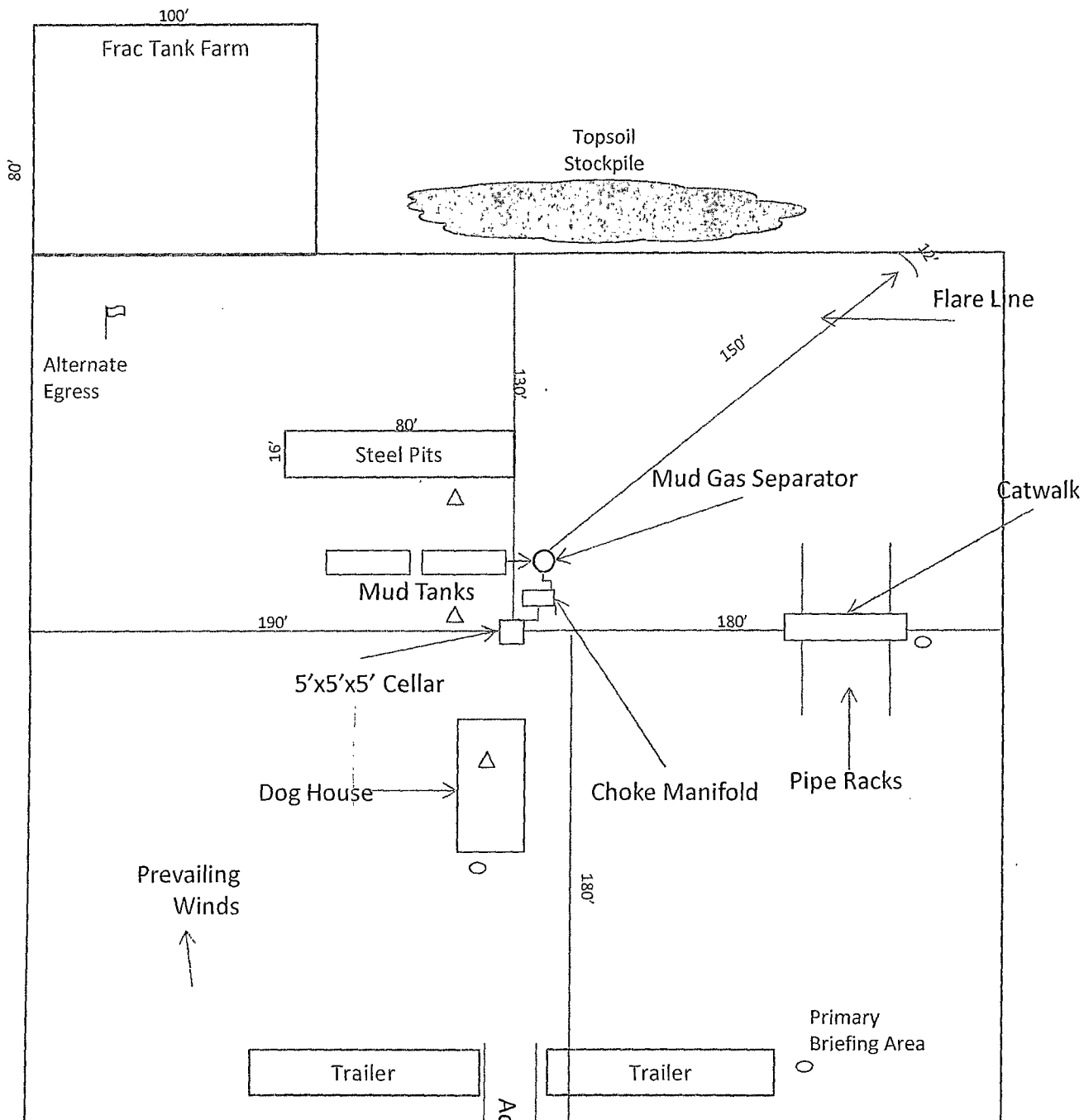
Sales Order 79793	Dated: 3/8/2011
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We hereby certify that the material supplied
for the referenced purchase order to be true
according to the requirements of the purchase
order and current industry standards

Supplier:
Midwest Hose & Specialty, Inc.
10640 Tanner Road
Houston, Texas 77041

Comments:

Approved: <i>Samuel Garcia</i>	Date: 3/8/2011
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Wind Direction
Indicators
(wind sock or
streamers)



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



Briefing
Areas

Exhibit D – Rig Diagram
Hallertau 5 Federal No. 7H
Cimarex Energy Co. of Colorado
5-26S-32E
SHL 330 FSL & 1830 FWL
BHL 330 FNL & 1710 FWL
Lea County, NM