

APR 27 2012

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM0392082A
2. Name of Operator CIMAREX ENERGY CO. OF COLORADO Contact: ZENO FARRIS Email: zfarris@cimarex.com		6. If Indian, Allottee or Tribe Name
3a. Address 600 N MARIENFELD ST STE 600 MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-620-1938 Fx: 432-620-1940	7. If Unit or CA/Agreement, Name and/or No. NA
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 4 T26S R32E Mer NMP NENE 330FNL 510FEL		8. Well Name and No. HALLERTAU 4 FEDERAL 008H
		9. API Well No. 30-025-40477
		10. Field and Pool, or Exploratory WILDCAT; BONE SPRING
		11. County or Parish, and State LEA COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Current condition:

4-2-12 13.375" casing set at 1175' and cemented, did not circ. Temp survey showed TOC 220'. 1" to surface w 200 sx premium witnessed by Marlon Deaton.

4-9-12 9.625" casing set at 4532' and cemented to surface.

Current APD permitted for 9900' pilot hole, and 8.75" lateral TVD 9472' MD 14015' cemented to 4300'. BHL at 330' FSL & 350' FEL

Cimarex proposes to change the drilling plan and change BHL by drilling 7.875" pilot hole to 11250' and logging. Pump 30 bbls MUDPUSHLII 12ppg followed by 505 sxs Type H cement, plus additives 25%

14. I hereby certify that the foregoing is true and correct. Electronic Submission #136117 verified by the BLM Well Information System For CIMAREX ENERGY CO. OF COLORADO, sent to the Hobbs	
Name (Printed/Typed) ZENO FARRIS	Title MANAGER OPERATIONS ADMIN
Signature (Electronic Submission)	Date 04/23/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

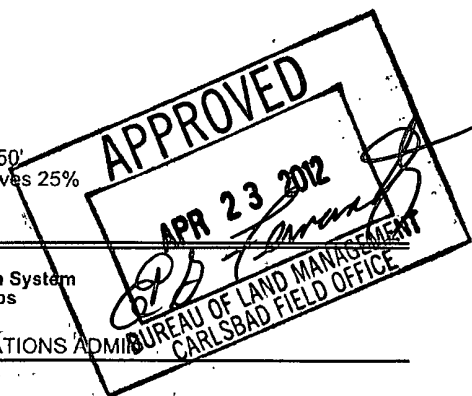
Approved By _____	Title _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office _____

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

APR 30 2012



Additional data for EC transaction #136117 that would not fit on the form

32. Additional remarks, continued

excess from 11250' to 10000'. Dress off cement and kick off 7 7/8" lateral at 10422' and drill to 15237' MD and 10737' TVD at new BHL 330' FSL & 550' FEL. Run 5.5" 17# p-110 LTC from 0-15237' with DV-Tool +/- 6900' TVD and cement in two stages as shown below:

Stage 1

Lead: 150sks Cls H + additives 11.5ppg wt yld 2.76 ft3/sx 25% excess

Tail: 1500 sxs Cls H + additives, 14.5ppg wt yld 1.22 ft3/sx 25% excess

State 2

Lead: 270 sks Cls H + additives 11.5ppg wt yld 2.76 ft3/sx 25% excess

Tail: 100 sxs Cls H 15.6ppg wt 1.19 ft3/sx. 25% excess

TOC 3600' minimum 500' overlap in 9.625" casing

See attached directional survey, C-102 and 5K BOP diagram.

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

DISTRICT I
1925 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

HOBBS OCD

Form C-102

Revised July 10, 2010

APR 27 2012

Submit one copy to appropriate
District Office

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WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name Bone Spring-Wildcat
Property Code	Property Name HALLERTAU "4" FEDERAL	Well Number 8H
OCRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3312'

Surface Location

UL or lot No. A	Section 4	Township 26 S	Range 32 E	Lot Idn	Feet from the 330	North/South line NORTH	Feet from the 510	East/West line EAST	County LEA
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Bottom Hole Location If Different From Surface

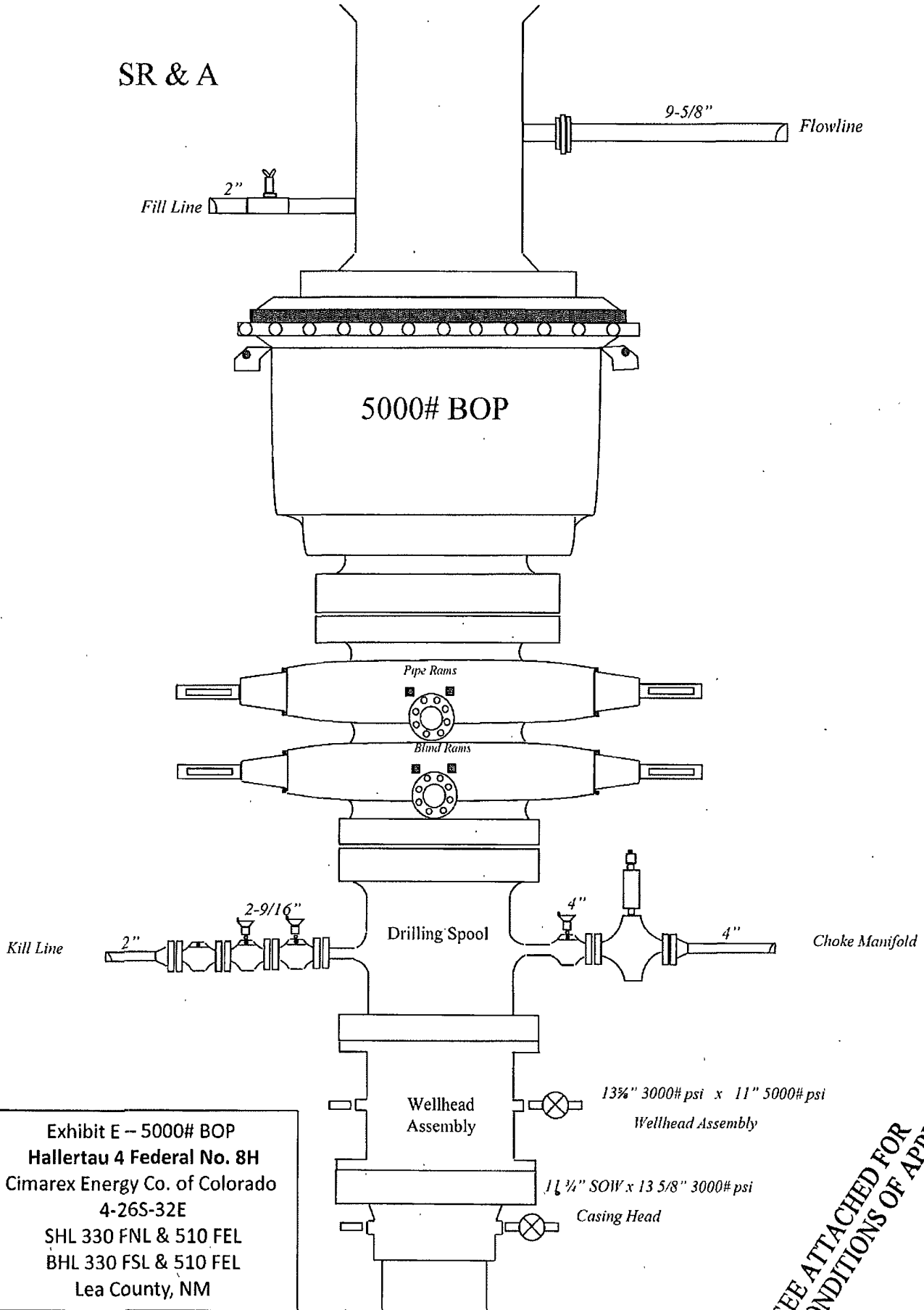
UL or lot No. P	Section 4	Township 26 S	Range 32 E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 510	East/West line EAST	County LEA
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Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SURFACE LOCATION Lat - N 32°04'43.52" Long - W 103°40'23.27" NMSPC - N 393013.583 E 745819.186 (NAD=83) PROPOSED BOTTOM HOLE LOCATION Lat - N 32°03'57.17" Long - W 103°40'23.10" NMSPC - N 388330.404 E 745862.976 (NAD=83)	3315.2' 3316.3' 510' 3306.6' 3308.2' 4836' NM-0392082-A 510' 530'	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. <i>Zeno Farris</i> 4/23/2012 Signature Date Zeno Farris Printed Name zfarris@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 supervision and that the same is true and correct to the best of my belief. Date Surveyed Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 Basin Surveys 25947
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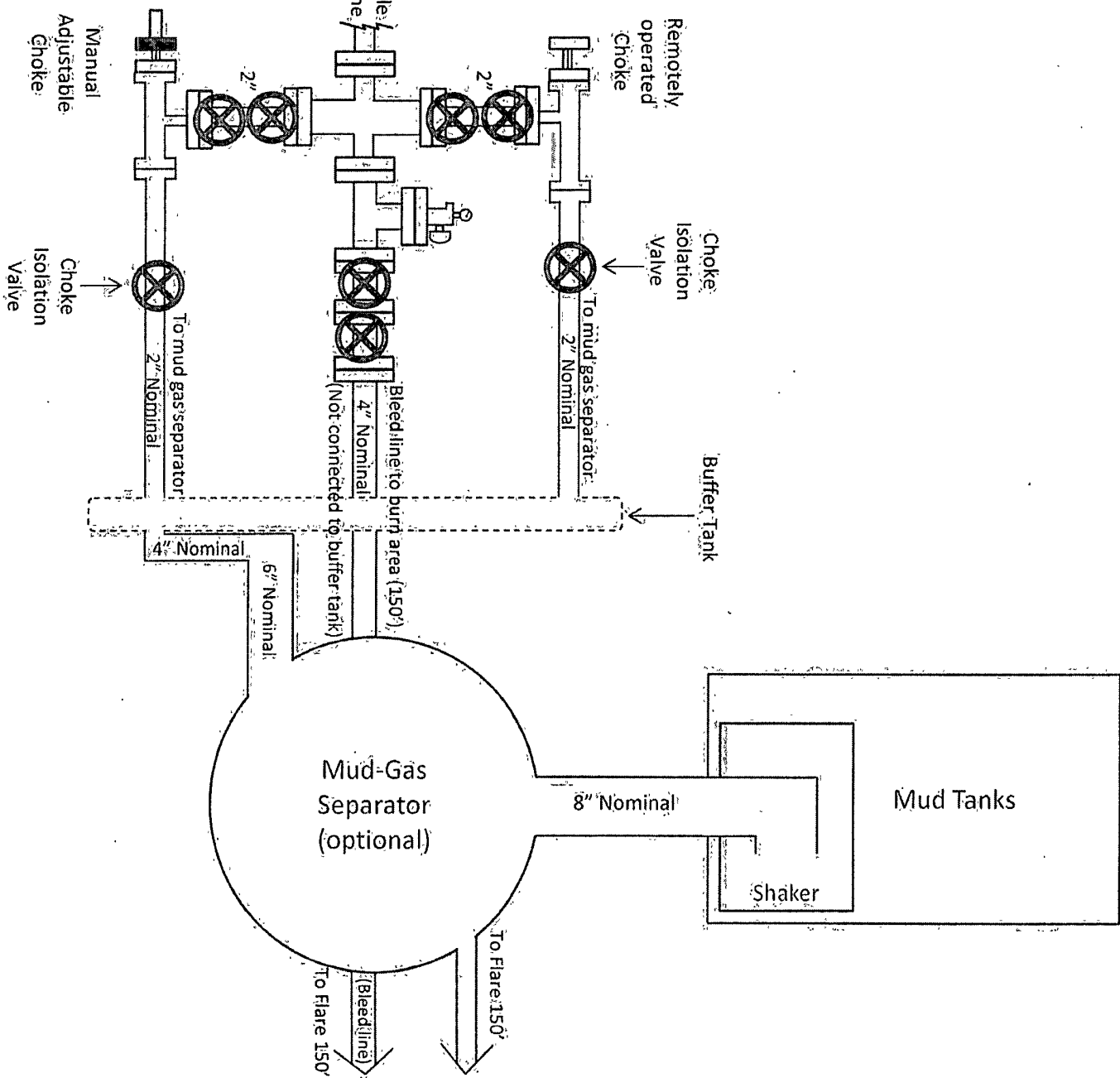
SR & A



SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Exhibit E -- 5000# BOP
Hallertau 4 Federal No. 8H
Cimarex Energy Co. of Colorado
4-26S-32E
SHL 330 FNL & 510 FEL
BHL 330 FSL & 510 FEL
Lea County, NM

Lea County, NM



Cimarex Energy Company of Colorado

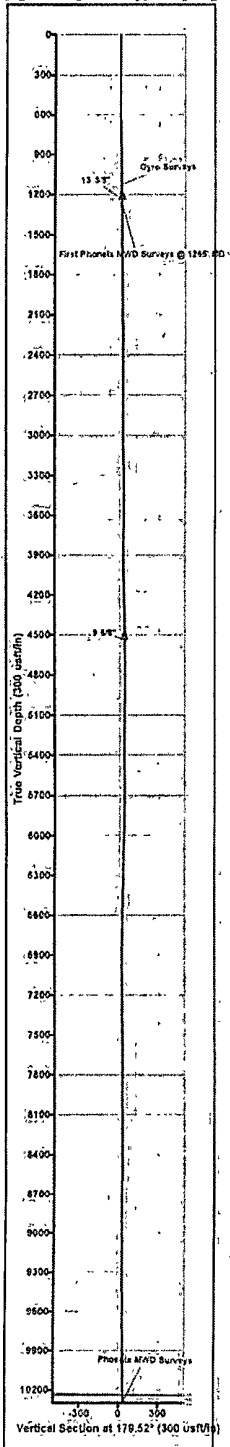
Project: Lea County NM (NAD 83)

Site: Hallertau 4 Federal 8H

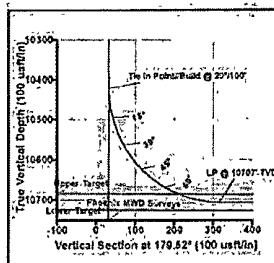
Well: Job # 1210148

Wellbore: Rig: Cactus 101

Plan: Plan 5 4-22-2012



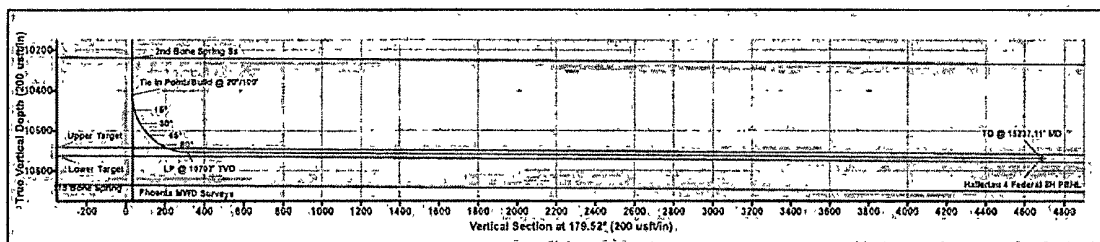
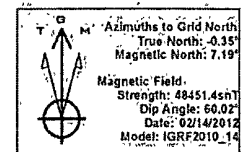
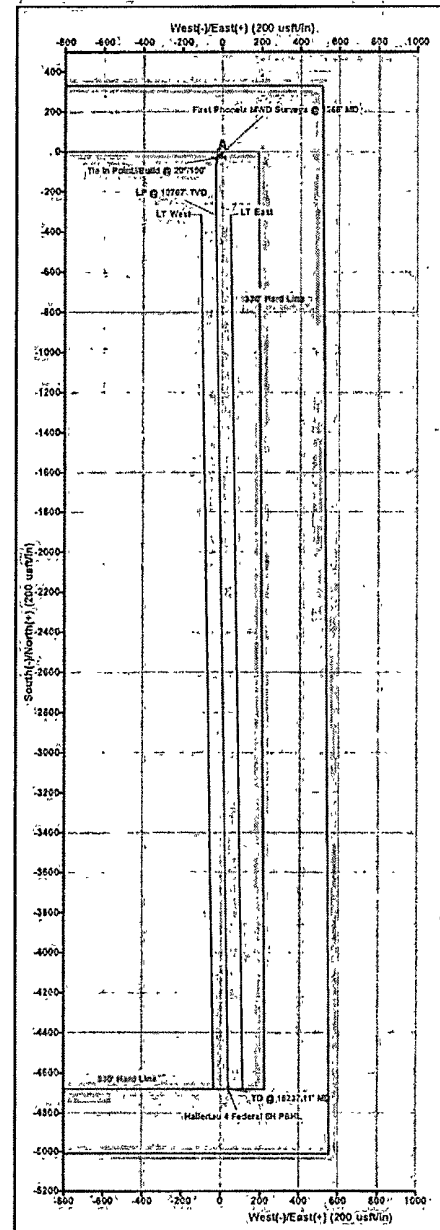
ANNOTATIONS			
TVD	MD	Annotation	
10420.93	10422.70	Tie In Point/Build @ 20°/100'	
10707.00	10870.41	LP @ 10707' TVD	
10737.00	15237.00	TD @ 15237.11' MD	



WELL DETAILS: Job # 1210148			
Ground Level: 3312.00			
Northing	Eastings	Latitude	Longitude
393013.68	745819.19	32° 4' 43.5144 N	103° 40' 23.2719 W

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	DipAngle
10313.21	10313.21	2nd Bone Spring Sh	0.33
10684.44	10703.11	Upper Target	2.33

SECTION DETAILS										
	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	
	10422.70	1.15	265.53	10420.93	-31.27	-32.14	0.00	0.00	30.99	
	10870.41	89.61	179.05	10707.00	-315.86	-33.10	20.00	-86.49	315.57	
	10871.08	89.61	179.05	10707.00	-315.51	-33.09	0.70	-143.30	315.21	
	15237.11	89.61	179.05	10737.00	-4681.85	39.50	0.00	10.00	4692.02	Hallertau 4 Federal 8H PBHL



Cimarex Energy Company of Colorado

Lea County NM (NAD 83)

Hallertau-4 Federal 8H

Job # 1210148

Rig: Cactus 101

Plan: Plan 5 4-22-2012

Cimarex Planning Report

22 April, 2012

HOBS OCD

APR 27 2012

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Cimarex Planning Report

Company:	Cimarex Energy Company of Colorado	Local Co-ordinate Reference:	Well Job #1210148
Project:	Lea County NM (NAD 83)	TVD Reference:	WELL @ 3330.60usft (Cactus 101)
Site:	Hallertau 4 Federal 8H	MD Reference:	WELL @ 3330.60usft (Cactus 101)
Well:	Job # 1210148	North Reference:	Grid
Wellbore:	Rig: Cactus 101	Survey Calculation Method:	Minimum Curvature
Design:	Plan 5 4-22-2012	Database:	Compass5000

Project:	Lea County NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Hallertau 4 Federal 8H		
Site Position:		Northing:	393,013.58 usft
From:	Map	Easting:	745,819.19 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 4' 43.5144 N
		Longitude:	103° 40' 23.2719 W
		Grid Convergence:	0.35 °

Well:	Job # 1210148		
Well Position	+N-S 0.00 usft	Northing:	393,013.58 usft
	+E-W 0.00 usft	Easting:	745,819.19 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	18.60 usft
		Latitude:	32° 4' 43.5144 N
		Longitude:	103° 40' 23.2719 W
		Ground Level:	3,312.00 usft

Wellbore						Rig: Cactus 101					
Magnetics		Model Name		Sample Date		Declination (°)		Dip Angle (°)		Field Strength (nT)	
		IGRF2010.14		02/14/12		7.54		60.02		48,451	

Design:	Plan 5 4-22-2012			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	10,422.70
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	179.52

Cimarex Planning Report

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Site:	Hallertau 4 Federal 8H	MD Reference:	WELL @ 3330.60usft (Cactus 101)
Well:	Job # 1210148	North Reference:	Grid
Wellbore:	Rig: Cactus 101	Survey Calculation Method:	Minimum Curvature
Design:	Plan 5 4-22-2012	Database:	Compass5000

Survey Tool Program		Date	04/22/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
1,265.00	10,422.70	Phoenix MWD Surveys (Rig: Cactus 101)	MWD	MWD - Standard	
10,422.70	15,237.02	Plan 5 4-22-2012 (Rig: Cactus 101)	MWD	MWD - Standard	

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
10,422.70	1.15	265.53	-7,090.33	10,420.93	-31.27	-32.14	30.99	0.00	392,982.32	745,787.05	
Tie In Point/Build @ 20°/100'											
10,440.00	3.71	197.01	-7,107.61	10,438.21	-31.82	-32.47	31.54	20.00	392,981.77	745,786.71	
10,530.00	21.56	181.95	-7,195.09	10,525.69	-51.29	-33.90	51.00	20.00	392,962.30	745,785.29	
10,620.00	39.54	180.43	-7,272.28	10,602.88	-96.84	-34.68	96.54	20.00	392,916.75	745,784.50	
10,710.00	57.54	179.77	-7,331.63	10,662.23	-164.01	-34.75	163.71	20.00	392,849.58	745,784.44	
10,800.00	75.53	179.34	-7,367.32	10,697.92	-246.22	-34.09	245.93	20.00	392,767.36	745,785.10	
10,870.41	89.61	179.05	-7,376.40	10,707.00	-315.86	-33.10	315.57	20.00	392,697.72	745,786.08	
LP @ 10707 TVD											
10,871.06	89.61	179.05	-7,376.40	10,707.00	-316.51	-33.09	316.21	0.70	392,697.08	745,786.09	
10,890.00	89.61	179.05	-7,376.53	10,707.13	-335.45	-32.78	335.16	0.00	392,678.14	745,786.41	
10,980.00	89.61	179.05	-7,377.15	10,707.75	-425.43	-31.28	425.15	0.00	392,568.15	745,787.90	
11,070.00	89.61	179.05	-7,377.77	10,708.37	-515.42	-29.79	515.15	0.00	392,498.17	745,789.40	
11,160.00	89.61	179.05	-7,378.39	10,708.99	-605.40	-28.29	605.14	0.00	392,408.18	745,790.90	
11,250.00	89.61	179.05	-7,379.01	10,709.61	-695.39	-26.79	695.14	0.00	392,318.20	745,792.39	
11,340.00	89.61	179.05	-7,379.63	10,710.23	-785.37	-25.30	785.13	0.00	392,228.21	745,793.89	
11,430.00	89.61	179.05	-7,380.24	10,710.84	-875.36	-23.80	875.13	0.00	392,138.22	745,795.39	
11,520.00	89.61	179.05	-7,380.86	10,711.46	-965.34	-22.30	965.12	0.00	392,048.24	745,796.88	
11,610.00	89.61	179.05	-7,381.48	10,712.08	-1,055.33	-20.81	1,055.12	0.00	391,958.25	745,798.38	
11,700.00	89.61	179.05	-7,382.10	10,712.70	-1,145.31	-19.31	1,145.11	0.00	391,868.27	745,799.88	
11,790.00	89.61	179.05	-7,382.72	10,713.32	-1,235.30	-17.81	1,235.11	0.00	391,778.28	745,801.37	
11,880.00	89.61	179.05	-7,383.34	10,713.94	-1,325.29	-16.32	1,325.10	0.00	391,688.30	745,802.87	

Cimarex Planning Report

Company:	Cimarex Energy Company of Colorado	Local Co-ordinate Reference:	Well Job # 1210148
Project:	Lea County NM (NAD 83)	TVD Reference:	WELL @ 3330.60usft (Cactus 101)
Site:	Hallertau 4 Federal 8H	MD Reference:	WELL @ 3330.60usft (Cactus 101)
Well:	Job # 1210148	North Reference:	Grid
Wellbore:	Rig: Cactus 101	Survey Calculation Method:	Minimum Curvature
Design:	Plan 5 4-22-2012	Database:	Compass5000

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Soc (usft)	DLog (°/100usft)	Northing (usft)	Easting (usft)
11,970.00	89.61	179.05	-7,383.95	10,714.55	-1,415.27	-14.82	1,415.10	0.00	391,598.31	745,804.36
12,060.00	89.61	179.05	-7,384.57	10,715.17	-1,505.26	-13.33	1,505.09	0.00	391,508.33	745,805.86
12,150.00	89.61	179.05	-7,385.19	10,715.79	-1,595.24	-11.83	1,595.09	0.00	391,418.34	745,807.36
12,240.00	89.61	179.05	-7,385.81	10,716.41	-1,685.23	-10.33	1,685.08	0.00	391,328.36	745,808.85
12,330.00	89.61	179.05	-7,386.43	10,717.03	-1,775.21	-8.84	1,775.07	0.00	391,238.37	745,810.35
12,420.00	89.61	179.05	-7,387.05	10,717.65	-1,865.20	-7.34	1,865.07	0.00	391,148.38	745,811.85
12,510.00	89.61	179.05	-7,387.66	10,718.26	-1,955.18	-5.84	1,955.06	0.00	391,058.40	745,813.34
12,600.00	89.61	179.05	-7,388.28	10,718.88	-2,045.17	-4.35	2,045.06	0.00	390,968.41	745,814.84
12,690.00	89.61	179.05	-7,388.90	10,719.50	-2,135.15	-2.85	2,135.05	0.00	390,878.43	745,816.34
12,780.00	89.61	179.05	-7,389.52	10,720.12	-2,225.14	-1.35	2,225.05	0.00	390,788.44	745,817.83
12,870.00	89.61	179.05	-7,390.14	10,720.74	-2,315.13	0.14	2,315.04	0.00	390,698.46	745,819.33
12,960.00	89.61	179.05	-7,390.76	10,721.36	-2,405.11	1.64	2,405.04	0.00	390,608.47	745,820.83
13,050.00	89.61	179.05	-7,391.37	10,721.97	-2,495.10	3.14	2,495.03	0.00	390,518.49	745,822.32
13,140.00	89.61	179.05	-7,391.99	10,722.59	-2,585.08	4.63	2,585.03	0.00	390,428.50	745,823.82
13,230.00	89.61	179.05	-7,392.61	10,723.21	-2,675.07	6.13	2,675.02	0.00	390,338.52	745,825.31
13,320.00	89.61	179.05	-7,393.23	10,723.83	-2,765.05	7.62	2,765.02	0.00	390,248.53	745,826.81
13,410.00	89.61	179.05	-7,393.85	10,724.45	-2,855.04	9.12	2,855.01	0.00	390,158.55	745,828.31
13,500.00	89.61	179.05	-7,394.47	10,725.07	-2,945.02	10.62	2,945.01	0.00	390,068.56	745,829.80
13,590.00	89.61	179.05	-7,395.08	10,725.68	-3,035.01	12.11	3,035.00	0.00	389,978.57	745,831.30
13,680.00	89.61	179.05	-7,395.70	10,726.30	-3,124.99	13.61	3,125.00	0.00	389,888.59	745,832.80
13,770.00	89.61	179.05	-7,396.32	10,726.92	-3,214.98	15.11	3,214.99	0.00	389,798.60	745,834.29
13,860.00	89.61	179.05	-7,396.94	10,727.54	-3,304.97	16.60	3,304.99	0.00	389,708.62	745,835.79
13,950.00	89.61	179.05	-7,397.56	10,728.16	-3,394.95	18.10	3,394.98	0.00	389,618.63	745,837.29
14,040.00	89.61	179.05	-7,398.18	10,728.78	-3,484.94	19.60	3,484.98	0.00	389,528.65	745,838.78
14,130.00	89.61	179.05	-7,398.79	10,729.39	-3,574.92	21.09	3,574.97	0.00	389,438.66	745,840.28
14,220.00	89.61	179.05	-7,399.41	10,730.01	-3,664.91	22.59	3,664.97	0.00	389,348.68	745,841.77
14,310.00	89.61	179.05	-7,400.03	10,730.63	-3,754.89	24.09	3,754.96	0.00	389,258.69	745,843.27

Cimarex Planning Report

Company:	Cimarex Energy Company of Colorado	Local Co-ordinate Reference:	Well Job # 1210148
Project:	Lea County NM (NAD 83)	TVD Reference:	WELL @ 3330.60usft (Cactus 101)
Site:	Hallerlau 4 Federal 8H	MD Reference:	WELL @ 3330.60usft (Cactus 101)
Well:	Job # 1210148	North Reference:	Grid
Wellbore:	Rig: Cactus 101	Survey Calculation Method:	Minimum Curvature
Design:	Plan 5 4-22-2012	Database:	Compass5000

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	EW (usft)	V- Sec (usft)	DLog (°/100usft)	Northing (usft)	Easting (usft)	
14,400.00	89.61	179.05	-7,400.65	10,731.25	-3,844.88	25.58	3,844.96	0.00	389,168.71	745,844.77	
14,490.00	89.61	179.05	-7,401.27	10,731.87	-3,934.86	27.08	3,934.95	0.00	389,078.72	745,846.26	
14,580.00	89.61	179.05	-7,401.89	10,732.49	-4,024.85	28.57	4,024.95	0.00	388,988.73	745,847.76	
14,670.00	89.61	179.05	-7,402.50	10,733.10	-4,114.83	30.07	4,114.94	0.00	388,898.75	745,849.26	
14,760.00	89.61	179.05	-7,403.12	10,733.72	-4,204.82	31.57	4,204.94	0.00	388,808.76	745,850.75	
14,850.00	89.61	179.05	-7,403.74	10,734.34	-4,294.80	33.08	4,294.93	0.00	388,718.78	745,852.25	
14,940.00	89.61	179.05	-7,404.36	10,734.96	-4,384.79	34.56	4,384.93	0.00	388,628.79	745,853.75	
15,030.00	89.61	179.05	-7,404.98	10,735.58	-4,474.78	36.06	4,474.92	0.00	388,538.81	745,855.24	
15,120.00	89.61	179.05	-7,405.60	10,736.20	-4,564.76	37.55	4,564.92	0.00	388,448.82	745,856.74	
15,210.00	89.61	179.05	-7,406.21	10,736.81	-4,654.75	39.05	4,654.91	0.00	388,358.84	745,858.24	
15,237.00	89.61	179.05	-7,406.40	10,737.00	-4,681.74	39.50	4,681.91	0.00	388,331.84	745,858.68	
TD @ 15237.11 MD											
15,237.11	89.61	179.05	-7,406.40	10,737.00	-4,681.85	39.50	4,682.02	0.00	388,331.73	745,858.69	

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,235.10	1,235.00	13 3/8"	13-3/8	17-1/2	
4,535.02	4,534.00	9 5/8"	9-5/8	12-1/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
10,763.12	10,685.00	Upper Target		0.39	179.52	
10,239.93	10,238.00	2nd Bone Spring Ss		0.39	179.52	

Cimarex Planning Report

Company:	Cimarex Energy Company of Colorado	Local Co-ordinate Reference:	Well Job # 1210148
Project:	Lea County NM (NAD 83)	TVD Reference:	WELL @ 3330.60usft (Cactus 101)
Site:	Hallertau 4 Federal 8H	MD Reference:	WELL @ 3330.60usft (Cactus 101)
Well:	Job # 1210148	North Reference:	Grid
Wellbore:	Rig Cactus 101	Survey Calculation Method:	Minimum Curvature
Design:	Plan 5 4-22-2012	Database:	Compass5000

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,422.70	10,420.93	-31.27	-32.14	Tie In Point/Build @ 20"/100'
10,870.41	10,707.00	-315.86	-33.10	LP @ 10707' TVD
15,237.00	10,737.00	-4,681.74	39.50	TD @ 15237.11' MD

Checked By: _____	Approved By: _____	Date: _____
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CONDITIONS OF APPROVAL

SUNDRY dated 04/23/2012

OPERATOR'S NAME:	CIMAREX ENERGY
LEASE NO.:	NM0392082A
WELL NAME & NO.:	8H HALLERTAU 4 FEDERAL
SURFACE HOLE FOOTAGE:	330' FNL & 510' FEL
BOTTOM HOLE FOOTAGE	330' FSL & 510' FEL
LOCATION:	Section 4, T.26 S., R.32 E., NMPM
COUNTY:	Eddy County, New Mexico

The pilot hole plugging procedure is approved as written.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every third joint unless lateral doglegs require greater spacing between centralizers.

1. The minimum required fill of cement behind the 5-1/2 inch production casing is:

a. First stage to DV tool:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage. **Additional cement will be required as excess calculates to 6%.**

b. Second stage above DV tool:

- ☒ **Cement should tie-back at least 200 feet** into previous casing string. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

A. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) psi. Operator installing a 5M and testing as a 3M.**
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8" intermediate casing shoe** shall be **5000 (5M) psi.**
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - c. The results of the test shall be reported to the appropriate BLM office.
 - d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
 - e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

B. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

C. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

EGF 042312

