

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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.

5. Lease Serial No. NMNM26105
6. If Indian, Allottee or Tribe Name
7. If Unit or CA/Agreement, Name and/or No.
8. Well Name and No. WHITE CITY 14 FEDERAL 15H
9. API Well No. 30-015-43760
10. Field and Pool or Exploratory Area COTTONWOOD DRAW; BONE SP
11. County or Parish, State EDDY COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	
2. Name of Operator CIMAREX ENERGY COMPANY	
Contact: ARICKA EASTERLING E-Mail: aeasterling@cimarex.com	
3a. Address 202 S. CHEYENNE AVE, SUITE 1000 TULSA, OK 74103	3b. Phone No. (include area code) Ph: 918-560-7060
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 23 T25S R26E NENE 237FNL 781FEL	

12. CHECK THE 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	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A PD
	☐ 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Cimarex respectfully request approval to change the original drilling plan for the above referenced well. Cimarex proposes to change the SHL & BHL there by changing the directional plan. No additional disturbance is required for the well pad.

Approved:

SHL: 237' FNL & 781' FEL Sec 23-25S-26E

BHL: 330' FNL & 660' FEL Sec. 14-25S-26E

Proposed

SHL: 334' FNL & 700' FEL Sec 23-25S-26E

BHL: 330' FSL & 660' FEL Sec 26-25S-26E

Please see attached plat, directional plan, drilling plan for changes regarding the well.

NRS OKAY 6/30/17 JWM → FOLLOW EXISTING COA'S JR
Eng OKAY 4/17/17 CPW

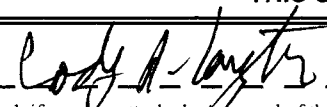
NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 10 2017

RECEIVED

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #372187 verified by the BLM Well Information System For CIMAREX ENERGY COMPANY, sent to the Carlsbad Committed to AFMSS for processing by DEBORAH MCKINNEY on 04/06/2017 ()	
Name (Printed/Typed) ARICKA EASTERLING	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 04/05/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By 	Title  FIELD MANAGER	Date 8/7/17
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 CARLSBAD FIELD 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.

(Instructions on page 2)

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

RUP 7-10-17

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-43760	² Pool Code 97494	³ Pool Name Cottonwood Draw; Bone Spring
⁴ Property Code 316199	⁵ Property Name WHITE CITY 14 FEDERAL	⁶ Well Number 15H
⁷ OGRID No. 215099	⁸ Operator Name CIMAREX ENERGY CO.	⁹ Elevation 3280.3'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	23	25 S	26 E		334	NORTH	700	EAST	EDDY

¹¹ 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
P	26	25 S	26 E		330	SOUTH	660	EAST	EDDY
¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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.

¹⁶ NOTE:
Distances referenced on plat to section lines are Perpendicular.

NAD 83 (SURFACE LOCATION)	
LATITUDE = 32°07'18.37" (32.121769)	
LONGITUDE = 104°15'25.93" (104.257203)	
NAD 27 (SURFACE LOCATION)	
LATITUDE = 32°07'17.94" (32.121650)	
LONGITUDE = 104°15'24.14" (104.256706)	
STATE PLANE NAD 83 (N.M. EAST)	
N: 408044.12 E: 564905.48	
STATE PLANE NAD 27 (N.M. EAST)	
N: 407986.93 E: 523722.52	

NAD 83 (BOTTOM HOLE LOCATION)	
LATITUDE = 32°05'40.08" (32.094467)	
LONGITUDE = 104°15'25.69" (104.257136)	
NAD 27 (BOTTOM HOLE LOCATION)	
LATITUDE = 32°05'39.64" (32.094344)	
LONGITUDE = 104°15'23.90" (104.256639)	
STATE PLANE NAD 83 (N.M. EAST)	
N: 398111.88 E: 564933.41	
STATE PLANE NAD 27 (N.M. EAST)	
N: 398054.88 E: 523750.31	

The diagram shows a grid of sections 23 and 26. Section 23 is at the top, and section 26 is below it. A well location is marked with a circle and 'LP' (Leasehold) and 'SHL' (Surface Hole Location) at 700' from the north line. Another well location is marked with a circle and 'BHL' (Bottom Hole Location) at 660' from the south line. Bearings and distances are provided for all section boundaries. For example, the top boundary of section 23 is S89°24'47"W 2645.89' (Meas.). The bottom boundary of section 26 is S89°54'58"W 2651.23' (Meas.).

¹⁷ 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.

Aricka Easterling 4/5/17
Signature Date

Aricka Easterling
Printed Name

aeasterling@cimarex.com
E-mail Address

¹⁸ 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.

March 28, 2017
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

LINE TABLE

LINE	DIRECTION	LENGTH
L1	S06°23'35"E	401.99'

SCALE
REV: 2 03-29-17 D.P.
(SHL & BHL MOVES)

▲ = SECTION CORNERS LOCATED.

Cimarex White City 14 Fed #15H Rev1 RM 4Apr17 Proposal Geodetic

Report
(Non-Def Plan)

Report Date: April 04, 2017 - 04:29 PM
Client: Cimarex
Field: NM Eddy County (NAD 83)
Structure / Slot: Cimarex White City 14 Fed #15H / Cimarex White City 14-11 Fed #15H
Well: Cimarex White City 14 Fed #15H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex White City 14 Fed #15H Rev1 RM 4Apr17
Survey Date: April 04, 2017
Tort / AHD / DDI / ERD Ratio: 90.799 ° / 9936.236 ft / 6.323 / 1.361
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 7' 18.37002", W 104° 15' 25.93400"
Location Grid N/E Y/X: N 408044.120 ftUS, E 564905.480 ftUS
CRS Grid Convergence Angle: 0.0405 °
Grid Scale Factor: 0.99990973
Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.839 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3304.300 ft above MSL
Seabed / Ground Elevation: 3279.200 ft above MSL
Magnetic Declination: 7.493 °
Total Gravity Field Strength: 998.4362mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48028.981 nT
Magnetic Dip Angle: 59.859 °
Declination Date: April 04, 2017
Magnetic Declination Model: HDGM 2016
North Reference: Grid North
Grid Convergence Used: 0.0405 °
Total Corr Mag North->Grid North: 7.4526 °

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [334' FNL, 700' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	100.00	0.00	170.50	100.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	200.00	0.00	170.50	200.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	300.00	0.00	170.50	300.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	400.00	0.00	170.50	400.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	500.00	0.00	170.50	500.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	600.00	0.00	170.50	600.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	700.00	0.00	170.50	700.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	800.00	0.00	170.50	800.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	900.00	0.00	170.50	900.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1000.00	0.00	170.50	1000.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1100.00	0.00	170.50	1100.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1200.00	0.00	170.50	1200.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1300.00	0.00	170.50	1300.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1400.00	0.00	170.50	1400.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1500.00	0.00	170.50	1500.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1600.00	0.00	170.50	1600.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1700.00	0.00	170.50	1700.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1800.00	0.00	170.50	1800.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	1900.00	0.00	170.50	1900.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	2000.00	0.00	170.50	2000.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	2100.00	0.00	170.50	2100.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	2200.00	0.00	170.50	2200.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	2300.00	0.00	170.50	2300.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	2400.00	0.00	170.50	2400.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	
	2500.00	0.00	170.50	2500.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W 104 15 25.93	

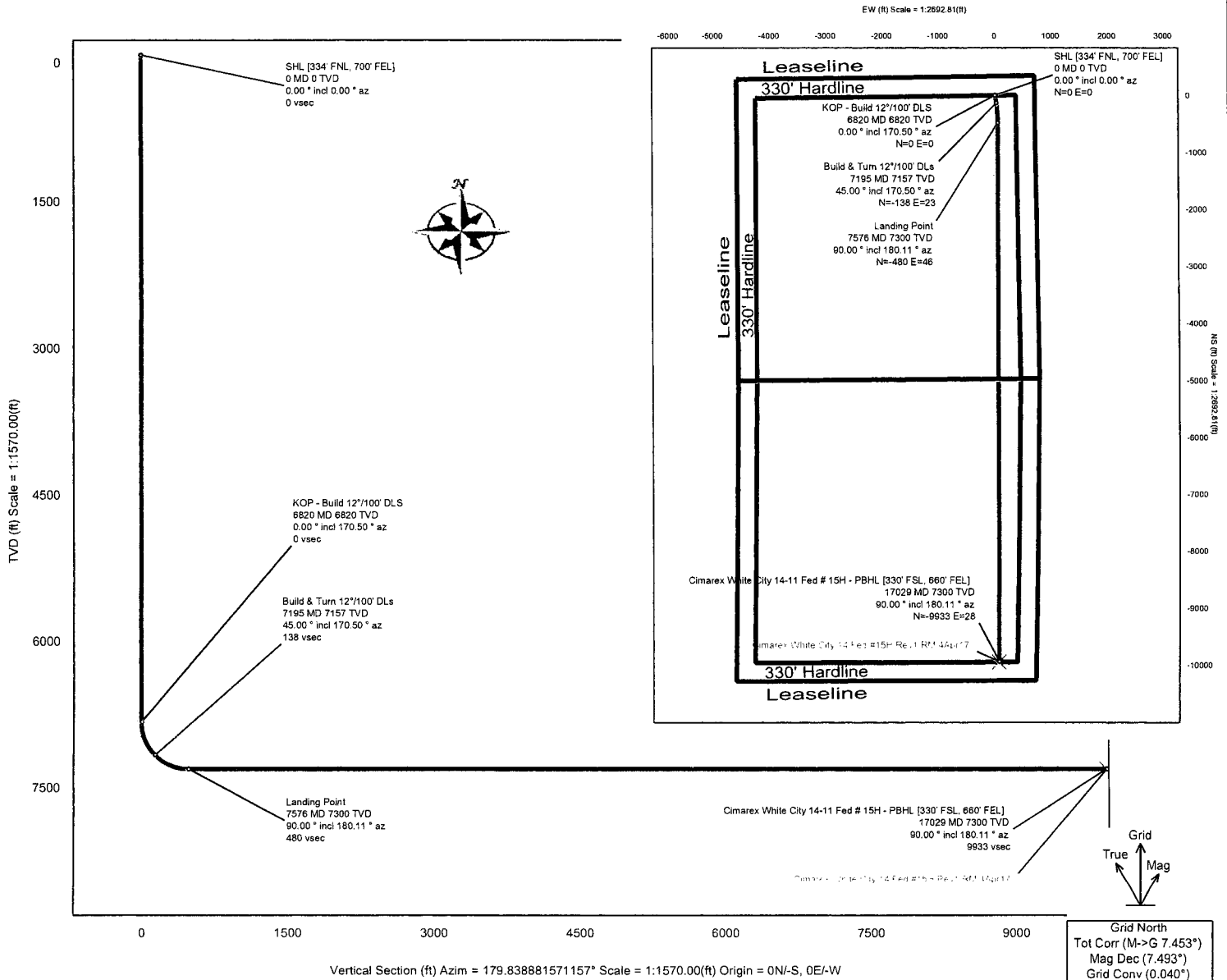
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	2600.00	0.00	170.50	2600.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	2700.00	0.00	170.50	2700.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	2800.00	0.00	170.50	2800.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	2900.00	0.00	170.50	2900.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3000.00	0.00	170.50	3000.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3100.00	0.00	170.50	3100.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3200.00	0.00	170.50	3200.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3300.00	0.00	170.50	3300.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3400.00	0.00	170.50	3400.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3500.00	0.00	170.50	3500.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3600.00	0.00	170.50	3600.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3700.00	0.00	170.50	3700.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3800.00	0.00	170.50	3800.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	3900.00	0.00	170.50	3900.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4000.00	0.00	170.50	4000.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4100.00	0.00	170.50	4100.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4200.00	0.00	170.50	4200.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4300.00	0.00	170.50	4300.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4400.00	0.00	170.50	4400.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4500.00	0.00	170.50	4500.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4600.00	0.00	170.50	4600.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4700.00	0.00	170.50	4700.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4800.00	0.00	170.50	4800.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	4900.00	0.00	170.50	4900.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5000.00	0.00	170.50	5000.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5100.00	0.00	170.50	5100.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5200.00	0.00	170.50	5200.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5300.00	0.00	170.50	5300.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5400.00	0.00	170.50	5400.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5500.00	0.00	170.50	5500.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5600.00	0.00	170.50	5600.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5700.00	0.00	170.50	5700.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5800.00	0.00	170.50	5800.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	5900.00	0.00	170.50	5900.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6000.00	0.00	170.50	6000.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6100.00	0.00	170.50	6100.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6200.00	0.00	170.50	6200.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6300.00	0.00	170.50	6300.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6400.00	0.00	170.50	6400.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6500.00	0.00	170.50	6500.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6600.00	0.00	170.50	6600.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6700.00	0.00	170.50	6700.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6761.00	0.00	170.50	6761.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6800.00	0.00	170.50	6800.00	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6819.77	0.00	170.50	6819.77	0.00	0.00	0.00	0.00	408044.12	564905.48	N 32 7 18.37 W	104 15 25.93
	6900.00	9.63	170.50	6899.62	6.64	-6.63	1.11	12.00	408037.49	564906.59	N 32 7 18.30 W	104 15 25.92
	6945.45	15.08	170.50	6944.00	16.23	-16.22	2.71	12.00	408027.90	564908.19	N 32 7 18.21 W	104 15 25.90
	7000.00	21.63	170.50	6995.75	33.17	-33.15	5.55	12.00	408010.97	564911.03	N 32 7 18.04 W	104 15 25.87
	7100.00	33.63	170.50	7084.19	78.84	-78.81	13.19	12.00	407965.32	564918.67	N 32 7 17.59 W	104 15 25.78
	7194.77	45.00	170.50	7157.39	137.99	-137.93	23.08	12.00	407906.20	564928.56	N 32 7 17.01 W	104 15 25.67
	7200.00	45.61	170.70	7161.07	141.66	-141.60	23.69	12.00	407902.54	564929.17	N 32 7 16.97 W	104 15 25.66
	7300.00	57.34	173.97	7223.25	219.10	-219.00	33.92	12.00	407825.14	564939.40	N 32 7 16.20 W	104 15 25.54
	7400.00	69.13	176.46	7288.21	307.93	-307.82	41.26	12.00	407736.33	564946.73	N 32 7 15.32 W	104 15 25.46
	7500.00	80.96	178.59	7293.98	404.29	-404.16	45.37	12.00	407639.99	564950.85	N 32 7 14.37 W	104 15 25.41
	7576.43	90.00	180.11	7300.00	480.39	-480.27	46.23	12.00	407563.90	564951.70	N 32 7 13.62 W	104 15 25.40
2nd Bone Spring Ls												
KOP - Build 12°/100' DLS												
2nd Bone Spring Ss												
Build & Turn 12°/100' DLS												
Landing Point												

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7600.00	90.00	180.11	7300.00	503.97	-503.84	46.18	0.00	407540.33	564951.66	N 32 7 13.38	W 104 15 25.40
	7700.00	90.00	180.11	7300.00	603.97	-603.84	45.99	0.00	407440.34	564951.47	N 32 7 12.39	W 104 15 25.40
	7800.00	90.00	180.11	7300.00	703.97	-703.84	45.80	0.00	407340.35	564951.27	N 32 7 11.40	W 104 15 25.41
	7900.00	90.00	180.11	7300.00	803.96	-803.84	45.61	0.00	407240.35	564951.08	N 32 7 10.42	W 104 15 25.41
	8000.00	90.00	180.11	7300.00	903.96	-903.84	45.40	0.00	407140.36	564950.88	N 32 7 9.43	W 104 15 25.41
	8100.00	90.00	180.11	7300.00	1003.96	-1003.84	45.22	0.00	407040.37	564950.69	N 32 7 8.44	W 104 15 25.42
	8200.00	90.00	180.11	7300.00	1103.96	-1103.84	45.02	0.00	406940.38	564950.50	N 32 7 7.45	W 104 15 25.42
	8300.00	90.00	180.11	7300.00	1203.96	-1203.84	44.83	0.00	406840.39	564950.30	N 32 7 6.46	W 104 15 25.42
	8400.00	90.00	180.11	7300.00	1303.96	-1303.84	44.63	0.00	406740.40	564950.11	N 32 7 5.47	W 104 15 25.43
	8500.00	90.00	180.11	7300.00	1403.96	-1403.84	44.44	0.00	406640.41	564949.92	N 32 7 4.48	W 104 15 25.43
	8600.00	90.00	180.11	7300.00	1503.96	-1503.84	44.25	0.00	406540.42	564949.72	N 32 7 3.49	W 104 15 25.43
	8700.00	90.00	180.11	7300.00	1603.96	-1603.84	44.05	0.00	406440.43	564949.53	N 32 7 2.50	W 104 15 25.43
	8800.00	90.00	180.11	7300.00	1703.95	-1703.84	43.86	0.00	406340.44	564949.34	N 32 7 1.51	W 104 15 25.44
	8900.00	90.00	180.11	7300.00	1803.95	-1803.84	43.67	0.00	406240.45	564949.14	N 32 7 0.52	W 104 15 25.44
	9000.00	90.00	180.11	7300.00	1903.95	-1903.84	43.47	0.00	406140.46	564948.95	N 32 6.59.53	W 104 15 25.44
	9100.00	90.00	180.11	7300.00	2003.95	-2003.84	43.28	0.00	406040.47	564948.76	N 32 6.57.55	W 104 15 25.45
	9200.00	90.00	180.11	7300.00	2103.95	-2103.84	43.09	0.00	405940.48	564948.56	N 32 6.55.57	W 104 15 25.45
	9300.00	90.00	180.11	7300.00	2203.95	-2203.84	42.89	0.00	405840.49	564948.37	N 32 6.56.56	W 104 15 25.45
	9400.00	90.00	180.11	7300.00	2303.95	-2303.84	42.70	0.00	405740.50	564948.18	N 32 6.54.58	W 104 15 25.46
	9500.00	90.00	180.11	7300.00	2403.95	-2403.84	42.51	0.00	405640.51	564947.98	N 32 6.52.60	W 104 15 25.47
	9600.00	90.00	180.11	7300.00	2503.95	-2503.84	42.31	0.00	405540.51	564947.79	N 32 6.51.61	W 104 15 25.47
	9700.00	90.00	180.11	7300.00	2603.94	-2603.84	42.12	0.00	405440.52	564947.59	N 32 6.50.62	W 104 15 25.47
	9800.00	90.00	180.11	7300.00	2703.94	-2703.84	41.92	0.00	405340.53	564947.40	N 32 6.49.64	W 104 15 25.47
	9900.00	90.00	180.11	7300.00	2803.94	-2803.84	41.73	0.00	405240.54	564947.21	N 32 6.48.65	W 104 15 25.48
	10000.00	90.00	180.11	7300.00	2903.94	-2903.84	41.54	0.00	405140.55	564947.01	N 32 6.47.66	W 104 15 25.48
	10100.00	90.00	180.11	7300.00	3003.94	-3003.84	41.34	0.00	405040.56	564946.82	N 32 6.46.67	W 104 15 25.48
	10200.00	90.00	180.11	7300.00	3103.94	-3103.84	41.15	0.00	404940.57	564946.63	N 32 6.45.68	W 104 15 25.49
	10300.00	90.00	180.11	7300.00	3203.94	-3203.83	40.96	0.00	404840.58	564946.43	N 32 6.44.69	W 104 15 25.49
	10400.00	90.00	180.11	7300.00	3303.94	-3303.83	40.76	0.00	404740.59	564946.24	N 32 6.43.70	W 104 15 25.49
	10500.00	90.00	180.11	7300.00	3403.94	-3403.83	40.57	0.00	404640.60	564946.05	N 32 6.42.71	W 104 15 25.50
	10600.00	90.00	180.11	7300.00	3503.93	-3503.83	40.38	0.00	404540.61	564945.85	N 32 6.41.72	W 104 15 25.50
	10700.00	90.00	180.11	7300.00	3603.93	-3603.83	40.18	0.00	404440.62	564945.66	N 32 6.40.73	W 104 15 25.50
	10800.00	90.00	180.11	7300.00	3703.93	-3703.83	39.99	0.00	404340.63	564945.47	N 32 6.39.74	W 104 15 25.51
	10900.00	90.00	180.11	7300.00	3803.93	-3803.83	39.80	0.00	404240.64	564945.27	N 32 6.38.75	W 104 15 25.51
	11000.00	90.00	180.11	7300.00	3903.93	-3903.83	39.60	0.00	404140.65	564945.08	N 32 6.37.76	W 104 15 25.51
	11100.00	90.00	180.11	7300.00	4003.93	-4003.83	39.41	0.00	404040.66	564944.89	N 32 6.36.77	W 104 15 25.51
	11200.00	90.00	180.11	7300.00	4103.93	-4103.83	39.22	0.00	403940.67	564944.69	N 32 6.35.78	W 104 15 25.52
	11300.00	90.00	180.11	7300.00	4203.93	-4203.83	39.02	0.00	403840.68	564944.50	N 32 6.34.79	W 104 15 25.52
	11400.00	90.00	180.11	7300.00	4303.93	-4303.83	38.83	0.00	403740.69	564944.30	N 32 6.33.80	W 104 15 25.52
	11500.00	90.00	180.11	7300.00	4403.92	-4403.83	38.63	0.00	403640.69	564944.11	N 32 6.32.81	W 104 15 25.53
	11600.00	90.00	180.11	7300.00	4503.92	-4503.83	38.44	0.00	403540.70	564943.92	N 32 6.31.82	W 104 15 25.53
	11700.00	90.00	180.11	7300.00	4603.92	-4603.83	38.25	0.00	403440.71	564943.72	N 32 6.30.83	W 104 15 25.53
	11800.00	90.00	180.11	7300.00	4703.92	-4703.83	38.05	0.00	403340.72	564943.53	N 32 6.29.84	W 104 15 25.54
	11900.00	90.00	180.11	7300.00	4803.92	-4803.83	37.86	0.00	403240.73	564943.34	N 32 6.28.86	W 104 15 25.54
	12000.00	90.00	180.11	7300.00	4903.92	-4903.83	37.67	0.00	403140.74	564943.14	N 32 6.27.87	W 104 15 25.54
	12100.00	90.00	180.11	7300.00	5003.92	-5003.83	37.47	0.00	403040.75	564942.95	N 32 6.26.88	W 104 15 25.55
	12200.00	90.00	180.11	7300.00	5103.92	-5103.83	37.28	0.00	402940.76	564942.76	N 32 6.25.89	W 104 15 25.55
	12300.00	90.00	180.11	7300.00	5203.91	-5203.83	37.09	0.00	402840.77	564942.56	N 32 6.24.90	W 104 15 25.55
	12400.00	90.00	180.11	7300.00	5303.91	-5303.83	36.89	0.00	402740.78	564942.37	N 32 6.23.91	W 104 15 25.55
	12500.00	90.00	180.11	7300.00	5403.91	-5403.83	36.70	0.00	402640.79	564942.18	N 32 6.22.92	W 104 15 25.56
	12600.00	90.00	180.11	7300.00	5503.91	-5503.83	36.51	0.00	402540.80	564941.98	N 32 6.21.93	W 104 15 25.56
	12700.00	90.00	180.11	7300.00	5603.91	-5603.83	36.31	0.00	402440.81	564941.79	N 32 6.20.94	W 104 15 25.56
	12800.00	90.00	180.11	7300.00	5703.91	-5703.83	36.12	0.00	402340.82	564941.60	N 32 6.19.95	W 104 15 25.57
	12900.00	90.00	180.11	7300.00	5803.91	-5803.83	35.92	0.00	402240.83	564941.40	N 32 6.18.96	W 104 15 25.57
	13000.00	90.00	180.11	7300.00	5903.91	-5903.83	35.73	0.00	402140.83	564941.21	N 32 6.17.97	W 104 15 25.57
	13100.00	90.00	180.11	7300.00	6003.91	-6003.83	35.54	0.00	402040.84	564941.01	N 32 6.16.98	W 104 15 25.58
	13200.00	90.00	180.11	7300.00	6103.90	-6103.83	35.34	0.00	401940.85	564940.82	N 32 6.15.99	W 104 15 25.58
	13300.00	90.00	180.11	7300.00	6203.90	-6203.83	35.15	0.00	401840.86	564940.63	N 32 6.15.99	W 104 15 25.58
	13400.00	90.00	180.11	7300.00	6303.90	-6303.83	34.96	0.00	401740.87	564940.43	N 32 6.15.99	W 104 15 25.58

Borehole:	Well:	Field:	Structure:
Original Borehole	Cimarex White City 14 Fed #15H	NM Eddy County (NAD 83)	Cimarex White City 14 Fed #15H

Gravity & Magnetic Parameters	Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Miscellaneous
Model: HDGM 2018 Dip: 59.859° Date: 04-Apr-2017	Lat: N 32 7 18.37 Northing: 488044.12HUS Grid Conv: 0.0405°	Slot: City 14-11 Fed #15H	TVD Ref: RKB(3304.3ft above MSL)
MagDec: 7.493° FS: 48028.96InT Gravity FS: 966.436mgn (9.80665 Based)	Lon: W 104 15 25.83 Easting: 564905.48HUS Scale Fact: 0.99990873	Plan: Cimarex White City 14 Fed #15H Rev1 RM 4Apr17	



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [334' FNL, 700' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2nd Bone Spring Ls	6761.00	0.00	170.50	6761.00	0.00	0.00	0.00	0.00
KOP - Build 12°/100' DLS	6819.77	0.00	170.50	6819.77	0.00	0.00	0.00	0.00
2nd Bone Spring Ss	6945.45	15.08	170.50	6944.00	16.23	-16.22	2.71	12.00
Build & Turn 12°/100' DLS	7194.77	45.00	170.50	7157.39	137.99	-137.93	23.08	12.00
Landing Point	7576.43	90.00	180.11	7300.00	480.39	-480.27	46.23	12.00
Cimarex White City 14-11 Fed #15H - PBHL [330' FSL, 660' FEL]	17029.33	90.00	180.11	7300.00	9933.20	-9933.16	27.93	0.00

1. Geological Formations

TVD of target 7,300

Pilot Hole TD N/A

MD at TD 17,029

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	0	N/A	
OSE Groundwater	100	N/A	
Salado	1165	N/A	
Castille	1719	N/A	
Delaware	1926	N/A	
Cherry Canyon	2919	N/A	
Brushy Canyon	4023	Hydrocarbons	
Brushy Canyon Lower	5124	Hydrocarbons	
Bone Spring	5419	Hydrocarbons	
Bone Spring A Shale	5569	Hydrocarbons	
Bone Spring C Shale	5853	Hydrocarbons	
1st Bone Spring Ss	6400	Hydrocarbons	
2nd Bone Spring ss	6930	Hydrocarbons	
2nd BS Ss Horz Target	7195	Hydrocarbons	
3rd BS Limestone	7277	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	460	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	3.52	8.22	14.58
12 1/4	0	1906	9-5/8"	36.00	J-55	LT&C	2.00	3.48	6.60
8 3/4	0	6761	5-1/2"	17.00	L-80	LT&C	1.94	2.39	2.72
8 3/4	6761	17029	5-1/2"	17.00	L-80	BT&C	1.80	2.22	43.33
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Cimarex Energy Co., White City 14 Federal #15H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	N
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	97	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	195	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	359	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	112	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	257	9.20	6.18	28.80		Lead: Class C + Extender + Salt + Strength Enhancement + LCM + Fluid Loss + Retarder
	2196	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	34
Intermediate	0	44
Production	1706	15

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
BOP Installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram	X	2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
N	Are anchors required by manufacturer?	

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 460'	FW Spud Mud	8.30 - 8.80	28	N/C
460' to 1906'	Brine Water	9.70 - 10.20	30-32	N/C
1906' to 17029'	FW/Cut Brine	8.70 - 9.20	30-32	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval
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7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	3492 psi
Abnormal Temperature	No

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

X	H ₂ S is present
X	H ₂ S plan is attached

8. Other Facets of Operation