

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

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.*5. Lease Serial No.
NMNM0441951A

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

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

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.

WHITE CITY LEASE 31 FEDERAL 2

2. Name of Operator

CIMAREX ENERGY COMPANY

Contact: CRISTEN BURDELL

E-Mail: cburdell@cimarex.com

9. API Well No.

30-015-33394

3a. Address

202 S. CHEYENNE AVE STE 1000
TULSA, OK 74103

3b. Phone No. (include area code)

Ph: 918-560-7038

10. Field and Pool, or Exploratory

WHITE CITY, PENN

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 31 T24S R26E 2150FSL 1700FWL

11. County or Parish, and State

EDDY COUNTY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recomplete 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.)

H2S gas analysis for facility as requested

Accepted for Record
12/21/15
NM OCD

NM OIL CONSERVATION
ARTESIA DISTRICT

DEC 18 2015

RECEIVED

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #273822 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by LINDA DENNISTON on 01/13/2015 ()

Name (Printed/Typed) CRISTEN BURDELL

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 10/27/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title SAE T

Date 12-18-15

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 ****

South Permian Basin Region
 10520 West I-20 East
 Odessa, TX 79765
 (432) 498-9191
 Lab Team Leader - Sheila Hernandez
 (432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	CIMAREX ENERGY	Sales RDT:	44203
Region:	PERMIAN BASIN	Account Manager:	MIKE EDWARDS (505) 631-9312
Area:	HOBBS, NM	Sample #:	452197
Lease/Platform:	WHITE CITY LEASE	Analysis ID #:	81261
Entity (or well #):	31 FEDERAL 2	Analysis Cost	\$80.00
Formation:	UNKNOWN		
Sample Point:	WATER TANK		

Summary		Analysis of Sample 452197 @ 75 °F					
Sampling Date:	4/11/08	Anions	mg/l	meq/l	Catons	mg/l	meq/l
Analysis Date:	4/16/08	Chloride:	41225.0	1162.81	Sodium:	19670.2	855.61
Analyst:	KIMBERLY POOLE	Bicarbonate:	232.0	3.8	Magnesium:	449.0	36.94
TDS (mg/l or g/m3):	67811.7	Carbonate:	0.0	0.	Calcium:	4702.0	234.63
Density (g/cm3, tonne/m3):	1.05	Sulfate:	3.0	0.06	Strontium:	578.0	13.19
Anion/Cation Ratio:	1	Phosphate:			Barium:	30.0	0.44
		Borate:			Iron:	212.0	7.66
		Silicate:			Potassium:	707.0	18.08
Carbon Dioxide:	640 PPM	Hydrogen Sulfide:	< 10 PPM		Aluminum:		
Oxygen:		pH at time of sampling:		5.6	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		5.6	Lead:		
					Manganese:	3.500	0.13
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		CO ₂ Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.70	0.00	-2.74	0.00	-2.78	0.00	-1.85	0.00	-0.03	0.00	4.58
100	0	-0.59	0.00	-2.78	0.00	-2.75	0.00	-1.86	0.00	-0.21	0.00	5.83
120	0	-0.49	0.00	-2.80	0.00	-2.70	0.00	-1.85	0.00	-0.35	0.00	7.14
140	0	-0.37	0.00	-2.82	0.00	-2.62	0.00	-1.84	0.00	-0.48	0.00	8.45

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.