

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.
NMNM14124

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.

MARQUARDT 1 PENN FEDERAL 001

2. Name of Operator

CIMAREX ENERGY CO. OF COLORADO

Contact: NATALIE E KRUEGER

Email: nkrueger@cimarex.com

9. API Well No.

30-015-33457

3a. Address

600 N. MARIENFELD ST., STE. 600
MIDLAND, TX 79701

3b. Phone No. (include area code)

Ph: 432-620-1936

Fx: 432-620-1940

10. Field and Pool, or Exploratory

CISCO/WOLFCAMP

WHITE CITY - PENN
SAFE WELLS: WOLFCAMP, ETC

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

Sec 1 T25S R26E NWSE 2100FSL 1650FWL
32.15742 N Lat, 104.24283 W Lon

11. County or Parish, and State

EDDY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" 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 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 checked="" type="checkbox"/> Recomplete	<input 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.)

Well producing from open Morrow perfs @ 11066-11532. Cimarex proposes to plug Morrow and recomplete to Cisco and Wolfcamp for DHC as shown in the attached procedure, plat, and WBD.

-NDWH, NUBOP. TOOH w tbg. Set CIBP @ 11000, dump 35' cmt on top.
-Perf Cisco Canyon 10105-10206, 3 jspf, 84 holes. Acidize w/ 5000 gals acid and frac w/ 159,965 gals slickwater w/ 10,000# 100 Mesh & 100,000# 30/50 sand. Set flow-thru composite plug @ 10095.
-Perf Cisco Canyon 10013-10079, 3 jspf, 60 holes. Acidize w/ 5000 gals acid and frac w/ 159,841 gals slickwater w/ 10,000# 100 Mesh & 111,000# 30/50 sand. Set flow-thru composite plug @ 9950.
-Perf Wolfcamp 9652-9744, 3 jspf, 60 holes. Acidize w/ 10,000 gals acid and frac w/ 194,174 gals slickwater w/ 10,000# 100 Mesh & 160,000# 30/50 sand. Set flow-thru composite plug @ 9635.
-Perf Wolfcamp 9446-9610, 3 jspf, 60 holes. Acidize w/ 5,000 gals acid and frac w/ 249,703 gals slickwater w/ 15,000# 100 Mesh & 215,000# 30/50 sand. Set flow-thru composite plug @ 9435.

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

Electronic Submission #97620 verified by the BLM Well Information System
For CIMAREX ENERGY CO. OF COLORADO, sent to the Carlsbad

Name (Printed/Typed) NATALIE E KRUEGER

Title REGULATORY

Signature (Electronic Submission)

Date 11/17/2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

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

JAN 5 2011
s/ Dustin Winkler

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 any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

Additional data for EC transaction #97620 that would not fit on the form

32. Additional remarks, continued

-Perf Wolfcamp 9193-9411, 3 jspf, 57 holes. Acidize w/ 10,000 gals acid and frac w/ 299,636 gals slickwater w/ 20,000# 100 Mesh & 250,000# 30/50 sand.
-DO CFPs and CO w/ CT to 10900.
-TIH w tbg & pkr, turn to production.

DHC application in progress.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer 80, Artesia, NM 88211-0710

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. Box 2088, Santa Fe, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-33457	Pool Code 87280	Pool Name White City; Penn (G) <i>K2</i>
Property Code 34056	Property Name MARQUARDT 1 PENN FEDERAL	Well Number 1
OGRID No. 162683	Operator Name Cimarex Energy Co. of Colorado	Elevation 3322'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	1	25 S	26 E		2100	SOUTH	1850	EAST	EDDY

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
Dedicated Acres 640.48	Joint or Infill	Consolidation Code	Order No.	DHC Pending					

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

<div>LOT 4</div> <div>LOT 3</div> <div>LOT 2</div> <div>LOT 1</div> <div>NM-14124</div> <div>RECEIVED JAN 07 2011 NMOOD ARTESIA</div> <div>NAD 27 NME GEODETIC COORDINATES Y-421002.5-N X-528007.2-E LAT.= 32°09'26.71" N LONG.= 104°14'34.19" W</div> <div>3320.3' 3324.4' 600' 3308.6' 3315.8' 1850' 2100'</div> <div>Marquardt 1 Penn Federal No. 1</div>	<div>OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div> <div><i>Natalie Krueger</i> Signature Natalie Krueger Printed Name Regulatory Title 11/17/2010 Date</div> <div>SURVEYOR CERTIFICATION</div> <div>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.</div> <div>JANUARY 26, 2004</div> <div>Date Surveyed LMP</div> <div>Signature & Seal of Professional Surveyor <i>Gary E. Eason</i> 2/2/04 04-11-0010</div> <div>Certificate No. GARY EASON 12841</div>
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DISTRICT I
P.O. Box 1888, Hobbs, NM 88241-1888

DISTRICT II
P.O. Drawer 80, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV
P.O. Box 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 18, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-33457	Pool Code 87285 96890	Pool Name SAGE DRAW/White City; Wolfcamp, EAST (GR)
Property Code 34056	Property Name MARQUARDT 1 PENN FEDERAL	Well Number 1
OGRIID No. 162683	Operator Name Cimarex Energy Co. of Colorado	Elevation 3322'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	1	25 S	26 E		2100	SOUTH	1850	EAST	EDDY

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
Dedicated Acres 320		Joint or Infill	Consolidation Code	Order No. DHC Pending					

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

LOT 4	LOT 3	LOT 2	LOT 1
<div>RECEIVED JAN 07 2011 NMOCD ARTESIA</div> <div>NAD 27 NME GEODETIC COORDINATES Y-421002.5-N X-528007.2-E LAT.= 32°09'26.71" N LONG.= 104°14'34.19" W</div> <div>NM-14124</div> <div>Marquardt 1 Penn Federal No. 1</div> <div>3320.3' 3324.4' 600' 1850' 3308.6' 3315.8' 2100'</div>			
OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <div>Signature Natalie Krueger</div> <div>Printed Name Regulatory</div> <div>Title 11/17/2010</div> <div>Date</div>			
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. JANUARY 26, 2004 Date Surveyed Signature & Seal of Professional Surveyor Gary E. Eubank 2/2/04 04.11.0010 Certificate No. GARY EUBANK 12841			



Current

Cimarex Energy Co. of Colorado

Marquardt 1 Penn Federal #1

2100' FSL & 1650' FEL

Sec. 1, T-25-S, R-26-E, Eddy Co., NM

S. Gengler

08/31/2010

13-3/8", 54.5# J-55 csg @ 219'
cmtd w/ 225 sx, cmt circ

9-5/8", 40# P-110 csg @ 3200'
cmtd w/ 1000 sx, cmt circ

TOC @ 3200'

373 jts 2-7/8" 6.5# L-80 Tbg

DV Tool @ 7022'
cmtd w/ 1050 sx

Annular Gas Lift valves @
9030', 10267', 11503'

Morrow perfs (11066' - 11532')

PBTD @ 11838'
5-1/2" 17# L-80 & P-110 @ 11891' cmtd w/ 870 sx
TD @ 11891'



Proposed

Cimarex Energy Co. of Colorado

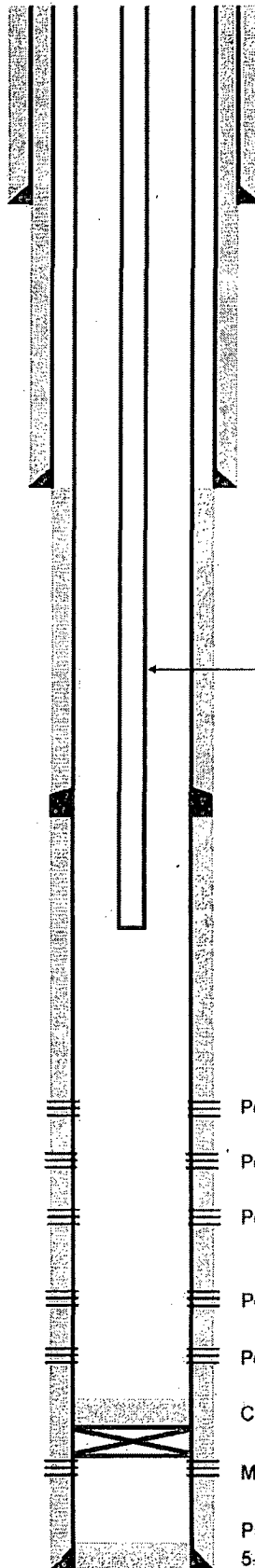
Marquardt 1 Penn Federal #1

2100' FSL & 1650' FEL

Sec. 1, T-25-S, R-26-E, Eddy Co., NM

S. Gengler

08/31/2010



13-3/8", 54.5# J-55 csg @ 219'
cmtd w/ 225 sx, cmt circ

9-5/8", 40# P-110 csg @ 3200'
cmtd w/ 1000 sx, cmt circ

TOC @ 3200'

373 jts 2-7/8" 6.5# L-80 Tbg

DV Tool @ 7022'
cmtd w/ 1050 sx

Perf Wolfcamp 9193-9411 3 jspf, 57 holes, acidize & frac

Perf Wolfcamp 9446-9610 3 jspf, 60 holes, acidize & frac

Perf Wolfcamp 9652-9744 3 jspf, 60 holes, acidize & frac

Perf Cisco 10013-10079 3 jspf, 60 holes, acidize & frac

Perf Cisco 10105-10206 3 jspf, 84 holes, acidize & frac

CIBP @ 11000 w/ 35' cmt

Morrow perfs (11066' - 11532')

PBTD @ 11838'

5-1/2" 17# L-80 & P-110 @ 11891' cmtd w/ 870 sx

TD @ 11891'

**Marquardt 1 Penn Federal #1
Ciscamp Recompletion Procedure**

Well Data:

KB	20' above GL
TD	11891'
PBTD	11838'
Casing	13-3/8" 54.5# J-55 @ 219'. Cmtd w/ 225 sx. Cmt circ. 9-5/8" 40# P-110 @ 3200'. Cmtd w/ 1000 sx. Cmt circ. 5-1/2" 17# L-80 & P-110 @ 11891'. Cmtd w/ 870 sx. Cmt circ. DV Tool @ 7022'. Cmtd w/ 1050 sx. TOC Est @ 3200'. L-80 csg (1071' – 7947')
Perforations	Morrow (11066' – 11532')

Procedure:

1. MIRU pulling unit. Kill well, ND WH, NU BOP. TOOH and LD 2-7/8" tbg. RU wireline and run CIBP and set @ \pm 11000'. Dump 35' of cmt on top of CIBP. RU pump truck and pressure test csg to 5000 psig w/ FW. ND BOP, Change out 5K wellhead for 10K wellhead, and RU 10K goat head frac valve.
2. RU wireline truck and perforate Cisco Canyon (10105' – 10109', 10122' – 10126', 10137' – 10141', 10160' – 10166', 10184' – 10188', 10200' – 10206') (10103' – 10107', 10120' – 10124', 10135' – 10139', 10158' – 10164', 10183' – 10187', 10199' – 10205') 3 JSPF at 120 degree phasing w/ 3-1/8" casing guns. Total of 84 holes. Depth reference log Halliburton Spectral Density Dual Spaced Neutron Log dated January 31, 2005. Depth reference Halliburton Cement Bond Log dated February 15, 2005.
3. RU Cudd. Acidize and frac Cisco Canyon perms (10105' – 10206') down 5-1/2" csg w/ 5000 gals acid followed by 159,965 gals slick water containing 10,000# 100 mesh & 100,000# 30/50 sand. Set 10K flow thru composite plug @ 10095'.
4. RU wireline and mast truck. Perforate Cisco Canyon (10013' – 10017', 10025' – 10029', 10046' – 10050', 10063' – 10067', 10075' – 10079') (10011' – 10015', 10023' – 10027', 10044' – 10048', 10061' – 10065', 10073' – 10077') 3 JSPF at 120 degree phasing w/ 3-1/8" casing guns. Total of 60 holes. Depth reference log Halliburton Spectral Density Dual Spaced Neutron Log dated January 31, 2005. Depth reference Halliburton Cement Bond Log dated February 15, 2005.
5. Acidize and frac Cisco Canyon perms (10013' – 10017') down 5-1/2" csg w/ 5000 gals acid followed by 159,841 gals slick water containing 10,000# 100 mesh & 110,000# 30/50 sand. Set 10K flow thru composite plug @ 9950'.

6. Perforate Wolfcamp (9652' – 9656', 9676' – 9680', 9700' – 9704', 9722' – 9726', 9740' – 9744') (9650' – 9654', 9674' – 9678', 9698' – 9702', 9720' – 9724', 9738' – 9742') 3 JSPF at 120 degree phasing w/ 3-1/8" casing guns. Total of 60 holes. Depth reference log Halliburton Spectral Density Dual Spaced Neutron Log dated January 31, 2005. Depth reference Halliburton Cement Bond Log dated February 15, 2005.
7. Acidize and frac Wolfcamp perms (9652' – 9744') down 5-1/2" csg w/ 10000 gals acid followed by 194,174 gals slick water containing 10,000# 100 mesh & 160,000# 30/50 sand. Set 10K flow thru composite plug @ 9635'.
8. Perforate Wolfcamp (9446' – 9448', 9465' – 9467', 9480' – 9482', 9506' – 9508', 9523' – 9526', 9553' – 9556', 9575' – 9578', 9607' – 9610') (9443' – 9445', 9462' – 9464', 9477' – 9479', 9503' – 9505', 9520' – 9523', 9550' – 9553', 9572' – 9575', 9604' – 9607') 3 JSPF at 120 degree phasing w/ 3-1/8" casing guns. Total of 60 holes. Depth reference log Halliburton Spectral Density Dual Spaced Neutron Log dated January 31, 2005. Depth reference Halliburton Cement Bond Log dated February 15, 2005.
9. Acidize and frac Wolfcamp perms (9446' – 9610') down 5-1/2" csg w/ 5000 gals acid followed by 249,703 gals slick water containing 15,000# 100 mesh & 215,000# 30/50 sand. Set 10K flow thru composite plug @ 9435'.
10. Perforate Wolfcamp (9193' – 9195', 9210' – 9212', 9243' – 9245', 9306' – 9308', 9327' – 9329', 9347' – 9349', 9375' – 9377', 9392' – 9394', 9408' – 9411') (9190' – 9192', 9207' – 9209', 9240' – 9242', 9303' – 9305', 9324' – 9326', 9344' – 9346', 9372' – 9374', 9389' – 9391', 9405' – 9408') 3 JSPF at 120 degree phasing w/ 3-1/8" casing guns. Total of 57 holes. Depth reference log Halliburton Spectral Density Dual Spaced Neutron Log dated January 31, 2005. Depth reference Halliburton Cement Bond Log dated February 15, 2005. RD wireline.
11. Acidize and frac Wolfcamp perms (9193' – 9408') down 5-1/2" csg w/ 10000 gals acid followed by 299,636 gals slick water containing 20,000# 100 mesh & 250,000# 30/50 sand. RD Cudd.
12. RU 1-3/4" coiled tbg unit. TIH w/ 4-3/4" butterfly mill & extreme downhole motor on 1-3/4" CT and drill out sand and composite plugs @ 9435', 9635', 9950', and 10095'. Make a minimum of 2 gel sweeps while drilling out composite plugs. FIH w/ coiled tbg and CO sand to 10900'. TOOH w/ mill, motor, & CT. RD coiled tbg unit.
11. Flow back well until sand production cleans up, the SI well overnight.

12. RU wireline and full 10K lubricator. RIH w/ 4-3/4" GR to 9150'. TIH w/ 10K pkr w/ on-off tool, and a pump out plug (pinned for 7500 psi BHP) in place and set @ \pm 9100'. RD wireline and full lubricator.
13. ND goat head and NU BOP. TIH w/ on-off tool, tbg and gas lift valves as per recommendation testing tubing below slips to 8000 psi. Tag pkr and PU 1 jt. RU PT and establish circ w/ FW. Pickle tbg w/ 500 gals 15% HCl and reverse out acid. Circ hole until good clean wtr is left in annulus. FIH w/ tbg and latch on to pkr. ND BOP, NU WH. RD pulling unit.
14. RU PT & pressure up to 4000 psig to pump out plug. Put well on production.

Cimarex Energy Company of Colorado
NM-14124: Marquardt 1 Penn Federal #1
API: 30-015-33457
Eddy County, New Mexico

RE: Recompletion – Conditions of Approval

There is to be no surface disturbance beyond the originally approved pad. A closed loop system is to be used. H2S monitoring and protection equipment is to be on site.

4 hours notice is required (575-361-2822) prior to:
Setting plugs

10,000 (10M) BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (2M Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2. **5M can be used for setting of CIBP, but 10M required for perforating.**

5M/10M systems shall require two independent power sources, one of which may be nitrogen bottles (three minimum) maintaining a charge equal to the manufacturer's recommendations.

CIBP is to be set at approximately 11020' with 25sx on top to isolate the plugs and cover the Morrow top.

Submit subsequent report and completion report with well test once work is completed.

DHW 010511