

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

RECEIVED
AUG 24 2010
NMOCD ARTESIA

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

2. Name of Operator
Cimarex Energy Co. of Colorado

3a. Address
600 N. Marienfeld St., Ste. 600; Midland, TX 79701

3b. Phone No. (include area code)
432-571-7800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
2310 FNL & 1330 FEL
12-25S-26E

5. Lease Serial No.

NM-14124

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Marquardt 12 Penn Federal No. 2

9. API Well No.

30-015-34329

10. Field and Pool, or Exploratory Area

White City; Penn (Gas)

11. County or Parish, 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 checked="" type="checkbox"/> Other <u>Recomplete to</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>Cisco and Wolfcamp and</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	<u>DHC</u>

13. Describe Proposed or Completed Operation (clearly state all pertinent details, included 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 @ 11513-11628.' CBP @ 12040' over Morrow perfs @ 12078-12085.' Cimarex proposes to plug Morrow and recomplete to Cisco and Wolfcamp for DHC as shown in the attached procedure, plat, and WBD.

- NDWH, NU 5K BOP. Rel pkr, TOOH & LD tbg. Set CIBP @ 10475' and dump 35' cmt on top. Request to adress abandonment plug over Morrow at final abandonment. Pressure test to 5000 psi.
- Perf Cisco 10137-10243' 3 jspf, 93 holes. Acidize and frac 10137-10243' w 5000 gal acid and 187001 gal slickwater containing 20000# 100 mesh & 100000# 30/50 sand. CBP @ 10125.'
- Perf Cisco 10032-10106 3 jspf, 60 holes. Acidize and frac 10032-10106' w 5000 al acid and 186868 gal slickwater containing 20000# 100 B92mesh & 100000# 30/50 mesh. CBP @ 10000.'
- Perf Wolfcamp 9607-9727' 3 jspf, 60 holes. Acidize and frac 9607-9727' w 10000 gal acid and 294498 gal slickwater containing 30000# 100 mesh & 200000# 30/50 sand. CBP @ 9570.'
- Perf Wolfcamp 9399-9533' 3 jspf, 60 holes. Acidize and frac 9399-9533' w 5000 gal acid and 295628 gal slickwater containing 30000# 100 mesh & 200000# 30/50 sand. CBP @ 9375.'
- Perf Wolfcamp 9181-9347' 3 jspf, 60 holes. Acidize and frac 9181-9347' w 5000 gal acid and 289284 gal slickwater containing 30000# 100 mesh & 200000# 30/50 sand.
- DO CBPS and CO sand to 10300' w coiled tubing. Install tbg assembly and pkr. Put on production.

DHC application in progress at NMOCD.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Natalie Krueger

Signature

**SUBJECT TO LIKE
APPROVAL BY STATE**
**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

Title

Regulatory
Date

August 12, 2010

Oil Conservation Division

Conditions of approval: Approval for drilling/workover ONLY--- CANNOT produce Downhole Commingled until DHC is approved in Santa Fe.

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, makes 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 reverse)

APPROVED

Date

AUG 19 2010

Is/Chris Walls

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

District I
1625 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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NMOCD ARTESIA

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-34329	² Pool Code 87280	³ Pool Name White City; Penn (Gas)
⁴ Property Code 34059	⁵ Property Name Marquardt 12 Penn Federal	⁶ Well Number 002
⁷ OGRID No. 162683	⁸ Operator Name Cimarex Energy Co. of Colorado	⁹ Elevation 3236' GR

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
G	12	25S	26E		2310	North	1330	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

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. DHC Pending
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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.

<div data-bbox="600 1372 974 1436" style="border: 1px solid black; padding: 5px; text-align: center;"> Marquardt 12 Penn Federal No. 2 2310 FNL & 1330 FEL </div>	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. <div data-bbox="1039 1266 1526 1351" style="border-bottom: 1px solid black; display: flex; justify-content: space-between;"> <i>Zeno Farris</i> 8/12/2010 </div> <div data-bbox="1039 1330 1526 1361" style="display: flex; justify-content: space-between;"> Signature Date </div> <div data-bbox="1039 1372 1526 1436" style="border-bottom: 1px solid black; text-align: center;"> Zeno Farris Printed Name </div>	
	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. <div data-bbox="1039 1755 1526 1819" style="border-bottom: 1px solid black; display: flex; justify-content: space-between;"> Date of Survey Signature and Seal of Professional Surveyor </div> <div data-bbox="1039 1968 1526 2010" style="border-bottom: 1px solid black; text-align: center;"> Certificate Number </div>	
	<div data-bbox="633 1883 1006 1947" style="border: 1px solid black; padding: 5px; text-align: center;"> Marquardt 12 Penn Federal No. 1 880 FSL & 1760 FEL </div>	
	NM-14124	

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
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1220 S. St. Francis Dr., Santa Fe, NM 87505

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Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
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Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-34329	² Pool Code 96890	³ Pool Name Sage Draw; Wolfcamp, E (G)
⁴ Property Code 34059	⁵ Property Name Marquardt 12 Penn Federal	⁶ Well Number 002
⁷ OGRID No. 162683	⁸ Operator Name Cimarex Energy Co. of Colorado	⁹ Elevation 3236' GR

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
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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

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. DHC Pending NSL PENDING
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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.

16					17 OPERATOR CERTIFICATION <i>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 8/12/2010 Signature Date Zeno Farris Printed Name
					18 SURVEYOR CERTIFICATION <i>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.</i> Date of Survey Signature and Seal of Professional Surveyor Certificate Number

Marquardt 12 Penn Federal No. 2
2310 FNL & 1330 FEL

NM-14124



Current

Cimarex Energy Co. of Colorado

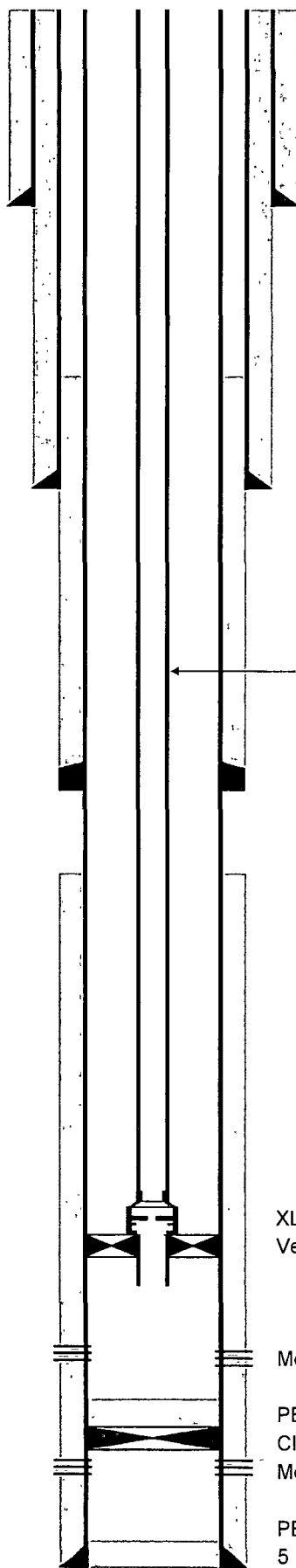
Marquardt 12 Penn Federal #2

2310' FNL & 1330' FEL

Sec. 12, T-25-S, R-26-E, Eddy Co., NM

S. Gengler

01/20/2010



13 3/8", 54.5# J-55 csg @ 217'
cmtd w/ 230 sx, cmt circ

TOC @ 2130' by CBL

9 5/8", 40# J-55 csg @ 2705'
cmtd w/ 825 sx, cmt circ

351 jts 2 3/8" 4.7# L-80 Tbg

DV Tool @ 6625'
cmtd w/ 1185 sx

TOC @ 7350'

XL On-off Tool w/ 1.81" F Profile Nipple @ 11478'
Versaset pkr @ 11480'

Morrow perfs (11513' - 11628')

PBTD @ 12020'

CIBP @ 12040'

Morrow perfs (12078' - 12085')

PBTD @ 12120'

5 1/2" 17# P-110 @ 12224' cmtd w/ 1340 sx

TD @ 12234'



Proposed

Cimarex Energy Co. of Colorado

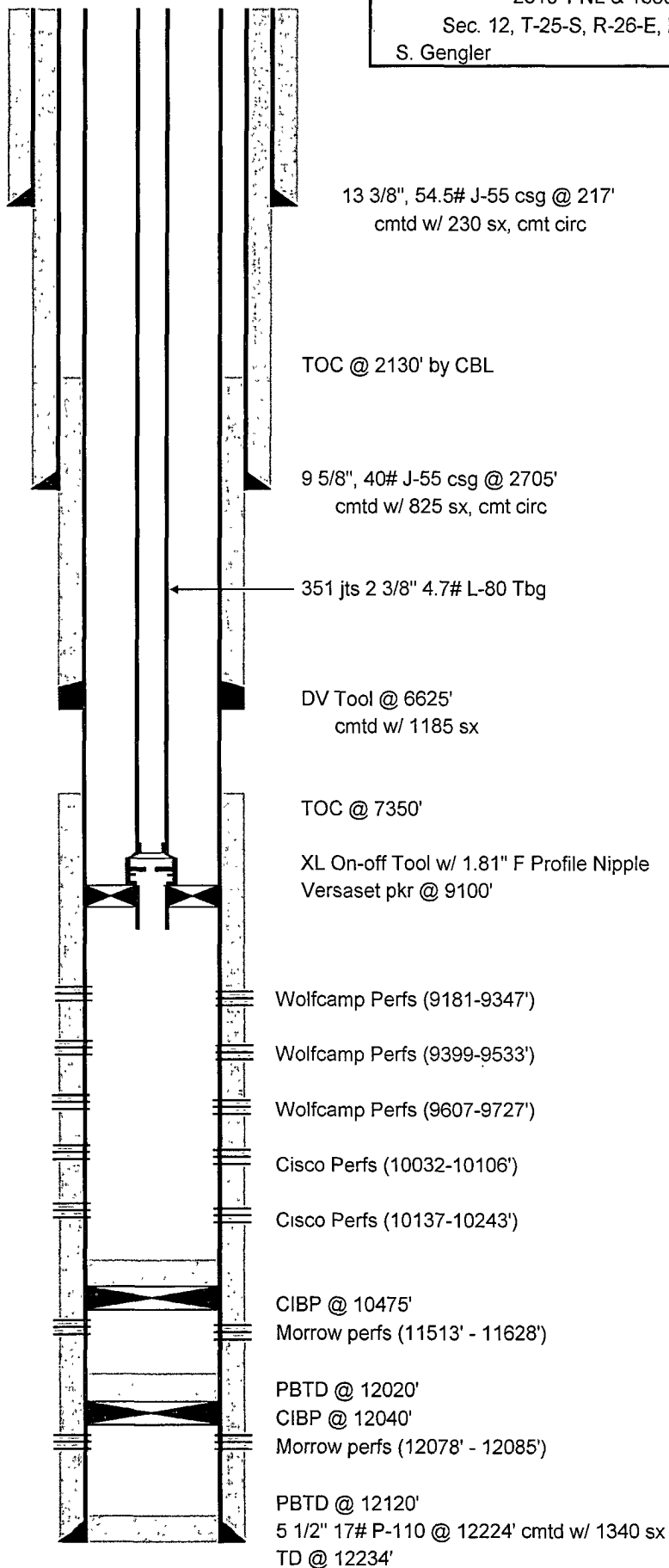
Marquardt 12 Penn Federal #2

2310' FNL & 1330' FEL

Sec. 12, T-25-S, R-26-E, Eddy Co., NM

S. Gengler

01/20/2010



Marquardt 12 Penn Federal #2 Ciscamp Recompletion Procedure

Well Data:

KB	19' above GL
TD	12234'
PBTD	12020'
Casing	13-3/8" 54.5# J-55 @ 217'. Cmtd w/ 230 sx. Cmt circ. 9-5/8" 40# J-55 @ 2705'. Cmtd w/ 825 sx. Cmt circ. 5-1/2" 17# P-110 @ 12224'. Cmtd w/ 1340 sx. TOC @ 7350' by CBL. DV Tool @ 6625'. Cmtd w/ 1185 sx. TOC @ 2130' by CBL.
Perforations	Morrow (11513' – 11628')

Procedure:

1. MIRU pulling unit. Kill well, ND WH, NU BOP. TOOH and LD 2-3/8" tbg. RU wireline and run CIBP and set @ \pm 10475'. 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 (10137' – 10142', 10154' – 10159', 10170' – 10175', 10196' – 10202', 10220' – 10224', 10237' – 10243') 3 JSPF at 120 degree phasing w/ 3-1/8" casing guns. Total of 93 holes. Depth reference log Halliburton Spectral Density Dual Spaced Neutron Log dated October 12, 2005.
3. RU Cudd. Acidize and frac Cisco Canyon perms (10137' – 10243') down 5-1/2" csg w/ 5000 gals acid followed by 187,001 gals slick water containing 20,000# 100 mesh & 100,000# 30/50 sand. Set 10K flow thru composite plug @ 10125'.
4. RU wireline and mast truck. Perforate Cisco Canyon (10032' – 10036', 10044' – 10048', 10069' – 10073', 10090' – 10094', 10102' – 10106') 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 October 12, 2005
5. Acidize and frac Cisco Canyon perms (10032' – 10106') down 5-1/2" csg w/ 5000 gals acid followed by 186,868 gals slick water containing 20,000# 100 mesh & 100,000# 30/50 sand. Set 10K flow thru composite plug @ 10000'.
6. Perforate Wolfcamp (9607' – 9610', 9622' – 9625', 9648' – 9651', 9678' – 9681', 9701' – 9704', 9722' – 9727') 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 October 12, 2005.

Marquardt 12 Penn Federal #2
Ciscamp Recompletion Procedure
Page 2

7. Acidize and frac Wolfcamp perms (9607' – 9727') down 5-1/2" csg w/ 10000 gals acid followed by 294,498 gals slick water containing 30,000# 100 mesh & 200,000# 30/50 sand. Set 10K flow thru composite plug @ 9570'.
8. Perforate Wolfcamp (9399' – 9403', 9429' – 9433', 9454' – 9458', 9494' – 9498', 9529' – 9533') 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 October 12, 2005.
9. Acidize and frac Wolfcamp perms (9399' – 9533') down 5-1/2" csg w/ 5000 gals acid followed by 295,628 gals slick water containing 30,000# 100 mesh & 200,000# 30/50 sand. Set 10K flow thru composite plug @ 9375'.
10. Perforate Wolfcamp (9181' – 9184', 9210' – 9213', 9273' – 9277', 9307' – 9312', 9342' – 9347') 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 October 12, 2005. RD wireline.
11. Acidize and frac Wolfcamp perms (9181' – 9347') down 5-1/2" csg w/ 5000 gals acid followed by 289,284 gals slick water containing 30,000# 100 mesh & 200,000# 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 @ 9375', 9570', 10000', and 10125'. Make a minimum of 2 gel sweeps while drilling out composite plugs. FIH w/ coiled tbg and CO sand to 10300'. 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.

**Marquardt 12 Penn Federal 2
30-015-34329
Cimarex Energy Co. of Colorado
August 18, 2010
Conditions of Approval**

- 1. A plug must be set across the top of the Morrow Formation prior to selling the well or at final abandonment.**
- 2. Surface disturbance beyond the originally approved pad must have prior approval.**
- 3. Closed loop system required.**
- 4. A minimum of a 5M BOP is required and must be tested prior to performing operations. 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.**
- 5. Operator to have H2S monitoring equipment on location as H2S has been reported from wells in the area.**
- 6. Completion report and subsequent sundry required.**

CRW 081810