

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**APPLICATION OF CIMAREX
ENERGY CO. FOR COMPULSORY
POOLING, EDDY COUNTY,
NEW MEXICO**

CASE NO. 20745

Examiner Docket: September 5, 2019

CIMAREX'S EXHIBITS

KLEIN 33 FEDERAL COM 11H



Earl E. DeBrine, Jr.
Lance D. Hough



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P. O. Box 2168 / Albuquerque, NM 87103
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Klein 33 Federal Com 11H

Exhibit A Affidavit of Russell Wickman

- A-1 Application
- A-2 C102
- A-3 Tract Exhibit Pooling
- A-4 Well Proposal
- A-5 AFE's

Exhibit B Affidavit of Emily Swanson

- B-1 Geology Exhibits
- B-2 Geology Exhibits
- B-3 Geology Exhibits
- B-4 Geology Exhibits
- B-5 Geology Exhibits

Exhibit C Affidavit of Lance D. Hough

Certified Mail Log / Notice August 13, 2019
Certified Mail Log / Report September 4, 2019
Affidavit of Publication

Earl E. DeBrine, Jr.
Lance D. Hough



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P. O. Box 2168 / Albuquerque, NM 87103
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**APPLICATION OF CIMAREX
ENERGY CO. FOR COMPULSORY
POOLING, EDDY COUNTY,
NEW MEXICO**

CASE NO. 20745

AFFIDAVIT OF RUSSELL WICKMAN

STATE OF TEXAS)
) ss.
COUNTY OF MIDLAND)

Russell Wickman, being duly sworn, deposes and states:

1. I am a landman for Cimarex Energy Co. ("Cimarex"), over the age of 18 and have personal knowledge of the matters stated herein. I have previously been qualified to testify by the New Mexico Oil Conservation Division as an expert in petroleum land matters.

2. Pursuant to NMAC 19.15.4.12.A(1), the following information is submitted in support of the above referenced compulsory pooling applications filed by Cimarex.

3. This case involves a request for an order from the Division for compulsory pooling of interest owners who have refused to voluntarily pool their interests for the proposed Wolfcamp horizontal spacing unit described below, and in the well to be drilled in the horizontal spacing unit.

4. Prior to filing it application, Cimarex made a good faith effort to obtain voluntary joinder of the working interest owners in the proposed well. Cimarex identified all of the working interest, unleased mineral interests, and overriding royalty interest owners from a title opinion. To locate interest owners, Cimarex conducted a diligent search of the public records in the county where the well will be located, and conducted phone directory and computer searches to locate contact information for parties entitled to notification. I mailed all working interest owners well proposals and an Authorization for Expenditure, and a form of Operating Agreement upon request.

5. No opposition is expected. Prior to filing its applications Cimarex contacted the interest owners being pooled regarding the proposed well; the pooled working interest owners have failed or refused to voluntarily commit their interests in the well. Cimarex provided all of the working interest owners, any unleased mineral owners, and overriding royalty owners with notice of this application, and none have entered an appearance in opposition to Cimarex's application.

6. In its Application, Cimarex seeks an order from the Division: (1) to the extent necessary, approving the creation of a 446.91-acre, more or less, Wolfcamp horizontal spacing unit; and (2) pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the E/2 of Section 28 and the E/2 of Irregular Section 33, Township 26 South, Range 27 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Klein 33 Federal Com 11H** well, to be horizontally drilled. The Application is attached hereto as **Exhibit A.1**.

7. Cimarex has a scheduled spud date of January 19, 2020 for the **Klein 33 Federal Com 11H** well and requests that the Division enter an expedited order on its application in this case.

8. Attached as **Exhibit A.2** is a C-102 showing the proposed well location, including the first and last take points. The well will develop the Purple Sage; Wolfcamp Pool (Pool Code 98220), which is a gas pool. The producing interval for the wells will be orthodox and will comply with the Division's special set back requirements in Order No. R-14262, as the first and last take points will be no closer than 330' from the proposed unit boundary and the completed lateral will be approximately 380' from the proposed unit boundary.

9. A lease tract map outlining the unit to be pooled is attached hereto as **Exhibit A.3**. The working interest owners being pooled and the percent of their interests is also included as part

of **Exhibit A.3**. As noted on Exhibit A.3, tract 3 of the proposed unit is an 80-acre tract in which the ownership of a 50% interest is disputed and currently involved in litigation. The parties claiming ownership, Premier Oil & Gas, Inc. and Tuffy Oil Co, have both agreed to participate in the unit, subject to resolution of their title dispute and Cimarex is carrying that interest until the dispute is resolved.

10. Cimarex owns an interest in each tract in the proposed unit and has a right to drill a well thereon.

11. There are no depth severances within the proposed Wolfcamp spacing unit.

12. **Exhibit A.4** is a sample well proposal letter sent to each of the working interest owners seeking their voluntary participation in the well.

13. **Exhibit A.5** is the Authorization for Expenditure for the proposed well. The estimated cost of the well set forth therein of \$6,862,000 is fair and reasonable, and is comparable to the costs of other wells of similar depth, length and completion method being drilled in this area of New Mexico.

14. Cimarex requests overhead and administrative rates of \$7,000/month during drilling and \$700/month while producing. These rates are fair and comparable to the rates charged by other operators for wells of this type in this area of Southeastern, New Mexico and consistent with the rates awarded by the Division in recent compulsory pooling orders. Cimarex requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.

15. Cimarex requests the maximum cost plus 200% risk charge be assessed against non-consenting pooled working interest owners.

16. Cimarex requests that it be designated operator of the well.

17. Cimarex requests that it be allowed a period of one (1) year between when the wells are drilled and when the first well is completed under the order.


18. The parties Cimarex is seeking to pool were notified of this hearing.

19. Cimarex requests that overriding royalty interest owners be pooled.

20. Based upon my knowledge of the land matters involved in this case, education and training, it is my expert opinion that the granting of Cimarex's applications in this case is in the interests of conservation and the prevention of waste.

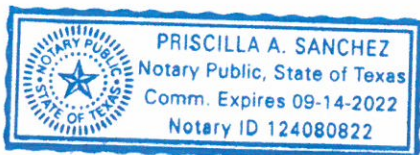
21. The attachments to my Affidavit were prepared by me or compiled from company business records.

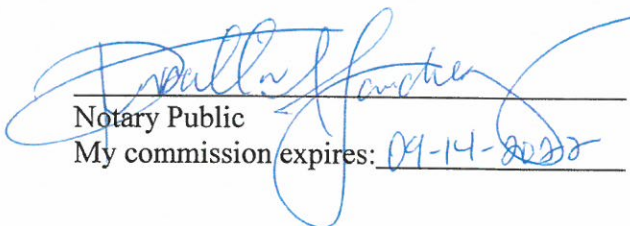
22. I attest that the information provided herein is true, correct and complete to the best of my knowledge and belief.


Russell Wickman

SUBSCRIBED AND SWORN to before me this 4th day of September 2019 by Russell Wickman.

S E A L




Notary Public
My commission expires: 09-14-2022

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION

APPLICATION OF CIMAREX
ENERGY CO. FOR COMPULSORY
POOLING, EDDY COUNTY,
NEW MEXICO

CASE NO. _____

APPLICATION

Cimarex Energy Co. ("Cimarex"), OGRID Number 215099, through its undersigned attorneys, hereby makes an application to the Oil Conservation Division pursuant to the provisions of NMSA (1978), Section 70-2-17, for an order pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the E/2 of Section 28 and the E/2 Irregular Section 33, Township 26 South, Range 27 East, NMPM, Eddy County, New Mexico. In support of this application, Cimarex states as follows:

1. Cimarex is an interest owner in the subject lands and has a right to drill a well thereon.
2. Cimarex seeks to dedicate the E/2 of Section 28 and the E/2 Irregular Section 33, Township 26 South, Range 27 East, NMPM, Eddy County, New Mexico to form a 446.91-acre, more or less, spacing unit. Said Section 33 is irregular.
3. Cimarex plans to drill the **Klein 33 Federal Com 11H** well to a depth sufficient to test the Wolfcamp formation. This well is a horizontal well with a surface location of 131' FSL and 750' FEL of Irregular Section 33, Township 26 South, Range 27 East, Eddy County, and an intended bottom hole location of 280' FNL and 380' FEL of Section 28, Township 26 South, Range 27 East, Eddy County.



4. This well is proposed to be drilled vertically to a depth of approximately 9,134' to the Wolfcamp formation and laterally in a northerly direction within the formation to the referenced bottom hole location.

5. This well will be located within the Purple Sage; Wolfcamp (Gas) Pool (Pool Code 98220) and will comply with the Division's setback requirements in Order No. R-14262.

6. Cimarex sought, but has been unable to obtain, a voluntary agreement from all interest owners in the Wolfcamp formation underlying the proposed spacing unit to participate in the drilling of the well or to otherwise commit their interests to the well.

7. The creation of a horizontal spacing unit and the pooling of all interests in the Wolfcamp formation underlying the proposed unit will prevent the drilling of unnecessary wells, prevent waste and protect correlative rights.

WHEREFORE, this case is set for hearing before an Examiner of the Oil Conservation Division on September 5, 2019, Cimarex requests that, after notice and hearing as required by law, the Division enter its order:

A. Creating a horizontal spacing unit in the Wolfcamp formation comprised of E/2 of Section 28 and Irregular Section 33, Township 26 South, Range 27 East, NMPM, Eddy County, New Mexico;

B. Pooling all mineral interests in the Wolfcamp formation underlying a horizontal spacing unit within the E/2 of Section 28 and the E/2 Irregular Section 33, Township 26 South, Range 27 East, NMPM, Eddy County, New Mexico;

C. Designating Cimarex as operator of this unit and the well to be drilled thereon;

D. Authorizing Cimarex to recover its costs of drilling, equipping and completing the well;

E. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure;

F. Setting a 200% charge for the risk involved in drilling and completing the well in the event a working interest owner elects not to participate in the well.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS
& SISK, P.A.

By: 

Earl E. DeBrine, Jr.
Lance D. Hough
Post Office Box 2168
500 Fourth Street NW, Suite 1000
Albuquerque, New Mexico 87103-2168
Telephone: 505.848.1800
edebrine@modrall.com
ldh@modrall.com
Attorneys for Applicant

W3481743.DOCX

CASE NO. _____: Application of Cimarex Energy Co. for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order from the Division: (1) to the extent necessary, approving the creation of a 446.91-acre, more or less, Wolfcamp horizontal spacing unit; and, (2) pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the E/2 of Section 28 and the E/2 Irregular Section 33, Township 26 South, Range 27 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Klein 33 Federal Com 11H** well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Cimarex as operator of the well, and a 200% charge for risk involved in drilling said well. Said area is located approximately 19 miles southwest of Loving, New Mexico.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720
District III
1000 Rio Blanco Road, Artec, 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	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name KLEIN 33 FEDERAL COM	⁶ Well Number 1111
⁷ OGRID No.	⁸ Operator Name CIMAREX ENERGY CO.	⁹ Elevation 3213.3'

" Surface Location

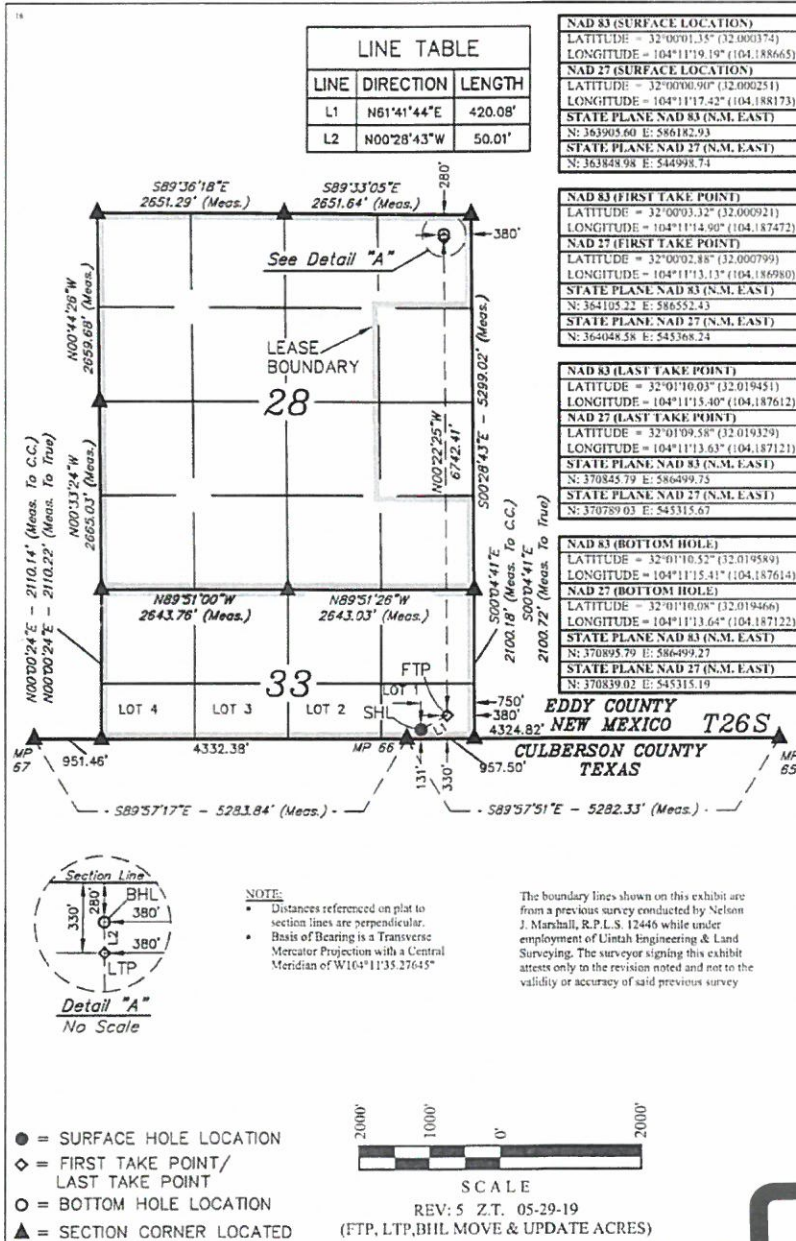
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	33	26S	27E	131	131	SOUTH	750	EAST	EDDY

" 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
A	28	26S	27E	280	280	NORTH	380	EAST	EDDY

¹² Dedicated Acres 446.91	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.



" 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.

Signature _____ Date _____

Printed Name _____

E-mail 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.

August 29, 2013

Date of Survey
Signature and Seal of Professional Surveyor:



Certificate Number: _____

EXHIBIT

A-2

KLEIN FED COM 33 11H

Working Interest (estimated – title update being prepared)

XEC -----	0.46228435 (0.346713264 NRI)
XEC CARRY -----	0.00570585
(Bellomy, Corexcal, Petrocap, Matagorda)	
XEC to carry (MI subject to litigation)---	0.08951750
Chevron -----	0.41049652
XTO -----	0.01331364
Nearburg -----	0.01331364

AGREEMENTS AND NEGOTIATIONS:

- Executed JOA received from Nearburg, Premier, and Tuffy
- Waiting to receive executed JOA from XTO
- Negotiating minor revisions to JOA with Chevron
- No response from Bellomy, Corexcal, or Petrocap
- Verbal agreement on a lease with Matagorda but waiting on written agreement.

28	<div>BLM LEASE 50% XEC 50% Chevron</div> <div>TRACT 1 BLM LEASE 50% XEC 50% Chevron</div> <div>TRACT 3 80 acres Fee Tract Multiple Leases 50% of MI is subject to litigation. XEC to carry disputed interest</div>
33	<div>BLM LEASE 50% XEC 50% Chevron</div> <div>TRACT 2 BLM LEASE 50% XEC 50% Chevron</div>



Cimarex Energy Co.
600 N. Marienfeld St.
Suite 600
Midland, TX 79701
MAIN 432.571.7800



June 4, 2019

Chevron U.S.A. Inc.
Attn: Kristen Hunter
6301 Deauville Blvd.
Midland, Texas 79706

Via-CMRRR: 9402 6108 9876 5036 5725 36

**Re: Proposal to drill
Klein 33 Fed Com #11H
Sections 28 & 33, Township 26 South, Range 27 East, N.M.P.M.,
Eddy County, New Mexico**

Dear Kristen:

Cimarex Energy Co. hereby proposes to drill the Klein 33 Fed Com #11H Well at a legal location in Sections 28 & 33, Block 59, Township 2, N.M.P.M., Eddy County, New Mexico.

The intended surface hole location for the well is 131' FSL and 750' FEL in Section 33, Township 26 South, Range 27 East and the intended bottom hole location is 280' FNL & 380' FEL of Section 28, Township 26 South, Range 27 East, Eddy County, New Mexico. The well is proposed to be drilled vertically to a depth of approximately 9,134 feet and laterally in a northerly direction within the Wolfcamp formation to the referenced bottom hole location. Total Measured Depth of the well is proposed to be approximately 15,234 feet from surface to terminus.

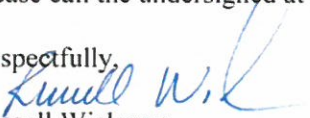
It should be understood that compliance with topography or cultural or environmental concerns, among others, might require modification of Cimarex's intended procedure. Cimarex will advise you of any such modifications.

Enclosed, in duplicate, is (i) our detailed AFE reflecting estimated costs associated with this proposal, and (ii) our proposed form of Operating Agreement to govern operations of the Klein 33 Fed Com #11H. If you intend to participate, please approve and return one (1) original of the enclosed AFE, and one (1) original signature page to the Operating Agreement, along with the contact information to receive your well data, to the undersigned within thirty (30) days of receipt of this proposal. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance to Cimarex prior to commencement of drilling operations; otherwise, you will be covered by insurance procured by Cimarex and will be responsible for your share of the cost.

In the event you choose not to participate and are unleased mineral interest owner, Cimarex would be interested in acquiring an oil and gas lease on your mineral interest.

Please call the undersigned at (432) 620-1973 with any questions or comments.

Respectfully,


Russell Wickman
Senior Landman

RW/ps
Enclosures as stated



**ELECTION TO PARTICIPATE
Klein 33 Fed Com #11H**

_____ Chevron U.S.A. Inc. elects **TO** participate in the proposed Klein 33 Fed Com #11H Well.

_____ Chevron U.S.A. Inc. elects **NOT** to participate in the proposed Klein 33 Fed Com #11H Well.

Dated this ____ day of _____, 20__.

Signature: _____

Title: _____

If your election above is TO participate in the proposed Klein 33 Fed Com #11H Well, then:

_____ Chevron U.S.A. Inc. elects **TO** be covered by well control insurance procured by
Cimarex Energy Co.

_____ Chevron U.S.A. Inc. elects **NOT** to be covered by well control insurance procured by
Cimarex Energy Co. and agrees to provide Cimarex Energy Co. with a certificate of
Insurance prior to commencement of drilling operations or be deemed to have
elected to be covered by well control insurance procured by Cimarex Energy Co.



Authorization For Expenditure Drilling

AFE # 26620012

Company Entity

Date Prepared

6/3/2019

Exploration Region	Well Name	Prospect	Property Number	AFE
Permian Basin	KLEIN 33 FEDERAL COM 11H	New Mexico Bone Spring Pros (Eddy)	309775-305.01	26620012
County, State	Location	Estimated Spud	Estimated Completion	
Eddy, NM	Section 33, T26S-R27E, N.M.P.M., Eddy County, New Mexico	1/2/2020		
<input checked="" type="checkbox"/> New Supplement Revision	Formation	Well Type	Trl Measured Depth	Trl Vertical Depth
	Wolfcamp Upper	DEV	15,234	9,134

Purpose Drill and complete well

Description

Drilling Drill and complete a horizontal test. Drill to 450', set water string casing. Drill to 2113', set surface casing. Drill to 8624' (KOP). Drill curve at 12°/100' initial build rate to +/- 75 degrees and set casing at +/- 9249' MD. Finish curve at +/- 4°/100' to +/- 9130' TVD and drill a +/- 5610' long lateral in the Wolfcamp formation. Run and cement production liner. Stage frac. Drill out plugs. Run production packer, tubing and GLVs.

Intangible	Dry Hole	After Casing Point	Completed Well Cost
Drilling Costs	\$2,375,000		\$2,375,000
Completion Costs		\$3,652,000	\$3,652,000
Total Intangible Cost	\$2,375,000	\$3,652,000	\$6,027,000
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$375,000	\$460,000	\$835,000
Lease Equipment		\$0	\$0
Total Tangible Cost	\$375,000	\$460,000	\$835,000
Total Well Cost	\$2,750,000	\$4,112,000	\$6,862,000

Comments On Well Costs

1. All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

Well Control Insurance

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator's well control insurance procured by Operator so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned, if available, but in no event later than commencement of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

I elect to purchase my own well control insurance policy.

Marketing Election

Cimarex sells its gas under arm's-length contracts with third party purchasers. Such contracts may include fees. In addition, penalties may be incurred for insufficient volumes delivered over time. Should you choose to market your share of gas with Cimarex, you will be subject to all of the terms of such contracts. Upon written request to Cimarex's Marketing Department, we will share with you the terms and conditions pursuant to which gas will be sold. Failure to make an election below shall be deemed an election to market your gas with Cimarex under the terms and conditions set forth above.

I elect to take my gas in kind.

I elect to market my gas with Cimarex pursuant to the terms and conditions of its contract.

Comments on AFE

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

Nonoperator Approval

Company	Approved By (Print Name)	Approved By (Signature)	Date

NOTICE TO NONOPERATOR: Costs shown on this form are estimates only. By executing this AFE, the consenting party agrees to pay its proportionate share of actual costs incurred. Overhead will be charged in accordance with the Joint Operating Agreement.

6/3/2019





Description	BCP - Drilling		ACP - Drilling		Comp/Stim		Production Equip		Post Completion		Total	Cost
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount		
Roads & Location	DIDC.100	50,000			STIM.100	10,000	CON.100	0	PCOM.100	0		60,000
Damages	DIDC.105	6,000					CON.105	0				6,000
Mud/Fluids Disposal	DIDC.255	160,000			STIM.255	34,000			PCOM.255	0		194,000
Day Rate	DIDC.115	449,000	DICC.120	104,000								553,000
Misc Preparation	DIDC.120	35,000										35,000
Bits	DIDC.125	75,000	DICC.125	0	STIM.125	0			PCOM.125	0		75,000
Fuel	DIDC.135	83,000	DICC.130	0					PCOM.130	0		83,000
Water for Drilling Rig (Not Frac Water)	DIDC.140	5,000	DICC.135	0	STIM.135	13,000			PCOM.135	0		18,000
Mud & Additives	DIDC.145	198,000										198,000
Surface Rentals	DIDC.150	105,000	DICC.140	0	STIM.140	134,000	CON.140	0	PCOM.140	0		239,000
Downhole Rentals	DIDC.155	136,000			STIM.145	0			PCOM.145	0		136,000
Flowback Labor					STIM.141	0			PCOM.141	0		0
Automation Labor							CON.150	0	PCOM.150	0		0
Formation Evaluation (DST, Coring, etc.)	DIDC.160	0			STIM.150	0						0
Mud Logging	DIDC.170	19,000										19,000
Open Hole Logging	DIDC.180	0										0
Cementing & Float Equipment	DIDC.185	145,000	DICC.155	63,000								208,000
Tubular Inspections	DIDC.190	50,000	DICC.160	5,000	STIM.160	4,000			PCOM.160	0		59,000
Casing Crews	DIDC.195	20,000	DICC.165	13,000	STIM.165	0						33,000
Mechanical Labor	DIDC.200	20,000	DICC.170	10,000	STIM.170	0	CON.170	0	PCOM.170	0		30,000
Trucking/Transportation	DIDC.205	25,000	DICC.175	8,000	STIM.175	4,000	CON.175	0	PCOM.175	0		37,000
Supervision	DIDC.210	89,000	DICC.180	16,000	STIM.180	56,000	CON.180	0	PCOM.180	0		161,000
Trailer House/Camp/Catering	DIDC.280	39,000	DICC.255	6,000	STIM.280	20,000						65,000
Other Misc Expenses	DIDC.220	5,000	DICC.190	0	STIM.190	78,000	CON.190	0	PCOM.190	0		83,000
Overhead	DIDC.225	10,000	DICC.195	5,000								15,000
Remedial Cementing	DIDC.231	0			STIM.215	0			PCOM.215	0		0
MOB/DEMOS	DIDC.240	150,000										150,000
Directional Drilling Services	DIDC.245	227,000										227,000
Solids Control	DIDC.260	73,000										73,000
Well Control Equip (Snubbing Services)	DIDC.265	73,000	DICC.240	5,000	STIM.240	41,000			PCOM.240	0		119,000
Fishing & Sidetrack Services	DIDC.270	0	DICC.245	0	STIM.245	0			PCOM.245	0		0
Completion Rig					STIM.115	21,000			PCOM.115	0		21,000
Coil Tubing Services					STIM.260	291,000			PCOM.260	0		291,000
Completion Logging/Perforating/Wireline					STIM.200	242,000			PCOM.200	0		242,000
Composite Plugs					STIM.390	52,000			PCOM.390	0		52,000
Stimulation Pumping/Chemicals/Additives/Sand					STIM.210	1,955,000			PCOM.210	0		1,955,000
Stimulation Water/Water Transfer/Water Storage					STIM.395	248,000						248,000
Cimarex Owned Frac/Rental Equipment					STIM.305	40,000			PCOM.305	0		40,000
Legal/Regulatory/Curative	DIDC.300	10,000					CON.300	0				10,000
Well Control Insurance	DIDC.285	5,000										5,000
Major Construction Overhead							CON.305	0				0
Real Time Operations Center	DIDC.560	0			STIM.560	0						0
FL/GL - Labor							CON.500	0				0
FL/GL - Supervision							CON.505	0				0
Survey							CON.515	0				0
SWD/Other - Labor							CON.600	0				0
SWD/OTHER - SUPERVISION							CON.605	0				0
Contingency	DIDC.435	113,000	DICC.220	12,000	STIM.220	162,000	CON.220	0	PCOM.220	0		287,000
Contingency							CON.221	0				0
P&A Costs	DIDC.295	0	DICC.275	0								0
Total Intangible Cost		2,375,000		247,000		3,405,000		0		0		6,027,000
Drive Pipe	DWEB.150	0										0
Conductor Pipe	DWEB.130	0										0
Water String	DWEB.135	16,000										16,000
Surface Casing	DWEB.140	53,000										53,000
Intermediate Casing 1	DWEB.145	286,000										286,000
Intermediate Casing 2	DWEB.155	0										0
Drilling Liner	DWEB.160	0										0
Production Casing or Liner			DWEA.100	100,000								100,000
Production Tie-Back			DWEA.165	0	STIMT.101	0						0
Tubing					STIMT.105	69,000			PCOMT.105	0		69,000
Wellhead, Tree, Chokes	DWEB.115	20,000	DWEA.120	25,000	STIMT.120	60,000			PCOMT.120	0		105,000
Liner Hanger, Isolation Packer	DWEB.100	0	DWEA.125	98,000								98,000
Packer, Nipples					STIMT.400	28,000			PCOMT.400	0		28,000
Pumping Unit, Engine					STIMT.405	0			PCOMT.405	0		0
Downhole Lift Equipment					STIMT.410	80,000			PCOMT.410	0		80,000
Surface Equipment									PCOMT.420	0		0
Well Automation Materials									PCOMT.455	0		0
Total Tangible - Well Equipment Cost		375,000		223,000		237,000				0		835,000
N/C Lease Equipment							CONT.400	0				0
Tanks, Tanks Steps, Stairs							CONT.405	0				0
Battery Equipment							CONT.410	0				0
Secondary Containments							CONT.415	0				0
Overhead Power Distribution							CONT.420	0				0
Facility Electrical							CONT.425	0				0
Telecommunication Equipment							CONT.426	0				0
Meters and Metering Equipment							CONT.445	0				0
Facility Line Pipe							CONT.450	0				0
Lease Automation Materials							CONT.455	0				0
FL/GL - Materials							CONT.550	0				0
FL/GL - Line Pipe							CONT.555	0				0
SWD/Other - Materials							CONT.650	0				0
SWD/OTHER - LINE PIPE							CONT.655	0				0
Total Tangible - Lease Equipment Cost								0				0
Total Estimated Cost		2,750,000		470,000		3,642,000		0		0		6,862,000



Authorization For Expenditure - KLEIN 33 FEDERAL COM 11H

AFE # 26620012

BCP - Drilling				ACP - Drilling				Comp/Stim			
Description	Codes	Amount		Codes	Amount			Codes	Amount		
Roads & Location	DIDC.100	50,000						STIM.100	10,000		
Damages	DIDC.105	6,000									
Mud/Fluids Disposal	DIDC.255	160,000						STIM.255	34,000		
Day Rate	DIDC.115 16 days at \$26,000/day	449,000		DICC.120 4 days at \$26,000/day	104,000						
Misc Preparation	DIDC.120	35,000									
Bits	DIDC.125	75,000		DICC.125	0			STIM.125	0		
Fuel	DIDC.135 1,300 gal/day at \$3.00/gal	83,000		DICC.130	0						
Water for Drilling Rig (Not Frac Water)	DIDC.140	5,000		DICC.135	0			STIM.135	13,000		
Mud & Additives	DIDC.145	198,000									
Surface Rentals	DIDC.150 Per Day (BCP)/day	105,000		DICC.140	0			STIM.140	134,000		
Downhole Rentals	DIDC.155	136,000						STIM.145	0		
Flowback Labor								STIM.141	0		
Automation Labor											
Formation Evaluation (DST, Coring, etc.)	DIDC.160	0						STIM.150	0		
Mud Logging	DIDC.170 12 days at \$1,200/day	19,000									
Open Hole Logging	DIDC.180	0									
Cementing & Float Equipment	DIDC.185	145,000		DICC.155	63,000						
Tubular Inspections	DIDC.190	50,000		DICC.160	5,000			STIM.160	4,000		
Casing Crews	DIDC.195	20,000		DICC.165	13,000			STIM.165	0		
Mechanical Labor	DIDC.200	20,000		DICC.170	10,000			STIM.170	0		
Trucking/Transportation	DIDC.205	25,000		DICC.175	8,000			STIM.175	4,000		
Supervision	DIDC.210	89,000		DICC.180	16,000			STIM.180	56,000		
Trailer House/Camp/Catering	DIDC.280	39,000		DICC.255	6,000			STIM.280	20,000		
Other Misc Expenses	DIDC.220	5,000		DICC.190	0			STIM.190	78,000		
Overhead	DIDC.225	10,000		DICC.195	5,000						
Remedial Cementing	DIDC.231	0						STIM.215	0		
MOB/DEMOB	DIDC.240	150,000									
Directional Drilling Services	DIDC.245	227,000									
Solids Control	DIDC.260	73,000									
Well Control Equip (Snubbing Services)	DIDC.265	73,000		DICC.240	5,000			STIM.240	41,000		
Fishing & Sidetrack Services	DIDC.270	0		DICC.245	0			STIM.245	0		
Completion Rig								STIM.115	21,000		
Coil Tubing Services								STIM.260	291,000		
Completion Logging/Perforating/Wireline								STIM.200	242,000		
Composite Plugs								STIM.390	52,000		
Stimulation								STIM.210	1,955,000		
Stimulation Water/Water Transfer/Water								STIM.395	248,000		
Cimarex Owned Frac/Rental Equipment								STIM.305	40,000		
Legal/Regulatory/Curative	DIDC.300	10,000									
Well Control Insurance	DIDC.285 \$0.35/ft	5,000									
Major Construction Overhead											
Real Time Operations Center	DIDC.560	0						STIM.560	0		
FL/GL - Labor											
FL/GL - Supervision											
Survey											
SWD/Other - Labor											
SWD/OTHER - SUPERVISION											
Contingency	DIDC.435 500 % of Drilling Intangibles	113,000		DICC.220	12,000			STIM.220	162,000		
Contingency											
P&A Costs	DIDC.295	0		DICC.275	0						
Total Intangible Cost		2,375,000			247,000				3,405,000		
Drive Pipe	DWEB.150	0									
Conductor Pipe	DWEB.130	0									
Water String	DWEB.135	16,000									
Surface Casing	DWEB.140 9 5/8" - 2,113ft at \$25.00/ft	53,000									
Intermediate Casing 1	DWEB.145 7" - 9,350ft at \$28.00/ft	286,000									
Intermediate Casing 2	DWEB.155	0									
Drilling Liner	DWEB.160	0									
Production Casing or Liner				DWEA.100 4 1/2" - 7,710ft at \$13.00/ft	100,000						
Production Tie-Back				DWEA.165	0			STIMT.101	0		
Tubing								STIMT.105 3-1/2" - 7,720ft at \$9.00/ft	69,000		
Wellhead, Tree, Chokes	DWEB.115	20,000		DWEA.120	25,000			STIMT.120	60,000		
Liner Hanger, Isolation Packer	DWEB.100	0		DWEA.125	98,000						
Packer, Nipples								STIMT.400	28,000		
Pumping Unit, Engine								STIMT.405	0		
Downhole Lift Equipment								STIMT.410	80,000		
Surface Equipment											
Well Automation Materials											
Total Tangible - Well Equipment Cost		375,000			223,000				237,000		
N/C Lease Equipment											
Tanks, Tanks Steps, Stairs											
Battery Equipment											
Secondary Containments											
Overhead Power Distribution											
Facility Electrical											
Telecommunication Equipment											
Meters and Metering Equipment											
Facility Line Pipe											
Lease Automation Materials											
FL/GL - Materials											
FL/GL - Line Pipe											
SWD/Other - Materials											
SWD/OTHER - LINE PIPE											
Total Tangible - Lease Equipment Cost											
Total Estimated Cost		2,750,000			470,000				3,642,000		



Description	Production Equip		Post Completion		Total	
	Codes	Amount	Codes	Amount	Cost	
Roads & Location	CON.100	0	PCOM.100	0	60,000	
Damages	CON.105	0			6,000	
Mud/Fluids Disposal			PCOM.255	0	194,000	
Day Rate					553,000	
Misc Preparation					35,000	
Bits			PCOM.125	0	75,000	
Fuel			PCOM.130	0	83,000	
Water for Drilling Rig (Not Frac Water)			PCOM.135	0	18,000	
Mud & Additives					198,000	
Surface Rentals	CON.140	0	PCOM.140	0	239,000	
Downhole Rentals			PCOM.145	0	136,000	
Flowlog Labor			PCOM.141	0	0	
Automation Labor	CON.150	0	PCOM.150	0	0	
Formation Evaluation (DST, Coring, etc.)					0	
Mud Logging					19,000	
Open Hole Logging					0	
Cementing & Float Equipment					208,000	
Tubular Inspections			PCOM.160	0	59,000	
Casing Crews					33,000	
Mechanical Labor	CON.170	0	PCOM.170	0	30,000	
Trucking/Transportation	CON.175	0	PCOM.175	0	37,000	
Supervision	CON.180	0	PCOM.180	0	161,000	
Trailer House/Camp/Catering					65,000	
Other Misc Expenses	CON.190	0	PCOM.190	0	83,000	
Overhead					15,000	
Remedial Cementing			PCOM.215	0	0	
MOB/DEMOB					150,000	
Directional Drilling Services					227,000	
Solids Control					73,000	
Well Control Equip (Snubbing Services)			PCOM.240	0	119,000	
Fishing & Sidetrack Services			PCOM.245	0	0	
Completion Rig			PCOM.115	0	21,000	
Coil Tubing Services			PCOM.260	0	291,000	
Completion Logging/Perforating/Wireline			PCOM.200	0	242,000	
Composite Plugs			PCOM.390	0	52,000	
Stimulation Pumping/Chemicals/Additives/Sand			PCOM.210	0	1,955,000	
Stimulation Water/Water Transfer/Water Storage					248,000	
Cimarex Owned Frac/Rental Equipment			PCOM.305	0	40,000	
Legal/Regulatory/Curative	CON.300	0			10,000	
Well Control Insurance					5,000	
Major Construction Overhead	CON.305	0			0	
Real Time Operations Center					0	
FL/GL - Labor	CON.500	0			0	
FL/GL - Supervision	CON.505	0			0	
Survey	CON.515	0			0	
SWD/Other - Labor	CON.600	0			0	
SWD/OTHER - SUPERVISION	CON.605	0			0	
Contingency	CON.220	0	PCOM.220	0	287,000	
Contingency	CON.221	0			0	
P&A Costs					0	
Total Intangible Cost:		0		0	6,027,000	
Drive Pipe					0	
Conductor Pipe					0	
Water String					16,000	
Surface Casing					53,000	
Intermediate Casing 1					286,000	
Intermediate Casing 2					0	
Drilling Liner					0	
Production Casing or Liner					100,000	
Production Tie-Back					0	
Tubing			PCOMT.105	0	69,000	
Wellhead, Tree, Chokes			PCOMT.120	0	105,000	
Liner Hanger, Isolation Packer					98,000	
Packer, Nipples			PCOMT.400	0	28,000	
Pumping Unit, Engine			PCOMT.405	0	0	
Downhole Lift Equipment			PCOMT.410	0	80,000	
Surface Equipment			PCOMT.420	0	0	
Well Automation Materials			PCOMT.455	0	0	
Total Tangible - Well Equipment Cost:				0	835,000	
N/C Lease Equipment	CONT.400	0			0	
Tanks, Tanks Steps, Stairs	CONT.405	0			0	
Battery Equipment	CONT.410	0			0	
Secondary Containments	CONT.415	0			0	
Overhead Power Distribution	CONT.420	0			0	
Facility Electrical	CONT.425	0			0	
Telecommunication Equipment	CONT.426	0			0	
Meters and Metering Equipment	CONT.445	0			0	
Facility Line Pipe	CONT.450	0			0	
Lease Automation Materials	CONT.455	0			0	
FL/GL - Materials	CONT.550	0			0	
FL/GL - Line Pipe	CONT.555	0			0	
SWD/Other - Materials	CONT.650	0			0	
SWD/OTHER - LINE PIPE	CONT.655	0			0	
Total Tangible - Lease Equipment Cost:		0		0	0	
Total Estimated Cost:		0		0	6,862,000	

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**APPLICATION OF CIMAREX
ENERGY CO. FOR COMPULSORY
POOLING, EDDY COUNTY,
NEW MEXICO**

CASE NO. 20745

AFFIDAVIT OF EMILY SWANSON

STATE OF COLORADO)
) ss.
COUNTY OF DENVER)

Emily Swanson, being duly sworn, deposes and states:

1. I am over the age of 18, I am a geologist for Cimarex Energy Co. ("Cimarex"), and have personal knowledge of the matters stated herein.
2. I have not been previously testified before the Oil Conservation Division ("Division") as an expert in petroleum geology matters.
3. I attended University of Texas where I received a Bachelor of Science in Geology. I graduated in December of 2008. I attended Penn State where I received a Master of Science in Geosciences. I graduated in December of 2011.
4. I have worked as a geologist since December 2011. I worked as a geologist for Southwestern Energy for 2.5 years and Cimarex Energy for 4.5 years. My work for Cimarex involves Culberson County TX and Eddy County NM.
5. I conducted a geological study of the area that encompasses the horizontal spacing unit that is the subject of Cimarex's application in this case and am familiar with the geological matters involved in this case.



6. As part of my study, I have prepared the following geological exhibits with respect to the horizontal spacing unit that are attached hereto:

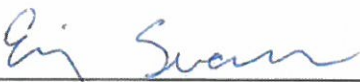
- a. **Exhibit B.1** is a Base Map to identify the proposed unit, proposed well, and cross-section. It identifies the cross-section wells in proximity to the proposed well with a red line running from A to A'.
- b. **Exhibit B.2** is a subsea Structure Map on the top of the Wolfcamp formation. It identifies the proposed unit in a red outline and the proposed well with a blue line. It shows that the structure is relatively consistent across the proposed unit and dips slightly to the east and north east in the area.
- c. **Exhibit B.3** is a Net Shale Map for the Wolfcamp A formation. It shows that the formation is relatively uniform across the proposed units, as the closest log control suggests a range of net porosity between 133 ft to 198 ft, with the regional net porosity trend increasing toward the east. This map also identifies the proposed unit and well.
- d. **Exhibit B.4** is a Stratigraphic Cross Section hung on the top of the Wolfcamp formation. The well logs on the cross-section give a representative sample of the Wolfcamp A formation in the area, which is the target zone for the proposed wells. The wells logs also show the formation is relatively consistent across the area. The correlative landing zone is identified with an arrow.
- e. **Exhibit B.5** is the Well Bore Diagram for the proposed Klein 33 Federal Com #11H well. The diagram identifies the well bore development plan, which includes but is not limited to the well depth, length, and first and last take points.

7. Based upon my study as illustrated in these exhibits, knowledge of the geology in this area, and education and training, it is my expert opinion that:

- a. The horizontal spacing unit is justified from a geologic standpoint.
- b. There are no structural impediments or faulting that will interfere with horizontal development.
- c. Each quarter quarter section in the unit will contribute more or less equally to production.

8. The producing interval for each of these wells will be orthodox and will comply with the Division's set back requirements.

9. I attest that the information provided herein is true, correct and complete to the best of my knowledge and belief.



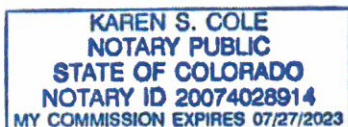
Emily Swanson

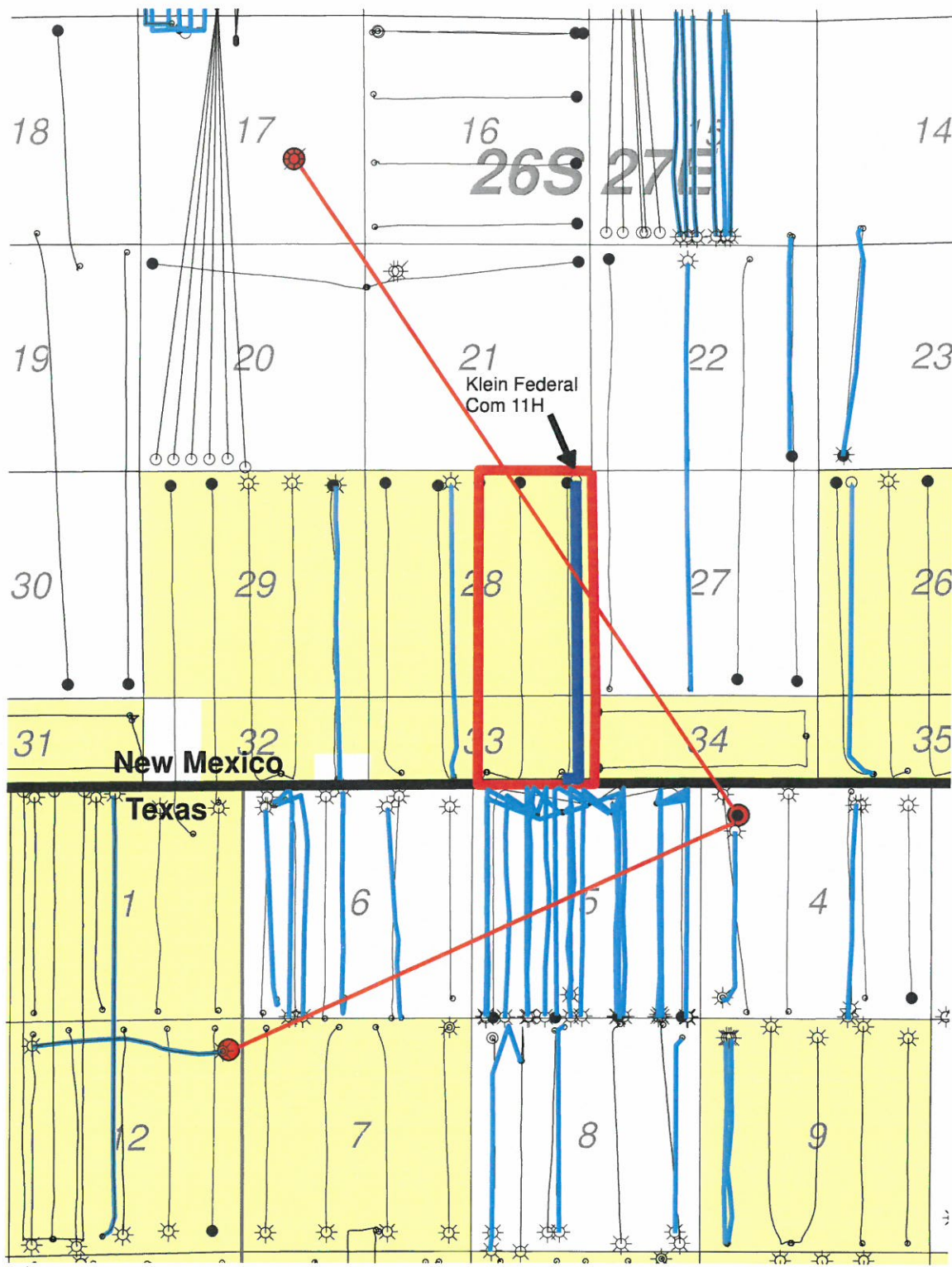
SUBSCRIBED AND SWORN to before me this 3rd day of September 2019 by Emily Swanson, on behalf of Cimarex Energy Co.



Notary Public

My commission expires: July 27, 2023





- Cimarex Acreage
- Wolfcamp Producers
- Proposed Klein Fed Com #11H
- Proration Unit
- Cross Section

Cimarex Energy Company		
Base Map Proposed Klein Fed Com #11H Eddy Co, NM NMOCD Hearing 9-5-2019 Wells > = 6500'		
Author: Emily Swanson	Scale 1:28000	Date: 27 August, 2019

EXHIBIT

B 1