

Before the Oil Conservation Division Examiner Hearing October 4, 2018

Case No. 16437

Lea 7 Federal Com 29H



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

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

**CASE NO. 16437** 

<b>AFFID</b>	TIVE
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STATE OF TEXAS	)
	) ss
COUNTY OF MIDLAND	)

Riley Morris, being duly sworn, deposes and states:

- 1. I am over the age of 18, I am a landman for Cimarex Energy Co. ("Cimarex"), and have personal knowledge of the matters stated herein.
- 2. I have not previously testified before the Oil Conservation Division ("Division") as an expert petroleum landman.
- 3. I attended Texas Tech University where I received a Bachelor of Business Administration with a focus in energy commerce. I graduated in the spring of 2010.
- 4. I have worked as a landman since June 2010. I have worked for Devon Energy, Shell, and Anadarko. I worked for Anadarko for 4 and a half years. I joined Cimarex after leaving Anadarko.
- 5. I am a member of the American Association of Professional Landmen and PBLA (Permian Basin Landmen's Association).
- 6. Pursuant to NMAC 19.15.4.12.A(1), the following information is submitted in support of the above referenced compulsory pooling application:



- a. The purpose of this application is to force pool working interest owners into the horizontal spacing unit described below, and in the well to be drilled in the unit.
- b. No opposition is expected because the interest owners being pooled have been contacted regarding the proposed well, but have failed or refused to voluntarily commit their interests in the well.
- c. Cimarex seeks an order pooling of all mineral interests in the Bone Spring formation underlying the W/2 E/2 of Section 7, Township 20 South, Range 35 East, N.M.P.M., Lea County, New Mexico. The unit will be dedicated to the Lea 7 Federal Com 29H well.
- d. A plat outlining the unit being pooled is attached hereto as Exhibit A. This exhibit identifies the proposed well's location within the unit. It also includes the ownership of each separate tract in the proposed unit and the nature and percent of their interests. The parties being pooled last known addresses are identified in Deana M. Bennett's affidavit, which will be submitted as Exhibit 3 in this matter.
- e. The interest ownership is the same for both the Wolfcamp and the Bone Spring formation.
- f. I have conducted a diligent search of the public records in the county where the well is located, and conducted computer searches to locate contact information for parties entitled to notification, and mailed all parties well proposals, including an Authorization for Expenditure and a form of Operating Agreement.
- g. Cimarex has made a good faith effort to obtain voluntary joinder of the working interest owners in the proposed well.
- h. There are no depth severances within the Bone Spring formation.

- i. Attached as **Exhibit B** is a proposed C-102 for the well. The well will develop the Wildcat Bone Spring pool, which is an oil pool.
- j. The well will have a surface location in the W/2 E/2 of Section 7, Township 20 South, Range 35 East.
- k. The well will have a TVD of approximately 11,060'.
- 1. The producing interval for the well will be orthodox and will comply with the Division's set back requirements.
- m. Exhibits C and D are a sample proposal letter and the Authorization for Expenditure for the proposed well. The estimated cost of the well set forth therein is fair and reasonable, and is comparable to the costs of other wells of similar depths and length drilled in this area of New Mexico.
- n. Cimarex requests overhead and administrative rates of \$7000.00/month for a drilling well and \$700.00/month for a producing well. 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. Cimarex requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.
- o. Cimarex requests the maximum cost plus 200% risk charge be assessed against non-consenting working interest owners.
- p. Cimarex requests that it be designated operator of the well.
- q. Cimarex requests an expedited order, because the spud date is set for December 1, 2018.
- 7. The attachments to this affidavit we're prepared by me, or compiled from company business records.

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- 8. I attest that the information provided herein is correct and complete to the best of my knowledge and belief.
- 9. The granting of this application is in the interests of conservation and the prevention of waste.

Riley Morris

SUBSCRIBED AND SWORN to before me this 3rd day of October, 2018 by Riley Morris,

on behalf of Cimarex Energy Co.

Notary Public

My commission expires: 3/24/201

KAIMI BROWNLEE

Notary Public, State of Texas

Comm. Expires 03-26-2019

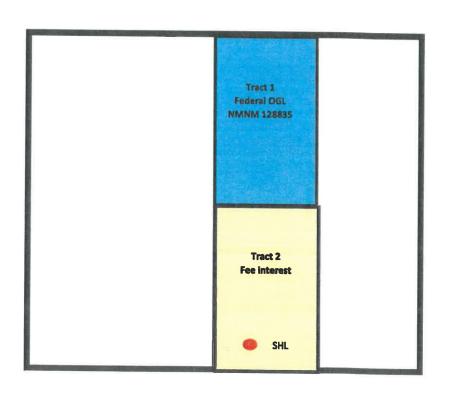
Notary ID 126052368

# Section 7, Range 20 South, Township 35 East, Lea Co., New Mexico Lea 7 Federal 29H Well (W/2E/2 – 160.00 acre unit)

# **Interests to Pool**

OWNER	TYPE	NET ACRES
The Long Trusts, Larry P. Long, Managing Trustee	Unleased	.3595312
	Minerals	
Lowe Family, Ltd.	Unleased	.0288064
	Minerals	
Teddy L. Hartley & Roberta Thomas Hartley, as Trustees of the Vora Lowe	Unleased	.0188352
Hartley Mineral Trust	Minerals	1023332
M. Dion Lowe	Unleased	.0632512
	Minerals	
Total		0.470424

**Covering Tract 2** 





1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 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

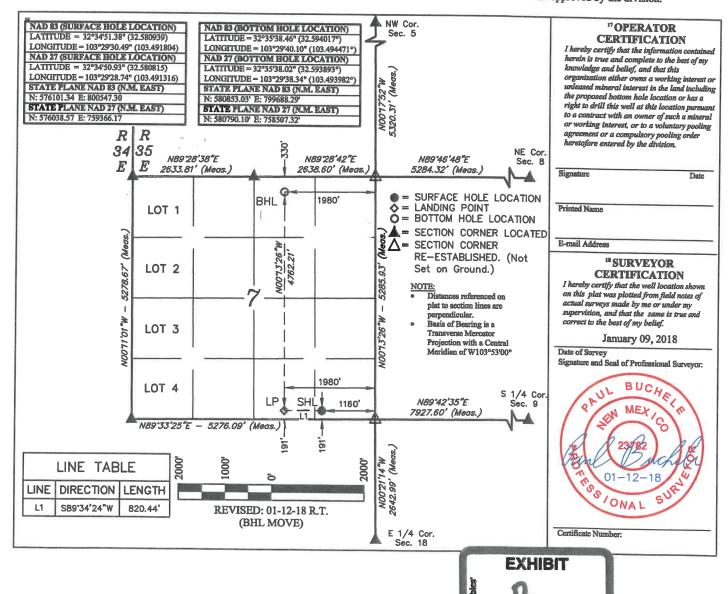
# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

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

AMENDED REPORT

WELL LUCATION AND ACREAGE DEDICATION DI AT

			AA ISTI	LUCAL	ION AND AC	REAGE DEDIC	ATION PLA	ľ	
1,	API Number		97	983		Wildcat	<sup>3</sup> Pool N	lame	
4 Property C	ode				5 Property N LEA 7 FEDER	ame			<sup>6</sup> Well Number 29H
7 OGRID N	io.				Operator N CIMAREX EN				9 Elevation 3676.4'
					"Surface	Location			
UL or lot no. P	Section 7	Township 20S	Range 35E	Lot Idn	Feet from the 191	North/South line SOUTH	Feet from the 1160	East/West line EAST	County
			11	Bottom H	ole Location I	f Different From	Surface		
UL or lot no. B	Section 7	7   200   260	Township Range Lot Idn	SE 330 NORTH 1980 EAST			Total Double Rife Teet Holl tige		County
12 Dedicated Acre 200	60 13 Je	oiut or Infill	<sup>14</sup> Conso	lidation Code	15 Order No.		2700	LIFEDI	LEA
o allowable wi	ll be assign	ned to this co	mpletion u	ntil all intere	sts have been con	solidated or a non-st	tandard unit has be	een approved by the	o division





August 6, 2018

The Long Trusts
118 S. Kilgore St.
Kilgore, Texas 75662

Re:

Proposal to Drill Lea 7 Fed Com 29H

Section 7, Township 20 South, Range 35 East

Lea County, NM

Dear Working Interest Owner,

Cimarex Energy Co. hereby proposes to drill the Lea 7 Fed Com 29H well at a legal location in the E/2 of Section 7, Township 20 South, Range 35 East, Lea County, New Mexico.

The intended surface hole location for the well is 191' FSL and 1,159' FEL of Section 7, Township 20 South, Range 35 East, and the intended bottom hole location is 330' FNL and 1,980' FEL of Section 7, Township 20 South, Range 35 East. The well is proposed to be drilled vertically to a depth of approximately 11,120' to the Third Bone Spring formation and laterally in a northerly direction within the formation to the referenced bottom hole location. Total measured depth of the well is proposed to be approximately 16,129' 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 Lea 7 Fed Com 29H. If you intend to participate, please approve and return one (1) original of the enclosed AFE, and one (1) original of the 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.

If you elect not to participate, please so indicate on the attached election form and return it to the attention of the undersigned at the letterhead address. Failure to elect whether or not to participate within 30 days of your receipt of this proposal will, as provided in the Operating Agreement, will be considered an election not to participate.

Please call the undersigned with any questions or comments.

Respectfully.

Cody Elliott, Landman



# ELECTION TO PARTICIPATE Lea 7 Fed Com 29H

Ine Long Trusts elects TO	participate in the proposed Lea 7 Fed Com 29H
The Long Trusts elects NO	T to participate in the proposed Lea 7 Fed Com 29H.
Dated this day of, 2	018.
Signature:	
Title:	
If your election above is TO participate in the	ne proposed Lea 7 Fed Com 29H well, then:
The Long Trusts elects TO Energy Co.	be covered by well control insurance procured by Cimarex
to commencement of drilling	T to be covered by well control insurance procured by Cimarex ovide Cimarex Energy Co. with a certificate of insurance prior ag operations or be deemed to have elected to be covered by Cimarex Energy Co.



# Authorization For Expenditure Drilling

Company Entity

Date Prepared 10/3/2018

**Exploration Region** 

Well Name

Prospect

Property Number

AFE

Permian Basin

LEA 7 FEDERAL COM 29H

New Mexico Bone Spring Pros

301471-364.01

26718056

County, State

Location

Estimated Spud

**Estimated Completion** 

Lea, NM

Sec 7-T20S-R35E

11/10/2018

2/28/2019

X New

Formation

Well Type

Ttl Measured Depth

Ttl Vetical Depth

Supplement Revision

Bone Spring 3 /Sd/

DEV

16,129

11,120

Purpose

Drill and complete well

### Description

Drilling Drill and complete a horizontal test. Drill to 1780 set surface casing. Drill to Drill to 5720' set intermediate casing. Drill to 10643' (KOP).

Drill curve at 12°/100' initial build rate to +/- 90 degrees and11120' TVD and drill a +/- 4280' long lateral in the bone spring formation. Run and cement production liner. Stage frac in stages. Drill out plugs. Run production packer, tubing and GLVs.

(Lea)

Intangible Drilling Costs	Dry Hole <b>\$2,188,000</b>	After Casing Point	Completed Well Cost \$2,188,000
Completion Costs Total Intangible Cost	\$2,188,000	\$3,561,900 <b>\$3,561,900</b>	\$3,561,900 <b>\$5,749,900</b>
Tangible Well Equipment Lease Equipment	Dry Hole <b>\$279,000</b>	After Casing Point \$484,000 \$485,000	Completed Well Cost \$763,000 \$485,000
Total Tangible Cost	\$279,000	\$969,000	\$1,248,000
Total Well Cost	\$2,467,000	\$4.530,900	\$6,997,900

### Comments On Well Costs

# 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.





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



# CINIAREX Authorization For Expenditure - LEA 7 FEDERAL COM 29H

		don't or Expendit	uic L	LA / 11	DENAL CON 23	П			
4141		BCP - Drilling			ACP - Drilling			Comp/Stim	
Sub Ledger Description	Codes		Amount			Amount	Codes	7,7,7	Amount
Roads & Location  Damages	DIDC.100		100,000				STIM.100		5,000
Mud/Fluids Disposal	DIDC.105 DIDC.255		10,000						.,
Day Rate			125,000				STIM.255		20,000
Misc Preparation	DIDC.120	20 days at \$23,000/day	483,000		4 days at \$23,000/day	81,000			
Bits	DIDC.125		35,000						
Fuel	DIDC.135		60,000			0	STIM.125		0
Water for Drilling Rig (Not Frac Water)	DIDC.140	. , . ,	73,000 3,000			0			
Mud & Additives	DIDC.145					0	STIM.135		14,000
Surface Rentals	DIDC.150		140,000 74,000						
Downhole Rentals	DIDC.155		162,000			0	STIM.140		98,000
Automation Labor			102,000				STIM.145		0
Formation Evaluation (DST, Coring, etc.)	DIDC.160		0				STIM.150		
Mud Logging	DIDC.170	17 days at \$1,200/day	25,000				31 (191, 130		0
Open Hole Logging	DIDC.180		0						
Cementing & Float Equipment	DIDC.185		180,000			106,000			
Tubular Inspections	DIDC.190		30,000			5,000	STIM.160		
Casing Crews	DIDC.195		10,000			18,000	STIM.165		2,000
Mechanical Labor	DIDC.200		15,000			3,000	STIM.170		0
Trucking/Transportation	DIDC.205		15,000	DICC.175		10,000	STIM.175		0
Supervision	DIDC.210		104,000	DICC.180		14,000	STIM.180		2,000
Trailer House/Camp/Catering	DIDC.280		13,000	DICC.255		2,000	STIM.280		29,000
Other Misc Expenses	DIDC.220		5,000	DICC.190		0	STIM.190		12,500
Overhead	DIDC.225		10,000	DICC.195		5,000			U
Remedial Cementing	DIDC.231		0				STIM.215		0
MOB/DEMOB	DIDC.240		125,000						U
Directional Drilling Services	DIDC.245		118,000						
Crane for Construction	min								
Solids Control	DIDC.260		71,000						
Well Control Equip (Snubbing Services) Fishing & Sidetrack Services	DIDC.265		82,000			0	STIM.240		40,000
	DIDC.270		0	DICC.245		0	STIM.245		0
Completion Rig							STIM.115		13,000
Coll Tubing Services Completion Logging/Perforating/Wireline							STIM.260		168,000
Composite Plugs							STIM.200		176,000
Stimulation							STIM.390		41,000
Stimulation Water/Water Transfer/Water							STIM.210		1,552,000
Cimarex Owned Frac/Rental Equipment							STIM.395		372,000
Legal/Regulatory/Curative	DIDC.300		40.000				STIM.305		42,000
Well Control Insurance	DIDC.285	¢0.25.#+	10,000						
FL/GL - Labor	5150.203	40.33) IL	6,000						
FL/GL - Supervision									
FL/GL - NDE(X-Ray)									
FL/GL - Survey									
FL/GL - Hydro Test									
FL/GL - Hydro Vac									
FL/GL - Trucking									
SWD Lines - Intangible									
Gas Sales Lines - Intangible									
Contingency	DIDC.435	500 % of Drilling Intangibles	104,000	DICC.220		12,000	STIM.220		400.000
Contingency						,			129,000
Construction for Flow Lines									
Construction For Sales P/L									
P&A Costs	DIDC.295		0	DICC.275		0			
Total Intengible Cost			2,188,000			256,000			2,715,500
Drive Pipe	DWEB.150		0						6,113,300
Conductor Pipe	DWEB.130		0						
Water String	DWEB.135		0						
Surface Casing		13 3/8" - 1,780ft at \$33.00/ft	59,000						
Intermediate Casing 1		9 5/8" - 5,720ft at \$35.00/ft	200,000						
Intermediate Casing 2 Drilling Liner	DWEB.155		0						
Production Casing or Liner	DWEB.160		0	DANCE TO	E 4 700 46 4000				
Production Tie-Back					5 1/2" - 16,129ft at \$18.00/ft	290,000			
Tubing				DWEA.165		0	STIMT.101		0
Wellhead, Tree, Chokes	DWEB.115		20.000	DWEA.120		20.000		2 7/8" - 10,740ft at \$6.00/ft	64,000
Liner Hanger, Isolation Packer	DWEB.100			DWEA.125		-	STIMT.120		25,000
Packer, Nipples			U	143		0	CTILET AGA		
Pumping Unit, Engine							STIMT.400 STIMT.405		15,000
Downhole Lift Equipment							STIMT.410		0
Surface Equipment							JIMII,410		70,000
Total Tangible - Well Equipment Cost			279,000			310,000			42
N/C Lease Equipment						5 10,000			174,000
Tanks, Tanks Steps, Stairs									
Battery Equipment									
Secondary Containments									
Overhead Power Distribution									
Facility Electrical									
SWD Connection									
Flow Lines (Line Pipe From Wellhead To									
Pipeline to Sales									
Meters and Metering Equipment									
Facility Line Pipe Automation Materials									
FL/GL - Valves/Fittings									
FL/GL - Pipe									
SWD Lines - Tangible									
Gas Sales Lines - Tangible									
Total Tangible - Lesse Equipment Cost									
***************************************	-			-			-		



# CIMAREX Authorization For Expenditure - LEA 7 FEDERAL COM 29H

Sub Ledger Description		Production Equip		Post Completion		Total
Roads & Location  Damages	Codes CON.100 CON.105	Amour 3,00	0 PCOM.100	Road Repairs	Amount 8,000	116,0
Mud/Fluids Disposal	CON.103	20,50		Mary Division I the Total		30,5
Day Rate			PCOM.255	Water Disposal (\$0.75/bbl)	45,000	190,0
Misc Preparation						564,0
Bits			PCOM.125		_	35,0
Fuel			PCOM.130		0	60,0
Water for Drilling Rig (Not Frac Water)			PCOM.135		0	73,0
Mud & Additives					0	17,0
Surface Rentals	CON.140	9,75	) PCOM.140	Sand Separator (\$450/day), Iron (\$300/day),	22.700	140,0
Downhole Rentals		•	PCOM.145	the state of the s	32,700	214,4
Automation Labor	CON.150	33,25	PCOM.150		0	162,0
Formation Evaluation (DST, Coring, etc.)					0	33,2
Mud Logging						25.00
Open Hole Logging						25,00
Cementing & Float Equipment						205.00
Tubular Inspections			PCOM.160		0	286,00
Casing Crews					U	37,00
Mechanical Labor	CON.170	80,00	PCOM.170	Flowback Hand	5,700	28,00
Trucking/Transportation	CON.175	9,50	PCOM.175	Frack Tank and Sand Separator Delivery	2,000	103,70
Supervision	CON.180	18,75	PCOM.180	,,,	2,000	38,50
Trailer House/Camp/Catering					U	165,75
Other Misc Expenses	CON.190	6,00	PCOM.190		0	27,50 11,00
Overhead					v	-
Remedial Cementing			PCOM.215		0	15,00
MOB/DEMOB					U	125,00
Directional Drilling Services						118,00
Crane for Construction	CON.230					118,00
Solids Control						71,00
Well Control Equip (Snubbing Services)			PCOM.240		0	122,00
Fishing & Sidetrack Services			PCOM.245		0	122,00
Completion Rig			PCOM.115		0	13,00
Coll Tubing Services			PCOM.260		0	168,00
Completion Logging/Perforating/Wireline			PCOM.200		0	176,00
Composite Plugs			PCOM.390		0	41,00
Stimulation Pumping/Chemicals/Additives/Sand			PCOM.210		0	1,552,00
Stimulation Water/Water Transfer/Water						372,00
Cimarex Owned Frac/Rental Equipment			PCOM.305		0	42,00
Legal/Regulatory/Curative	CON.300	(	<i>t</i>		T.	10,00
Well Control Insurance						6,00
FL/GL - Labor	CON.500	91,250	i			91,25
FL/GL - Supervision	CON.505	38,750				38,75
FL/GL - NDE(X-Ray) FL/GL - Survey	CON.510	1,750				1,75
-	CON.515	3,000	į.			3,00
FL/GL - Hydro Test FL/GL - Hydro Vac	CON,520	3,750	į.			3,75
FL/GL - Trucking	CON.525	2,500				2,50
SWD Lines - Intangible	CON.530	1,500				1,500
Gas Sales Lines - Intangible	CON.600	(				(
Contingency	CON.700 CON.220	(				(
Contingency	CON.221	60,250		10%	93,000	398,250
Construction for Flow Lines	CON.310	20,500	)			20,500
Construction For Sales P/L	CON.265					(
P&A Costs	CO14.200					(
Total intengible Cost		10.4.000				(
Drive Pipe		404,000	,		186,400	5,749,900
Conductor Pipe						(
Water String						(
Surface Casing						(
-						59,000
Intermediate Casing 1						
						200,000
Intermediate Casing 2						200,000
Intermediate Casing 2 Drilling Liner						200,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner						200,000
Intermediate Casing 2 DriBing Liner Production Casing or Liner Production Tie-Back			PCOMT.105			200,000 0 290,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubing					0	290,000 290,000 64,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubling Wellhead, Tree, Chokes			PCOMT.105 PCOMT.120		0	290,000 290,000 64,000 65,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubling Wellhead, Tree, Chokes Liner Hanger, Isolation Packer			PCOMT.120		0	200,000 0 290,000 64,000 65,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubing Wellhead, Tree, Chokes Liner Hanger, Isolation Packer Packer, Nipples			PCOMT.120 PCOMT.400		0	200,000 0 290,000 64,000 65,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubling Wellhead, Tree, Chokes Liner Hanger, Isolation Packer Packer, Nipples Pumping Unit, Engline			PCOMT.400 PCOMT.405		0	200,000 (0 290,000 64,000 65,000 0
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubling Wellhead, Tree, Chokes Liner Hanger, Isolation Packer Packer, Nipples Pumping Unit, Engline Downhole Lift Equipment			PCOMT.120 PCOMT.400 PCOMT.405 PCOMT.410		0 0 0	200,000 (0 290,000 64,000 65,000 0 15,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubling Wellhead, Tree, Chokes Liner Hanger, Isolation Packer Packer, Nipples Pumping Unit, Engline Downhole Lift Equipment			PCOMT.400 PCOMT.405		0 0 0	200,000 0 290,000 64,000 65,000 0 15,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubing Wellhead, Tree, Chokes Liner Hanger, Isolation Packer Packer, Nipples Pumping Unit, Engine Downhole Lift Equipment Surface Equipment Total Tanglible - Well Equipment Cost	CONT.400	45.000	PCOMT.400 PCOMT.405 PCOMT.410 PCOMT.420		0 0 0	200,000 290,000 64,000 65,000 0 15,000 0 70,000
Intermediate Casing 2 Drilling Liner Production Casing or Liner Production Tie-Back Tubling Wellhead, Tree, Chokes Liner Hanger, Isolation Packer Packer, Nipples Pumping Unit, Engine Downhole Lift Equipment Surface Equipment Total Tanglible - Well Equipment Cost N/C Lease Equipment	CONT-400 CONT-405	45,000 47,500	PCOMT.400 PCOMT.405 PCOMT.410 PCOMT.420		0 0 0	290,000 290,000 64,000 65,000 0 15,000 0 70,000 0 763,000 45,000
Intermediate Casing 2 Driffling Liner Production Tie-Back Tubling Wellhead, Tree, Chokes Liner Hanger, Isolation Packer Packer, Nipples Pumping Unit, Engline Downhole Lift Equipment Surface Equipment Total Tanglible - Well Equipment Cost N/C Lease Equipment Tanks, Tanks Steps, Stairs		47,500	PCOMT.400 PCOMT.405 PCOMT.410 PCOMT.420		0 0 0	200,000 (290,000 64,000 0 15,000 0 70,000 45,000 47,500
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# STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

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

**CASE NO. 16379** 

_	AFFIDAVII
STATE OF Texas	)
COUNTY OF Midland	) ss.
COOM I OF	)

Staci Mueller, being duly sworn, deposes and states:

- 1. I am over the age of 18, and have person knowledge of the matters stated herein.
- 2. I prepared an affidavit in Case No. 16379, which was accepted by the Division.
- 3. I am a petroleum geologist for Cimarex Energy Co. ("Cimarex").
- 4. My work for Cimarex involves Lea County, and I am familiar with the geological matters involved in this case, including the Bone Spring formation.
  - 5. The following geological exhibits are attached hereto:
    - a. Exhibit A is a structure map on the base of the 3<sup>rd</sup> Bone Spring Sand. It identifies the proposed well location outlined by a purple dashed box and by a purple line. It also shows 3<sup>rd</sup> Bone Spring Sand wells in the vicinity of the proposed Lea 7 Fed Com 29H. It identifies a line of cross-section, running from A to A'. The structure map shows that the structure dips down to the southeast.



- b. **Exhibit B** is a 3<sup>rd</sup> Bone Spring Sand cross section. It is a stratigraphic cross-section hung on the base of the 3<sup>rd</sup> Bone Spring Sand. The well logs on the cross-section give a representative sample of the 3<sup>rd</sup> Bone Spring Sand formation in the area. The target zone for the well is the basal 3<sup>rd</sup> Bone Spring Sand, identified by the red line traversing the cross section, and that zone is continuous across the well unit.
- c. Exhibit C is a Net Pay Map of the 3<sup>rd</sup> Bone Spring Sand. The 3<sup>rd</sup> Bone Spring Sand is uniform across the proposed well unit.
- 6. I conclude from the maps that:
  - a. The horizontal spacing and proration 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.
- 7. The preferred well orientation in this area is North-South. This is because of the maximum horizontal stress direction.

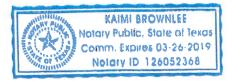
Staci Mueller

SUBSCRIBED AND SWORN to before me this 3rd day of October, 2018 by Staci

Mueller, on behalf of Cimarex Energy Co.

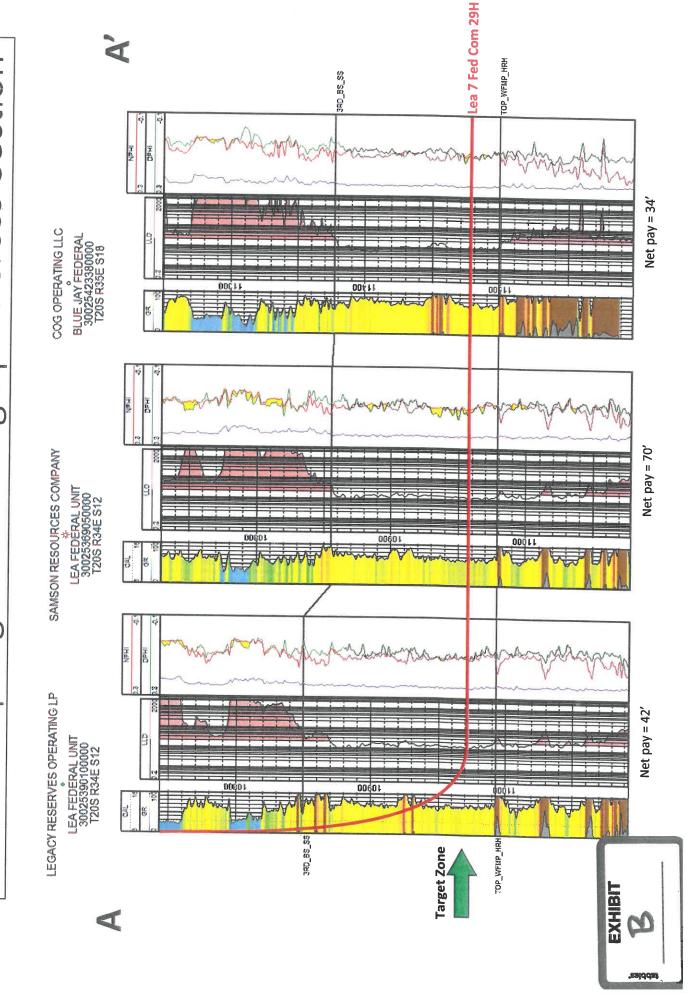
Notary Public

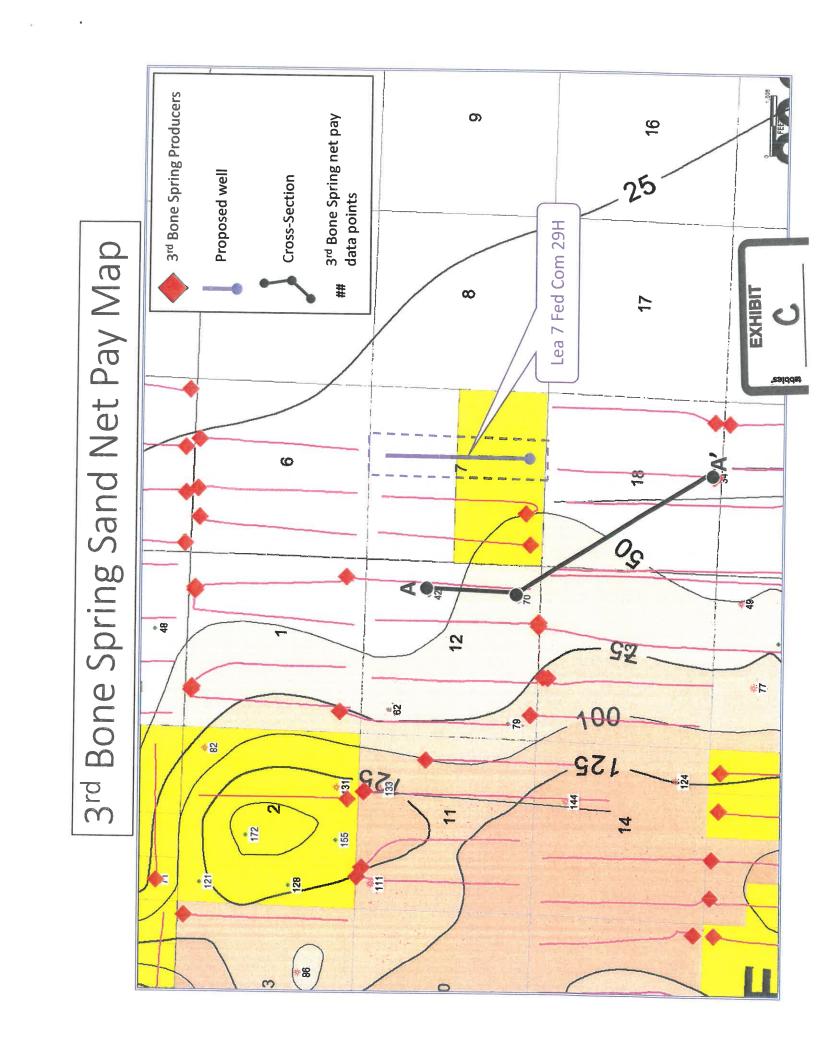
My commission expires: 3 24 3017



3rd Bone Spring Producers of 3rd Bone Spring Sand Structure Map (SSTVD) 6 3rd Bone Spring net pay 16 **Proposed well** Cross-Section data points Lea 7 Fed Com 29H -7,778.06 EXHIBIT # 9 12 N -Base

# Bone Spring Sand Stratigraphic Cross-Section <u>م</u>





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

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

CASE NO. 16437

<b>AFFIDAVIT</b>
------------------

STATE OF NEW MEXICO	)
	) ss
COUNTY OF BERNALILLO	)

Deana M. Bennett, attorney in fact and authorized representative of Cimarex Energy Co., the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application was provided under the notice letter and that proof of receipt is attached hereto. Cimarex Energy Co. has conducted a good faith, diligent effort to find the names and correct addresses for the interest owners entitled to receive notice of the application filed herein.

Deana M. Bennett

SUBSCRIBED AND SWORN to before me this 3<sup>rd</sup> day of October, 2018 by Deana M. Bennett.

OFFICIAL SEAL

Karlene Schuman

NOTARY PUBLIC STATE OF NEW MEXICO

My commission Expires: 02-27-20:

100 No. 2 C. Mich

PS Form 3877

Type of Mailing: CERTIFIED 69/07/2018

Zina Crum Modrall Sperling 500 4th Street NW Suite 1000 Albuquerque NM 87102

Firm Mailing Book ID: 150601

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee
	9314 8699 0430 0050 5344 43 Lowe Family, Ltd P.O. Box 53775 Lubbock TX 79453	Lowe Family, Ltd P.O. Box 53775 Lubbock TX 79453	\$0.68	\$3.45	\$1.50		\$0.00 Notice
7	9314 8699 0430 0050 5344 50	Vora Lowe Hartley Mineral Trust P.O. Box 1024 Clovis NM 88102	\$0.68	\$3.45	\$1.50	82762-0168	\$0.00 Notice
m	9314 8699 0430 0050 5344 67	The Long Trusts 118 S. Kilgore St. Kilgore TX 75662	\$0.68	\$3.45	\$1.50	82762-0168	\$0.00 Notice
4	9314 8699 0430 0050 5344 74	M. Dion Lowe 7801 Espanola Trail Austin TX 78737	89.08	\$3.45	\$1.50	82762-0168	\$0.00 Notice
		NEW	Totals: \$2.72	\$13.80	\$6.00		80.00
						Crand Total:	627 62

List Number of Pieces Listed by Sender

Total Number of Pieces Received apPost Office

Postmaster: Name of receiving employee

Dated:

EXHIBIT tabbles

	Mail Delivery Date	09-17-2018 09-10-2018 09-18-2018 09-13-2018
	Service Options	EEEE
	Certified Mailing Status	Delivered Delivered Delivered
	State Zip	78737 75662 88102 79453
Transaction Report Details - CertifiedPro.net Firm Mail Book ID= 150601 Generated: 10/1/2018 12:08:07 PM	State	ķ ķ ₩ ķ
	City	Austin Kilgore Clovis Lubbock
	Address	7801 Espanola Trail Austin 118 S. Kilgore St. Kilgore P.O. Box 1024 Clovis P.O. Box 53775 Lubbock
	Name 1	M. Dion Lowe The Long Trusts Vora Lowe Hartley Mineral Trust Lowe Family, Ltd
	Reference Number	82762-0168 82762-0168 82762-0168 82762-0168
	73	2018-09-07 2:31 PM 2018-09-07 2:31 PM 2018-09-07 2:31 PM 2018-09-07 2:31 PM
	Certified Mail Article Number	9314869904300050534474 9314869904300050534467 9314869904300050534450 9314869904300050534443



September 24, 2018

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: 9314 8699 0430 0050 5344 74.

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September 17, 2018, 01:46 p.m.

Location:

**AUSTIN, TX 78749** 

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**Extra Services:** 

Certified Mail™

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# Shipment Details

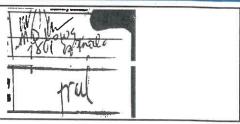
Weight:

2.0oz

# Recipient Signature

Signature of Recipient:

Address of Recipient:



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Sincerely, United States Postal Service® 475 L'Enfant Plaza SW Washington, D.C. 20260-0004

Information in this section provided by Walz Group, LLC.

Original Recipient Information:

M. Dion Lowe 7801 Espanola Trail Austin,TX 78737



Date Produced: 09/17/2018

WALZ GROUP:

The following is the delivery information for Certified Mail™/RRE item number 9314 8699 0430 0050 5344 67. Our records indicate that this item was delivered on 09/10/2018 at 09:38 a.m. in KILGORE, TX 75662. The scanned image of the recipient information is provided below.

Michelle Whisenhurk

Signature of Recipient:

Address of Recipient:

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Sincerely, United States Postal Service

Information in this section provided by Walz Group, LLC.

Original Recipient Information:

The Long Trusts 118 S. Kilgore St. Kilgore, TX 75662



September 24, 2018

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: 9314 8699 0430 0050 5344 50.

# Item Details

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Status Date / Time:

September 18, 2018, 11:04 a.m.

Location:

**CLOVIS, NM 88101** 

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**Extra Services:** 

Certified Mail™

Return Receipt Electronic

# Shipment Details

Weight:

2.0oz

# Recipient Signature

Signature of Recipient:

1 Hart &

Address of Recipient:

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Sincerely, United States Postal Service® 475 L'Enfant Plaza SW Washington, D.C. 20260-0004

Information in this section provided by Walz Group, LLC.

Original Recipient Information: Vora Lowe Hartley Mineral Trust

P.O. Box 1024 Clovis,NM 88102



Date Produced: 09/17/2018

WALZ GROUP:

The following is the delivery information for Certified Mail™/RRE item number 9314 8699 0430 0050 5344 43. Our records indicate that this item was delivered on 09/13/2018 at 12:17 p.m. in GRANBURY, TX 76049. The scanned image of the recipient information is provided below.

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Address of Recipient:

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Sincerely, United States Postal Service

Information in this section provided by Walz Group, LLC.

Original Recipient Information:

Lowe Family, Ltd P.O. Box 53775 Lubbock,TX 79453