

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. 20590

Examiner Docket: July 11, 2019

Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, and 7H



Earl E. DeBrine, Jr.
Lance D. Hough



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

CIMAREX'S EXHIBITS

Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, and 7H

Exhibit A Affidavit of Caitlin Pierce

- A-1 Application
- A-2 Lease Tract Map
- A-3 Well Proposal Letter
- A-4 Authorizations for Expenditures

Exhibit B Affidavit of Harrison Hastings

- B-1 Deep Structure Map
- B-2 Winerack Diagram
- B-3 Cross-Section Locator Map – Upper Wolfcamp
- B-4 Gross Interval Isopach Map – Upper Wolfcamp
- B-5 Stratigraphic Cross-Section – Upper Wolfcamp
- B-6 Cross-Section Locator Map – Lower Wolfcamp
- B-7 Gross Interval Isopach Map – Lower Wolfcamp
- B-8 Stratigraphic Cross-Section – Lower Wolfcamp

Exhibit C Affidavit of Lance D. Hough

- Certified Mail Log / Notice - June 21, 2019
- Certified Mail Log / Report - July 10, 2019
- Certified Mail Log / Notice - July 8, 2019 (Additional ORRI)
- Certified Mail Log / Report - July 10, 2019 (Additional ORRI)
- Affidavit of Publication – June 27, 2019

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

CASE NO. 20590

AFFIDAVIT OF CAITLIN PIERCE

STATE OF TEXAS)
) ss.
COUNTY OF MIDLAND)

Caitlin Pierce, 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 and my credentials were accepted as a matter of record by the Division.

2. I am familiar with the applications filed by Cimarex in the above-referenced case and the land matters involved. 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 wells to be drilled in the horizontal spacing unit. In its Application, Cimarex seeks an order from the Division pooling all uncommitted mineral interests within a 640-acre Wolfcamp horizontal spacing unit underlying the W/2 of Section 34 and W/2 of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, and 7H** wells, to be horizontally drilled. The Application is attached as **Exhibit A.1**.



4. Prior to filing the application, Cimarex made a good faith effort to obtain voluntary joinder of the working interest owners in the proposed wells. I identified the working interest and overriding royalty interest owners from a title opinion. To locate owners, I conducted a diligent search of the public records in the county where the wells are to be located and conducted phone directory and computer internet searches to locate contact information for parties entitled to notification, and mailed all working interest owners well proposals, including an Authorization for Expenditure and a form of Operating Agreement to any owner who requested one.

5. No opposition is expected. Prior to filing its applications Cimarex contacted the interest owners being pooled regarding the proposed wells; the pooled interest owners have failed or refused to voluntarily commit their interests in the wells. Cimarex provided all of the working interest owners and any unleased mineral owners, and all but one potential overriding royalty owners with notice of this application. Cimarex also published notice of the hearing on the applications in a newspaper of general circulation in Eddy County. None of the above mentioned interest holders have entered an appearance in opposition to Cimarex' applications.

6. One additional potential overriding royalty owner was discovered this week, after prior notices of the application were mailed and the newspaper advertisement was published. Notice to this potential overriding royalty owner has been mailed to his last known address.

7. Cimarex plans to drill the **Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, and 7H** wells to a depth sufficient to test the Wolfcamp formation, and laterally and in a southerly direction within the formation to the bottom hole locations referenced below:

- The **Hayduke 34-3 Federal Com 1H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 330' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 8,610'.

- The **Hayduke 34-3 Federal Com 2H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 990' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 8,830'.
- The **Hayduke 34-3 Federal Com 3H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 1650' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 8,610'.
- The **Hayduke 34-3 Federal Com 4H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 2310' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 8,830'.
- The **Hayduke 34-3 Federal Com 5H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 330' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 9,555'.
- The **Hayduke 34-3 Federal Com 6H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 1310' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 9,340'.
- The **Hayduke 34-3 Federal Com 7H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 2310' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 9,555'.

8. The wells will develop the Purple Sage Wolfcamp Gas Pool (Pool ID: 98220), which is a gas pool.

9. The producing interval for the well 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 spacing unit boundary, and the completed lateral will be no closer than 330' from the spacing unit boundary.

10. A lease tract map outlining the unit to be pooled is attached hereto as **Exhibit A.2**. The working interest owners being pooled and the percent of their interests is also included as part of this Exhibit. Cimarex owns a working interest 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.3** is a sample well proposal letter sent to each of the interest owners seeking their voluntary participation in the well.

13. **Exhibit A.4** are the Authorization for Expenditure for the proposed wells. The estimated cost of the wells set forth therein are as follows:

- a. **Hayduke 34-3 Federal Com 1H:** \$10,108,340
- b. **Hayduke 34-3 Federal Com 2H:** \$9,946,340
- c. **Hayduke 34-3 Federal Com 3H:** \$9,946,340
- d. **Hayduke 34-3 Federal Com 4H:** \$9,946,340
- e. **Hayduke 34-3 Federal Com 5H:** \$9,960,340
- f. **Hayduke 34-3 Federal Com 6H:** \$9,960,340
- g. **Hayduke 34-3 Federal Com 7H:** \$9,960,340

These estimated costs of the wells are 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 that it be allowed to recover its costs for drilling, completing and equipping each of these wells and a 200% risk charge be assessed against non-consenting pooled working interest owners.

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

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, my education training and experience, it is my expert opinion that the granting of Cimarex's application in this case is in the interests of conservation and the prevention of waste.

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

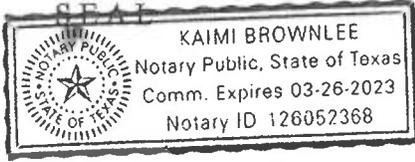
22. I attest that the information provided herein is true, correct and complete to the best of my knowledge and belief.


Caitlin Pierce

SUBSCRIBED AND SWORN to before me this 10th day of July 2019 by Caitlin Pierce.

Kaimi Brownlee
Notary Public

My commission expires: 3/26/2023



**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 W/2 of Section 34, Township 25 South, Range 26 East, and W/2 of Section 3, Township 26 South, Range 26 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 wells thereon.
2. Cimarex seeks to dedicate the W/2 of Section 34, Township 25 South, Range 26 East, and W/2 of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico to form a 640-acre, more or less, spacing unit.
3. Cimarex plans to drill the **Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, and 7H** wells to a depth sufficient to test the Wolfcamp formation, and laterally and in a southerly direction within the formation to the bottom hole locations referenced below:
 - The **Hayduke 34-3 Federal Com 1H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 330' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 8,610'.



- The **Hayduke 34-3 Federal Com 2H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 990' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 8,830'.
- The **Hayduke 34-3 Federal Com 3H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 1650' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 8,610'.
- The **Hayduke 34-3 Federal Com 4H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 2310' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 8,830'.
- The **Hayduke 34-3 Federal Com 5H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 330' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 9,555'.
- The **Hayduke 34-3 Federal Com 6H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 1310' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 9,340'.
- The **Hayduke 34-3 Federal Com 7H** well is a horizontal well with a surface location 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, Eddy County, and the intended bottom hole location is 330' FSL and 2310' FWL of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, Eddy County. This well will be drilled vertically to a depth of approximately 9,555'.

4. These wells will be located within the Purple Sage Wolfcamp Gas Pool (Pool ID: 98220) and will comply with the Division's setback requirements in Order No. R-14262.

5. 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 wells or to otherwise commit their interests to the wells.

6. 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 July 11, 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 W/2 of Section 34, Township 25 South, Range 26 East, and W/2 of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico;

B. Pooling all mineral interests in the Wolfcamp formation underlying a horizontal spacing unit within the W/2 of Section 34, Township 25 South, Range 26 East, and W/2 of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico;

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

D. Authorizing Cimarex to recover its costs of drilling, equipping and completing these wells;

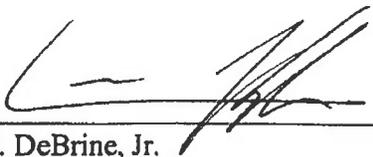
E. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure;

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 wells.

Respectfully submitted,

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

By:



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Attorneys for Applicant

W3436751.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 640-acre, more or less, Wolfcamp horizontal spacing unit; and, (2) pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the W/2 of Section 34, Township 25 South, Range 26 East, and W/2 of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, and 7H** wells, to be horizontally drilled. The producing area for these wells will be orthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Cimarex as operator of the wells, and a 200% charge for risk involved in drilling said wells. Said area is located approximately 8.5 miles southeast of Whites City, New Mexico.

Hayduke 34-3 – Wolfcamp Wells

W/2 of Section 34, Township 25S, Range 26 East, Eddy County, NM
 W/2 of Section 3, Township 26 South, Range 26 East, Eddy County, NM

Owner – Wolfcamp	Tract	Net	Working Interest Percentage	Force Pool Interest
Cimarex Energy Co.	1,4	335	52.34375%	No – Operator
EOG	2,3,4	259	40.468750%	Yes
Oxy Y-1	2	16	2.500000%	Yes
Partnership Properties Company	3	30	4.6875%	Yes
TOTAL			100%	

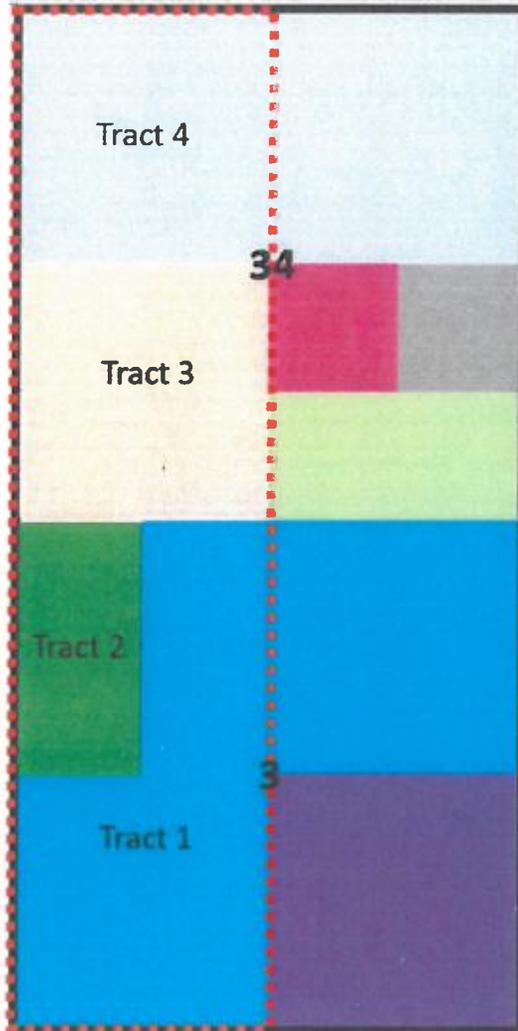


EXHIBIT
 A.2



April 24, 2019

Partnership Properties Company
c/o Petro-Lewis Co
P.O. Box 20352
Billings, MT 59104

**Re: Proposal to Drill
Hayduke 34-3 Federal Com Wells
Section 34, Township 25 South, Range 26 East
Section 3, Township 26 South, Range 26 East
Eddy County, New Mexico**

Dear Working Interest Owner,

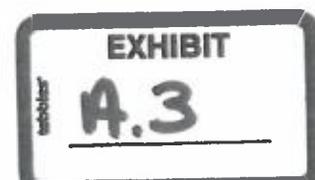
Cimarex Energy Co. hereby proposes to drill the Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H, 9H, 10H & 11H wells at a legal location in Section 34, Township 25 South, Range 26 East, NMPM, Eddy Co., New Mexico.

Hayduke 34-3 Federal Com 1H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 330' FSL and 330' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 8,610' to the Wolfcamp formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 2H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 330' FSL and 990' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 8,830' to the Wolfcamp formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 3H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 330' FSL and 1650' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 8,610' to the Wolfcamp formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 4H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 330' FSL and 2310' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 8,830' to the Wolfcamp formation and laterally in a southerly direction within the formation to the referenced bottom hole location.



Hayduke 34-3 Federal Com 5H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 330' FSL and 330' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 9,555' to the Wolfcamp formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 6H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 330' FSL and 1310' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 9,340' to the Wolfcamp formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 7H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 330' FSL and 2310' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 9,555' to the Wolfcamp formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 8H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 100' FSL and 660' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 7,300' to the Bone Spring formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 9H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 100' FSL and 1980' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 7,300' to the Bone Spring formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 10H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 100' FSL and 660' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 7,680' to the Harkey formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

Hayduke 34-3 Federal Com 11H - The intended surface hole location for the well is approximately 390' FNL and 1310' FWL of Section 34, Township 25 South, Range 26 East, and the intended bottom hole location is approximately 100' FSL and 1980' FWL of Section 3, Township 26 South, Range 26 East. The well is proposed to be drilled vertically to a depth of approximately 7,680' to the Harkey formation and laterally in a southerly direction within the formation to the referenced bottom hole location.

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 Hayduke 34-3 Fed Com 1H well. If you intend to participate, please approve and return one (1) original of the enclosed AFE, 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.

In the event you would prefer to lease your interest in lieu of participating in the proposed operation(s), we would be happy to make you a competitive offer to lease.

Please call the undersigned with any questions or comments.

Respectfully,

A handwritten signature in cursive script that reads "Caitlin Pierce".

Caitlin Pierce
432.571.7862

**ELECTION TO PARTICIPATE
Hayduke 34-3 Federal Com 1H**

_____ Partnership Properties Company elects **TO** participate in the proposed Hayduke 34-3 Federal Com 1H

_____ Partnership Properties Company elects **NOT** to participate in the proposed Hayduke 34-3 Federal Com 1H

Dated this ____ day of _____, 2019.

Signature: _____

Title: _____

If your election above is TO participate in the proposed Hayduke 34-3 Federal Com 1H well, then:

_____ Partnership Properties Company elects **TO** be covered by well control insurance procured by Cimarex Energy Co.

_____ Partnership Properties Company 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 # 26621001

Company Entry

Date Prepared
4/23/2019

Exploration Region Permian Basin	Well Name HAYDUKE 34-3 FEDERAL COM 1H	Prospect Carlsbad Bone Spring Prospect	Property Number 300001-128.01	AFE 26621001
County, State Eddy, NM	Location SHL: W/2 of Section 34, Township 25 South, Range 26 East, Eddy County, NM BHL: W/2 of Section 3, Township 26 South, Range 26 East, Eddy County, NM		Estimated Spud 1/1/2021	Estimated Completion 2/1/2021
X New Supplement Revision	Formation Wolfcamp	Well Type DEV	Td Measured Depth 18,403	Td Vertical Depth 8,610

Purpose Drill and complete well

Description

Drilling Drill and complete a horizontal test. Drill to 450', set water string casing. Drill to 1876', set surface casing. Drill to 8133' (KOP). Drill curve at 12°/100' initial build rate to +/- 90 degrees 8610' TVD and drill a +/- 9420' long lateral in the Wolfcamp formation. Run and cement production casing. Stage frac. Drill out plugs. Run production packer, tubing and GUVs.

Intangible	Dry Hole	After Casing Point	Completed Well Cost
Drilling Costs	\$2,262,000		\$2,262,000
Completion Costs		\$6,338,340	\$6,338,340
Total Intangible Cost	\$2,262,000	\$6,338,340	\$8,600,340
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$84,000	\$794,000	\$878,000
Lease Equipment		\$630,000	\$630,000
Total Tangible Cost	\$84,000	\$1,424,000	\$1,508,000
Total Well Cost	\$2,346,000	\$7,762,340	510,108,340

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.

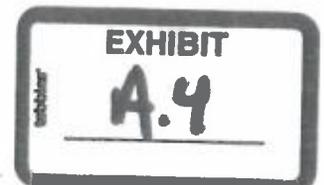
I elect to market my gas with Cimarex pursuant to the terms and conditions of its contract.

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. 4/23/2019





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Description	BCP - Drilling		ACP - Drilling		Comp/Stm		Production Equip		Post Completion		Total
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	
Roads & Locations	DIC100	140,000			STB4100	10,000	CON4100	8,500	PCOM4100	28,000	186,500
Derricks	DIC105	6,000					CON4105	1,000			7,000
Mud/Fluids Disposal	DIC255	160,000			STB4255	62,000			PCOM4255	90,000	312,000
Day Rate	DIC115	442,000	DIC120	104,000							546,000
Misc Preparation	DIC120	35,000									35,000
Yield	DIC125	55,000	DIC125	0	STB4125	0			PCOM4125	0	55,000
Fuel	DIC135	82,000	DIC138	0					PCOM4130	0	82,000
Water for Drilling Rig (Not For Water)	DIC140	5,000	DIC135	0	STB4135	24,000			PCOM4135	0	29,000
Jobs & Addresses	DIC145	200,000									200,000
Surface Rentals	DIC150	104,000	DIC140	0	STB4140	109,000	CON4140	2,000	PCOM4140	30,900	325,900
Downhole Rentals	DIC155	97,000			STB4145	0			PCOM4145	0	97,000
Hotback Labor					STB4141	0			PCOM4141	13,440	13,440
Automation Labor							CON4150	37,500	PCOM4150	0	37,500
Formation Evaluation (DST, Coring, etc.)	DIC160	0			STB4150	0					0
Well Logging	DIC170	19,000									19,000
Open Hole Logging	DIC180	0									0
Cementing & Plug Equipment	DIC185	65,000	DIC155	160,000	STB4180	4,000			PCOM4180	0	229,000
Tubular Insulations	DIC190	38,000	DIC160	5,000	STB4185	0			PCOM4185	0	43,000
Casing Cures	DIC195	10,000	DIC165	20,000	STB4195	0			PCOM4195	0	30,000
Mechanical Labor	DIC200	20,000	DIC170	10,000	STB4170	0	CON4170	154,000	PCOM4170	0	184,000
Trucking/Transportation	DIC205	18,000	DIC175	8,000	STB4175	4,000	CON4175	19,000	PCOM4175	0	49,000
Supervision	DIC210	98,000	DIC180	16,000	STB4180	74,000	CON4180	12,000	PCOM4180	0	190,000
Trailer Hauls/Cases/Catering	DIC220	39,000	DIC235	6,000	STB4200	28,000					73,000
Other Misc Expenses	DIC230	5,000	DIC190	0	STB4190	115,000	CON4190	10,000	PCOM4190	0	130,000
Overhead	DIC235	10,000	DIC155	5,000							15,000
Essential Cementing	DIC240	0			STB4215	0			PCOM4215	0	0
MOA/DEMOIS	DIC240	150,000									150,000
Directional Drilling Services	DIC245	225,000									225,000
Well Control	DIC250	72,000									72,000
Well Control Equip (Grubbing Services)	DIC255	72,000	DIC240	5,000	STB4240	81,000			PCOM4240	0	158,000
Flaring & Sidevents Services	DIC270	0	DIC245	0	STB4245	0			PCOM4245	0	0
Completion Rig					STB4115	21,000			PCOM4115	0	21,000
Coil Tubing Services					STB4260	368,000			PCOM4260	0	368,000
Completion Logging/Perforating/Wireline					STB4200	400,000			PCOM4200	0	400,000
Completion Pumps					STB4290	96,000			PCOM4290	0	96,000
Stimulation Pumping/Chemicals/Address/Seal					STB4210	2,926,000			PCOM4210	0	2,926,000
Stimulation Water/Water Transfer/Water Storage					STB4285	702,000			PCOM4285	0	702,000
Element Owned Tool/Joint Equipment					STB4305	40,000			PCOM4305	0	40,000
Logistics/Heavy/Casings	DIC300	10,000					CON4300	0			10,000
Well Control Insurance	DIC305	7,000									7,000
Water Cementation Overhead							CON4305	21,500			21,500
Real Time Operations Center	DIC350	0			STB4350	0					0
FLUCL - Labor							CON4350	54,500			54,500
FLUCL - Supervision							CON4355	3,500			3,500
Survey							CON4355	0			0
SWD/Other - Labor							CON4360	0			0
SWD/OTHER - SUPERVISION							CON4365	0			0
Contingency	DIC405	108,000	DIC320	17,000	STB4320	257,000	CON4320	87,500	PCOM4320	0	469,500
Contingency							CON4321	8,000			8,000
POA Costs	DIC405	0	DIC375	0							0
Total Intangible Cost		2,242,000		356,000		5,493,000		419,000		152,340	8,602,340
Drive Pipe	DWBL100	0									0
Conductor Pipe	DWBL100	0									0
Water String	DWBL135	16,000									16,000
Surface Casing	DWBL140	48,000									48,000
Intermediate Casing 1	DWBL145	0									0
Intermediate Casing 2	DWBL155	0									0
Drilling Liner	DWBL160	0									0
Production Casing or Liner			DWBL160	489,000							489,000
Production Tie-Back			DWBL165	0	STMT1101	0					0
Tubing					STMT1105	53,000			PCOM4105	0	53,000
Wellhead, Tree, Chokes	DWBL115	20,000	DWBL120	25,000	STMT1320	60,000			PCOM4120	0	105,000
Liner Hanger, Isolation Packer	DWBL100	0	DWBL125	0							0
Packer, Moplin					STMT1400	28,000			PCOM4100	0	28,000
Pumping Unit, Engine					STMT1405	0			PCOM4105	0	0
Downhole LRI Equipment					STMT1410	80,000			PCOM4110	0	80,000
Surface Equipment:									PCOM4120	50,000	50,000
Well Automation Materials									PCOM4155	0	0
Total Tangible - Well Equipment Cost		84,000		514,000		221,000			50,000		870,000
N/C Lease Equipment:											
Tanks, Tanks Steps, Sinks							CON4400	183,000			183,000
Waste Equipment							CON4405	64,000			64,000
Secondary Containment							CON4410	178,000			178,000
Overhead Power Distribution							CON4415	34,000			34,000
Facility Decals							CON4420	31,500			31,500
Telecommunication Equipment							CON4425	36,500			36,500
Meters and Measuring Equipment							CON4430	0			0
Facility Line Pipe							CON4435	20,000			20,000
Lease Automation Materials							CON4440	30,000			30,000
FLUCL - Materials							CON4445	43,000			43,000
FLUCL - Lin Pipe							CON4450	7,500			7,500
SWD/Other - Materials							CON4455	11,500			11,500
SWD/OTHER - LINE PIPE							CON4460	0			0
Total Tangible - Lease Equipment Cost							630,000		221,500		851,500
Total Estimated Cost:		2,346,000		870,000		6,022,000		1,049,000		221,340	10,108,340



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
1H

AFE # 26621001

Description	BCP - Drilling		ACP - Drilling		Comp/Stm	Amount
	Codes	Amount	Codes	Amount		
Roads & Location	D1DC100	140,000			ST9A100	10,000
Damages	D1DC105	6,000				
Mod./Fields Disposal	D1DC255	160,000			ST9A255	62,000
Day Rate	D1DC115 16 days at \$26,000/Day	416,000	D1CC120 4 days at \$26,000/Day	104,000		
Misc Preparation	D1DC120	35,000				
Bits	D1DC125	55,000	D1CC125	0	ST9A125	0
Fuel	D1DC135 1,800 gal/Day at \$3.00/gal	5,400	D1CC130	0		
Water for Drilling Rig (Hot Frac Water)	D1DC140	5,000	D1CC135	0	ST9A135	24,000
Mud & Additives	D1DC145	200,000				
Surface Rentals	D1DC150 Per Day @CP/Day	104,000	D1CC140	0	ST9A140	183,000
Downhole Rentals	D1DC155	97,000			ST9A145	0
Flowback Labor					ST9A141	0
Assessment Labor					ST9A150	0
Formation Evaluation (DST, Coring, etc)	D1DC160	0				
Mud Logging	D1DC170 12 days at \$1,500/Day	18,000				
Open Hole Logging	D1DC180	0				
Conveying & Fibre Equipment	D1DC185	65,000	D1CC155	160,000		
Subular Inspections	D1DC190	18,000	D1CC160	5,000	ST9A160	4,000
Casing Crows	D1DC195	10,000	D1CC165	20,000	ST9A165	0
Mechanical Labor	D1DC200	20,000	D1CC170	8,000	ST9A170	0
Tracking/Transportation	D1DC205	18,000	D1CC175	8,000	ST9A175	4,000
Supervision	D1DC210	80,000	D1CC180	16,000	ST9A180	74,000
Traffic House/Comp/Clotting	D1DC280	30,000	D1CC255	6,000	ST9A280	28,000
Other Misc Expenses	D1DC220	5,000	D1CC190	0	ST9A190	115,000
Overhead	D1DC225	10,000	D1CC195	5,000		
Needed Conveying	D1DC231	0			ST9A215	0
MUD/DEMOS	D1DC240	150,000				
Directional Drilling Services	D1DC245	225,000				
Solids Control	D1DC260	72,000				
Well Control Equip (Snubbing Services)	D1DC265	72,000	D1CC240	5,000	ST9A240	81,000
Flare-Up & Sidetrack Services	D1DC270	0	D1CC245	0	ST9A245	0
Completion Rig					ST9A115	21,000
Co. Tubing Services					ST9A260	268,000
Completion Logging/Perforating/Wireline					ST9A200	400,000
Composite Plugs					ST9A380	96,000
Isolation					ST9A210	2,926,000
Isolation Water/Water Transfer/Misc					ST9A395	702,000
Owner Owned Frac/Control Equipment					ST9A305	40,000
Leads/Regulatory/Corrosive	D1DC300	10,000				
Well Control Insurance	D1DC385 \$0.35/R	7,000				
Major Construction Overhead						
Res. Time Operations Center	D1DC350	0			ST9A560	0
FL/GI - Labor						
FL/GI - Supervision						
Survey						
SWD/Other - Labor						
SWD/OTHER - SUPERVISION						
Contingency	D1DC431 500 % of Drilling Intangibles	106,000	D1CC220	17,000	ST9A220	257,000
Contingency						
PI&A Costs	D1DC255	0	D1CC275	0		
Total Intangible Cost		2,262,000		356,000		5,403,000
Drilling Pipe	D1WE150	0				
Conductor Pipe	D1WE130	0				
Washer String	D1WE135	16,000				
Surface Casing	D1WE140 9 5/8" - 1,800ft at \$25.60/R	48,000				
Intermediate Casing 1	D1WE145	0				
Intermediate Casing 2	D1WE155	0				
Drilling Lines	D1WE160	0				
Production Casing or Liner			D1WE100 5 1/2" - 12,596ft at \$25.00/R	483,000		
Production Tie-Back			D1WE105	0	ST9A101	0
Tubing					ST9A105 2 7/8" - 7,520ft at \$7.00/R	53,000
Wellhead, Tree, Chokes	D1WE115	20,000	D1WE120	25,000	ST9A120	60,000
Liner Hanger, Isolation Packer	D1WE100	0	D1WE125	0		
Reducers, Nipples					ST9A200	28,000
Pumping Unit, Engine					ST9A205	0
Downhole Lift Equipment					ST9A170	80,000
Surface Equipment						
Well Automation Materials						
Well Drilling - Well Equipment Cost		84,000				324,000
N/C Lease Equipment						
Tanks, Tools Stacks, Sinks						
Military Equipment						
Secondary Containment						
Overhead Power Distribution						
Facility Electrical						
Telecommunication Equipment						
Meters and Metering Equipment						
Facility Line Pipe						
Lease Automation Materials						
FL/GI - Materials						
FL/GI - Line Pipe						
SWD/Other - Materials						
SWD/OTHER - LINE PIPE						
Well Drilling - Lease Equipment Cost						
Total Estimated Cost		2,346,000		376,000		5,673,000



Description	Codes	Production Equip		Post Completion		Amount	Total
		Amount	Codes	Post/Completion	Code		
Roads & Location	CON1100	8,500	PCOM1100	Post/Road Clean Up		28,000	186,500
Dumpsites	CON1105	1,000					7,000
Mud/Fields Disposal			PCOM1235	6,000 BWFO for 60 days @ \$2.25/abd		90,000	312,000
Day Rate							546,000
Misc Preparation							35,000
Sh's			PCOM1125			0	55,000
Fuel			PCOM1130			0	82,000
Water for Drilling Rig (Not Frac Water)			PCOM1135			0	29,000
Mud & Additives							200,000
Surface Rentals	CON1140	2,800	PCOM1340	\$1,050/ft for Production Target of 30 Days		30,900	325,900
Downhole Rentals			PCOM1145			0	97,000
Flowback Labor			PCOM1141	\$960/ft for Production Target of 34 Day		13,440	13,440
Automation Labor	CON1150	37,500	PCOM1150			0	37,500
Formation Evaluation (DST, Coring, etc.)							0
Mud Logging							19,000
Open Hole Logging							0
Cementing & Plug Equipment							225,000
Wellbore Inspection			PCOM1160			0	27,000
Coring Crews							30,000
Mechanical Labor	CON1170	154,000	PCOM1170			0	184,000
Trucking/Transportation	CON1175	19,000	PCOM1175			0	49,000
Inspection	CON1180	12,000	PCOM1180			0	180,000
Traffic Mess/Comp/Catering							73,000
Other Misc Expenses	CON1190	10,000	PCOM1190			0	130,000
Overhead							15,000
Nonmetal Cementing			PCOM1215			0	0
MUD/DRILLING							150,000
Directional Drilling Services							225,000
Solids Control							72,000
Well Control Equip (Shustring Services)			PCOM1240			0	150,000
Fishing & Sidetrack Services			PCOM1245			0	0
Completion Rig			PCOM125			0	21,000
Coil Tubing Services			PCOM1260			0	368,000
Completion Logging/Perforating/Minerals			PCOM1260			0	400,000
Composite Plug			PCOM1280			0	96,000
Simulation Pumping/Chemicals/Additives/Sand			PCOM1210			0	2,826,000
Simulation Water/Water Transfer/Water							702,000
Cimarex Owned Frac/Rental Equipment			PCOM1305			0	40,000
Legal/Regulatory/Curtative	CON1300	0					10,000
Well Control Insurance							7,000
Major Construction Overhead	CON1305	21,500					21,500
Real Time Operations Center							0
PLUG - Labor	CON1300	54,500					54,500
PLUG - Supervision	CON1305	3,500					3,500
Survey	CON1315	0					0
SHU/OTHER - Labor	CON1300	0					0
SHU/OTHER - SUPERVISION	CON1305	0					0
Contingency	CON1320	87,500	PCOM1320			0	489,500
Contingency	CON1321	8,000					8,000
P&A Costs							0
Total Available Cost		479,000				382,940	3,603,940
Drive Pipe							0
Conductor Pipe							0
Water Boring							16,000
Surface Casing							48,000
Intermediate Casing 1							0
Intermediate Casing 2							0
Drilling Liner							0
Production Casing or Liner							489,000
Production Tie-Back							0
Tubing			PCOM1105			0	53,000
Wellhead, Tree, Choker			PCOM1120			0	105,000
Liner Hangers, Isolation Packer							0
Packer, Plugsets			PCOM1400			0	28,000
Pumping Units, Engines			PCOM1405			0	0
Downhole Lift Equipment			PCOM1410			0	80,000
Surface Equipment			PCOM1420	REC Owned Sand Separator		59,000	59,000
Well Automation Materials			PCOM1435			0	0
Total Available - Well Equipment Cost						39,000	478,000
MVC Lease Equipment	CON1400	183,000					183,000
Shells, Tanks, Skids, Skains	CON1405	64,000					64,000
Battery Equipment	CON1410	179,000					179,000
Secondary Construction	CON1415	24,000					24,000
Overhead Power Distribution	CON1420	31,500					31,500
Facility Electrical	CON1425	36,500					36,500
Telecommunication Equipment	CON1428	0					0
Meters and Metering Equipment	CON1445	20,000					20,000
Facility Line Pipe	CON1450	30,000					30,000
Lease Automation Meterlets	CON1455	43,000					43,000
PLUG - Materials	CON1550	7,500					7,500
PLUG - Line Pipe	CON1555	11,500					11,500
SHU/OTHER - Materials	CON1650	0					0
SHU/OTHER - LINE PIPE	CON1655	0					0
Total Available - Lease Equipment Cost		630,000					630,000
Total Estimated Cost		1,109,000				221,940	1,330,940



Authorization For Expenditure Drilling

AFE # 26621002

Company Entity

Date Prepared
4/23/2019

Exploration Region	Well Name	Prospect	Property Number	AFE
Permian Basin	HAYDUKE 34-3 FEDERAL COM 2H	Carlsbad Bone Spring Prospect	300001-129.01	26621002
County, State	Location		Estimated Spud	Estimated Completion
Eddy, NM	SHL: W/2 of Section 34, Township 25 South, Range 26 East, Eddy County, NM BHL: W/2 of Section 3, Township 26 South, Range 26 East, Eddy County, NM		1/1/2021	2/1/2021
<input checked="" type="checkbox"/> New Supplement Revision	Formation	Well Type	Td Measured Depth	Td Vertical Depth
	Wolfcamp Upper	DEV	19,000	8,700

Purpose Drill and complete well

Description

Drilling Drill and complete a horizontal test. Drill to 450', set water string casing. Drill to 1876', set surface casing. Drill to 8133' (XOP). Drill curve at 12°/100' initial build rate to +/- 90 degrees 8610' TVD and drill a +/- 9420' long lateral in the Wolfcamp formation. Run and cement production casing. Stage frac. Drill out plugs. Run production packer, tubing and GLVs.

Intangible	Dry Hole	After Casing Point	Completed Well Cost
Drilling Costs	\$2,108,000		\$2,108,000
Completion Costs		\$6,338,340	\$6,338,340
Total Intangible Cost	\$2,108,000	\$6,338,340	\$8,446,340
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$83,000	\$787,000	\$870,000
Lease Equipment		\$630,000	\$630,000
Total Tangible Cost	\$83,000	\$1,417,000	\$1,500,000
Total Well Cost	\$2,191,000	\$7,755,340	\$9,946,340

Comments On Well Costs

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

Well Control Insurance

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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

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Description	BCP - Drilling		ACP - Drilling		Comp/Str		Production Equip		Post Completion		Total	Cost	
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount			
Needs & Location	DIC100	70,000			STM100	10,000			CON100	8,500	PCOM100	28,000	116,500
Damages	DIC105	6,000							CON105	1,000			7,000
Mud/Fluids Deposits	DIC253	160,000			STM253	62,000					PCOM253	90,000	312,000
Day Rate	DIC115	442,000	DIC120	104,000									546,000
Mud Preparation	DIC120	35,000											35,000
Oil	DIC125	55,000	DIC125	0	STM125	0					PCOM125	0	55,000
Fuel	DIC133	82,000									PCOM130	0	82,000
Water for Drilling Rig (Not Frac Water)	DIC340	5,000	DIC135	0	STM133	24,000					PCOM133	0	29,000
Mud & Additives	DIC145	200,000											200,000
Surface Rentals	DIC130	104,000	DIC140	0	STM140	183,000	CON140	2,000			PCOM140	30,900	323,900
Downhole Rentals	DIC135	97,000			STM145	0					PCOM145	0	97,000
Workback Labor					STM141	0					PCOM141	13,440	13,440
Automation Labor							CON130	37,500			PCOM150	0	37,500
Foundation Evaluation (DST, Coding, etc)	DIC140	0			STM150	0							0
Mud Logging	DIC170	19,000											19,000
Open Hole Logging	DIC180	0											0
Cementing & Plug Equipment	DIC185	65,000	DIC135	160,000	STM160	4,000					PCOM160	0	229,000
Tubular Inspection	DIC190	18,000	DIC165	5,000	STM165	0					PCOM165	0	23,000
Casing Curing	DIC200	10,000	DIC170	10,000	STM170	0	CON170	154,000			PCOM170	0	184,000
Mechanical Labor	DIC205	20,000	DIC175	8,000	STM175	4,000	CON175	75,000			PCOM175	0	107,000
Freezing/Transportation	DIC210	18,000	DIC180	16,000	STM180	74,000	CON180	12,000			PCOM180	0	190,000
Suspension	DIC280	28,000	DIC235	6,000	STM280	28,000					PCOM190	0	72,000
Wellbore Heat/Comp/Outgassing	DIC220	5,000	DIC190	0	STM190	115,000	CON190	18,000			PCOM190	0	138,000
Overhead	DIC225	10,000	DIC195	5,000	STM215	0					PCOM215	0	15,000
Remedial Cementing	DIC231	0											0
AD/OD/OCs	DIC240	72,000											72,000
Directional Drilling Services	DIC245	225,000											225,000
Solids Control	DIC260	72,000											72,000
Well Control Equip Grabbing Services	DIC265	72,000	DIC240	5,000	STM240	81,000					PCOM240	0	158,000
Fishing & Sidetrack Services	DIC270	0	DIC245	0	STM245	0					PCOM245	0	0
Completion Rig					STM115	21,000					PCOM215	0	21,000
Coil Tubing Services					STM280	368,000					PCOM280	0	368,000
Completion Logging/Perforating/Wellfire					STM200	400,000					PCOM280	0	400,000
Composite Plugs					STM290	96,000					PCOM290	0	96,000
Stimulants/Prep/Chemicals/Additives/Gels					STM210	2,926,000					PCOM290	0	2,926,000
Slurries/Water/Water Transfer/Water Storage					STM305	702,000							702,000
CIMAREX Owned Frac/Rentall Equipment					STM305	40,000					PCOM305	0	40,000
Legal/Regulatory/Consentive	DIC300	10,000					CON300	0					10,000
Well Control Insurance	DIC325	6,000											6,000
Major Construction Overhead							CON305	21,500					21,500
Real Time Operations Center	DIC350	0			STM380	0							0
PLUG - Labor							CON300	54,500					54,500
PLUG - Supervision							CON305	3,500					3,500
Survey							CON315	0					0
DND/Other - Labor							CON320	0					0
DND/OTHER - SUPERVISION							CON325	0					0
Contingency	DIC435	100,000	DIC220	17,000	STM220	257,000	CON220	87,500			PCOM220	0	461,500
Contingency							CON321	8,000					8,000
PIRA Costs	DIC385	0	DIC375	0									0
Total Intangible Cost		2,104,000		356,000		5,400,000		498,000			102,340		8,446,340
Drive Pipe	DWE130	0											0
Conductor Pipe	DWE130	0											0
Mud Seal	DWE135	16,000											16,000
Surface Casing	DWE140	47,000											47,000
Intermediate Casing 1	DWE145	0											0
Intermediate Casing 2	DWE150	0											0
Drilling Liner	DWE160	0											0
Production Casing or Liner	DWE180	0	DWE180	484,000									484,000
Production Tie-Back	DWE180	0			STM190	0							0
Fishing					STM195	57,000					PCOM195	0	57,000
Wellhead, Tree, Chokes	DWE115	20,000	DWE130	25,000	STM130	60,000					PCOM130	0	105,000
Liner Hanger, Isolation Packers	DWE100	0	DWE125	0									0
Packer, Nipples					STM140	28,000					PCOM140	0	28,000
Pumping Unit, Engine					STM145	0					PCOM145	0	0
Downhole LIFT Equipment					STM110	80,000					PCOM110	0	80,000
Surface Equipment											PCOM120	59,000	59,000
WOC Automation Materials											PCOM125	0	0
Total Tangible - Well Equipment Cost		63,000		399,000		788,000					59,000		879,000
N/C Lease Equipment							CON180	183,000					183,000
Tanks, Tanks Steps, Stairs							CON185	64,000					64,000
Waxing Equipment							CON190	179,000					179,000
Secondary Containments							CON195	24,800					24,800
Overhead Power Distribution							CON200	31,500					31,500
Facility Electrical							CON205	36,500					36,500
Telecommunication Equipment							CON210	0					0
Meters and Metering Equipment							CON215	20,000					20,000
Facility Line Pipe							CON220	30,000					30,000
Lease Automation Materials							CON225	43,000					43,000
PLUG - Materials							CON230	7,500					7,500
PLUG - Line Pipe							CON235	11,500					11,500
DND/Other - Materials							CON240	0					0
DND/OTHER - LINE PIPE							CON245	0					0
Total Tangible - Lease Equipment Cost								630,000					630,000
Total Estimated Cost		2,191,000		865,000		6,208,000		1,628,000			321,340		9,946,340



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
2H

AFE # 26621002

Description	BCP - Drilling		ACP - Drilling		Code	Comp/Strm	Amount
	Codes	Amount	Codes	Amount			
Roads & Location	DICC100	70,000			STBA389		10,000
Damages	DICC105	6,000					
Mud/Fluids Disposal	DICC255	180,000			STBA225		62,000
Dry Rate	DICC115 16 days at \$26,000/day	442,000	DICC120 4 days at \$26,000/day	104,000			
Misc Preparation	DICC120	35,000					
Rts	DICC125	55,000	DICC125	0	STBA125		0
Fuel	DICC133 1,300 gal/day at \$3.00/gal	82,000	DICC130	0			
Water for Drilling Rig (Not Frac Water)	DICC140	5,000	DICC135	0	STBA135		24,000
Mod & AddGover	DICC145	200,000					
Seabee Rentals	DICC150 Per Day 800/day	104,000	DICC140	0	STBA140		188,000
Overhaul Rentals	DICC155	97,000			STBA145		0
Flowback Labor					STBA141		0
Autosation Labor					STBA139		0
Formation Evaluation (DST, Coring, etc)	DICC160	0					
Mud Logging	DICC170 12 days at \$1,200/day	18,000					
Open Hole Logging	DICC180	0					
Cementing & Plug Equipment	DICC185	65,000	DICC185	180,000			
Tubular Inspection	DICC190	18,000	DICC160	5,800	STBA160		4,000
Coring Cases	DICC195	16,000	DICC165	20,000	STBA165		0
Mechanical Labor	DICC200	20,000	DICC170	10,000	STBA170		0
Trucking/Transportation	DICC205	18,000	DICC175	8,000	STBA175		4,000
Supervision	DICC210	88,000	DICC180	16,000	STBA180		74,000
Trailer House/Conc/ Catering	DICC280	39,000	DICC255	6,000	STBA280		28,000
Other Misc Expenses	DICC290	5,000	DICC190	0	STBA190		115,000
Overhead	DICC225	10,000	DICC195	5,000			
Removal Covering	DICC231	0			STBA215		0
MUD/DRUGS	DICC240	75,000					
Directional Drilling Services	DICC245	225,000					
Safety Control	DICC260	72,000					
Mud Control Equip (Cinching Sanded)	DICC265	72,000	DICC240	5,000	STBA240		81,000
Finishing Drilling Services	DICC270	0	DICC245	0	STBA245		0
Completion Rig					STBA175		21,000
Coil Tubing Services					STBA260		358,000
Completion Logging/Performance/Minerals					STBA200		400,000
Composite Plugs					STBA390		96,000
Stimulation					STBA210		2,926,000
Stimulation Water/Mixer Transfer/Alator					STBA195		702,000
Downer Overhaul/Frac/Rentals/Equipment					STBA395		40,000
Legal/Regulatory/Consulting	DICC300	10,000					
Mud Control Insurance	DICC385 80.35/h	6,000					
Major Construction Overhead							
Real Time Operations Center	DICC560	0			STDA560		0
PLUG - Labor							
PLUG - Supervision							
Sevey							
SMV/Other - Labor							
SMV/OTHER - SUPERVISION							
Contingency	DICC485 500 % of Drilling Intelligible	100,000	DICC220	77,800	STBA220		257,800
Contingency							
PBA Costs	DICC285	0	DICC275	0			
Total Intelligible Cost		2,108,000		356,000			5,420,000
Drive Pipe	DWBL120	0					
Conductor Pipe	DWBL130	0					
Mudline String	DWBL135	16,000					
Surface Casing	DWBL140 9 5/8" - 1,875ft at \$25,800/r	47,000					
Intermediate Casing 1	DWBL145	0					
Intermediate Casing 2	DWBL155	0					
Drilling Liber	DWBL160	0					
Production Casing or Liner	DWLA100 5 1/2" - 18,423ft at \$25,000/r	484,000			STBA100		0
Production Tie-back	DWLA145	0			STBA105		51,000
Tubing	DWBL115	20,000	DWLA120	25,000	STBA120		60,000
Wellhead, Tree, Chokes	DWBL300	0	DWLA125	0			
Liner Hanger, Isolation Packer							
Packer, Nipples							
Pumping Unit, Engine					STBA100		28,000
Downhole M/I Equipment					STBA105		0
Drilling Equipment					STBA110		80,000
Mud Annulation Materials							
Total Intelligible - Loss Equipment Cost		81,000		388,000			218,000
M/I Loss Equipment							
Tools, Tools Bags, Stairs							
Battery Equipment							
Scumming Components							
Overhead Power Distribution							
Facility Electrical							
Telecommunication Equipment							
Access and Mating Equipment							
Facility Line Pipe							
Losses Accretion Materials							
PLUG - Materials							
PLUG - Line Pipe							
SMV/Other - Materials							
SMV/OTHER - LINE PIPE							
Total Intelligible - Loss Equipment Cost		2,191,000		883,000			5,620,000
Total Estimated Cost		2,191,000		883,000			5,620,000



Description	Codes	Production Equip		Post Completion		Total	
		Amount	Codes	Amount	Cost	Amount	Cost
Roads & Location	CON.100	8,500	PCOM.100	28,000	116,500		
Damages	CON.105	1,000			7,000		
Mud/Water Disposal			PCOM.225	8,000 BWPD for 60 days @ \$0.25/abd	90,000	312,000	
Day Rate						546,000	
Misc Preparation						35,000	
Sits			PCOM.125			55,000	
Fuel			PCOM.130			82,000	
Water for Drilling Rig (Not Fac Water)			PCOM.135			29,000	
Mud & Additives						200,000	
Surface Rentals	CON.140	2,000	PCOM.140	\$1,032/M for Production Target of 30 Days	30,900	325,900	
Downhole Rentals			PCOM.145			97,000	
Flowback Labor			PCOM.141	\$360/M for Production Target of 14 Day	13,440	13,440	
Automation Labor	CON.150	37,500	PCOM.150			37,500	
Formation Evaluation (DST, Coring, etc.)						0	
Mud Logging						19,000	
Open Hole Logging						0	
Geosensing & Fluids Equipment						225,000	
Tubular Inspections			PCOM.160			27,000	
Caskey Crews						30,000	
Mechanical Labor	CON.170	154,000	PCOM.170			184,000	
Trucking/Transportation	CON.175	18,000	PCOM.175			49,000	
Supervision	CON.180	12,000	PCOM.180			190,000	
Taylor House/Camp/Catering						73,000	
Labour Misc Expenses	CON.190	10,000	PCOM.190			130,000	
Overhead						15,000	
Remedial Cementing			PCOM.215			0	
MCM/MS/MSB						75,000	
Directional Drilling Services						225,000	
Scale Control						72,000	
Well Control Equip (Snubbing Services)			PCOM.240			150,000	
Fishing & Staback Services			PCOM.245			0	
Completion Rig			PCOM.115			21,000	
Coil Tubing Services			PCOM.280			358,000	
Completion Logging/Perforating/Misc			PCOM.200			400,000	
Composites Plugs			PCOM.330			96,000	
Stimulants Pumping/Chemicals/Additives/Sand			PCOM.210			2,926,000	
Stimulants Water/Water Transfer/Water						702,000	
Chemical Overhead Fac./Aerial Equipment			PCOM.305			40,000	
Legal/Regulatory/Cursive		0				10,000	
Well Control Insurance						6,000	
Major Construction Overhead	CON.305	21,500				21,500	
Real Time Operations Center						0	
FL/G - Labor	CON.500	54,500				54,500	
FL/G - Supervision	CON.505	3,500				3,500	
Survey	CON.515	0				0	
SWD/Other - Labor	CON.600	0				0	
SWD/OTHER - SUPERVISION	CON.605	0				0	
Contingency	CON.220	87,500	PCOM.220			461,500	
Contingency	CON.221	8,000				8,000	
P&A Costs						0	
Well Tangible Cost		419,000			162,340	5,816,340	
Drill Pipe						0	
Conductor Pipe						0	
Water String						16,000	
Surface Casing						47,000	
Intermediate Casing 1						0	
Intermediate Casing 2						0	
Drilling Liner						0	
Production Casing or Liner						484,000	
Production Tie-Back						0	
Tubing			PCOM.105			51,000	
Miscellaneous Tools			PCOM.130			105,000	
Liner Hanger, Isolation Packer			PCOM.100			0	
Packer, nipples			PCOM.605			28,000	
Pumping Unit, Engine			PCOM.610			0	
Downhole Lift Equipment			PCOM.615			80,000	
Surface Equipment			PCOM.620			59,000	
Well Annulation Materials			PCOM.635			0	
Well Tangible - Well Equipment Cost						59,000	870,000
M/C Lease Equipment	CONY.600	183,000				183,000	
Tanks, Tanks Street, Stairs	CONY.605	64,000				64,000	
Battery Equipment	CONY.610	179,000				179,000	
Secondary Containment	CONY.615	24,000				24,000	
Overhead Power Distribution	CONY.620	31,500				31,500	
Facility Decadal	CONY.625	36,500				36,500	
Telecommunication Equipment	CONY.630	0				0	
Meters and Metering Equipment	CONY.645	20,000				20,000	
Facility Line Pipe	CONY.650	30,000				30,000	
Lease Annulation Materials	CONY.655	43,000				43,000	
FL/G - Materials	CONY.550	7,500				7,500	
FL/G - Line Pipe	CONY.515	11,500				11,500	
SWD/Other - Materials	CONY.630	0				0	
SWD/OTHER - LINE PIPE	CONY.635	0				0	
Well Tangible - Lease Equipment Cost		630,000				630,000	
Total Estimated Cost		1,049,000			221,840	5,846,340	



Authorization For Expenditure Drilling

AFE # 26621003

Company Entity

Date Prepared

4/23/2019

Exploration Region	Well Name	Prospect	Property Number	AFE
Permian Basin	HAYDUKE 34-3 FEDERAL COM 3H	Carlsbad Bone Spring Prospect	300001-130.01	26621003
County, State	Location		Estimated Spud	Estimated Completion
Eddy, NM	SHL: W/2 of Section 34, Township 25 South, Range 26 East, Eddy County, NM BHL: W/2 of Section 3, Township 26 South, Range 26 East, Eddy County, NM		1/1/2021	2/1/2021
<input checked="" type="checkbox"/> New <input type="checkbox"/> Supplement <input type="checkbox"/> Revision	Formation	Well Type	TU Measured Depth	TU Vertical Depth
	Wolfcamp Upper	DEV	19,000	8,700

Purpose Drill and complete well

Description

Drilling Drill and complete a horizontal test. Drill to 450', set water string casing. Drill to 1876', set surface casing. Drill to 8133' (KOP). Drill curve at 127/100' initial build rate to +/- 90 degrees 8610' TVD and drill a +/- 9420' long lateral in the Wolfcamp formation. Run and cement production casing. Stage frac. Drill out plugs. Run production packer, tubing and GLVs.

Intangible	Dry Hole	After Casing Point	Completed Well Cost
Drilling Costs	\$2,108,000		\$2,108,000
Completion Costs		\$6,338,340	\$6,338,340
Total Intangible Cost	\$2,108,000	\$6,338,340	\$8,446,340
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$83,000	\$787,000	\$870,000
Lease Equipment		\$630,000	\$630,000
Total Tangible Cost	\$83,000	\$1,417,000	\$1,500,000
Total Well Cost	\$2,191,000	\$7,755,340	\$9,946,340

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 therefor. 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.

4/23/2019



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
3H

AFE # 26621003

Description	BCP - Drilling		ACP - Drilling		Comp/Stm		Production Equip		Post Completion		Total	Cost
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount		
Roads & Location	DIC100	70,000			STMA100	10,000	CON100	8,500	PCOM100		28,000	116,500
Damages	DIC105	6,000					CON105	1,000				7,000
Mud/Fluids Disposal	DIC235	160,000			STMA235	62,000			PCOM235	90,000		312,000
Day Rate	DIC115	442,000	DICC120	104,000								546,000
Misc Preparation	DIC120	35,000										35,000
Pits	DIC125	55,000	DICC125	0	STMA125	0			PCOM125	0		55,000
Fuel	DIC135	82,000	DICC130	0					PCOM130	0		82,000
Water for Drilling Rig (Not Frac Water)	DIC140	5,000	DICC135	0	STMA135	24,000			PCOM135	0		29,000
Mud & Additives	DIC145	200,000										200,000
Surface Rentals	DIC150	104,000	DICC140	0	STMA140	189,000	CON140	2,000	PCOM140	30,900		325,900
Downhole Rentals	DIC155	97,000			STMA145	0			PCOM145	0		97,000
Blowback Labor					STMA141	0			PCOM141	13,440		13,440
Automation Labor							CON150	37,500	PCOM150	0		37,500
Formation Evaluation (DST, Coring, etc)	DIC160	0			STMA150	0						0
Mud Logging	DIC170	19,000										19,000
Open Hole Logging	DIC180	0										0
Cementing & Float Equipment	DIC185	65,000	DICC155	160,000								225,000
Tubular Inspections	DIC190	18,000	DICC160	5,000	STMA160	4,000			PCOM160	0		27,000
Casing Creeps	DIC195	10,000	DICC165	20,000	STMA165	0						30,000
Mechanical Labor	DIC200	20,000	DICC170	10,000	STMA170	0	CON170	154,000	PCOM170	0		184,000
Trucking/Transportation	DIC205	18,000	DICC175	8,000	STMA175	4,000	CON175	19,000	PCOM175	0		49,000
Supervision	DIC210	88,000	DICC180	16,000	STMA180	74,000	CON180	12,000	PCOM180	0		190,000
Trailer House/Camp/Catering	DIC220	39,000	DICC235	6,000	STMA220	28,000						73,000
Other Misc Expenses	DIC225	5,000	DICC190	0	STMA190	115,000	CON190	10,000	PCOM190	0		130,000
Overhead	DIC225	10,000	DICC195	5,000								15,000
Remedial Cementing	DIC231	0			STMA215	0			PCOM215	0		0
MHA/DICM08	DIC240	75,000										75,000
Directional Drilling Services	DIC245	225,000										225,000
Solids Control	DIC260	72,000										72,000
Well Control Equip (Gambing Services)	DIC265	72,000	DICC240	5,000	STMA240	81,000			PCOM240	0		158,000
Fishing & Sidetrack Services	DIC270	0	DICC245	0	STMA245	0			PCOM245	0		0
Completion Rig					STMA115	21,000			PCOM115	0		21,000
Call Logging Services					STMA280	368,000			PCOM280	0		368,000
Completion Logging/Perforating/Wireline					STMA280	400,000			PCOM280	0		400,000
Composite Plugs					STMA390	96,000			PCOM390	0		96,000
Simulation Pumping/Chemicals/Additives/Sand					STMA210	2,926,000			PCOM210	0		2,926,000
Simulation Water/Water Transfer/Water Storage					STMA395	702,000						702,000
Cimarex Owned Frac/Rentals Equipment					STMA395	40,000			PCOM395	0		40,000
Legal/Regulatory/Consulting	DIC300	10,000					CON300	0				10,000
Well Control Insurance	DIC305	6,000										6,000
Major Construction Overhead							CON305	21,500				21,500
Real Time Operations Center	DIC500	0			STMA500	0						0
FLUGL - Labor							CON500	54,500				54,500
FLUGL - Supervision							CON505	3,500				3,500
Survey							CON515	0				0
SWD/Other - Labor							CON520	0				0
SWD/OTHER - SUPERVISION							CON525	0				0
Contingency	DIC435	100,000	DICC220	17,000	STMA220	257,000	CON220	87,500	PCOM220	0		461,500
Contingency							CON221	8,000				8,000
MBA Costs	DIC295	0	DICC275	0								0
Total Intangible Cost		2,308,000		356,000		5,401,000		418,000		162,340		8,446,340
Drive Pipe	DWEA150	0										0
Conductor Pipe	DWEA130	0										0
Water String	DWEA135	16,000										16,000
Surface Casing	DWEA140	47,000										47,000
Intermediate Casing 1	DWEA145	0										0
Intermediate Casing 2	DWEA155	0										0
Drilling Liner	DWEA160	0										0
Production Casing or Liner	DWEA100	484,000										484,000
Production Tie-Back	DWEA165	0			STMA101	0						0
Tubing					STMA165	51,000			PCOM105	0		51,000
Wellhead, Tree, Chokes	DWEA115	20,000	DWEA120	25,000	STMA120	60,000			PCOM120	0		105,000
Liner Hanger, Isolation Packer	DWEA100	0	DWEA125	0								0
Packer, Nipples					STMA100	28,000			PCOM100	0		28,000
Pumping Unit, Engine					STMA165	0			PCOM165	0		0
Downhole UPL Equipment					STMA110	80,000			PCOM110	0		80,000
Surface Equipment									PCOM120	59,000		59,000
Well Automation Materials									PCOM155	0		0
Total Tangible - Well Equipment Cost		83,000		509,000		299,000		183,000		59,000		870,000
N/C Lease Equipment							CON160	183,000				183,000
Benks, Tanks, Steps, Stairs							CON165	64,000				64,000
Hoisting Equipment							CON110	179,000				179,000
Secondary Connections							CON115	24,000				24,000
Overhead Power Distribution							CON120	31,500				31,500
Electrical							CON125	36,500				36,500
Telecommunication Equipment							CON126	0				0
Meters and Metering Equipment							CON145	20,000				20,000
Utility Line Pipe							CON150	30,000				30,000
Lease Automation Materials							CON155	43,000				43,000
FLUGL - Materials							CON156	7,500				7,500
FLUGL - Line Pipe							CON155	11,500				11,500
SWD/Other - Materials							CON160	0				0
SWD/OTHER - LINE PIPE							CON165	0				0
Total Tangible - Lease Equipment Cost								630,000				630,000
Total Estimated Cost		2,191,000		865,000		5,620,000		1,849,000		221,340		9,446,340



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
3H

AFE # 26621003

Description	SCP - Drilling		ACP - Drilling		Completion	
	Codes	Amount	Codes	Amount	Codes	Amount
Roads & Location	D10C100	70,000			STRA100	70,000
Damages	D10C105	6,000				
Mud/Pit/Slud Disposal	D10C205	160,000			STRA205	62,000
Day Rate	D10C115 16 days at \$26,000/day	442,000	D10C120 14 days at \$26,000/day	104,000		
Misc Preparation	D10C120	35,000				
Flux	D10C125 55,000	55,000	D10C125	0	STRA125	0
Fuel	D10C135 1300 gal/day at \$3.00/gal	82,000	D10C130	0		
Wiper for Drilling Rig (Not Frac Wiper)	D10C140	5,000	D10C185	0	STRA135	24,000
Nut & Additives	D10C145	200,000				
Surface Rentals	D10C150 Per Day (D10C145)	104,000	D10C140	0	STRA140	100,000
Downhole Rentals	D10C155	97,000			STRA145	0
Flowback Labor					STRA141	0
Automation Labor						
Formation Evaluation (DST, Coring, etc.)	D10C160	0			STRA150	0
Shed Logging	D10C170 12 days at \$1,200/day	19,000				
Open Hole Logging	D10C180	0				
Cementing & Plug Equipment	D10C185	65,000	D10C185	160,000		
Tubular Insulators	D10C190	18,000	D10C180	5,000	STRA160	4,000
Casing Crews	D10C195	10,000	D10C185	20,000	STRA165	0
Mechanical Labor	D10C200	20,000	D10C170	10,000	STRA170	0
Trucking/Transportation	D10C205	18,000	D10C175	8,000	STRA175	4,000
Supervision	D10C210	88,000	D10C180	16,000	STRA180	74,000
Traffic Mgmt/Convey/Clarking	D10C280	38,000	D10C205	6,000	STRA280	28,000
Other Misc Expenses	D10C220	5,000	D10C190	0	STRA190	115,000
Overhead	D10C225	10,000	D10C195	5,000		
Remedial Cementing	D10C231	0			STRA215	0
MOB/DEMO	D10C240	75,000				
Directional Drilling Services	D10C245	225,000				
Solids Control	D10C260	72,000				
Well Control Equip (Grabbing Services)	D10C265	72,000	D10C240	5,000	STRA240	81,000
Fishing & Sidetrack Services	D10C270	0	D10C245	0	STRA245	0
Completion Rig					STRA115	21,000
Coil Tubing Services					STRA260	368,000
Completion Logging/Perforating/Wireline					STRA200	400,000
Composite Plug					STRA390	95,000
Stimulation					STRA210	2,526,000
Stimulation Water/Water Transfer/Water					STRA395	702,000
Chemical Demand Frac/Rental Equipment					STRA305	40,000
Legal/Regulatory/Courtesy	D10C900	10,000				
Well Control Insurance	D10C285 \$0.35/ft	6,000				
Major Construction Overhead						
Real Time Operations Center	D10C560	0			STRA560	0
FL/G - Labor						
FL/G - Supervision						
Survey						
SWD/Other - Labor						
SWD/OTHER - SUPERVISION						
Contingency	D10C435 500 % of Drilling Intangibles	100,000	D10C230	17,000	STRA230	257,000
Contingency						
RBA Costs	D10C285	0	D10C275	0		
Total Intangible Cost		2,006,000		356,000		5,401,000
Drill Pipe	DWEA130	0				
Conductor Pipe	DWEA130	0				
Water String	DWEA135	16,000				
Surface Casing	DWEA140 9 5/8" - 10000 ft at \$25.00/ft	47,000				
Intermediate Casing 1	DWEA145	0				
Intermediate Casing 2	DWEA155	0				
Drilling Liner	DWEA160	0				
Production Casing or Liner	DWEA100 5 1/2" - 18,400 ft at \$25.00/ft	484,000				
Production Tie-Back	DWEA165	0			STRA110	0
Tubing					STRA105 2 7/8" - 7,230 ft at \$7.00/ft	51,000
Wellhead, Tree, Chokes	DWEA115	20,000	DWEA120	25,000	STRA120	60,000
Liner Hanger, Isolation Packer	DWEA180	0	DWEA125	0		
Packer, nipples					STRA140	28,000
Pumping Unit, Engine					STRA145	0
Downhole Lift Equipment					STRA1410	80,000
Surface Equipment						
Well Accession Materials						
Total Tangible - Well Equipment Cost		83,000		509,000		218,000
NIC Lease Equipment						
Tanks, Tanks Steps, Stairs						
Factory Equipment						
Secondary Containment						
Overhead Power Distribution						
Facility Decorative						
Telecommunication Equipment						
Meters and Metering Equipment						
Facility Line Pipe						
Lease Abandonment Materials						
FL/G - Materials						
FL/G - Line Pipe						
SWD/Other - Materials						
SWD/OTHER - LINE PIPE						
Total Tangible - Lease Equipment Cost		2,191,000		865,000		18,629,000
Total Estimated Cost		2,191,000		865,000		18,629,000



Description	Codes	Production Equip.		Post Completion		Total	
		Amount	Codes	Amount	Cost	Amount	Cost
Roads & Location	CON.100	8,500	PCDM.100	28,000		116,500	
Damages	CON.105	1,000				7,000	
Acid/Fluic Disposal			PCDM.255	6,000	FWPD for 60 days @ \$0.25/hal	90,000	312,000
Day Rate							546,000
Misc Preparation							35,000
Bits			PCDM.125	0		55,000	
Fuel			PCDM.130	0		82,000	
Water for Drilling Rig (Hot Frac Water)			PCDM.135	0		29,000	
Mud & Additives							200,000
Surface Rentals	CON.140	2,000	PCDM.140	\$1,000/ft for Production Target of 30 Days		30,900	325,900
Downhole Rentals			PCDM.145			0	97,000
Flowback Labor			PCDM.141	\$900/d for Production Target of 14 Day		13,440	13,440
Automation Labor	CON.130	37,500	PCDM.150			0	37,500
Formation Evaluation (BST, Coring, etc.)							0
Mud Logging							19,000
Open Hole Logging							0
Cementing & Fleet Equipment							225,000
Tubular Inspections			PCDM.160	0		27,000	
Casing Crews							30,000
Mechanical Labor	CON.170	154,000	PCDM.170			0	184,000
Trucking/Transportation	CON.175	19,000	PCDM.175			0	49,000
Supervision	CON.180	12,000	PCDM.180			0	191,000
Trailer House/Camp/Catering							72,000
Other Misc Expenses	CON.180	10,000	PCDM.190			0	130,000
Overhead							15,000
Remedial Cementing			PCDM.215	0		0	0
MCO/COB/DOB							75,000
Directional Drilling Services							225,000
Solids Control							72,000
Well Control Equip (Sanding Services)			PCDM.240	0		158,000	
Fishing & Sidetrack Services			PCDM.245	0		0	0
Completion Rig			PCDM.115	0		21,000	
Coil Tubing Services			PCDM.280	0		368,000	
Completion Logging/Perforating/Wireline			PCDM.200	0		400,000	
Composite Plugs			PCDM.390	0		86,000	
Stimulation Pumping/Chemicals/Additives/Sand			PCDM.270	0		2,326,000	
Stimulation Water/Water Transfer/Water							702,000
General Owned Frac/Rental Equipment			PCDM.305	0		40,000	
Legal/Regulatory/Compliance	CON.300	0					10,000
Well Control Intervents							6,000
Major Construction Overhead	CON.305	21,500					21,500
Real Time Operations Center							0
FL/CL - Labor	CON.500	54,500					54,500
FL/CL - Supervision	CON.505	3,500					3,500
Survey	CON.515	0					0
SWD/Other - Labor	CON.680	0					0
SWD/OTHER - SUPERVISION	CON.685	0					0
Contingency	CON.820	87,500	PCDM.220	0		461,500	
Contingency	CON.821	8,000					8,000
PBA Costs							0
Total Tangible Cost		418,000				162,340	8,446,340
Drive Pipe							0
Conductor Pipe							0
Water Drilling							16,000
Surface Casing							47,000
Intermediate Casing 1							0
Intermediate Casing 2							0
Drilling Liner							0
Production Casing or Liner							484,000
Production Tie-Back							0
Tubing			PCDM.105	0		51,000	
Wellhead, Tree, Chokes			PCDM.120	0		165,000	
Liner Hanger, Isolation Packer							0
Packer, Mipples			PCDM.400	0		28,000	
Pumping Unit, Engine			PCDM.405	0		0	0
Downhole UR Equipment			PCDM.410	0		80,000	
Surface Equipment			PCDM.420	53,000	XEC Owned Sand Separator	59,000	59,000
Well Automation Materials			PCDM.455	0		0	0
Total Tangible - Well Equipment Cost						59,000	870,000
P/C Lease Equipment	CON.400	185,000					185,000
Tanks, Tanks Skids, Stairs	CON.405	64,000					64,000
Skidway Equipment	CON.410	179,000					179,000
Secondary Containment	CON.415	24,000					24,000
Overhead Power Distribution	CON.420	31,500					31,500
Facility Electrical	CON.425	36,500					36,500
Telecommunication Equipment	CON.426	0					0
Meters and Metering Equipment	CON.445	20,000					20,000
Facility Line Pipe	CON.450	30,000					30,000
Lease Automation Materials	CON.455	43,000					43,000
FL/CL - Materials	CON.530	7,500					7,500
FL/CL - Line Pipe	CON.535	11,500					11,500
SWD/Other - Materials	CON.630	0					0
SWD/OTHER - LINE PIPE	CON.635	0					0
Total Tangible - Lease Equipment Cost		630,000					630,000
Total Estimated Cost						221,340	9,346,340



Authorization For Expenditure Drilling

AFE # 26621004

Company Entity

Date Prepared
4/23/2019

Exploration Region	Well Name	Prospect	Property Number	AFE
Permian Basin	HAYDUKE 34-3 FEDERAL COM 4H	Carlsbad Bone Spring Prospect	300001-131.01	26621004
County, State	Location	Estimated Spud	Estimated Completion	
Eddy, NM	W/2 of Section 34, Township 25 South, Range 26 East, Eddy County, NM	1/1/2021	2/1/2021	
	W/2 of Section 3, Township 26 South, Range 26 East, Eddy County, NM			
X New Supplement Revision	Formation	Well Type	Td Measured Depth	Td Vertical Depth
	Wolfcamp Upper	DEV	19,000	8,700

Purpose Drill and complete well

Description

Drilling: Drill and complete a horizontal test. Drill to 450', set water string casing. Drill to 1876', set surface casing. Drill to 8133' (KOP). Drill curve at 12"/100' initial build rate to +/- 90 degrees 8610' TVD and drill a +/- 9420' long lateral in the Wolfcamp formation. Run and cement production casing. Stage frac. Drill out plugs. Run production packer, tubing and GLVs.

Intangible	Dry Hole:	After Casing Point:	Completed Well Cost:
Drilling Costs	\$2,108,000		\$2,108,000
Completion Costs		\$6,338,340	\$6,338,340
Total Intangible Cost	\$2,108,000	\$6,338,340	\$8,446,340
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$83,000	\$787,000	\$870,000
Lease Equipment		\$630,000	\$630,000
Total Tangible Cost	\$83,000	\$1,417,000	\$1,500,000
Total Well Cost	\$2,191,000	\$7,755,340	\$9,946,340

Comments On Well Costs

- 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 therefor. 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 a 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.

4/23/2019



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
4H

AFE # 26621004

Description	BCP - Drilling		ACP - Drilling		Comp/Site		Production Equip		Post Completion		Total	Cost
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount		
Roads & Location	DIOC180	70,000			STMA100	10,000	COH130	8,500	PCOM188	28,000		116,500
Damages	DIOC185	6,000					COH105	1,000				7,000
Wash/Fluids Deposit	DIOC185	160,000			STMA255	62,000			PCOM255	90,000		312,000
Day Rate	DIOC180	442,000	DIOC120	104,000								546,000
Misc Preparation	DIOC180	35,000										35,000
Rigs	DIOC185	55,000	DIOC125	0	STMA125	0			PCOM125	0		55,000
Jobs	DIOC185	82,000	DIOC130	0					PCOM130	0		82,000
Fuel	DIOC140	5,000	DIOC135	0	STMA135	24,000			PCOM135	0		29,000
Water for Drilling (Not For Water)	DIOC145	200,000										200,000
Mud & Additives	DIOC180	104,000	DIOC140	0	STMA140	185,000	COH140	2,000	PCOM140	30,500		325,000
Surface Rentals	DIOC180	104,000			STMA145	0			PCOM145	0		104,000
Downhole Rentals	DIOC185	97,000			STMA141	0			PCOM141	13,440		110,440
Mechanical Labor							COH150	37,500	PCOM150	0		37,500
Personnel Labor					STMA150	0						0
Personnel Evaluation (DST, Coing, etc)	DIOC140	0										0
Well Logging	DIOC170	18,000										18,000
Open Hole Logging	DIOC180	0										0
Commuting & Fleet Equipment	DIOC185	65,000	DIOC135	160,000								225,000
Wellbore Inspections	DIOC180	18,000	DIOC180	5,000	STMA180	4,000			PCOM180	0		27,000
Coring Crews	DIOC185	10,000	DIOC185	20,000	STMA185	0						30,000
Mechanical Labor	DIOC200	20,000	DIOC170	10,000	STMA170	0	COH170	154,000	PCOM170	0		184,000
Trucking/Transportation	DIOC200	18,000	DIOC175	8,000	STMA175	4,000	COH175	18,000	PCOM175	0		48,000
Supervision	DIOC210	88,000	DIOC180	16,000	STMA180	74,000	COH180	12,000	PCOM180	0		190,000
Trailer House/Camp/Catering	DIOC280	38,000	DIOC285	6,000	STMA280	28,000						72,000
Other Misc Expenses	DIOC220	5,000	DIOC190	0	STMA190	115,000	COH190	10,000	PCOM190	0		130,000
Overhead	DIOC225	10,000	DIOC185	5,000								15,000
Acetrical Cementing	DIOC231	0			STMA215	0			PCOM215	0		0
MISC/OVERHEAD	DIOC240	75,000										75,000
Directional Drilling Services	DIOC245	225,000										225,000
Soil Control	DIOC250	72,000										72,000
Well Control Equip (Smoothing Services)	DIOC255	72,000	DIOC240	5,000	STMA240	81,000			PCOM240	0		158,000
Fishing & Sledding Services	DIOC270	0	DIOC245	0	STMA245	0			PCOM245	0		0
Completion Rig					STMA115	21,000			PCOM115	0		21,000
CO2 Tubing Services					STMA280	388,800						388,800
Completion Logging/Perforating/Mifire					STMA280	400,000			PCOM280	0		400,000
Composite Plugs					STMA280	96,000			PCOM280	0		96,000
Stimulation Pumping/Chemicals/Additives/Sand					STMA210	2,526,000			PCOM210	0		2,526,000
Stimulation Water/Mixer Transfer/Water Storage					STMA285	702,000						702,000
Company Owned Frac/Rental Equipment					STMA305	40,000			PCOM305	0		40,000
Legal/Regulatory/Compliance	DIOC300	10,000					COH300	0				10,000
Well Control Insurance	DIOC385	6,000					COH385	21,580				27,580
Major Construction Overhead	DIOC540	0			STMA540	0						0
Real Time Operations Center							COH580	54,580				54,580
H/UGL - Labor							COH585	3,580				3,580
H/UGL - Supervision							COH515	0				0
Survey							COH680	0				0
SWO/OTHER - SUPERVISION							COH685	0				0
Contingency	DIOC435	100,000	DIOC220	17,000	STMA220	257,000	COH220	87,500	PCOM220	0		461,500
Contingency							COH221	8,000				8,000
P&A Costs	DIOC285	0	DIOC275	0								0
Total Drilling Cost		2,108,000		356,000		5,401,000		418,000		182,340		8,445,340
Water Pipe	DWEA120	0										0
Condensate Pipe	DWEA130	0										0
Water Slings	DWEA135	16,000										16,000
Surface Casing	DWEA140	47,000										47,000
Intermediate Casing 1	DWEA145	0										0
Intermediate Casing 2	DWEA155	0										0
Drilling User	DWEA160	0										0
Production Casing or Liner	DWEA160	484,000										484,000
Production Tie-back	DWEA165	0			STMT101	0						0
Tubing					STMT105	51,000			PCOM105	0		51,000
Wellhead, Tree, Chokes	DWEA115	20,000	DWEA120	25,000	STMT120	60,000			PCOM120	0		105,000
User Hanger, Isolation Packer	DWEA100	0	DWEA125	0								0
Packer, nipples					STMT400	28,000			PCOM400	0		28,000
Pumping Unit, Engine					STMT405	0			PCOM405	0		0
Downhole Lift Equipment					STMT410	80,000			PCOM410	0		80,000
Surface Equipment									PCOM420	59,000		59,000
Well Automation Materials									PCOM430	0		0
Total Tubing - Well Equipment Cost		80,000		300,000		258,000		183,000		59,000		870,000
N/C Lease Equipment							CONY400	183,000				183,000
Tanks, Tanks Skips, Slat							CONY405	64,000				64,000
Battery Equipment							CONY410	173,000				173,000
Secondary Containment							CONY415	24,000				24,000
Overhead Power Distribution							CONY420	37,500				37,500
Facility Electrical							CONY425	36,500				36,500
Telecommunication Equipment							CONY430	0				0
Meters and Metering Equipment							CONY435	20,000				20,000
Facility Line Pipe							CONY440	30,000				30,000
Lease Assumption Materials							CONY445	43,000				43,000
H/UGL - Materials							CONY450	7,500				7,500
H/UGL - Live Pipe							CONY455	11,500				11,500
Construction Materials							CONY460	0				0
Construction - Live Pipe							CONY465	0				0
Total Tubing - Lease Equipment Cost							630,000					630,000
Total Estimated Cost		2,191,000		656,000		6,629,000		1,048,000		221,340		9,448,340



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
4H

AFE # 26621004

Description	BCP - Drilling			ACP - Drilling			Comp/Str	Amount
	Codes	Amount	Codes	Amount	Codes			
Rents & Location	DICC380	70,000			STBA100		10,000	
Drumages	DICC385	6,000						
Mud/Pit/Disposal	DICC355	180,000			STBA255		62,000	
Day Rate	DICC175	16 days at \$26,000/day	DICC120	4 days at \$26,000/day				
Mud Preparation	DICC130	35,000						
Mud	DICC125	55,000	DICC125	0	STBA125		0	
Fluid	DICC135	1,500 gal/day at \$3,000/gal	DICC130	0				
Water for Drilling Rig (Dist Frac Water)	DICC140	5,000	DICC135	0	STBA135		24,000	
Mud & Additives	DICC145	200,000						
Surface Rents	DICC150	Per Day (BCP)/day	DICC140	0	STBA140		189,000	
Downhole Rents	DICC155	97,000			STDA145		0	
Flowback Labor					STDA141		0	
Automation Labor					STBA150		0	
Formation Evaluation (ECI, Coring, etc)	DICC160	0						
Mud Logging	DICC170	12 days at \$1,250/day						
Open Hole Logging	DICC180	0						
Covering & Floor Equipment	DICC185	65,000	DICC135	160,000				
Tubular Inspection	DICC190	18,000	DICC160	5,000	STBA160		4,000	
Casing Crews	DICC195	10,000	DICC165	20,000	STBA165		0	
Mechanical Labor	DICC200	20,000	DICC170	10,000	STBA170		0	
Tracing/Transportation	DICC205	18,000	DICC175	8,000	STBA175		4,000	
Supplies	DICC210	80,000	DICC180	16,000	STBA180		74,000	
Trailer Hoses/Camp/Catering	DICC215	39,000	DICC205	6,000	STBA205		28,000	
Other Misc Expenses	DICC220	5,000	DICC185	0	STBA185		115,000	
Overhead	DICC225	18,000	DICC195	5,000				
Internal Costing	DICC231	0			STBA215		0	
MUD/DRILL	DICC240	75,000						
Directional Drilling Services	DICC245	225,000						
Stitch Control	DICC280	72,000						
Well Control Equip Drilling Services	DICC285	72,000	DICC240	5,000	STBA240		81,000	
Flushing & Slurries Services	DICC290	0	DICC245	0	STBA245		0	
Completion Rig					STBA115		21,000	
Coil Tubing Services					STBA250		368,000	
Completion Logging/Perforating/Wireline					STBA220		400,000	
Concocter Plugs					STBA330		96,000	
Stimulation					STBA210		2,926,000	
Schedular Water/Mud/Traffic/Water					STBA335		702,000	
Company Owned Frac/Aerial Equipment					STBA305		40,000	
Legal/Regulatory/Corrosive	DICC300	10,000						
Well Control Insurance	DICC325	6,000						
Major Construction Overhead								
Well Site Operations Center	DICC340	0			STBA340		0	
FLUGL - Labor								
FLUGL - Depreciation								
Survey								
SWD/Other - Labor								
SWD/OTHER - SUPERVISION								
Contingency	DICC355	500 % of Drilling Intangibles	DICC320	17,000	STBA320		257,000	
Contingency								
M&A Costs	DICC355	0	DICC375	0				
Total Intangible Cost		2,108,000		266,000			1,471,000	
Drill Pipe	DWE110	0						
Conductor Pipe	DWE115	0						
Washer String	DWE125	16,000						
Surface Casing	DWE140	9.5" - 1,870' at \$25,000'					47,000	
Intermediate Casing 1	DWE145	0						
Intermediate Casing 2	DWE155	0						
Drilling Liner	DWE160	0						
Production Casing or Liner			DWEA300	5 1/2" - 18,400' at \$25,000'			464,000	
Production Tie-Back			DWEA160	0	STBA160		0	
Tubing					STBA165		51,000	
Wellhead, Tree, Chokes	DWE115	20,000	DWEA120	25,000	STBA120		60,000	
Liner Hangers, Isolation Packer	DWE110	0	DWEA125	0			0	
Packer, nipples					STBA160		28,000	
Pumping Unit, Engine					STBA165		0	
Downhole UT Equipment					STBA170		80,000	
Surface Equipment								
Well Automation Materials								
Total Drilling - Well Equipment Cost		83,000		308,000			251,000	
N/C Lease Equipment								
Tanks, Tanks Skips, Stairs								
Battery Equipment								
Secondary Compressors								
Overhead Power Distribution								
Facility Electrical								
Telecommunication Equipment								
Meters and Metering Equipment								
Facility Line Pipe								
Lease Automation Materials								
FLUGL - Materials								
FLUGL - Line Pipe								
SWD/Other - Materials								
SWD/OTHER - LINE PIPE								
Total Drilling - Lease Equipment Cost								
Total Estimated Cost		2,191,000		865,000			1,522,000	



4H

Description	Codes	Production Equip		Post Completion		Total	
		Amount	Codes	Amount	Cost	Amount	Cost
Roads & Location	CON100	8,500	PCDM100	Post/Lead Clean Up		28,000	116,500
Messages	CON105	1,000					7,000
Mud/Fields Disposal			PCDM255	6,000 BWPD for 60 days @ \$0.25/mbbl		90,000	312,000
Day Rate							546,000
Misc Preparation							35,000
Jobs			PCDM125			0	55,000
Fuel			PCDM130			0	82,000
Water for Drilling Rig (Not Frac Water)			PCDM135			0	29,000
Mud & Additives							200,000
Surface Rentals	CON140	2,000	PCDM140	\$1.03/Qd for Production Target of 30 Days		30,900	325,900
Downhole Rentals			PCDM145			0	97,000
Flowback Labor			PCDM141	\$56Qd for Production Target of 14 Day		13,440	13,440
Automation Labor	CON150	37,500	PCDM150			0	37,500
Formation Evaluation (DST, Coring, etc.)							0
Mud Logging							19,000
Open Hole Logging							0
Conveying & Float Equipment							225,000
Tubular Inspections			PCDM160			0	27,000
Casing Crew							30,000
Mech Labor	CON170	154,000	PCDM170			0	184,000
Tracking/Transportation	CON175	79,000	PCDM175			0	49,000
Supervision	CON180	12,000	PCDM180			0	190,000
Trailer Hoses/Camp/Cooking							73,000
Other Misc Expenses	CON190	10,000	PCDM190			0	130,000
Overhead							15,000
Remedial Cementing			PCDM215			0	0
MUD/POH/OPS							75,000
Directional Drilling Services							225,000
Solids Control							72,000
Well Control Equip (Sealing Services)			PCDM240			0	158,000
Fishing & Side-track Services			PCDM245			0	0
Completion Rig			PCDM115			0	21,000
Coil Tubing Services			PCDM260			0	368,000
Completion Logging/Perforating/Wireline			PCDM200			0	400,000
Coarsest Plug			PCDM390			0	96,000
Distribution Pumping/Chemicals/Additives/Sand			PCDM210			0	2,926,000
Unfractured Water/Water Transfer/Water							702,000
Owner's Owned Frac/Rental Equipment			PCDM305			0	40,000
Legal/Regulatory/Compliance	CON300	0					10,000
Well Control Insurance							6,000
Major Construction Overhead	CON305	21,500					21,500
Real Time Operations Center							0
PLUG - Labor	CON300	54,500					54,500
PLUG - Supervision	CON305	3,500					3,500
Survey	CON315	0					0
SWD/Other - Labor	CON400	0					0
SWD/OTHER - SUPERVISION	CON405	0					0
Contingency	CON320	87,500	PCDM220			0	461,500
Contingency	CON321	8,000					8,000
PLUG Costs							0
Total Drilling Cost		478,000				362,340	8,446,340
Dave Pipe							0
Conductor Pipe							0
Water String							16,000
Surface Casing							47,000
Intermediate Casing 1							0
Intermediate Casing 2							0
Drilling Ubr							0
Production Casing or Liner							484,000
Production Tie-back							0
Tubing			PCDM105			0	51,000
Wellhead, Tree, Chokes			PCDM130			0	105,000
Liner Hanger, Isolation Packer							0
Packer, Nipples			PCDM160			0	28,000
Pumping Unit, Engine			PCDM165			0	0
Downhole Lift Equipment			PCDM170			0	80,000
Surface Equipment			PCDM120			59,000	59,000
Well Annulation Materials			PCDM155			0	0
Total Tieback - Well Equipment Cost						59,000	670,000
N/C Lease Equipment	CON7A00	183,000					183,000
Tanks, Tanks Steps, Stalls	CON7A05	64,000					64,000
Autopsy Equipment	CON7A10	179,000					179,000
Secondary Containment	CON7A15	24,000					24,000
Overhead Power Distribution	CON7A20	31,500					31,500
Facility Electrical	CON7A25	36,500					36,500
Telecommunication Equipment	CON7A30	0					0
Meters and Metering Equipment	CON7A35	20,000					20,000
Facility Line Pipe	CON7A40	30,000					30,000
Lease Automation Materials	CON7A45	43,000					43,000
PLUG - Materials	CON7A50	7,500					7,500
PLUG - Line Pipe	CON7A55	11,500					11,500
SWD/Other - Materials	CON7A60	0					0
SWD/OTHER - LINE PIPE	CON7A65	0					0
Total Tieback - Lease Equipment Cost		630,000					630,000
Total Estimated Cost		1,108,000				221,340	9,946,340



Authorization For Expenditure Drilling

AFE # 26621005

Company Entry

Date Prepared
4/23/2019

Exploration Region	Well Name	Prospect	Property Number	AFE
Permian Basin	HAYDUKE 34-3 FEDERAL COM 5H	Lea Prospect	300001-132.01	26621005
County, State	Location	Estimated Spud	Estimated Completion	
Eddy, NM	SHL: W/2 of Section 34, Township 25 South, Range 26 East, Eddy County, NM BHL: W/2 of Section 3, Township 26 South, Range 26 East, Eddy County, NM	1/1/2021	2/1/2021	
<input checked="" type="checkbox"/> New <input type="checkbox"/> Supplement <input type="checkbox"/> Revision	Formation	Well Type	Til Measured Depth	Til Vertical Depth
	Wolfcamp Lower	DEV	19,900	9,600

Purpose Drill and complete well

Description

Drilling Drill and complete a horizontal test. Drill to 450', set water string casing. Drill to 1900', set surface casing. Drill to 8830' (KOP). Drill curve at 12"/100' initial build rate to +/- 75 degrees and set casing at +/- 9455' MD. Finish curve at +/- 4"/100' to +/- 9340' TVD and drill a +/- 9180' 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	\$2,586,000		\$2,586,000
Completion Costs		\$6,225,840	\$6,225,840
Total Intangible Cost	\$2,586,000	\$6,225,840	\$8,811,840
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$376,000	\$569,000	\$945,000
Lease Equipment		\$203,500	\$203,500
Total Tangible Cost	\$376,000	\$772,500	\$1,148,500
Total Well Cost	\$2,962,000	\$6,998,340	\$9,960,340

Comments On Well Costs

- 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 therefor. 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. 4/23/2019



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
5H

AFE # 26621005

Description	BCP - Drilling		ACP - Drilling		Comp/Slm		Production Equip		Post Completion		Total	Cost
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount		
Roads & Location	DICC100	95,000			STRA100	10,000	CON100	5,500	PCOM100	28,000	138,500	
Damaged	DICC105	6,000					CON105	1,500			7,500	
Aband/Fluids Disposal	DICC235	160,000			STRA235	62,000			PCOM235	75,000	297,000	
Dry Rate	DICC115	494,000	DICC120	104,000							598,000	
Mud Preparation	DICC120	35,000									35,000	
Wts	DICC125	75,000	DICC125	0	STRA125	0			PCOM125	0	75,000	
Fuel	DICC135	90,000	DICC130	0					PCOM130	0	90,000	
Water for Drilling Rig (Not Frac Water)	DICC140	5,000	DICC135	0	STRA135	24,000			PCOM135	0	29,000	
Shut In Additives	DICC145	198,000									198,000	
Surface Rentals	DICC130	112,000	DICC140	0	STRA140	237,000	CON140	2,300	PCOM140	30,900	582,900	
Downhole Rentals	DICC135	142,000			STRA145	0			PCOM145	0	142,000	
Flowback Labor					STRA141	0			PCOM141	13,440	13,440	
Automation Labor							CON150	16,500	PCOM150	0	16,500	
Formation Evaluation (DST, Coring, etc)	DICC160	0			STRA150	0					0	
Mud Logging	DICC170	22,000									22,000	
Open Hole Logging	DICC180	0									0	
Cementing & Plug Equipment	DICC185	145,000	DICC155	63,000	STRA160	4,000			PCOM160	0	208,000	
Lubular Insulators	DICC190	50,000	DICC160	5,000							55,000	
Casing Crews	DICC195	20,000	DICC165	13,000	STRA165	0					33,000	
Mechanical Labor	DICC200	20,000	DICC170	10,000	STRA170	0	CON170	72,500	PCOM170	0	102,500	
Trucking/Transportation	DICC205	23,000	DICC175	8,000	STRA175	4,000	CON175	8,500	PCOM175	0	45,500	
Supplies	DICC210	96,000	DICC180	16,000	STRA180	94,000	CON180	3,500	PCOM180	0	209,500	
Trailer Housing/Camp/Catering	DICC280	42,000	DICC255	6,000	STRA280	34,000					82,000	
Other Misc Expenses	DICC220	5,000	DICC190	0	STRA190	155,000	CON190	13,500	PCOM190	0	173,500	
Overhead	DICC225	10,000	DICC195	5,000							15,000	
Remedial Cementing	DICC231	0			STRA215	0			PCOM215	0	0	
SUB/RODHEAD	DICC240	100,000									100,000	
Directional Drilling Services	DICC245	339,000									339,000	
Safety Control	DICC260	80,000									80,000	
Well Control Equip (Snubbing Services)	DICC265	80,000	DICC240	5,000	STRA240	109,000			PCOM240	0	194,000	
Hoisting & Slickline Services	DICC270	0	DICC245	0	STRA245	0			PCOM245	0	0	
Corrosion Rig					STRA115	21,000			PCOM115	0	21,000	
Coil Tubing Services					STRA260	368,000			PCOM260	0	368,000	
Completion Logging/Perforating/Wireline					STRA200	432,000			PCOM200	0	432,000	
Composite Plugs					STRA280	96,000			PCOM280	0	96,000	
Stimulation Pumping/Chemicals/Additives/Sand					STRA210	2,926,000			PCOM210	0	2,926,000	
Stimulation Water/Water Transfer/Water Storage					STRA285	702,000					702,000	
General Owned Frac/Rental Equipment					STRA205	40,000			PCOM205	0	40,000	
Legal/Regulatory/Carriage	DICC300	10,000					CON300	0			10,000	
Well Control Insurance	DICC285	7,000									7,000	
Major Construction Overhead							CON305	12,000			12,000	
Real Time Operations Center	DICC560	0			STRA560	0					0	
PL/G - Labor							CON300	65,500			65,500	
PL/G - Supervision							CON305	5,000			5,000	
Survey							CON315	0			0	
DWD/Other - Labor							CON400	0			0	
DWD/OTHER - SUPERVISION							CON405	0			0	
Contingency	DICC435	128,000	DICC220	12,000	STRA220	266,000	CON220	31,000	PCOM220	0	437,000	
Contingency							CON221	10,000			10,000	
IBA Costs	DICC285	0	DICC275	0							0	
Total Intangible Cost		2,586,000		247,000		5,584,000		247,500		147,340	8,811,840	
Cable Pipe	DWEL190	0									0	
Conductor Pipe	DWEL130	0									0	
Water Baring	DWEL135	16,000									16,000	
Surface Casing	DWEL140	48,000									48,000	
Intermediate Casing 1	DWEL145	252,000									252,000	
Intermediate Casing 2	DWEL155	0									0	
Drilling Labor	DWEL160	0									0	
Production Casing or Liner			DWEL100	148,000							148,000	
Production Tie-Back			DWEL165	0	STRA181	0					0	
Tubing					STRA185	71,000			PCOM185	0	71,000	
Wirehead, Tree, Choker	DWEL115	20,000	DWEL130	25,000	STRA120	60,000			PCOM120	0	105,000	
Liner Hangers/Isolation Packer	DWEL100	0	DWEL125	98,000							98,000	
Packer Hangers					STRA180	28,000			PCOM180	0	28,000	
Pumping Unit, Engine					STRA185	0			PCOM185	0	0	
Downhole Lift Equipment					STRA110	80,000			PCOM110	0	80,000	
Surface Equipment									PCOM180	53,000	53,000	
Well Automation Materials									PCOM185	0	0	
Total Tangible - Well Equipment Cost		376,000		271,000		239,000				59,000	945,000	
N/C Lease Equipment							CON180	48,000			48,000	
Trucks, Tanks, Skids, Stairs							CON185	0			0	
Rescue Equipment							CON170	60,500			60,500	
Secondary Containments							CON115	9,500			9,500	
Overhead Power Distribution							CON120	0			0	
Facility Electrical							CON125	15,000			15,000	
Telecommunication Equipment							CON126	0			0	
Access and Metering Equipment							CON145	15,500			15,500	
Facility Line Pipe							CON150	10,000			10,000	
Lease Automation Materials							CON155	19,000			19,000	
PL/G - Materials							CON150	10,000			10,000	
PL/G - Line Pipe							CON155	16,000			16,000	
DWD/Other - Materials							CON150	0			0	
DWD/OTHER - LINE PIPE							CON155	0			0	
Total Tangible - Lease Equipment Cost								203,500			203,500	
Total Estimated Cost		2,962,000		518,000		5,823,000		451,000		206,340	9,960,340	



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
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AFE # 26621005

Description	BCP - Drilling		ACP - Drilling		Comp/Slm	Amount	
	Codes	Amount	Codes	Amount			
Roads & Location	D10C.100	95,000			STPA.100	10,000	
Dampers	D10C.105	6,000					
Meal/Plate Dispos	D10C.235	160,000			STDA.255	62,000	
Day Rate	D10C.115	16 days at \$26,000/day	D10C.120	4 days at \$26,000/day		104,000	
Misc Preparation	D10C.120	35,000					
Flts	D10C.125	75,000	D10C.125	0	STDA.125	0	
Fuel	D10C.135	3,000	D10C.138	0	D10C.138	0	
Water for Drilling Rig (Not frac water)	D10C.140	1,500 gal/day at \$1.00/gal	D10C.138	0	STPA.135	24,000	
Joint & Adhesives	D10C.145	5,000	D10C.138	0			
Surface Rentals	D10C.110	Per Day (BCP)/day	D10C.140	0	STDA.140	237,000	
Dowhole Rentals	D10C.135	112,000	D10C.140	0	STPA.145	0	
Flowback Labor		142,000			STPA.141	0	
Automation Labor							
Formation Evaluation (DST, Coring, etc)	D10C.160	0			STBA.150	0	
Lead Logging	D10C.170	14 days at \$1,200/day					
Open Hole Logging	D10C.180	22,000					
Conveying & Fluid Equipment	D10C.185	145,000	D10C.155	63,000			
Tubular Inspections	D10C.190	50,000	D10C.160	5,000	STBA.180	4,000	
Casing Crews	D10C.195	20,000	D10C.165	13,000	STBA.165	0	
Mechanical Labor	D10C.200	20,000	D10C.170	10,000	STBA.170	0	
Trucking/Transportation	D10C.205	25,000	D10C.175	8,000	STPA.175	4,000	
Supervision	D10C.210	96,000	D10C.180	16,000	STBA.180	94,000	
Trailer Hoses/Cable/Catering	D10C.220	42,000	D10C.235	6,000	STBA.230	34,000	
Other Misc Expenses	D10C.220	5,000	D10C.190	0	STBA.190	155,000	
Overhead	D10C.225	10,000	D10C.195	5,000			
Remedial Cementing	D10C.231	0			STBA.215	0	
MOB/ENH/DOB	D10C.240	100,000					
Directional Drilling Services	D10C.245	339,000					
Solids Control	D10C.260	60,000					
Well Control Equip (Shooting Services)	D10C.265	80,000	D10C.240	5,000	STBA.240	109,000	
Fishing & Sidetrack Services	D10C.270	0	D10C.245	0	STBA.245	0	
Completion Rig					STBA.115	21,000	
Coil Tubing Services					STBA.260	368,000	
Completion Logging/Perforating/Wireline					STPA.200	432,000	
Composic Plugs					STBA.230	96,000	
Simulation					STBA.210	2,926,000	
Simulation Water/Water Transfer/Water					STBA.235	702,000	
Client's Owned Frac/Rental Equipment					STBA.205	40,000	
Logit/Augurbury/Courtesy	D10C.280	10,000					
Well Control Insurance	D10C.285	60,350					
Major Construction Overhead							
Real Time Operations Center	D10C.560	0			STBA.560	0	
FLGL - Labor							
FLGL - Supervision							
Survey							
SWD/Other - Labor							
SWD/OTHER - SUPERVISION							
Contingency	D10C.435	300 % of Drilling Intangibles	D10C.220	12,000	STPA.220	266,000	
Contingency	D10C.395	0	D10C.275	0			
Total Intangible Cost		2,586,000		247,000		5,594,000	
Drive Pipe	DWEL.130	0					
Conductor Pipe	DWEL.130	0					
Water String	DWEL.135	15,000					
Surface Casing	DWEL.140	9 5/8" - 1,900ft at \$25.00/ft				48,000	
Intermediate Casing 1	DWEL.145	7" - 3,560ft at \$28.00/ft				292,000	
Intermediate Casing 2	DWEL.155	0				0	
Drilling Liner	DWEL.160	0				0	
Production Casing or Liner			DWEL.100	4 1/2" - 11,250ft at \$12.00/ft		148,000	
Production Tie-Back			DWEL.145	0	STPA.101	0	
Tubing					STPA.165	3-1/2" - 2,870ft at \$1.00/ft	71,000
Wellhead, Tree, Chokes	DWEL.115	20,000	DWEL.120	25,000	STPA.120	60,000	
Liner Hanger, Nutrition Packer	DWEL.100	0	DWEL.125	98,000			
Packer, Mispick					STPA.400	28,000	
Pumping Unit, Engine					STPA.405	0	
Dowhole Lift Equipment					STPA.410	80,000	
Surface Equipment							
Well Automation Materials							
Total Tangible - Well Equipment Cost		976,000		271,000		230,000	
N/C Lease Equipment							
Tanks, Tanks Steps, Stairs							
Battery Equipment							
Secondary Containment							
Overhead Power Distribution							
Facility Baricade							
Telecommunication Equipment							
Meters and Metering Equipment							
Facility Line Pipe							
Lease Automation Materials							
FLGL - Materials							
FLGL - Line Pipe							
SWD/Other - Materials							
SWD/OTHER - LEASE PIPE							
Total Tangible - Lease Equipment Cost		2,962,000		518,000		1,832,000	
Total Estimated Cost		2,962,000		518,000		1,832,000	



Description	Codes	Production Equip		Post Completion		Total	
		Amount	Codes	Amount	Codes	Amount	Cost
Roads & Location	CON190	5,500	PCOM190	28,000	PCOM190	28,000	138,500
Dumps	CON195	1,500	PCOM195	7,500	PCOM195	7,500	7,500
Mud/Fluid Disposal			PCOM225	75,000	PCOM225	75,000	297,000
Day Rate							598,000
Mud Preparation							35,000
Nit			PCOM125	0	PCOM125	0	75,000
Fuel			PCOM130	0	PCOM130	0	90,000
Water for Drilling Rig (Hot Frac Water)			PCOM135	0	PCOM135	0	28,000
Mud & Additives							198,000
Surface Rentals	CON140	2,500	PCOM140	30,900	PCOM140	30,900	382,400
Downhole Rentals			PCOM145	0	PCOM145	0	142,000
Flowback Labor			PCOM141	13,440	PCOM141	13,440	13,440
Automation Labor	CON150	16,500	PCOM150	0	PCOM150	0	16,500
Formation Evaluation (DST, Coring, etc.)							0
Mud Logging							22,000
Open Hole Logging							0
Cementing & Float Equipment							208,000
Tubular Insulators			PCOM160	0	PCOM160	0	50,000
Casing Cams							23,000
Mechanical Labor	CON170	72,500	PCOM170	0	PCOM170	0	102,500
Trucking/Transportation	CON175	8,500	PCOM175	0	PCOM175	0	45,500
Supervision	CON180	3,500	PCOM180	0	PCOM180	0	209,500
Traffic House/Camp/Catering							82,000
Other Misc Expenses	CON190	13,500	PCOM190	0	PCOM190	0	179,500
Overhead							15,000
Remedial Cementing			PCOM215	0	PCOM215	0	0
MOB/DEMO							100,000
Directional Drilling Services							339,000
Solids Control							80,000
Well Control Equip (Shrubbing Services)			PCOM240	0	PCOM240	0	194,000
Fishing & Borehole Services			PCOM245	0	PCOM245	0	0
Completion Rig			PCOM115	0	PCOM115	0	21,000
Coil Tubing Services			PCOM260	0	PCOM260	0	366,000
Completion Logging/Perforating/Wellbore			PCOM200	0	PCOM200	0	432,000
Completion Plug			PCOM130	0	PCOM130	0	96,000
Stimulation Pumping/Chemicals/Additives/Sand			PCOM1210	0	PCOM1210	0	2,926,000
Stimulation Water/Water Transfer/Water							702,000
Operator Owned Frac/Risks' Equipment			PCOM305	0	PCOM305	0	40,000
Legal/Regulatory/Curt/Dve	CON300	0					10,000
Well Control Insurance							7,000
Mud Conversion Overhead	CON305	12,000					12,000
Rail Time Operations Center							0
FLUG - Labor	CON500	65,500					65,500
FLUG - Supervision	CON505	5,000					5,000
Survey	CON515	0					0
SWD/Other - Labor	CON600	0					0
SWD/OTHER - SUPERVISION	CON605	0					0
Contingency	CON220	31,000	PCOM220	0	PCOM220	0	432,000
Contingency	CON221	10,000					10,000
P&A Costs							0
Total Intangible Cost:		247,500				147,340	840,000
Drill Pipe							0
Conductor Pipe							0
Water String							16,000
Surface Casing							48,000
Intermediate Casing 1							292,000
Intermediate Casing 2							0
Drilling Liner							0
Production Casing or Liner							148,000
Production Tie-Back							0
Tubing			PCOM1105	0	PCOM1105	0	71,000
Wellhead, Tree, Chokes			PCOM1120	0	PCOM1120	0	105,000
Liner Hanger, Houston Packer							98,000
Packer, Hanger			PCOM1400	0	PCOM1400	0	28,000
Pumping Unit, Engine			PCOM1405	0	PCOM1405	0	0
Downhole LH Equipment			PCOM1410	0	PCOM1410	0	80,000
Surface Equipment			PCOM1420	30,000	PCOM1420	30,000	59,000
Well Assesment Materials			PCOM1435	0	PCOM1435	0	0
Total Tangible - Well Equipment Cost:						28,000	945,000
N/C Lease Equipment	CON1400	48,000					48,000
Tanks, Tanks Skips, Scales	CON1405	0					0
Rigory Equipment	CON1410	60,500					60,500
Secondary Containment	CON1415	9,500					9,500
Overhead Power Distribution	CON1420	0					0
Facility Electrical	CON1425	15,000					15,000
Telecommunication Equipment	CON1430	0					0
Meters and Metering Equipment	CON1435	15,500					15,500
Facility Line POC	CON1440	10,000					10,000
Lease Automation Materials	CON1445	10,000					10,000
FLUG - Materials	CON1450	10,000					10,000
FLUG - Line Pipe	CON1455	16,000					16,000
SWD/Other - Materials	CON1460	0					0
SWD/OTHER - LINE PIPE	CON1465	0					0
Total Tangible - Lease Equipment Cost:		201,500					201,500
Total Estimated Cost:		459,000				286,340	8,969,340



Authorization For Expenditure Drilling

AFE # 26621006

Company Entity

Date Prepared
4/23/2019

Exploration Region	Well Name	Prospect	Property Number	AFE
Permian Basin	HAYDUKE 34-3 FEDERAL COM 6H	Lea Prospect	300001-133.01	26621006
County, State	Location	Estimated Spud	Estimated Completion	
Eddy, NM	SHL: W/2 of Section 34, Township 25 South, Range 26 East, Eddy County, NM BHL: W/2 of Section 3, Township 26 South, Range 26 East, Eddy County, NM	1/1/2021	2/1/2021	
<input checked="" type="checkbox"/> New <input type="checkbox"/> Supplement <input type="checkbox"/> Revision	Formation	Well Type	Td Measured Depth	Td Vertical Depth
	Wolfcamp Lower	DEV	19,900	9,600

Purpose Drill and complete well

Description

Drilling Drill and complete a horizontal test. Drill to 450', set water string casing. Drill to 1900', set surface casing. Drill to 8830' (KOP). Drill curve at 12°/100' initial build rate to +/- 75 degrees and set casing at +/- 9455' MD. Finish curve at +/- 4°/100' to +/- 9340' TVD and drill a +/- 9180' long lateral in the Wolfcamp formation. Run and cement production liner. Stage frac. Drill out plugs. Run production packer, tubing and GLVs.

	Dry Hole	After Casing Point	Completed Well Cost
Intangible			
Drilling Costs	\$2,586,000		\$2,586,000
Completion Costs		\$6,225,840	\$6,225,840
Total Intangible Cost	\$2,586,000	\$6,225,840	\$8,811,840
Tangible			
Well Equipment	\$376,000	\$569,000	\$945,000
Lease Equipment		\$203,500	\$203,500
Total Tangible Cost	\$376,000	\$772,500	\$1,148,500
Total Well Cost	\$2,962,000	\$6,998,340	\$9,960,340

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.

4/23/2019



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM
6H

AFE # 26621006

Description	BCP - Drilling		ACP - Drilling		Compy/Strm		Production Equip		Post Completion		Total
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	
Roads & Location	DIC190	95,000			STM100	10,000	CON100	5,500	PCOM190	28,000	138,500
Damages	DIC105	6,000					CON105	1,500			7,500
Mud/Fluids Disposal	DIC255	160,000			STM255	62,000			PCOM255	75,000	297,000
Day Rate	DIC115	494,000	DIC120	104,000							598,000
Misc Preparation	DIC120	35,000									35,000
Bits	DIC125	75,000	DIC125	0	STM125	0			PCOM125	0	75,000
Fuel	DIC135	90,000	DIC130	0					PCOM130	0	90,000
Water for Drilling Rig (Not Frac Water)	DIC140	5,000	DIC135	0	STM135	24,000			PCOM135	0	29,000
Mud & Additives	DIC145	198,000									198,000
Surface Rentals	DIC150	112,000	DIC140	0	STM140	227,000	CON140	2,500	PCOM140	30,900	382,400
Downhole Rentals	DIC155	142,000			STM145	0			PCOM145	0	142,000
Flowback Labor					STM149	0			PCOM141	13,440	13,440
Automation Labor							CON150	16,500	PCOM150	0	16,500
Formation Evaluation (DST, Coring, etc.)	DIC160	0			STM150	0					0
Mud Logging	DIC170	22,000									22,000
Open Hole Logging	DIC180	0									0
Cementing & Float Equipment	DIC185	145,000	DIC185	63,000							208,000
Tubular Inspections	DIC190	50,000	DIC189	5,000	STM190	4,000			PCOM190	0	59,000
Casing Grabs	DIC195	20,000	DIC165	13,000	STM165	0					33,000
Mechanical Labor	DIC200	20,000	DIC170	10,000	STM170	0	CON170	72,500	PCOM170	0	102,500
Trucking/Transportation	DIC205	25,000	DIC175	8,000	STM175	4,000	CON175	8,500	PCOM175	0	45,500
Supervision	DIC210	96,000	DIC180	16,000	STM180	94,000	CON180	3,500	PCOM180	0	209,500
Trailer House/Camp/CA Testing	DIC280	42,000	DIC285	6,000	STM280	34,000					82,000
Other Misc Expenses	DIC220	5,000	DIC190	0	STM190	155,000	CON190	13,500	PCOM190	0	173,500
Overhead	DIC225	10,000	DIC195	5,000							15,000
Remedial Cementing	DIC221	0			STM215	0			PCOM215	0	0
MISC OTHER	DIC240	100,000									100,000
Directional Drilling Services	DIC245	339,000									339,000
Solids Control	DIC260	80,000									80,000
Well Control Equip (ShuBling Services)	DIC265	80,000	DIC240	5,000	STM240	109,000			PCOM240	0	194,000
Fishing & Seizeback Services	DIC270	80,000	DIC245	0	STM245	0			PCOM245	0	80,000
Completion Rig					STM215	21,000			PCOM215	0	21,000
Coil Tubing Services					STM260	368,000			PCOM260	0	368,000
Completion Logging/Perforating/Wireline					STM220	432,000			PCOM220	0	432,000
Composite Plug					STM230	96,000			PCOM230	0	96,000
Simulation Pumping/Chemicals/Additives/Sand					STM210	2,926,000			PCOM210	0	2,926,000
Simulation Water/Water Transfer/Water Storage					STM235	702,000					702,000
Company Owned Equip/Rental Equipment					STM265	40,000			PCOM265	0	40,000
Legal/Regulatory/Conitive	DIC310	10,000					CON300	0			10,000
Well Control Insurance	DIC285	7,000					CON305	12,000			19,000
Major Construction Overhead											12,000
Real Time Operations Center	DIC260	0			STM260	0					0
FLUG - Labor							CON500	65,500			65,500
FLUG - Supervision							CON505	5,000			5,000
Survey							CON515	0			0
SWD/Other - Labor							CON600	0			0
SWD/OTHER - SUPERVISION							CON605	0			0
Contingency	DIC415	123,000	DIC220	12,000	STM220	266,000	CON220	31,000	PCOM220	0	432,000
Contingency							CON225	10,000			10,000
POA Costs	DIC295	0	DIC275	0							0
Total Incomplete Cost		2,588,000		207,000		5,984,000		267,500		147,340	8,891,840
Drive Pipe	DWEB150	0									0
Conductor Pipe	DWEB130	0									0
Water String	DWEB135	16,000									16,000
Surface Casing	DWEB140	48,000									48,000
Intermediate Casing 1	DWEB145	252,000									252,000
Intermediate Casing 2	DWEB155	0									0
Drilling Liner	DWEB160	0									0
Production Casing or Liner			DWEA100	148,000							148,000
Production Tie-Back			DWEA165	0	STM101	0					0
Tubing					STM105	71,000			PCOM105	0	71,000
Wellhead, Tree, Chokes	DWEB115	21,000	DWEA120	25,000	STM120	60,000			PCOM120	0	106,000
Liner Hanger, Isolation Packer	DWEB100	0	DWEA125	98,000							98,000
Packer, Nipples					STM100	28,000			PCOM100	0	28,000
Pumping Unit, Engine					STM105	0			PCOM105	0	0
Downhole Lift Equipment					STM110	80,000			PCOM110	0	80,000
Surface Equipment									PCOM120	59,000	59,000
Well Automation Materials									PCOM135	0	0
Total Tieable - Well Equipment Cost		378,000		271,000		239,000				59,000	945,000
N/C Lease Equipment							CON160	48,000			48,000
Tanks, Tanks Sigs, Scales							CON165	0			0
Battery Equipment							CON170	60,500			60,500
Secondary Constraints							CON175	9,500			9,500
Overhead Power Distribution							CON180	0			0
Facility Electrical							CON185	15,000			15,000
Telecommunication Equipment							CON190	0			0
Meters and Metering Equipment							CON195	15,500			15,500
Facility Line Pipe							CON200	10,000			10,000
Lease Automation Materials							CON205	19,000			19,000
FLUG - Materials							CON210	10,000			10,000
FLUG - Line Pipe							CON215	16,000			16,000
SWD/Other - Materials							CON220	0			0
SWD/OTHER - LINE PIPE							CON225	0			0
Total Tieable - Lease Equipment Cost								203,500			203,500
Total Estimated Cost:		2,966,000		518,000		8,823,000		457,000		206,340	9,960,340



Description	ICP - Drilling		ICP - Drilling		Comp/Str	Amount
	Codes	Amount	Codes	Amount		
Roads & Location	D10C.100	95,000			ST0A.100	10,000
Dredging	D10C.105	6,000				
Waste/Fluids Disposal	D10C.255	160,000			ST0A.255	62,000
Day Rate	D10C.115 - 18 days at \$26,000/day	468,000	D10C.120 - 4 days at \$26,000/day	104,000		
Misc Preparation	D10C.130	35,000	D10C.125	0	ST0A.125	0
Wells	D10C.135	75,000	D10C.130	0		
Fuel	D10C.140 1,300 gal/day at \$3.00/gal	3,900	D10C.135	0	ST0A.135	24,000
Misc for Drilling Rig (Hot Frac Water)	D10C.145	198,000				
Build & Address	D10C.150	112,000	D10C.140	0	ST0A.140	237,000
Surface Rentals	D10C.155	142,000			ST0A.145	0
Downhole Rentals					ST0A.141	0
Flowback Labor					ST0A.150	0
Assessment Labor						
Formation Evaluation (DST, Coring, etc)	D10C.160	0				
Well Logging	D10C.170 34 days at \$1,200/day	40,800				
Open Hole Logging	D10C.180	0				
Cementing & Plug Equipment	D10C.185	145,000	D10C.155	63,000		
Tubular Inspections	D10C.190	50,000	D10C.160	5,000	ST0A.160	4,000
Casing Crews	D10C.195	20,000	D10C.165	13,000	ST0A.165	0
Mechanical Labor	D10C.200	20,000	D10C.170	10,000	ST0A.170	0
Trucking/Transportation	D10C.205	25,000	D10C.175	8,000	ST0A.175	4,000
Supervision	D10C.210	96,000	D10C.180	16,000	ST0A.180	94,000
Trailer House/Camp/Catering	D10C.220	42,000	D10C.255	6,000	ST0A.250	34,000
Other Misc Expenses	D10C.225	5,000	D10C.190	0	ST0A.190	155,000
Overhead	D10C.230	10,000	D10C.195	5,000		
Remedial Cementing	D10C.231	0			ST0A.215	0
Remedial Drilling	D10C.240	100,000				
Directional Drilling Services	D10C.245	338,000				
Solids Control	D10C.250	80,000				
Well Control Equip (Shrubbing Services)	D10C.265	80,000	D10C.240	5,000	ST0A.240	109,000
Fishing & Sidetrack Services	D10C.270	0	D10C.245	0	ST0A.245	0
Completion Rig					ST0A.115	21,000
Coil Tubing Services					ST0A.260	368,000
Completion Logging/Perforating/Wireline					ST0A.200	432,000
Composic Plugs					ST0A.300	96,000
Simulation					ST0A.270	2,926,000
Stimulation Water/Water Transfer/Water					ST0A.385	702,000
Owner Owned Frac/Rental Equipment					ST0A.305	40,000
Legal/Regulatory/Consulting	D10C.300	10,000				
Well Control Insurance	D10C.385 \$0.35/ft	7,000				
Major Construction Overhead						
Real Time Operations Center	D10C.580	0			ST0A.580	0
FUGL - Labor						
FUGL - Supervision						
Survey						
SWD/Other - Labor						
SWD/OTHER - SUPERVISION						
Contingency	D10C.485 500 % of Drilling Intangibles	129,000	D10C.230	12,000	ST0A.230	266,000
Contingency						
M&A Costs	D10C.285	0	D10C.275	0		
Total Intangibles		2,596,000		247,000		5,584,000
Drill Pipe	DW0B.130	0				
Conductor Pipe	DW0B.130	0				
Water String	DW0B.135	16,000				
Surface Casing	DW0B.140 9 5/8" - 13,000 ft at \$25.00/ft	225,000				
Intermediate Casing 1	DW0B.145 7" - 8,500 ft at \$28.00/ft	238,000				
Intermediate Casing 2	DW0B.155	0				
Drilling Liner	DW0B.160	0				
Production Casing or Liner	DW0A.100 4 1/2" - 11,350 ft at \$13.00/ft	148,000			ST0A.101	0
Production Tie-Back	DW0A.165	0			ST0A.105 3-1/2" - 7,800 ft at \$9.00/ft	71,000
Tubing					ST0A.120	60,000
Wellhead, Tree, Chokes	DW0B.115	20,000	DW0A.120	25,000		
Liner Hanger, Isolation Packer	DW0B.180	0	DW0A.125	98,000		
Packer, Nipples					ST0A.400	28,000
Pumping Unit, Engine					ST0A.405	0
Downhole UR Equipment					ST0A.410	80,000
Surface Equipment						
Well Automation Materials						
Total Tangible - Well Equipment Cost		376,000		0		298,000
N/C Lease Equipment						
Tanks, Tanks Skips, Stairs						
Machinery Equipment						
Secondary Containment						
Overhead Power Distribution						
Facility Electrical						
Telecommunication Equipment						
Meters and Metering Equipment						
Facility Line Pipe						
Lease Automation Materials						
FUGL - Materials						
FUGL - Line Pipe						
SWD/Other - Materials						
SWD/OTHER - LINE PIPE						
Total Tangible - Lease Equipment Cost		0		0		0
Total Estimated Cost		12,962,000		818,000		15,823,000



Authorization For Expenditure - HAYDUKE 34-3 FEDERAL COM

AFE # 26621006

6H

Description	Codes	Production Equip.		Well Completion		Total	
		Amount	Codes	Amount	Codes	Amount	Cost
Roads & Location	CON180	5,500	PC0M170	28,000		28,000	138,500
Damages	CON185	1,500					7,500
Mud/Fluids Disposal			PC0M125	5,000 BHPD for 60 days @ \$0.25/bbl		75,000	297,000
Day Rate							598,000
Misc Preparation							35,000
Sits			PC0M125			0	75,000
Fuel			PC0M130			0	90,000
Mixer for Drilling Alg (Max Frac Water)			PC0M135			0	29,000
Mud & Additives							198,000
Surface Rentals	CON140	2,500	PC0M140	\$1,000/M for Production Target at 30 Days		30,500	382,400
Dowhole Rentals			PC0M145			0	142,000
Flowback Labor			PC0M141	\$950/M for Production Target of 14 Day		13,440	13,440
Automation Labor	CON180	16,500	PC0M180			0	16,500
Formation Evaluation (GOT, Coring, etc)							0
Mud Logging							22,000
Open Hole Logging							0
Cementing & Flex. Equipment							208,000
Tubular Inspections			PC0M180			0	59,000
Casing Crews							33,000
Mechanical Labor	CON170	72,500	PC0M170			0	102,500
Tracking/Transportation	CON175	8,500	PC0M175			0	45,500
Supervision	CON180	3,500	PC0M180			0	209,500
Trailer House/Camp/Catering							82,000
Other Misc Expenses	CON190	13,500	PC0M190			0	173,500
Overhead							15,000
Remedial Cementing			PC0M215			0	0
MUD/DIAGNOSIS							100,000
Directional Drilling Services							339,000
Solids Control							80,000
Well Control Equip (Grabbing Services)			PC0M240			0	194,000
Flare & Stack Services			PC0M245			0	0
Completion Rig			PC0M115			0	21,000
Coff Tubing Services			PC0M380			0	360,000
Completion Logging/Perforating/Wireline			PC0M280			0	432,000
Composite Plugs			PC0M390			0	96,000
Stimulation Pumping/Chemicals/Additives/Sand			PC0M210			0	2,826,000
Stimulation Water/Water Transfer/Water							700,000
Cinemas Directed Frac/Retreat Equipment			PC0M385			0	40,000
Legal/Regulatory/Compliance	CON380	0					10,000
Well Control Insurance							7,000
Major Construction Overhead	CON385	12,000					12,000
Real Time Operations Center							0
FLUGL - Labor	CON580	65,000					65,000
FLUGL - Supervision	CON585	5,000					5,000
Survey	CON515	0					0
SWD/Other - Labor	CON880	0					0
SWD/OTHER - SUPERVISION	CON885	0					0
Contingency	CON220	31,000	PC0M220			0	432,000
Casualty	CON221	10,000					10,000
P&A Costs							0
Total Intangible Cost						147,340	8,811,000
Drive Pipe							0
Conductor Pipe							0
Water Siding							16,000
Surface Casing							48,000
Intermediate Casing 1							292,000
Intermediate Casing 2							0
Drilling Liner							0
Production Casing or Liner							148,000
Production Tie-Back							0
Tubing			PC0M7105			0	71,000
Wellhead, Tree, Chokes			PC0M7120			0	105,000
Liner Hanger, Isolation Packer							58,000
Packer, nipples			PC0M7400			0	28,000
Pumping Unit, Engine			PC0M7405			0	0
Dowhole LR Equipment			PC0M7418			0	80,000
Surface Equipment			PC0M7420	MCC Owned Sand Separator		59,000	59,000
Well Automation Materials			PC0M7455			0	0
Total Tangible - Well Equipment Cost						59,000	845,000
N/C Lease Equipment	CON7490	48,000					48,000
Tanks, Tanks Steps, Skids	CON7495	0					0
Battery Equipment	CON7410	60,500					60,500
Secondary Containment	CON7415	9,500					9,500
Overhead Power Distribution	CON7420	0					0
Facility Electrical	CON7425	15,000					15,000
Telecommunication Equipment	CON7430	0					0
Meters and Metering Equipment	CON7445	15,500					15,500
Feedly Line Pipe	CON7450	10,000					10,000
Lease Automation Materials	CON7455	18,000					18,000
FLUGL - Materials	CON7530	10,000					10,000
FLUGL - Line Pipe	CON7535	16,000					16,000
SWD/Other - Materials	CON7550	0					0
SWD/OTHER - LINE PIPE	CON7555	0					0
Total Tangible - Lease Equipment Cost		203,500					203,500
Total Estimated Cost		457,840				206,340	9,860,340



Authorization For Expenditure Drilling

AFE # 26621007

Company Entity

Date Prepared
4/23/2019

Exploration Region	Well Name	Prospect	Property Number	AFE
Permian Basin	HAYDUKE 34-3 FEDERAL COM 7H	Carlsbad Bone Spring Prospect	300001-134.01	26621007

County, State	Location	Estimated Spud	Estimated Completion
Eddy, NM	SHL: W/2 of Section 34, Township 25 South, Range 26 East, Eddy County, NM BHL: W/2 of Section 3, Township 26 South, Range 26 East, Eddy County, NM	1/1/2021	2/1/2021

<input checked="" type="checkbox"/> New	Formation	Well Type	Td Measured Depth	Td Vertical Depth
<input type="checkbox"/> Supplement	Wolfcamp Lower	DEV	19,900	9,600
<input type="checkbox"/> Revision				

Purpose Drill and complete well

Description

Drilling Drill and complete a horizontal test. Drill to 450', set water string casing. Drill to 1900', set surface casing. Drill to 8830' (KOP). Drill curve at 12°/100' initial build rate to +/- 75 degrees and set casing at +/- 9455' MD. Finish curve at +/- 4°/100' to +/- 9340' TVD and drill a +/- 9180' 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	\$2,586,000		\$2,586,000
Completion Costs		\$6,225,840	\$6,225,840
Total Intangible Cost	\$2,586,000	\$6,225,840	\$8,811,840
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$376,000	\$569,000	\$945,000
Lease Equipment		\$203,500	\$203,500
Total Tangible Cost	\$376,000	\$772,500	\$1,148,500
Total Well Cost	\$2,962,000	\$6,998,340	\$9,960,340

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 therefor. 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.

4/23/2019



Description	ICP - Drilling		ACP - Drilling		Completion		Production Equip		Post Completion		Total Cost
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	
Roads & Location	DIC100	95,000			STRA100	10,000			PCOM100	28,000	138,500
Drumlogs	DIC105	6,000							CON105	5,500	7,500
Shed/Flats/Deposit	DIC105	160,000			STRA105	62,000			CON105	1,500	297,000
Day Rate	DIC115	494,000	DICC120	104,000					PCOM125	75,000	598,000
Mud Preparation	DIC120	35,000									35,000
Spa	DIC125	75,000	DICC125	0	STRA125	0			PCOM125	0	75,000
Fuel	DIC135	90,000	DICC130	0					PCOM130	0	90,000
Water for Drilling Rig (Hot Fac Water)	DIC140	5,000	DICC135	0	STRA135	24,000			PCOM135	0	29,000
Mud & Additives	DIC145	198,000									198,000
Surface Rentals	DIC150	112,000	DICC140	0	STRA140	237,000	CON140	2,500	PCOM140	30,900	382,400
Downhole Rentals	DIC155	142,000			STRA145	0			PCOM145	0	142,000
Flowback Labor					STRA141	0			PCOM141	13,440	13,440
Automation Labor							CON150	16,500	PCOM150	0	16,500
Formation Evaluation (DST, Cores, etc.)	DIC160	0			STRA150	0					0
Mud Logging	DIC170	22,000									22,000
Open Hole Logging	DIC180	0									0
Consulting & Fleet Equipment	DIC185	145,000	DICC185	60,000							208,000
Tubular Inspections	DIC190	50,000	DICC160	5,000	STRA160	4,000			PCOM160	0	59,000
Casing Crews	DIC195	20,000	DICC165	13,000	STRA165	0					33,000
Mechanical Labor	DIC200	20,000	DICC170	10,000	STRA170	0	CON170	72,500	PCOM170	0	102,500
Hoisting/Transportation	DIC205	25,000	DICC175	8,000	STRA175	4,000	CON175	8,500	PCOM175	0	45,500
Supervision	DIC210	96,000	DICC180	16,000	STRA180	54,000	CON180	3,500	PCOM180	0	209,500
Water House/Camp/Catering	DIC220	42,000	DICC225	6,000	STRA220	34,000					82,000
Day/ Misc Expenses	DIC220	5,000	DICC190	0	STRA190	155,000	CON190	13,500	PCOM190	0	173,500
Overhead	DIC225	10,000	DICC195	5,000							15,000
Rentals/ Cementing	DIC231	0			STRA215	0			PCOM215	0	0
Directional Drilling	DIC240	100,000									100,000
Directional Drilling Services	DIC245	339,000									339,000
Solids Control	DIC250	80,000									80,000
Mud Control Equip Grubbing Services	DIC255	80,000	DICC240	5,000	STRA240	109,000			PCOM240	0	194,000
Flaring & Silenced Services	DIC260	0	DICC245	0	STRA245	0			PCOM245	0	0
Completion Rig					STRA115	21,000			PCOM115	0	21,000
C&I Tubing Services					STRA260	368,000			PCOM260	0	368,000
Completion Logging/Perforating/Wireline					STRA200	432,000			PCOM200	0	432,000
Completion Plug					STRA300	96,000			PCOM300	0	96,000
Simulation Pumping/Chemicals/Additives/Sand					STRA210	2,926,000			PCOM210	0	2,926,000
Simulation Water/Mud Transfer/Water Storage					STRA395	702,000					702,000
Owner Owned Frac/Rentals Equipment					STRA305	40,000			PCOM305	0	40,000
Legal/Regulatory/Garden	DIC300	10,000					CON300	0			10,000
Mud Control Insurance	DIC305	7,000									7,000
Major Construction Overhead							CON305	12,000			12,000
Real Time Operations Center	DIC350	0			STRA350	0					0
YU/CL - Labor							CON350	65,500			65,500
YU/CL - Supervision							CON355	5,000			5,000
Survey							CON355	0			0
SWD/Other - Labor							CON360	0			0
SWD/Other - SUPERVISION							CON365	0			0
Contingency	DIC405	128,000	DICC220	12,000	STRA220	266,000	CON220	31,000	PCOM220	0	437,000
Contingency							CON225	10,000			10,000
MEA Costs	DIC285	0	DICC275	0							0
Total Drilling Cost		2,586,000		247,000		5,584,000		247,500		147,340	8,611,840
Drive Pipe	DWEA150	0									0
Conductor Pipe	DWEA130	0									0
Water String	DWEA125	16,000									16,000
Surface Casing	DWEA140	48,000									48,000
Intermediate Casing 1	DWEA145	292,000									292,000
Intermediate Casing 2	DWEA155	0									0
Drilling Liner	DWEA160	0									0
Production Casing or Liner			DWEA100	148,000	STMT101	0					148,000
Production Tie-Back			DWEA165	0	STMT105	71,000			PCOM1305	0	71,000
Tubing					STMT120	60,000			PCOM1520	0	105,000
W/B&M, Tree, Chokes	DWEA115	20,000	DWEA120	25,000	STMT120	60,000					98,000
Liner Hanger, Isolation Packer	DWEA100	0	DWEA125	98,000							98,000
Packer, Nipples					STMT400	28,000			PCOM1400	0	28,000
Pumping Unit Engine					STMT405	0			PCOM1405	0	0
Downhole LR Equipment					STMT410	80,000			PCOM1410	0	80,000
Surface Equipment									PCOM1455	53,000	53,000
Well Automation Materials									PCOM1455	0	0
Total Tubing - Well Equipment Cost		376,000		271,000		239,000		58,000		945,000	
Wellbore Equipment					CON1450	48,000					48,000
Tanks, Tanks, Stairs					CON1455	0					0
Inventory Equipment					CON1460	60,500					60,500
Secondary Containment					CON1465	9,500					9,500
Overhead Power Distribution					CON1470	0					0
Facility Electrical					CON1475	15,000					15,000
Telecommunication Equipment					CON1480	0					0
Meters and Metering Equipment					CON1485	15,500					15,500
Wellbore Line Pipe					CON1490	10,000					10,000
Lease Automation Materials					CON1495	19,000					19,000
FLUGL - Materials					CON1500	10,000					10,000
FLUGL - Line Pipe					CON1505	16,000					16,000
SWD/Other - Materials					CON1510	0					0
SWD/Other - LINE PIPE					CON1515	0					0
Total Tubing - Well Equipment Cost		2,942,000		574,000		5,823,000		451,000		206,340	9,960,340



Description	BCP - Drilling		ACF - Drilling		Completion	
	Codes	Amount	Codes	Amount	Codes	Amount
Roads & Location	DIOC180	95,000			STRA180	10,000
Permits	DIOC185	6,000				
Land/Wells Disposal	DIOC285	160,000			STRA285	62,000
Day Rate	DIOC115 18 days at \$28,000/day	494,000	DIOC120 4 days at \$26,000/day	104,000		
Mud Preparation	DIOC180	35,000				
Mix	DIOC125	75,000	DIOC125	0	STRA125	0
Well	DIOC135 1,500 gal/day at \$3.00/gal	90,000	DIOC130	0		
Water for Drilling Rig (Not Frac Water)	DIOC140	5,000	DIOC135	0	STRA135	24,000
Mud & Additives	DIOC145	198,000				
Surface Rentals	DIOC180 1 Per Day BCP/day	112,000	DIOC140	0	STRA140	237,000
Downhole Rentals	DIOC195	142,000			STRA145	0
Flowback Labor					STRA141	0
Automation Labor						
Formation Evaluation (DST, Coring, etc)	DIOC180	0			STRA150	0
Mud Logging	DIOC170 14 days at \$1,500/day	22,000				
Open Hole Logging	DIOC170	0				
Cementing B Floor Equipment	DIOC185	145,000	DIOC155	63,000		
Tubular Inspectors	DIOC190	50,000	DIOC160	5,000	STRA160	4,000
Casing Cams	DIOC195	20,000	DIOC165	13,000	STRA165	0
Mechanical Labor	DIOC200	20,000	DIOC170	10,000	STRA170	0
Trucking/Transportation	DIOC205	25,000	DIOC175	8,000	STRA175	4,000
Supervision	DIOC210	96,000	DIOC180	16,000	STRA180	94,000
Trailer Hauls/Camps/Catering	DIOC220	42,000	DIOC225	6,000	STRA220	34,000
Other Misc Expenses	DIOC230	5,000	DIOC190	0	STRA190	153,000
Overhead	DIOC235	10,000	DIOC195	5,000		
Remedial Cementing	DIOC231	0			STRA215	0
MUD/DENOTE	DIOC240	100,000				
Directional Drilling Services	DIOC245	338,000				
Soils Control	DIOC260	80,000				
Well Control Equip (Snubbing Services)	DIOC265	80,000	DIOC240	5,000	STRA240	109,000
Fishing & Sidetrack Services	DIOC270	0	DIOC245	0	STRA245	0
Completion Rig						
Coil Tubing Services						
Completion Logging/Perforating/Wireline						
Completion Pumps						
Completion						
Schminner Water/Water Transfer/Water						
Company Owned Frac/Rental Equipment						
Log/Acquisition/Corrosive	DIOC300	10,000				
Well Control Insurance	DIOC285 \$0.55/ft	7,000				
Mud Cementation Overhead						
Real Time Operations Center	DIOC560	0			STRA560	0
FLUGL - Labor						
FLUGL - Supervision						
Survey						
SWD/Other - Labor						
SWD/OTHER - SUPERVISION						
Contingency	DIOC435 500 % of Drilling Intangibles	123,000	DIOC220	12,000	STRA220	366,000
Contingency						
PSA Costs	DIOC285	0	DIOC275	0		
Total Intangible Cost		2,584,000		247,000		5,584,000
Drive Pipe	DWE1150	0				
Conductor Pipe	DWE1130	0				
Water String	DWE1135	16,000				
Surface Casing	DWE1140 9 5/8" - 1,900ft at \$25.00/ft	48,000				
Intermediate Casing 1	DWE1145 7" - 9,500ft at \$28.00/ft	292,000				
Intermediate Casing 2	DWE1155	0				
Onking Liner	DWE1160	0				
Production Casing or Liner			DWEA100 4 1/2" - 11,350ft at \$13.00/ft	148,000		
Production Tie-Back			DWEA145	0	STRA1101	0
Tubing					STRA1105 3-1/2" - 7,350ft at \$9.00/ft	71,000
Wellhead, Tree, Chokes	DWE1115	23,000	DWEA120	25,000	STRA1120	60,000
Liner Hanger, Isolation Packer	DWE1100	0	DWEA125	88,000		
Packer Nipples					STRA1400	28,000
Pumping Unit, Engine					STRA1405	0
Downhole LH Equipment					STRA1410	80,000
Surface Equipment						
Well Automation Materials						
Total Tangible - Well Equipment Cost		376,000		271,000		290,000
M/C Lease Equipment						
Tanks, Tanks Steps, Skids						
Wellbore Equipment						
Wellbore Containment						
Wellhead Power Distribution						
Facility Electrical						
Telecommunication Equipment						
Meters and Metering Equipment						
Facility Line Pipe						
Lease Automation Materials						
FLUGL - Materials						
FLUGL - Line Pipe						
SWD/Other - Materials						
SWD/OTHER - LINE PIPE						
Total Tangible - Lease Equipment Cost		1,845,000		818,000		1,823,000
Total Estimated Cost		5,829,000		1,066,000		7,897,000



Description	Codes	Production Equip.		Post Completion		Total	
		Amount	Codes	Amount	Codes	Amount	Cost
Resale & Location	CON300	5,500	PCOM100	28,000		138,500	
Damages	CON305	1,500				7,500	
Mud/Fluids Disposal			PCOM255	15,000 BWPD for 80 days @ \$0.25/Abbl	75,000	257,000	
Day Rate						590,000	
Mud Preparation						35,000	
Bit			PCOM132		0	75,000	
Food			PCOM130		0	90,000	
Water for Drilling Rig (not Frac Water)			PCOM135		0	29,000	
Mud/B. Additives	CON140	2,500	PCOM140	\$1.00/Abbl for Production Target of 30 Days	30,900	382,400	
Surface Rentals			PCOM145		0	142,000	
Downhole Rentals			PCOM141	\$360/Abbl for Production Target of 14 Day	13,440	13,440	
Automation Labor	CON130	16,500	PCOM150		0	16,500	
Remedial Evaluation (DST, Coring, etc)						0	
Steel Logging						22,000	
Open Hole Logging						0	
Cementing & Plug Equipment						208,000	
Tubular Inspections			PCOM160		0	59,000	
Casing Cement						33,000	
Mechanical Labor	CON170	72,500	PCOM170		0	102,500	
Trucking/Transportation	CON175	6,500	PCOM175		0	45,500	
Supervision	CON180	3,500	PCOM180		0	209,500	
Trailer Hoses/Camp/Catering						82,800	
Other Misc Expenses	CON190	13,500	PCOM190		0	173,500	
Overhead						15,000	
Remedial Cementing			PCOM215		0	0	
MOB/DO/OB						100,000	
Directional Drilling Services						338,000	
Solids Control						80,000	
Well Control Equip (Snubbing Services)			PCOM240		0	194,000	
Fishing & Sidetrack Services			PCOM245		0	0	
Completion Rig			PCOM115		21,000	21,000	
Coil Tubing Services			PCOM280		0	368,000	
Completion Logging/Perforating/Wireline			PCOM300		0	432,000	
Composite Plugs			PCOM390		0	96,000	
Simulation Pumping/Chemicals/Additives/Sand			PCOM210		0	2,826,000	
Simulation Water/Water Transfer/Water						702,000	
Company Owned Frac/Rental Equipment			PCOM305		0	40,000	
Legal/Regulatory/Compliance	CON300	0				10,000	
Well Control Insurance						7,000	
Major Construction Overhead	CON305	12,000				12,000	
Real Time Operations Center						0	
PLUG - Labor	CON350	65,500				65,500	
PLUG - Supervision	CON355	5,000				5,000	
Survey	CON351	0				0	
SWID/Other - Labor	CON360	0				0	
SWID/OTHER - SUPERVISION	CON365	0				0	
Contingency	CON320	31,000	PCOM320		0	432,000	
Contingency	CON321	10,000				10,000	
PLUG Costs						0	
Total Tangible Cost					147,340	8,811,840	
Coiled Pipe						0	
Completion Pipe						0	
Water String						16,000	
Surface Casing						48,000	
Intermediate Casing 1						292,000	
Intermediate Casing 2						0	
Drilling Liner						0	
Production Casing or Liner						148,000	
Production Tie-back						0	
Tubing			PCOMT105		0	71,000	
Wellhead, Tree, Choke			PCOMT120		0	105,000	
Slur Manger, Isolation Packer						98,000	
Pocket, Nipples			PCOMT400		0	28,800	
Pumping Unit, Engine			PCOMT405		0	0	
Downhole UBI Equipment			PCOMT410		0	80,000	
Surface Equipment			PCOMT420	SEC Owned Sand Separator	59,000	59,000	
Well Automation Materials			PCOMT435		0	0	
Total Tangible - Well Equipment Cost					59,000	945,000	
N/C Lease Equipment	CON7400	48,000				48,000	
Tanks, Tanks Steps, Stairs	CON7405	0				0	
Battery Equipment	CON7410	60,500				60,500	
Secondary Containments	CON7415	9,500				9,500	
Overhead Power Distribution	CON7420	0				0	
Facility Electrical	CON7425	15,000				15,000	
Telecommunication Equipment	CON7430	0				0	
Meters and Metering Equipment	CON7445	15,500				15,500	
Field/Lane Pipe	CON7450	10,000				10,000	
Lease Automation Materials	CON7455	19,000				19,000	
PLUGS - Materials	CON7500	10,000				10,000	
PLUGS - Line Pipe	CON7505	16,000				16,000	
SWID/Other - Materials	CON7510	0				0	
SWID/OTHER - LANE PIPE	CON7515	0				0	
Total Tangible - Lease Equipment Cost		203,500				203,500	
Total Estimated Cost		451,880			206,340	9,960,340	

**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. 20590

AFFIDAVIT OF HARRISON HASTINGS

STATE OF TEXAS)
) ss.
COUNTY OF MIDLAND)

Harrison Hastings, 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. I have been qualified by the Oil Conservation Division (“Division”) as an expert petroleum geologist and my credentials were accepted as a matter of record by the Division.

2. 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.

3. This case includes a Wolfcamp proposed horizontal spacing unit located in the W/2 of Section 34 and W/2 of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, which is the focus of my study area. This proposed spacing unit is dedicated to the **Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, and 7H** wells.

4. As part of my study, I have prepared the following geological exhibits with respect to the horizontal spacing units for this case that are attached to my affidavit and described below:

EXHIBIT B

- a. **Exhibit B.1** is a Deep Structure Map on the top of the Wolfcamp formation This map identifies the sections to be developed with a red shaded rectangle. It also shows that the structure dips to the east-northeast.
- b. **Exhibit B.2** is a Winerack Diagram that includes the Wolfcamp formation. This diagram identifies the Wolfcamp formation in purple, and the proposed wells with green circles labeled by well number. It also shows that the wells will be 330' from the proposed unit boundaries and orthodox.
- c. **Exhibit B.3** is a Cross-Section Locator Map outlining the Wolfcamp horizontal spacing unit being pooled that is the subject of this application; and referencing the location of Stratigraphic Cross Section A-A'. It identifies a line of cross-section, running from A to A', as well as the cross-section well names.
- d. **Exhibit B.4** is a Gross Interval Isopach Map of the Upper Wolfcamp (Top Wolfcamp to Wolfcamp A2.) It shows that the formation is relatively uniform across the proposed well unit. It also shows the location of cross-section A-A'.
- e. **Exhibit B.5** is a Stratigraphic Cross Section hung on the top of the Wolfcamp Fm. The well logs on the cross-section give a representative sample of the Upper Wolfcamp formation in the area. The target zones for the wells are the Wolfcamp Y Sand and Wolfcamp A Shale, and those zones are consistent across the unit. The planned well-paths for these wells are indicated by two blue dashed lines, and the letters 'LZ'.
- f. **Exhibit B.6** is a Cross-Section Locator Map outlining the Wolfcamp horizontal spacing unit being pooled that is the subject of this application; and referencing the location of Stratigraphic Cross Section B-B'. It identifies a line of cross-section, running from B to B', as well as the cross-section well names.
- g. **Exhibit B.7** is a Gross Interval Isopach Map of the Lower Wolfcamp (Top Wolfcamp C to Wolfcamp D5.) It shows that the formation is relatively uniform across the proposed well unit. It also shows the location of cross-section B-B'.
- h. **Exhibit B.8** is a Stratigraphic Cross Section hung on the top of the Wolfcamp 'C'. The well logs on the cross-section give a representative sample of the Lower Wolfcamp formation in the area. The target zones for the wells are the Wolfcamp 'C' Shale and Wolfcamp 'D' Shale, and those zones are consistent across the unit. The planned well-paths for these wells are indicated by two sets of blue dashed lines, and the letters 'LZ'.

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

- a. The horizontal spacing unit in this case is justified from a geologic standpoint.

b. There are no structural impediments or faulting that will interfere with the proposed horizontal development.

c. Each quarter quarter section in the unit will contribute more or less equally to production.

6. The preferred well orientation in this area is either north to south or east to west.

This is due to the fact that regional max horizontal stress orientation in this area runs approximately N45E.

7. The producing interval for each of the wells in this case will be orthodox and will comply with the Division's set back requirements.

8. Pursuant to Rule 1-011 NMRA (2019), I declare and affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct.

[Signature Page to Follow]

Hastings
Harrison Hastings

SUBSCRIBED AND SWORN to before me this 10th day of July 2019 by Harrison Hastings, on behalf of Cimarex Energy Co.

Amanda Bustamante
Notary Public

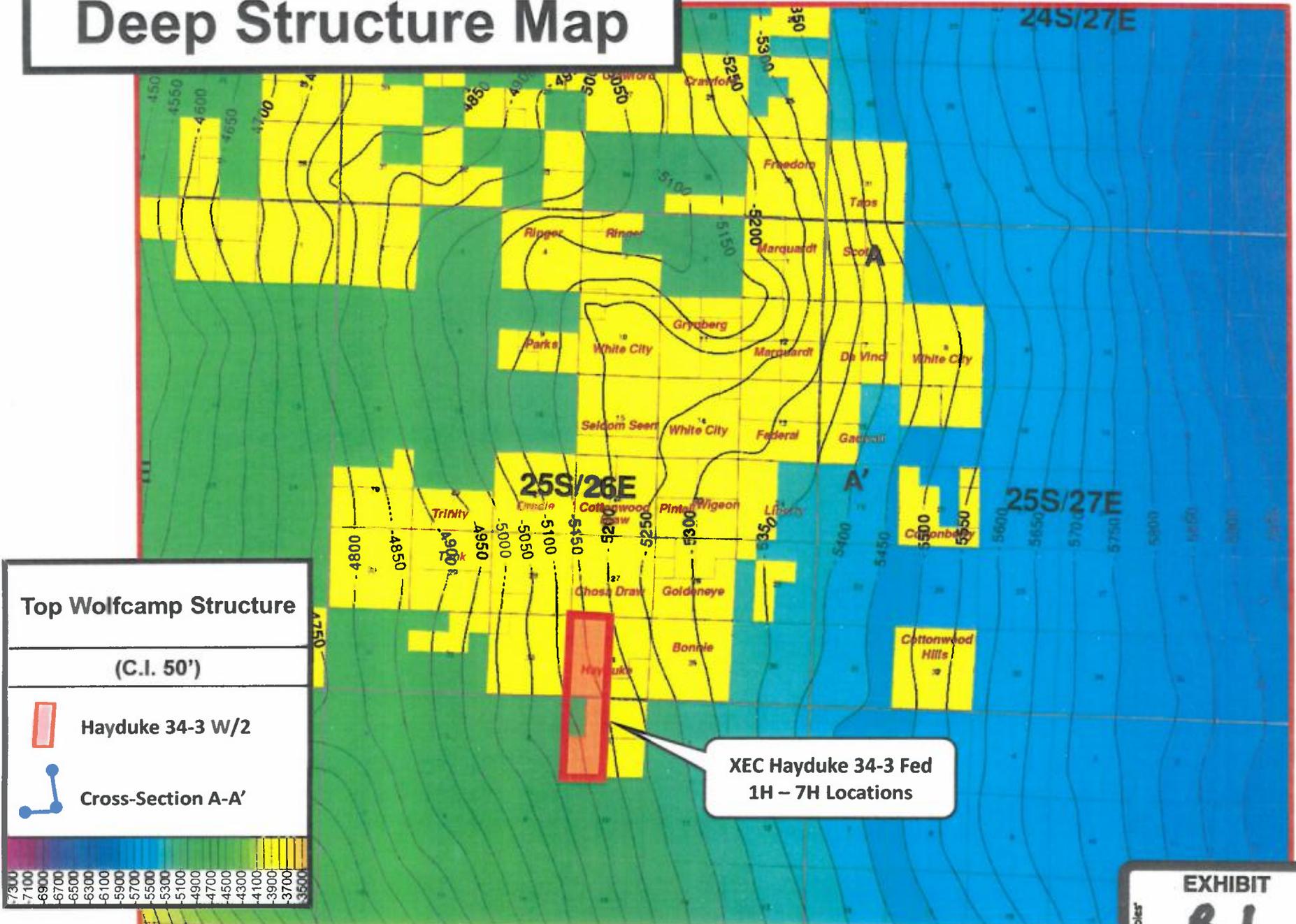
My commission expires: 4-29-2023



Hayduke 34-3 Fed 1H – 7H

Wolfcamp Fm. Geology Exhibits

Deep Structure Map



Top Wolfcamp Structure

(C.I. 50')



Hayduke 34-3 W/2



Cross-Section A-A'

7300
7100
6900
6700
6500
6300
6100
5900
5700
5500
5300
5100
4900
4700
4500
4300
4100
3900
3700
3500

XEC Hayduke 34-3 Fed
1H - 7H Locations

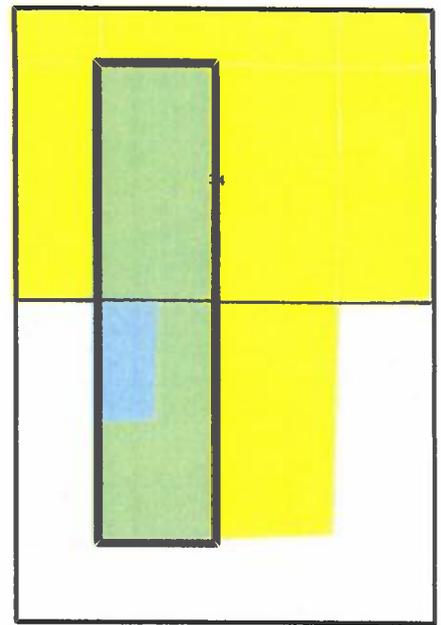
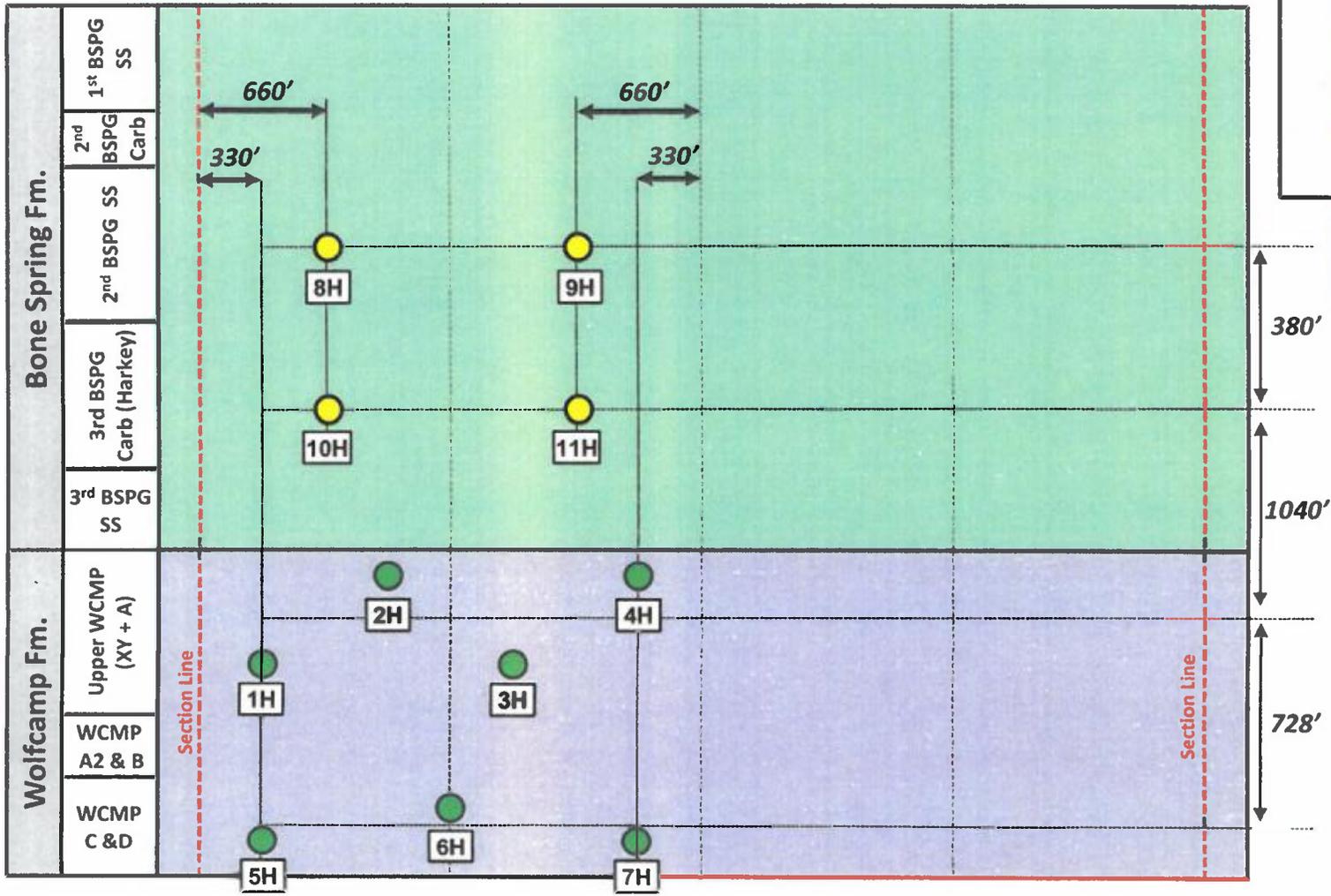
EXHIBIT

B.1

tabbles

XEC Hayduke 34-3 Fed 1H – 11H Winerack

Sec 34 - T25S/R26E & Sec 3 - T26S/26E
Eddy Co., NM



Hayduke 34-3 W/2

380'

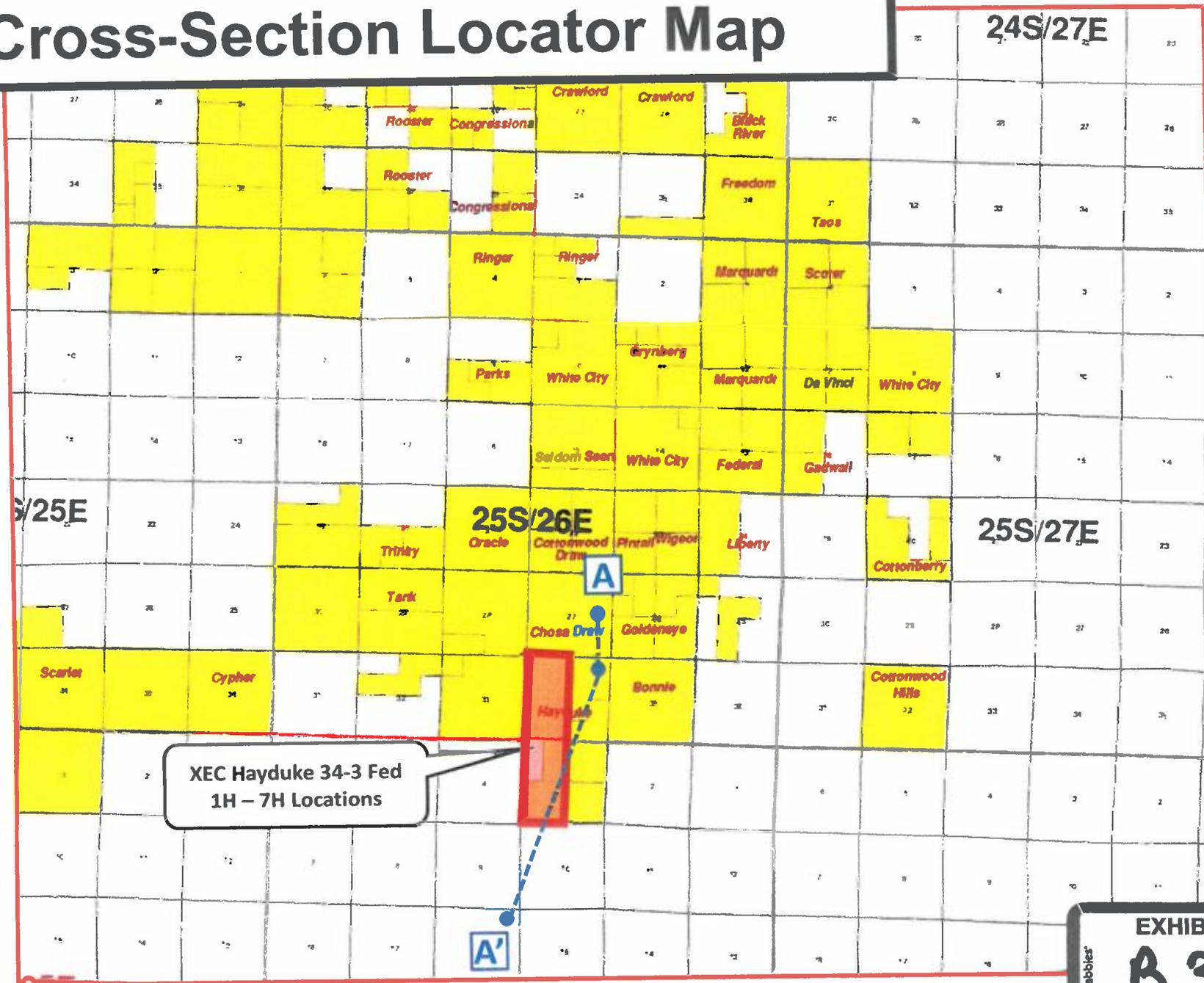
1040'

728'

EXHIBIT
tabbier
B.2

Upper Wolfcamp (1H-4H)

Cross-Section Locator Map



XEC Hayduke 34-3 Fed
1H - 7H Locations

tabbles
EXHIBIT
B.3

Upper Wolfcamp Isopach Map

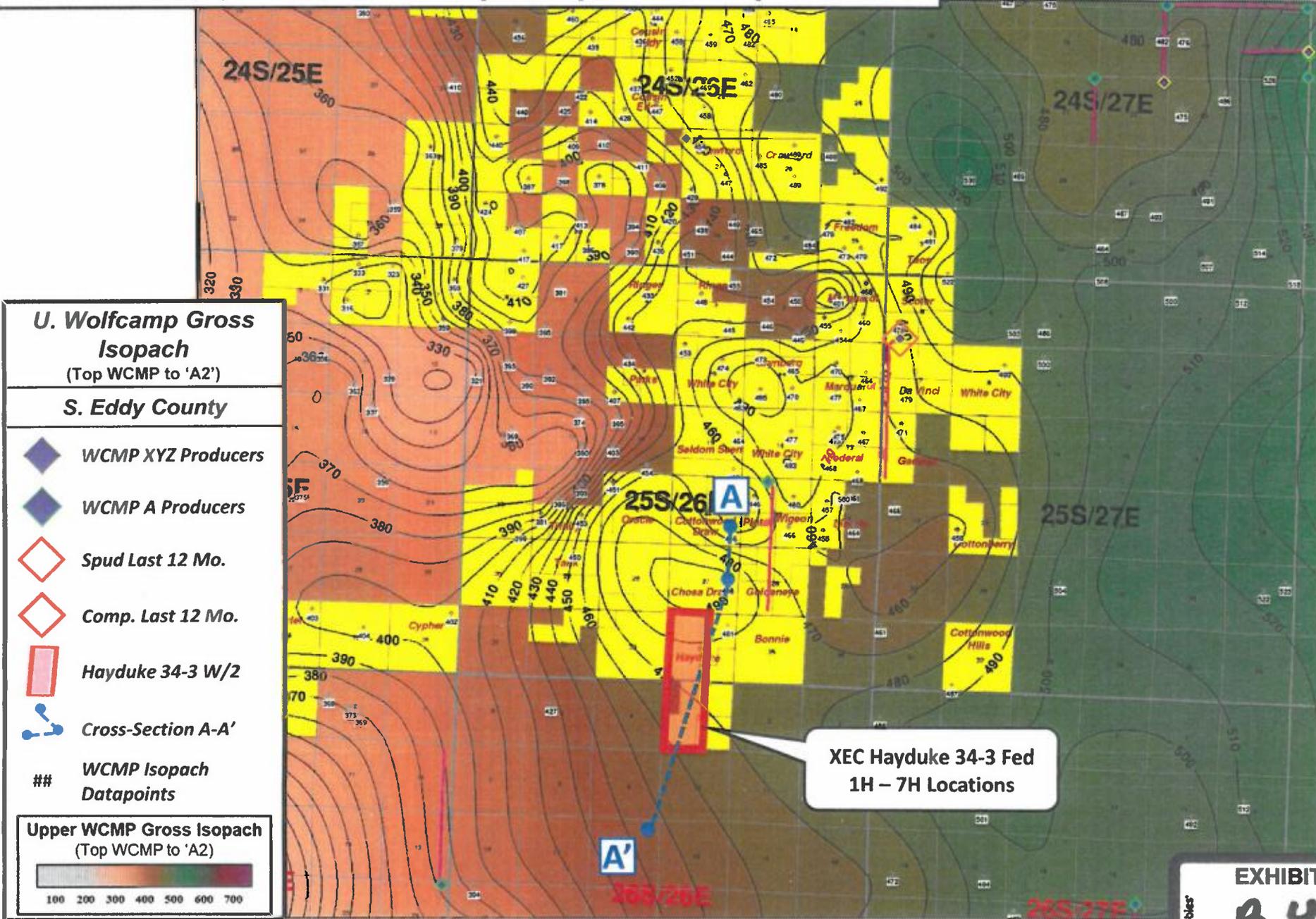
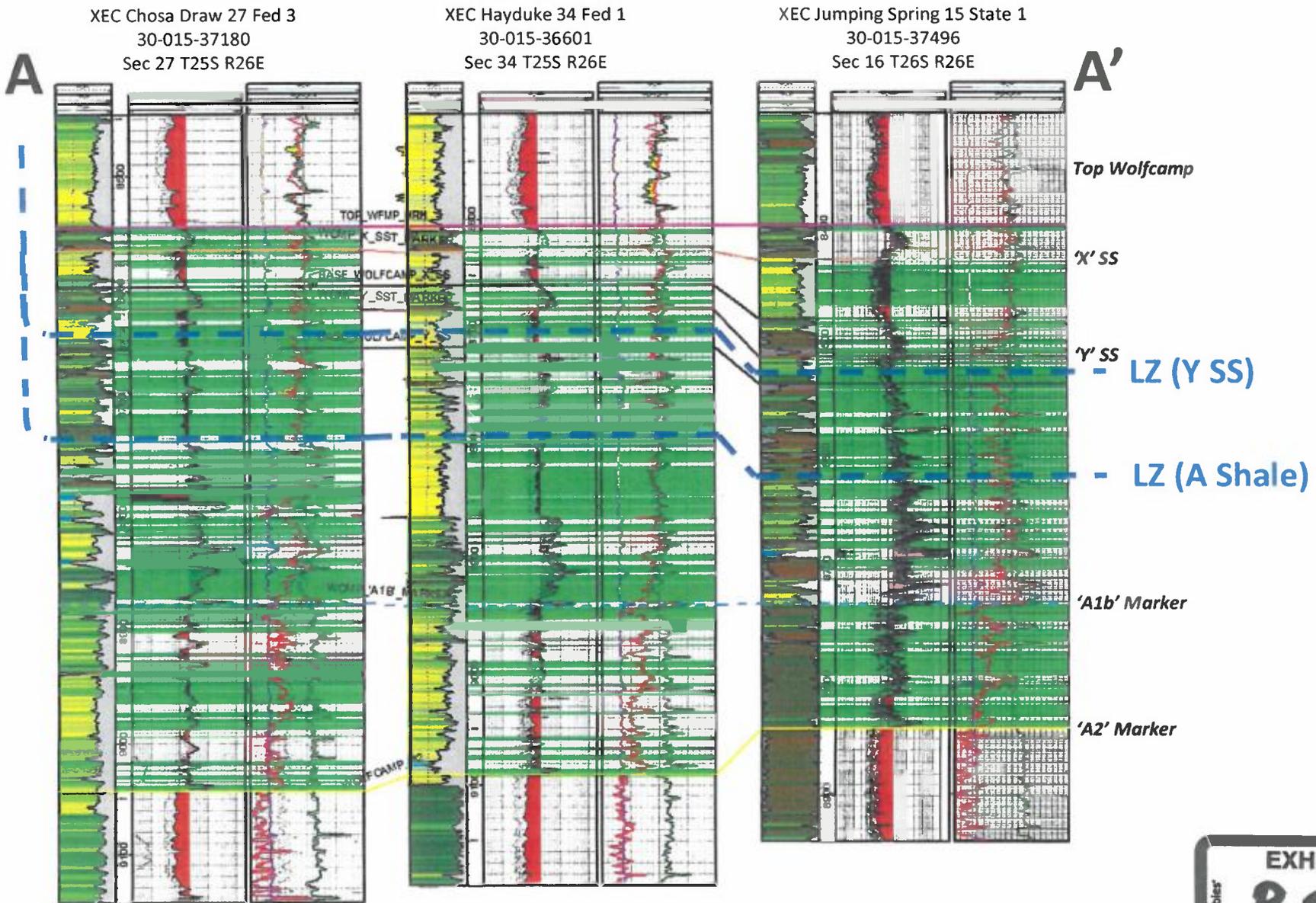


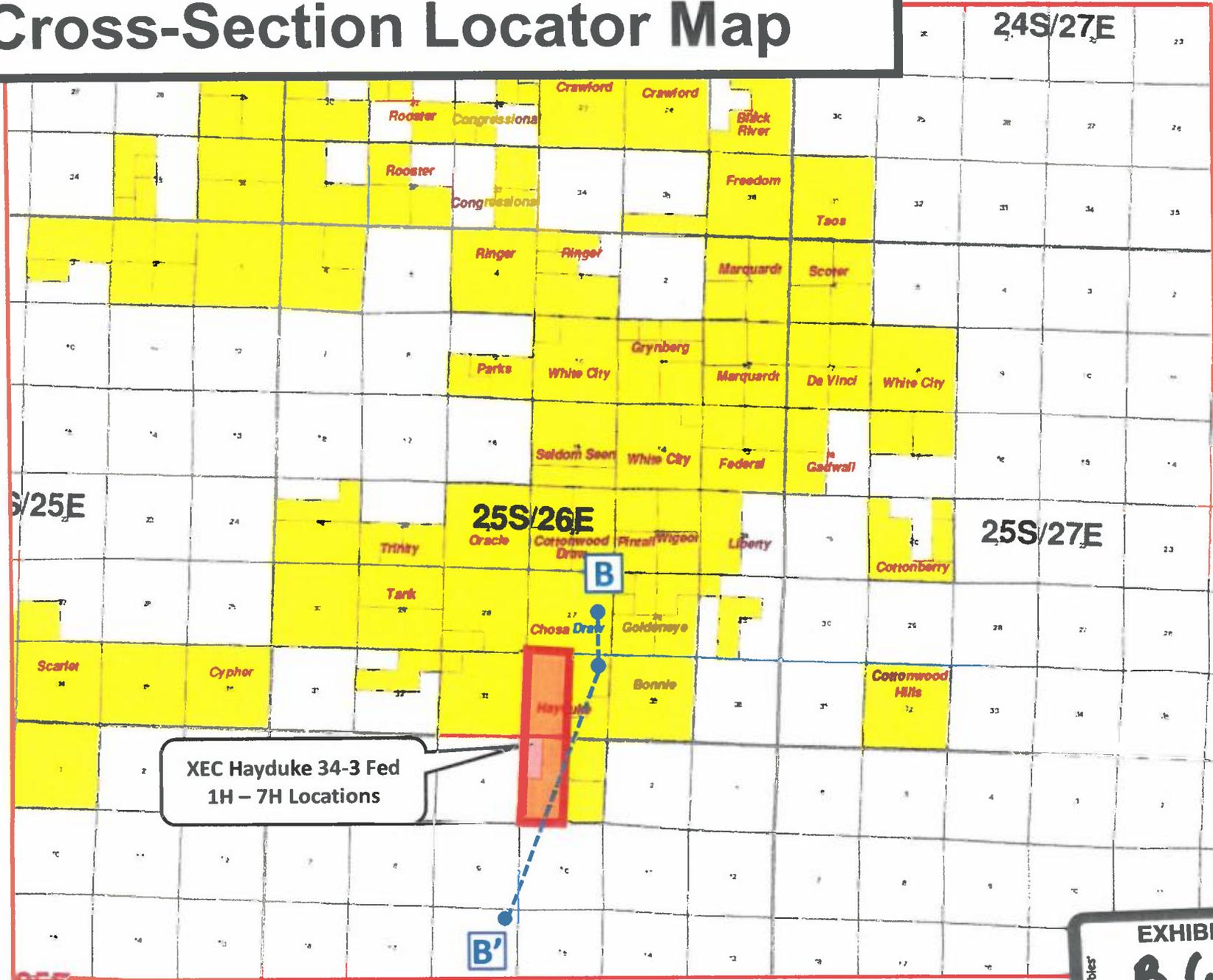
EXHIBIT
B.4

Upper WCMP N-S Cross-Section A-A'



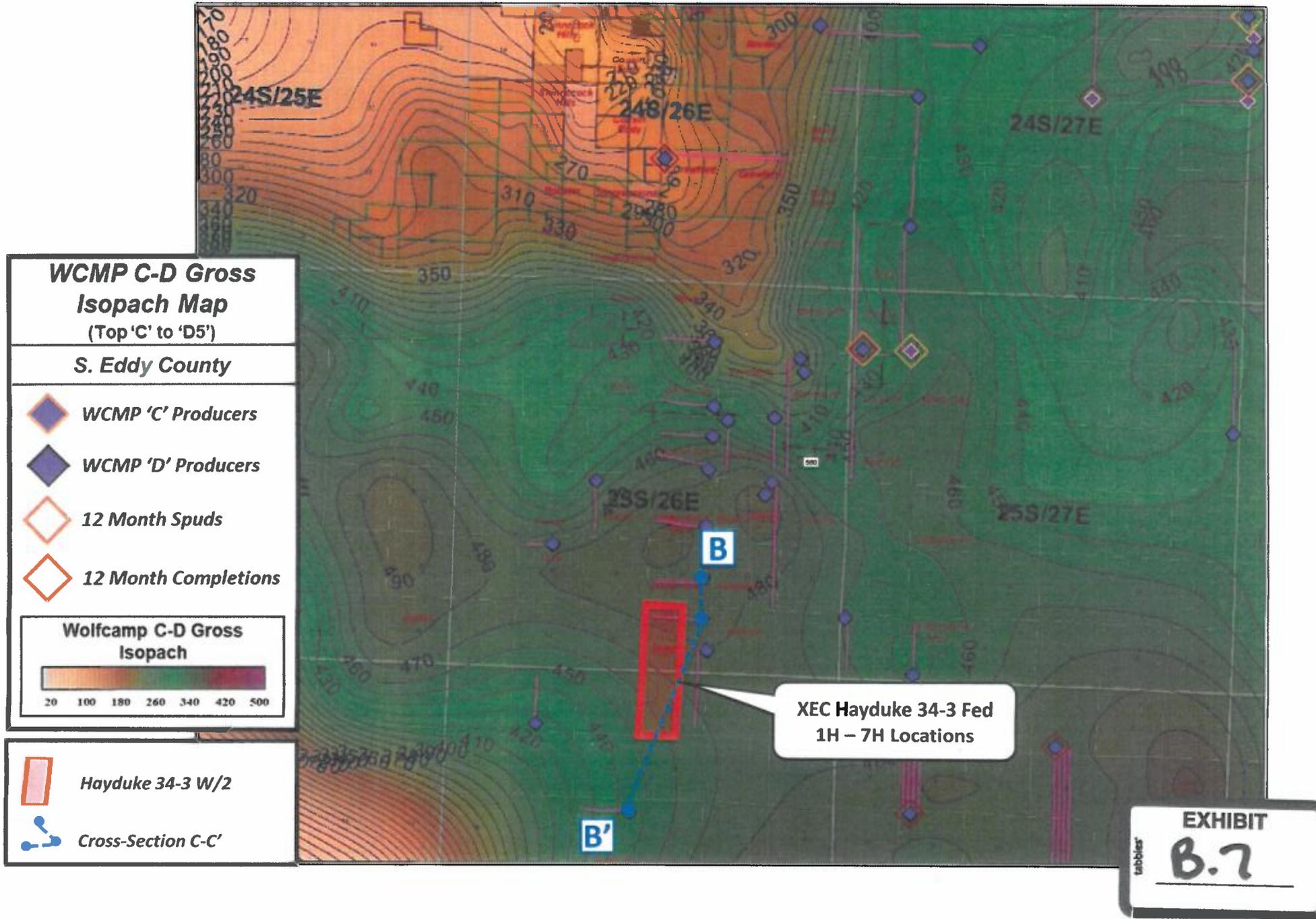
Lower Wolfcamp (5H-7H)

Cross-Section Locator Map

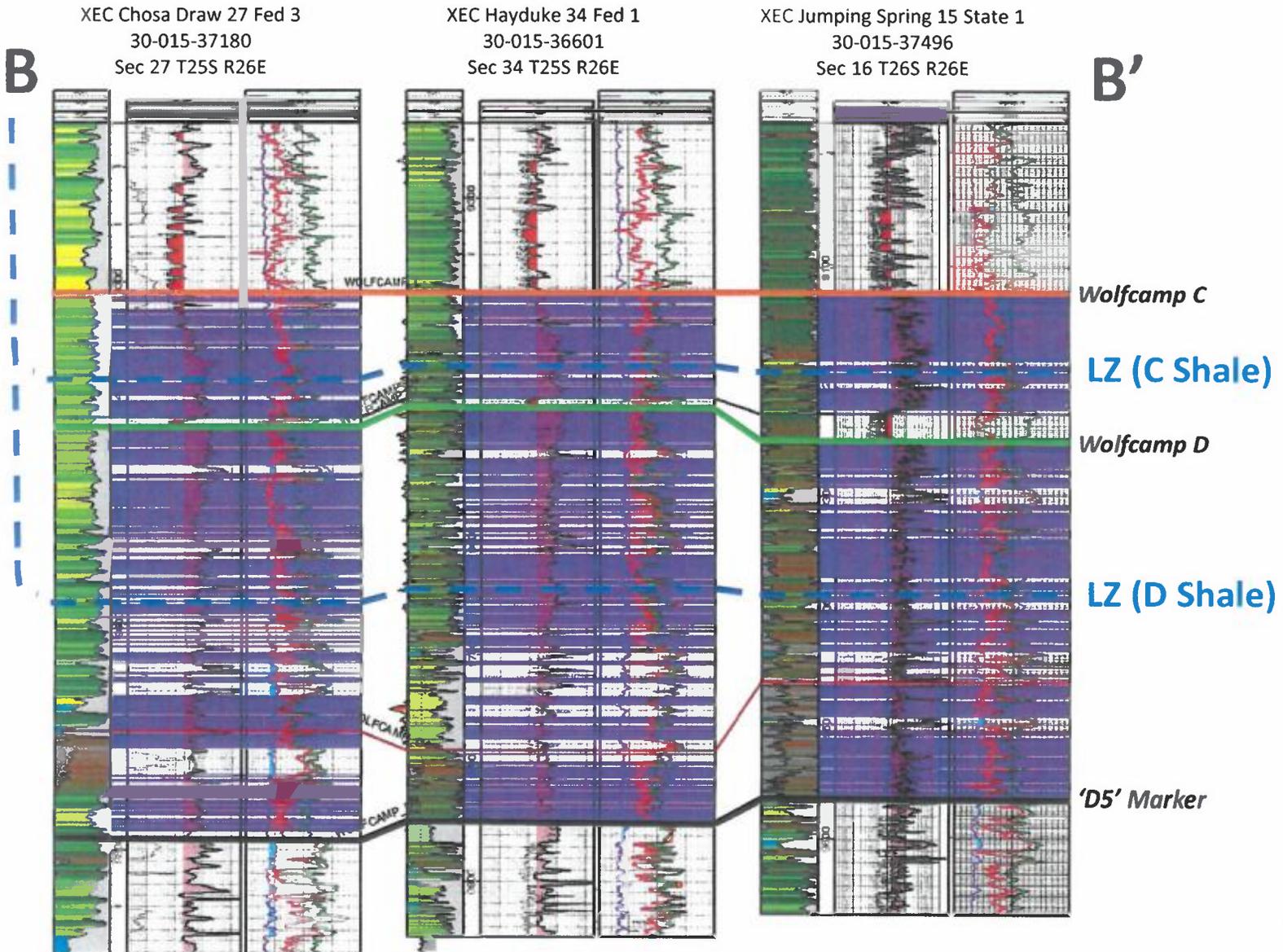


tabbles
EXHIBIT
B.6

Lower Wolfcamp Isopach Map



Lower Wolfcamp N-S Cross-Section B-B'



Hayduke 34-3 Fed 1H – 7H

Wolfcamp Fm. Geology Exhibits

**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. 20590

AFFIDAVIT

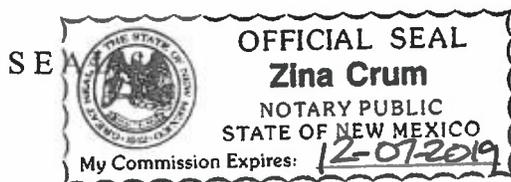
STATE OF NEW MEXICO)
)ss.
COUNTY OF BERNALILLO)

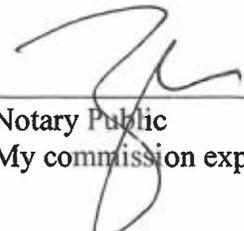
Lance D. Hough, attorney in fact and authorized representative of Cimarex Energy Co., the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application was provided under the notice letters, and that proof of mailing, receipts of mailings, and publication are attached hereto. After notice of the application was mailed to all previously identified interest holders, an additional potential overriding royalty interest holder was discovered and notice was mailed to his last known address on July 8, 2019. 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, and provide notice to each at their last known address.



Lance D. Hough

SUBSCRIBED AND SWORN to before me this 10 day of July 2019 by Lance D. Hough.





Notary Public
My commission expires: 12-07-2019



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

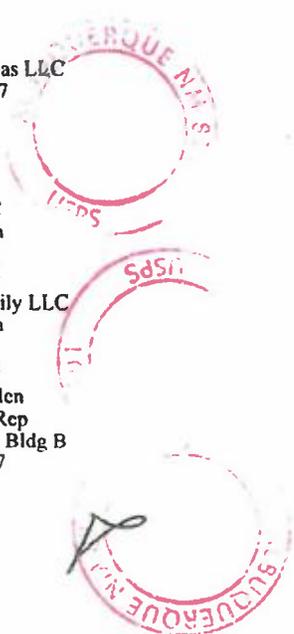
PS Form 3877
 Type of Mailing: CERTIFIED MAIL
 06/21/2019



14-74
 8H-
 NO. 20590
 NO 20591

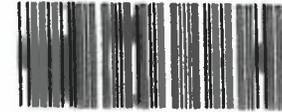
Firm Mailing Book ID: 169626

Line	USPS Article Number	Name, Street, City, State, Zip	Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
1	9314 8699 0430 0060 5098 20	Irwin E Vinnik & Reva Sandra Vinnik 5062 E Princeton Ave Englewood CO 80110	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
2	9314 8699 0430 0060 5098 37	Celeste C Grynberg 5000 S Quebec St., Ste 500 Denver CO 80237	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
3	9314 8699 0430 0060 5098 44	Robert N. Enfield, Trustee Robert N. Enfield Trust c/o Wells Fargo Bank PO Box 41779 Austin TX 78704	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
4	9314 8699 0430 0060 5098 51	Engfield-Coffield Family Revocable Trust PO Box 8028 Santa Fe NM 87504	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
5	9314 8699 0430 0060 5098 68	Howard A Rubin, Inc 623 1/2 Camino Rancheros Santa Fe NM 87505	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
6	9314 8699 0430 0060 5098 75	Jerune Allen 245 Nicklaus Drive SE Rio Rancho NM 87124	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
7	9314 8699 0430 0060 5098 82	Legacy Reserves Operating LP PO Box 10848 Midland TX 79702	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
8	9314 8699 0430 0060 5098 99	Chevron U.S.A. 6301 Deauville Blvd Midland TX 79706	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
9	9314 8699 0430 0060 5099 05	Mountain Lion Oil & Gas LLC 7941 Katy freeway #117 Houston TX 77024	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
10	9314 8699 0430 0060 5099 12	EOG Resources, Inc. P.O. Box 4362 Houston TX 77210	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
11	9314 8699 0430 0060 5099 29	Bryan Bell Family LLC c/o Frank Robert Janusa PO Box 24591 New Orleans LA 70184	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
12	9314 8699 0430 0060 5099 36	Rubie Crosby Bell Family LLC c/o Frank Robert Janusa PO Box 24591 New Orleans LA 70184	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
13	9314 8699 0430 0060 5099 43	The Estate of Jerune Allen John A Budagher Pers Rep 3500 Comanche Rd NE Bldg B Albuquerque NM 87107	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
14	9314 8699 0430 0060 5099 50	DMA, Inc 9 Ambleside Drive Bellcair FL 33756	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice



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

PS Form 3877
 Type of Mailing: CERTIFIED MAIL
 06/21/2019



Firm Mailing Book ID: 169626

Line	USPS Article Number	Name, Street, City, State, Zip	Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
15	9314 8699 0430 0060 5099 67	Charmar, LLC c/o Vikki H Smith 4815 Vista Del Oso Ct NE Albuquerque NM 87109	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
16	9314 8699 0430 0060 5099 74	Lisa M. Enfield, Trustee of Lisa M. Enfield Trust 405 Camino Manzano Santa Fe NM 87505	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
17	9314 8699 0430 0060 5099 81	MLE, LLC PO Box 1683 Santa Fe NM 87504	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
18	9314 8699 0430 0060 5099 98	Richard C. Deason 1301 N Havenhurst #217 West Hollywood CA 90046	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
19	9314 8699 0430 0060 5100 00	Ronald H. Mayer, Trustee of Ronald and Martha Mayer PO Box 2391 Roswell NM 88202	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
20	9314 8699 0430 0060 5100 17	SAP, LLC 4901 Whitney Lane Roswell NM 88203	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
21	9314 8699 0430 0060 5100 24	Barbara Carol Deason 2233 Rock Bridge Ct Yukon OK 73099	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
22	9314 8699 0430 0060 5100 31	Thomas D. Deason 3407 Essex Ave Lubbock TX 79407	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
23	9314 8699 0430 0060 5100 48	Oxy Y-1 Company 5 Greenway Plaza Houston TX 77046	\$1.30	\$3.50	\$1.60	\$0.00	82762-0128 Notice
Totals:			\$29.90	\$80.50	\$36.80	\$0.00	
Grand Total:						\$147.20	

List Number of Pieces Listed by Sender Total Number of Pieces Received at Post Office Postmaster: Name of receiving employee Dated:

23



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

PS Form 3877
 Type of Mailing: CERTIFIED MAIL
 06/21/2019



Firm Mailing Book ID: 169665

Line	USPS Article Number	Name, Street, City, State, Zip	Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
1	9314 8699 0430 0060 5213 89	Macondo Fund IV, LLC P.O. Box 4216 Midland TX 79704	\$0.50	\$3.50	\$1.60	\$0.00	82762-0128
Totals:			\$0.50	\$3.50	\$1.60	\$0.00	
Grand Total:						\$5.60	

List Number of Pieces Listed by Sender Total Number of Pieces Received at Post Office Postmaster: Name of receiving employee Dated:

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Transaction Report Details - CertifiedPro.net

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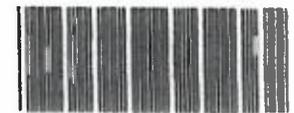
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9314869904300060510048	2019-06-21 10:13 AM	Oxy Y-1 Company		5 Greenway Plaza	Houston	TX	77046	Delivered	Return Receipt - Electronic, Certified Mail	06-25-2019
9314869904300060510031	2019-06-21 10:13 AM	Thomas D. Deason		3407 Essex Ave	Lubbock	TX	79407	Delivered	Return Receipt - Electronic, Certified Mail	06-26-2019
9314869904300060510024	2019-06-21 10:13 AM	Barbara Carol Deason		2233 Rock Bridge Ct	Yukon	OK	73099	Delivered	Return Receipt - Electronic, Certified Mail	06-25-2019
9314869904300060510017	2019-06-21 10:13 AM	SAP, LLC		4901 Whitney Lane	Roswell	NM	88203	Delivered	Return Receipt - Electronic, Certified Mail	06-29-2019
9314869904300060510000	2019-06-21 10:13 AM	Ronald H. Mayer, Trustee of	Ronald and Martha Mayer	PO Box 2391	Roswell	NM	88202	Delivered	Return Receipt - Electronic, Certified Mail	07-03-2019
9314869904300060509998	2019-06-21 10:13 AM	Richard C. Deason		1301 N Havenhurst #217	West Hollywood	CA	90046	Delivered	Return Receipt - Electronic, Certified Mail	06-24-2019
9314869904300060509981	2019-06-21 10:13 AM	MLE, LLC		PO Box 1683	Santa Fe	NM	87504	Delivered	Return Receipt - Electronic, Certified Mail	06-24-2019
9314869904300060509974	2019-06-21 10:13 AM	Lisa M. Enfield, Trustee of	Lisa M. Enfield Trust	405 Camino Manzano	Santa Fe	NM	87505	Delivered	Return Receipt - Electronic, Certified Mail	06-24-2019
9314869904300060509967	2019-06-21 10:13 AM	Charmar, LLC	c/o Vilki H Smith	4815 Vista Del Oro Ct NE	Albuquerque	NM	87109	Delivered	Return Receipt - Electronic, Certified Mail	06-22-2019
9314869904300060509950	2019-06-21 10:13 AM	DMA, Inc		9 Ambleside Drive	Bolton	FL	33756	Mailed	Return Receipt - Electronic, Certified Mail	
9314869904300060509943	2019-06-21 10:13 AM	The Estate of Jerune Allen	John A Budagher Pers Rep	3500 Comanche Rd NE Bldg B	Albuquerque	NM	87107	Delivered	Return Receipt - Electronic, Certified Mail	06-24-2019
9314869904300060509936	2019-06-21 10:13 AM	Rubie Crosby Bell Family LLC	c/o Frank Robert Janusa	PO Box 24591	New Orleans	LA	70184	Delivered	Return Receipt - Electronic, Certified Mail	06-27-2019
9314869904300060509929	2019-06-21 10:13 AM	Bryan Bell Family LLC	c/o Frank Robert Janusa	PO Box 24591	New Orleans	LA	70184	Delivered	Return Receipt - Electronic, Certified Mail	06-27-2019
9314869904300060509912	2019-06-21 10:13 AM	EOG Resources, Inc.		P.O. Box 4362	Houston	TX	77210	Delivered	Return Receipt - Electronic, Certified Mail	06-28-2019
9314869904300060509905	2019-06-21 10:13 AM	Mountain Lion Oil & Gas LLC		7941 Katy freeway #117	Houston	TX	77024	Delivered	Return Receipt - Electronic, Certified Mail	06-24-2019
9314869904300060509899	2019-06-21 10:13 AM	Chevron U.S.A.		6301 Deauville Blvd	Midland	TX	79706	Delivered	Return Receipt - Electronic, Certified Mail	05-24-2019
9314869904300060509882	2019-06-21 10:13 AM	Legacy Reserves Operating LP		PO Box 10848	Midland	TX	79702	Delivered	Return Receipt - Electronic, Certified Mail	05-26-2019
9314869904300060509875	2019-06-21 10:13 AM	Jerune Allen		245 Nicklaus Drive SE	Rio Rancho	NM	87124	Delivered	Return Receipt - Electronic, Certified Mail	07-05-2019
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9314869904300060509851	2019-06-21 10:13 AM	Engfield-Coffield Family Revocable Trust		PO Box 8028	Santa Fe	NM	87504	Forwarded	Return Receipt - Electronic, Certified Mail	
9314869904300060509844	2019-06-21 10:13 AM	Robert N. Enfield, Trustee Robert N. Enfield Trust	c/o Wells Fargo Bank	PO Box 41779	Austin	TX	78704	Delivered	Return Receipt - Electronic, Certified Mail	06-24-2019
9314869904300060509837	2019-06-21 10:13 AM	Caleste C Grynberg		5000 S Quebec St., Ste 500	Denver	CO	80237	Delivered	Return Receipt - Electronic, Certified Mail	07-05-2019
9314869904300060509820	2019-06-21 10:13 AM	Irwin E Vinnik & Reva Sandra Vinnik		5062 E Princeton Ave	Englewood	CO	80110	Delivered	Return Receipt - Electronic, Certified Mail	07-01-2019

Hayduke

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

PS Form 3877

Type of Mailing: CERTIFIED MAIL
07/08/2019



Firm Mailing Book ID: 170393

Line	USPS Article Number	Name, Street, City, State, Zip	Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
1	9314 8699 0430 0060 9434 26	Jack J. Greenburg 1050 17th Street, Suite 1950 Denver CO 80265	\$1.30	\$3.50	\$1.60	\$0.00	82762-0183 Hayduke
Totals:			\$1.30	\$3.50	\$1.60	\$0.00	
Grand Total:						\$6.40	

List Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster: Name of receiving employee	Dated:
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1

Transaction Details

Recipient:

TECUMECUM
1015 20th Street, Suite 100
Durham, NC 27605

Sender:

TECUMECUM
1015 20th Street
Durham, NC 27605
Phone: 919
Albuquerque, NM 87112

Transaction created by: zinacrum

User ID: 20112

Firm Mailing Book ID: 179393

Batch ID:

USPS Article Number: 82762-0183 Hayduke

Return Receipt Article Number: Not Applicable

Service Options:

Return Receipt - Electronic
Certified Mail

Mail Service:

Certified

Reference #:

82762-0183 Hayduke

Postage:

\$1.30

Fees:

\$5.10

Status:

Mailed

Custom Field 1:

82762-0183 Hayduke

Custom Field 2:

82762-0183 Hayduke

Custom Field 3:

82762-0183 Hayduke

Transaction History

Event Description	Event Date	Details
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USPS - Certified Mail	07-08-2019 03:10 PM	[USPS] - PRESHIPMENT INFO SENT USPS AWAITS ITEM at TECUMECUM CA
USPS - Certified Mail	07-08-2019 05:01 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at ALBUQUERQUE, NM
USPS - Certified Mail	07-08-2019 09:16 PM	[USPS] - DEPART USPS FACILITY at ALBUQUERQUE, NM

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Tracking Number: 9314869904300060943426

Remove X

Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.

In-Transit

July 9, 2019
In Transit to Next Facility

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- Text & Email Updates** ∨
- Return Receipt Electronic** ∨
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- Product Information** ∨

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CARLSBAD
CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

Ad No.
0001289788

MODRALL SPERLING ROEHL HARRIS & SISK
500 4TH ST NW STE 1000

ALBUQUERQUE NM 87102

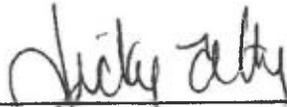
I, a legal clerk of the **Carlsbad Current-Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

06/27/19



Legal Clerk

Subscribed and sworn before me this
27th of June 2019.



State of WI, County of Brown
NOTARY PUBLIC

9-19-21

My Commission Expires

CASE NO. 20590: Notice to all affected parties, as well as the heirs and devisees of, IRWIN E VINNIK AND REVEN SANDA VINNIK; CELESTEC GRYNBERG; ROBERT N. ENFIELD TRUSTEE ROBERT N. ENFIELD TRUST; ENFIELD-COFFIELD FAMILY REVOCABLE TRUST; HOWARD A. RUBIN, INC.; JERUNE ALLEN; LEGACY RESERVES OPERATING LP; CHEVRON U.S.A.; MOUNTAIN LION OIL & GAS LLC; EOG RESOURCES INC.; BRYAN BELL FAMILY LLC; RUBIE CROSBY BELL FAMILY LLC; THE ESTATE OF JERUNE ALLEN; DMA, INC; CHARMAR, LLC; LISAM. ENFIELD, TRUSTEEOF LISA M. ENFIELD TRUST; MLE, LLC; RICHARD C. DEASON; RONALD H. MAYER, TRUSTEEOF RONALD MARTHA MAYER; SAP, LLC; BARBARA CAROL DEASON; THOMAS D. DEASON OXY Y-1 COMPANY; and MACONDO FUND IV, LLC, of Cimarex Energy Co.'s application for approval of compulsory pooling, Eddy County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at **8:15 a.m. on July 11, 2019**. Applicant seeks an order from the Division: (1) to the extent necessary, approving the creation of a 640-acre, more or less, Wolfcamp horizontal spacing unit; and, (2) pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the W/2 of Section 34, Township 25 South, Range 26 East, and W/2 of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Hayduke 34-3 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, and 7H** wells, to be horizontally drilled. The producing area for these wells will be orthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Cimarex as operator of the wells, and a 200% charge for risk involved in drilling said wells. Said area is located approximately 8.5 miles southeast of Whites City, New Mexico. *June 27, 2019*



CARLSBAD
CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

Ad No.
0001289789

MODRALL SPERLING ROEHL HARRIS & SISK
500 4TH ST NW STE 1000

ALBUQUERQUE NM 87102

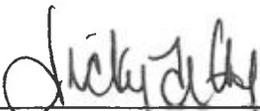
I, a legal clerk of the **Carlsbad Current-Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

06/27/19

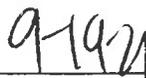


Legal Clerk

Subscribed and sworn before me this
27th of June 2019.



State of WI, County of Brown
NOTARY PUBLIC



My Commission Expires

CASE NO. 20591: Notice to all affected parties, as well as the heirs and devisees of, IRWIN E VINNIK AND REVEN SANDA VINNIK; CELESTEC GRYNBERG; ROBERT N. ENFIELD TRUSTEE ROBERT N. ENFIELD TRUST; ENFIELD-COFFIELD FAMILY REVOCABLE TRUST; HOWARD A. RUBIN, INC.; JERUNE ALLEN; LEGACY RESERVES OPERATING LP; CHEVRON U.S.A.; MOUNTAIN LION OIL & GAS LLC; EOG RESOURCES INC.; BRYAN BELL FAMILY LLC; RUBIE CROSBY BELL FAMILY LLC; THE ESTATE OF JERUNE ALLEN; DMA, INC; CHARMAR, LLC; LISAM. ENFIELD, TRUSTEE OF LISA M. ENFIELD TRUST; MLE, LLC; RICHARD C. DEASON; RONALD H. MAYER, TRUSTEE OF RONALD MARTHA MAYER; SAP, LLC; BARBARA CAROL DEASON; THOMAS D. DEASON OXY Y-1 COMPANY; and MACONDO FUND IV, LLC, of Cimarex Energy Co.'s application for approval of compulsory pooling, Eddy County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on July 11, 2019. Applicant seeks an order from the Division: (1) to the extent necessary, approving the creation of a 640-acre, more or less, Bone Spring horizontal spacing unit; and, (2) pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the W/2 of Section 34, Township 25 South, Range 26 East, and W/2 of Section 3, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Hayduke 34-3 Federal Com 8H, 9H, 10H, and 11H wells, to be horizontally drilled. The producing area for these wells will be orthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Cimarex as operator of the wells, and a 200% charge for risk involved in drilling said wells. Said area is located approximately 8.5 miles southeast of Whites City, New Mexico.

June 27, 2019

