

COG OPERATING LLC
Tomahawk Fed Unit 701H-705H
T24S-28E
Eddy County, New Mexico



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

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 21425

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COMPULSORY POOLING APPLICATION CHECKLIST

ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS

Case: 21425	APPLICANT'S RESPONSE					
Date	September 10, 2020					
Applicant	COG Operating LLC					
Designated Operator & OGRID (affiliation if applicable)	OGRID # 229137					
Applicant's Counsel:	Ocean Munds-Dry, Michael Rodriguez					
Case Title:	Application of COG Operating LLC for Compulsory Pooling, Eddy County, New Mexico					
Entries of Appearance/Intervenors:						
Well Family	Tomahawk					
Formation/Pool						
Formation Name(s) or Vertical Extent:	Wolfcamp					
Primary Product (Oil or Gas):	Oil					
Pooling this vertical extent:	Wolfcamp					
Pool Name and Pool Code:	Purple Sage Wolfcamp Gas Pool (98220)					
Well Location Setback Rules:	Statewide					
Spacing Unit Size:	~1280 acres					
Spacing Unit						
Type (Horizontal/Vertical)	Horizontal					
Size (Acres)	~1280 acres					
Building Blocks:	Quarter-quarter					
Orientation:	Standup					
Description: TRS/County	All of Sections 29 & 32, Township 24 South, Range 28 East, NMPM, Eddy County, New Mexico					
Standard Horizontal Well Spacing Unit (Y/N), If No, describe	Yes					
Other Situations						
Depth Severance: Y/N. If yes, description	No					
Proximity Tracts: If yes, description	The completed interval for the proposed Tomahawk Federal Unit 703H will be within 330' of the line separating the W/2 and E/2 of Sections 29 and 32.					
Proximity Defining Well: if yes, description	Tomahawk Federal Unit 703H (API # Pending)					
Applicant's Ownership in Each Tract	Attachment B					
Well(s)						
Name (API [if assigned]); Surface hole location; Bottom hole location; Completion target (TVD); Orientation, Completion status (standard or non-standard).	Attachment A					
Well #1	Tomahawk Federal Unit #701H (API # Pending)					
	SHL: 412 FSL, 1106 FEL, Unit P, 20-24S-28E					
	BHL: 200 FSL, 670 FEL, Unit P, 32-24S-28E					
	Completion Target: Wolfcamp formation (Approx. 9448 feet TVD)					

	Completion status: Standard
Well #2	Tomahawk Federal Unit #702H (API # Pending)
	SHL: 412 FSL, 1136 FEL, Unit P, 20-24S-28E
	BHL: 200 FSL, 1666 FEL, Unit O, 32-24S-28E
	Completion Target: Wolfcamp formation (Approx. 9423 feet TVD)
	Completion status: Standard
Well #3	Tomahawk Federal Unit #703H (API # Pending)
	SHL: 500 FSL, 1648 FWL or Unit N, 20-24S-28E
	BHL: 200 FSL, 2614 FWL or Unit N, 32-24S-28E
	Completion Target: Wolfcamp formation (Approx. 9398 feet TVD)
	Completion status: Standard
Well #4	Tomahawk Federal Unit #704H (API # Pending)
	SHL: 500 FSL, 1618 FWL or Unit N, 20-24S-28E
	BHL: 200 FSL, 1618 FWL or Unit N, 32-24S-28E
	Completion Target: Wolfcamp formation (Approx. 9381 feet TVD)
<u></u>	Completion status: Standard
Well #5	Tomahawk Federal Unit #705H (API # Pending)
	SHL: 500 FSL, 1588 FWL or Unit N, 20-24S-28E
	BHL: 200 FSL, 622 FWL or Unit M, 32-24S-28E
	Completion Target: Wolfcamp formation (Approx. 9362 feet TVD)
	Completion status: Standard
Horizontal Well First and Last Take	Exhibit 1, Attachment A
Points	
Completion Target (Formation,	Exhibit 2, Attachment G
TVD and MD)	
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8,000
Production Supervision/Month \$	\$800
Justification for Supervision Costs	Exhibit 1, Attachment C
Requested Risk Charge	200%
Notice of Hearing	
Proposed Notice of Hearing	Exhibit 3
Proof of Mailed Notice of Hearing	
(20 days before hearing)	Exhibit 3
Proof of Published Notice of	
Hearing (10 days before hearing)	Exhibit 3
Ownership Determination	
Land Ownership Schematic of the	
Spacing Unit	Attachment B
Tract List (including lease numbers	
and owners)	Attachment B
Pooled Parties (including ownership	
type)	Attachment B
Unlocatable Parties to be Pooled	N/A
Ownership Depth Severance	
(including percentage above &	
below)	N/A
Joinder	
Sample Copy of Proposal Letter	Attachment C
List of Interest Owners (ie Exhibit A	
of JOA)	Attachment B
Chronology of Contact with Non-	
Joined Working Interests	Exhibit 1

Overhead Rates In Proposal Letter	N/A
Cost Estimate to Drill and Complete	Attachment C
Cost Estimate to Equip Well	Attachment C
Cost Estimate for Production	
Facilities	Attachment C
Geology	
Summary (including special	
considerations)	Exhibit 2
Spacing Unit Schematic	Attachment D
Gunbarrel/Lateral Trajectory	
Schematic	N/A
Well Orientation (with rationale)	Exhibit 2
Target Formation	Wolfcamp
HSU Cross Section	Attachments F and G
Depth Severance Discussion	N/A
Forms, Figures and Tables	
C-102	Attachment A
Tracts	Attachment B
Summary of Interests, Unit	
Recapitulation (Tracts)	Attachment B
General Location Map (including	
basin)	Attachment B
Well Bore Location Map	Attachment D
Structure Contour Map - Subsea	
Depth	Attachment E
Cross Section Location Map	
(including wells)	Attachment F
Cross Section (including Landing	
Zone)	Attachment G
Additional Information	
CERTIFICATION: I hereby	
certify that the information	
provided in this checklist is	
complete and accurate.	
Printed Name (Attorney or Party	
Representative):	Michael Rodriguez
Signed Name (Attorney or Party	(m) ()
Representative):	11/1/
Date:	09/08/2020

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

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 21425

APPLICATION

COG Operating LLC ("Applicant") (OGRID No. 229137), through its undersigned attorneys, hereby files this application with the Oil Conservation Division pursuant to the provisions of NMSA 1978, § 70-2-17, for an order pooling all uncommitted interests in the Wolfcamp formation, Purple Sage Wolfcamp Gas Pool (98220), underlying a standard 1280-acre, more or less, horizontal spacing unit comprised of all of Sections 29 and 32, Township 24 South, Range 28 East. Eddy County, New Mexico. In support of its application, COG states:

- 1. Applicant is a working interest owner in the proposed horizontal spacing unit and has the right to drill thereon.
- 2. Applicant seeks to dedicate the above-referenced horizontal spacing unit to the following proposed wells:
 - Tomahawk Federal Unit #701H to be drilled from a surface hole location in SE/4SE/4 (Unit P) of Section 20 to a bottom hole location in the SE/4SE/4 (Unit P) of Section 32;
 - Tomahawk Federal Unit #702H to be drilled from a surface hole location in SE/4SE/4 (Unit P) of Section 20 to a bottom hole location in the SW/4SE/4 (Unit O) of Section 32;

- Tomahawk Federal Unit #703H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 32;
- Tomahawk Federal Unit #704H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 32;
- Tomahawk Federal Unit #705H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 32.

The completed interval for the proposed **Tomahawk Federal Unit #703H** well will be within 330' of the line separating the W/2 and the E/2 of Sections 29 and 32 to allow inclusion of this acreage into a standard 1280-acre, more or less, horizontal well spacing unit.

- 3. The proposed wells will have productive laterals located in all of Sections 29 and 32.
- 4. The first and last take points of the proposed productive laterals will comply with statewide offset requirements allowing the proposed wells to be dedicated to a standard horizontal spacing unit.
- 5. Applicant has sought and been unable to obtain voluntary agreement for the development of these lands from all the interest owners in the subject spacing unit.
- 6. The pooling of interests will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.
- 7. In order to permit Applicant to obtain it's just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in this horizontal spacing unit should be

pooled and Applicant should be designated the operator of the proposed horizontal well spacing unit.

WHEREFORE, Applicant requests that this application be set for hearing before an Examiner of the Oil Conservation Division on September 10, 2020, and, after notice and hearing as required by law, the Division enter an order:

- A. Pooling all uncommitted interests in the horizontal spacing unit;
- B. Approving the initial wells in the horizontal spacing unit;
- C. Designating Applicant as the operator of this spacing unit and the horizontal wells to be drilled thereon;
- D. Authorizing Applicant to recover its costs of drilling, equipping, and completing the wells:
- E. Approving the actual operating charges and costs of supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- F. Imposing a 200% charge for the risk assumed by Applicant in drilling and completing the wells against any working interest owner who does not voluntarily participate in the drilling of the wells.

Respectfully submitted,

COG OPERATING LLC

/s/ Michael Rodriguez

Ocean Munds-Dry
Michael Rodriguez
1048 Paseo de Peralta
Santa Fe, New Mexico 87501
(505) 780-8000
omundsdry@concho.com
mrodriguez@concho.com

ATTORNEYS FOR COG OPERATING LLC

Case No.

: Application of COG Operating LLC for Compulsory Pooling, Eddy
County, New Mexico. Applicant in the above-styled cause seeks an order pooling
all uncommitted interests in the Wolfcamp formation, Purple Sage Wolfcamp Gas
Pool (98220), underlying a standard 1280-acre, more or less, horizontal spacing
unit comprised of all of Sections 29 and 32, Township 24 South, Range 28 East,
Eddy County, New Mexico. Applicant seeks to dedicate the above-referenced
horizontal spacing unit to the to the following proposed wells:

- Tomahawk Federal Unit #701H to be drilled from a surface hole location in SE/4SE/4 (Unit P) of Section 20 to a bottom hole location in the SE/4SE/4 (Unit P) of Section 32;
- Tomahawk Federal Unit #702H to be drilled from a surface hole location in SE/4SE/4 (Unit P) of Section 20 to a bottom hole location in the SW/4SE/4 (Unit O) of Section 32;
- Tomahawk Federal Unit #703H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 32;
- Tomahawk Federal Unit #704H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 32;
- Tomahawk Federal Unit #705H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 32.

The completed interval for the proposed Tomahawk Federal Unit #703H well will be within 330' of the line separating the W/2 and the E/2 of Sections 29 and 32 to allow inclusion of this acreage into a standard 1280-acre, more or less, horizontal well spacing unit. Also, to be considered will be the cost of drilling and completing the wells, the allocation of the cost thereof, the actual operating costs and charges for supervision, the designation of applicant as operator, and the imposition of 200% charge for risk involved in drilling and completing each well. Said area is located approximately 3 miles south of Malaga, New Mexico.

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

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

CASE NO. 21425

LANDMAN AFFIDAVIT

Jeff Stout, of lawful age and being first duly sworn, declares as follows:

1. My name is Jeff Stout, and I am a Landman with COG Operating LLC ("COG").

1. I have not testified before the New Mexico Oil Conservation Division ("Division")

as an expert witness in petroleum land matters.

2. I graduated from the University of Kansas with a Bachelor of Business

Administration in May 1996. I have been working in the oil and gas industry in the Land discipline

since October 2008. July, 2018 I began working for COG as a Landman with concentrations in

Loving and Winkler Counties in Texas. Since June 2020, I have been working as a COG Landman

in Eddy and Lea Counties, New Mexico. I am a member of the following professional

organizations: Permian Basin Landmen's Association (PBLA) and American Association of

Professional Landmen (AAPL).

3. I am familiar with the application filed by COG in this case and familiar with the

status of the lands in the subject area.

4. None of the parties proposed to be pooled in this case have indicated opposition to

this proceeding, therefore I do not expect any opposition at hearing.

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Case No. 21425 Exhibit No. 1 Submitted by:

COG OPERATING LLC

Hearing Date: September 10, 2020

- 5. COG seeks an order pooling all uncommitted interests in the Wolfcamp formation, Purple Sage Wolfcamp Gas Pool (98220), underlying a standard 1280-acre, more or less, horizontal spacing unit comprised of all of Sections 29 and 32, Township 24 South, Range 28 East, Eddy County, New Mexico.
- 6. COG proposes to dedicate the above-referenced horizontal spacing unit to the following proposed initial wells, which it proposes to drill simultaneously:
 - Tomahawk Federal Unit #701H to be drilled from a surface hole location in SE/4SE/4
 (Unit P) of Section 20 to a bottom hole location in the SE/4SE/4 (Unit P) of Section
 32;
 - Tomahawk Federal Unit #702H to be drilled from a surface hole location in SE/4SE/4
 (Unit P) of Section 20 to a bottom hole location in the SW/4SE/4 (Unit O) of Section 32;
 - Tomahawk Federal Unit #703H to be drilled from a surface hole location in SE/4SW/4
 (Unit N) of Section 20 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 32;
 - Tomahawk Federal Unit #704H to be drilled from a surface hole location in SE/4SW/4
 (Unit N) of Section 20 to a bottom hole location in the SE/4SW/4 (Unit N) of Section
 32;
 - Tomahawk Federal Unit #705H to be drilled from a surface hole location in SE/4SW/4
 (Unit N) of Section 20 to a bottom hole location in the SW/4SW/4 (Unit M) of Section
 32.

- 7. The completed interval for the proposed Tomahawk Federal Unit #703H well will be within 330' of the line separating the W/2 and the E/2 of Sections 29 and 32 to allow inclusion of this acreage into a standard 1280-acre, more or less, horizontal well spacing unit.
 - 8. Attachment A contains draft Form C-102s for the proposed wells.
- 9. No ownership depth severances exist within this proposed spacing unit, and there are no unleased mineral interests in the subject acreage.
- 10. Attachment B depicts the tracts of land comprising the proposed spacing unit in this case. The proposed spacing unit includes fee, State of New Mexico, and federal lands. It also identifies the interest ownership and interest type by tract. COG seeks to pool all uncommitted interests identified in this attachment.
- 11. All interest owners that COG seeks to pool are locatable. COG has conducted a diligent search of all public records in Eddy County, including phone directories and computer databases.
- 12. Attachment C contains well proposal letters and AFEs for each well provided to the working interest owners COG is seeking to pool. The costs reflected on each AFE are consistent with what other operators have incurred for drilling similar horizontal wells in the area.
- 13. In my opinion, COG has made a diligent effort to reach agreement with the nonjoined parties as indicated by the following <u>Chronology of Contact</u>:
 - All working interest parties have committed to the Tomahawk WC Unit (Federal Exploratory Unit) and COG's proposed form of JOA. Subsequently, all working interest parties were provided well proposals and respective AFE's.
 - 3Q & 4Q 2019 All Overriding Royalty Interest owners were sent Ratifications
 of the Tomahawk WC Unit via USPS certified mail.

- 4/20/2020 Those Overriding Royalty Interest owners that had not responded to first mailing attempt of the Unit Ratification were resent Ratifications of the Tomahawk WC Unit via USPS certified mail.
- 14. In my opinion, COG has made a good faith effort to obtain voluntary joinder of the parties it is seeking to pool. If COG reaches an agreement with any of the parties it is seeking to pool before the Division enters an order, I will inform the Division that COG is no longer seeking to pool those parties.
- 15. COG has estimated the overhead and administrative costs for drilling and producing the proposed wells at \$8,000 per month while drilling and \$800 per month while producing. These costs are consistent with what other operators are charging in this area for similar wells.
- 16. I have provided COG's legal counsel a list of names and addresses of the owners COG seeks to pool and instructed that they be notified of this hearing. Additionally, notice of this hearing was timely published in a newspaper of general circulation in Eddy County, New Mexico.
- 17. Exhibit 1 and Attachments A through C were either prepared by me or compiled under my direction and supervision.

THIS CONCLUDES AFFIANT'S STATEMENT.

STATE OF TEXAS

COUNTY OF MIDLAND

SUBSCRIBED and SWORN to before me this 3dd day of September, by

Mickie Allen

My Commission Expires:

2-26-23

DISTRICT I DISTRICT II 511 S. FIRST ST., ARTESIA, NM 50210 Phone: (075) 748-1883 Fax: (575) 748-8729

State of New Mexico 1885 N. FRENCE DR. HOURS, No. 88840 Energy, Minerals & Natural Resources Department CONSERVATION DIVISION

> 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Pax: (505) 534-6170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FR. NM 87505 Phone: (506) 476-3460 Fax: (605) 478-3482

☐ AMENDED REPORT

	WELL LOCATION AND ACREAGE DEDICATION PLAT	
API Number	Pool Code Pool Name	
Property Code	Property Name	Well Number
	TOMAHAWK FEDERAL UNIT	701H
OGRID No.	Operator Name	Elevation
1	COG OPERATING, LLC	3042.4'

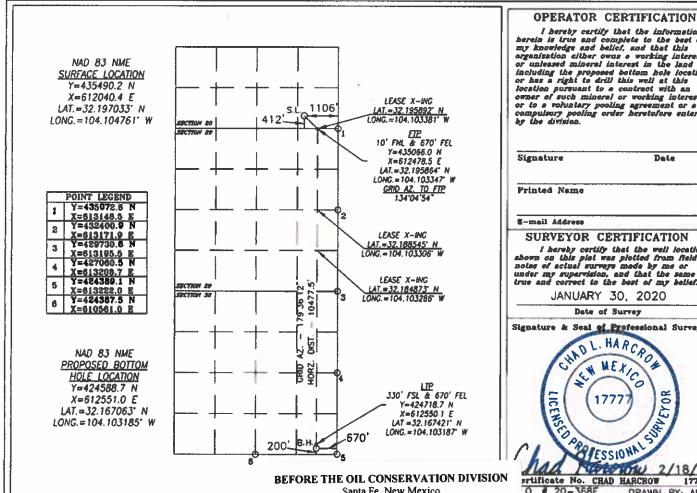
Surface Location

ĺ	UL or lot No.	Section	Township	Range	Lot Idn	Peet from the	North/South line	Feet from the	East/West line	County
ı	Р	20	24-S	28-E		412	SOUTH	1106	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Fest from the	East/West line	County
Р	32	24-5	28-E		200	SOUTH	670	EAST	EDDY
Dedicated Acres Joint or Infill Consolidation		nsolidation (ode Or	ier No.	·				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organisation either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Date

SURVEYOR CERTIFICATION

i hereby certify that the well location shown on this plot was plotted from field notes of ectual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JANUARY 30, 2020

Date of Survey

Signature & Seal of Professional Surveyor

CHADL. HARCRO WEXICO PIESSIONAL

ortificate No. CHAD HARCROW
O. 20-368E DRAWN 17777 DRAWN BY: AH

Santa Fe, New Mexico Case No. 21425 Attachment A Submitted by:

COG OPERATING LLC Hearing Date: September 10, 2020

State of New Mexico DISTRICT I

1625 N. FRENCE DR., HOSBS, No. 84340
Energy, Minerals & Natural Resources Department

Frence (878) 5825-6161 Fam: (878) 5835-1723 OIL CONSERVATION DIVISION

> 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

DISTRICT III 1000 RED BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 DISTRICT IV 1220 S. ST. FRANCIS DR. SANTA FR. NN 87805 Phone: (805) 478-3460 FAX: (506) 478-3462

D AMENDED REPORT

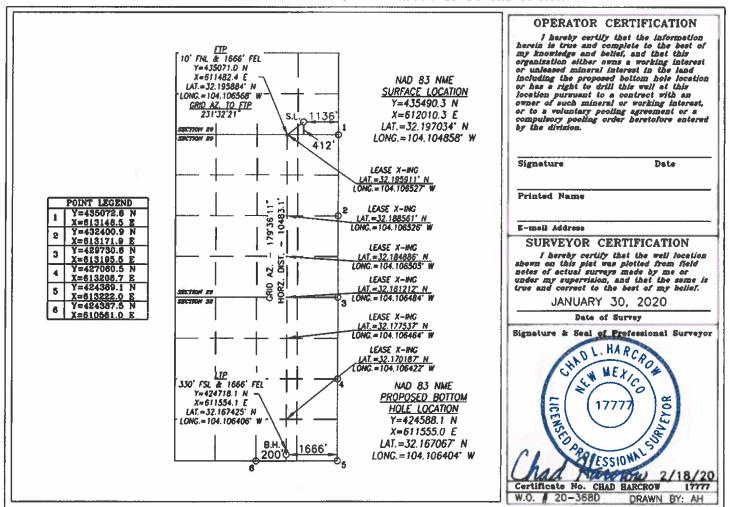
	WELL LOCATION AND	ACREAGE DEDICATION PL	AT					
API Number	Pool Code	Pool Code Pool						
Property Code	Prop	erty Name	Well Number					
	TOMAHAWK	FEDERAL UNIT	702 H					
OGRID No.		ator Name	Elevation					
	COG OPE	RATING, LLC	3042.1					

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Р	20	24-5	28-E		412	SOUTH	1136	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	Bast/West line	County
0	32	24-S	28-E		200	SOUTH	1666	EAST	EDDY
Dedicated Acres	Joint o	r Infill Co	nsolidation (Code Ore	der No.				•



DISTRICT II 611 S. FIRST 51., ARTESIA, NM 86210 Phone: (876) 748-1883 Fax: (876) 748-8720

State of New Mexico DISTRICT 1
State of New Mexico
1825 N. 7828CH SR. HOBBS. No. 58248 Energy, Minerals & Natural Resources Department
Phone: (575) 300-0151 7ex (573) 300-0750 OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

DISTRICT III 1000 E10 BRAZOS RD., AZTEC, NM 87410 Phone: (606) 334-8178 Fax: (606) 334-8170 DISTRICT IV 1230 S. ST. FRANCIS DR., SANTA FR. NM 57805 Phome: (506) 478-3469 Fax: (506) 478-3482

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

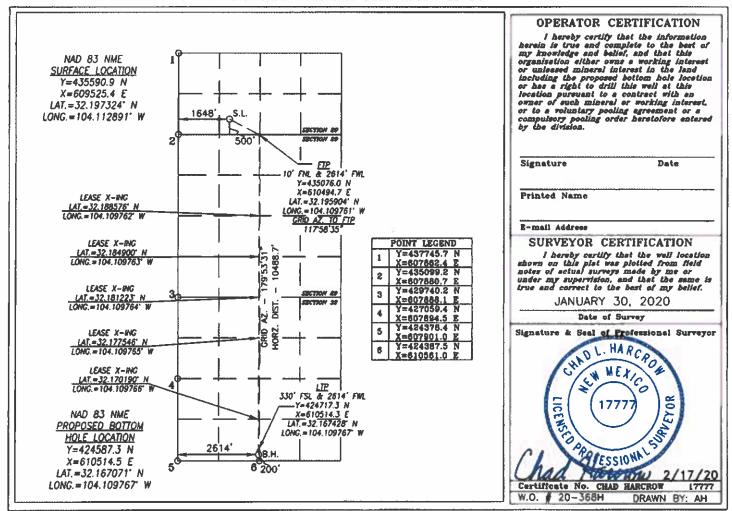
API Number	Pool Code Pool N	ame
Property Code	Property Name TOMAHAWK FEDERAL UNIT	Well Number 703H
OGRID No.	Operator Name COG OPERATING, LLC	Blevation 3047.3'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	20	24-S	28-E		500	SOUTH	1648	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Fest from the	North/South line	Feet from the	East/West line	County
N I	32	24-S	28-E		200	SOUTH	2614	WEST	EDDY
Dedicated Acre	s Joint o	r Infill Co	nsolidation (ode Or	ier No.		· - ·-		



DISTRICT I DISTRICT II 611 S. FIRST ST., ARTESIA, NM 86210 Phone: (575) 748-1283 Pax: (576) 748-8729

State of New Mexico PROMET (878) 385-3181 PALE (878) 385-5788 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

DISTRICT IV 1220 E. ST. FRANCIS DR., SANTA PR. NM 87605 Pagner (805) 476-3488 Pax: (505) 476-3482

DISTRICT III 1000 REO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-8178 Fax: (505) 334-8170

I AMENDED REPORT

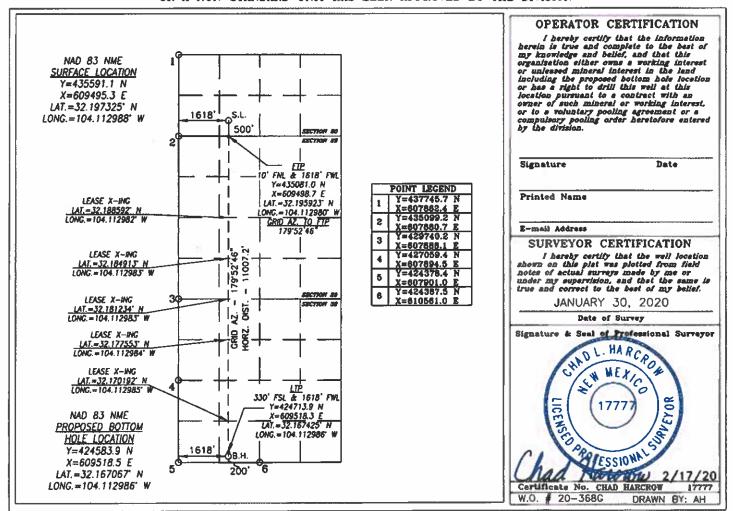
	WELL LOCATION AND ACREAGE DEDICATION PLAT	
API Number	Pool Code Pool Name	
December Code	Property Name	Well Number
Property Code	TOMAHAWK FEDERAL UNIT	704H
OGRID No.	Operator Name COG OPERATING, LLC	Elevation 3047.3'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	20	24-5	28-E		500	SOUTH	1618	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Peet from the	East/West line	County
N	32	24-5	28-E		200	SOUTH	1618	WEST	EDDY
Dedicated Ac	es Joint o	r Infill Co	nsolidation (Code Ore	der No.				



DISTRICT 1

State of New Mexico 1825 N. FRENCE DR., BOSES, NO. SEZ40 Energy, Minerals & Natural Resources Department

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (576) 748-9720

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (506) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1230 S. ST. FRANCE DR. SANTA FR. NM 67505 Phone: (505) 478-3460 Fax: (505) 476-2462

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

O AMENDED REPORT

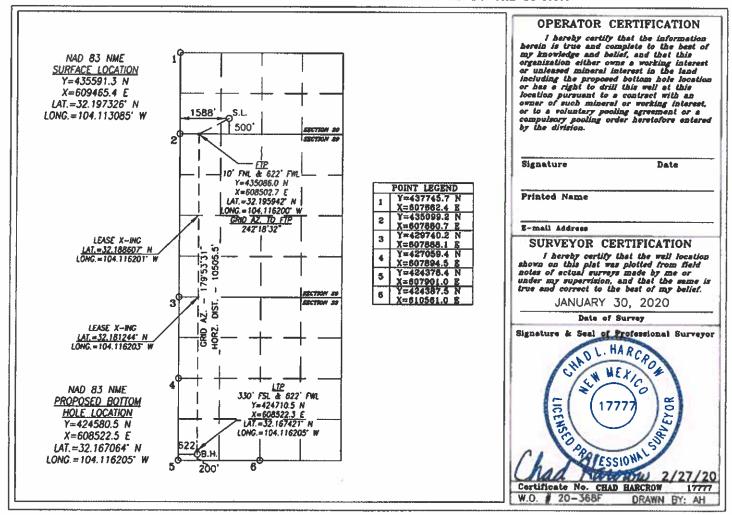
	WELL LOCATION AND ACREAGE DEDICATION PLAT	
API Number	Pool Code Pool Nam	•
Property Code	Property Name	Well Number
	TOMAHAWK FEDERAL UNIT	705H
OGRID No.	COG OPERATING, LLC	Elevation 3047.9'

Surface Location

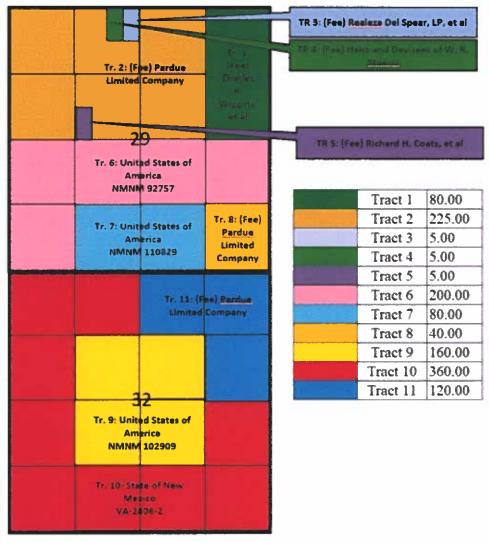
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	20	24 - S	28-E		500	SOUTH	1588	WEST	EDDY

Bottom Hole Location If Different From Surface

ĺ	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	М	32	24-S	28-E		200	SOUTH	622	WEST	EDDY
	Dedicated Acres	Joint o	r Infili Co	nsolidation	Code Or	der No.				
١		1								



TOMAHAWK WC UNIT - SECTIONS 29 & 32, T24S-R28E, EDDY COUNTY, NEW MEXICO



Tomahawk WC Unit 701H, 702H, 703H, 704H, 705H

All of Sections 29 & 32 of T24S-R28E

			All Se	rtions 29 &	32 - Tract L	easehold O	wnership				
	Tract 1	Tract 2	Tract 3	Tract 4	Tract 5	Tract 6	Tract 7	Tract 8	Tract 9	Tract 10	Tract 11
COG	98.0183%	98.0183%	98.0183%	98.0183%	98.0183%	98.0183%	98.0183%	98.0183%	98.0183%	98.0183%	98.0183%
Concho	0.2376%	0.2376%	0.2376%	0.2376%	0.2376%	0.2376%	0.2376%	0.2376%	0.2376%	0.2376%	0.2376%
Featherstone	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%
Big Three	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%	0.1007%
Parrot Head	0.1343%	0.1343%	0.1343%	0.1343%	0.1343%	0.1343%	0.1343%	0.1343%	0.1343%	0.1343%	0.1343%
McCombs Energy	0.8337%	0.8337%	0.8337%	0.8337%	0.8337%	0.8337%	0.8337%	0.8337%	0.8337%	0.8337%	0.8337%
Prospector	0.4028%	0.4028%	0.4028%	0.4028%	0.4028%	0.4028%	0.4028%	0.4028%	0.4028%	0.4028%	0.4028%
Brett Barton	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%
Heldi Barton	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%	0.0516%
Roy Barton Jr	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%
Norma Chanley	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%	0.0256%
Roy Barton III	0.0174%	0.0174%	0.0174%	0.0174%	0.0174%	0.0174%	0.0174%	0.0174%	0.0174%	0.0174%	0.0174%

OWNER	WORKING INTEREST
COG OPERATING LLC	98.018434%
CONCHO OIL & GAS LLC	0.237643%
FEATHERSTONE DEVELOPMENT CORP	0.100704%
BIG THREE ENERGY GROUP	0.100704%
PARROT HEAD PROPERTIES LLC	0.134271%
MCCOMBS ENERGY GROUP	0.833653%
PROSPECTOR LLC	0.402813%
BRETT BARTON	0.051561%
HEIDI BARTON	0.051561%
ROY BARTON JR	0.025645%
NORMA CHANLEY	0.025645%
ROY BARTON III	0.017367%
	100.000000%

Phillip L. White	
La Vida Energy (Corporation
BIRCH ROYALTI	ES LLC
CEP MINERALS	uc
GOOD NEWS M	INERALS, LLC
MARRS & SMITI	1 LTD
NOBLE ROYALT	IES ACCESS FUND IV LP
NOBLE ROYALT	IES ACCESS FUND V LP
NOBLE ROYALT	IES ACCESS FUND VI LP

^{*}All Working Interest Parties Have Committed to the Tomahawk WC Unit Agreement and Operating Agreement



Well Name TOMAHAWK FEDERAL UNIT 701H
SML 20. T24S-R29E: 412* FSL & 1108* FEL
BHL 32. T24S-R29E: 200* FSL & 670* FEL
Formation WOLFCAMP A SANDS
Least 20. T24S-R29E
AFE Numbers DBW0200952DBW020052CM.DBW020052PE.DBW020052PS.DBW020052TB

Prospect #717058 State & County NEW MEXICO, EDDY Objective Drill & Complete Depth 20,100 TVD 9,448

Cost Description Langible Costs	Code	PreSpud (PS)	Pre-Set Casing(PC)	Drilling (DR)	Completions (C)	k Bitty Constrictn(TB)	Pmpq Equip (PEQ)	Revision	Tota
Fangible Coets PEQ-Flowback Crews & Equip	392					ELECTRIC PROPERTY AND ADDRESS OF THE PARTY AND	\$108,000.00	\$0.00	\$108,000.00
D-Surface Casing	401		-	\$21,000.00			\$100,000.00	\$0.00	\$108,000.00
D-Intermed Cag	402			\$166,000.00				\$0.00	\$166,000.00
D-Production Casing/Liner	403			\$412,000.00				\$0.00	\$412,000.00
)-Wellhead Equip	405			\$75,000.00				\$0.00	\$75,000.00
-Tubing	504				\$52,000.00			\$0.00	\$52,000.00
-Welhead Equip B-Tanks	505 510				\$28,000.00	\$45,000.00		\$0.00 \$0.00	\$28,000.00 \$45,000.00
B-Flowines/Pipelines	511					\$20,000.00		\$0.00	\$20,000.00
B-Htr Tris/Sepris	512					\$145,000.00		\$0.00	\$145,000.00
B-Electrical System/Equipment	513					\$89,000.00		\$0.00	\$89,000.00
2-Pclus/Anchors/Hgrs	514				\$65,000.00			\$0.00	\$65,000.00
B-Couplings/Fittings/Vehres	515					\$151,000.00		\$0.00	\$151,000.00
FB-Pumps-Surface FB-Instrumentation/SCADA/POC	521 522					\$20,000.00		\$0.00	\$20,000.00
B-Miscelaneous	523					\$15,000.00 \$15,000.00		\$0.00	\$15,000.00 \$15,000.00
B-Meters/Lects	525					\$20,000.00		\$0.00	\$20,000.00
B-Flares/Combusters/Emission	526					\$24,000.00		\$0.00	\$24,000.00
Gas Lift/Compression	527				\$25,000.00			\$0.00	\$25,000.00
PEQ-Welfread Equipment	531						\$38,300.00	\$0.00	\$38,300.00
otal Tangible Costs	-	\$0.00	\$0.00	\$674,000.00	\$179,000.00	\$544,000.00	\$146,300.00	\$0.00	\$1,534,300.00
tangible Costs	Lawrence of the	Daniel Company					N 61 In Control of the Control	- A	W. 1973
S-Title/Permits	201	\$20,000 00						\$0.00	\$20,000.00
-Insurance	202	\$7,000.00						\$0.00	\$7,000.00
S-Damages/ROW	203	\$20.000.00						\$0.00	\$20,000.00
S-Survey/Stake Lots	204	\$2,500.00		\$140 ppp cc	——			\$0.00	\$2,500.00
H_ctn/Pits/Roads HDniling Overhead	205 206			\$140,000.00 \$7,200.00				\$0.00 \$0.00	\$140,000.00
Daywork Contract	200			\$518,000.00	 	-		\$0.00	\$7,200.00 \$518,000.00
Directional Drig Services	210		_	\$276,000.00		+		\$0.00	\$276,000.00
-Fuel & Power	211		<u> </u>	\$89,000.00				\$0.00	\$89,000.00
-Water	212			\$75,000.00				\$0.00	\$75.000.00
-Bits	213			\$95,000.00				\$0.00	\$95,000.00
-Mud & Chemicals	214			\$194,400.00				\$0.00	\$194,400,00
Cement Surface	217			\$19,000.00				\$0.00	\$19,000.00
2-Coment Intermed	218			\$74,400.00				\$0.00	\$74,400.00
I-Prod-2nd Int Cmt I-Float Equipment & Centralizers	219			\$110,000.00 \$60,000.00				\$0.00 \$0.00	\$110.000.00 \$60.000.00
-Cag Crews & Equip	222		-	\$65,000.00				\$0.00	\$65,000.00
-Contract Labor	225			\$6,500.00				\$0.00	\$6,500.00
Company Sprvan	228			\$43,200.00				\$0.00	\$43,200.00
⊢Contract Sorvan	227			\$108,000.00				\$0.00	\$108,000.00
-Tstg Cag/Tbg	228			\$40,000.00				\$0.00	\$40,000.00
-Mud Logging Unit	229			\$40,000.00				\$0.00	\$40,000.00
-Rentals-Surface	235			\$168,000.00				\$0.00	\$168,000.00
>-Rentals-Subsrfc >-Trucking/Forkiff/Rig Mob	238			\$78,000.00				\$0.00	\$78,000.00
2-Welding Services	237			\$185,000.00 \$3,000.00				\$0.00 \$0.00	\$185,000.00 \$3,000.00
2-Contingency	243			\$61,000.00				\$0.00	\$81,000.00
2-Environti/Clad Loop	244			\$284,000.00				\$0.00	\$264,000.00
-Wellbore Frac Prep	304				\$96,000.00			\$0.00	\$96,000.00
Lctv/Pits/Roads	305				\$10,000.00			\$0.00	\$10,000.00
Completion OH	308				\$15,000.00			\$0.00	\$15,000.00
-Frac Equipment -Frac Chemicals	307				\$658,000.00			\$0.00	\$658,000.00
Frac Proppant					\$417,000.00			\$0.00 \$0.00	\$417,000.00
	308								
	309				\$294,000,00				\$189,000.00 \$294,000.00
Frac Proppant Transportation					\$294,000.00 \$42,000.00			\$0.00	\$294,000.00
Frac Proppant Transportation Fuel Delivery & Services Water	309 310 311 312				\$294,000.00 \$42,000.00 \$278,000.00				
Frac Proppant Transportation Fuel Delivery & Services Water Frac Surface Rentals	309 310 311 312 315				\$42,000.00 \$278,000.00 \$262,000.00			\$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$262,000.00
-Frac Proppant Transportation -Fuel Delivery & Services Water -Frac Surface Rentals Contract Labor	309 310 311 312 315 325				\$42,000.00 \$278,000.00 \$262,000.00 \$10,000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$252,000.00 \$10,000.00
Frac Proppant Transportation Fuel Delivery & Services Water Frac Surface Rentals Contract Labor Company Sprvan	319 310 311 312 315 325 326				\$42,000.00 \$278,000.00 \$262,000.00 \$10,000.00 \$10,000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$252,000.00 \$10,000.00
-Frac Proppant Transportation -Fuel Delivery & Services -Water -Frac Surface Rentals -Contract Lebor -Company Sprivan -Contract Sprivan	309 310 311 312 315 325 326 327				\$42,000.00 \$278,000.00 \$262,000.00 \$10,000.00 \$140,000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$252,000.00 \$10,000.00 \$140,000.00
-Frac Proppant Transportation -Fruel Delivery & Serviças -Water -Frac Surface Rentals -Contract Labor -Company Sprvan -Contract Sprvan -Artificial Ith Install	309 310 311 312 315 325 325 326 327 329				\$42,000.00 \$278,000.00 \$262,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$282,000.00 \$10,000.00 \$140,000.00 \$45,000.00
-Frac Proppant Transportation -Fuel Delivery & Sarvices -Wester -Frac Surface Rentals -Contract Lebor -Company Servan -Contract Servan -Aufficial Lift Install -PerfWrighte Svc	309 310 311 312 315 325 326 327				\$42,000.00 \$279,000.00 \$262,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$323,000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$282,000.00 \$10,000.00 \$14,000.00 \$45,000.00 \$323,000.00
Frac Proppant Transportation -Frue Delway, & Sarviças -Water -Frac Surface Rentals -Contract Lebor -Company Sprvan -Arpficial Lift Install -Perf/Westprs Svc -Truckjung/Forktif/Rig Mob	309 310 311 312 315 325 326 327 329 331 337 337				\$42,000.00 \$278,000.00 \$262,000.00 \$10,000.00 \$10,000.00 \$440,000.00 \$45,000.00 \$323,000.00 \$40,000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$282,000.00 \$10,000.00 \$140,000.00 \$45,000.00
Frac Proppant Transportation -Fruel Daivery & Services -Water -Frac Surface Rentals -Confract Lebor -Company Sprvan -Confract Sprvan -Artificial Lift Install -Pert/Westine Svc -Trucking/Forkit/Rig Mob -Westin (Deposal	309 310 311 312 315 325 326 327 329 331 337 339 339				\$42,000.00 \$278,000.00 \$262,000.00 \$10,000.00 \$10,000.00 \$45,000.00 \$323,000.00 \$10,000.00 \$40,000.00 \$75,000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$40,000.00 \$40,000.00 \$475,000.00
-Frisc Proppant Transportation -Fruid Delivery & Services -Waster -Frisc Surface Rentals -Contract Lebor -Company Sprivan -Contract Libor -Artificial Lift Instals -PerffVirsites Svc -Truckung/Forkfil/Fig Mob -Waster Depos	309 310 311 312 315 325 326 327 329 331 331 331 343				\$42,000.00 \$278.000.00 \$278.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45,000.00 \$10.000.00 \$40,000.00 \$75.000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$75,000.00
Frac Proppant Transportation -Fruel Delivery & Services -Water -Frac Surface Rentals -Confract Lebor -Compact Lebor -Compact Servan -Confract Sprvan -Anfidial Lft Install -Perf/Westine Svc -Trucking/Forkift/Rig Mob -Water (Desposal -Contingency -Dyad Diesel -Drillout	309 310 311 312 315 325 326 327 329 331 337 339 343				\$42,000.00 \$278,000.00 \$262,000.00 \$10,000.00 \$10,000.00 \$45,000.00 \$323,000.00 \$10,000.00 \$40,000.00 \$75,000.00			\$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$10,000.00 \$110,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$475,000.00 \$475,000.00 \$475,000.00 \$475,000.00
Frisc Proppant Transportation Fruid Delwiny & Sanvices -Waster -Frisc Surface Rentals -Contract Lebor -Contract Lebor -Contract Sprvan -Antificial Lift Instals -Perf Wester Survan -Contract Sprvan -Contract Sprvan -Contract Sprvan -Antificial Lift Instals -Perf Wester System -Contract Sprvan -C	309 310 311 312 315 325 326 327 329 331 337 339 343 345 346				\$42,000.00 \$278.000.00 \$278.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45,000.00 \$10.000.00 \$40,000.00 \$75.000.00	\$1,000.00		\$0.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$0.00	\$294,000.00 \$47,000.00 \$278,000.00 \$10,000.00 \$10,000.00 \$14,000.00 \$445,000.00 \$45,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00
Frac Proppant Transportation -Frac Delivery & Services -Water -Frac Surface Rentals -Confract Servine -Company Sprvan -Confract Sprvan -Anfidial Lift Install -Perff/Wester Svc -TruckungFortiff/Rig Mob -Water Desposal -Continger Syc -Dyad Deset -D	309 310 311 312 315 325 326 327 329 331 337 339 343 345 346 351				\$42,000.00 \$278.000.00 \$278.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45,000.00 \$10.000.00 \$40,000.00 \$75.000.00	\$26,000,00		\$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$110,000.00 \$110,000.00 \$445,000.00 \$445,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00 \$110,000.00
Firse Propeant Transportation Fuel Delwey, & Sarvices -Walser -Firse Surface Rentals -Contact Lebor -Company Sprivan -Combact Labor -Combact Labor	309 310 311 312 315 325 326 327 329 331 337 339 343 345 345 346 351				\$42,000.00 \$278.000.00 \$278.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45,000.00 \$10.000.00 \$40,000.00 \$75.000.00	\$26,000,00 \$141,000,00		\$0.00 \$1.00	\$294,000.00 \$42,000.00 \$278,000.00 \$110,000.00 \$110,000.00 \$140,000.00 \$445,000.00 \$123,000.00 \$1575,000.00 \$1575,000.00 \$1575,000.00 \$1575,000.00 \$1575,000.00 \$1575,000.00 \$1575,000.00 \$1575,000.00 \$1575,000.00 \$1575,000.00
Frisc Proppant Transportation -Frus Delway, & Sarviças -Waster -Frac Surface Rentals -Contract Lebor -Company Sprvan -Contract Sprvan -Antificial Lift Install -PerffVvesins Svc -Trucking/Forkiff/Rig Mob -Waster (Beports) -Contract Sprvan -Contract Sprvan -Contract Sprvan -PerffVvesins Svc -Trucking/Forkiff/Rig Mob -Waster (Beports) -Contract Spr -Drad Dieset -Praiout -P	309 310 311 312 315 325 326 327 329 331 337 339 343 345 345 351 353				\$42,000.00 \$278.000.00 \$278.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45,000.00 \$10.000.00 \$40,000.00 \$75.000.00	\$26,000,00	\$38 300 no	\$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$110,000.00 \$110,000.00 \$140,000.00 \$445,000.00 \$110,000.00 \$175,000.00 \$75,000.00 \$157,000.00
Firse Propgant Transportation Firse Surface Rentals - Water - Firse Surface Rentals - Contact Labor - Company Surven - Contact Sprven - Aufficial Lift Install - Perf Washer Svc - TruckungForklift/Rig Mob - Water - Water - Water - Contact Sprven - Contact Lift Install - Perf Water - Proposal - Contact Lift - Damagea/Right of Way - B - Contact Labor - B - Contract Labor - B - Company Supervision - EC-Contract Labor	309 310 311 312 315 325 326 327 329 331 337 339 343 345 345 346 351				\$42,000.00 \$278.000.00 \$278.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45,000.00 \$10.000.00 \$40,000.00 \$75.000.00	\$26,000,00 \$141,000,00	\$39,300.00	\$0.00 \$1.00	\$294,000.00 \$42,000.00 \$278,000.00 \$10.000.00 \$110,000.00 \$110,000.00 \$45,000.00 \$10,000.00 \$10,000.00 \$75,000.00 \$157,000.00 \$157,000.00 \$157,000.00 \$26,000.00 \$157,000.00 \$23,000.00 \$140,000.00 \$157,000.00 \$1
Firse Propgant Transportation Firse Surface Rentals -Visitor Firse Surface Rentals -Contract Lebor -Contract Sprvan -Contract Sprvan -Antificial Life Instals -PerfWreshine Svc -Tructing/Forfaft/Rig Mob -Water (Deposal -Contract Sprvan -Contract Sprvan -Deposal -Contract Sprvan -Deposal -Contract Life Sprvan -Deposal -Deposal -Deposal -Contract Libor -Contract Contract -Contract Contract -Contract Contract -Contract Contract -Contract Contract -Contract Contract -Contract -Contr	309 3110 3111 3122 315 325 326 327 327 339 331 337 339 343 345 345 351 353 356 357				\$42,000.00 \$278.000.00 \$278.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45,000.00 \$10.000.00 \$40,000.00 \$75.000.00	\$26,000,00 \$141,000,00		\$0.00 \$1.00	\$294,000.00 \$42,000.00 \$278,000.00 \$110,000.00 \$110,000.00 \$140,000.00 \$445,000.00 \$110,000.00 \$175,000.00 \$75,000.00 \$157,000.00
Firse Propgant Transportation Firse Surface Rentals -Visitor Firse Surface Rentals -Contract Lebor -Contract Sprvan -Contract Sprvan -Antificial Life Instals -PerfWreshine Svc -Tructing/Forfaft/Rig Mob -Water (Deposal -Contract Sprvan -Contract Sprvan -Deposal -Contract Sprvan -Deposal -Contract Life Sprvan -Deposal -Deposal -Deposal -Contract Libor -Contract Contract -Contract Contract -Contract Contract -Contract Contract -Contract Contract -Contract Contract -Contract -Contr	309 310 311 312 315 325 326 327 327 329 331 337 339 343 345 351 353 350 351 357 374	\$49,500.00	\$0.00	\$2,719,700.00	\$42,000.00 \$278.000.00 \$278.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45,000.00 \$10.000.00 \$40,000.00 \$75.000.00	\$26,000,00 \$141,000,00	\$160,000.00	\$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$180,000.00 \$110,000.00 \$140,000.00 \$45,000.00 \$475,000.00 \$75,000.00 \$100,000.00 \$110,000.00
Frac Proppant Transportation -Frac Proppant Transportation -Fruel Delway & Sarvices -Water -Frac Surface Rentals -Conisact Lebor -Contact Sprvan -Contact Sprvan -Antificat Lid Instals -PerfWreshre Svc -Truckung/ForstMrRg Mob -Water Desposal -Contagency -Dyad Dissal -Drabout -Brown Surface -Drabout -Brown Surface -Brown	309 310 311 312 315 325 326 327 327 329 331 337 339 343 345 351 353 350 351 357 374				\$42,000.00 \$278,000.00 \$202,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$42,000.00 \$42,000.00 \$42,000.00 \$40,000.00 \$10,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	\$25,000,00 \$141,000,00 \$3,000,00 \$171,000.90	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
Frac Proppant Transportation -Frac Proppant Transportation -Frac Surface Rentals -Contract Lebor -Company Sprivan -Contract Lebor -Contract Sprivan -Contract Sprivan -Contract Sprivan -Contract Sprivan -Contract Sprivan -Contract Sprivan -Contract Contract -Contract Sprivan -Contract -	309 310 311 311 312 312 325 327 329 331 337 339 343 345 346 351 353 350 357 374 387	\$49,500.00	\$0.00		\$42,000.00 \$278,000.00 \$282,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$10,000.00 \$40,000.00 \$10,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	\$28,000.00 \$141,000.00 \$3,000.00	\$180,000.00 \$18,000.00	\$0.00 \$0.00	\$294,000.00 \$42,000.00 \$278,000.00 \$10,000.00 \$110,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$75,000.00 \$157,000.00 \$
Frac Proppant Transportation -Frac Proppant Transportation -Frac Surface Rentals -Context Labor -Context Sprvan -Context Linitati -PedWester Svc -Truckup Forklift/Rig Mob -Water Deposal -Context Linitation -Context	309 310 311 311 312 312 325 327 329 331 337 339 343 345 346 351 353 350 357 374 387	\$49,500.00	\$0.00		\$42,000.00 \$278,000.00 \$282,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$40,000.0	\$28.000.00 \$141.000.00 \$3,000.00 \$3,000.00 \$171,000.00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
-Frac Proppant Transportation -Frac Surface Rentals -Water -Frac Surface Rentals -Contract Labor -Contract Spryan -Contract Spryan -Contract Spryan -Contract Spryan -Contract Spryan -Install -Install -Performant Spryan -TructungFortifit/Rig Mob -Writer Deposal -Contragency -Contragency -Contragency -Dislout -B-Jamagen/Right of Way -B-Jamagen/Right of Way -B-Jamagen/Right of Way -B-Contract Labor -B-Contract Labor -B-Contract Labor -EC-Water Disposal -Contract Labor -EC-Water Disposal -Contract Labor -Frace Contract Con	309 310 311 311 312 312 325 327 329 331 337 339 343 345 346 351 353 350 357 374 387	\$49,500.00	\$0.00		\$42,000.00 \$278,000.00 \$202,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$42,000.00 \$42,000.00 \$42,000.00 \$40,000.00 \$15,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	\$28.000.00 \$141.000.00 \$3,000.00 \$3,000.00 \$171,000.00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
- Frac Proppant Transportation - Frac Proppant Transportation - Frac Proppant Transportation - Frac Proppant Transportation - Frac Surface Rentate - Contract Lebor - Compact Lebor - Compact Lebor - Contract Sprvan - Artificial Lift Install - Perf/Wreshes Svc - Truckung/Forkift/Rig Mob - Water Depose - Contract Sprvan - Contract Sprvan - Drillout - Drillout - Drillout - Drillout - Br. Company Supervision -	309 310 311 311 312 312 325 327 329 331 337 339 343 345 346 351 353 350 357 374 387	\$49,500.00	\$0.00		\$42,000.00 \$278,000.00 \$282,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$40,000.0	\$28,000,00 \$141,000,00 \$3,000.00 \$171,000.00 \$718,000.00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
-Frac Proppant Transportation -Frac Surface Rentals -Waster -Frac Surface Rentals -Contract Lebor -Company Sprivan -Artificial Lit Instal -Pertivirsins Svc -Truckung/Forkifi/Fig Mob -Waster -Frac Surface Rentals -Contract Sprivan -Contract Sprivan -Contract Sprivan -Contract Labor -Brown Surface -Contract Labor -Cont	309 310 311 311 312 312 325 327 329 331 337 339 343 345 346 351 353 350 357 374 387	\$49,500.00 tual costs will be to	\$0.00		\$42,000.00 \$278,000.00 \$278,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	\$26,000,00 \$141,000,00 \$3,000,00 \$171,000,00 \$716,000,00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
-Frac Proppant Transportation -Frac Surface Rentals -Contract Lebor -Company Spring -Contract Lebor -Contract Spring -Contract Lebor -Contract Spring -Artificial Lift Install -Pertifivesine Sve -Trucking/Forkifi/Fig -Water Deposal -Contract Spring -Contract Lebor -Draiout -Ba-Contract Lebor -Ba-Contract Lebor -Contract Lebor -Contra	309 310 311 312 312 315 325 326 327 329 337 339 343 345 346 351 357 374 387 391	\$49,500.00 tual costs will be to	\$0.00		\$42,000.00 \$278,000.00 \$278,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$10,000.00 \$45,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00	\$26,000,00 \$141,000,00 \$3,000,00 \$171,000,00 \$716,000,00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
Free Proppant Transportation - Free Surface Rentals - Waster - Free Surface Rentals - Contract Lebor - Company Sprivan - Contract Lebor - C	309 310 311 312 312 315 325 326 327 329 337 339 343 345 346 351 357 374 387 391	\$49,500.00 tual costs will be to	\$0.00		\$42,000.00 \$278,000.00 \$278,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00	\$26,000,00 \$141,000,00 \$3,000,00 \$171,000,00 \$716,000,00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
Frac Proppant Transportation -Frac Proppant Transportation -Fruel Delivery & Sarvices -Walser -Frac Surface Rentals -Contract Lebor -Company Sprivan -Contract Lebor -Company Sprivan -Contract Sprivan -Contract Lebor -Contr	309 310 311 312 312 315 325 326 327 329 337 339 343 345 346 351 357 374 387 391	\$49,500.00 tual costs will be to	\$0.00		\$42,000.00 \$278,000.00 \$278,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$110,000.00 \$15,000.00 \$175,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00	\$26,000,00 \$141,000,00 \$3,000,00 \$171,000,00 \$716,000,00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
Frac Proppant Transportation -Frac Proppant Transportation -Frac Stringe Rentals -Contract Lebor -Company Sprivan -Contract Lebor -Contract Sprivan -Contract Library -Contrac	309 310 311 312 312 315 325 326 327 329 337 339 343 345 346 351 357 374 387 391	\$49,500.00 tual costs will be to	\$0.00		\$42,000.00 \$278,000.00 \$278,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00	\$26,000,00 \$141,000,00 \$3,000,00 \$171,000,00 \$716,000,00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00
Frac Proppant Transportation -Frac Proppant Transportation -Frac Surface Rentals -Contract Labor -Contract Lab	309 310 311 312 312 315 325 326 327 329 337 339 343 345 346 351 357 374 387 391	\$49,500.00 tual costs will be to	\$0.00		\$42,000.00 \$278,000.00 \$278,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$110,000.00 \$15,000.00 \$175,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00	\$26,000,00 \$141,000,00 \$3,000,00 \$171,000,00 \$716,000,00	\$180,000.00 \$18,000.00 \$236,300.00	\$0.00 \$1.00 \$1.00 \$0.00	\$294,000.00 \$42,000.00 \$276,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$45,000.00 \$45,000.00 \$40,000.00 \$10,000.00 \$11,000.00 \$15,000.00

Costs provided within this AFE are estimates only, and subject to change pending actual operations. Once the proposed operation has been completed, please direct any requests for reports or invoices to the Joint Interest Billing Department.

BEFORE THE OIL CONSERVATION DIVISION Santa Fe, New Mexico Case No. 21425 Attachment C

Submitted by: COG OPERATING LLC Hearing Date: September 10, 2020



Well Name TOMAHAWK FEDERAL UNIT 702H
SHL 20, T24S-R28E: 412 FSL & 1138 FEL
BHL 32, T24S-R28E: 200 FSL & 1686 FEL
Formation WOLFCAMP A SANDS
Least 20, T24S-R28E
AFE Numbers DBW020053.DBW020053CM.DBW020053DR.DBW020053PE.DBW020053PS.DBW020053TB

Prospect #717058
State & County NEW MEXICO, EDDY
Objective Drill & Complete
Death 20.100
TVD 9.423

Translate Costs	Code	PreSpud (PS)	Pre-Set Casing(PC)	Drilling (DR)	Completions (C)	k Bitty Constrctn(TB)	Pmpq Equip (PEQ)	Revision	Total
Cost Description Tangible Costs PEQ-Flowback Crews & Equip	392	-				500 W 100 C	\$108,000.00	\$0.00	\$108,000.00
D-Surface Casing	401			\$21,000.00			\$100,000.00	\$0.00	\$21,000.00
D-Intermed Cag	402			\$166,000.00				\$0.00	\$166,000.00
D-Production Casing/Liner D-Wellhead Equip	403			\$412,000.00				\$0.00	\$412,000.00
C-Tubing	405 504			\$75,000.00	\$52,000.00		-	\$0.00 \$0.00	\$75,000.00 \$52,000.00
C-Welfread Equip	505				\$28,000.00		_	\$0.00	\$28,000.00
TB-Tanks	510					\$45,000.00		30.00	\$45,000.00
TB-Flowfines/Pipelines	511					\$20,000.00		\$0.00	\$20,000.00
TB-Htr Trtr/Seprtr	512 513					\$145,000.00		\$0.00	\$145,000.00
TB-Electrical System/Equipment C-Pckrs/Anchors/Hgrs	514				\$65,000.00	\$89.000.00		\$0.00	\$89,000.00
TB-Couplings/Fittings/Valves	515				303.000.00	\$151,000.00		\$0.00	\$65,000.00 \$151,000.00
TB-Pumps-Surface	521					\$20,000.00		\$0.00	\$20,000.00
TB-Instrumentation/SCADA/POC	522					\$15,000.00		\$0.00	\$15,000.00
TB-Miscelaneous	523					\$15,000.00		\$0.00	\$15,000.00
TB-Meters/Lects TB-Flares/Combusters/Emission	525 526		-			\$20,000.00		\$0.00	\$20,000.00
C-Gas Lift/Compression	527				\$25,000.00	\$24,000.00		\$0.00 \$0.00	\$24,000.00 \$25,000.00
PEQ-Welhead Equipment	531						\$38,300.00	\$0.00	\$38,300.00
Total Tangible Costs		\$0.00	\$0.00	\$674,900.00	\$170,000.00	\$544,000,00	\$148,300.00	\$0.00	\$1,534,300.00
Intangible Costs			The same of the same	NAME OF TAXABLE			CYLORED - Pro		
PS-Tide/Permits D-Insurance	201	\$20,000.00						\$0.00	\$20,000.00
PS-Damages/ROW	202	\$20,000.00						\$0.00 \$0.00	\$7,000.00 \$20,000.00
PS-Survey/Stake Lots	204	\$2.500.00						\$0.00	\$2,500.00
D-Lctn/Pits/Roads	205			\$140,000.00				\$0.00	\$140,000.00
D-Drilling Overhead	206			\$7,200.00				\$0.00	\$7,200.00
D-Daywork Contract D-Directional Orig Services	209 210			\$518,000.00				\$0.00	\$518,000.00
D-Fuel & Power	210			\$276,000.00 \$89,000.00				\$0.00	\$276,000.00 \$89,000.00
D-Water	212			\$75,000.00				\$0.00	\$75,000.00
D-8 /s	213			\$95,000.00				\$0.00	\$95,000.00
D-Mud & Chemicals	214			\$194,400.00				\$0.00	\$194,400.00
D-Cement Surface	217			\$19,000.00				\$0.00	\$19,000.00
D-Cement Intermed D-Pred-2nd Int Cmt	218 219			\$74,400.00 \$110,000.00				\$0.00	\$74,400,00
D-Float Equipment & Centralizers	221			\$80,000.00				\$0.00 \$0.00	\$110,000.00
D-Ceg Crews & Equip	222			\$65,000.00				\$0.00	\$85,000.00
D-Contract Labor	225			\$8,500.00				\$0.00	\$8,500.00
D-Company Sprvan	226			\$43,200.00				\$0.00	\$43,200.00
D-Contract Sprvan	227			\$108,000.00	$\overline{}$			\$0.00	\$108,000.00
D-Tstg Csg/Tbg D-Mud Legging Unit	228 229			\$40.000.00 \$40.000.00				\$0.00 \$0.00	\$40,000.00 \$40,000.00
D-Rentale-Surface	235			\$168,000.00				\$0.00	\$188,000.00
D-Rentals-Subarfc	236			\$78,000.00				\$0.00	\$78,000.00
D-Trucking/Forklift/Rig Mob	237			\$185,000.00				\$0.00	\$185,000.00
D-Welding Services	238			\$3,000.00				\$0.00	\$3,000.00
D-Contingency D-Environt/Clad Loop	243			\$61,000.00				\$0.00	\$81,000.00
C-Wellbore Frac Prep	304			8204,000.00	\$98,000.00			\$0.00 \$0.00	\$284.000.00 \$98.000.00
C-Lctv/Pits/Roads	305				\$10.000.00			\$0.00	\$10,000.00
C-Completion OH	306				\$15,000.00			\$0.00	\$15,000.00
C-Frec Equipment	307				\$858,000.00			\$0.00	\$658,000.00
C-Frac Chemicals C-Frac Proppant	308 309				\$417,000.00 \$169,000.00			\$0.00	\$417,000.00
C-Frac Proppant Transportation	310				\$294.000.00			\$0.00	\$189,000.00 \$294,000.00
C-Fuel Delivery & Services	311				\$42,000.00			\$0.00	\$42,000,00
C-Water	312								
C-Frac Surface Rentals	315		1		\$276,000.00	I		\$0.00	\$278,000.00
C-Company Spans	325				\$282,000.00			\$0.00	\$278,000,00 \$262,000.00
C-Company Sprvan					\$282,000.00 \$10,000.00			\$0.00 \$0.00	\$275,000.00 \$252,000.00 \$10,000.00
IC-Contract Serven	326				\$282,000.00 \$10,000.00 \$10,000.00			\$0.00 \$0.00 \$0.00	\$275,000,00 \$252,000,00 \$10,000,00 \$10,000,00
C-Contract Sprvan C-Artificial Lift Install	326 327				\$282,000,00 \$10,000,00 \$10,000,00 \$140,000,00			\$0.00 \$0.00 \$0.00 \$0.00	\$278,000.00 \$262,000.00 \$10,000.00 \$10,000.00 \$140,000.00
C-Artificial Lift Install C-Perf/Wireline Svc	326 327 329 331				\$282,000.00 \$10,000.00 \$10,000.00			\$0.00 \$0.00 \$0.00	\$278,000.00 \$282,000.00 \$10,006.00 \$10,000.00 \$140,000.00 \$45,000.00 \$23,000.00
C-Artificial Lift Install C-Pert/Wireline Svc C-Trucking/Forklift/Rig Mob	326 327 329 331 337				\$282,000.00 \$10,000.00 \$10,000.00 \$140,000.00 \$45,000.00 \$323,000.00 \$10,000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$278,000,00 \$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$223,000,00 \$10,000,00
C-Artificial Lift Install C-Perf/Wireline Svc C-Trucking/Forkift/Rig Mob C-Water Disposal	326 327 329 331 337 339				\$282.000.00 \$10.000.00 \$10.000.00 \$140.000.00 \$45.000.00 \$323.000.00 \$10.000.00 \$40.000.00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$278,000,00 \$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$10,000,00 \$40,000,00
C-Artificial Lift Install C-Perf/Wreline Svc C-Trucking/Forklift/Rig Mob C-Water Disposal C-Contingency	326 327 329 331 337 339 343				\$282,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$10,000,00 \$44,000,00 \$75,000,00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$278,000,00 \$262,000,00 \$10,000,00 \$110,000,00 \$140,000,00 \$45,000,00 \$110,000,00 \$40,000,00 \$475,000,00
C-Artificial Lift Install C-Perf/Wireline Svc C-Trucking/Forkil/Rig Mob C-Water Disposal C-Contingency C-Dyed Dissel	326 327 329 331 337 339				\$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$40,000,00 \$40,000,00 \$75,000,00 \$157,000,00			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$278,000,00 \$262,000,00 \$19,000,00 \$19,000,00 \$149,000,00 \$45,000,00 \$223,000,00 \$10,000,00 \$75,000,00 \$157,000,00
C-Arrificial Lift Install C-Perf/Wreline Svc C-Trucking/Forkiff/Rig Mob C-Water Disposal C-Contingency C-Oyed Dissel C-Oriflout T8-Damsges/Right of Way	326 327 329 331 337 339 343 345 346 351				\$282,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$10,000,00 \$44,000,00 \$75,000,00	\$1,000.00		\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$278,000,00 \$282,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$10,000,00 \$44,000,00 \$10,000,00 \$157,000,00 \$157,000,00 \$300,000,00
C-Artificial Lift Install C-Perf/Wreline Svc C-Trucking/Forkth/Rig Mob C-Water Disposal C-Contingency C-Oyed Dissel C-Oridout TB-Oamages/Right of Way TB-Location/Pits/Roads	326 327 329 331 337 339 343 345 345 346 351				\$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$40,000,00 \$40,000,00 \$75,000,00 \$157,000,00	\$26,000.00		\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$278,000,00 \$282,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$445,000.00 \$223,000.00 \$10,000.00 \$75,000.00 \$300,000.00 \$10,000.00 \$282,000.00
C-Artificial Lift Install C-PertWrienie Svc C-Trucking/Forkit/Rg Mob C-Water Disposal C-Contingency C-Oped Dissel C-Ortifout TB-Darnages/Right of Way TB-Location/Pite/Road	326 327 329 331 337 339 343 345 345 346 351 353 353				\$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$40,000,00 \$40,000,00 \$75,000,00 \$157,000,00	\$28,000.00 \$141,000.00		\$0.00 \$0.00	\$278,000,00 \$292,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$45,000,00 \$40,000,00 \$10,000,00 \$15,000,00 \$15,000,00 \$15,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00
C-Artificial Lift Install C-PerfWrienie Svr C-Trucking/Forkit/Rig Mob C-Contingency C-Ond Dissel C-Contingency C-Ond Dissel TB-Damages/Right of Way TB-Damages/Right of Way TB-Contract Labor TB-Contract Labor TB-Contract Labor	326 327 329 331 337 339 343 345 345 351 353 358				\$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$40,000,00 \$40,000,00 \$75,000,00 \$157,000,00	\$26,000.00		\$0.00 \$0.00	\$278,000,00 \$282,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$440,000,00 \$410,000
C-Artificial Lift Install C-PertWriene Svc C-Trucking/Forkift/Rg Mob C-Water Disposal C-Continger C-Ond Dissel TB-Damages/Right of Way TB-Damages/Right of Way TB-Control Lift	328 327 329 331 337 339 343 345 345 351 353 358 357 374				\$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$40,000,00 \$40,000,00 \$75,000,00 \$157,000,00	\$28,000.00 \$141,000.00	\$38,300.00 \$180,000.00	\$0.00 \$0.00	\$278,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$10,000,00 \$323,000,00 \$375,000,00 \$300,000,00 \$28,000,00 \$10,000,00 \$10,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00 \$300,000,00
C-Artificial Lift Install C-PerfWrienie Svr C-Trucking/Forkit/Rig Mob C-Contingency C-Ond Dissel C-Contingency C-Ond Dissel TB-Damages/Right of Way TB-Damages/Right of Way TB-Contract Labor TB-Contract Labor TB-Contract Labor	326 327 329 331 337 339 343 345 345 351 353 358				\$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$40,000,00 \$40,000,00 \$75,000,00 \$157,000,00	\$28,000.00 \$141,000.00	\$180,000.00	\$0.00 \$0.00	\$278,000,00 \$282,000,00 \$10,000,00 \$10,000,00 \$440,000,00 \$440,000,00 \$45,000,00 \$40,000,00 \$75,000,00 \$10,000,00 \$75,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00
C-Artificial Lift Install C-PerfWreine Svc C-TruckingForktif/Rg Mob C-Water Dasponal C-Contingency C-Ored Dases C-Contingency TB-Damages/Fight of Way TB-Damages/Fight of Way TB-Contract Labor TB-Contract Labor PEO-Contract Labor PEO-Contract Labor PEO-Contract Labor PEO-Contract Labor PEO-Contract Labor PEO-Contract Labor PEO-Water Dasponal	326 327 329 331 337 339 343 345 346 351 353 358 357 374	\$49,500.00	\$0.90	\$2,719,700.00	\$262,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$40,000,00 \$40,000,00 \$75,000,00 \$157,000,00	\$28,000.00 \$141,000.00	\$38,300.00 \$180,000.00 \$18,000.00 \$238,360.00	\$0.00 \$0.00	\$278,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$45,000,00 \$10,000,00 \$15,000,00 \$15,000,00 \$15,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00
C-Artificial Lift Install C-PerfWreine Svc C-Trucking/Forkift/Rig Mob C-Waster Disposal C-Online C-Online TB-Damages/Right of Way TB-Damages/Right of Way TB-Oantract Labor TB-Contract Labor TB-Contract Labor PEG-Orthact Labor PEG-Orthact Labor PEG-Orthact Labor PEG-Orthact Labor	328 327 329 331 337 339 343 345 345 351 353 355 357 374 387	\$49,500.00	\$0.00	\$2,719,700.00	\$202.000.00 \$10.000 00 \$10.000 00 \$14.000 00 \$45.000.00 \$45.000.00 \$323.000.00 \$40.000 00 \$40.000 00 \$40.000 00 \$75.000 00 \$375.000 00 \$300.000.00	\$26,000.00 \$141,000.00 \$3,000.00	\$18,000.00 \$18,000.00 \$236,300.00	\$0.00 \$0.00	\$278,000,00 \$282,000,00 \$10,000,00 \$10,000,00 \$440,000,00 \$440,000,00 \$45,000,00 \$40,000,00 \$75,000,00 \$10,000,00 \$75,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00 \$100,000,00
C-Artificial Lift Install C-PerfWreine Svc C-Trucking/Fortifu/Rig Mob C-Waiser Disposal C-Conlingency C-Oped Dissel C-Oped Dissel TB-Opengar/Right of Way TB-Opengar/Right of Way TB-Opengar/Right of Way TB-Opengar/Right of Way TB-Contract Labor TB-Contract Labor TB-Contract Labor PEC-Opengar/Right of Way TB-Contract Cabor TB-Contract Labor TB-Contract Cabor TB-Contract Supposal TB-Contract Supposal TB-Contract Nation TB-Contract	328 327 329 331 337 339 343 345 345 351 353 355 357 374 387	\$49,500.00	\$0.00	\$3,363,700.00	\$202.000.00 \$10.000 00 \$10.000 00 \$14.000 00 \$45.000.00 \$45.000.00 \$323.000.00 \$40.000 00 \$40.000 00 \$40.000 00 \$75.000 00 \$375.000 00 \$300.000.00	\$28,000.00 \$141,000.00 \$3,000.00 \$171,000.00 \$715,000.00	\$18,000.00 \$18,000.00 \$236,300.00	\$0.00 \$0.00	\$278,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$15,000,00 \$15,000,00 \$10,000,00
C-Artificial Lift Install C-PerfWreine Svc C-TruckingFortstiftRg Mob C-Water Daponal C-Contingency C-Ored Dasel C-Oringency C-Oringency TB-Consect Table TB-Contract Labor Total Interest Special Working Library Partner:	328 327 329 331 337 339 343 345 345 351 353 355 357 374 387	\$49,500.00 tual costs will be b	\$0.00	\$3,303,700.00	\$262.000.00 \$10.000 00 \$10.000 00 \$140.000 00 \$445.000.00 \$45.000.00 \$223.000.00 \$40.000 00 \$40.000 00 \$1575.000 00 \$1575.000 00 \$375.000	\$26,000.00 \$141,000.00 \$3,900.00 \$171,000.60 \$7715,000.00 \$716,000.00	\$18,000.00 \$18,000.00 \$236,300.00	\$0.00 \$0.00	\$278,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$15,000,00 \$15,000,00 \$10,000,00
C-Articul Lift Install C-PerfWreine Svc C-TruckingForktift/Rg Mob C-Vaster Dasonal C-Contingency C-Ored Dasel C-Oringency C-Oringency IB-Damages/Right of Way IB-Location/Pse/Roada IB-Contract Labor IB-Contract Labor IB-Contract Labor IB-Contract Labor TB-Company Supervision PEO-Contract Labor Total Intragible Costs Total Intragible Costs Total Intragible Costs Note: The above costs are estim Working Interest Owner Partner	326 327/ 329 331 331 337 343 345 345 351 351 351 353 357 374 387 391	\$49,500.00 tual costs will be b	\$0.00	\$3,303,700.00	\$202,000,000 \$10,000 00 \$10,000 00 \$140,000 00 \$140,000 00 \$140,000 00 \$140,000 00 \$140,000 00 \$123,000 00 \$123,000 00 \$13,000 00 \$150,000 00 \$1575,000 00 \$375,000 00 \$375,000 00 \$375,000 00 \$375,000 00 \$375,000 00 \$375,000 00 \$375,000 00 \$375,000 00 \$375,000 00 \$375,000 00 \$375,000 00	\$26,000.00 \$141,000.00 \$3,900.00 \$171,000.60 \$7715,000.00 \$716,000.00	\$18,000.00 \$18,000.00 \$236,300.00	\$0.00 \$0.00	\$278,000,00 \$202,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$140,000,00 \$45,000,00 \$45,000,00 \$40,000,00 \$10,000,00 \$15,000,00 \$15,000,00 \$16,000,00 \$16,000,00 \$180,000,00 \$180,000,00 \$180,000,00 \$180,000,00 \$180,000,00
C-Articial Lift Install C-PerfWreine Svc C-TruckingFortkift/Rg Mob C-Vaster Disposal C-Contingency C-Ored Dissel C-Ored Dissel C-Oritical IB-Damages/Right of Way IB-Location/Piss/Roads IB-Contract Labor IB-Company Supervision PEO-Ontract Labor PEO-Ontract Labor PEO-Ontract Labor PEO-Ontract Labor PEO-Ontract Labor Total Intensible Costs Note: The above costs are estim Working Interest Owner Partner egrees to participate for	326 327/ 329 331 331 337 343 345 345 351 351 351 353 357 374 387 391	\$49,500.00 tual costs will be b	\$0.00	\$3,383,700.00	\$202.000.00 \$10.000 00 \$10.000 00 \$140.000 00 \$140.000 00 \$45.000.00 \$323.000 00 \$323.000 00 \$323.000 00 \$375.000 00 \$75.000 00 \$350.000 00 \$350.000 00 \$350.000 00 \$350.000 00 \$350.000 00 \$350.000 00 \$350.000 00 \$350.000 00	\$26,000.00 \$141,000.00 \$3,900.00 \$171,000.60 \$7715,000.00 \$716,000.00	\$18,000.00 \$18,000.00 \$236,300.00	\$0.00 \$0.00	\$278,000,00 \$202,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$140,000,00 \$45,000,00 \$45,000,00 \$40,000,00 \$10,000,00 \$15,000,00 \$15,000,00 \$16,000,00 \$16,000,00 \$180,000,00 \$180,000,00 \$180,000,00 \$180,000,00 \$180,000,00
C-Article Lift Install C-PerfWriene Svc C-TruckingFortkift/Rg Mob C-Vaster Disposal C-Contingency C-Oned Dissel C-Oned Content B-Content B-Content B-Content B-Content B-Content C-Oned Content C-On	326 327/ 329 331 331 337 343 345 345 351 351 351 353 357 374 387 391	\$49,500.00 tual costs will be b	\$0.00	\$3,383,700.00	\$202.000.00 \$10.000 00 \$10.000 00 \$10.000 00 \$140.000 00 \$140.000 00 \$140.000 00 \$140.000 00 \$375.000 00 \$75.000 00 \$75.000 00 \$380.000.00 \$380.000.00 \$380.000.00 \$380.000.00 \$380.000.00 \$380.000.00 \$380.000.00	\$26,000.00 \$141,000.00 \$3,900.00 \$171,000.60 \$7715,000.00 \$716,000.00	\$18,000.00 \$18,000.00 \$236,300.00	\$0.00 \$0.00	\$278,000,00 \$202,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$140,000,00 \$45,000,00 \$45,000,00 \$40,000,00 \$10,000,00 \$15,000,00 \$15,000,00 \$16,000,00 \$16,000,00 \$180,000,00 \$180,000,00 \$180,000,00 \$180,000,00 \$180,000,00
C-Articial Lift Install C-PerfWreine Svc C-TruckingFortkift/Rg Mob C-Vaser Disposal C-Contingency C-Oped Dissel C-Onitingency T-Oped Dissel C-Onitingency T-Oped Dissel T-	326 327/ 329 331 331 337 343 345 345 351 351 351 353 357 374 387 391	\$49,500.00 tual costs will be b	\$0.00	\$3,393,700.00]	\$202.000.00 \$10.000 00 \$10.000 00 \$140.000 00 \$140.000 00 \$45.000.00 \$323.000 00 \$323.000 00 \$375.000 00 \$75.000 00 \$375.000 00 \$350.000.00 \$350.000.00 \$350.000.00 \$350.000.00 \$350.000.00	\$26,000.00 \$141,000.00 \$3,900.00 \$171,000.60 \$7715,000.00 \$716,000.00	\$18,000.00 \$18,000.00 \$236,300.00	\$0.00 \$0.00	\$278,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$140,000,00 \$45,000,00 \$323,000,00 \$10,000,00 \$10,000,00 \$10,000,00 \$15,000,00 \$15,000,00 \$10,000,00

Costs provided within this AFE are estimates only, and subject to change pending actual operations. Once the proposed operation has been completed, please direct environments to the Joint Interest Billing Department.

Well Name Tomahawk Fed Unit 703H SHL 20: 500 FSL, 1648 FWL or Unit N 8HL 32: 200 FSL, 2614 FWL or Unit N Formation WOLFCAMP A Legal 29 & 32, 245-28E AFE Numbers Prospect Tomahawk 2428 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 20,100 TVD 9,398

ungible Costs ctv/Pits/Roads	205		\$ 86,000,00				S -	\$ 86,000
Inilling Overhead	206		\$ 8,000.00				\$.	\$ 8,000
Paywork Contract	209		\$ 601,000,00					\$ 601,000
irectional Drig Services	210		\$ 288,000,00				\$ -	\$ 288,000
iel & Power	211		\$ 128,000.00				5 -	\$ 128,00
ster	212		\$ 68,000.00					\$ 68,00
ts	213		\$ 95,000.00					\$ 95,00
ud & Chemicals	214		\$ 227,000.00				5 -	\$ 227,00
ement Surface	217		\$ 18,000.00					\$ 18,00
ement Intermed	218		\$ 67,000.00					\$ 67,00
od-2nd Int Cmt	219		\$ 100,000.00					\$ 100,00
oat Equipment & Centralizers	222		\$ 55,000.00					\$ 55.00
ontract Labor	225		\$ 59,000.00					\$ 59,00
ompany Sprven	226	-	\$ 6,000,00 \$ 46,000,00					\$ 6,00 \$ 48,00
ontract Sprvan	227		\$ 108.000.00					
tg Csg/Tbg	228		\$ 37,000.00	-				
ud Logging Unit	229		\$ 41,000.00					\$ 37,00 \$ 41.00
ntals-Surface_	235		\$ 177.000.00				\$.	\$ 177,00
entals-Subsetc	236		\$ 82,000.00					
ucking/Forklift/Rig Mob	237		\$ 127,000.00				\$ -	\$ 82,00 \$ 127,00
elding Services	238		\$ 3,000.00					\$ 127,00
onlingency	243		\$ 55,000,00				\$ -	\$ 55,00
vrnmti/Clad Loop	244		\$ 278,000.00				5 -	\$ 278,00
ellibore Frac Prep	304			\$ 66,000.00			·	\$ 56,00
tn/Pits/Roads	305			\$ 8,000,00			\$ -	\$ 80,00
mpletion OH	306			\$ 12,000,00				\$ 12.00
ac Equipment	307			\$ 758,000.00			\$ -	\$ 758,00
ac Chemicals	308			\$ 325,000.00			\$ -	\$ 325,00
ac Proppant	309			\$ 147,000,00				\$ 147,00
ac Proppant Transportation	310			\$ 229,000.00			\$ -	\$ 229.00
Jel Delivery & Services	311	Ti Ti		\$ 33.000.00				\$ 33,00
ater	312			\$ 448,000,00			\$ -	\$ 448,00
ac Surface Rentals	315			\$ 249,000.00			5 -	\$ 249,00
ontract Labor	325		Ĭ	\$ 8.000.00				\$ 8,00
ompany Sprvan	326			\$ 8,000.00			\$ -	\$ 8,00
ontract Sprvsn	327			\$ 118,000.00			\$ -	\$ 118,00
tificial Lift Install	329			\$ 35,000.00			\$ -	\$ 35,00
ert/Mireline Svc	331			\$ 295,000,00			\$ -	\$ 295,00
ucking/Forklift/Rig Mob	337			\$ 8,000,00			\$.	\$ 8,00
ster Disposal	339			\$ 32,000.00			\$ -	\$ 32,00
ontingency	343			\$ 117,000.00			\$ -	\$ 117,00
yed Diesel	345			\$ 256,000,00			\$.	\$ 256,00
illout	346			\$ 264,000.00				\$ 264,00
Damages/Right of Way	351				\$ 2,000,00			\$ 2,00
.ocation/Pits/Roads	353		_		\$ 41,000.00		\$.	\$ 41.00
Contract Labor_	356				\$ 172,000,00			\$ 172,00
-Contract Labor	374					\$ 38,000,00		\$ 38,00
-Water Disposal	387					\$ 179,000.00		\$ 179,00
HRZ Well Offset Frac	391					\$ 18,000,00		\$ 18,00
I Intangible Costs	SECTION CONTR	THE SHALL STREET, SALES	\$ 2,760,000.00	\$ 3,416,000.00	\$ 216,000.00	\$ 235,000.00	CENTRAL PROPERTY OF	\$ 6,626,00
ible Costs								
Flowback Crews & Equip	392			Charles and the same		\$ 108,000.00	ENTRY OF THE BUILDING OF	\$ 108,00
rface Casing	401	- 	\$ 22,000.00			- 100.000,00		\$ 22,00
ermed Csg	402		\$ 204,000.00					\$ 204,00
oduction Casing/Liner	403		\$ 281,000,00					\$ 281,00
ellhead Equip	405		\$ 68,000.00					\$ 68,00
bing	504			\$ 41,000,00			ŝ	\$ 41,00
Bread Equip	505			\$ 22,000.00				\$ 22.00
anks	510				\$ 76,000.00		·	\$ 76.00
lowlines/Pipelines	511		1		\$ 29,000.00		\$ -	\$ 29.00
tr Trtr/Seprtr	512				\$ 174,000,00		\$ -	\$ 174,00
lectrical System/Equipment	513				\$ 111,000,00		\$ -	\$ 111,00
krs/Anchors/Hgrs	514			\$ 51,000,00			\$ -	\$ 51,00
ouplings/Fittings/Valves	515				\$ 191,000.00			\$ 191,00
umps-Surface	521				\$ 24,000,00			\$ 24,00
strumentation/SCADA/POC	522				\$ 19,000.00		\$ -	\$ 19,00
kscellaneous	523				\$ 19,000.00			\$ 19.00
leters/Lacts	525				\$ 24,000,00			\$ 24,00
lares/Combusters/Emission	526				\$ 29,000.00			\$ 29,00
ss Lift/Compression	527			\$ 20,000,00			\$ -	\$ 20,00
-Wellhead Equipment	531					\$ 38,000,00		\$ 38,00
Tangible Costs	1000年11日	The State of the S	\$ 575,000.00	\$ 134,000.00	\$ 696,000.00	\$ 146,000,00	0000299012704260 571	\$ 1,651,00
		- T-	T		E-1111			·
Gross Cost The above costs are estima			\$ 3,338,000.00	\$ 3,650,000,00	\$ 911,000.00	\$ 381,000.00	ENVERONMENT TO	8 8,177,00

ooo operating the	
By:	Date Prepared: 5/6/20
10	COG Operating LLC
% Working Interest	Ву
Company: By:	
Printed Name:	
Title:	This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.
000.	your miles of the account costs microfied.

Well Name Tomahawk Fed Unit 704H
SHL 20: 500 FSL, 1618 FWL or Unit N
BHL 32: 200 FSL, 1618 FWL or Unit N
Formation WOLFCAMP A
Legal 29 & 32, 245-28E
AFE Numbers

Company: By:

Prospect Tomahawk 2428 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 20,100 TVD 9,381

angible Costs		1140hng [La]	Pre-Set Casing(PC)	Drilling (DR)	Completions (C	Tank Bity Construtn(TB)	Propq Equip (PEQ)	Revision	The Property
	PART PLANTED	Parsenness to the last	CONTRACTOR STATE	and the results in the second	Maria	The second secon	CONTRACTOR STATE		SHOWN FIRMS
Lctr/Pits/Roads	205			\$ 66,000.00				- \$	86,00
Dritting Overhead	206			\$ 8,000,00			\$	- \$	8,00
Daywork Contract	209			\$ 601,000.00			3	. \$	601.00
		-							
Directional Drlg Services	210	$\overline{}$		\$ 288,000.00			S	- [\$	288,00
Fuel & Power	211			\$ 128,000,00	1		\$. \$	128,00
Water	212	$\overline{}$		\$ 68,000.00			- \$	- \$	68.00
Bits	213			\$ 95,000.00					
		-					\$	- \$	95,00
Mud & Chemicals	214			\$ 227,000,00			5	- \$	227,00
Cement Surface	217			\$ 18,000.00			- 5	- \$	18,00
Cement Intermed	218			\$ 67,000.00				- 5	67,00
Prod-2nd Int Cmt	219	-							
100-ziiu ini Cmt							\$	- \$	100,00
Float Equipment & Centralizers	221			\$ 55,000.00	Į.			- \$	55,00
Csg Crews & Equip	222			\$ 59,000.00			3	- 18	59,00
Contract Labor	225			\$ 6,000,00			Š		
		-						- 18	6,00
Cempany Sprvsn	226			\$ 46,000.00			\$	- \$	46.00
Contract Sprvsn	227			\$ 108,000.00]		\$	- \$	108,00
Tetg Ceg/Tbg	228			\$ 37,000.00	_		E	- \$	37.00
Aud Logging Unit	229					 			
					-		\$	- \$	41,00
Rentals-Surface	235			\$ 177,000.00	l		\$	- [\$	177,00
Rentals-Subsrfc	236			\$ 62,000.00			\$	- \$	82.00
Trucking/Forklift/Rig Mob	237	-		\$ 127,000,00					
							S	. \$	127,00
Velding Services	238			\$ 3,000.00			. \$	- [\$	3,00
ontingency	243			\$ 55,000.00	1		3	- \$	55,00
nymmt/Clad Loop	244	$\overline{}$		\$ 278,000,00			\$. \$	278.00
				A T16/806/80	4 50.000	1			
ielibore Frac Prep	304				\$ 56,000.00		\$	· \$	66,00
ctn/Pits/Roads	305				\$ 8.000.00			- [\$	8,00
ompletion OH	306				\$ 12,000,00			- \$	12.00
rac Equipment	307				\$ 758,000.00	1		1 4	758,00
res Chambada		\longrightarrow					5		
rac Chemicals	308				\$ 325,000.00		\$	- 8	325,00
rac Proppant	309				\$ 147,000.00		\$	- \$	147.00
rac Proppant Transportation	310				\$ 229,000,00		5	. \$	229.00
		\longrightarrow							
uel Delivery & Services	311				\$ 33,000.00		\$	- 8	33,00
Vater	312				\$ 448,000.00		\$	- \$	448.00
rac Surface Rentals	315				\$ 249,000,00		\$	- \$	249,00
	325								
Contract Labor	323				\$ 8,000.00		\$	- [\$	8,00
empany Sprvsn	326				\$ 8,000,00			. (\$	8,00
ontract Sprvan	327				\$ 118,000,00		\$. \$	118,00
roficial Lift Install	329			-					
					\$ 35,000.00		S	- \$	35,00
erl/Wireline Syc	331				\$ 295,000,00]		- [\$	295,00
rucking/Forklift/Rig Mob	337				\$ 8,000,00			- \$	8.00
Vater Disposal	339				\$ 32,000.00				32.00
		-						- 18	
Contingency	343				\$ 117,000.00		\$	- (\$	117,00
Synd Diesel	345			1	\$ 256,000,00	li .		· \$	256,00
Orillout	346				\$ 264,000,00				
		-			3 204,000.00			- 18	264,00
-Damages/Right of Way	351					\$ 2,000.00		- [\$	2,00
Location/Pits/Roads	353					\$ 41,000.00	5	- \$	41.00
Contract Labor	356					\$ 172,000,00	-1:		172,00
						3 172,000,00	*		
Q-Contract Labor	374				1		\$ 38,000.00 \$	- \$	38,00
Q-Water Disposal	387						\$ 179,000.00 \$	- \$	179.00
Q-HRZ Well Offset Frac	391						\$ 18,000.00 \$	- \$	18,00
al Intangible Costs	(86.70,345	\$ 10.000000 - 10.00	BECKER CONTRACTOR	\$ 2,760,000.00	\$ 3,416,000.00	\$ 215,000.00	\$ 235,000.00 \$	optocki stalinic isi	6,626,00
igible Costs		DAVES IT THE TWO	PERSONAL PROPERTY.	TO NOT THE RESIDENCE	activity to all outland	PARTICIPATE OF BUILDING	CONTRACTOR SECURITION OF THE PERSON OF THE P	AUTOCO PROPERTY	OF A CONTRACTORS
	200			ALTERNATION OF THE PARTY OF	The second second			- In	
Q-Flowback Crews & Equip	392	\longrightarrow		L			\$ 108,000.00 \$	- \$	108,00
urface Casing	401			\$ 22,000.00			\$	- [\$	22.00
ntermed Csg	402			\$ 204,000,00	T		\$	- \$	204.00
	403	\longrightarrow							
roduction Casing/Liner				\$ 281,000.00	-		\$	- \$	281,00
/ellhead Equip	405			\$ 68,000,00	1		\$	- \$	68.00
ubing	504				\$ 41,000,00		1 \$	- \$	41.00
	505				\$ 22,000,00		\$. \$	22.00
					22,000,00		. 13		
/elthead Equip					,			- \$	76,00
lethead Equip Tanks	510					\$ 76,000,00			
felthead Equip Fanks					i	\$ 76,000.00 \$ 29,000.00		- \$	29.00
felthead Equip Fanks Flowlines/Pipelines	510 511					\$ 29,000.00	\$		
felihead Equip Fanks Flowlines/Pipelines ftr Trit/Seprir	510 511 512					\$ 29,000.00 \$ 174,000.00	\$ \$. \$	174,00
elihead Equip Fanks Fowlines/Pipelines ftr Trit/Seprir Dectrical System/Equipment	510 511 512 513					\$ 29,000.00	S S S S S	- \$	174,00
lethead Equip Fanks Flowlines/Pipetines ftr Trit/Seprir Electrical System/Equipment	510 511 512 513 514				\$ 51,000.00	\$ 29,000.00 \$ 174,000.00	\$ \$. \$	174,00
lethead Equip Sanks Flowlines/Pipetines Hir Trir/Seprir Electrical System/Equipment ckrs/Anchors/Higrs	510 511 512 513 514				\$ 51,000.00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00	\$ \$ \$ \$ \$	- \$ - \$ - \$	174,00 111,00 51,00
elthead Equip sanks favkines/Pipelines ftr Trtr/Seprtr llectrical System/Equipment ctrs/Anchors/Hgrs Couplings/Fittings/Valves	510 511 512 513 514 515				\$ 51,000.00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$	174,00 111,00 51,00 191,00
elihead Equip anks towkines/Pipetines thr Trat/Seprir Bectrical System/Equipment kra/Anchors/Hgrs couplings/Fittings/Valves *umps-Surface	510 511 512 513 514 515 521				\$ 51,000.00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$	174,00 111,00 51,00 191,00 24,00
letheat Equip Tanks Towknes/Pipetines Its Trit/Septi Tort/Septi Tort/Septi Ectrical System/Equipment Exts/Anchors/Hgirs Couplings/Fittings/Valves Pumps-Surface nstrumentation/SCADA/POC	510 511 512 513 514 515 521 522				\$ 51,000.00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 19,000.00 \$ 24,000.00 \$ 19,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$	174.00 111,00 51.00 191.00 24.00
elhead Equip lanks lowknes/Pipelines tir Trit/Serpt lectrical System/Equipment irs/Anchors/Hgrs cupings/Fittings/Valves Pumps-Surface nstrumentation/SCADA/POC	510 511 512 513 514 515 521				\$ 51,000.00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$	174,00 111,00 51,00 191,00 24,00
elhead Equip ienks lowlines/Pipetines tit Trit/Septr Ectivical System/Equipment ists/Anchors/Hgrs Couplings/Eritings/Valves Pumps-Surface names-surface Assections of SCADA/POC Assections of SCADA/POC Assections of SCADA/POC	510 511 512 513 514 515 521 522 523				\$ \$1,000.00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 191,00 24,00 19,00
lethead Equip [sanks lowknes/Pipelines thr Trtr/Septh Beckineal System/Equipment thrs/Anchors/Pigrs coupings/Fittings/Valves umps-Surface nstrumentation/SCADA/POC discellaneous	510 511 512 513 514 515 521 522 523 525				\$ 51,000.00	\$ 29,000,00 \$ 174,000,00 \$ 111,000,00 \$ 19,000,00 \$ 24,000,00 \$ 19,000,00 \$ 19,000,00 \$ 24,000,00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- S - S - S - S - S - S - S	174,00 111,00 51,00 191,00 24,00 19,00 19,00
leithead Equip lanks lowines/Pipetines for Trit/Septin for Trit/Septin for Trit/Septin for Trit/Septin for Trit/Septin land land land land land land land lan	510 511 512 513 514 515 521 521 522 523 525 526					\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00
elhead Equip ianks lowlines/Pipetines ftr Trit/Septr lectrical System/Equipment ixrs/Anchors/Higns couplings/Fittings/Valves Pumps-Surface nastrumentation/SCADA/POC discellaneous felters/Lacta lares/Combusters/Emission	510 511 512 513 514 515 521 522 523 525				\$ 51,000.00	\$ 29,000,00 \$ 174,000,00 \$ 111,000,00 \$ 19,000,00 \$ 24,000,00 \$ 19,000,00 \$ 19,000,00 \$ 24,000,00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- S - S - S - S - S - S - S	174,00 111,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00
lethesd Equip [anks] lowlines/Pipetines thr Trit/Septr tertiseptr [actival System/Equipment cirs/Anchors/Hgrs Couplings/Fittings/Valves Pumps-Surface nstrumentation/SCADA/POC Viscellaneous Meters/Lacts lares/Combusters/Emission as Lif/Compression	510 511 512 513 514 515 521 522 523 525 526 527					\$ 29,000,00 \$ 174,000,00 \$ 111,000,00 \$ 19,000,00 \$ 24,000,00 \$ 19,000,00 \$ 19,000,00 \$ 24,000,00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00
lethead Equip Tanks Flowkines/Pipelines Ht Trit/Septt Electrical System/Equipment ckrs/Anchors/Pigrs Couplings/Fittingst/valves Pumps-Surface instrumentation/SCADA/POC Miscellaneous Micels/I.acb Flares/Combusters/Emission as Lif/Compression -Wellhead Equipment	510 511 512 513 514 515 521 522 523 525 526 527 531				\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 19,000.00 \$ 24,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5	174,00 111,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 38,00
lethead Equip Tanks Flowkines/Pipelines Ht Trit/Septt Electrical System/Equipment ckrs/Anchors/Pigrs Couplings/Fittingst/valves Pumps-Surface instrumentation/SCADA/POC Miscellaneous Micels/I.acb Flares/Combusters/Emission as Lif/Compression -Wellhead Equipment	510 511 512 513 514 515 521 522 523 525 526 527 531	8	Transfer out of	\$ 575,000.00	\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 19,000.00 \$ 24,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 38,00
lethead Equip Tanks Rowlines/Pipetines Ht Trit/Septs Electrical System/Equipment ctrs/Anchors/Pipes Couplings/Fittings/Valves Pumps-Surface nstrumentation/SCADA/POC Miscellaneous Meters/Lacts Faires/Combusters/Emission se Lif/Compression -Wellhead Equipment at Tangible Costs	510 511 512 513 514 515 521 522 523 525 526 527 531		- materials and a		\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 29,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5	174,00 111,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 38,00
Jethead Equip Tanks Flowfines/Pipetines Htt Trit/Septs Electrical System/Equipment ctrs/Anchors/Higns Couplings/Fittings/Valves Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Meters/Lacts Flares/Combusters/Emission ses Lif/Compression -Wellhead Equipment al Tangible Costs	510 511 512 513 514 515 521 522 522 523 525 526 527 531				\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 29,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 38,00 1,661,00
Jelthead Equip Tanks Flowlines/Pipetines Hit Trit/Seprit Bleathical System/Equipment ckrs/Anchors/Higns Couplings/Fritings/Valves Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Meters/Lacks Flares/Combusters/Emission ass Lift/Compression J-Welthead Equipment at Tangible Costs all Gross Cost	510 511 512 513 514 515 521 522 523 525 526 527 531	128657-31		\$ 575,000.00	\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 29,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5	174,00 111,00 51,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 30,00 1,661,00
Welfhead Equip Tanks Flowlines/Pipelines Hitr Tirt/Sepris Electrical System/Equipment Petrs/Anchors/Higns Couplings/Fittings/Valves Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Meters/Lacts Flares/Combusters/Emission ass Lift/Compression O-Welfhead Equipment tal Tanglible Costs all Gross Cost The above costs are estimal	510 511 512 513 514 515 521 522 523 525 526 527 531	128657-31			\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 29,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	29.00 174.00 111.00 51.00 191.00 24.00 19.00 24.00 22.00 20.00 38.00 1,551,00
Neihead Equip -Tanks -Tanks -Tanks -Hir Triv/Seprir -Electrical System/Equipment -PoksyAnchorut/fgrs -Couplings/Fittings/Valves -Pumps-Surface -Instrumentabon/SCADA/POC -Miscellaneous -Meterul.acts -Flares/Combusters/Emission -Ses Lift/Compression -Weihead Equipment -tal Tanglible Costs -tal Gross Cost -tal Tanglible Costs -tal Gross Cost -tal Tanglible Costs -tal Gross Cost -t	510 511 512 513 514 515 521 522 523 525 526 527 531	128657-31			\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 29,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 38,00 1,661,00
Welfhead Equip Tanks Flowlines/Pipelines Hitr Tirt/Sepris Electrical System/Equipment Petrs/Anchors/Higns Couplings/Fittings/Valves Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Meters/Lacts Flares/Combusters/Emission ass Lift/Compression O-Welfhead Equipment tal Tanglible Costs all Gross Cost The above costs are estimal	510 511 512 513 514 515 521 522 523 525 526 527 531	128657-31			\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 24,000.00 \$ 29,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 38,00 1,661,00
Velhead Equip Tonks Flowines/Pipetines Hit Trit/Septi Electrical System/Equipment chrs/Anchors/Higns Couplings/Fittings/Valves Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Melers/Lacts Flares/Combusters/Emission iss Lif/Compression	510 511 512 513 514 515 521 522 523 525 526 527 531	128657-31			\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 29,000.00 \$ 29,000.00 \$ \$ 311,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 38,00 1,661,00
lethead Equip Tanks Flowfines/Pipetines the Trit/Septh Bestried System/Equipment ckrs/Anchors/Pipes Couplings/Fittings/Valves Pumps-Surface Instrumentabor/SCADA/POC Miscellaneous Meters/Lacks Fares/Combusters/Emission as Lift/Compression -VerMead Equipment at Tanglible Costs at Gross Cost The above costs are estimat 3 Operating LLC	510 511 512 513 514 515 521 522 523 525 526 527 531	128657-31			\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 24,000.00 \$ 29,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 51,00 191,00 24,00 19,00 19,00 24,00 29,00 20,00 38,00 1,661,00
lethead Equip Tanks Flowlines/Pipetines Ht Trit/Septi Bectical System/Equipment class/Anchors/Pipes Couplings/Fittings/Valves Pumps-Surface nstrumentation/SCADA/POC Miscellaneous Meters/Lacta Flares/Combusters/Emission as Lif/Compression -Wellines Tangible Costs at Tangible Costs at Operating LLC approve:	510 511 512 513 514 515 521 522 523 525 526 527 531	128657-31			\$ 20,000,00	\$ 29,090.90 \$ 174,000.00 \$ 111,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 29,000.00 \$ 29,000.00 \$ \$ 911,000.00 \$ 29,000.00 \$ \$ 911,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,00 111,00 51,00 51,00 191,00 24,00 19,00 29,00 29,00 29,00 38,00 1,651,00
elhead Equip ianks lowlines/Pipetines ftr Trit/Septr lectrical System/Equipment itrs/Anchors/Pipes ouplings/Fittings/Valves Pumps-Surface nastumentabon/SCADA/POC fiscellaneous felters/Lacts lares/Combusters/Emission as Lift/Compression - Virelinead Equipment 8 Tanglible Costs d Gross Cost : The above costs are estimat 9 Operating LLC	510 511 512 513 514 515 521 522 523 525 526 527 531	128657-31			\$ 20,000,00	\$ 29,000.00 \$ 174,000.00 \$ 111,000.00 \$ 191,000.00 \$ 24,000.00 \$ 19,000.00 \$ 19,000.00 \$ 29,000.00 \$ 29,000.00 \$ \$ 311,000.00 \$ 29,000.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	174,0 111,0 51,0 191,0 24,0 19,0 24,0 29,0 20,0 38,0 1,651,0

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

Well Name Tomshawk Fed Unit 705H
SHL 20: 500 FSL, 1586 FWL or Unit N
BHL 32: 200 FSL, 622 FWL or Unit M
Formation WOLFCAMP A
Legal 29 & 32, 24S-28E
AFE Numbers

Prospect Tomahawk 2428 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 20,100 TVD 9,362

ost Description ntangible Costs	Code	PreSpud (PS)	Pre-Set Casing (PC)	Drilling (DR	i) Co	mpletions (C)	Tank Bitty	Constrctn(IB)	Propa Equip (PEQ)	Revision	OR PERSON NAMED IN
-Lctn/Pits/Roads	205			1 \$ 86,000.00)]					\$.	\$ 86,0
Orilling Overhead	206			\$ 8,000.00							\$ 8,0
Daywork Contract	209			\$ 601,000.00							\$ 601,0
Directional Drlg Services	210			\$ 288,000.00							\$ 288,0
Fuel & Power	211			\$ 128,000.00							\$ 128,0
Water	212			\$ 68,000.00)						\$ 68,0
Bits	213			\$ 95,000.00)					\$.	\$ 95,0
-Mud & Chemicals	214			\$ 227,000.00						\$ -	\$ 227,0
-Cement Surface	217			\$ 18,000.00						\$ -	\$ 18,0
Cement Intermed	218			\$ 67,000.00)					\$.	\$ 67,0
-Prod-2nd Int Cmt	219			\$ 100,000.00)					\$ -	\$ 100,0
Float Equipment & Centralizers	221			\$ 55,000.00							\$ 55,0
Csg Crews & Equip	222			\$ 59,000.00							\$ 59,0
Contract Labor	225			\$ 6,000.00						\$ -	\$ 6,0
Company Sprvsn	226			\$ 45,000.00							\$ 46,0
Contract Sprvsn	227	<u> </u>		\$ 108,000.00							\$ 108,0
Tstg Csg/Tbg	228			\$ 37,000.00							\$ 37,0
Mud Logging Unit	229			\$ 41,000.00						\$ -	\$ 41,0
Rentals-Surface	235			\$ 177,000.00							\$ 177 <u>,0</u>
Rentals-Subsrfc	236			\$ 82,000.00							\$ 82,0
Trucking/Forklift/Rig Mob	237			\$ 127,000.00							\$ 127,0
Welding Services	238			\$ 3,000.00							\$ 3,0
Contingency	243			\$ 55,000.00			ļ				\$ 55,0
Envmmtl/Clad Loop	244			\$ 278,000.00	1						\$ 278,0
Wellbore Frac Prep	304				\$	66,000.00					\$ 66,0
_ctn/Pits/Roads	305				\$	8,000.00					\$ 8,0
Completion OH	306				\$	12,000.00					\$ 12,0
Frec Equipment	307				\$	758,000.00					\$ 758,0
Frac Chemicals_	308				\$	325,000.00					\$ 325,0
Frac Proppant	309				\$	147,000.00					\$ 147,0
Frac Proppant Transportation	310				\$	229,000.00					\$ 229,0
Fuel Delivery & Services	311				\$	33,000.00					\$ 33,0
Water	312				\$	448,000.00					\$ 448,0
Frac Surface Rentals	315				\$	249,000.00					\$ 249,0
Contract Labor	325				\$	00.000,8					\$ 6,0
Company Sprvsn	326				S	8.000.00					\$ 8,0
Contract Sprvsn	327				\$	118,000.00					\$ 118,0
Artificial Lift Install	329				\$	35,000.00					\$ 35,0
Pert/Wreline Svc	331				\$	295,000.00					\$ 295,0
Trucking/Forklift/Rig Mob	337				\$	8,000.00					\$ 8,0
Water Disposal	339				\$	32,000.00					\$ 32,0
Contingency	343				\$	117,000.00					\$ 117,0
Dyed Diesel	345				\$	256,000.00					\$ 256,0
Drillout	346				\$	264,000.00					\$ 264,0
3-Damages/Right of Way	351				-		\$	2,000.00			\$ 2,0
3-Location/Pits/Roads	353				-		\$	41,000.00			\$ 41,0
3-Contract Labor	356				-		\$	172,000.00			\$ 172,0
EQ-Contract Labor	374				_				\$ 38,000.00		\$ 38,0
Q-Water Disposal	387				-		<u> </u>		\$ 179,000.00		\$ 179,0
Q-HRZ Well Offset Frec	391				_				\$ 18,000.00		\$ 18,0
tel Intengible Costs	mann n	\$ 60001000-13	\$1,000 PH37H - 7K	\$ 2,760,000.00	\$ 7	3,416,000.00	\$ (200)	215,000.00	\$ 235,000.00	Parameter Col. W.	\$ 6,626,0
ngible Costs			and secretary	AND DESCRIPTION OF THE PARTY OF			Service on the				
Q-Flowback Crews & Equip	392				1				\$ 108,000.00	5 -	\$ 108,0
Surface Casing	401			\$ 22,000.00)				,		\$ 22.0
Intermed Csg	402			\$ 204,000.00						s -	\$ 204,0
Production Casing/Liner	403		ì	\$ 281,000.00							\$ 281,0
Wellhead Equip	405			\$ 68,000.00						š ·	\$ 68,0
Tubing	504				\$	41,000.00					\$ 41,0
Wellhead Equip	505		ì	İ .	\$	22,000.00			_		\$ 22,0
-Tanks	510		· · · · · · · · · · · · · · · · · · ·	i e	1		s	76,000.00			\$ 76,0
-Flowlines/Pipelines	511		I	1			Š	29,000.00			\$ 29.0
-Htr Trtr/Seprir	512						\$	174,000.00			\$ 174,0
-Electrical System/Equipment	513						\$	111,000.00			\$ 111,0
Pckm/Anchors/Hgrs	514				\$	51,000.00					\$ 51,0
Couplings/Fittings/Valves	515					-	\$	191,000.00			\$ 191,0
-Pumps-Surface	521			i e			\$	24,000.00			\$ 24,0
Instrumentation/SCADA/POC	522		i e	1	1		Š	19,000.00			\$ 19,0
-Miscellaneous	523				1		3	19,000.00			\$ 19,0
l-Meters/Lacts	525		Ì	Ì			\$	24,000.00		\$.	\$ 24,0
3-Flares/Combusters/Emission	526						\$	29,000.00			\$ 29,0
Gas Lift/Compression	527			T .	\$	20,000.00		,			\$ 20,0
Q-Wellhead Equipment	531								\$ 38,000.00		\$ 38,0
ital Tangible Costs	Demon	S PERLINA TE	Anterior g	\$ 575,000.00	\$ \$	134,000,00	\$ 7100000	696,000.00	\$ 146,000.00		\$ 1,651,0
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COG Operating LCC		
By:	Date Prepared:	5/6/20
We approve:	COG Operating LLC	
	Ву:	
Gompany: By:		
Printed Name: Title:	This AFE is only an estim	nate. By signing you agree to par

August 5, 2020

Via Electronic mail at tres@fdcenergy.com
Big Three Energy Group
P.O. Box 429
Roswell, NM 88202

Re: Tomahawk Fed Unit 701H, 702H
All of Sections 29 & 32, T24S-R28E
Tomahawk Fed Unit 709H, 710H
All of Sections 17 & 20, T24S-R28E
Eddy County, New Mexico

Dear Sir or Madam:

COG Operating, LLC ("COG") hereby proposes the drilling and completing of the following horizontal wells with productive laterals located in Sections 29 & 32 (#701H & #702H) and Sections 17 & 20 (#709H & #710H), T24S-R28E, Eddy County, New Mexico.

SECTIONS 29 & 32, T24S-R28E

The following horizontal wells will have productive laterals located in All of Sections 29 & 32, Township 24 South, Range 28 East, Eddy County, New Mexico. The surface pad locations will be located in Unit P of Section 20, T24S-R28E (subject to change).

- Tomahawk Fed Unit 701H, to be drilled to a depth sufficient to test the Wolfcamp A formation
 at an approximate total vertical depth of 9,448'. The surface location for this well is proposed at
 a legal location in Unit P of Section 20, and a bottom hole location at a legal location in Unit P of
 Section 32. The dedicated horizontal spacing unit will be All of Sections 29 & 32, T24S-R28E,
 Eddy County, New Mexico. The total estimated cost to drill and complete said well is
 \$8,081,800.00, as shown on the attached AFE.
- Tomahawk Fed Unit 702H, to be drilled to a depth sufficient to test the Wolfcamp A formation
 at an approximate total vertical depth of 9,423'. The surface location for this well is proposed at
 a legal location in Unit P of Section 20, and a bottom hole location at a legal location in Unit O of
 Section 32. The dedicated horizontal spacing unit will be All of Sections 29 & 32, T24S-R28E,
 Eddy County, New Mexico. The total estimated cost to drill and complete said well is
 \$8,081,800.00, as shown on the attached AFE.

August 5, 2020 – Page 2 Tomahawk Fed Unit 701H-702H Tomahawk Fed Unit 709H-710H

SECTIONS 17 & 20, T24S-R28E

The following horizontal wells with productive laterals located in All of Sections 17 & 20, Township 24 South, Range 28 East, Eddy County, New Mexico (collectively, the "Operation"). The surface pad locations will be located in Unit A of Section 29, T24S-R28E (subject to change).

- Tomahawk Fed Unit 709H, to be drilled to a depth sufficient to test the Wolfcamp A formation
 at an approximate total vertical depth of 9,426'. The surface location for this well is proposed at
 a legal location in Unit A of Section 29, and a bottom hole location at a legal location in Unit A of
 Section 17. The dedicated horizontal spacing unit will be All of Sections 17 & 20, T24S-R28E,
 Eddy County, New Mexico. The total estimated cost to drill and complete said well is
 \$7,800,800.00, as shown on the attached AFE.
- Tomahawk Fed Unit 710H, to be drilled to a depth sufficient to test the Wolfcamp A formation
 at an approximate total vertical depth of 9,428'. The surface location for this well is proposed at
 a legal location in Unit A of Section 29, and a bottom hole location at a legal location in Unit B of
 Section 17. The dedicated horizontal spacing unit will be All of Sections 17 & 20, T24S-R28E,
 Eddy County, New Mexico. The total estimated cost to drill and complete said well is
 \$7,800,800.00, as shown on the attached AFE.

COG is proposing to drill and complete these wells under the terms the Tomahawk Federal Exploratory Unit Agreement and Tomahawk Joint Operating Agreement which have been previously provided and executed by you.

Please indicate your participation elections in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFEs and a copy of your geologic requirements, to my attention at the letterhead address or by email to jstout@concho.com. Should you have any questions, please do not hesitate to contact me at 432.818.1372.

Sincerely,

COG Operating LLC

/Jeffrey S. Stout/

Jeffrey S. Stout Land Advisor

JSS:bh Enc June 25, 2020 – Page 3 Tomahawk Fed Unit 701H-702H Tomahawk Fed Unit 709H-710H

Please mark your elections below and execute where indicated:

WELL NAME	Election to PARTICIPATE in drilling & completion of well	Election NOT TO PARTICIPATE in drilling & completion of well
Tomahawk Fed Unit 701H		
Tomahawk Fed Unit 702H		
Tomahawk Fed Unit 709H		
Tomahawk Fed Unit 710H		

·	·	
	 · ·	

Big Three Energy Group



June 25, 2020

Via Electronic mail at bart@bartonoil.com
Brett C. Barton
1919 N. Turner Street
Hobbs, NM 88240

Re: Tomahawk Fed Unit 703H, 704H, 705H
All of Sections 29 & 32, T24S-R28E
Tomahawk Fed Unit 711H, 712H, 713H
All of Sections 17 & 20, T24S-R28E
Eddy County, New Mexico

Dear Mr. Barton:

COG Operating, LLC ("COG"), as Operator of the Tomahawk WC Federal Exploratory Unit ("Unit"), would like to inform you as to the plans moving forward with the Unit. The Bureau of Land Management is currently in the process of making their formal and final approval of the Unit, at which time we will provide all Working Interest Owners copies of said approval. Beyond that, estimated spud dates of the first wells in the Unit will occur in mid-3rd Quarter 2020, as COG plans to continue drilling operations through the 4th Quarter 2020, drilling ten (10) wells ("Initial Wells") within the calendar year. At this time, COG hereby proposes the drilling of the following horizontal wells listed below:

SECTIONS 29 & 32, T24S-R28E

The following horizontal wells will have productive laterals located in All of Sections 29 & 32, Township 24 South, Range 28 East, Eddy County, New Mexico. The surface pad locations will be located in Unit N of Section 20, T24S-R28E (subject to change).

- Tomahawk Fed Unit 703H, to be drilled to a depth sufficient to test the Wolfcamp A formation at
 an approximate total vertical depth of 9,398'. The surface location for this well is proposed at a
 legal location in Unit N of Section 20, and a bottom hole location at a legal location in Unit N of
 Section 32. The dedicated horizontal spacing unit will be All of Sections 29 & 32, T24S-R28E, Eddy
 County, New Mexico. The total estimated cost to drill and complete said well is \$8,177,000.00, as
 shown on the attached AFE.
- Tomahawk Fed Unit 704H, to be drilled to a depth sufficient to test the Wolfcamp A formation at
 an approximate total vertical depth of 9,381'. The surface location for this well is proposed at a
 legal location in Unit N of Section 20, and a bottom hole location at a legal location in Unit N of
 Section 32. The dedicated horizontal spacing unit will be All of Sections 29 & 32, T24S-R28E, Eddy
 County, New Mexico. The total estimated cost to drill and complete said well is \$8,177,000.00, as
 shown on the attached AFE.
- Tomahawk Fed Unit 705H, to be drilled to a depth sufficient to test the Wolfcamp A formation at an approximate total vertical depth of 9,362'. The surface location for this well is proposed at a legal location in Unit N of Section 20, and a bottom hole location at a legal location in Unit M of Section 32. The dedicated horizontal spacing unit will be All of Sections 29 & 32, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$8,177,000.00, as shown on the attached AFE.

SECTIONS 17 & 20, T24S-R28E

The following horizontal wells with productive laterals located in All of Sections 17 & 20, Township 24 South, Range 28 East, Eddy County, New Mexico (collectively, the "Operation"). The surface pad locations will be located in Unit C of Section 29, T24S-R28E (subject to change).

- Tomahawk Fed Unit 711H, to be drilled to a depth sufficient to test the Wolfcamp A formation at
 an approximate total vertical depth of 9,396'. The surface location for this well is proposed at a
 legal location in Unit C of Section 29, and a bottom hole location at a legal location in Unit B of
 Section 17. The dedicated horizontal spacing unit will be All of Sections 17 & 20, T24S-R28E, Eddy
 County, New Mexico. The total estimated cost to drill and complete said well is \$8,177,000.00, as
 shown on the attached AFE.
- Tomahawk Fed Unit 712H, to be drilled to a depth sufficient to test the Wolfcamp A formation at
 an approximate total vertical depth of 9,376'. The surface location for this well is proposed at a
 legal location in Unit C of Section 29, and a bottom hole location at a legal location in Unit C of
 Section 17. The dedicated horizontal spacing unit will be All of Sections 17 & 20, T24S-R28E, Eddy
 County, New Mexico. The total estimated cost to drill and complete said well is \$8,177,000.00, as
 shown on the attached AFE.
- Tomahawk Fed Unit 713H, to be drilled to a depth sufficient to test the Wolfcamp A formation at
 an approximate total vertical depth of 9,356'. The surface location for this well is proposed at a
 legal location in Unit C of Section 29, and a bottom hole location at a legal location in Unit D of
 Section 17. The dedicated horizontal spacing unit will be All of Sections 17 & 20, T24S-R28E, Eddy
 County, New Mexico. The total estimated cost to drill and complete said well is \$8,177,000.00, as
 shown on the attached AFE.

COG is proposing to drill and complete these wells under the terms the Tomahawk Federal Exploratory Unit Agreement and Tomahawk Joint Operating Agreement which have been previously provided and executed by you.

Please indicate your participation elections in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFEs and a copy of your geologic requirements, to my attention at the letterhead address or by email to jstout@concho.com. Should you have any questions, please do not hesitate to contact me at 432.818.1372.

Sincerely,

COG Operating LLC

/Jeffrey S. Stout/

Jeffrey S. Stout Land Advisor

JSS:bh Enc June 25, 2020 – Page 3 Tomahawk Fed Unit 703H-705H Tomahawk Fed Unit 711H-713H

Please mark your elections below and execute where indicated:

WELL NAME	Election to PARTICIPATE in drilling & completion of well	Election NOT TO PARTICIPATE in drilling & completion of well
Tomahawk Fed Unit 703H		
Tomahawk Fed Unit 704H		
Tomahawk Fed Unit 705H		
Tomahawk Fed Unit 711H		
Tomahawk Fed Unit 712H		-
Tomahawk Fed Unit 713H		
romanawk red Unit /13H		

BRETT C. BARTON	

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

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

CASE NO. 21425

GEOLOGIST AFFIDAVIT

Travis Sparks, of lawful age and being first duly sworn, declares as follows:

- 1. My name is Travis Sparks, and I am a Geologist with COG Operating LLC ("COG").
- 2. I have previously testified before the New Mexico Oil Conservation Division ("Division") as an expert witness in petroleum geology matters and my credentials have been accepted and made a matter of public record.
- 3. I am familiar with the application filed by COG in this case and I have conducted a geologic study of the lands in the subject area.
- 4. COG is targeting the Wolfcamp formation with its proposed Tomahawk Federal Unit #701H, 702H, 703H, 704H, and 705H wells (collectively called the "Wells").
- 5. Attachment D is a locator map displaying COG's acreage in yellow for the Wolfcamp formation. Existing producing wells in the Wolfcamp interval are represented by solid lines. The approximate wellbore paths for the Wells are marked by dashed lines.
- 6. Attachment E is a subsea structure map that I prepared for the top of the Wolfcamp that is representative of the targeted interval within the Wolfcamp interval. The data points are indicated by crosses. I used the Wolfcamp structure because it is a reliable regional marker and

Hearing Date: September 10, 2020

the target intervals lie near this marker. The approximate wellbore paths for the proposed Wells are depicted by dashed lines. The map shows that the formation is gently dipping to the southwest in this area. I do not observe any faulting, pinch-outs, or other geologic impediments to developing the targeted intervals with horizontal wells in this area.

- 7. Attachment F overlays a cross-section line consisting of three wells penetrating the Wolfcamp formation that I used to construct a stratigraphic cross-section from A to A'. I consider these well logs to be representative of the geology in the area.
- 8. Attachment G is a stratigraphic cross-section using the representative wells depicted on Attachment F. Each well in the cross-section contains gamma ray, resistivity, and porosity logs. The proposed target intervals in the Wolfcamp formation are labeled on the exhibit. The cross-section demonstrates that the targeted intervals are continuous across the proposed spacing unit.
- 9. In my opinion, the stand-up orientation of the proposed wells is the preferred orientation for horizontal well development in this area and is appropriate to efficiently and effectively develop the subject acreage.
- 10. Based on my geologic study, the targeted interval underlying the subject area is suitable for development by horizontal wells, and the acreage comprising the proposed spacing unit will contribute, more-or-less, equally to the production from the wellbores.
- 11. In my opinion, the granting of COG's application will be in the best interest of conservation, the prevention of waste, and the protection of correlative rights.
- 12. Exhibit 2 and Attachments D through G were either prepared by me or compiled under my direction and supervision.

THIS CONCLUDES AFFIANT'S STATEMENT.

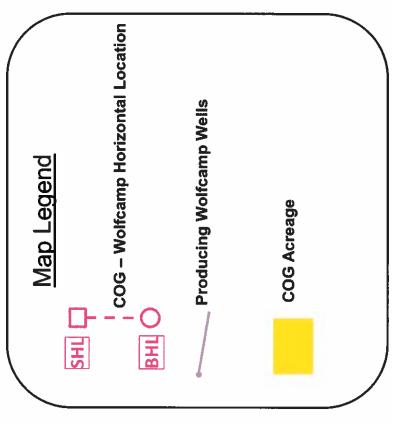
STATE OF New Mexico COUNTY OF <u>Foldy</u>

SUBSCRIBED and SWORN to before me this 4 day of September, by

My Commission Expires:

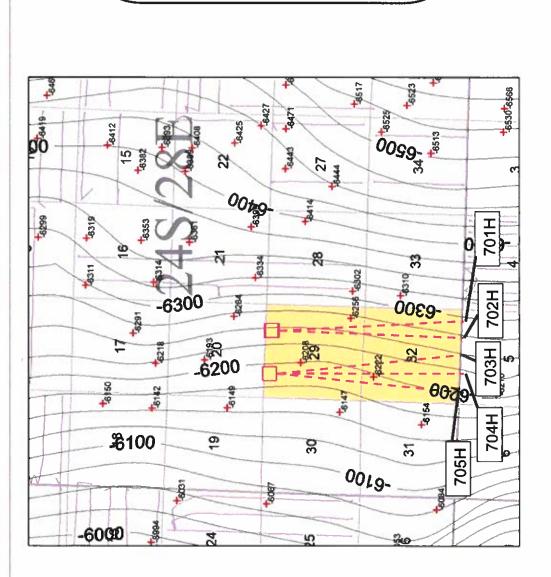
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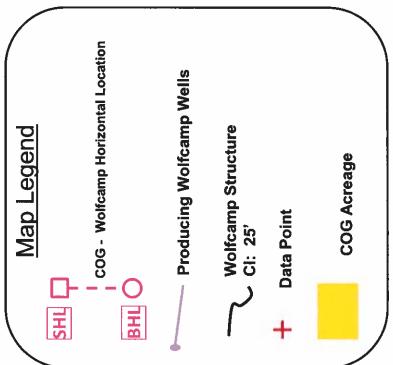






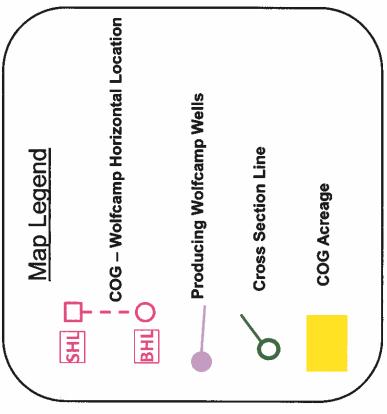
BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21425 Attachment D
Submitted by:
COG OPERATING LLC
Hearing Date: September 10, 2020







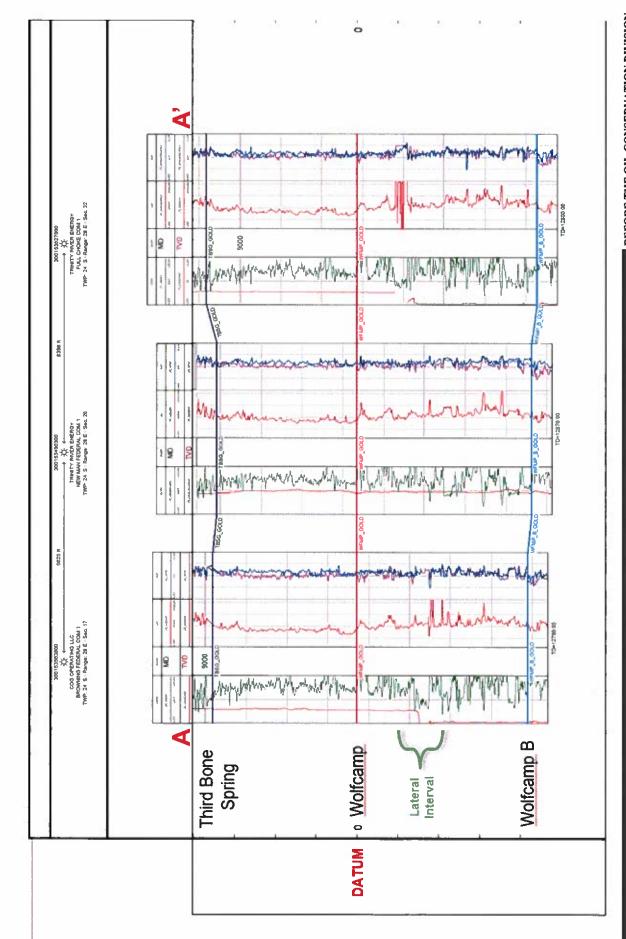
BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21425 Attachment E
Submitted by:
COG OPERATING LLC
Hearing Date: September 10, 2020





BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21425 Attachment F Submitted by:
COG OPERATING LLC
Hearing Date: September 10, 2020

Stratigraphic Cross Section A – A'





BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 21425 Attachment G
Submitted by:
COG OPERATING LLC
Hearing Date: September 10, 2020

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

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, **EDDY COUNTY, NEW MEXICO.**

CASE NO. 21425

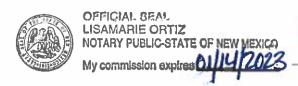
AFFIDAVIT

STATE OF NEW MEXICO)	
)	SS
COUNTY OF SANTA FE)	

Michael Rodriguez, attorney and authorized representative of COG Operating LLC, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application were provided under the notice letter and proof of receipts attached hereto.

Michael Rodriguez

SUBSCRIBED AND SWORN to before me this 8th day of September 2020 by Michael Rodriguez.



BEFORE THE OIL CONSERVATION DIVISION Santa Fe, New Mexico

> Submitted by: **COG OPERATING LLC** Hearing Date: September 10, 2020

Case No. 21425 Exhibit No. 3



August 20, 2020

VIA CERTIFIED MAIL CERTIFIED RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Case No. 21425: Application of COG Operating, LLC for Compulsory Pooling,

Eddy County, New Mexico.

Tomahawk 701H, 702H, 703H, 704, 705H Wells

Ladies & Gentlemen:

This letter is to advise you that COG Operating LLC has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on September 10, 2020, and the status of the hearing can be monitored through the Division's website at http://www.emnrd.state.nm.us/ocd/. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

During the COVID-19 Pubic Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. To participate in the electronic hearing, please see the instructions posted on the OCD Hearings website: http://www.emnrd.state.nm.us/OCD/announcements.html.

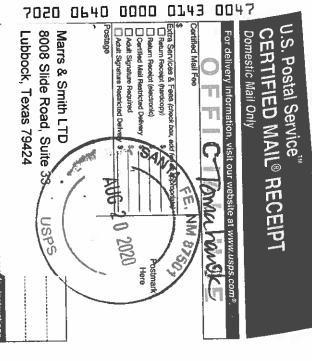
Parties appearing in cases are required by Division Rule 19.15.4.13.B to file a Pre-hearing Statement four business days in advance of a scheduled hearing. This statement must be filed at the Division's Santa Fe office at the above specified address and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions about this matter, please contact Lizzy Laufer, at (432) 221-0470 or elaufer@concho.com.

Michael Rodriguez

ATTORNEY FOR COG OPERATING LLC

P 432 683.7443 | F 432.683.7441



SENDER: COMPLETE THIS SECTION

COMPLETE A Signature

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Complete items 1, 2, and 3.

Print your name and address on the reverse

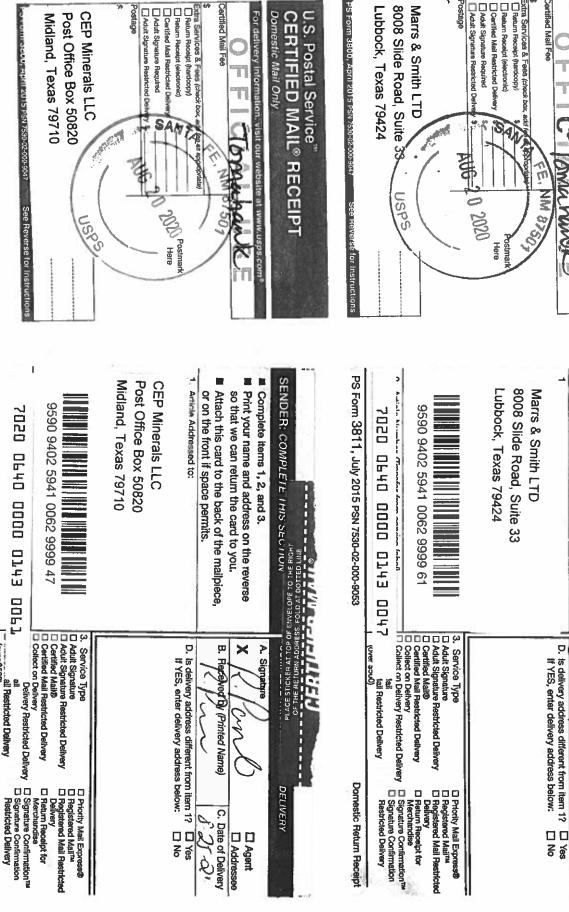
so that we can return the card to you.

Attach this card to the back of the mailpiece

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C. Date of Delivery

or on the front if space permits.



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PS Form 3811, July 2015 PSN 7530-02-000-9053

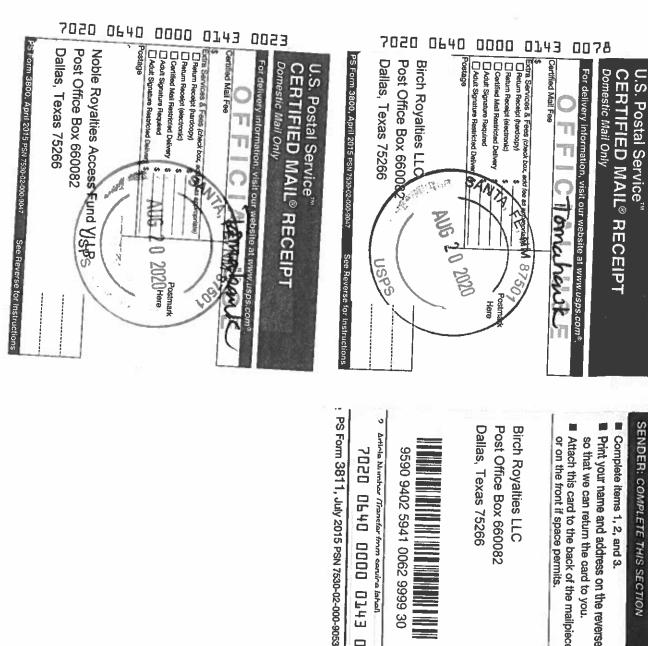
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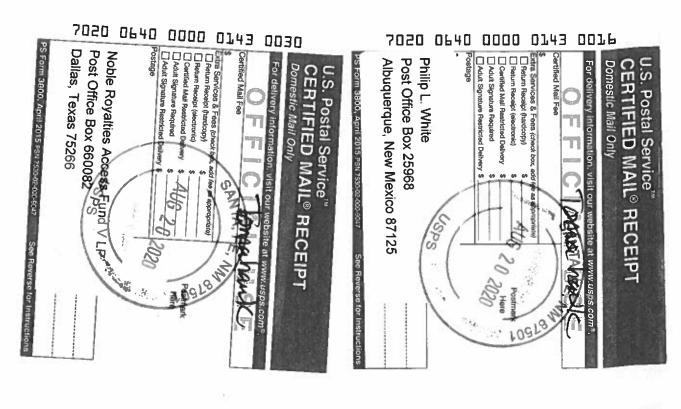


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SENDER: COMPLETE THIS SECTION Print your name and address on the reverse Dallas, Texas 75266 Post Office Box 660082 Birch Royalties LLC Attach this card to the back of the mailpiece, Complete items 1, 2, and 3. so that we can return the card to you. or on the front if space permits. 9590 9402 5941 0062 9999 30 PLACE STICKER AT TOP OF ENVELOPE OF THE RETURN ADDRESS, FOLD ATD 3. Service Type Adult Signature Adult Signature Restricted Delivery Certified Mail@ Certified Mail Restricted Delivery Collect on Delivery Collect on Delivery Restricted Delivery I Collect on Delivery Restricted Delivery Restricted Delivery Signature Confirmation Restricted Delivery Restricted Delivery D. Is delivery address different from item 1? If YES, enter delivery address below: COMPLETE THIS SECTION ON DELIVERY Received by (Printed Name) C. Date of Delivery ☐ Agent □ □ ~ % ☐ Addressee



SENDER: COMPLETE THIS SECTION ■ Complete items 1, 2, and 3. Attach this card to the back of the mailpiece, Post Office Box 25968 Philip L. White Print your name and address on the reverse so that we can return the card to you. or on the front if space permits. D. Is delivery address different from item 1 If YES, enter delivery address below [Printed] ALB LIUVERY USPS ☐ Agent (Pare) ☐ Addresse O N

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PS Form 3811, July 2015 PSN 7630-02-000-9053

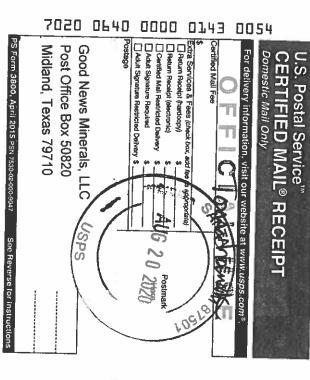
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Affidavit of Publication Ad # 0004341728 This is not an invoice

CONCHO 1048 PASEO DE PERALTA

SANTA FE, NM 87501

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:

08/26/2020

Legal Clerk

Subscribed and sworn before me this August 26,

2020:

WI, County of Brown NOTARY PUBLIC

My commission expires

Ad # 0004341728 PO#: 21425 # of Affidavits1

This is not an invoice

NANCY HEYRMAN Notary Public State of Wisconsin

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

The State of New Mexico through its Oil Conservation Division hereby gives notice pursuant to law and the Rules and Regulations of the Division of the following public hearing to be held at 8:15 A.M. on September 10, 2020. During the COVID-19 Pubic Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. To participate in the electronic hearing, see the instructions posted on the OCD Hearings website: http://www.emnrd.state.nm.us/OCD/announcements.html. If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing, please contact: Florene Davidson at 505-476-3458 or through the New Mexico Relay Network, 1-800-659-1779 by September 1, 2020. Public documents, including the agenda and minutes, can be provided in various accessible formats. Members of the public may obtain copies of the docket by contacting Ms. Davidson at the phone number indicated above. Also, the docket will be posted on the Oil Conservation Division website at www.emnrd.state.nm.us/OCD/. please contact Ms. Davidson if a summary or other type of accessible form is needed.

STATE OF NEW MEXICO TO: All named parties and persons having any right, title, interest or claim in the following case and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.)

To: All interested parties, including: Birch Royalties LLC; CEP Minerals LLC; Good News Minerals, LLC; La Vida Energy Corporation; Marrs & smith LTD; Noble Royalties Access Fund V LP; Noble Royalties Access Fund VI LP; Philip L White.

Case No. 21425: Application of COG Operating LLC for compulsory pooling, Eddy County, New Mexico. Applicant in the above-styled cause seeks an order pooling all uncommitted interests in the Wolfcamp formation, Purple Sage Wolfcamp Gas Pool (98220), underlying a standard 1280-acre, more or less, horizontal spacing unit comprised of all of Sections 29 and 32, Township 24 South, Range 28 East, Eddy County, New Mexico. Applicant seeks to dedicate the above-referenced horizontal spacing unit to the to the following proposed wells:

- Tomahawk Federal Unit #701H to be drilled from a surface hole location in SE/4SE/4 (Unit P) of Section 20 to a bottom hole location in the SE/4SE/4 (Unit P) of Section 32;
- Tomahawk Federal Unit #702H to be drilled from a surface hole location in SE/4SE/4 (Unit P) of Section 20 to a bottom hole location in the SW/4SE/4 (Unit O) of Section 32;
- Tomahawk Federal Unit #703H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 32;
- Tomahawk Federal Unit #704H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SE/4SW/4 (Unit N) of Section 32;
- Tomahawk Federal Unit #705H to be drilled from a surface hole location in SE/4SW/4 (Unit N) of Section 20 to a bottom hole location in the SW/4SW/4 (Unit M) of Section 32.

The completed interval for the proposed Tomahawk Federal Unit #703H well will be within 330' of the line separating the W/2 and the E/2 of Sections 29 and 32 to allow inclusion of this acreage into a standard 1280-acre, more or less, horizontal well spacing unit. Also, to be considered will be the cost of drilling and completing the wells, the allocation of the cost thereof, the actual operating costs and charges for supervision, the designation of applicant as operator, and the imposition of 200% charge for risk involved in drilling and completing each well. Said area is located approximately 3 miles south of Malaga, New Mexico. #4341728, Current Argus, August 26, 2020