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

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

Case Nos. 23594, 23595, 23596, 23597, 23598, 23599, 23600 & 23601

#### **PREHEARING STATEMENT**

Cimarex Energy Co., ("Cimarex"), OGRID No. 215099, through its undersigned attorneys, submits the following Prehearing Statement pursuant to the rules of the Oil Conservation Division ("Division") for the above referenced Cases which are consolidated with the Case Nos. 23452-23455, and 23508 – 23523 for a contested hearing pursuant to that certain "Further Amended Pre-Hearing Order" issued on June 8, 2023. This Prehearing Statement describes the status of Cimarex's Case Nos. 23594 - 23601, which were originally filed in response to Read & Stevens, Inc., in association with Permian Resources Operating, LLC (collectively referred to herein as "Permian Resources") proposing to pool the Wolfcamp formation underlying Sections 5 and 8, and Sections 4 and 9, in Township 20 South, Range 34 East, NMPM, Lea County ("Subject Lands") in Case Nos. 23512-23515 and 23520 – 23523.

APPEARANCES

APPLICANT

Cimarex Energy Co.

#### ATTORNEY

Darin C. Savage Andrew D. Schill William E. Zimsky Abadie & Schill, PC 214 McKenzie Street Santa Fe, New Mexico 87501 Telephone: 970.385.4401 Facsimile: 970.385.4901

darin@abadieschill.com andrew@abadieschill.com bill@abadieschill.com

#### COMPETING PARTY

Read & Stevens, Inc., in association with Permian Resources Operating, LLC	Michael H. Feldewert Adam G. Rankin Julia Broggi Paula M. Vance Holland & Hart LLP Post Office Box 2208 Santa Fe, NM 87504 505-988-4421 Facsimile: 505-983-6043 mfeldewert@hollandhart.com agrankin@hollandhart.com jbroggi@hollandhart.com
ADDITIONAL PARTIES	
Sandstone Properties, LLC	Sealy Cavin, Jr. Scott S. Morgan Brandon D. Hajny P.O. Box 1216 Albuquerque, NM 87103 505-243-5400 scavin@cilawnm.com smorgan@cilawnm.com bhajny@cilawnm.com

Northern Oil and Gas, Inc.

Blake C. Jones Steptoe & Johnson PLLC 1780 Hughes Landing Blvd., Ste 750 The Woodlands, TX 77380 281-203-5730 Facsimile: 281-203-5701 blake.jones@steptoe-johnson.com

#### APPLICANT'S STATEMENT OF THE CASES

Cimarex provides this Prehearing Statement to inform the Division of the current status of Case Nos. 23594, 23595, 23596 and 23597, 23598, 23599, 23600 & 23601. A little more than a month after Cimarex filed its applications to develop and pool the Bone Spring formation in the Subject Lands, Permian Resources not only filed applications for the Bone Spring but also filed applications for drilling and pooling the Wolfcamp formation in the Subject Lands in Case Nos. 23512-23515 and 23520 – 23523, and proposed to drill wells in the Upper Wolfcamp of the Subject Lands despite the fact that, based on the geological and reservoir data, those wells would drain the 3<sup>rd</sup> Bone Spring Sand and would likely result in permanent damage to the target reservoir located in the Bone Spring where the target reservoir is located.

Permian Resources' decision to propose to develop the Upper Wolfcamp created a dilemma for Cimarex. On the one hand, Cimarex understood, based on clear geological and reservoir data, that the Upper Wolfcamp should not be developed in the Subject Lands but, on the other hand, Cimarex understood that once Permian Resources filed its application to pool the Upper Wolfcamp, Cimarex needed to provide a counter proposal that would oppose Permian Resources' Upper Wolfcamp applications.

Consequently, Cimarex drafted competing pooling applications for the Wolfcamp in which it explained that the best way to develop the target reservoir is by drilling wells in the 3<sup>rd</sup> Bone Springs Sands, the same wells proposed by Cimarex's Bone Spring applications and prohibit the drilling of wells in Upper Wolfcamp to prevent drainage from and damage to the target reservoir. Cimarex filed its Wolfcamp applications in Case Nos. 23594 – 23601, in which it dedicated the Wolfcamp units exclusively to wells drilled in the 3<sup>rd</sup> Bone Spring Sands, and not in the Upper Wolfcamp, in order preserve the Upper Wolfcamp from being drilled and thereby protect the 3<sup>rd</sup> Bone Spring Sand from drainage and damage. Cimarex has further evaluated its applications in Case Nos. 23594 – 23601 as a response to the applications filed by Permian Resources in Case Nos. 23512 – 23515 and 23520 – 23523, and Cimarex has determined that the best way to develop the Subject Lands and both protect the primary reservoir of said Lands while optimizing production is to request that the Division establish a protective zone covering the Upper Wolfcamp in order to protect correlative rights and prevent waste.

As a result, Cimarex has filed a Motion for an Order to Prohibit the Drilling of Wells in the Upper Wolfcamp in Order to Protect Correlative Rights and Optimize Production of the Subject Lands ("Motion"), attached hereto as Exhibit 1, in which it has asked the Division to consider and rule on the Motion as part of the Division's ruling in the contested hearing. Should the Division decide that Cimarex has the better development plan, then the Upper Wolfcamp would not be drilled.

#### **APPLICANT'S PROPOSED EVIDENCE AND WITNESS QUALIFICATIONS**

#### WITNESS

#### ESTIMATED TIME

EXHIBITS

Landman: John Coffman Approx. 5 min Approx. 1 Qualifications: I graduated in 2018 from Texas Tech University with a bachelor's degree in Business Administration with an emphasis on Energy Commerce. I have worked at Cimarex for approximately 4 years, and I have been working in New Mexico for 4 years. My credentials as an expert witness in petroleum land matters have been accepted by the Division and made a matter of record.

Geologist: Staci Meuller Approx. min Approx. 21 Qualifications: I have a Bachelor of Science Degree in Geophysical Engineering from Colorado School of Mines, and a Master of Science Degree in Geophysics from Colorado School of Mines. I have worked on New Mexico Oil and Gas matters since July 2018. My credentials as an expert witness in geology have been accepted by the Division and made a matter of record.

Reservoir Engineer: Eddie Behm Approx. 45 minutes Approx. 17 Qualifications: I attended the University of Tulsa and graduated with a bachelor's in petroleum engineering in 2011. I have worked for Occidental, California Resources prior to working for Cimarex and have been employed as a Production and Reservoir engineer for Cimarex for the last 6 years, working in the Delaware Basin with a primary focus on Lea County, New Mexico. I have previously testified before the Division as an expert reservoir engineer, and my credentials have been accepted of record.

Facilities Engineer: Calvin Boyle Available for questions (15 min) Approx. 1 Qualifications: I attended the University of Oklahoma and graduated with a bachelor's in petroleum engineering in 2016 followed by Oklahoma State University where I graduated with a Master of Business Administration in 2018. I worked for Halliburton prior to working for Cimarex Energy Co. ("Cimarex") and have been employed as a Field, Production, and Facilities engineer for Cimarex for the last 4 years, working in the Delaware Basin with a primary focus on Lea County, New Mexico. I am familiar with the subject applications filed in the above-referenced Cases and the engineering involved. I have not testified previously before the Division and am providing a one-page resume.

#### LIST OF MATERIAL FACTS NOT IN DISPUTE

Parties are in general agreement that the Bone Spring formation underlying the Subject Lands would be productive if drilled and developed and should be developed; however, there is disagreement about whether the Upper Wolfcamp should be drilled and developed simultaneously with the Bone Spring.

#### LIST OF DISPUTED FACTS AND ISSUES

The central issue in Cimarex's Case Nos. 23594 - 23601 and Permian Resources' competing Case Nos. 23512 – 23515 and 23520 - 23523 is whether the Upper Wolfcamp should be drilled and developed (Cimarex asserts that the drilling of the Upper Wolfcamp would result in waste and harm to correlative rights and to the target reservoir, and therefore the Upper Wolfcamp should not be drilled; while Permian Resources proposes to drill the Upper Wolfcamp). As an alternative to drilling the Upper Wolfcamp, Cimarex has filed a Motion to establish a protective buffer zone in the Upper Wolfcamp to prevent it from being drilled.

#### PROCEDURAL MATTERS

For Cimarex's Case Nos. 23594 – 23601 and Permian Resources' Case Nos. 23512 – 23515 and 23520 – 23523, Cimarex requests that the Division review and consider the Motion (attached hereto as Exhibit 1) that Cimarex has filed concerning the Wolfcamp formation and how best to

develop the Subject Lands.

Respectfully submitted,

ABADIE & SCHILL, PC

/s/ Darin C. Savage

Darin C. Savage

Andrew D. Schill William E. Zimsky 214 McKenzie Street Santa Fe, New Mexico 87501 Telephone: 970.385.4401 Facsimile: 970.385.4901 darin@abadieschill.com andrew@abadieschill.com

Attorneys for Cimarex Energy Co.

#### **CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the foregoing was filed with the New Mexico

Oil Conservation Division and was served on counsel of record via electronic mail on July 13,

2023:

Michael H. Feldewert – mfeldewert@hollandhart.com Adam G. Rankin – agrankin@hollandhart.com Julia Broggi – jbroggi@hollandhart.com Paula M. Vance – pmvance@hollandhart.com

Attorneys for Read & Stevens, Inc.; and Permian Resources Operating, LLC

Blake C. Jones - blake.jones@steptoe-johnson.com

Attorney for Northern Oil and Gas, Inc.

Sealy Cavin, Jr. – scavin@cilawnm.com Scott S. Morgan – smorgan@cilawnm.com Brandon D. Hajny – bhajny@cilawnm.com

Attorneys for Sandstone Properties, LLC

/s/ Darin C. Savage

Darin C. Savage

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

#### APPLICATIONS OF CIMAREX ENERGY CO. FOR A HORIZONAL SPACING UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

Case Nos. 23448 – 23455

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

Case Nos. 23594 - 23601

#### APPLICATIONS OF READ & STEVENS, INC. FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

Case Nos. 23508 – 23523

#### MOTION FOR AN ORDER TO PROHIBIT THE DRILLING OF WELLS IN THE UPPER WOLFCAMP IN ORDER TO PROTECT CORRELATIVE RIGHTS AND OPTIMIZE PRODUCTION OF THE SUBJECT LANDS

Cimarex Energy Co., ("Cimarex"), through its undersigned attorneys, respectfully requests that the New Mexico Oil Conservation Division ("Division") issue an order prohibiting the drilling of horizontal wells in the Upper Wolfcamp in Sections 4, 5, 8 and 9, Township 20 South, Range 34 East, NMPM, Lea County ("Subject Lands") to protect correlative rights and optimize production of the Subject Lands. In support of its Motion, Cimarex submits the following:

#### I. Factual and procedural background

1. Cimarex has been preparing to develop Subject Lands since 2018. Based on its detailed analysis of the specific geology and reservoir characteristics of this area, on March 9, 2023, Cimarex filed applications in Case Nos. 23448 through 23455 for the compulsory pooling



of the Bone Spring formation underlying the Subject Lands, proposing the Mighty Pheasant Wells for units in Sections 5 and 8, and proposing the Loosey Goosey Wells for units in Sections 4 and 9.

2. As a result of its evaluation of the Subject Lands, as well as the surrounding area, Cimarex found that not only were the best reserves of oil and gas residing in the 3<sup>rd</sup> Bone Spring Sand but also that the Upper Wolfcamp reservoir under the Subject Lands and surrounding area was significantly below average in quality and potential, rendering Wolfcamp wells economically unfeasible. *See* Exhibit 1, attached hereto, showing that the consensus landing for optimal development is the 3<sup>rd</sup> Bone Spring Sands, not the Upper Wolfcamp.

3. Cimarex has also determined that there are no indications of any major geomechanical changes/frac baffles in between Cimarex's 3<sup>rd</sup> Sand target and Permian Resources' Wolfcamp Sands target, indicating that these two intervals are most likely one shared reservoir tank. Due to the absence of the baffle between the 3<sup>rd</sup> Bone Spring Sand and the Upper Wolfcamp, Cimarex has concluded that if Upper Wolfcamp wells were to be completed while drilling and developing the 3<sup>rd</sup> Bone Spring Sand, those wells would drain much of the reserves in the 3rd Bone Spring Sand, where the best reserves are located, and would likely result in permanent damage to the target reservoir in the 3<sup>rd</sup> Bone Spring Sand.

4. Thus, Cimarex limited its proposed development and applications for compulsory pooling to the Bone Spring and did not seek to pool the Upper Wolfcamp. Cimarex's analysis of the Subject Lands comports to how other operators are developing the surrounding areas that share the same three fundamental characteristics, *viz.*, excellent reserves in the 3<sup>rd</sup> Bone Spring Sand, poor quality reservoir in the Upper Wolfcamp, and the lack of a baffle between the two. *See* Exhibit 2, attached hereto, showing the overwhelming predominance of Bone Spring development

and the dearth and rarity of the Wolfcamp development.

5. A little more than a month after Cimarex filed is applications to develop and pool the Bone Spring Formation, Read & Stevens, Inc., in association with Permian Resources Operating, LLC (collectively referred to as "Permian Resources"), filed competing applications to pool the Bone Spring formation of the Subject Lands in Case Nos. 23508-23511 and 23516-23519. Permian Resources also filed applications for drilling and pooling the Wolfcamp formation in Case Nos. 23512-23515 and 23520-23523, proposing to drill eight wells in the Upper Wolfcamp despite the fact that those wells would drain the 3<sup>rd</sup> Bone Spring Sand and would likely result in permanent damage to the target reservoir located in the Bone Spring where the best reservoirs are located.

6. Given the poor quality of the Upper Wolfcamp reservoir, the lack of the baffle that would otherwise minimize drainage of the 3<sup>rd</sup> Bone Spring, the fact that additional Upper Wolfcamp wells will not increase EUR, and the recent history of developing the lands in the area that account for these facts, Permian Resources' decision to seek to develop the Upper Wolfcamp Formation is baffling. The geological data demonstrates that expending tens of millions of dollars<sup>1</sup> drilling unnecessary wells in the Upper Wolfcamp that will not increase EUR, but instead would place a substantial financial burden on Working Interest owners, incur environmental risks of drilling additional and unnecessary wells, undermine overall production, and likely result in permanent damage to the target reservoir, creating waste of oil and gas that would be forever lost through the misguided development of the Upper Wolfcamp. See Exhibit 4

7. Permian Resources' decision to propose to develop the Upper Wolfcamp created a dilemma for Cimarex. On the one hand, based on clear geological and reservoir data, Cimarex

<sup>&</sup>lt;sup>1</sup> Permian Resources is proposing to drill eight Upper Wolfcamp wells on the Subject Lands at a total estimated cost of \$95,022,896. *See*: Permian Well Proposals, a copy of which are attached hereto as Exhibit 3.

knew, that the Upper Wolfcamp should not be developed on the Subject Lands but, on the other hand, Cimarex understood that once Permian Resources filed its application to pool the Upper Wolfcamp, Cimarex needed to provide a counter proposal that would oppose Permian Resources' Upper Wolfcamp applications.

8. Consequently, Cimarex drafted competing pooling applications for the Upper Wolfcamp in which it explained that the best way to develop the target reservoir is by drilling wells in the  $3^{rd}$  Bone Springs Sands, the same wells proposed by Cimarex's Bone Spring applications and prohibit the drilling of wells in Upper Wolfcamp to prevent drainage from and damage to the target reservoir. Cimarex filed its Wolfcamp applications on June 5, 2023, in Case Nos. 23594 – 23601, in which it dedicated the Wolfcamp units exclusively to wells drilled in the  $3^{rd}$  Bone Spring Sands, and not in the Upper Wolfcamp, in order preserve the Upper Wolfcamp from being drilled and thereby protect the  $3^{rd}$  Bone Spring Sand from drainage and damage.

#### II. Argument

#### A. The optimal development of the Subject Lands is to drill wells in the 3<sup>rd</sup> Bone Spring Sand and create a protective buffer zone that would prohibit the drilling of wells in the Upper Wolfcamp.

9. In order to protect the abundant reserves in the 3<sup>rd</sup> Bone Spring Sand and avoid the inherent damage that Permian Resources' proposed Upper Wolfcamp wells would inflict on the reservoir, the Division should create a buffer zone that prohibits development of the subpar Upper Wolfcamp. The history and practice of achieving optimal development in the area surrounding the Subject Lands has repeatedly been demonstrated over the years by the fact the operators who were free to drill in both the Bone Spring and Wolfcamp decided to develop the 3<sup>rd</sup> Bone Spring Sands and to forego drilling any Upper Wolfcamp wells. *See* Exhibits 1 and 2, attached hereto.

10. Cimarex filed its Wolfcamp applications only as a response to Permian Resources'

unexpected and imprudent Wolfcamp applications as a means to prevent Permian Resources from making the mistake of drilling the costly, wasteful, and unnecessary Upper Wolfcamp wells. In its competing Wolfcamp applications, Cimarex emphasized that only the 3<sup>rd</sup> Bone Spring Sands should be drilled and not the Upper Wolfcamp, consistently advocating that the Division should not allow the drilling of Upper Wolfcamp wells on the Subject Lands.

11. Cimarex recognizes that filing its competing applications for pooling the Upper Wolfcamp based on wells drilled in 3<sup>rd</sup> Bone Spring Sand may not be the best way to protect correlative rights and counter Permian Resources' plan for the Upper Wolfcamp. Cimarex submits that the best course of action for the Division to follow, in order to ensure achieving optimal production from the rich reserves located in the 3<sup>rd</sup> Bone Spring Sand and to protect correlative rights, would be to allow the drilling of the 3<sup>rd</sup> Bone Spring Sand wells, as proposed by Cimarex, and to establish a vertical protective zone that would preclude the drilling of wells in the subpar Upper Wolfcamp. Such a protective zone would prevent drainage of the 3<sup>rd</sup> Bone Spring, thus protecting the correlative rights of the owners in the 3<sup>rd</sup> Bone Spring. In addition, the protective zone would spare the working interest owners approximately \$95 Million for wells that not only fail to increase the EUR but would also likely damage the reservoir. Cimarex has carefully analyzed the need for such a protective buffer zone and provides in Exhibit 5, attached hereto, a graphic depiction and quantification of the area and extent of the Upper Wolfcamp that needs to be protected.

12. The Division has the clear authority to fashion such a necessary solution and establish a protective zone under NMSA 1978 Section 70-2-11, which grants the Division authority "to do whatever may be reasonably necessary" to protect correlative rights, prevent waste, and prevent the drilling of unnecessary wells. The wells proposed to be drilled by Permian

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Resources in the Upper Wolfcamp are clearly unnecessary, wasteful, and unwarranted based on the geological and reservoir data.

13. When Cimarex drafted its competing application to pool the Wolfcamp formation as a counter to Permian Resources' Wolfcamp application, it did so with the intent of dedicating the Wolfcamp unit to a well drilled in the 3<sup>rd</sup> Bone Spring in order to prevent the Upper Wolfcamp from being drilled and establishing the Upper Wolfcamp as a buffer zone. Cimarex submits this Motion with the same intent - to prohibit the drilling of wells in the Upper Wolfcamp by creating a protective buffer zone that would prevent drainage of the target reservoir, protect correlative rights, prevent waste, avoid the drilling of unnecessary wells, and protect the target reservoir from harm and damage. Thus, Cimarex by this Motion respectfully requests that its competing applications in Case Nos. 23594, 23595, 23596, 23597, 23598, 23599, 23600, and 23601 to pool the Wolfcamp formation be dismissed; that the Division establish a protective buffer zone that prohibits the drilling of wells in the Upper Wolfcamp; and that the Division require any operator who wants develop the Lower Wolfcamp, below the proposed buffer zone, to file a separate pooling application that specifically targets the Lower Wolfcamp.

#### III. Conclusion:

Cimarex respectfully requests that the Division consider this Motion as part of the contested hearing for the above-referenced cases during which Cimarex and Permian Resources will be presenting their respective plans for the development of the Subject Lands. Permian Resources' development plans consist of drilling both the Bone Spring and Upper Wolfcamp formations; whereas, Cimarex's development plans consist of drilling only the Bone Spring formation to achieve optimal production of the Subject Lands that protects correlative rights and avoids waste.

If the Division finds Cimarex's production data and analysis of the geology and target reservoir to be accurate and persuasive, and as a result, decides to grant Cimarex operatorship of the Subject Lands by approving its applications for the Bone Spring, then concurrently with the Division's decision, Cimarex respectfully asks the Division to grant this Motion by enacting the following: (1) Dismiss Cimarex's applications for the Wolfcamp in Case Nos. 23594, 23595, 23596, 23597, 23598, 23599, 23600, and 23601, and as an alternative to pooling the Wolfcamp, pool only the Bone Spring formation underlying the units proposed by Cimarex in Case Nos. 23448 – 234455; (2) establish a protective buffer zone covering the Upper Wolfcamp below the base of the Bone Spring that would prohibit the drilling of wells in the Upper Wolfcamp in order to protect the correlative rights of the owners, prevent waste and optimize production from the Subject Lands; and (3) deny the applications filed by Permian Resources that propose to pool the Wolfcamp formation for the purpose of drilling the Upper Wolfcamp and require any operator wanting to develop the Lower Wolcamp, below the protective zone, to file separate applications that actually target the Lower Wolfcamp, and not the Upper Wolfcamp.

Respectfully submitted,

ABADIE& SCHILL, PC

/s/Darin C. Savage

Darin C. Savage

Andrew D. Schill William E. Zimsky 214 McKenzie Street Santa Fe, New Mexico 87501 Telephone: 970.385.4401 Facsimile: 970.385.4901 darin@abadieschill.com andrew@abadieschill.com bill@abadieschill.com

#### Attorneys for Cimarex Energy Co.

#### **CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the foregoing was filed with the New Mexico

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Attorneys for Sandstone Properties, LLC

/s/Darin C. Savage

Darin C. Savage

## Well Count by Landing and Operators Shows 3<sup>rd</sup> Sand is the Consensus Landing

 3<sup>rd</sup> Sand / single bench landing supported by 236 wells, 97%.

Released to Imaging: 7/14/2023 8:02:32 AM

- 13 of 22 WCMP were drilled instead of 3<sup>rd</sup> SS
- 5 of 22 WCMP drilled as a separate bench
- 3 WCMP stack tests with 3<sup>rd</sup> Sand

ingle bench ported by 7%. CMP were ead of 3 <sup>rd</sup> SS MP drilled te bench ack tests nd	Well Count	45 40 35 30 25 20 15 10 5 0	2010	2011	2012	2013	2014	2015	2016	ota 22			S: 2020	2021	2022	2023	2015	W		1 <b>P:</b> ells	2019	2020
APACHE CORP									3r	dSS	6								Wolf	ca mp		5
CAZA OPERATING LLC							1		1	1	1	1		2								-
CIMAREX ENERGY CO			2	7	2	8	7	1		1	3	3				1				1		
COG OPERATING LLC				1	7	9	14	16	5	1	2								1	1	8	
EARTHSTONE OPERATIN	G LLC						3		1	1										1		
■ EOG RESOURCES INC							1		1			4						1				
FASKEN OIL & RANCH LT	D				1	1	2	4														
FRANKLIN MOUNTAIN E	NERGY	3 LLC			2	11	5	1				2			2							
LEGACY RESERVES OPER	ATING	LP		1	1	2	1	5	1	4	2	1									1	
MARATHON OIL PERMIA	N LLC						1	1									1					
MATA DOR PRODUCTION	I CO				2			1	4	2	2	3							1		1	
MEWBOURNE OIL CO							5	4					1	2	4	2						
RAYBAW OPERATING LL	С					1															KHIBIT	
READ & STEVENS INC								2			2				1							
XTO ENERGY INC						1		7			7										1	

#### **3rd Bone Spring Sand Producers Wolfcamp Producers** 18S 34E 18S 33E 8S 34E 18S 33E 18S 35E 18S 35E 19<sup>1</sup>5 34E 19S 33E 19S 33E 9\$ 34E 19S 35E 19S 35E Contested area Contested area 20S 33E 20S 33E 20S 34E 20S 35E 20S 35E Black and Tan Black and Tan Permian analog Permia **EXHIBIT** Legend **Cimarex Operated Wells**

## 3<sup>rd</sup> Bone Spring Sand is the Established Single Bench Target at 4 WPS within AOI

42,650 acres developed with more than 1 well, all but one development, 98.5% of sections similar to Cimarex proposal

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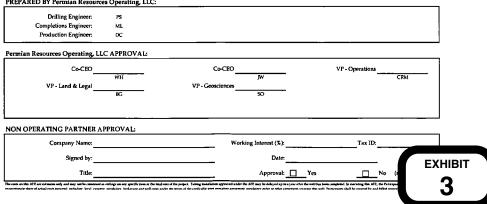
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#### Permian Resources Operating, LLC 300 N. Marienfeld St., Sie. 3000 Midland, TX 79701 Phone (432) 695-4222 • Fax (432) 695-4063

	.17.2023		DRIZATION FOR EXPEND	AFE NO .:	1
				FIELD:	Tonto: Wolfcamp
	ane 4-9 Federal Com 2011	н		_	
	ection 4, T20S-R34E			MD/TVD:	21,210' / 10,925'
COUNTY/STATE: L	ea County, New Mexico			LATERAL LENGTH:	10,000'
Permian WI:				DRILLING DAYS:	19.6
SEOLOGIC TARGET:	VCXY			COMPLETION DAYS:	19
	Drill a horizontal WCXY w	will and complete with	h 44 stages AFF include	s drilling completions.	flowback and Initial
		ven and complete wi	ut 44 stages. At L fictude	s artitung, compications,	now back and made
REMARKS: A	AL install cost				
				PRODUCTION	TOTAL
		DRILLING	COMPLETION COSTS	COSTS	COSTS
INTANGIBLE CO	STS	COSTS	0515		\$ 965
Land/Legal/Regulatory	s_	59,066	18.067	37,500	308.6
Location, Surveys & Damages	_	47,628	43,778	25,000	116,4
Freight/Transportation	-	124,327	215,417	105,000	444,7
	. –	205,424	59,805	105,000	265,2
i Rental - Downhole Equipmen	· _	48,083	54,480		102,5
Rental - Living Quarters 0 Directional Drilling, Surveys	. –	429,543	54,460		429.5
1 Drilling	-	753,820			753,8
2 Drill Bits	-	100,176			100,1
3 Fael & Power	-	188,935	725,061	<u> </u>	913.9
14 Cementing & Float Equip		243,296			243.2
15 Completion Unit, Swab, CTI	, <b>–</b>		<u> </u>	15.000	15.0
6 Perforating, Wireline, Slickli		· · ·	393,136	<u>.</u>	393,1
7 High Pressure Pump Truck	-	· ·	123,274		123,2
8 Completion Unit, Swab, CT		<u> </u>	146,484	· · · · ·	146,4
20 Mud Circulation System	-	105,209		· · · · ·	105,3
21 Mud Logging	-	17,529			17,
22 Logging / Formation Evaluat	ion —	7,270	8,339		15,6
23 Mud & Chemicals	-	361,835	438,185	10,000	810,0
24 Water	-	43,459	661,625	300,000	1,005.0
25 Stimulation	-		814,033	· · ·	814,0
26 Stimulation Flowback & Dis	P -		121,606	150,000	271,6
28 Mud/Wastewater Disposal	-	193,104	61,151	-	254,2
30 Rig Supervision / Engineeria		121,196	133,420	21,667	276,2
32 Drig & Completion Overhea	d	10,423	· ·		10,4
15 Labor		153,358	69,489	101,667	324,5
54 Proppant		· ·	1,255,227	· · ·	1,255,3
95 Insurance	-	14,660	-		14,0
97 Contingency	-		24,421	3,833	28,2
99 Plugging & Abandonment	-	·	·	<u> </u>	
	TOTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,655,
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE COS	ST6	COST5	COSTS	COSTS	COSTS
50 Surface Casing	<u>,,,,</u>	122.234		•	\$ 122,2
51 Intermediate Casing	-	344,284		<u> </u>	344.3
52 Drilling Liner			<u> </u>	·	
3 Production Casing	-	687,039			687,0
4 Production Liner	-	-			
65 Tubing	-			140,000	140,0
66 Wellhead	-	64,820		40.000	104,
67 Packers, Liner Hangers	-	14,732	· · ·	20,000	34,3
68 Tanks	-		· · ·	45,833	45,4
69 Production Vessels	-			126,667	126,0
70 Flow Lines	-	-	<u> </u>	66,667	66,0
71 Rod string	-		-	· · · · ·	
72 Artificial Lift Equipment	-	•		90,000	90,0
73 Compressor	-		<u> </u>	5,833	5,
74 Installation Costs	-		· ·	· ·	
'S Surface Pumps	-		-	61,667	61,
6 Downhole Pumps	-				
77 Measurement & Meter Insta		<u> </u>	<u> </u>	116,667	1 16,
78 Gas Conditioning/Dehydra		•	<u> </u>	<u> </u>	
9 Interconnecting Facility Pipi	ng	· ·		20,000	20,0
30 Gathering/Bulk Lines	-				
31 Valves, Dumps, Controllers	-	•		108,333	108,
32 Tank / Facility Containment	-	· .	-	43,333	43,
83 Flare Stack		•	-	16,667	16,
64 Electrical/Grounding	_		<u> </u>	50,000	50,0
85 Communications/SCADA		-		36,667	36,0
86 Instrumentation / Safety				833	
	TOTAL TANGIBLES >	1,233,109	0	989,167	2,222
	TOTAL COSTS >	4,749,528	5,367,000	1,761,334	11,877

PREPARED BY Permian Resources Operating, LLC:



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## Permian Resources Operating, LLC 300 N. Marienfeld SL, Stc. 1000 Midland, TX 79701 Phone (432) 695-4222 • Fax (432) 695-4063

24.TE	7.2023		RIZATION FOR EXPEND	AFE NO.:	1
				FIELD;	Tonto; Wolfcamp
	ne 4-9 Federal Com 202	н		_	
	ction 4, T205-R34E			MD/TVD:	21,210' / 10,925'
OUNTY/STATE: Le	a County, New Mexico			LATERAL LENGTH:	10,000
ermian WI:				DRILLING DAYS:	19.6
GEOLOGIC TARGET: W	CXY			COMPLETION DAYS:	19
D	rill a horizontal WCXY v	vell and complete wit	th 44 stages. AFE include	s drilling, completions,	flowback and Initial
	L install cost	· • • • • • • • • • • • • • • • • • • •		· · · ·	
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE COS	TE	COSTS	COSTS	COSTS	COSTS
Land/Legal/Regulatory	5	59,066	-	37,500	5 96,5
Location, Surveys & Damages	-	288.079	18,067	2,500	308,6
Freight / Transportation	-	47,628	43,778	25,000	116,4
Rental - Surface Equipment	-	124,327	215,417	105,000	444,7
Rental - Downhole Equipment	_	205,424	59,805	-	265,2
Rental - Living Quarters	-	48,083	54,480	•	102,5
0 Directional Drilling, Surveys		429,543			429,5
1 Drilling		753,820	<u> </u>	-	753,8
2 Drill Bits		100,176		-	100,1
3 Fuel & Power	_	188,935	725,061	<u> </u>	913,9
4 Cementing & Float Equip	-	243,296	<u> </u>	-	243,2
5 Completion Unit, Swab, CTU		<u> </u>		15,000	15,0
6 Perforating, Wireline, Slicklin	e _	·	393,136	<u> </u>	123,2
7 High Pressure Pump Truck	-	<u> </u>	123,274		123,
8 Completion Unit, Swab, CTU	-	105,209	140,404	<u> </u>	146,4
0 Mud Circulation System	-	17,529			17,
21 Mud Logging 22 Logging / Formation Evaluatio		7,270	8,339		15,6
23 Mud & Chemicals		361,835	438,185	10,000	810,0
24 Water	-	43,459	661,625	300.000	1,005.0
25 Stimulation	-		814,033		814,0
6 Stimulation Flowback & Disp	. –		121,606	150,000	271,0
28 Mud/Wastewater Disposal	-	193,104	61,151		254.2
30 Rig Supervision / Engineering	, –	121,196	133,420	21,667	276,2
2 Drig & Completion Overhead		10,423	<u> </u>		10,
35 Labor	-	153,358	69,489	101,667	324,5
54 Proppant	-		1,255,227		1,255,2
95 Insurance	-	14,660		· · · · · ·	14,6
77 Contingency	-	-	24,421	3,833	28,2
9 Plugging & Abandonment	-				
т	'OTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,655,
		DRILLING	COMPLETION	PRODUCTION	TOTAL
	-	COSTS	COSTS	COSTS	COSTS
TANGIBLE COS O Surface Casing	15	122.234			s 122.
51 Intermediate Casing	•	344,284			344,2
2 Drilling Liner	-	511,201			
3 Production Casing	-	687,039			- 687,
64 Production Liner	-		<u> </u>		
5 Tubing	-			140,000	140,
56 Wellhead	-	64,820		40.000	104.
7 Packers, Liner Hangers	-	14,732	· · ·	20,000	34,
8 Tanks	-			45,833	45,
69 Production Vessels	-	-		126,667	126,
70 Flow Lines	-		<u> </u>	66,667	66,
71 Rod string	-		-	· ·	
72 Artificial Lift Equipment	-	· · ·		90,000	90,
73 Compressor	-	-		5,833	5,
4 Installation Costs	-	-		· ·	
75 Surface Pumps	-		-	61,667	61,
6 Downhole Pumps	-	•	-		
77 Measurement & Meter Install				116,667	116,
78 Gas Conditioning / Dehydrat		-	<u> </u>		
79 Interconnecting Facility Pipir	8		<u> </u>	20,000	20,
SO Gathering / Bulk Lines	-	·			
1 Valves, Dumps, Controllers	-	<u> </u>	<u> </u>	108.333 43.333	108,
82 Tank / Facility Containment	-		<u> </u>		
83 Flare Stack	-	<u> </u>		16,667	16,
84 Electrical / Grounding	-		<u> </u>	36,667	
85 Communications / SCADA 86 Instrumentation / Safety	-	<u> </u>	<u> </u>	36,667	
so manumentation / safety	TOTAL TANGIBLES >	1,233,109		989,167	2,222
		4,749,528	5,367,000	1,761,334	11,877
	TOTAL COSTS >				

#### PREPARED BY Permian Resources Operating, LLC:

Drilling Engineer:	195			
Completions Engineer.	ML			
Production Engineer.	DC			
nian Resources Operating, LL	.C APPROVAL:			
Co-CEO		Co-CEO	VP - Operations	
	WH	JW		CRM
VP - Land & Legal		VP - Geosciences		
	BC	so		
IN OPERATING PARTNER A	PPROVAL:	Working Interest (%):	Tax ID:	
Signed by:		Date:		

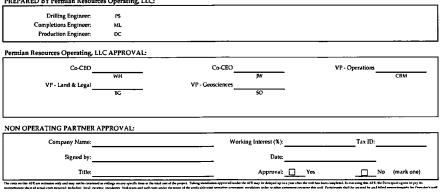
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## Permian Resources Operating, LLC 300 N. Marienfeld St., 5te. 1000 Midland, TX 79701 Phone (432) 695-4222 • Fax (432) 695-4063

DATE	2.17.2023		DRIZATION FOR EXPEND	AFE NO.:	1
					Tonto; Wolfcamp
WELL NAME:	Bane 4-9 Federal Com 203	н		FIELD:	
LOCATION:	Section 4, T205-R34E			MD/TVD:	21,210' / 10,925'
COUNTY/STATE:	Lea County, New Mexico			LATERAL LENGTH:	10,000'
Permian WI:				DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WCXY			COMPLETION DAYS:	19
	Drill a horizontal WCXY v	vell and complete wil	th 44 stages. AFE include	s drilling, completions,	flowback and Initial
REMARKS:	AL install cost	•	0		
					-
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
Land/Legal/Regulatory	s s	59,066	-	37,500	5 96,5
2 Location, Surveys & Dam	ages —	288,079	18,067	2,500	308,6
4 Freight / Transportation		47,628	43,778	25,000	116,4
5 Rental - Surface Equipme		124,327	215,417	105,000	444,7
6 Rental • Downhole Equip:	ment	205,424	59,805	· · ·	265,2
7 Rental - Living Quarters	-	48,083	54,480	<u> </u>	102.5
10 Directional Drilling, Sur	veys _	429,543	<u> </u>	<u> </u>	7532
11 Drilling 12 Drill Bits	-	100,176	<u> </u>	<u> </u>	100,1
13 Fuel & Power	-	188,935	725,061		913,9
14 Cementing & Float Equi	-	243,296	-		243.2
15 Completion Unit, Swab,				15,000	15,0
16 Perforating, Wireline, Sli		· · ·	393,136		393,1
17 High Pressure Pamp Tru			123,274	· ·	123,2
18 Completion Unit, Swab,		•	146,484	· · ·	146,4
20 Mud Circulation System		105,209			105,2
21 Mud Logging		17,529	-		17,
22 Logging / Formation Eva	luation	7,270	8,339	40.000	15,0
23 Mud & Chemicals	-	361,835	438,185 661,625	10,000	810,0
24 Water 25 Stimulation	-	43,459	814,033	300,000	814,0
26 Stimulation Flowback &	Dien -		121,606	150,000	271,0
28 Mud/Wastewater Dispo	al -	193,104	61,151		254,2
30 Rig Supervision / Engine		121,196	133,420	21,667	276,2
32 Drlg & Completion Over		10,423		· ·	10,4
35 Labor	-	153,358	69,489	101,667	324.5
54 Proppant	-		1,255,227	· · · ·	1,255,2
95 Insurance	-	14,660	-		14,0
97 Contingency		<u> </u>	24,421	3,833	28,2
99 Flugging & Abandonme			<u> </u>	<u> </u>	
	TOTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,655,
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE	COSTS	COSTS	COSTS	CO5T5	COSTS
60 Surface Casing	5	122,234			S 122,2
61 Intermediate Casing	-	344,284			344,3
62 Drilling Liner	-	•	-	-	
63 Production Casing		687,039			687,
64 Production Liner			<u> </u>		
65 Tubing	_	-	<u> </u>	140,000	140,
66 Wellhead	-	64,820	<u> </u>	40,000	104,
67 Packers, Liner Hangers	-	14,732	<u> </u>	20,000 45,833	
68 Tanks 69 Production Vessels	-	<u>.</u>		126,667	126,
70 Flow Lines	-	<u> </u>	<u> </u>	66,667	66,
71 Rod string	-		<u> </u>		
72 Artificial Lift Equipment		<u> </u>		90.000	90,
73 Compressor	-		<u>.</u>	5,833	5,
74 Installation Costs	-	<u> </u>			
75 Surface Pumps	-	•	-	61,667	61,
76 Downhole Pumps	-	•			
77 Measurement & Meter I			-	116,667	116,
78 Gas Conditioning / Dehy		<u> </u>	· ·	-	
79 Interconnecting Facility	Piping -	·	<u> </u>	20,000	20,
80 Gathering / Bulk Lines	-	<u> </u>	<u> </u>	108.333	108,
81 Vaives, Dumps, Control 82 Tank / Facility Containm		<u> </u>	<u> </u>	43,333	43.
82 Tank / Facility Contains 83 Flare Stack	en -	<u>.</u>	<u> </u>	43,333	43,
84 Electrical/Grounding	-	<u> </u>	<u>.</u>	50,000	
85 Communications / SCAI	- -	<u>_</u>	<u> </u>	36,667	36,
86 Instrumentation / Safety				833	
cattry	TOTAL TANGIBLES >	1,233,109	0	989,167	2,222

PREPARED BY Permian Resources Operating, LLC:



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#### Permian Resources Operating, LLC 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701

		0 N. Marienfeld St., Ste. 1 Phone (432) 695-4222 *			
	ESTIMATE		RIZATION FOR EXPENDIT	URE	
DATE	2.17.2023			AFE NO.:	1
WELL NAME:	Bane 4-9 Federal Com 2	MH		FIELD:	Tonto; Wolfcamp
LOCATION:	Section 4, T20S-R34E			MD/TVD:	21,210 / 10,925
				LATERAL LENGTH:	10,000'
COUNTY/STATE:	Lea County, New Mexic				
Permian WI:				DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WCXY	wall and complete with	C h 44 stages. AFE includes	OMPLETION DAYS:	19 Rowback and Initial
REMARKS:	AL install cost	weil and complete with		uning, completions,	
	·	DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBL	E COSTS	COSTS	COSTS	COSTS	COSTS
1 Land/Legal/Regulatory		5 59,066	-	37,500	S 96,56
2 Location, Surveys & Dan	ages	288,079	18,067	2,500	308,64
Freight / Transportation		47,628	43,778	25,000	116,40
5 Rental - Surface Equipm	ent	124,327	215,417	105,000	444,74
6 Rental - Downhole Equi	pment	205,424	59,805	•	265,22
7 Rental - Living Quarters		48,083	54,480		102,56
10 Directional Drilling, Su	rveys	429,543	·		429,54
11 Drilling		753,820	i	<u> </u>	753,82
12 Drill Bits		100,176	-	-	100,17
13 Fuel & Power		188,935	725,061	-	913,99
14 Cementing & Float Equ		243,296	· · ·		243,29
15 Completion Unit, Swab				15,000	15,00
16 Perforating, Wireline, S		<u> </u>	393,136	<u> </u>	393,13
17 High Pressure Pump Tr		<u> </u>	123,274	<u> </u>	123,27
18 Completion Unit, Swab			146,484	<u> </u>	146,48
20 Mud Circulation System	1	105,209	•	-	105,20
21 Mud Logging		17,529			
22 Logging / Formation Ev	aluation	7,270	8,339		15,60
23 Mud & Chemicals		361,835	438,185	10,000	810,02
24 Water 25 Stimulation		43,459	661,625 814,033	300,000	1,005,08 814,03
	Di		121,606	150,000	271,60
26 Stimulation Flowback &		193,104	61,151	130,000	254,25
28 Mud / Wastewater Disp		121,196	133,420	21.667	276,28
30 Rig Supervision / Engir		10,423	133/420	21,007	10,42
32 Drig & Completion Ov 35 Labor	rneau	153,358	69,489	101,667	324,51
54 Proppant			1,255,227	101,007	1,255,22
95 Insurance		14,660		<u> </u>	14,66
97 Contingency			24,421	3,833	28,25
99 Plugging & Abandonm	ent	<u> </u>			
	TOTAL INTANGIBLES		5,367,000	772,167	9,655,5
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
60 Surface Casing	:	5 122,234	-		\$ 122,23
61 Intermediate Casing		344,284	-		344,28
62 Drilling Liner		· ·	· · ·		-
63 Production Casing		687,039			687,03
64 Production Liner					-
65 Tubing			<u> </u>	140,000	140,00
66 Wellhead		64,820	<u> </u>	40,000	104,82
67 Packers, Liner Hangers		14,732	·	20,000	34,73
68 Tanks			·	45,833	45,83
69 Production Vessels				126,667	126,66
70 Flow Lines		· · ·	·•	66,667	66,66
71 Rod string		• -	-	•	
					90,00
72 Artificial Lift Equipment	at		· · ·	90,000	
72 Artificial Lift Equipmen 73 Compressor	nt	<u> </u>		5,833	
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs	nt		· ·	5,833	5,83
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs 75 Surface Pomps	nt			5,833	5,83
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs 75 Surface Pomps 76 Downhole Pumps			<u>.</u>	5,833 61,667	5,83 61,66
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs 75 Surface Pomps 76 Downhole Pumps 77 Measurement & Meter	Instaliation			5,833 61,667 116,667	5,83 61,66 116,66
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs 75 Surface Pamps 76 Downhole Pumps 77 Measurement & Meter 78 Gas Conditioning / Del	installation Lydration		<u>.</u>	5,833 61,667 116,667	5,83 
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs 75 Surface Pemps 76 Downhole Pumps 77 Measurement & Meter 78 Gas Conditioning / Del 79 Interconnecting Facility	installation Lydration			5,833 61,667 116,667	5,83 
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs 75 Surface Pamps 76 Downhole Pumps 77 Measurement & Meter 78 Gas Conditioning / Del 79 Interconnecting Facility 80 Gathering / Bulk Lines	Instaliation ydration Piping			5,833 61,667 116,667 20,000	5,83 61,66 116,66 20,00
72 Artificial Lift Equipmen 73 Compressor 74 Instillation Costs 75 Surface Pomps 76 Downhole Pumps 77 Measurement & Meter 78 Gas Conditioning / Del 79 Interconnecting Facilliy 80 Gathering / Bulk Lines 81 Valves, Domps, Contro	Installation ydration Piping Uers			5,833 61,667 116,667 20,000 108,333	5,83 61,66 116,66 20,00 108,33
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs 75 Surface Pamps 76 Downhole Pumps 77 Measurement & Meter 78 Gas Conditioning / Def 79 Interconnecting Facility 80 Gathering / Bulk Lines 81 Valves, Damps, Contro 82 Tank / Facility Contain	Installation ydration Piping Uers			\$,833 61,667 116,667 20,000 108,333 43,333	5,83 61,66 20,00 
72 Artificial Lift Equipmen 73 Compressor 74 Installation Costs 75 Surface Pomps 76 Downhole Pumps 76 Downhole Pumps 77 Measurement & Meter 78 Gas Conditioning / Del 79 Interconnecting Facility 80 Gathering / Bulk Lines 81 Valves, Domps, Contro 82 Tank / Facility Contain 83 Flare Stack	Installation ydration Piping Uers			5,833 61,667 116,667 20,000 108,333 43,333 16,667	5,83 61,66 20,00 108,33 43,33 10,66
72 Artificial Lift Equipmet 73 Compressor 74 Installation Costs 75 Surface Pamps 76 Downhole Pumps 77 Measurement & Meter 78 Gas Conditioning / Del 79 Interconnecting Facility 80 Gathering / Bulk Lines 81 Valves, Domps, Contro 82 Tank / Facility Contain 83 Flare Suck 48 Electrical / Grounding	installation ydration Piping Uers ment			5,833 61,667 20,000 108,333 43,333 16,667 50,000	5,83 61,66 20,000 08,33 43,33 16,66 50,00
27 Artificial Lift Equipment 27 Artificial Lift Equipment 28 Compressor 27 Installation Costs 27 Surface Pamps 27 Measurement & Meter 28 Canditioning / Pali 80 Gathering / Bulk Lines 20 Valves, Domps, Contro 28 Tank / Facility Contain 38 Flare Stack 48 Electrical / Grounding 85 Communications / SAC	Installation ydration Piping Uers ment DA			5,833 61,667 116,667 20,000 108,333 43,333 16,667	5,83 61,66

#### PREPARED BY Permian Resources Operating, LLC:

TOTAL COSTS >

Drilling Engineer: Completions Engineer: Production Engineer: PS ML DC Permian Resources Operating, LLC APPROVAL: Co-CEO VP - Operations Co-CEO CRM WH ßW VP - Land & Legal \_\_\_\_ VP - Geosciences BG \_\_\_\_ 50 NON OPERATING PARTNER APPROVAL: Company Name: Working Interest (%): Tax ID: Signed by: Date: Title: \_\_\_\_\_\_ Poproval: \_\_\_\_\_ Yes \_\_\_\_\_ No (mark one)

4,749,528

5,367,000

1,761,334

11,877,862

#### Permian Resources Operating, LLC 300 N. Marlenfeld St., Ste. 1000 Midland, TX 79701 Phone (432) 695-4222 • Fax (432) 695-4063

ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

DATE:					1
	2.17.2023			AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 2	01H		FIELD:	Tonto; Wolfcamp
LOCATION:	Section 5, T20S-R34E			MD/TVD:	21,211' / 10,926'
COUNTY/STATE:	Lea County, New Mexic	0		LATERAL LENGTH:	10,000
				DRILLING DAYS:	19.6
Permian WI:	WCXY			COMPLETION DAYS:	19
GEOLOGIC TARGET:					
	Drill a horizontal WCXY	well and complete wi	th 44 stages. AFE includ	es drilling, completions, i	nowdack and initia
REMARKS:	AL install cost	<del></del>			
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
I Land / Legal / Regulatory		59,066	· · · ·	37,500	5 96,
2 Location, Surveys & Dama	iges	288,079	18,067	2,500	308,
4 Freight / Transportation		47,628	43,778	25,000	- 116,
5 Kental - Surtace Equipmen	nt	124,327	215,417	105,000	
6 Rental - Downhole Equips		205,424	59,805		- 265,
7 Kental - Living Quarters		48,083	54,480		102,
10 Directional Drilling, Surv	/eys	429,343	-		429
11 Orilling		753,820		· · ·	753,
12 Orill Bits		100,176		-	100,
13 Fuel & Power		188,935	725,061		913,
14 Cementing & Float Equip	1	243,296	· · · ·	-	243,
15 Completion Unit, Swab,		· · · ·		15,000	15,
16 Pertorating, Wireline, 51	ckline	<u> </u>	393,136		393,
17 High Pressure Pump Tru	ck	<u> </u>	123,274		123,
18 Completion Unit, Swab,			146,484		146.
20 Mud Circulation System		105,209			105
21 Mud Logging		17,529			- 17
21 Mod Logging 22 Logging/Formation Eval	ustion	7,270	8,339		
			438,185	10,000	
23 Mud & Chemicals 24 Water		361,835	438,185	300.000	1,005
		43,439		300,000	
25 Stimulation		<u> </u>	814,033		
26 Stimulation Flowback &	Disp		121,605	150,000	271
28 Mud / Wastewater Dispo		193,104	61,151	· ·	254
30 Rig Supervision / Engine		121,196	133,420	21,667	275
32 Drig & Completion Over	head	10,423	•		- 10
35 Labor		153,358	69,489	101,667	324
54 Proppant			1,255,227		1,255
95 Insurance		14,660			- 14
97 Contingency		•	24,421	3,833	- 28
🕫 Plugging & Abandonmer	nt				
	TOTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,655
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
60 Surface Casing		122,234	-	-	5 122
		344,284	· · · ·		
61 Intermediate Casing	1				
61 Intermediate Casing 62 Drilling Liner	3	344,284			344
61 Intermediate Casing 62 Drilling Liner 63 Production Casing					344
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 64 Production Liner		344,284		140,000	
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 64 Production Liner 65 Tubing				140,000 40,600	
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 64 Production Liner 65 Tubing 65 Weilhead				40,000	344 68/ 140 104
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 64 Production Liner 65 Tubing 65 Weilhead 67 Packers, Liner Hangers				40,000	344 687 140 
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 64 Production Liner 65 Tubing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks				40,000 20,000 45,833	
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 65 Tubing 65 Tubing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks 68 Tanks				40,000 20,000 45,833 126,667	
61 Intermediate Časing 62 Drilling Liner 63 Production Casing 64 Production Liner 65 Tubing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines				40,000 20,000 45,833	
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 64 Production Liner 65 Tubing 65 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Troduction Vessels 70 How Lines 70 How Lines				40,000 20,000 45,853 126,667 66,667	
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 64 Production Later 65 Tubing 65 Wellkead 76 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod string 72 Artificial Lift Equipment				40,600 20,000 45,833 126,667 66,667 90,600	
61 Intermediate Casting 62 Drilling Liner 63 Droduction Casting 64 Production Liner 65 Tubing 65 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Kod string 72 Artificial Lift Equipment 73 Compressor				40,000 20,000 45,853 126,667 66,667	
61 Intermediate Casting 62 Drilling Liner 63 Droduction Casting 64 Production Liner 65 Tubing 65 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Kod string 72 Artificial Lift Equipment 73 Compressor				40,600 20,000 45,833 126,667 66,667 90,600	
61 Intermediate Casing 62 Drilling Liner 63 Droduction Casing 64 Production Liner 65 Tubing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Kod string 72 Artifictal Lift Equipment 73 Compressor 74 Instaliation Costs 75 Surtace Tamps				40,600 20,000 45,833 126,667 66,667 90,600	
61 Intermediate Casting 62 Drilling Liney 63 Production Latar 65 Tobing 65 Tubing 66 Weilkead 76 Packers, Liner Hangers 89 Tanks 89 Production Vessels 70 How Lines 71 Kod string 72 Artificial Litt Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Durwhole Pamps				40,600 20,000 45,853 126,667 66,667 90,600 7,833	
61 Intermediate Casing 62 Drilling Liner 83 Production Lasing 64 Production Lasing 65 Tubing 66 Wellhead 76 Packers, Liner Hangers 88 Tanks 89 Production Vessels 89 Production Vessels 70 How Lines 71 Kod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 76 Hownhole Pumps 76 Messurement & Meter In	istallellon			40,600 20,000 45,853 126,667 66,667 90,600 7,833	
51 Intermediate Casing 52 Drilling Liner 53 Production Lasing 54 Production Lasing 55 Tubing 56 Wellhead 57 Packers, Liner Hangers 58 Tanks 58 Tanks 59 Production Vessels 59 Production Vessels 71 Kod string 72 Artitizial Lift Equipment 73 Compressor 74 Installation Cosits 75 Surface Pumps 76 Messurement & Meter In 74 Messurement & Meter In	istallellon			40,000 20,000 45,833 126,667 56,667 90,000 5,833 	
61 Intermediate Casing 62 Drilling Liner 63 Droduction Casing 64 Production Liner 65 Tubing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Kod string 72 Artilicial Litt Equipment 73 Compressor 74 Instaliation Costs 75 Surtace Pumps 75 Surtace Pumps 75 Ownerses Pumps 76 Downhole Pumps 77 Messurement & Meter In 76 Gas Conditioning / Deby	istallation Gration			40,000 20,000 45,833 126,667 56,667 90,000 5,833 	344 687 140 199 34 45 126 65 65 5 5 5 5 61
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 64 Production Later 65 Tubing 65 Wellkead 75 Packers, Liner Hangers 69 Traks 69 Production Vessels 70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Cosits 75 Surface Pumps 76 Hownhole Pumps 76 Hownhole Rumps 76 Messurement & Meter In 78 Gasa Conditioning / Dehy	istallation Gration			40,000 20,000 45,833 126,667 56,667 90,000 5,833 	344 687 140 199 34 45 126 65 65 5 5 5 5 61
61 Intermediate Casing 62 Drilling Liner 63 Droduction Casing 64 Production Later 65 Tabing 66 Weilhead 67 Packers, Liner Hangers 68 Valueta 69 Packers, Liner Hangers 69 Tarka 69 Tarka 69 Tarka 60 Tarka 71 Rod string 72 Artifictal Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Framps 76 Downhole Pumps 76 Measurement & Meter 178 Meter 29 Gathering / Bulk Lines	statlation dration Viping			40,000 20,000 45,833 125,667 65,667 90,000 	344 687 140 195 34 45 126 66 66 5 5 5 61 116 20
61 Intermediate Casting 62 Drilling Liner 63 Production Casting 64 Production Liner 65 Tabing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Anstallation Crosts 75 Surface Pamps 76 Downhole Pamps 77 Measurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnetting Facility Path 80 Values, Dumps, Controlls	statiellon Gration Viping ers			40,000 20,000 45,833 126,667 56,667 56,667 90,000 3,833 	344 687/ 140 194 34 35 35 35 126 66 66 90 5 5 61 116 20 20 108
61 Intermediate Casing 62 Drilling Liner 63 Production Clasing 64 Production Liner 65 Tubing 65 Tubing 66 Weilhead 77 Packers, Liner Hangers 68 Tanks 68 Tanks 69 Production Vessels 69 Production Vessels 70 How Lines 71 Kod string 72 Artiticial Lift Equipment 73 Compressor 74 Installation Cosits 75 Surface Fumps 76 Downhole Pumps 76 Instantanti & Meter In 79 Gasconditioning / Dehy 79 Interconneeting Facility F 50 Gathering / Bulk Lines 51 Yalves, Jumps, Controlls 51 Yalves, Jumps, Control	statiellon Gration Viping ers			40,000 20,000 45,833 126,667 56,567 56,567 90,000 2,833 	344 687 140 144 345 45 66 66 66 66 66 66 66 66 66 66 66 75 20 20 20 20 20 20 20 20 20 20 20 20 20
61 Intermediate Casting 62 Drilling Liner 63 Production Laner 63 Production Laner 64 Production Laner 66 Weilhead 76 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod string 72 Artitical Lilt Equipment 73 Compressor 74 Antistallation Costs 75 Surface Pamps 76 Jownhole Pamps 77 Measurement & Meter In 76 Gas Conditioning / Lowit 79 Uniterconnecting Facility I 80 Galterring, Batk Lines 81 Valves, Dumps, Controll 83 Plane Statek	statiellon Gration Viping ers			40,000 20,000 45,833 126,667 65,667 90,000 5,833 - - - - - 2,0,000 - - - - - - - - - - - - - - - - -	344 687/ 140 194 34 35 35 126 68 90 5 5 61 126 5 90 5 5 61 116 20 116 20 116 210 116 210 116 210 116 210 116 116 116 116 116 116 116 116 116 1
61 Intermediate Casing 62 Drilling Liner 83 Production Casing 64 Production Later 65 Tubing 65 Wellkead 75 Packers, Liner Hangers 68 Tanks 69 Production Vessels 89 Tanks 69 Production Vessels 71 Rod string 72 Artifizial Lift Equipment 73 Compressor 74 Installation Cosits 75 Surface Pumps 74 Downhole Pumps 75 Osurhace Pumps 75 Unterconneeting Facility 79 Interconneeting Facility 79 Interconneeting Facility 80 Gathering / Butk Lines 81 Valves, Dumps, Controlls 81 Valves, Vamps, Controlls 82 Tank / Facility Containm 83 Place Stack	stallation Gration Tiping ens ent			40,000 20,000 45,833 126,667 66,667 90,000 5,833 61,667 20,000 20,000 16,667 20,000 20,000 20,000 16,667 20,00000 20,0000 20,00000000	344 687/ 1400 1945 343 345 345 345 345 350 350 350 350 350 350 350 350 350
61 Intermediate Casting 62 Drilling Liner 63 Production Liner 63 Production Liner 64 Production Liner 65 Tabing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Kod string 72 Artificial Litt Equipment 73 Compressor 74 Installation Cosis 75 Surface Pumps 76 Jownhole Pumps 77 Measurement & Meter In 76 Gas Conditioning / Deb 81 Gathering / Butk Lines 81 Gathering / Butk Lines 83 Pare Stack 84 Electrical / Grounding 84 Communications / SCAD	stallation Gration Tiping ens ent			40,000 20,000 45,833 125,667 65,667 90,000 90,000 	344 687/ 140 194 344 45 126 66 66 90 90 55 5 5 5 5 5 5 5 5 7 116 116 116 116 116 116 116 116 116 1
61 Intermediate Casting 62 Drilling Liner 63 Production Liner 63 Production Liner 64 Production Liner 65 Tabing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Kod string 72 Artificial Litt Equipment 73 Compressor 74 Installation Cosis 75 Surface Pumps 76 Jownhole Pumps 77 Measurement & Meter In 76 Gas Conditioning / Deb 81 Gathering / Butk Lines 81 Gathering / Butk Lines 83 Pare Stack 84 Electrical / Grounding 84 Communications / SCAD	staliation Gration Tiping ens ent			40,000 20,000 45,853 126,667 56,667 58,587 50,000 58,33 61,667 116,667 116,667 116,667 116,667 33,33 43,333 16,667 50,000 36,667 38,33	344 687/ 140 194 34 35 35 35 35 35 35 35 35 36 35 36 35 36 35 36
61 Intermediate Casting 62 Drilling Liner 63 Production Lainer 63 Production Lainer 64 Production Liner 66 Weilkead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Kod string 72 Artificial Litt Equipment 73 Compressor 74 Installation Costs 75 Surface Yumps 76 Jownhole Pamps 77 Measurement & Meter In 76 Gas Connditioning / Usby 79 Janteronneeting Facility F 80 Catherring Path Lines 81 Valves, Dumps, Controlls 82 Tank / Facility Containing 83 Face Stace	stallation dration liping ens ent TOTAL TANGIBLES >	344,284 687,039 		40,000 20,000 45,833 126,667 65,667 90,000 3,833 	344 687/ 140 143 343 45 75 66 90 5 5 61 116 20 70 8 90 5 5 61 116 20 70 8 90 5 5 61 116 20 70 8 90 5 90 5 90 5 90 90 90 90 90 90 90 90 90 90 90 90 90
61 Intermediate Casting 62 Drilling Liner 63 Production Liner 63 Production Liner 64 Production Liner 65 Tabing 66 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Kod string 72 Artificial Litt Equipment 73 Compressor 74 Installation Cosis 75 Surface Pumps 76 Jownhole Pumps 77 Measurement & Meter In 76 Gas Conditioning / Deb 81 Gathering / Butk Lines 81 Gathering / Butk Lines 83 Pare Stack 84 Electrical / Grounding 84 Communications / SCAD	staliation Gration Tiping ens ent	344,284 687,039 		40,000 20,000 45,853 126,667 56,667 58,587 50,000 58,33 61,667 116,667 116,667 116,667 116,667 33,33 43,333 16,667 50,000 36,667 38,33	344 687/ 140 143 343 45 75 66 90 5 5 61 116 20 70 8 90 5 5 61 116 20 70 8 90 5 5 61 116 20 70 8 90 5 90 5 90 5 90 90 90 90 90 90 90 90 90 90 90 90 90
61 Intermediate Casting 62 Drilling Liner 63 Production Classing 64 Production Later 65 Trabing 66 Weilhead 76 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 76 Downhole Pumps 77 Measurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnecting Facility Johy 79 Intervontecting Facility 10 81 Valves, Dumps, Controling 83 Flare Stack 44 Electrical / Grounding 85 Communications / Saclety 91 Parts Permian Ress Drilling Enginee Compietions Enginee	statilation dration Nping ens ent TOTAL TANGIBLES > TOTAL COSTS > ources Operating, LLC: r: PS r: ML	344,284 687,039 		40,000 20,000 45,833 126,667 65,667 90,000 3,833 	344 687/ 140 143 45 726 66 90 5 61 116 22 108 43 16 35 55 35 55 2222 2222
61 Intermediate Casting 62 Drilling Liner 63 Production Liner 63 Production Liner 64 Production Liner 65 Tubing 66 Weilhead 76 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod string 72 Artiticial Litt Equipment 73 Compressor 74 Installation Costs 75 Surface Fumps 76 Iownhole Pumps 77 Measurement & Meter In 78 Gas Conditioning / Debit 80 Tanks / Facility In 80 Salmering, Batk Lines 81 Valves, Dumps, Controling 85 Tommunications / Scalb 85 Communications / Scalb 86 Communications / Statey 86 Communications / Scalb 86 Communications / Scalb 87 Distributions / Scalb 86 Communications / Scalb 86 Communications / Scalb 87 Communications / Scalb 86 Communications / Scalb 87 Communications / Scalb 80 Communications / Scalb 87 Communications / Scalb 80 Communications / S	stallation dration "Iping ent TOTAL TANGIBLES > TOTAL COSTS > ources Operating, LLC: IT PS IT ML IT DC	344,284 687,039 		40,000 20,000 45,833 126,667 65,667 90,000 3,833 	344 687/ 140 143 343 45 75 66 90 5 5 61 116 20 70 8 90 5 5 61 116 20 70 8 90 5 5 61 116 20 70 8 90 5 90 5 90 5 90 90 90 90 90 90 90 90 90 90 90 90 90
61 Intermediate Casting 62 Drilling Liner 63 Production Liner 63 Production Liner 64 Production Liner 66 Weilitead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod string 72 Artificial Litt Equipment 73 Compressor 74 Installation Costs 75 Surface Yumps 76 Jownhole Yamps 77 Measurement & Meter In 76 Gas Conditioning / Debr 79 Janes James Jack 80 Cathering / Buck Lines 81 Valves, Dumps, Controlls 82 Tank / Facility Containing 85 Communications / Scalb 86 Communications / Scalety 86 Electrical / Grounding 85 Communications / Scalety 86 Communications / Scalety 86 Communications / Scalety 87 Communications / Scalety 86 Communications / Scalety 86 Communications / Scalety 87 Communications / Scalety 86 Communications / Scalety 86 Communications / Scalety 87 Communications / Scalety 87 Communications / Scalety 88 Communications / Scalety 88 Communications / Scalety 88 Communications / Scalety 88 Communications / Scalety 89 Communications / Scalety 80 Communications / Scalety 80 Communications / Scalety 80 Communications / Scalety 80 Communications / Scalety 81 Communications / Scalet	stallation dration Piping ent TOTAL TANGIBLES> TOTAL COSTS> ources Operating, LLC: r: PS r: ML r: DC g, LLC APPROVAL:	344,284 687,039 	5,367,000	40,000 20,000 45,833 126,667 56,567 	344, 
61 Intermediate Casting 62 Drilling Liner 63 Production Laner 63 Production Laner 64 Production Laner 64 Production Laner 66 Weilhead 70 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Fumps 76 Downhole Pumps 77 Measurement & Meter In 76 Lownhole Pumps 77 Measurement & Meter In 78 Gas Connditioning / Debit 80 Tank / Facility Containing 85 Trare Stack 84 Electrical / Grounding 85 Communications / SACH 86 Communications / SACH 87 Communications / SACH 86 Communications / SACH 86 Communications / SACH 87 Communications / SACH 88 Communications / SACH 80 Commu	stallation dration Piping ent TOTAL TANGIBLES> TOTAL COSTS> ources Operating, LLC: r: PS r: ML r: DC g, LLC APPROVAL:	344,284 687,039 	5,367,000	40,000 20,000 45,833 126,667 65,667 90,000 3,833 	
Completions Enginee Production Enginee nian Resources Operatin	stallation dration Nping ens ent TOTAL TANGIBLES > TOTAL COSTS > Ources Operating, LLC: IF: PS IF: DC IF: D	344,284 687,039 	5,367,000	40,000 20,000 45,833 126,667 56,567 	344, 

#### NON OPERATING PARTNER APPROVAL:

Сотралу Name:	Working Interest (%):	Tax ID:
Signed by:	Date:	
Tide:	Approval: Yes	No (mark one)
he costs on this AFE are estimates only and may not be construed as cellings on my specific stem or the total cost of	I the project. Taking installation approved under the AFE may be delayed up to a year after the well has been con	moleted. In executing this AFE, the Participant agrees to pay its

the resonance of a service service of the service service of the service service of the service service of the service service service of the service service

#### Permian Resources Operating, LLC 300 N. Marlenfeld St., Ste. 1000 Midland, TX 79701 Phone (432) 695-4222 • Fax (432) 695-4263

ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

DATE;	2.17.2023			AFE NO .:	1
WELL NAME:	Joker 5-8 Federal Com 20	2H		FIELD:	Tonto; Wolfcamp
LOCATION:	Section 5, T20S-R34E			MD/TVD:	21,211' / 10,926'
COUNTY/STATE:	Lea County, New Mexico	,		LATERAL LENGTH:	10,000'
Permian WI:		······································		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WOXY			COMPLETION DAYS:	19
GEOLOGIC IANGEI:		wall and complete	th 44 stages. AFE includes		
REMARKS:	AL install cost	wen and compare wi	ai 11 sakes VLE nicinge	anning, completions,	no or pack and indud
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
Land/Legal/Regulatory	COSIS	59,066		37,500	5 96
2 Location, Surveys & Dame		288,079	18,067	2,500	
4 Freight/Transportation	80	47,628	43,778	25.000	116,
5 Kental - Surlace Equipmen	nt	124,327	215,417	105,000	444,
6 Kental - Downhole Equip		205,424	59,805		
7 Kental - Living Quarters		48,083	54,480	<del>.</del>	102,
10 Directional Dritting, Sur	/eys	429,543			429,
11 Drilling	-	753,820	<u> </u>		753,
12 Drill Bits		100,175	<u> </u>		100,
13 Fuel & Power		188,935	725,061		913,
14 Cementing & Float Equip	,	243,296			243,
15 Completion Unit, Swab,	CTU			15,000	15,
16 Pertorating, Wireline, Sli		<u> </u>	393,136	<del>_</del>	393,
17 High Pressure Pump Tru			123,274	<u> </u>	123,
18 Completion Unit, Swab,		<u> </u>	146,484		146,
20 Mud Circulation System		105,209			105,
21 Mud Logging		17,529	······		
22 Logging / Formation Eval	uation	7,270	8,339	•	
23 Mud & Chemicals		361,833	438,185	10,000	810,
24 Water		43,459	661,625	300,000	1,005,
25 Stimulation			814,033	<del></del>	814,
26 Stimulation Flowback &	Disp		121,606	150,000	2/1,
25 Mud / Wastewater Dispo	sai	193,104	61,151		254,
30 Rig Supervision / Engine	ering	121,196	133,420	21,667	2/6,
32 Drig & Completion Over	head	10,423			
35 Labor		153,358	69,489	101,667	324,
54 Proppant		······	1,255,227		1,255,
95 Insurance		14,660		······	14,
97 Contingency			24,421	3,833	
99 Plugging & Abandonmer	ut	<u> </u>	·····	· ·	
	TOTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,655
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE	OSTS	COSTS	COSTS	COSTS	COSTS
50 Surface Casing	5010	122.234	<u> </u>		5 122,
61 Intermediate Casing	•	344,284	·	·	344
62 Drilling Liner				<u> </u>	
53 Production Casing		687,039	——————— <del>—</del> —	<u> </u>	687,
64 Production Liner					
65 Tubing				140,000	
bb Weilhead		64,820		40,000	
67 Packers, Liner Hangers		14./32	<del></del>	20,000	
bö Tanks				45,833	45
69 Production Vessels				126,667	126,
		<u> </u>	<u> </u>		- 66.
70 Flow Lines				66,667	66,
70 Flow Lines 71 Rod string					
70 Flow Lines 71 Rod string 72 Artiticial Lift Equipment				66,667	
70 Flow Lines 71 Rod string 72 Artificial Litt Equipment 73 Compressor				90,000	
70 Flow Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs				90,000	90 
70 Flow Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps				90,000 5,833	90 
70 Flow Lines 71 Rod string 72 Artiticial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 76 Downhote Pumps				90,000 5,833	90 5. 61,
70 Flow Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Downhole Pumps 77 Measuement & Meter In	stallation			66,667 90,000 5,833 61,667	90 5. 61,
70 Flow Lines 71 Rod siring 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Downhole Pumps 77 Measurement & Meter In 78 Gas Conditioning, Johy	stallation dration			66,667 90,000 5,833 61,667	90, 5, 61, 116,
70 How Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Cosis 75 Surtace Pamps 75 Downhole Pamps 75 Hownhole Pamps 77 Messurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnecting Facility 1	stallation dration			66,667 90,000 5,833 61,667 116,667	90, 5, 61, 116,
70 How Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Suritace Pamps 75 Bownhote Pamps 77 Messurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnecting Facility 1 90 Interconnecting Facility 1 90 Statuens, Ontrob	stallation dration iping ers			66,667 90,000 5,833 61,667 116,667	90, 5, 61, 116, 20,
70 How Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Suritace Pamps 75 Bownhote Pamps 77 Messurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnecting Facility 1 90 Interconnecting Facility 1 90 Statuens, Ontrob	stallation dration iping ers			66,667 90,000 5,833 61,667 116,667 20,900	90 5, 61, 116, 20, 108,
70 How Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 76 Downhole Pumps 76 Downhole Pumps 76 Conditioning / Dehy 79 Inferconnecting Facility 80 Gathering / Bulk Lines 81 Valves, Dumps, Controlb 82 Tank / Facility Containon	stallation dration iping ers			66,667 90,000 5,853 61,667 116,667 20,000 109,533 16,567	900 
70 How Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Yumps 76 Jownhole Yumps 77 Measurement & Meter In 76 Gas Conditioning / Loby 79 Inferconnecting Facility 1 80 Gathering / Bulk Lines 81 Valves, Joumps, Controls 82 Tank / Facility Containing 83 Hare Slack	stallation dration iping ers			66,667 90,000 5,833 61,667 116,667 20,000 109,533 43,533	900 
70 How Lines 71 Ikod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Hownchole Pumps 77 Measurement & Meter Im 78 Gas Conditioning / Jehy 79 Interconnecting Facility 80 Gatherring / Butk Lines 81 Valves, Dumps, Controlb 82 Tank / Facility Containm 83 Flare Slack 4 Electrical / Grounding	staliation dration liping ers ent			66,667 90,000 5,853 61,667 116,667 20,000 109,533 16,567	90, 5, 61, 116, 20, 108, 433, 16, 50, 36,
71 How Lines 72 Rob String 72 Artitical Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Downhose Pumps 75 Downhose Pumps 75 Gas Conditioning / Dehy 79 Interconnecting Facility 80 Gathering / Butk Lines 81 Valves, Dumps, Controlb 82 Tank / Facility Containm 83 Plare Stack 44 Electrical / Grounding 85 Communication / Sacty	staliation dration liping ers ent			66,667 90,000 5,853 61,667 118,667 20,000 109,333 43,533 16,667 50,000	90, 5, 61, 116, 20, 108, 433, 16, 50, 36,
70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Bartace Pumps 77 Measurement & Meter In 78 Gas Conditioning / Lebh 79 Interconnecting Facility 1 80 Gathering / Bulk Lines 81 Valves, Dumps, Controlls 82 Tank / Facility Conteilum 83 Hare Slace 84 Electrical / Grounding 85 Communications / SCAD	staliation dration Frs ent			66,667 90,000 5,833 61,667 116,667 20,000 100,333 143,333 16,667 50,000 36,667 8,33	900 5 61, 116 200 108 43 16 516 519 356
70 Flow Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Yumps 75 Bartace Yumps 77 Measurement & Meter In 78 Gas Connditioning / Deby 79 Interconnecting Yacilliy 1 80 Gathering / Bulk Lines 81 Valves, Dumps, Controlls 82 Tank / Facility Containm 83 Flare Sides 84 Electrical / Grounding 85 Communications / SCAD	staliation dration liping ers ent			66,667 90,000 5,833 61,667 116,667 20,000 109,333 40,353 16,867 50,000	90, 90, 5, 61, 116, 20, 108, 43, 16, 50, 36, 2,222
70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Yumps 75 Martace Yumps 75 Measurement & Meter In 76 Gas Conditioning / Lebr 79 Gas Conditioning / Lebr 90 Gathering / Bulk Lines 81 Valves, Dumps, Controlls 82 Tank / Facility Containing 81 Flare Slace 81 Scommunications / SCAD 86 Communications / ScAD 86 Communications / ScAD	stallation dration res ent to TOTAL TANGIBLES > TOTAL COSTS >			66,667 90,000 5,833 61,667 118,667 20,000 109,333 43,533 16,667 50,000 36,667 833 833	900 5 61, 116 200 108, 43, 16 50, 35, 2,222 2,222
70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Yumps 75 Martace Yumps 75 Measurement & Meter In 76 Gas Conditioning / Lebr 79 Gas Conditioning / Lebr 90 Gathering / Bulk Lines 81 Valves, Dumps, Controlls 82 Tank / Facility Containing 81 Flare Slace 81 Scommunications / SCAD 86 Communications / ScAD 86 Communications / ScAD	stallation dration res ent to TOTAL TANGIBLES > TOTAL COSTS >			66,667 90,000 5,833 61,667 118,667 20,000 109,333 43,533 16,667 50,000 36,667 833 833	90 5 61 116 20 108 43 16 50 36 36 222 2,222
70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Yumps 75 Martace Yumps 75 Measurement & Meter In 76 Gas Conditioning / Lebr 79 Gas Conditioning / Lebr 90 Gathering / Bulk Lines 81 Valves, Dumps, Controlls 82 Tank / Facility Containing 81 Flare Slace 81 Scommunications / SCAD 86 Communications / ScAD 86 Communications / ScAD	stallation dration riping ent TOTAL TANGIBLES > TOTAL COSTS > ources Operating, LLC:			66,667 90,000 5,833 61,667 118,667 20,000 109,333 43,533 16,667 50,000 36,667 833 833	900 5 61, 116 200 108, 43, 16 50, 35, 2,222 2,222
70 How Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Measurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnecting Facility 80 Gathering / Butk Lines 81 Valves, Dumps, Controlb 82 Tank / Facility Containm 83 Flare Slack 44 Electrical / Grounding 85 Communications / SCAD 86 Instrumentation / Satety PARED BY Permian Res	stallation dration riping ent TOTAL TANGIBLES > TOTAL COSTS > rources Operating, LLC: r: P5			66,667 90,000 5,833 61,667 118,667 20,000 109,333 43,533 16,667 50,000 36,667 833 833	66, 90) 3, 61, 116, 20, 108, 43, 16, 50, 36, 2,222 11,877

Permian Resources Operating, LLC APPROVAL:

Co-CEO VP - Operations Co-CEO CRM VP - Land & Legal VP - Geosciences NON OPERATING PARTNER APPROVAL: Working Interest (%): Tax ID: Company Name: Signed by: Date: No (mark one) Title: Approval: \_\_\_\_\_ Yes ing this AF7, the Participant oppres to pay its provid by and billed proportionalely for Operal

APE may be delayed up to a year after the well has b epulsiony under or other according concerns the well

#### Permian Resources Operating, LLC 300 N. Martenfeld St., Ste. 1000 Midland, TX 79701 Phone (432) 695-4222 · Fax (432) 695-4063

ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

	17.2023			AFE NO.:	1
WELL NAME: Jo	ker 5-8 Federal Com 20	зн		FIELD:	Tonto; Wolfcamp
LOCATION: S	ection 5, T20S-R34E			MD/TVD:	21,191' / 10,906'
COUNTY/STATE: L	ea County, New Mexico			LATERAL LENGTH:	10,000'
Permian WI:	<u></u>			DRILLING DAYS:	19.6
	ICYV			COMPLETION DAYS:	19
		well and complete wi	th 44 stages. AFE include	s drilling, completions, I	lowback and Initia
REMARKS: <u>A</u>	L install cost				
		DRILLING	COMPLETION	PRODUCTION	TOTAL
		COSTS	COSTS	COSTS	COSTS
INTANGIBLE CO	575				
1 Land/ Legal/ Regulatory	\$	288,079	18,067	37,500	3 90
2 Location, Surveys & Damages			43,778		
4 Freight / Transportation		47,628	215/417	105,000	
5 Kental - Surface Equipment		124,32/		100,000	265
6 Kental - Downhole Equipment		205,424	59,805		102
7 Kental - Living Quarters		48,083	54,480	<u>·</u>	425
10 Directional Drilling, Surveys		429,543		·	753
11 Drilling 12 Drill Bits		100,176			105
			725,061		913
13 Fuel & Power		188,935	725,061		
14 Cementing & Float Equip			<u> </u>		
15 Completion Unit, Swab, CTU 16 Periorating, Wireline, Silcklu			393.136	15,000	
to renorating, whethe, Suckin	ie .	<u> </u>	123,2/4		
17 High Pressure Pump Truck		<u> </u>		<u> </u>	146
18 Completion Unit, Swab, CTU 70 Mad Classifican Surface			146,484	<u> </u>	146
20 Mud Circulation System			· · · ·		
71 Mud Logging		17,529		·	17
2 Logging / Formation Evaluati	on	7,270	8,339	<u> </u>	
23 Mud & Chemicals		361,835	438,185	10,000	
24 Water		43,459	661,625	300,000	1,00:
25 Stimulation	_	<u> </u>	814,033	-	814
26 Stimulation Flowback & Disj	,		121,606	150,000	27
28 Mud / Wastewater Disposal	_	193,104	61,151	·	254
30 Rig Supervision / Engineerin		121,196	133,420	21,667	2/6
32 Drig & Completion Overhead	1	10,423	69,489		
35 Labor		103,000		101,667	324
54 Proppant			1,255,227		1,25
5 Insurance		14,660			14
77 Contingency		<u> </u>	24,421	3,833	- 28
99 Plugging & Abandonment		<u> </u>	-	<u> </u>	
	OTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,65
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE COS	TE	COSTS	COSTS	COSTS	COSTS
U Surface Casing	13	122,234			\$ 12
61 Intermediate Casing	,	344,284		·	344
62 Drilling Liner		344,204	<u> </u>	· · · ·	PPC
63 Production Casing		687,039	<u> </u>	<u> </u>	
64 Production Liner		007,037	·	· · · · · · · · · · · · · · · · · · ·	687
5 Tubing			<u>-</u>	140,000	
66 Wellhead		64,820			
			<u> </u>	40,000	104
7 Packers, Liner Hangers		14,732	·	20,000	34
6 Tanks		<u> </u>	-	45,833	45
9 Production Vessels		•	-	126,667	126
O Flow Lines		•	-	66,667	66
'l Kod string		•	-		
2 Artificial Lift Equipment				90,000	
73 Compressor				5,833	
4 Installation Costs			-	<u> </u>	
5 Surface Pumps		•		61,667	61
6 Downhole Pumps		•	-		
7 Measurement & Meter Install				116,667	TIE
8 Gas Conditioning / Dehydrati		•	·	· ·	
9 Interconnecting Facility Pipin	8	· ·		20,000	20
W Gathering / Bulk Lines		•	· · ·	·	
			<u> </u>	108,333	108
1 Valves, Dumps, Controllers					43
1 Valves, Dumps, Controllers 2 Tank / Facility Containment				43,333	
1 Valves, Dumps, Controllers 2 Tank / Facility Containment 3 Flare Stack		<del>.</del>		16,667	
11 Valves, Dumps, Controllers 12 Tank / Facility Containment 13 Flare Stack 14 Electrical / Grounding					
11 Valves, Dumps, Controllers 12 Tank / Facility Containment 13 Flare Stack 14 Electrical / Grounding 15 Communications / SCADA		· · ·		16,667	16 50
11 Valves, Dumps, Controllers 12 Tank / Facility Containment 13 Flare Stack 14 Electrical / Grounding 15 Communications / SCADA				16,667	16 50
11 Valves, Dumps, Controllers 12 Tank / Facility Containment 13 Flare Stack 14 Electrical / Grounding 15 Communications / SCADA	TOTAL TANGIBLES >	1,233,109		16,667 50,000 36,667 833	16 50 36
11 Valves, Dumps, Controllers 12 Tank / Facility Containment 13 Flare Stack 14 Electrical / Grounding 15 Communications / SCADA		1,233,109	0	16,667 50,000 36,667 833 989,167	16 50 36 
11 Valves, Dumps, Controllers 12 Tank / Facility Containment 13 Flare Stack 14 Electrical / Grounding 15 Communications / SCADA	TOTAL TANGIBLES > TOTAL COSTS >	1,233,109 4,749,528	0 5,367,000	16,667 50,000 36,667 833	16 50 36 
11 Valves, Dumps, Controllers 12 Tank / Facility Containment 33 Piare Stack 14 Electrical / Grounding 55 Communications / SCADA 16 Instrumentation / Salety	TOTAL COSTS >			16,667 50,000 36,667 833 989,167	16 50 36 
11 Valves, Dungs, Controllers 12 Tark/Facily Containment 37 Ears Stack 4 Electrical/ Grounding 55 Communications/SCADA 6 Instrumentation / Solety 20 RED BY Permian Resource	TOTAL COSTS >			16,667 50,000 36,667 833 989,167	16 50 36 
11 Valves, Dumps, Controllers 25 Tank / Facility Containment 35 Flare Stack 44 Electrical / Grounding 36 Communications / ScADA 36 Instrumentation / Salety PARED BY Permian Resource Drilling Engineer:	TOTAL COSTS > ees Operating, LLC: PS			16,667 50,000 36,667 833 989,167	16 50 36 
11 Valves, Dumps, Controllers 21 Tank/ Facility Containment 33 Flare Stack 44 Electrical/ Grounding 55 Communications/SCADA 16 Instrumentation / Satety 22 ARED BY Permian Resourc Drilling Engineer. Completions Engineer.	TOTAL COSTS > res Operating, LLC: PS ML			16,667 50,000 36,667 833 989,167	16 50 36 
11 Valves, Dumps, Controllers 25 Tank / Facility Containment 35 Flare Stack 44 Electrical / Grounding 36 Communications / ScADA 36 Instrumentation / Salety PARED BY Permian Resource Drilling Engineer:	TOTAL COSTS > ees Operating, LLC: PS			16,667 50,000 36,667 833 989,167	16 50 36 
11 Valves, Dumps, Controllers 21 Tark/Facily Containment 31 Face Stack 34 Electrical/ Grounding 35 Communications/SCADA 36 Instrumentation / Salety 20 ARED BY Permian Resource Drilling Engineer: Completions Engineer: Production Engineer:	TOTAL COSTS > res Operating, LLC: PS ML DC			16,667 50,000 36,667 833 989,167	16 50 36 
11 Valves, Dumps, Controllers 21 Tark / Facility Containment 33 Fare Stack 44 Electrical / Grounding 53 Communications / SCADA 56 Instrumentation / Salety PARED BY Permian Resource Drilling Engineer: Completions Engineer: Production Engineer: Internet Stack Parence Stack Drilling Engineer: Production Production Prod	TOTAL COSTS > res Operating, LLC: PS ML DC	4,749,528	5,367,000	16,667 30,007 36,667 8333 989,167 1,761,334	16 90 36 2,222 11,877
11 Valves, Dumps, Controllers 21 Tark/Facily Containment 31 Face Stack 34 Electrical/ Grounding 35 Communications/SCADA 36 Instrumentation / Salety 20 ARED BY Permian Resource Drilling Engineer: Completions Engineer: Production Engineer:	TOTAL COSTS > res Operating, LLC: PS ML DC LC APPROVAL:		5,367,000	16,667 50,000 36,667 833 989,167	16 50 2,222 11,877
11 Valves, Dumps, Controllers 21 Tark / Facility Containment 33 Fare Stack 44 Electrical / Grounding 53 Communications / SCADA 56 Instrumentation / Salety PARED BY Permian Resource Drilling Engineer: Completions Engineer: Production Engineer: Internet Stack Parence Stack Drilling Engineer: Production Production Prod	TOTAL COSTS > res Operating, LLC: PS ML DC	4,749,528	5,367,000	16,667 30,007 36,667 8333 989,167 1,761,334	16 30 30 

NON OPERATING PARTNER APPROVAL:

Company Name:		Working Interest (%):	Tax ID:
Signed by:		Date:	
Title: _		Approval: Yes	No (mark one)
le costs on this AFE are estimates only and may not be constant	and as orthogo on any specific item or the total cost of the project. Tubing installation ap	proved under the AFE may be delayed up to a yest after the well has	been completers, in executing this AFZ, the Participant agrees to pay the

providential data of strate more strategies provides dynamics and one of the strategies of the strateg

# Permian Resources Operating, LLC 300 N. Marienfeld SL, Ste. 1000 Midland, TX 79701 Phone (432) 695-4222 · Fax (432) 695-4063 ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

DATE:	2.17.2023			AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 2	04H		FIELD:	Tonto; Wolfcam
LOCATION:	Section 5, T20S-R34E			MD/TVD:	21,181' / 10,896
COUNTY/STATE	Lea County, New Mexic	20		LATERAL LENGTH:	10,000'
Permian WI:				DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WCXY			COMPLETION DAYS:	19
GEOLOGIC TARGET:		well and complete wi	th 44 stages. AFE include		
REMARKS:	AL install cost				
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
I Land / Legal / Regulatory		59,066	•	37,500	5 9
2 Location, Surveys & Dama	çes	288,079	18,067	2,500	
4 Freight / Transportation		47,628	43,778	25,000	
5 Kental - Surlace Equipmen		124,327	215,417	105,000	- 44
6 Rental - Downhole Equipn	ent	205,424	59,805	<u> </u>	
7 Rental - Living Quarters 10 Directional Drilling, Surv		48,083	54,400	<u> </u>	
11 Drilling	cys	753,820			
12 Driil Bils		100,176	<u>-</u>	<u>.</u>	
13 Fuel & Power		188,935	725.061	<u>.</u>	
14 Cementing & Float Equip		243,296			
15 Completion Unit, Swab, C	11)		·····	15,000	T
16 Perforating, Wireline, Silo		<u> </u>	393,136	<u>.</u>	
17 High Pressure Pump Truc			123,274		
18 Completion Unit, Swab, C			146,484	<u> </u>	
20 Mud Circulation System		105,209		<u> </u>	10
21 Mud Logging		17,529	······	<u> </u>	
22 Logging / Formation Evalu	ation	7,270	8,339	·	
23 Mud & Chemicals		361,835	438,185	10,000	81
24 Water		43,459	661,625	300,000	
25 Stimulation		<u> </u>	814,033	-	81
26 Stimulation Flowback & 1	Jisp	· · · ·	121,606	150,000	
28 Mud / Wastewater Dispos	al diama di seconda di	193,104	61,151	· · ·	
30 Rig Supervision / Enginee	ring	121,196	133,420	21,667	
32 Drig & Completion Overl	ead	10,423	·	<u> </u>	
35 Labor		153,358	69,489	101,667	32
54 Proppant		•	1,255,227		1,25
95 Insurance		14,660			
97 Contingency			24,421	3,833	2
99 Flugging & Abandonmen	TOTAL INTANGIBLES :	3,516,419	5,367,000	772,167	9,6
	TOTAL INTANGIBLES	DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE C	osts	COSTS	COSTS	COSTS	COSTS
60 Surface Casing		122,234	· · · ·	· · · ·	
61 Intermediate Casing		344,284			
62 Drilling Liner			<u> </u>	<u> </u>	
63 Production Casing		687,039	<del></del>	<del></del>	68
64 Production Liner			<u> </u>	<u> </u>	
65 Tubing		<u> </u>		T40,000	
66 Wellhead		64,820	<del></del>	40,000	10
67 Packers, Liner Hangers		14,732		20,000	
68 Tanks			·	45,833	
69 Froduction Vessels		<u> </u>	<u> </u>	125,667	
70 Flow Lines		<u> </u>	<u> </u>	65,667	
71 Rod string		<u> </u>	<u> </u>		
72 Artiticial Litt Equipment				90,000	9
73 Compressor		<del></del>		5,833	
74 Installation Costs		<u> </u>			
75 Surface Pumps		<del></del>	<del></del>	61,667	- 6
76 Downhole Pumps		<u> </u>			
77 Measurement & Meter Ing	tallation	<u> </u>	<del></del>	116,667	<u> </u>
76 Gas Conditioning / Dehye		·····	<del></del>		
79 Interconnecting Facility P		<u> </u>	<u> </u>	20,000	2
60 Gathering / Bulk Lines		<u> </u>			
51 Valves, Dumps, Controlle	rs			108,333	10
82 Tank / Facility Containme		<u> </u>	· · ·	43,333	
3 Flare Stack			<del></del>	16,667	1
64 Electrical / Grounding		······		50,000	5
65 Communications / SCAD	1	<u> </u>	<del></del>	36,667	
66 Instrumentation / Safety		<u> </u>	— ·	833	
•	TOTAL TANGIBLES	1,233,109	0	989,167	2,2
	TOTAL COSTS :		5,367,000	1,761,334	11,8
PARED BY Permian Res		-			
Drilling Engineer	: ML				
Completions Engineer					
	. <b>DC</b>				
Completions Engineer Production Engineer					
Completions Engineer Production Engineer	, LLC APPROVAL:	 	EO	VP - Oper	ations
Completions Engineer Production Engineer mian Resources Operating	, LLC APPROVAL:	Co-C	JW	VP - Oper	ations
Completions Engineer Production Engineer mian Resources Operating	LLC APPROVAL:	Co-C VP - Geoscier	JW	VP - Oper	

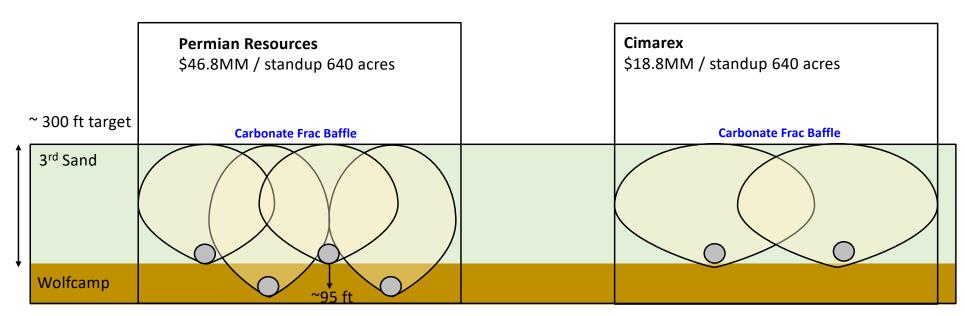
NON OPERATING PARTNER APPROVAL:

Company Name:	Working Interest (%):	Tax ID:
Signed by:	Date:	
Title:	Approval: Yes	No (mark one)
The crosts on this AFE are estimated only and party not be construed as criticate on any severific strap or the total cost of the project. Taking totalistics of	reproved updet the AFE gary be deleted up to a your after the well has been copy	isted. In executing this AFS, the Participant agrees to pay its

proportions to date of actual cost summer style. Existing, legal, careful, regulatory, by long and will costs under the summ of the applicable joint operating agreement, regulatory costset and general Datching longuages values participant provides Operator a certificate esidencing in own (neuroscent in an annual enryticable to the Operator by the date of appl.

Released to Imaging: 7/14/2023 8:02:32 AM

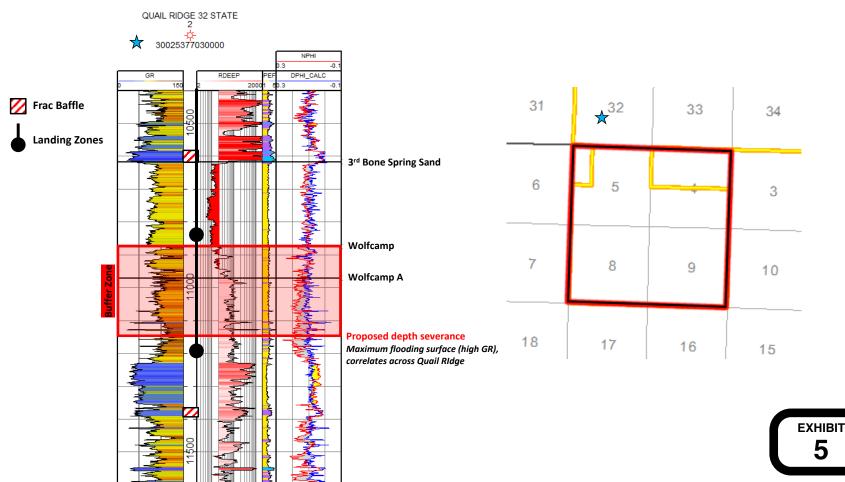
## Diagram of Staggered Landing Wolfcamp + 3<sup>rd</sup> SS vs. 3<sup>rd</sup> SS Flat



- Cimarex has experience developing as many as 8 landings within a DSU successfully in Lea county with 9<sup>th</sup> drilling now, 35 to 38 wells / section. The difference is the combination of geology (barriers, reservoir height, and flow units) don't support the proposed staggers at Mighty Pheasant Loosey Goosey as demonstrated by area developments like Black and Tan.
- 3<sup>rd</sup> and Wolfcamp landed this close together are equivalent to 8 WPS flat in the 3<sup>rd</sup> Sand, double the AOI proven density.
- A wealth of data from the DOE and industry funded Hydraulic Fracture Test Site 2 supports an upper Wolfcamp buffer zone in this specific location to protect proven 3<sup>rd</sup> Sand correlative rights and prevent capital waste.



## Proposed Wolfcamp Depth Severance to Minimize Interaction with 3<sup>rd</sup> Bone Spring Sand





5

Received by OCD: 7/13/2023 5:01:24 PM

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

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

### **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS

Operator: CIMAREX ENERGY CO.	OGRID: 215099			
	Action Number: 240068			
	Action Type:			
	[HEAR] Prehearing Statement (PREHEARING)			
QUESTIONS				
Testimony				

Testimony time (in minutes)	48			
Number of witnesses	4			
Please assist us by provide the following information about your testimony.				

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