#### 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

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#### COMPETING PARTY

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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
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#### 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:

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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.

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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

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#### 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%.

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- 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

single bench oported by 97%. 45 CMP were ead of 3 <sup>rd</sup> SS MP drilled te bench ack tests nd 5 0	2010	2011	2012	2013	2014	2015	2016	222			S:	2021	2022	2023	2015	W		1 <b>P:</b> ells	2019	2020
APACHE CORP							3r	dSS	6								Wolt	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 OPERATING LLC					3		1	1										1		
■ EOG RESOURCES INC					1		1			4						1				
FASKEN OIL & RANCH LTD			1	1	2	4														
FRANKLIN MOUNTAIN ENERGY 3 LLC			2	11	5	1				2			2							
LEGACY RESERVES OPERATING LP		1	1	2	1	5	1	4	2	1									1	
MARATHON OIL PERMIAN LLC					1	1									1					
MATA DOR PRODUCTION CO			2			1	4	2	2	3							1		1	
MEWBOURNE OIL CO					5	4					1	2	4	2						
RAYBAW OPERATING LLC				1														F	хнівіт	
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

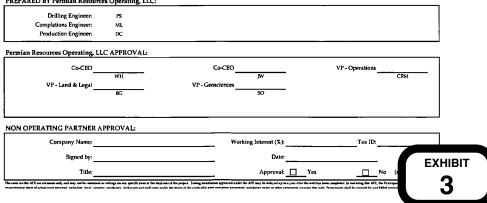
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## Permian Resources Operating, LLC 300 N. Marienfeld St., Ste. 3000 Midland, TX 79701 Phone (432) 695-4222 • Fax (432) 695-4063

DATE: 2	ESTIMATE 01			AFE NO .:	1
	ane 4-9 Federal Com 201			FIELD:	Tonto; Wolfcamp
-		n		MD/TVD:	21,210' / 10,925'
	ection 4, T20S-R34E				10.000
COUNTY/STATE:	ea County, New Mexico			LATERAL LENGTH:	
Permian WI:				DRILLING DAYS:	19.6
GEOLOGIC TARGET: V	VCXY			COMPLETION DAYS:	19
ī	rill a horizontal WCXY v	vell and complete wi	th 44 stages. AFE include	s drilling, completions,	flowback and Initial
REMARKS: A	L install cost				
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE CO	STS	COSTS	COST5	COST5	COSTS
Land/Legal/Regulatory	5	59,066		37,500	\$ 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
i Rental - Downhole Equipmen	۱ <u> </u>	205,424	59,805		265,2
Rental - Living Quarters	_	48,083	54,480	•	102,5
0 Directional Drilling, Surveys	-	429,543	<u> </u>		
1 Drilling	-	753,820	<u> </u>	<u> </u>	100,1
2 Drill Bits 3 Fnel & Power	-	188,935	725,061	<u> </u>	913.5
4 Cementing & Float Equip	-	243,296	725,001	<u> </u>	243,2
5 Completion Unit, Swab, CTU	-	245,270	<u> </u>	15,000	15,0
16 Perforating, Wireline, Slickli		<u>.</u>	393,136		393,1
17 High Pressure Pump Truck	-		123,274		123,2
8 Completion Unit, Swab, CTU	J –		146,484		146,4
20 Mud Circulation System	· -	105,209		· · · · ·	105,2
21 Mud Logging	-	17,529			17,3
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	<u> </u>	254,2
30 Rig Supervision / Engineeric		121,196	133,420	21,667	276,2
32 Drig & Completion Overhea	d _	10,423	-		10,4
35 Labor	-	153,358	69,489 1,255,227	101,667	324,5
54 Proppant 95 Insurance	-	14,660	1,233,227	<u> </u>	1,233,1
97 Contingency	-	14,000	24,421	3,833	28,2
99 Plugging & Abandonment	-	<u> </u>			
	TOTAL INTANGIBLES >	3,516,419	5,367,000	772.167	9,655
	IOTAL INTANGIBLES>	3,316,419	5,367,000		3,033,
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE COS	5T5	COSTS	COSTS	COSTS	COSTS
50 Surface Casing	5	122,234		<u> </u>	\$ 122,2
51 Intermediate Casing		344,284	· .		344,3
52 Drilling Liner	-	-	<u> </u>	<u> </u>	- 798
63 Production Casing	-	687,039	<u> </u>	<u> </u>	687,
64 Production Liner	-	-		140,000	140,0
65 Tubing 66 Wellhead	-	64,820		40,000	104,0
67 Packers, Liner Hangers	-	14,732	<u> </u>	20,000	34,2
68 Tanks	-		<u> </u>	45,833	45,
59 Production Vessels	-		<u> </u>	126,667	126,0
70 Flow Lines	-			66,667	66,0
71 Rod string	-	<u> </u>			
72 Artificial Lift Equipment	-			90,000	90,
73 Compressor	-		· ·	5,833	5,
74 Installation Costs	-		•	· · ·	
75 Surface Pumps	-	-		61,667	61,
76 Downhole Pumps	-	-	•	·	
77 Measurement & Meter Insta			-	116,667	116,
78 Gas Conditioning / Dehydra		•		· ·	
79 Interconnecting Facility Pipi	ng	•	•	20,000	20,
80 Gathering / Bulk Lines	-			-	
81 Valves, Dumps, Controllers	_	<u> </u>		108,333	108,
82 Tank / Facility Containment	-	<u> </u>	<b>-</b>	43,333	43,
33 Flare Stack	-	<u>.</u>		16,667	16,
64 Electrical / Grounding	-	· · ·	<u> </u>	50,000	50,
85 Communications / SCADA 86 Instrumentation / Safety	-			833	
o nonunenadon / Sarety	TOTAL TANGIBLES >	1,233,109		989,167	2,222
		4,749,528	5,367,000	1,761,334	11,877
	TOTAL COSTS >				



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

DATE:	.17.2023			AFE NO.:	1
	Sane 4-9 Federal Com 202	<u>н</u>		FIELD:	Tonto; Wolfcamp
		<u>n</u>		MD/TVD:	21,210' / 10,925'
	ection 4, T20S-R34E				
	ea County, New Mexico.			LATERAL LENGTH:	10,000'
ermian WI:				DRILLING DAYS:	19.6
EOLOGIC TARGET:	WCXY			COMPLETION DAYS:	19
	Drill a horizontal WCXY v AL install cost	vell and complete wi	th 44 stages. AFE include	s drilling, completions,	flowback and Initial
*					
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE CO	OSTS	COSTS	COSTS	COSTS	COSTS
Land/Legal/Regulatory	5	59,066		37,500	5 %
Location, Surveys & Damage	, –	288,079	18,067	2,500	308,
Freight / Transportation		47,628	43,778	25,000	116,
Rental - Surface Equipment	_	124,327	215,417	105,000	
Rental - Downhole Equipment	nt	205,424	59,805	<u> </u>	265,
Rental - Living Quarters	-	48,083	54,480		429.3
0 Directional Drilling, Survey	• _	429,543	<u> </u>	<u> </u>	753,2
1 Drilling 2 Drill Bits	-	753,820	<u> </u>	<u> </u>	100,
2 Drift Bas 3 Fuel & Power	-	188,935	725,061		913,9
s ruei & rower 4 Cementing & Float Equip	-	243,296		<u> </u>	243.
5 Completion Unit, Swab, CT	u -		·	15,000	15,0
6 Perforating, Wireline, Slick			393,136		
7 High Pressure Pump Truck	-	<u> </u>	123,274		123,
8 Completion Unit, Swab, CT	u -		146,484	-	146,4
0 Mud Circulation System	-	105,209			105,
1 Mud Logging	-	17,529	· · ·	-	17,
2 Logging/Formation Evalua	lion –	7,270	8,339	· · ·	15,
3 Mud & Chemicals	-	361,835	438,185	10,000	810,
14 Water	-	43,459	661,625	300,000	1,005,0
15 Stimulation		-	814,033		814,
6 Stimulation Flowback & Di	ip –		121,606	150,000	271,
28 Mud/Wastewater Disposal		193,104	61,151	<u> </u>	254.
30 Rig Supervision / Engineerl		121,196	133,420	21,667	276,
2 Drig & Completion Overhe	ıd _	10,423	-		10,
15 Labor	-	153,358	69,489	101,667	324,
4 Proppant	-	14,660	1,255,227	<u> </u>	14/
5 Insurance	-	14,000	24,421	3,833	28,
97 Contingency 99 Plugging & Abandonment	-		24,421		
79 Progging & Abanubument		3,516,419	5,367,000	772,167	9,655
	TOTAL INTANGIBLES >				
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE CO	STS	COSTS	COSTS	COSTS	COSTS
0 Surface Casing	5	122,234	•	•	\$ 122,
51 Intermediate Casing	•	344,284	-		344,
2 Drilling Liner		-	-	· · ·	
3 Production Casing		687,039	· · ·		
54 Production Liner		·	· ·		
5 Tubing	_	•	· ·	140,000	140,
6 Wellhead	-	64,820	·	40,000	104,
57 Packers, Liner Hangers	-	14,732	<u> </u>	20,000	34,
58 Tanks	-	<u> </u>	<u> </u>	45,833	45,
69 Production Vessels	-	<u> </u>	<u> </u>	66,667	66,
70 Flow Lines 71 Rod string	-	<u> </u>	<u> </u>	00,007	00,
		<u> </u>	<u> </u>	90.000	90
72 Artificial Lift Equipment 73 Compressor	-	<u> </u>	<u> </u>	5,833	
73 Compressor 74 Installation Costs	-		<u> </u>		
75 Surface Pumps	-			61,667	61,
76 Downhole Pumps	-				
77 Measurement & Meter Insta	- Ilation	<u> </u>	<u> </u>	116,667	116,
/8 Gas Conditioning / Dehydr		<del></del>	<u> </u>		
79 Interconnecting Facility Pip				20,000	20,
O Gathering / Bulk Lines	-		· · ·		
31 Valves, Dumps, Controllers		-		108,333	108,
82 Tank / Facility Containmen				43,333	43,
83 Flare Stack	-	•		16,667	16,
4 Electrical/Grounding	•			50,000	50,
85 Communications / SCADA	•		· · ·	36,667	36,
66 Instrumentation / Safety	-	•	· ·	833	
		1 222 100	0	989,167	2,222
	TOTAL TANGIBLES >	1,233,109		,0,,10	11,877

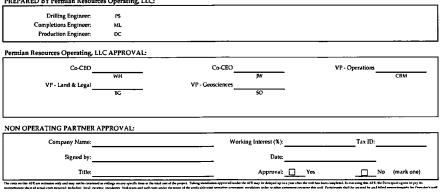
Drilling Engineer:	195			
Completions Engineer.	ML			
Production Engineer.	DC			
mian Resources Operating, LL	.C APPROVAL:			
Co-CEO		Co-CEO	VP - Operations	
	WH	Jw	CRM	
VP - Land & Legal		VP - Geosciences		
	BC	so		
N OPERATING PARTNER A	.PPROVAL:			
Company Name:		Working Interest (%):	Tax ID:	
Signed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



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

	ESTIMATE O	Phone (432) 695-4222 • COSTS AND AUTHO	RIZATION FOR EXPENDE	TURE	
DATE	2.17.2023			AFE NO .:	1
WELL NAME:	Bane 4-9 Federal Com 204	н		FIELD:	Tonto; Wolfcamp
		··		MD/TVD:	21,210' / 10,925'
LOCATION:	Section 4, T20S-R34E			· -	10,000
COUNTY/STATE:	Lea County, New Mexico			LATERAL LENGTH:	
Permian WI:				DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WCXY			COMPLETION DAYS:	19
	Drill a horizontal WCXY v	vell and complete wi	th 44 stages. AFE includes	drilling, completions,	flowback and Initial
REMARKS:	AL install cost				
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBL	FCOSTS	COSTS	COSTS	COSTS	COSTS
1 Land/Legal/Regulatory		59,066		37,500	S 96,56
2 Location, Surveys & Dam		288,079	18,067	2,500	308,64
Freight / Transportation		47,628	43,778	25,000	116,40
5 Rental - Surface Equipmo	-	124,327	215,417	105,000	444,74
6 Rental - Downhole Equip		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	<u> </u>	913,99 243,29
14 Cementing & Float Equi		243,296	<u> </u>	15,000	243,29
15 Completion Unit, Swab,		<u> </u>	393.136	15,000	393,13
16 Perforating, Wireline, Si 17 High Pressure Pump Tr			123,274	<u> </u>	123.27
17 Fligh Pressure Pump 17 18 Completion Unit, Swab,		<u> </u>	146,484	<u> </u>	146,48
20 Mud Circulation System		105,209			105,20
21 Mud Logging		17,529			17,52
22 Logging / Formation Ev		7,270	8,339		15,60
23 Mud & Chemicals		361,835	438,185	10,000	810,02
24 Water	-	43,459	661,625	300,000	1,005,08
25 Stimulation	-	•	814,033	· · ·	814,03
26 Stimulation Flowback &	Disp –	-	121,606	150,000	271,60
28 Mud / Wastewater Disp		193,104	61,151		254,25
30 Rig Supervision / Engin		121,196	133,420	21,667	276,28
32 Drig & Completion Ove	rhead	10,423			10,42
35 Labor	-	153,358	69,489	101,667	324,51
54 Proppant	-	<u>.</u>	1,255,227	•	1,255,22
95 Insurance	-	14,660	24,421	3,833	14,66
97 Contingency 99 Plugging & Abandonm	-	<u> </u>	24,421	3,833	
	TOTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,655,58
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
60 Surface Casing	\$\$	122,234	<u> </u>	<u> </u>	\$ 122,23
61 Intermediate Casing	_	344,284	<u> </u>	<u> </u>	344,28
62 Drilling Liner	-				687,03
63 Production Casing	-	687,039	·	<u> </u>	687,03
64 Production Liner 65 Tubing	-	<u> </u>	· · · ·	140,000	140,00
66 Wellhead	-	64,820	<u> </u>	40,000	140,00
67 Packers, Liner Hangers	-	14,732	<u> </u>	28.000	34,73
68 Tanks	-	-	·	45,833	45,83
69 Production Vessels	-	<u> </u>		126,667	126,66
70 Flow Lines	-	<u> </u>		66,667	66,66
71 Rod string	-	<u> </u>	·		
72 Artificial Lift Equipmer		<del></del>		90,000	90,00
73 Compressor	-		· · · ·	5,833	5,83
74 Installation Costs	-	<u> </u>		· · · ·	
75 Surface Pumps	-	-	· · · ·	61,667	61,66
76 Downhole Pumps	-	-	· · ·	· · ·	
77 Measurement & Meter I				116,667	116,66
78 Gas Conditioning / Deh			· ·	· ·	
79 Interconnecting Facility	Piping		·	20,000	20,00
60 Gathering/Bulk Lines		-	<u> </u>		
81 Valves, Dumps, Control	llers		-	108,333	108,33
82 Tank / Facility Contains	nent		<u> </u>	43,333	43,33
83 Flare Stack	-	<u>·</u>		16,667	16,66
84 Electrical / Grounding		<u> </u>	<u> </u>	50,000	
85 Communications / SCA		<u> </u>	<u> </u>	36,667	36,66
86 Instrumentation / Safety	TOTAL TANGIBLES >	1,233,109	<u> </u>	989,167	2,222,2
	TOTAL COSTS >		5,367,000	1,761,334	11,877,8
		4,749,528			

Drilling Engineer:	15		
Completions Engineer:	ML		
Production Engineer:	DC		
mian Resources Operating, LL	.C APPROVAL:		
Co-CEO		Co-CEO	VP - Operations
	WH	JW	CRM
VP - Land & Legal		VP - Geosciences	
	BG	so	
ON OPERATING PARTNER A	PPROVAL:	Working Interest (%):	Tax ID:
		Date:	
Signed by:			

#### 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 &			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 65 Weilhead 67 Packers, Liner Hangers 68 Tanks				40,000 20,000 45,833	
61 Intermediate Casing 62 Drilling Liner 63 Production Casing 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 Production 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 Production Casting 64 Production Liner 65 Tubing 65 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod 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 Rod 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 Weilhead 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 Fumps 76 Hownhole Kumps 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 Veilhead 69 Tackers, Liner Hangers 69 Tackers, Liner Hangers 71 Rod string 72 Artifictal Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Framps 76 Downhole Pumps 76 Measurement & Meter 178 Meter Jane Meter 179 Measurement & Meter 179 Measurement & Meter 179 Measurement & Meter 179 Measurement & Meter 179 Meter Meter 179 Meter Meter 189 Meter 179 Meter Meter 189 Meter	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 Droduction 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, Controlis 51 Yalves, Jumps, Controlis	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 Later 63 Production Later 64 Production Later 65 Tabing 66 Weilhead 69 Production Vessels 70 Flow Lines 71 Rod string 72 Artitical Litt Equipment 73 Compressor 74 Installation Costs 75 Surface Pamps 76 Jownhole Pamps 77 Measurement & Meter In 76 Gas Conditioning / Deby 79 Gas Conditioning / Deby 79 Janteronneeting Facility F 80 Gathering / Balk Lines 81 Valves, Damps, Controll 83 Flare Stack	statiellon Gration Viping ers			40,000 20,000 45,833 126,667 65,667 90,000 5,833 - - - - - - - - - - - - - - - - - -	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 Liner 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, Vanges, 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 20,000 20,0000 20,0000 20,0000 20,00000000	344 687/ 1400 1943 343 343 345 350 350 350 350 350 350 350 350 350 35
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 83 Gathering / Butk Lines 83 Pare Stack 84 Electrical / Grounding 84 Scommunications / 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 83 Gathering / Butk Lines 83 Pare Stack 84 Electrical / Grounding 84 Scommunications / SCAD	staliation Gration Tiping ens ent			40,000 20,000 45,853 126,667 56,667 58,567 58,567 58,567 58,567 116,667 116,667 116,667 50,000 50,000 50,000 36,667 50,000 36,667 50,000 36,667 50,000 36,657 50,000	344 687/ 140 194 34 35 125 66 90 5 5 61 116 20 20 108 43 3 15 50 50 50 50
61 Intermediate Casting 62 Drilling Liner 63 Production Lainer 63 Production Lainer 64 Production Lainer 66 Weilikead 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 83 Gathering / Butk Lines 83 Pare Stack 84 Electrical / Grounding 84 Scommunications / SCAD	staliation Gration Tiping ens ent	344,284 687,039 		40,000 20,000 45,853 126,667 56,667 58,567 58,567 58,567 58,567 116,667 116,667 116,667 50,000 50,000 50,000 36,667 50,000 36,667 50,000 36,667 50,000 36,657 50,000	344 687/ 140 143 343 45 75 66 90 5 5 61 116 20 70 8 90 5 5 61 116 20 108 8 90 5 5 61 116 20 20 20 20 20 20 20 20 20 20 20 20 20
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 95 Instrumentation / Salety 95 Part Stack 95 Instrumentation / Salety 95 Part Stack 96 Instrumentation / Salety 95 Darilling Enginee Completions 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 5 5 22 222 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 Tankring, Pault Lines 81 Valves, Dumps, Controling 85 Transtace Namps, Controling 85 Tommunications / SCAD 86 Communications / ScAD 87 Communications / ScAD 80 Communications / ScAD	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 20 108 8 90 5 5 61 116 20 20 20 20 20 20 20 20 20 20 20 20 20
61 Intermediate Casting 62 Drilling Liner 63 Production Liner 63 Production Liner 64 Production Liner 65 Tabing 66 Weilitead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Holes 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 81 Gathering / Buth Lines 81 Gathering / Buth Lines 81 Gathering / Buth Lines 81 Scommunications / Scalp 85 Communications / Scalp 85 Communications / Scalp 85 Communications / Scalp 86 Communications / Scalp	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 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 / Scaley 86 Communications / Scaley 86 Communications / Scaley 86 Communications / Scaley 86 Communications / Scaley 87 Debit Permian Res Drilling Enginee Computions Enginee Production Enginee	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:

Company Name:		Working Interest (%):	Tax ID:
Signed by:		Date:	
Title:		Approval: Yes	No (mark one)
he costs on this AFE are estimates out and may not be country	and an original an any powering stress or the total cost of the project. Tablest installation	excention of maker the AFF over he determines to a year ofter the wall has b	seen completed. In succettee this AFE, the Participant errors to per 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. 100 Midland, TX 79701 Phone (432) 693-4222 • 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 20	)2H		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'
Permian WI:				DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WOXY			COMPLETION DAYS:	19
GEOLOGIC IANGEI:		wall and complete	h 44 stages. AFE includes		
REMARKS:	AL install cost	wen and complete wit	n 11 sages. Are includes	unnag, completions,	non Dack and Hulla
		DRILLING	COMPLETION	PRODUCTION	TOTAL
	00070	COSTS	COSTS	COSTS	COSTS
INTANGIBLE					5 96
1 Land/ Legal/ Regulatory 2 Location, Surveys & Dam		288.079	18,067	37,500	308
4 Freight / Transportation	150	47,628	43,778	25,000	
5 Kental - Suriace Equipme	nt	124,327	215,417	105,000	444
6 Kental • Downhote Equip		205,424	59.805		265
7 Kental - Living Quarters		48,083	54,480		102
10 Directional Dritting, Sur	vevs	429,543		······	429
11 Drilling	2	753,820			753
12 Drill Bils		100,175	<del></del> -		100
13 Fuel & Power		188,935	725,061		913
14 Cementing & Float Equi	p	243,296	······································		243
15 Completion Unit, Swab,	CIU		· · ·	15,000	15
16 Pertorating, Wireline, Sli			393,136	<u> </u>	393
17 High Pressure Pump Tru	ick	<u> </u>	123,274		123
18 Completion Unit, Swab,	Cru		146,484		145
20 Mud Circulation System		105,209	· ·		105
21 Mud Logging		17,529			
22 Logging/Formation Eva	luation	7,270	8,339		
23 Mud & Chemicals		361,835	438,185	10,000	810
24 Water		43,459	661,625	300,000	1,005
25 Stimulation			814,033	•	814
26 Stimulation Flowback &		· ·	121,606	150,000	271
25 Mud / Wastewater Dispo		193,104	61,151		254
30 Rig Supervision / Engine		121,196	133,420	21,667	2/6
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
99 Plugging & Abandonme	ni TOTAL INTANGIBLES >	3.516.419	5,367,000	772,167	9,65
	IUTAL INTANGIBLES >	DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
60 Surface Casing	5	122,234			5 122
61 Intermediate Casing		344,284		·	344
62 Drilling Liner		<u> </u>			
53 Production Casing		687,039	· · ·		
4 Production Liner					
65 Tubing			·	140,000	140
					140
bb Wellhead		64,820		140,000 40,000 20,000	
66 Wellhead 67 Packers, Liner Hangers				40,000	
66 Wellhead 67 Packers, Liner Hangers 88 Tanks				40,000	140 104 34 45 126
55 Weilhead 57 Packers, Liner Hangers 58 Tanks 59 Production Vessels				40,000 20,000 45,833	
55 Weilhead 57 Packers, Liner Hangers 58 Tanks 59 Production Vessels 70 Flow Lines		14,732		40,000 20,000 45,833 126,667	104 34 45 126
66 Wellhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 Flow Lines 71 Rod string	:	14,732		40,000 20,000 45,833 126,667	104 34 45 126 
66 Wellhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 Flow Lines 71 Rod string 72 Artificial Lift Equipment	:	14,732		40,000 20,000 45,833 126,667 66,667	104 34 45 126 
66 Weilhead 87 Packers, Liner Hangers 88 Tanks 89 Production Vessels 70 Flow Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor	1	14,732		40,000 20,000 45,833 126,667 66,667 90,000	104 34 45 126 66
66 Weilhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 70 How Lines 71 Rod string 72 Artitical Litt Equipment 73 Compressor 74 Installation Costs	ŀ	14,732		40,000 20,000 45,833 126,667 66,667 90,000	104 343 45 1266 
66 Weilhead 67 Packers, Liner Hangers 69 Production Vessels 70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Downhole Pumps 76 Downhole Pumps		14,732		40,000 20,000 45,853 126,667 66,667 90,000 5,833 61,667	104 34 45 126 66 90 5
65 Weilhead 56 Yeakers, Liner Hangers 58 Tanks 59 Troduction Vessels 70 How Lines 71 Hod string 72 Artiticial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Pamps 76 Downhole Pamps 76 Measurement & Meter It	nstallation	14,732		40,000 20,000 45,833 126,667 66,667 90,000 5,833	104 345 126 665 900 5 5
bé Weilhéad 55 Packers, Liner Hangers 58 Tanks 59 Production Vessels 70 How Lines 71 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Pumps 75 Downhole Pumps 75 Downhole Pumps 77 Measurement & Meter In 76 Gas Conditioning / Deb	nstal lation ydration	14,732		40,000 20,000 43,2X3 125,667 66,657 90,000 5,8X3 61,667	104 34 45 126 66 90 5 
56 Wellhead 57 Packers, Liner Hangers 58 Tanks 59 Production Vessels 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 Measurement & Meter II 78 Measurement & Meter II 78 Gase Conditioning / Johy 79 Interconnecting Facility / Dehy	nstal lation ydration	14,732		40,000 20,000 45,853 126,667 66,667 90,000 5,833 61,667	104 34 45 126 66 90 5 
65 Wellhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 69 Production Vessels 70 How Lines 71 Hod string 72 Artiticial Litt Equipment 73 Compressor 74 Installation Costs 75 Dartace Pamps 75 Downhole Pumps 76 Downhole Pumps 76 Measurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnecting Facility 18 80 Gathering Value Lines	nstallation ofdration Piping	14,732		40,000 20,000 43,233 125,667 66,667 90,000 5,833 61,667 116,667 20,000	
65 Weilhead 56 Veckers, Liner Hangers 58 Tanks 59 Production Vessels 59 Production Vessels 70 How Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Downhole Fumps 76 Downhole Fumps 77 Measurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnecting Facility 80 Gathering / Bulk Lines 81 Valves, Dumps, Controll	nstallation ydration Piping ters	14,732		40,080 20,060 45,853 126,667 66,667 90,060 5,853 61,667 116,667 20,060 116,667	104 34 125 66 90 5 61 116 20 20 108
65 Weilhead 56 Veckers, Liner Hangers 58 Tanks 59 Production Vessels 59 Production Vessels 70 How Lines 71 Rod string 72 Artiticial Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Downhole Fumps 76 Downhole Fumps 77 Measurement & Meter In 78 Gas Conditioning / Dehy 79 Interconnecting Facility 80 Gathering / Bulk Lines 81 Valves, Dumps, Controll	nstallation ydration Piping ters	14,732		40,000 20,000 43,233 125,667 66,667 90,000 5,833 61,667 116,667 20,000	104 344 45 505 505 50 50 50 50 50 50 50 50 50 50
65 Weilhead 56 Weilhead 59 Packers, Liner Hangers 59 Packers, Liner Hangers 59 Packers, Lines 50 How Lines 71 Rod string 72 Artitical Litt Equipment 73 Compressor 74 Installation Costs 75 Surtace Pamps 75 Downhole Pamps 76 Downhole Pamps 76 Downhole Pamps 76 Downhole Pamps 79 Interconnecting Facility 91 Interconnecting Facility 91 Gaitening / Bulk Lines 81 Valves, Dumps, Controll 82 Tank / Facility Contain	nstallation ydration Piping ters	14,732		40,000 20,000 43,233 125,667 66,687 53,000 5,233 61,667 116,667 20,000 108,333 43,333 16,667	104 34 45 226 66 5 5 5 61 116 220 20 20 108 43 3 16
65 Wellhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 69 Production Vessels 71 Rod string 72 Artikical Lill Equipment 73 Compressor 74 Installation Costs 75 Surtace Pumps 75 Downhole Pumps 75 Downhole Pumps 75 Gas Conditioning / Deb 75 Gas Conditioning / Deb 76 Gathering / Buk Lines 81 Valves, Dumps, Controll 82 Tank / Facility Lontainm 81 Flare Slack	nstallation ydration Piping ters	14,732		40,000 20,000 43,833 126,667 66,667 90,000 5,833 61,667 116,667 20,000 108,333 43,333 16,667 5,0000	104           34           45           126           66           990           5           61           116           220           108           43           34           116           220           108           33           16           33           16           33           16           33           16
65 Wellhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 69 Production Vessels 71 Rod string 72 Artiticial Litt Equipment 73 Compressor 74 Installation Costs 75 Surtace Pamps 75 Downhole Fumps 75 Downhole Fumps 76 Downhole Fumps 76 Downhole Fumps 79 Interconnecting Facility 18 90 Gathering 70 Huk Lines 81 Valves, Dumps, Controll 82 Tank / Facility Containing 83 Hare Sides	nstallation ydration Připing ters tent	14,732		40,000 20,000 43,233 125,667 66,667 90,000 5,333 61,667 116,667 20,000 1005,333 43,333 16,667 50,000 35,667	104 34 45 126 66 90 5 5 16 16 116 20 108 43 36 16 16 30 30 30
65 Wellhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 69 Production Vessels 71 Rod string 72 Artiticial Litt Equipment 73 Compressor 74 Installation Costs 75 Surtace Pamps 75 Downhole Fumps 75 Downhole Fumps 76 Downhole Fumps 76 Downhole Fumps 79 Interconnecting Facility 18 90 Gathering 70 Huk Lines 81 Valves, Dumps, Controll 82 Tank / Facility Containing 83 Hare Sides	nstallation ydration Připing ters tent	14,732		40,000 20,000 43,833 126,667 66,667 90,000 5,833 61,667 116,667 20,000 108,333 43,333 16,667 5,0000	104           34           45           126           66           990           5           61           116           220           108           43           34           116           220           108           33           16           33           16           33           16           33           16
65 Wellhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 69 Production Vessels 71 Rod string 72 Artiticial Litt Equipment 73 Compressor 74 Installation Costs 75 Surtace Pamps 75 Downhole Fumps 75 Downhole Fumps 76 Downhole Fumps 76 Downhole Fumps 79 Interconnecting Facility 18 90 Gathering 70 Huk Lines 81 Valves, Dumps, Controll 82 Tank / Facility Containing 83 Hare Sides	nstallation ydration Piping tens eent DA			40,000 20,000 45,853 126,667 56,667 5,853 61,667 116,667 20,000 1003,533 16,567 50,000 50,000 50,000 50,000	109 33 45 126 66 50 5 5 5 5 61 116 116 20 20 108 33 50 50 50 50 50 50 50
65 Wellhead 67 Packers, Liner Hangers 68 Tanks 69 Production Vessels 69 Production Vessels 71 Rod string 72 Artiticial Litt Equipment 73 Compressor 74 Installation Costs 75 Surtace Pamps 75 Downhole Fumps 75 Downhole Fumps 76 Downhole Fumps 76 Downhole Fumps 79 Interconnecting Facility 18 90 Gathering 70 Huk Lines 81 Valves, Dumps, Controll 82 Tank / Facility Containing 83 Hare Sides	nstallation ydration Připing ters tent			40,000 20,000 43,233 125,667 66,667 90,000 5,333 61,667 116,667 20,000 1005,333 43,333 16,667 50,000 35,667	100 34 34 45 126 66 50 5 5 61 116 116 20 20 20 20 35 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
<ul> <li>Wellhead</li> <li>Yeakers, Liner Hangers</li> <li>Yeakers, Liner Hangers</li> <li>Tanks</li> <li>Production Vessels</li> <li>Voltow Lines</li> <li>To Rod string</li> <li>Compressor</li> <li>Compressor</li> <li>Compressor</li> <li>Compressor</li> <li>Compressor</li> <li>Suntace Pumps</li> <li>Soundour Pumps</li> <li>To Measurement &amp; Meter In</li> <li>Gas Conditioning / Dehy</li> <li>Interconnecting Facility 19</li> <li>Contrology Bulk Lines</li> <li>Valves, Dumps, Controli</li> <li>Tank / Facility Containing</li> <li>Elare Stack</li> <li>Electrical / Grounding</li> <li>So Communications / SCAL</li> <li>Instrumentation / Satety</li> </ul>	nstallation ydration Piping tent DA TOTAL TANGIBLES > TOTAL COSTS >			40,000 20,000 43,833 126,667 5,833 5,833 61,667 116,667 116,667 20,000 20,000 5,833 43,333 16,567 50,000 50,667 8,333 43,333 16,567 50,000 50,667 8,533 43,533 16,567 50,000 50,667 50,677 50,667 50,677 50,667 50,677 50,667 50,677 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,7777 50,7777 50,7777 50,7777 50,77777 50,777777 50,7777777777	100 34 34 122 66 95 35 61 111 22 24 35 42 35 35 222 222
65 Wellhead 77 Packers, Liner Hangers 88 Tanks 99 Production Vessels 90 Production Vessels 12 Rod string 12 Rod string 12 Antitical Lift Equipment 30 Compressor 44 Installation Costs 15 Surface Pamps 16 Downhole Pamps 16 Downhole Pamps 16 Downhole Pamps 17 Measurement & Meter II 18 Gas Conditioning / Dehy 90 Gathering / Butk Lines 10 Valves, Dumps, Controll 13 Tank / Facility Constant 13 Plares Stack 44 Electrical / Grounding 15 Communications / Safety 16 Instrumentation / Safety 16 Downward of Safety 16 Instrumentation / Safety PARED BY Permian Res	nsisilation ydration Piping tent XA TOTAL TANGIBLES > TOTAL COSTS > sources Operating, LLC:			40,000 20,000 43,833 126,667 5,833 5,833 61,667 116,667 116,667 20,000 20,000 5,833 43,333 16,567 50,000 50,667 8,333 43,333 16,567 50,000 50,667 8,533 43,533 16,567 50,000 50,667 50,677 50,667 50,677 50,667 50,677 50,667 50,677 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,777 50,7777 50,7777 50,7777 50,7777 50,77777 50,777777 50,7777777777	100 34 34 122 66 95 35 61 111 22 24 35 42 35 35 222 222
Se Wellbard     Stanks     To Kot     Stanks     Stank     Stank	nstallation ydration Piping NA TOTAL TANGIBLES > TOTAL COSTS > sources Operating, LLC: 27. P5			40,000 20,000 43,833 126,667 5,833 5,833 61,667 115,667 20,000 20,000 108,333 43,333 16,667 5,000 5,000 5,000 5,667 8,333 6,667 5,000 5,667 90,000 5,667 5,000 5,667 5,000 5,667 5,000 5,667 5,000 5,667 5,0000 5,0000 5,0000 5,00000000	104 34 45 126 66 90 5 5 16 16 116 20 108 43 36 16 16 30 30 30
65 Weilhead 65 Weilhead 89 Production Vessels 89 Production Vessels 90 Production Vessels 71 Rod string 72 Antitical Liti Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 75 Downhole Pumps 76 Downhole Pumps 76 Downhole Pumps 79 Interconneenting Facility 80 Gathering / Bulk Lines 81 Valves, Dumps, Controll 82 Tank / Facility Containing 83 Hare Stack 44 Electrical / Grounding 85 Communications / Such 86 Instrumentation / Sately PARED BY Perulan Rest Drilling Engine Completions Engine	nsiailailon ydration Piping wrs tent DA TOTAL TANGIBLES > TOTAL COSTS > Sources Operating, LLC: er: PS er: ML			40,000 20,000 43,833 126,667 5,833 5,833 61,667 115,667 20,000 20,000 108,333 43,333 16,667 5,000 5,000 5,000 5,667 8,333 6,667 5,000 5,667 90,000 5,667 5,000 5,667 5,000 5,667 5,000 5,667 5,000 5,667 5,0000 5,0000 5,0000 5,00000000	100 34 34 122 66 95 35 61 110 100 100 100 100 100 100 100 100
	nsiailailon ydration Piping wrs tent DA TOTAL TANGIBLES > TOTAL COSTS > Sources Operating, LLC: er: PS er: ML			40,000 20,000 43,833 126,667 5,833 5,833 61,667 115,667 20,000 20,000 108,333 43,333 16,667 5,000 5,000 5,000 5,667 8,333 6,667 5,000 5,667 90,000 5,667 5,000 5,667 5,000 5,667 5,000 5,667 5,000 5,667 5,0000 5,0000 5,0000 5,00000000	

Permian Resources Operating, LLC APPROVAL:

Co-CEO	WH VP - Geo BG	Co-CEO	VP - Operations CRM
NON OPERATING PARTNER	APPROVAL:		
Сотрану Name:		Working Interest (%):	Tax ID:
Signed by:		Date:	
Title:	of an excilines an any mostly laten or the total cost of the predect. Tubbus installation	Approval: Ye	

Las cano la trans de la serie companya en un presente en conseguir se aver presente en trans de la presente en pre

#### 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

WELL NAME:	2.17.2023			AFE NO .:	1
AAECC IAWANC	Joker 5-8 Federal Com 2	)3H		FIELD:	Tonto; Wolfcam
LOCATION:	Section 5, T20S-R34E			MD/TVD:	21,191' / 10,906
COUNTY/STATE:	Lea County, New Mexic			LATERAL LENGTH:	10,000'
	Lea County, New Mexic	·		DRILLING DAYS:	19.6
Permian WI:				_	19:0
GEOLOGIC TARGET:	WCXY			COMPLETION DAYS:	
REMARKS:	Drill a horizontal WCXY AL install cost	well and complete wit	th 44 stages. AFE include	s drilling, completions,	flowback and Initia
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
I Land/ Legal/ Regulatory	5	59,066		37,500	5 96
2 Location, Surveys & Damag	zes	288,079	18,067	2,500	308
4 Freight / Transportation		47,628	43,778	25,000	116
5 Kental - Surface Equipment		124,32/	215,417	105,000	444
6 Kental - Downhole Equipm	ient	205,424	59,805		265
7 Kental - Living Quarters		48,083	54,480		102
10 Directional Drilling, Surv	eys	429,543			425
11 Drilling		753,820		· · · ·	75:
12 Drill Bits		100,176			100
13 Fuel & Power		188,935	725,061		913
14 Cementing & Float Equip		243,296			- 243
15 Completion Unit, Swab, C	TU			15,000	
16 Periorating, Wireline, Silc		<u>.</u>	393,136	·····	
17 High Pressure Pump Truc		<u> </u>	123.2/4	<u> </u>	
18 Completion Unit, Swab, C			146,484		146
20 Mud Circulation System		105,209	110/101		
			<u> </u>	······	
21 Mud Logging		17,529		·	
22 Logging / Formation Evalu	lation	7,270	8,339	-	
23 Mud & Chemicals		361,835	438,185	10,000	810
24 Water		43,459	661,625	300,000	1,005
25 Stimulation			814,033		814
26 Stimulation Flowback & L	Jisp	<u> </u>	121,606	150,000	2/1
28 Mud / Wastewater Dispos	21	193,104	61,151	· · ·	
30 Rig Supervision / Enginee	ring	121,196	133,420	21,667	
32 Drig & Completion Overh	ead	10,423		<u> </u>	
35 Labor		153,358	69,489	101,667	324
54 Proppant			1,255,227		1,255
95 Insurance		14,660			
7 Contingency			24,421	3,833	
99 Plugging & Abandonmen			24/461	5,000	
55 Flugging & Abanutimen		<u> </u>	<u>_</u>	·	
	TOTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,65
	-	DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE O	OSTS	COSTS	COSTS	COSTS	COSTS
50 Surface Casing	0513	122.234			s 12
61 Intermediate Casing	•	344,284			
		344,284			344
62 Drilling Liner		<u> </u>	-	-	
63 Production Casing		687,039		-	687
64 Production Liner		· ·	·		
55 Tubing		· · ·		140,000	140
66 Wellhead		64,820		40,000	
7 Packers, Liner Hangers		14,732		20,000	
58 Tanks				45,833	45
59 Production Vessels					126
U Flow Lines		<u> </u>		26.667	
				126,667	
				66,667	66
'l Rod string			<u>;</u>	66,667	66
71 Rod string 72 Artificial Lift Equipment				90,000	66 
71 Rod string 72 Artiticial Lift Equipment 73 Compressor				66,667	66 
71 Rod string 72 Artiticial Litt Equipment 73 Compressor 74 Installation Costs				66,667 90,000 5,833	90 90
71 Rod string 72 Artiticial Litt Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps				90,000	
<sup>1</sup> 1 Kod string 12 Artificial Lift Equipment 13 Compressor 14 Installation Costs 15 Surtace Pumps 16 Downhole Pumps				5,667 90,000° 5,833 61,667	90 90 5
71 Rod string 72 Artiticial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 76 Downhole Pumps 77 Measurement & Meter Ins				66,667 90,000 5,833	90 90 5
<sup>7</sup> 1 Kod string 72 Artilicial Litt Equipment 73 Compressor 74 Installation Cosis 75 Surface Pumps 76 Downhole Pumps 76 Measurement & Meter Ins 78 Gas Conditioning / Debyd	iration			5,667 90,000° 5,833 61,667	90 90 5
2 Rod string 2 Artilicial Litt Equipment 3 Compressor 4 Installation Costs 75 Surface Pumps 6 Downhole Pumps 77 Measurement & Meter Ins 78 Gas Conditioning / Dehyd 9 Interconnecting Facility PI	iration			5,667 90,000° 5,833 61,667	
2 Rod string 2 Artilicial Litt Equipment 3 Compressor 4 Installation Costs 75 Surface Pumps 6 Downhole Pumps 77 Measurement & Meter Ins 78 Gas Conditioning / Dehyd 9 Interconnecting Facility PI	iration			66,667	665 90 5 61 
12 Kod string 12 Artiticial Litt Equipment 13 Compressor 14 Installation Costs 15 Surface Pumps 16 Downhole Pumps 16 Downhole Pumps 17 Measurement & Meter Ins 18 Gas Conditioning, J Dehyd 19 Interconnecting Facility PI 10 Gathering, J Balk Lines	Iration ping			66,667 90,000" 5,833 61,667 116,667 20,000	66 90 5 61 116 20
<ol> <li>Rod string</li> <li>Artitickal Litt Equipment</li> <li>Compressor</li> <li>Gompressor</li> <li>Installation Costs</li> <li>Sourace Pumps</li> <li>Downhole Pumps</li> <li>Downhole Pumps</li> <li>K cas Conditioning / Dehydry</li> <li>Interconnecting Facility Pl</li> <li>Gathering / Bulk Lines</li> <li>Valves, Durps, Controller</li> </ol>	tration ping 15			66,667 90,000 5,833 61,667 116,667 20,000 108,333	
71 Kod string 22 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Fumps 76 Downhole Fumps 76 Oswithole Fumps 77 Measurement & Meter Ins 78 Gas Conditioning, J Dehyd 79 Interconnecting Facility Pl 90 Gathering, J Salk Lines 11 Valves, Dumps, Controllet 23 Tark / Facility Containnes	tration ping 15			66,667 90,180 5,833 61,667 116,667 20,000 20,000 108,533 43,533	66 94 5 61 116 20 108 43
12 Kod string 22 Artilickal Litt Equipment 33 Compressor 44 Installation Costs 55 Surtace Pumps 64 Downhole Pumps 64 Case Conditioning / Dehyd 99 Interconnecting Facility FI 98 Gast Conditioning / Dehyd 99 Interconnecting Facility FI 94 Gathering / Bolk Lines 14 Valves, Dumps, Controllet 12 Fack / Facility Containmes 34 Face Stack	tration ping 15			66,657 90,080 5,833 61,667 20,067 20,067 108,533 43,533 10,667	
1 Kod string 2 Kod string 2 Artiticki Lüt Equipment 3 Compressor 4 Installation Costs 5 Surtace Pumps 6 Downhole Pumps 7 Measurement & Meter Ins 8 Gas Conditioning / Dehyd 9 Interconnecting Jacülty P) 9 Interconnecting Jacülty P) 9 Interconnecting Jacülty P) 10 Autors, Dumps, Controller 10 Autors, Dumps, Controller 2 Flare Stack 4 Electrical / Grounding	iralion ping 15 nt			66,667 90,180 5,833 61,667 116,667 20,000 20,000 108,333 16,667 20,000	66 90 5 61 116 220 108 43 16 50
<ol> <li>Rod string</li> <li>Rod string</li> <li>Cartificial Lift Equipment</li> <li>Compressor</li> <li>Installation Costs</li> <li>Sourcace Pumps</li> <li>Downhole Pumps</li> <li>Downhole Pumps</li> <li>Gas Conditioning / Dehyd</li> <li>Interconnecting Facility FI</li> <li>Gathering / Balk Lines</li> <li>Valves, Dumps, Controller</li> <li>Tank / Facility Containment</li> <li>Hare Slack</li> <li>Elormunications / SCADW</li> <li>Ecommunications / SCADW</li> </ol>	iralion ping 15 nt			66,667 90,100 5,833 61,667 20,000 108,333 105,667 20,000 30,667	66 90 5 61 116 220 108 43 16 50
<ol> <li>Rod string</li> <li>Rod string</li> <li>Cartificial Lift Equipment</li> <li>Compressor</li> <li>Installation Costs</li> <li>Sourcace Pumps</li> <li>Downhole Pumps</li> <li>Downhole Pumps</li> <li>Gas Conditioning / Dehyd</li> <li>Interconnecting Facility FI</li> <li>Gathering / Balk Lines</li> <li>Valves, Dumps, Controller</li> <li>Tank / Facility Containment</li> <li>Hare Slack</li> <li>Elormunications / SCADW</li> <li>Ecommunications / SCADW</li> </ol>	Iration ping rs nt			66,657 90,080 5,853 61,667 116,667 20,080 108,533 43,533 16,667 50,080 50,080 50,080 835	
<ol> <li>Rod string</li> <li>Rod string</li> <li>Cartificial Lift Equipment</li> <li>Compressor</li> <li>Installation Costs</li> <li>Sourcace Pumps</li> <li>Downhole Pumps</li> <li>Downhole Pumps</li> <li>Gas Conditioning / Dehyd</li> <li>Interconnecting Facility FI</li> <li>Gathering / Balk Lines</li> <li>Valves, Dumps, Controller</li> <li>Tank / Facility Containment</li> <li>Hare Slack</li> <li>Elormunications / SCADW</li> <li>Ecommunications / SCADW</li> </ol>	iralion ping 15 nt			66,667 90,100 5,833 61,667 20,000 108,333 105,667 20,000 30,667	
<ol> <li>Rod string</li> <li>Rod string</li> <li>Cartificial Lift Equipment</li> <li>Compressor</li> <li>Installation Costs</li> <li>Sourcace Pumps</li> <li>Downhole Pumps</li> <li>Downhole Pumps</li> <li>Gas Conditioning / Dehyd</li> <li>Interconnecting Facility FI</li> <li>Gathering / Balk Lines</li> <li>Valves, Dumps, Controller</li> <li>Tank / Facility Containment</li> <li>Hare Slack</li> <li>Elormunications / SCADW</li> <li>Ecommunications / SCADW</li> </ol>	iration ping nt TOTAL TANGIBLES >	1,233,109		66,667 90,080 5,833 61,667 116,567 20,000 20,000 43,333 16,567 43,333 16,567 30,000 36,567 833 989,167	66 99 2 60 100 2 2 2 2 2 2 2 2 2 2 2 2 2
71 Rod string 72 Rod string 73 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Pumps 76 Downhole Pumps 76 Downhole Pumps 79 Dieteconnecting Facility P1 80 Gathering / Bolk Lines 81 Valves, Dumps, Controllet 81 Valves, Dumps, Controllet 82 Fank / Facility Constaines 83 Flares Stack 44 Electrical / Grounding (SDA) 76 Communications / SCLOW	tration ping nt TOTAL TANGIBLES > TOTAL COSTS >			66,657 90,080 5,853 61,667 116,667 20,080 108,533 43,533 16,667 50,080 50,080 50,080 835	66 90 3 61 116 20 108 43 109 30 30 2,222
71 Rod string 72 Rod string 73 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Pumps 76 Downhole Pumps 76 Downhole Pumps 79 Dieteconnecting Facility P1 80 Gathering / Bolk Lines 81 Valves, Dumps, Controllet 81 Valves, Dumps, Controllet 82 Fank / Facility Constaines 83 Flares Stack 44 Electrical / Grounding (SDA) 76 Communications / SCLOW	tration ping nt TOTAL TANGIBLES > TOTAL COSTS >	1,233,109		66,667 90,080 5,833 61,667 116,567 20,000 20,000 43,333 16,567 43,333 16,567 30,000 36,567 833 989,167	66 90 3 61 116 20 108 43 109 30 30 2,222
71 Rod string 72 Rod string 73 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Fumps 76 Downhole Pumps 76 Downhole Pumps 79 Interconnecting Facility PI 80 Gathering / Solik Lines 81 Valves, Dumps, Controllet 83 Flare Stack 44 Electrical / Crounding 85 Communications / SCADA 86 Instrumentation / Salety PARED BY Permian Reso	tration ping nt TOTAL TANGIBLES > TOTAL COSTS > wurces Operating, LLC:	1,233,109		66,667 90,080 5,833 61,667 116,567 20,000 20,000 43,333 16,567 43,333 16,567 30,000 36,567 833 989,167	66 90 3 61 116 20 108 43 109 30 30 2,222
71 Rod string 72 Rod string 73 Artilicial Liti Equipment 73 Compressor 74 Installation Costs 75 Surtace Pumps 76 Downhole Pumps 76 Downhole Pumps 76 Downhole Pumps 79 Interconnecting Facility P1 99 Interconnecting Facility P1 99 Interconnecting Facility P1 90 Cathering / Balk Lines 91 Valves, Dumps, Controllet 93 Valves, Dumps, Controllet 93 Valves, Dumps, Controllet 93 Valves, Dumps, Controllet 93 Valves, Dumps, Controllet 95 Communications / 95 CAN 76 Communications / Satety 76 Communications / Satety 76 Communications / Satety 76 Communications / Satety 77 Communications / Satety 77 Control Control Participation / Satety 78 Communications / Satety 78 Communications / Satety 78 Communications / Satety	tration ping rs nt TOTAL TANGIBLES> TOTAL COSTS > purces Operating, LLC: PS	1,233,109		66,667 90,080 5,833 61,667 116,567 20,000 20,000 43,333 16,567 43,333 16,567 30,000 36,567 833 989,167	66 90 3 61 116 20 108 43 109 30 30 2,222
21 Rod string 22 Artificial Lift Equipment 3 Compressor 41 Installation Costs 55 Surtace Pumps 65 Downhole Pumps 76 Downhole Pumps 76 Downhole Pumps 70 Reasurement & Meter Inst 78 Gas Conditioning, J Dehyd 79 Interconnecting Facility PI 10 Valves, Dumps, Controllet 11 Valves, Dumps, Controllet 23 Flare Stack 46 Electrical / Crounding 65 Communications / SCADA 66 Instrumentation / Salety 70 ARED BY Permian Reso	tration ping rs nt TOTAL TANGIBLES> TOTAL COSTS > purces Operating, LLC: PS	1,233,109		66,667 90,080 5,833 61,667 116,567 20,000 20,000 43,333 16,567 43,333 16,567 30,000 36,567 833 989,167	66 99 2 60 100 2 2 2 2 2 2 2 2 2 2 2 2 2
Ikod string     Zottikial Lift Equipment     Actikial Lift Equipment     Compressor     A Installation Costs     Sourcace Pumps     for Downhole Pumps     Measurement     A Measurement     A left Balk Lines     Valves, Dumps, Controller     Siarker Plack     Linetrity Containers     Sicommunications/SCAD     Instrumentation / Satety     Communications/SCAD     Response     ZARED BY Permian Reso     Drilling Engineer:	tration ping rs nt TOTAL TANGIBLES > TOTAL COSTS > purces Operating, LLC: rs ML	1,233,109		66,667 90,080 5,833 61,667 116,567 20,000 20,000 43,333 16,567 43,333 16,567 30,000 36,567 833 989,167	66 99 2 60 100 2 2 2 2 2 2 2 2 2 2 2 2 2
72 Rod string 72 Rod string 73 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Pumps 76 Downhole Pumps 76 Downhole Pumps 78 Gas Conditioning / Dehyd 99 Interconnecting Facility P1 90 Cathering / Boik Lines 91 Valves, Dumps, Controllet 92 Tark / Facility Containers 93 Flare Stack 44 Electrical / Grounding 95 Communications / SCADA 76 Instrumentation / Satety 94 RED BY Permian Reso Drilling Engineer: Completions Engineer: Production Engineer:	tration ping nt TOTAL TANCIBLES > TOTAL COSTS > surces Operating, LLC: PS ML DC	1,233,109		66,667 90,080 5,833 61,667 116,567 20,000 20,000 43,333 16,567 43,333 16,567 30,000 36,567 833 989,167	66 90 3 61 116 20 108 43 109 30 30 2,222
71 Rod string 72 Rod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surface Pumps 76 Downhole Pumps 76 Downhole Pumps 79 Interconnecting Facility PI 80 Gathering Facility PI 81 Valves, Dumps, Controllet 83 Piare Stack 44 Electrical / Crounding 85 Communications / SCADA 86 Instrumentation / Salety PARED BY Permian Reso Drilling Engineer: Completions Engineer: Completions Engineer: Production Engineer:	ration ping nt TOTAL TANGIBLES > TOTAL COSTS > TOTAL COSTS > Nurces Operating, LLC: PS ML DC , LLC APPROVAL:		5,367,000	66,667 90,180 5,833 61,667 115,567 22,000 20,000 30,567 33,333 16,567 22,000 30,567 108,333 16,567 30,000 30,567 1,261,334	66 99 3 61 116 20 20 108 43 16 30 30 30 2,22 11,47
72 Rod string 72 Rod string 73 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Pumps 76 Downhole Pumps 76 Downhole Pumps 78 Gas Conditioning / Dehyd 99 Interconnecting Facility P1 90 Cathering / Boik Lines 91 Valves, Dumps, Controllet 92 Tark / Facility Containers 93 Flare Stack 44 Electrical / Grounding 95 Communications / SCADA 76 Instrumentation / Satety 94 RED BY Permian Reso Drilling Engineer: Completions Engineer: Production Engineer:	ration ping rs nt TOTAL TANGIBLES> TOTAL COSTS> warces Operating, LLC: PS ML DC LLC APPROVAL:	1,233,109	5,367,000	66,667 90,080 5,833 61,667 116,567 20,000 20,000 43,333 16,567 43,333 16,567 30,000 36,567 833 989,167	665 90 5 61 118 20 20 108 43 150 55 2,222 11,47
71 Kod string 72 Artificial Lift Equipment 73 Compressor 74 Installation Costs 75 Surtace Pamps 76 Downhole Pamps 76 Downhole Pamps 76 Downhole Pamps 79 Gasc Conditioning, J Dehyd 79 Interconnecting Facility PI 80 Gathering, Facility PI 80 Gathering, Facility Containnes 81 Valves, Dumps, Controllet 82 Tank / Facility Containnes 83 Piare Stack 44 Electrical / Grounding 85 Communications / ScaDA 66 Instrumentation / Salety 70 Completions Engineer: Completions Engineer: Production Engineer: Production Engineer: Production Engineer: Production Engineer:	TOTAL TANGIBLES> TOTAL TANGIBLES> TOTAL COSTS > Purces Operating, LLC: F5 ML DC LLC APPROVAL:		5,367,000	66,667 90,180 5,833 61,667 115,567 22,000 20,000 30,567 33,333 16,567 22,000 30,567 108,333 16,567 30,000 30,567 1,261,334	665 90 5 61 118 20 20 108 43 150 55 2,222 11,47
21 Rod string 22 Arditicial Liti Equipment 33 Compressor 34 Installation Costs 75 Surtace Yumps 76 Downhole Yumps 76 Downhole Yumps 79 Interconnecting Yacility Pl 90 Cathering Yacility Pl 91 Valves, Dumps, Controllet 93 Valves, Dumps, Controllet 93 Valves, Dumps, Controllet 93 Valves, Dumps, Controllet 93 Valves, Dumps, Controllet 95 Communications / SCADA 46 Instrumentations / Satety PARED BY Permian Reso Drilling Engineer: Completions Engineer: Completions Engineer:	TOTAL TANGIBLES> TOTAL TANGIBLES> TOTAL COSTS > Purces Operating, LLC: F5 ML DC LLC APPROVAL:		5,367,000	66,667 90,180 5,833 61,667 115,567 22,000 20,000 30,567 33,333 16,567 22,000 30,567 108,333 16,567 30,000 30,567 1,261,334	

#### NON OPERATING PARTNER APPROVAL:

Company Name:	Working Interest (%):	Tax ID:
Signed by:	Date:	
Title: _	Approval:	Yes No (mark one)
The main we do ANT an extrame and you do not not an ending on any specific lines on the bala cost of the project. Taking landslikes approved materia by AT and shared as a system of the second as a specific spec		

**Released to Imaging:** 7/13/2023 5:00:23 PM

# 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

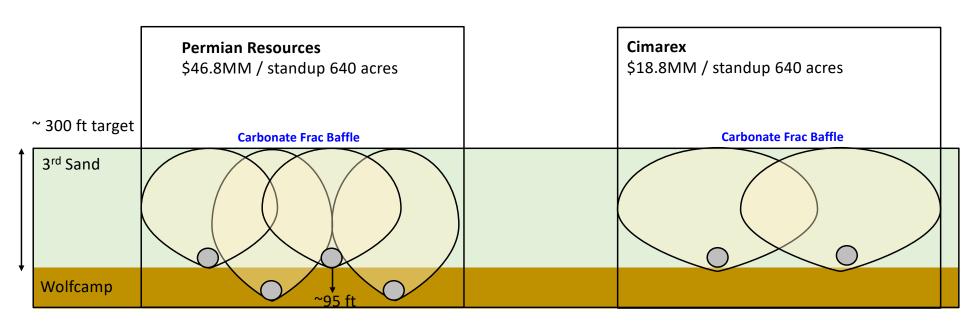
DATE:	2.17.2023			AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 2	04H		FIELD:	Tonto; Wolfcam
LOCATION:	Section 5, T20S-R34E			MD/TVD:	21,181' / 10,896
COUNTY/STATE:	Lea County, New Mexic	0		LATERAL LENGTH:	10,000'
Permian WI:	200 00000,70000 00000	•		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WCXY			COMPLETION DAYS:	19
REMARKS:	Drill a horizontal WCXY AL install cost	well and complete wit	th 44 stages. AFE include	s drilling, completions, l	flowback and Initi
		DRILLING	COMPLETION	PRODUCTION	TOTAL
INTANGIBLE	COSTS	COSTS	COSTS	COSTS	COSTS
I Land/ Legal/ Regulatory		59,066	•	37,500	5 9
2 Location, Surveys & Damag	jes -	288,079	18,067	2,500	
4 Freight / Transportation		47,628	43,778	25,000	11
5 Kental - Suriace Equipmen		124,327	215,417	105,000	- 44
6 Rental - Downhole Equipm	ent	205,424	59,805		
7 Rental - Living Quarters		48,083	54,480		
10 Directional Drilling, Surv	775	429,543	<u> </u>	······	42
11 Drilling	-	753,820	<u> </u>		
12 D7(11 BIG		100,176			ic
13 Fuel & Power		188,935	725.061		
14 Cementing & Float Equip		243,296		<u> </u>	24
15 Completion Unit, Swab, C	111		·····	15,000	
16 Pertorating, Wireline, Silc			393,136		
17 High Pressure Pump Truc		<u> </u>	123,274	<u> </u>	
18 Completion Unit, Swab, C	10		146,484	-	14
20 Mud Circulation System		105,209			10
21 Mud Logging		17,529	·····	•	
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	1,00
25 Stimulation		<u> </u>	814.033		
26 Stimulation Flowback & L	lisn		121.606	150,000	
25 Mud/Wastewater Dispos		193,104	61,151	150,000	
				<u> </u>	
30 Rig Supervision / Enginee		121,196	133,420	21,667	27
32 Drig & Completion Overh	ead	10,423		•	
35 Labor		153,358	69,489	101,667	32
54 Proppant			1,255,227		1,25
15 Insurance		14,660			1
97 Contingency			24,421	3,833	
9 Plugging & Abandonmen		· · · · ·	<u> </u>	· · · ·	
	TOTAL INTANGIBLES >	3,516,419	5,367,000	772,167	9,6
		DRILLING	COMPLETION	PRODUCTION	TOTAL
TANGIBLE O	osts	COSTS	COSTS	COSTS	COSTS
0 Surface Casing	5	122.234	· · · · ·	···· ·	5 12
61 Intermediate Casing		344,284		<u> </u>	
62 Drilling Liner					
63 Production Casing		687,039			
64 Production Liner		007,037			
65 Tubing		-		140,000	
66 Wellhead		64,820		40,000	10
67 Fackers, Liner Hangers		14,732		20,000	3
58 Tanks		•	· · ·	45,833	4
69 Production Vessels			· · ·	126,667	
70 Flow Lines			·	66,667	
71 Rod string					
72 Artificial Lift Equipment				90,000	
			<u> </u>		
73 Compressor		<u> </u>		5,833	
74 Installation Costs		<u> </u>		·	
75 Surface Pumps				61,667	6
76 Downhole Pumps			·		
77 Measurement & Meter Ins		· · ·	· · ·	116,667	
76 Gas Conditioning / Dehyd		·····	·	<u> </u>	
79 Interconnecting Facility Pi	ping			20,000	
60 Gathering / Bulk Lines			— ·	<u> </u>	
1 Valves, Dumps, Controlle	rs			108,333	ĸ
2 Tank / Facility Containme		<u> </u>		43,333	
3 Flare Stack		<u> </u>	<u> </u>	15,667	
54 Electrical / Grounding		<u> </u>	<u> </u>	50,000	
5 Communications/ SCAD/		<u> </u>	<u> </u>	35,667	
	•	<u> </u>	<u> </u>	30,007	
66 Instrumentation / Satety		<u> </u>	·		····
	TOTAL TANGIBLES >	1,233,109	0	989,167	2,2
	TOTAL COSTS >	4,749,528	5,367,000	1,761,334	11,8
			······		
		-			
Drilling Engineer	175				
Drilling Engineer Completions Engineer	PS ML			· · · · ·	
Drilling Engineer	PS ML				
Drilling Engineer Completions Engineer Production Engineer	PS ML DC To				
Drilling Engineer Completions Engineer Production Engineer	PS ML DC	 	EO	VP - Oper	ations
Drilling Engineer Completions Engineer Production Engineer nian Resources Operating	PS ML DC	 	EOjw	VP - Open	ationsCRM
Completions Engineer Production Engineer nian Resources Operating Co-CEC	PS ML DC		Jw	VP - Open	
Drilling Engineer Completions Engineer Production Engineer nian Resources Operating	PS ML DC	Co-C VP - Geoscien	Jw	VP - Opera	

NON OPERATING PARTNER APPROVAL:

Company Name:	Working Interest (%):	Tax ID:
Signed by:	Date:	
Title:	Approval: Yes	No (mark one)
The cross on this AFE are estimates only and party not be constructed as criticals on any averific firms or the total cost of the project. Taking installation	approved updet the AFE may be deleted up to a year after the well has been count	eted. In exerciting this AFX, 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.

## 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.



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



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

QUESTIONS

- 1	OGRID:
CIMAREX ENERGY CO. 6001 Deauville Blvd	215099 Action Number:
Midland, TX 79706	240065
	Action Type:
	[HEAR] Prehearing Statement (PREHEARING)
QUESTIONS	
Testimony	

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

Action 240065

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