Received by OCP: 3/15/2024 2:44:01 PM Office	State of New Mexi Energy, Minerals and Natura		DHC-5352	Form C-103 <i>of 1</i> Revised July 18, 2013
<u>District I</u> – (575) 393-6161 1625 N. French Dr., Hobbs, NM 88240	Energy, winerais and Natura	I Resources	WELL API NO.	
<u>District II</u> – (575) 748-1283 811 S. First St., Artesia, NM 88210	OIL CONSERVATION D		30-039- 5. Indicate Type of Le	
<u>District III</u> – (505) 334-6178 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Franci		STATE	FEE
<u>District IV</u> – (505) 476-3460 1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM 875	05	6. State Oil & Gas Lea Federal NM	
(DO NOT USE THIS FORM FOR PROPOSALS			7. Lease Name or Unit	Agreement Name
DIFFERENT RESERVOIR. USE "APPLICATIC PROPOSALS.)		SUCH	San Juan 2	8-7 Unit
	Well 🛛 Other		8. Well Number 132	
2. Name of Operator			9. OGRID Number 3721	71
Hilcorp Energy Company 3. Address of Operator			10. Pool name or Wild	
382 Road 3100, Aztec, NM 87	410		Basin Mancos / Bl	
4. Well Location				
Unit Letter <u>K</u> : <u>1650</u> feet fr	om the South line and 1550	feet from the W	est line	
	nship 27N Range 07W		7	Arriba
11.	Elevation (Show whether DR, R		)	
	6647' G	íL		
12. Check Appr	opriate Box to Indicate Nat	ure of Notice,	Report or Other Data	ì
NOTICE OF INTER			SEQUENT REPOR	
		REMEDIAL WOR		
				ND A
PULL OR ALTER CASING DOWNHOLE COMMINGLE		CASING/CEMEN	ТЈОВ 🗌	
CLOSED-LOOP SYSTEM				
OTHER: REC		OTHER:		
13. Describe proposed or completed of starting any proposed work). proposed completion or recompl	SEE RULE 19.15.7.14 NMAC.			
It is intended to recomplete the subject we commingle the existing Basin Dakota (po Conservation Division Order Number 113	ol 71599) with the Mancos and M 863. Allocation and methodolog	Mesaverde. The y will be provide	production will be comm d after the well is comple	ingled per Oil ted. Commingling
will not reduce the value of the production	n. The Bureau of Land Manager	nent has been no	otified in writing of this a	pplication.
Proposed perforations are: MV 4819' – 5	887'; MC 5887' – 7302'; DK 74	18' - 7566'. <b>Th</b>	ese perforations are in T	VD.
As referred to in Order # R-13681 interest	t owners were not re-notified.			
Spud Date:	Rig Release Date			
I hereby certify that the information above	e is true and complete to the best	of my knowledg	e and belief.	
SIGNATURE Cherylene Weston	TITLE_Operation	ons/Regulatory T	echnician Sr. DATE	02/08/2024
Type or print name <u>Cherylene Weston</u> For State Use Only	E-mail address:	cweston@hilcor	p.com PHONE:	713-289-2615
0	Millure TITLE Petrole	um Engineer	DATE 0	3/15/2024

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Conditions of Approval (if any):

## CONDITIONS OF APPROVAL

If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Permit shall terminate on the date of such action.

If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.

If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.

The Operator shall calculate the oil and gas production average during the fourth year after the commencement of commingling, which shall be used to establish a fixed percentage of the total oil and gas production that shall be allocated to each of the Pools ("fixed percentage allocation plan"). No later than ninety (90) days after the fourth year, the Operator shall submit a Form C-103 to the OCD Engineering Bureau that includes the fixed percentage allocation plan and all data used to determine it. If the Operator fails to do so, this Permit shall terminate on the following day. If OCD denies the fixed percentage allocation plan, this Permit shall terminate on the date of such action. If OCD approves the percentage allocation plan with or without modifications, then the approved percentage allocation plan shall be used to determine oil and gas allocation starting on the date of such action until the Well is plugged and abandoned.

# San Juan 28-7 Unit 132 Allocation

The forecasts for Mancos and Mesaverde production have been generated using type curves of production in the surrounding trend.

These zones are proposed to be commingled because the application of dual completions impedes the ability to produce the shallow zone without artificial lift and the deeper zones with reduced artificial lift efficiency. All horizons will require artificial lift due to low bottomhole pressure (BHP) and permeability.

The BHPs of all zones, producing and non-producing, were estimated based upon basin wide Moving-Domain Material Balance models that have proven to approximate the pressure in the given reservoirs well in this portion of the basin, in conjunction with shut-in pressure build-ups. These models were constructed incorporating reservoir dynamics and physics, historic production, and observed pressure data. Historic commingling operations have proven reservoir fluids are compatible.

# **Production Allocation Method – Subtraction**

# **Gas Allocation:**

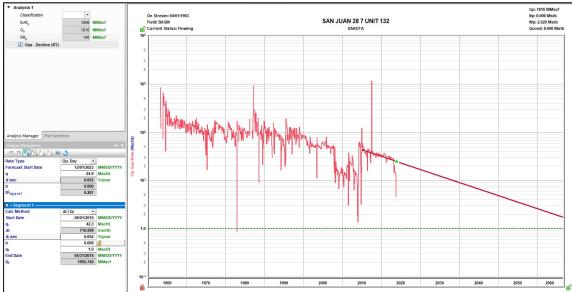
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be trimmingled are the Mancos and Mesaverde. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceeding the base formation forecasts will be allocated to the new formations.

New zones will be allocated using a fixed allocation. Forecasted rates for MC and MV are based on offsets type curve. The maps show the standalone offsets that were used for type-curves. The split between MC and MV is bason the ratio of forecasted reserves as shown in the table below.

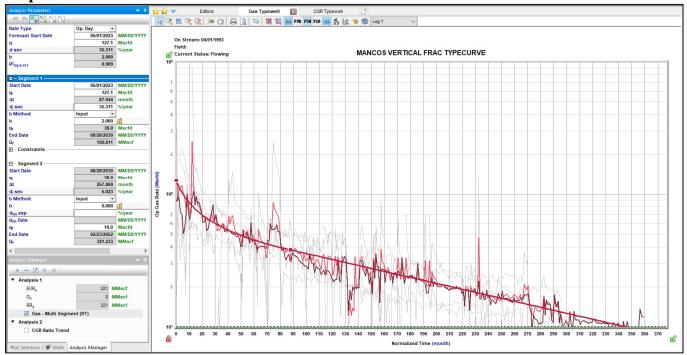
Formation	Remaining Reserves (MMcf)	% Gas Allocation
Mancos	321	35%
Mesaverde	607	65%

After 3 years production will stabilize. A production average will be gathered during the 4<sup>th</sup> year and will be utilized to create a fixed percentage-based allocation.

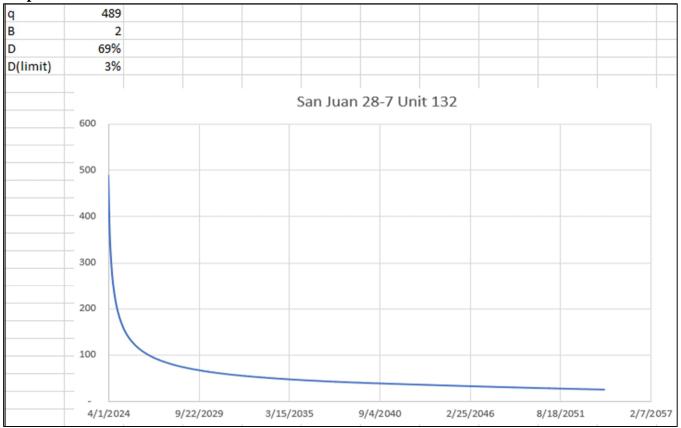
# Current Zone Forecast – Dakota



## **Proposed Zone 1 Forecast - Mancos**



### Proposed Zone 2 Forecast - Mesaverde



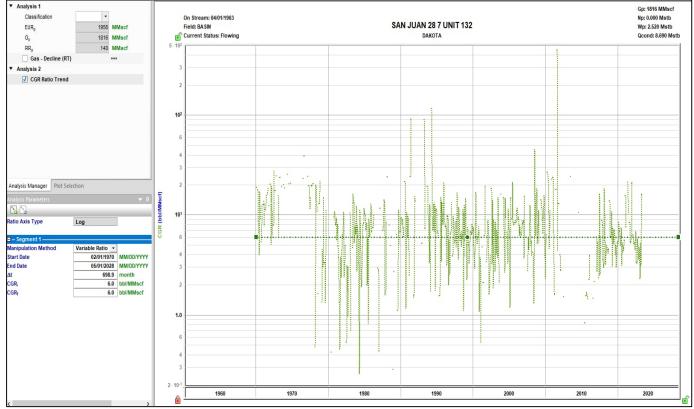
Average initial production curve in geologic region.

# Oil Allocation:

Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years. After 4 years oil will be reevaluated and adjusted as needd based on average formation yields and new fixed gas allocation.

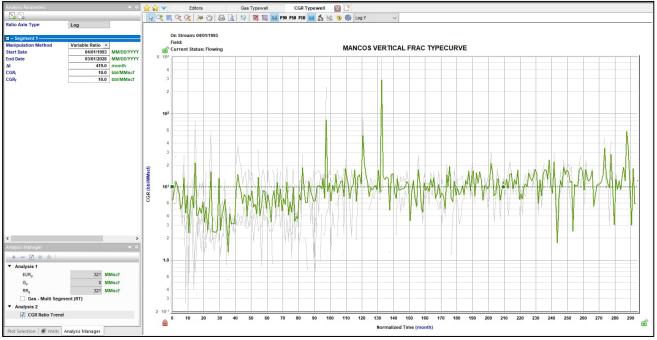
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	6.00	140	16%
MC	10.00	321	63%
MV	1.73	607	21%

# Current Zone – Dakota Oil Yield Map



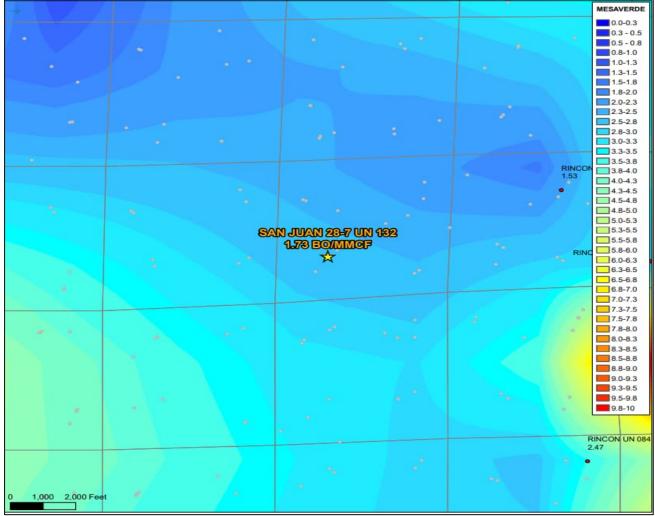
9-Section Area of Standalone Oil Yields. Sampled well to this map.

# Proposed Zone 1 – Mancos Oil Yield



Average Oil Yield from Vertical Mancos Type Curve.

Proposed Zone 2 - Mesaverde Oil Yield Map



9-Section Area of Standalone Oil Yields. Sampled well to this map.

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**District III** 1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 **District IV** 

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

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

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-07051	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	5. Property Name	6. Well No.
318432	SAN JUAN 28 7 UNIT	132
7. OGRID No.	8. Operator Name	9. Elevation
372171	HILCORP ENERGY COMPANY	6647

#### 10. Surface Location

K 15 27N 07W 1650 S 1550 W RIO	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	K		27N	07W		1650	S	1550	W	
										ARRIBA

#### 11. Bottom Hole Location If Different From Surface UL - Lot E/W Line Section Township Range Lot Idn Feet From N/S Line Feet From County 12. Dedicated Acres 13. Joint or Infill 14. Consolidation Code 15. Order No. 320.00

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

<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
E-Signed By: Cherylene Weston Title: Operations/Regulatory Tech-Sr. Date: 1/5/2024
SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
Surveyed By: Russell H. McNeace
Date of Survey: 10/15/1962 Certificate Number:

Form C-102 August 1, 2011

Permit 358213

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#### District I

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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

#### Form C-102 August 1, 2011 Permit 358213

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-07051	2. Pool Code 97232		3. Pool Name BASIN MAN	COS		
4. Property Code 318432	5. Property Name SAN JUAN 28 7 UNIT		6. Well No. 132			
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COM	IPANY	9. Elevation 6647			
	10. Surface Location					
UL - Lot Section Tov K 15	vnship Range Lot Idn 27N 07W	Feet From N/S Line F 1650 S	eet From E/W Line 1550 W	County / RIO ARRIBA		
11. Bottom Hole Location If Different From Surface						

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Action 320.			13. Joint or Infill		14. Consolidatio	n Code		15. Order No.	

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

<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
E-Signed By: Cherylene Weston Title: Operations/Regulatory Tech-Sr. Date: 1/5/2024
SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
Surveyed By: Russell H. McNeace
Date of Survey: 10/15/1962 Certificate Number:

Received l	by	OCD:	3/1	15/2024	2:44:01	РМ
-				-		

Forn: C-128 (6-57)	NEW MEXICO	OIL CONSERVATIO	ON COMMISS	ION			
	Well Locatio	on and Acreage De	lication Pla				
Section A.				Date	NOVEMBER	26, 1962	2
County <b>RIO ARRIBA</b>	K Section om <b>SOUTH</b> I G. L. Elevation <b>DAKOTA</b>	Lease 15 1550 6647 creage outlined on	Dedicated Pool	27-N at From Acression BASIN	Range WEST	SF078640 7-W r	) – NMPM – Line – Vete s
<ul> <li>Yes No</li> <li>2. If the answer to question one agreement or otherwise? Yes</li> </ul>		he interests of all 					)z stio
3. If the answer to question two Owner	is "no", list all i	the owners and the		interes Descrip			
				· • • · • ·			
				tin Kana		, e .	
						···- ».	·
Section B.	~~	Loton I the second	<del></del>	outer b	oundaries of	section.	
This is to certify that the inform in Section A above is true and con- to the best of my knowledge and <b>EL Faco Maturel Gas Com</b> (Operator) ORIGINAL SIGNED H.E. MCANA	mplete belief.	· · · ·		1		-	
(Representative) Box 990 (Address) Farmington, Hew Mexico		SF078640	SECT	DN 15			
		1550			NOV 3	VED 0 1962	
	8	نې وي			OIL CO	N. COM.	/
			Å				
			1980 2310 264	2010	1502 1000	500	

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed OCTOBER 15, 1962

Farmington, New Mexico

(Seal)

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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

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	323759
	Action Type:
	[IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

#### CONDITIONS

Created By	Condition	Condition Date
dmcclure	If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Permit shall terminate on the date of such action.	3/15/2024
dmcclure	If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.	3/15/2024
dmcclure	If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.	3/15/2024
dmcclure	The Operator shall calculate the oil and gas production average during the fourth year after the commencement of commingling, which shall be used to establish a fixed percentage of the total oil and gas production that shall be allocated to each of the Pools ("fixed percentage allocation plan"). No later than ninety (90) days after the fourth year, the Operator shall submit a Form C-103 to the OCD Engineering Bureau that includes the fixed percentage allocation plan and all data used to determine it. If the Operator fails to do so, this Permit shall terminate on the following day. If OCD denies the fixed percentage allocations, then the approved percentage allocation plan shall be used to determine oil and gas allocation starting on the date of such action until the Well is plugged and abandoned.	3/15/2024

CONDITIONS

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Action 323759