

Well Name: JICARILLA APACHE	Well Location: T26N / R5W / SEC 33 / NWSE / 36.4408234 / -107.3610691	County or Parish/State: RIO ARRIBA / NM
Well Number: 12E	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name: JICARILLA APACHE
Lease Number: JIC154	Unit or CA Name:	Unit or CA Number:
US Well Number: 3003922590	Well Status: Producing Gas Well	Operator: HILCORP ENERGY COMPANY

Notice of Intent

Sundry ID: 2772230

Type of Submission: Notice of Intent

Type of Action: Commingling (Subsurface)

Date Sundry Submitted: 01/29/2024

Time Sundry Submitted: 12:50

Date proposed operation will begin: 04/01/2024

Procedure Description: Hilcorp Energy proposes to downhole commingle production in the Blanco Mesaverde (pool 72319) and Basin Mancos (pool 97232) with the existing Basin Dakota (pool 71599), upon recompletion of the Mancos and Mesaverde formations. See attached allocation methodology and supporting documents. Commingling will not reduce the value of production. Proposed perforations are: MV 4510' - 5600' and MC 5600' - 7006'.

NOI Attachments

Procedure Description

Jicarilla_Apache_12E_Subtraction_Allocation_20240129093728.pdf

Well Name: JICARILLA APACHE

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NWSE / 36.4408234 / -107.3610691

County or Parish/State: RIO
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WELL

Allottee or Tribe Name:
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Lease Number: JIC154

Unit or CA Name:

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Well Status: Producing Gas Well

Operator: HILCORP ENERGY
COMPANY

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: CHERYLENE WESTON

Signed on: JAN 29, 2024 09:37 AM

Name: HILCORP ENERGY COMPANY

Title: Operations/Regulatory Tech - Sr

Street Address: 1111 TRAVIS STREET

City: HOUSTON

State: TX

Phone: (713) 289-2615

Email address: CWESTON@HILCORP.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 01/30/2024

Signature: Kenneth Rennick

Hilcorp Energy Company PRODUCTION ALLOCATION FORM						Distribution: BLM / NMOCD Original Accounting Well File Revised: September 25, 2019	
						Status PRELIMINARY ☒ FINAL ☐ REVISED ☐	
Commingle Type SURFACE ☐ DOWNHOLE ☒ Type of Completion NEW DRILL ☐ RECOMPLETION ☒ PAYADD ☐ COMMINGLE ☐						Date: 01/29/2024 API No. 30-039-22590 DHC No. Lease No. JIC154	
Well Name JICARILLA APACHE						Well No. 12E	
Unit Letter J	Section 33	Township 26N	Range 05W	Footage 1685' FSL & 1685' FEL	County, State Rio Arriba, New Mexico		
Completion Date 2024		Test Method HISTORICAL ☐ FIELD TEST ☐ PROJECTED ☐ OTHER ☒					
JUSTIFICATION OF ALLOCATION: Hilcorp requests that production for the downhole commingle be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled is the Mesaverde and Mancos. The subtraction method applies an average monthly production forecast to the base formation(s) using historic production. All production from this well exceeding the forecast will be allocated to the new formation(s). After 3 years production will stabilize. A production average will be gathered during the 4th year and will be utilized to create a fixed percentage based allocation. Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years. MV 68%, MC 15%, DK 17%. After 4 years oil will be reevaluated and adjust as needed based on average formation yields and new fixed gas allocation.							
NAME		DATE		TITLE		PHONE	
X <i>Cherylene Weston</i>				Operations/Regulatory Tech – Sr.		713-289-2615	
Cherylene Weston		1/29/2024					
For Technical Questions: Ray Brandhurst				Reservoir Engineer		713-757-5224	

Jicarilla Apache 12E Allocation

The forecast for Mesaverde and Mancos production has 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:

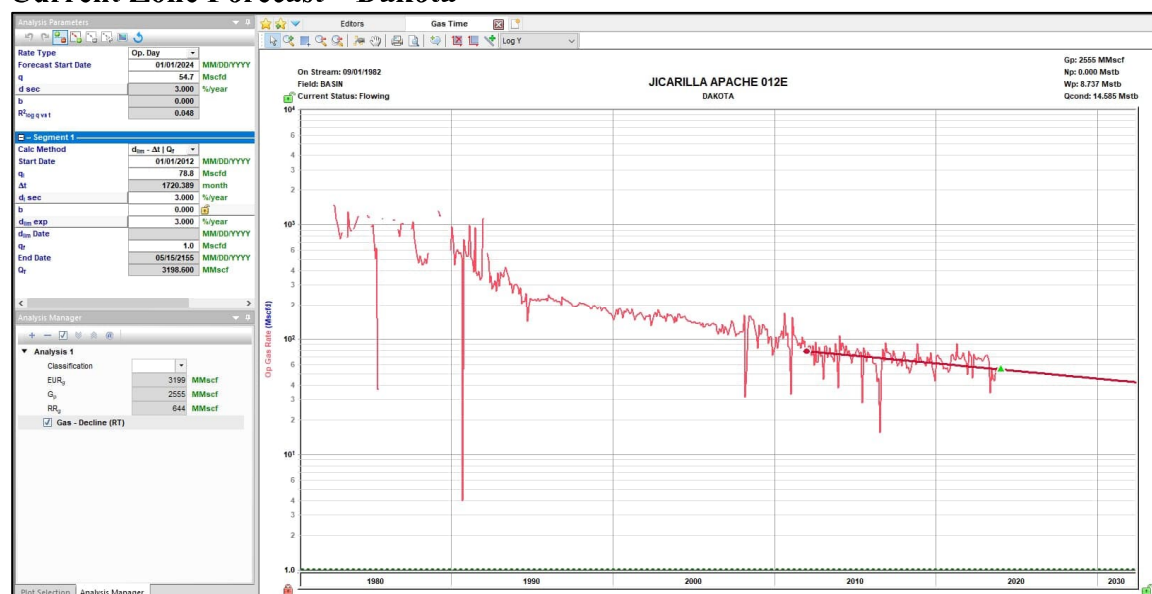
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled are the Mesaverde and Mancos. The subtraction method applies an average monthly production forecast to the 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 Mesaverde and Mancos are based on offsets type curve. The maps show the standalone offsets that were used for type-curves. The split between MC & MV is based on the ratio of forecasted reserves as shown in the table below.

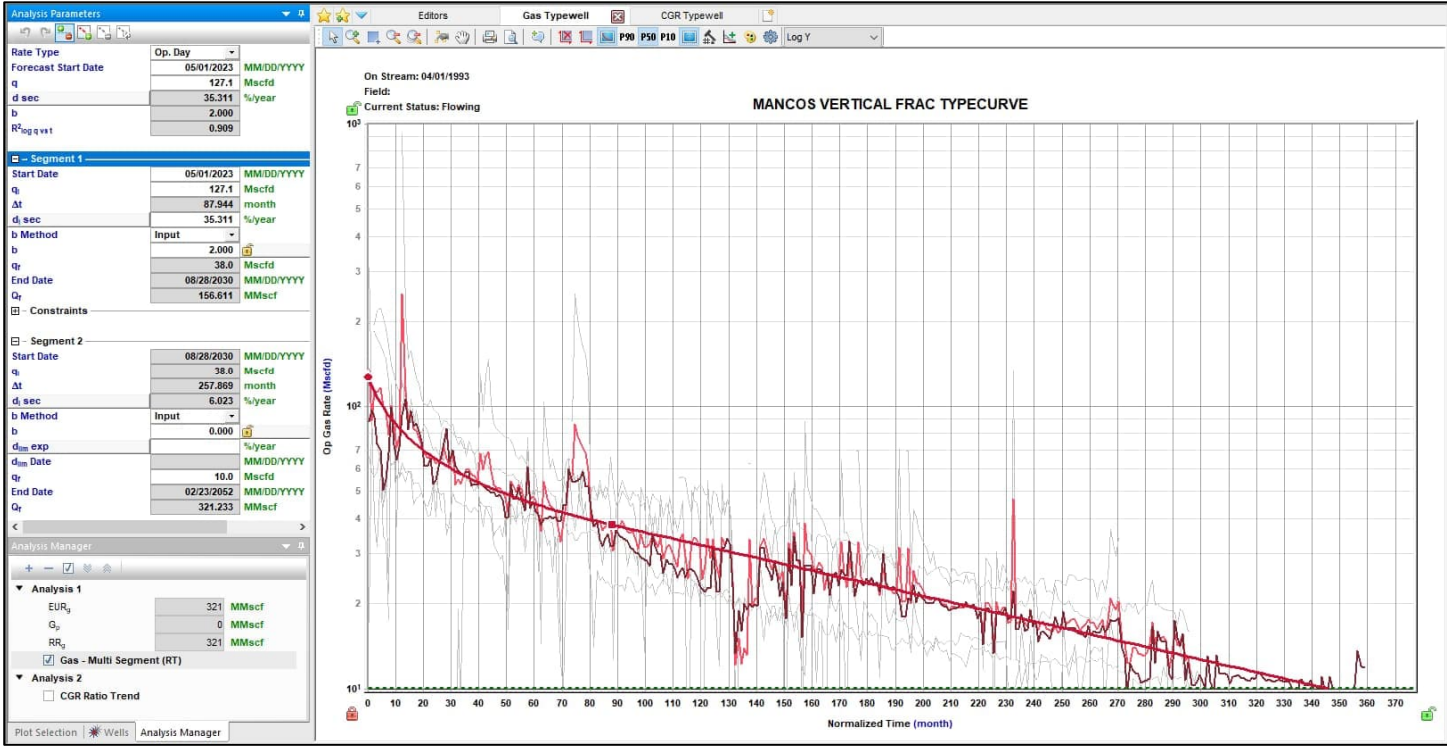
Formation	Remaining Reserves (MMcf)	% Gas Allocation
Mancos	321	36%
Mesaverde	571	64%

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

Current Zone Forecast – Dakota

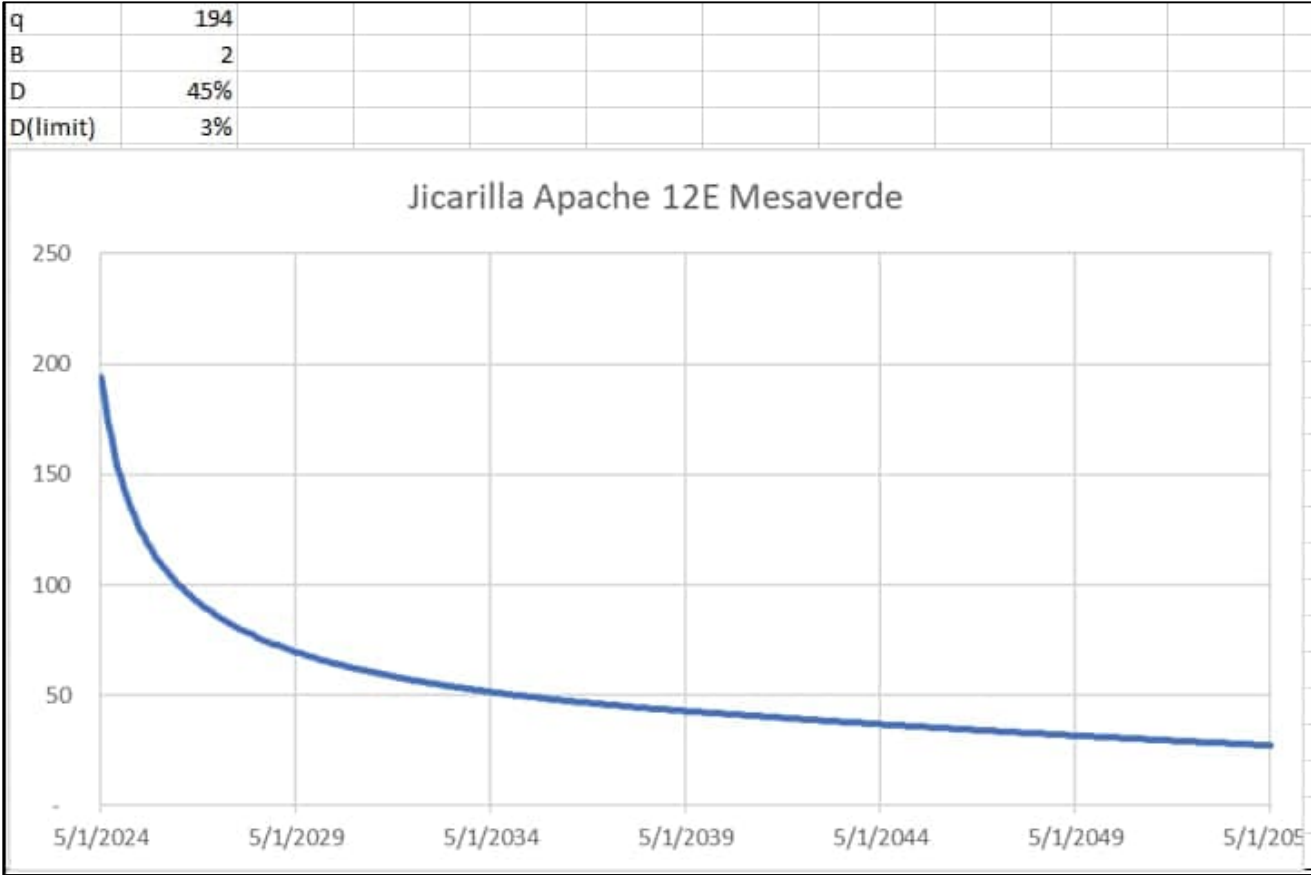


Proposed Zone Forecast - Mancos



Average initial production curve in geologic region.

Proposed Zone Forecast – Mesaverde



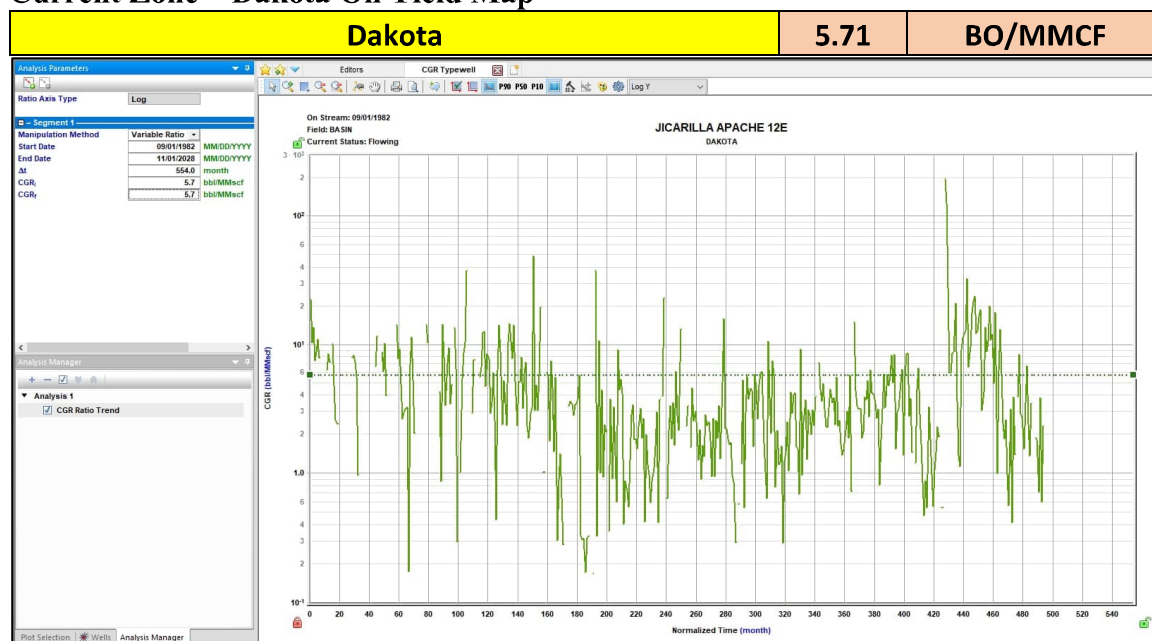
Average initial production curve in geologic region.

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 needed based on average formation yields and new fixed gas allocation.

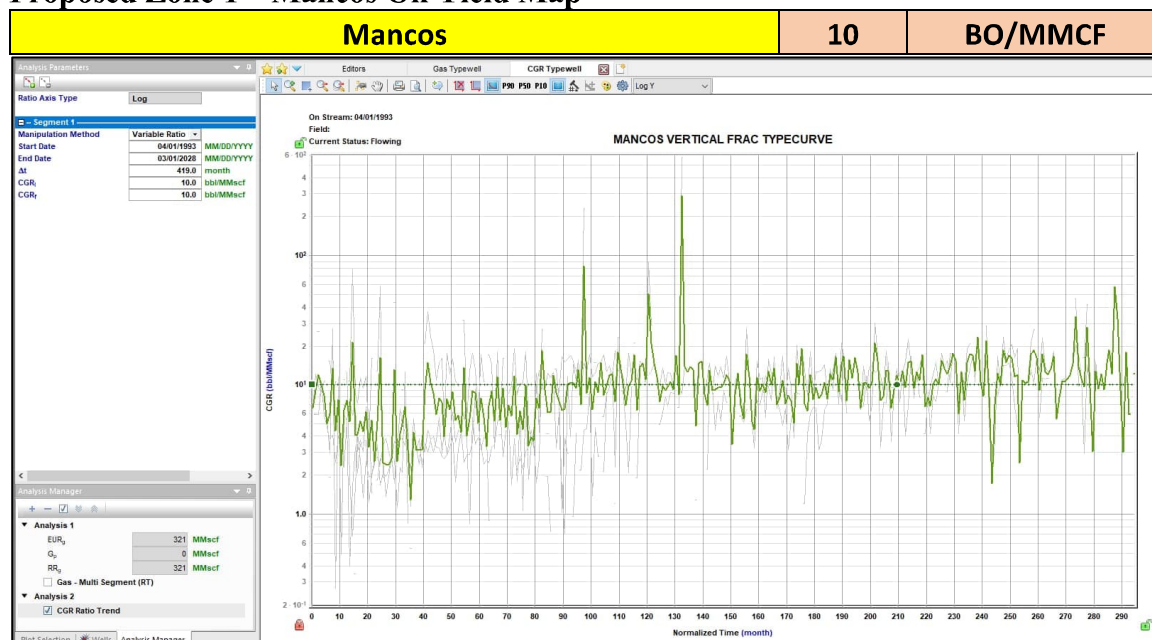
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	5.71	644	17%
MC	10.00	321	15%
MV	25.12	571	68%

Current Zone – Dakota Oil Yield Map



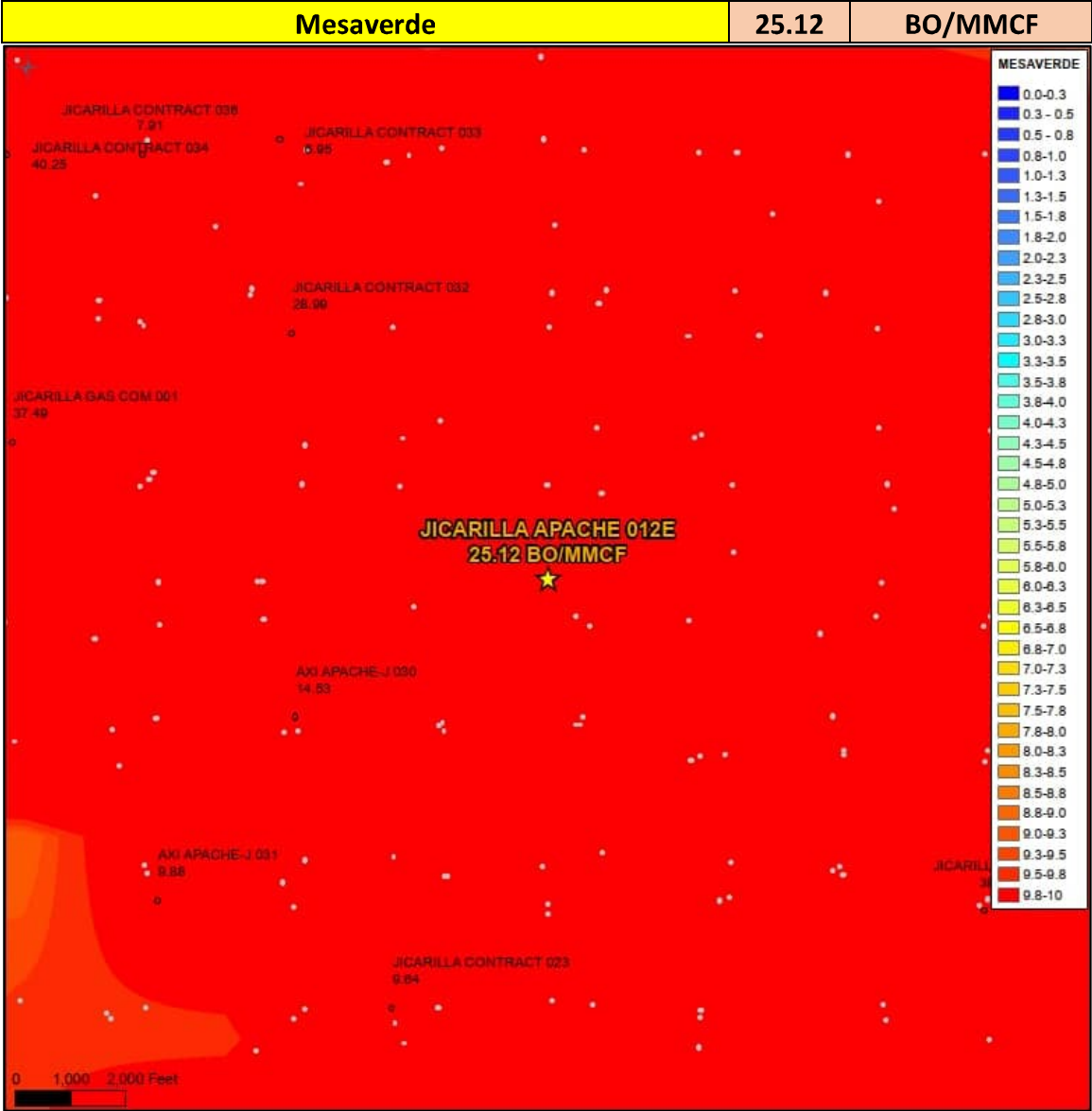
Average Oil Yield from Vertical Mancos Type Curve.

Proposed Zone 1 – Mancos Oil Yield Map



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

Proposed Zone 2 – Mesaverde Oil Yield Map



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

District I

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

District II

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

District III

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

District IV

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

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

Form C-102
August 1, 2011

Permit 356147

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-22590	2. Pool Code 97232	3. Pool Name BASIN MANCOS
4. Property Code 321918	5. Property Name JICARILLA APACHE	6. Well No. 012E
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6573

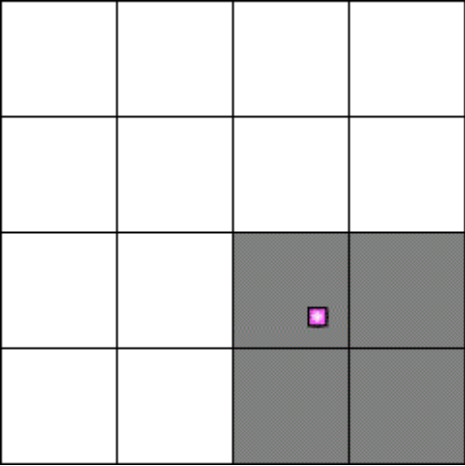
10. Surface Location

UL - Lot J	Section 33	Township 26N	Range 05W	Lot Idn	Feet From 1685	N/S Line S	Feet From 1685	E/W Line E	County RIO ARRIBA
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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 Acres 160.00	13. Joint or Infill			14. Consolidation 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

	OPERATOR CERTIFICATION <i>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.</i> E-Signed By: <i>Cherylene Weston</i> Title: Cherylene Weston Date: 12/18/2023 SURVEYOR CERTIFICATION <i>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.</i> Surveyed By: Fred B. Kerr, Jr. Date of Survey: 11/11/1980 Certificate Number: 3950
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August 1, 2011

Permit 356147

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-22590	2. Pool Code 72319	3. Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 321918	5. Property Name JICARILLA APACHE	6. Well No. 012E
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6573

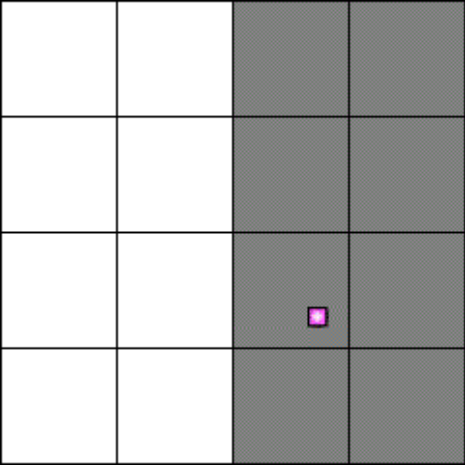
10. Surface Location

UL - Lot J	Section 33	Township 26N	Range 05W	Lot Idn	Feet From 1685	N/S Line S	Feet From 1685	E/W Line E	County RIO ARRIBA
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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 Acres 320.00	13. Joint or Infill			14. Consolidation 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

	OPERATOR CERTIFICATION <i>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.</i> E-Signed By: <i>Cherylene Weston</i> Title: Cherylene Weston Date: 12/18/2023 SURVEYOR CERTIFICATION <i>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.</i> Surveyed By: Fred B. Kerr, Jr. Date of Survey: 11/11/1980 Certificate Number: 3950
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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-73

All distances must be from the outer boundaries of the Section.

Operator MARATHON OIL COMPANY			Lease JICARILLA APACHE		Well No. 12E
Unit Letter J	Section 33	Township 26N	Range 5W	County Rio Arriba	
Actual Footage Location of Well: 1685 feet from the South line and 1685 feet from the East line					
Ground Level Elev. 6573	Producing Formation Point Lookout		Pool Blanco Mesaverde		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation N/A

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

BLANCO MESAVERDE CERTIFICATION 11-16-81. DALE T. CADDY

		Original Well #12	
		Sec.	
		33	1685'
		Proposed Well #12E	1685'

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
Dale T. Caddy
Position
District Operations Manager
Company
Marathon Oil Company
Date
November 21, 1980

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 knowledge and belief.

Date Surveyed
November 11, 1980
Registered Professional Engineer and Land Surveyor
Fred B. Kern Jr.
Certification No. **3950**

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CONDITIONS

Action 309769

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 309769
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	ACCEPTED FOR RECORD	1/31/2024
dmcclure	Assigned the designation DHC-5340 for tracking purposes	1/31/2024