

<b>Well Name:</b> JICARILLA APACHE	<b>Well Location:</b> T26N / R5W / SEC 27 / NENW / 36.4621075 / -107.349178	<b>County or Parish/State:</b> RIO ARRIBA / NM
<b>Well Number:</b> 10E	<b>Type of Well:</b> CONVENTIONAL GAS WELL	<b>Allottee or Tribe Name:</b> JICARILLA APACHE
<b>Lease Number:</b> JIC154	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 3003922433	<b>Well Status:</b> Producing Gas Well	<b>Operator:</b> HILCORP ENERGY COMPANY

### Notice of Intent

**Sundry ID:** 2772224

**Type of Submission:** Notice of Intent

**Type of Action:** Commingling (Subsurface)

**Date Sundry Submitted:** 01/29/2024

**Time Sundry Submitted:** 12:48

**Date proposed operation will begin:** 04/01/2024

**Procedure Description:** Hilcorp Energy proposes to downhole commingle production in the Otero Chacra (pool 82329), Basin Mancos (pool 97232) and Blanco Mesaverde (pool 72319) with the existing Basin Dakota (pool 71599), upon recompletion of the Chacra, Mancos and Mesaverde formations. See attached allocation methodology and supporting documents. Commingling will not reduce the value of production. Proposed perforations are: CH 3838'-4123', MV 4123'-5616' and MC 5616'-7057'.

### NOI Attachments

#### Procedure Description

Jicarilla\_Apache\_10E\_Subtraction\_Allocation\_20240129092748.pdf

**Well Name:** JICARILLA APACHE

**Well Location:** T26N / R5W / SEC 27 /  
NENW / 36.4621075 / -107.349178

**County or Parish/State:** RIO  
ARRIBA / NM

**Well Number:** 10E

**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:** 3003922433

**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 09:23 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

<h1 style="text-align: center;">Hilcorp Energy Company</h1> <h2 style="text-align: center;">PRODUCTION ALLOCATION FORM</h2>						Distribution: BLM / NMOCD Original Accounting Well File Revised: September 25, 2019	
						Status PRELIMINARY <input checked="" type="checkbox"/> FINAL <input type="checkbox"/> REVISED <input type="checkbox"/>	
Commingle Type SURFACE <input type="checkbox"/> DOWNHOLE <input checked="" type="checkbox"/> Type of Completion NEW DRILL <input type="checkbox"/> RECOMPLETION <input checked="" type="checkbox"/> PAYADD <input type="checkbox"/> COMMINGLE <input type="checkbox"/>						Date: <b>01/29/2024</b> API No. <b>30-039-22433</b> DHC No. Lease No. <b>JIC154</b>	
Well Name <b>JICARILLA APACHE</b>						Well No. <b>10E</b>	
Unit Letter <b>C</b>	Section <b>27</b>	Township <b>26N</b>	Range <b>05W</b>	Footage <b>1040' FNL &amp; 1685' FWL</b>	County, State <b>Rio Arriba, New Mexico</b>		
Completion Date <b>2024</b>		Test Method HISTORICAL <input type="checkbox"/> FIELD TEST <input type="checkbox"/> PROJECTED <input type="checkbox"/> OTHER <input checked="" type="checkbox"/>					
<p>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 Chacra, 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 4<sup>th</sup> year and will be utilized to create a fixed percentage based allocation.</p> <p>Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years. MV 56%, CH 0%, MC 20%, DK 24%.          After 4 years oil will be reevaluated and adjust as needed based on average formation yields and new fixed gas allocation.</p>							
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 10E Allocation

The forecast for Mancos, Mesaverde and Chacra 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:

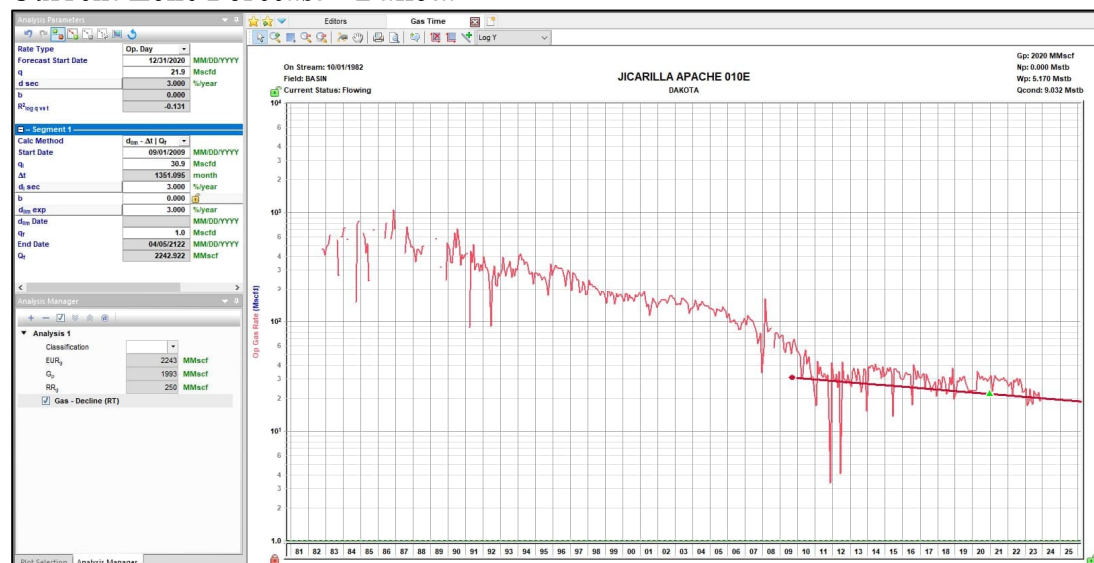
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled are the Mancos, Mesaverde and Chacra. The subtraction method applies an average monthly production forecast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

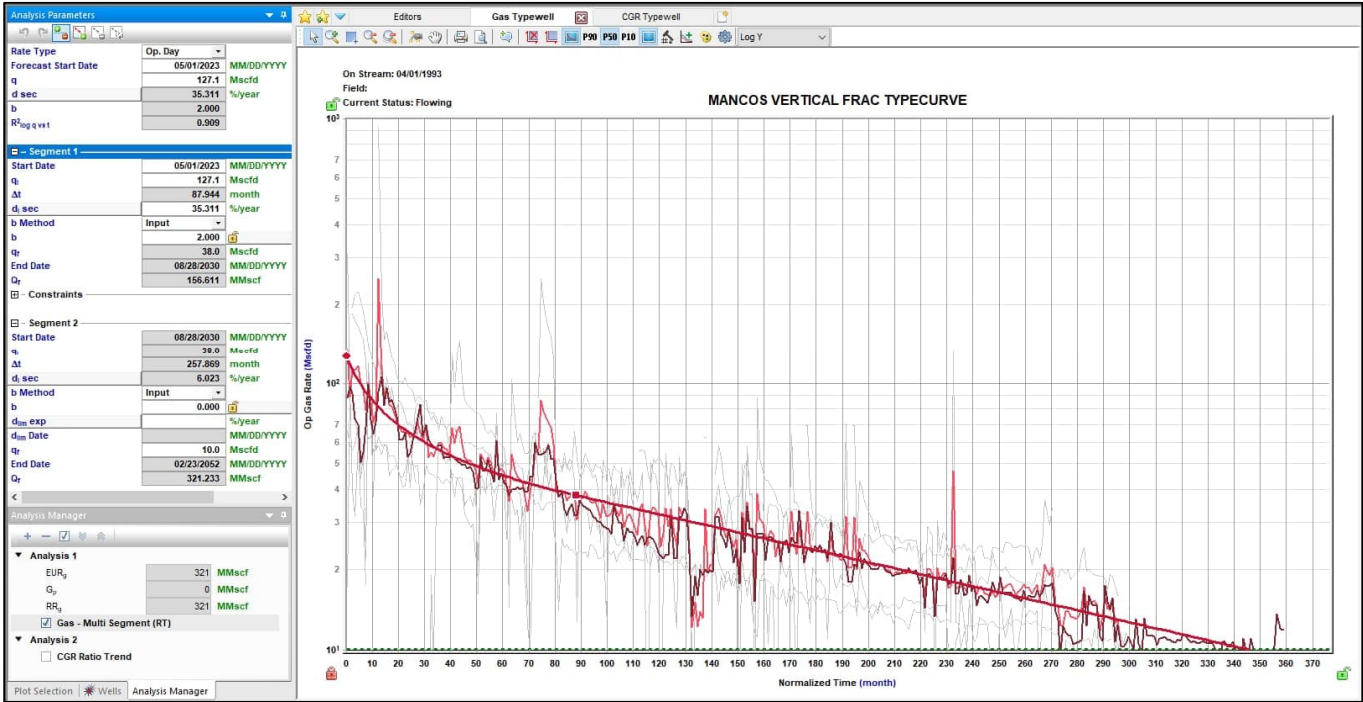
Formation	Remaining Reserves (MMcf)	% Gas Allocation
<b>Mancos</b>	<b>321</b>	<b>34%</b>
<b>Mesaverde</b>	<b>571</b>	<b>61%</b>
<b>Chacra</b>	<b>50</b>	<b>5%</b>

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

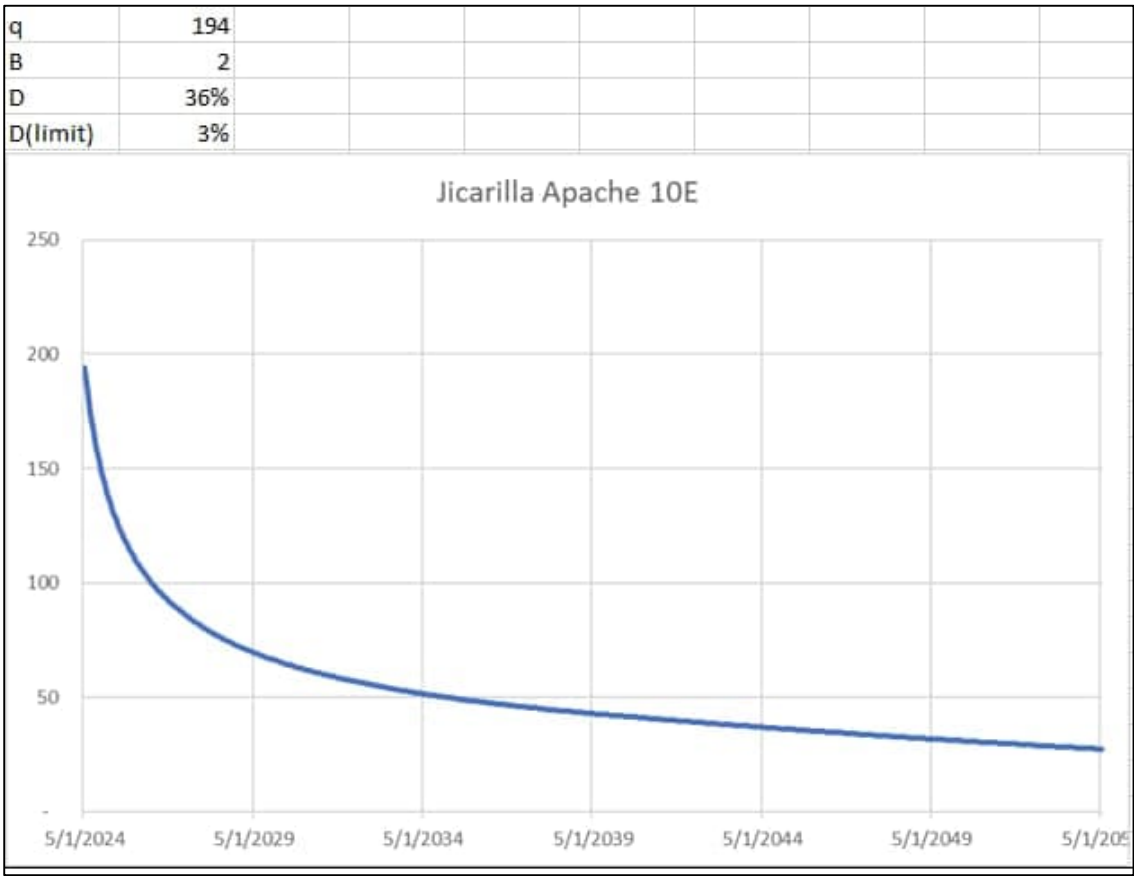


Proposed Zone 1 Forecast - Mancos



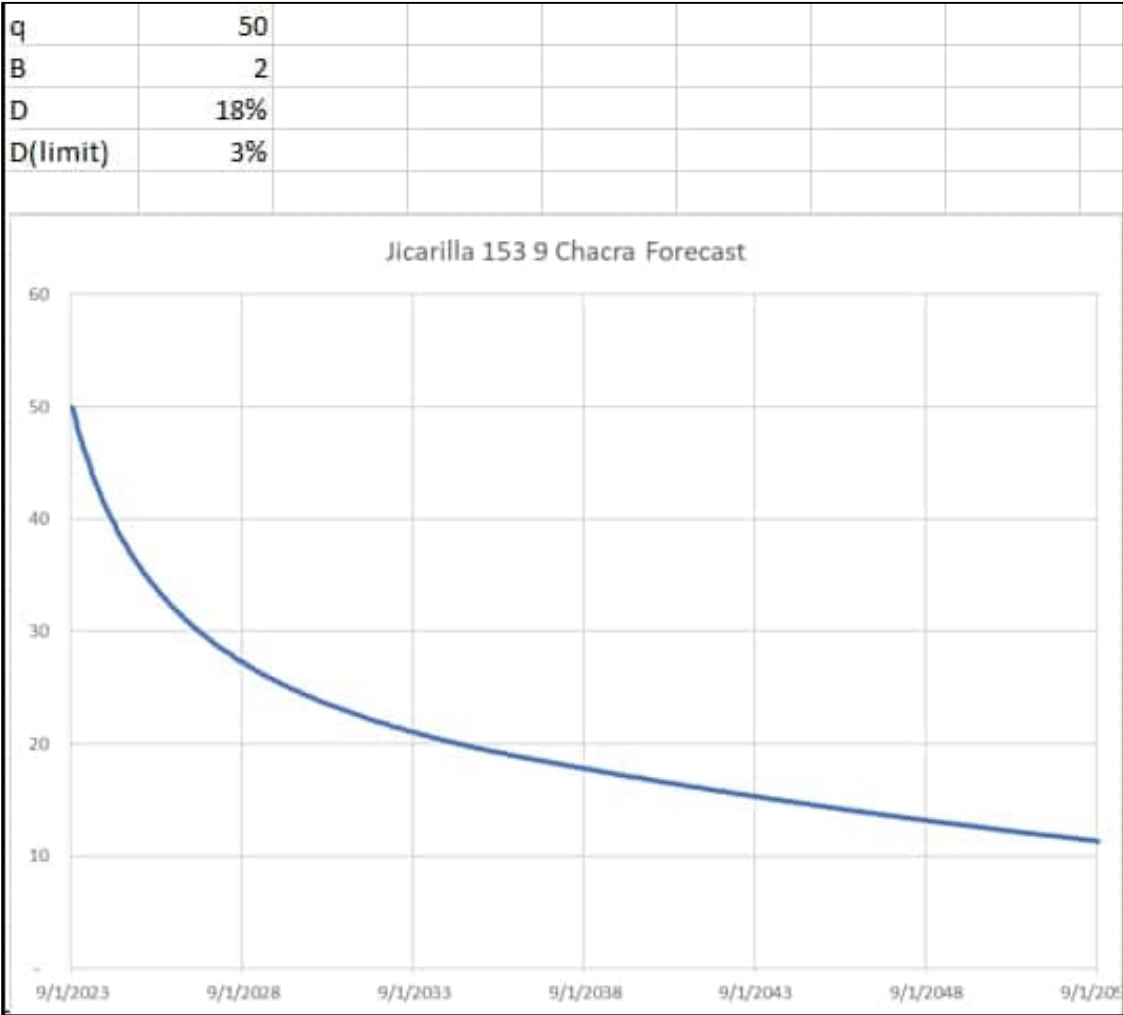
Average initial production curve in geologic region.

Proposed Zone 2 Forecast – Mesaverde



Average initial production curve in geologic region.

Proposed Zone 3 Forecast – Chacra



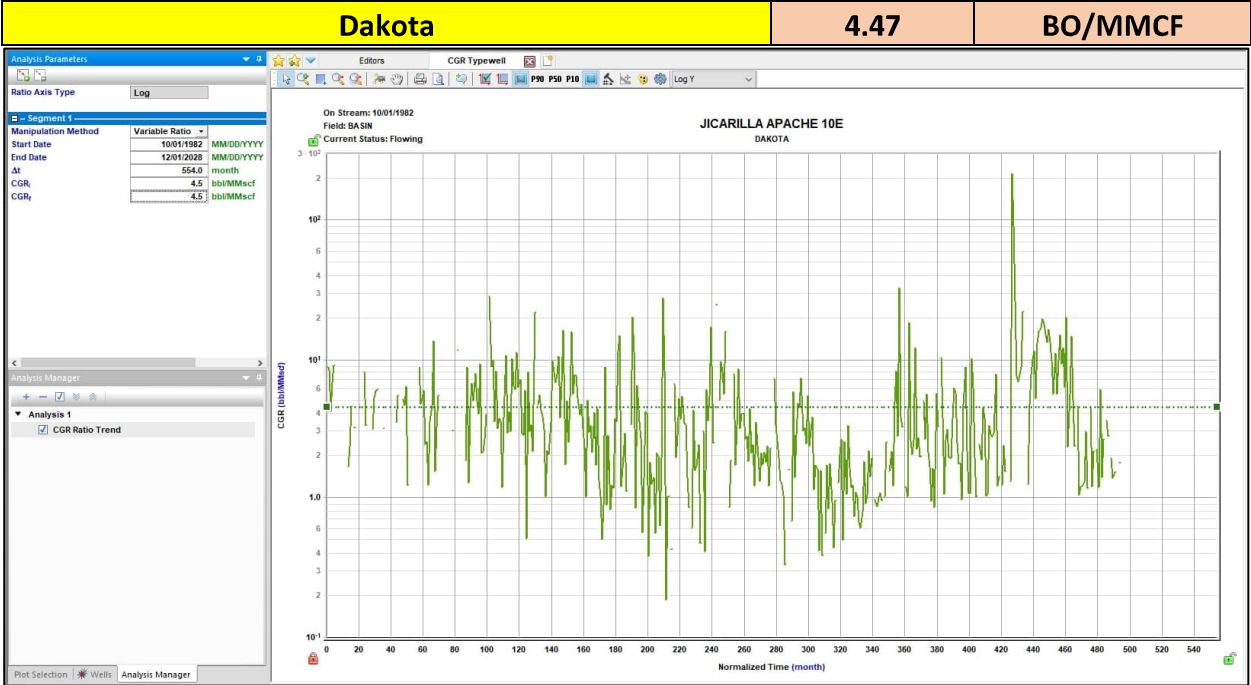
Average initial production curve in geologic region.

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.

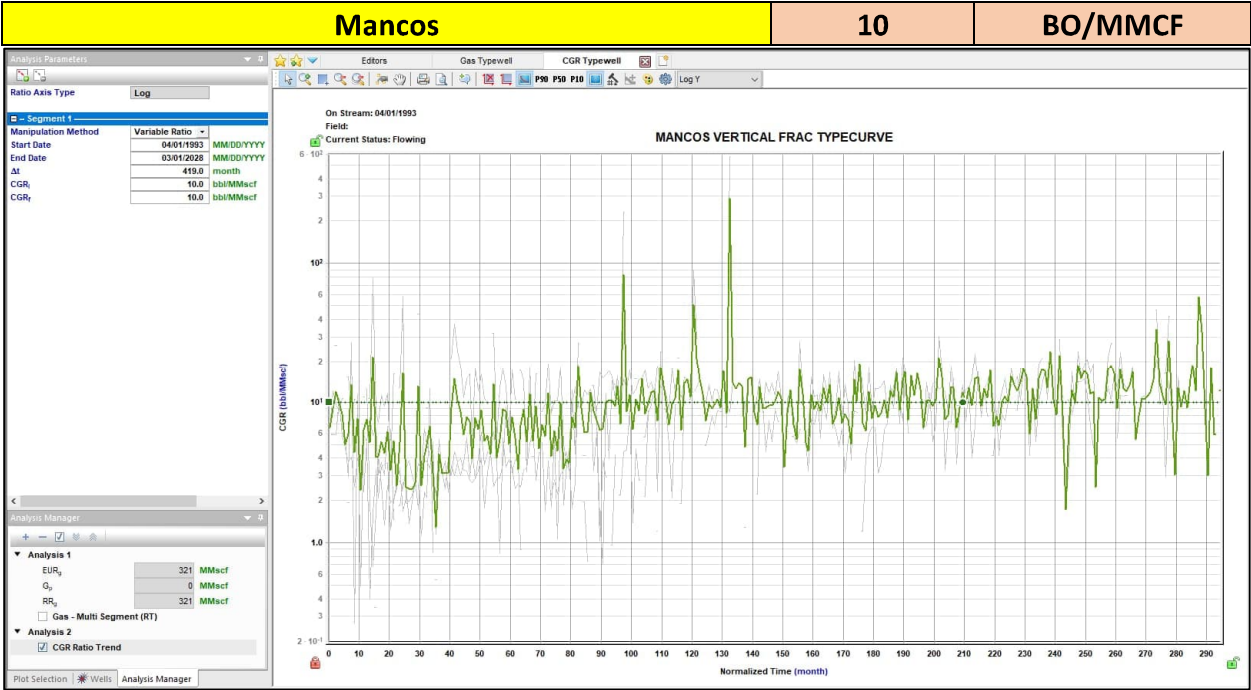
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	4.47	250	9%
MC	10.00	321	26%
MV	14.25	571	65%
Chacra	0.00	50	0%

Current Zone – Dakota Oil Yield Map



Average Oil Yield from Vertical Mancos Type Curve.

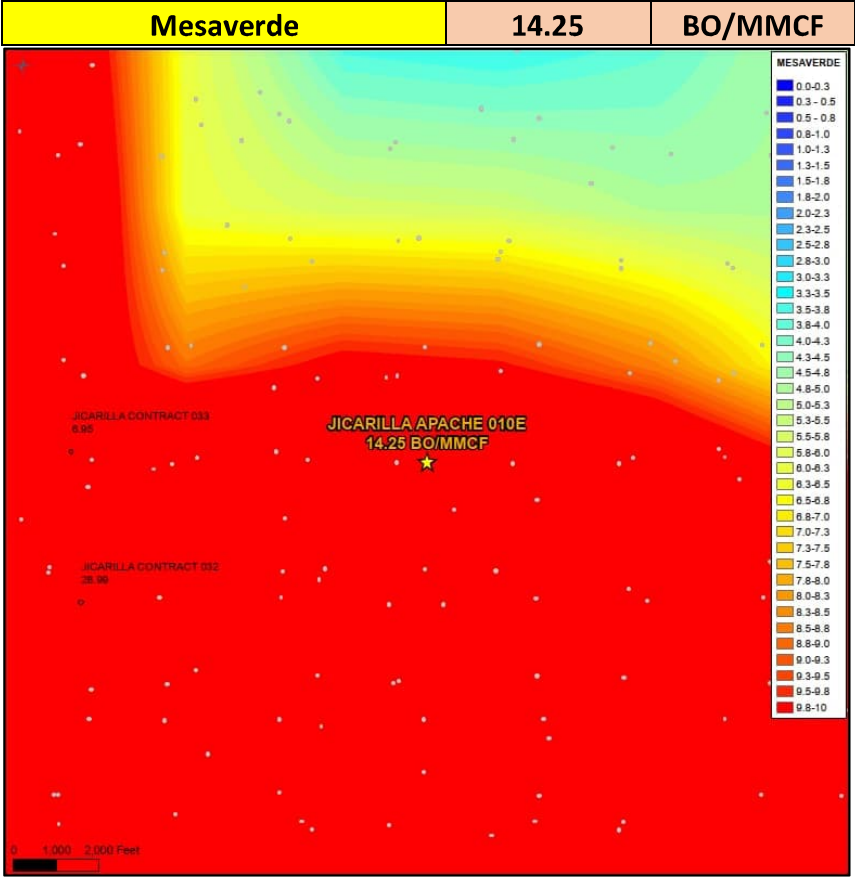
Proposed Zone 1 – Mancos Oil Yield Map



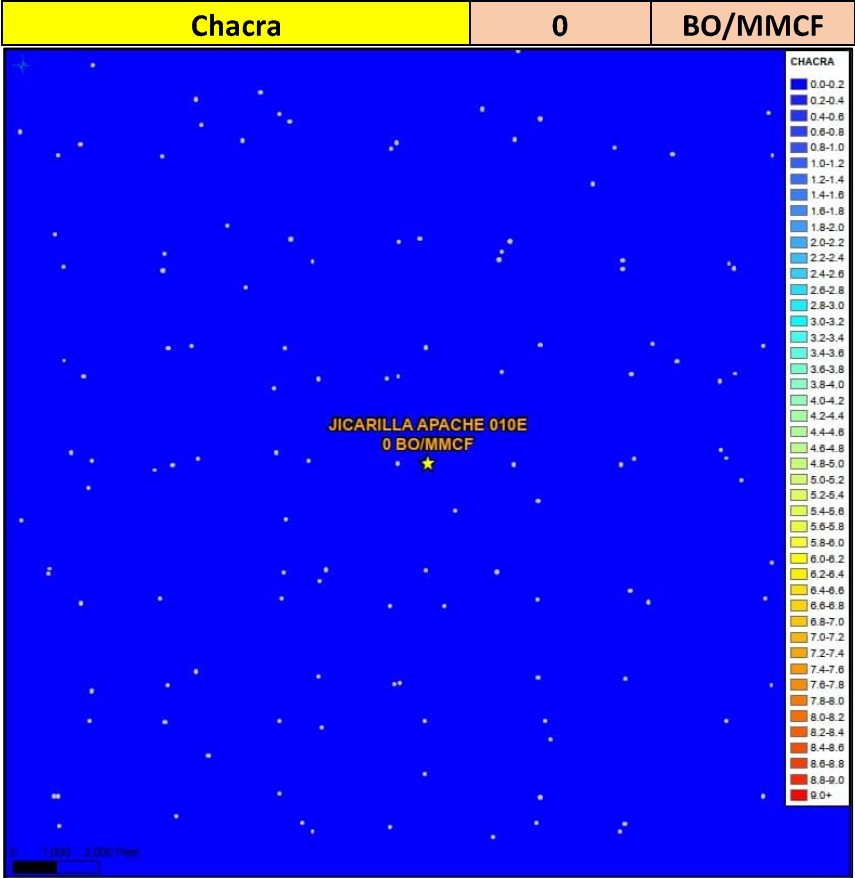
9-Section Area Map of Standalone Oil Yields. Sampled well to this map.



Proposed Zone 2 – Mesaverde Oil Yield Map



Proposed Zone 3 – Mesaverde Oil Yield Map



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



**District I**

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**District III**

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**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 356128

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-039-22433	2. Pool Code 97232	3. Pool Name BASIN MANCOS
4. Property Code 321918	5. Property Name JICARILLA APACHE	6. Well No. 010E
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6503

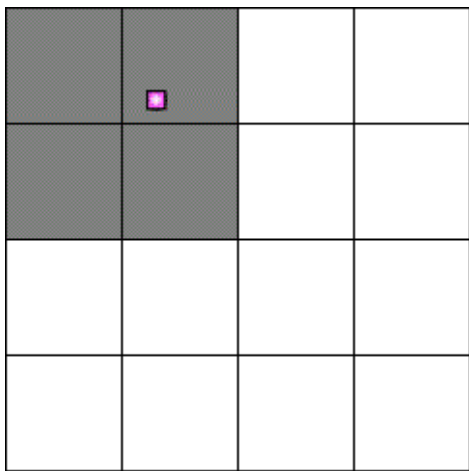
**10. Surface Location**

UL - Lot C	Section 27	Township 26N	Range 05W	Lot Idn	Feet From 1040	N/S Line N	Feet From 1685	E/W Line W	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**

	<p style="text-align: center;"><b>OPERATOR CERTIFICATION</b></p> <p><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></p> <p>E-Signed By: <i>Cherylene Weston</i>  Title: Cherylene Weston  Date: 12/18/2023</p> <hr/> <p style="text-align: center;"><b>SURVEYOR CERTIFICATION</b></p> <p><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></p> <p>Surveyed By: Fred B. Kerr, Jr.  Date of Survey: 3/20/1980  Certificate Number: 3950</p>
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Form C-102  
August 1, 2011

Permit 356128

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-039-22433	2. Pool Code 72319	3. Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 321918	5. Property Name JICARILLA APACHE	6. Well No. 010E
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6503

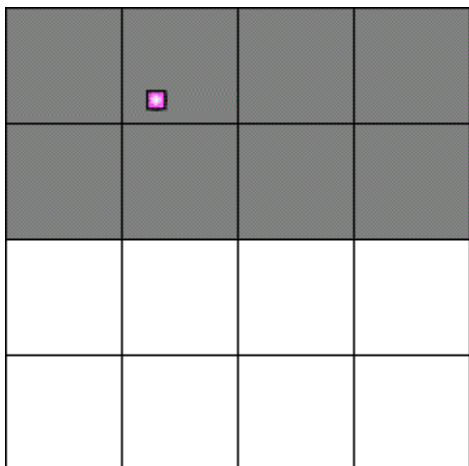
**10. Surface Location**

UL - Lot C	Section 27	Township 26N	Range 05W	Lot Idn	Feet From 1040	N/S Line N	Feet From 1685	E/W Line W	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.		

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	<b>OPERATOR CERTIFICATION</b>	
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	E-Signed By: <i>Cherylene Weston</i> Title: Cherylene Weston Date: 12/18/2023	
	<b>SURVEYOR CERTIFICATION</b>	
<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: 3/20/1980 Certificate Number: 3950		

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Form C-102  
August 1, 2011

Permit 356128

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-039-22433	2. Pool Code 82329	3. Pool Name OTERO CHACRA (GAS)
4. Property Code 321918	5. Property Name JICARILLA APACHE	6. Well No. 010E
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6503

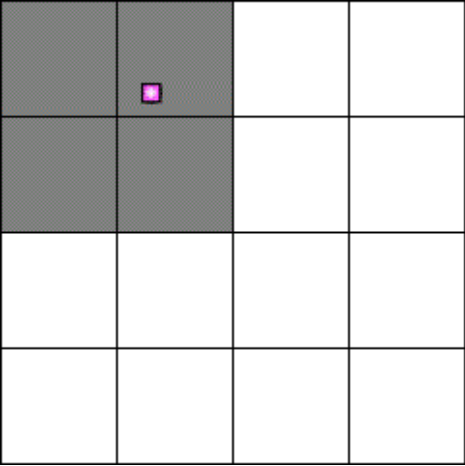
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12. Dedicated Acres 160.00	13. Joint or Infill			14. Consolidation Code			15. Order No.		

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	<p style="text-align: center;"><b>OPERATOR CERTIFICATION</b></p> <p><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></p> <p>E-Signed By: <i>Cherylene Weston</i>  Title: Cherylene Weston  Date: 12/18/2023</p> <hr/> <p style="text-align: center;"><b>SURVEYOR CERTIFICATION</b></p> <p><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></p> <p>Surveyed By: Fred B. Kerr, Jr.  Date of Survey: 3/20/1980  Certificate Number: 3950</p>
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## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-107  
Revised 10-1-78

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

Operator <b>MARATHON OIL COMPANY</b>			Lease <b>JICARILLA APACHE</b>		Well No. <b>10-E</b>
Unit Letter <b>C</b>	Section <b>27</b>	Township <b>26N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>1040</b> feet from the <b>North</b> line and <b>1685</b> feet from the <b>West</b> line					
Ground Level Elev. <b>6503</b>	Producing Formation <b>Dakota</b>		Pool <b>Basin Dakota</b>	Dedicated Acreage: <b>320</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.

		<b>CERTIFICATION</b>  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
		Name <b>Dale T. Caddy</b> <i>Dale T. Caddy</i> Position <b>District Operations Manager</b> Company <b>Marathon Oil Company</b> Date <b>April 15, 1980</b>	
Sec. <b>27</b>		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 <b>March 27, 1980</b>		Registered Professional Engineer and/or Land Surveyor <b>Fred P. Kerr Jr.</b> Certificate No. <b>3950</b>	

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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  
  
Action 309368

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 309368
	Action Type: [C-103] NOI General Sundry (C-103X)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	ACCEPTED FOR RECORD	2/1/2024
dmcclure	Assigned the designation DHC-5341 for tracking purposes	2/1/2024