

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Sundry Print Report

Well Name: JICARILLA 153 Well Location: T26N / R5W / SEC 35 /

NWNW / 36.448028 / -107.33376

County or Parish/State: RIO

ARRIBA / NM

Well Number: 12 Type of Well: CONVENTIONAL GAS

WELL

Allottee or Tribe Name:

JICARILLA APACHE

Lease Number: JIC153 Unit or CA Name: Unit or CA Number:

**US Well Number: 3003920113** Well Status: Producing Gas Well Operator: HILCORP ENERGY

COMPANY

# **Notice of Intent**

Sundry ID: 2772231

Type of Submission: Notice of Intent Type of Action: Commingling (Subsurface)

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

Date proposed operation will begin: 04/01/2024

Procedure Description: Hilcorp Energy proposes to downhole commingle production in the Otero Chacra (pool 82329), Tapacito Gallup (pool 58090) and Blanco Mesaverde (pool 72319) with the existing Basin Dakota (pool 71599) and South Blanco Pictured Cliffs (pool 72439), upon recompletion of the Chacra, Gallup and Mesaverde formations. See attached allocation methodology and supporting documents. Commingling will not reduce the value of production. Proposed perforations are: CH 3839' - 4233', MV 4233' - 5740' and GL 5740' - 7160'.

### **NOI Attachments**

#### **Procedure Description**

Jicarilla\_153\_12\_Subtraction\_Allocation\_20240129094208.pdf

County or Parish/State: RIO Well Name: JICARILLA 153 Well Location: T26N / R5W / SEC 35 / ARRIBA / NM

NWNW / 36.448028 / -107.33376

Well Number: 12 Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

JICARILLA APACHE

Lease Number: JIC153 Unit or CA Name: **Unit or CA Number:** 

**US Well Number:** 3003920113 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 09:42 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 Date: 01/30/2024 **Disposition:** Approved

Signature: Kenneth Rennick

PRO  Commingle Type SURFACE DOWN Type of Completion	DUCTION A	ALLOCA	Company TION FORM  DD  COMMINGLE	] ] ] I	Distribution: BLM / NMOCD Original Accounting Well File Revised: September 25, 2019 Status PRELIMINARY FINAL BEVISED Date: 01/29/2024 API No. 30-039-20113 DHC No. Lease No. JIC153
Well Name JICARILLA 153				7	Well No. <b>12</b>
Unit Letter Section D 35	Township <b>26N</b>	Range <b>05W</b>	Footage 875' FNL & 1090' FWL	Rio	County, State Arriba, New Mexico
JUSTIFICATION OF allocated using the sub Dakota/Pictured Cliffs subtraction method approduction. All production. All production will be a producted utilized to create a fixed	the dow e base for acra, Me se forma cated to d during	rnhole commingle be brighter the esaverde and Gallup. The stion(s) using historic the new formation(s). It is the 4th year and will be and will be and will be a fixed rate			
NAME		DATE	TITLE		PHONE
X Cherylene Weste	e <b>n</b>		Operations/Regulatory Te	ch – Sr.	713-289-2615
Cherylene Weston		1/29/2024			
For Technical Questio	ns: Ray Brandl	nurst	Reservoir Engineer		713-757-5224

# Jicarilla 153 12 Allocation

The forecast for Gallup, 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:**

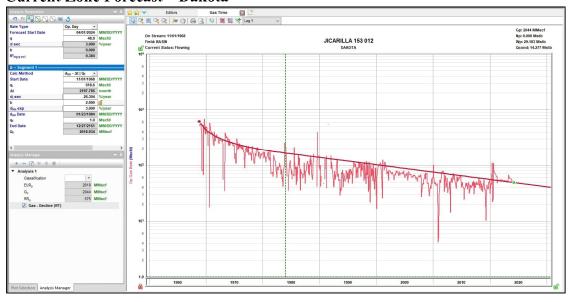
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Pictured Cliffs/Dakota and the added formations to be commingled are the Gallup, Mesaverde & Chacra. The subtraction method applies an average monthly production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

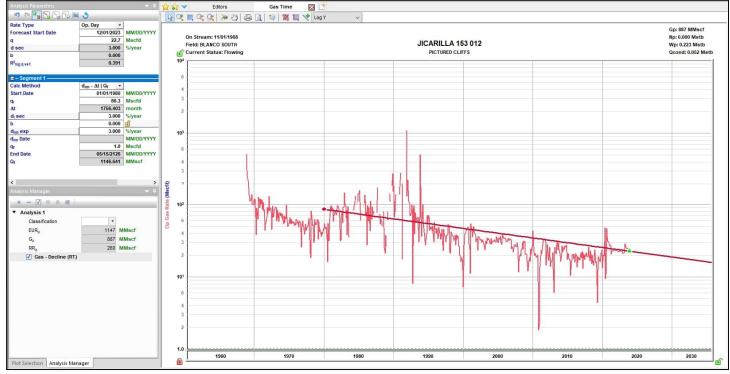
Formation	Remaining Reserves (MMcf)	% Gas Allocation		
Gallup	321	34%		
Mesaverde	571	61%		
Chacra	50	5%		

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

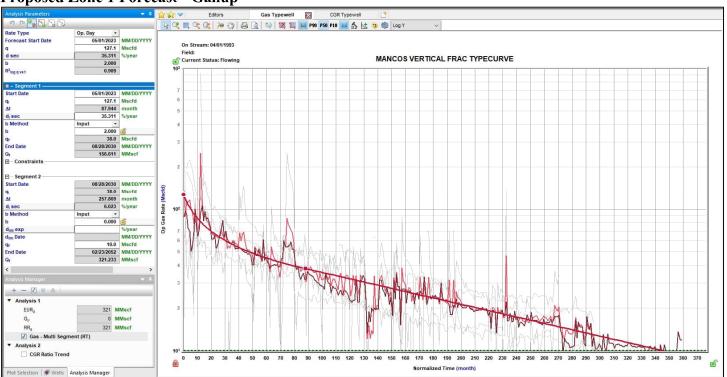


# **Current Zone 2 Forecast – Pictured Cliffs**



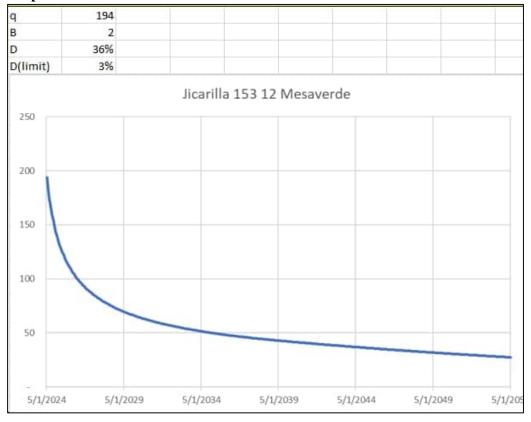
Average initial production curve in geologic region.

# **Proposed Zone 1 Forecast - Gallup**



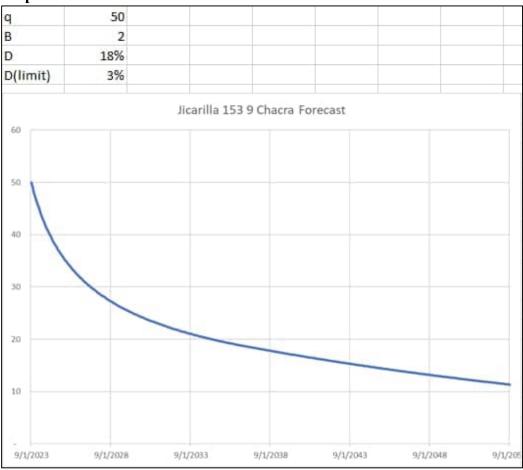
Average initial production curve in geologic region.

# Proposed Zone 2 Forecast - Mesaverde



Average initial production curve in geologic region.

# **Proposed Zone 3 Forecast – Chacra**

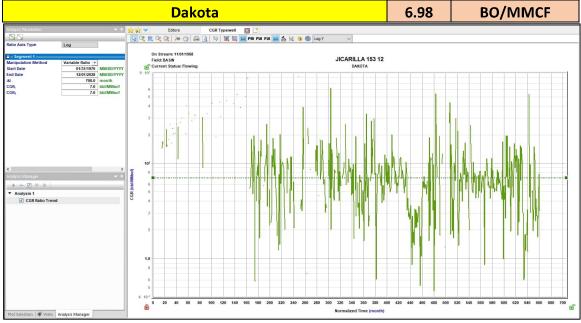


# Oil Allocation:

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.

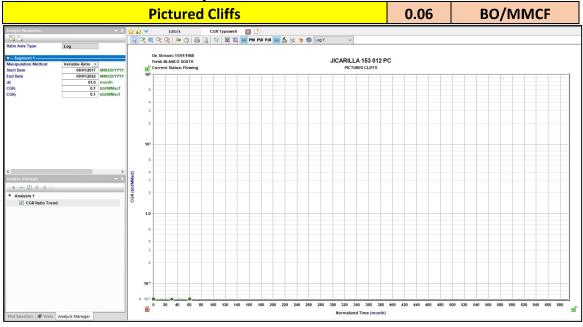
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	6.98	575	24%
GL	10.00	321	20%
MV	16.06	571	56%
Chacra	0.00	50	0%
PC	0.06	260	0%



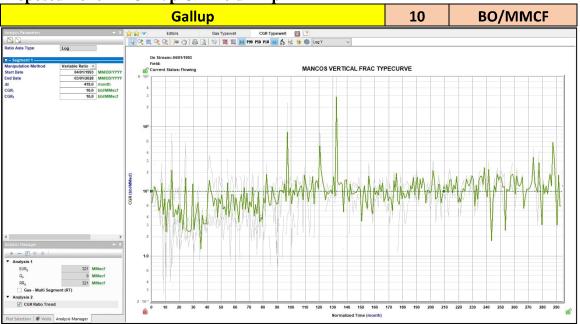


Average Oil Yield from Vertical Mancos Type Curve.

# **Current Zone 2 Oil Yield Map**

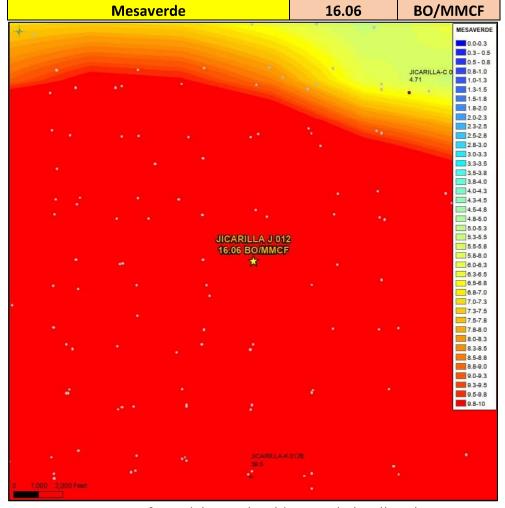


Proposed Zone 1 – Gallup Oil Yield Map



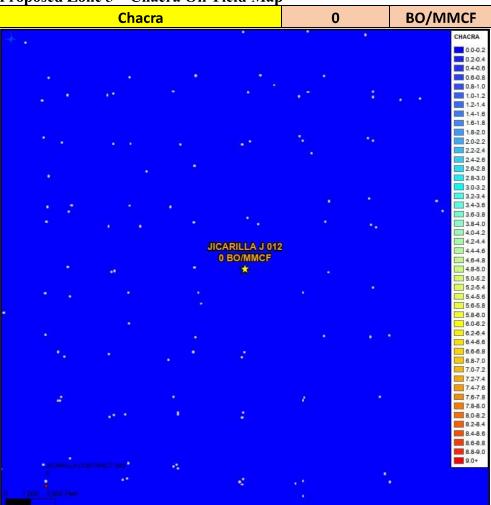
9-Section Area Map of Standalone Oil Yields. Sampled well to this map.





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

Proposed Zone 3 – Chacra Oil Yield 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 356154

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1, API Number 30-039-20113	2. Pool Code 82329	3, Pool Name OTERO CHACRA (GAS)							
		, ,							
4. Property Code	5. Property Name	6. Well No.							
319674	JICARILLA 153	012							
7. OGRID No.	8. Operator Name	9. Elevation							
372171	HILCORP ENERGY COMPANY	6628							

#### 10, Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	35	26N	05W		875	N	1090	l w	RIO
									ARR <b>I</b> BA

#### 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 A 160	cres .00 - NW/4		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

#### **OPERATOR CERTIFICATION**

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: Cherylene Weston

Date: 12/18/2023

#### **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: James P. Leese
Date of Survey: 6/13/1968

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.

Form C-102 August 1, 2011

Permit 356154

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

**Santa Fe, NM 87505** 

1. API Number 30-039-20113	2. Pool Code 58090	3, Pool Name TAPACITO GALLUP (ASSOCIATED)
4. Property Code 319674	5. Property Name JICARILLA 153	6. Well No. 012
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9, Elevation 6628

#### 10. Surface Location

ſ	UL - Lot	Section		Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
-		l l	35	26N	05W		875	N	1090	W	R <b>I</b> O
											ARR <b>I</b> BA

#### 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 A	Acres 0.00 - W/2		13. Joint or Infill		14. Consolidation	n Code		15. Order No.	

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#### **OPERATOR CERTIFICATION**

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: Cherylene Weston

Date: 12/18/2023

#### **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: James P. Leese Date of Survey: 6/13/1968

Certificate Number: 1463

District I
PO Box 1980, Hobbs, NM 83241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazon Rd., Aztec. NM 87410
District IV
PO Box 2082, Santa Fe, NM 87504-2888

MV/DK-W/32D

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

# WELL LOCATION AND ACREAGE DEDICATION PLAT

, ν		<sup>2</sup> Pool Code			'Pool Name Basin Dakota						
30-039-20113				72439/72319/71599			South Blanco Pictured Cliffs/Blanco Mesaverde/				
* Property Code						operty Name				* Well Number	
16579				Jicarilla 153							
'OGRID		¹ Operator Name						' Elevation			
14538 Bur			rlingt	lington Resources Oil & Gas Company LP						6628' GR	
					10 Sur	face L	ocation			_	
UL or let mo.	Section	Township	Range	Lot Ida	Feet from	the	North/South line	Feet from the	East/West line	County	
D	35	26N	5W		875	5'	North	1090'	West	RA	
11 Bottom Hole Location If Different From Surface											
UL or lot so.	Section	Township	Range	Lot Ida	Feet from	the	North/South line	Feet from the	East/West line	County	
					1				1	1	
" Dedicated Act	es 13 Joint	or infill "	onsolidatio	n Code 14 C	order No.	· · · · ·		<u> </u>	<del></del>	<del>,,</del>	

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

OK A HONOTANI	THE CITE IN DE	2	
	Original plat fr. James P. Leese 6	om	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature  Peggy Cole  Printed Name  Regulatory Supervisor  Title  2.5-0/  Date  18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by m or under my supervision, and that the same is true and correct to the best of my belief.  Date of Survey  Signature and Scal of Professional Surveyer:
	Trick day		Certificate Number

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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 309375

# **CONDITIONS**

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	309375
	Action Type:
	[C-103] NOI General Sundry (C-103X)

#### CONDITIONS

Created By	Condition	Condition Date
dmcclure	ACCEPTED FOR RECORD	1/31/2024
dmcclure	DHC-2416 and DHC-2416-A are no longer in effect.	1/31/2024
dmcclure	Assigned the designation DHC-5339 for tracking purposes	1/31/2024