

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

Well Name: NAVAJO B Well Location: T27N / R8W / SEC 19 /

SESW / 36.55498 / -107.72421

County or Parish/State: SAN

JUAN / NM

Well Number: 6

Type of Well: CONVENTIONAL GAS

WELL

Allottee or Tribe Name: EASTERN NAVAJO

Lease Number: |149|ND8468

Unit or CA Name:

Unit or CA Number:

US Well Number: 3004511706

Well Status: Producing Gas Well

Operator: HILCORP ENERGY

COMPANY

Notice of Intent

Sundry ID: 2774496

Type of Submission: Notice of Intent

Type of Action: Commingling (Subsurface)

Date Sundry Submitted: 02/09/2024 Time Sundry Submitted: 03:27

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 2513'-3268', MV 3268'-4813' and MC 4813'-6288'.

NOI Attachments

Procedure Description

Navajo_B_6_DHC_NOI_20240212143349.pdf

Well Name: NAVAJO B Well Location: T27N / R8W / SEC 19 / County or Parish/State: SAN JUAN / NM

SESW / 36.55498 / -107.72421

Well Number: 6 Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

EASTERN NAVAJO

Lease Number: I149IND8468 Unit or CA Name: **Unit or CA Number:**

US Well Number: 3004511706 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: FEB 12, 2024 02:33 PM

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: MATTHEW H KADE BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647736 BLM POC Email Address: MKADE@BLM.GOV

Disposition Date: 02/12/2024 Disposition: Approved

Signature: Matthew Kade

	PROD Type DOWN npletion	DUCTION HOLE	Company Ation form DD COMMINGLE		Distribution: BLM / NMOCD Original Accounting Well File Revised: September 25, 2019 Status PRELIMINARY FINAL REVISED Date: 02/09/2024 API No. 30-045-11706 DHC No. Lease No. I149IND8468		
Well Name NAVAJO B	,				Well No. 6		
Unit Letter N	Section 19	Sar	County, State n Juan, New Mexico				
Completion Date 2024 Test Method HISTORICAL FIELD TEST PROJECTED OTHER JUSTIFICATION OF ALLOCATION: Hilcorp requests that production for the downhole commallocated using the subtraction method in agreement with local agencies. The base formation is and the added formations to be commingled is the Chacra, Mesaverde and Mancos. The subtract applies an average monthly production forecast to the base formation(s) using historic production production from this well exceeding the forecast will be allocated to the new formation(s). After production will stabilize. A production average will be gathered during the 4 th year and will be a create a fixed percentage based allocation. Oil production will be allocated based on average formation yields from offset wells and will be for 4 years. MV 55%, CH 0%, MC 35%, DK 10%.							
gas allocatio				s needed based on average for			
NAME DATE				TITLE		PHONE	
	Cherylene Weston 2/9/2024			Operations/Regulatory Te	ch – Sr.	713-289-2615	
For Technica	al Question		346-237-2011				

Navajo B 6 Allocation

The forecast for Chacra, 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:

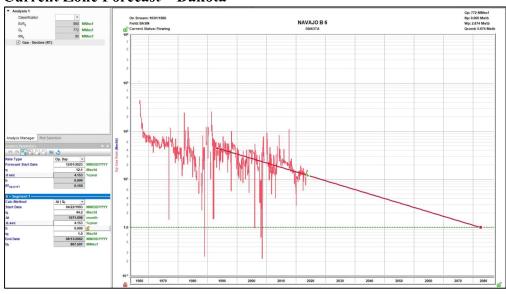
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled are the Chacra, Mesaverde & Mancos. The subtraction method applies an average monthly production forecast to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

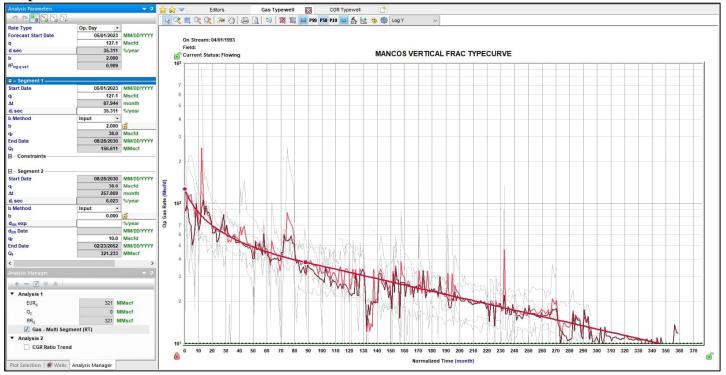
Formation	Remaining Reserves (MMcf)	% Gas Allocation
Mancos	321	32%
Mesaverde	451	45%
Chacra	238	24%

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

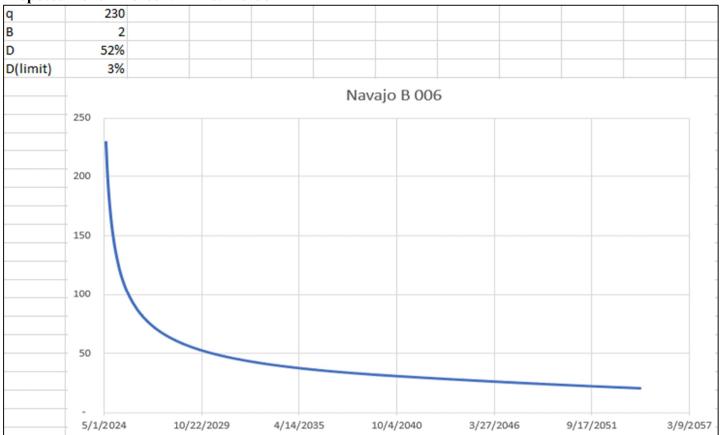


Proposed Zone 1 Forecast - Mancos



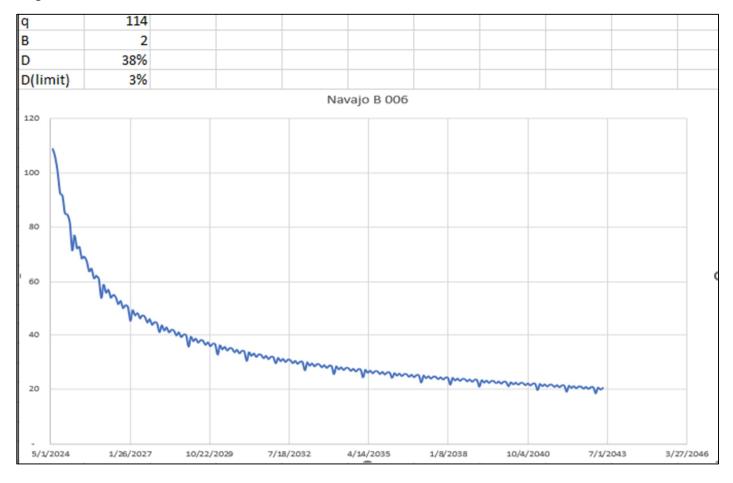
Average initial production curve in geologic region.

Proposed Zone 2 Forecast – Mesaverde



Average initial production curve in geologic region.

Proposed Zone 3 Forecast – Chacra

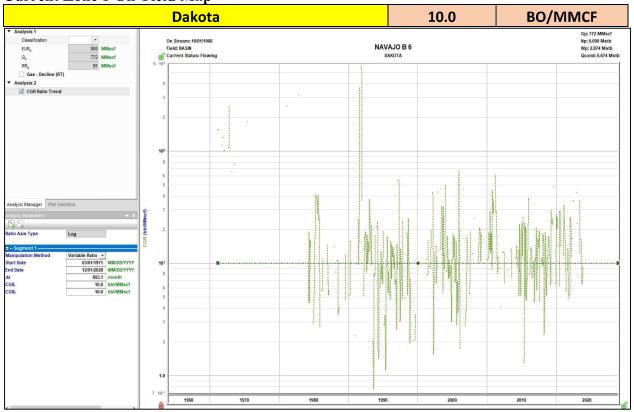


Oil Allocation:

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.

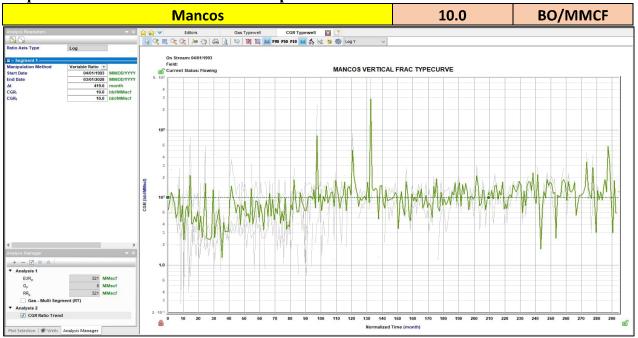
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	10.00	95	10%
MC	10.00	321	35%
MV	11.38	451	55%
СН	0.00	238	0%

Current Zone 1 Oil Yield Map



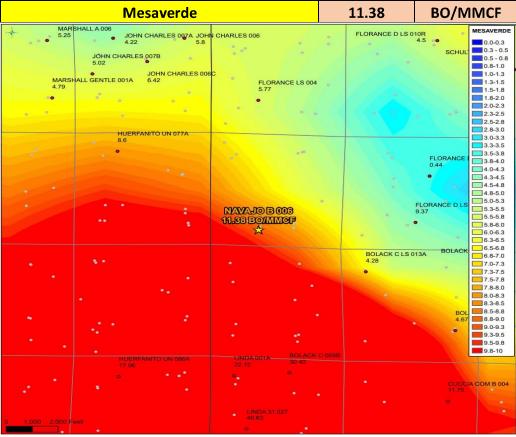
Average Oil Yield from Vertical Mancos Type Curve.

Proposed Zone 1 – Mancos Oil Yield Map



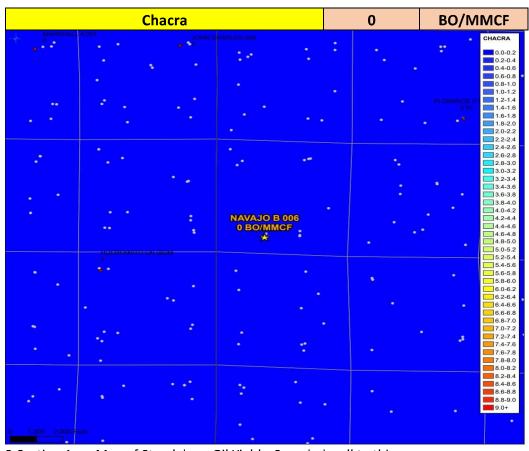
9-Section Area Map of Standalone Oil Yields. Sampled well to this map.

Proposed Zone 2 – Mesaverde Oil Yield Map



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

Proposed Zone 3 – Chacra Oil Yield Map



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

Form C-102 August 1, 2011

Permit 356856

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-045-11706	2, Pool Code 72319	3, Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 318637	5. Property Name NAVAJO B	6. Well No. 006
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6037

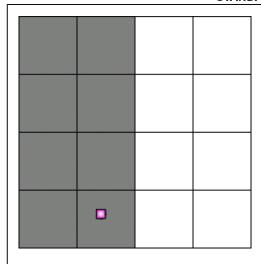
10, Surface Location

ſ	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
-	N	19	27N	W80		790	S	1850	W	SAN JUAN

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	icres .44 - W/2		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 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/RegulatoryTech-Sr.

Date: 01/04/2024

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:

James P. Leese

Date of Survey:

4/1/1966

Certificate Number:

1463

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Form C-102 August 1, 2011

Permit 356856

WELL LOCATION AND ACREAGE DEDICATION PLAT

1, API Number	2, Pool Code	3, Pool Name							
30-045-11706	97232	BASIN MANCOS							
4. Property Code	5. Property Name	6. Well No.							
318637	NAVAJO B	006							
7. OGRID No.	8. Operator Name	9. Elevation							
372171	HILCORP ENERGY COMPANY	6037							

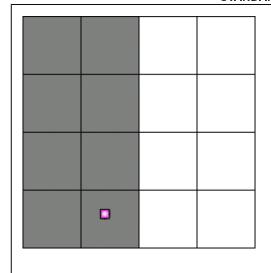
10, Surface Location

ſ	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County	П
-	N	19	27N	W80		790	S	1850	l w	SAN JUA	N

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot ldn	Feet From	N/S Line	Feet From	E/W Line	County
	12. Dedicated Acres 321.44 - W/2		13. Joint or Infill		14. Consolidation Code			15. Order No.	

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Form C-102 August 1, 2011

Permit 356856

WELL LOCATION AND ACREAGE DEDICATION PLAT

	WELL ESCAPENTAND ACTUACION FOR									
1. API Number	2. Pool Code	3, Pool Name								
30-045-11706	82329	OTERO CHACRA (GAS)								
4. Property Code	5. Property Name	6. Well No.								
318637	NAVAJO B	006								
7. OGRID No.	8. Operator Name	9. Elevation								
372171	HILCORP ENERGY COMPANY	6037								

10, Surface Location

ſ	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
-	N	19	27N	W80		790	S	1850	W	SAN JUAN

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	cres .76 - SW/4		13. Joint or Infill	13. Joint or Infill		on Code		15. Order No.	

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Date: 01/04/2024

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James P. Leese

Date of Survey:

4/1/1966

Certificate Number:

1463

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACERAGE DEDICATION PLAT

Letter	UNION PR	ODUCTIO	N COMP	any	Lease NAV.	AJO MBM		Well No.
N	Section 19	Town	nship 27]	NORTH	Range 8 WB	County SAN	JUAN	
Footage Loca	tion of Well:	e Sou	TH	line and	1850	feet from the	WEST	line
d Level Elev.	Produc	ing Formatio	on .		Pool			Dedicated Avereage:
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) Yes () No	If answe	er is "yes	" type of	consolidation .		************	
answer is "no	o," list the o	wners and	l tract de	scriptions	which have ac	tually consolidated	. (Use re	everse side of this form in
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allowable wi	ill be assigne	d to the w	eli until d	all interest	s have been co	ensolidated (by co	mmunitiz	ation, unitization, forced
ling, or othe	erwise) or un	til a non s	tandard i	unit, elimir	nating such int	este pas been ap	proved by	the Commission.
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CONDITIONS

Action 314039

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	314039
	Action Type:
	[IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	ACCEPTED FOR RECORD	2/13/2024
dmcclure	Assigned the designation DHC-5342 for tracking purposes	2/13/2024