

Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 3003907120
5. Indicate Type of Lease STATE [ ] FEE [ ]
6. State Oil & Gas Lease No. NMNM03583
7. Lease Name or Unit Agreement Name SAN JUAN 28-6 UNIT
8. Well Number 103
9. OGRID Number 372171
10. Pool name or Wildcat Basin Mancos / Blanco Mesaverde
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6556' GL

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)
1. Type of Well: Oil Well [ ] Gas Well [x] Other
2. Name of Operator Hilcorp Energy Company
3. Address of Operator 382 Road 3100, Aztec, NM 87410
4. Well Location Unit Letter K: 1700 feet from the South line and 1850 feet from the West line
Section 07 Township 027N Range 006W NMPM County RIO ARRIBA

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK [ ] PLUG AND ABANDON [ ]
TEMPORARILY ABANDON [ ] CHANGE PLANS [ ]
PULL OR ALTER CASING [ ] MULTIPLE COMPL [ ]
DOWNHOLE COMMINGLE [x]
CLOSED-LOOP SYSTEM [ ]
OTHER: [ ] RECOMPLETE
SUBSEQUENT REPORT OF:
REMEDIAL WORK [ ] ALTERING CASING [ ]
COMMENCE DRILLING OPNS. [ ] P AND A [ ]
CASING/CEMENT JOB [ ]
OTHER: [ ]

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

It is intended to recomplete the subject well in the Basin Mancos (pool 97232) and the Blanco Mesaverde (pool 72319) and downhole commingle the existing Basin Dakota (pool 71599) with the Mancos and Mesaverde. The production will be commingled per Oil Conservation Division Order Number 12984-B. Allocation and methodology will be provided after the well is completed. Commingling will not reduce the value of the production. The Bureau of Land Management has been notified in writing of this application.

Proposed perforations are: MV 4800' - 5900'; MC 5900' - 7335'; DK 7436' - 7648'. These perforations are in TVD.

As referred to in Order # R-13681 interest owners were not re-notified.

Spud Date: [ ] Rig Release Date: [ ]

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

SIGNATURE Cherylene Weston TITLE Operations/Regulatory Technician Sr. DATE 3/6/2024

Type or print name Cherylene Weston E-mail address: cweston@hilcorp.com PHONE: 713-289-2615
For State Use Only

APPROVED BY: TITLE DATE
Conditions of Approval (if any):

**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 358367

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-039-07120	2. Pool Code 97232	3. Pool Name BASIN MANCOS
4. Property Code 318710	5. Property Name SAN JUAN 28 6 UNIT	6. Well No. 103
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6556

**10. Surface Location**

UL - Lot K	Section 7	Township 27N	Range 06W	Lot Idn	Feet From 1700	N/S Line S	Feet From 1850	E/W Line 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 Acres 315.68	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><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: <b>Cherylene Weston</b>                  Title: Operations/Regulatory Tech-Sr.                  Date: 1/24/2024</p>
	<p><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: David Kilven                  Date of Survey: 6/16/1961                  Certificate Number: 1760</p>

**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 358367

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-039-07120	2. Pool Code 72319	3. Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 318710	5. Property Name SAN JUAN 28 6 UNIT	6. Well No. 103
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6556

**10. Surface Location**

UL - Lot K	Section 7	Township 27N	Range 06W	Lot Idn	Feet From 1700	N/S Line S	Feet From 1850	E/W Line 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 Acres 315.68	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><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: <b>Cherylene Weston</b>              Title: Operations/Regulatory Tech-Sr.              Date: 1/24/2024</p>
	<p><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: David Kilven              Date of Survey: 6/16/1961              Certificate Number: 1760</p>

NEW MEXICO OIL CONSERVATION COMMISSION

Well Log, Lease and Area of Interest

Section A

DATE: AUGUST 16, 1961

Operator **EL PASO NATURAL GAS COMPANY** Lease **SAN JUAN 28-6 UNIT** NM **03583**  
 Well No. **103** Unit Letter **K** Section **7** Township **27-N** Range **6-W** N.M.P.M.  
 Locality **1700** Feet From **SOUTH** Line **1850** Feet from **WEST** Line  
 County **RIO ARriba** G.L. Elevation **6558** Elevation Above **315.68** Area  
 Name of Producing Formation **DAKOTA** Basin **BASIN DAKOTA**

1. Is the Operator the only owner of the land listed here as outlined on the plat below?  
 Yes  No
2. If the answer to question No. 1 is "No," have the interests of all the owners hereinafter stated by communitization, agreement or other device? Yes  No  If answer is "No," type of communitization.
3. If the answer to question No. 1 is "No," list all the owners and their respective interests in well:  
 Owner \_\_\_\_\_ Part Description \_\_\_\_\_



Section B

I hereby certify that the information in Section A above is true and correct to the best of my knowledge and belief.

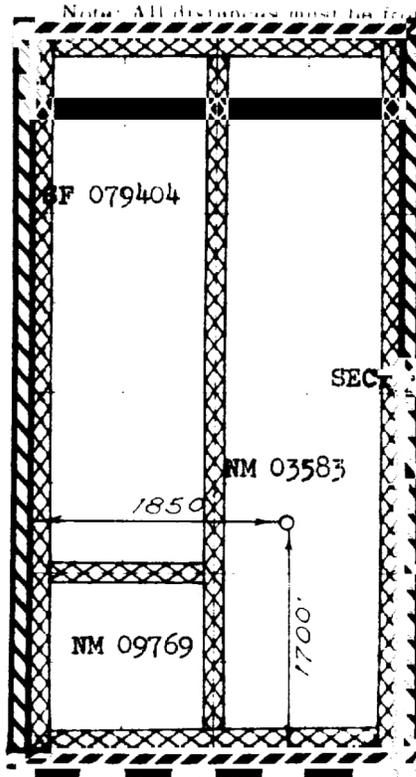
**El Paso Natural Gas Company**  
Original Signed: D. W. Meehan

Representative

**Box 990**

Address

**Farmington, New Mexico**



DATE: JUNE 16, 1961

*Handwritten signature*  
 \_\_\_\_\_  
 Representative of the Operator

### San Juan 28-6 Unit 103 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:

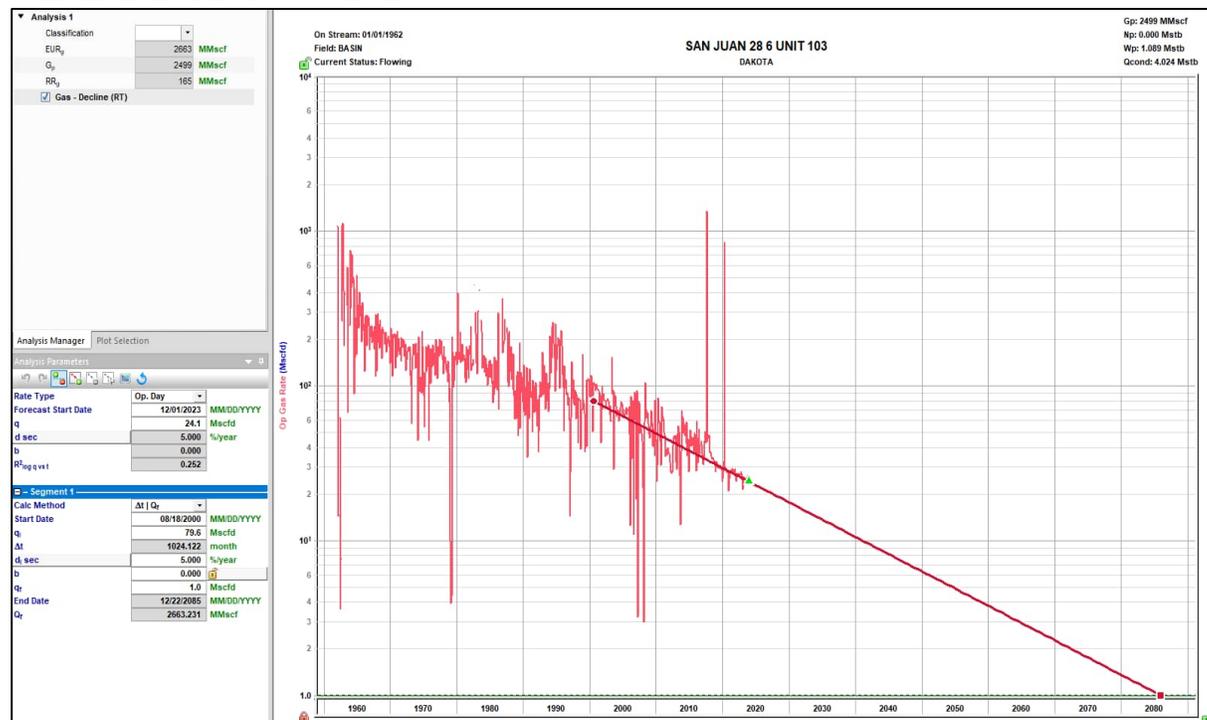
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled are the Mancos and Mesaverde. The subtraction method applies an average monthly production forecast to the 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 Mancos and Mesaverde 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.

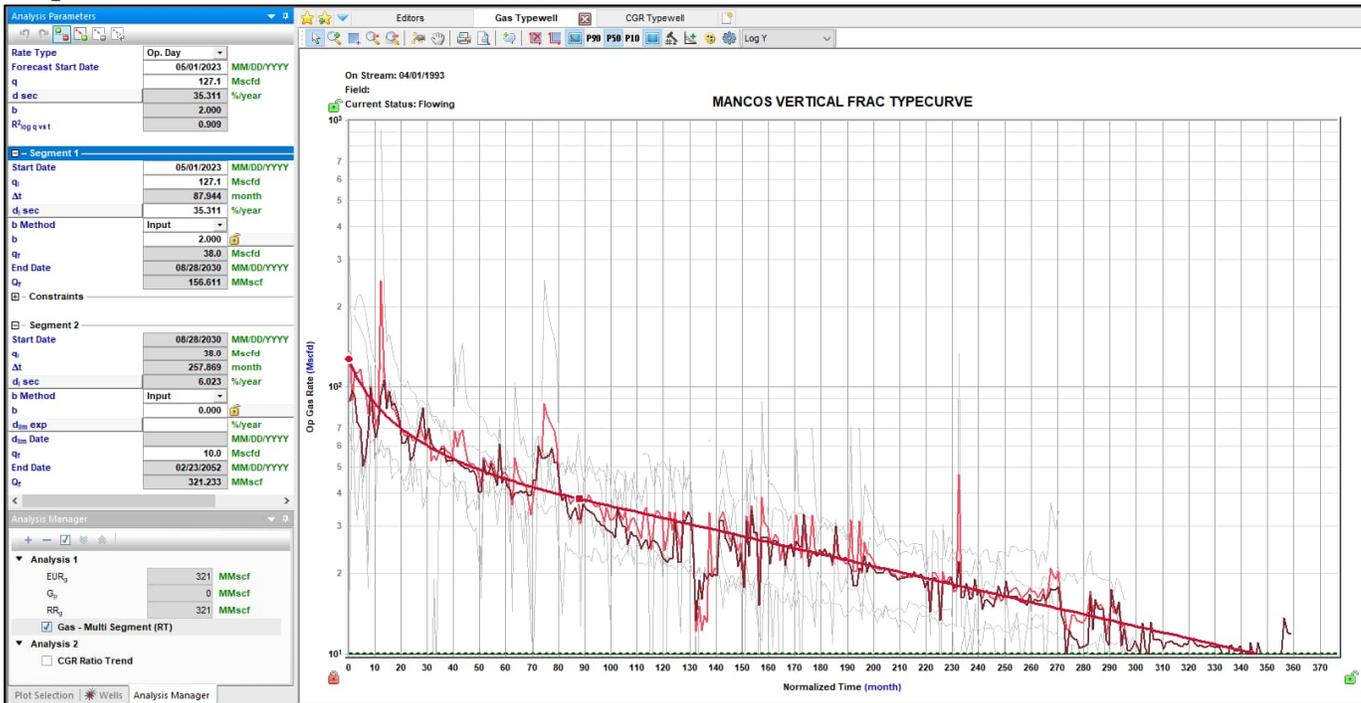
Formation	Remaining Reserves (MMcf)	% Gas Allocation
Mancos	321	29%
Mesaverde	792	71%

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.

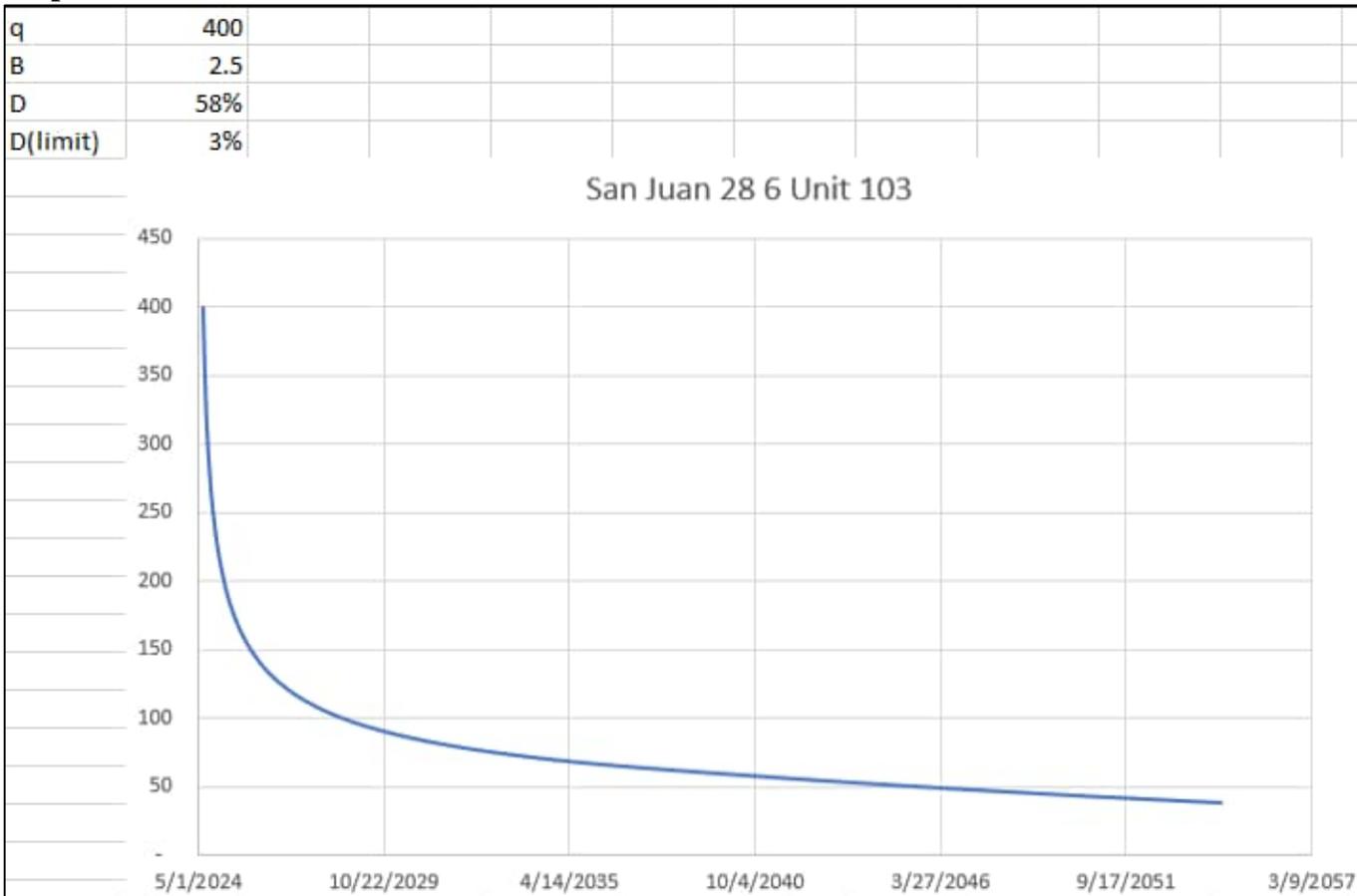
### Current Zone 1 Forecast – Dakota



### Proposed Zone 1 Forecast - Mancos



### Proposed Zone 2 Forecast - Mesaverde



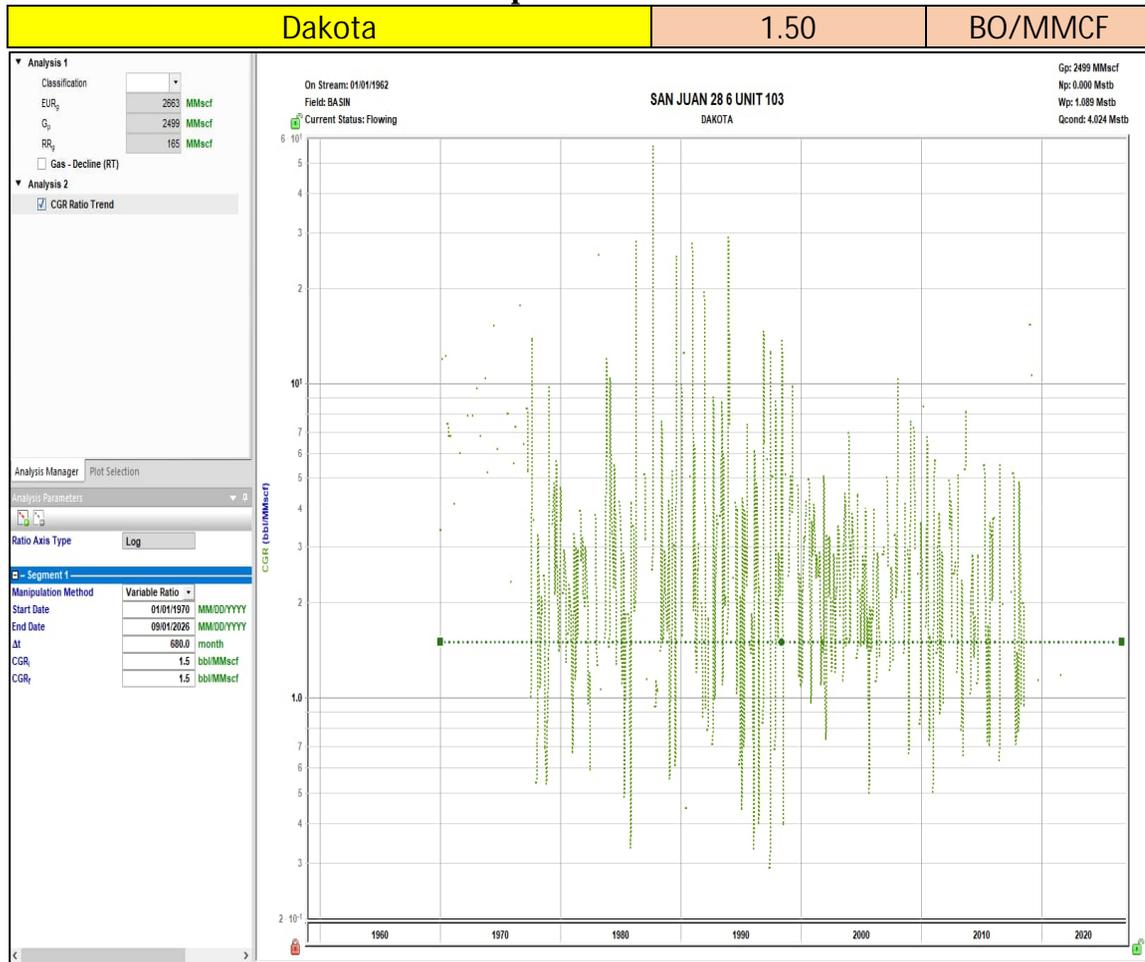
Average initial production curve in geologic region.

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

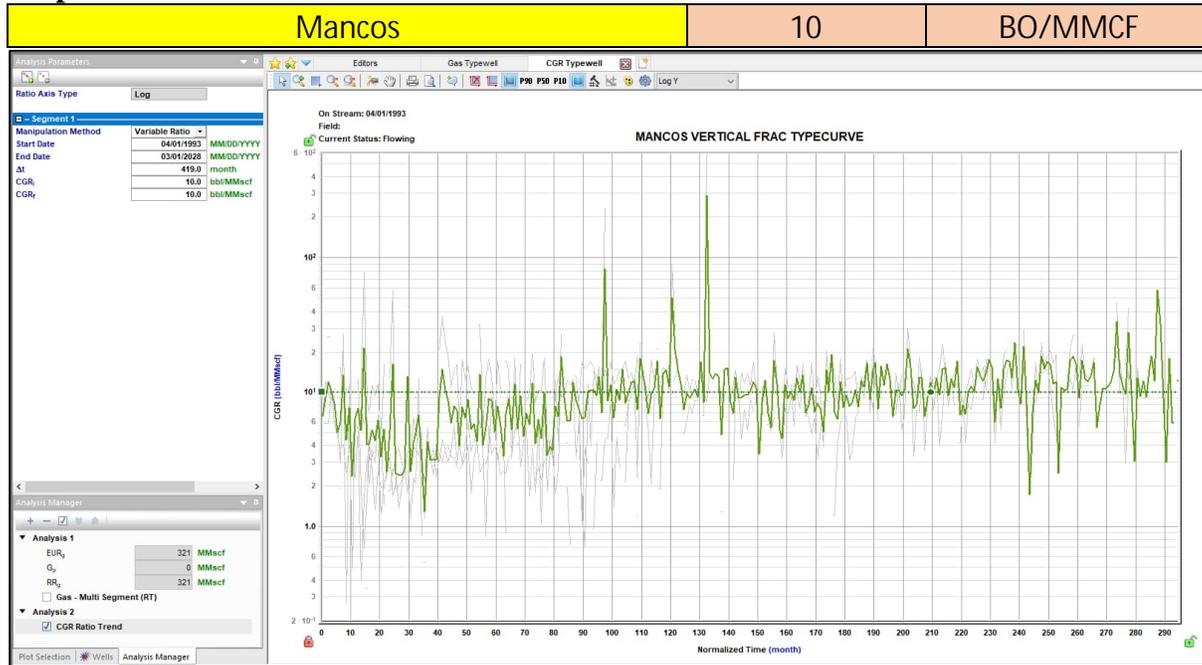
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	1.50	165	4%
MC	10.00	321	53%
MV	3.25	792	43%

**Current Zone – Dakota Oil Yield Map**



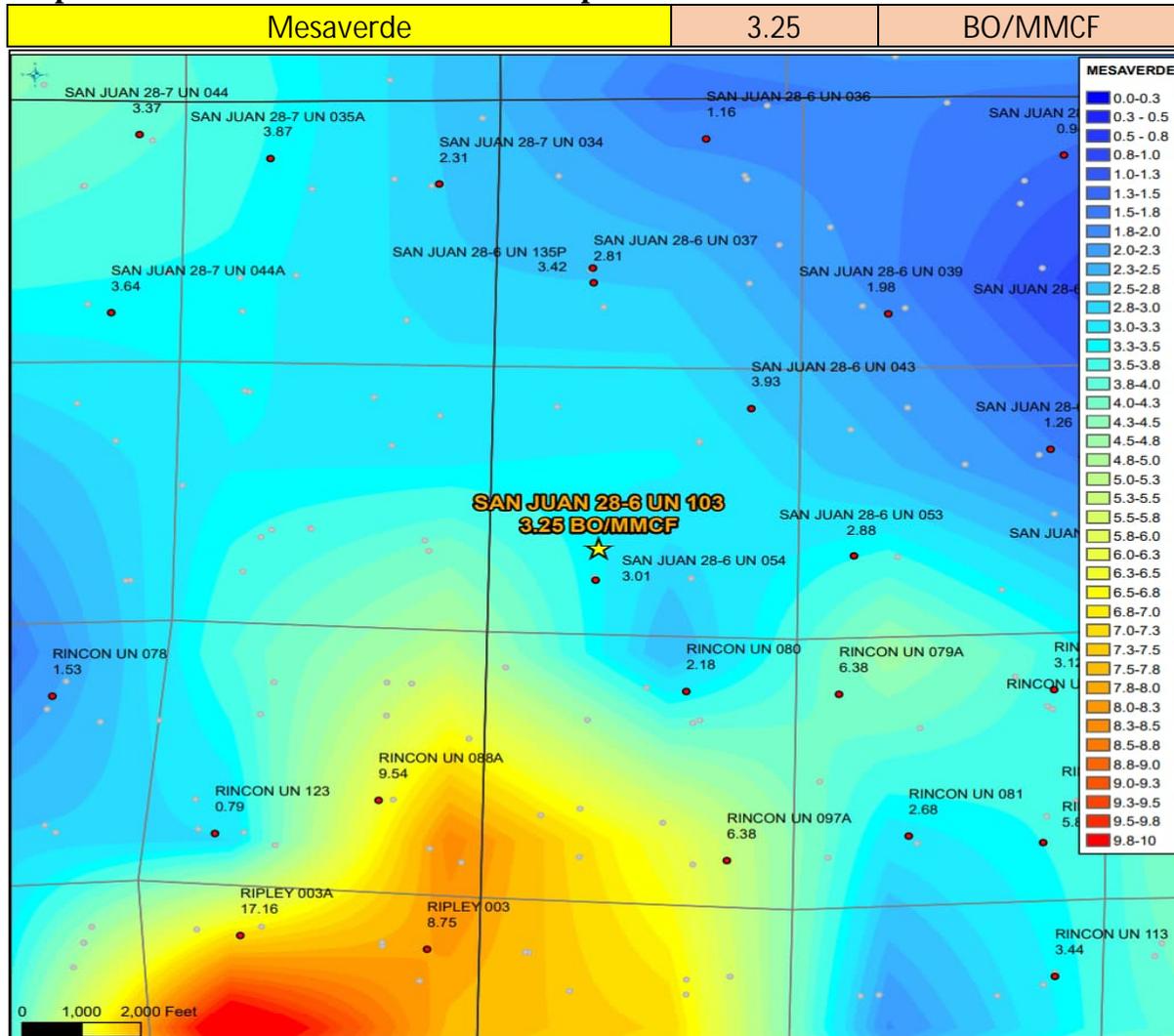
9-Section Area of Standalone Oil Yields. Sampled well to this map.

### Proposed Zone 1 – Mancos Oil Yield



Average Oil Yield from Vertical Mancos Type Curve.

### Proposed Zone 2 - Mesaverde Oil Yield Map



**From:** [McClure, Dean, EMNRD](#) on behalf of [Engineer, OCD, EMNRD](#)  
**To:** [Cheryl Weston](#); [Mandi Walker](#)  
**Cc:** [McClure, Dean, EMNRD](#); [Lowe, Leonard, EMNRD](#); [Rikala, Ward, EMNRD](#); [Wrinkle, Justin, EMNRD](#); [Powell, Brandon, EMNRD](#); [Paradis, Kyle O](#); [David Mankiewicz](#)  
**Subject:** Approved Administrative Order DHC-5408  
**Date:** Thursday, July 18, 2024 8:40:14 AM  
**Attachments:** [DHC5408 Order.pdf](#)

---

NMOCD has issued Administrative Order DHC-5408 which authorizes Hilcorp Energy Company (372171) to downhole commingle production within the following well:

**Well Name:** San Juan 28 6 Unit #103  
**Well API:** 30-039-07120

---

The administrative order is attached to this email and can also be found online at OCD Imaging.

Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.

Dean McClure  
Petroleum Engineer, Oil Conservation Division  
New Mexico Energy, Minerals and Natural Resources Department  
(505) 469-8211

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**APPLICATION FOR DOWNHOLE COMMINGLING  
SUBMITTED BY HILCORP ENERGY COMPANY**

**ORDER NO. DHC-5408**

**ORDER**

The Director of the New Mexico Oil Conservation Division (“OCD”), having considered the application and the recommendation of the Engineering Bureau, issues the following Order.

**FINDINGS OF FACT**

1. Hilcorp Energy Company (“Applicant”) submitted a complete application (“Application”) to downhole commingle the pools described in Exhibit A (“the Pools”) within the well bore of the well identified in Exhibit A (“the Well”).
2. Applicant proposed a method to allocate the oil and gas production from the Well to each of the Pools that is satisfactory to the OCD and protective of correlative rights.
3. Applicant has certified that the proposed commingling of the Pools shall not result in shut-in or flowing well bore pressure in excess of the commingled pool’s fracture parting pressure.
4. Applicant has certified that all produced fluids from all the Pools are compatible with each other.
5. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
6. An exception to the notification requirements within 19.15.12.11(C)(1)(b) NMAC was granted by the Division within Order R-13681.
7. Applicant provided notice of the Application to the Bureau of Land Management (“BLM”) or New Mexico State Land Office (“NMSLO”), as applicable.

**CONCLUSIONS OF LAW**

8. OCD has jurisdiction to issue this Order pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-6, 70-2-11, 70-2-12, 70-2-16, 70-2-17, and 19.15.12 NMAC.
9. The downhole commingling of the Pools is common, or Applicant has provided evidence that the fluids are compatible and will not damage the Pools in accordance with 19.15.12.11(A)(1) NMAC.
10. The bottom perforation of the lower zone is within one hundred fifty percent (150%) of the depth of the top perforation in the upper zone or Applicant has provided evidence that the proposed commingling of the Pools shall not result in shut-in or flowing well bore pressure

in excess of the commingled pool's fracture parting pressure in accordance with 19.15.12.11(A)(3) NMAC.

11. Applicant's proposed method of allocation, as modified herein, complies with 19.15.12.11(A)(8) NMAC.
12. By granting the Application with the conditions specified below, this Order prevents waste and protects correlative rights, public health, and the environment.

### **ORDER**

1. Applicant is authorized to downhole commingle the Pools described in Exhibit A within the well bore of the well identified in Exhibit A.
2. Applicant shall allocate a fixed percentage of the oil production from the Well to each of the Pools until a different plan to allocate oil production is approved by OCD. Of the oil production from the Well:
  - a. forty-three percent (43%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319);
  - b. fifty-three percent (53%) shall be allocated to the BASIN MANCOS pool (pool ID: 97232); and
  - c. four percent (4%) shall be allocated to the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

Applicant shall allocate gas production to the new pool(s) equal to the total gas production from the Well minus the projected gas production from the current pool(s) until a different plan to allocate gas production is approved by OCD. The new pool(s) are:

- a. the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
- b. the BASIN MANCOS pool (pool ID: 97232).

The current pool(s) are:

- a. the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

Until a different plan to allocate gas production is approved by OCD, of the gas production allocated to the new pools:

- a. seventy-one percent (71%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
- b. twenty-nine percent (29%) shall be allocated to the BASIN MANCOS pool (pool ID: 97232).

Applicant 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, Applicant 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 Applicant fails to do so, this Order shall terminate on the following day. If OCD denies the fixed percentage allocation plan, this Order 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.

3. 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 Order to become inaccurate, then no later than sixty (60) days after that event, Applicant 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 Order shall terminate on the date of such action.
4. If any of the pools being commingled is prorated, or the Well's production has been restricted by an OCD order in any manner, the allocated production from each producing pool in the commingled well bore shall not exceed the top oil or gas allowable rate for a well in that pool or rate restriction applicable to the well.
5. If the Well is deepened, then no later than forty-five (45) days after the Well is deepened, Applicant shall conduct and provide logs to OCD that are sufficient for OCD to determine which pool(s) each new completed interval of the Well will produce from.
6. 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 Applicant shall submit a new downhole commingling application to OCD to amend this Order to remove the pool that caused the decrease in value. If Applicant fails to submit a new application, this Order shall terminate on the following day, and if OCD denies the application, this Order shall terminate on the date of such action.
7. If a completed interval of the Well is altered from what is submitted within the Application as identified in Exhibit A, then no later than sixty (60) days after the alteration, Applicant shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.
8. If OCD determines that Applicant has failed to comply with any provision of this Order, OCD may take any action authorized by the Oil and Gas Act or the New Mexico Administrative Code (NMAC).
9. OCD retains jurisdiction of this matter and reserves the right to modify or revoke this Order as it deems necessary.

**STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION**



**GERASIMOS RAZATOS  
DIRECTOR (ACTING)**

**DATE:** 7/17/2024

State of New Mexico  
Energy, Minerals and Natural Resources Department

**Exhibit A**

Order: **DHC-5408**

Operator: **Hilcorp Energy Company (372171)**

Well Name: **San Juan 28 6 Unit #103**

Well API: **30-039-07120**

Pool Name: **BLANCO-MESAVERDE (PRORATED GAS)**

**Upper Zone**

Pool ID: **72319**

Current:

New: **X**

Allocation:

Oil: **43.0%**

Gas: **71.0%**

Top: **4,800**

Bottom: **5,900**

Pool Name: **BASIN MANCOS**

**Intermediate Zone**

Pool ID: **97232**

Current:

New: **X**

Allocation:

Oil: **53.0%**

Gas: **29.0%**

Top: **5,900**

Bottom: **7,335**

Bottom of Interval within 150% of Upper Zone's Top of Interval: **NO**

Pool Name: **BASIN DAKOTA (PRORATED GAS)**

**Lower Zone**

Pool ID: **71599**

Current: **X**

New:

Allocation:

Oil: **4.0%**

Gas: **curve**

Top: **7,436**

Bottom: **7,648**

Bottom of Interval within 150% of Upper Zone's Top of Interval: **NO**

**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**

CONDITIONS

Action 332472

**CONDITIONS**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 332472
	Action Type: [C-107] Down Hole Commingle (C-107A)

**CONDITIONS**

Created By	Condition	Condition Date
dmcclure	Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.	7/18/2024