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-5502**

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 all produced fluids from all the Pools are compatible with each other.
4. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
5. To the extent that ownership is diverse, Applicant identified all owners of interest in the Pools, provided evidence a copy of the Application was given to each person, and those persons either submitted a written waiver or did not file an objection to the Application.
6. 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

7. 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.
8. 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.
9. 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.

10. Applicant's proposed method of allocation, as modified herein, complies with 19.15.12.11(A)(8) NMAC.

11. To the extent that ownership is diverse, Applicant identified all owners of interest in the Pools and provided evidence the application was given to those persons in accordance with 19.15.12.11(C)(1)(b) 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. This Order supersedes Order DHC-2559.

3. Applicant shall allocate oil and gas production to the new pool(s) equal to the total oil and gas production from the Well minus the projected oil and gas production from the current pool(s) as described in Exhibit A until a different plan to allocate oil and gas production is approved by OCD.

   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.

   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. zero percent (0.0%) shall be allocated to the Basin Fruitland Coal pool (pool ID: 71629); and
   b. one hundred percent (100%) shall be allocated to the Blanco Mesaverde pool (pool ID: 72319).

   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 Basin Fruitland Coal pool (pool ID: 71629).

The current pool(s) are:

a. the Blanco Mesaverde pool (pool ID: 72319).

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.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

9. 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).
10. 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

DATE: 6-12-2025

GERASIMOS RAZATOS
DIRECTOR (ACTING)

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

	Order:	DHC-5502			
	Operator:	Hilcorp Energy Company			
	Well Name:	State Well No. 4E			
	Well API:	30-045-29781			
Upper Zone	Pool Name:	Basin Fruitland Coal			
	Pool ID:	71629	Current:	New:	X
	Allocation:	Subtraction	Oil: 0.0%	Gas:	SUBT
			Top: 2,192	Bottom:	2,406
Intermediate Zone	Pool Name:				
	Pool ID:		Current:	New:	
	Allocation:		Oil:	Gas:	
			Top:	Bottom:	
Bottom of Interval within 150% of Upper Zone's Top of Interval:					
Lower Zone	Pool Name:	Blanco Mesaverde			
	Pool ID:	72319	Current: X	New:	
	Allocation:	Subtraction	Oil: 100.0%	Gas:	SUBT
			Top: 4,046	Bottom:	4,706
Bottom of Interval within 150% of Upper Zone's Top of Interval:			NO		
Top of Queen Formation:					

Revised March 23, 2017

ID NO. 389279

DHC - 5502

RECEIVED: 10/23/24	REVIEWER:	TYPE:	APP NO:

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Geological & Engineering Bureau –
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: Hilcorp Energy Company **OGRID Number:** 372171
Well Name: State 4E **API:** 30-045-29781
Pool: Basin Fruitland Coal / Blanco Mesaverde **Pool Code:** 71629, 72319

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) **TYPE OF APPLICATION:** Check those which apply for [A]
A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]
[I] Commingling – Storage – Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

2) **NOTIFICATION REQUIRED TO:** Check those which apply.
A. ☐ Offset operators or lease holders
B. ☒ Royalty, overriding royalty owners, revenue owners
C. ☐ Application requires published notice
D. ☒ Notification and/or concurrent approval by SLO
E. ☐ Notification and/or concurrent approval by BLM
F. ☐ Surface owner
G. ☒ For all of the above, proof of notification or publication is attached, and/or,
H. ☐ No notice required

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Cherylene Weston
Print or Type Name

Cherylene Weston
Signature

9/25/2024
Date

713-289-2614
Phone Number

cweston@hilcorp.com
e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240

District II
811 S. First St., Artesia, NM 88210

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
____Single Well
____Establish Pre-Approved Pools
EXISTING WELLBORE
__X__Yes ____No

APPLICATION FOR DOWNHOLE COMMINGLING

Hilcorp Energy Company — Operator
382 Road 3100, Aztec, NM 87410 — Address

STATE — Lease
4E — Well No.
D-32-T29N-R08W — Unit Letter-Section-Township-Range
SAN JUAN, NM — County

OGRID No. 372171 Property Code 318437 API No. 30-045-29781 Lease Type: ____Federal __X__State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Fruitland Coal		Blanco Mesaverde
Pool Code	71629		72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2192' - 2406'		4046' - 4706'
Method of Production (Flowing or Artificial Lift)	NEW ZONE		Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	86 psi		112 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1106 BTU		1281 BTU
Producing, Shut-In or New Zone	NEW ZONE		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates:	Date: Rates:	Date: 7/1/2024 Rates: Oil - 0 bbl Gas - 710 mcf Water - 0 bbl
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil % Gas %	Oil % Gas %	Oil % Gas %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes_____ No__X____
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes__X___ No_____

Are all produced fluids from all commingled zones compatible with each other? Yes__X___ No_____

Will commingling decrease the value of production? Yes_____ No__X____

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes__X___ No_____

NMOCD Reference Case No. applicable to this well: _____

Attachments:
C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
Production curve for each zone for at least one year. (If not available, attach explanation.)
For zones with no production history, estimated production rates and supporting data.
Data to support allocation method or formula.
Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

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 Tech-Sr. DATE 9/25/2024

TYPE OR PRINT NAME Cherylene Weston TELEPHONE NO. (713) 289-2615

E-MAIL ADDRESS cweston@hilcorp.com

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
30-045-29781	71629	Basin Fruitland Coal	
Property Code	Property Name		Well Number
318737	State		4E
OGRID No.	Operator Name		Ground Level Elevation
372171	Hilcorp Energy Company		5924
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	32	029N	08W		790' N	890' W	36.687488	-107.70529	San Juan

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	32	029N	08W		790' N	890' W	36.687488	-107.70529	San Juan

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
W/2 - 320	Infill	30-045-27500	N	COM
Order Numbers.			Well setbacks are under Common Ownership: ☐Yes ☒No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☒ Vertical	Ground Floor Elevation: 5924'

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Cherylene Weston 9/24/2024

Signature Date

Cherylene Weston, Operations/Regulatory Tech-Sr.

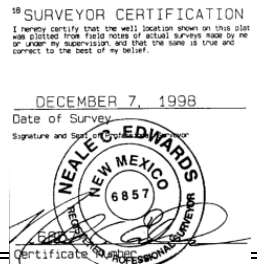
Printed Name

cweston@hilcorp.com

Email Address

SURVEYOR CERTIFICATIONS

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.



Signature and Seal of Professional Surveyor

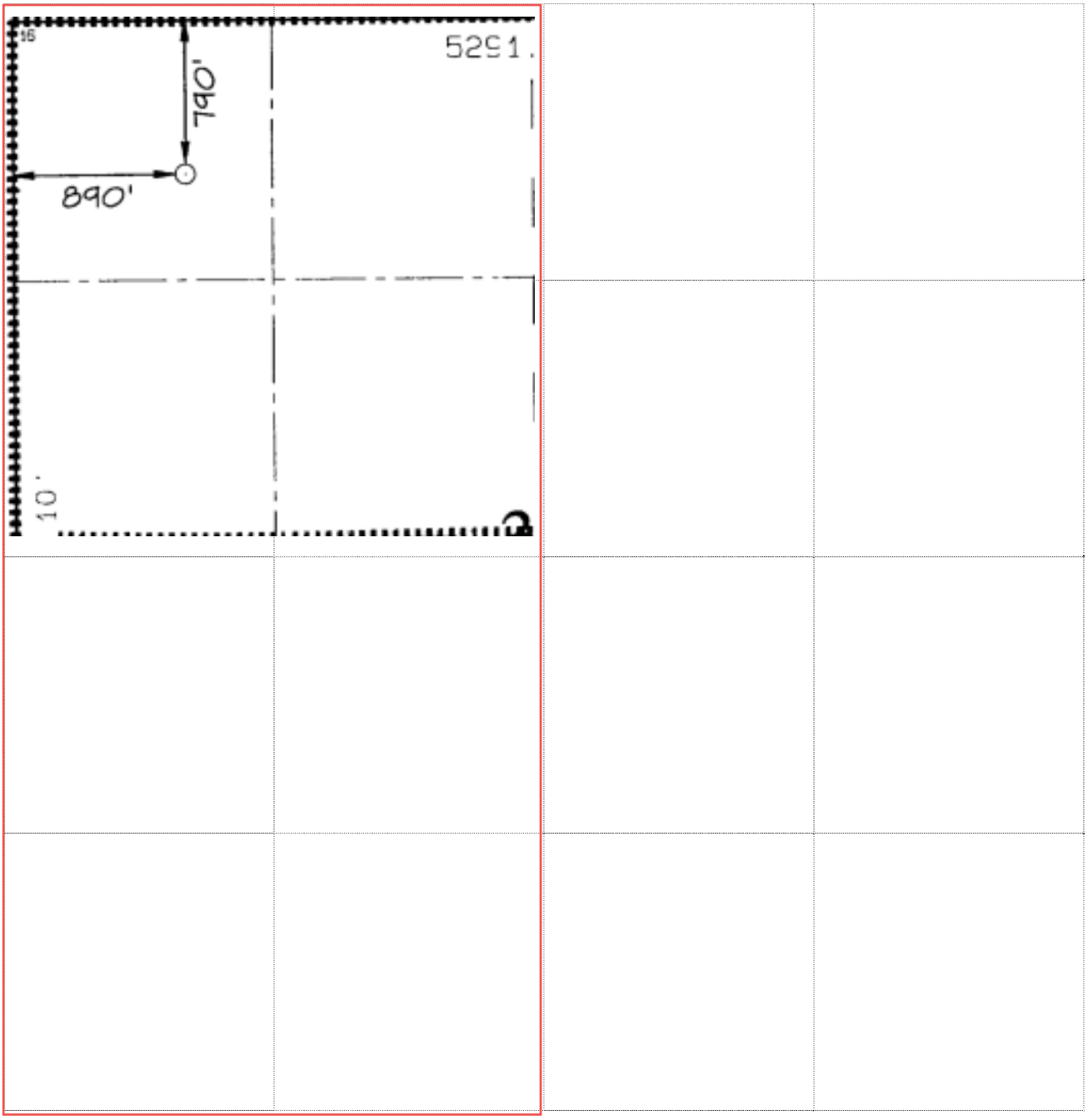
Certificate Number	Date of Survey
6857	12/7/1998

Note: 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.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



District I
PO Box 1980, Hobbs, NM 88241-198
District II
PO Drawer DD, Artesia, NM 88211-071
District III
1000 Rio Brazos Rd. Aztec, NM 8741
District IV
PO Box 2088, Santa Fe, NM 87504-208

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
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	2 Pool Code	3 Pool Name
30-03929781	72319/71599	Blanco Mesaverde/Basin Dakota

4 Property Code	5 Property Name	6 Well Number
016608	State	4E

7 OGRID No.	8 Operator Name	9 Elevation
005073	Conoco Inc., 10 Desta Drive, Ste 100W, Midland, TX 79705-4500	5924'

10 Surface Location

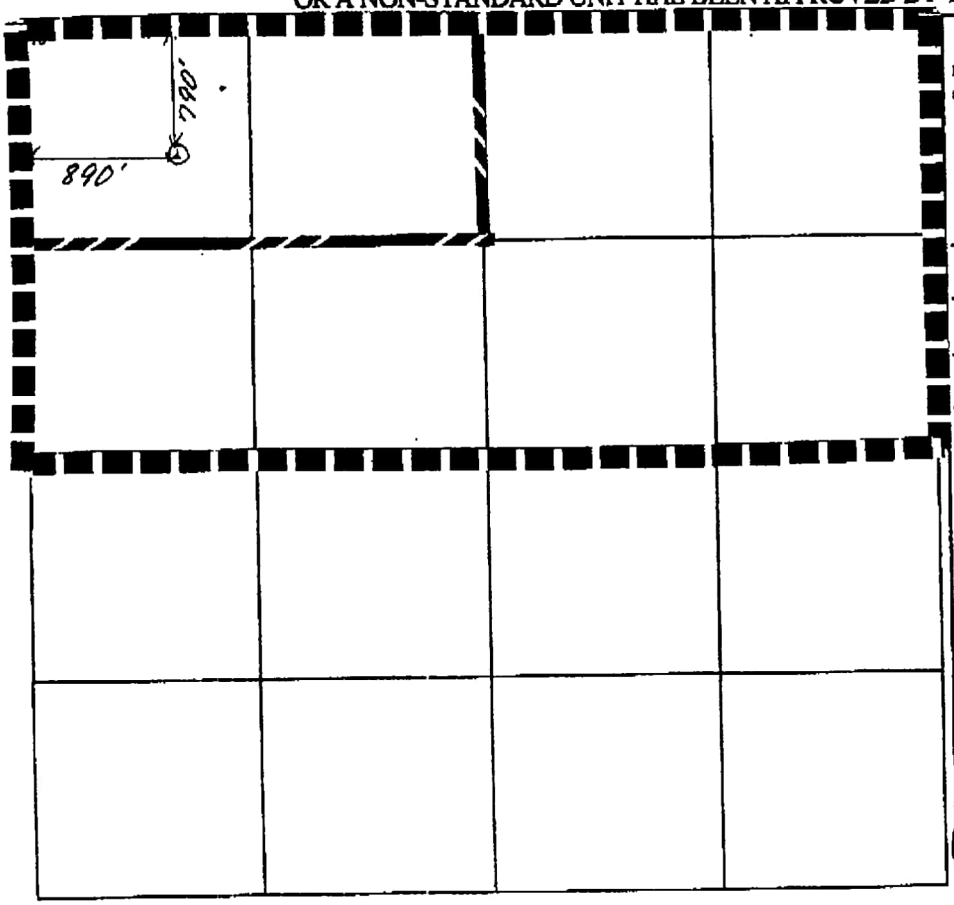
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	29N	8W		790'	North	890'	West	San Juan

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

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



17 OPERATOR CERTIFICATION

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

Jo Ann Johnson
Signature

Jo Ann Johnson
Printed Name

Sr. Property Analyst
Title

November 11, 1999
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 me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

COPY

Certificate Number

DEC 07 1999 15:52 FR CONOCO ROW AND CLAIMS 9156865503 TO 81505334617O-065 P.03/05

State 4E Production Allocation

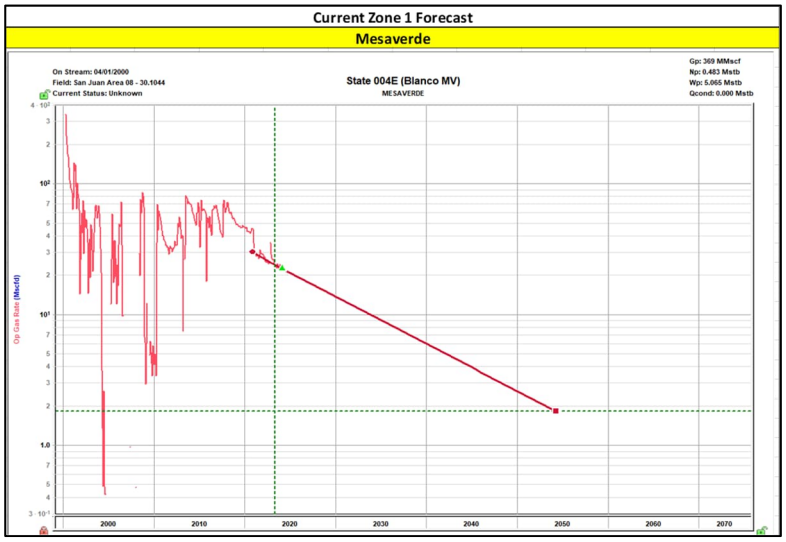
These zones are proposed to be commingled because the application of dual completions impedes the ability to produce the shallow zone without artificial lift and the deeper zones with reduced artificial lift efficiency. All horizons will require artificial lift due to low bottomhole pressure (BHP) and 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.

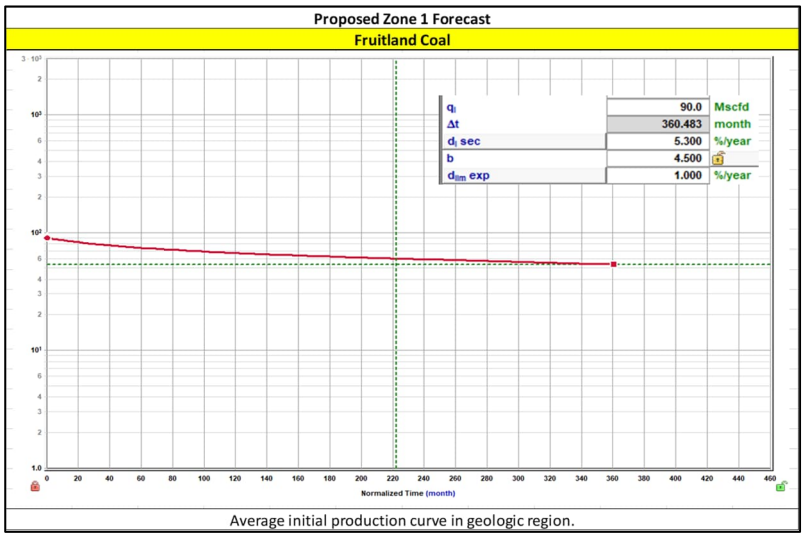
Production Allocation Method – Subtraction

Gas Allocation:
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the **Mesaverde** and the added formation to be commingled is the **Fruitland Coal**. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceeding the base formations forecast will be allocated to the new formation.

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.



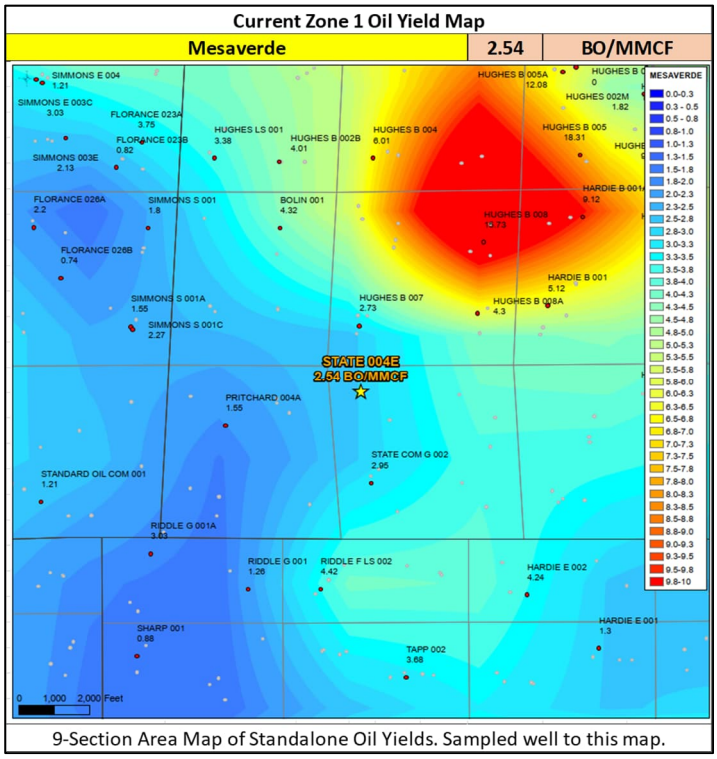
Proposed Zone Forecast



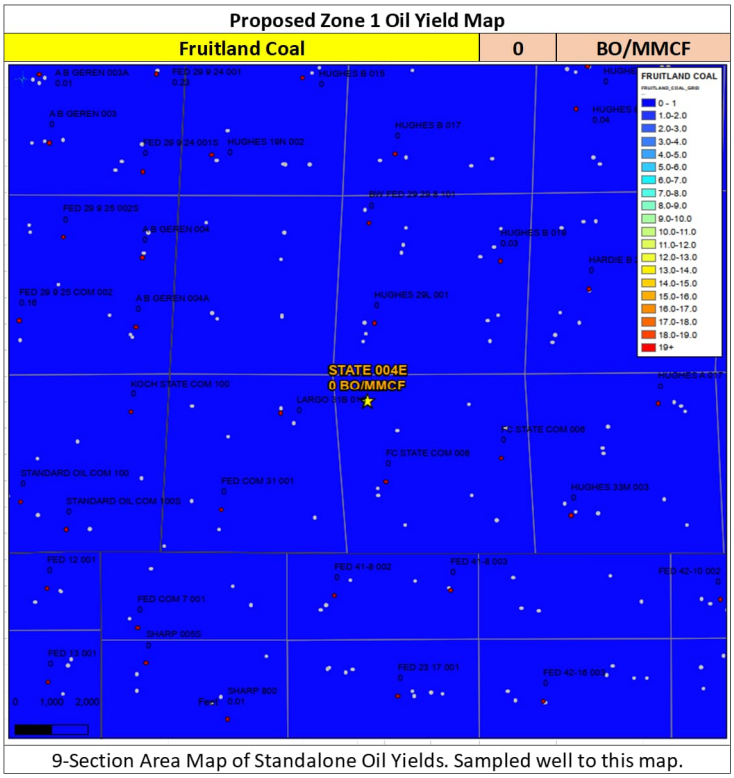
Oil Allocation:

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	Remaining Reserves	% Oil Allocation
MV	2.54	91	100%
FRC	0	712	0%



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.

Supplemental Information:

Shut in pressures were calculated for operated offset standalone wells in each of the zones being commingled in the well in question via the following process:

1) Wells were shut in for 24 hours
2) Echometer was used to obtain a fluid level
3) Shut in BHP was calculated for the proposed commingled completion

List of wells used to calculate BHPs for the Project:

3004534087	HUGHES B 23	FRC
3004507542	RIDDLE G 1	MV

I believe each of the reservoirs to be continuous and in a similar state of depletion at this well and at each of the wells from which the pressures are being derived.

The near wellbore shut-in bottom hole pressures of the above reservoirs are much lower than the calculated far-field stabilized reservoir pressured due to the low permeability of the reservoirs. Based on pressure transient analysis performed in the San Juan Basin, it would take 7-25 years for shut-in bottom hole pressures to build up to the calculated far-field reservoir pressure. Our observation is that even for areas of high static reservoir pressures, the low permeability of the reservoir rock results in rapid depletion of the near-fracture region, quickly enough that the wells are unable to produce without the aid of a plunger. Given low permeabilities and low wellbore flowing pressures in the above reservoirs, loss of reserves due to cross-flow is not an issue during producing or shut-in periods. Given low shut-in bottom hole pressures, commingling the above reservoirs in this well will not result in shut-in or flowing wellbore pressures in excess of any commingled pool's fracture parting pressure. The pressures provided in the C-107A are based on shut-in bottom hole pressures of offset standalone wells which match expected near-wellbore shut-in bottom hole pressures of this proposed commingled completion.

Note: BTU Data taken from standalone completions in the zone of interest within a 2 mile radius of the well.
A farther radius is used if there is not enough data for a proper statistical analysis.

Gas Compatibility in the San Juan Basin

- The San Juan basin has productive siliciclastic reservoirs (Pictured Cliffs, Blanco Mesaverde, Basin Dakota, etc.) and a productive coalbed methane reservoir (Basin Fruitland Coal).
- These siliciclastic and coalbed methane reservoirs are commingled extensively throughout the basin in many different combinations with no observed damage from clay swelling due to differing formation waters or gas composition.
- The samples below all show offset gas analysis varibality by formation is low.
- Data taken from standalone completions in the zone of interest within a 2 nile raduis of the well. A farther radius is used if there is not enough data for a proper statistical analysis.

Well Name	API
STATE 4E	3004529781

FRC Offset (2.6 miles)		MV Offset (0.9 miles)	
--	3004534087	--	3004507889
--	HUGHES B 23	--	BOLIN 1
N2	0.19	N2	0.28
CO2	1.48	CO2	1.19
C1	89.61	C1	76.83
C2	5.48	C2	10.7
C3	2.26	C3	5.83
IC4	0.44	IC4	1.03
NC4	0.28	NC4	1.86
IC5	0.1	IC5	0.68
NC5	0.04	NC5	0.56
C6_PLUS	0	C6_PLUS	0.01
C7	0	C7	0
C8	0	C8	0
C9	0	C9	0
C10	0	C10	0
AR	0	AR	0
CO	0	CO	0
H2	0	H2	0
O2	0	O2	0
H2O	0	H2O	0
H2S	0	H2S	0
HE	0	HE	0
C_O_S	0	C_O_S	0
CH3SH	0	CH3SH	0
C2H5SH	0	C2H5SH	0
CH2S3_2CH3S	0	CH2S3_2CH3S	0
CH2S	0	CH2S	0
C6HV	0	C6HV	0
CO2GPM	0	CO2GPM	0
N2GPM	0	N2GPM	0
C1GPM	0	C1GPM	0
C2GPM	1.47	C2GPM	2.87
C3GPM	0.62	C3GPM	1.61
ISOC4GPM	0.14	ISOC4GPM	0.34
NC4GPM	0.09	NC4GPM	0.59
ISOC5GPM	0.04	ISOC5GPM	0.25
NC5GPM	0.02	NC5GPM	0.2
C6_PLUSGPM	0.05	C6_PLUSGPM	0.47

Water Compatibility in the San Juan Basin

- The San Juan basin has productive siliciclastic reservoirs (Pictured Cliffs, Blanco Mesaverde, Basin Dakota, etc.) and a productive coalbed methane reservoir (Basin Fruitland Coal).
- These siliciclastic and coalbed methane reservoirs are commingled extensively throughout the basin in many different combinations with no observed damage from clay swelling due to differing formation waters.
- The samples below all show fresh water with low TDS.
- Data taken from standalone completions in the zone of interest within a 2 Mile radius of the well. A farther radius is used if there is not enough data for a proper statistical analysis.

Well Name	API
STATE 4E	3004529781

FRC Offset (2.6 miles)		MV Offset (0.9 miles)	
--	3004534087	--	3004507889
--	HUGHES B 23	--	BOLIN 1
Avg(CationBarium)	0	Avg(CationBarium)	0.1
Avg(CationBoron)	0	Avg(CationBoron)	0
Avg(CationCalcium)	8.15	Avg(CationCalcium)	10
Avg(CationIron)	18.87	Avg(CationIron)	45.2
Avg(CationMagnesium)	7.35	Avg(CationMagnesium)	10
Avg(CationManganese)	7.33	Avg(CationManganese)	0.58
Avg(CationPhosphorus)	0	Avg(CationPhosphorus)	0
Avg(CationPotassium)	0	Avg(CationPotassium)	19.5
Avg(CationStrontium)	0	Avg(CationStrontium)	1
Avg(CationSodium)	3104.38	Avg(CationSodium)	2680
Avg(CationSilica)	0	Avg(CationSilica)	10.7
Avg(CationZinc)	0	Avg(CationZinc)	1.34
Avg(CationAluminum)	0	Avg(CationAluminum)	0
Avg(CationCopper)	0	Avg(CationCopper)	0
Avg(CationLead)	0	Avg(CationLead)	1
Avg(CationLithium)	0	Avg(CationLithium)	0
Avg(CationNickel)	0	Avg(CationNickel)	0
Avg(CationCobalt)	0	Avg(CationCobalt)	0
Avg(CationChromium)	0	Avg(CationChromium)	0
Avg(CationSilicon)	0	Avg(CationSilicon)	5
Avg(CationMolybdenum)	0	Avg(CationMolybdenum)	0
Avg(AnionChloride)	4154.29	Avg(AnionChloride)	2850
Avg(AnionCarbonate)	0	Avg(AnionCarbonate)	80
Avg(AnionBicarbonate)	1075.3	Avg(AnionBicarbonate)	1080
Avg(AnionBromide)	0	Avg(AnionBromide)	0
Avg(AnionFluoride)	0	Avg(AnionFluoride)	0
Avg(AnionHydroxyl)	0	Avg(AnionHydroxyl)	10
Avg(AnionNitrate)	0	Avg(AnionNitrate)	0
Avg(AnionPhosphate)	2.5	Avg(AnionPhosphate)	0
Avg(AnionSulfate)	25	Avg(AnionSulfate)	1180
Avg(phField)	6.57	Avg(phField)	0
Avg(phCalculated)	6.25	Avg(phCalculated)	8.28
Avg(TempField)	0	Avg(TempField)	0
Avg(TempLab)	0	Avg(TempLab)	0
Avg(OtherFieldAlkalinity)	0	Avg(OtherFieldAlkalinity)	0
Avg(OtherSpecificGravity)	1	Avg(OtherSpecificGravity)	1
Avg(OtherTDS)	8412.01	Avg(OtherTDS)	7300
Avg(OtherCaCO3)	2238.46	Avg(OtherCaCO3)	66.2
Avg(OtherConductivity)	0	Avg(OtherConductivity)	13300
Avg(DissolvedCO2)	80	Avg(DissolvedCO2)	0
Avg(DissolvedO2)	0	Avg(DissolvedO2)	0
Avg(DissolvedH2S)	3.75	Avg(DissolvedH2S)	0
Avg(GasPressure)	0	Avg(GasPressure)	0
Avg(GasCO2)	8	Avg(GasCO2)	0
Avg(GasCO2PP)	0	Avg(GasCO2PP)	0
Avg(GasH2S)	0	Avg(GasH2S)	0
Avg(GasH2SPP)	0	Avg(GasH2SPP)	0
Avg(PitzerCaCO3_70)	0	Avg(PitzerCaCO3_70)	0
Avg(PitzerBaSO4_70)	0	Avg(PitzerBaSO4_70)	0
Avg(PitzerCaSO4_70)	0	Avg(PitzerCaSO4_70)	0
Avg(PitzerSrSO4_70)	0	Avg(PitzerSrSO4_70)	0
Avg(PitzerFeCO3_70)	0	Avg(PitzerFeCO3_70)	0
Avg(PitzerCaCO3_220)	0	Avg(PitzerCaCO3_220)	0
Avg(PitzerBaSO4_220)	0	Avg(PitzerBaSO4_220)	0
Avg(PitzerCaSO4_220)	0	Avg(PitzerCaSO4_220)	0
Avg(PitzerSrSO4_220)	0	Avg(PitzerSrSO4_220)	0
Avg(PitzerFeCO3_220)	0	Avg(PitzerFeCO3_220)	0

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-101
Revised July 18, 2013

☐AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Hilcorp Energy Company 382 Road 3100 Aztec, NM 87410	372171
	3. API Number 30-045-29781

4. Property Code	5. Property Name	6. Well No.
318437	State	4E

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	32	029N	08W		790	North	890	West	San Juan

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name	Pool Code
Basin Fruitland Coal	71629

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
Recomplete	Commingle		State	5924' GR
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
Commingle		Basin Fruitland Coal/ Blanco Mesaverde		

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

☒**We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.** Signature: Cherylene Weston	OIL CONSERVATION DIVISION Approved By:
Printed name: Cherylene Weston	Title:
Title: Operations Regulatory Tech Sr.	Approved Date: / Expiration Date:
E-mail Address: cweston@hilcorp.com	
Date: 9/25/2024 Phone: 713-289-2615	Conditions of Approval Attached

HILCORP ENERGY COMPANY
STATE #4E
FRUITLAND COAL RECOMPLETE SUNDRY
API 3004529781

JOB PROCEDURES
1. MIRU workover rig and associated equipment; NU and test BOP.
2. TOOH with tubing.
3. Set a plug within 50' of the top **Mesaverde** perforation **(4,046')** for zonal isolation.
4. Load hole with fluid. RU WL and run CBL to verify TOC. Review results with operations engineer and regulatory agencies.
5. **Perform MIT on casing with NMOCD witness** (notify NMOCD 24+ hours before test) and submit results to regulatory group.
6. **If frac'ing down casing:** pressure test casing to frac pressure.
7. RU WL. Perforate the **Fruitland Coal.** Top perforation @ **2,192',** bottom perforation @ **2,406'.**
8. **If frac'ing down frac string:** RIH w/ frac string and packer.
9. ND BOP, NU frac stack. Pressure test frac stack to frac pressure. Pressure test frac string (if applicable) to frac pressure. RDMO.
10. RU stimulation crew. Frac the **Fruitland Coal** in one or more stages. Set plugs in between stages, if necessary.
11. MIRU workover rig and associated equipment; NU and test BOP.
12. **If frac was performed down frac string:** POOH w/ frac string and packer.
13. TIH with mill and clean out to isolation plug.
14. Mill out isolation plug. Cleanout to PBTD. TOOH with cleanout assembly.
15. TIH and land production tubing. Flowback the well. Return well to production as a **Fruitland Coal/Mesaverde Producer.**

HILCORP ENERGY COMPANY
STATE #4E
FRUITLAND COAL RECOMPLETE SUNDRY

STATE #4E - CURRENT WELLBORE SCHEMATIC

Hilcorp Energy Company

Schematic - Current

Well Name: STATE #4E

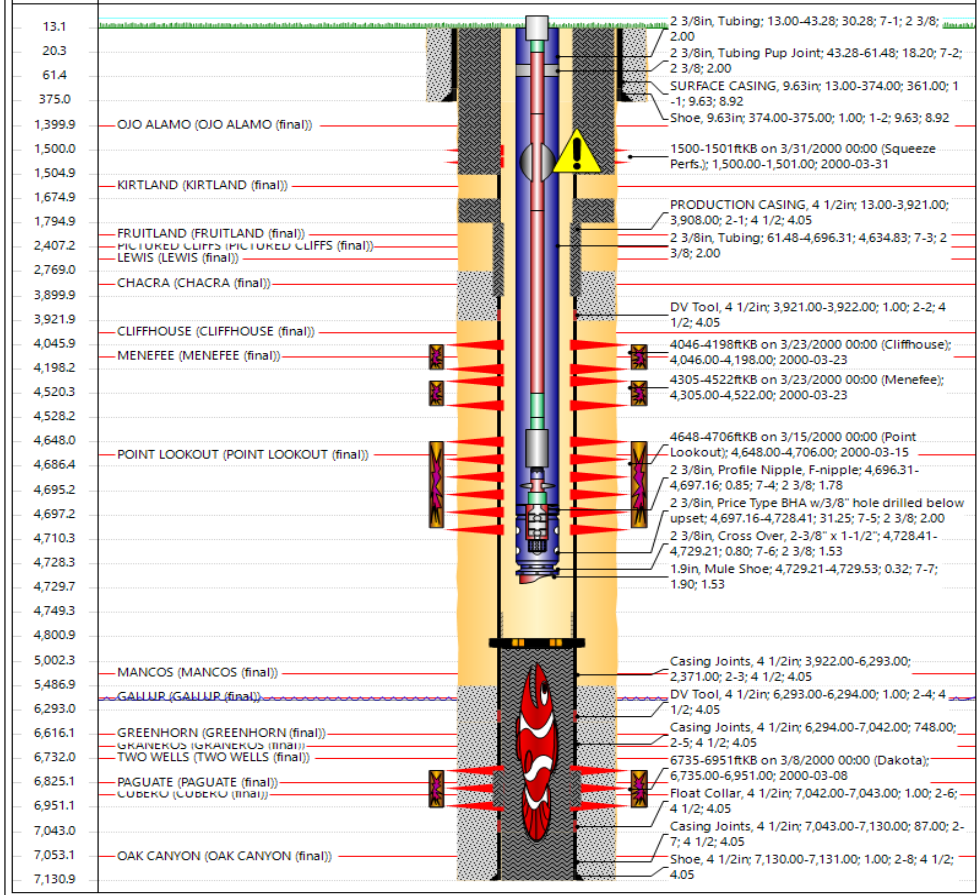
API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004529781	032-029N-008W-D	MV/DK COM		NEW MEXICO	Vertical
Original KB/RT Elevation (ft)	**RKB to GL (ft)**	**Original Spud Date**	**Rig Release Date**	**PBTD (All)**	**Total Depth All (TVD)**
5,939.00	13.00	2/16/2000 00:00	3/1/2000 00:00	Original Hole - 4,749.0	

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
FACILITIES			10/14/2015	10/14/2015

TD: 7,131.0

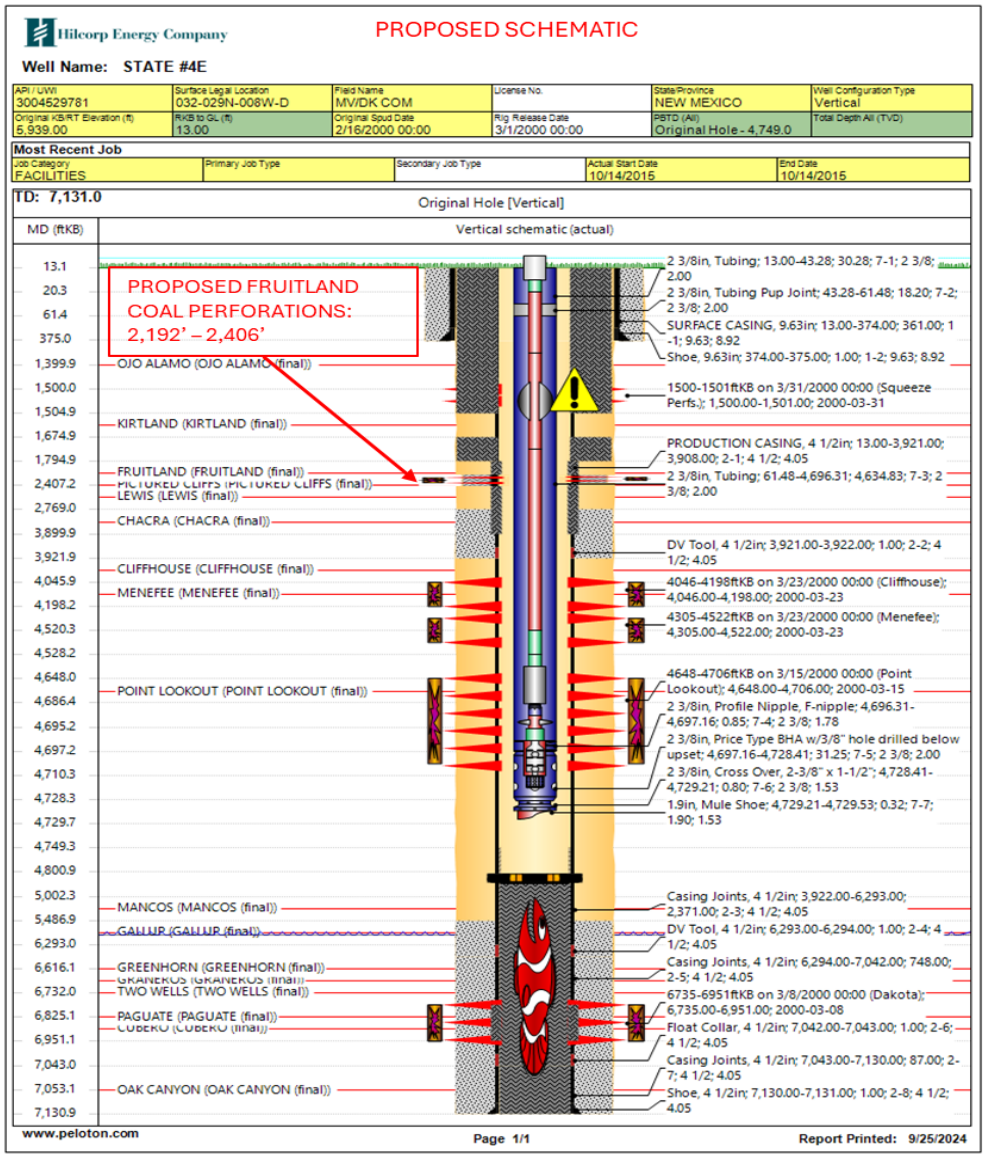
Original Hole [Vertical]



www.peloton.com Page 1/1 Report Printed: 9/25/2024

HILCORP ENERGY COMPANY
STATE #4E
FRUITLAND COAL RECOMPLETE SUNDRY

STATE #4E - PROPOSED WELLBORE SCHEMATIC



C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
30-045-29781	71629	Basin Fruitland Coal	
Property Code	Property Name		Well Number
318737	State		4E
OGRID No.	Operator Name		Ground Level Elevation
372171	Hilcorp Energy Company		5924
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	32	029N	08W		790' N	890' W	36.687488	-107.70529	San Juan

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	32	029N	08W		790' N	890' W	36.687488	-107.70529	San Juan

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
W/2 - 320	Infill	30-045-27500	N	COM
Order Numbers.			Well setbacks are under Common Ownership: ☐Yes ☒No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☒ Vertical	Ground Floor Elevation: 5924'

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Cherylene Weston 9/24/2024

Signature Date

Cherylene Weston, Operations/Regulatory Tech-Sr.

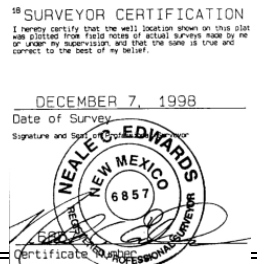
Printed Name

cweston@hilcorp.com

Email Address

SURVEYOR CERTIFICATIONS

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.



Signature and Seal of Professional Surveyor

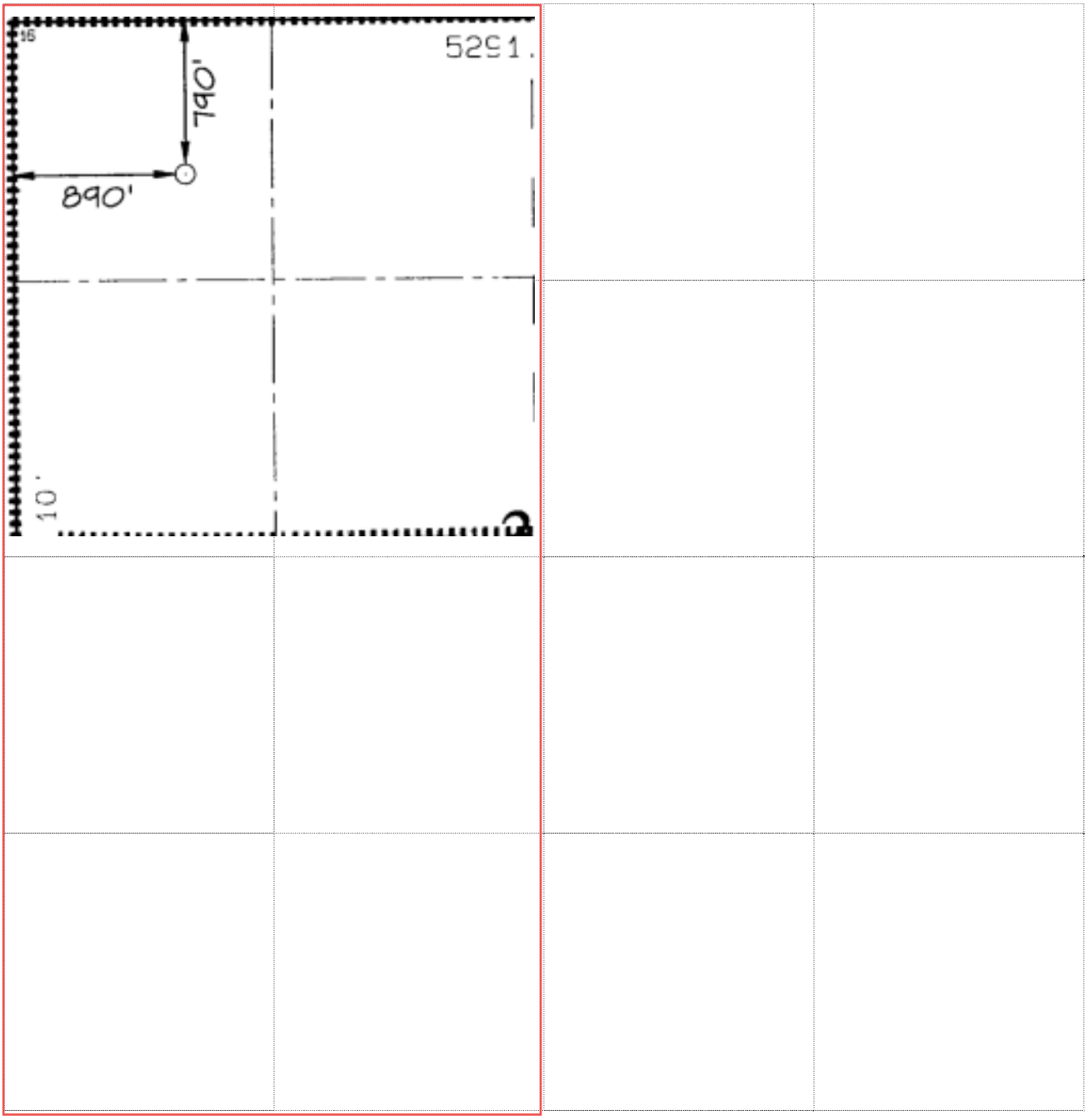
Certificate Number	Date of Survey
6857	12/7/1998

Note: 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.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Hilcorp Energy Company **OGRID:** 372171 **Date:** 9 / 25 / 2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
State 4E	3004529781	D-32-29N-08W	790' FNL, 890' FWL	0 bbl/d	120 mcf/d	0 bbl/d

IV. Central Delivery Point Name: Chaco-Blanco Processing Plant [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
State 4E	3004529781					2025

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Cherylene Weston
Printed Name:	Cherylene Weston
Title:	Operations/Regulatory Tech-Sr.
E-mail Address:	cweston@hilcorp.com
Date:	9/25/2024
Phone:	713-289-2615

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

VI. Separation Equipment:

Hilcorp Energy Company (HEC or Operator) production facilities include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool of our recomplete project. HEC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the recomplete to optimize gas capture and send gas to sales or flare based on analytical composition. HEC operates facilities that are typically one-well facilities. Production separation equipment is upgraded prior to well being completed, if determined to be undersized or inadequate. This equipment is already on-site and tied into our sales gas lines prior to the recomplete operations.

VII. Operational Practices:

1. Subsection (A) Venting and Flaring of Natural Gas
   - HEC understands the requirements of NMAC 19.15.27.8 which outlines that the venting and flaring of natural gas during drilling, completion or production operations that constitutes waste as defined in 19.15.2 are prohibited.
2. Subsection (B) Venting and Flaring during drilling operations
   - This gas capture plan isn't for a well being drilled.
3. Subsection (C) Venting and flaring during completion or recompletion
   - Flowlines will be routed for flowback fluids into a completion or storage tank and if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
   - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
4. Subsection (D) Venting and flaring during production operations
   - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
   - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.
   - HEC will not vent or flare except during the approved activities listed in NMAC 19.15.27.8 (D) 1-4.
5. Subsection (E) Performance standards
   - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
   - If a flare is utilized during production operations it will have a continuous pilot and is located more than 100 feet from any known well or storage tanks.
   - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.

6. Subsection (F) Measurement or estimation of vented and flared natural gas
   - Measurement equipment is installed to measure the volume of natural gas flared from process piping.
   - When measurement isn't practicable, estimation of vented and flared natural gas will be completed as noted in 19.15.27.8 (F) 5-6.

VIII. Best Management Practices:

1. Operator has adequate storage and takeaway capacity for wells it chooses to recomplete as the flowlines at the sites are already in place and tied into a gathering system.
2. Operator will flare rather than vent vessel blowdown gas when technically feasible during active and/or planned maintenance to equipment on-site.
3. Operator combusts natural gas that would otherwise be vented or flared, when technically feasible.
4. Operator will shut in wells in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

NEW MEXICO STATE LAND OFFICE
Guidelines for Requesting Commingling Approval

1. A commingling agreement from the New Mexico State Land Office is not required if the commingling operation does not contain New Mexico State Trust acreage.
2. If State Trust acreage will be part of a proposed commingling operation:
   a. Commingling of production of all wells from the same pool within a single lease or unit area is permitted without additional Land Commissioner approval.
   b. Surface commingling (including off-lease storage) from more than one pool, and/or from more than one lease, communitized area, unit area, or a combination of leases/communitized areas/unit areas, requires additional Land Commissioner approval.

The attached application form describes the process for submitting a commingling application to the New Mexico State Land Office.

NEW MEXICO STATE LAND OFFICE

APPLICATION FOR

COMMINGLING AND OFF-LEASE STORAGE

ON STATE TRUST LANDS

This application form is required for all commingling applications requiring approval by the Commissioner of Public Lands.

Applicant: Hilcorp Energy Company **OGRID #:** 372171

Well Name: State 4E **API #:** 30-045-29781

Pool: Basin Fruitland Coal / Blanco Mesaverde

OPERATOR NAME: Hilcorp Energy Company Attn: Cheryl Weston, Rm. 12.201

OPERATOR ADDRESS: 1111 Travis Street, Houston, TX 77002

APPLICATION REQUIREMENTS – SUBMIT:

1. New Mexico Oil Conservation Division (NMOCD) application packet (or equivalent information if no application is required by NMOCD),
2. Commingling application fee of $150.

CERTIFICATION: To the best of my knowledge,

- All business leases and rights-of-way necessary for conducting the proposed operation on State Trust lands have been applied for or obtained,
- The information submitted with this application is **accurate** and **complete**, and
- No loss will accrue to the state of New Mexico as a result of the proposed operation.

I also understand that **no action** will be taken on this application until the required information and fee are submitted to the State Land Office.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Cherylene Weston
Print or Type Name

Cherylene Weston
Signature

713-289-2615
Phone Number

9/24/2024
Date

cweston@hilcorp.com
e-mail Address

Submit application to:
Commissioner of Public Lands
Attn: Commingling Manager
PO Box 1148
Santa Fe, NM 87504-1148

Questions?
Contact the Commingling Manager:
505.827.6628

Upon approval, the requesting organization will receive an acknowledgment letter from the Commissioner of Public Lands.

Rev. 2017_10_25

FedEx

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FedEx® Tracking

DELIVERED

Wednesday

10/2/24 at 9:47 AM

Signed for by: M.Barela

Obtain proof of delivery

DELIVERY STATUS

Delivered

Report missing package

ADD YOUR EMAIL TO STAY UPDATED ON THIS SHIPMENT

cweston@hilcorp.com

GET UPDATES

MORE OPTIONS

TRACKING ID

408703757590

FROM
Houston, TX US

Label Created
10/1/24 1:07 PM

WE HAVE YOUR PACKAGE
HOUSTON, TX
10/1/24 3:34 PM

ON THE WAY
SANTA FE, NM
10/2/24 7:35 AM

OUT FOR DELIVERY
SANTA FE, NM
10/2/24 7:37 AM

Delivered
10/2/24 at 9:47 AM

↓ View travel history

Shipment facts

Shipment overview

TRACKING NUMBER 408703757590

DELIVERED TO Shipping/Receiving

SHIP DATE 10/1/24

STANDARD TRANSIT 10/2/24 before 10:30 AM

DELIVERED 10/2/24 at 9:47 AM

Services

SERVICE FedEx Priority Overnight

TERMS Shipper

SPECIAL HANDLING SECTION Deliver Weekday

Package details

WEIGHT 1 lbs / 0.45 kgs

TOTAL PIECES 1

TOTAL SHIPMENT WEIGHT 1 lbs / 0.45 kgs

PACKAGING FedEx Envelope

↑ Back to to

Travel history

SORT BY DATE/TIME

Ascending

Time zone

Tuesday, 10/1/24

- 1:07 PM
  Shipment information sent to FedEx
- 3:34 PM
  Picked up
  HOUSTON, TX
- 3:35 PM
  Shipment arriving On-Time
  HOUSTON, TX
- 8:05 PM
  Left FedEx origin facility
  HOUSTON, TX
- 11:52 PM
  Arrived at FedEx hub
  MEMPHIS, TN

Wednesday, 10/2/24

- 4:33 AM
  Departed FedEx hub
  MEMPHIS, TN
- 5:38 AM
  At destination sort facility
  ALBUQUERQUE, NM
- 7:35 AM
  At local FedEx facility
  SANTA FE, NM
- 7:37 AM
  On FedEx vehicle for delivery
  SANTA FE, NM
- 9:47 AM
  Delivered
  SANTA FE, NM

↑ Back to to

Hilcorp

October 2, 2024 *Mailed Certified with Electronic Return Receipt*

To: All Interest Owners

RE: Application to Downhole Commingle Production
Well: State 004E
API: 30-045-29781
Section 32, Township 29 North, Range 08 West
San Juan County, New Mexico

Ladies and Gentlemen:

Hilcorp Energy Company ("Hilcorp"), as Operator of the subject well, has filed application with the New Mexico Oil Conservation Division ("NMOCD") for approval to downhole commingle production from the **Basin Fruitland Coal**, a formation Hilcorp soon intends to perforate, with existing production from the **Blanco Mesaverde** formation. This letter and the application copy enclosed serve to provide you, an owner in one or more of the aforementioned formations, with written notice as prescribed by Subsection C of 19.15.12.11 New Mexico Administrative Code.

No action is required by you unless you wish to pursue a formal protest.

Any objections or requests for hearing must be submitted to the NMOCD's Santa Fe office, in writing, within twenty (20) days from the date the NMOCD receives the subject application.

Sincerely,

Carson Parker Rice
Landman
713.757.7108
carice@hilcorp.com

CPR:dpk
Enclosures

District I
1625 N. French Drive, Hobbs, NM 88240

District II
811 S. First St., Artesia, NM 88210

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
____Single Well
____Establish Pre-Approved Pools
EXISTING WELLBORE
__X__Yes ____No

APPLICATION FOR DOWNHOLE COMMINGLING

Hilcorp Energy Company — Operator
382 Road 3100, Aztec, NM 87410 — Address

STATE — Lease
4E — Well No.
D-32-T29N-R08W — Unit Letter-Section-Township-Range
SAN JUAN, NM — County

OGRID No. 372171 Property Code 318437 API No. 30-045-29781 Lease Type: ____Federal __X__State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Fruitland Coal		Blanco Mesaverde
Pool Code	71629		72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2192' - 2406'		4046' - 4706'
Method of Production (Flowing or Artificial Lift)	NEW ZONE		Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	86 psi		112 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1106 BTU		1281 BTU
Producing, Shut-In or New Zone	NEW ZONE		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates:	Date: Rates:	Date: 7/1/2024 Rates: Oil - 0 bbl Gas - 710 mcf Water - 0 bbl
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil % Gas %	Oil % Gas %	Oil % Gas %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes_____ No__X____
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes__X___ No_____

Are all produced fluids from all commingled zones compatible with each other? Yes__X___ No_____

Will commingling decrease the value of production? Yes_____ No__X____

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes__X___ No_____

NMOCD Reference Case No. applicable to this well: _____

Attachments:
C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
Production curve for each zone for at least one year. (If not available, attach explanation.)
For zones with no production history, estimated production rates and supporting data.
Data to support allocation method or formula.
Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

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 Tech-Sr. DATE 9/25/2024

TYPE OR PRINT NAME Cherylene Weston TELEPHONE NO. (713) 289-2615

E-MAIL ADDRESS cweston@hilcorp.com

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
30-045-29781	71629	Basin Fruitland Coal	
Property Code	Property Name		Well Number
318737	State		4E
OGRID No.	Operator Name		Ground Level Elevation
372171	Hilcorp Energy Company		5924
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	32	029N	08W		790' N	890' W	36.687488	-107.70529	San Juan

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	32	029N	08W		790' N	890' W	36.687488	-107.70529	San Juan

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
W/2 - 320	Infill	30-045-27500	N	COM
Order Numbers.			Well setbacks are under Common Ownership: ☐Yes ☒No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☒ Vertical	Ground Floor Elevation: 5924'

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Cherylene Weston 9/24/2024

Signature Date

Cherylene Weston, Operations/Regulatory Tech-Sr.

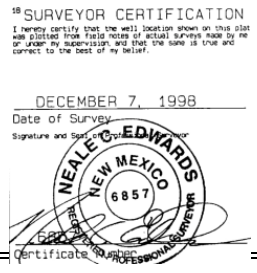
Printed Name

cweston@hilcorp.com

Email Address

SURVEYOR CERTIFICATIONS

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.



Signature and Seal of Professional Surveyor

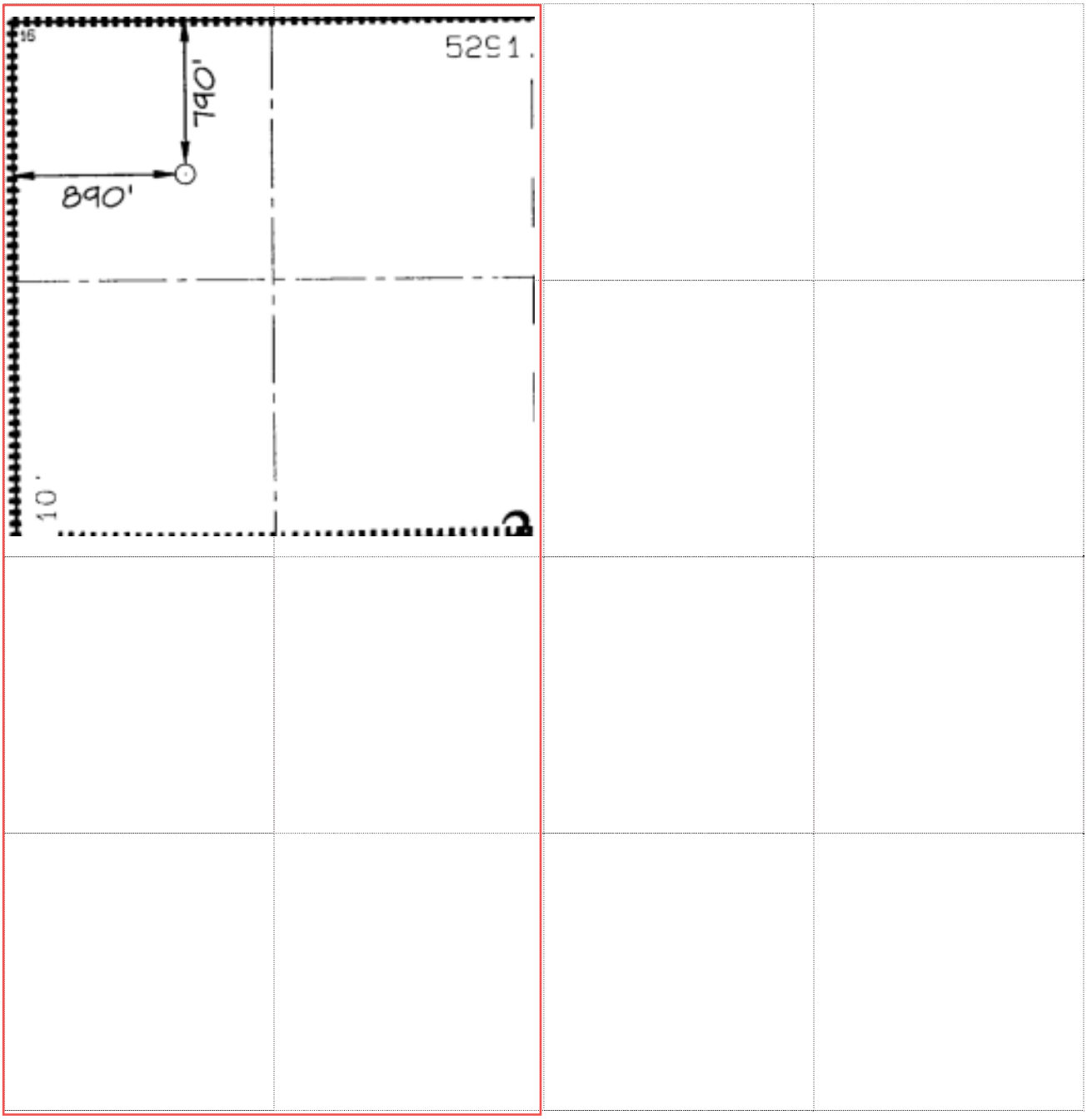
Certificate Number	Date of Survey
6857	12/7/1998

Note: 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.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



District I
PO Box 1980, Hobbs, NM 88241-198
District II
PO Drawer DD, Artesia, NM 88211-071
District III
1000 Rio Brazos Rd. Aztec, NM 8741
District IV
PO Box 2088, Santa Fe, NM 87504-208

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
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	2 Pool Code	3 Pool Name
30-03929781	72319/71599	Blanco Mesaverde/Basin Dakota

4 Property Code	5 Property Name	6 Well Number
016608	State	4E

7 OGRID No.	8 Operator Name	9 Elevation
005073	Conoco Inc., 10 Desta Drive, Ste 100W, Midland, TX 79705-4500	5924'

10 Surface Location

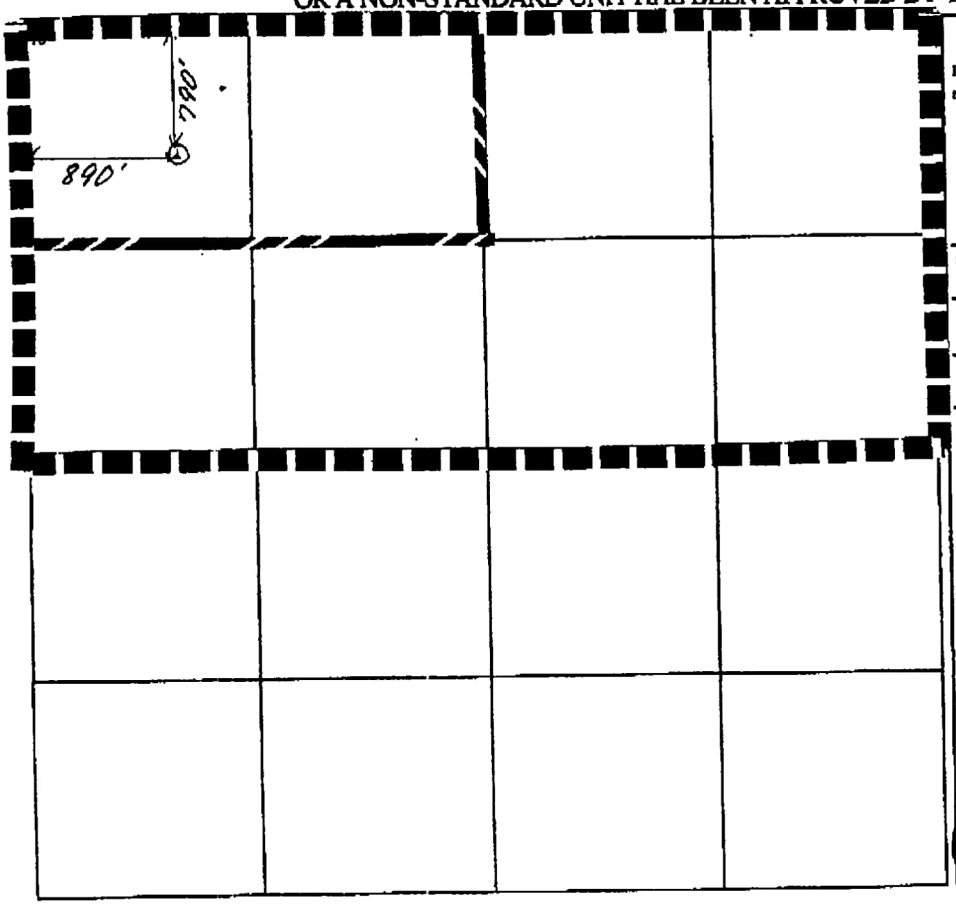
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	29N	8W		790'	North	890'	West	San Juan

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

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



17 OPERATOR CERTIFICATION

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

Jo Ann Johnson
Signature

Jo Ann Johnson
Printed Name

Sr. Property Analyst
Title

November 11, 1999
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 me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

COPY

Certificate Number

DEC 07 1999 15:52 FR CONOCO ROW AND CLAIMS 9156865503 TO 81505334617O-065 P.03/05

State 4E Production Allocation

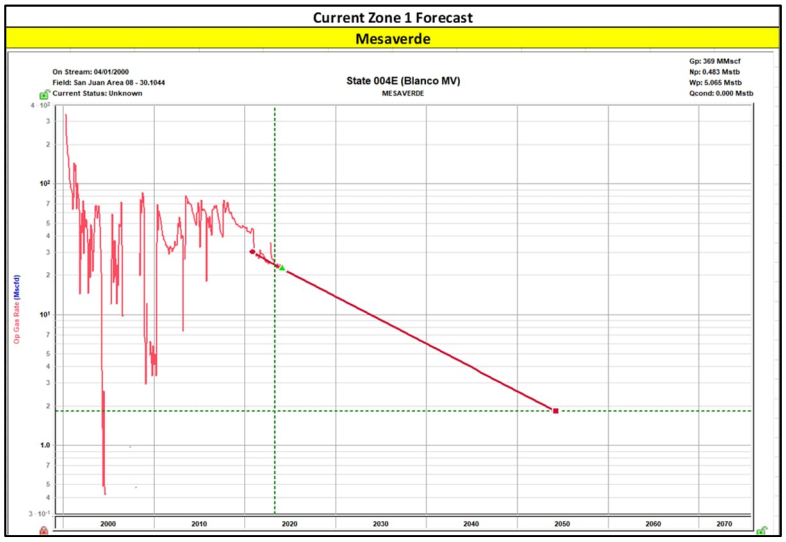
These zones are proposed to be commingled because the application of dual completions impedes the ability to produce the shallow zone without artificial lift and the deeper zones with reduced artificial lift efficiency. All horizons will require artificial lift due to low bottomhole pressure (BHP) and 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.

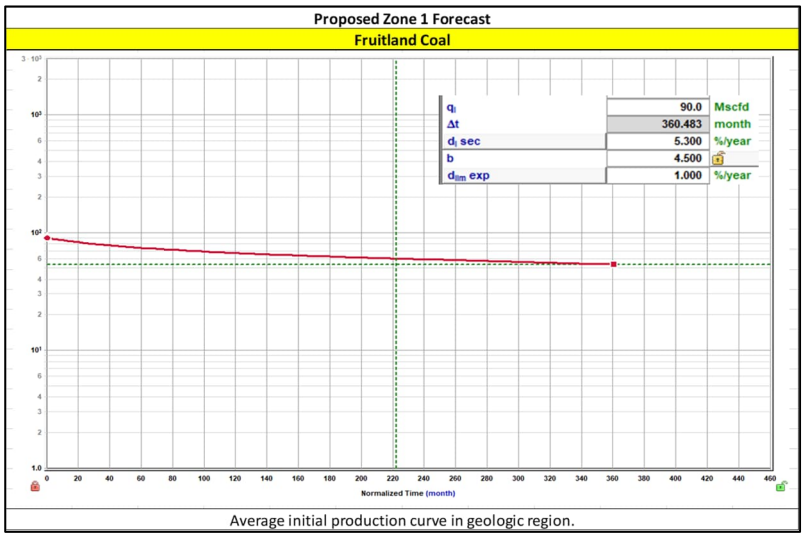
Production Allocation Method – Subtraction

Gas Allocation:
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the **Mesaverde** and the added formation to be commingled is the **Fruitland Coal**. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceeding the base formations forecast will be allocated to the new formation.

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.



Proposed Zone Forecast

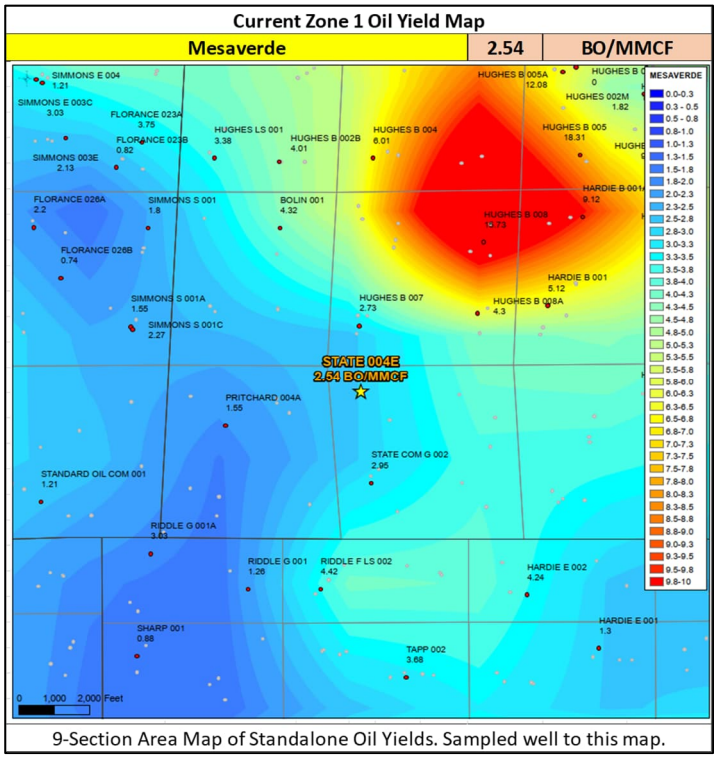


Average initial production curve in geologic region.

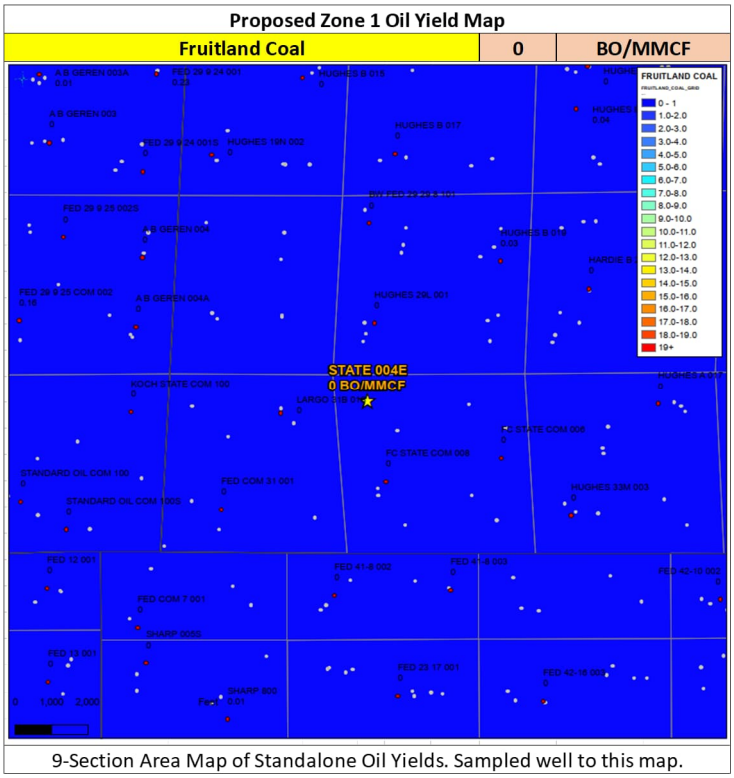
Oil Allocation:

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	Remaining Reserves	% Oil Allocation
MV	2.54	91	100%
FRC	0	712	0%



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.

Certified Number	Sender	Recipient	Date Mailed	Delivery Status
9214896900999790184008954 2	Dani Kuzma	, SILVERADO OIL and GAS LLP, , TULSA, OK, 74152-0308 Code: STATE 4E DHC NOTICE	10/2/2024	**Signature Pending**
9214896900999790184008955 9	Dani Kuzma	, PIONEER NATURAL RES USA INC, KATHY NAVARRETE, MIDLAND, TX, 79702 Code: STATE 4E DHC NOTICE	10/2/2024	**Signature Pending**
9214896900999790184008956 6	Dani Kuzma	, STATE OF NEW MEXICO, BATAAN MEMORIAL BUILDING, SANTA FE, NM, 87501 Code: STATE 4E DHC NOTICE	10/2/2024	**Signature Pending**
9214896900999790184008957 3	Dani Kuzma	, MESA ROYALTY TRUST, ATTN NEW MEXICO PROPERTIES, BARTLESVILLE, OK, 74004 Code: STATE 4E DHC NOTICE	10/2/2024	**Signature Pending**
9214896900999790184008958 0	Dani Kuzma	, SIMCOE, LLC, ATTN MICHELLE BLANKENSHIP, DURANGO, CO, 81301 Code: STATE 4E DHC NOTICE	10/2/2024	**Signature Pending**

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 389279
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
llowe	None	5/21/2025