RECEIVED:	REVIEWER:	TYPE:	APP NO:
		ABOVE THIS TABLE FOR OCD DI	VISION USE ONLY
 TH	NEW MEXIC - Geologie 1220 South St. Fr ADMINISTE S CHECKLIST IS MANDATORY FOR A REGULATIONS WHICH RE	CO OIL CONSERVA cal & Engineering ancis Drive, Santa RATIVE APPLICATION LL ADMINISTRATIVE APPLICATION COURTE PROCESSING AT THE	ATION DIVISION Bureau – a Fe, NM 87505 ON CHECKLIST ATIONS FOR EXCEPTIONS TO DIVISION RULES AND DIVISION LEVEL IN SANTA FE
Applicant: Well Name: Pool:			OGRID Number: API: Pool Code:
SUBMIT ACCU	RATE AND COMPLETE IN	FORMATION REQUI	RED TO PROCESS THE TYPE OF APPLICATION
1) TYPE OF APP A. Locatic B. Check [1] Co	CLICATION: Check those on – Spacing Unit – Simul NSL NSP one only for [1] or [1] mmingling – Storage – M	which apply for [A] taneous Dedication ROJECT AREA) NSI leasurement LC PC 00	] n P(proration unit) □SD DLS □OLM
[ II ] Inje 2) NOTIFICATIC A Offse B Roye C App D Noti E Noti F Surfa G For a H No r	ection – Disposal – Pressu WFX PMX S ON REQUIRED TO: Check et operators or lease hol alty, overriding royalty of lication requires publish fication and/or concurre fication and/or concurre ace owner all of the above, proof of notice required	ure Increase – Enha WD IPI EC those which apply ders wners, revenue ow ed notice ent approval by SL ent approval by BL f notification or pu	Anced Oil Recovery OR PPR FOR OCD ONLY Notice Complete O Application Content Complete blication is attached, and/or,
3) <b>CERTIFICATIO</b> administrativ understand notifications	<b>DN:</b> I hereby certify that ve approval is <b>accurate</b> that <b>no action</b> will be ta are submitted to the Div	the information sub and <b>complete</b> to tl ken on this applica <i>v</i> ision.	omitted with this application for he best of my knowledge. I also ation until the required information and
	Note: Statement must be comple	eted by an individual with	managerial and/or supervisory capacity.
			Date
Drint or Type New	2		

Phone Number

Cherylene Weston

Signature

e-mail Address

#### Received by OCD: 8/31/2023 3:57:26 PM

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

APPLICATION TYPE Single Well Establish Pre-Approved Pools EXISTING WELLBORE

Form C-107A

Revised August 1, 2011

#### **APPLICATION FOR DOWNHOLE COMMINGLING**

\_\_X\_\_Yes \_\_\_\_No

Hilson Energy Company	
Fincorp Energy Company	
Operator	

382 Road 3100, Aztec, NM 87410 Address

San Juan 28-5 Unit		51E		E-18-T28N-R05W			]	Rio Arriba	
Lease	W	ell No.	Unit L	etter-Section-Township-	Range			County	
OGRID No. <u>372171</u>	_ Property Code _	318708	API No	30-039-23837	Lease Type:	Х	Federal	State	Fee

**INTERMEDIATE ZONE DATA ELEMENT UPPER ZONE** LOWER ZONE Blanco-Mesaverde (Prorated Gas) Munoz Canyon Gallup (Gas) Basin Dakota (Prorated Gas) Pool Name Pool Code 72319 96767 71599 5291' - 6240' 7325' - 7570' 7879' - 8070' Top and Bottom of Pay Section (Perforated or Open-Hole Interval) NEW ZONE Artificial Lift Artificial Lift Method of Production (Flowing or Artificial Lift) **Bottomhole Pressure** re data will not be required if the bottom perforation in the lower zone is within 150% of the 782 psi 2015 psi 1664 psi depth of the top perforation in the upper zone) Oil Gravity or Gas BTU 1247 BTU 1420 BTU 1062 BTU (Degree API or Gas BTU) Producing, Shut-In or NEW ZONE NEW ZONE PRODUCING New Zone Date and Oil/Gas/Water Rates of Date: 6/1/2023 Date: 6/1/2023 Last Production. Date: (Note: For new zones with no production history, applicant shall be required to attach production Rates: 349 Mcf-Gas Rates: Rates: 286 Mcf-Gas estimates and supporting data.) 0 bbl-Oil 0 bbl-Oil 3 bbl-Water 2 bbl-Water Fixed Allocation Percentage Oil Gas Oil Gas Oil Gas than current or past production, supporting data or Please see attachments Please see attachments Please see attachments explanation will be required.)

#### **ADDITIONAL DATA**

Are all working, royalty and overriding royalty interests identical in all commingled zones? If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?	Yes Yes	NoX NoX
Are all produced fluids from all commingled zones compatible with each other?	YesX	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.

TITLE\_Operations/Regulatory Technicia 08/31/2023\_\_\_\_ SIGNATURE <u>Cherylene Weston</u>

TYPE OR PRINT NAME Cherylene Weston

\_\_\_\_\_\_TELEPHONE NO. \_\_\_\_\_\_(713) 289-2615

ND 4 07410	

nician	DATE_	08/31/2
(7	122 200 2	c 1 5

E-MAIL ADDRESS cweston@hilcorp.com

Released to Imaging: 10/20/2023 5:17:14 PM

District I 1922. W. Eleucu DL., Hopps, MM 38249.14 PM 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 259652

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-23837	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	5. Property Name	6. Well No.
318708	SAN JUAN 28 5 UNIT	061E
7. OGRID No.	8. Operator Name	9. Elevation
372171	HILCORP ENERGY COMPANY	6713

#### 10. Surface Location

				ਹਦਾਹ ਦ		00				
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County	
E	18	28N	05W		1450	N	790	W	RIO ARI	RIBA

#### 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 15. Order No. 12. Dedicated Acres 13. Joint or Infill 14. Consolidation Code 320.00 N/2

#### NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. E-Signed By: Etta Trujillo Title: Operations/Regulatory Tech Sr Date: 11/16/2018
SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Surveyed By: William E. Mahnke
Date of Survey: 7/16/1985
Certificate Number: 8466

Received by OCD: 8/31/2023 3:57:26 PM

Page 3 of 32



Dakota Mancos

10.2

10.2

10.1

10.1

10

10

9.9

9.9

9.9

Mcfd Mcfd

11.5

11.5

11.4

11.3

11.3

11.2

11.1

11.1

11

10.9

10.9

10.8

10.7

10.7

10.6

10.5

10.5

10.4

10.3

10.2

10.2

10.1

10

10 9.9

9.9

9.8

9.7

9.7

9.6

96

9.5

9.5

9.4

9.3 9.3

9.2

9.2

9.1

9.1

9

9

8.9

8.8

8.8

8.7

8.7

8.6

8.6

85

8.5

8.4 8.4

8.3

8.3

8.2

8.2

8.1

8.1

8

8 7.9

7.9

7.8

7.8 7.7

7.7

7.6

7.6

7.6

7.5

7.5

7.4

7.4

7.3 7.3

7.2

7.2

7.2

7.1

7.1

6.9

Date

Oct-2

Nov-2

Dec-2

Jan-24

Feb-2

Mar-2

Apr-24

May-2

Jun-2

Jul-2

Aug-2

Sep-2

Oct-2

Nov-24

Dec-2

Jan-2

Feb-2

Mar-2

Apr-2

May-2

Jun-2

Jul-2

Aug-2

Sep-2

Nov-2

Dec-2

Jan-26 Feb-26

Mar-2

Apr-26

May-26 Jun-26

Jul-20

Aug-2

Sep-26 Oct-26

Nov-20

Dec-26

Jan-27

Feb-2 Mar-2

Apr-27

May-27

Jun-2

Jul-2

Aug-2 Sep-2

Oct-2

Nov-2

Dec-2

Jan-28

Feb-28

Mar-2

Apr-28 May-28

Jun-28 Jul-28

Aug-2

Sep-28

Oct-2

Nov-28

Dec-2

Jan-29

Feb-2

Mar-2

Apr-2

May-2

Jun-2

Jul-29

Aug-2

Sep-20 Oct-20

Nov-2

Dec-2

Jan-30

Feb-30

Mar-3

Apr-30

May-30

Jun-30

Jul-30

Aug-30

Sep-30 Oct-30

#### San Juan 28-5 Unit 61E Production Allocation

The forecasts for Gallup 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 basinwide Moving-Domain Material Balance models that have proven to approximate the pressure in the given reservoirs well in this portion of the basin. These models were constructed incorporating reservoir dynamics and physics, historic production, and observed pressure data. Historic commingling operations have proven reservoir fluids are compatible.







73	-	C 2 2
Pago	6 1	+ 27
1 420	00	1 34

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	1.02	54	1%
MC	1.35	67	2%
MV	4.41	1000	97%
			100%









Form 3160-5 (August 2007)  Form 3160-5 (August 2007)  SUNDRY NOTICES AND REPO Do not use this form for proposals to abandoned well. Use Form 3160-3 (AI SUBMIT IN TRIPLICATE - Other instr Unit Vell Oil Well SUBMIT IN TRIPLICATE - Other instr C. Name of Operator Hilcorp Energy Compar 3a. Address 382 Road 3100, Aztec, NM 87410 4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) Surface Unit E (SW/NW) 1450'FNL &790' FW 12. CHECK THE APPROPRIATE BOX(ES) TYPE OF SUBMISSION X Notice of Intent Acidize Alter Casing Subsequent Report Final Abandment Main	PRTS ON WELLS o drill or to re-enter an PD) for such proposals. ructions on page 2. TO INDICATE NATURE OF NO TYPE OF AC Deepen F Fracture Treat F New Construction X F Plug and Abandon T Plug Back V	FORM APPROVED       OMB No. 1004-0137         Expires: July 31, 2010       5. Lease Serial No.         NMSF079250       6. If Indian, Allottee or Tribe Name         7. If Unit of CA/Agreement, Name and/or No.       San Juan 28-5 Unit         8. Well Name and No.       San Juan 28-5 Unit 61E         9. API Well No.       30-039-23837         10. Field and Pool or Exploratory Area       Blanco MV/WC MZ Cnyn GP/Basin DK         11. Country or Parish, State       Rio Arriba , New Mexico         TICE, REPORT OR OTHER DATA       TION         Production (Start/Resume)       Water Shut-Off         Reclamation       Well Integrity         Recomplete       Other
SUNDRY NOTICES AND REPO Do not use this form for proposals to abandoned well. Use Form 3160-3 (AI SUBMIT IN TRIPLICATE - Other instr 1. Type of Well Oil Well X Gas Well Other 2. Name of Operator Hilcorp Energy Compar 3a. Address 382 Road 3100, Aztec, NM 87410 4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) Surface Unit E (SW/NW) 1450'FNL &790' FW 12. CHECK THE APPROPRIATE BOX(ES) TYPE OF SUBMISSION X Notice of Intent Acidize Subsequent Report Casing Repair Change Plans	PRTS ON WELLS o drill or to re-enter an PD) for such proposals. ructions on page 2. ny 3b. Phone No. (include area code) 505-599-3400 /L, Sec. 18 T28N, R05W TO INDICATE NATURE OF NO TYPE OF AC Deepen F Fracture Treat F New Construction X F Plug and Abandon T Plug Back V	NMSF079250         6. If Indian, Allottee or Tribe Name         7. If Unit of CA/Agreement, Name and/or No.         San Juan 28-5 Unit         8. Well Name and No.         San Juan 28-5 Unit         9. API Well No.         30-039-23837         10. Field and Pool or Exploratory Area         Blanco MV/WC MZ Cnyn GP/Basin DK         11. Country or Parish, State         Rio Arriba         Rio Arriba         New Mexico         TICE, REPORT OR OTHER DATA         CTION         Production (Start/Resume)         Water Shut-Off         Reclamation         Well Integrity         Recomplete         Other
Do not use this form for proposals to abandoned well. Use Form 3160-3 (AI         SUBMIT IN TRIPLICATE - Other instr         1. Type of Well         Oil Well         X         Gas Well         Other         2. Name of Operator         Hilcorp Energy Compar         3a. Address         382 Road 3100, Aztec, NM 87410         4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)         Surface         Unit E (SW/NW) 1450'FNL &790' FW         12. CHECK THE APPROPRIATE BOX(ES)         TYPE OF SUBMISSION         X         Subsequent Report         Subsequent Report         Casing Repair         Change Plans	b drill or to re-enter an   PD) for such proposals.   Puctions on page 2.   ny   3b. Phone No. (include area code)   505-599-3400   //L, Sec. 18 T28N, R05W TO INDICATE NATURE OF NO TYPE OF AC Deepen Fracture Treat Plegen X Plug and Abandon Plug Back Value Abandon	7. If Unit of CA/Agreement, Name and/or No.         San Juan 28-5 Unit         8. Well Name and No.         San Juan 28-5 Unit 61E         9. API Well No.         30-039-23837         10. Field and Pool or Exploratory Area         Blanco MV/WC MZ Cnyn GP/Basin DK         11. Country or Parish, State         Rio Arriba , New Mexico         TICE, REPORT OR OTHER DATA         CTION         Production (Start/Resume)         Water Shut-Off         Reclamation         Well Integrity         Recomplete         Other         Temporarily Abandon
SUBMIT IN TRIPLICATE - Other instr         1. Type of Well       Image: Colspan="2">Image: Colspan="2" Image: Colspan="2" Ima	ny 3b. Phone No. (include area code) 505-599-3400 /L, Sec. 18 T28N, R05W TO INDICATE NATURE OF NO TYPE OF AC Deepen F Fracture Treat F New Construction X F Plug and Abandon T Plug Back V	7. If Unit of CA/Agreement, Name and/or No.         San Juan 28-5 Unit         8. Well Name and No.         San Juan 28-5 Unit 61E         9. API Well No.         30-039-23837         10. Field and Pool or Exploratory Area         Blanco MV/WC MZ Cnyn GP/Basin DK         11. Country or Parish, State         Rio Arriba       New Mexico         TICE, REPORT OR OTHER DATA         TION         Production (Start/Resume)         Question       Water Shut-Off         Reclamation       Well Integrity         Recomplete         Other
1. Type of Well       Oil Well       X       Gas Well       Other         2. Name of Operator       Hilcorp Energy Company         3a. Address       382 Road 3100, Aztec, NM 87410       12         4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)       Surface       Unit E (SW/NW) 1450'FNL &790' FW         12. CHECK THE APPROPRIATE BOX(ES)       12. CHECK THE APPROPRIATE BOX(ES)         TYPE OF SUBMISSION       Acidize       Alter Casing         Subsequent Report       Casing Repair       Change Plans	ny 3b. Phone No. (include area code) 505-599-3400 /L, Sec. 18 T28N, R05W TO INDICATE NATURE OF NO TYPE OF AC Deepen F Fracture Treat F New Construction X F Plug and Abandon T Plug Back V	San Juan 28-5 Unit         8. Well Name and No.         San Juan 28-5 Unit 61E         9. API Well No. <b>30-039-23837</b> 10. Field and Pool or Exploratory Area         Blanco MV/WC MZ Cnyn GP/Basin DK         11. Country or Parish, State         Rio Arriba       New Mexico         TICE, REPORT OR OTHER DATA         CTION         Production (Start/Resume)       Water Shut-Off         Reclamation       Well Integrity         Recomplete       Other         Cemporarily Abandon
2. Name of Operator Hilcorp Energy Compan 3a. Address 382 Road 3100, Aztec, NM 87410 4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) Surface Unit E (SW/NW) 1450'FNL &790' FW 12. CHECK THE APPROPRIATE BOX(ES) 12. CHECK THE APPROPRIATE BOX(ES) TYPE OF SUBMISSION X Notice of Intent Acidize Alter Casing Subsequent Report Casing Repair Change Plans	ny 3b. Phone No. (include area code) 505-599-3400 /L, Sec. 18 T28N, R05W TO INDICATE NATURE OF NO TYPE OF AC Deepen F Fracture Treat F New Construction X F Plug and Abandon T Plug Back V	San Juan 28-5 Unit 61E         9. API Well No.         30-039-23837         10. Field and Pool or Exploratory Area         Blanco MV/WC MZ Cnyn GP/Basin DK         11. Country or Parish, State         Rio Arriba       , New Mexico         TICE, REPORT OR OTHER DATA         TION         Production (Start/Resume)       Water Shut-Off         Reclamation       Well Integrity         Recomplete       Other         Temporarily Abandon
3a. Address       :         38. Address       :         382 Road 3100, Aztec, NM 87410       :         4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)       :         Surface       Unit E (SW/NW) 1450'FNL &790' FW         12. CHECK THE APPROPRIATE BOX(ES) *         TYPE OF SUBMISSION         X Notice of Intent         Subsequent Report         Casing Repair         Change Plans	Jb. Phone No. (include area code)         505-599-3400         /L, Sec. 18 T28N, R05W         TO INDICATE NATURE OF NO         TYPE OF AC         Deepen       F         Fracture Treat       F         New Construction       X         Plug and Abandon       T         Plug Back       V	Survey Stress         10. Field and Pool or Exploratory Area         Blanco MV/WC MZ Cnyn GP/Basin DK         11. Country or Parish, State         Rio Arriba , New Mexico         TICE, REPORT OR OTHER DATA         CTION         Production (Start/Resume)         Water Shut-Off         Reclamation         Well Integrity         Recomplete         Other
382 Road 3100, Aztec, NM 87410         4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)         Surface       Unit E (SW/NW) 1450'FNL &790' FW         12. CHECK THE APPROPRIATE BOX(ES)         TYPE OF SUBMISSION         X Notice of Intent         Acidize         Alter Casing         Casing Repair         Change Plans	505-599-3400 /L, Sec. 18 T28N, R05W TO INDICATE NATURE OF NO TYPE OF AC Deepen F Fracture Treat F New Construction X F Plug and Abandon T Plug Back V	Blanco MV/WC MZ Cnyn GP/Basin DK         11. Country or Parish, State         Rio Arriba       New Mexico         TICE, REPORT OR OTHER DATA         TION         Production (Start/Resume)       Water Shut-Off         Reclamation       Well Integrity         Recomplete       Other         Temporarily Abandon
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)     Surface     Unit E (SW/NW) 1450'FNL &790' FW     12. CHECK THE APPROPRIATE BOX(ES)     TYPE OF SUBMISSION     X Notice of Intent     Acidize     Alter Casing     Casing Repair     Change Plans     Change Plans	/L, Sec. 18 T28N, R05W         TO INDICATE NATURE OF NO         TYPE OF AC         Deepen       F         Fracture Treat       F         New Construction       X         Plug and Abandon       T         Plug Back       V	11. Country or Parish, State         Rio Arriba       , New Mexico         TICE, REPORT OR OTHER DATA         CTION         Production (Start/Resume)       Water Shut-Off         Reclamation       Well Integrity         Recomplete       Other         Femporarily Abandon
12. CHECK THE APPROPRIATE BOX(ES)         TYPE OF SUBMISSION         X Notice of Intent         Acidize         Alter Casing         Subsequent Report         Casing Repair         Change Plans	TO INDICATE NATURE OF NOT TYPE OF AC Deepen F Fracture Treat F New Construction X F Plug and Abandon T Plug Back V	TICE, REPORT OR OTHER DATA TION Production (Start/Resume) Water Shut-Off Reclamation Well Integrity Recomplete Other Femporarily Abandon
TYPE OF SUBMISSION         X Notice of Intent       Acidize         Balance       Alter Casing         Subsequent Report       Casing Repair         Change Plans       Change Plans	Deepen       F         Fracture Treat       F         New Construction       X         Plug and Abandon       T         Plug Back       V	CTION         Production (Start/Resume)       Water Shut-Off         Reclamation       Well Integrity         Recomplete       Other         Femporarily Abandon
X       Notice of Intent       Acidize         Subsequent Report       Alter Casing         Casing Repair       Change Plans	Deepen     F       Fracture Treat     F       New Construction     X       Plug and Abandon     T       Plug Back     V	Production (Start/Resume) Water Shut-Off Reclamation Well Integrity Recomplete Other Femporarily Abandon
Subsequent Report Casing Repair Change Plans	New Construction     X     F       Plug and Abandon     T       Plug Back     V	Recomplete Other Temporarily Abandon
	Plug Back	
Final Adandonment Notice I I Convert to Intection		Water Disposal
Hilcorp Energy Company plans to recomplete the existing Gallup and Dakota. Attached is the MV C1 will be submitted and approved before the work pl be performed after surface disturbing activities.	subject well in the Mesaver 102, recomplete procedure roceeds. A closed loop sys	rde formation and downhole commingle the & wellbore schematic. The DHC application item will be utilized. Interim reclamation will
	AGENCIES FOR RI	EVIEW AND
**Please note: MV is pending approval of well den	sity hearing* APPROV	AL HOLD GTOM FOR DEL
NMOCD DEC 2 0 2018 pr District 110	tify NMOCD 24 hrs rior to beginning operations ON FI	SAPERONALOR WEDERLOND EXCEPTION ON DOES NOT REFERENCE THE SAME AND ATOR FROM OBTAINING ANY OTHER IORIZATION REQUIRED FOR OPERATIONS EDERAL AND INDIAN LANDS
14. I hereby certify that the foregoing is true and correct. Name (Printed/Type	ed)	
Etta Trujillo	Title Operations/R	Regulatory Technician - Sr.
Signature Etha Tom	Date	11/16/2018
THIS SPACE FOR	R FEDERAL OR STATE OF	FICE USE
Approved by	warrant or certify	PE Date 12/17/18
inat the applicant holds legal or equitable title to those rights in the subject least entitle the applicant to conduct operations thereon. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 make it a crim	e for any person knowingly and willfull	10
false, fictitious or fraudulent statements or representations as to any matter with	hin its jurisdiction.	in the make to any department of agency of the Office States ally

R ased to Imaging: 10/20/2023 5:17:14 PM



Form C-102 August 1, 2011

Permit 259652

#### 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

District I

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV** 

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-23837	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	5. Property Name	6. Well No.
318708	SAN JUAN 28 5 UNIT	061E
7. OGRID No.	8. Operator Name	9. Elevation
372171	HILCORP ENERGY COMPANY	6713

#### 10. Surface Location

UL - Lot E	Section 18	Township 28N	Range 05W	Lot Idn	Feet From 1450	N/S Line N	Feet From 790	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 320.00 N/2		13. Joint or Infill		14. Consolidatio	n Code		15. Order No.		

#### NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
E-Signed By: Etta Trujillo
Title: Operations/Regulatory Tech Sr
Date: 11/16/2018
SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
Surveyed By: William E. Mahnke
Date of Survey: 7/16/1985
Certificate Number: 8466

# Hilcorp

.

á

#### HILCORP ENERGY COMPANY SAN JUAN 28-5 UNIT 61E MESA VERDE RECOMPLETION SUNDRY

.

	JOB PROCEDURES
1.	MIRU service rig and associated equipment; test BOP.
2.	TOOH with 2-3/8" tubing set at 7,568'.
3.	Set a 4-1/2" plug at +/- 6,490' to isolate the Gallup and Dakota Foramtions.
4.	RU Wireline, Run CBL, Record Top of Cement.
5.	Load the hole and pressure test the casing.
6.	N/D BOP, N/U frac stack and pressure test frac stack.
7.	Perforate and frac the Mesa Verde formation (Top Perforation @ 5,291'; Bottom Perforation @ 6,240').
8.	Isolate frac stages with a plug.
9.	Nipple down frac stack, nipple up BOP and test.
10.	TIH with a mill and drill out top isolation plug and Mesa Verde frac plugs.
11.	Clean out to Gallup and Dakota isolation plug.
12.	Drill out Gallup and Dakota isolation plug and cleanout to PBTD of 7,678'. TOOH.
13.	TIH and land production tubing. Get a commingled Gallup + Dakota + Mesa Verde flow rate.

.

.



#### HILCORP ENERGY COMPANY SAN JUAN 28-5 UNIT 61E MESA VERDE RECOMPLETION SUNDRY

.

.

Well N	ilcorp I ame:	nergy Company SAN JUAN 28-5 UNIT #61E	Current S	chematic -	Version 3		
PI/UWI	837	Surface Legal Location Field	Name I DK(PRO GAS)	#0068	Route 1304	State Province	Well Configuration Type
round Elevi	sion (ft)	Original KSRT Elevation (ft)	K3-Grou	nd Distance (ft)	KB-Casing Flan	ge Distance (ft) K5-Tubing H	anger Distance (ft)
.713.00		10,725.00	12.00				
		VERT	CAL, Original	I Hole, 11/2	/2018 1:38:	44 PM	
MD (ftKB)	TVD (ftKB)			Vertical sche	matic (actual)		
12.1		tains an and the similarity of a state of the second beam of the second state of the second state of the second	ht start would to be done it would start aidentified by		the local damage of and groups	Surface Casing Ce	ment; 12.0-223.4;
222.8						B,1/4# GEL-FLAKE	JSX, 3% CACL2 (148
223.4		- (A) NA (14/10) N A/ A (15/44) (1 ) N (16/4) (10)				1: Surface: 9 5/8 in:	ED TO SURFACE 9.00 in; 12.0 ftKB; 223.4
242.1						ftKB	
2.500.0						9/23/1985; TOC 250	g Cement; 2,500.0-3,978.5 00' RAN BY TEMP
3,299.9		a to the state of				SURVEY ON 9/23/1 SXS CLASS 'B' 65/3	985. CEMENT W/ 125 5 POZ MIX, 6% GEL, 2%
3 897 5		Tubing; 2 3/8 in; 4.70 lb/ft; J	-55; 12.0 ftKB;			CACL2, 1/2 CUFT F	PERLITE/SX (241 CUFT)
3 977 7			1,000.0 11(0)			CACL2 (118 CUFT)	
9,972 9						2; Intermediate1; 7	in; 6.46 in; 12.0 ftKB;
1,9/0.0		HUEPEANITO RENTONITE (FO				3,978.5 ftKB	
4,243.1			at)				
#,000.1		CLIEF HOUSE (final)				Production Carling	Camapt 3 200 0 8 004 1-1
5,452.1		MENEFEE (fical)				9/27/1985; TOC 330	0' RAN BY TEMP
0,401.9						SURVEY ON 9/2//1 SXS CLASS 'B', 8%	985. CEMENT W/ 237 GEL, 12.5#
2'133'3		POINT LOOKOUT (final)				GILSONITE/SX, 0.4 FOLLOWED BY 10	% D-13 (514 CUFT) 0 SXS CLASS 'B', 1/4#
6,299.9		MANCOS (Inal)				FINE TUG-PLUG/S	X, 0.4% D-13 (118 CUFT)
0,032.1		GALLOP (IINal)					
7,323.1		Deal Nicela 2 2/0 ic. 7 525 6	AKD. 7 CDC O			PERF - GALLUP; 7	325.0-7.570.0; 5/15/1998
7,333.6		Sear Nipple, 2 3/0 In, 7,535.0	ftKB	388			
7 557 0		Tubing; 2 3/8 in; 4.70 lb/ft; J-55	7,536.9 ftKB; 7,568.0 ftKB	333	M		
7,557.5		DOWN HOLE FIRE W/ BURN	ED SECTION	332	808		
7,003.9		FROM 7658'-7672' & NO CSG	FROM 7658"				
7,000.1		F	BTD; 7,678.0				
7 800.0		CIBP & 12' 2-3/8" TBG LE 7.	678.0-7,690.0				
7 692 0		CIBP STUCK: 7.	690.0-7,693.0				
7 792 2							
7 751 0							
7 777 0							
7 829 7		GRANEROS (Soci)					
7.878.9		GIVANEIXOS (IIIIāi)					
7 952 1				390	955 977		
8.053.0				. 335	100	PERF - DAKOTA; 7	,879.0-8,070.0; 9/28/1985
3,035.5						Production Casing	Cement (plug): 8,087.0-
3,000.0						SURVEY ON 9/27/1	985. CEMENT W/ 237
3,000.3						GILSONITE/SX. 0.4	GEL, 12.5# % D-13 (514 CUFT)
8,087.3						FOLLOWED BY 10	0 SXS CLASS 'B', 1/4#
8,093.2		The second problem of addition of the second s				3; Production1; 4 1	/2 in; 4.00 in; 12.0 ftKB;
0,094.2						8,094.1 ftKB	

<b>Received by OCD: 8/31/2023 3:57:26 PM</b>			Page 11 of
<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210	State of New Mexico Energy, Minerals and Natural Resources D	Department	Submit Original to Appropriate District Office
District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505	NMOGD	
Date: 11/16/2018	GAS CAPTURE PLAN	JAN 0 3 201. DISTRICT	9
<ul> <li>☑ Original</li> <li>□ Amended - Reason for Amendment:</li> </ul>	Operator & OGRID No.:Hild	corp Energy Compan	y 372171

32

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

#### Well(s)/Production Facility - Name of facility

The well(s) that will be located at the production facility are shown in the table below.

0	Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
	San Juan 28-5 Unit 61E	3003923837	E,18,28N,5W	1450' FNL 790' FWL	450	Vented	

#### **Gathering System and Pipeline Notification**

This is a recompletion of a producing gas well. Gas production, sales and transportation infrastructure is already in place. The gas is dedicated to <u>Enterprise</u> and will be connected to their gathering system located in San Juan County, New Mexico. Gas from these wells will be processed at <u>Chaco</u> Processing Plant located in Sec. <u>16</u>, Twn. <u>26N</u>, Rng. <u>12W</u>, <u>San Juan</u> County, New Mexico.

#### **Flowback Strategy**

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be routed to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on **Enterprise** system at that time. Based on current information, it is <u>Hilcorp's</u> belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

#### **Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
  - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



August 31, 2023

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

Re: C-107A (Downhole Commingle) San Juan 28-5 Unit 61E API No. 30-039-23837 Section 18, T28N-R05W Rio Arriba County, NM

Concerning Hilcorp Energy Company's C-107A application to downhole commingle production in the subject well, this letter serves to confirm the following:

Interest is not common between the formations listed below:

- Basin Dakota (Pool Code: 71599)
- Munoz Canyon Gallup (Pool Code: 96767)
- Blanco Mesaverde (Pool Code: 72319)

Order No. R-13764 waives the notice requirement and thus no notices will be sent.

The subject well is located within the bounds of a Federal Unit. Therefore, pursuant to Subsection C.(1) of 19.15.12.11 NMAC, written notice has been sent to the Bureau of Land Management as of the date of this letter.

If you have any questions or concerns, please contact the undersigned using the information provided below.

Sincerely,

By: HILCORP ENERGY COMPANY, Its General Partner

Carson Parker Rice Landman – San Juan Basin Hilcorp Energy Company 1111 Travis Street Houston, Texas 77002 713-757-7108 Direct Email: carice@hilcorp.com

From:	McClure, Dean, EMNRD on behalf of Engineer, OCD, EMNRD
To:	Cheryl Weston; Mandi Walker
Cc:	McClure, Dean, EMNRD; Rikala, Ward, EMNRD; Wrinkle, Justin, EMNRD; Powell, Brandon, EMNRD; Paradis, Kyle Q
Subject:	Approved Administrative Order DHC-5330
Date:	Friday, October 20, 2023 5:06:12 PM
Attachments:	DHC5330 Order.pdf

NMOCD has issued Administrative Order DHC-5330 which authorizes Hilcorp Energy Company (372171) to downhole commingle production within the following well:

### Well Name: San Juan 28-5 Unit #61E Well API: 30-039-23837

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

From:	Cheryl Weston
То:	McClure, Dean, EMNRD
Subject:	RE: [EXTERNAL] Action ID: 261060; DHC-5330
Date:	Friday, October 13, 2023 2:48:34 PM
Attachments:	San Juan 28-5 Unit 61E Allocation Backup.pdf

Dean,

Here is the corrected allocation back up documentation. Let me know if you have further questions.

Thanks, Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Friday, October 13, 2023 3:29 PM
To: Cheryl Weston <cweston@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
Subject: [EXTERNAL] Action ID: 261060; DHC-5330

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

To whom it may concern (c/o Cheryl Weston for Hilcorp Energy Company),

Action ID	261060
Admin No.	DHC-5330
Applicant	Hilcorp Energy Company (372171)
Title	San Juan 28-5 Unit #61E
Sub. Date	8/31/2023

The Division is reviewing the following application:

Please provide the following additional supplemental documents:

٠

Please provide additional information regarding the following:

• Please review the proposed allocation of oil. The GOR values on the included table are in disagreement with the included yield maps. Additionally, the table is missing the estimated remaining reserves. Once the allocation is reviewed, please provide a new copy of the table including a column that details the estimated remaining reserves. If it is the included yield maps that are inaccurate, please provide copies of the correct yield maps.

Additional notes:

٠

All additional supplemental documents and information may be provided via email and should be done by replying to this email. The produced email chain will be uploaded to the file for this application.

Please note that failure to take steps to address each of the requests made in this email within 10 business days of receipt of this email may result in the Division rejecting the application requiring the submittal of a new application by the applicant once it is prepared to address each of the topics raised.

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

While all reasonable care has been taken to avoid the transmission of viruses, it is the responsibility of the recipient to ensure that the onward transmission, opening, or use of this message and any attachments will not adversely affect its systems or data. No responsibility is accepted by the company in this regard and the recipient should carry out such virus and other checks as it considers appropriate.

The information contained in this email message is confidential and may be legally privileged and is intended only for the use of the individual or entity named above. If you are not an intended recipient or if you have received this message in error, you are hereby notified that any dissemination, distribution, or copy of this email is strictly prohibited. If you have received this email in error, please immediately notify us by return email or telephone if the sender's phone number is listed above, then promptly and permanently delete this message.

## San Juan 28-5 Unit 61E Allocation

The forecasts for 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 formations are the Dakota/Gallup and the added formation to be trimmingled is the Mesaverde. The subtraction method applies an average monthly production forecast to the base formations using historic production. All production from this well exceeding the base formation forecasts will be allocated to the new formation.

Hilcorp intends to continue to allocate the projected base production on the same fixed percentages to the following pools 55% (DK) 45% (GL) while the subtraction method is being used to determine the allocation to the new zone.

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

### **Current Zone 2 Forecast – Gallup**



#### **Proposed Zone 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	1.02	54	1%
GL	1.35	67	2%
MV	4.41	1000	97%
			100%



## Current Zone 1 – Dakota Oil Yield

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

## Current Zone 2 – Gallup Oil Yield



Average Oil Yield from Vertical Mancos Type Curve.

## Proposed Zone - Mesaverde Oil Yield Map



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

Office	State of New Mexico Energy, Minerals and Natural Resources	Form C-103 Revised July 18, 2013
<u>District II</u> -(575) 748-1283         811 S. First St., Artesia, NM 88210 <u>District III</u> - (505) 334-6178         1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> - (505) 476-3460         1220 S. St. Francis Dr., Santa Fe, NM         8705	OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505	WELL API NO. 30-039-23837 5. Indicate Type of Lease STATE FEE 6. State Oil & Gas Lease No. Federal NMSF079250
SUNDRY NOTICE (DO NOT USE THIS FORM FOR PROPOSAL DIFFERENT RESERVOIR. USE "APPLICAT PROPOSALS.)	S AND REPORTS ON WELLS S TO DRILL OR TO DEEPEN OR PLUG BACK TO A ION FOR PERMIT" (FORM C-101) FOR SUCH	7. Lease Name or Unit Agreement Name San Juan 28-5 Unit
1. Type of Well: Oil Well     Ga       2. Name of Operator	s Well 🛛 Other	8. Well Number 61E       9. OGRID Number
Hilcorp Energy Company           3. Address of Operator           382 Road 3100, Aztec NM 87	7410	372171 10. Pool name or Wildcat Blanco MV/Munoz Canyon GL/Basin DK
4. Well Location Unit Letter_E_: <u>1450</u> feet fr Section 18 Townsh	om the <u>North</u> line and <u>790</u> feet from the <u>W</u> ip 28N Range 05W NMPM	<u>est</u> line Rio Arriba County
1	1. Elevation (Show whether DR, RKB, RT, GR, etc. 6713' GL	
12. Check Appr	opriate Box to Indicate Nature of Notice, I	Report or Other Data

2

NOTICE OF IN	SUBSEQUEN	Γ RE	PORT OF:		
PERFORM REMEDIAL WORK	PLUG AND ABANDON		REMEDIAL WORK		ALTERING CASING
TEMPORARILY ABANDON	CHANGE PLANS		COMMENCE DRILLING OPNS	6.	P AND A
PULL OR ALTER CASING	MULTIPLE COMPL		CASING/CEMENT JOB		
DOWNHOLE COMMINGLE					
CLOSED-LOOP SYSTEM					
OTHER:			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 Blanco Mesaverde (pool 72319) and downhole commingle the existing Basin Dakota (pool 71599) / Munoz Canyon Gallup (pool 96767) with the Mesaverde. The production will be commingled per Oil Conservation Division Order Number 11363. 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: 5291' – 6240'; GL: 7325' – 7570'; DK: 7879' - 8070' These perforations are in TVD.

As referenced in Order # R-13764 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 Op	erations/Regulatory Techni	cian Sr.	DATE <u>08/31/2023</u>
Type or print name _ For State Use Only	Cherylene Weston	_E-mail address: _	cweston@hilcorp.com	_PHONE:	713-289-2615
APPROVED BY:		TITLE			DATE
Conditions of Appro	oval (1f any):				

Released to Imaging: 10/20/2023 5:17:14 PM

District I 1922. W. Eleucu DL., Hopps, MM 38249.14 PM 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 259652

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-23837	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	5. Property Name	6. Well No.
318708	SAN JUAN 28 5 UNIT	061E
7. OGRID No.	8. Operator Name	9. Elevation
372171	HILCORP ENERGY COMPANY	6713

#### 10. Surface Location

	ist sauces assauch									
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County	
E	18	28N	05W		1450	N	790	W	RIO ARRIE	3A

#### 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 15. Order No. 12. Dedicated Acres 13. Joint or Infill 14. Consolidation Code 320.00 N/2

#### NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

OPERATOR CERTIFICATION         I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.         E-Signed By:       Etta Trujillo         Title:       Operations/Regulatory Tech Sr         Date:       11/16/2018
SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Surveyed By: William E. Mahnke
Date of Survey: 7/16/1985
Certificate Number: 8466

Received by OCD: 8/31/2023 3:57:26 PM

Page 21 of 32



## San Juan 28-5 Unit 61E Allocation

The forecasts for 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/Gallup and the added formation to be trimmingled is the 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 formation.

Hilcorp intends to continue to allocate the projected base production on the same fixed percentages to the following pools 55% (DK) 45% (GL) while the subtraction method is being used to determine the allocation to the new zone.

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

### **Current Zone 2 Forecast – Gallup**



#### **Proposed Zone 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)	% Oil Allocation
DK	1.02	1%
MC	1.35	2%
MV	4.41	97%

## Current Zone – Dakota Oil Yield Map



9-Section Area Map 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



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

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

# APPLICATION FOR DOWNHOLE COMMINGLINGSUBMITTED BY HILCORP ENERGY COMPANYORDER NO. DHC-5330

#### <u>ORDER</u>

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 shutin 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-13764-A.
- 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

Order No. DHC-5330

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.

#### <u>ORDER</u>

- 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-2116.
- 3. 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. ninety-seven percent (97%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319);
  - b. two percent (2%) shall be allocated to the MUNOZ CANYON; GALLUP (G) pool (pool ID: 96767); and
  - c. one percent (1%) 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).

The current pool(s) are:

- a. the MUNOZ CANYON; GALLUP (G) pool (pool ID: 96767); and
- b. the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

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

- a. fifty-five percent (55%) shall be allocated to the MUNOZ CANYON; GALLUP (G) pool (pool ID: 96767); and
- b. forty-five percent (45%) shall be allocated to the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

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.

Order No. DHC-5330

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

( DYLANM. FUGE

DYLAMM. FOU DIRECTOR

DATE: 10/20/2023

.

#### State of New Mexico Energy, Minerals and Natural Resources Department

# Exhibit A

	Order: DHC-5330		
	Operator: Hilcorp Energy C	ompany (372171)	
	Well Name: San Juan 28-5 Ur	nit #61E	
	Well API: 30-039-23837		
	Pool Name: BLANCO-MESAV	ERDE (PRORATED GAS)	
Linner Zene	Pool ID: 72319	Current:	New: X
Opper Zone	Allocation:	Oil: 97%	Gas:
	Interval: Perforations	Top: 5,291	Bottom: 6,240
	Pool Name: MUNOZ CANYON	N; GALLUP (G)	
Internetiste Zene	Pool ID: 96767	Current: X	New:
intermediate zone	Allocation:	Oil: 2%	Gas: 55%
	Interval: Perforations	Top: 7,325	Bottom: 7,570
Bottom of Interv	val within 150% of Upper Zone's T	op of Interval: YES	
	Pool Name: BASIN DAKOTA (	PRORATED GAS)	
1	Pool ID: 71599	Current: X	New:
Lower Zone	Allocation:	Oil: 1%	Gas: 45%
	Interval: Perforations	Top: 7,879	Bottom: 8,070
Bottom of Inter	val within 150% of Upper Zone's 1	op 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

Released to Imaging: 10/20/2023 5:17:14 PM

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

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	261060
	Action Type:
	[C-107] Down Hole Commingle (C-107A)

CONDITIONS	j	
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.	10/20/2023

Action 261060

Page 32 of 32 CONDITIONS

.