Revised March 23, 2017

RECEIVED:	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: _____ **OGRID Number:** _____
Well Name: _____ **API:** _____
Pool: _____ **Pool Code:** _____

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.

_____ Date

_____ Print or Type Name

_____ Phone Number

_____ Signature

_____ 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

McClanahan	**14E**	**H-23,28N,10W**	**San Juan**
Lease	Well No.	Unit Letter-Section-Township-Range	County

OGRID No. 372171 Property Code 318622 API No. 30-045-23913 Lease Type: _X_Federal ____ State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Fruitland Coal	Otero Chacra	Dakota
Pool Code	71629	82329	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1555' – 1823'	2818' – 2938'	6216' – 6386'
Method of Production (Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	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)	35	159	281
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1139	1185	1306
Producing, Shut-In or New Zone	New Zone	Producing	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:11/1//2023 Rates: Oil: 0 Gas:1086 Water: 61	Date:11/1//2023 Rates: Oil: 5 Gas: 466 Water: 29
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_X_ No_____
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes_____ 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 _____ TITLE Operations/Regulatory Technician DATE 1/17/2024

TYPE OR PRINT NAME Amanda Walker TELEPHONE NO. (346) 237-2177

E-MAIL ADDRESS mwalker@hilcorp.com

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
SOUTHLAND ROYALTY COMPANY	McCLANAHAN	14-E

Unit Letter	Section	Township	Range	County
H	23	28N	10W	San Juan

Actual Footage Location of Well:
1620 feet from the North line and 810 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5708	Dakota - Mesa Verde	Basin - Blanco ext	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

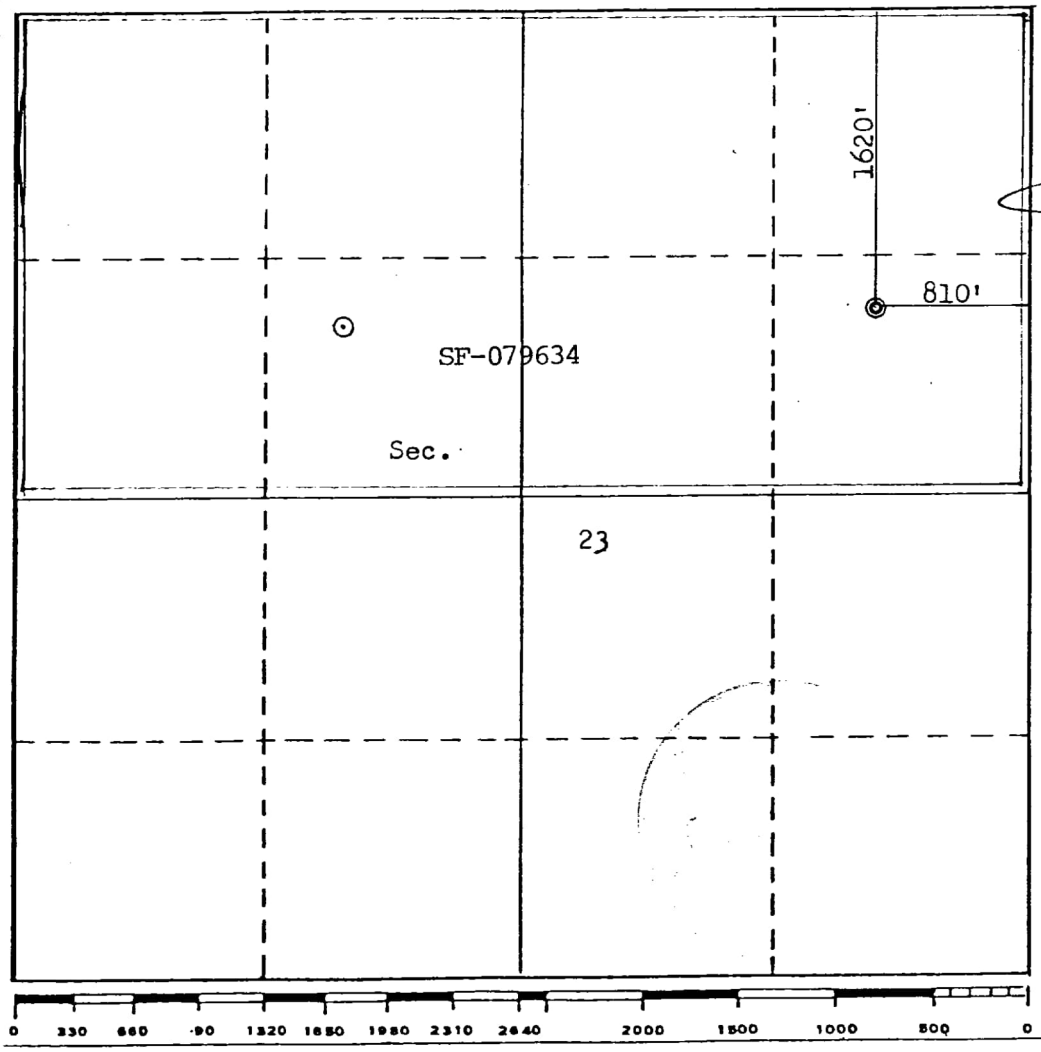
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: District Production Manager

Position: Southland Royalty Company

Company: October 24, 1979

Date

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 knowledge and belief.

Date Surveyed: October 29, 1979

Registered Professional Engineer and/or Land Surveyor

Fred B. Kerr Jr.

Certificate No. 3950

Submit to Appropriate District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised 1-1-89

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
Southland Royalty Company	McClanahan	14-E

Unit Letter	Section	Township	Range	County
H	23	28 North	10 West NMPM	San Juan

Actual Footage Location of Well: 1620 feet from the North line and 810 feet from the East line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
5708'	Chacra	Otero Chacra	320.00 ~~320.00~~ Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

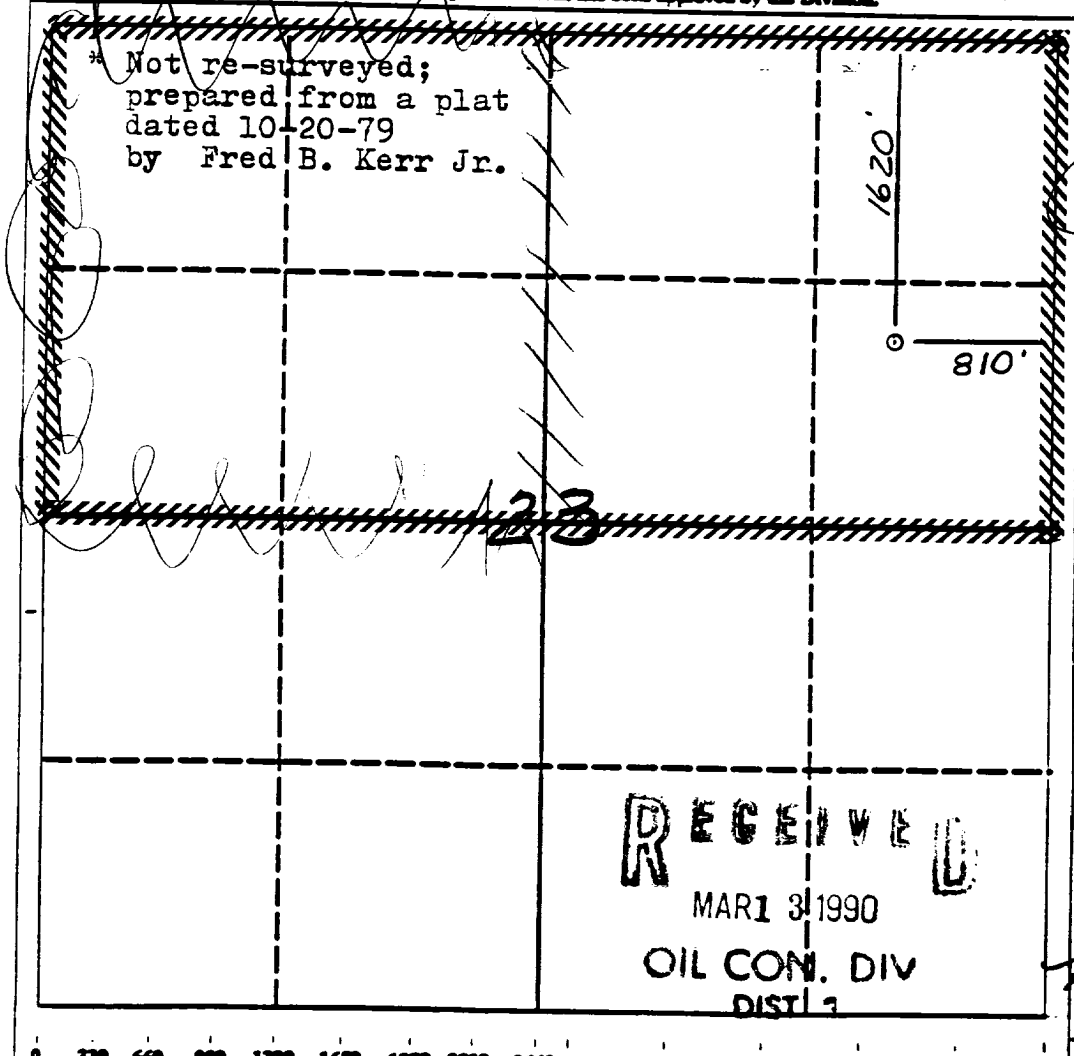
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary. _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



RECEIVED
MAR 13 1990
OIL CON. DIV.
DIST. 3

OPERATOR CERTIFICATION

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

Signature: Peggy Bradfield
Printed Name: Peggy Bradfield
Position: Regulatory Affairs
Company: Southland Royalty
Date: 3-7-90

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 knowledge and belief.

Date Surveyed: 2-6-90
Signature & Seal of Professional Surveyor: Neale C. Edwards
NEALE C. EDWARD 6857 REGISTERED LAND SURVEYOR
Certificate No. 6857

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-102
August 1, 2011

Permit 356943

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-23913	71629	BASIN FRUITLAND COAL (GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318622	MCCLANAHAN	014E
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	5708

10. Surface Location

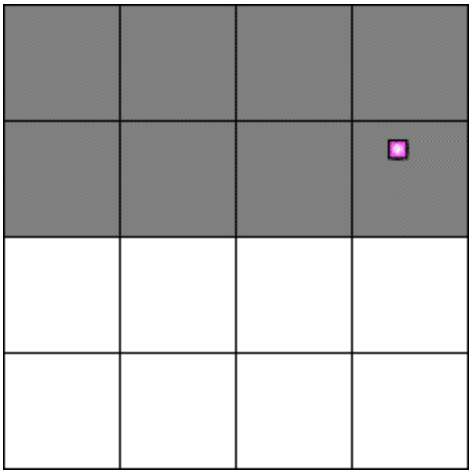
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	23	28N	10W		1620	N	810	E	SAN JUAN

11. Bottom Hole Location If Different From Surface

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

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
320.00			

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:
Title: Operations Regulatory Tech Sr.
Date: 1/5/2024

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: Fred B Kerr Jr
Date of Survey: 10/20/1979
Certificate Number: 3950

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.

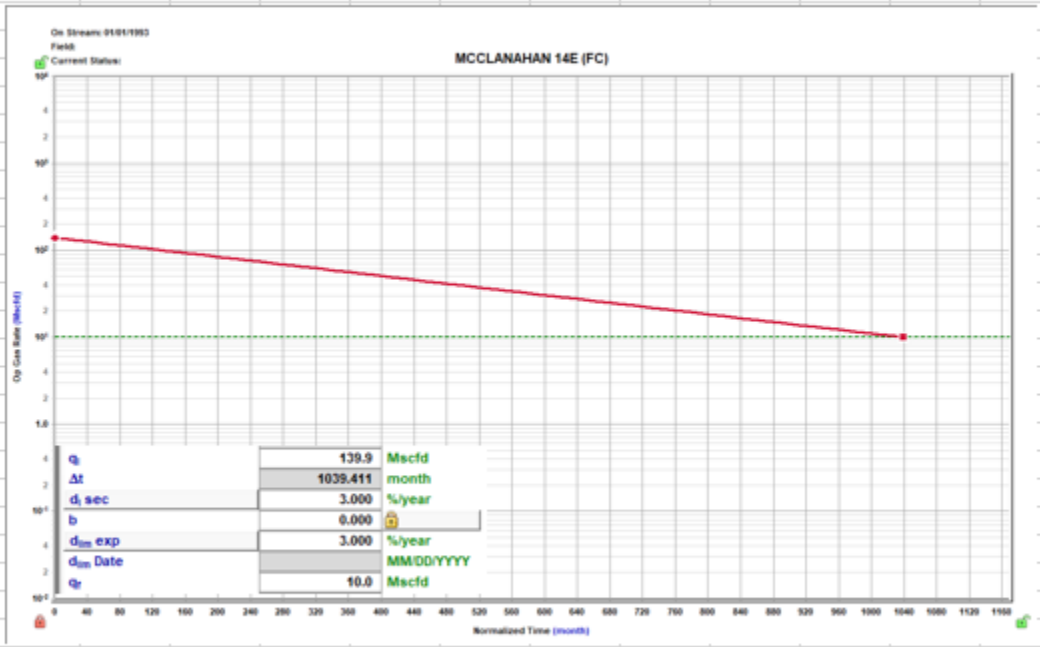
Shut in pressures were calculated for operated offset standalone wells in each of the zones being commingled in the well in question via the following process:

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:		
3004526055	KUTZ FEDERAL C1	CH
3004523913	DAVIDSON GAS COM H 1	DK
3004533604	HANCOCK B 5S	FC

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.

Fruitland Coal



Average initial production curve in geologic region.

HEC Comments

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.

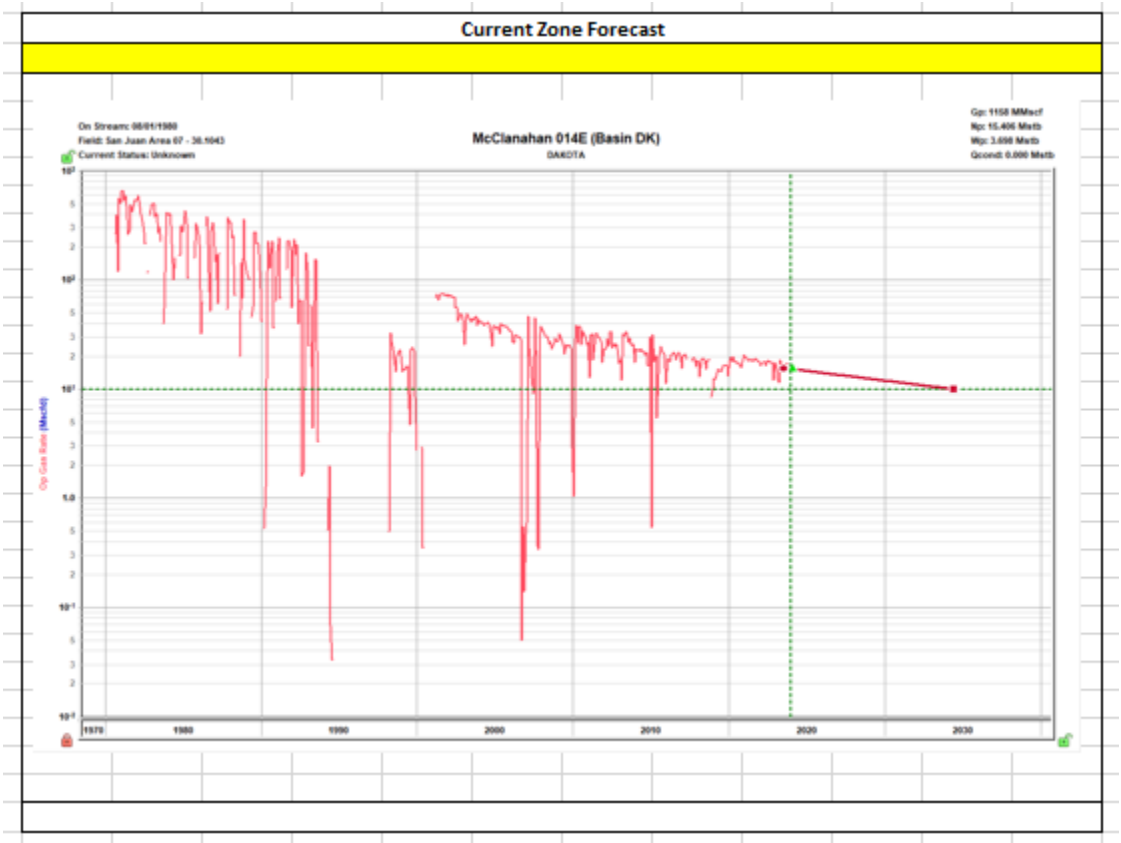
Production Allocation Method – Subtraction

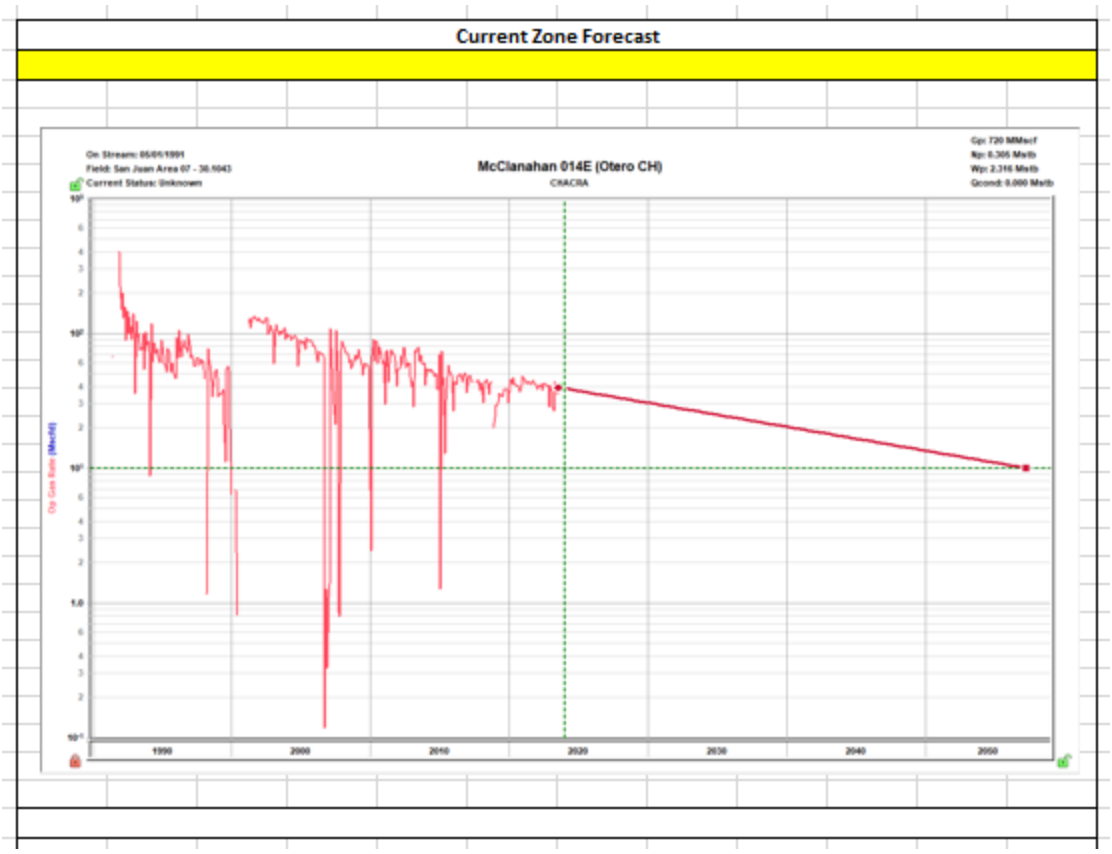
Gas Allocation:

Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the DK & CH and the added formation to be commingled is the Fruitland. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceeding the 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.

Hilcorp intends to continue to allocate the projected base production on the same fixed percentages to the following pools 70% (CH) 30% (DK) while the subtraction method is being used to determine the allocation to the new zone.





Oil Allocation:

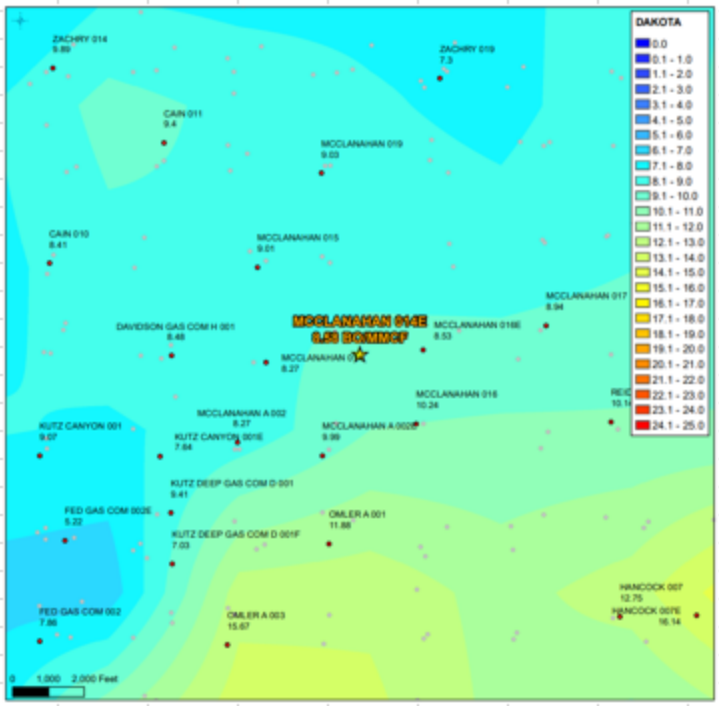
Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years.

After 4 years oil will be reevaluated and adjust as needed based on average formation yields and new fixed gas allocation.

Formation	Yield (bbl/MM)	Remaining Reserves	% Oil
DK	8.58	1205	100%
CH	0.03	982	0%
FC	0	1557	0%
			100%

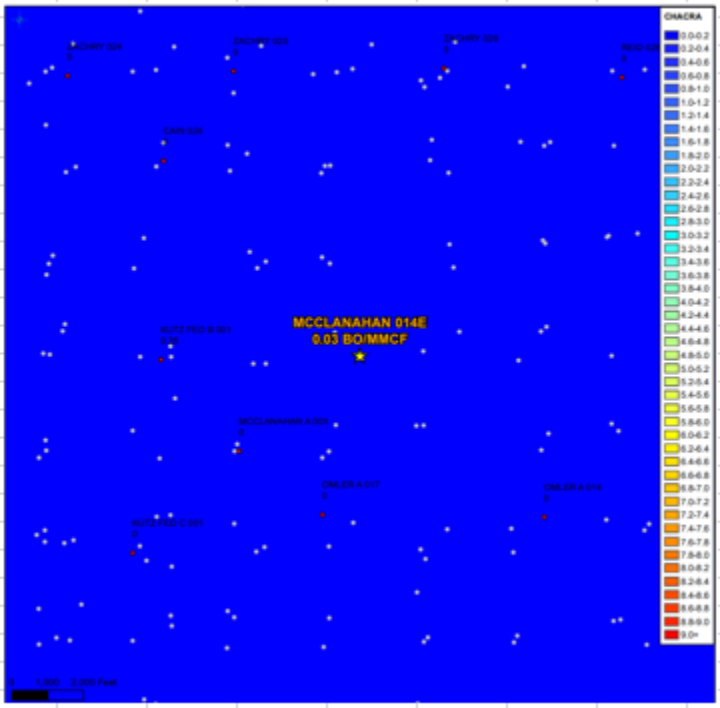
All documentation will be submitted to NMOCD.

Current Zone Oil Yield Map		
DK	8.58	BO/MMCF



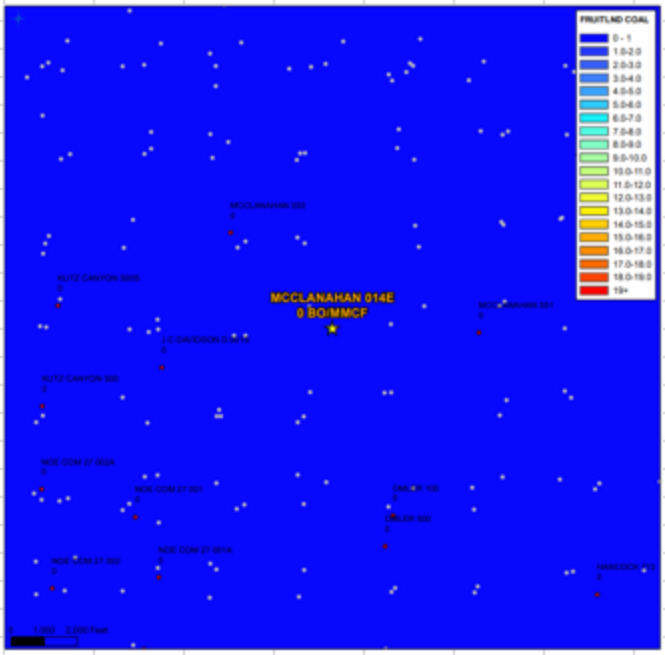
9-Section Area Map of Standalone Oil Yields. Sampled well to this map.

Current Zone Oil Yield Map		
CH	0.03	BO/MMCF



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

Fruitland Coal	0	BO/MMCF



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

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.

Well Name	API
MCCLANAHAN 14-E	3004523913

FRC Offset		DK Offset		CH Offset	
API	3004534886	API	3004507301	API	3004526761
Property	KUTZ CANYON 5	Property	REID 21	Property	ZACHRY 60
CationBarium	0	CationBarium	0.5	CationBarium	0
CationBoron		CationBoron		CationBoron	
CationCalcium	0.24	CationCalcium	46	CationCalcium	360.03
CationIron	16.06	CationIron	20	CationIron	0
CationMagnesium	0.34	CationMagnesium	50	CationMagnesium	17.13
CationManganese	0.34	CationManganese	0.5	CationManganese	17.13
CationPhosphorus		CationPhosphorus		CationPhosphorus	
CationPotassium		CationPotassium		CationPotassium	
CationStrontium		CationStrontium	0.5	CationStrontium	0
CationSodium	146.6	CationSodium	85.63	CationSodium	1047.41
CationSilica		CationSilica		CationSilica	
CationZinc		CationZinc		CationZinc	
CationAluminum		CationAluminum		CationAluminum	
CationCopper		CationCopper		CationCopper	
CationLead		CationLead		CationLead	
CationLithium		CationLithium		CationLithium	
CationNickel		CationNickel		CationNickel	
CationCobalt		CationCobalt		CationCobalt	
CationChromium		CationChromium		CationChromium	
CationSilicon		CationSilicon		CationSilicon	
CationMolybdenum		CationMolybdenum		CationMolybdenum	
AnionChloride	11.01	AnionChloride	110	AnionChloride	500.55
AnionCarbonate		AnionCarbonate	0	AnionCarbonate	
AnionBicarbonate	232.18	AnionBicarbonate	293	AnionBicarbonate	158.86
AnionBromide		AnionBromide		AnionBromide	
AnionFluoride		AnionFluoride		AnionFluoride	
AnionHydroxyl		AnionHydroxyl	0	AnionHydroxyl	
AnionNitrate		AnionNitrate		AnionNitrate	
AnionPhosphate		AnionPhosphate		AnionPhosphate	
AnionSulfate	0	AnionSulfate	108	AnionSulfate	2350
phField	8.75	phField	7.72	phField	7.04
phCalculated		phCalculated		phCalculated	
TempField		TempField	53	TempField	
TempLab		TempLab		TempLab	
OtherFieldAlkalinity		OtherFieldAlkalinity		OtherFieldAlkalinity	
OtherSpecificGravity		OtherSpecificGravity	0	OtherSpecificGravity	
OtherTDS	476.84	OtherTDS	714.13	OtherTDS	4433.98
OtherCaCO3		OtherCaCO3		OtherCaCO3	
OtherConductivity		OtherConductivity	1115.83	OtherConductivity	
DissolvedCO2	70	DissolvedCO2	7	DissolvedCO2	0
DissolvedO2		DissolvedO2		DissolvedO2	
DissolvedH2S	0	DissolvedH2S	1	DissolvedH2S	0
GasPressure		GasPressure	100	GasPressure	
GasCO2	7	GasCO2	0	GasCO2	0
GasCO2PP		GasCO2PP	0	GasCO2PP	
GasH2S	0	GasH2S	0	GasH2S	0
GasH2SPP		GasH2SPP	0	GasH2SPP	
PitzerCaCO3_70		PitzerCaCO3_70	0.12	PitzerCaCO3_70	
PitzerBaSO4_70		PitzerBaSO4_70	1.18	PitzerBaSO4_70	
PitzerCaSO4_70		PitzerCaSO4_70	-1.71	PitzerCaSO4_70	
PitzerSrSO4_70		PitzerSrSO4_70	-2	PitzerSrSO4_70	
PitzerFeCO3_70		PitzerFeCO3_70		PitzerFeCO3_70	
PitzerCaCO3_220		PitzerCaCO3_220	0.9	PitzerCaCO3_220	
PitzerBaSO4_220		PitzerBaSO4_220	0.63	PitzerBaSO4_220	
PitzerCaSO4_220		PitzerCaSO4_220	-1.57	PitzerCaSO4_220	
PitzerSrSO4_220		PitzerSrSO4_220	-1.79	PitzerSrSO4_220	
PitzerFeCO3_220		PitzerFeCO3_220		PitzerFeCO3_220	

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.

Well Name	API
MCCLANAHAN 14-E	3004523913

FRC Offset		DK Offset		CH Offset	
AssetCode	3004527203	AssetCode	3004507230	AssetCode	3004525539
AssetName	OMLER 500	AssetName	KUTZ DEEP GAS COM D 1	AssetName	OMLER A 17
N2	0	N2	0	N2	0
CO2	0.02	CO2	0.02	CO2	0
C1	0.86	C1	0.74	C1	0.87
C2	0.09	C2	0.13	C2	0.07
C3	0.02	C3	0.06	C3	0.03
ISOC4	0	ISOC4	0.01	ISOC4	0.01
NC4	0	NC4	0.02	NC4	0.01
ISOC5	0	ISOC5	0.01	ISOC5	0
NC5	0	NC5	0.01	NC5	0
C6_PLUS	0	C6_PLUS		C6_PLUS	0.01
C7		C7	0	C7	
C8		C8	0	C8	
C9		C9	0	C9	
C10		C10	0	C10	
AR		AR	0	AR	
CO		CO	0	CO	
H2		H2	0	H2	
O2		O2		O2	
H20		H20	0	H20	
H2S		H2S	0	H2S	
HE		HE	0	HE	
C_O_S		C_O_S		C_O_S	
CH3SH		CH3SH		CH3SH	
C2H5SH		C2H5SH		C2H5SH	
CH2S3_2CH3S		CH2S3_2CH3S		CH2S3_2CH3S	
CH2S		CH2S		CH2S	
C6HV		C6HV		C6HV	
CO2GPM	0	CO2GPM		CO2GPM	0
N2GPM	0	N2GPM		N2GPM	0
C1GPM	0	C1GPM		C1GPM	0
C2GPM	2.4	C2GPM		C2GPM	1.83
C3GPM	0.63	C3GPM		C3GPM	0.9
ISOC4GPM	0.14	ISOC4GPM		ISOC4GPM	0.19
NC4GPM	0.07	NC4GPM		NC4GPM	0.28
ISOC5GPM	0.03	ISOC5GPM		ISOC5GPM	0.12
NC5GPM	0.01	NC5GPM		NC5GPM	0.09
C6_PLUSGPM	0.05	C6_PLUSGPM		C6_PLUSGPM	0.27

Well Name: MCCLANAHAN

Well Location: T28N / R10W / SEC 23 / SENE / 36.6505 / -107.85826

County or Parish/State: SAN JUAN / NM

Well Number: 14E

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMSF079634

Unit or CA Name:

Unit or CA Number:

US Well Number: 3004523913

Well Status: Producing Gas Well

Operator: HILCORP ENERGY COMPANY

Notice of Intent

Sundry ID: 2775735

Type of Submission: Notice of Intent

Type of Action: Recompletion

Date Sundry Submitted: 02/20/2024

Time Sundry Submitted: 05:44

Date proposed operation will begin: 04/01/2024

Procedure Description: Hilcorp Energy Company requests to REVISE the previously BLM approved NOI (1/16/2024) to amend the FC perforation top. The subject well will be recompleted in the Fruitland Coal and downhole trimmingle with the existing CH/DK. Please see the attached revised procedure, current and proposed wellbore diagram, plat and natural gas management plan. A closed loop system will be used. Hilcorp will contact the FFO Surface group within 90 days after the well has been recompleted, before any interim reclamation work, to conduct the onsite. A reclamation plan will be submitted after the onsite.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

McClanahan_14E__Revised_RC_NOI_20240220054338.pdf

Well Name: MCCLANAHAN

Well Location: T28N / R10W / SEC 23 / SENE / 36.6505 / -107.85826

County or Parish/State: SAN JUAN / NM

Well Number: 14E

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMSF079634

Unit or CA Name:

Unit or CA Number:

US Well Number: 3004523913

Well Status: Producing Gas Well

Operator: HILCORP ENERGY COMPANY

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: AMANDA WALKER

Signed on: FEB 20, 2024 05:43 AM

Name: HILCORP ENERGY COMPANY

Title: Operations/Regulatory Technician

Street Address: 1111 TRAVIS ST

City: HOUSTON **State:** TX

Phone: (346) 237-2177

Email address: MWALKER@HILCORP.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: MATTHEW H KADE

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647736

BLM POC Email Address: MKADE@BLM.GOV

Disposition: Approved

Disposition Date: 02/20/2024

Signature: Matthew Kade

HILCORP ENERGY COMPANY
McClanahan 14E
FRUITLAND COAL RECOMPLETE SUNDRY
API 3004523913

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 **Chacra** perforation **(2,818')** 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 @ **1,555',** bottom perforation @ **1,823'.**
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/Chacra/Dakota Producer.**

HILCORP ENERGY COMPANY
McClanahan 14E
FRUITLAND COAL RECOMPLETE SUNDRY

McClanahan 14E - CURRENT WELLBORE SCHEMATIC

Hilcorp Energy Company

Schematic - Current

Well Name: MCCLANAHAN #14E

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004523913	023-028N-010W-H	BASIN DAKOTA (PRORATED G #0058		NEW MEXICO	
Original KB/RT Elevation (ft)	**RKB to GL (ft)**	**Original Spud Date**	**Rig Release Date**	**PBTD (All)**	**Total Depth All (TVD)**
5,720.00	12.00	1/30/1980 00:00	2/3/1998 17:00	Original Hole - 6,413.0	

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
FACILITIES			6/18/1999	6/23/1999

TD: 6,457.0

Original Hole

MD (ftKB)	Vertical schematic (actual)
12.1	Casing Joints, 8 5/8in; 12.00-236.00; 224.00; 1-1; 8 5/8; 8.10
236.9	Casing Shoe, 8 5/8in; 236.00-237.00; 1.00; 1-2; 8 5/8; 8.10
779.9	OJO ALAMO (OJO ALAMO (final))
	FRUITLAND (FRUITLAND (final))
	Casing Joints, 5 1/2in; 12.00-1,932.00; 1,920.00; 2-1; 5 1/2; 4.95
1,824.1	PICTURED CLIFFS (PICTURED CLIFFS (final))
1,935.0	Stage Tool, 5 1/2in; 1,932.00-1,935.00; 3.00; 2-2; 5 1/2; 4.95
	CHACRA (CHACRA (final))
	2,818.0-2,938.0ftKB on 2/14/1990 00:00 (PERF - CHACRA); 2,818.00-2,938.00; 1990-02-14
2,817.9	2 3/8in, Tubing; 12.00-6,301.84; 6,289.84; 1-1; 2 3/8; 2.00
	Casing Joints, 5 1/2in; 1,935.00-4,445.00; 2,510.00; 2-3; 5 1/2; 4.95
3,270.0	CLIFFHOUSE (CLIFFHOUSE (final))
3,470.1	MENEFEE (MENEFEE (final))
	POINT LOOKOUT (POINT LOOKOUT (final))
4,126.0	4,126.0-4,187.0ftKB on 3/26/1980 00:00 (PERF - MESAVERDE); 4,126.00-4,187.00; 1980-03-26
4,444.9	Stage Tool, 5 1/2in; 4,445.00-4,448.00; 3.00; 2-4; 5 1/2; 4.95
5,317.9	GALLUP (GALLUP (final))
	Casing Joints, 5 1/2in; 4,448.00-6,414.11; 1,966.11; 2-5; 5 1/2; 4.95
6,149.9	GRANEROS (GRANEROS (final))
6,272.0	DAKOTA (DAKOTA (final))
	6,216.0-6,301.0ftKB on 3/26/1980 00:00 (PERF - DAKOTA UPPER); 6,216.00-6,301.00; 1980-03-26
6,301.8	2 3/8in, Pump Seating Nipple; 6,301.84-6,302.94; 1.10; 1-2; 2 3/8
	2 3/8in, Tubing; 6,302.94-6,334.30; 31.36; 1-3; 2 3/8; 2.00
6,334.3	2 3/8in, Sawtooth Collar; 6,334.30-6,335.00; 0.70; 1-4; 2 3/8
6,337.9	6,338.0-6,386.0ftKB on 3/25/1980 00:00 (PERF - DAKOTA LOWER); 6,338.00-6,386.00; 1980-03-25
6,389.1	ENCINAL CANYON (ENCINAL CANYON (fi...
6,414.0	Self-Fill Flapper Collar, 5 1/2in; 6,414.11-6,415.11; 1.00; 2-6; 5 1/2; 4.95
6,417.0	BURRO CANYON (BURRO CANYON (final))
	Casing Joints, 5 1/2in; 6,415.11-6,456.00; 40.89; 2-7; 5 1/2; 4.95
6,457.0	Casing Shoe, 5 1/2in; 6,456.00-6,457.00; 1.00; 2-8; 5 1/2; 4.95

HILCORP ENERGY COMPANY
McClanahan 14E
FRUITLAND COAL RECOMPLETE SUNDRY

McClanahan 14E - PROPOSED WELLBORE SCHEMATIC

Hilcorp Energy Company

Schematic - Current

Well Name: MCCLANAHAN #14E

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004523913	023-028N-010W-H	BASIN DAKOTA (PRORATED G #0068		NEW MEXICO	
Original KB/RT Elevation (ft)	**RKB to GL (ft)**	**Original Spud Date**	**Rig Release Date**	**PBTD (All)**	**Total Depth All (TVD)**
5,720.00	12.00	1/30/1980 00:00	2/3/1998 17:00	Original Hole - 6,413.0	

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
FACILITIES			6/18/1999	6/23/1999

TD: 6,457.0

Original Hole

MD (ftKB)	Vertical schematic (actual)
12.1	Casing Joints, 8 5/8in; 12.00-236.00; 224.00; 1-1; 8 5/8; 8.10
236.9	Casing Shoe, 8 5/8in; 236.00-237.00; 1.00; 1-2; 8 5/8; 8.10
779.9	OJO ALAMO (OJO ALAMO (final))
	FRUITLAND (FRUITLAND (final))
1,824.1	PICTURED CLIFFS (PICTURED CLIFFS (final))
	PROPOSED FRUITLAND COAL PERFORATIONS:1,555' -1,823'
1,935.0	CHACRA (CHACRA (final))
2,817.9	
3,270.0	CLIFFHOUSE (CLIFFHOUSE (final))
3,470.1	MENEFEE (MENEFEE (final))
	POINT LOOKOUT (POINT LOOKOUT (final))
4,126.0	
4,444.9	
5,317.9	GALLUP (GALLUP (final))
6,149.9	GRANEROS (GRANEROS (final))
6,272.0	DAKOTA (DAKOTA (final))
6,301.8	
6,334.3	
6,337.9	
6,389.1	ENCINAL CANYON (ENCINAL CANYON (fi...
6,414.0	
6,417.0	BURRO CANYON (BURRO CANYON (final))
6,457.0	

Casing Joints, 5 1/2in; 12.00-1,932.00; 1,920.00; 2-1; 5 1/2; 4.95

Stage Tool, 5 1/2in; 1,932.00-1,935.00; 3.00; 2-2; 5 1/2; 4.95

2,818.0-2,938.0ftKB on 2/14/1990 00:00 (PERF - CHACRA); 2,818.00-2,938.00; 1990-02-14

2 3/8in, Tubing; 12.00-6,301.84; 6,289.84; 1-1; 2 3/8; 2.00

Casing Joints, 5 1/2in; 1,935.00-4,445.00; 2,510.00; 2-3; 5 1/2; 4.95

4,126.0-4,187.0ftKB on 3/26/1980 00:00 (PERF - MESAVERDE); 4,126.00-4,187.00; 1980-03-26

Stage Tool, 5 1/2in; 4,445.00-4,448.00; 3.00; 2-4; 5 1/2; 4.95

Casing Joints, 5 1/2in; 4,448.00-6,414.11; 1,966.11; 2-5; 5 1/2; 4.95

6,216.0-6,301.0ftKB on 3/26/1980 00:00 (PERF - DAKOTA UPPER); 6,216.00-6,301.00; 1980-03-26

2 3/8in, Tubing;

6,338.0-6,386.0ftKB on 3/25/1980 00:00 (PERF - DAKOTA LOWER); 6,338.00-6,386.00; 1980-03-25

Self-Fill Flapper Collar, 5 1/2in; 6,414.11-6,415.11; 1.00; 2-6; 5 1/2; 4.95

Casing Joints, 5 1/2in; 6,415.11-6,456.00; 40.89; 2-7; 5 1/2; 4.95

Casing Shoe, 5 1/2in; 6,456.00-6,457.00; 1.00; 2-8; 5 1/2; 4.95

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-102
August 1, 2011

Permit 356943

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-23913	71629	BASIN FRUITLAND COAL (GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318622	MCCLANAHAN	014E
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	5708

10. Surface Location

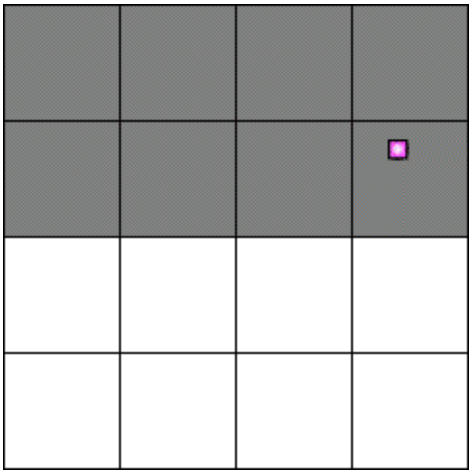
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	23	28N	10W		1620	N	810	E	SAN JUAN

11. Bottom Hole Location If Different From Surface

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

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
320.00			

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:
Title: Operations Regulatory Tech Sr.
Date: 1/5/2024

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: Fred B Kerr Jr
Date of Survey: 10/20/1979
Certificate Number: 3950

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:** 1/5/2024

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
McClanahan 14E	30-045-23913	H-23-28N-10W	1620’ FNL & 810’ FEL	0	140	10

IV. Central Delivery Point Name: Ignacio 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
McClanahan 14E	**30-045-23913**					

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: 
Printed Name: Amanda Walker
Title: Operations Regulatory Tech Sr.
E-mail Address: mwalker@hilcorp.com
Date: 1/5/2024
Phone: 346.237.2177

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.

From: McClure, Dean, EMNRD on behalf of Engineer, OCD, EMNRD
To: Mandi Walker; Cheryl Weston
Cc: McClure, Dean, EMNRD; Roberts, Kelly, EMNRD; Rikala, Ward, EMNRD; Wrinkle, Justin, EMNRD; Powell, Brandon, EMNRD; Paradis, Kyle O; dmankiew@blm.gov
Subject: Approved Administrative Order DHC-5348
Date: Friday, March 8, 2024 2:43:26 PM
Attachments: DHC5348 Order.pdf

NMOCD has issued Administrative Order DHC-5348 which authorizes Hilcorp Energy Company (372171) to downhole commingle production within the following well:

	Order:	**DHC-5348**				
	Operator:	**Hilcorp Energy Company (372171)**				
	Well Name:	**McClanahan #14E**				
	Well API:	**30-045-23913**				
Upper Zone	**Pool Name:**	**BASIN FRUITLAND COAL (GAS)**				
	Pool ID:	**71629**	**Current:**		**New:**	**X**
	Allocation:	**Subtraction**	**Oil:**	**0.0%**	**Gas:**	**Sub**
	Interval:	**Perforations**	**Top:**	**1,555**	**Bottom:**	**1,823**
Intermediate Zone	**Pool Name:**	**OTERO CHACRA (GAS)**				
	Pool ID:	**82329**	**Current:**	**X**	**New:**	
	Allocation:	**Fixed Percent**	**Oil:**	**0.0%**	**Gas:**	**70.0%**
	Interval:	**Perforations**	**Top:**	**2,818**	**Bottom:**	**2,938**
			Bottom of Interval within 150% of Upper Zone's Top of Interval:	**NO**		
Lower Zone	**Pool Name:**	**BASIN DAKOTA (PRORATED GAS)**				
	Pool ID:	**71599**	**Current:**	**X**	**New:**	
	Allocation:	**Fixed Percent**	**Oil:**	**100.0%**	**Gas:**	**30.0%**
	Interval:	**Perforations**	**Top:**	**6,216**	**Bottom:**	**6,386**
			Bottom of Interval within 150% of Upper Zone's Top of Interval:	**NO**		

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: McClure, Dean, EMNRD
To: Mandi Walker
Subject: RE: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E
Date: Monday, February 19, 2024 2:51:00 PM
Attachments: image004.png
image005.png
image006.png
image007.png

Hilcorp has verbal approval to proceed with the work proposed within the sundry designated as Application ID: 303866 with the following conditions:

- An amended sundry with the proposed top perforation adjusted from 1478' to 1555' be submitted to the Division.
- Hilcorp shall not perforate above a depth of 1555'.
- Notify NMOCD 24 Hours Prior to beginning operations
- DHC required
- All conducted logs shall be submitted to the Division.
- The appropriate compliance officer supervisor shall be consulted and remedial action conducted as directed if the cement sheath around the casing is not adequate to protect the casing and isolate strata from: (a) the uppermost perforation in each added pool to at least 150 feet above that perforation; and (b) the lowermost perforation in each added pool to at least 100 feet below that perforation.

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

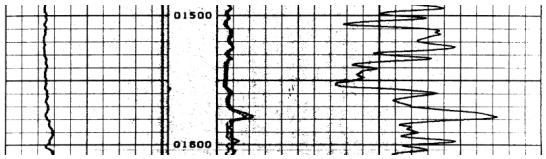
From: McClure, Dean, EMNRD
Sent: Monday, February 19, 2024 1:38 PM
To: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E

Mandi,

Please note that the vertical limits of the basin FLC pool do not include the entirety of the fruitland formation. Instead only the lower thicker coal seams are included, which is typically where Hilcorp has been targeting in the recent past. Does Hilcorp actually intend to perforate at the proposed shallower depth or was some "wriggle" room engineered into the proposal?

The resistivity log conducted on the 30-045-23913 MCCLANAHAN #014E seems to relatively be in agreement with where the Operator who drilled it had picked the FLC to be.

At your technical team's discretion, please review the attached order that stipulates the pool's vertical limits and the type logs it specifies. How were the tops in the provided cross section determined? I will note that the pool does not include all the coal seams and as far as I can tell it is difficult to make a determination based off density logs as the pool boundary does not seem to be at an easily identifiably density transition.



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

From: Mandi Walker <mwalker@hilcorp.com>
Sent: Monday, February 19, 2024 12:58 PM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E

Dean,

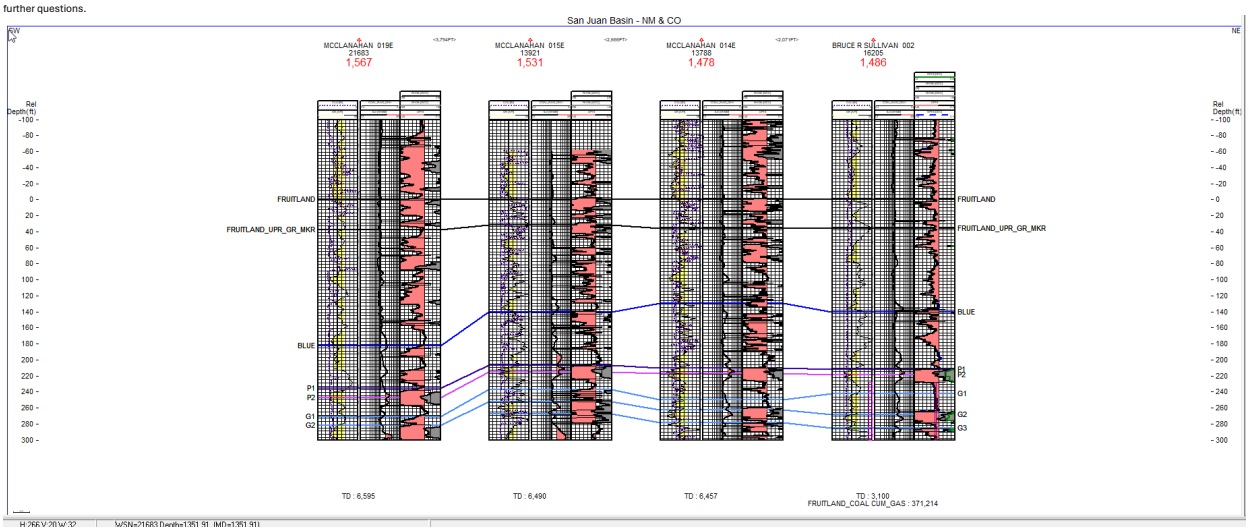
Please see the comments below for both questions. It looks like we didn't zoom in to show the squeeze on the schematic, but it is there as noted below.

Thank you,

Mandi Walker
SJE/SJN (1,2,7) Regulatory Technician Sr.
Office: 346.237.2177
mwalker@hilcorp.com

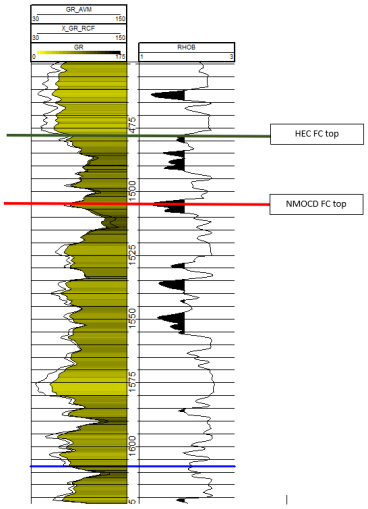
From: Glory Kamat <Glory.Kamat@hilcorp.com>
Sent: Monday, February 19, 2024 1:53 PM
To: Mandi Walker <mwalker@hilcorp.com>; Griffin Selby <Griffin.Selby@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>
Subject: RE: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E

I have checked the McClanahan 14E Fruitland top against the offset wells and they are consistent. The depth is 1478' MD. The cross-section below shows the subject well is position 3 from the left. Fruitland tops are posted in red in the Header. Let me know if you have further questions.



From: Griffin Selby <Griffin.Selby@hilcorp.com>
Sent: Monday, February 19, 2024 12:29 PM
To: Trey Misuraca <Trey.Misuraca@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>; Glory Kamat <Glory.Kamat@hilcorp.com>
Subject: RE: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E

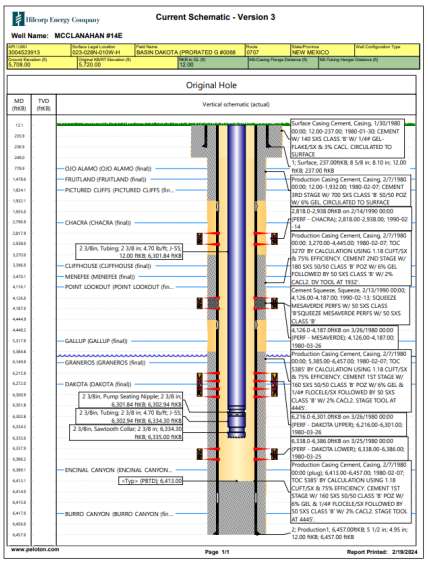
We see a bulk density reading that is less that 1.95 g/cc above the NMOCD top indicating a coal seam. Glory, please add any thoughts you might have on this.



From: Trey Misuraca <Trey.Misuraca@hilcorp.com>
Sent: Monday, February 19, 2024 11:58 AM
To: Mandi Walker <mwalker@hilcorp.com>; Griffin Selby <Griffin.Selby@hilcorp.com>; Glory Kamat <Glory.Kamat@hilcorp.com>
Subject: RE: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E

Mandi,

I am confirming that the Mesaverde perforations were squeezed off in 2/1990 from 4126-4187'.


Hilcorp Energy Company

Current Schematic - Version 3

Well Name: MCCLANAHAN #14E

API/UWI	Surface Legal Location	Field Name	Route	State/Province	Well Configuration Type
3004523913	027-029N-01W-H	BASIN DAKOTA (PRORATED G #0068	0707	NEW MEXICO	
Ground Elevation (ft)	KB-Ground Distance (ft)	RKB-CF (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)	
6,708.00	6,720.00	12.00			

Original Hole

MD (ftKB) | TVD (ftKB) | Vertical schematic (actual)

OJO ALAMO (OJO ALAMO (final))
FRUITLAND (FRUITLAND (final))
PICTURED CLIFFS (PICTURED CLIFFS (fin...
CHACRA (CHACRA (final))
CLIFFHOUSE (CLIFFHOUSE (final))
MENEFEE (MENEFEE (final))
POINT LOOKOUT (POINT LOOKOUT (fin...
GALLUP (GALLUP (final))
GRANEROS (GRANEROS (final))
DAKOTA (DAKOTA (final))
ENCINAL CANYON (ENCINAL CANYON...
BURRO CANYON (BURRO CANYON (fin...

Surface Casing Cement, Casing, 1/30/1980 00:00, 12.00-237.00, 1980-01-30, CEMENT W/ 140 SXS CLASS 'B' W/ 1/4# GEL-FLAKE/SX & 3% CACL. CIRCULATED TO SURFACE
1- Surface, 237.00RKB, 8 5/8 in, 8.10 in, 12.00 RKB, 237.00 RKB
Production Casing Cement, Casing, 2/7/1980 00:00, 12.00-1,932.00, 1980-02-07, CEMENT 3RD STAGE W/ 700 SXS CLASS 'B' 50/50 POZ W/ 6% GEL. CIRCULATED TO SURFACE
2,818.0-2,938.0RKB on 2/14/1990 00:00
(PERF - CHACRA); 2,818.00-2,938.00; 1990-02-14
Production Casing Cement, Casing, 2/7/1980 00:00, 3,270.00-4,445.00, 1980-02-07, TOC 3270' BY CALCULATION USING 1.18 CUFT/SX & 75% EFFICIENCY. CEMENT 2ND STAGE W/ 180 SXS 50/50 CLASS 'B' POZ W/ 6% GEL FOLLOWED BY 50 SXS CLASS 'B' W/ 2% CACL2. DV TOOL AT 3932'
Cement Squeeze, Squeeze, 2/13/1990 00:00; 4,126.00-4,187.00, 1990-02-13, SQUEEZE MESAVERDE PERFS W/ 50 SXS CLASS 'B' SQUEEZE MESAVERDE PERFS W/ 50 SXS CLASS 'B'
4,126.0-4,187.0RKB on 3/26/1980 00:00
(PERF - MESAVERDE); 4,126.00-4,187.00; 1980-03-26
Production Casing Cement, Casing, 2/7/1980 00:00, 5,385.00-6,457.00, 1980-02-07, TOC 5385' BY CALCULATION USING 1.18 CUFT/SX & 75% EFFICIENCY. CEMENT 1ST STAGE W/ 160 SXS 50/50 CLASS 'B' POZ W/ 6% GEL & 1/4# FLOCELE/SX FOLLOWED BY 50 SXS CLASS 'B' W/ 2% CACL2. STAGE TOOL AT 4445'
6,216.0-6,301.0RKB on 3/26/1980 00:00
(PERF - DAKOTA UPPER); 6,216.00-6,301.00; 1980-03-26
6,338.0-6,386.0RKB on 3/25/1980 00:00
(PERF - DAKOTA LOWER); 6,338.00-6,386.00; 1980-03-25
Production Casing Cement, Casing, 2/7/1980 00:00 (plug); 6,413.00-6,457.00, 1980-02-07, TOC 5385' BY CALCULATION USING 1.18 CUFT/SX & 75% EFFICIENCY. CEMENT 1ST STAGE W/ 160 SXS 50/50 CLASS 'B' POZ W/ 6% GEL & 1/4# FLOCELE/SX FOLLOWED BY 50 SXS CLASS 'B' W/ 2% CACL2. STAGE TOOL AT 4445'
2- Production1, 6,457.00RKB, 5 1/2 in, 4.95 in, 12.00 RKB, 6,457.00 RKB

2 3/8in, Tubing, 2 3/8 in; 4.70 lb/ft; J-55; 12.00 RKB; 6,301.84 RKB
2 3/8in, Pump Seating Nipple, 2 3/8 in; 6,301.84 RKB; 6,302.94 RKB
2 3/8in, Tubing, 2 3/8 in; 4.70 lb/ft; J-55; 6,302.94 RKB; 6,334.30 RKB
2 3/8in, Sawtooth Collar, 2 3/8 in; 6,334.30 RKB; 6,335.00 RKB
<Typ> (PBTD), 6,413.00

www.peloton.com Page 1/1 Report Printed: 2/19/2024

Trey Misuraca
Operations Engineer | San Juan North
Hilcorp Energy Company | 1111 Travis Street | Houston, TX 77002
M: 225.610.7136
Trey.Misuraca@hilcorp.com

From: Trey Misuraca <Trey.Misuraca@hilcorp.com>
Sent: Monday, February 19, 2024 11:47 AM
To: Mandi Walker <mwalker@hilcorp.com>; Griffin Selby <Griffin.Selby@hilcorp.com>; Glory Kamat <Glory.Kamat@hilcorp.com>
Subject: RE: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E

Griffin, Glory,

Formal request from the McClanahan 14E below. I'll check on the Mesaverde portion and follow up.

Trey Misuraca
Operations Engineer | San Juan North
Hilcorp Energy Company | 1111 Travis Street | Houston, TX 77002
M: 225.610.7136
Trey.Misuraca@hilcorp.com

From: Mandi Walker <mwalker@hilcorp.com>
Sent: Monday, February 19, 2024 11:46 AM
To: Trey Misuraca <Trey.Misuraca@hilcorp.com>
Subject: Fwd: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E

Here's the formal request. With an additional question

Get Outlook for iOS

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Monday, February 19, 2024 11:31:11 AM
To: Mandi Walker <mwalker@hilcorp.com>; Cheryl Weston <cweston@hilcorp.com>
Subject: [EXTERNAL] Application ID: 303866; 30-045-23913 MCCLANAHAN #014E

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

Ms. Walker,

I am reviewing the sundry referenced in the subject line of this email regarding the recompletion of the 30-045-23913 MCCLANAHAN #014E.

Hilcorp is proposing to perforate the FLC from 1478' to 1823'. However, the pick on file for the FLC is 1555'; a depth which the log on file seems to agree with. Please provide Hilcorp's reasoning for believing that the top of the FLC is at or more shallow than 1478'.

Additionally and maybe I am missing something on the WBD, but it seems to indicate that the MV perforations from 4126 to 4187 are still open. However, the well file seems to indicate that these perforations were squeezed in February of 1990. Please confirm that these perforations are squeezed.

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

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

APPLICATION FOR DOWNHOLE COMMINGLING
SUBMITTED BY HILCORP ENERGY COMPANY **ORDER NO. DHC-5348**

ORDER

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

FINDINGS OF FACT

1. Hilcorp Energy Company ("Applicant") submitted a complete application ("Application") to downhole commingle the pools described in Exhibit A ("the Pools") within the well bore of the well identified in Exhibit A ("the Well").
2. Applicant proposed a method to allocate the oil and gas production from the Well to each of the Pools that is satisfactory to the OCD and protective of correlative rights.
3. Applicant has certified that the proposed commingling of the Pools shall not result in shut-in or flowing well bore pressure in excess of the commingled pool's fracture parting pressure.
4. Applicant has certified that all produced fluids from all the Pools are compatible with each other.
5. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
6. To the extent that ownership is identical, Applicant submitted a certification by a licensed attorney or qualified petroleum landman that ownership in the Pools is identical as defined by 19.15.12.7(B) NMAC.
7. Applicant provided notice of the Application to the Bureau of Land Management ("BLM") or New Mexico State Land Office ("NMSLO"), as applicable.

CONCLUSIONS OF LAW

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

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

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

12. By granting the Application with the conditions specified below, this Order prevents waste and protects correlative rights, public health, and the environment.

ORDER

1. Applicant is authorized to downhole commingle the Pools described in Exhibit A within the well bore of the well identified in Exhibit A.

2. This Order supersedes Order DHC-1635.

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. zero percent (0%) shall be allocated to the BASIN FRUITLAND COAL (GAS) pool (pool ID: 71629);
    b. zero percent (0%) shall be allocated to the OTERO CHACRA (GAS) pool (pool ID: 82329); and
    c. one hundred percent (100%) 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 BASIN FRUITLAND COAL (GAS) pool (pool ID: 71629).
    The current pool(s) are:
    a. the OTERO CHACRA (GAS) pool (pool ID: 82329); and
    b. the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

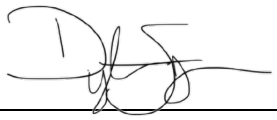
    Until a different plan to allocate gas production is approved by OCD, of the projected gas production allocated to the current pools:
    a. seventy percent (70%) shall be allocated to the OTERO CHACRA (GAS) pool (pool ID: 82329); and
    b. thirty percent (30%) shall be allocated to the BASIN DAKOTA (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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



DATE: 3/8/24

DYLAN M. FUGE
DIRECTOR (ACTING)

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

	Order:	DHC-5348			
	Operator:	Hilcorp Energy Company (372171)			
	Well Name:	McClanahan #14E			
	Well API:	30-045-23913			
Upper Zone	Pool Name:	BASIN FRUITLAND COAL (GAS)			
	Pool ID:	71629	Current:	New:	X
	Allocation:	Subtraction	Oil:	0.0%	Gas: Sub
	Interval:	Perforations	Top:	1,555	Bottom: 1,823
Intermediate Zone	Pool Name:	OTERO CHACRA (GAS)			
	Pool ID:	82329	Current:	X	New:
	Allocation:	Fixed Percent	Oil:	0.0%	Gas: 70.0%
	Interval:	Perforations	Top:	2,818	Bottom: 2,938
	Bottom of Interval within 150% of Upper Zone's Top of Interval:	NO			
Lower Zone	Pool Name:	BASIN DAKOTA (PRORATED GAS)			
	Pool ID:	71599	Current:	X	New:
	Allocation:	Fixed Percent	Oil:	100.0%	Gas: 30.0%
	Interval:	Perforations	Top:	6,216	Bottom: 6,386
	Bottom of Interval within 150% of Upper Zone's Top of Interval:	NO			

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 304362

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 304362
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.	3/8/2024