

MAY 28 2019 PM03:14

Revised March 23, 2017

RECEIVED: 05/28/2019	REVIEWER:	TYPE: DHC	APP NO: DMAm 19148 54981
-------------------------	-----------	--------------	-----------------------------

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

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



ADMINISTRATIVE APPLICATION CHECKLIST

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

Applicant: Hilcorp Energy Company	OGRID Number: 372171
Well Name: Zachry 16E	API: 30-045-24434
Pool: Blanco - Mesaverde	Pool Code: 72319

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

1) **TYPE OF APPLICATION:** Check those which apply for [A]

A. Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

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

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

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

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

Cherylene Weston, Operations/Regulatory Tech.-Sr.

Print or Type Name

Cherylene Weston
 Signature

5-28-19
 Date

505-564-0779
 Phone Number

cweston@hilcorp.com
 e-mail Address

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

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

District III
1000 Rio Brazos Road, Aztec, NM 87410

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
☐ Single Well
☐ Establish Pre-Approved Pools
EXISTING WELLBORE
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

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

Zachry #16E Unit P (SESE) Section 33, T29N, R10W San Juan
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 372171 Property Code 318769 API No. 30-045-24434 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Otero Chacra	Blanco Mesaverde	Basin Dakota
Pool Code	82329	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2962' - 3084'	3,557' - 4,775' est.	6400' - 6602'
Method of Production (Flowing or Artificial Lift)	ARTIFICIAL LIFT	NEW ZONE	ARTIFICIAL LIFT
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	839 psi	1329 psi	1183 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1,180 BTU	1,325 BTU	1,200 BTU
Producing, Shut-In or New Zone	Producing	New Zone	Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: 3/1/2019 Rates: 0 Bbl-Oil, 422 Mcf-Gas 0 Bbl-Water	Date: N/A Rates: N/A	Date: 3/1/2019 Rates: 0 Bbl-Oil, 537 Mcf-Gas, 0 Bbl-Water
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 Will be supplied upon completion % %	Oil Gas Will be supplied upon completion % %	Oil Gas Will be supplied upon completion % %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ 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 ☒ No ☐

Will commingling decrease the value of production? Yes ☐ No ☒

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 ☒ No ☐

NMOC Reference Case No. applicable to this well: _____

Attachments:

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

PRE-APPROVED POOLS

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

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

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

SIGNATURE Cherylene Weston TITLE Operations/Regulatory Technician-Sr. DATE 5-28-19

TYPE OR PRINT NAME Cherylene Weston TELEPHONE NO. (505) 564-0779

E-MAIL ADDRESS cweston@hilcorp.com

District I

1626 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 267725

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-045-24434	2. Pool Code 72319	3. Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 318769	5. Property Name ZACHRY	6. Well No. 016E
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 5781

10. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
P	33	29N	10W		830	S	830	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 320.00 - E/2	13. Joint or Infill	14. Consolidation Code	15. Order No.						

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

	<p style="text-align: center;">OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: <i>Cherylene Weston</i></p> <p>Title: Cherylene Weston, Operations/Regulatory Tech - Sr.</p> <p>Date: 05/22/2019</p>	
	<p style="text-align: center;">SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: JAMES P. LEESE</p> <p>Date of Survey: 2/20/1980</p> <p>Certificate Number: 1463</p>	

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

SUPRON ENERGY CORPORATION			ZACHRY		Well No. 16-E
Well Letter P	Section 33	Township 29 NORTH	Range 10 WEST	County SAN JUAN	
830 feet from the SOUTH line and 830 feet from the EAST line Section Level Elev. 5781 Producing Formation CHACRA DAKOTA Well WILDCAT BASIN Dedicated Area NE/4 1 2/2 320					

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plot below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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.) _____

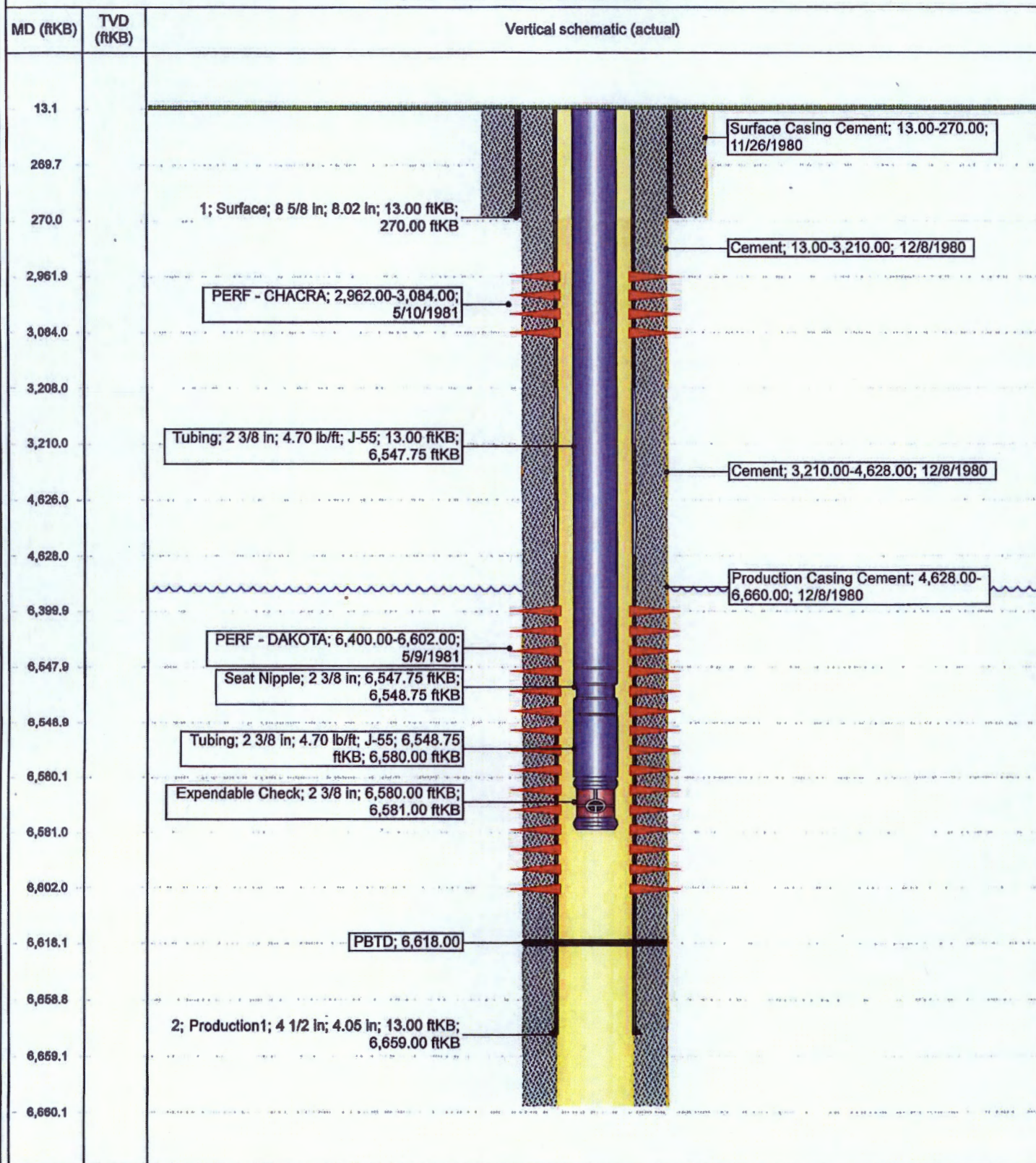
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.

<p>— Chacra</p> <p>— Dakota</p>	<p>Zachry #16</p> <p>1510'</p> <p>1030'</p> <p>830'</p> <p>830'</p>		<p>CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Rudy D. Motto</i></p> <p>Name Rudy D. Motto</p> <p>Position Area Superintendent</p> <p>Company Supron Energy Corporation</p> <p>Date August 20, 1980</p>
	<p>1463</p>		<p>I hereby certify that the location shown on this plat was plotted from field notes and 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.</p> <p><i>James P. Leese</i></p> <p>Professional Engineer NEW MEXICO JAMES P. LEESE</p>
	<p>Date Surveyed February 20, 1980</p> <p>Registered Professional Engineer in Oil and Gas Surveying</p> <p><i>James P. Leese</i></p> <p>James P. Leese</p> <p>Certificate No. 1463</p>		<p>1463</p>
	<p>110 120 130 140 150 160 170 180 190 200</p>		<p>110 120 130 140 150 160 170 180 190 200</p>

Well Name: ZACHRY #16E

API/UW 3004524434	Surface Legal Location 033-029N-010W-P	Field Name BSN DK(PRO GAS)	#0068	Route 0707	State/Province NEW MEXICO	Well Configuration Type
Ground Elevation (ft) 5,781.00	Original KB/RT Elevation (ft) 5,794.00	KB-Ground Distance (ft) 13.00	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)		

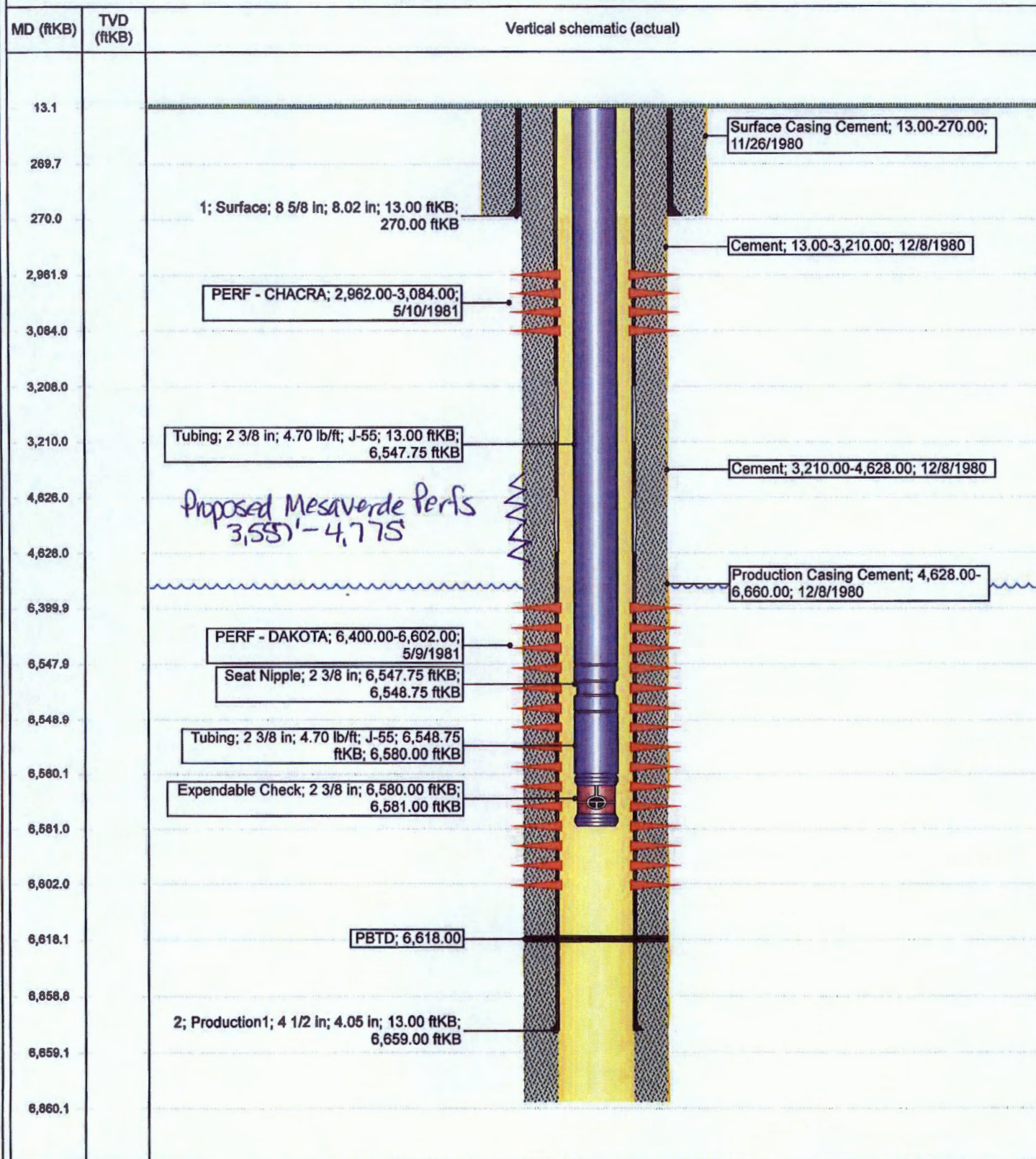
Original Hole, 5/22/2019 4:36:28 PM



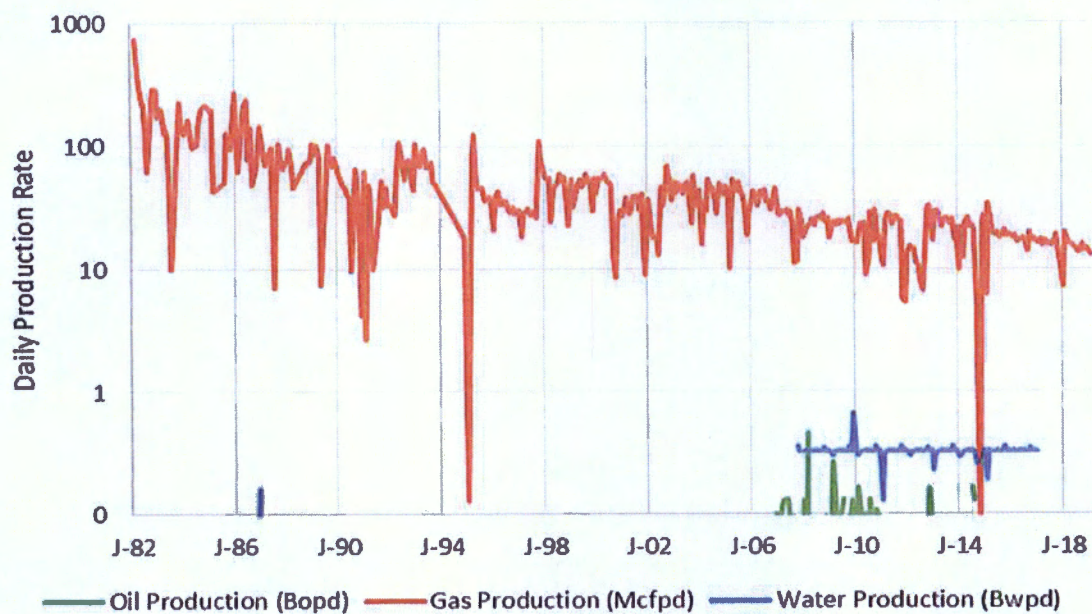
Well Name: ZACHRY #16E

API / UWI 3004524434	Surface Legal Location 033-029N-010W-P	Field Name BSN DK(PRO GAS)	#0068	Route 0707	State/Province NEW MEXICO	Well Configuration Type
Ground Elevation (ft) 5,781.00	Original KB/RT Elevation (ft) 5,794.00	KB-Ground Distance (ft) 13.00	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)		

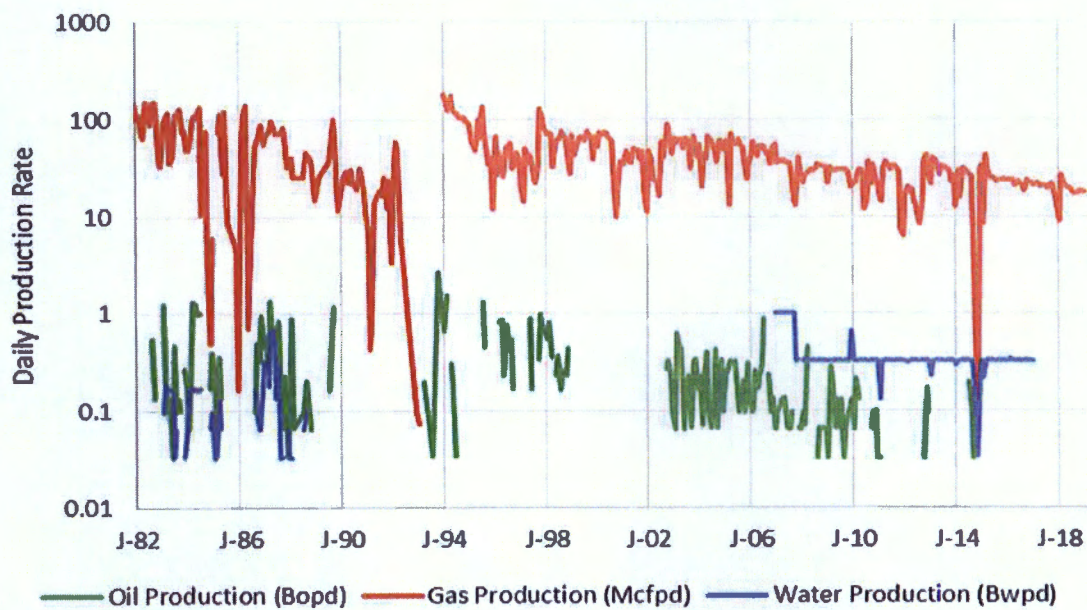
Original Hole, 5/22/2019 4:36:28 PM

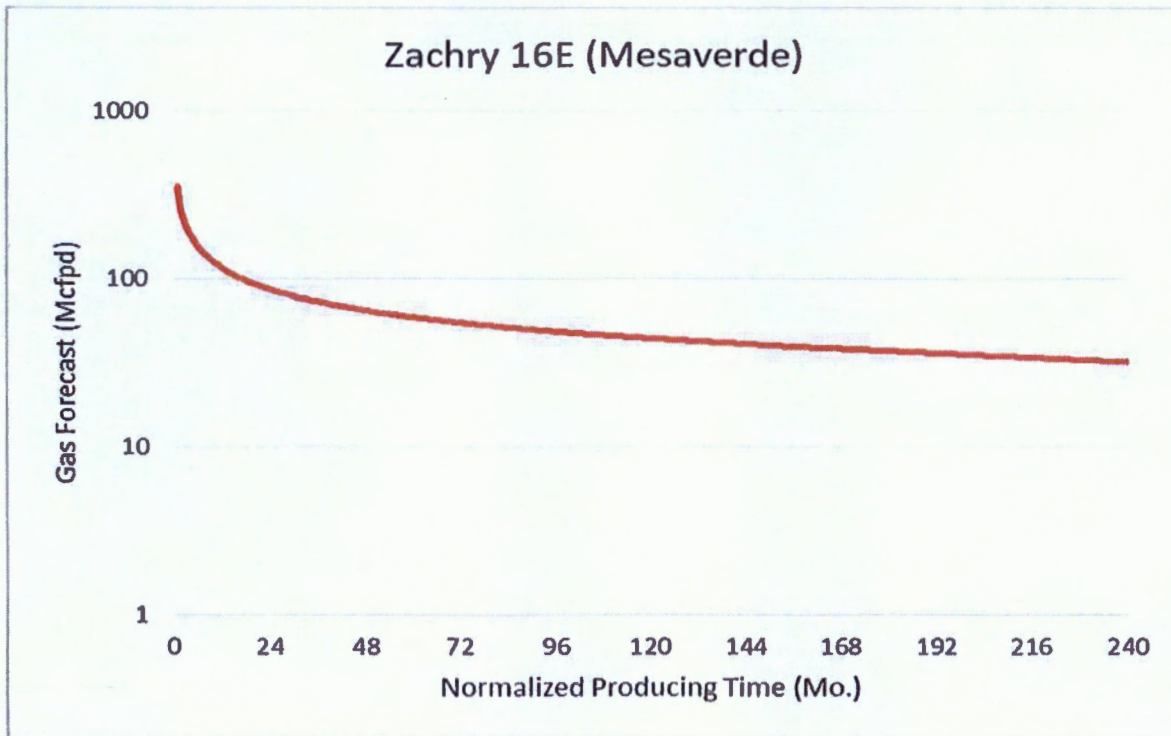


Zachry 16E (Chacra)



Zachry 16E (Dakota)





The forecast for Mesaverde production has been generated using a type curve of MV gas production in the surrounding production 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 and the higher MV reservoir pressure declines very quickly given the tight gas nature of the horizon.

Zachry 16E – Production Allocation Method

Production for the downhole commingle will be allocated using the subtraction method in agreement with the BLM. The base formations are the Chacra & Dakota and the added formation to be commingled 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 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. Oil production will be allocated based on average formation yields from offset wells. All documentation will be submitted to the Aztec NMOCD office.



May 22, 2019

New Mexico Oil Conservation Division
Attn: Adrienne Sandoval
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Zachry 16E (30-045-24434)
Common Ownership in All Depths
San Juan County, New Mexico

Mrs. Sandoval:

In the subject well, Hilcorp plans to downhole trimmingle existing pay from the Otero-Chacra and Basin-Dakota formations with potential pay from the Blanco-Mesaverde formation. In accordance with Subsection C of 19.15.12.11 New Mexico Administrative Code, we have concluded that ownership is the same between all three aforementioned pools. Therefore, this letter serves as Hilcorp Energy's statement that ownership is common throughout all depths in the subject well

This letter represents a good faith effort to adhere with applicable notification requirements. Hilcorp appreciates the opportunity to enhance production from the subject well.

Please contact Brad Pearson by email at bpearson@hilcorp.com or by phone at 713-289-2793 with any questions you may have.

Regards,

A handwritten signature in cursive script that reads 'Bradley W. Pearson'.

Landman
Hilcorp Energy Company
713-289-2793

Encl.



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87508
(505) 827-7131

ADMINISTRATIVE ORDER DHC-1633

Burlington Resources Oil & Gas Company
P.O. Box 4289
Farmington, New Mexico 87499-4289

Attention: Ms. Peggy Bradfield

Zachry No. 16E
API No. -30-045-~~24105~~ **24434**
*Unit P, Section 33, Township 29 North, Range 10 West, NMPM,
San Juan County, New Mexico.
Otero-Chacra (Gas - 82329) and
Basin-Dakota (Prorated Gas - 71599) Pools*

Dear Ms. Bradfield:

Reference is made to your recent application for an exception to Rule 303.A. of the Division Rules and Regulations to permit the above described well to commingle production from the subject pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303.C., and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the zones is hereby placed in abeyance.

The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

The applicant shall consult with the supervisor of the Aztec District Office of the Division upon completion and testing of the well in order to establish a fixed allocation of production from each of the commingled zones. Upon approval by the Division's District Office, the applicant shall submit the allocation formula to the Santa Fe Office of the Division.

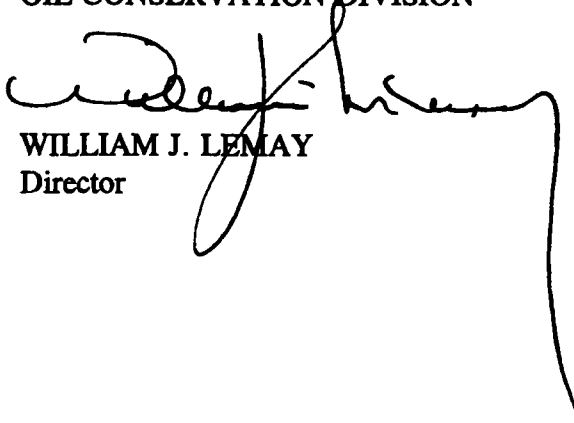
REMARKS: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

Administrative Order DHC-1633
Burlington Resources Oil & Gas Company
August 26, 1997
Page 2

Pursuant to Rule 303.H., the commingling authority granted herein may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 26th day of August, 1997.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

WJL/DRC

cc: Oil Conservation Division - Aztec
Bureau of Land Management-Farmington

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Hilcorp Energy Company

3a. Address

382 Road 3100, Aztec, NM 87410

3b. Phone No. (include area code)

505-599-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface Unit P (SESE) 830' FSL & 830' FEL, Sec. 33, T29N, R10W

5. Lease Serial No.

SF080724A

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

Zachry 16E

9. API Well No.

30-045-24434

10. Field and Pool or Exploratory Area

Blanco MV / Otero CH / Basin DK

11. Country or Parish, State

San Juan , New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☒ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☐ Other _____

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Hilcorp Energy Company plans to recompleate the subject well in the Mesaverde formation and downhole commingle with the existing Chacra and Dakota. Attached is the MV C-102, recompleate procedure & wellbore schematic. The DHC application will be submitted and approved prior to commingling. A closed loop system will be utilized. Interim reclamation will be performed after surface disturbing activities.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Cherylene Weston

Title **Operations/Regulatory Technician - Sr.**

Signature

Cherylene Weston

Date

5-23-19

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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.

(Instruction on page 2)