

State of New Mexico  
Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**Ken McQueen**  
Cabinet Secretary

**Matthias Sayer**  
Deputy Cabinet Secretary

**Heather Riley**, Division Director  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 5-7-18

Well information:

frmWellFilterSub												
API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf_Owner	UL	Sec	Twp	N/S	Rng W/E
30-045-34450-00-00	SUNRAY F	001F	HILCORP ENERGY COMPANY	G	A	San Juan	F	I	26	30	N	10 W

Application Type:

- P&A   
  Drilling/Casing Change   
  Location Change  
 **Recomplete/DHC** (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)  
 Other:

Conditions of Approval:

- Notify OCD 24hrs prior to beginning operations.
- Density exception must be approved prior to producing from the Blanco Mesaverde.
- Provide the agencies the planned footage for the remediation footages prior to performing the remedial sqz.
- Provide the agencies a copy of the CBL for review/approval after the remedial squeeze prior to continuing the completion.



NMOCD Approved by Signature

5/29/18  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

**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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	8. Well Name and No. SUNRAY F 1F
2. Name of Operator HILCORP ENERGY COMPANY Contact: PRISCILLA SHORTY E-Mail: pshorty@hilcorp.com	9. API Well No. 30-045-34450-00-S1
3a. Address 1111 TRAVIS STREET HOUSTON, TX 77002	10. Field and Pool or Exploratory Area BASIN DAKOTA
3b. Phone No. (include area code) Ph: 505-324-5188	11. County or Parish, State SAN JUAN COUNTY, NM
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 26 T30N R10W NESE 2565FSL 885FEL 36.782884 N Lat, 107.847995 W Lon	

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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 recomplate 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 recomplate 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 recomplate the subject well in the Mesaverde formation and downhole commingle the existing Dakota with the Mesaverde. Attached is the Mesaverde plat and recomplate procedure. A DHC application will be filed and approved prior to commingling. A Closed Loop system will be used.

\*\*Please note that this well is pending approval of well density exemption\*\*

NMOC

MAY 09 2018

DISTRICT III

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #419115 verified by the BLM Well Information System For HILCORP ENERGY COMPANY, sent to the Farmington Committed to AFMSS for processing by JACK SAVAGE on 05/09/2018 (18JWS0123SE)</b>	
Name (Printed/Typed) PRISCILLA SHORTY	Title OPERATIONS REGULATORY TECH
Signature (Electronic Submission)	Date 05/07/2018

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <u>JACK SAVAGE</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>05/09/2018</u>
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 <u>Farmington</u>

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.

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

NMOC <sup>32</sup> AV

**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 250145

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-045-34450	2. Pool Code 72319	3. Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 318747	5. Property Name SUNRAY F	6. Well No. 001F
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6252

**10. Surface Location**

UL - Lot I	Section 26	Township 30N	Range 10W	Lot Idn	Feet From 2565	N/S Line S	Feet From 885	E/W Line E	County SAN JUAN
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**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 317.22 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**

	<b>OPERATOR CERTIFICATION</b>
	<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>
	E-Signed By: <i>Priscilla Shorty</i>
	Title: Operations Regulatory Technician Date: 3/20/2018
	<b>SURVEYOR CERTIFICATION</b>
	<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>
	Surveyed By: David Russell Date of Survey: 6/1/2007 Certificate Number: 10201



HILCORP ENERGY COMPANY  
SUNRAY F 1F  
MESA VERDE RECOMPLETION SUNDRY

JOB PROCEDURES

1. MIRU service rig and associated equipment; NU and test BOP.
2. TOOH with 2 3/8" tubing set at 7,244'.
3. Set a 4-1/2" cast iron bridge plug at +/- 7,100' to isolate the Dakota. Note: TOC at 4,500' by CBL.
4. Perforate hole(s) in 4-1/2" casing, set a 4-1/2" cmt retainer below perforations, and squeeze 70 sxs (14.6 bbls) of cement inbetween 7" and 4-1/2" casings.
3. WOC, estimated new annulus TOC @ 3,800'. Drill out cement to CIBP.
4. Load hole with fluid and run CBL to determine new TOC.
4. Pressure test the casing to frac pressure.
5. N/D BOP, N/U frac stack and test frac stack to frac pressure.
6. Perforate and frac the Mesa Verde in two or three stages. (Top perforation @ 4,325', Bottom perforation @ 5,480')
7. Isolate frac stages with a composite bridge plug and set top isolation plug once frac is completed.
8. Nipple down frac stack, nipple up BOP and test.
9. TIH with a mill and drill out top isolation plug and Mesa Verde frac plugs.
10. Clean out to Dakota isolation plug and, when water and sand rates are acceptable, flow test the Mesa Verde.
11. Drill out Dakota isolation plug and cleanout to PBSD of 7,369'. TOOH.
12. TIH and land production tubing. Get a commingled Dakota/Mesa Verde flow rate.



**HILCORP ENERGY COMPANY  
SUNRAY F 1F  
MESA VERDE RECOMPLETION SUNDRY**

**SUNRAY F 1F - CURRENT WELLBORE SCHEMATIC**



**Schematic - Current**

**Well Name: SUNRAY F #1F**

API / UWI 3004534450	Surface Legal Location 026-030N-010W-1	Field Name BASIN DAKOTA	License No.	State Province NEW MEXICO	Well Configuration Type VERTICAL
Original KBRT Elevation (ft) 6,268.00	KB-Tubing Hanger Distance (ft)	Original Spud Date 11/30/2007 00:00	Rig Release Date	PSTO (API) (B/C)	Total Depth Air (T-D) (B/C)

**Most Recent Job**

Job Category COMPLETIONS	Primary Job Type INITIAL COMPLETION	Secondary Job Type INITIAL COMPLETION	Actual Start Date 12/13/2007	End Date 12/6/2008
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**ID: 7,394.0**      **VERTICAL, Original Hole, 5/2/2018 11:21:34 AM**

