Area: «TEAM»

# Hilcorp Energy Company

## PRODUCTION ALLOCATION FORM

Distribution:
BLM 4 Copies
Regulatory
Accounting
Well File
Revised: March 9, 2006

Status
PRELIMINARY ☒
FINAL ☐
REVISED ☒

Commingle Type
SURFACE ☐ DOWNHOLE ☒
Type of Completion
NEW DRILL ☐ RECOMPLETION ☐ PAYADD ☐ COMMINGLE ☒

Date: **11/14/22**

API No. **30-039-21262**
DHC No. **DHC5218**
Lease No. **NMNM03471**
**Federal**

Well Name
**San Juan 29-6 Unit**

Well No.
**58A**

| Unit Letter | Section | Township | Range | Footage | County, State |
|---|---|---|---|---|---|
| **D** | **28** | **29N** | **6W** | **1150' FNL & 870' FWL** | **Rio Arriba County, New Mexico** |

Completion Date

Test Method
HISTORICAL ☐ FIELD TEST ☒ PROJECTED ☐ OTHER ☐

JUSTIFICATION OF ALLOCATION: Hilcorp requests to switch from a fixed allocation to a subtraction method based on additional information gathered from gas analysis. The base formation is the Mesaverde and the additional formation commingled is the Fruitland Coal. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceeding the forecast will be allocated to the Fruitland Coal. After 4 years production will stabilize. A production average will be gathered during the 5th year and will be utilized to create a fixed percentage based allocation.

Oil allocation will not change and will remain a fixed rate of 46% MV & 54% FC for 5 years. After 5 years oil will be reevaluated and adjust as needed based on average formation yields and new fixed gas allocation.

See attachments for additional information.

| APPROVED BY | DATE | TITLE | PHONE |
|---|---|---|---|
| X *Kandis Roland* | | Operations/Regulatory Tech – Sr. | 713-757-5246 |
| Kandis Roland | 11/14/22 | | |
| | | | |
| | | | |

Dean R McClure 11/15/2022

**Well Name:** SAN JUAN 29-6 UNIT

**Well Location:** T29N / R6W / SEC 28 / NWNW / 36.70068 / -107.47376

**County or Parish/State:** RIO ARRIBA / NM

**Well Number:** 58A

**Type of Well:** CONVENTIONAL GAS WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM03471

**Unit or CA Name:** SAN JUAN 29-6 UNIT--FR, SAN JUAN 29-6 UNIT--MV

**Unit or CA Number:** NMNM78416A, NMNM78416E

**US Well Number:** 3003921262

**Well Status:** Producing Gas Well

**Operator:** HILCORP ENERGY COMPANY

## Notice of Intent

**Sundry ID:** 2702905

**Type of Submission:** Notice of Intent

**Type of Action:** Commingling (Subsurface)

**Date Sundry Submitted:** 11/14/2022

**Time Sundry Submitted:** 01:18

**Date proposed operation will begin:** 11/01/2022

**Procedure Description:** Please see attached production allocation.

## NOI Attachments

**Procedure Description**

SJ_29_6_Unit_58A___Subtraction_20221114131805.pdf

**Well Name:** SAN JUAN 29-6 UNIT

**Well Location:** T29N / R6W / SEC 28 / NWNW / 36.70068 / -107.47376

**County or Parish/State:** RIO ARRIBA / NM

**Well Number:** 58A

**Type of Well:** CONVENTIONAL GAS WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM03471

**Unit or CA Name:** SAN JUAN 29-6 UNIT--FR, SAN JUAN 29-6 UNIT--MV

**Unit or CA Number:** NMNM78416A, NMNM78416E

**US Well Number:** 3003921262

**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:** KANDIS ROLAND

**Signed on:** NOV 14, 2022 01:18 PM

**Name:** HILCORP ENERGY COMPANY

**Title:** Operation Regulatory Tech

**Street Address:** 382 Road 3100

**City:** Farmington **State:** NM

**Phone:** (505) 599-3400

**Email address:** kroland@hilcorp.com

## Field

**Representative Name:**

**Street Address:**

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

**Phone:**

**Email address:**

## BLM Point of Contact

**BLM POC Name:** KENNETH G RENNICK

**BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5055647742

**BLM POC Email Address:** krennick@blm.gov

**Disposition:** Approved

**Disposition Date:** 11/14/2022

**Signature:** Kenneth Rennick

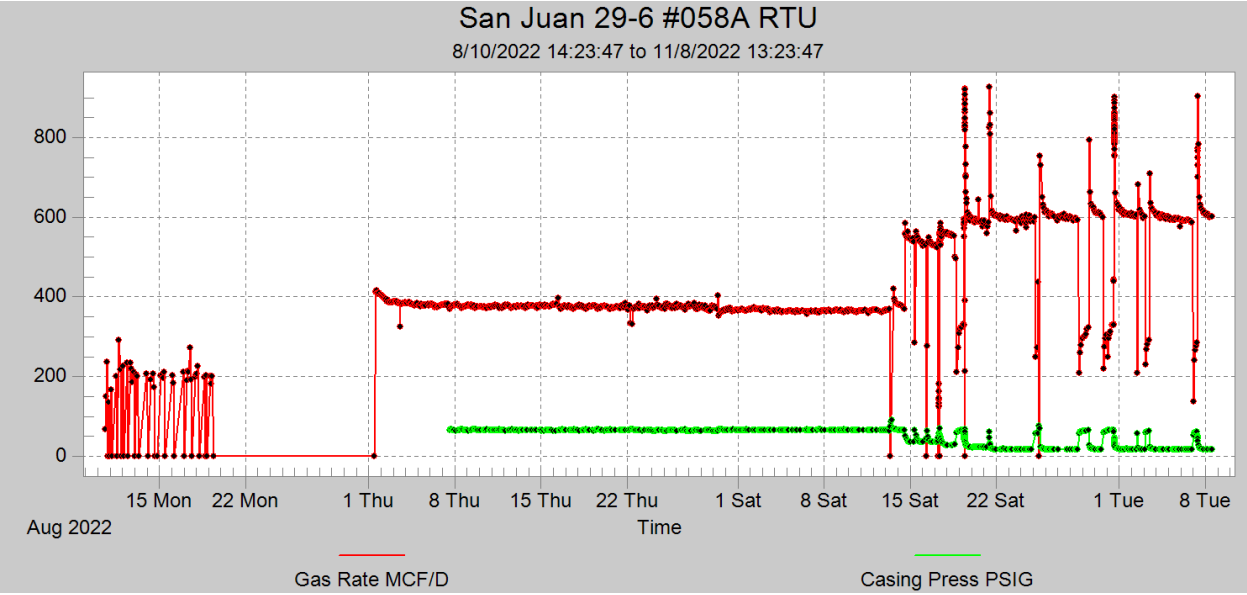
**San Juan 29-6 Unit #58A**

D – 28 – 29N – 06W 1150 FNL 0870 FWL

API#: 3003921262

**Allocation Update – Post Compression Install**

11/08/2022




1. Well shut in 8/19-9/1 for workover operations
2. Well brought online 9/2/22 without compression
3. Compression set 10/15/22, rate increased from 375 Mcf/d to 600 Mcf/d

Original allocation filed for rig up was filed at fixed percentage.

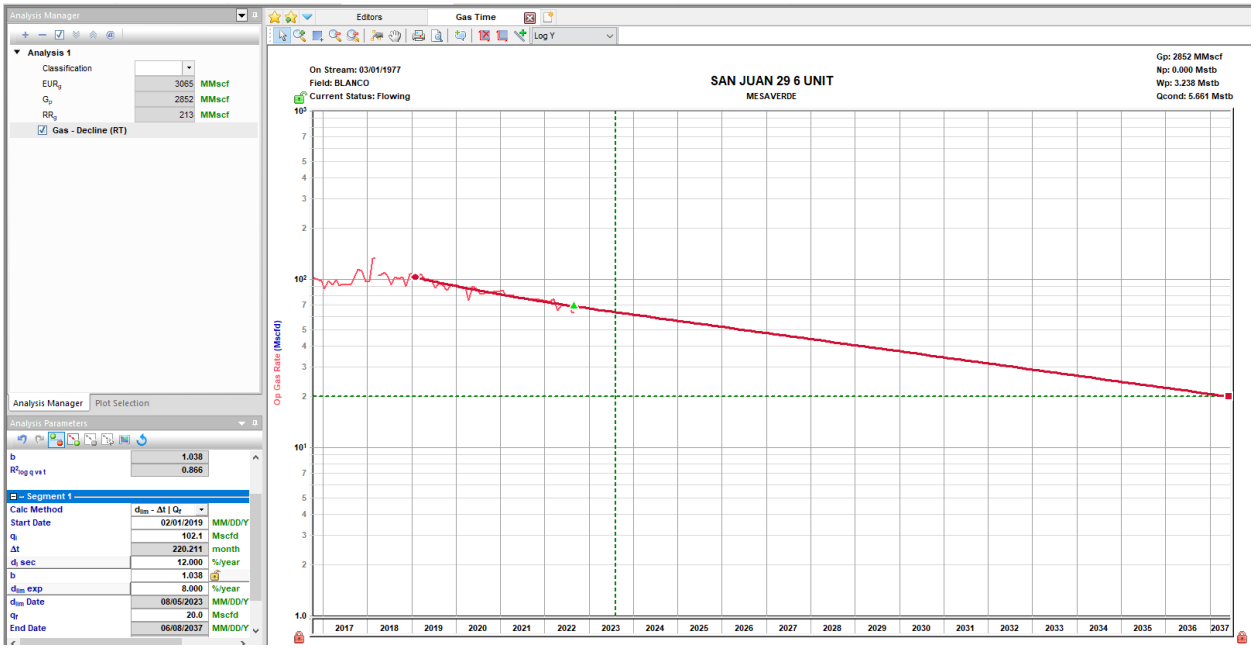
| | Gas Production | | |
|---|---|---|---|
| Date | Mesaverde | Fruitland Coal | Total |
| Jun-21 | 72.5 | 114.4 | 186.9 |
| Jul-21 | 78.3 | 124.8 | 203.1 |
| Aug-21 | 76.9 | 123.7 | 200.6 |
| Sep-21 | 76.0 | 122.3 | 198.3 |
| Oct-21 | 75.2 | 119.8 | 195.0 |
| Nov-21 | 76.1 | 121.7 | 197.8 |
| Dec-21 | 75.9 | 115.3 | 191.2 |
| Jan-22 | 74.9 | 128.0 | 202.9 |
| Feb-22 | 74.2 | 122.1 | 196.3 |
| Mar-22 | 73.5 | 119.7 | 193.2 |
| Apr-22 | 76.0 | 124.9 | 200.9 |
| May-22 | 64.9 | 101.7 | 166.6 |
| Averages | 74.5 | 119.9 | 194.4 |
| **% of Total** | **38%** | **62%** | |

| | Oil Production | | |
|---|---|---|---|
| Date | Mesaverde | Fruitland C | Total |
| Jun-21 | 0.4 | 0.4 | 0.8 |
| Jul-21 | 0.1 | 0.1 | 0.2 |
| Aug-21 | 0.0 | 0.0 | 0.0 |
| Sep-21 | 0.0 | 0.0 | 0.0 |
| Oct-21 | 0.0 | 0.0 | 0.0 |
| Nov-21 | 0.0 | 0.0 | 0.0 |
| Dec-21 | 0.0 | 0.0 | 0.0 |
| Jan-22 | 0.0 | 0.0 | 0.0 |
| Feb-22 | 0.0 | 0.0 | 0.0 |
| Mar-22 | 0.1 | 0.1 | 0.2 |
| Apr-22 | 0.0 | 0.1 | 0.1 |
| May-22 | 0.0 | 0.0 | 0.0 |
| Averages | 0.05 | 0.06 | 0.1 |
| **% of Total** | **46%** | **54%** | |

A commingled gas sample was collected after compression start-up. This sample, and samples collected for yearly meter calibration in June of 2022 prior to commingling are attached. The significant uplift in rate and the constituent make-up of the commingled sample show the Fruitland Coal is significantly more productive than previously anticipated. As such, we propose to update the allocation on a subtraction method with all production above and beyond the prior Mesaverde rate allocated to the Fruitland Coal. Oil production will be allocated in the same fixed percentage as previously filed. At five years allocation will switch to fixed percentage. A gas sample will be collected to verify Mesaverde contribution still aligns with assessed decline.

The flowing bottomhole pressure is unchanged in the current configuration compared to pre-workover status. Gas is being trapped in the annular space and will raise the flowing bottomhole pressure. With the wellhead compressor, we are operating with a surface pressure about 50 PSI less than the previous configuration on the Mesaverde side. However, the flowing gradient has increased due to the coal unloading fluid as well as a modest increase in frictional pressure due the total rate increase. In my experience, there is a 20-psi differential between surface pressure and casing pressure due to the frictional effects around the end of tubing with compression at this depth. When this 20 PSI differential is accounted for as well as the gradient change, the effect on flowing bottomhole pressure is marginal. With this methodology in mind, the decline method on the Mesaverde seems to be most appropriate to estimate contribution.

The gas samples do indicate the decline is reasonable. If you ignore CO2 washout in the sample and treat each hydrocarbon species as an exclusive system the weighted average estimates the Mesaverde rate between 58 and 73 Mcf/d. Our decline analysis falls within these boundaries.



| Date | Display Name | Gas Rate |
|---|---|---|
| MMM-YYYY | Mesaverde Forecast | Mscfd |
| Oct-22 | SAN JUAN 29 6 UNIT 58A | 70.6 |
| Nov-22 | SAN JUAN 29 6 UNIT 58A | 70.1 |
| Dec-22 | SAN JUAN 29 6 UNIT 58A | 69.6 |
| Jan-23 | SAN JUAN 29 6 UNIT 58A | 69.1 |
| Feb-23 | SAN JUAN 29 6 UNIT 58A | 68.6 |
| Mar-23 | SAN JUAN 29 6 UNIT 58A | 68.1 |
| Apr-23 | SAN JUAN 29 6 UNIT 58A | 67.6 |
| May-23 | SAN JUAN 29 6 UNIT 58A | 67.1 |
| Jun-23 | SAN JUAN 29 6 UNIT 58A | 66.7 |
| Jul-23 | SAN JUAN 29 6 UNIT 58A | 66.2 |
| Aug-23 | SAN JUAN 29 6 UNIT 58A | 65.7 |
| Sep-23 | SAN JUAN 29 6 UNIT 58A | 65.3 |
| Oct-23 | SAN JUAN 29 6 UNIT 58A | 64.8 |
| Nov-23 | SAN JUAN 29 6 UNIT 58A | 64.4 |
| Dec-23 | SAN JUAN 29 6 UNIT 58A | 63.9 |
| Jan-24 | SAN JUAN 29 6 UNIT 58A | 63.5 |
| Feb-24 | SAN JUAN 29 6 UNIT 58A | 63 |
| Mar-24 | SAN JUAN 29 6 UNIT 58A | 62.6 |
| Apr-24 | SAN JUAN 29 6 UNIT 58A | 62.2 |
| May-24 | SAN JUAN 29 6 UNIT 58A | 61.7 |
| Jun-24 | SAN JUAN 29 6 UNIT 58A | 61.3 |
| Jul-24 | SAN JUAN 29 6 UNIT 58A | 60.9 |
| Aug-24 | SAN JUAN 29 6 UNIT 58A | 60.5 |
| Sep-24 | SAN JUAN 29 6 UNIT 58A | 60 |
| Oct-24 | SAN JUAN 29 6 UNIT 58A | 59.6 |
| Nov-24 | SAN JUAN 29 6 UNIT 58A | 59.2 |
| Dec-24 | SAN JUAN 29 6 UNIT 58A | 58.8 |
| Jan-25 | SAN JUAN 29 6 UNIT 58A | 58.4 |
| Feb-25 | SAN JUAN 29 6 UNIT 58A | 58 |
| Mar-25 | SAN JUAN 29 6 UNIT 58A | 57.6 |
| Apr-25 | SAN JUAN 29 6 UNIT 58A | 57.2 |
| May-25 | SAN JUAN 29 6 UNIT 58A | 56.8 |
| Jun-25 | SAN JUAN 29 6 UNIT 58A | 56.4 |
| Jul-25 | SAN JUAN 29 6 UNIT 58A | 56 |
| Aug-25 | SAN JUAN 29 6 UNIT 58A | 55.6 |
| Sep-25 | SAN JUAN 29 6 UNIT 58A | 55.2 |

| | | |
|---|---|---|
| Oct-25 | SAN JUAN 29 6 UNIT 58A | 54.9 |
| Nov-25 | SAN JUAN 29 6 UNIT 58A | 54.5 |
| Dec-25 | SAN JUAN 29 6 UNIT 58A | 54.1 |
| Jan-26 | SAN JUAN 29 6 UNIT 58A | 53.7 |
| Feb-26 | SAN JUAN 29 6 UNIT 58A | 53.4 |
| Mar-26 | SAN JUAN 29 6 UNIT 58A | 53 |
| Apr-26 | SAN JUAN 29 6 UNIT 58A | 52.6 |
| May-26 | SAN JUAN 29 6 UNIT 58A | 52.3 |
| Jun-26 | SAN JUAN 29 6 UNIT 58A | 51.9 |
| Jul-26 | SAN JUAN 29 6 UNIT 58A | 51.5 |
| Aug-26 | SAN JUAN 29 6 UNIT 58A | 51.2 |
| Sep-26 | SAN JUAN 29 6 UNIT 58A | 50.8 |
| Oct-26 | SAN JUAN 29 6 UNIT 58A | 50.5 |
| Nov-26 | SAN JUAN 29 6 UNIT 58A | 50.1 |
| Dec-26 | SAN JUAN 29 6 UNIT 58A | 49.8 |
| Jan-27 | SAN JUAN 29 6 UNIT 58A | 49.4 |
| Feb-27 | SAN JUAN 29 6 UNIT 58A | 49.1 |
| Mar-27 | SAN JUAN 29 6 UNIT 58A | 48.8 |
| Apr-27 | SAN JUAN 29 6 UNIT 58A | 48.4 |
| May-27 | SAN JUAN 29 6 UNIT 58A | 48.1 |
| Jun-27 | SAN JUAN 29 6 UNIT 58A | 47.7 |
| Jul-27 | SAN JUAN 29 6 UNIT 58A | 47.4 |
| Aug-27 | SAN JUAN 29 6 UNIT 58A | 47.1 |
| Sep-27 | SAN JUAN 29 6 UNIT 58A | 46.8 |
| Oct-27 | SAN JUAN 29 6 UNIT 58A | 46.4 |
| Nov-27 | SAN JUAN 29 6 UNIT 58A | 46.1 |
| Dec-27 | SAN JUAN 29 6 UNIT 58A | 45.8 |

| MeterID | AssetCode | AssetName | AssetT | SampleDate | EffectiveDate | ExpirationDate | BTUWet | BTUDry | SpecificGra | CO2 | N2 | C1 | C2 | C3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 85-447-01 | 3003921262 | SAN JUAN 29-6 UNIT 58A | WELL | 6/14/2022 0:00 | 7/1/2022 0:00 | 12/31/2399 0:00 | 881 | 897 | 0.7125 | 0.143672 | 0.000487 | 0.830465 | 0.016635 | 0.006551 |
| 89-577-01 | 3003921262 | SAN JUAN 29-6 UNIT 58A | WELL | 6/14/2022 0:00 | 7/1/2022 0:00 | 12/31/2399 0:00 | 1163 | 1183 | 0.7006 | 0.022033 | 0.00166 | 0.835586 | 0.079488 | 0.033629 |
| Commingled Meter Post Workover | | | | | | | 847 | 862 | 0.7199 | 0.162093 | 0.000374 | 0.826147 | 0.008304 | 0.002145 |

| ISOC4 | NC4 | ISOC5 | NC5 | C6_PLUS | CO2GPM | N2GPM | C1GPM | C2GPM | C3GPM | ISOC4GPM | NC4GPM | ISOC5GPM | NC5GPM | C6_PLUSGPM | BtuDryAdj |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.001038 | 0.000754 | 0.000234 | 0.000081 | 0.000083 | 0 | 0 | 0 | 0.4459 | 0.1809 | 0.034 | 0.0238 | 0.0086 | 0.0029 | 0.0037 | 896.6 |
| 0.006524 | 0.008754 | 0.003385 | 0.002414 | 0.006527 | 0 | 0 | 0 | 2.1322 | 0.9292 | 0.2141 | 0.2768 | 0.1242 | 0.0878 | 0.2922 | 1183.2 |
| 0.000324 | 0.000287 | 0.000065 | 0.000034 | 0.000227 | | | | | | | | | | | |

2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: HC20220022
Cust No: 35800-16675

## Well/Lease Information

| | | | |
|---|---|---|---|
| Customer Name: | HILCORP | Source: | METER RUN |
| Well Name: | SAN JUAN 29-6 #58A | Well Flowing: | Y |
| County/State: | | Pressure: | 56 PSIG |
| Location: | | Flow Temp: | 30 DEG. F |
| Lease/PA/CA: | | Ambient Temp: | 40 DEG. F |
| Formation: | | Flow Rate: | 438 MCF/D |
| Cust. Stn. No.: | ELB85447 | Sample Method: | Purge & Fill |
| | 3003921262 | Sample Date: | 11/03/2022 |
| | | Sample Time: | 9.05 AM |
| | AREA 10/ RUN 1003 | Sampled By: | GREG VALDEZ JR |
| Heat Trace: | N | Sampled by (CO): | HILCORP |
| Remarks: | | | |

## Analysis

| Component:: | Mole%: | Unormalized %: | **GPM: | *BTU: | *SP Gravity: |
|---|---|---|---|---|---|
| Nitrogen | 0.0374 | 0.0373 | 0.0040 | 0.00 | 0.0004 |
| CO2 | 16.2093 | 16.1795 | 2.7730 | 0.00 | 0.2463 |
| Methane | 82.6147 | 82.4626 | 14.0370 | 834.41 | 0.4576 |
| Ethane | 0.8304 | 0.8289 | 0.2230 | 14.70 | 0.0086 |
| Propane | 0.2145 | 0.2141 | 0.0590 | 5.40 | 0.0033 |
| Iso-Butane | 0.0324 | 0.0323 | 0.0110 | 1.05 | 0.0007 |
| N-Butane | 0.0287 | 0.0286 | 0.0090 | 0.94 | 0.0006 |
| I-Pentane | 0.0065 | 0.0065 | 0.0020 | 0.26 | 0.0002 |
| N-Pentane | 0.0034 | 0.0034 | 0.0010 | 0.14 | 0.0001 |
| Hexane Plus | 0.0227 | 0.0227 | 0.0100 | 1.20 | 0.0008 |
| Total | 100.0000 | 99.8159 | 17.1290 | 858.08 | 0.7184 |

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

| | | | |
|---|---|---|---|
| COMPRESSIBLITY FACTOR (1/Z): | 1.0025 | CYLINDER #: | 4208 |
| BTU/CU.FT IDEAL: | 860.1 | CYLINDER PRESSURE: | 51 PSIG |
| BTU/CU.FT (DRY) CORRECTED FOR (1/Z): | 862.2 | ANALYIS DATE: | 10/30/2022 |
| BTU/CU.FT (WET) CORRECTED FOR (1/Z): | 847.2 | ANALYIS TIME: | 10:16:56 AM |
| DRY BTU @ 15.025: | 879.5 | ANALYSIS RUN BY: | RICHARD WILSON |
| REAL SPECIFIC GRAVITY: | 0.7199 | | |

**GPM, BTU, and SPG calculations as shown above are based on current GPA constants.**
**GPA Standard: GPA-2261**
**GC: Danalyzer Model 500** **Last Cal/Verify: 11/04/2022**
**GC Method: C6+ Gas**

HILCORP

WELL ANALYSIS COMPARISON

| | | | |
|---|---|---|---|
| **Lease:** | SAN JUAN 29-6 #58A | METER RUN | 11/04/2022 |
| **Stn. No.:** | ELB85447 | | 35800-16675 |
| **Mtr. No.:** | 3003921262 | | |

| | |
|---|---|
| **Smpl Date:** | 11/03/2022 |
| **Test Date:** | 10/30/2022 |
| **Run No:** | HC20220022 |
| **Nitrogen:** | 0.0374 |
| **CO2:** | 16.2093 |
| **Methane:** | 82.6147 |
| **Ethane:** | 0.8304 |
| **Propane:** | 0.2145 |
| **I-Butane:** | 0.0324 |
| **N-Butane:** | 0.0287 |
| **I-Pentane:** | 0.0065 |
| **N-Pentane:** | 0.0034 |
| **Hexane+:** | 0.0227 |
| **BTU:** | 862.2 |
| **GPM:** | 17.1290 |
| **SPG:** | 0.7199 |

## Kandis Roland

**From:** McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
**Sent:** Wednesday, November 9, 2022 4:45 PM
**To:** Jake Perry; Kandis Roland
**Cc:** Mandi Walker
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #30-039-21262



Jake,

That sounds good. Please either add a brief summary of your points as laid out in the last email for why Hilcorp feels the proposed allocation is accurate, or diversly, I can attach this email chain to the sundry once submitted as well.

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

---

**From:** Jake Perry <Jake.Perry@hilcorp.com>
**Sent:** Wednesday, November 9, 2022 1:47 PM
**To:** McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>; Kandis Roland <kroland@hilcorp.com>
**Cc:** Mandi Walker <mwalker@hilcorp.com>
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #30-039-21262

Dean,

I can update our proposal to reflect the language about switching to fixed allocation at year 5.

I agree with your point (a) regarding the coal. With regards to the Mesaverde, the flowing bottomhole pressure is essentially unchanged as you alluded to. With the packer still in the hole, the Mesaverde is flowing with the same configuration as prior to the workover. Gas is being trapped in the annular space and will raise the flowing bottomhole pressure. With the wellhead compressor, we are operating with a surface pressure about 50 PSI less than the previous configuration on the Mesaverde side. However, the flowing gradient has increased due to the coal unloading fluid as well as a modest increase in frictional pressure due the total rate increase. In my experience, there is a 20 psi differential between surface pressure and casing pressure due to the frictional effects around the end of tubing with compression at this depth. When this 20 PSI differential is accounted for as well as the gradient change, the effect on flowing bottomhole pressure is marginal. With this methodology in mind, the decline method on the Mesaverde seems to be most appropriate to estimate contribution.

The gas samples do indicate the decline is reasonable. If you ignore CO2 as you stated and treat each hydrocarbon species as an exclusive system the weighted average estimates the Mesaverde rate between 58 and 73 Mcf/d. Our decline analysis falls within these boundaries.

We are about 93% in the Mesaverde and about 74% in the Fruitland. If our method is underestimating the Mesaverde contribution, we are the entity losing on the allocation.

Jake Perry

Prod/Ops Engineer – SJS
Hilcorp Energy Co.
(O) 346-237-2053
(M) 864-303-3793

---

**From:** McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
**Sent:** Wednesday, November 9, 2022 2:11 PM
**To:** Kandis Roland <kroland@hilcorp.com>
**Cc:** Jake Perry <Jake.Perry@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #30-039-21262



Kandis,

Would the intent be to use subtraction before then switching to fixed on the 5th year? Incase it wasn't already your plan to do so, you will need to make reference to that.

Looking at this well, it seems like 3 things could be occurring: (a) the reduction in pressure is allowing a greater volume of gas to be desorbed from the coal, (b) a reduction in pressure at the well bore is allowing a higher rate of flow from the MV, and (c) the fish in the hole is restricting flow from the MC.

Thinking logically, it does seem more probably that production from the FLC may increase at a higher rate due to the reservoir mechanism likely being more responsive to a reduction in pressure than the MV. However, you would also imagine that the MV production would increase some as well (even if less so than the FLC) rather than remain constant at the previous levels unless the fish is causing enough restriction to cancel out the presumed uplift in production.

When comparing the current gas sample to the known gas from each pool, does using a decline curve based off the prior MV production seem to match what is being observed by the gas composition? Looking at your composition, I'm not entirely sure what your thoughts are in regards to methodology for comparing your gas. The influx of CO2 shifted all of your hydrocarbons down in percentage mostly out of range of your 2 comparison samples. Perhaps if the CO2 was neglected from the totals, then a comparison of the hydrocarbons could be made?

Additionally, I don't recall if this well is the one we discussed it on, but how different is the ownership between the FLC and MV in this well?

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

---

**From:** Kandis Roland <kroland@hilcorp.com>
**Sent:** Wednesday, November 9, 2022 5:40 AM
**To:** McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
**Cc:** Jake Perry <Jake.Perry@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>; Kandis Roland <kroland@hilcorp.com>
**Subject:** FW: [EXTERNAL] San Juan 29-6 Unit 58A - API #30-039-21262

Dean,

We have collected a gas sample on the subject well. Please see the attached documentation from Jake. I just wanted to make sure this is all of the supporting documentation that you need before I file an official allocation with BLM & OCD.

Thanks,

Kandis Roland
HILCORP ENERGY
San Juan East/South Regulatory
713.757.5246
kroland@hilcorp.com

---

**From:** Kandis Roland <kroland@hilcorp.com>
**Sent:** Tuesday, September 13, 2022 6:40 AM
**To:** McClure, Dean, EMNRD <Dean.McClure@state.nm.us>; Kenneth (Kenny) (krennick@blm.gov) <krennick@blm.gov>
**Cc:** Mandi Walker <mwalker@hilcorp.com>; Jake Perry <Jake.Perry@hilcorp.com>; Kandis Roland <kroland@hilcorp.com>
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #300-39-21262

Dean,

Allocation has been approved by BLM. I have submitted this to OCD, **Action ID: 142601**. Please let me know if you need anything else.

Thanks,

Kandis Roland
HILCORP ENERGY
San Juan East/South Regulatory
713.757.5246
kroland@hilcorp.com

---

**From:** Kandis Roland <kroland@hilcorp.com>
**Sent:** Friday, September 9, 2022 1:10 PM
**To:** McClure, Dean, EMNRD <Dean.McClure@state.nm.us>; Kenneth (Kenny) (krennick@blm.gov) <krennick@blm.gov>
**Cc:** Mandi Walker <mwalker@hilcorp.com>; Jake Perry <Jake.Perry@hilcorp.com>; Kandis Roland <kroland@hilcorp.com>
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #300-39-21262

Dean/Kenny,

I have submitted the allocation sundry with the requested additional information in AFMSS, **Sundry ID: 2691645**. Once approved I will send an email with the OCD submittal information.

Thanks,

Kandis Roland
HILCORP ENERGY
San Juan East/South Regulatory
713.757.5246
kroland@hilcorp.com

**From:** McClure, Dean, EMNRD <Dean.McClure@state.nm.us>
**Sent:** Thursday, September 1, 2022 3:35 PM
**To:** Jake Perry <Jake.Perry@hilcorp.com>
**Cc:** Kandis Roland <kroland@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #300-39-21262

Hello Jake,

Your proposed plan seems fine; however, please submit me a sundry to be included in the admin file that includes a revised well bore diagram, a brief summary regarding there being a fish in the hole, your current conclusion that it will not affect allocation, and your proposed plan to retrieve gas samples to confirm that conclusion.

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

**From:** Jake Perry <Jake.Perry@hilcorp.com>
**Sent:** Wednesday, August 31, 2022 1:27 PM
**To:** McClure, Dean, EMNRD <Dean.McClure@state.nm.us>
**Cc:** Kandis Roland <kroland@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
**Subject:** FW: [EXTERNAL] San Juan 29-6 Unit 58A - API #300-39-21262

Afternoon Dean,

Please see below regarding the commingling of this well. We have been unable to recover the packer and have received approval as noted below to produce the well as detailed. At this time, I have no reason to believe our allocation as provided on the DHC is not applicable. We plan to get the well on production and install a compressor to bring the flowing wellhead pressure to approximately 10 PSIG. This will be lower than the pressure prior to rig up. The Mesaverde is still flowing as confirmed from our troubleshooting efforts. Once online we will need to collect gas samples for our gathering allocation and can use this data to confirm the uplift by zone due to the differences in gas makeup between the Fruitland and Mesaverde. If we see something that indicates an allocation variance, we can follow-up and provide a supported allocation change. Please let me know if you have any issue with this plan forward.

Jake Perry
Prod/Ops Engineer – SJS
Hilcorp Energy Co.
(O) 346-237-2053
(M) 864-303-3793

**From:** Kuehling, Monica, EMNRD <monica.kuehling@state.nm.us>
**Sent:** Wednesday, August 31, 2022 2:16 PM
**To:** Jake Perry <Jake.Perry@hilcorp.com>; Rennick, Kenneth G <krennick@blm.gov>
**Cc:** Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>; Daniel Hurd <dhurd@hilcorp.com>
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #300-39-21262

Jake

It is ok with us to produce the well with the fish in the hole. However, you will need to get with Dean McClure due to the downhole conditions being abnormal and make sure the proper allocations are used.

Thank you

Monica Kuehling
Compliance Officer Supervisor
Deputy Oil and Gas Inspector
New Mexico Oil Conservation Division
North District
Office Phone: 505-334-6178 ext. 123
Cell Phone: 505-320-0243

**From:** Jake Perry <Jake.Perry@hilcorp.com>
**Sent:** Wednesday, August 31, 2022 1:03 PM
**To:** Kuehling, Monica, EMNRD <monica.kuehling@state.nm.us>; Rennick, Kenneth G <krennick@blm.gov>
**Cc:** Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>; Daniel Hurd <dhurd@hilcorp.com>
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #300-39-21262

Yes, ma'am those footages are correct.

We have verified flow a couple of ways. The simplest is from the downhole camera. The video clearly shows the flow up the tubing fish coming from the Mesaverde.

This well was not drilled past the Mesaverde. It is TD'd above the Mancos top.

The bradenhead has been checked every day and has no pressure.

**From:** Kuehling, Monica, EMNRD <monica.kuehling@state.nm.us>
**Sent:** Wednesday, August 31, 2022 1:53 PM
**To:** Jake Perry <Jake.Perry@hilcorp.com>; Rennick, Kenneth G <krennick@blm.gov>
**Cc:** Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>; Daniel Hurd <dhurd@hilcorp.com>
**Subject:** RE: [EXTERNAL] San Juan 29-6 Unit 58A - API #300-39-21262

Jake

There is a fish in the hole from 3351 to 5454?

And you know that there is flow from the MV? How? – how do you know at this point and is it flowing through the tubing or coming around the packer or both and is there damage to the mancos – your schematic shows pt lookout at 5351 where is the mancos

What is the bh pressure

Monica

---

**From:** Jake Perry <Jake.Perry@hilcorp.com>
**Sent:** Wednesday, August 31, 2022 11:33 AM
**To:** Kuehling, Monica, EMNRD <monica.kuehling@state.nm.us>; Rennick, Kenneth G <krennick@blm.gov>
**Cc:** Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>; Daniel Hurd <dhurd@hilcorp.com>
**Subject:** [EXTERNAL] San Juan 29-6 Unit 58A - API #300-39-21262



Monica/Kenny,

As discussed over the phone, we have run into issues recovering this packer and tubing. I have attached our original NOI to commingle for reference and a diagram of current well geometry as well as new proposal. At this point we are requesting to leave the fish in the hole and land tubing at approximately 3100' to produce the Fruitland and Mesaverde. We have previously received approval to downhole commingle this well per order DHC-5218 dated August 8,2022.

8/19: MIRU, NDWH, NUBOP
8/22: POOH with short string and release packer and attempt to pull long string, only got 11' of movement
8/23: Work tubing and circulate, make additional 1' of pickup
8/24: TIH with Eline jet cutter and cut tubing at 3335', recover pipe to 3335', PU overshot and RIH
8/25: Dress fish and latch, jar fish with 15' of movement up and down, release off overshot, PU wash over shoe, wash to 3347' before stalling and hitting obstruction
8/26: POOH with wash over shoe, shoe parted and left 2' section in the hole, RIH with overshot to latch tubing, recovered 12.7' cut joint with pin end (no collar on bottom), run overshot to latch tubing, no success
8/27: Pull and run overshot and attempt to latch shoe remnant, no success, roundtrip and run lead impression block, inconclusive
8/28: Rig up E-line and run camera, camera showed shoe had rolled tubing top, no ability to latch, deviation and right at casing connection making wash over unsuccessful
8/29: Ran 6.25" skirted junk mill, washed over fish top and milled to 3351', saw frac sand coming back in returns
8/30: Ran overshot and latched tubing body on fish, ran E-line to free point and showed pipe stuck right below fish top (42% free) and 100% stuck 18' above packer. Ran E-line chemical cutter and attempt to cut at 3411', believe cutter failed, POOH and ran jet cutter to same depth and attempt to make cut
8/31: Unable to pickup and recover 2 jts of pipe pulling 40K over string weight while pumping water

Jake Perry
Prod/Ops Engineer – SJS
Hilcorp Energy Co.
(O) 346-237-2053
(M) 864-303-3793

Hilcorp Energy Company

## Schematic - Current

**Well Name: SAN JUAN 29-6 UNIT #58A**

| API / UWI | Surface Legal Location | Field Name | License No. | State/Province | Well Configuration Type |
|---|---|---|---|---|---|
| 3003921262 | 028-029N-006W-D | FC/MV DUAL | | NEW MEXICO | Vertical |

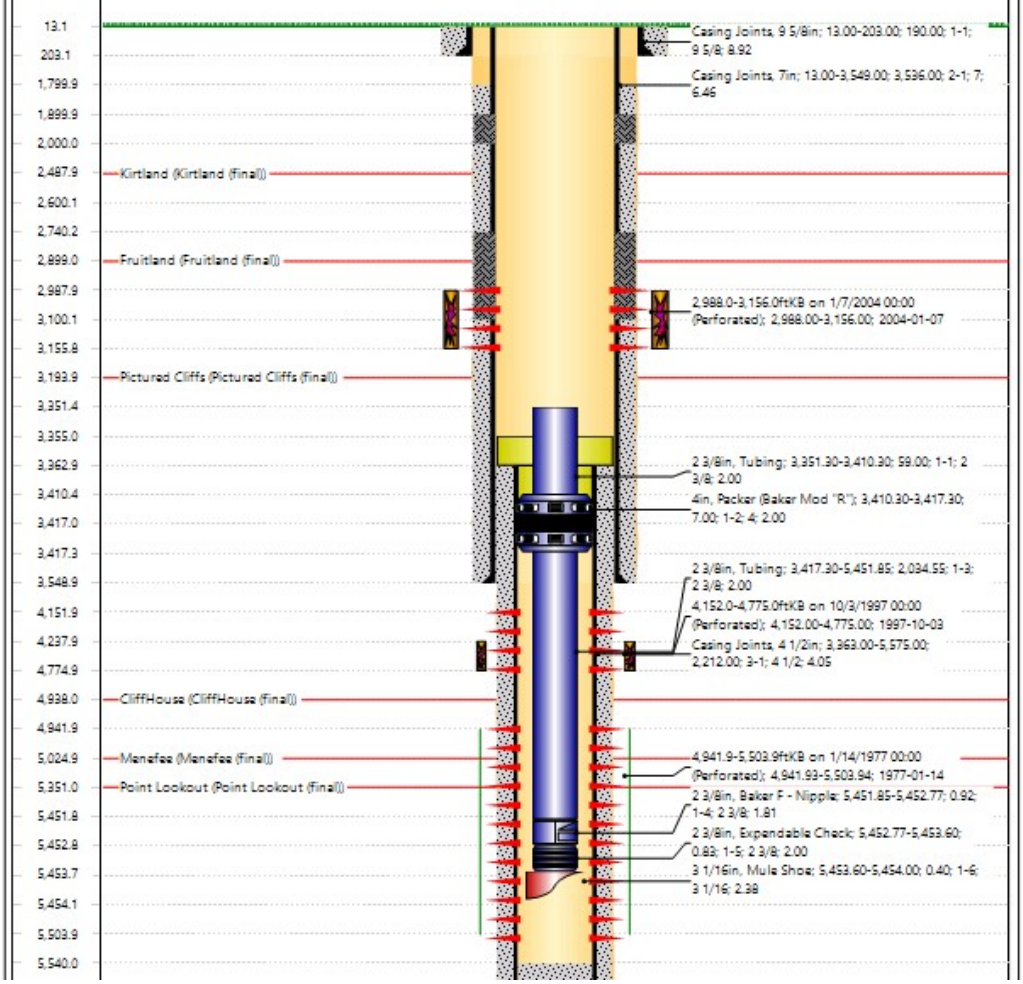
| Original KB/RT Elevation (ft) | KB-Ground Distance (ft) | Original Spud Date | Rig Release Date | PBTD (All) (ftKB) | Total Depth All (TVD) (ftKB) |
|---|---|---|---|---|---|
| 6,293.00 | 13.00 | 12/21/1975 00:00 | 4/1/1977 00:00 | | |

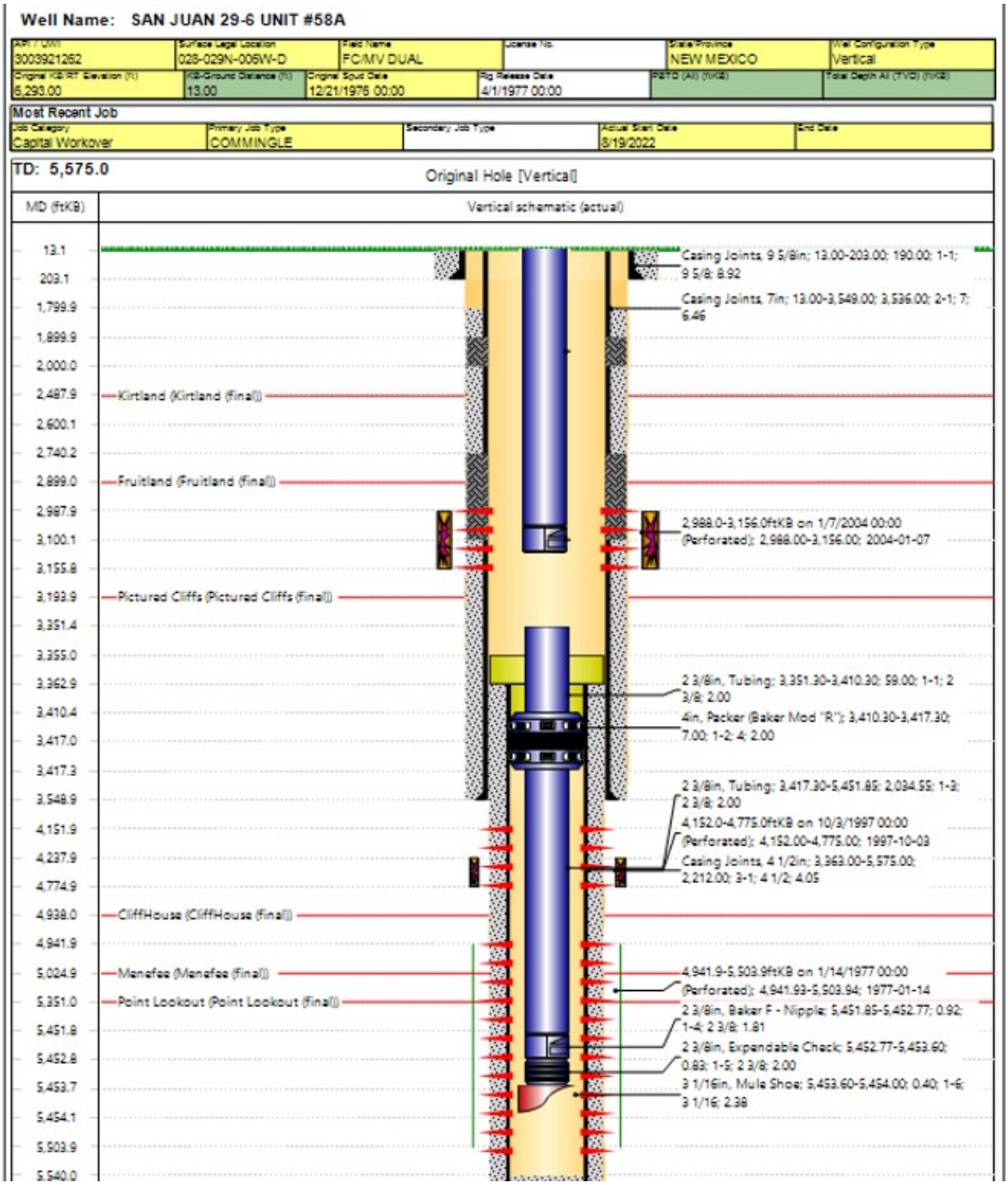
**Most Recent Job**

| Job Category | Primary Job Type | Secondary Job Type | Actual Start Date | End Date |
|---|---|---|---|---|
| Capital Workover | COMMINGLE | | 8/19/2022 | |

TD: 5,575.0

Original Hole [Vertical]








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

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

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

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

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

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

**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 158728

## CONDITIONS

| | |
|---|---|
| Operator:<br>HILCORP ENERGY COMPANY<br>1111 Travis Street<br>Houston, TX 77002 | OGRID:<br>372171 |
| | Action Number:<br>158728 |
| | Action Type:<br>[C-103] NOI General Sundry (C-103X) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| dmcclure | None | 11/15/2022 |