BEFORE THE OIL CONSERVATION DIVISION EXAMINER HEARING JULY 11, 2019

CASE No. 20649

SAN JUAN 28-6 UNIT 138 WELL

RIO ARRIBA COUNTY, NEW MEXICO



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

APPLICATION OF HILCORP ENERGY COMPANY FOR AN EXCEPTION TO THE WELL DENSITY REQUIREMENTS OF THE SPECIAL RULES AND REGULATIONS FOR THE BLANCO-MESAVERDE GAS POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 20649

AFFIDAVIT OF CHARLES CREEKMORE IN SUPPORT OF CASE NO. 20649

- I, Charles Creekmore, being of lawful age and duly sworn, declare as follows:
- My name is Charles Creekmore. I work for Hilcorp Energy Company ("Hilcorp")

 as a Landman.
- 2. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum land matters. My credentials as a petroleum landman have been accepted by the Division and made a matter of record.
- 3. I am familiar with the application filed by Hilcorp in this case, and I am familiar with the status of the lands in the subject areas.
- 4. None of the affected parties in this case has indicated opposition, and therefore I do not expect any opposition at the hearing.
- 5. Hilcorp seeks an exception to the well density requirements of Rule I.B of the Special Rules and Regulations of the Blanco-Mesaverde Gas Pool to permit it to complete and simultaneously produce three Mesaverde gas wells in the same quarter section for a total of five Mesaverde gas wells within the same standard 320-acre, more or less, spacing and proration unit.

- 6. The Blanco-Mesaverde Gas Pool is governed by Special Rules and Regulations which provide for 320-acre spacing and proration units on which as many as four wells may be drilled. The Special Rules therefore limit the number of wells in a spacing unit to four and the number of wells in a half section within a spacing unit to two. The Special Rules also provide that well density exceptions can be approved only after notice and hearing.
- 7. Hilcorp is the operator of a standard 320-acre, more or less, spacing and proration unit in the Blanco-Mesaverde Gas Pool comprised of the E/2 of Section 23, Township 28 North, Range 6 West, Rio Arriba County, New Mexico, in which the following four wells are currently completed and producing:
 - a. San Juan 28-6 Unit 58 Well (API No. 30-039-07390) Sec. 23, T28N, R6W (Unit B);
 - b. San Juan 28-6 Unit 58A Well (API No. 30-039-21688), Sec. 23, T28N, R6W (Unit P);
 - c. San Juan 28-6 Unit 138M Well (API No. 30-039-26252), Sec. 23, T28N, R6W(Unit O); and
 - d. San Juan 28-6 Unit 138N Well (API No. 30-039-30572), Sec. 23, T28N, R6W (Unit H).
- 8. Hilcorp now proposes to simultaneously dedicate and produce the following fifth well within the same standard spacing and proration unit, at the following location:
 - a. San Juan 28-6 Unit 138 Well (API No. 30-039-20044), Sec. 23, T28N, R6W
 (Unit G).
- 9. This will be the fifth well within the same spacing unit with three wells in the same quarter section, exceeding well density limits imposed by the Special Rules.

- 10. Hilcorp therefore requests that the Division enter an order granting an exception to the well density requirements of Rule 1.B of the Special Rules and Regulations of the Blanco-Mesaverde Pool to authorize Hilcorp to simultaneously dedicate and produce the San Juan 28-6 Unit 138 Well (API No. 30-039-20044) within the E/2 of Section 23, Township 28 North, Range 6 West, permitting the total number of wells dedicated and producing within this spacing and proration unit to five, with three wells in the same quarter section.
- 11. The proposed simultaneous dedication of the San Juan 28-6 Unit 138 Well, which is currently producing in the Dakota formation, within the Blanco-Mesaverde is part of Hilcorp's strategy to use existing wells completed in other zones to economically target development of incremental Mesaverde gas reserves in areas where there is not adequate gas drainage.
- 12. The Division has pre-approved downhole commingling the Dakota formation with the Blanco-Mesaverde Gas Pool.
- 13. Pursuant to the Special Rules and Division precedent, Hilcorp provided notice to all Division-designated operators in offsetting 320-acre spacing units. Where Hilcorp is the operator, Hilcorp identified all working interest owners in offsetting spacing units as affected parties requiring notice. In some offsetting spacing units, Hilcorp may own 100% of the working interest, in which case there are no affected parties to notice.
- 14. **Exhibit A-1** is an overview map identifying the location of the subject Blanco-Mesaverde Gas Pool spacing unit, in the green outline, within the E/2 of Section 23, Township 28 North, Range 6 West, to which the well will be simultaneously dedicated.
- 15. Exhibit A-1 also identifies the locations of the existing Mesaverde wells as dark blue circles, as well as the subject well as a dark blue triangle.

- 16. Exhibit A-1 also depicts the notice area comprised of the offsetting spacing units, which is the shaded area within the dark blue hashed line surrounding the subject spacing unit outlined in green. Hilcorp has provided notice of this application to the operators within the notice area. In some instances, Hilcorp may be the operator of offsetting spacing units within the notice area, in which case notice of the application was provided to all the working interest owners within the notice area.
- 17. Exhibit A-2 identifies the affected parties within the offsetting spacing units who are required to be noticed. I provided a list of all affected parties requiring notice to Holland & Hart LLP. All parties were locatable.
- 18. To the best of my knowledge, the addresses used to provide notice are valid and correct addresses which have been recently used by Hilcorp and at which mail has been received by the notice parties.
 - 19. Exhibits A-1 and A-2 were prepared by me or under my direction and supervision.

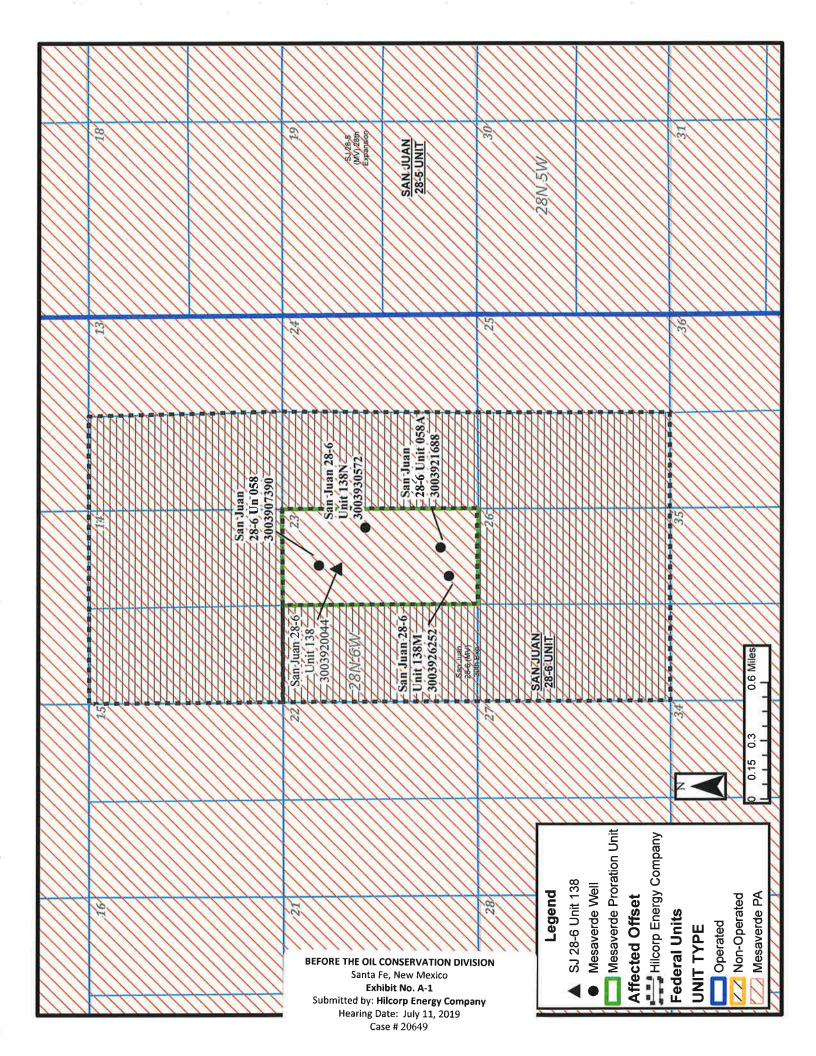
 FURTHER AFFIANT SAYETH NAUGHT.

Charles Cruha

| STATE OF TEXAS) |
|---|
| COUNTY OF HAPPIS |
| SUBSCRIBED and SWORN to before me this day of July, 2019 by |
| Charles Creekmore. |
| DANIELLE PAPETTI Notary Public, State of Texas Comm. Expires 03-23-2022 |
| Notary ID 129752864 NOTARY PUBLIC |

My Commission Expires:

13191170_v1



| Code | Address | City | State | 7in Code | Interest Type |
|--|---|----------------------|-------|------------------|---------------|
| 1066712 BP AMERICA PRODUCTION COMPANY | PO BOX 848103 | DALLAS | ¥ | 75284-8103 W0001 | W0001 |
| 1113652 CROSS TIMBERS ENERGY LLC | 400 W 7TH STREET | FT WORTH | × | 76102 | W0001 |
| 1125552 JAMES R BEAMON | 6140 HWY 6 SUITE 154 | MISSOURI CITY | ¥ | 77459 | W0001 |
| 1126167 ROBERT WALTER LUNDELL | 2450 FONDREN STE 304 | HOUSTON | ¥ | 77063-2318 W0001 | W0001 |
| 1126258 SHARON BEAMON BURNS | 200 BISCAYNE BOULEVARD WAY APT 3411 | MIAMI | 냄 | 33131 | W0001 |
| 1126294 SUSAN BEAMON PORTER | 319 KNIPP FOREST | HOUSTON | ¥ | 77024-5030 W0001 | W0001 |
| 300 Hilcorp San Juan, LP | 1111 TRAVIS | HOUSTON | ¥ | 77002 | W0001 |
| 1138962 OMIMEX PETROLEUM | 7950 JOHN T WHITE ROAD | FORT WORTH | ¥ | 76120 | W0001 |
| 1139405 TH MCELVAIN OIL & GAS LLLP | 511 16TH STREET SUITE 700 | DENVER | 8 | 80202 | W0001 |
| 1139406 HARRINGTON ENERGY RESOURCES LP | A NM LP HARRINGTON SAN JUAN LLC GPPO BOX 219119 | KANSAS CITY | MO | 64121 | W0001 |
| 1139407 HARRINGTON SOUTHWEST ENERGY LP | A NM LP HARRINGTON SAN JUAN LLC GPPO BOX 219119 | KANSAS CITY | MO | 64121 | W0001 |
| 1139409 LINDA JEANNE LUNDELL LINDSEY | PO BOX 631565 | NACOGDOCHES | ¥ | 75963 | W0001 |
| 1139415 TAMACAM LLC | JAMES M RAYMOND AFENT & AIFPO BOX 291445 | KERRVILLE | ¥ | 78029 | W0001 |
| 1139481 LORRAYN GAY HACKER | PO BOX 291445 | KERRVILLE | ¥ | 78029-1445 W0001 | W0001 |
| 1139496 J&M RAYMOND LTD | RAYMOND & SONS I LLC GEN PARTNERPO BOX 291445 | KERRVILLE | ¥ | 78029-1445 W0001 | W0001 |
| 1139541 CLAUDIA MARCIA LUNDELL GILMER | 723 W UNIVERSITY AVE STE 300-371 | GEORGETOWN | ¥ | 78626 | W0001 |
| 1139591 CHARLES W GAY | PO BOX 291445 | KERRVILLE | × | 78029-1445 W0001 | W0001 |
| 1142889 CAROLYN BEAMON TILLEY | 4 LAWRESTON PLACE | DALLAS | ¥ | 75225 | W0001 |
| 1146418 CB LIFELINE PARTNERSHIP | C/O CAROLYN TILLEY AGENT4 LAURESTON PLACE | DALLAS | ¥ | 75225 | W0001 |
| 1147116 ROBERT E BEAMON III | C/O JAMES R BEAMON6140 HWY 6, SUITE 154 | MISSOURI CITY | ¥ | 77459 | W0001 |
| 1149218 ENDURING RESOURCES IV LLC | 1050 17TH STREET SUITE 2500 | DENVER | 8 | 80265 | W0001 |

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico
Exhibit No. A-2
Submitted by: Hilcorp Energy Company
Hearing Date: July 11, 2019
Case # 20649

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

APPLICATION OF HILCORP ENERGY COMPANY FOR AN EXCEPTION TO THE WELL DENSITY REQUIREMENTS OF THE SPECIAL RULES AND REGULATIONS FOR THE BLANCO-MESAVERDE GAS POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 20649

AFFIDAVIT

| STATE OF NEW MEXICO |) |
|---------------------|-------|
| |) ss. |
| COUNTY OF SANTA FE |) |

Adam G. Rankin, attorney in fact and authorized representative of Hilcorp Energy Company, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application has been provided under the notice letters and proof of receipts attached hereto.

Adam G. Rankin

SUBSCRIBED AND SWORN to before me this 10th day of July, 2019 by Adam G. Rankin.

My Commission Expires:

lotary Public



Adam G. Rankin Phone (505) 988-4421 Fax (505) 983-6043 agrankin@hollandhart.com

June 21, 2019

VIA CERTIFIED MAIL CERTIFIED RECEIPT REQUESTED

TO: AFFECTED PARTIES

Re: Application of Hilcorp Energy Company for an Exception to the Well Density

Requirements of the Special Rules and Regulations of the Blanco-Mesaverde

Gas Pool, Rio Arriba County, New Mexico.

Ladies & Gentlemen:

This letter is to advise you that Hilcorp Energy Company has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on July 11, 2019 and the status of the hearing can be monitored through the Division's website at http://www.emnrd.state.nm.us/ocd/. Division hearings will commence at 8:15 a.m. in Porter Hall at the Oil Conservation Division's Santa Fe Offices located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases are required by Division Rule 19.15.4.13.B to file a Pre-hearing Statement four business days in advance of a scheduled hearing. This statement must be filed at the Division's Santa Fe office at the above specified address and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions about this matter, please contact Chuck Creekmore at (832) 839-4601.

ATTORNEY FOR HILCORP ENERGY COMPANY

Case # 20649

POSTAL DELIVERY REPORT HEC/San Juan 28-6 Unit 138 Case No. 20649

| Tracking No | TransactionDate | ToNome | | 1.5 | 3 | i | 200 |
|-----------------------------------|------------------|--|--|---------------|-------|----------------|---|
| 0.00 | יומווזמרווסווסמר | - | DeliveryAdaress | CIE | State | di7 | USPS Status |
| 9414810898765037645962 | 06/20/2019 | T H MCELVAIN OIL & GAS LLLP | 511 16th St Ste 700 | Denver | 8 | 80202- 4248 | Your item was delivered to the front desk, reception area, or mail room at 3:58 pm on June 25, 2019 in DENVER, CO 80202. |
| 9414810898765037645955 06/20/2019 | 06/20/2019 | OMIMEX PETROLEUM | 7950 John T White Rd | Fort Worth | ř | 76120- 3608 | Your item was delivered to the front desk, reception area, or mail room at 1:40 pm on June 25, 2019 in FORT WORTH, TX 76120. |
| 9414810898765037645948 | 06/20/2019 | Hilcorp San Juan, LP | 1111 Travis St | Houston | ř | 77002- 5924 | Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility. |
| 9414810898765037645931 06/20/2019 | 06/20/2019 | SUSAN BEAMON PORTER | 319 Knipp Forest St | Houston | ¥ | 77024- | Your item has been delivered to an agent at 4:39 pm on July 1, 2019 in HOUSTON, TX 77024. |
| 9414810898765037645924 | 06/20/2019 | SHARON BEAMON BURNS | 200 Biscayne Boulevard Way Apt 3411 | Miami | н | 33131- 2160 | Your item was delivered to an individual at the address at 11:35 am on June 26, 2019 in MIAMI, FL 33131. |
| 9414810898765037645900 | 06/20/2019 | ROBERT WALTER LUNDELL | 2450 Fondren Rd Ste 304 | Houston | ¥ | 77063- 2316 | Your item was delivered to the front desk, reception area, or mail room at 12:40 pm on July 1, 2019 in HOUSTON, TX 77063. |
| 9414810898765037645894 06/20/2019 | 06/20/2019 | JAMES R BEAMON | 6140 Hwy 6 Ste 154 | Missouri City | ۲ | 77459 | Your item was delivered to an individual at the address at 1:17 pm on July 1, 2019 in MISSOURI CITY, TX 77459. |
| 9414810898765037646105 | 06/20/2019 | ENDURING RESOURCES IV LLC | 1050 17th St Ste 2500 | Denver | 8 | 80265- 2080 | Your item was delivered to the front desk, reception area, or mail room at 12:27 pm on June 24, 2019 in DENVER, CO 80202. |
| 9414810898765037646099 | 06/20/2019 | ROBERT E BEAMON III C/O JAMES R BEAMON | 6140 Highway 6 Ste 154 | Missouri City | ¥ | 77459- 3802 | Your item was delivered to an individual at the address at 1:17 pm on July 1, 2019 in MISSOURI CITY, TX 77459. |
| 9414810898765037645887 | 06/20/2019 | CROSS TIMBERS ENERGY LLC | 400 W 7th St | Ft Worth | Ķ | 76102- 4701 | Your item has been delivered to an agent at 9:12 am on June 24, 2019 in FORT WORTH, TX 76102. |
| 9414810898765037646082 | 06/20/2019 | CB LIFELINE PARTNERSHIP | 4 Laureston Pl | Dallas | ¥ | 75225- 1830 | Your item was delivered to an individual at the address at 1:43 pm on June 24, 2019 in DALLAS, TX 75225. |
| 9414810898765037646075 | 06/20/2019 | CAROLYN BEAMON TILLEY | 4 Laureston Pl | Dallas | ۲ | 75225- 1830 | Your item was delivered to an individual at the address at 1:43 pm on June 24, 2019 in DALLAS, TX 75225. |
| 9414810898765037646051 | 06/20/2019 | CHARLES W GAY | PO Box 291445 | Kerrville | Ķ | 78029- 1445 | Your item was delivered at 11:33 am on June 27, 2019 in KERRVILLE, TX 78028. |
| 9414810898765037646044 06/20/2019 | 06/20/2019 | CLAUDIA MARCIA LUNDELL GILMER | 723 W University Ave Ste 300-371 | Georgetown | ¥ | 78626- 6607 | Your item was delivered to the front desk, reception area, or mail room at 10:57 am on June 24, 2019 in GEORGETOWN, TX 78626. |

| 9414810898765037646037 06/20/2019 | 06/20/2019 | J&M RAYMOND LTD RAYMOND & SONS LLC | PO Box 291445 | Kerrville | Ķ | 78029- 1445 | Your item was delivered at 11:33 am on June 27, 2019 in KERRVILLE, TX 78028. |
|-----------------------------------|------------|---|---------------|----------------|----|----------------|---|
| 9414810898765037646013 06/20/2019 | 06/20/2019 | LORRAYN GAY HACKER | PO Box 291445 | Kerrville | ¥ | 78029- 1445 | Your item was delivered at 11:33 am on June 27, 2019 in KERRVILLE, TX 78028. |
| 9414810898765037646006 06/20/2019 | 06/20/2019 | TAMACAM LLC JAMES M RAYMOND AFENT & AIF PO Box 291445 | PO Box 291445 | Kerrville | ř | 78029- 1445 | Your item was delivered at 11:33 am on June 27, 2019 in KERRVILLE, TX 78028. |
| 9414810898765037645993 06/20/2019 | 06/20/2019 | LINDA JEANNE LUNDELL LINDSEY | PO Box 631565 | Nacogdoches TX | ¥ | 75963- 1565 | Your item was delivered at 2:19 pm on July 5, 2019 in NACOGDOCHES, TX 75965. |
| 9414810898765037645986 06/20/2019 | 06/20/2019 | HARRINGTON SOUTHWEST ENERGY LP | PO Box 219119 | Kansas City | MO | 64121- 9119 | Your item was delivered at 10:00 pm on June 23, 2019 in KANSAS CITY, MO 64121. |
| 9414810898765037645979 06/20/2019 | 06/20/2019 | HARRINGTON ENERGY RESOURCES LP | PO Box 219119 | Kansas City | MO | 64121- 9119 | Your item was delivered at 10:00 pm on June 23, 2019 in KANSAS CITY, MO 64121. |
| 9414810898765037645870 06/20/2019 | 06/20/2019 | BP AMERICA PRODUCTION COMPANY | PO Box 848103 | Dallas | ř | 75284- | Your item was delivered at 8:55 am on June 24, 2019 in DALLAS, TX 75284. |

SIATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION SANTA FE, NEW MEXICO

NEW MEXICO
The State of New Mexico
The State of New Mexico
through its Oil Conservation Division hereby gives
notice pursuant to law
and the Rules and Reguislations of the Division of
the following public hearing to be held at 8:15
A.M. on July 11, 2019, in
the Oil Conservation Division. Hearing Room at
1220 South St. Francis,
Santa Fe, New Mexico,
before an examiner duly
appoint for the hearing. If
you are an individual with
a disability who is in need
of a reader, amplifier,
qualified sign isanguage interpreter, or any other
form of auxiliary aid or
service to attend or participate in the hearing,
please confact: Florene
Davidson at 505-4764358 or through the New
Mexico Relay Network, 1800-659-1779 by July 1,
2019. Public documents,
including the agenda and
minutes, can be provided
in various accessible
forms. Please contact
Florene Davidson if a
summary or other type of
accessible form is

accessible form is needed.

STATE OF

NEW MEXICO TO:
All named parties and persons having any right, title, interest or claim in the following case and notice to the public.

(NOTE: All tand descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.)

Stated.)

TO: ALL WORKING INTEREST OWNERS IN THE SUBJECT SPACING UNIT AND OFF-SETTING OPERATORS OR LEASED MINERAL INTEREST OWNERS, INCLUDING: BP AMERICA PRODUCTION COMPANY; CROSS TIMBERS ENERGY LLC; JAMES R. BEAMON, HIS HEIRS AND DEVISEES; ROBERT WALTER LUNDELL, HIS HEIRS AND DEVISEES; SHARON BEAMON PORTER, HER HEIRS AND DEVISEES; OMIMEX PETROLEUM; TH MCELVAIN OIL & GS LLLP; HARRINGTON ENERGY LP, ANM LP, HARRINGTON SAN JUAN LLC GP; HARRINGTON SOUTHWEST ENERGY LP, ANM LP, HARRINGTON SOUTHWEST ENERGY LP, AND JUAN LLC GP; HARRINGTON SOUTHWEST ENERGY LP, ANM LP, HARRINGTON SAN JUAN LLC GP; LINDA JEANNE LUNDELL LINDSEY, HER HEIRS AND DEVISEES; TAMACAM LLC, JAMES AND DEVISEES; TAMACAM LLC, JAMES M. RAYMOND AFENT & AIF; LORRAYN GAY

Publisher's Bill

| | Laws of 1937. The publication, a copy of which is hereto attached, was published in said paper once each week for |
|---------------------------------|---|
| lines one time atlines times at | consecutive weeks and on the same day of each week in the regular issue of the paper during the time of publication and the notice was |
| Affidavit_5.** | published in the newspaper proper, and not in any supplement. The first publication being on the |
| Subtotal 122 60 | 27 day of June 2019 |
| Tax_ <u>10.</u> 96_ | and the last publication on theday of |
| Total_133.54 | advertisement has been duly made, or assessed as court costs. The undersigned has personal knowledge of the matters and things set forth in this affidavit. |
| | MI VI S |

Payment received at Rio Grande SUN

Publisher

Affidavit Publication

I, Robert Trapp, being first duly sworn, declare and say I am the publisher of the Rio Grande SUN, a weekly newspaper published in the English language and having a general circulation in the County of Rio Arriba, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under

the provisions of Chapter 167 of the Session

State of New Mexico County of Río Arriba

Subscribed and sworn to before me this 27 2019 day of June A.D.

> OFFICIAL SEAL MARIA G CHAVEZ Notary Public State of New Mexico My Con

Maria G. Chavez/Notary Public My commission expires 21 October 2020

Santa Fe, New Mexico Exhibit No. B-2 Submitted by: Hilcorp Energy Company Hearing Date: July 11, 2019 Case # 20649

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

APPLICATION OF HILCORP ENERGY COMPANY FOR AN EXCEPTION TO THE WELL DENSITY REQUIREMENTS OF THE SPECIAL RULES AND REGULATIONS FOR THE BLANCO-MESAVERDE GAS POOL, RIO ARRIBA COUNTY, NEW MEXICO.

CASE NO. 20649

AFFIDAVIT OF MICHELLE SIVADON IN SUPPORT OF CASE NO. 20649

Michelle Sivadon, being of lawful age and duly sworn, declare as follows:

1. My name is Michelle Sivadon. I work for Hilcorp Energy Company ("Hilcorp")

as a reservoir engineer.

2. I have previously testified before the New Mexico Oil Conservation Division as

an expert in reservoir engineering. My credentials as a reservoir engineer have been accepted by

the Division and made a matter of record.

3. I am familiar with the application filed by Hilcorp in this case and have conducted

an engineering study of the subject area and of the Blanco-Mesaverde Gas Pool.

4. As with Hilcorp's prior applications for well density exceptions in the Blanco-

Mesaverde Gas Pool, I used a decline curve analysis of existing wells to estimate ultimate

recoveries for the subject spacing unit under the existing well density. I then compared the

estimated ultimate gas recoveries against log-derived volumetric calculations for the original gas

in place with the cumulative gas production in the spacing unit. Using this approach, we

identified areas, including the subject spacing unit, that have substantial remaining recoverable

1

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico

Exhibit No. C
Submitted by: Hilcorp Energy Company

Hearing Date: July 11, 2019 Case # 20649 gas and lower-than-expected gas recoveries where additional well bores or well completions are necessary to adequately drain remaining gas reserves.

- 5. Exhibit C-1 contains information relating to the subject spacing unit and the San Juan 28-6 Unit 138 Well (API No. 30-039-20044) within the E/2 of Section 23, Township 28 North, Range 6 West, which is the well Hilcorp proposes for simultaneous dedication within the Blanco-Mesaverde Gas Pool in this application. It is currently producing within the Dakota formation. It will be the third Mesaverde completion in the quarter section within the spacing unit. I anticipate that it will help drain the area to the south.
- 6. Exhibit C-2 is a basin-wide map reflecting Hilcorp's calculations for original gas in place across the Blanco-Mesaverde Gas Pool. The warmer colors represent areas where there is more original gas in place. The cooler colors indicate areas where there is less original gas in place. The red star indicates the location of the subject well in an area where we calculate moderately high volumes of original gas in place.
- 7. **Exhibit C-3** is a map depicting the calculated estimated ultimate recovery (EUR) from the Blanco-Mesaverde Gas Pool and drainage radius. The larger radius circles reflect wells with higher EURs and larger drainage areas. The red star identifies the location of the subject well where there is relatively low EURs and the drainage radii are smaller.
- 8. Exhibit C-4 is a map depicting calculated remaining recoverable gas. The cooler colors indicate areas where there is relatively less remaining recoverable gas. The warmer colors reflect areas where there is relatively more remaining recoverable gas. The red star identifies the location of the subject well in an area where we calculate that there is relatively considerable remaining recoverable gas and relatively low EURs under the existing well density.

- 9. **Exhibit C-5** is a table that supports this volumetric analysis. The first column titled "Volumetric OGIP" reflects the calculated volumetric original gas in place on a quarter section, section, and nine-section area basis around the subject spacing unit. The column titled "Section Equivalent OGIP" shows the estimated gas in place to show that the estimates are consistent across the area. The column titled "CTD/RF%" shows the cumulative gas production to date on a quarter section, section, and nine-section area basis and the calculated recovery factor. The column titled "Remaining GIP" shows the estimated remaining gas in place on a quarter section, section, and nine-section area basis. The last column titled "EUR/RF%" shows the estimated ultimate gas recovery and recovery factor calculated on a quarter section, section, and nine-section area basis.
- 10. I would expect recovery factors of approximately 70-80% in a gas pool of this type. The relatively low recovery factors in Exhibit C-5 reflected at the section and nine-section scale indicate that this area is not being sufficiently drained by the existing wells in the subject spacing unit under the existing well density and that additional well bores, or completions, are necessary to adequately drain the Blanco-Mesaverde Gas Pool in this area.
- 11. Approval of Hilcorp's application is therefore necessary to drain unrecovered gas reserves that will otherwise be left in place under the existing well density.
- 12. **Exhibit C-6** is a well bore diagram for the subject well. It provides the most current information known regarding the status and construction of the well, as well as the location and condition of cement within the wellbore. Hilcorp will separately seek administrative approval from the Division's Aztec District Office for authorization to recomplete this well in advance of undertaking any recompletion operations.

- 13. In my opinion, granting this application will not impair the Blanco-Mesaverde Gas Pool, and will be in the interest of conservation, the prevention of waste and will protect correlative rights.
- 14. Exhibits C-1 through C-6 were prepared by me or under my direction and supervision.

FURTHER AFFIANT SAYETH NAUGHT.

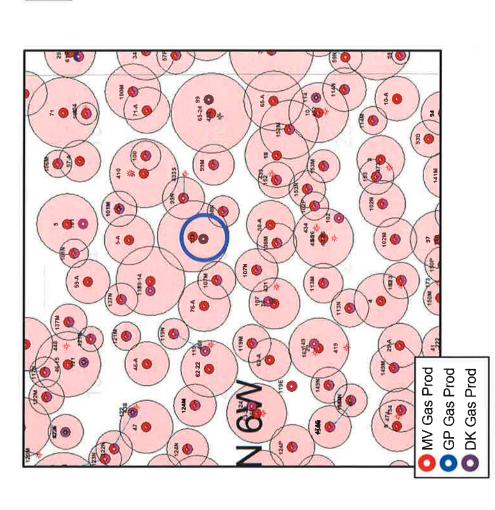
Michelle Sivador

| STATE OF TEXAS COUNTY OF Harris SUBSCRIBED and SWORN to before me this 3rd day of July, 2019 by | |
|---|--|
| Michelle Sivadon. NOTARY PUBLIC | |
| My Commission Expires: BRENDA MARICELA GUZMAN Notary Public, State of Texes Comm. Expires 02-08-2023 Notary ID 130054545 | |

13198289_v1

San Juan 28-6 Unit 138





Well Specifics

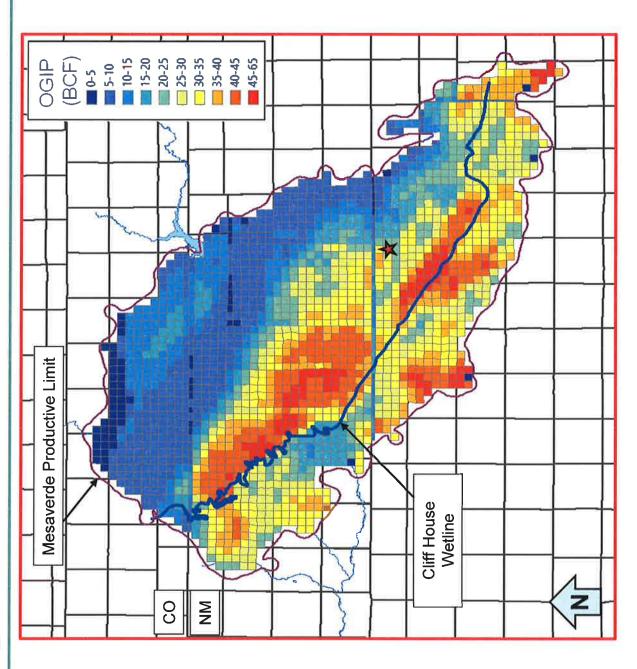
- NE23 28-6 3003920044 1967 drill
- 3rd MV completion in 1/4 section 138 is in unit G, 58 is in unit B
- 475' from nearest MV producer
- Help drain area to the south
- Complete MV in 1-2 stages

Submitted by: Hilcorp Energy Company

Hearing Date: July 11, 2019 Case # 20649



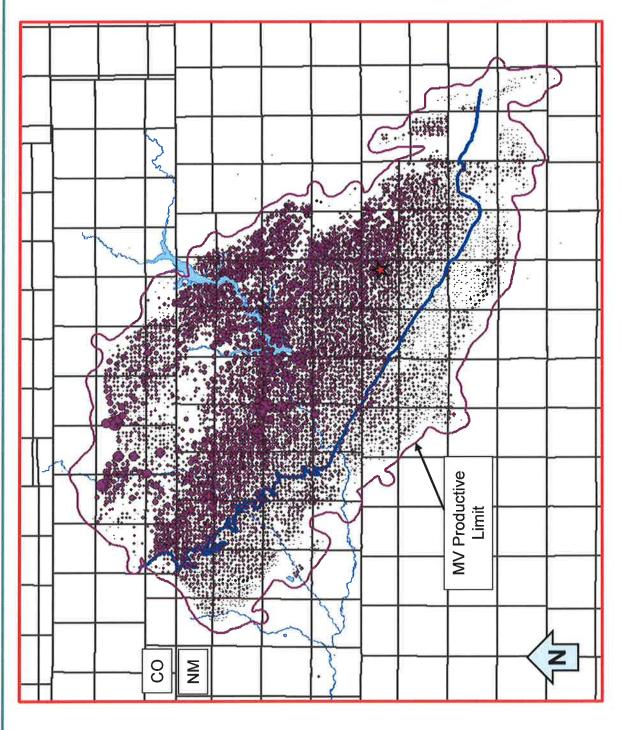
MV Original Gas In Place



Hearing Date: July 11, 2019 Case # 20649

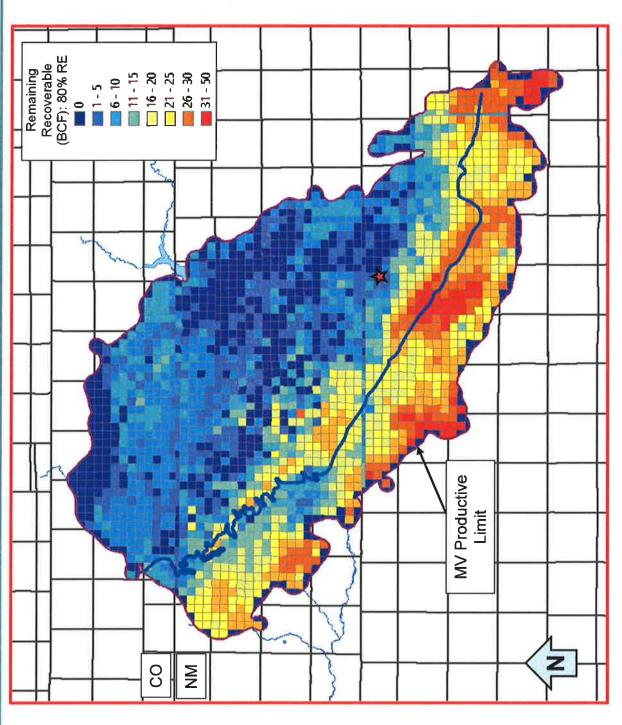
MV EUR and Drainage Radius





MV Remaining Recoverable Gas





BEFORE THE OIL CONSERVATION DIVISION Santa Fe, New Mexico

Santa Fe, New Mexico

Exhibit No. C-4

Submitted by: Hilcorp Energy Company

Hearing Date: July 11, 2019

Case # 20649



San Juan 28-6 Unit 138

| Reference Area | Volumetric OGIP | Section Equivalent OGIP | CTD / RF% | Remaining GIP | EUR / RF% |
|-------------------|--------------------|-------------------------------|-----------------|------------------|-----------------|
| Qtr Section | 7.5 Bcf | 30.0 Bcf | 6.1 Bcf / 81% | 1.4 Bcf | 7.5 Bcf / 100% |
| Section | 28.1 Bcf | 28.1 Bcf | 16.2 Bcf / 58% | 11.9 Bcf | 21.5 Bcf / 76% |
| 9 Section | 253.0 Bcf | 28.1 Bcf | 130.0 Bcf / 52% | 123.0 Bcf | 176.0 Bcf / 70% |

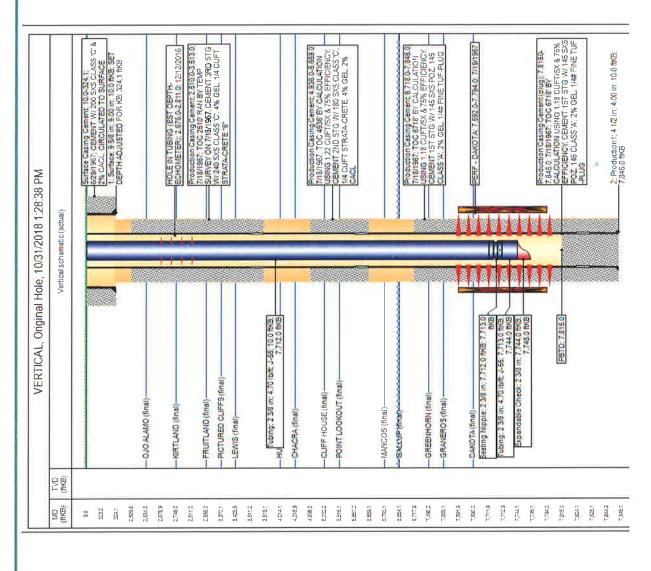
Remaining Gas in Place in Quarter Section of 1.4 Bcf

Cumulative Recovery Factor to Date 81% and 58% in the Quarter Section and Section, respectively

Considerable gas remaining in area with opportunity to recover additional volumes utilizing existing wellbore



San Juan 28-6 Unit 138 - Schematic



Santa Fe, New Mexico
Exhibit No. C-6

Submitted by: Hilcorp Energy Company Hearing Date: July 11, 2019 Case # 20649