

**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING JULY 11, 2019**

CASE No. 20645

SAN JUAN 27-5 UNIT 141 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. 20645

AFFIDAVIT OF CHARLES CREEKMORE IN SUPPORT OF CASE NO. 20645

I, Charles Creekmore, being of lawful age and duly sworn, declare as follows:

1. 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 W/2 of Section 30, Township 27 North, Range 5 West, Rio Arriba County, New Mexico, in which the following four wells are currently completed and producing:

- a. San Juan 27-5 Unit 34 Well (API No. 30-039-06869) Sec. 30, T27N, R5W (Unit M);
- b. San Juan 27-5 Unit 34A Well (API No. 30-039-23739), Sec. 30, T27N, R5W (Unit E);
- c. San Juan 27-5 Unit 141M Well (API No. 30-039-27734), Sec. 30, T27N, R5W (Unit C); and
- d. San Juan 27-5 Unit 141N Well (API No. 30-039-29733), Sec. 30, T27N, R5W (Unit N).

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 27-5 Unit 141 Well** (API No. 30-039-20465), Sec. 30, T27N, R5W (Unit L).

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 27-5 Unit 141 Well** (API No. 30-039-20465) within the W/2 of Section 30, Township 27 North, Range 5 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 27-5 Unit 141 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 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.

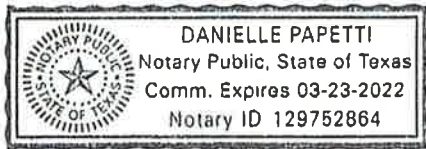
19. Exhibits A-1 and A-2 were prepared by me or under my direction and supervision.

FURTHER AFFIANT SAYETH NAUGHT.

Charles Creekmore
Charles Creekmore

STATE OF TEXAS)
COUNTY OF HARRIS)

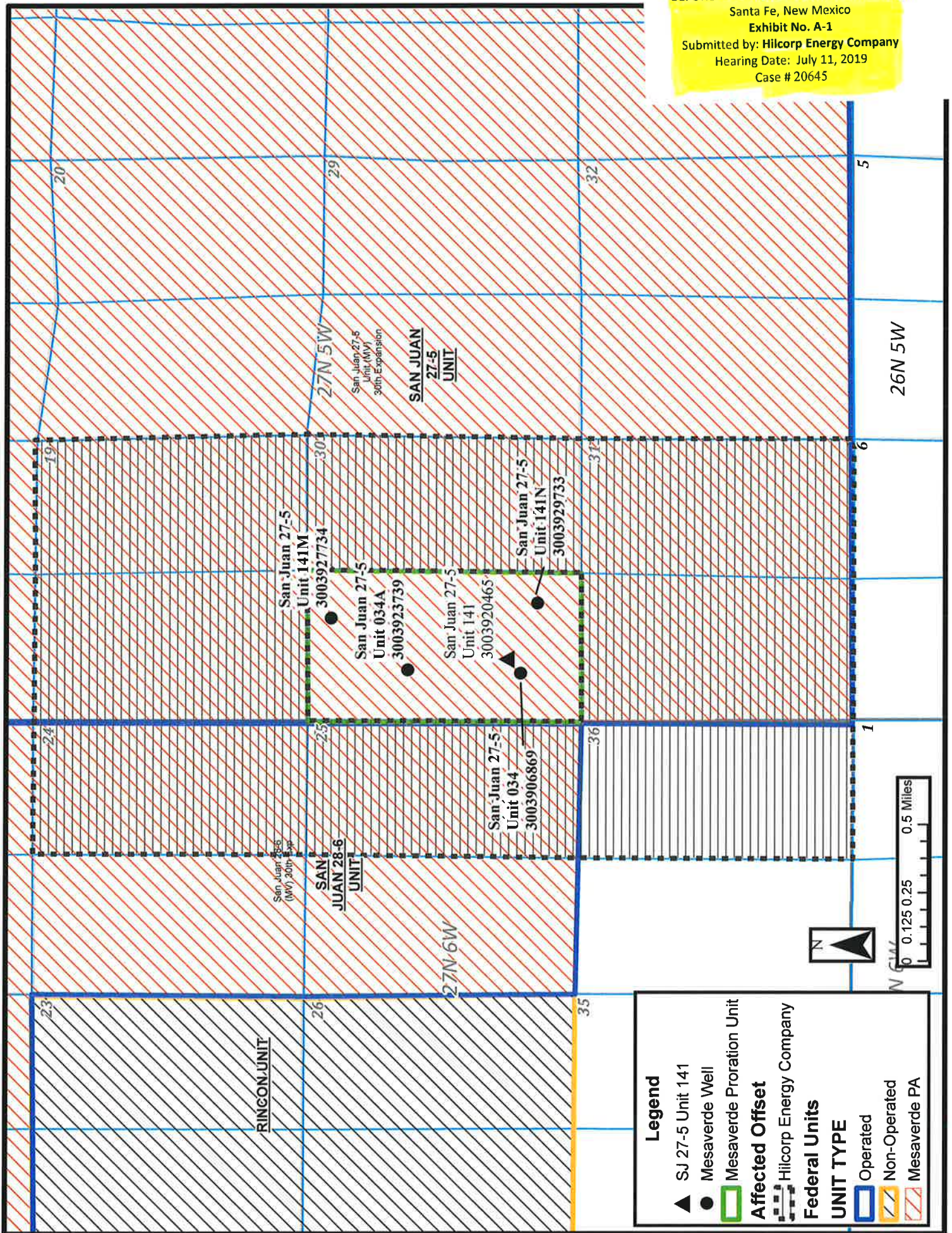
SUBSCRIBED and SWORN to before me this 2 day of July, 2019 by
Charles Creekmore.



Danielle Papetti
NOTARY PUBLIC

My Commission Expires:

3/23/2022



Legend

- ▲ SJ 27-5 Unit 141
- Mesaverde Well
- Mesaverde Proration Unit

Affected Offset

- Hilcorp Energy Company

Federal Units

UNIT TYPE

- Operated
- Non-Operated
- Mesaverde PA

Code	Name	Address	City	State	Zip Code	Interest Type
1034107	ROY G & OPAL BARTON SR REV TR	ROY G BARTON JR TRUSTEE 1919 NORTH TURNER	HOBBS	NM	88240-2712	W0001
1038024	PROVIDENCE MINERALS LLC	16400 NORTH DALLAS PKWY STE 400	DALLAS	TX	75248	W0001
1066712	BP AMERICA PRODUCTION COMPANY	PO BOX 848103	DALLAS	TX	75284-8103	W0001
1075302	JABCO LLP	PO BOX 840738	DALLAS	TX	75284-0738	W0001
300	Hilcorp San Juan, LP	1111 TRAVIS	HOUSTON	TX	77002	W0001
1138927	DUGAN PRODUCTION CORP	PO BOX 420	FARMINGTON	NM	87499	W0001
1138962	OMIMEX PETROLEUM	7950 JOHN T WHITE ROAD	FORT WORTH	TX	76120	W0001
1139405	T H MCELVAIN OIL & GAS LLLP	511 16TH STREET SUITE 700	DENVER	CO	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
1139415	TAMACAM LLC	JAMES M RAYMOND AFENT & AIFPO BOX 291445	KERRVILLE	TX	78029	W0001
1139481	LORRAYN GAY HACKER	PO BOX 291445	KERRVILLE	TX	78029-1445	W0001
1139496	J&M RAYMOND LTD	RAYMOND & SONS I LLC GEN PARTNERPO BOX 291445	KERRVILLE	TX	78029-1445	W0001
1139563	RUTH ZIMMERMAN TRUST	XAN WILLIAMS TRUSTEE1513 HERITAGE PL	MCPHERSON	KS	67460	W0001
1139591	CHARLES W GAY	PO BOX 291445	KERRVILLE	TX	78029-1445	W0001
1140851	HARCO LIMITED PARTNERSHIP	PO BOX 3716	ROSWELL	NM	88202-3716	W0001
1141462	TEMPE LIMITED PARTNERSHIP	C/O BOB HARRINGTONW7385 SPRING VALLEY DRIVE	GREENVILLE	WI	54942	W0001
1142895	TINMIL A NM LLC	1331 PARK AVE SW UNIT 1403	ALBUQUERQUE	NM	87102	W0001
1142896	THOMAS P TINNIN	2303 CANDELARIA RD NW	ALBUQUERQUE	NM	87107	W0001
1143832	MAR OIL & GAS CORPORATION	PO BOX 5155	SANTA FE	NM	87502	W0001
1143935	NAVATEX ENERGY LP	PO DRAWER 2188	ROSWELL	NM	88202	W0001
1144583	CHAPPELL FAMILY TR UTA JUNE 4 98	BUDDIE G CHAPPELL SURVIVING TTEEPO BOX 71579	PHOENIX	AZ	85050-1010	W0001
1144803	LANGDON D HARRISON REVOC TRUST B	JACQUELINE M HARRISON SUCC TRUSTEEO DRAWER 2188	ROSWELL	NM	88202	W0001
1146870	RIO ARIBAGAS LTD	4925 GREENVILLE AVE STE 900	DALLAS	TX	75206	W0001
1146871	RIO ARRIBA LIMITED PARTNERSHIP	3270 N COLORADO ST SUITE 201	CHANDLER	AZ	85225-1165	W0001
1146978	TIERRA POBRE LLC	PO BOX 1847	CORRALES	NM	87048	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 # 20645

**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.**

AFFIDAVIT

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.

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

My Commission Expires:

August 26 2021

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B
 Submitted by: **Hilcorp Energy Company**
 Hearing Date: July 11, 2019
 Case # 20645

HOLLAND & HART^{LLP}



Adam G. Rankin
Phone (505) 988-4421
Fax (505) 983-6043
agrarkin@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.

Sincerely,

Adam G. Rankin

ATTORNEY FOR HILCORP ENERGY COMPANY

POSTAL DELIVERY EPORT
OCD 20645 San Juan 27-5 U 141

TrackingNo	TransactionDate	ToName	DeliveryAddress	City	State	Zip	USPS_Status
9414810898765037645191	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.
9414810898765037645184	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.
9414810898765037645160	06/20/2019	T H MCELVAIN OIL & GAS LLLP	511 16th St Ste 700	Denver	CO	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.
9414810898765037645153	06/20/2019	OMIMEX PETROLEUM	7950 John T White Rd	Fort Worth	TX	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.
9414810898765037645146	06/20/2019	DUGAN PRODUCTION CORP	PO Box 420	Farmington	NM	87499-0420	Your item was delivered at 1:18 pm on June 25, 2019 in FARMINGTON, NM 87401.
9414810898765037645122	06/20/2019	JABCO LLP	PO Box 840738	Dallas	TX	75284-0738	Your item was delivered at 8:55 am on June 24, 2019 in DALLAS, TX 75284.
9414810898765037645115	06/20/2019	BP AMERICA PRODUCTION COMPANY	PO Box 848103	Dallas	TX	75284-8103	Your item was delivered at 8:55 am on June 24, 2019 in DALLAS, TX 75284.
9414810898765037645375	06/20/2019	TIERRA POBRE LLC	PO Box 1847	Corrales	NM	87048-1847	Your item was delivered at 2:36 pm on June 26, 2019 in CORRALES, NM 87048.
9414810898765037645368	06/20/2019	RIO ARRIBA LIMITED PARTNERSHIP	3270 N Colorado St Ste 201	Chandler	AZ	85225-1166	Your item was delivered to an individual at the address at 1:45 pm on June 24, 2019 in CHANDLER, AZ 85225.
9414810898765037645351	06/20/2019	RIO ARIBAGAS LTD	4925 Greenville Ave Ste 900	Dallas	TX	75206-4021	Your item was delivered to an individual at the address at 3:56 pm on June 25, 2019 in DALLAS, TX 75206.
9414810898765037645344	06/20/2019	LANGDON D HARRISON REVOC TRUST	PO Box 2188	Roswell	NM	88202-2188	Your item was delivered at 11:00 am on June 25, 2019 in ROSWELL, NM 88201.
9414810898765037645337	06/20/2019	CHAPPELL FAMILY TR UTA JUNE 4 98	PO Box 71579	Phoenix	AZ	85050-1010	Your item was delivered at 12:37 pm on July 1, 2019 in PHOENIX, AZ 85050.
9414810898765037645313	06/20/2019	NAVATEX ENERGY LP	PO Box 2188	Roswell	NM	88202-2188	Your item was delivered at 11:00 am on June 25, 2019 in ROSWELL, NM 88201.
9414810898765037645108	06/20/2019	PROVIDENCE MINERALS LLC	16400 Dallas Pkwy Ste 400	Dallas	TX	75248-2643	Your item was delivered to the front desk, reception area, or mail room at 1:08 pm on June 24, 2019 in DALLAS, TX 75248.
9414810898765037645306	06/20/2019	MAR OIL & GAS CORPORATION	PO Box 5155	Santa Fe	NM	87502-5155	Your item was delivered at 11:48 am on June 28, 2019 in SANTA FE, NM 87505.
9414810898765037645290	06/20/2019	THOMAS P TINNIN	2303 Candelaria Rd NW	Albuquerque	NM	87107-3055	Your item has been delivered to an agent at 12:37 pm on June 24, 2019 in ALBUQUERQUE, NM 87107.
9414810898765037645283	06/20/2019	TINMIL A NM LLC	1331 Park Ave SW Unit 1403	Albuquerque	NM	87102-2860	Your item was delivered to an individual at the address at 9:52 am on June 25, 2019 in ALBUQUERQUE, NM 87102.
9414810898765037645276	06/20/2019	TEMPE LIMITED PARTNERSHIP C/O BOB HARRINGTON	W7385 Spring Valley Dr	Greenville	WI	54942-8645	Your item was delivered to an individual at the address at 10:43 am on June 24, 2019 in GREENVILLE, WI 54942.
9414810898765037645269	06/20/2019	HARCO LIMITED PARTNERSHIP	PO Box 3716	Roswell	NM	88202-3716	Your item was delivered at 10:58 am on June 25, 2019 in ROSWELL, NM 88201.
9414810898765037645252	06/20/2019	CHARLES W GAY	PO Box 291445	Kerrville	TX	78029-1445	Your item was delivered at 11:33 am on June 27, 2019 in KERRVILLE, TX 78028.

9414810898765037645238	06/20/2019	RUTH ZIMMERMAN TRUST XAN WILLIAMS TRUSTEE	1513 Heritage Pl	McPherson	KS	67460-2124	Your item was delivered to an individual at the address at 12:18 pm on June 24, 2019 in MCPHERSON, KS 67460.
9414810898765037645221	06/20/2019	J&M RAYMOND LTD RAYMOND & SONS I LLC	PO Box 291445	Kerrville	TX	78029-1445	Your item was delivered at 11:33 am on June 27, 2019 in KERRVILLE, TX 78028.
9414810898765037645214	06/20/2019	LORRAYN GAY HACKER	PO Box 291445	Kerrville	TX	78029-1445	Your item was delivered at 11:33 am on June 27, 2019 in KERRVILLE, TX 78028.
9414810898765037645207	06/20/2019	TAMACAM LLC JAMES M RAYMOND AFENT & AIF	PO Box 291445	Kerrville	TX	78029-1445	Your item was delivered at 11:33 am on June 27, 2019 in KERRVILLE, TX 78028.
9414810898765037645092	06/20/2019	ROY G & OPAL BARTON SR	1919 N Turner St	Hobbs	NM	88240-2712	Your item was delivered to an individual at the address at 12:34 pm on June 24, 2019 in HOBBS, NM 88240.

SANTA FE, NEW MEXICO
The State of New Mexico through its Oil Conservation Division hereby gives notice pursuant to law and the Rules and Regulations 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 appointed for the hearing. If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing, please contact: Florene Davidson at 505-476-3458 or through the New Mexico Relay Network, 1-800-659-1779 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 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 land descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.)

TO: ALL WORKING INTEREST OWNERS IN THE SUBJECT SPACING UNIT AND OFF-SETTING OPERATORS OR LEASED MINERAL INTEREST OWNERS, INCLUDING: ROY G. & OPAL BARTON SR REV TR, ROY G. BARTON JR., TRUSTEE; PROVIDENCE MINERALS LLC; BP AMERICA PRODUCTION COMPANY; JABCO LLP; DUGAN PRODUCTION CORP; OMIMEX PETROLEUM; T H MCELVAIN OIL & GAS LLP; HARRINGTON ENERGY RESOURCES LP, A NM LP; HARRINGTON SAN JUAN LLC GP; HARRINGTON SOUTHWEST ENERGY LP, A NM LP; HARRINGTON SAN JUAN LLC GP; TAMACAM LLC, JAMES M. RAYMOND APENT & AIF; LORRAYN GAY HACKER, HER HEIRS AND DEVICES; JAM RAYMOND LTD, RAYMOND & SONS I LLC GEN PARTNER; RUTH ZIMMERMAN TRUST, XAN WILLIAMS TRUSTEE; CHARLES W. GAY, HIS HEIRS AND DEVICES; HARCO LIMITED PARTNERSHIP; TEMPE LIMITED PARTNERSHIP, C/O BOB HARRINGTON; TIMMIL A NM LLC; THOMAS P. TINNIN, HIS HEIRS AND DEVICES; MAR OIL & GAS CORPORATION; NAVATEX ENERGY LP; CHAPPELL FAMILY TR UTA JUNE 4 98, BUD-DIE G. CHAPPELL SURVIVING TTEE; LANGDON D. HARRISON REVOC TRUST B, JACQUELINE M. HARRISON SUCCE TRUSTEE; RIO ARRIBA GAS LTD; RIO ARRIBA LIMITED PARTNERSHIP; TIERRA POBRE LLC.

STATE OF
NEW MEXICO
OIL & GAS
NATURAL
RESOURCES
DEPARTMENT
OIL CONSERVATION
DIVISION

CASE 20645: Application of Hilcorp Energy Company for an Exception to the Well Density Requirements of the Special Rules and Regulations of the Blanco-Mesa Verde Gas Pool, Rio Arriba County, New Mexico. Applicant in the above-stated cause seeks to the well for an exception to the well density requirements of Rule 18 of the Special Rules and Regulations for the Blanco-Mesa Verde Gas Pool (72319), Rio Arriba County, New Mexico, to simultaneously produce and flow naturally gas wells in the same standard 320-acre, more or less, spacing and production unit, with three wells in the same quarter section in the corp further seek approval for the proposed location of the San Juan 27-5 Unit 141 Well (APN 30-038-20465) in the a surface location in Unit 1 of the W1/2 of Section 30, Township 27 North, Range 5 West, N14M, Rio Arriba County, New Mexico, and unit, New Mexico, and unit, New Mexico, to simultaneously complete and produce the well from the Blanco Mesa Verde Gas Pool. Said area is located approximately 23 miles east of Biscuit, NM. (Published June 27th, 2019)

Publisher's Bill

170 lines one time at 119.00

_____ lines _____ times at _____

Affidavit 5.00

Subtotal 124.00

Tax 11.08

Total 135.08

Payment received at Rio Grande SUN

Date _____

By _____

Affidavit of Publication

State of New Mexico

County of Rio Arriba

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 Laws of 1937. The publication, a copy of which is hereto attached, was published in said paper once each week for

1 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 published in the newspaper proper, and not in any supplement. The first publication being on the

27 day of June 2019

and the last publication on the 27 day of

June 2019 payment for said 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.


Publisher

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


OFFICIAL SEAL
MARIA G CHAVEZ
Notary Public
State of New Mexico
My Comm. Expires 10/21/20

Maria G. Chavez/Notary Public

My commission expires 21 October 2020

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. B-2

Submitted by: Hilcorp Energy Company

Hearing Date: July 11, 2019

Case # 20645

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
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**APPLICATION OF HILCORP ENERGY
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RIO ARRIBA COUNTY, NEW MEXICO.**

CASE NO. 20645

AFFIDAVIT OF MICHELLE SIVADON IN SUPPORT OF CASE NO. 20645

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

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 27-5 Unit 141 Well** (API No. 30-039-20465) within the W/2 of Section 30, Township 27 North, Range 5 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 northeast.

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 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 recompleting 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 Sivadon
Michelle Sivadon

STATE OF TEXAS)
COUNTY OF Harris)

SUBSCRIBED and SWORN to before me this 3rd day of July, 2019 by
Michelle Sivadon.

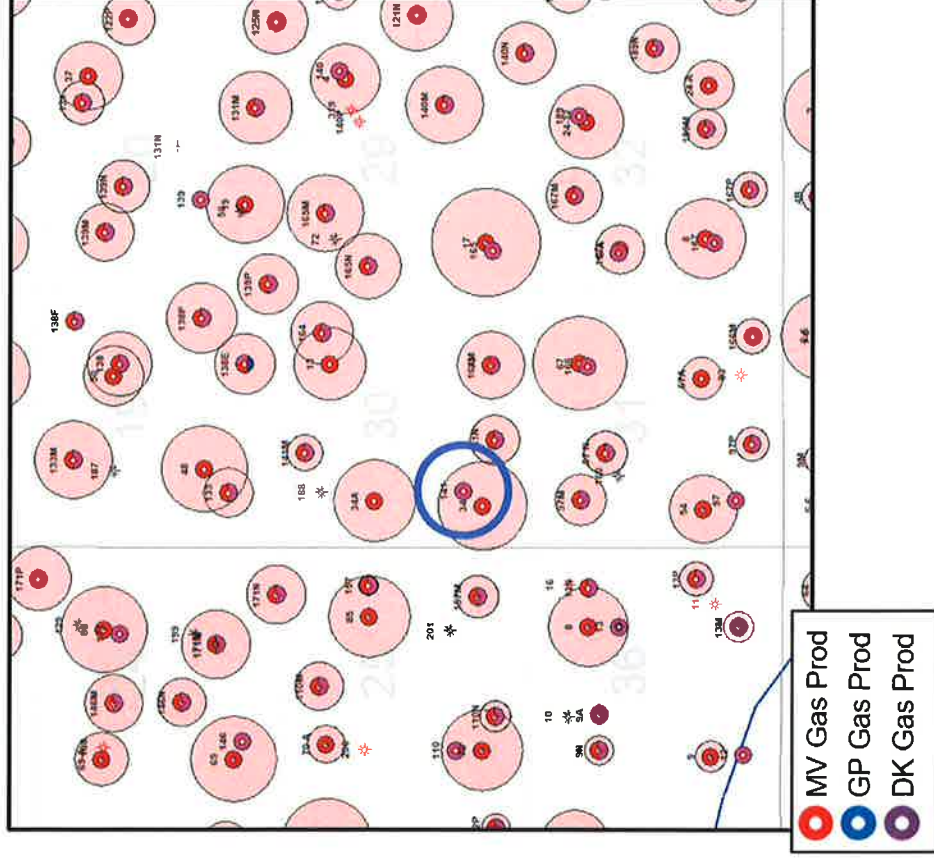
[Signature]
NOTARY PUBLIC

My Commission Expires:

02/08/2023



San Juan 27-5 Unit 141

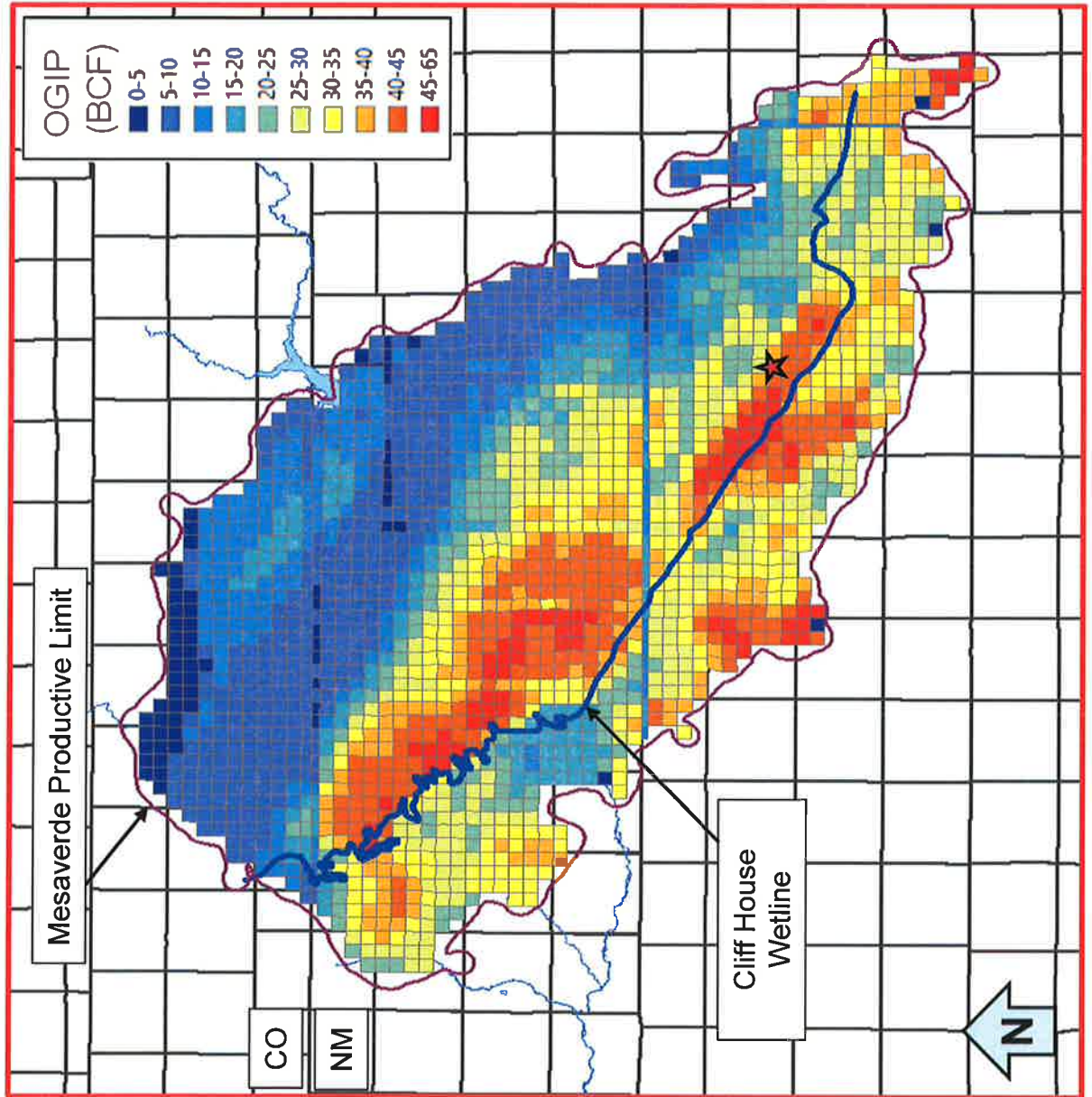


Well Specifics

- SW30 27-5 3003920465 1972 drill
- 3rd MV completion in 1/4 section
- 510' from nearest MV producer
- Help drain area to the northeast
- Complete MV in 1-2 stages
- Carrizo Canyon impacts locations

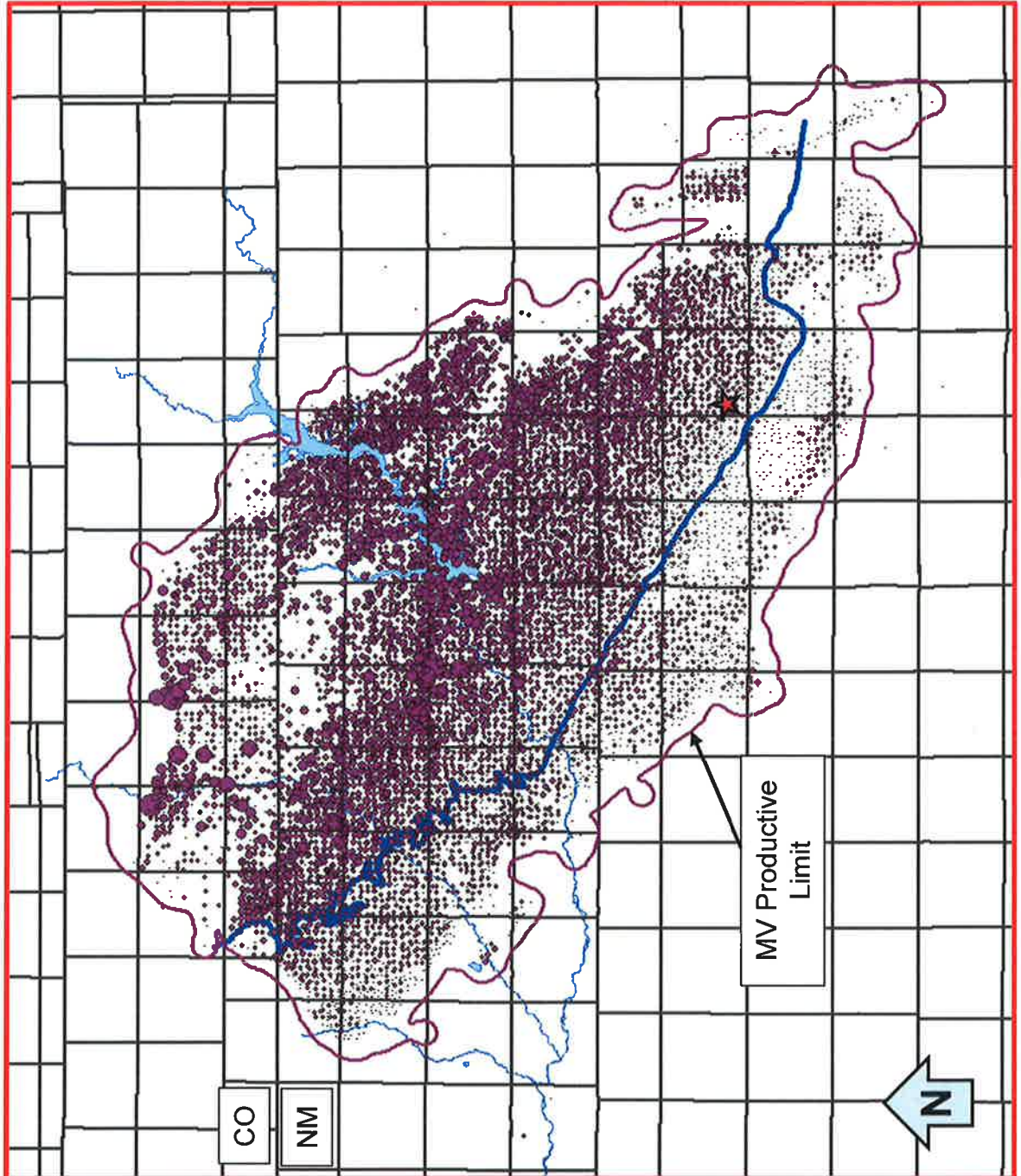


MV Original Gas In Place



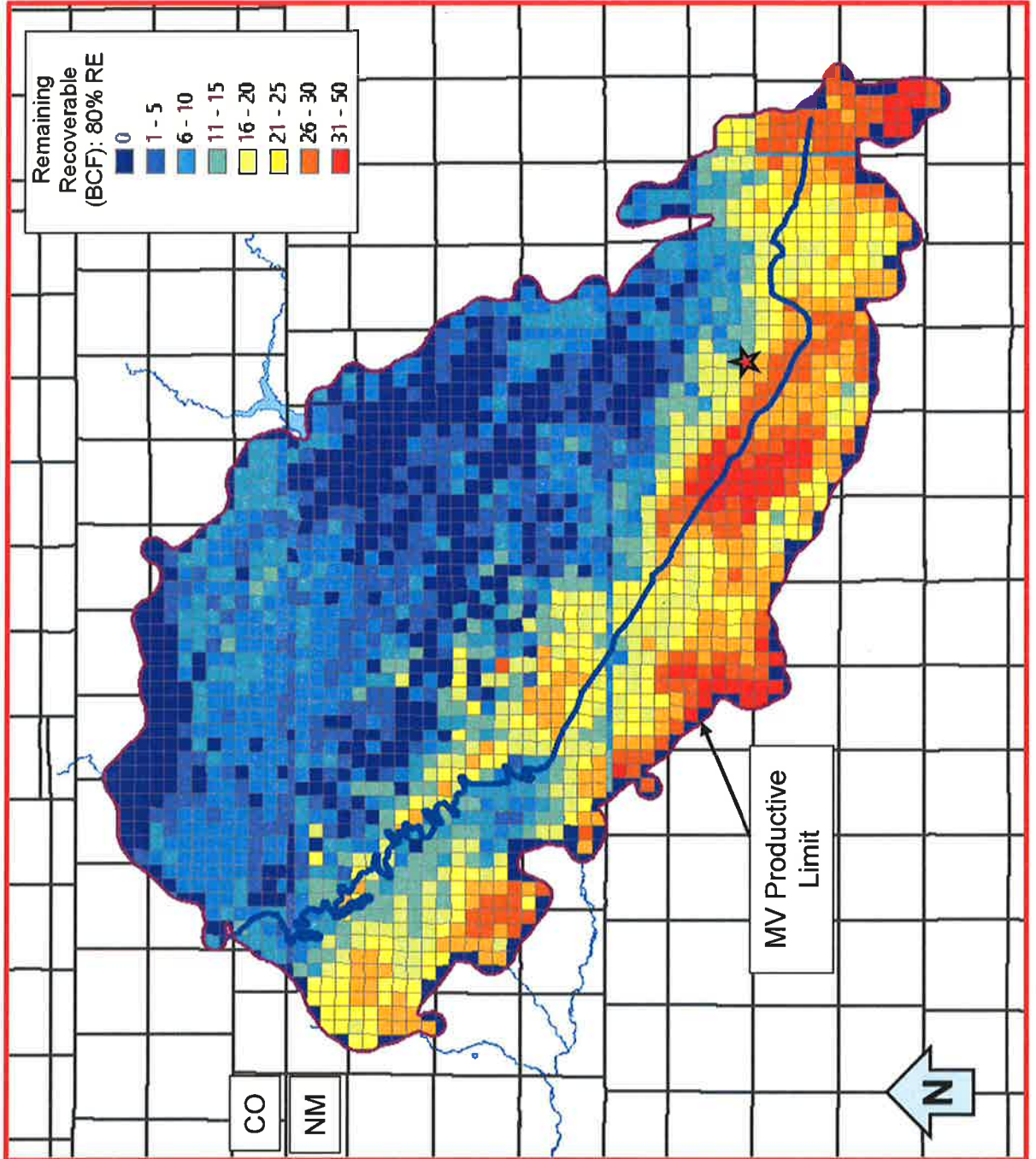


MV EUR and Drainage Radius





MV Remaining Recoverable Gas



San Juan 27-5 Unit 141



Reference Area	Volumetric OGIP	Section Equivalent OGIP	CTD / RF%	Remaining GIP	EUR / RF%
Qtr Section	10.5 Bcf	42.0 Bcf	3.4 Bcf / 32%	7.1 Bcf	4.3 Bcf / 41%
Section	37.8 Bcf	37.8 Bcf	8.7 Bcf / 23%	29.1 Bcf	11.7 Bcf / 31%
9 Section	383.0 Bcf	42.6 Bcf	73.0 Bcf / 19%	310.0 Bcf	96.0 Bcf / 25%

- Remaining Gas in Place in Quarter Section of 7.1 Bcf
- Cumulative Recovery Factor to Date 32% and 23% in the Quarter Section and Section, respectively
- Considerable gas remaining in area with opportunity to recover additional volumes utilizing existing wellbore



San Juan 27-5 Unit 141- Schematic

