

**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING JUNE 13, 2019**

CASE No. 20542

SAN JUAN 29-5 UNIT 68 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. 20542

AFFIDAVIT OF CHARLES CREEKMORE IN SUPPORT OF CASE NO. 20542

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 E/2 of Section 18, Township 29 North, Range 5 West, Rio Arriba County, New Mexico, in which the following four wells are currently completed and producing:

- a. San Juan 29-5 Unit 25 Well (API No. 30-039-07625) Sec. 18, T29N, R5W (Unit G);
- b. San Juan 29-5 Unit 25A Well (API No. 30-039-21556), Sec. 18, T29N, R5W (Unit O);
- c. San Juan 29-5 Unit 68M Well (API No. 30-039-26577), Sec. 18, T29N, R5W (Unit I); and
- d. San Juan 29-5 Unit 25B Well (API No. 30-039-29450), Sec. 18, T29N, R5W (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 29-5 Unit 68 Well** (API No. 30-039-20712), Sec. 18, T29N, R5W (Unit A).

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 29-5 Unit 68 Well** (API No. 30-039-20712) within the E/2 of Section 18, Township 29 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 29-5 Unit 68 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 18, Township 29 North, Range 5 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 **San Juan 29-5 Unit 68 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)

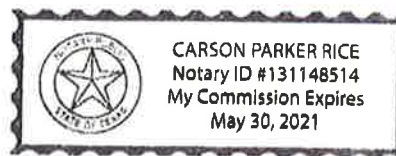
COUNTY OF Harris)

SUBSCRIBED and SWORN to before me this 4th day of June, 2019 by
Charles Creekmore.

Carson Parker Rice
NOTARY PUBLIC

My Commission Expires:

May 30, 2021



12707381_v1

BA	Name	Address	City	State	Zip Code	Remarks
1066712	BP AMERICA PRODUCTION COMPANY	PO BOX 848103	DALLAS	TX	75284-8103	WIO
1139591	CHARLES W GAY	PO BOX 291445	KERRVILLE	TX	78029-1445	WIO
	300 Hilcorp San Juan, LP	1111 TRAVIS	HOUSTON	TX	77002	WIO
1139496	J&M RAYMOND LTD	RAYMOND & SONS I LLC GEN PARTNERPO BOX 291445	KERRVILLE	TX	78029-1445	WIO
1139481	LORRAYN GAY HACKER	PO BOX 291445	KERRVILLE	TX	78029-1445	WIO
1145056	MCELVAIN OIL COMPANY	DAVID P MCELVAINPO BOX 801888	DALLAS	TX	75380-1888	WIO
1139405	T H MCELVAIN OIL & GAS LLLP	511 16TH STREET SUITE 700	DENVER	CO	80202	WIO
1139415	TAMACAM LLC	JAMES M RAYMOND AFENT & AIFPO BOX 291445	KERRVILLE	TX	78029	WIO
1145055	VAUGHAN-MCELVAIN ENERGY INC	PO BOX 970	KENNETT SQUA	PA	19348	WIO

**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. 20542

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 12th day of June, 2019 by Adam G. Rankin.



Notary Public



HOLLAND & HART



Adam G. Rankin

Phone (505) 988-4421

Fax (505) 983-6043

agrarkin@hollandhart.com

May 24, 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 June 13, 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

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. B-1

Submitted by: **Hilcorp Energy Company**

Hearing Date: June 13, 2019

Case # 20542

T 505.988.4421 F 595.983.6043

110 North Guadalupe, Suite 1, Santa Fe, NM 87501-1849

Mail to: P.O. Box 2208, Santa Fe, NM 87504-2208

www.hollandhart.com

Alaska

Colorado

Idaho

Montana

Nevada

New Mexico

Utah

Washington, D.C.

Wyoming



Shipment Confirmation Acceptance Notice

A. Mailer Action

Note to Mailer: The labels and volume associated to this form online, **must** match the labeled packages being presented to the USPS® employee with this form.

San Juan 29-5 Unit 68 Well
Case No. 20542
HEC 93904.0003

Shipment Date: 05/23/2019

Shipped From:

Name: HOLLAND & HART LLP

Address: 110 N GUADALUPE ST # 1

City: SANTA FE

State: NM ZIP+4® 87501

Type of Mail	Volume
Priority Mail Express®	
Priority Mail®	0
First-Class Package Service®	
Returns	
International*	
Other	10
Total	10

*Start time for products with service guarantees will begin when mail arrives at the local Post Office™ and items receive individual processing and acceptance scans.

B. USPS Action

Note to RSS Clerk:

1. Home screen > Mailing/Shipping > More
2. Select Shipment Confirm
3. Scan or enter the barcode/label number from PS Form 5630
4. Confirm the volume count message by selecting Yes or No
5. Select Pay and End Visit to complete transaction

USPS EMPLOYEE: Please scan upon pickup or receipt of mail.
Leave form with customer or in customer's mail receptacle.

USPS SCAN AT ACCEPTANCE



9275 0901 1935 6200 0014 6685 54



**Firm Mailing Book For Accountable Mail**

Name and Address of Sender

Holland & Hart LLP
110 N Guadalupe St # 1
Santa Fe NM 87501

Check type of mail or service

- ☐ Adult Signature Required ☐ Priority Mail Express
☐ Adult Signature Restricted Delivery ☐ Registered Mail
☒ Certified Mail ☐ Return Receipt for Merchandise
☐ Certified Mail Restricted Delivery ☐ Signature Confirmation
☐ Collect on Delivery (COD) ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail
☐ Priority Mail

Affix Stamp Here
(If issued as an international certificate of mailing or for additional copies of this receipt).
Postmark with Date of Receipt.

USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee
1. 9214 8901 9403 8383 7183 27	BP AMERICA PRODUCTION COMPANY PO BOX 846103 DALLAS TX 75284-8103	0.65	3.50								1.60			
2. 9214 8901 9403 8383 7183 34	CHARLES W GAY PO BOX 291445 KERRVILLE TX 78029-1445	0.65	3.50								1.60			
3. 9214 8901 9403 8383 7183 41	JAM RAYMOND LTD RAYMOND & SONS I LLC GEN PARTNER PO BOX 291445 KERRVILLE TX 78029-1445	0.65	3.50								1.60			
4. 9214 8901 9403 8383 7183 58	LORRYAN GAY HACKER PO BOX 291445 KERRVILLE TX 78029-1445	0.65	3.50								1.60			
5. 9214 8901 9403 8383 7183 65	MCCLVAIN OIL COMPANY C/O DAVID P MCCLVAIN PO BOX 801888 DALLAS TX 75380-1888	0.65	3.50								1.60			
6. 9214 8901 9403 8383 7183 72	TH MCCLVAIN OIL & GAS LLLP 511 16TH STREET SUITE 700 DENVER CO 80202	0.65	3.50								1.60			
7. 9214 8901 9403 8383 7183 89	TAMACAM LLC JAMES M RAYMOND AFENT & AIF PO BOX 291445 KERRVILLE TX 78029	0.65	3.50								1.60			
8. 9214 8901 9403 8383 7183 96	VAUGHAN-MCCLVAIN ENERGY INC PO BOX 970 KENNETT SQUARE PA 19348	0.65	3.50								1.60			
Total Number of Pieces Listed by Sender 10	Total Number of Pieces Received at Post Office	Postmaster, Per (Name of receiving employee)												

Firm Mailing Book For Accountable Mail

Name and Address of Sender		Check type of mail or service		Affix Stamp Here <i>(if issued as an international certificate of mailing or for additional copies of this receipt).</i> Postmark with Date of Receipt.															
USPS Tracking/Article Number		Addressee (Name, Street, City, State, & ZIP Code™)		Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender If COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee			
Holland & Hart LLP 110 N Guadalupe St # 1 Santa Fe NM 87501		<input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery (COD) <input type="checkbox"/> Insured Mail <input type="checkbox"/> Priority Mail	<input type="checkbox"/> Priority Mail Express <input type="checkbox"/> Registered Mail <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Signature Confirmation <input type="checkbox"/> Signature Confirmation Restricted Delivery																
9. 9214 8901 9403 8383 7184 02	BUREAU OF LAND MANAGEMENT 6251 College Blvd FARMINGTON NM 87402	0.65	3.50										1.60						
10. 9214 8901 9403 8383 7184 19	NEW MEXICO LAND OFFICE 310 Old Santa Fe Trail Santa Fe NM 87501	0.65	3.50										1.60						
Total Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster, Per (Name of receiving employee)																	
10																			

POSTAL DELIVERY REPORT
SAN JUAN 29-5 UNIT 68
CASE NO. 20542

Recipient	Status	Custom
BP AMERICA PRODUCTION COMPANY PO BOX 848103 DALLAS TX 75284-8103	Delivered Signature Received	Ref#: C1399763.7861354 RetRef#:
CHARLES W GAY PO BOX 291445 KERRVILLE TX 78029-1445	Delivered Signature Received	Ref#: C1399763.7861355 RetRef#:
J&M RAYMOND LTD RAYMOND & SONS I LLC GEN PARTNER PO BOX 291445 KERRVILLE TX 78029-1445	Delivered Signature Received	Ref#: C1399763.7861356 RetRef#:
LORRAYN GAY HACKER PO BOX 291445 KERRVILLE TX 78029-1445	Delivered Signature Received	Ref#: C1399763.7861357 RetRef#:
MCELVAIN OIL COMPANY C/O DAVID P MCELVAIN PO BOX 801888 DALLAS TX 75380-1888	In-Transit	Ref#: C1399763.7861358 RetRef#:
TH MCELVAIN OIL & GAS LLLP 511 16TH STREET SUITE 700 DENVER CO 80202	In-Transit	Ref#: C1399763.7861359 RetRef#:
TAMACAM LLC JAMES M RAYMOND AFENT & AIF PO BOX 291445 KERRVILLE TX 78029	Delivered Signature Received	Ref#: C1399763.7861360 RetRef#:
VAUGHAN-MCELVAIN ENERGY INC PO BOX 970 KENNETT SQUARE PA 19348	Delivered Signature Received	Ref#: C1399763.7861361 RetRef#:
BUREAU OF LAND MANAGEMENT 6251 College Blvd FARMINGTON NM 87402	Delivered Signature Received	Ref#: C1399763.7861362 RetRef#:
NEW MEXICO LAND OFFICE 310 Old Santa Fe Trail Santa Fe NM 87501	Delivered Signature Received	Ref#: C1399763.7861363 RetRef#:

Affidavit of Publication

**STATE OF
NEW MEXICO
ENERGY, MINERALS
AND NATURAL
RESOURCES
DEPARTMENT
OIL CONSERVATION
DIVISION
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 June 13, 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 June 3, 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: BP AMERICA PRODUCTION COMPANY; CHARLES W. GAY, HIS HEIRS AND DEVISEES; J&M RAYMOND LTD, RAYMOND & SONS I LLC GEN PARTNER; LORRAYN GAY HACKER, HER HEIRS AND DEVISEES; MCELVAIN OIL COMPANY, C/O DAVID P. MCELVAIN; T. H. MCELVAIN OIL & GAS LLP; TAMACAM LLC, JAMES M. RAYMOND A FENT & AIF; VAUGHAN-MCELVAIN ENERGY INC.

CASE 20542: 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. Applicant in the above-styled cause seeks an order for an exception to the well density requirements of Rule 1.B of the Special Rules and Regulations for the Blanco-Mesaverde Gas Pool (72319), Rio Arriba County, New Mexico, to permit it to complete and simultaneously produce five Mesaverde gas wells in the same standard 320-acre, more or less, spacing and proration unit, with three wells in the same quarter section. Hilcorp further seeks approval for the proposed location of the San Juan 29-5 Unit 69 Well (API No. 30-038-20712) in the Mesaverde formation with a surface location in Unit A of the E/2 of Section 18, Township 29 North,

Range 5 West, NMPM, Rio Arriba County, New Mexico, and authorization to simultaneously complete and produce the San Juan 29-5 Unit 68 Well from the Blanco-Mesaverde Gas Pool. Said area is located approximately 28 miles east of Bloomfield, NM. (Published May 30, 2019)

's Bill

me at \$93.50

times at

Affidavit \$5.00

Subtotal \$98.50

Tax \$8.83

Total \$107.33

Payable to Rio Grande SUN

Date 5/19

By

State of New Mexico
County of Rio Arriba

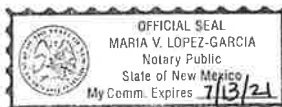
I, Robert Trapp, being first duly sworn, declare and say I am the publisher of the Rio Grande SUN, a weekly newspaper published in the English language and having a general circulation in the County of Rio Arriba, State of New Mexico, and being a newspaper duly qualified to publish legal notices and 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 30 day of May, 2019, and the last publication on the 30 day of May, 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.

Robert Trapp
Publisher

Subscribed and sworn to before me this 30 day of May A.D. 2019

Maria V. Lopez-Garcia
Maria V. Lopez-Garcia/Notary Public
My commission expires 13 July 2021



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

**APPLICATION OF HILCORP ENERGY
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THE BLANCO-MESAVERDE GAS POOL,
RIO ARriba COUNTY, NEW MEXICO.**

CASE NO. 20542

AFFIDAVIT OF MICHELLE SIVADON IN SUPPORT OF CASE NO. 20542

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 29-5 Unit 68 Well** (API No. 30-039-20712) within the E/2 of Section 18, Township 29 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 reflected at the quarter section and 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 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.

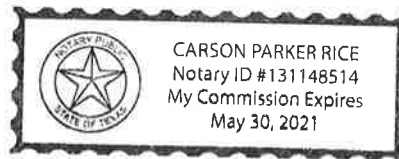
FURTHER AFFIANT SAYETH NAUGHT.

Michelle Sivadon

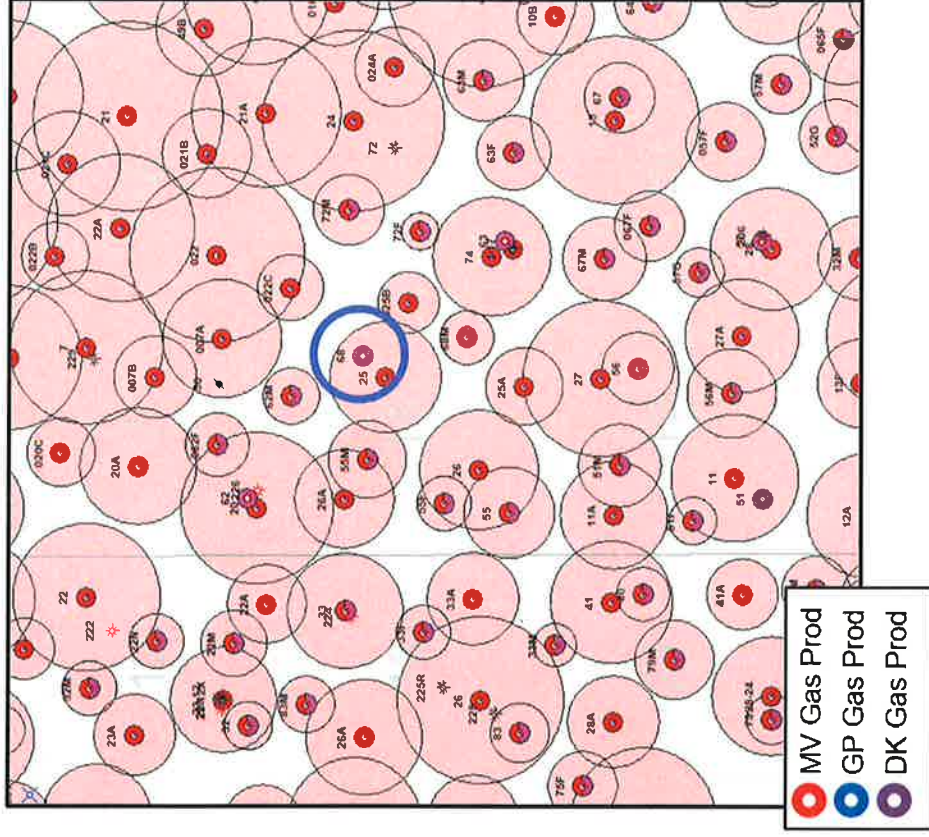
COUNTY OF Harris


NOTARY PUBLIC

May 30, 2021.



San Juan 29-5 Unit 68

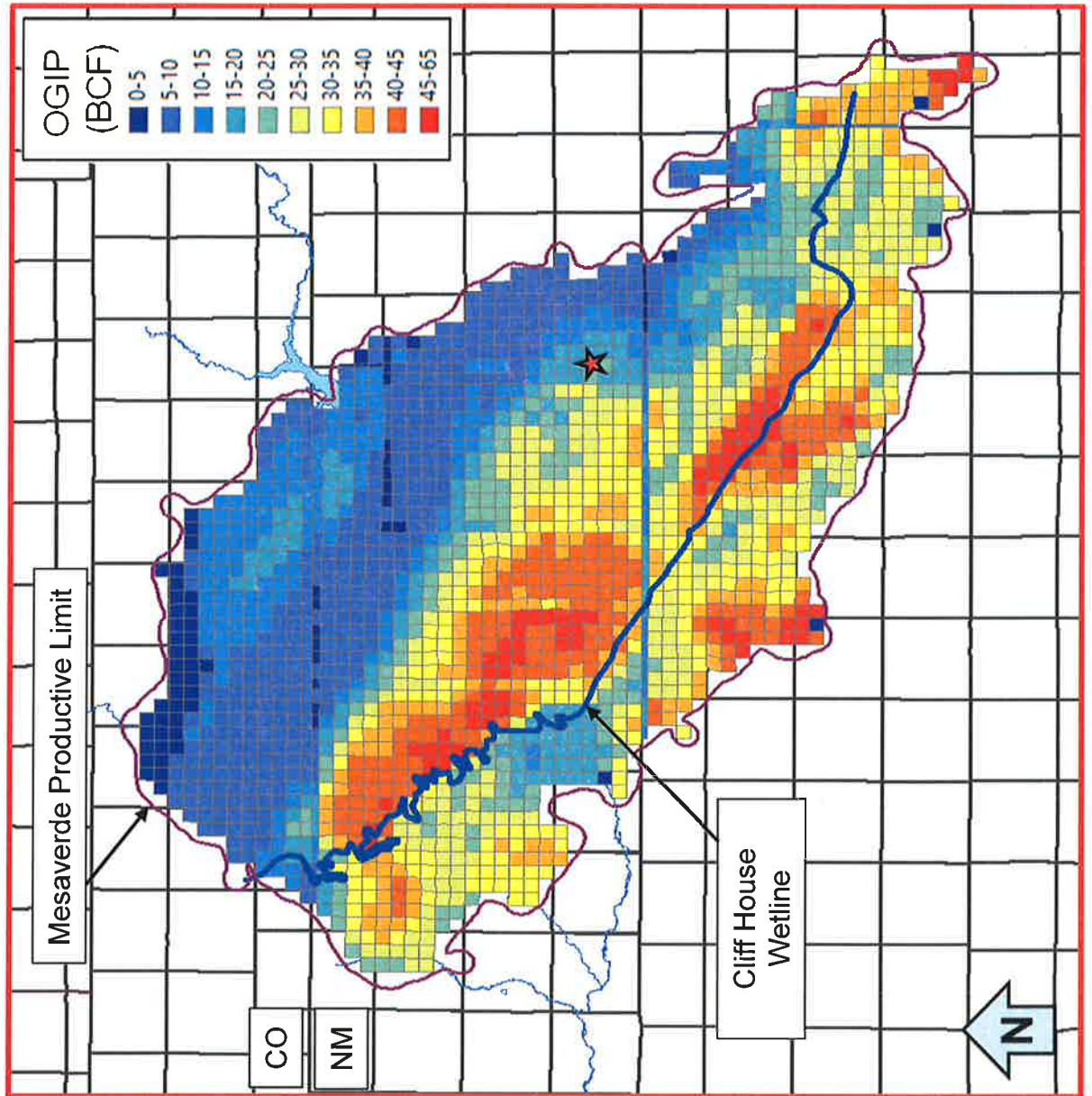


Well Specifics

- NE18 29-5 3003920712 1974 drill
- 3rd MV completion in 1/4 section
- 640' from nearest MV producer
- Help drain area to the northeast
- Complete MV in 1-2 stages



MV Original Gas In Place



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. C-2

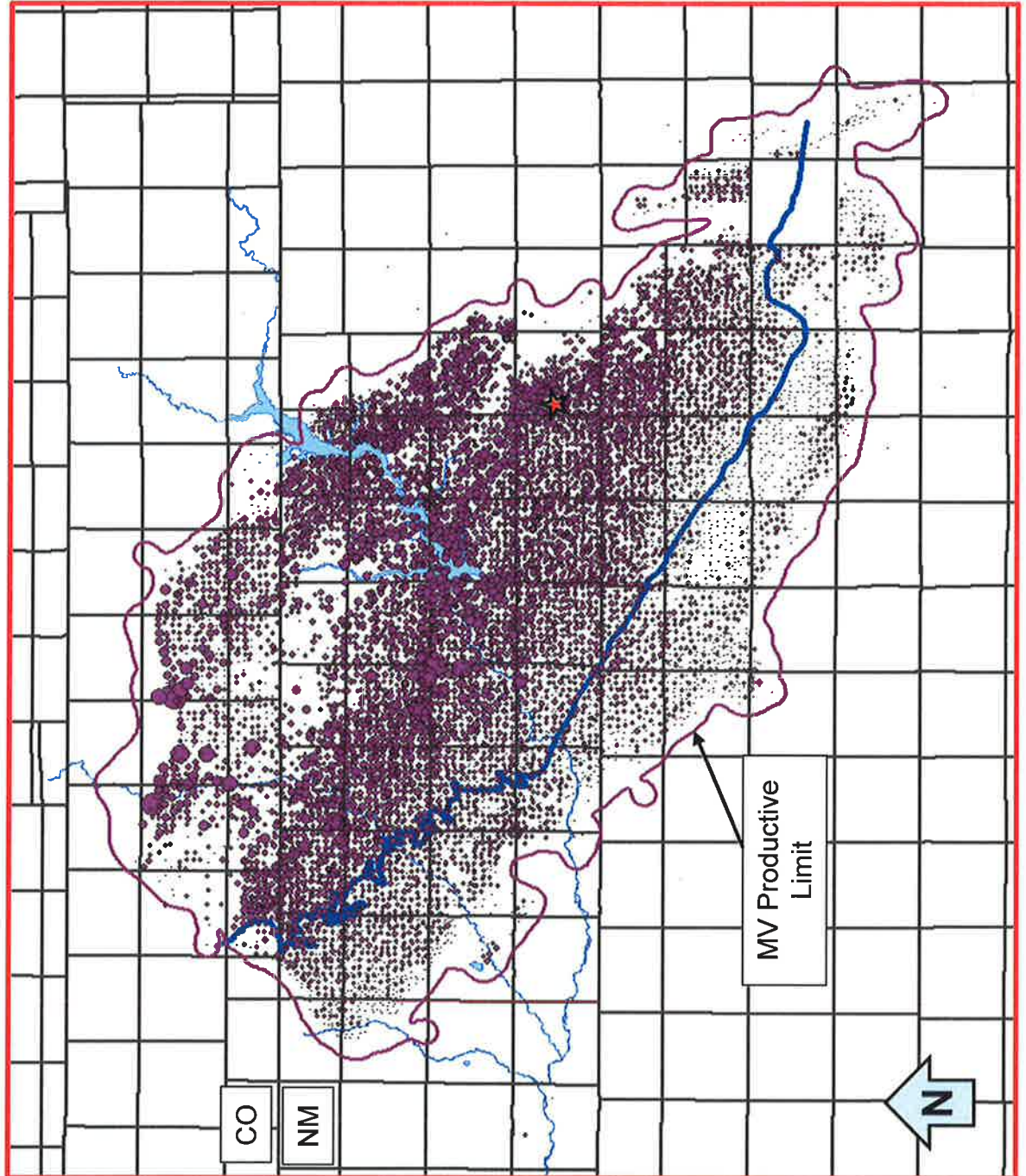
Submitted by: Hilcorp Energy Company

Hearing Date: June 13, 2019

Case # 20542

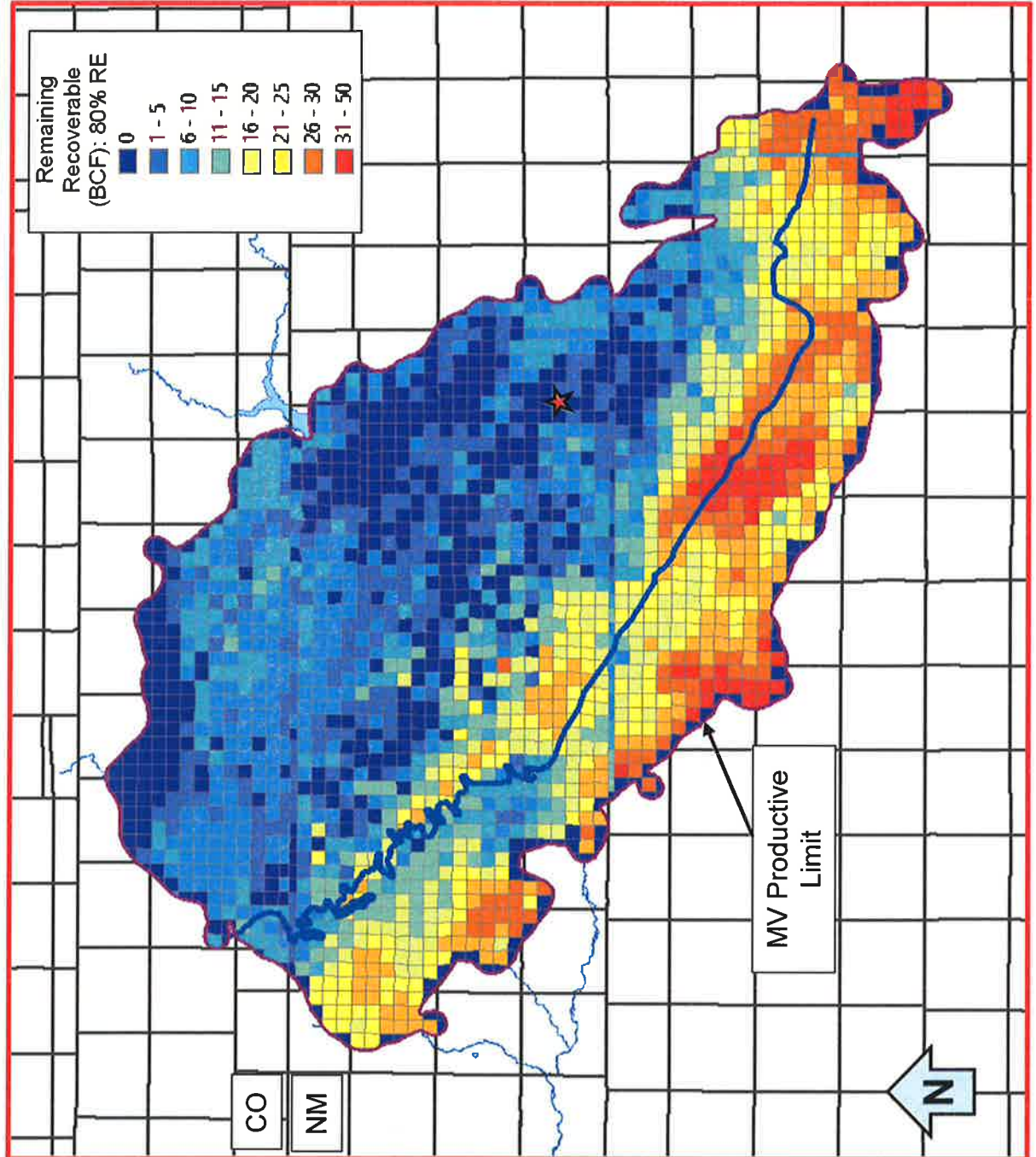


MV EUR and Drainage Radius





MV Remaining Recoverable Gas



San Juan 29-5 Unit 68



Reference Area	Volumetric OGIP	Section Equivalent OGIP	CTD / RF%	Remaining GIP	EUR / RF%
Qtr Section	5.4 Bcf	21.6 Bcf	2.5 Bcf / 46%	2.9 Bcf	3.4 Bcf / 63%
Section	23.5 Bcf	23.5 Bcf	11.9 Bcf / 51%	11.6 Bcf	15.5 Bcf / 66%
9 Section	186.0 Bcf	20.7 Bcf	131.0 Bcf / 71%	55.0 Bcf	163.0 Bcf / 88%

- Remaining Gas in Place in Quarter Section of 2.9 Bcf
- Cumulative Recovery Factor to Date 46% and 51% in the Quarter Section and Section, respectively
- Considerable gas remaining in area with opportunity to recover additional volumes utilizing existing wellbore



San Juan 29-5 Unit 68 - Schematic

