

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

- NSL 7482
- MAKE Energy Corp
13873

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

well
- Prince
Mupentford
30-005-6422

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

[A] ☒ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

- Round Truck
San Andres
52770

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Deana Weaver
Print or Type Name

Deana Weaver
Signature

Production Clerk
Title

11.2.16
Date

dweaver@mec.com
e-mail Address



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

November 2, 2016

Oil Conservation Division
Attn: David Catanach
1220 South St. Francis Dr.
Santa Fe, NM 87505

Re: Application of Mack Energy Corporation for administrative approval of an unorthodox well location for its Prince Rupert Federal #1 well in the NW/4 SW/4 of Sec. 20 T15S, R29E, Chaves County, New Mexico.

Dear Mr. Catanach:

Mack Energy Corporation (OGRID 13837) seeks administrative approval of an unorthodox well location for its **Prince Rupert Federal #1 Well** to be completed with the Round Tank; San Andres Pool (Pool Code 52770) underlying NW/4 SW/4 Sec 20 T15S R29E, Chaves County, New Mexico. This well was drilled from a surface location 1900 FSL and 330 FWL. The upper most perforation is located 1642 FSL and 360 FWL. Since this acreage is governed by the Division's statewide rules which provides for wells to be located no closer than 330 feet to the outer boundary of the spacing unit, the completed interval for this well is unorthodox because it is closer to 330 feet to the SW/4 SW/4 boundaries of the project area. Approval of the unorthodox completed interval will allow for efficient well spacing and prevent waste of a productive reservoir.

Exhibit A is an as drilled plat for the **Prince Rupert Federal #1 Well** which shows that the completed interval encroaches on the SW/4 SW/4 Sec. 20 T15S R29E.

Exhibit B is a Midland map showing the outline of the subject acreage and the surrounding sections.

Exhibit C is a list of parties affected by the encroachment in the surrounding sections and/or units. A copy of this application with all attachments has been sent by certified mail to each affected party advising them that if they have an objection it must be filed in writing with the division within 20 days from the date the division receives this application. A courtesy copy of this application has also been provided to the New Mexico State Land Office.

Thank you for your assistance in this matter. If you have any questions, please feel free to call.

Sincerely,

MACK ENERGY CORPORATION

A handwritten signature in cursive script that reads "Deana Weaver". The signature is written in black ink and is positioned below the company name.

*Deana Weaver
Production Clerk*

*DW/
Enclosures*

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
511 S. First St., Artesia, NM 88210
Phone: (575) 748-1253 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87419
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-005-64222	² Pool Code 52770	³ Pool Name Round Tank; San Andres
⁴ Property Code 314080	⁵ Property Name PRINCE RUPERT FEDERAL	
⁷ OGRID No. 13837	⁶ Operator Name MACK ENERGY CORPORATION	
		⁸ Well Number 1
		⁹ Elevation 3749.7

¹⁰ Surface Location

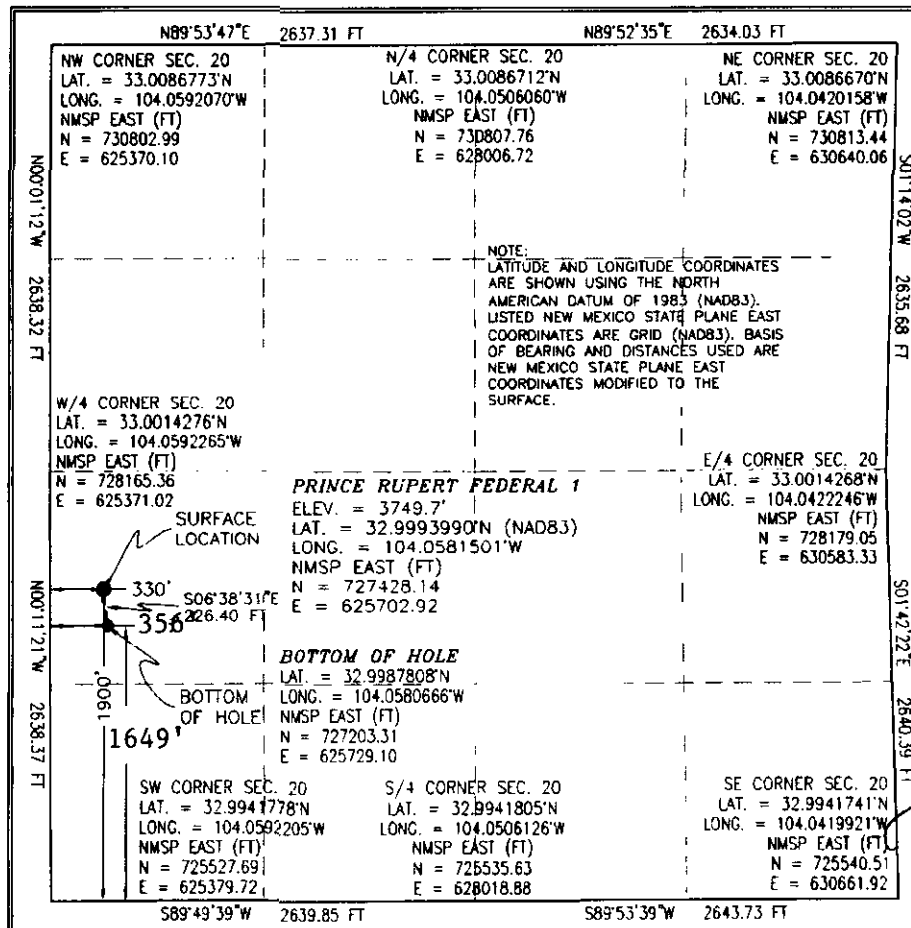
U.I. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	20	15 S	29 E		1900	SOUTH	330	WEST	CHAVES

¹¹ Bottom Hole Location If Different From Surface

U.I. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	20	15 S	29 E		1649	SOUTH	356	WEST	CHAVES

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

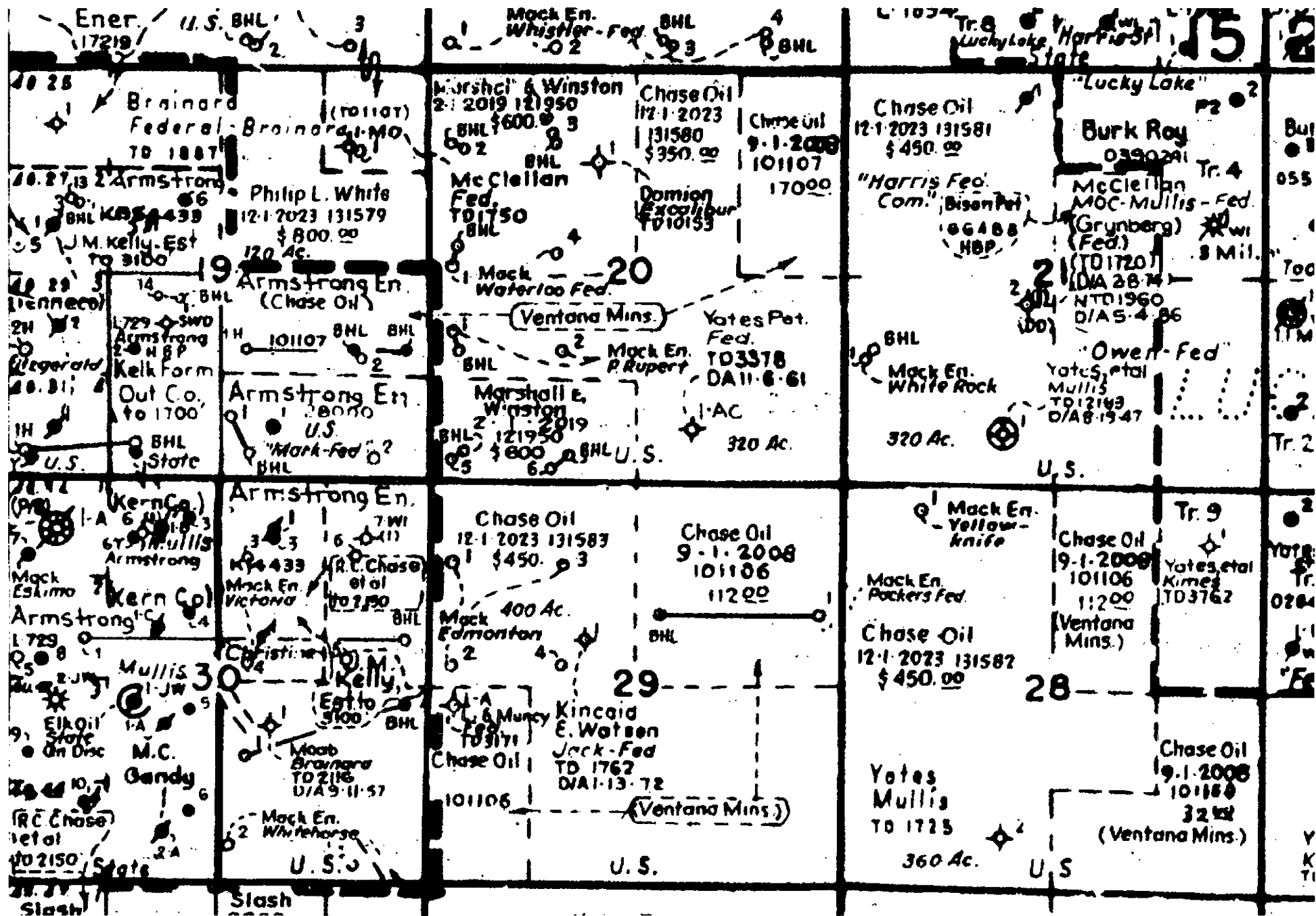
Deanna Weaver 10.20.16
Signature Date

Deanna Weaver
Printed Name
dweaver@mec.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JUL 2 2011
Date of Survey
(12797)
Signature and Seal of Professional Surveyor
Certificate Number 12797
SURVEY NO 2804B



M E M O

DATE: November 1, 2016

TO: NMOCD

FROM: STACI SANDERS
MACK ENERGY CORPORATION

RE: **UNORTHODOX LOCATION**
PRINCE RUPERT FEDERAL #1 WELL
USA LEASE NMNM-131580
W/2NE/4, N/2SW/4, SE/4 SEC. 20, T15S, R29E
CHAVES COUNTY, NEW MEXICO

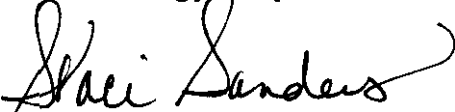
The Prince Rupert Federal #1 well is located on Federal Lease NMNM-131580. This lease covers the W/2NE/4, N/2SW/4 and SE/4 of Section 20, T15S, R29E, Chaves County, NM, as to all depths.

The ownership in this lease is common as to all depths.

Please do not hesitate to contact me should you require any further information.

Sincerely,

Mack Energy Corporation



Staci Sanders
Land Manager

Prince Rupert Federal Lease

USA Lease NMNM-131580

All depths

Interest Owners:

Office of Natural Resources RI
P.O. Box 25627
Denver, CO 80225-0627

Broken Arrow Royalties LLC ORRI
P.O. Box 1767
Artesia, NM 88211

Chase Oil Corporation WI
P.O. Box 1767
Artesia, NM 88211

Robert C. Chase WI
P.O. Box 297
Artesia, NM 88211

Ventana Minerals LLC WI
P.O. Box 359
Artesia, NM 88211

DiaKan Minerals LLC WI
P.O. Box 693
Artesia, NM 88211

M E M O

DATE: November 10, 2016

TO: NMOCD

FROM: STACI SANDERS
MACK ENERGY CORPORATION

RE: UNORTHODOX LOCATION
PRINCE RUPERT FEDERAL #1 WELL
USA LEASE NMNM-131580
W/2NE/4, N/2SW/4, SE/4 SEC. 20, T15S, R29E
CHAVES COUNTY, NEW MEXICO

The Prince Rupert Federal #1 well is located on Federal Lease NMNM-131580. This lease covers the W/2NE/4, N/2SW/4 and SE/4 of Section 20, T15S, R29E, Chaves County, NM, as to all depths.

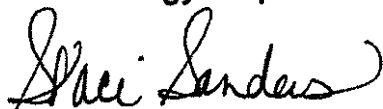
Mack Energy Corporation is encroaching on Federal Lease NMNM-121950 in the SW/4SW/4 of Section 20. Our affiliate, Chase Oil Corporation acquired a Term Assignment of the Operating Rights from Marshall & Winston, Inc. covering this acreage and more in Section 20.

The working interest ownership in both of these leases is identical. See the attached ownership listings.

Please do not hesitate to contact me should you require any further information.

Sincerely,

Mack Energy Corporation



Staci Sanders
Land Manager

Prince Rupert Federal Lease
USA NMNM-131580

Interest Owners:	WI	NRI
Chase Oil Corporation P.O. Box 1767 Artesia, NM 88211	.850000000	.680000000 WI
Robert C. Chase P.O. Box 297 Artesia, NM 88211	.050000000	.040000000 WI
Ventana Minerals LLC P.O. Box 359 Artesia, NM 88211	.050000000	.040000000 WI
DiaKan Minerals LLC P.O. Box 693 Artesia, NM 88211	.050000000	.040000000 WI

Waterloo Federal Lease
USA Lease NMNM-121950

Interest Owners:	WI	NRI
Chase Oil Corporation P.O. Box 1767 Artesia, NM 88211	.850000000	.680000000 WI
Robert C. Chase P.O. Box 297 Artesia, NM 88211	.050000000	.040000000 WI
Ventana Minerals LLC P.O. Box 359 Artesia, NM 88211	.050000000	.040000000 WI
DiaKan Minerals LLC P.O. Box 693 Artesia, NM 88211	.050000000	.040000000 WI

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM131580

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
MACK ENERGY CORPORATION Contact: ROBERT CHASE
E-Mail: JERRY@MEC.COM

8. Lease Name and Well No.
PRINCE RUPERT FEDERAL 1

3. Address P.O. BOX 960
ARTESIA, NM 88211-0960

3a. Phone No. (include area code)
Ph: 575-748-1288

9. API Well No.
30-005-64222-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NWSW 1900FSL 330FWL

At top prod interval reported below NWSW 1642FSL 360FWL

At total depth NWSW 1649FSL 356FWL

10. Field and Pool, or Exploratory
ROUND TANK-SAN ANDRES

11. Sec., T., R., M., or Block and Survey
or Area Sec 20 T15S R29E Mer NMP

12. County or Parish
CHAVES

13. State
NM

14. Date Spudded
08/12/2016

15. Date T.D. Reached
08/15/2016

16. Date Completed
☐ D & A ☒ Ready to Prod.
09/27/2016

17. Elevations (DF, KB, RT, GL)*
3749 GL

18. Total Depth: MD 3497
TVD 3477

19. Plug Back T.D.: MD 3437
TVD 3437

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CNL DLL FDC GR

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.250	8.625 J-55	24.0	0	205		640	152	0	
7.875	5.500 J-55	17.0	0	3497		325	77	0	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	3337							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) SAN ANDRES	2870	3323	2870 TO 3106	0.410	40	OPEN
B)			3132 TO 3323	0.410	40	OPEN
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
2870 TO 3323	47BBLs 15% ACID, 24,651BBLs SW, 40080# 100 MESH, 494,970# WI 40/70

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/08/2016	10/11/2016	24	→	44.0	62.0	400.0	37.2	0.60	ELECTRIC PUMPING UNIT
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→	44	62	400	1409	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #355268 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

**29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD**
30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
QUATERNARY	0	80		RUSTLER	80
QUEEN	1554	1569		TOP OF SALT	185
SAN ANDRES	2860	3325	SAND, OIL/GAS/WATER DOLOMITE, OIL/GAS/WATER	YATES	824
				SEVEN RIVERS	1059
				QUEEN	1554
				GRAYBURG	1950
				SAN ANDRES	2252

32. Additional remarks (include plugging procedure):

9/19-22/2016 PERFORATED 3132.5-3323.5' & 2870.5-3106' W/ 40 HOLES. ACIDIZED 47BBLs 15%
ACID, SET PLUG @ 3120'. FRAC W/ 24,651BBLs SW, 40,080# 100 MESH, 494,970# W/ 40/70.
9/26/2016 Drilled out plug @ 3120'.
9/27/2016 RIH w/ 2 7/8", 6.5@ tbg, SN @ 3337', 2 1/2x2x16' pump.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

**Electronic Submission #355268 Verified by the BLM Well Information System.
For MACK ENERGY CORPORATION, sent to the Roswell
Committed to AFMSS for processing by DAVID GLASS on 10/19/2016 (17DRG0006SE)**

Name (please print) DEANA WEAVER

Title PRODUCTION CLERK

Signature _____ (Electronic Submission)

Date 10/19/2016

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM131580
2. Name of Operator MACK ENERGY CORPORATION		6. If Indian, Allottee or Tribe Name
3a. Address P.O. BOX 960 ARTESIA, NM 88211-0960		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 575-748-1288 Fx: 575-746-9539		8. Well Name and No. PRINCE RUPERT FEDERAL 1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 20 T15S R29E NWSW 1900FSL 330FWL		9. API Well No. 30-005-64222-00-S1
		10. Field and Pool, or Exploratory ROUND TANK-SAN ANDRES
		11. County or Parish, and State CHAVES COUNTY, NM

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

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

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

9/19-22/2016 PERFORATED 3132.5-3323.5' & 2870.5-3106' W/ 40 HOLES. ACIDIZED 47BBLS 15% ACID, SET PLUG @ 3120. FRAC W/ 24,651BBLS SW, 40,080# 100 MESH, 494,970# 40/70 WI.
9/26/2016 Drilled out plug @ 3120'.
9/27/2016 RIH w/ 102jts 2 7/8", 6.5# tbg, SN @ 3337', 2 1/2x2x16' pump.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #355267 verified by the BLM Well Information System For MACK ENERGY CORPORATION, sent to the Roswell Committed to AFMSS for processing by JENNIFER SANCHEZ on 10/19/2016 (17JS0004SE)	
Name (Printed/Typed) DEANA WEAVER	Title PRODUCTION CLERK
Signature (Electronic Submission)	Date 10/19/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED	(BLM Approver Not Specified)	Date 10/19/2016
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Roswell

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****



PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

August 18, 2016

Mack Energy Corporation
PO Box 960
Artesia, NM 88211-0960

RE: Prince Rupert Federal #1
1900' FSL & 330' FWL
Sec. 20, T15S, R29E
Chaves County, New Mexico

Dear Sir,

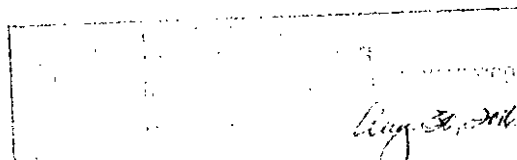
The attached is the Deviation Survey for the above captioned well.

Very truly yours,

Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 18th day of August, 2016.

Notary Public

PRINCE RUPERT FED #1

Date	Depth	Deviation	Direction
8/12/2016	120	0.40	0.00
8/13/2016	215	0.40	187.50
8/14/2016	246	0.50	259.90
8/14/2016	277	1.60	196.00
8/14/2016	307	3.30	188.50
8/14/2016	338	4.70	185.20
8/14/2016	369	4.80	181.80
8/14/2016	400	4.40	182.90
8/14/2016	430	5.30	175.60
8/14/2016	461	6.20	173.20
8/14/2016	492	6.30	172.90
8/14/2016	553	6.50	174.10
8/14/2016	645	6.40	175.30
8/14/2016	737	8.20	174.30
8/14/2016	830	8.00	174.60
8/14/2016	924	9.50	174.70
8/14/2016	1018	8.70	173.30
8/14/2016	1113	10.70	172.80
8/14/2016	1208	9.80	171.60
8/14/2016	1303	9.10	172.60
8/14/2016	1397	8.10	173.40
8/14/2016	1492	9.80	170.50
8/14/2016	1586	9.40	169.10
8/14/2016	1680	8.90	166.40
8/14/2016	1774	8.50	165.20
8/14/2016	1868	8.30	165.30
8/14/2016	1962	7.90	165.50
8/14/2016	2056	6.00	173.00
8/14/2016	2151	4.00	172.50
8/14/2016	2246	2.70	186.90
8/14/2016	2341	0.40	213.40
8/15/2016	2435	0.50	192.50
8/15/2016	2530	1.10	303.60
8/15/2016	2625	1.20	306.30
8/15/2016	2719	1.00	300.60
8/15/2016	2814	1.00	299.10
8/15/2016	2908	1.50	338.70
8/15/2016	3003	1.60	335.60
8/15/2016	3098	1.50	332.40
8/15/2016	3192	0.40	320.00
8/15/2016	3287	0.00	291.20
8/15/2016	3450	0.40	338.00

EOF



Mack Energy
Chavez County
Prince Rupert Federal #1
#1

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

16 August, 2016





Integrity Directional Services, LLC

Survey Report - Geographic



Company: Mack Energy
Project: Chavez County
Site: Prince Rupert Federal #1
Well: #1
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well #1
TVD Reference: KB=17' @ 3766.70ft
MD Reference: KB=17' @ 3766.70ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Project	Chavez County
Map System:	US State Plane 1983
Geo Datum:	North American Datum 1983
Map Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

Site		Prince Rupert Federal #1			
Site Position:		Northing:	727,428.14 usft	Latitude:	32° 59' 57.836 N
From:	Map	Easting:	625,702.92 usft	Longitude:	104° 3' 29.340 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.15 °

Well	#1				
Well Position	+N/-S	0.00 ft	Northing:	727,428.14 usft	Latitude: 32° 59' 57.836 N
	+E/-W	0.00 ft	Easting:	625,702.92 usft	Longitude: 104° 3' 29.340 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level: 3,749.70 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/3/2016	7.33	60.70	48,433

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	173.35

Survey Program		Date	8/16/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
120.00	3,497.00	IDS MWD Surveys (Wellbore #1)			

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	727,428.14	625,702.92	32° 59' 57.836 N	104° 3' 29.340 W
120.00	0.40	0.00	120.00	0.42	0.00	727,428.56	625,702.92	32° 59' 57.840 N	104° 3' 29.340 W
First IDS MWD Survey									
215.00	0.40	187.50	215.00	0.42	-0.04	727,428.56	625,702.88	32° 59' 57.840 N	104° 3' 29.341 W
246.00	0.50	260.00	246.00	0.29	-0.19	727,428.43	625,702.73	32° 59' 57.839 N	104° 3' 29.343 W
277.00	1.60	196.00	276.99	-0.15	-0.44	727,427.99	625,702.48	32° 59' 57.835 N	104° 3' 29.346 W
307.00	3.30	188.50	306.96	-1.41	-0.69	727,426.73	625,702.24	32° 59' 57.822 N	104° 3' 29.349 W
338.00	4.70	185.20	337.89	-3.55	-0.93	727,424.58	625,701.99	32° 59' 57.801 N	104° 3' 29.352 W
369.00	4.80	181.80	368.78	-6.11	-1.09	727,422.02	625,701.83	32° 59' 57.776 N	104° 3' 29.353 W
400.00	4.40	182.90	399.68	-8.60	-1.19	727,419.54	625,701.73	32° 59' 57.751 N	104° 3' 29.355 W
430.00	5.30	175.60	429.57	-11.13	-1.14	727,417.01	625,701.78	32° 59' 57.726 N	104° 3' 29.354 W
461.00	6.20	173.20	460.42	-14.22	-0.83	727,413.92	625,702.09	32° 59' 57.696 N	104° 3' 29.351 W



Integrity Directional Services, LLC

Survey Report - Geographic



Company: Mack Energy
Project: Chavez County
Site: Prince Rupert Federal #1
Well: #1
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well #1
TVD Reference: KB=17' @ 3766.70ft
MD Reference: KB=17' @ 3766.70ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
492.00	6.30	172.90	491.23	-17.57	-0.43	727,410.57	625,702.50	32° 59' 57.662 N	104° 3' 29.346 W
553.00	6.50	174.10	551.85	-24.32	0.34	727,403.81	625,703.27	32° 59' 57.596 N	104° 3' 29.337 W
645.00	6.40	175.30	643.27	-34.61	1.30	727,393.52	625,704.22	32° 59' 57.484 N	104° 3' 29.326 W
737.00	8.20	174.30	734.52	-46.25	2.37	727,381.88	625,705.29	32° 59' 57.379 N	104° 3' 29.314 W
830.00	8.00	174.80	826.59	-59.30	3.64	727,368.84	625,706.56	32° 59' 57.250 N	104° 3' 29.300 W
924.00	9.50	172.70	919.50	-73.50	5.24	727,354.63	625,708.16	32° 59' 57.109 N	104° 3' 29.281 W
1,018.00	8.70	173.30	1,012.31	-88.26	7.05	727,339.88	625,709.98	32° 59' 56.963 N	104° 3' 29.260 W
1,113.00	10.70	172.80	1,105.95	-104.15	9.00	727,323.99	625,711.92	32° 59' 56.808 N	104° 3' 29.238 W
1,208.00	9.80	171.60	1,199.43	-120.89	11.28	727,307.24	625,714.21	32° 59' 56.640 N	104° 3' 29.212 W
1,303.00	9.10	172.60	1,293.14	-136.34	13.43	727,291.79	625,716.36	32° 59' 56.487 N	104° 3' 29.187 W
1,397.00	8.10	173.40	1,386.09	-150.29	15.15	727,277.84	625,718.08	32° 59' 56.349 N	104° 3' 29.167 W
1,492.00	9.80	170.50	1,479.93	-164.92	17.26	727,263.22	625,720.18	32° 59' 56.204 N	104° 3' 29.143 W
1,586.00	9.40	169.10	1,572.61	-180.34	20.03	727,247.79	625,722.95	32° 59' 56.051 N	104° 3' 29.111 W
1,680.00	8.90	166.30	1,665.41	-194.95	23.20	727,233.19	625,726.13	32° 59' 55.907 N	104° 3' 29.074 W
1,774.00	8.50	165.20	1,758.33	-208.73	26.70	727,219.41	625,729.62	32° 59' 55.770 N	104° 3' 29.033 W
1,868.00	8.30	165.30	1,851.32	-222.01	30.19	727,206.13	625,733.12	32° 59' 55.639 N	104° 3' 28.993 W
1,962.00	7.90	165.50	1,944.39	-234.82	33.53	727,193.31	625,736.46	32° 59' 55.512 N	104° 3' 28.954 W
2,056.00	6.00	173.00	2,037.69	-245.96	35.75	727,182.18	625,738.67	32° 59' 55.402 N	104° 3' 28.928 W
2,151.00	4.00	172.50	2,132.33	-254.17	36.79	727,173.97	625,739.71	32° 59' 55.320 N	104° 3' 28.916 W
2,246.00	2.70	186.90	2,227.16	-259.68	36.95	727,168.46	625,739.88	32° 59' 55.266 N	104° 3' 28.915 W
2,341.00	0.40	213.40	2,322.12	-262.18	36.50	727,165.96	625,739.42	32° 59' 55.241 N	104° 3' 28.920 W
2,435.00	0.50	192.50	2,416.12	-262.85	36.23	727,165.29	625,739.15	32° 59' 55.235 N	104° 3' 28.923 W
2,530.00	1.10	303.60	2,511.11	-262.75	35.38	727,165.39	625,738.31	32° 59' 55.236 N	104° 3' 28.933 W
2,625.00	1.20	306.30	2,606.10	-261.66	33.82	727,166.48	625,736.74	32° 59' 55.246 N	104° 3' 28.951 W
2,719.00	1.00	300.60	2,700.08	-260.66	32.32	727,167.48	625,735.24	32° 59' 55.256 N	104° 3' 28.969 W
2,814.00	1.00	299.10	2,795.08	-259.83	30.88	727,168.31	625,733.81	32° 59' 55.265 N	104° 3' 28.986 W
2,908.00	1.50	338.70	2,889.04	-258.29	29.72	727,169.85	625,732.64	32° 59' 55.280 N	104° 3' 28.999 W
3,003.00	1.80	335.60	2,984.01	-255.92	28.72	727,172.22	625,731.64	32° 59' 55.303 N	104° 3' 29.011 W
3,098.00	1.50	332.40	3,078.97	-253.61	27.60	727,174.53	625,730.52	32° 59' 55.326 N	104° 3' 29.024 W
3,192.00	0.40	320.00	3,172.96	-252.27	26.82	727,175.87	625,729.74	32° 59' 55.340 N	104° 3' 29.033 W
3,287.00	0.00	291.20	3,267.96	-252.01	26.60	727,176.12	625,729.53	32° 59' 55.342 N	104° 3' 29.036 W
3,381.00	0.10	349.30	3,361.98	-251.93	26.59	727,176.20	625,729.51	32° 59' 55.343 N	104° 3' 29.036 W
3,450.00	0.40	338.00	3,430.96	-251.65	26.49	727,176.49	625,729.41	32° 59' 55.346 N	104° 3' 29.037 W
Final IDS MWD Survey									
3,497.00	0.40	338.00	3,477.96	-251.35	26.36	727,176.79	625,729.29	32° 59' 55.349 N	104° 3' 29.039 W
Projection to TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
120.00	120.00	0.42	0.00	First IDS MWD Survey
3,450.00	3,430.96	-251.65	26.49	Final IDS MWD Survey
3,497.00	3,477.96	-251.35	26.36	Projection to TD

Checked By: _____ Approved By: _____ Date: _____



P.O. Box 960
Artesia, NM 88211-0960
Office (575) 748-1288
Fax (575) 746-9539

November 2, 2016

VIA CERTIFIED MAIL 7015 0640 0006 7024 4448

Office of Natural Resources
P.O. Box 25627
Denver, CO 80225-0627

Dear Sir or Madam:

Enclosed is a copy of an application, filed with the New Mexico Oil Conservation Division by Mack Energy Corporation, requesting administrative approval for a non-standard location. As an affected party, notice is being provided to you pursuant to Rule 19.15.15.9 (A) and 19.15.16.15 (B). The well is located as follows:

*Surface - 1900 FSL 330 FWL NW/4 SW/4 Sec 20 T15S R29E
Top Perforation - 1642 FSL 360 FWL NW/4 SW/4 Sec 20 T15S R29E
Bottom Hole - 1649 FSL 356 FWL NW/4 SW/4 Sec 20 T15S R29E*

If you object to the well's location, you must notify the Division in writing no later than 20 days from the date the application is received by the NMOCD (1220 South St. Francis Drive, Santa Fe, NM 87505).

Sincerely,

Deana Weaver
Deana Weaver
Production Clerk

DW/

Enclosures