

MERRION OIL & GAS CORPORATION

610 REILLY AVE. • P. O. Box 840
FARMINGTON, NEW MEXICO 87499

May 23, 1989

New Mexico Oil Conservation Division
310 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87503

Attention: Mr. Michael Stogner

Subject: Application for an unorthodox location
Undesignated Mesaverde
Federal 21 No. 4
Sec. 21, T20N, R5W
San Juan County, New Mexico

McKinley

Dear Mr. Stogner:

By this letter Merrion Oil & Gas Corporation requests administrative approval for an unorthodox location for the Federal 21-4 well in accordance with the provisions of Rule No. 104 Section I of the commission rules.

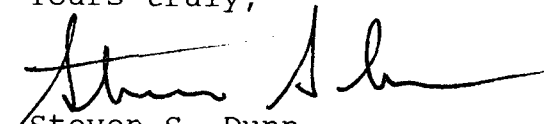
The Federal 21 No. 4 was originally drilled as an Entrada producer in the Ojo Encino Entrada pool at an orthodox location. Merrion subsequently plugged back and completed in the Mesaverde interval resulting in the production of gas-well gas.

Merrion has notified, by certified mail, the offsetting operators of this application and has requested written waivers to be submitted.

Enclosed for your review and approval are a lease map of the area showing ownership of all leases offsetting the proration unit for which the unorthodox location is sought.

If you require further information or wish to discuss this application, please give me a call.

Yours truly,


Steven S. Dunn
Operations Manager

SSD:ks

Enc.

cc: Mr. Ernie Busch, Aztec

RECEIVED

MAY 25 1989

OIL CONSERVATION DIV.
SANTA FE

CO UNTY

NM76831

NM73288

W 6397

6090

US

NM 156

LEGEND

PRORATION UNIT

MOG OPERATED

BILLIE ROBINSON, LESSEE



NM 0555858-A

NM 0555841

NM 612

US

NM 44460

IND

NM 44460

Franciscan Lake

IND

IND

IND

NM 54209

US

NM 58865

NM 7509

780

17

16

15

NM 67973

NM 53180

NM 53186

STATE

NM 67399

US

Billie Robinson Lessee

Merrion Oil & Gas Operated

Merrion Oil & Gas Operated

UNLEASED

NM 15646

NM 595

NM 15646

NM 5980

NM 15646

22

Billie Robinson Lessee

NM 59703

NM 15646

US

NM 15646

FEDERAL 21-4

NM 66764

US

US

Merrion Oil & Gas Operated

Merrion Oil & Gas Operated

30

29

28

27

NM 7509

NM 7509

NM 7509

NM 67399

IND

NM 15646

IND

33

34

IND

NM 43432

IND

NM 4953

MERRION OIL & GAS CORP.
LOCATION MAP
IN SUPPORT OF REQUEST
FOR UNORTHODOX LOCATION APPROVAL
FEDERAL 21 NO. 4

DATE: May 23, 1989

3



STATE OF NEW MI
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1010 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501

DATE 6-5-89

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL X _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

RECEIVED

JUN 12 1989

OIL CONSERVATION DIV.
SANTA FE

Gentlemen:

I have examined the application dated 5-24-89

for the ALABAMA OIL & GAS CORP. FEDERAL 2144 21-200-511
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approved

Yours truly,

E. A. Burch

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE*
(Other instructions on re-
verse side)

Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

NM 5980

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal 21

9. WELL NO.

4

10. FIELD AND POOL OR WILDCAT

Undesignated Mesaverde

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Sec. 21, T20N, R5W

12. COUNTY OR PARISH 13. STATE

McKinley New Mexico

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT--" for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corporation

3. ADDRESS OF OPERATOR

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below)
At surface

330' FSL and 2310' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6785' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Retainer depth

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

X

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Retainer is set at 2755' as per attached Wellbore Schematic.

RECEIVED

MAY 23 1989

OIL CON. DIV.
DIST. 3

RECEIVED

JUN - 2 1989

OIL CONSERVATION DIV.
SANTA FE

RECEIVED

MAY 10 1989

OIL CON. DIV.
DIST. 3

18. I hereby certify that the foregoing is true and correct

SIGNED

Steven S. Dunn

TITLE

Operations Manager

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

MAY 19 1989

DATE

FARMINGTON RESOURCE AREA

BY: SMM

*See Instructions on Reverse Side

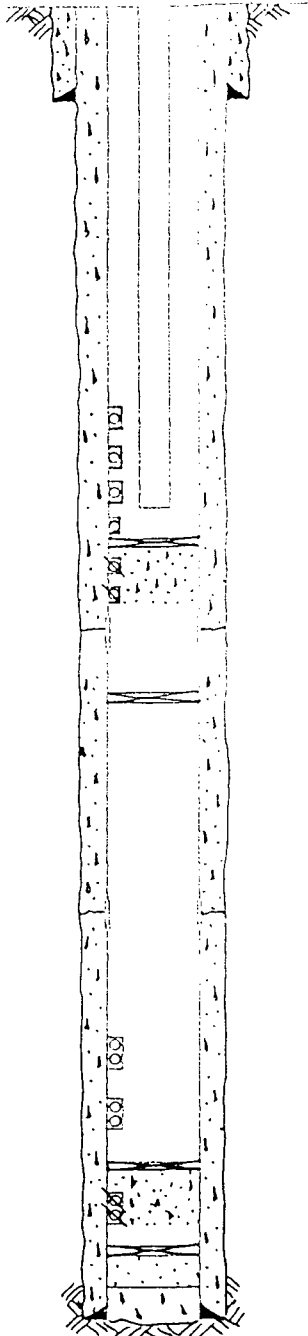
* MERRION OIL & GAS *

WELLBORE SCHEMATIC

Well: Federal 21 No 4
Field: Ojo Encino Entrada,

Location: 330' FSL & 2310' FWL
Sec. 21, T20N, R5W
McKinley Co., New Mexico

Elevation: 4,777' KB
4,775' GL



Top @ Surface
Bit Size - 12 1/4"

9 5/8" 36# Surface @ 243' KB w/ 75sx

Tops	Depth
Fruitland	Surface
Pict Cliffs	466
Cliffhouse	1,670
Gallop	3,700
Dakota	4,915
Todilto	5,890
Entrada	5,994

Mesaverde Perfs:

2,616'-19'

2,635'-39'

2,713'-17'

2,750'-52'

Retainer @ 2,755'

2,758'-66' & 2,769'-75' Sqzd w/ 50sx

Stage Tool @ 3,007' KB w/ 215 sx B 2% D79

Cast Iron BP @ 3,100'

Well Equipment
> 2 7/8" EUE Tbg @ 2,713'
84 jts, SN, 4'PN, 15' MA
> Rods: 62 3/4" Plain
> Pump: 2 1/2" x 2" x 20'
RWBC

Stage Tool @ 5,145' w/ 412sx B
2% D79

Hole size - 8 3/4"

5,897'-5,901' Todilto Perfs (5 holes)

5,908'-5,909' Entrada Perfs (4 holes)

PBTD @ 5,926' KB

5,944' - 5,948' Channelblock Sqz w/ 37,800 gal & 55sx cmnt

Retainer @ 5,954' - Sqz Shoe Jt w/ 25sx

7" 20 & 23# Casing @ 5,995' KB w/ 200sx

TD @ 6,000' KB

12/16/1988
File: FED214.sch

Capacities: 2 7/8" Tbg - 0.00579 Bbl/Ft
7" 23#Csg- 0.0394 Bbl/Ft
Annulus - 0.0172 Bbl/Ft

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SEE INSTRUCTIONS ON REVERSE SIDE

Expires August 31, 1985
5. LEASE DESIGNATION AND SERIAL NO.
NM 5980
6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use APPLICATION FOR PERMIT for such proposals.)

1. OIL ☒ GAS ☐ OTHER ☐
2. NAME OF OPERATOR
Merrion Oil & Gas Corporation
3. ADDRESS OF OPERATOR
P. O. Box 840, Farmington, New Mexico 87499
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below)
At surface
330
220' FSL and 2310' FWL
5. ELEVATIONS (Show whether OF, RT, GR, etc.)
6785' GR
6. UNIT AGREEMENT NAME
7. FARM OR LEASE NAME
Federal 21
8. WELL NO.
4
9. FIELD AND POOL OR WILDCAT
Ojo Encino Entrada
10. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 21-T20N, R5W
11. COUNTY OR PARISH
McKinley
12. STATE
New Mexico

18. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANE

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Test history

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Updated test history and treatment report attached.

RECEIVED
FEB 23 1989
OIL CON. DIV.
DIST. 3

RECEIVED
MAR - 1 1989
OIL CONSERVATION DIVISION
SANTA FE

18. I hereby certify that the foregoing is true and correct

SIGNED

Steven S. Dunn

TITLE Operations Manager

DATE 2/1/89

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

ACCEPTED FOR RECORD

FEB 17 1989

FARMINGTON RESOURCE AREA

*See Instructions on Reverse Side

BY KV

Title 18 U.S.C. Section 1001, makes 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.

NMOCC

FEDERAL NO. 21-4 - cont.

January 27, 1989

Tbg 125 PSI. Csg 200 PSI. Blew tbg down. Made three swab runs. Initial fluid level - 700' K.B. Next runs fluid level - 800' K.B. - 5% oil. Blew csg down. Ran tbg to tag sand @ 2727' K.B - 10' of rathole. Pulled tbg to 2679' K.B. Rigged down BOPs. Landed tbg and nipped up Wellhead. Ran 2-1/2" x 2 x 20 x R.W.B.C. pump from Service Pump Co. Final description of tbg and rods will follow. Total frac load - 1205 Bbls H₂O. Load to recover - 866 Bbls H₂O. (CCM)

January 28, 1989

Pumping unit engine quit, unit down 24 hours, no production. Could not restart. Need parts. (CCM)

January 31, 1989

Replaced pickup coil on engine. Started engine and unit. Made 5 or 6 strokes. Pump stuck with approximately 8' polish rod out. Rigged up Ram Service Co. Pump stuck in tbg. Stripped out of hole. Installed BOPs. Got all but 10 rods and one half tbg. Sand in tbg. Pulled 25,000 lbs to free rods. SDON. Total frac load 1205 Bbls H₂O. Total load to recover 866 Bbls H₂O. (Fizz)

February 1, 1989

Finish stripping out of hole. Had 2 jts of sand on top of pump. TIH with hydrostatic bailer, cleanout 60' of sand which appeared to be frac sand, 3 bad 3/4" plain rods. TIH with tbg, 1 jt SN, 82 jts 2-7/8", SN @ 2646', tail jt @ 2680' KB, 62 3/4" plain rods, 41 7/8" plain rods, 3 -6', 1 - 4' and 1 -2' pony rods, 2-1/2" X 2" X 20' RWBC. Spaced out, hung on. Started unit, flowline frozen. Pumped to pit overnight. Left Ram rigged up. SDON. Total load to recover 866 Bbls H₂O.

FEDERAL NO. 21-4 - cont.

January 5-6, 1989

Unit on. Vented 116 MCF in 24 hours pumping 10 SPM x 120". (DM)

January 7-8, 1989

Battery low - unable to start engine. (DW)

January 9-12, 1989

Flowline frozen. (DW)

January 13, 1989

Produced 0 Bbls oil, 0 Bbls H₂O and 39 MCF vented in 8 hours pumping, 10 SPM x 120". (DM)

January 16 - 24, 1989

Flowline frozen. (DM)

January 25, 1989

MIRU Ram Service Co. Blew well down. TOH with 4' perf sub, 15' M.A. and 108 3/4" plain rods. Rigged up BOPs. PU 1 jt of tbg. Tagged bottom and TOH tallying 84 joints of 2- 7/8" EUE tbg. Rigged up Western Co. Dropped 12 gal. frac sand ahead of load water. Took 92 Bbls to load the hole. Frac Mesaverde 2616' - 2717' KB with water 1 gal/1000 gal aquaflow as follows:

5,000 gal	Pad
10,000 gal	1 #/gal 20-40 sand
26,667 gal	15 #/gal 20-40 sand
4,550 gal	Flush

Average rate on sand - 43 BPM, 1200 PSI. Average rate on flush - 25 BPM, 1000 PSI. ISIP - 800 PSI. 400 PSI after 15 min. SWI. SDON. (CCM)

January 26, 1989

Well shut-in overnight after frac. Dead this morning. TIH with 2-7/8" EUE tbg with SN 1 joint off bottom. Tagged sand at 2620' K.B. Reverse clean to 2733' K.B. Pulled tbg. to 2600' K.B. Started swabbing. Had to work through paraffin first 3 runs. Made 12 runs total. Fluid level started at surface. Swabbed down to 750' K.B. - 75 Bbls water recovered, no gas or oil. Total frac load - 92 Bbls H₂O. Load to recover - 17 Bbls H₂O.

January 27, 1989

Tbg. dead. Csg. dead. Started swabbing. Initial fluid level - 800' K.B. Made total of 33 runs. Recovered 264 Bbls fluid. Ending fluid level 1000' K.B. Csg. built to 125 PSI. Gas kick after each run. Fluid cut - 5% oil the last 10 runs of the day. Saw a little sand occasionally on swab mandrel. Fine white sand which looks like formation, not frac sand. Total frac load - 1205 Bbls H₂O. Load to recover - 866 Bbls H₂O. SWI. SDON. (CCM)

FEDERAL NO. 21-4 - cont.

December 9, 1988

Produced 0 Bbls oil, 3 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 10, 1988

Produced 0 Bbls oil, 0 Bbls H₂O and 58 MCF vented in 12 hours pumping, 10 SPM x 120". Line frozen. (DM)

December 11, 1988

Produced 0 Bbls oil, 2 Bbls H₂O and 58 MCF vented in 12 hours pumping, 10 SPM x 120". Line frozen - Started unit. (DM)

December 12, 1988

Produced 3 Bbls oil, 0 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 13, 1988

Produced 0 Bbls oil, 0 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 14, 1988

Produced 0 Bbls oil, 0 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 15, 1988

Produced 0 Bbls oil, 3 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 16, 1988

Produced 0 Bbls oil, estimated 2 Bbls H₂O and 58 MCF vented in 12 hours pumping, 10 SPM x 120". Shut down with separator problems. (DM)

December 17-21, 1988

Unit down - separator problems. (DM)

December 23, 1988

Unit down 24 hours - pump jack engine problem. (DM)

December 24-27, 1988

Produced 0 Bbls oil, 0 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". (DM)

December 28, 1988

Produced 0 Bbls oil, 0 Bbls H₂O, and 0 MCF vented in 24 hours pumping, 10 SPM x 120". Flow line frozen. (DM)

December 29-30, 1988

Pumping Unit down with engine problem. (DM)

December 31 - January 4, 1989

Pumping unit down with engine problem. (DM)

FEDERAL NO. 21-4

November 28, 1988

Down 24 hours - flow line frozen. (DM)

November 29, 1988

Produced 0 Bbls oil, 0 Bbls H₂O and 116 MCF vented in 24 hours, 10 SPM x 120". TP/CP - 30/30. (DM)

November 30, 1988

Produced 0 Bbls oil, 0 Bbls H₂O and 116 MCF vented in 24 hours. Pump down 24 hours. (DM)

December 1, 1988

Produced 0 Bbls oil, 0 Bbls H₂O and 0 MCF vented in 24 hours flowing. Unit down for engine magneto. Casing shut-in, tubing open. TP/CP - 0/800. (DM)

December 2, 1988

Produced 0 Bbls oil, 10 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 3, 1988

Produced 0 Bbls oil, 2 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 4, 1988

Produced 0 Bbls oil, 3 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 5, 1988

Produced 0 Bbls oil, 8 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

December 6, 1988

Produced 0 Bbls oil, 3 Bbls H₂O and 0 MCF vented in 12 hours pumping, 10 SPM x 120". Line frozen. TP/CP - 420/420 (DM)

December 7, 1988

Produced 6 Bbls oil, 3 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)
Separator malfunction caused oil production, well did not produce oil.

Gas Analysis - Mesa Verde Formation

Sample Date: 12/1/88

BTU: 1273.900

GPM: 2.834

S.G.: 0.7264

December 8, 1988

Produced 0 Bbls oil, 3 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/30 (DM)

November 1983)
formerly 9-331)

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

(Other instructions on reverse side)

1. LEASE DESIGNATION AND SERIAL NO.

WM 5980

2. IF INDIAN, ALLOTTEE OR TRIBE NAME

3. UNIT AGREEMENT NAME

4. FARM OR LEASE NAME

Federal 21

5. WELL NO.

4

6. FIELD AND POOL OR WILDCAT

Ojo Encino *Entrada*

7. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Section 21-T20N, R5W

8. COUNTY OR PARISH 9. STATE

McKinley

New Mexico

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different formation.)

APPLICATION FOR PERMIT (for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corporation

3. ADDRESS OF OPERATOR

P. O. Box 840, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface

330
320' FSL and 2310' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether OF, RT, GR, etc.)

6785' GR

10. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANT

(Other) Vent gas

X

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other)

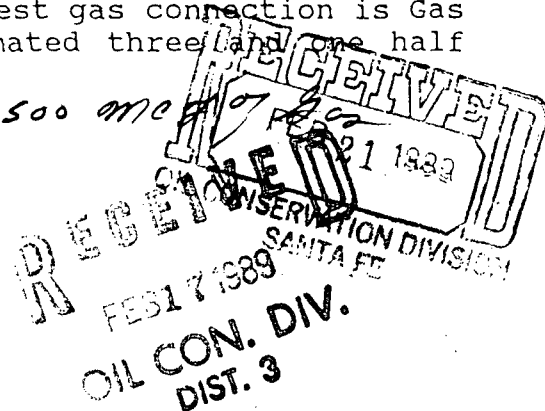
(NOTE: Report results of multiple completion on Well Completion or Recombination Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Merrion Oil & Gas Corporation requests permission to vent gas 60 days beyond the authorized period that ends February 10, 1988 for the Federal 21 No. 4 well. We have completed our frac treatment of the Mesaverde perforations presently open and therefore would like additional time to clean up the well and test following stimulation. Estimated gas production prior to stimulation was approximately 116 MCF per day. The nearest gas connection is Gas Company of New Mexico's mainline, estimated three and one half miles away.

approved for venting of up to 2,500 mcf per day during the test period.

9% L-4 a. III. D.



18. I hereby certify that the foregoing is true and correct

SIGNED

Steven S. Dunn

TITLE Operations Manager

DATE 2/1/89

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL IF ANY

TITLE

APPROVED
AS AMENDED
DATE

FEB 14 1989

AREA MANAGER

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

AMOC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

BLM Form No. 1004-0115
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
See APPLICATION FOR PERMIT-- for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.

NM 5980

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal 21

9. WELL NO.

4

10. FIELD AND POOL OR WILDCAT

Ojo Encino *Entrada*

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 21, T20N, R5W

12. COUNTY OR PARISH 13. STATE

McKinley

New Mexico

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corporation

3. ADDRESS OF OPERATOR

P. O. Box 840, Farmington, N.M. 87499

4. LOCATION OF WELL (Represent location clearly and in accordance with any State requirements.
See also space 17 below.)

At surface

330' FSL and 2310' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether OF, AT, GR, etc.)

6785' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

SPONTANEOUS INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETION

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANT

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other) Test history

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including expected date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all curves and zones pertinent to this work.)

Updated test history attached.

RECEIVED
BLM MAIL ROOM

08 NOV 29 PM 1:51

FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

~~CONFIDENTIAL~~

18. I hereby certify that the foregoing is true and correct.

SIGNED

Steven S. Jones
Steven S. Jones

TITLE Operations Manager

DATE 11/28/88

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED

NMOC

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

~~CONFIDENTIAL~~November 7-9, 1988

Shut-in preparing to adjust stroke length.

November 10, 1988

Move in Flint Rig - Pulled pony rods and subs. Took out 6 3/4" pony rods. Spaced out, hung on. Started pumping unit. Left running. Pumping H₂O to treater and to tank. No oil. H₂O level too low to start injection pump. Left down. (Fizz)

November 10, 1988

Produced 0 Bbls oil and 125 Bbls H₂O in 24 hours pumping, 10 SPM x 120". (DM)

November 11, 1988

Produced 0 Bbls oil and 36 Bbls H₂O in 24 hours pumping, 10 SPM x 120". Pumping a lot of gas with the oil. (DM)

November 12, 1988

Produced 0 Bbls oil and 36 Bbls H₂O in 24 hours pumping, 10 SPM x 120". Making gas, unable to measure. (DW)

November 13, 1988

Produced 0 Bbls oil and 22 Bbls H₂O in 24 hours pumping, 10 SPM x 120". Making gas, unable to measure. (DW)

November 14, 1988

Produced 0 Bbls oil and 11 Bbls H₂O in 24 hours pumping, 10 SPM x 120". Making gas, unable to measure. (DW)

November 15, 1988

Produced 0 Bbls oil and 10 Bbls H₂O in 24 hours pumping, 10 SPM x 120". Making gas, unable to measure. (DM)

November 16, 1988

Produced 0 Bbls oil and 10 Bbls H₂O in 24 hours pumping, 10 SPM x 120". Making gas, unable to measure. (DM)

November 17, 1988

Produced 0 Bbls oil and 8 Bbls H₂O in 24 hours pumping, 10 SPM x 120". Making gas, unable to measure. (DM)

November 18, 1988

Produced 0 Bbls oil and 6 Bbls H₂O in 24 hours pumping, 10 SPM x 120". Making gas - installed test meter. Gas rate - 159 MCFGD. Fluid level @ 83 joints, approximately 2,680 ft. Well is pumped off. (DM)

November 19 - 21, 1988

Frozen flow line. (DM)

FEDERAL NO. 21-4 - cont.

November 22, 1988

Produced 0 Bbls oil and 31 Bbls H₂O in 20 hours pumping, 10 SPM x 120". (DM)

November 23, 1988

Produced 0 Bbls oil, 6 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 60/260. (DM)

November 24, 1988

Produced 0 Bbls oil, 6 Bbls H₂O and 116 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/180. (DM)

November 25, 1988

Produced 0 Bbls oil, 6 Bbls H₂O and 101 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/200. (DM)

November 26, 1988

Produced 0 Bbls oil, 6 Bbls H₂O and 101 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/260. (DM)

November 27, 1988

Produced 0 Bbls oil, 6 Bbls H₂O and 101 MCF vented in 24 hours pumping, 10 SPM x 120". TP/CP - 30/350. (DM)

CONFIDENTIAL

November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE
(Other instructions on reverse side)

Budget Bureau No. 1004-1-1
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
See APPLICATION FOR PERMIT for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	5. LEASE DESIGNATION AND SERIAL NO. NM 5980
2. NAME OF OPERATOR Merrion Oil & Gas Corporation	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P. O. Box 841, Farmington, N.M. 87499	7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Refer to location clearly and in accordance with any State requirements. See also space 17 below. At surface 330' FSL and 1310' FWL	8. FARM OR LEASE NAME Federal 21
9. PERMIT NO.	9. WELL NO.
10. FIELD AND POOL OR WILDCAT Ojo Encino E.V. Kaden	11. SEC. T. R. M. OR BLM. AND SURVEY OR AREA Sec. 21, T20N, R5W
12. COUNTY OR PARISH McKinley	13. STATE New Mexico

14. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	PULL OR ALTER CASING	WATER SHUT-OFF	REPAIRING WELL
FRACTURE TREAT	MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CASING
SHOOT OR ACIDIZE	ABANDON*	SHOOTING OR ACIDIZING <input checked="" type="checkbox"/>	ABANDONMENT*
REPAIR WELL	CHANGE PLANT	(Other)	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Workover history attached. Plan to pump test the Mesaverde and evaluate. Will submit Completion Report following or during production test as appropriate.

RECEIVED
BLM MAIL ROOM
88 NOV 10 AM 11:22
FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED Steven S. Dunn TITLE Operations Manager DATE 11/8/88

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

NM000

*See Instructions on Reverse Side

ACCEPTED FOR RECORD

DEC 12 1988

FARMINGTON RESOURCE AREA

BY KIT

Title 18 U.S.C. Section 1001, makes 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.

FEDERAL 21-4

October 26, 1988

MIRU Ram Service Co. TOH w/ rods and pump. PU tbg. to tag fill @ 5915' K.B. - 19' of fill. TOH w/ 2-7/8" pumping string. (CCM)

October 27, 1988

TIH w/ saw-tooth collar on tbg. Cleaned out sand. TOH. Rigged up Petro Wireline and ran "Pengo" drillable BP and set @ 3100' K.B. Pressure tested csg. and plug to 2000 PSI. Held good. Perforated in one run as follows:

2758' - 66' K.B.	2/ft	16 holes
2769' - 75' K.B.	2/ft	<u>12 holes</u>
		28 tot. holes

Rigged down Petro. SWI. SDON. (CCM)

October 28, 1988

Summary: Swabbed Pt. Lookout perfs 2,758-75'. Recovered total 70 Bbls, 99% H₂O, 1% oil.

RIH w/ 7" retrievable packer and 2-7/8" tubing. Circulated water w/ 1 gal. per 1000 gal aquaflow to bottom of tubing. Set pkr @ 2,700' KB. Broke down Pt. Lookout perfs @ 1800 PSI, pump in @ 3 BPM - 900 PSI. ISIP-500 PSI, 400 PSI after 5 min. Shut down, rig up to swab. Swabbed tubing volume 16 Bbl the started zone test. 1 hour swabbed 21.6 Bbls - 99% H₂O, 1% dark green oil. Swabbed down. Waited 30 min., recovered 10.6 Bbl - 99% H₂O, 1% oil. After 30 more minutes, fluid level @ 900 ft. Recovered 10.5 Bbl - 99% H₂O, 1% oil, no gas. Stabilized rate = 21 Bbl per hour, 504 BPD total fluid. Unset pkr, POH. Shut in, SDON. (CCM)

October 31, 1988

Summary: Perforate and test 8 holes 2713' - 17' K.B. Swabbed 11 Bbls over load @ 3.5 Bbls/hr. 5 - 7% oil. Strong blow of gas w/ gas cut fluid column. Rigged up Petro Wireline and perforated 2713' - 17' KB. Two shots/ft 8 holes. TIH w/ retrievable Model "C" BP and full bore pkr. Isolated perfs and swab test as follows: Circulated to fill tbg. w/ water 1 gal/1000 aquaflow. Set pkr. and broke down w/ rig pump @ 1500 psi. Pumped in @ 1000 psi, 3 BPM. ISIP - 800 psi. Total load 21 Bbls. Recovered 11 Bbls over load w/ 5 - 7% oil. Strong blow of gas behind swab. Stabilized rate - 3.5 Bbls/hr. SWI. SDOWE. (CCM)

November 1, 1988

Summary: Perforated 6 holes, 2616' - 9' K.B. Perforated and tested 8 holes, 2635' - 39' K.B. Swabbed down. Started flowing at the rate of 3 Bbls/hr - 5% oil with alot of gas.

FEDERAL NO. 21-4

November 1, 1988 - cont.

Tbg. dead. Started swabbing. F.L. 200' from surface. Made 3 runs. Tbg. dry. Waited 15 min. Had 1.5 Bbls fluid entry, 5 - 7% oil. Total fluid recovered today - 19.5 Bbls. Unset pkr. Retrieved B.P. TOH w/ tbg. and tools. Rigged up Petro Wireline. Perforated 8 holes, 2635' - 39' K.B. Also perforated 6 holes, 2616' - 19' K.B. Rigged down Petro. TIH w/ B.P. and pkr. and isolated holes at 2635' - 39' K.B. Broke down perfs w/ water, 1 gal. per 1.000 aquaflow. Broke down @ 1800 psi. Pump in @ 750 psi, 3 BPM. ISIP 500 psi. 21 Bbls of load water. Made 5 swab runs, recovered 24 Bbls of fluid. Last 2 Bbls, 5% oil show. Waited 30 min for fluid entry. Tbg. started flowing before running swab and flowed 1.5 hrs. @ 3 Bbls/hr, 5% oil cut. Flowing strong, making alot of gas. SWI. SDON. (CCM)

November 2, 1988

Summary: Finished test from 2635' - 39' K.B. Flowing 2 Bbls/hr, 5 - 7% oil, alot of gas. Moved up and tested 2616' - 19' K.B. Swabbed 75 Bbls fluid from this zone, 5% oil, 25-30 Bbls/hr. Gassing heavy after each run but dies to light blow.

Tbg. 350 psi. Bled pressure off, tbg. died. Made 1 swab run, fluid level - 1100' off bottom. Tbg. started flowing, 1 hr. flowing made 2 Bbls fluid, 5 - 7% oil. Loaded tbg., unset pkr., caught B.P., pulled up and isolated perfs 2616' - 19' K.B. Broke down perfs with water treated with 1 gal/1000 aquaflow. Broke down @ 1200 psi, pumped in 700 psi @ 3 BPM. ISIP - 400 psi. Started swabbing. Recovered 26 Bbls before pulling from S.N. Swabbed 14.5 Bbls in 30 min, 6 runs with 400' of gas cut fluid every run, 3 - 5% oil. Good blow of gas behind swab. Let well set 30 min. then swabbed 25 Bbls in 1 hour. Fluid level stayed 350' - 400' off bottom, gas cut, 3-5% oil cut. SWI. SDON. (CCM)

November 3, 1988

Rigged up Petro Wireline to set cement retainer. Baker Service Tools arrived on location w/ retainer but had the wrong parts to assemble. Got the right parts from town and assembled the retainer. Set retainer on wireline @ 2755' K.B. Rigged down Petro. TIH w/ stinger on tbg. and cemented as follows: Pumped 5 Bbls water ahead of cement. Mixed and pumped 50 sx class "G", .5% F.L.A. and .2% D-46, 10 Bbls slurry, 15.8 lb. per 1 gal. displaced with 15 Bbls water. 570 psi, 2 BPM. Shut down. Tbg. 330 psi. Stung out of retainer, reversed out .75 Bbls cement. TOH w/ tbg. and stinger. SDON. (CCM)

November 4, 1988

Summary: Perforated and tested 2' zone 2750' - 52' K.B. Tested @ 5 Bbls/hr, 99.5% water w/ skim of oil on top. No

FEDERAL NO. 21-4

November 4, 1988 - cont.

gas. Total fluid recovered - 40 Bbls.

Rigged up Petro Wireline, ran gun and perforated 2', 4 shots/ft, 2750' - 52' K.B. per density log. TIH w/ pkr on 2-7/8" EUE tbg. Circulated water with 1 gal/1000 aquaflo to bottom and broke down perfs with rig pump. Broke @ 1800 psi. Pumped in @ 3 BPM, 1100 psi. ISIP 800 psi. Started swab test. Swabbed load back 20 Bbls. Tbg. almost dry. Wait for fluid entry 30 min. Made 1 run, recovered 500' of fluid, film of oil on sample, no gas. Wait 30 min., recovered 350' fluid, same sample. 5 Bbls fluid first hour. Tested three more hours, one run every 30 min. w/ same results of 5 Bbls/hr. Skim of oil and no gas. Total fluid 40 Bbls. SWI. SDON. (CCM)

November 5, 1988

TOH laying down excess 2-7/8" EUE tbg. Wind blowing very hard, ruining threads. SWI. SDON. (CCM)

November 6, 1988

Ran 84 jts. 2-7/8" EUE tbg. to hang @ 2713' K.B. Laid down excess rods. PU and ran 2-1/2" x 2" x 20' RWBC corrosion resistant pump on 62 3/4" plain rods, 45 7/8" plain rods, 2 6' pony rods and 1 2' pony rod. Spaced out pump and hung on. Left unit down. Rig down - move off.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Budget Bureau No. 1004-0145
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.
NM 5980
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
Federal 21
9. WELL NO.
4
10. FIELD AND POOL, OR WILDCAT
Ojo Encino ENTRADA
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 21, T20N, R5W
12. COUNTY OR PARISH
McKinley
13. STATE
New Mexico

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐
2. NAME OF OPERATOR
Merrion Oil & Gas Corporation
3. ADDRESS OF OPERATOR
P. O. Box 840, Farmington, New Mexico 87499
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface
330
3030' FSL and 2310' FWL

14. PERMIT NO.
15. ELEVATIONS (Show whether DF, RT, GR, etc.)
6785' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
(Other) Vent gas ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
ABANDON* ☐
CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐
FRACTURE TREATMENT ☐
SHOOTING OR ACIDIZING ☐
(Other) ☐
REPAIRING WELL ☐
ALTERING CASING ☐
ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Merrion Oil & Gas requests permission to vent gas 60 days beyond the authorized 30 day initial test period for the Federal 21 No. 4 well. Estimated gas production is 101 MCF/day. Estimated gross value of this gas at \$1.50/MCF is \$152/day. The nearest gas connection is Gas Co. of New Mexico's main line, estimated 3-1/2 miles away. We plan to frac the Mesaverde perforations presently open and therefore will need additional time to clean up the well and test following stimulation.

RECEIVED
BLM MAIL ROOM
88 DEC -6 AM 11:30
FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

NTL-4A. IV. D.

RECEIVED
DEC 09 1988

OIL CON. DIV.
DIST. 3

FEB 10 1989

THIS APPROVAL EXPIRES

18. I hereby certify that the foregoing is true and correct

SIGNED

Steven S. Dunn

TITLE Operations Manager

DATE 12/5/88

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

APPROVED
DATE

NMOCC

*See Instructions on Reverse Side

DEC 06 1988

JAMES E. EDWARDS JR.
AREA MANAGER

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-01.05
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

NM 5980

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal 21

9. WELL NO.

4

10. FIELD AND POOL OR WILDCAT

Ojo Encino *Entrada*

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec 21, T20N, R5W

12. COUNTY OR PARISH; 13. STATE

McKinley

New Mexico

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Merrion Oil & Gas

3. ADDRESS OF OPERATOR

4. LOCATION OF WELL (Report location clearly and in accordance with any State or Federal instructions. See also space 17 below.)
At surface

330' FSL and 2310' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6785' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETION

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other) ☒ plug back

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other)

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

We request permission to temporarily plug back from the Entrada and test the Mesaverde. Once testing is completed will either squeeze off Mesaverde and resume Entrada production or put Mesaverde on longer term production test. Propose to do this work as follows: (Schematic enclosed)

1. Set cast iron bridge plug @ 3,100' KB \pm .

2. Perforate Mesaverde w/ 4" casing guns as follows:

2,616 - 19' 2PF
2,635 - 39' 2PF
2,713 - 17' 2PF
2,758 - 66' 2PF
2,769 - 75' 2PF

3. Will breakdown perfs and swab test for fluid contents.

4. Based on results may stimulate if necessary to test fully.

5. Either put on pump or squeeze off and drill out CIBP to resume Entrada production.

RECEIVED
OCT 14 1988
OIL CON. DIV
DIST. 3

18. I hereby certify that the foregoing is true and correct

SIGNED

Steven S. Dunn

TITLE Operations

DATE 10/6/88

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED

OCT 12 1988

James E. Edwards
AREA MANAGER

*See Instructions on Reverse Side

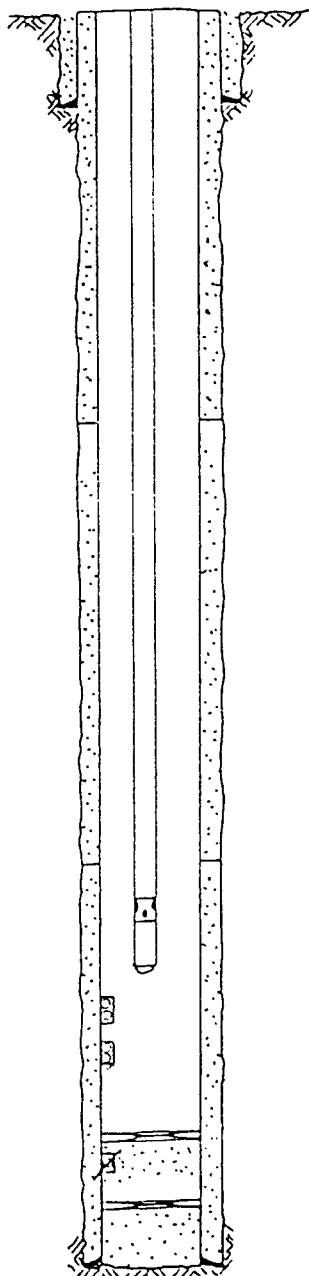
* MERRION OIL & GAS *

WELLBORE SCHEMATIC

Well: Federal 21 No 4
Field: Ojo Encino

Location: 330' FSL & 2310' FWL
Sec. 21. T20N. R5W
McKinley Co. New Mexico

Elevation: 6.797' KB
6.785' GL



TOC @ Surface
Bit Size - 12 1/4"

9 5/8" 36# Surface @ 243' KB w/ 75 sx

Hole size - 8 3/4"

Tbg: 2 7/8" EUE 6.5lb @ 5887' KB
182 Jts, SN. 4' PN. 30' Mud Anch
Rods: 2' & 6' 7/8" Ponies, 76 7/8"
Plain, 155 3/4" Plain
Pump: 2 1/2" X 1 1/2" X 20' RHAC

Stage Tool @ 3007' KB w/ 215 sx 'B' 2% D-79
followed by 75 sx 'H' 2% gel; TOC @ surface

Tops	Depth
Fruitland	Surface
Pict Cliffs	466
Cliffhouse	1,670
Gallup	3,700
Dakota	4,915
Todilto	5,890
Entrada	5,904

Stage Tool @ 5145' KB w/ 412 sx 'B' 2% D-79

5897-5901' Todilto Perfs (5 holes)
5908-5909' Entrada Perfs (4 holes)

PBTD @ 5.934' KB - Retainer
5944-48' Channelblock w/ 37,800 gal. sqz w/ 55 s
5954' Retainer. sqz shoe jt w/ 25 sx 'G'
TD @ 6.000' KB- 7" 20&23 lb J-55 @ 5.995' KB
w/ 200 sx 'H' 2% gel

Note: 5897', 5905', 5922' sqzd w/ 30 sx 'G' to
improve casing bond.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Budget Bureau No. 1004-0-1
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

NM 5980

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal 21

9. WELL NO.

4

10. FIELD AND POOL OR WILDCAT

Ojo Encino

11. SEC., T., R., M., OR B.L. AND
SURVEY OR AREA

Sec. 21, T20N, R5W

12. COUNTY OR PARISH 13. STATE

McKinley

New Mexico

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corp.

3. ADDRESS OF OPERATOR

P. O. Box 840, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface

330' FSL and 2310' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6,785' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

Completion history

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Completion history is attached, as well as
copies of logs.

RECEIVED
JUL 11 1988
OIL CON. DIV.
DIST. 2

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE

Operations Manager

DATE

6/24/88

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes 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 the jurisdiction of that

FEDERAL NO. 21-4
Completion History

May 13, 1988

MIRU RAM Service Company rig with reverse circulating equipment. Hauled 199 jts. of new 2-7/8" EUE tubing from Lybrook yard. Installed wellhead and BOP. PU 6-1/2" rock bit and Baker casing scraper on 2-7/8" EUE tubing. Tagged 1st stage tool @ 3007' KB. Drilled out stage tool, circulated clean. Shut well in. SDON. (CCM)

May 14, 1988

Pick up pipe and tally in hole to drill out 2nd stage tool at 5145' KB. Pick up pipe, tally in hole to clean out 3' to float collar @ 5954' KB. Circulate hole. Clean. TOH with 2-7/8" tbg., bit, and scraper. SDOWE. (CCM)

May 17, 1988

Rigged up Petro wireline. Ran temperature log from 3900' KB to 5952' KB. Ran CBL w/GR correlation collar log from 5952' KB, PBTD, to 2500' KB. Attempt to pressure test casing to 3000# psi. Got up to 2800# psi and pressure broke back to 1800# psi @ approximately 1 BPM. Shut down. ISIP 500# psi. Pumped in again @ 1500# psi approximately 1.5 BPM. Shut down. ISIP 500# psi after 15 min. Later casing went on slight vacuum. Shut well in. Rig down loggers. SDON. (CCM)

May 18, 1988

TIH w/ Baker fullbore packer and determined we were pumping through float and shoe joint @ 1500# psi, 2 BPM. TOH w/ packer. TIH w/ bit and scraper. Drilled out float @ 5954' KB. Cleaned out to 5995' KB TD. Circulated casing clean. TOH with bit and scraper. SDON. (CCM)

May 19, 1988

TIH w/ cement retainer on 2-7/8" EUE tbg. Set retainer @ 5970' KB. Pressure test tbg. to 2000 psi. Held good. Sting out of retainer and fill hole. Sting in and establish injection rate w/ water of .2 BPM @ 800 psi building pressure at this rate. Shut down. Sting out. Mixed and pumped 25 sx Class 'G' cement with 1.3% fluid loss additive, 1% CaCl, and 3% retarder @ 15.8 lb/gal 1.15 cu.ft./sk 5 Bbls slurry. Displaced with 28.5 Bbls water. Shut down. Stung into retainer and squeeze 2 Bbls @ .25 BPM @ 800 psi. Got tight at this point w/ cement reaching bottom of shoe. Squeezed away .25 Bbls @ 850-950 psi. Staging at almost no rate. Shut down. Stung out of retainer, reversed clean. Got 2 Bbls of good cement back to surface. Rigged down Dowell. TOH w/ tbg. and stinger. SDON. (CCM)

May 20, 1988

Rigged up Petro Wireline and ran 2 CBLs, one without pressure and one w/ 1000 psi on csg. Determine squeeze job on shoe increased bond from 5890' KB to TD @ 5972' KB, from avg. of 65% bond to avg. of 85% bond. Perforated 3 holes in poor bond @ 5897' KB, 5905' KB, and 5922' KB. Rigged down Petro. TIH with 2-7/8" EUE tbg. open ended to 5937' KB. Rigged up Dowell Cementers. Got circulation w/ water. Mixed and pumped 30 sx Class 'G' cement w/ 1.3% FLA, 1% CaCl, and 3% retarder. 6 Bbls slurry and displaced to balance. Pull tubing to 5806' KB. Reverse clean. Got 1 Bbl cement back. Pulled another 64'. Shut tubing in and squeeze down casing with 1 Bbl, pressure @ 840 psi and locked up. Pressure @ 810 psi in 10 minutes. Shut well in. Rigged down Dowell. SDON. (CCM)

May 23, 1988

TOH w/ 2-7/8" tbg. TIH w/ reconditioned 6-1/8" bit and Baker csg scraper. Tagged cement @ 5800' KB. Drilled good hard cement to 5951' KB and fell through. Circulated clean to cement retainer at 5972' KB. Pressure tested casing to 1000 psi. Held good. TOH w/ tbg, bit and scraper. SDOWE. (CCM)

May 24, 1988

Rig up Petro wireline. Ran cement bond log from PBTD to 5700' KB. No bond increase visible over last bond log. Pressured casing to 1000 psi. Reran log. Still no bond improvement. Average bond ~85% across upper Entrada. Perforated 4 treating holes @ 5944'-48' KB per density log w/ 4" casing gun. Rig down wireline. Load hole with water. Unable to pump in @ 1300 psig. Pressure holding steady. Found casing gun used for perf full of cementy water. TIH w/ 2-7/8" tubing to PBTD. Circulated bottoms up. Returning cement and cement cut water w/ LCM from bottom. Circulate 40 minutes before well cleaned up. Pull above perfs. SDON. (SSD)

May 25, 1988

Reverse circulated to check for fill overnight. Recovered 2 Bbls cement water & LCM off bottom and cleaned up. Attempted to pump in with rig pump. Held 2000 psi solid. Bled off pressure. Rig up Western Co., Mixed 5 Bbls 15% acetic acid and spotted across perfs from 5964' KB. Let soak 5 minutes. Unable to pump in @ 1000 psi. Pressure up to 1400 psi. Started pumping in @ 1400 psi, .25 BPM. Increase rate to .5 BPM @ 1450 psi. Shut down. Pressure dropped and changed bleed off rate @ 1200 psi. Reversed remaining acid out with water. Mix and pump 35 sx Class 'H' cement w/ 3% flac, 1.3% retarder, and 1% CaCl₂ @ 1.2 cu.ft./sk, total of 42 cu.ft. slurry, and displaced to spot @ 5964' KB. Pulled tubing to 5775' KB. Reversed tubing clean. Recovered est. 1.0 Bbls cement. Squeezed down casing @ .25 BPM. Displaced .75 Bbls and started building pressure to 1500 psi, then 2000 psi. Total displacement 1.75 Bbls. Shut down 30 minutes. Pressure

May 25, 1988 (continued)

@ 1550 psi. Pump .25 Bbls. Pressure up to 2000 psi solid. Bled pressure to 1000 psi. Shut well in. SDON. (CCM)

May 26, 1988

TOH w/ 2-7/8" EUE tbg. TIH w/ reconditioned 6-1/8" tooth bit on Baker csg. scraper. Tagged cement @ 5805' KB, 30' below where we reversed clean. Drilled out fairly hard cement and cleaned out to retainer @ 5972' KB. Reversed clean and TOH w/ tbg., bit, and scraper. Pressure tested csg. to 1000 psi. Held good. Rigged up Petro wireline. Ran cement bond log from 5972' KB PBTD to 5700' KB. Showed bond improvement from 5880' KB to 5950' KB to between 80% and 95% bonded pipe. Perforated Todilto w/ 5 holes from 5897' KB to 5901' KB. Rigged down Petro and SDON. (CCM)

May 27, 1988

TIH w/ Baker fullbore packer and unloader set @ 5846' KB with SN @ 5814' KB. Testing Todilto perfs from 5897' - 5901' KB. 33.6 Bbls tubing capacity to SN. Made 15 swab runs. Recovered 54 Bbls fluid. Made another run in 30 minutes-dry. Made last run after 1 hour - dry. No oil show in samples. SDON. (CCM)

May 28, 1988

Made 3 swab runs this morning. 1st run tagged 200' of fluid. Got out w/ 100', 100% water. 1 Bbl entry in 15 hours. 2nd and 3rd runs mist and dry. Unset packer and swabbed fluid level to 4500' KB. SDOWE. (CCM)

June 1, 1988

Rigged up Petro Wireline. Perforated 5944' - 48' KB, 4 holes. TIH w/ fullbore packer. Set @ 5928' KB. and broke down perfs at 2500 psi, pumping in with rig pump, as follows:

<u>BPM</u>	<u>PRESSURE</u>
3.0	1950 psi
2.0	1950 psi
1.5	1800 psi
.75	1650 psi
.50	1550 psi

ISIP - 1100 psi.

Bled to below 100 psi in 3 minutes. No communication to backside. Hole was loaded with clean Entrada water. TOH with tubing and packer. Rigged up Petro and ran wireline set cement retainer and set @ 5934' KB. TIH w/ 2-7/8" tubing and stinger. Left stung into retainer. SDON. (CCM)

June 2, 1988

Shut-in. Waiting for equipment to pump polymer treatment. (SSD)

June 3, 1988

Shut-in. Waiting on equipment to pump polymer treatment. (SSD)

June 4, 1988

MIRU Dowell. Established rate into Entrada perfs (5944-48') at 1 BPM and 1250 psig. Brought rate to 2 BPM @ 1350 psig and 3 BPM @ 1450 psig. Pumped channel block treatment at an average rate of 1 BPM and 1100 psig as follows:

<u>Stage</u>	<u>Volume</u>	<u>Gals J433</u>
1	4200/100	10
2	8400/200	30
3	8400/200	45

SDOWE. (TGM)

June 7, 1988

Rigged up Dowell. Continue 4th stage. Pumped 2 Bbls and caught pressure - 790 psi. Pumped 5th stage @ 780 psi. Finish channel block treatment. Pumped 10 Bbls water spacer-810 psi. Total job @ 1 BPM.

Start cement job. Mixed and pumped 20 sx Class 'G' cement. Displace 1 BPM 500 psi cement on formation. Pressure up to 800 psi. Squeezed away 3 Bbls of cement. Pressure @ 1000 psi. Pressure bled to 950 psi in 2 minutes. Stung out of retainer. Reversed with 48 Bbls water. Got back approximately 1.5 Bbls cement and some red and brown colored water. Shut down. Pulled 2 jts tbg and started swabbing down to perforate main Entrada. Recovered 36 Bbls water. SDON. (CCM)

June 8, 1988

Swabbed fluid level down to approximately 4500' KB. TOH with 2-7/8" tubing and retainer stinger. SDON. (CCM)

June 9, 1988

Rigged up Petro Wireline. Went in the hole and tagged fluid level @ 4715' KB. Perforate 1 hole @ 5908' KB. Came up and checked fluid level. No detectable fluid level change. Select fire gun malfunction. Laid down gun and repair. Went back in with same gun. Still no fluid level change. Perforated 1 hole at 5909' KB. Pulled and checked fluid level. Found increase of 20' in first 5 minutes. Wait 10 minutes. Fluid level increase to 4675' KB for total fluid entry of 40' in 15 minutes. Perforate 2 more holes @ 5909' KB. Rig down

June 9, 1988 (continued)

loggers. TIH with Baker fullbore packer and unloader on 2-7/8" EUE tubing and set @ 5846' KB. Started swabbing to test Entrada. 1st run - fluid level @ 3500' KB. 2nd run - pulled from SN. Recovered 18 Bbls in 2 runs. Made 3 runs, 20 min/run. Entry rate of 200' every 20 minutes. Fluid level 5600' KB. Wait 30 minutes - fluid level @ 5100' KB. Pulled from SN. Wait 30 minutes - fluid level @ 5100; KB. Pulled from SN. Getting average fluid entry of 675' every 30 minutes or 5 Bbls/hr. Caught a sample the last run. Let settle out @ 60% water, 30% oil, 10% BS. Total fluid recovered 30 Bbls. SDON. (CCM)

SUMMARY: Perforated Entrada. Swabbed 30 Bbls fluid. Last sample showed 10 % BS, 60% water, 30% oil.

June 10, 1988

Started swabbing. Initial fluid level @ 600' KB. Pulled from 2000' KB. Swabbed all day. Swabbed down to stabilize fluid level at 5000' KB. 700-800' of fluid entry every 30 minutes or 9 Bbls/hr. Shook out sample of the last run: 50% BS&W, 50% oil. Total fluid recovered today - 91 Bbls. (CCM)

June 11-13, 1988

SDOWE. (CCM)

June 14, 1988

Released packer. TOH with 2-7/8" tubing and Baker fullbore packer. TIH with tubing pumping string:

1 30' MA
1 4' perf. sub
1 1' SN
182 jts. new 2-7/8" EUE 6.5 #/ft. tubing

Bottom of mud anchor @ 5,887.13' KB. Ran 1-1/2" RHAC pump from Service Pump Co. and started running rods. SDON. (CCM)

June 15, 1988

Finished running rods and spaced out 2-1/2" x 1-1/2" x 20' RHAC pump from Service Pump. Rod string:

155 3/4" plain
76 7/8" plain
1 6' 7/8" pony
1 2' 7/8" pony

Installed stuffing box and polish rod. Clamped off and shut well in. RDMO. (CCM)

June 16, 1988

Waiting on pumping unit installation. (CCM)

June 17, 1988

Building surface flow lines. (CCM)

June 20, 1988

Moved Lufkin 456 from Federal 21-1 to 21-4. Set pumping unit. (CCM)

June 21, 1988

Removed Scania diesel engine from pumping unit and installed Waukesha. Tied in 2-1/2" flowline. (CCM)

June 22, 1988

Finish flowline tie-in and gas line tie-in. Start unit. Fluid to separator. Open to oil tank and water tank. Leave running, 8 SPM x 120". Engine has slight knock. (Fizz)

Produced 142 Bbls fluid in 15 hours pumping. Good oil show at wellhead. (DM)

June 23, 1988

Produced 80 Bbls oil and 125 Bbls H₂O in 24 hours pumping 8 SPM x 120". (DM)

1983)
9-330)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other In-
structions on
reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM 5980	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. DENVR. <input type="checkbox"/> Other <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Merrion Oil & Gas Corp.		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P. O. Box 840, Farmington, New Mexico 87499		8. FARM OR LEASE NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with instructions on reverse side) At surface 330' FSL and 2310' FWL At top prod. interval reported below same At total depth same		9. WELL NO. 4	
10. FIELD AND POOL, OR WILDCAT Ojo Encino		11. SEC. T. R. M. OR BLOCK AND SURVEY OR AREA Sec. 21, T20N, R5W	
12. COUNTY OR PARISH McKinley		13. STATE New Mexico	
14. PERMIT NO. (If any)		15. DATE SPUDDED 4/8/88	
16. DATE T.D. REACHED 4/18/88		17. DATE COMPL. (Ready to prod.) 6/21/88	
18. ELEVATIONS (OF, RKB, RT, GR, ETC.)* 6,785' GR		19. ELEV. CASINGHEAD	
20. TOTAL DEPTH, MD & TVD 6,000' KB		21. PLUG. BACK T.D., MD & TVD 5,934' KB	
22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY ROTARY TOOLS X CABLE TOOLS	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5908' - 5909' KB (Entrada)		25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN Induction Guard, Spectral Density, Sandcal, Temperature, Cement Bond w/ Gamma-Ray Correlation		27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
9-5/8"	36 #/ft J-55	243' KB	12-1/4"
7"	20&23 #/ft J-55	5995' KB	8-3/4"
CEMENTING RECORD			
75 sx Class 'B' + 2% CaCl ₂			
200 sx Class 'H' + 2% CaCl ₂ (1st stage)			
412 sx Class 'B' + 2% ext. (2nd stage)			
215 sx Class 'B' / 175 sx Class 'H' (3rd stage)			
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
30. TUBING RECORD			
SIZE	DEPTH SET (MD)	PACKER SET (MD)	
2-7/8"	5887' KB		
31. PERFORATION RECORD (Interval, size and number)			
5897' - 5901': 4 holes - 0.5" (Todilto)			
5908' - 5909': 4 holes - 0.5" (Entrada)			
5944' - 5948': 8 holes - 0.5" Squeezed			
5897', 5905', 5922': 3 holes - squeezed			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
5897, 5905, 5922		Sqz w/30 sx Class 'G'	
5944-5948'		Channel Block treat w/37,800 gal. sqz w/55 sx Class 'G'	
5954-5994'		Squeeze shoe w/25 sx Class 'G'	
33. PRODUCTION			
DATE FIRST PRODUCTION 6/21/88	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Pumping - 2-1/2" x 1-1/2" x 20' RHAC		WELL STATUS (Producing or shut-in) Producing
DATE OF TEST 6/22/88	HOURS TESTED 24	CHOKE SIZE	PROD'N. FOR TEST PERIOD
FLOW. TUBING PRESS. 45 psig		CASING PRESSURE 45 psig	CALCULATED 24-HOUR RATE
OIL—HBL. 80		GAS—MCF. 0	WATER—HBL. 125
OIL GRAVITY-API (CORR.)			
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) None produced.			
35. LIST OF ATTACHMENTS Deviation survey, Sundry w/ completion history and logs.			
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.			
SIGNED [Signature]		TITLE Operations Manager	
DATE JUL 09 1988		TEST WITNESSED BY Dave Morales	

*(See Instructions and Spacers—Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes 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.

37. SUMMARY OF POROUS ZONES: (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):

38. GEOLOGIC MARKERS																																																																							
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.																																																																				
Entrada	5904'	N/A	Crude oil, water																																																																				
<table> <tr> <th>NAME</th><th>MEAS. DEPTH</th><th>TOP</th><th>TRUE VERT. DEPTH</th></tr> <tr> <td>Fruitland</td><td>Surface</td><td></td><td></td></tr> <tr> <td>Pictured Cliffs</td><td>466'</td><td></td><td></td></tr> <tr> <td>Chacra</td><td>860'</td><td></td><td></td></tr> <tr> <td>Cliffhouse</td><td>1670'</td><td></td><td></td></tr> <tr> <td>Menefee</td><td>1831'</td><td></td><td></td></tr> <tr> <td>Point Lookout</td><td>2745'</td><td></td><td></td></tr> <tr> <td>Mancos</td><td>2860'</td><td></td><td></td></tr> <tr> <td>Gallup</td><td>3700'</td><td></td><td></td></tr> <tr> <td>Sanostee</td><td>4360'</td><td></td><td></td></tr> <tr> <td>Greenhorn</td><td>4700'</td><td></td><td></td></tr> <tr> <td>Graneros sh</td><td>4750'</td><td></td><td></td></tr> <tr> <td>Graneros ss</td><td>4810'</td><td></td><td></td></tr> <tr> <td>Dakota</td><td>4915'</td><td></td><td></td></tr> <tr> <td>Morrison</td><td>5138'</td><td></td><td></td></tr> <tr> <td>Todilto</td><td>5890'</td><td></td><td></td></tr> <tr> <td>Entrada</td><td>5904'</td><td></td><td></td></tr> </table>				NAME	MEAS. DEPTH	TOP	TRUE VERT. DEPTH	Fruitland	Surface			Pictured Cliffs	466'			Chacra	860'			Cliffhouse	1670'			Menefee	1831'			Point Lookout	2745'			Mancos	2860'			Gallup	3700'			Sanostee	4360'			Greenhorn	4700'			Graneros sh	4750'			Graneros ss	4810'			Dakota	4915'			Morrison	5138'			Todilto	5890'			Entrada	5904'		
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS RECEIVED

(Do not use this form for proposals to drill or to deepen or plug back to a well or to install a well.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. ☒ OIL WELL ☐ GAS WELL ☐ OTHER

2. NAME OF OPERATOR
Merrion Oil and Gas Corporation

3. ADDRESS OF OPERATOR
P. O. Box 840, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface
330' FSL and 2310' FWL

5. WELL NO.
Federal 21

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Ojo Encino

9. FIELD AND POOL OR WILDCAT
Sec. 21, T20N, R5W

10. COUNTY OR PARISH
McKinley

11. STATE
New Mexico

12. PERMIT NO.

13. ELEVATIONS (Show whether DF, RT, GR, etc.)
6,785' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>	WATER SHUT-OFF	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	FRACTURE TREATMENT	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	SHOOTING OR ACIDIZING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	(Other)	<input type="checkbox"/>
(Other)	<input type="checkbox"/>	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

In order to evaluate the economics of our Federal 21-4 well, Merrion Oil and Gas Corporation requests permission to temporarily dispose of produced water for a period of 90 days. We will need to dispose approximately 125 Bbls per day of produced Entrada water into the earthen pit through existing facilities at our Federal 21-1 well located at 2310' FSL and 2310' FWL, Sec. 21, T20N, R5W, McKinley Co., N.M.

Entrada Water Analysis attached.

If test results justify, will re-install disposal equipment and place Federal 21-3 salt water disposal well back in service and file NTL 2B application for your approval.

RECEIVED

JUL 22 1988

OIL CON. DIV.

DIST 2

DATE JUL 22 1988

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE Operations Manager

(This space for Federal or State office use)

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED

DATE

JUL 15 1988

AREA MANAGER

*See Instructions on Reverse Side

NMOCC

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

OPERATOR Dome Petroleum Corp. DATE October 28, 1976 LAB NO. 21604-1
WELL NO. Federal 21 No. 1 LOCATION Sec. 21-20N-5W
FIELD Wildcat FORMATION Entrada
COUNTY McKinley INTERVAL _____
STATE New Mexico SAMPLE FROM (10-20-76)

REMARKS & CONCLUSIONS: _____

Cations			Anions		
	mg/l	meq/l		mg/l	meq/l
Sodium	3301	143.61	Sulfate	5900	122.72
Potassium	67	1.72	Chloride	1070	30.17
Lithium			Carbonate	-	-
Calcium	238	11.88	Bicarbonate	293	4.81
Magnesium	6	0.49	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		157.70	Total Anions		157.70

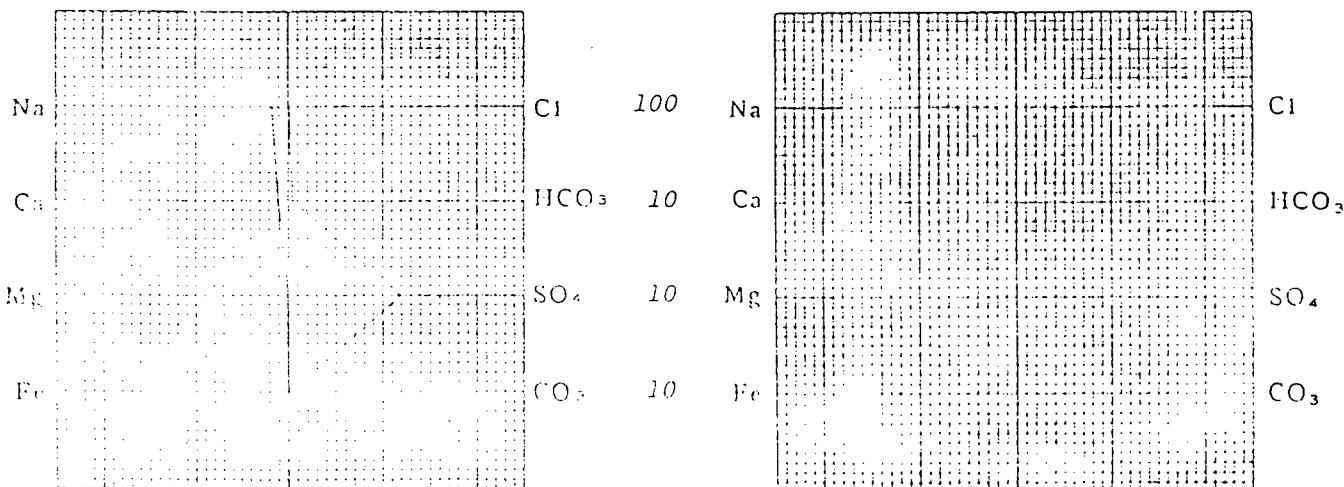
Total dissolved solids, mg/l - - - - - 10726
NaCl equivalent, mg/l - - - - - 7705
Observed pH - - - - - 7.6

Specific resistance @ 68°F.: _____

Observed - - - - - 0.90 ohm-meters
Calculated - - - - - 0.86 ohm-meters

WATER ANALYSIS PATTERN

Sample above described Scale
MEQ per Unit



(Na value in above graph includes Na, K, and Li)

NaCl Eq. Meq/l: Milligrams per liter Meq/l: Milligram equivalents per liter

Sodium chloride equivalent by Dupont & Hazen Inc. calculation from components

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE*
(Other instructions on reverse side)

Budget Bureau No. 1004-1-1
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen a well back to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals.)

1. OF:
WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corp.

3. ADDRESS OF OPERATOR

P. O. Box 840, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface:

330' FSL and 2310' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether OF, RT, GR, etc.)

6,785' GR

5. LEASE DESIGNATION AND SERIAL NO.

NM 5980

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal 21

9. WELL NO.

4

10. FIELD AND POOL OR WILDCAT

Ojo Encino

11. SEC., T., R., M., OR B.L. AND SURVEY OR AREA

Sec. 21, T20N, R5W

12. COUNTY OR PARISH 13. STATE

McKinley

New Mexico

16

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLET

ABANDON*

CHANGE PLANT

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

Completion history

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Completion history is attached, as well as copies of logs.

RECEIVED
JUL 11 1988
OIL CON. DIV.
DIST. 3

18. I hereby certify that the foregoing is true and correct.

SIGNED

(This space for Federal or State office use)

TITLE Operations Manager

DATE 6/24/88

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

NMOCC

*See Instructions on Reverse Side

FEDERAL NO. 21-4
Completion History

May 13, 1988

MIRU RAM Service Company rig with reverse circulating equipment. Hauled 199 jts. of new 2-7/8" EUE tubing from Lybrook yard. Installed wellhead and BOP. PU 6-1/2" rock bit and Baker casing scraper on 2-7/8" EUE tubing. Tagged 1st stage tool @ 3007' KB. Drilled out stage tool, circulated clean. Shut well in. SDON. (CCM)

May 14, 1988

Pick up pipe and tally in hole to drill out 2nd stage tool at 5145' KB. Pick up pipe, tally in hole to clean out 3' to float collar @ 5954' KB. Circulate hole. Clean. TOH with 2-7/8" tbg., bit, and scraper. SDOWE. (CCM)

May 17, 1988

Rigged up Petro wireline. Ran temperature log from 3900' KB to 5952' KB. Ran CBL w/GR correlation collar log from 5952' KB, PBTD, to 2500' KB. Attempt to pressure test casing to 3000# psi. Got up to 2800# psi and pressure broke back to 1800# psi @ approximately 1 BPM. Shut down. ISIP 500# psi. Pumped in again @ 1500# psi approximately 1.5 BPM. Shut down. ISIP 500# psi after 15 min. Later casing went on slight vacuum. Shut well in. Rig down loggers. SDON. (CCM)

May 18, 1988

TIH w/ Baker fullbore packer and determined we were pumping through float and shoe joint @ 1500# psi, 2 BPM. TOH w/ packer. TIH w/ bit and scraper. Drilled out float @ 5954' KB. Cleaned out to 5995' KB TD. Circulated casing clean. TOH with bit and scraper. SDON. (CCM)

May 19, 1988

TIH w/ cement retainer on 2-7/8" EUE tbg. Set retainer @ 5970' KB. Pressure test tbg. to 2000 psi. Held good. Sting out of retainer and fill hole. Sting in and establish injection rate w/ water of .2 BPM @ 800 psi building pressure at this rate. Shut down. Sting out. Mixed and pumped 25 sx Class 'G' cement with 1.3% fluid loss additive, 1% CaCl, and 3% retarder @ 15.8 lb/gal 1.15 cu.ft./sk 5 Bbls slurry. Displaced with 28.5 Bbls water. Shut down. Stung into retainer and squeeze 2 Bbls @ .25 BPM @ 800 psi. Got tight at this point w/ cement reaching bottom of shoe. Squeezed away .25 Bbls @ 850-950 psi. Staging at almost no rate. Shut down. Stung out of retainer, reversed clean. Got 2 Bbls of good cement back to surface. Rigged down Dowell. TOH w/ tbg. and stinger. SDON. (CCM)

May 20, 1988

Rigged up Petro Wireline and ran 2 CBLs, one without pressure and one w/ 1000 psi on csg. Determine squeeze job on shoe increased bond from 5890' KB to TD @ 5972' KB, from avg. of 65% bond to avg. of 85% bond. Perforated 3 holes in poor bond @ 5897' KB, 5905' KB, and 5922' KB. Rigged down Petro. TIH with 2-7/8" EUE tbg. open ended to 5937' KB. Rigged up Dowell Cementers. Got circulation w/ water. Mixed and pumped 30 sx Class 'G' cement w/ 1.3% FLA, 1% CaCl, and 3% retarder. 6 Bbls slurry and displaced to balance. Pull tubing to 5806' KB. Reverse clean. Got 1 Bbl cement back. Pulled another 64'. Shut tubing in and squeeze down casing with 1 Bbl, pressure @ 840 psi and locked up. Pressure @ 810 psi in 10 minutes. Shut well in. Rigged down Dowell. SDON. (CCM)

May 23, 1988

TOH w/ 2-7/8" tbg. TIH w/ reconditioned 6-1/8" bit and Baker csg scraper. Tagged cement @ 5800' KB. Drilled good hard cement to 5951' KB and fell through. Circulated clean to cement retainer at 5972' KB. Pressure tested casing to 1000 psi. Held good. TOH w/ tbg, bit and scraper. SDOWE. (CCM)

May 24, 1988

Rig up Petro wireline. Ran cement bond log from PBTD to 5700' KB. No bond increase visible over last bond log. Pressured casing to 1000 psi. Reran log. Still no bond improvement. Average bond ~85% across upper Entrada. Perforated 4 treating holes @ 5944'-48' KB per density log w/ 4" casing gun. Rig down wireline. Load hole with water. Unable to pump in @ 1300 psig. Pressure holding steady. Found casing gun used for perf full of cementy water. TIH w/ 2-7/8" tubing to PBTD. Circulated bottoms up. Returning cement and cement cut water w/ LCM from bottom. Circulate 40 minutes before well cleaned up. Pull above perfs. SDON. (SSD)

May 25, 1988

Reverse circulated to check for fill overnight. Recovered 2 Bbls cement water & LCM off bottom and cleaned up. Attempted to pump in with rig pump. Held 2000 psi solid. Bled off pressure. Rig up Western Co., Mixed 5 Bbls 15% acetic acid and spotted across perfs from 5964' KB. Let soak 5 minutes. Unable to pump in @ 1000 psi. Pressure up to 1400 psi. Started pumping in @ 1400 psi, .25 BPM. Increase rate to .5 BPM @ 1450 psi. Shut down. Pressure dropped and changed bleed off rate @ 1200 psi. Reversed remaining acid out with water. Mix and pump 35 sx Class 'H' cement w/ 3% flac, 1.3% retarder, and 1% CaCl₂ @ 1.2 cu.ft./sk, total of 42 cu.ft. slurry, and displaced to spot @ 5964' KB. Pulled tubing to 5775' KB. Reversed tubing clean. Recovered est. 1.0 Bbls cement. Squeezed down casing @ .25 BPM. Displaced .75 Bbls and started building pressure to 1500 psi, then 2000 psi. Total displacement 1.75 Bbls. Shut down 30 minutes. Pressure

May 25, 1988 (continued)

@ 1550 psi. Pump .25 Bbls. Pressure up to 2000 psi solid. Bled pressure to 1000 psi. Shut well in. SDON. (CCM)

May 26, 1988

TOH w/ 2-7/8" EUE tbg. TIH w/ reconditioned 6-1/8" tooth bit on Baker csg. scraper. Tagged cement @ 5805' KB, 30' below where we reversed clean. Drilled out fairly hard cement and cleaned out to retainer @ 5972' KB. Reversed clean and TOH w/ tbg., bit, and scraper. Pressure tested csg. to 1000 psi. Held good. Rigged up Petro wireline. Ran cement bond log from 5972' KB PBTD to 5700' KB. Showed bond improvement from 5880' KB to 5950' KB to between 80% and 95% bonded pipe. Perforated Todilto w/ 5 holes from 5897' KB to 5901' KB. Rigged down Petro and SDON. (CCM)

May 27, 1988

TIH w/ Baker fullbore packer and unloader set @ 5846' KB with SN @ 5814' KB. Testing Todilto perms from 5897' - 5901' KB. 33.6 Bbls tubing capacity to SN. Made 15 swab runs. Recovered 54 Bbls fluid. Made another run in 30 minutes-dry. Made last run after 1 hour - dry. No oil show in samples. SDON. (CCM)

May 28, 1988

Made 3 swab runs this morning. 1st run tagged 200' of fluid. Got out w/ 100', 100% water. 1 Bbl entry in 15 hours. 2nd and 3rd runs mist and dry. Unset packer and swabbed fluid level to 4500' KB. SDOWE. (CCM)

June 1, 1988

Rigged up Petro Wireline. Perforated 5944' - 48' KB, 4 holes. TIH w/ fullbore packer. Set @ 5928' KB. and broke down perms at 2500 psi, pumping in with rig pump, as follows:

<u>BPM</u>	<u>PRESSURE</u>
3.0	1950 psi
2.0	1950 psi
1.5	1800 psi
.75	1650 psi
.50	1550 psi

ISIP - 1100 psi.

Bled to below 100 psi in 3 minutes. No communication to backside. Hole was loaded with clean Entrada water. TOH with tubing and packer. Rigged up Petro and ran wireline set cement retainer and set @ 5934' KB. TIH w/ 2-7/8" tubing and stinger. Left stung into retainer. SDON. (CCM)

June 2, 1988

Shut-in. Waiting for equipment to pump polymer treatment.
(SSD)

June 3, 1988

Shut-in. Waiting on equipment to pump polymer treatment.
(SSD)

June 4, 1988

MIRU Dowell. Established rate into Entrada perms (5944-48') at 1 BPM and 1250 psig. Brought rate to 2 BPM @ 1350 psig and 3 BPM @ 1450 psig. Pumped channel block treatment at an average rate of 1 BPM and 1100 psig as follows:

<u>Stage</u>	<u>Volume</u>	<u>Gals J433</u>
1	4200/100	10
2	8400/200	30
3	8400/200	45

SDOWE. (TGM)

June 7, 1988

Rigged up Dowell. Continue 4th stage. Pumped 2 Bbls and caught pressure - 790 psi. Pumped 5th stage @ 780 psi. Finish channel block treatment. Pumped 10 Bbls water spacer-810 psi. Total job @ 1 BPM.

Start cement job. Mixed and pumped 20 sx Class 'G' cement. Displace 1 BPM 500 psi cement on formation. Pressure up to 800 psi. Squeezed away 3 Bbls of cement. Pressure @ 1000 psi. Pressure bled to 950 psi in 2 minutes. Stung out of retainer. Reversed with 48 Bbls water. Got back approximately 1.5 Bbls cement and some red and brown colored water. Shut down. Pulled 2 jts tbg and started swabbing down to perforate main Entrada. Recovered 36 Bbls water. SDON.
(CCM)

June 8, 1988

Swabbed fluid level down to approximately 4500' KB. TOH with 2-7/8" tubing and retainer stinger. SDON. (CCM)

June 9, 1988

Rigged up Petro Wireline. Went in the hole and tagged fluid level @ 4715' KB. Perforate 1 hole @ 5908' KB. Came up and checked fluid level. No detectable fluid level change. Select fire gun malfunction. Laid down gun and repair. Went back in with same gun. Still no fluid level change. Perforated 1 hole at 5909' KB. Pulled and checked fluid level. Found increase of 20' in first 5 minutes. Wait 10 minutes. Fluid level increase to 4675' KB for total fluid entry of 40' in 15 minutes. Perforate 2 more holes @ 5909' KB. Rig down

June 9, 1988 (continued)

loggers. TIH with Baker fullbore packer and unloader on 2-7/8" EUE tubing and set @ 5846' KB. Started swabbing to test Entrada. 1st run - fluid level @ 3500' KB. 2nd run - pulled from SN. Recovered 18 Bbls in 2 runs. Made 3 runs, 20 min/run. Entry rate of 200' every 20 minutes. Fluid level 5600' KB. Wait 30 minutes - fluid level @ 5100' KB. Pulled from SN. Wait 30 minutes - fluid level @ 5100' KB. Pulled from SN. Getting average fluid entry of 675' every 30 minutes or 5 Bbls/hr. Caught a sample the last run. Let settle out @ 60% water, 30% oil, 10% BS. Total fluid recovered 30 Bbls. SDON. (CCM)

SUMMARY: Perforated Entrada. Swabbed 30 Bbls fluid. Last sample showed 10 % BS, 60% water, 30% oil.

June 10, 1988

Started swabbing. Initial fluid level @ 600' KB. Pulled from 2000' KB. Swabbed all day. Swabbed down to stabilize fluid level at 5000' KB. 700-800' of fluid entry every 30 minutes or 9 Bbls/hr. Shook out sample of the last run: 50% BS&W, 50% oil. Total fluid recovered today - 91 Bbls. (CCM)

June 11-13, 1988

SDOWE. (CCM)

June 14, 1988

Released packer. TOH with 2-7/8" tubing and Baker fullbore packer. TIH with tubing pumping string:

- 1 30' MA
- 1 4' perf. sub
- 1 1' SN
- 182 jts. new 2-7/8" EUE 6.5 #/ft. tubing

Bottom of mud anchor @ 5,887.13' KB. Ran 1-1/2" RHAC pump from Service Pump Co. and started running rods. SDON. (CCM)

June 15, 1988

Finished running rods and spaced out 2-1/2" x 1-1/2" x 20' RHAC pump from Service Pump. Rod string:

- 155 3/4" plain
- 76 7/8" plain
- 1 6' 7/8" pony
- 1 2' 7/8" pony

Installed stuffing box and polish rod. Clamped off and shut well in. RDMO. (CCM)

June 16, 1988

Waiting on pumping unit installation. (CCM)

June 17, 1988

Building surface flow lines. (CCM)

June 20, 1988

Moved Lufkin 456 from Federal 21-1 to 21-4. Set pumping unit. (CCM)

June 21, 1988

Removed Scania diesel engine from pumping unit and installed Waukesha. Tied in 2-1/2" flowline. (CCM)

June 22, 1988

Finish flowline tie-in and gas line tie-in. Start unit. Fluid to separator. Open to oil tank and water tank. Leave running, 8 SPM x 120". Engine has slight knock. (Fizz)

Produced 142 Bbls fluid in 15 hours pumping. Good oil show at wellhead. (DM)

June 23, 1988

Produced 80 Bbls oil and 125 Bbls H₂O in 24 hours pumping 8 SPM x 120". (DM)

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

JUN 1 1988

Form C-104
Revised 10-01-78
Format 06-01-83
Page 1

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OIL CONSERVATION DIVISION
SANTA FE

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

RECEIVED
JUN 29 1988
OIL CON. DIV.
DIST. 3

I. Operator
Merrion Oil & Gas Corp.

Address
P. O. Box 840, Farmington, New Mexico 87499

Reason(s) for filing (Check proper box)

<input checked="" type="checkbox"/> New Well	Change in Transporter of:	
<input type="checkbox"/> Recompletion	<input type="checkbox"/> Oil	<input type="checkbox"/> Dry Gas
<input type="checkbox"/> Change in Ownership	<input type="checkbox"/> Casinghead Gas	<input type="checkbox"/> Condensate

Other (Please explain)

If change of ownership give name and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name Federal 21	Well No. 4	Pool Name, including Formation Ojo Encino Entrada	Kind of Lease State, Federal or Fee Federal	Lease No. NM5980
Location Unit Letter <u>N</u> ; <u>330'</u> Feet From The <u>South</u> Line and <u>2310'</u> Feet From The <u>West</u>				
Line of Section <u>21</u> Township <u>20N</u> Range <u>5W</u> , NMPM, <u>McKinley</u> County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/> Conoco Transportation, Inc.	Address (Give address to which approved copy of this form is to be sent) P. O. Box 1429, Bloomfield, NM 87413
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When
	N 21 20N 5W no

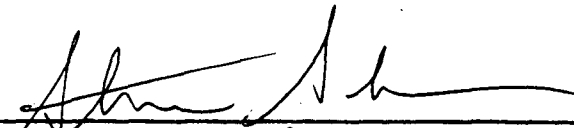
If this production is commingled with that from any other lease or pool, give commingling order number:

NOTE: Complete Parts IV and V on reverse side if necessary.

6-21-88

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.


(Signature)
Operations Manager
(Title)
June 29, 1988
(Date)

OIL CONSERVATION DIVISION

APPROVED

JUN 21 1988

BY

SUPERVISOR DISTRICT 3

TITLE

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

IV. COMPLETION DATA

Designate Type of Completion - (X)		Oil Well X	Gas Well	New Well X	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded 4/8/88	Date Compl. Ready to Prod. 6/21/88		Total Depth 6,000' KB		P.B.T.D. 5,934' KB				
Elevations (DF, RKB, RT, GR, etc.) 6,785' GR	Name of Producing Formation Entrada		Top Oil/Gas Pay 5,908' KB		Tubing Depth 5,887' KB				
Perforations 5897-5901': 5 holes (Todilto), 5908-5909': 4 holes (Entrada)						Depth Casing Shoe 5,995' KB			
TUBING, CASING, AND CEMENTING RECORD									
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT				
12-1/4"	9-5/8" 36 #/ft J-55		243' KB		75 sx Class 'B'				
8-3/4"	7" 20 & 23 #/ft J-55		5995' KB		200 sx Class 'H' (1st stc				
	2-7/8"		5887' KB		412 sx Class 'B' (2nd stc				
					215 sx Class 'B' (3rd stc				

V. TEST DATA AND REQUEST FOR ALLOWABLE (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks 6/21/88	Date of Test 6/22/88	Producing Method (Flow, pump, gas lift, etc.) Pumping	
Length of Test 24 hours	Tubing Pressure 45 psig	Casing Pressure 45 psig	Choke Size N/A
Actual Prod. During Test	Oil - Bbls. 80	Water - Bbls. 125	Gas - MCF -0-

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved
Budget Bureau No. 1004-013
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR Merrion Oil & Gas Corp.	8. FARM OR LEASE NAME Federal 21
3. ADDRESS OF OPERATOR P. O. Box 840, Farmington, New Mexico 87499	9. WELL NO. 4
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 330' FSL and 2310' FWL	10. FIELD AND POOL OR WILDCAT Ojo Encino
14. PERMIT NO.	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 21, T20N, R5W
15. ELEVATIONS (Show whether OF, RT, GR, etc.) 6,785' GR	12. COUNTY OR PARISH McKinley
	13. STATE New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETION

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

Drilling history and logs

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Drilling history and logs (Sandcal, Induction Guard, and Spectral Density) are enclosed.

RECEIVED
BLM MAIL ROOM
APR 25 PM 1:52
FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

RECEIVED
APR 23 1988
OIL CON. DIV.
DIST. 3

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE

Operations Manager

DATE

4/21/88

(This space for Federal or State office use)

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED
DATE

*See Instructions on Reverse Side
NMOCC

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

FEDERAL NO. 21-4

April 6, 1988

Building location and access road. (CCM)

April 8, 1988

Building location. (CCM)

April 9, 1988 Day No. 1

TD: 243' KB

Current operation: drilling.

MIRU, drill rat hole, mouse hole, spud 12-1/4" surface hole to 243' KB. TO. Run 6 jts. (218.69') 9-5/8" 36 lb/ft J-55 surface casing to 243' and cement with 75 sx Class B cement + 2% CaCl₂ - 15.6 lb/gal - yield 1.18 cu.ft/sx. (88.5 cu.ft.) Plug down at 6:45 p.m. Mud weight 8.6, viscosity 32, water loss 10. TIH with 8-3/4" bit no. 2. Surveys run as follows: 217' - 1/4 - N85W; 590' - 1/2 - N65E; 838' - 1/4; (Four Corners Drilling)

April 10, 1988 Day No. 2

TD: 2400' KB

Current operation: drilling.

Mud weight 8.9, viscosity 33, water loss 8. TOH with bit no. 2 at 1,992' KB. TIH with 8-3/4" bit no. 3. Surveys run as follows: 1334' - 3/4 - S31E; 1825' - 3/4 - S50E; 2321' - 1 - S45E; 2827' - 3/4 - S40E. (Four Corners Drilling)

April 11, 1988 Day No. 3

TD: 3530' KB

Current operation: drilling.

Mud weight 8.9, viscosity 39, water loss 9. Continuing to drill with bit no. 3. Surveys run as follows: 2827' - 3/4 - S40E; 3331' - 1/2 - S15E. (Four Corners Drilling)

April 12, 1988 Day No. 4

TD: 3815' KB.

Current operation: drilling.

Mud weight 9.0 ppg, viscosity 40 sec., water loss 9cc. TOH with bit no. 3 at 3629' KB. TIH with 8-3/4" bit no. 4. Survey run as follows: 3629' - 1/2 - S13E. (Four Corners Drilling)

April 13, 1988 Day No. 5

TD: 4300' KB.

Current Operation: drilling.

Mud weight 8.9 ppg, viscosity 42 sec, water loss 8 cc. Continuing to drill with bit no. 4. Lost circulation at 4150' for 3 hours. 200 Bbls lost. Survey run as follows: 4172' - 3/4 - S7E. (Four Corners Drilling)

April 14, 1988 Day No. 6

TD: 4940' KB.

Current Operation: drilling.

Mud weight 8.8 ppg, viscosity 40 sec, water loss 8 cc. Continuing to drill with bit no. 4. Survey run as follows: 4675' - 1 - N50W. (Four Corners Drilling)

FEDERAL NO. 21-4

April 15, 1988 Day No. 7

TD: 5210' KB.

Current Operation: drilling.

Mud weight 8.8 ppg, viscosity 40 sec, water loss 8 cc. TOH with bit no. 4 at 4943'. TIH with 8-3/4" bit no. 5. Survey run as follows: 4931' - 1-1/2 - N82W. (Four Corners Drilling)

April 16, 1988 Day No. 8

TD: 5535' KB.

Current Operation: drilling.

Mud weight 8.8 ppg, viscosity 39 sec, water loss 10 cc. Survey run as follows: 5430' - 1. Continuing to drill with bit no. 5. (Four Corners Drilling)

April 17, 1988 Day No. 9

TD: 5859' KB.

Current Operation: drilling.

Mud weight 8.8 ppg, viscosity 45 sec, water loss 8 cc. Continuing to drill with bit no. 5. Lost 350 Bbls at 5,831'. (Four Corners Drilling)

April 18, 1988 Day No. 10

TD: 5912' KB.

Current Operation: laying down DST tools.

Mud weight 8.8 ppg, viscosity 60 sec, water loss 7.5 cc, LCM - 2%. Bit no. 5 out at 5912'. Survey run as follows: 5895' - 1. (Four Corners Drilling)

Top of Todilto @ 5891' KB, top of Entrada @ 5904' KB - 4' high to prognosis. Drilled 8' into Entrada to 5912' KB. Ran DST w/ packer set in Todilto. ISIP - 2170 psi. FFP - 241 psig. FSIP - 2166 psig. Recovered 12.7 Bbls total fluid, 69% oil, or 8.8 bbls, and 3.9 Bbls salt water. (TGM)

April 19, 1988 Day No. 11

TD: 6000' KB.

Current Operation: circulating.

Mud weight 9.0 ppg, viscosity 6.4 sec, water loss 8 cc. TIH with 8-3/4" bit no. 6. Drill to TD @ 6,000' KB. Circulate for logs. TOH w/ drill pipe. Rig up Welex. Ran induction guard, spectral density, and sandcal logs. TIH w/ drill pipe. Circulate to condition hole for casing. Preparing to lay down drill string at report time. (Four Corners Drilling)

April 20, 1988 Day No. 12

Circulate 11 pm to 6 am. Lay down drill pipe and collars 6:00-9:30 am. 7" csg. arrived @ 9:30 am. Unloaded, rabbitted, and tallied csg. Started running csg. @ 2 pm. Stopped @ 2900' KB. Pipe not displacing fluid, fluid at surface. Filled pipe and established circulation. Finished running csg. to 5960' KB. Mixed mud while filling csg. to circulate. Got circulation and continued to mix mud to build volume. Circulate casing to bottom @ 6000' KB. Laid down 1 jt. of csg. and rigged up Western to cement as follows: 9 pm, 4/19/88:

FEDERAL 21-4

April 20, 1988 Day No. 12 (continued)

1st Stage: Pumped 10 Bbls water ahead of 200 sx Class 'H' cement w/ 2% gel and 2 #/sk Hi-seal (LCM) 15.4 #/gal. 1.22 cu.ft./sk. Shut down. Wash pump and lines. Dropped plug and displaced with 30 Bbls water and 211 Bbls mud, 3 Bbls over calculated displacement. Plug did not bump. Shut down, bleed back. Float held good. Dropped bomb, let fall 25 min. Opened stage tool and let rig circulate. Lost all circulation 15 min. after started circulation. Shut down and mixed all remaining gel and built volume w/ 20% LCM. Water trucks pulled 3 loads of mud from reserve pit and put in rig pit. Regained circulation @ 2 am, 4/20/88. Rig up Western to cement @ 2:30 am getting returns.

Cement 2nd Stage as follows: Pump 10 Bbls water ahead of 375 sx Class 'B' cement w/ 2% chemical extender @ 12.5 #/gal 2.06 cu.ft./sk. Tried to switch to Class 'H' cement. Could not get Class 'H' out of bulk truck. 10 min. delay, switched back to Class 'B' and pumped 37 sx of 'B' w/ 2% chemical extender, 14 #/gal, 1.53 cu.ft./sk. Shut down. Wash pump and lines. Drop plug and displace w/ 208.5 Bbls. Bumped plug. Bled pressure off. Tool closed. 4 am dropped opening bomb. Wait 25 min., opened tool, let rig circulate between stages. Good circulation between stages.

9:30 am Western Cemented 3rd Stage as follows: Pump 10 Bbls water ahead of 215 sx Class 'B' cement w/ 2% chemical extender @ 2.06 cu.ft./sk, 12.5 #/gal. Tail in w/ 175 sx Class 'H' w/ 2% gel and 2#/sk Hi-seal (LCM), 15.4 #/gal, 1.22 cu.ft./sk. Shut down.

Wash pump and lines. Dropped plug and displaced w/ 122 Bbls water. Bled pressure off. Tool closed. Plug down @ 10:30 am, 4/20/88. Circulated 10 Bbls cement to surface. Rigged down Western Co. Set csg. in slips as cemented. Cut-off csg. Rigged down Four Corners Rig No. 14. Move off. SDON. (CCM)

Casing string description as run:

<u>ITEM</u>	<u>LENGTH</u>	<u>DEPTH 'KB</u>
Guideshoe - Baker	.50	5995.15
Shoe jt-1 jt 23 #/ft 7" csg	40.36	
Float collar - Baker	.96	5953.83
20 jts 23 #/ft 7" csg	806.94	
Stage tool - Baker	1.70	5145.19
52 jt 23 #/ft 7" csg	2096.73	
1 jt 20 #/ft 7" csg.	39.90	
Stage tool	1.70	3006.86
71 jts. 20 #/ft 7" csg	2930.10	
2 jts 23 #/ft 7" csg	<u>80.71</u>	
	5999.60	3.95' above KB.
Total - 75 jts. 23 #/ft 7" csg., new		3,024.74' threads off
Total - 72 jts. 20 #/ft 7" csg., new		<u>2,970.00'</u> threads off
Total pipe:		5,994.74 threads off

FEDERAL 21-4

April 21, 1988 Day No. 13
Waiting on completion. (CCM)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-1-135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR Merrion Oil & Gas Corp.	8. FARM OR LEASE NAME Federal 21
3. ADDRESS OF OPERATOR P. O. Box 840, Farmington, New Mexico 87499	9. WELL NO. 4
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 330' FSL and 2310' FWL	10. FIELD AND POOL OR WILDCAT Ojo Encino
14. PERMIT NO.	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 21, T20N, R5W
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6,785' GR	12. COUNTY OR PARISH McKinley
	13. STATE New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) Amend Surface Use Plan <input checked="" type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

In order to supplement drilling water for subject well, it is requested that Section 5.A. of the Surface Use and Operations Plan be amended to include the two following additional sources:

Produced water from -

1. Arena Blanca No. 1
2360' FSL and 1200' FEL
Sec. 36, T20N, R5W
McKinley County, New Mexico
Operator: Merrion Oil & Gas Corp.
2. Santa Fe Energy No. 1
330' FSL and 330' FEL
Sec. 8, T19N, R6W
McKinley County, New Mexico
Operator: Woosley Oil Co.

RECEIVED
BLM MAIL ROOM

88 APR -7 PM 1:06

FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

RECEIVED
APR 20 1988
OIL CON. DIV.
DIST. 3

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE Operations Manager

DATE 4/5/88

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD

APR 15 1988

*See Instructions on Reverse Side

NMOCC

FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO
BY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

NM 5980

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal 21

9. WELL NO.

4

10. FIELD AND POOL OR WILDCAT

Ojo Encino

11. SEC., T., S., M., OR BLK. AND
SURVEY OR AREA

Sec. 21, T20N, R5W

12. COUNTY OR PARISH

McKinley

13. STATE

New Mexico

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

APR 20 1988

1. OIL WELL ☒ GAS WELL ☐ OTHER

2. NAME OF OPERATOR

Merrion Oil & Gas Corp.

3. ADDRESS OF OPERATOR

P. O. Box 840, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below)
At surface

330' FSL and 2310' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6,785' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANE

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Spud Notice

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Spudded at 1:15 p.m. on 4/8/88.

9-5/8", 36 lb/ft J-55 surface casing set at 243' KB
and cemented with 75 sx Class B cement with 2% Ca Cl₂. (88.5 cu.ft.)
Top of cement at surface.

RECEIVED
BLM MAIL ROOM

88 APR 15 PM 12:15

FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

RECEIVED
APR 20 1988
OIL CON. DIV.
DIST. 2

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE Operations Manager

DATE

4/14/88

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

NMOCO

Title 18 U.S.C. Section 1001, makes 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.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM MAIL ROOM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corp.

3. ADDRESS OF OPERATOR

P. O. Box 840, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

330' FSL and 2310' FWL

At proposed prod. zone

same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

20 miles south of Counselors, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

330'

16. NO. OF ACRES IN LEASE

480

17. NO. OF ACRES ASSIGNED

TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

Approx. 2000'

19. PROPOSED DEPTH

6,000'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6,785' GR

22. APPROX. DATE WORK WILL START*

April, 1988

5. LEASE DESIGNATION AND SERIAL NO.

NM 5980

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal 21

9. WELL NO.

4

10. FIELD AND POOL, OR WILDCAT

Ojo Encino

11. SEC., T., R., M., OR BLK.

AND SURVEY OR AREA

Sec. 21, T20N, R5W

12. COUNTY OR PARISH

McKinley

13. STATE

New Mexico

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

PROPOSED CASING AND CEMENTING PROGRAM

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4.

SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	32 lb/ft	200 ft.	75 sx
8-3/4"	23 lb/ft	6000 ft.	600 sx

Will drill 12-1/4" hole to 200' and set 200' of 9-5/8", 32 lb/ft, J-55 casing with 75 sx (89 cu.ft.) Class 'B', 2% CaCl2. TOC at surface. Wait on cement 10 hours. Will pressure test to 600 psi for 30 minutes, prior to drillout. Drill 8-3/4" hole to 5,928' KB. Will run drillstem test of Entrada Interval. If Entrada appears productive, will drill to 6,000' KB. Run open hole logs. Will run 7", 23 lb/ft, J-55 casing to 6,000' and cement in two stages. First stage will pump 300 sx Class H 2% gel (366 cu.ft.) to cover from TD to above Gallup at 3,725', est. Will set stage tool at 2,950' est., and cement with 250 sx Class B 2% D-79 (515 cu.ft.) followed by 50 sx Class H (61 cu.ft.). Top of cement estimated at surface. Will perforate and stimulate as deemed necessary. Additional drilling program details included in attachment.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

[Signature]

TITLE

Operations Manager

DATE

January 8, 1988

(This space for Federal or State office use)

PERMIT NO.

"Approval of this action does

not constitute a finding of fact or a determination of

whether the proposed action is in the public interest or

whether the proposed action is in the public interest or

TITLE

RECEIVED
FEB 25 1988

APPROVED
AS AMENDED

FEB 19 1988

[Signature]
AREA MANAGER

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

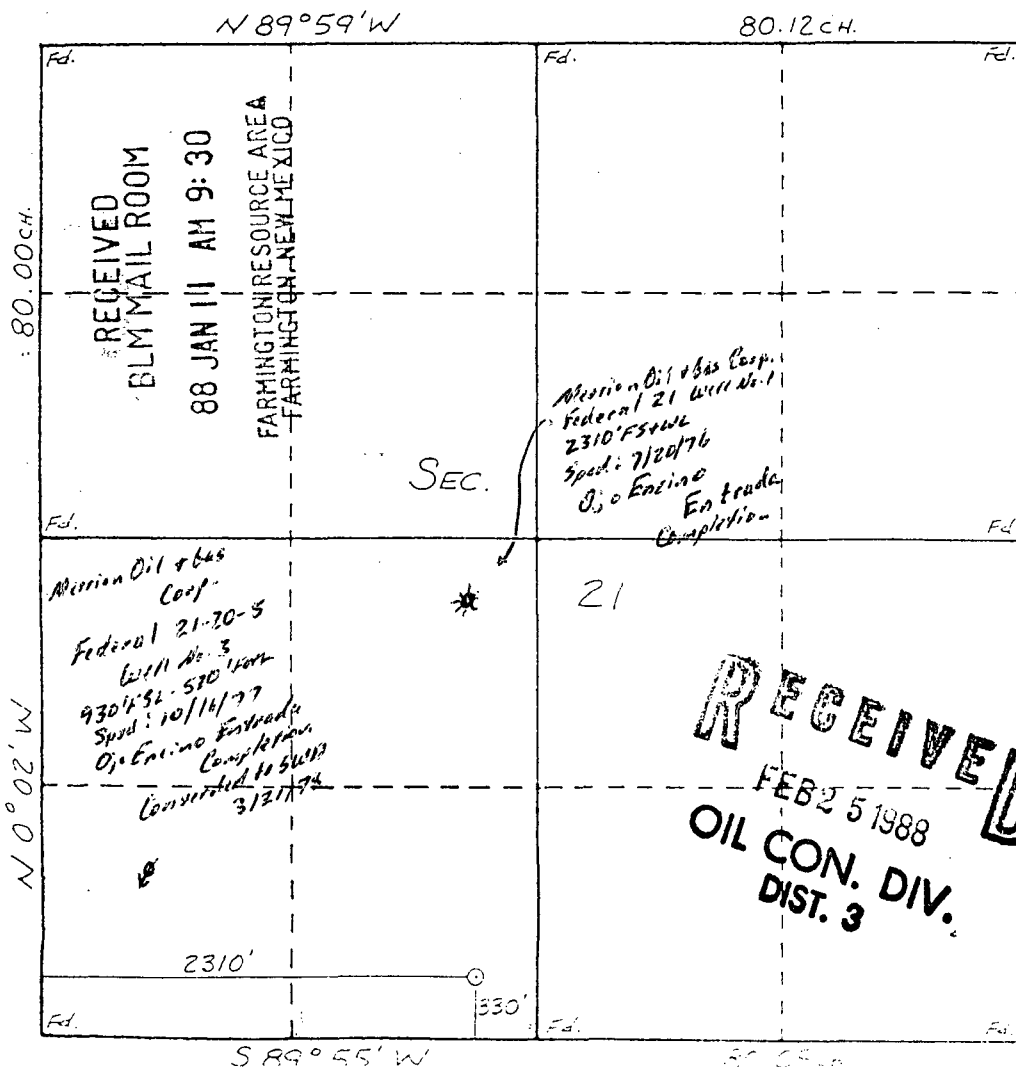
Operator MERRION OIL & GAS CORPORATION			Lease <i>Federal 21</i>		Well No. <i>4</i>
Unit Letter N	Section 21	Township 20 N	Range 5 W	County McKinley	
Actual Footage Location of Well: 330 feet from the South line and 2310 feet from the West line					
Ground Level Elev: 6785	Producing Formation Entrada	Pool Ojo Encino	Dedicated Acreage: 40 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☒ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Steven S. Dunn
Name
Operations Manager
Position
Merrion Oil & Gas Corp.
Company
January 8, 1988
Date

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 knowledge and belief.

William E. Hahnke
Date Surveyed
Registered Professional Engineer and Land Surveyor

Certificate No.