

Form 9-331
(May 1963)UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 12030

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Nassau

9. WELL NO.

8

10. FIELD AND POOL, OR WILDCAT

Undesignated - PC

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

Sec 36, T27N, R12W

12. COUNTY OR PARISH 13. STATE

San Juan

NM

1.

OIL ☐ GAS ☒
WELL WELL OTHER

2. NAME OF OPERATOR

Jerome P. McHugh

3. ADDRESS OF OPERATOR

Box 234, Farmington, NM 87401

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

1850' FNL - 1850' FWL

14. PERMIT NO.

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

5977' GR

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

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☐
☐
☐

PULL OR ALTER CASING

☐
☐
☐
☐

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF

WATER SHUT-OFF

☐
☐
☐
☐

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

Completion ☒(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.)*

(OVER)

RECEIVED

MAY 2 1977

GEOLOGICAL SURVEY

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

SIGNED

Thomas A. Dugan

TITLE

Petroleum Engineer

DATE

4-27-77

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

DAILY REPORT

4-13-77 FBTD 1478'. Moved in and rigged up Farmington Well Service swabbing unit. Blue Jet ran gamma-ray correlation and collar logs. Swabbed 2-7/8" csg down to 1100'. Perf w/l 2-1/8" glass jet/ft 1437-1442' (5 holes). Swabbed csg down (no indication of gas or fluid entry). Perf w/l 2-1/8" glass jet/ft 1374-1378' (4 holes). Well making est 25 MCFGPD after this perf run. Perf w/l 2-1/8" glass jet/ft 1360-1364' (4 holes). Gas increased to est 50 MCFGPD. Ran swab (no indication of fluid entry). Rigged down swabbing unit and moved off location.

SHUT-IN

4-21-77 Allied Services treated well w/250 gals 15% reg HCl acid. BD press 750 psi, broke back to 400 psi. Treated @ 1-1/2 BPM w/avg TP of 300 psi. Dropped 10 rubber balls (no ball action). Moved in Farmington Well Service swabbing unit and swabbed acid back.

4-22-77 Swabbed well down, fluid level 800'. Ran 44 jts 1-1/4" OD 2.4# V-55 10R EUE new tbg. TE 1440.66' set @ 1437' GR. Has cross pin on btm for swab stop. Well gassing while going in hole. Landed tbg and hooked up wellhead valves. Rigged up 1-1/4" swab and ran 3 times. Well kicked off, flowed to atmosphere 2 hrs, making est 100 MCFGPD. Shut well in. Rigged down Farmington Well Service swabbing unit.

SHUT-IN FOR INITIAL POTENTIAL TEST

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

| | | | | | | | | | |
|---|-------------|-------------------------|-------------------|--|--------------------|---|--|------------------------------|------|
| Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special | | | | | | Test Date 5-2-77 | | | |
| Company Jerome P. McHugh | | | | Connection | | | | | |
| Pool Undesignated Fruitland - PC | | | | Formation Fruitland - Pictured Cliffs | | | | Unit | |
| Completion Date 4-22-77 | | Total Depth 1512' | | Plug Back TD 1478' | | Elevation 5977' GR | | Form or Lease Name Nassau | |
| Csg. Size 2-7/8" | Wt. 6.5# | d | Set At 1505' | Perforations: From 1360' To 1442' | | Well No. 8 | | | |
| Tbg. Size 1-1/4" | Wt. 2.4# | d | Set At 1437' | Perforations: From Open End To | | Unit Sec. Twp. Rge. F 36 27N 12W | | | |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single - Gas | | | | | | Packer Set At | | County San Juan | |
| Producing Thru | | Reservoir Temp. °F @ | | Mean Annual Temp. °F | | Baro. Press. - P _a | | State New Mexico | |
| L | H | Gg .62 | % CO ₂ | % N ₂ | % H ₂ S | Prover | | Meter Run | Taps |

| FLOW DATA | | | | | | TUBING DATA | | CASING DATA | | Duration of Flow | |
|-----------|------------------|---|--------------|-----------------|----------------------|-------------|-----------------|-------------|-----------------|------------------|----------|
| NO. | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. h _w | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | | Temp. °F |
| 1. | | | | | | | 120 | | 310 | | 7 days |
| 2. | | | | | | | | | | | |
| 3. | 5/8" Pos Choke | | | | | 60° | 2 | | 75 | | 3 hrs |
| 4. | | | | | | | | | | | |
| 5. | | | | | | | | | | | |

| RATE OF FLOW CALCULATIONS | | | | | | | |
|---------------------------|-----------------------|------------------|-------------------------|-----------------------|-------------------------------|---|----------------------|
| NO. | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P _m | Flow Temp. Factor Ft. | Gravity Factor F _g | Super Compress. Factor, F _{pv} | Rate of Flow Q, Mcfd |
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | 8.5417 | | 14 | 1.000 | .9836 | 1.000 | 118 |
| 4. | | | | | | | |
| 5. | | | | | | | |

| | | | | | | |
|-----|----------------|----------|----------------|---|--|--|
| NO. | P _r | Temp. °R | T _r | Z | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl. | |
| 1. | | | | | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. | |
| 2. | | | | | Specific Gravity Separator Gas _____ X X X X X X X X | |
| 3. | | | | | Specific Gravity Flowing Fluid _____ X X X X X | |
| 4. | | | | | Critical Pressure _____ P.S.I.A. _____ P.S.I.A. | |
| 5. | | | | | Critical Temperature _____ R _____ R | |

| | | | |
|--------------------|-------------------------------------|----------------|-----------------------------|
| P _c 322 | P _c ² 103,684 | | |
| NO. | P _t ² | P _w | P _w ² |
| 1. | | | |
| 2. | | | |
| 3. | 87 | 7,569 | 96,115 |
| 4. | | | |
| 5. | | | |

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0787$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^{.85} = 1.0932$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 129$$

| | | | | |
|--------------------|-----|---------------|------------------|--------------|
| Absolute Open Flow | 129 | Mcfd @ 15.025 | Angle of Slope @ | Slope, n .85 |
|--------------------|-----|---------------|------------------|--------------|

Remarks:

| | | | |
|-------------------------|-------------------------------|---------------------------------|-------------|
| Approved By Commission: | Conducted By: Charles Hall | Calculated By: Jim L. Jacobs | Checked By: |
|-------------------------|-------------------------------|---------------------------------|-------------|

OIL CONSERVATION COMMISSION
Agua DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE

6-2-77

RE: Proposed MC

Proposed DHC ☒

Proposed NSL

Proposed SWD

Proposed WFX

Proposed PMX

Carl Hloog

Gentlemen:

I have examined the application dated

6-1-77

for the

Jerome L. McHugh
Operator

Lease and Well No.

Nassau #8

Unit, S-T-R

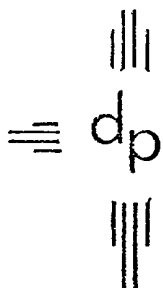
F-36-27N-8W 12W

and my recommendations are as follows:

Approve

Yours very truly,

AR Hendrick



dugan production corp.

June 1, 1977

Joe D. Ramey
Secretary-Director
New Mexico Oil Conservation Commission
Box 2088
Santa Fe, NM 87501

Dear Mr. Ramey:

Under the provisions of NMOCC Order R-5359 we are requesting administrative approval for downhole commingling of Fruitland and Pictured Cliffs production on the well listed below for the following reasons:

| Operator | Well Name and Number | Location |
|------------------|----------------------|----------------|
| Jerome P. McHugh | Nassau #8 | F 36-T27N-R12W |

1. The bottom-hole pressure is estimated to be
330 psig for the Fruitland formation, and
285 psig for the Pictured Cliffs formation.

2. Both zones will be marginal producers with
75 MCFGPD estimated for the Fruitland formation, and
35 MCFGPD estimated for the Pictured Cliffs formation.

We believe the granting of this request will permit the production of marginal reserves from both formations and not result in waste.

Sincerely,

Original signed by
Jim L. Jacobs
Jim L. Jacobs

cb

xc: NMOCC (Aztec)✓

