

Form 9-331  
(May 1963)

**UNITED STATES**  
**DEPARTMENT OF THE INTERIOR**  
**GEOLOGICAL SURVEY**

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 22046

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Hard Deal

9. WELL NO.

3

10. FIELD AND POOL, OR WILDCAT

NIPP - Pictured Cliffs

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

Sec 18, T26N, R12W

12. COUNTY OR PARISH 13. STATE

San Juan

NM

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

Dugan Production Corp.

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' FSL - 990' FEL

14. PERMIT NO.

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

6009' 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 ☒

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

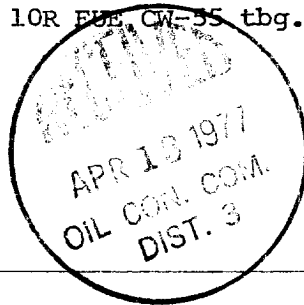
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to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

3-31-77

Rigged up Farmington Well Service swabbing unit. Go Wireline Services ran gamma-ray correlation and collar logs. PBTD 1224'. Swabbed csg down to 800'. Perf w/one 2-1/8" glass jet/ft 1140-44' and 1136-39' (7 holes). Well kicked some wtr out of hole while coming out of hole with perf gun. Made one swab run and well unloaded making est 150-200 MCF/GPD. Perf w/one 2-1/8" glass jet/ft 1124-1130' (6 holes). Gas flow increased to 500 MCF/GPD estimated. Shut well in and rigged down swabbing unit.

4-1-77

Moved in and rigged up Farmington Well Service swabbing unit. Ran 36 jts 1-1/4" OD 24# 10R EUE CW-55 tbg. TE 1144.10' set @ 1142' GR.



RECEIVED

APR 12 1977

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

SIGNED

  
Thomas A. Dugan

TITLE Petroleum Engineer

U. S. GEOLOGICAL SURVEY

DATE

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLForm C-122  
Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special					Test Date 4-9-77			
Company Dugan Production Corp.				Connection				
Pool NIPP - Pictured Cliffs				Formation Pictured Cliffs				Unit
Completion Date 4-1-77		Total Depth 1270'		Plug Back TD 1224'		Elevation 6009'		Farm or Lease Name Hard Deal
Csg. Size 2-7/8"	Wt. 6.5#	d	Set At 1266'	Perforations: From 1124' To 1144'			Well No. 3	
Tbg. Size 1-1/4"	Wt. 2.4#	d	Set At 1142'	Perforations: From Open Ended To			Unit    Sec.    Twp.    Rge. I    18    26N    12W	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single - Gas					Packer Set At		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F @		Mean Annual Temp. °F		Baro. Press. - P <sub>a</sub>		State New Mexico
L	H	G <sub>g</sub> .62	% CO <sub>2</sub>	% N <sub>2</sub>	% H <sub>2</sub> 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 <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							222		222		8 days
1.											
2.											
3.	5/8" Pos Choke						23	63°	65		3 hrs
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1							
2							
3	8.5417		35	.9971	.9837	1.000	293
4							
5							

NO.	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	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 <sub>c</sub> 234	P <sub>c</sub> <sup>2</sup> 54,756	
NO.	P <sub>c</sub> <sup>2</sup>	P <sub>w</sub>
1		
2		
3	77	5929
4		
5		

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1213$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 323$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^{n \cdot 85} = 1.1022$

Absolute Open Flow	323	Mcf/d @ 15.025	Angle of Slope $\theta$	Slope, n .85
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Remarks:

Approved By Commission:	Conducted By: Charles Hall	Calculated By: Charles Hall	Checked By:
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