5 USGS, Fmn 1 McHugh 1 File

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR
Jerome P. McHugh

3. ADDRESS OF OPERATOR
P O Box 208, Farmington, NM 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 705' FNL - 790' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
NM 23026

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal

9. WELL NO.
11

10. FIELD OR WILDCAT NAME
Gavilan PC - So. Blanco Ext.

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 18 T24N R1W

12. COUNTY OR PARISH
Rio Arriba

13. STATE
NM

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
7437' GL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other)			XX

RECEIVED
JUN 24 1983
U.S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

Instructions

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.)*

See reverse for report of test conducted 6-10-83 and witnessed by Marko Keeman and Mark Kelly.

RECEIVED
JUN 29 1983
OIL CON. DIV.
DIST. 3

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Thomas A. Dugan TITLE Agent DATE 6-23-83

(This space for Federal or State office use)

ACCEPTED FOR RECORD

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

JUN 28 1983

NMOCC

FARMINGTON

BY

*See Instructions on Reverse Side

Jerome P. McHugh
Federal #11

SITP 538 psi SICP 600 psi

11:00 a.m. Opened tubing on 7/16" choke; blew 2 min. and died.

11:15 a.m. Dropped soap sticks down tubing.

11:30 a.m. Dropped soap stick down tubing.

11:45 a.m. Dropped soap sticks down tubing.

12:00 noon Tubing unloaded soapy water.

12:15 p.m. Unloading gas and heavy spray of water

12:20 p.m. Tubing died. Tubing might be partially plugged. Decided to flow well on casing.

12:30 p.m. Casing pressure increased to 640 psi.

12:34 p.m. Opened well on casing through 7/16" choke.

1:04 p.m. Tubing zero, choke pressure 150 psi, flow rate 675 MCF

1:34 p.m. Tubing zero, choke pressure 150 psi, flow rate 675 MCF

1:44 p.m. Tubing zero, choke pressure 110 psi, flow rate 506 MCF

Spray of water throughout test on casing.

See attached copy of back pressure test.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

NOT FILED W/ NMOCD
1 McHugh 1 File 1 BLM

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
JUN 29 1983
OIL CON. DIV.
DIST. 3

Type Test: ☐ Initial ☐ Annual ☒ Special				Test Date: 6-10-83	
Company: Jerome P. McHugh			Connection:		Unit:
Pool: Gavilan			Formation: Pictured Cliffs		
Completion Date: 12-3-81	Total Depth: 3620'		Plug Back TD: 3605'	Elevation: 7437'	Farm or Lease Name: Federal
Csg. Size: 4½" / Wt.: 10.5# / d: 4.052 / Set At: 3620'			Perforations: From 3481 To 3498		Well No.: 11
Tbg. Size: 1¼" / Wt.: 2,4# / d: 1.380 / Set At: 3480'			Perforations: From open ended		Unit: D / Sec.: 18 / Twp.: 24N / Rge.: 1W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single - gas			Packer Set At: None		County: Rio Arriba
Producing Thru: casing	Reservoir Temp. °F:	Mean Annual Temp. °F:	Baro. Press. – P_a:		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		0.62 est.						

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							538		600		
1.							0		640--after flow		on tbg.
2.	7/16						0		110	60	1 hr. 10 min.
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1							
2.	4.1712		122	1.000	.9837	1.011	506
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_f	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 612 P_c^2 374,544

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1				
2	14,884	122.2	14,922	359,622
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0415$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{n} = \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{.85} = 1.0352$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{n} = 524$

Absolute Open Flow 524 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .85

Remarks: flow on casing - spray water

Approved By Division	Conducted By:	Calculated By:	Checked By: