

# DRILLING & COMPLETION HISTORY

## CONSOLIDATED OIL & GAS, INC.

FARMAR NO. 1-24

San Juan County, New Mexico

April 24, 1962

Location: 1690' F/SL & 1080' F/EL  
Section 24-T26N-R8W, NMPM

Elevations: 6950' GL  
6962' KB-all measurements from KB

Spud: March 20, 1962

Drilling Completed: March 25, 1962  
Well Completed: March 31, 1962

Total Depth: 2969' Drilled  
2915' Plug Back

Casing:

    Surface: 8 5/8" 28# H-40 cemented at 190' with  
            150 sx. regular 2%  $\text{CaCl}_2$

    Production: 4 1/2" 16.6# drill pipe cemented at 2960'  
                with 226 sx. regular 4% gel

    Tubing: 1" V-50 set at 2792'

Logs: Lane Wells Gamma Ray Neutron

Cores & Drillstem Tests: None

Formation Tops: Log      Pictured Cliffs      2730'      (+ 4232)

Producing Perforations: 2736' - 2850'

Treatment: Sand water frac with 100,000# 20-40  
            sand and 99,000 gal. water

Initial Potential: Flow volume thru 3/4" choke: 1700 MCFD  
                    Calculated Absolute Open Flow Potential:  
                    2610 MCFD

WELL: FARMAR NO. 1-24  
1690 F/SL & 1080' F/EL, Sec. 24-T26N-R8W  
FIELD: Ballard Pictured Cliffs  
COUNTY: San Juan STATE: New Mexico  
ELEVATIONS: 6950' GL  
6962' KB

3/20/62

Rigging up rotary rig.

3/21/62

Drilled 190' of 13 3/4" hole. Ran 6 joints 8 5/8" surface pipe, set at 190' KB. Cemented with 150 sx. regular 2% CaCl<sub>2</sub>. Plug down at 12:30 a.m. 3/21. Good returns throughout cement job. WOC.

3/22/62

Drilling at 1010'. Drilled 820' of sand and shale. Bit No. 2 in hole. Drilling with water. Dev. 1/2° at 600'.

3/23/62

TD 2383'. Drilled 1383' sand and shale. Making trip for Bit No. 4. Dev. 1° at 1240', 1/4° at 2300'.

3/24/62

Depth 2903'. Making trip for Bit No. 4. Drilled 620' of sand and shale. Drilling with water.

3/25/62

Drilled to TD of 2969'. Lay drill pipe down. Ran 109 joints 4 1/2" 16.6 drill pipe total of 2961.62', less 1' above KB. Pipe set at 2960.62' KB. Cemented with 226 sacks regular 4% gel. Good circulation throughout job. Plug down at 4 p.m. 3/24/62. Bumped plug with 1400# releasee rig at 5p.m. 3/24/62.

3/26/62

Ran Gamma Ray Neutron log (deep enough).

3/26/62

Had planned to complete today but could not get small rig.

WELL:

FARMAR NO. 1-24

3/31/62

Perforated Lane Wells 2850'-2736' 2 per foot super dyna jets.

Fraced by Halliburton 2 HT-400 pressured to 4000#, could not break-down. Ran 2" tubing, spotted 500 gal. 15% mud acid on bottom. Pulled 2" tubing. Rigged up Halliburton acid truck. First stage acid - 250 gal. Breakdown 3000# to 600#, pumped in at 3/4 BPM, final pressure 300#, second stage acid - 125 gal. Pumped in at 3/4 BPM at 550# final pressure 300#. Wait 20 minutes. Third stage acid - 125 gal. pumped in at 3/4 BPM at 560#. Final pressure 300#. Rigged up Halliburton to frac.

Breakdown all pumps	2350#	Breakdown and fill	2,200 gal.
Over treatment pressure	2200#	Treatment fluid	99,000 gal.
Maximum pressure	2475#	Over flush	420 gal.
Minimum pressure	1900#	Lbs. of sand 20-40	100,000 lbs.
Instant shut-in	600#	Injection rate	32 BPM
Final treatment	2475#	Rubber balls	80
Five minute shut-in	550#	Job Complete	4 a.m. 3/31/62

The above treatment used 2# FR-2 gell per 1,000 gal. water. Well flowed back 3 hours after treatment. Rigged up sand pump. P.O. sand pumping.

Cleaned out sand to 2917'. Attempted to run swab 80' low as could get with swab. Ran 2" tubing to 2700'.

Well started flowing through 2" tubing. Well making quite a bit of gas, no gauge.

4/1/62

Pulled 2" tubing lay same down. Ran in with sand pump, top of sand at 2840'. Cleaned out sand to 2850', hung sand pump up, stuck at 2700' for 5 hours. Ran knife blind, knocked pump loose, recovered a piece of iron from hole on top of sand pump. Shut rig down due to fire hazard from light bulbs. Started cleaning out sand again this a.m., will run 1" tubing today and gauge well.

4/2/62

Ran 85 joints of 1" tubing set at 2792.49' KB. Jet collars at 2529' KB and 2037' KB. Well gauged 1600 MCFD with no sign of water, shut-in for test.

4/5/62

Shut-in for test.

WELL:

FARMAR NO. 1-24

4/12/62

Well tested 1760 MCFD, through casing, test data will follow,  
completely dry.

# OPEN FLOW TEST DATA

DATE April 11, 1962

Operator <b>Consolidated Oil &amp; Gas, Inc.</b>		Lease <b>Farmar No. 1-24</b>	
Location <b>1690' F/SL, 1080' F/EL, Sec. 24-T26N-R8W</b>		County <b>San Juan</b>	State <b>New Mexico</b>
Formation <b>Pictured Cliffs</b>		Pool <b>Ballard</b>	
Casing: Diameter <b>4 1/2</b>	Set At: Feet <b>2969</b>	Tubing: Diameter <b>1"</b>	Set At: Feet <b>2792</b>
Pay Zone: From <b>2736</b>	To <b>2850</b>	Total Depth: <b>PB 2917</b>	
Stimulation Method <b>Sand water frac</b>		Flow Through Casing <b>X</b>	Flow Through Tubing

Choke Size, Inches <b>0.750</b>		Choke Constant: C <b>14.1605</b>			
Shut-In Pressure, Casing, PSIG <b>592</b>	+ 12 = PSIA <b>604</b>	Days Shut-In <b>7</b>	Shut-In Pressure, Tubing PSIG <b>592</b>	+ 12 = PSIA <b>604</b>	
Flowing Pressure: P PSIG <b>114</b>	+ 12 = PSIA <b>126</b>		Working Pressure: P <sub>w</sub> PSIG <b>114</b>	+ 12 = PSIA <b>126</b>	
Temperature: T °F <b>47</b>	n = <b>.75</b>		F <sub>pv</sub> (From Tables) <b>1.017</b>	Gravity <b>.70</b>	

$$\text{CHOKE VOLUME} = Q = C \times P_r \times F_r \times F_g \times F_{pv}$$

$$Q = 14.1605 \times 126 \times 1.0127 \times .9258 \times 1.017 = \underline{1700} \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left( \frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = \left( \frac{365,000}{206,000} \right)^n =$$

$$Aof = \underline{2610} \text{ MCF/D}$$

TESTED BY Clyde Phillips

WITNESSED BY \_\_\_\_\_

*George S. F...*