

DRILLING & COMPLETION HISTORY
Consolidated Oil & Gas, Inc.
Lowe No. 3-26
Rio Arriba County, New Mexico
March 16, 1964

LOCATION: 990' FNL, 990' FEL, Section 26
T26N-R4W, N. M. P. M.

ELEVATIONS: 6929' GL
6934' KB

SPUD: January 24, 1964

DRILLING COMPLETED: January 29, 1964
WELL COMPLETED: March 4, 1964

TOTAL DEPTH: 3703' Drilled
3667' PBTB

CASING - Surface 8 5/8" 32# set at 165' KB, cemented
with 100 sx. regular, 2% CaCl₂

Production 5 1/2" 15.5# casing set at 3703' KB
with 135 sx. 50/50 Pozmix, 4% gel,
followed by 40 sx. regular

TUBING: 1" regular set at 3519' KB

LOGS: Jet Tech Services Radioactivity

CORES & DRILLSTEM TESTS: None

FORMATION TOPS: (Log) Pictured Cliffs 3502' (+3432')

PRODUCING PERFORATIONS: 3540' - 3554'
3560' - 3576'
3606' - 3611'

TREATMENT: Sand water frac with 75,000# sand and
57,960 gal. water.

INITIAL POTENTIAL: Flow volume thru 3/4" choke: 6429 MCFD
Calculated Absolute Open Flow Potential;
8190 MCFD

WELL: LOWE NO. 3-26
990' FNL, 990' FEL, Sec. 26-T26N-R4W

FIELD: Tapicito Pictured Cliffs

COUNTY: Rio Arriba STATE: New Mexico

ELEVATIONS: 6929' GL
6934' KB

1/24/64

Have rat hole and mouse hold drilled, in preparation to spud surface hole.

1/25/64

Spudded in at 9 a.m. Drilled 175' 12 1/4" surface hole. Ran six joints 8 5/8" 32# casing set at 165' KB. Cemented with 100 sx. regular with 2% CaCl₂. Present operation, drilling with Bit 1 at 712'. Dev. 1/4° at 130', 1/2° at 515'.

1/26/64

Depth 2312'. Drilled 1600' sand and shale. Present operation, drilling with Bit 2. Mud 8.4. Vis. 32. Dev. 1/2° at 1050', 3/4° at 1750'.

1/27/64

Depth 2920'. Drilling with Bit 4. Mud 9.0. Vis. 40. Water loss 10.

1/28/64

Depth 3504'. Drilled 584' of sand and shale. Present operation, drilling with Bit 5. Mud 9. Vis. 43. Water loss 10. Dev. 3/4° at 3360'.

1/29/64

TD 3700'. Drilled 196' of sand and shale. Mud 9.1. Vis. 68. Water loss 10. Laid down drill pipe. Present operation, running 5 1/2" 15.5# casing, 35 joints off bottom.

1/30/64

Ran 118 joints 5 1/2" 15.5# casing set at 3703' KB, float collar at 3671' KB. Cemented with 135 sx. 50/50 Pozmix 4% gel. Tailed in with 40 sx. regular. Pretreated 125 bbls. mud with 12.5 gal. Bacteriacide and 7 gal. Hydrazine. Good returns on cement job. Plug down 10:15 a.m. 1/29.

WELL:

LOWE NO. 3-26

2-25-64

Ran Gamma Ray Neutron logs.

2/27/64

Rigged up Jet Tech, perforated two per foot 3540'-3554', 3560'-3576', 3606'-3611'. Waiting on completion rig.

2/29/64

Hooked up Dowell. Well broke at 2800#. Waiting on completion rig.

3/2/64

Moved in completion rig. Nippled up. Shut down at dark, this a.m. preparing to frac.

3/3/64

Hooked up Western Company, perforated 3540'-3554', 3560'-3576', 3606'-3611', treated with 75,000# sand. Average treating pressure 1200#, average injection rate 68 BPM, 55 balls in three stages. Job complete at 10:40 a.m. 3/2/64. Started blowing down, blew down to 1700'. Well unloaded, ran tubing to 3300', left blowing over night. Gauged 1200 MCFD this a.m. Preparing to land tubing.

Five pumps	1100#	Initial injection rate	70 BPM
Initial treating pressure	1000#	Max. injection rate	75 BPM
Max. treating pressure	1700#	Min. injection rate	60 BPM
Min. treating pressure	950#	Final injection rate	75 BPM
Final treating pressure	1500#	Avg. injection rate	68 BPM
Avg. treating pressure	1200#	Sand	75,000# 20-40
Instant shut in pres.	400#	Additives	450# J-2
Ten min. shut in pres.	250#	Balls	55 in 3 stages
Hydraulic HP	2000	Total fluid	57,960 gal.
Job complete 10:40 a.m.		Avg. sand density	1.5 lb/gal.

3/4/64

Ran 106 joints of 1" regular tubing (3511.86') set at 3518.86' KB. Gauged well 1200 MCFD, 610 casing pressure. Shut in for test.

OPEN FLOW TEST DATA

DATE March 11, 1964

Operator Consolidated Oil & Gas, Inc.		Lease Lowé No. 3-26	
Location 990'FNL, 990'FEL, Sec. 26, T26N, R4W		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Tapacito	
Casing: Diameter 5-1/2"	Set At: Feet 3703	Tubing: Diameter 1"	Set At: Feet 3519
Pay Zone: From 3540	To 3611	Total Depth: 3705	
Stimulation Method Sand Water Frac		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches 0.75	Choke Constant: C 14.1605			
Shut-In Pressure, Casing, PSIG 892	+ 12 = PSIA 904	Days Shut-In 7	Shut-In Pressure, Tubing PSIG 892	+ 12 = PSIA 904
Flowing Pressure: P PSIG 440	+ 12 = PSIA 452		Working Pressure: P _w PSIG 440	+ 12 = PSIA 452
Temperature: T °F 42	n = 0.85		F _{pv} (From Tables) 1.066	Gravity 0.70 (est.)

CHOKE VOLUME = Q = C × P_i × F_t × F_g × F_{pv}

Q = 14.1605 × 452 × 1.0178 × .9258 × 1.066 = 6429 MCF/D

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

Aof = $\left(\frac{904^2}{904^2 - 452^2} \right)^n = 1.33^{.85} = 1.274$

Aof = 8190 MCF/D

TESTED BY Johnny Walker

WITNESSED BY Clyde Phillips

W. H. Williams
W. H. Williams, Chief Engineer