

# DRILLING & COMPLETION HISTORY

CONSOLIDATED OIL & GAS, INC.

CHAMPLIN NO. 7-25

Rio Arriba County, New Mexico

October 25, 1963

RECEIVED

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WILLIAM SULLIVAN  
MANAGER

Location: 1650' FNL; 990' FEL, Section 25, T27N, R4W, NMPM

Elevations: 7209' GL; 7221' KB - All measurements from KB

Spud: August 16, 1963

Drilling Completed: September 1, 1963

Well Completed: September 26, 1963

Total Depth: 6383'; PBD 6347'

Casing:

Surface: 12-3/4" set at 303' with 275 sx regular cement, with 2% CaCl<sub>2</sub>.

Intermediate: 8-5/8" 32# set at 4345', cemented with 134 sx 50/50 Pozmix 4% gel and 90 sx regular cement with 2% CaCl<sub>2</sub>.

Liner: 4-1/2" 9.5 and 11.6# set at 6380' KB (top of liner at 4147' KB) with 463 sx 50-50 Pozmix, 4% gel.

Tubing: 1-1/2" EUE 10 RD landed in Model "D" packer at 6100' KB. 1" EUE landed at 4013' KB.

Logs: Lane-Wells Gamma-Ray/Neutron

Cores & Drillstem Tests: None

Formation Tops (Log):

Pictured Cliffs	4004' (#3217')
Cliffhouse	5770' (#1451')
Point Lookout	6144' (#1077')

Producing Perforations:

	<u>Pictured Cliffs</u>	<u>Mesaverde</u>
	4022-4040'	6156-6200'
	4048-4070'	6230-6240'
	4082-4090'	6248-6254'
		6262-6272'
		6286-6294'

Treatment: (PC) Sand-water frac'd with 100,000# and 74,880 gals.

(MV) Sand-water frac'd with 100,000#, and 71,000 gals.

Drilling & Completion History (Champlin #7-25) - contd.

Initial Potential: (PC) Flow volume thru 3/4" choke - 1,647 MCFD  
CAOF - 4,990 MCFD  
(MV) Flow volume thru 3/4" choke - 4,417 MCFD

WELL: CHAMPLIN NO. 7-25  
 1650' F/NL & 990' F/EL, Section 25, T27N-R4W  
 FIELD: Blanco Mesaverde, Tapicito Pictured Cliffs  
 COUNTY: Rio Arriba STATE: New Mexico  
 ELEVATIONS: 7209' GL  
 7221' KB

8/8/63

Building location.

8/16/63

Rigging up rotary rig.

8/17/63

Depth 303' with 12 1/4" hole. Preparing to ream out to 17". Spudded in at 8 p.m. 8/16/63.

8/18/63

Present operation - WOC. Nipping up. Drilled 303' 17" hole. Ran 9 joints 12 3/4" pipe, set at 303' KB. Cemented with 275 sx regular cement 2% CaCl<sub>2</sub>. Plug down at 1 a.m. good returns. Dev. 1/4" at 285'.

8/19/63

Depth 1047'. Drilled 744' sand and shale. Drilling with Bit 1. Mud weight 8.8, vis. 42, water loss 9.0. 3/4" dev. at 739'.

8/20/63

Depth 1832'. Drilled 785' sand and shale. Present operation - tripping for Bit 3. Mud weight 9.1, vis. 37, water loss 10. 3/4" dev. at 1300' and 3/4" at 1734'.

8/21/63

Depth 2500'. Drilled 668' sand and shale. Present operation - drilling with Bit 4. Mud weight 8.9, vis. 40, water loss 9.4. 1" dev. at 2200'.

8/22/63

Depth 2905'. Drilled 405' sand and shale. Drilling with Bit 6. Mud weight 9.3, vis. 38, water loss 9.8. Dev. 1 1/4" at 2739'.

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WELL: CHAMPLIN NO. 7-25

8/23/63

Depth 3265'. Drilled 332' sand and shale. Drilling with Bit 6. Mud weight 9.2, vis. 42, water loss 9.8. Dev. 1 1/2" at 3050'.

8/24/63

Depth 3515'. Drilled 246' sand and shale. Present operation - drilling with Bit 7. Dev. 1 1/2" at 3335'. Mud weight 9, vis. 40, water loss 9.2. Intermediate depth will be 4260'.

8/25/63

Depth 3765'. Drilled 250' sand and shale. Present operation - drilling with Bit 8. Mud weight 9.5, vis. 45, water loss 8.2.

8/26/63

Depth 4031'. Drilled 265' sand and shale. Present operation - tripping for Bit 10. Mud weight 9.1, vis. 40, water loss 11. Dev. 1 1/4" at 3782'.

8/27/63

Depth 4335'. Drilled 307' sand and shale. Present operation - short trip to run logs. Mud weight 9.0, vis. 85, water loss 11.8. Dev. 1 1/2" at 4187'. Lost circulation - 50 bbls at 4025, 50 bbls at 4040'.

8/28/63

Conditioned hole, came out of hole - ran casing. Ran 146 joints 8 5/8" casing 32# - total 4354.52', less above KB. 9.52'. Casing set at 4345' KB, float collar set at 4328' KB. Cemented with 134 sx 50/50 Pozmix, 4% gel, tailed in with 90 sx regular, 2% CaCl<sub>2</sub>. Job complete at 4:10 p.m. 8-27-63. Plug did not bump. Good circulation throughout job. Nipped up, WOC. Present operation - preparing to blow down.

8/29/63

Pressured up on 8 5/8" casing to 1600#. Held for 30 minutes. Blew down and drilled float collar at 4328'. Drilling good, firm cement and shoe joint. Drilled out from under shoe. Well started dusting. Depth 4710'. Drilled 355', drilling with Bit 11.

8/30/63

Depth 5550'. Drilled 840' sand and shale. Drilling with Bit 12. 2" dev. at 4787'. 2" at 5350'.

WELL: CHAMPLIN NO. 7-25

8/31/63

Depth 6130'. Drilled 580' sand and shale. Present operation - drilling with Bit 13. 2" dev. at 5982'.

9/1/63

TD 6383. Drilled 253'. Came out of hole, ran logs. Rigged up, ran liner. Ran 69 joints 4 1/2" casing, total 2230' set at 6380' KB. Float collar set at 6347' KB. Top of 4 1/2" liner at 4146.50' KB. Cemented with 463 sx 50-50 Pozmix, 4% gel. Plug down at 2:40 a.m. 9/1/63. Bumped plug with 1000#. Present operation - laying down drill pipe.

9/2/63

Rotary still over hole. Will move as soon as Huron has trucks available. Will move a few loads today.

9/3/63

Moving out rotary.

9/4/63

Waiting on completion rig.

9/9/63

Waiting on completion rig.

9/17/63

Will move in completion rig today.

9/18/63

Moved in completion rig. Rigged up and nipped up, picked up 2 3/8" tubing and a 7 7/8" bit, went in to top of cement - 3096'. Loaded hole and started drilling cement at 1 a.m. 9-18-63. Top of cement 960' above top of liner. Present operation - drilling cement at 3248'. Drilled 152' of cement. Lack 898' being to top of liner.

9/19/63

Have Mesaverde perforated and frac'd with 100,000# sand. Set plug, perforated Pictured Cliffs. Present operation - rigging up to frac Pictured Cliffs.

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9/19/63

Drilled cement from 3096' to 3106' (10') fell thru. Went on to top of liner with 7 7/8" bit (4146'). Pressured up with rig pump to 1500#, held okay. Came out of hole - put 3 3/4" bit on. Went into liner 100'. Hooked up Halliburton, pressured up to 3000#. Held okay. Went on to 6147', hit cement. Drilled firm cement to float collar (6347'). Rigged up Lane Wells, ran correlation log over Mesaverde. Perforated 2 per foot: 6286-6294; 6262-6272; 6248-6254; 6230-6240; 6156-6200. 164 holes.

Rigged up Halliburton (5 pumps)

## MESAVERDE

Break down - vac		Break down and fill	3,500 gals
All pumps on	1,400#	Treating fluid	71,000 gals
Max. treating pressure	3,000#	Over flush	500 gals
Min. treating pressure	1,400#	lbs. of sand - 100,000#	20-40
Avg. treating pressure	1,537#	Injection rate	59 BPM
Final treating pressure	2,400#	Rubber balls	75
Instant shut in pressure	0#(vac)		
5 min shut in pressure	0#(vac)	Frac complete at 3:52 a.m.,	9-19-63

Rigged up Lane Wells. Set Baker magnesium bridge plug @ 4256' KB. Perforated Pictured Cliffs 2 per foot: 4092-4082; 4070-4048; 4040-4022.

Rigged up Halliburton (5 pumps)

## PICTURED CLIFFS

Break down 1,300# to 700#		Break down and fill	5,040 gals
All pumps on	1,300#	Treating fluid	74,880 gals
Max. treating pressure	1,700#	Over flush	None
Min. treating pressure	1,200#	lbs. of sand - 100,000#	20-40
Avg. treating pressure	1,256#	Injection rate	70 BPM
Final treating pressure	1,700#	Rubber balls	50
Instant shut in pressure	625#		
5 min shut in pressure	600#	Frac complete @ 7:18 a.m.,	9-19-63

9/20/63

Blew Pictured Cliffs to top of liner. Well still making some sand and water. Gauged well at this time. Well gauged 2 million. Washed 130' of sand to bridge plug at 4256'. Drilled top off plug. Mesaverde came in. Unloaded lots sand and water. After blowing and cleaning well for 4 hours, estimated flow from Mesaverde - 7 million. Present operation - drilling on plug at 4268'

## OPEN FLOW TEST DATA

WELL:

CHAMPLIN NO. 7-25

9/21/63

Finished drilling plug and cleaned to TD. Blew and cleaned well for 4 hours. Well gauged 7 million. Rigged up and laid down completion string. Rigged up Lane Wells, set Model "D" packer @ 6100' KB. Present operation - running 1 1/2" tubing.

9/22/63

Finished running 1 1/2" tubing. Ran 187' 1 1/2" EUE 10 RD tubing, 6092.39' plus 10' KB. Mesaverde tubing landed @ 6100' KB. Ran 122 joints 1" EUE tubing 4002.74' plus 10' KB. Pictured Cliffs tubing landed @ 4012.74' KB. 1 jet collar @ 3258.81', 1 jet collar @ 3749.95' KB. Nipped up well head, rigged up and pumped out plug in Mesaverde tubing. Shut rig down, will move rig to Williams No. 1-24 if weather permits.

9/23/63

Checked pressure on Pictured Cliffs and Mesaverde. Mesaverde: 1043, Pictured Cliffs: 1002. Opened Mesaverde to check for leak. Pictured Cliffs pressure dropped 90# in 30 minutes. Something is leaking - will set tubing choke, rig up and pull tubing to check for leaks.

9/24/63

Raised derrick on rig, rigged up to pull tubing. Ran B & R tubing choke to 4100'. Got choke stuck at this depth. Had to get jars out of Farmington. Went in with jars, jarred choke loose. Leak is above this depth. Started setting choke to find leak. Pinpointed leak, leak is between 4000' and 4100'. Shut down due to darkness. Will start rig again this a.m. to pull tubing.

9/25/63

Pulled 1" tubing. Latched onto 1 1/2" tubing and worked five hours to pull 1 1/2" tubing free. Found one hole in 1 1/2" tubing string. Baker seal assembly was cut from pulling through sand. Redressed seal assembly. Shut down for night.

9/26/63

Reran 1" and 1 1/2" tubing to original tubing depth. Rigged down. Checked pressure this a.m. MV - 855. PC - 710/712

9/27/63

Well shut in for tests.

DATE October 3, 1963

Operator Consolidated Oil & Gas, Inc.		Lease Champlin No. 7-25	
Location 1650' FNL, 990' FEL, Sec 25, T27N-R4W		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Tapicito	
Casing Diameter 8 5/8"	Set At Feet 4345'	Tubing Diameter 1" EUE	Set At Feet 4012.7'
Pay Zone: From 4022'	To 4092'	Total Depth 6383'	
Stimulation Method Sand-water frac		Flow Through Casing	Flow Through Tubing X

Choke Size, inches 0.75		Choke Constant: C 14.1605	
Shut-in Pressure, Casing, PSIG 1026	+ 12 = PSIA 1038	Days Shut-in 7	Shut-in Pressure, Tubing, PSIG 1026
Flowing Pressure: P 110	+ 12 = PSIA 122	Working Pressure: P <sub>w</sub> 874	+ 12 = PSIA 886
Temperature: T 47	n = 0.85	F <sub>pv</sub> (From Tables) 1.017	Gravity 0.70 (est.)

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

$$Q = 14.1605 \times 122 \times 1.0127 \times .9258 \times 1.017 = 1.647 \text{ MCF/D}$$

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

$$Aof = \left( \frac{1038^2}{1038^2 - 886^2} \right)^n = \frac{1,077,444}{(1,077,444 - 784,996)} = 3.684 \times 0.85 = 3.03$$

$$Aof = 4,990 \text{ MCF/D}$$

TESTED BY Clyde Phillips

WITNESSED BY

*W. H. Williams*  
W. H. Williams

WELL:

CHAMPLIN NO. 7-25

10-3-63

Ran 3-hr. potential test on Pictured Cliffs:

Pictured Cliffs ISIP: 1026#/1026#

Mesa Verde ISIP: 1079#

Pictured Cliffs' 3-hr. flow pressures: Tubing, 110#; Casing, 874#

Mesa Verde's 3-hr. pressure: Tubing, 1081#

10-10-63

Ran 3-hr. potential test on Mesa Verde  
ISIP: 1121#, FFTP: 307#

## OPEN FLOW TEST DATA

DATE October 10, 1963

Operator Consolidated Oil & Gas, Inc.		Lease Champlin No. 7-25	
Location 1650' FNL, 990' FEL, Sec 25, T27N-R4W		County Rio Arriba	State New Mexico
Formation Mesaverde		Pool Blanco	
Casing Diameter 8-5/8"	Set At Feet 4345'	Tubing Diameter 1-1/2"	Set At Feet 6002'
Pay Zone: From 6156'	To 6294'	Total Depth 6383'	
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing X

Choke Size, inches 0.75"		Choke Constant: C 14.1605	
Shut-in Pressure, Casing, PSIG ---	+ 12 = PSIA ---	Days Shut-in 7	Shut-in Pressure, Tubing, PSIG 1121
Flowing Pressure: P 307	+ 12 = PSIA 319	Working Pressure: P <sub>w</sub> ---	+ 12 = PSIA ---
Temperature: T 48	n = 0.75	F <sub>pv</sub> (From Tables) 1.044	Gravity 0.70 (est.)

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

$$Q = 14.1605 \times 319 \times 1.0117 \times .9258 \times 1.044 = 4417 \text{ MCF/D}$$

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

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

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

TESTED BY Clyde Phillips

WITNESSED BY

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