

WELL: JICARILLA NO. 3-8

8/15/63

First stage Dakota: Staged acid, total acid 1000 gals 15% regular. First 6 bbls - started pumping acid at 1500#, broke back to 600#. Pumped 6 bbls away at rate of 5 BPM, let set 10 min. Pressure 600#. Second 6 bbls - stage in at rate of 5 BPM at 1500#, let set 10 min. Pressure - 600#. Third 6 bbls - stage in at rate of 5 BPM at 1550#, let set 10 min. Pressure dropped to 900#. Fourth 6 bbls - all pumps on - 20 BPM at 2250#.

## 1st Stage Frac (Dakota)

Breakdown: 1500 psi (1 pump)	Breakdown & fill: 1,620 gals
All pumps on: 2800 psi	Overflush & flush 15,500 gals
Max treating press: 3,000 psi	Treating fluid: 82,900 gals water w/ 4 lb FR-4/1000 gals
Min treating press: 2,600 psi	Sand: 60,000# (30,000# 20/40, 30,000# 40/60)
Avg. treating press: 2,800 psi	Avg. injection rate: 35.5 BPM
Instant S.I. press: 2,100 psi	Rubber balls: 60
5 min S.I. press: 2,000 psi	

job complete @ 9:01 a.m. 8-14-63

Rig up Go Perforating Co. Ran plug to 3880' (top of liner). Could not get any deeper. Came out of hole, put on tapered bottom plug, ran to 3880', plug hung up. Worked plug loose, came out of hole. Attempted to run 3 1/8" gun. Gun went to 3890' (10' inside of liner). Gun tried to hang up. Came out of hole. Released 1500# of pressure off well. Well kept flowing. Rigged up blooie line. Went to 18' inside of liner with 3 7/8" mill. Worked out bad place in casing, worked several bad places out of casing to 5237'. Storm hit - wind shifted, pulled mill up inside of 8 5/8" casing. Shut rig down, due to fire hazard. Shut down from midnight to 5 a.m. Well making 1 1/2 million with lots of oil. Well logged. Pulled 10 stands - well unloaded lots of oil and water. Present operation - going in hole to work out tight places in casing.

8/16/63

Ran mill to bottom. Working out tight places in casing at various depths. Cleaned out to 7931'. Pulled mill. Ran plug to top of liner, could not get in liner. Ran 4" mill back to top of liner, did not touch anything. Ran mill 200' into liner, did not touch anything. Came up to top of liner and rotated. Present operation - coming out of hole. Will try to run bridge plug on wire line, if plug doesn't go, will run plug on tubing.

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8/17/63

Rig up Go after pulling tubing. Attempted to run bridge plug. Went to top of liner and stopped. Ran 3 1/8" gun, went thru top of liner okay. Ran Baker cast iron bridge plug on tubing thru top of liner with no problems and set at 7817' KB. Pulled tubing up out of 4 1/2" casing into 8 5/8", loaded hole, pressured up to 1100#. Finished pulling tubing. Ran 5 3/4" bit to dress liner top, went to 3879', drilled 1 1/2' of cement. Came out of hole, rigged up Go. Ran 4 1/2" bridge plug. Plug went thru top of liner okay. Pulled plug. Rigged up Halliburton, pressured up to 3,000# - held okay. Perforated Graneros 7798'-7812', 7774'-7786', 7756'-7764', with 4 shots per foot.

8/18/63

## Rigged up Halliburton (5 pumps)

Staged 1,000 gals 15% acid in (1 pump). First stage - breakdown 2,300#, let set 15 min, pressure 2,100# (6 bbls). Second stage - pumped in at 2,100#, no break - 2,100# (6 bbls). Third stage - pumped in at 2,100#, set 10 min, pressure 1,900# (6 bbls). Fourth stage - pumped in all pumps 23 BPM @ 3,000#.

## Second Stage Frac (Graneros)

All pumps on: 3,000#	Breakdown & fill: 13,040 gals
Max treating press: 3,100#	Flush: None
Min treating press: 2,900#	Treating fluid: 72,600 gals with 200# FR-4
Final treating press: 3,100#	Sand: 30,000# 40-60, 30,000# 20-40
Instant S.I. press: 2,700#	Avg. Injection rate: 28.9 BPM
5 min S.I. press: 2,450#	Rubber balls: None

job complete at 8:20 a.m. 8-17-63

Ran Go bridge plug. Set at 3960' KB. Perforated 2 per foot, 3536'-3596', 120 holes.

## Third Stage Frac (Pictured Cliffs)

Breakdown 1 pump: 1,400#	Breakdown & fill: 1,700 gals
All pumps on: 800#	Flush & overflush: None
Max treating press: 1,400#	Treating fluid: 79,800 gals
Min treating press: 800#	Total sand: 100,000# 20-40
Avg. treating press: 850#	Avg. Injection rate: 62 BPM
Final treating press: 1,400#	Rubber balls: 75
Instant S.I. press: 800#	Job complete at 12:01 p.m. 8-17-63
5 min. S.I. press: 7003	

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8/18/63 (con't)

Started blowing well down at 2 p.m. Well kicked off at 3 p.m. 15 stands in hole (900'). Pulled tubing back out of hole. After blowing well 3 hours, well gauged 7 million. Well making lots of sand and water. Blew well until 1 a.m. Started in hole blowing down. Well sanded off. Present operation - cleaning out sand at 3780', 185' below perforation. Gauged well, well making 6 million. Top of sand at 3480'.

8/19/63

Finished cleaning out sand to bridge plug (3960'). Gauged well before drilling plug. PC gauged 5 1/2 million. PC still making some sand and water. Drilled top off plug at 3960'. Water and sand came in. Blew and cleaned well. Drilled plug loose. Pushed and drilled plug to 7817'. Gauged well, well making 4 1/2 million. Well logging off some. Present operation - drilling on plug at 7817'.

8/20/63

Tripped for new bit. Ran back to bridge plug, attempted to break circulation, could not. Pulled 38 stands, broke circulation, blew back down to plug. Drilled plug loose. Plug came up hole 75 ft. Present operation - drilling and pushing plug down at 7900', 31' off plug back TD. Well still making lots of sand, some water with 5 million.

8/21/63

Finished cleaning out to PBT (7931'). Laid down 7935' of 2 3/8" tubing. Rigged up Lane Wells, set Model "D" Baker production packer. (7650' KB). Rigged up and ran 233 joints of 1 1/2" upset tubing, landed in packer @ 7650'. Set 10,000# weight on packer, had trouble landing donut wellhead down. Well blowing lots of oil. Shut rig down 3 hours to wait on daylight. Shut rig motor and light plant down. Landed 1 1/2" tubing. Present operation - running 1" tubing. Ran 84' of Baker blast joint from 3522' to 3606'. Will be ready to move rig around 10 a.m.

8/22/63

Ran 103 joints of 1" tubing, landed at 3417' KB. Jet collars at 2657' and 3151'. Nipped up head, had trouble recovering back pressure valve. Attempted to pump out pump-out plug. Pressured up to 1500#. Could not pump plug out. Blew hose apart on pump discharge. Will try again this a.m. Got part of rig moved, started raining, had to shut down.

8/23/63

Finished moving out completion rig. Well shut in.

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8/24/63

Well shut in 24 hours. PC. Tubing and casing pressure 722#. DK tubing pressure 1665#. Open DK up thru 3/4" choke. After 4 1/2 hours flow rate on DK 1 1/2 million with lots of oil, some water. PC pressure end of 4 1/2 hours, tubing and casing pressure 740#.

8/25/63

Well shut in for tests.

8/26/63

Well shut in for tests.

8/31/63

Tested Dakota. Shut in Dakota pressure 1674# (3 hour test). Shut in Pictured Cliffs casing 940#, tubing pressure 940#. Final casing pressure - Pictured Cliffs 945#. Final tubing pressure - Pictured Cliffs 945#. Final flow pressure Dakota tubing 110#. Light spray of water throughout test with heavy show of oil.