

SUMMARY OF OPERATIONS (Cont'd) -2-

12/6/63 Worth Well ran Temp. Survey 4000'-7500' in 2-7/8" csg. Cement 6365-6820'.

12/7/63 Schlumberger perf. Upper Blinbry 6446-6539' w/1 JSPF. Swab 38 BLW in 3 hrs. Swab dry 2 hrs.

12/7/63 Cardinal Chemical acidized perfs. 6446-6539'. Swab 23 BLO + 24 BAW + 68 BSW in 29 hrs.

12/9/63 Howco squeezed perfs. 6446-6539' w/50 sx. Trinity Inferno Neat cement. Max. Pr. 5200#. WOC 15 hrs. Top plug @ 6190'.

12/10/63 Schlumberger perf. 2-7/8" csg. in Glorieta form. 6056-6091' w/1 JSPF. Swab 83 BW in 5-1/2 hrs.

12/11/63 Howco squeeze Glorieta perfs. 6056-6091' w/50 sx. Trinity Inferno cement. Max. Pr. 5000#. Top of plug 6000'.

12/12/63 From 4-1/2" Wolfcamp csg. pulled 2" tbg. & RTTS pkr. Ran Guib KVL-30 pkr. on 2-3/8" tbg. to 9972', SN 9967'.

12/15/63 Schlumberger perf. 2-7/8" csg. in Penn. form. 11,460-11,500' w/1 JSPF. Flow from Penn. 59 BLW + 156 BNO in 18 hrs. SI 21 hrs. From Wolfcamp perfs. 9995-10,119' swab & flow 82 BNO + 4 BLW in 6 hrs. 48/64" ck.

12/17/63 Penn. Perfs. 11,460-11,500' on Pot. Test flow 228 BNO & no wtr. in 24 hrs. 14/64" ck. CP 2375. GOR 5197. Gty. 48.2°. Shut in 120 hrs. on Packer Leakage Test. On Pkr. Leakage Test flow 318 BNO in 24 hrs. 14/64" ck. CP 2350. GOR 4005. Gty. 48.9 @ 60°.

Wolfcamp Perfs. 9995-10,119' flow 19 BLO + 176 BNO + 26 BLW in 28 hrs. Shut in 72 hrs. for Packer Leakage Test. On Pkr. Leakage test and Potential test flow 230 BNO + 6 BSW in 24 hrs. 16/64" ck. GOR 856. Gty. 41.9 @ 60°.

DRILL STEM TESTS

10/4/63 DST #1 Lower Abo formation 9240-9340'. Tool open 1 hr. 1" x 5/8" ck. No WC. Open w/weak blow, died in 30 min. Rec. 40' drlg. mud. SFP-0, IBHFP 34#, FBHFP 48#. 90 min. FBHSIP 3899#. HH 4497# in & out. BHT 137°.

10/24/63 DST #2 Penn. formation 11,230-11,264'. Tool open 1 hr. 2 mins. 1" x 5/8" ck. No WC. Open w/fair blow, decreased to weak blow. Rec. 180' drlg. mud, 2890' salt water. Surf. FP 0#, IBHFP 293#, FBHFP 1391#. 2 hr. FBHSIP 5336#. HH 5598 in & out. BHT 157°.

10/27/63 DST #3 Penn. formation 11,360-11,453'. No test, packers failed.

10/27/63 DST #3 Penn. formation 11,358-11,453. No test. Pkr. failed.

10/31/63 DST #3 Penn. formation 11,452-11,528'. Tool open 1 hr. 26 mins. 1" x 5/8" ck. 2000' WC. Open w/strong blow. WC to surface 9 mins., Gas & mud in 13 mins., oil in 18 mins. Clean to pits 23 mins. Flow @ rate of 13 BBl. per hr. 1/4" ck. GOR 5870. Gty 49.5 @ 60°. TP 2000#. Rec. in DP 1140' oil + 30' WC. SFP 2600#, IBHFP 4690#. FBHFP 4981#. 2hr. FBHSIP 5063#. HH 6648 in, HH out 6628. BHT 154°.

PERFORATIONS

<u>Zone</u>	<u>Depth</u>	<u>Size</u>	<u>Kind</u>
Wolfcamp	9,995	1/2"	Jet
"	9,997	"	"
"	9,999	"	"
"	10,001	"	"
"	10,006	"	"
"	10,008	"	"
"	10,012	"	"
"	10,017	"	"

<u>Zone</u>	<u>Depth</u>	<u>Size</u>	<u>Kind</u>	
Wolfcamp (Cont'd)	10,019	1/2"	Jet	
"	10,023	"	"	
"	10,025	"	"	
"	10,033	"	"	
"	10,035	"	"	
"	10,039	"	"	
"	10,041	"	"	
"	10,043	"	"	
"	10,045	"	"	
"	10,047	"	"	
"	10,054	"	"	
"	10,056	"	"	
"	10,058	"	"	
"	10,060	"	"	
"	10,062	"	"	
"	10,064	"	"	
"	10,087	"	"	
"	10,089	"	"	
"	10,091	"	"	
"	10,093	"	"	
"	10,095	"	"	
"	10,097	"	"	
"	10,099	"	"	
"	10,100	"	"	
"	10,103	"	"	
"	10,105	"	"	
"	10,107	"	"	
"	10,109	"	"	
"	10,115	"	"	
"	10,117	"	"	
"	10,119	"	"	
Abo	9,231	1/2"	Jet	Squeezed
"	9,233	"	"	"
"	9,235	"	"	"
"	9,239	"	"	"
"	9,241	"	"	"
"	9,276	"	"	"
"	9,278	"	"	"
"	9,280	"	"	"
"	9,282	"	"	"
"	9,288	"	"	"
"	9,290	"	"	"
"	9,292	"	"	"
"	9,294	"	"	"
"	9,312	"	"	"
"	9,314	"	"	"
"	9,316	"	"	"
"	9,318	"	"	"
Blinebry	6,619	1/2"	Jet	Squeezed
"	6,622	"	"	"
"	6,624	"	"	"
"	6,628	"	"	"
"	6,669	"	"	"
"	6,671	"	"	"
"	6,680	"	"	"
"	6,683	"	"	"
"	6,686	"	"	"
"	6,703	"	"	"
"	6,705	"	"	"
"	6,724	"	"	"
"	6,761	"	"	"
"	6,763	"	"	"
"	6,771	"	"	"
"	6,773	"	"	"
"	6,775	"	"	"
"	6,777	"	"	"
"	6,779	"	"	"
"	6,786	"	"	"

PERFORATIONS (Cont'd)

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<u>Zone</u>	<u>Depth</u>	<u>Size</u>	<u>Kind</u>	
Upper Blinebry	6,446	1/2"	Jet	Squeezed
"	6,448	"	"	"
"	6,450	"	"	"
"	6,452	"	"	"
"	6,454	"	"	"
"	6,456	"	"	"
"	6,460	"	"	"
"	6,464	"	"	"
"	6,472	"	"	"
"	6,474	"	"	"
"	6,476	"	"	"
"	6,478	"	"	"
"	6,480	"	"	"
"	6,492	"	"	"
"	6,494	"	"	"
"	6,505	"	"	"
"	6,507	"	"	"
"	6,509	"	"	"
"	6,513	"	"	"
"	6,533	"	"	"
"	6,535	"	"	"
"	6,537	"	"	"
"	6,539	"	"	"
Glorieta	6,056	1/2"	Jet	Squeezed
"	6,058	"	"	"
"	6,060	"	"	"
"	6,069	"	"	"
"	6,071	"	"	"
"	6,073	"	"	"
"	6,077	"	"	"
"	6,079	"	"	"
"	6,083	"	"	"
"	6,087	"	"	"
"	6,089	"	"	"
"	6,091	"	"	"

Penn. 11,460-11,500 1/2" Jet

ACIDIZING

11/18/63 Western Co. acidized perfs. 9995-10,119 w/2000 gal. 15%
NE Acid + 39 RCN ballsealers. Brk. dwn. pr. 4800#. Trt.
Pr. 5800-4800#. Rate 3.6 BPM.

11/23/63 Western Co. acidized perfs. 9231-9318' w/1000 gal. 15%
NE Acid. Brk. down pr. 6300#. Trt. Pr. 6300-4700. Rate 3 BPM.

12/1/63 Western Co. Acidized perfs. 9231-9318' w/1000 gal. 15%
NE Acid. Brk. dwn. pr. 6300#. Trt. pr. 5000#. Rate 1.5 BPM.

12/7/63 Cardinal Chemical acidized perfs. 6446-6539 w/1000 gal. 15%
acid + 20 RCN ball sealers. Brk. dwn. pr. 4000#. TP 4000-3200#.
Rate 2 BPM.