

11-7-76 cont'd DST #3 4440-4455', 30"/60"/90"/60", fair blow, 160' sli oil specked muddy water. Little free oil in tool, IFP's 43-54#, FFP's 65-108#, BH Temp 120 degrees, SIP's 1302#/60" to 1259#/60". Drilling ahead.

11-8-76 RTD 4500' 10:55 a.m. Electra logged 2:15-4:00 p.m. (gamma neutron guard + density log). On bottom 6:10 p.m. Layed down drill pipe 7:40-10:30 p.m. Ran 143 joints used 14# 5-1/2" casing (4511.59') set 1' off bottom at 4499', cemented with 300 sx cement (Halliburton). PD 3:00 a.m. 11-9-76. (150 sx Halco light - 150 sx 50-50 pozmix)

11-9-76 PD 3:00 a.m.

11-17-76 MICT (Thunderbird). Will work on tools couple days before starting completion.

11-20-76 Cable tools rigged up.

11-22-76 Swabbed to 4175'. Ran Electra Collar Log. Perforated 4425'-4438', 3 shots per foot. Inside TD 4464'. Had indications of oil. Weren't able to catch fluid level - running too slow with perforating gun. Rigged up to start swab testing.

Started swabbing at 3:30 p.m. - 2700' FU (1 1/2 hrs.), 263' load water above.

4:00 p.m. - 31.24 BTF (including perf H₂O - rest clean oil, 3000' from top

4:30 p.m. - 5.68 BO (clean) 3000' from top

5:00 p.m. - 9.34 BO (clean) 3000' from top. Shut down.

11-23-76 Overnite FU (15 1/2 hrs.) = 1300' from top.

9:45 a.m. - 19.5 BO 1950' from top

10:15 a.m. - 5.68 BO 1950' from top

11:00 a.m. - 7.10 BO 2100' from top

11:30 a.m. - 4.26 BO 2100' from top

12:00 noon - 4.26 BO 2100' from top

12:30 p.m. - 2.84 BO 2100' from top

1:00 p.m. - 7.10 BO 2300' from top

1:30 p.m. - 5.68 BO 2300' from top

2:00 p.m. - 5.68 BO 2300' from top

Ran bailer to bottom twice - had approx. 15-20 gals water. On second pull all clean oil again.

2:30 p.m. - 5.68 BO 2300' from top

11-24-76 Overnite FU 3125' in 15 1/2 hours. Ran bailer, rec. 120' water. Tore down tools.

GRAND MESA OPERATING CO.

Phelps #1

C NW/4 SE/4 Sec.17-T17S-R24W,
Ness County, Kansas

Information provided by Larry Friend:

Elevation: 2473' K.B. (5'AGL)
8 5/8" O.D. surface casing set @ 300', cemented with
200 sacks.

R.T.D.: 4500'

L.T.D.: 4502'

5 1/2" - ??# 8 Rd. thd. Production casing set at 4499',
cemented with 300 sacks.

WORKOVER - October, 2002:

- 10/26/2002: Moved in Plains, Inc. - double drum unit. Pulled all rods, pump, and tubing; found rods parted (pin break) at 76 rods down, 175 - 3/4" rods, 8', 8', 2', 2' rod subs; 175 joints of 2 3/8" tubing plus 8' sub, 3' perforated nipple and 30' mud anchor. Found tubing couplings badly worn and bottom half of mud anchor badly worn. Had tubing tested, found 27 bad threads plus 22 bad couplings, plus split 8' sub. S.D. overnight.
- 10/27/2002: S.D. - Sunday
- 10/28/2002: Rigged up Log-Tech, ran Gamma Ray-Collar-Sonic Cement Bond log from 4448' P.D. to 2300', had good bonding through all intervals of interest, top of cement at 2740'. Log was correlated to open-hole log measurements. Perforated Cherokee Sand zone from 4411'-4419' with 4 - 39 gram D.P. jet shots per foot. Set 5 1/2" BOLT Cast Iron Bridge Plug at 4421'. Ran casing swab, swabbed 63 barrels of load oil and water out of casing from 1800' to 4421', swabbed dry, recovered approximately 30 barrels of oil, plus 33 barrels of water load. Ran swab 1 hour after swab-down, no fluid recovered. Ran swab 2 hours after swab-down, no fluid recovered. S.D. overnight at 4:45 P.M.
- 10/29/2002: Ran swab, recovered 2 barrels of salt water plus a scum of oil after 16 hours, probably drained down from casing subsequent to the swab-down from the previous day. Ran swab once more after 1 hour, no fluid recovery. Swift Services, Inc. acidized with 250 gallons of 15% D.S. F.E. HCl acid plus 10% Xylene, displaced with 107 barrels of Cherokee salt water; held 0# pressure for 10 minutes, no injection rate, increased pressure gradually to 300#, held steady for 10 minutes, no injection, gradually increased pressures in 200# increments with 15-20 minute pauses between pressure increases up to 1500#, released and repressured, still could not establish injection over a 4 hour period. Released pressure.

10/29/2002: bailed out 75 gallons of spent acid off bottom until last (cont'd) bailer showed fresh acid, assuring that fresh acid was at the perforations.
Repressured casing slowly in staged intervals up to 1500#, still could not achieve injection.
Released pressure.
Dug small workover pit, swabbed load water down to 1600'.
Assembled "sandline drill".
S.D. overnight.

10/30/2002: Poured new rope socket for "sandline drill", picked up drill, ran to top of bridge plug at 4421', drilled on plug for 1 hour (two runs), drilled plug loose, pushed it to 4446', made two more runs on the plug, drilled up considerable more debris of the plug.
Rigged up LogTech, checked present depth at 4446' (some debris of bridge plug left on bottom).
Perforated additional Cherokee Sand zone from 4419' to 4424' (5') with 4 - 39 gram D.P. jet shots per foot.
Set 5 1/2" BOLT Cast Iron Bridge Plug at 4424' (bottom of plug at 4425').
Swabbed casing load water down to 4446' P.D. in 1 1/2 hours, waited 30", ran swab again, recovered 60 gallons of muddy water.
Waited 60", ran swab again, no fluid recovered.
Waited additional 60", ran swab again, no fluid recovered.
S.D. overnight.

10/31/2002: Ran casing swab, recovered 75 gallons of water with a trace of oil, and a slight trace of acid water after 16 hours overnight fillup.
Ran bailer twice, recovered 1 gallon of water first run, no fluid second run.
Ran bailer once more after 1 hour, just prior to acidizing, recovered less than 1 gallon of water.
Swift Services, Inc. acidized with 250 gallons of 15% D.S. F.E. HCl acid plus 10% Xylene, displaced with 18 barrels of 2% KCl water, plus 89 barrels of Cherokee salt water; held 0# pressure for 25 minutes, no injection rate, then gradually increased pressures in 200# increments with 5 minute pauses between pressure increases up to 600#, had slow bleedoff at 600#, repressured to 600# in 2 minute intervals until a total of 1 barrel of acid was injected, then gradually increased pressure to 800#, had improved bleedoff, repressured to 800# in 1 minute intervals until 2.6 barrels of acid was injected, then gradually increased pressure in slow stages to 1100#, all acid was injected after 70 minutes.
Maximum pressure = 1100#, maximum injection rate = <0.1 B/M.
I.S.I.P.=1000#, 5"S.I.P.=450#, 10"S.I.P.=100#,
11" S.I.P.=vacuum.
Total load fluid used = 113 barrels of acid and water.
Started swabbing load fluid back at 12:20 P.M. (shut down 1 hour to replace oil saver), swabbed 139 barrels of load water and salt water in 2 hours on swab-down to 4424', had increasing show of oil during last hour of swab-down, oil percentage too small to measure.

10/31/2002: Swabbed 26 barrels of fluid with gradually increasing oil (cont'd) show during the first hour after swab-down, unable to accurately measure oil percentage. Swab tank full. S.D. overnight at 5:00 P.M.

11/01/2002: Ran casing swab, found fluid level at 2000' from surface, swabbed 150' of oil off the top.

Overnight fillup = 150' of oil plus 2275' of water in 15 hours (6% oil).

Ran tubing, pump & rods as follows:

Ran 140 joints (total talley = 4419.81') of 2 3/8" EUE 8Rd.Thd. R-2 used, tested tubing, with 15' slotted, slick joint mud anchor, 1 - 1 25/32" 8Rd EUE seating nipple, and 8' & 6' tubing subs on top. (tubing running talley attached), spaced bottom of tubing 5' off bottom.

Ran 1 - 2" X 1 1/2" X 14' RWTC pump, double valved with carbide & alloy balls & seats, with 1 1/2" X 60"-3 SM plunger, stainless steel pull tube, lined cages, 100" maximum stroke, with 1 1/4" X 6' gas anchor and with 1 - 3/4" X 2' rod sub on top of pump. NOTE: this pump was the reconditioned pump which was pulled from this well on 10/26/2002.

175 - 3/4" X 25' sucker rods,

1 - 3/4" X 4' rod sub,

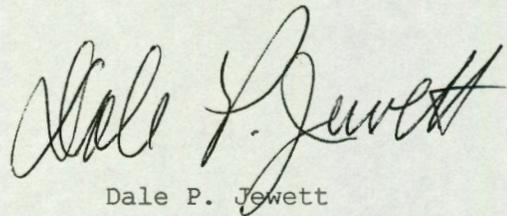
1 - 3/4" X 2' rod sub,

1 - 1 1/4" X 16' polished rod with 1 1/2" X 8' PR liner.

Spaced pump, hung well on pumping unit,

Started pumping 15 X 64" X 1 1/2" at 1:20 P.M., pumped up at 2:10 P.M. - good pump action.

Released pulling unit at 1:45 P.M.



Dale P. Jewett

GRAND MESA OPERATING CO.

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C NW/4 SE/4 Sec.17-T17S-R24W,
Ness County, Kansas

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joint mud anchor, 1 - 1 25/32" 8Rd EUE seating nipple, and
8' & 6' tubing subs on top. (*tubing running talley
attached*), spaced bottom of tubing 5' off bottom.

Ran 1 - 2" X 1 1/2" X 14' RWTC pump, double valved with
carbide & alloy balls & seats, with 1 1/2" X 60"-3 SM
plunger, stainless steel pull tube, lined cages, 100"
maximum stroke, with 1 1/4" X 6' gas anchor and with 1 - 3/4" X
2' rod sub on top of pump. NOTE: this pump was the
reconditioned pump which was pulled from this well on
10/26/2002.

175 - 3/4" X 25' sucker rods,

1 - 3/4" X 4' rod sub,

1 - 3/4" X 2' rod sub,

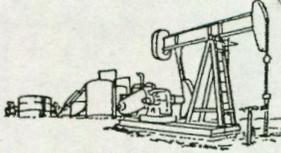
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Started pumping 15 X 64" X 1 1/2" at 1:20 P.M., pumped up at
2:10 P.M. - good pump action.

Released pulling unit at 1:45 P.M.

Dale P. Jewett



Oil Property Management, Inc.

Insurance Building

Wichita, Kansas 67202

COMPLETION REPORT

Zero Point : 5' Ab G. L.
 Rotary T. D. : 4500'
 Logger's T. D. : 4502'
 Producing Perfs.: 4425' - 4438'
 Casing 5½" Set @: 4501' with 300 Sax

Re: PHELPS #1
 C NW SE Section 17-17S-24W
 Ness County, Kansas

11-8-76 - Finished running Electra's open hole at 4:00 P.M. Ran the drill pipe back in and circulated for 1½ hours. Commenced laying down the drill pipe at 7:40 P.M. and commenced running the casing at 11:20 P.M. Casing is 5½" O.D. 8rd thd, 14# used.

11-9-76 - Ran 143 joints. Casing on the bottom at 2:10 A.M. Circulated out one foot of cavings. Set one foot off of the bottom at 4501'. Cemented with 150 sax of Halco Lite, 75 sax of regular and 75 sax of pozmix "A". Plug down at 3:00 A.M. and the float did hold. Good circulating conditions thru out the operation. Shoe joint is 26.69' long. Centralizers on the 1st, 4th, 7th, 10th, 13th and 16th joints. Halliburton float equipment was used.

11-20-76- Moved in Thunderbird Drilling Company's cable tools. Rigged up.

11-22-76- Swabbed down the cementing water to 4175'. Prepare to perforate (Electra) with three holes to the foot from 4425'-4438' with deep penetration jets. Made two runs with the perforating gun - first set of perforations finished at 2:00 P.M. Second set of perforations finished at 2:40 P.M. Commenced swabbing thru the casing at 3:30 P.M. and recovered the following amounts: At 4:00 P.M. 31.24 BF which included approximately 6.25 BW that was left to perforate in. At 4:30 P.M. recovered 5.68 BO. At 5:00 P.M. - 9.34 BO, clean. All of these tests the swab was pulled 1425' above the perforations. S.D.

11-23-76- Fillup 3125' of oil. 15½ hour fillup. This calculates a reservoir pressure of 1143 psi. This calculation based on 36 gravity oil. The following swab test was made thru the casing and following amounts recovered. At 9:45 A.M. - 19½ BO, 2475' above the perforations. At 10:15 A.M. - 5.68 Barrels of clean oil - 2475' above the perforations. At 10:30 A.M. - 5.68 BO - 2465' above the perforations. At 11:00 A.M. - 7.10 BO - 2325' above the perforations. At 11:30 A.M. - 4.26 BO - 2325' above the perforations. At 12:00 noon - 4.26 BO - 2325' above the perforations. At 12:30 P.M. - 12.84 BO - 2125' above the perforations. At 1:00 P.M. - 7.10 BO - 2125' above the perforations. At 1:30 P.M. thru 4:30 P.M. recovered every 30 minutes 5.68 BO. Swabbing 2125 feet above the perforations. Well stabilized. At 4:45 P.M. ran the bailer and recovered 29 gallons of clean water.

11-24-76- Fillup in 15½ hours was 3125 feet. Ran the bailer and recovered 120 gallons of water. Tear down the tools. Prepared from the field notes of Francis Zink.

W. H. Peachee
 W. H. Peachee

September 17-1979
Waters Drilling Co. Inc. (4)

2 $\frac{3}{8}$ Tubing

Ryan #1

130 - Jts @ 4029.34 $1\frac{1}{2}$ Pump September 28.

54 Stock Stock min 13.5

8-31-79

Total Fluor 169 = oil 30.33 Water 136

2 $\frac{3}{8}$ Tubing

Lynch #1

143 Jts @ = 4459 $1\frac{1}{2}$ Pump July 3-1

8-31-1979 54 Stock 8 Stock min

Total Fluor 20 = oil 5.00 Water 15.0

2 $\frac{3}{8}$ Tubing

~~Phelps #1~~

148 Jts @ = 4385.52 $1\frac{1}{2}$ Pump Aug 8-19

54 Stock 12.5 Stock min

8-31-1979

Total Fluor 149 = oil 3427 Water 114

2 $\frac{3}{8}$ Tubing

Dickman #1

110 Jts @ = 3422.83 = $1\frac{1}{2}$ Pump March 19-1'

8-28-79 54 Stock 15 Stock min
Total Fluor 210 = oil 1470 = Water 195.

2 $\frac{3}{8}$ Tubing

Dickman #2

144 Jts @ 4401 = $1\frac{1}{2}$ Pump September 13-1'

54 Stock 15 $\frac{1}{2}$ Stock min

8-28-1979 Total Fluor 92.2 = oil 6.45 = Water 85.7

Waters October 1980
 Drilling Co Inc.

$\frac{3}{8}$ Tubing Ryan #1
 30 - Jts @ 4029.34 $1\frac{1}{2}$ Pump September 26 - 1980
 - 30 - 80 54 Stock Stock min 16
 Total Flup 206 = oil 20.60 = Water 185

$2\frac{3}{8}$ Tubing Lynch #1
 143 Jts @ = 4459 $1\frac{1}{2}$ Pump Aug 21 - 1977
 54 Stock $8\frac{1}{2}$ Stock min
 - 20 - 80 Total Flup 14.3 oil 3.6 = Water 10.7

$\frac{3}{8}$ Tubing ~~no Pump Charge~~ X Phelps #1
 148 Jts @ = 4385.52 = $1\frac{1}{2}$ Pump Aug 8 - 1976
 - 30 - 80 54 Stock 12.5 Stock min
 Total Flup 149 = oil 20.86 = Water 128.14

$2\frac{3}{8}$ Tubing Dickman #1
 110 Jts @ = 3422.83 = $1\frac{1}{2}$ Pump March 19 - 1980
 - 28 - 80 54 Stock 15 Stock min
 Total Flup 222 = oil 8.88 = Water 213.12

$1\frac{3}{8}$ Tubing Dickman #2
 144 Jts @ 4401 = $1\frac{1}{2}$ Pump Septemb 13 - 1977
 54 Stock $15\frac{1}{2}$ Stock min
 9 - 28 Total Flup 80.00 = oil 8.00 = Water 72.00

