

(Cont'd)

9-16-90 Lay down 6 jts drill pipe, load hole with water. POOH holding 150 psi at surface, lay down mill, heel rounded off on mill. First drill collar and bit sub show to be rubbing on junk.

Cut drilling line, pick up round-nose mill, string mill, float sub, one 4-3/4" drill collar, N nipple, nine 4-3/4" drill collars, F nipple, and TIH. Hit tight spot at 3086'.

Clean out 3086-3110' with 4 MM air and 2 BPM water with 5 Bbl water sweeps every 1/2 hr. Returns light 1/16" coal in clear water; on sweeps moderate 1/8" and smaller coal in gray water. Mill on junk in hole from 3110-3125' with 5 BPM water. Returns light 1/8" coal in clear water, very little metal.

9-17-90 Milling on junk at 3130'.

Mill on junk at 3125' with 5 BPM water. High torque, dragging 20-40,000# above string weight. Returns light to moderate 1/4" and smaller coal in clear water.

Mill on junk to 3130', drags 50,000# over string weight, lose 8' of hole each time mill is picked up. Keep working down to 3130'. Returns 1/8" and smaller coal in clear water, very small metal filings in returns.

Repair power swivel hose.

Mill on junk at 3130', torque and drag reducing, junk moving up and down hole with mill. Returns light 1/8" and smaller coal in clear water.

Estimated gas to be 10 MMCFD+.

9-18-90 7" casing at 2940'; open hole 2940-3137'.

POOH with drilling string with 120 psi on stack.

Mill on junk from 3125-3130', have to pull 20000# over string weight to 3121 where pipe frees. Clean out to 3130'. Able to go down freely, tight spot at 3127' pulling up.

Kill well with water. Pull 20 stands 3-1/2 drill pipe, land drill pipe on tubing spool.

Nipple down BOP. Nipple up stripping stack and Otis snubbers.

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9-18-90 Pressure test stack to 1500 psi, held OK.

POOH with drill pipe and drill collar.

9-19-90 7" casing at 2940'; open hole 2940-3137'.

Cleaning out to 3124' with 5-1/2" liner.

Work on power tongs.

POOH with 3-1/2" drill pipe and drill collars holding 150 psi back pressure.

Change rams, rig up to snub, pick up 5-1/2" liner with Smith 6-1/4" RR bit on bottom. Snub liner in hole.

Strip 3-1/2" drill pipe in hole, tag at 3095'.

Clean out from 3095-3124', had high torque and high pump pressure.

Ran 7 jts (289.74') 5-1/2" 23# L-80 casing with Baker hydraulic liner hanger, set at 3124'. 5 jts perf'd; 2 jts non-perf'd (8 HPF). Set at 3124' with perfs from 3123-2906'. Top of hanger 2835'; 105' overlap.

9-20-90 7" casing at 2940'; 5-1/2" liner 2836-3124'.

Picking up donut to land 2-7/8" tubing.

Drop ball and set liner hanger and pack-off with 1100 psi; open back side, well dead. Pressure up to 2400 psi and release setting tool from hanger.

Lay down 4 jts 3-1/2" drill pipe, rig down Otis, nipple down snubbing stack.

Pick up donut and land drill pipe, nipple down Cameron BOP, nipple up Shaffer BOP and stripping head.

Lay down 3-1/2" drill pipe and drill collars.

Strap 2-7/8" tubing, rig up to TIH with tubing.

TIH with expendable mill-check, 1 jt tubing, Baker F nipple (2.25" ID), and 89 jts 2-7/8" tubing. Tag liner top at 2833', circulate hole.

Tag top perf plug at 2905' and mill plugs from 2905-3122'.