

Hardship Gas Well Classification  
June 20, 1986

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Due to market demands we have been cutback to one day production per month since February 1986 by El Paso, and our compressor will no longer take care of the well loading up and dying.

In March of 1986, we dropped several soap sticks in tubing and blew well to the atmosphere for two days to get one day's production of 233 Mcf. In April of 1986, we again dropped several soap sticks and blew well for several days to get one day's production of 276 Mcf. In May of 1986, the same procedure was followed with it taking a longer period of time to recover 146 Mcf.

In June of 1986, we dropped thirty soap sticks and blew the well fourteen days before we got enough pressure to start the compressor. During four days of keeping the well on, the tubing pressure has risen from 40# to 80#, the gas volume has risen from 100 Mcf to 180 Mcf and the water volume has risen from 40B to 96B per day. We feel that with a minimum sustained flow of 200 Mcf/D we can keep the well unloaded and retain that production.

b. Mechanical Condition of the Well

The well has 2-7/8" tubing set in a packer at 8053'. The casing design includes 8-5/8" set at 1547 feet and 5-1/2" set at 8456 feet. A type DPC AJAX 115 horsepower compressor was installed on the well on July 21, 1980. Page 4 shows a well sketch for Box Canyon Unit #2.

3. Present historical data which demonstrates conditions that can lead to waste.

Water has been steadily invading the Morrow gas reservoir in this well for six years. There does not appear to be permanent formation damage due to water. However, it has become very difficult to get the well back on line after its is shut-in. In March of 1986, Yates blew the well to the atmosphere for two days to get back on line. In April, Yates blew the well for four days in order to produce one day into the pipeline. It took six days to get the well on line in May and fourteen days in June.

Income per month has been one day's production of 200 Mcf at \$2.50 per Mcf or about \$500. Hauling away 100 BW costs \$140. Almost 1000 Mcf worth \$2500 is vented in order to unload the well. Minimum operating charges are about \$600 per month for pumper and overhead. In its present situation, the well requires lots of special attention. Of course, almost no one can make money selling gas only one day a month. The hardship here is the large ratio of gas vented to gas sold and the evidence that very large amounts of gas now must be vented unless the well can be produced continuously.