

El Paso Natural Gas Company

El Paso, Texas



ADDRESS REPLY TO
POST OFFICE BOX 990
FARMINGTON, NEW MEXICO

May 24, 1961

Mr. E. C. Arnold
New Mexico Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

Re: El Paso Natural Gas Company well
Mansfield No. 2, M 19-30N-9W.

Dear Mr. Arnold:

In response to your letter dated, May 19, 1961, referring to the above captioned well, the following information is submitted.

This well was completed February, 1953. In June, 1953, a workover rig was moved on to check for probable hole in the casing. The tubing was pulled and a bridge plug set at 4306 feet. By use of a retrievable packer the hole was located in 7 inch casing at 31 feet below rotary table.

Twenty-six sacks of regular cement was circulated down the inside of the 7 inch casing and up the outside of the 7 inch. Waited 24 hours; then tested casing. Circulation was obtained by pumping down the 7 inch casing and out of the bradenhead. Casing was shut-in and the bradenhead was pressured up to 1000 lbs. and held. Seven sacks regular cement was pumped down the bradenhead to seal annulus above the hole. Waited on cement 24 hours and tested casing. The casing would not pressure up. Pumped 38 sacks of regular cement in casing and out of bradenhead. Closed bradenhead and held 800 lbs. for 12 hours. Released pressure on bradenhead and tested casing with 600 lbs. Casing held pressure. Started going up hole with tubing to drill bridge plug. Twisted off while drilling on bridge plug. Fished out 55 joints of tubing. Picked up two drill collars and went into hole to drill bridge plug. Could not drill plug. Tubing was pulled out and 4-1/2" drill collars and 3-1/2" drill pipe put back in hole to drill bridge plug.

Bridge plug was drilled and open hole section cleaned out. When hole was cleaned to T.D., drill pipe was pulled and casing was allowed to pressure up for two hours with pressures as follows:

<u>LENGTH OF TIME</u>	<u>CASING PRESSURE</u>	<u>BRADENHEAD PRESSURE</u>
1/2 hour	350	50
1 hour	500	100
1-1/2 hours	550	170
2 hours	600	250

Tubing was then put back in hole and rig moved off with the assumption that pressure was contained within the bradenhead.

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On September 9, 1959, the surface casing pressure was measured at 950 psig and the production casing pressure was 960 psig. The surface casing was vented to the atmosphere for one hour and the production casing pressure dropped to 60 psig. A temperature survey ran 10-8-59 indicated communication between the 7 inch casing and surface casing very close to the Christmas Tree.

A summary of the deliverability tests on this well is as follows:

<u>DATE</u>	<u>SIPC</u>	<u>SIPT</u>	<u>AVG. DAILY VOL. MCF/D</u>
4-15-54	986	----	2154
4-15-55	969	----	2039
7-23-56	945	945	1608
5-23-57	918	919	1341
5-6-58	887	887	1516
2-14-59	910	921	1986
2-22-60	899	899	1083
2-21-61	----	878	1032


The cumulative production through April, 1961, is 2,463,192 MCF.

Considering all these facts, it is belived that since the communication between the 7 inch and surface occured in 1953 and still exists; that the production data as listed above substamuates the premise that gas in the bradenhead is being satisfactorily contained by the cement in the 7 inch and surface pipe annulus.

Very truly yours,

EL PASO NATURAL GAS COMPANY

L. D. Galloway
Sr. Gas & Production Engineer


A. J. Dudenhoeffer
Asst'. Gas & Production Engineer

AJD:bjf

cc: File

