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BASS ENTERPRISES PRODUCTION CO.  
DIVISION EXPLORATION AND PRODUCTION OFFICES  
P O BOX 2760  
MIDLAND, TEXAS 79702

NOV 20 1978

O. O. C.  
ARTESIA, OFFICE

800 VAUGHN BUILDING  
(915) 684-5723

November 17, 1978

Re: Request for Permission  
to Flare Gas  
Big Eddy Unit Well No. 60  
Undesignated Bone Springs  
Unit J, Sec 20, T21S, R28E  
Eddy County, New Mexico  
File: 400-WF

Mr. Joe D. Ramey  
State Petroleum Engineer  
State of New Mexico  
Energy & Minerals Dept.  
Oil Conservation Division  
Box 2088  
Santa Fe, N. M. 87501

Gentlemen:

We respectfully request your permission to test this gas well to the atmosphere and to flare 7,000 MSCF of gas. We must test this well to determine if sufficient reserves exist to justify the installation of a gas sweetening plant. The gas from the well contains percentages of carbon dioxide and hydrogen sulfide high enough that our gas purchaser will not take the gas.

The Big Eddy Unit Well No. 60 was drilled to the Morrow and plugged back to the Bone Springs formation. It is perforated at 6425-6497'. After being acidized, the well was opened for a short flow test, during which time a gas sample was caught. A copy of the analysis is attached. It shows the well to have 12.34 mole percent carbon dioxide and 0.83 mole percent hydrogen sulfide. Our gas purchaser has only sweet gas in the gathering system in this area and will not accept gas which has these impurities.

In order to make gas from this well acceptable to the purchaser, we will have to treat the gas to remove the hydrogen sulfide and at least part of the carbon dioxide. The best method for removing these gases is diethanolamine absorption. The cost to install a diethanolamine gas sweetening unit and operate it for one year will be \$144,000. This includes minimum one-year rental on the sweetening unit, purchase of generating equipment to provide electric power for the unit, flare stack with flare tip and pilot to burn the sour gas, installation, and normal operating and maintenance costs. We propose to flow the well and thereby reduce reservoir pressure. Then, by material balance calculations, we can determine if there are sufficient reserves to justify the cost of installing the gas sweetening unit. If the reservoir is large enough to justify the installation, we must produce 7,000 MSCF of gas to reduce reservoir pressure a measurable amount.