

Operating bottom hole pressure as requested in sub-paragraph (f) will be approximately 25 to 50 psi for each zone as the well will be operated with 2 psi casing pressure and pumped off with beam pumping equipment.

Since production decline rates do not appear to be a reliable method of allocating production to the respective zones, it is believed that other methods should be considered. As requested by sub-paragraph (i) we propose that production be allocated based on the combined oil gravity as measured at time of sales. Oil gravities for the two zones in this well are quite different, being 43.9 degrees API for the Abo and 59.8 degrees API for the Penn zone based on most recent data for the two zones. An equation for computing the amount of Abo production in total well production is as follows:

$$\text{Abo production} = 3.76 - \frac{^{\circ}\text{API}}{15.9} \times \text{Total production}$$

Of course Penn production would then be the difference between total production and Abo production. Monthly production for each zone would be calculated using the average corrected gravity as measured for oil sales in a given month or the most recent measurement if no sale is made in a given month.

There are no active wells on any direct offsetting leases. Therefore, in answer to sub-paragraph (j), no letters have been mailed to offsetting operators.

Please advise if I can be of further assistance in providing information you need in processing our application to commingle Abo and Penn production in the referenced well bore.

Yours truly,

W.M. Groesbeck  
District Engineer

WMG/ts  
Enclosures