T16S3.49(b)(1)

$$Q = A \frac{(r_1 - r_2 + 199.3 \, PrB)}{TrZ}$$

Where:

Q = Gas well allowable, cubic feet per day at 14.65 PSIA and 60° F.

A = Top oil well allowable, barrels per day at 60° F.

r_1 = Permissible gas-oil ratio applicable to reservoir, cubic feet at 14.65 PSIA and 60° F. per barrel at $60°$ F.

r_2 = Cubic feet of gas dissolved in one (1) barrel of oil at average reservoir conditions, cubic feet at 14.65 PSIA and 60° F. per barrel at 60° F.

Pr = Average reservoir pressure at gas-oil contact, PSIA.

Tr = Average reservoir temperature at gas-oil contact, degrees Rankine.

B = Formation volume factor of reservoir oil at average reservoir conditions, dimensionless.

Z = Deviation factor of gas from ideal gas laws at average reservoir pressure and temperature, dimensionless.