Production Allocation Methodology

- New drill wells - Fixed Allocation Method
  Allocate production to each zone based on initial stabilized production rate from each zone.

  - Measure initial stabilized flow rate from lower zone producing into sales line.

  - Measure initial stabilized flow rate from both zones commingled producing into sales line.

  - Lower zone allocation = Lower zone rate / Commingled rate

  - Upper zone allocation = $\frac{\text{(Commingled rate - Lower zone rate)}}{\text{Commingled rate}}$

  - Example: Lower zone rate - 400 MCFD
    Commingled rate - 1,000 MCFD

    Lower zone allocation = 400/1,000
    = 40%

    Upper zone allocation = (1,000-400)/1,000
    = 60%

Production Allocation Methodology

- ♦ Adding New Zone to Existing Zone - Initially Subtraction Method followed by Fixed Allocation Method
  - Subtraction Method (+/- 1st 12 months)
    - Forecast production rate by month for existing zone utilizing established decline curve for zone
    - Subtract forecasted rate from commingled rate to define new zone rate
    - Utilize subtraction method for +/- 12 months until new zone rate stabilizes, then utilize fixed allocation method with current rates
  - Fixed Allocation Method (after Subtraction Method)
    - Utilize forecasted rate from established decline curve for lower zone
    - Calculate upper zone rate by subtracting lower zone rate from commingled rate
    - Lower zone allocation = $\frac{\text{Lower zone rate}}{\text{Commingled rate}}$
    - Upper zone allocation = (Commingled rate - Lower zone rate) / Commingled rate