SUMMARY OF MINERAL INTEREST APPRAISAL PARAMETERS (Texas)
DISCOUNTED CASHFLOW VALUATION FOR AD VALOREM TAX PURPOSES
TAX YEAR 2021

Blue font denotes figures or text typically subject to change. Underlining denotes actual change or addition from previous year.

Oil Price (1st yr): WTI reference price is $38.40/bbl (calendar year 2020 gross monthly average price as derived by analysis of NYMEX spot price adjusted to Texas wellhead). County-specific reference prices will also be calculated based on Texas Comptroller data. Actual starting price for individual leases can vary with crude type, gravity deductions, purchaser availability, and bonus. The starting price is multiplied by a "Price Adjustment Factor" of 1.15377 to derive the gross price for year 1. Differential or spread for sour crude (WTS) is 3.0% deduction from WTI reference price. (See Property Tax Code, Sec. 23.175, for further details regarding Price Adjustment Factors.)

Oil Price Escalation (after 1st year): The annual escalation percentage for oil price is 0.062% for years 2 through 6. There is no escalation or de-escalation thereafter.

Gas Price (1st yr): On a lease-by-lease basis, the calendar year 2020 monthly average price as derived from Texas Comptroller revenue and RRC production data is multiplied by a "Price Adjustment Factor" of 1.51208 to derive the gross price for year 1.

Gas Price Escalation (after 1st year): The annual escalation percentage for gas price is -1.048% (a de-escalation) for years 2 through 6. There is no escalation or de-escalation thereafter.

Production Curtailment: Will review producing capability of wells shut in due to adverse marketing conditions, lack of wellsite equipment or pipeline, or other condition deemed curable. Will review expected production profile on a case-by-case basis. As a general rule, curtailment will be assumed to be temporary (one year or less).

Severance Tax: Current law (4.6% for oil, 7.5% for gas), to be deducted from gross price. Will use 2.3% for EOR production, 0% for HCG production for applicable years. Inactive well incentive exemptions will be recognized, as well as exemptions/abatements for incremental production and previously flared gas.

Ad Valorem/ Other Taxes: 5.0% for oil and gas leases, to be deducted from gross price. (This component deduction is intended to include the historically minimal regulatory fee.)

Operating Costs: Will start with typical expense level reflective of the previous calendar year and similarly situated properties after review of all historical data available (not just previous year). Capital expenses will be considered when necessary for lease operations to continue, EOR operations are projected, or excessive or non-standard projected abandonment costs are documented. As a general rule, all operating expenses will be escalated or de-escalated in future years per percentages used in the price forecast for type of lease (oil or gas), unless differently specified as follows: For oil leases, historical direct expenses will be escalated at 5.00% for year 1, then held flat thereafter. For gas leases, historical direct expenses will be escalated at 15.0% for year 1, then held flat thereafter.

Additionally for gas leases, escalation of LOE will stop if a ceiling gas price of $99.99/mcf is reached.

Products: Escalation of products price is weighted 68.3% to gas price escalation, 31.7% to oil price escalation, based on a typical "ngl barrel" mix of components (ethane, propane, butane, etc.).

Discount Rate: For oil leases, will use variable discount rate ranging from 10% to 24%, based on depth, producing rate per well, decline, and other risk factors subject to appraiser discretion.

For gas leases, will use 12-16%, subject to case-by-case review.

In lieu of additional discount rate, appraisers may choose to incorporate risk aspects into other parameters such as production or expense forecasts, if desired or appropriate, which can result in discount rates outside the ranges listed above.

End Factors: All P&A Districts may use this for special application, when appropriate.

Equipment: Net salvage (RCNLD) schedule value will be discounted to present worth commensurate with the forecasted economic life of each lease (plus one year) with a mid-year formula. Forecasted economic life will vary by property and can range from zero to 28 years. Discount rate is 5.0%.