

Shackelford County Appraisal District
Oil and Gas Reserves
2015-16 Appraisal Procedures and Reappraisal Plan

August 1, 2014

by

Thos. Y. Pickett & Company, Inc.

APPRAISAL PROCEDURES & REAPPRAISAL PLAN

OIL AND GAS RESERVES

Executive Summary

- Thos. Y. Pickett & Co., Inc. (“Thos. Y. Pickett” or “Pickett”) annually reappraises all producing mineral leases within the CAD’s boundaries using a Discounted Cash Flow (“DCF”) methodology;
- Thos. Y. Pickett uses the Comptroller’s Manual for Discounting Oil and Gas Income pursuant to Tax Code Section 23.175;
- Thos. Y. Pickett determines oil and gas prices in accordance with Tax Code Section 23.175;
- Thos. Y. Pickett’s written procedures for identifying new properties are included herein.

Overview

Oil and gas reserves consists of interests in subsurface mineral rights. Thos. Y. Pickett & Co. is contracted to reappraise this type of property annually for the appraisal district. The completed appraisals are all retrospective in nature. The purpose of the appraisals is to estimate market value as of January 1 in accordance with the definition of market value established in the Texas Property Tax Code (Sec. 1.04). “Market value” means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- A. exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- B. both the seller and the purchaser know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of the enforceable restrictions on its use; and
- C. both the seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

The appraisal results will be used as the tax base upon which a property tax will be levied. Each mineral interest is listed on the appraisal roll separately from other interests in the mineral in place in conformance with the Texas Property tax Code Sec. 25.12. A listing of the oil and gas

properties appraised by Pickett for the appraisal district shall be made available at the appraisal district office. Subsurface mineral rights are not susceptible to physical inspection. This condition creates the need to invoke the Departure Provision as required by the Standards Rule 6-7 (f) comment of the Uniform Standards of Professional Practice. However, the inability to physically examine the property does not affect the appraisal process or the quality of the results. The appraisal district is aware of this limiting condition and agrees that it is appropriate.

Documents relevant to an understanding of these appraisals include the confidential rendition, if any, filed with the appraisal district by the owner or agent of the property; the Texas Comptroller's Manual for Discounting Oil and Gas Income; other reports described in the Texas Property Tax Code; and other confidential data supplied by the owner or agent; the General Appraisal Manual adopted by the Texas Comptroller of Public Accounts; Property Assessment Valuation published by the International Association of Assessing Officers and adopted by the Texas Comptroller of Public Accounts and the Texas Property Tax Code.

Pickett's oil and gas appraisal staff includes licensed engineers as well as experienced appraisers who are knowledgeable in all three approaches to value. Oil and gas appraisal staff stays abreast of current trends affecting oil and gas properties through review of published materials, attendance at conferences, course work and continuing education. All oil and gas appraisers are registered with the Texas Department of Licensing and Regulation, (formerly, the Texas Board of Tax Professional Examiners).

Assumptions and Limiting Conditions

All appraisals are subject to the following assumptions and limiting conditions:

1. Title to the property is assumed to be good and marketable and the legal description correct.
2. No responsibility for legal matters is assumed. All existing liens, mortgages or other encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management.
3. The appraisers developing these appraisals are not required to give testimony or attendance in court by reason of the appraisals, unless directed by, employed by, and provided legal counsel by the Appraisal District.
4. The appraisers do not inspect every property every year.

5. All sketches on the appraisal documents are intended to be visual aids and should not be construed as surveys or engineering reports unless otherwise specified.
6. All information in the appraisal documents have been obtained by members of Thos. Y. Pickett's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes.

Property Discover and Data Collection Process

Mineral properties are identified and appraised based on their Railroad Commission Identification Number (RRCID). Upon completion of a new well, a Completion Report must be submitted to the Railroad Commission (RRC). The RRC then issues a RRCID. Production from that property is reported by RRCID. Periodically, wells are completed and start producing prior to being issued a RRCID. The production from these wells still must be reported to the RRC and are usually reported by Drilling Permit Number (DP). Since mineral properties are appraised using a Discounted Cash Flow analysis, production data is required to do the analysis. The RRC is the primary source of that data.

Procedure:

1. At the beginning of the year, the RRC database is searched for new wells that started producing prior to January 1 of the appraisal year. These wells are identified by RRCID or Drilling Permit (DP) number and added to the mineral appraisal database for the county. A well is considered to have value as of January 1 if it has reported production prior to that date, has filed a completion report showing completion prior to that date, or was perforated into a producing formation which showed the presence of oil or gas prior to January 1.
2. Completion reports and plats are retrieved from the RRC to identify the location of the producing wells. These locations are cross-referenced with jurisdictional maps to establish situs.
3. Division of Interest (DOI) statements are requested from the operator of the well to establish working and royalty interests.

4. Additional reviews of the RRC database are done periodically during the year to identify any wells that may have been added to the RRC database after the first of the year, but were completed prior to January 1 of the appraisal year. New producing wells identified after the appraisal period are supplemented, going back up to five years.

Other appraisal data on the subject properties are collected from required regulatory reports from the Texas Railroad Commission and the Texas Comptroller of Public Accounts and by the property owner. Submitted data may be on a rendition form or in other modes that require confidentiality. Subject property data are verified through previously existing records and through published reports. Additional data are obtained and verified through published sources, regulatory reports and through analysis of comparable properties, if any. Due to the unique nature of many oil and gas properties there is no standard data collection form or manual.

Valuation Approach and Analysis

The three generally accepted approaches used in determining the Market Value of assets are the cost, income, and market approaches. The following is a brief description of the three general approaches to value.

Cost Approach

The cost approach considers the replacement cost of an asset as an indicator of value. The cost approach is based on the assumption that a prudent investor would pay no more for an asset than the amount for which he could replace or recreate the asset. The cost approach is sometimes performed by estimating the replacement cost of an asset functionally similar to the subject. Often, historical cost data can be used to indicate the current cost of reproduction or replacement. Adjustments are made for physical deterioration and the functional and economic obsolescence of the appraised asset.

Income Approach

The income approach measures the present worth of anticipated future net cash flows generated by the subject assets. The net cash flows are forecast for an appropriate period, or capitalized in the case of a single period model, and then discounted to present value using an appropriate discount rate.

Market Approach

The market approach is performed by observing the price at assets comparable to the subject asset are bought and sold. Adjustments are made to the data to account for capacity differences and other relevant differences between the subject asset and the comparable assets.

Depending on the facts and circumstances of a particular appraisal, applying the three approaches independently of one another can yield conclusions that are substantially different. As the appraisal is performed, the strengths of the individual approaches are considered and the influence of each approach in the appraisal process is weighed according to its likely accuracy.

All oil and gas interest values are arrived at through an appraisal of the whole property. Each fractional interest is then assigned a value on the basis of its relative share of expenses, income and the value of the operating equipment. Multiple producing zones in the same well may be treated as separate properties.

Oil and gas properties are principally appraised through the income approach to value. Specifically, the discounted cash flow (DCF) technique is used almost exclusively. The almost exclusive reliance on income approach methods, adjusted for risk and market conditions, is typical of the oil and gas industry in dealings between buyers and sellers as well as in single-property appraisals. A mineral property's intrinsic value is derived from its ability to generate income by producing oil and/or gas reserves.

Income approach calibration involves the selection of the cost of capital or discount rate appropriate to the type of property being appraised as well as adjusting the projected revenue stream to reflect the individual characteristics of the subject property. The DCF model is also calibrated through the use of lease operating expenses that reflect the individual characteristics of the subject property.

A jurisdictional exception to the DCF model, as this process is described in the Statement on Appraisal Standards No. 2 of the Uniform Standards of Professional Appraisal Practice, must be taken. Section 23.175 (a) of the Texas Property Code specifies that the price of oil and gas used for the first year of the DCF analysis must be the monthly average price of the oil and gas received from the interest for the preceding year multiplied by a price adjustment factor which is calculated in accordance with Section 23.175(a). Furthermore, the prices used for succeeding years are based upon escalation factors also determined in accordance with Section 23.175(a).

Highest and best use analysis of the oil and gas reserves is based on the likelihood of the continued use of the reserves in their current use. An appraiser's identification of a property's highest and best use is always a statement of opinion, never a statement of fact.

Review and Testing

Review of appraisals is performed through a comparison of income indicators and compliance with Section 23.175 of the Texas Property Tax Code. A review of property values with respect

to year-to-year changes and with respect to industry-accepted income indicators is conducted annually. The periodic reassignment of properties among appraisers or the review of appraisals by an experienced appraiser also contributes to the review process.

Appraisal-to-sales ratios are the preferred method for measuring performance, however sales are very infrequent and often the sales conditions are not made public for the sales that do occur. Furthermore, market transactions normally occur for multiple sites and include real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Finally, Pickett's mineral appraisal methods and procedures are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review, as well as comparisons with single-property appraisals, indicates the validity of the models and the calibration techniques employed.

Thos. Y. Pickett & Company, Inc.
Reappraisal Timeline 2015

Event	2014			2015												2016						
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
New Mineral Lease Discovery																						
Schedule ARB Date, Establish Deadlines for 25.19 Data																						
Mineral Property Appraisals																						
Mineral Appraisals Released to TYP Website																						
Informal Meetings w/ Owners and Agents																						
Estimates of Certified Value to CAD																						
Delivery of 29.19 Data Files to HCAD's Software Vendor																						
Appraisal Review Board Hearings																						
Certified Values to CAD/Data to Software Vendor																						
Address 25.25 Correction Protests/Supplements as Necessary																						
Submit Data for Property Value Study																						
Review Category G Ratios/Informal Hearing if Necessary																						
File Formal PVS Protests as Necessary																						
CAD and Joint TYP/CAD Tasks																						
TYP Mineral Department Tasks																						
Milestones and Deadlines																						

Shackelford County Appraisal District
Industrial Property
2015-16 Appraisal Procedures and Reappraisal Plan

August 1, 2014

by

Thos. Y. Pickett & Company, Inc.

SUMMARY REVALUATION PROGRAM REPORT

INDUSTRIAL PROPERTY

Overview

Industrial property consists of processing facilities and related personal property. Thos. Y. Pickett & Co., Inc. (“Thos Y. Pickett” or “Pickett”) is contracted to reappraise this type of property annually for the appraisal district. The completed appraisals are all retrospective in nature. The purpose of the appraisals is to estimate market value as of January 1 in accordance with the definition of market value established in the Texas Property Tax Code (Sec. 1.04). “Market value” means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- A. exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- B. both the seller and the purchaser know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of the enforceable restrictions on its use; and
- C. both the seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

The effective date of the appraisals is January 1 of the year for which this report is submitted unless the property owner or agent has applied for and been granted September 1 inventory valuation as allowed by Section 23.12(f) of the Texas Property Tax Code.

The appraisal results will be used as the tax base upon which a property tax will be levied. The properties are appraised in fee simple in conformance with the Texas Property Tax Code Sec. 25.06. This is a jurisdictional exception to the Standards Rule 6-5 (c) Comment of the Uniform Standards of Professional Appraisal Practice. A listing of the industrial properties appraised by

Pickett for the appraisal district is available at the appraisal district office. Industrial properties are re-appraised annually. Properties are inspected annually where necessary and at least bi-annually.

Documents relevant to an understanding of these appraisals include the confidential rendition, if any, filed with the appraisal district by the owner or agent of the property; other reports described in the Texas Property Tax Code; asset lists and other confidential data supplied by the owner or agent; the General Appraisal Manual adopted by the Texas Comptroller of Public Accounts; Property Assessment Valuation published by the International Association of Assessing Officers and adopted by the Texas Comptroller of Public Accounts; and Engineering Valuation and Depreciation by Marston, Winfrey and Hempstead; and the Texas Property Tax Code.

Pickett's industrial appraisal staff includes licensed engineers as well as experienced appraisers who are knowledgeable in all three approaches to value. Industrial appraisal staff stays abreast of current trends affecting industrial properties through review of published materials, attendance at conferences, course work and continuing education. All industrial appraisers are registered with the Texas Board of Tax Professional Examiners.

Assumptions and Limiting Conditions

All appraisals are subject to the following assumptions and limiting conditions:

1. Title to the property is assumed to be good and marketable and the legal description correct.
2. No responsibility for legal matters is assumed. All existing liens, mortgages or other encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management.
3. The appraisers developing these appraisals are not required to give testimony or attendance in court by reason of the appraisals, unless directed by, employed by, and provided legal counsel by the Appraisal District.
4. The appraisers do not necessarily inspect every property every year.
5. All sketches on the appraisal documents are intended to be visual aids and should not be construed as surveys or engineering reports unless otherwise specified.
6. All information in the appraisal documents have been obtained by members of Thos. Y. Pickett's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes.

8. The appraisers have inspected as far as possible, by observation, the improvements being appraised; however, it is not possible to personally observe conditions beneath the soil or hidden structural components within the improvements. Therefore, no representations are made as to these matters unless specifically considered in an individual appraisal.

Discovery Process and Procedures

Data is collected as part of the inspection process and through later submissions by the property owner. Submitted data may be on a rendition form or in other modes that require confidentiality. Subject property data is verified through previously existing records and through published reports. Additional data are obtained and verified through published sources, regulatory reports and through analysis of comparable properties, if any. Due to the unique nature of many industrial properties there is no standard data collection form or manual.

Valuation Approach and Analysis

The three generally accepted approaches used in determining the Market Value of assets are the cost, income, and market approaches. The following is a brief description of the three general approaches to value.

Cost Approach

The cost approach considers the replacement cost of an asset as an indicator of value. The cost approach is based on the assumption that a prudent investor would pay no more for an asset than the amount for which he could replace or recreate the asset. The cost approach is sometimes performed by estimating the replacement cost of an asset functionally similar to the subject. Often, historical cost data can be used to indicate the current cost of reproduction or replacement. Adjustments are made for physical deterioration and the functional and economic obsolescence of the appraised asset.

Income Approach

The income approach measures the present worth of anticipated future net cash flows generated by the subject assets. The net cash flows are forecast for an appropriate period, or capitalized in the case of a single period model, and then discounted to present value using an appropriate discount rate.

Market Approach

The market approach is performed by observing the price at assets comparable to the subject asset are bought and sold. Adjustments are made to the data to account for capacity differences and other relevant differences between the subject asset and the comparable assets.

Depending on the facts and circumstances of a particular appraisal, applying the three approaches independently of one another can yield conclusions that are substantially different.

As the appraisal is performed, the strengths of the individual approaches are considered and the influence of each approach in the appraisal process is weighed according to its likely accuracy.

Industrial properties are generally appraised using replacement/reproduction cost new less depreciation models. Replacement costs are estimated from published sources, other publicly available information and comparable properties. Reproduction costs are based on actual investment in the subject or comparable properties adjusted for typical changes in cost over time. Depreciation is calculated on the age/life method using typical economic lives and depreciation rates based on published sources, market evidence and the experience of knowledgeable appraisers. Adjustments for functional and economic obsolescence may be made if utilization and income data for the subject property justify such. Income Approach models (direct capitalization and discounted cash flow) are also used when economic and/or subject property income information is available. Capitalization and discount rates are based on published capital costs for the industry of the subject property. A market data model based on typical selling prices per unit of capacity is also used when appropriate market sales information is available.

Because cost information is the most readily available type of data, the cost approach model is almost always considered and used. If sufficient data is available, either or both of the other two models are considered and may be used. The market data and income approach models must be reduced by the value of the land in order to arrive at a value of improvements and personal property.

Model calibration in the cost approach involves the selection of the appropriate service life for each type or class of property. Further calibration can occur through the use of utilization or through-put data provided by the owner or agent. Income approach calibration involves the selection of the cost of capital or discount rate appropriate to the type of property being appraised as well as adjusting the projected income stream to reflect the individual characteristics of the subject property. Model calibration in the market data approach involves adjusting sales prices of comparable properties to reflect the individual characteristics of the subject property.

In reconciling multiple model results for a property, the appraiser considers the model results that best address the individual characteristics of the subject property while maintaining equalization among like properties. Final results for each property may be found on the appraisal district's appraisal roll.

Land valuation for industrial properties is the responsibility of appraisal district staff as is the highest and best use analysis of the site. Sites are analyzed for highest and best use as though they were vacant. Highest and best use analysis of the improvements is based on the likelihood

of the continued use of the improvements in their current and/or intended use. An appraiser's identification of a property's highest and best use is always a statement of opinion, never a statement of fact.

Review and Testing

Field review of appraisals is performed through the regular inspection of subject properties. The periodic reassignment of properties among appraisers or the review of appraisals by an experienced appraiser also contributes to the review process. A statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance, however sales are very infrequent. Furthermore, market transactions normally occur for multiple sites and include both real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Finally, Pickett's industrial appraisal methods and procedures are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review, as well as comparisons with single-property appraisals, indicates the validity of the models and the calibration techniques employed.

Shackelford County Appraisal District
Utilities Property
2015-16 Appraisal Procedures and Reappraisal Plan

August 1, 2014

by

Thos. Y. Pickett & Company, Inc.

APPRAISAL PROCEDURES AND REAPPRAISAL PLAN

UTILITY, RAILROAD AND PIPELINE PROPERTIES

Overview

Utility, railroad, and pipeline properties consists of operating property, excluding land, owned by utility, railroad and pipeline companies and related personal property and improvements. Thos. Y. Pickett & Co., Inc. (“Thos. Y. Pickett” or “Pickett”) is contracted to reappraise this type of property annually for the appraisal district. The completed appraisals are all retrospective in nature. The purpose of the appraisals is to estimate market value as of January 1 in accordance with the definition of market value established in the Texas Property Tax Code (Sec. 1.04). “Market value” means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- A. exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- B. both the seller and the purchaser know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of the enforceable restrictions on its use; and
- C. both the seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

The effective date of the appraisals is January 1 of the year for which this report is submitted.

The appraisal results will be used as the tax base upon which a property tax will be levied. The properties are appraised in fee simple in conformance with the Texas Property Tax Code Sec. 25.06. This is a jurisdictional exception to the Standards Rule 6-5 (c) Comment of the Uniform Standards of Professional Appraisal Practice 2004. A listing of the utility, railroad and pipeline properties appraised by Pickett for the appraisal district is available at the appraisal district office. All properties are reappraised annually. Such utility, railroad and pipeline properties that are susceptible to inspection (e.g. compressor stations, pump stations, buildings and power plants) are normally re-inspected at least every three years.

Pickett's utility, railroad and pipeline appraisal staff includes licensed engineers as well as experienced appraisers who are knowledgeable in all three approaches to value. The appraisal staff stays abreast of current trends affecting utility, railroad and pipeline properties through review of published materials, attendance at conferences, course work and continuing education. All appraisers are registered with the Texas Board of Tax Professional Examiners.

Assumptions and Limiting Conditions

All appraisals are subject to the following assumptions and limiting conditions:

1. Title to the property is assumed to be good and marketable and the legal description correct.
2. No responsibility for legal matters is assumed. All existing liens, mortgages or other encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management.
3. The appraisers developing these appraisals are not required to give testimony or attendance in court by reason of the appraisals, unless directed by, employed by, and provided legal counsel by the Appraisal District.
4. The appraisers do not necessarily inspect every property every year.
5. All sketches on the appraisal documents are intended to be visual aids and should not be construed as surveys or engineering reports unless otherwise specified.
6. All information in the appraisal documents have been obtained by members of Thos. Y. Pickett's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes.
8. The appraisers have inspected as far as possible, by observation, the improvements being appraised; however, it is not possible to personally observe conditions beneath the soil or hidden structural components within the improvements. Therefore, no representations are made as to these matters unless specifically considered in an individual appraisal.

Discovery Procedures and Data Collection

Data is collected as part of the inspection process and through later submissions by the property owner. Submitted data may be on a rendition form or in other modes that require confidentiality. Subject property data is verified through previously existing records and through published reports. Additional data are obtained and verified through published sources, regulatory reports and through analysis of comparable properties. Due to the varied nature of utility, railroad and pipeline properties there is no standard data collection form or manual.

Valuation Approach and Analysis

The three generally accepted approaches used in determining the Market Value of assets are the cost, income, and market approaches. The following is a brief description of the three general approaches to value.

Cost Approach

The cost approach considers the replacement cost of an asset as an indicator of value. The cost approach is based on the assumption that a prudent investor would pay no more for an asset than the amount for which he could replace or recreate the asset. The cost approach is sometimes performed by estimating the replacement cost of an asset functionally similar to the subject. Often, historical cost data can be used to indicate the current cost of reproduction or replacement. Adjustments are made for physical deterioration and the functional and economic obsolescence of the appraised asset.

Income Approach

The income approach measures the present worth of anticipated future net cash flows generated by the subject assets. The net cash flows are forecast for an appropriate period, or capitalized in the case of a single period model, and then discounted to present value using an appropriate discount rate.

Market Approach

The market approach is performed by observing the price at assets comparable to the subject asset are bought and sold. Adjustments are made to the data to account for capacity differences and other relevant differences between the subject asset and the comparable assets.

Depending on the facts and circumstances of a particular appraisal, applying the three approaches independently of one another can yield conclusions that are substantially different. As the appraisal is performed, the strengths of the individual approaches are considered and the influence of each approach in the appraisal process is weighed according to its likely accuracy.

For all pipelines a value is calculated using a Replacement Cost New Less Depreciation (RCNLD) model. This involves first calculating the cost of building a new pipeline of equal utility using current prices. The Replacement Cost New (RCN) is a function of location, length, diameter and composition. Depreciation is then subtracted from RCN to produce the final value estimate. Depreciation is defined as the loss of value resulting from any cause. The three common forms of depreciation are physical, functional and economic. Physical depreciation is accounted for on the basis of the age of the subject pipeline. Functional and economic obsolescence (depreciation) can be estimated through the use of survivor curves or other normative techniques. Specific calculations to estimate abnormal functional and/or economic obsolescence can be made on the basis of the typical utilization of the subject pipeline.

After deductions from RCN have been made for all three forms of depreciation, the remainder is the RCNLD or cost approach model indicator of value.

In addition to the RCNLD indicator, a unit value model may also be used for those pipelines for which appropriate income statements and balance sheets are also available. Generally, this model is used for those pipelines that by regulation are considered to be common carriers. The unit value model must be calculated for the entire pipeline system.

The unit value model typically involves an income approach to value and a rate base cost approach. The income approach is based on a projection of expected future typical net operating income (NOI). The projected NOI is discounted to a present worth using a current cost of capital that is both typical of the industry and reflective of the risks inherent in the subject property. The unit value model cost approach is typically an estimation of the current rate base of the subject pipeline (total investment less book depreciation allowed under the current form of regulation). An additional calculation is made to detect and estimate economic obsolescence. Any economic obsolescence is deducted from the rate base cost less book depreciation to achieve a final cost indicator. The unit value model may also include a stock and debt approach in lieu of a market data approach. The stock and debt approach involves finding the total value of the owner's liabilities (equity and debt) and assuming that they are equal to the value of the assets. The two (or three, if the stock and debt approach is included) unit value indicators are then reconciled into a final unit appraisal model indicator of value. The unit value must then be reconciled with the RCNLD model indicator of value for the entire pipeline system being appraised. The final correlated value of the system can then be allocated among the various components of the system to determine the tax roll value for each pipeline segment.

Utility and railroad properties are appraised in a manner similar to pipeline except the RCNLD model is not used. For all three types of property (utility, railroad and pipeline) the appraiser must first form an opinion of highest and best use. If the highest and best use of the operating property is the current use under current regulation, the unit value model is considered highly appropriate. If the highest and best use is something different, then the RCNLD model may be more appropriate.

Compressor stations, pump stations, improvements and related facilities are appraised using a replacement cost new less depreciation model.

Model calibration in the RCNLD model involves the selection of the appropriate service life for each type or class of property. Further calibration can occur through the use of utilization or through-put data provided by the owner or agent. Model calibration in the unit value cost approach involves the selection of the appropriate items to include in the rate base calculation and selection of the best measure of obsolescence, if any. Income approach calibration involves the selection of the cost of capital or discount rate appropriate to the type of property being appraised as well as adjusting the projected income stream to reflect the individual characteristics of the subject property. Model calibration in the stock and debt approach involves allocating sales prices of debt and equity to reflect the contribution to value of the operating property of the subject property.

In reconciling multiple model results for a property, the appraiser considers the model results that best address the individual characteristics of the subject property while maintaining equalization among like properties. Final results for each property may be found on the appraisal district's appraisal roll.

Land valuation for utility and pipeline properties is the responsibility of appraisal district staff as is the highest and best use analysis of the site. Sites are analyzed for highest and best use as though they were vacant. Highest and best use analysis of the improvements is based on the likelihood of the continued use of the improvements in their current and/or intended use. Railroad corridor land is included in the appraisal of the operating property. The highest and best use of railroad corridor land is presumed to be as operating property. An appraiser's identification of a property's highest and best use is always a statement of opinion, never a statement of fact.

The rate-base cost approach, stock and debt approach and income approach models must be reduced by the value of the land in order to arrive at a value of improvements, personal property and other operating property.

Review and Testing

Field review of appraisals is performed through the regular inspection of subject properties. The periodic reassignment of properties among appraisers or the review of appraisals by an

experienced appraiser also contributes to the review process. A statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance, however sales are very infrequent. Furthermore, market transactions normally occur for multiple sites and include both real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Appraisal results are tested annually by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review, as well as comparisons with single-property appraisals, indicates the validity of the models and the calibration techniques employed.