Angelina County Appraisal District Mass Appraisal Report
2021

Texas Property Tax Code Section 23.01 states that the market value of property shall be determined by the application of generally accepted appraisal methods and techniques. The Angelina County Appraisal District's mass appraisal standards must comply with the *Uniform Standards of Professional Appraisal Practice* (USPAP). USPAP Standard 6 is a necessary set of rules that provides structure and guidance for the appraisal staff during the development and implementation of appraisal concepts.

Tax Code Section 25.22 requires that, each tax year on or about May 15 or as soon thereafter as practicable, the chief appraiser subscribes an affidavit on the submission of the completed appraisal records to the appraisal review board for the determination of protests. This signed affidavit follows, along with the signed *Mass Appraisal Report* in compliance with USPAP Standard Rule 6-8.

LIMITING CONDITIONS

The appraised value estimates provided by the appraisal district are subject to the following conditions:

1. The appraisals are prepared exclusively for ad valorem tax purposes.

2. Property characteristic data upon which appraisals are based is assumed to be correct. Exterior inspections of the property appraised are performed as staff resources and time allowed. Some interior inspections of property appraised are performed at the request of the property owner and required by the district for clarification purposes and to correct property descriptions.

3. Validation of sales transactions is attempted through questionnaires to buyer and seller, telephone survey and field review. In the absence of such confirmation, sales data obtained from vendors is considered reliable.

Appendix A is a recap of the appraised value estimates for tax year 2021. Appendix B is a list of staff providing significant assistance to the person signing this certification. Appendix C is the two-year, detailed reappraisal plan adopted by the Board of Directors, Angelina County Appraisal District.

EFFECTIVE DATE OF APPRAISAL AND DATE OF THE REPORT

Except for certain inventories for which the property owner has elected a valuation date of September 1, 2020; all appraisals are as of January 1, 2021. Definition of Value Except as otherwise provided by the Texas Tax Code (hereafter "Tax Code"), all taxable property is appraised at its "market value" as of January 1. Under the tax code, "market value" means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- Exposed for sale in the open market with a reasonable time for the seller to find a purchaser:
- Both the seller and the buyer know of all 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,
- Both the seller and buyer seek to maximize their gains, and neither is able to take advantage of the exigencies of the other.

The Tax Code defines special appraisal provisions for the valuation of several different categories of property. Specially appraised property is taxed on a basis other than market value as defined above. These categories include agricultural and timber property (Chapter 23, Subchapters C and D, Tax Code), certain types of dealer inventory (Sec. 23.121, 23.124, 23.1241 and 23.127), and nominal (Sec 23.18) or restricted use properties (Sec 23.83).

PROPERTIES APPRAISED

The mass appraisal technique appraises all taxable real and personal property known to the district as of January l, 2021. Any taxable real and personal property discovered to be left off the appraisal roll will be supplemented for the appraisal years omitted as prescribed under Section 25.21 of the Texas Property Tax Code.

These, by law, will be appraised and supplemented to the jurisdictions after the certification of the appraisal roll. The property rights appraised were fee simple interests, except for leasehold interests in property exempt to the owner of the estate or interest encumbered by possessory interest. The latter are appraised under a statutory formula described in Sec. 25.07, Tax Code. The description and identification of each property appraised is included in the appraisal records submitted to the Angelina County Appraisal Review Board (ARB).

SCOPE OF WORK USED TO DEVELOP APPRAISAL

This mass appraisal appraised all taxable real and tangible personal property within the boundaries of the Angelina County Appraisal District, which encompasses all of Angelina County, Texas. This involves approximately 66,000 accounts. The district distributes the work of the appraisal among several appraisal personnel. The following sections describe, by area of responsibility, the scope of work performed, and those items addressed in USPAP standard 6-8 (a) through (q). The Chief Appraiser, who is the chief executive officer of the appraisal district, manages the district. All district employees report to the chief appraiser through their immediate department manager. The district is divided into separate appraisal departments, customer service departments, sales and research, information services and administration. The appraisal departments are made up of Residential, Commercial, and Personal Property. Customer Service encompasses homestead and related exemption applications, and taxpayer information and assistance. The sales and research department handles lawsuits, gathering sales information, verification, and assist ARB. Administration is responsible for budget and financial matters,

and Information Services operates the district's computer facilities and is responsible for deed transfers and GIS mapping. The district's appraisers are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with The Texas Department of Licensing and Regulations.

While the appraisal district staff conducted most of the appraisal activities, the district also uses an outside firm for the appraisal of oil and gas and utilities. The contract for the outside firm is conducted by bids for a 2-year term. The district established procedures whereby ownership and property data information are routinely exchanged.

Determination of Highest and Best Use for Real Property

The district's market value appraisals are performed pursuant to Article VIII, Sec. 1., Texas Constitution, which provides that property must be taxed in proportion to its value as determined by law, Sec. 23.01, Tax Code implements this provision as follows:

Sec. 23.01 Appraisals Generally

4. Except as otherwise provided by this chapter, all taxable property is appraised at its market value as of January 1.

5. The market value of property shall be determined by the application of generally accepted appraisal methods and techniques. If the appraisal district determines the appraised value of a property using mass appraisal standards, the mass appraisal standards must comply with the Uniform Standards of Professional Appraisal Practice. The same or similar appraisal methods and techniques shall be used in appraising the same or similar types of property. However, each property shall be appraised based upon the individual characteristics that affect the property's market value.

6. Notwithstanding Section 1.04(7)(C), in determining the market value of a residence homestead, the chief appraiser may not exclude from consideration the value of other residential property that is in the same neighborhood as the residence homestead being appraised and would otherwise be considered in appraising the residence homestead because the other residential property:

- was sold at a foreclosure sale conducted in any of the three years preceding the tax year in which the residence homestead is being appraised and was comparable at the time of sale based on relevant characteristics with other residence homesteads in the same neighborhood; or
- has a market value that has declined because of a declining economy

(a) The market value of a residence homestead shall be determined solely on the basis of the property's value as a residence homestead, regardless of whether the residential use of the property by the owner is considered to be the highest and best use of the property

(b) Notwithstanding any provision of this subchapter to the contrary, if the appraised value of property in a tax year is lowered under Subtitle F, the appraised value of the property as finally determined under that subtitle is considered to be the appraised value of the property for that tax year. In the following tax year, the chief appraiser may not increase the appraised value of the property unless the increase by the chief appraiser is reasonably supported by substantial

evidence when all the reliable and probative evidence in the record is considered. If the appraised value is finally determined in a protest under Section 41.41(a)(2) or an appeal under Section 42.26, the chief appraiser may satisfy the requirement to reasonably support by substantial evidence an increase in the appraised value of the property in the following tax year by presenting evidence showing that the inequality in the appraisal of property has been corrected with regard to the properties that were considered in determining the value of the subject property. The burden of proof is on the chief appraiser to support an increase in the appraised value of property under the circumstances described by this subsection.

Prior to the addition of 23.01(d) concerning residential homesteads, there was no specific statute defining highest and best use as it applies in appraisals conducted under the Property Tax Code. However, Texas courts have acknowledged that highest and best use is a factor that must be considered in determining market value.

"Highest and best use" is the reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum profitability.

Apart from residence homesteads, this definition of highest and best use still applies to appraisals conducted under the Property Tax Code.

USPAP Standard 6 Certification:

I certify that, to the best of my knowledge and belief:

-The statements of fact contained in this report are true and correct.

-The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.

-I have no present or prospective interest in the properties that are the subject of this report, and I have no (or the specified) personal interest with respect to the parties involved, except for (list appraiser's own property and how handled in the appraisal process).

-I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment, except those noted above.

-My engagement in this assignment was *not* contingent upon developing or reporting predetermined results.

-My compensation for completing this assignment is *not* contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result or the occurrence of a subsequent event directly related to the intended use of this appraisal.

-My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice.*

-The property characteristic data upon which the appraisals are based is assumed to be correct. Exterior inspections of the property appraised are performed as staff resources and time allowed. Some interior inspections of property appraised are performed at the request of the property owner and required by the appraisal district for clarification purposes and to correct property descriptions.

-Those providing significant mass appraisal assistance to the person signing this certification as listed in Appendix B.

Signed: _____ Date: 5-18-2021

Tim Chambers, Chief Appraiser

Appendix A: Certification of Appraisal Roll to Taxing Unit

Certification of 2021 Appraisal Roll for Angelina County Appraisal District, as required by Texas Property Tax Code Section 26.01:

I, Tim Chambers, Chief Appraiser for Angelina County Appraisal District, solemnly swear that the attached is that portion of the approved appraisal roll of the Angelina County Appraisal District which lists property taxable by the cities of Diboll, Hudson, Huntington, Lufkin, and Zavalla, the school districts of Central, Colmesneil, Diboll, Hudson, Huntington, Lufkin, Wells, and Zavalla and Angelina County, Angelina Junior College, and Fresh Water Districts 1 and 4 and constitutes the appraisal roll for the cities of Diboll, Hudson, Huntington, Lufkin, and Zavalla, the school districts of Central, Colmesneil, Diboll, Hudson, Huntington, Lufkin, Wells, and Zavalla and Angelina County, Angelina Junior College, and Fresh Water Districts 1 and 4.

2021 Appraisal Roll Information:

Total Appraised Value:	$6,855,550,069
Total Assessed Value:	$6,690,092,123
Total Taxable Value:	$6,645,495,218
Number of Accounts:	64,717

Signed: _____ Date: 7-20-2021

Tim Chambers, Chief Appraiser

Appendix B: List of Staff Providing Significant Mass Appraisal Assistance

(list everyone who contributed to the determination of values, to do so must be certified under TDLR)

Name	Title	TDLR #
Tim Chambers	Chief Appraiser	71066
David Townsend	Field Appraiser	72759
Shana Kirkland	Field Appraiser	73154
Brandon Owens	Field Appraiser	73980
Josh Ivy	Field Appraiser	74519
Tryneshia Ford	Field Appraiser	74620
Scott Bailey	Field Appraiser	75821
Robbie Kessler	Field Appraiser	75818
Brittany Toler	Field Appraiser	75624
John Terry	Field Appraiser	74929

Appendix C: 2019-2020 Angelina County Appraisal District Reappraisal Plan

Angelina County Appraisal District
418 N. Second Street, Lufkin, Texas 75902
PO Box 2357, Lufkin, Texas 75902
Telephone: (936) 634-8456
www.angelinacad.org

ANGELINA COUNTY APPRAISAL DISTRICT
2021 – 2022 REAPPRAISAL PLAN

AS ADOPTED BY BOARD ACTION - OCTOBER 15, 2020

EXECUTIVE SUMMARY: TAX CODE REQUIREMENT
Passage of S. B. 1652 amended the Tax Code to require a written biennial reappraisal plan.

The Angelina County Appraisal District has prepared and published this appraisal plan and appraisal report to provide our Board of Directors, citizens and taxpayers with a better understanding of the district's responsibilities and activities. This report has several parts: a general introduction and then, several sections describing the appraisal effort by the appraisal district.

The Angelina County Appraisal District (CAD) is a political subdivision of the State of Texas created effective January 1, 1980. The provisions of the Texas Property Tax Code govern the legal, statutory, and administrative requirements of the appraisal district. A member Board of Directors, appointed by the taxing units within the boundaries of Angelina County, constitutes the district's governing body. The chief appraiser, appointed by the Board of Directors, is the chief administrator and chief executive officer of the appraisal district.

The appraisal district is responsible for local property tax appraisal and exemption administration for 17 jurisdictions or taxing units in the county. The taxing entities are as follows:

Angelina County
Angelina College
City of Diboll
City of Hudson
City of Huntington
City of Lufkin
City of Zavalla
Central I.S.D.
Diboll I.S.D.
Hudson I.S.D.
Huntington I.S.D.
Lufkin I. S. D.
Zavalla I. S. D.
Colmesneil I.S.D.
Wells I.S.D.
Angelina County Fresh Water District #4
Angelina County Fresh Water District

Each taxing unit, such as the county, a city, school district, municipal utility district, etc., sets its own tax rate to generate revenue to pay for such things as police and fire protection, public schools, road and street maintenance, courts, water and sewer systems, and other public services. Property appraisals and estimated values by the appraisal district allocate the year's tax burden on the basis of each taxable property's market value. We also determine eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, charitable or religious organizations and agricultural productivity valuation.

The district is responsible for establishing and maintaining approximately 66,500 real and personal property accounts covering 867 square miles and approximately 554,880 acres within Angelina County and several hundred square miles within adjoining counties. Portions of adjoining school districts are within this number of properties. These over-lapping jurisdictions are Wells ISD in Cherokee County & Colmesneil ISD in Tyler County. Data for all properties

includes property characteristics, ownership, and exemption information. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field review. Sales are routinely validated during a separate field effort; however, numerous sales are validated as part of the new construction and field inspections. General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various sources, including internally generated questionnaires to buyer and sellers, university research centers, and market data centers and vendors.

The district has a geographic information system (GIS) that maintains cadastral maps and various layers of data and aerial photography. The district's website makes a broad range of information available for public access, including information on the appraisal process, property characteristics data, certified values, protests and appeal procedures. Downloadable files of related tax information and district forms, including exemption applications and business personal property renditions are also available.

The Legislature enacted House Bill 1010 effective January 1, 2008, eliminating shared appraisal district properties. Each appraisal district is now responsible for appraising only the properties that exist within its county.

The reappraisal plan is made under the guidelines of current law. This plan may be revised if the Legislature materially changes current laws governing Appraisal Districts, in the unfortunate event of a natural disaster, or other unforeseeable event. Any proposed revision is subject to public notification and ratification by the Board of Directors of the Angelina County Appraisal District.

The Written Plan

Section 6.05, Tax Code, is amended by adding Subsection (i) to ACAD as follows:

(i) To ensure adherence with generally accepted appraisal practices, the Board of directors of an appraisal district shall develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18 and shall hold a public hearing to consider the proposed plan. Not later than the 10th day before the date of the hearing, the secretary of the board shall deliver to the presiding officer of the governing body of each taxing unit participating in the district a written notice of the date, time, and place of the hearing. Not later than September 15 of each even numbered year, the board shall complete its hearings, make any amendments, and by resolution finally approve the plan. Copies of the approved plan shall be distributed to the presiding officer of the governing body of each taxing unit participating in the district and to the comptroller within 60 days of the approval date.

Plan for Periodic Reappraisal

Subsections (a) and (b), Section 25.18, Tax Code, are amended to ACAD as follows:

(a) Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).

(b) The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years:

(1) Identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches;

(2) Identifying and updating relevant characteristics of each property in the appraisal records;

(3) Defining market areas in the district;

(4) Identifying property characteristics that affect property value in each market area, including:

(A) The location and market area of the property;

(B) Physical attributes of property, such as size, age, and condition;

(C) Legal and economic attributes; and

(D) Easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;

(5) Developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;

(6) Applying the conclusions reflected in the model to the characteristics of the properties being appraised; and

(7) Reviewing the appraisal results to determine value.

REVALUATION DECISION (REAPPRAISAL CYCLE)

The Angelina County Appraisal District, by policy adopted by the Board of Directors and the Chief Appraiser, reappraises all property in the district annually. The reappraisal year is a complete appraisal analysis of all properties in the district and requires that each property owner be noticed in compliance with Section 25.19 of the Tax Code. Tax years 2021 and 2022 will be reappraisal years. Market areas that have existing values consistent with the market and demonstrate uniformity will be noticed at current year value levels. ACAD currently conducts reappraisal on a three year rotation. While all property values are updated annually to reflect market values, one-third of the district is re-inspected every year.

Reappraisal Activities

1. **Performance Analysis** – the equalized values from the previous tax year will be analyzed with ratio studies to determine the appraisal accuracy and appraisal uniformity overall and by market area within property reporting categories. Ratio studies will be conducted in compliance with the current *Standard on Sales Verification* of the International Association of Assessing Officers (IAAO).

2. **Analysis of Available Resources** – Staffing and budget requirements for tax year 2019 are detailed in the 2019 budget, as adopted by the board of directors. Staffing and budget requirements for tax year 2020 will be addressed in the 2020 budget to be adopted in accordance with Section 6.06 of the Property Tax Code.

3. **Planning and Organization** – A calendar of key events with critical completion dates will be prepared for each major work area. This calendar identifies key events for appraisal, mapping and records, administrative, inquiry, and information systems. A calendar is prepared for tax year 2019. Production goals for field activities will be established and incorporated in the planning and scheduling process.

4. **Mass Appraisal System** – True Automation, PACS system revisions required will be specified and scheduled with Information Systems. All computers, forms, and IS procedures will be reviewed and revised as required.

5. **Identifying and updating relevant characteristics** – Field and office procedures will be reviewed and revised as required for data collection. Activities scheduled for each tax year include new construction, demolition, remodeling, re-inspection of market areas as needed, periodic re-inspection of the universe of properties, and field or office verification of sales data and property characteristics. Re-inspection of properties is to be completed using physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches.

6. **Valuation by tax year** – Using market analysis of comparable sales, locally tested cost data and income analysis, valuation models will be specified and calibrated in compliance with supplemental standards from the IAAO and USPAP. The calculated

values will be tested for accuracy and uniformity using ratio studies.

7. **The Mass Appraisal Report** – Each tax year the Tax Code required mass appraisal report will be prepared and certified by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th).

8. **Value defense** – The Appraisal District has the burden of proof regarding protests related to appraisal or market value as well as unequal appraisal. Inspection and/or disclosure of evidence and related materials will comply with Section 41.461 of the Tax Code.

1. Performance Analysis

For each tax year, the previous tax year's equalized values will be analyzed with ratio studies to determine appraisal accuracy and appraisal uniformity overall and by market area within state property reporting categories. Ratio studies will be conducted in compliance with the IAAO *Standard on Sales Verification.* Descriptive statistics, such as, mean, median, and weighted mean ratios will be calculated for properties in each reporting category to measure the level of appraisal accuracy and the coefficient of dispersion (COD) will be calculated to measure appraisal uniformity by property reporting category. This analysis will be used to develop the starting point for establishing the accuracy and uniformity of appraisal performance.

Third Party -- Section 5.10 of the Texas Property Tax Code requires the comptroller to conduct a study at least once every two years to determine the degree of uniformity and the median level of appraisals by the appraisal district within each major category of property. The Property Value Study (PVS) uses statistical analysis of sold properties and appraisals of unsold properties as a basis for assessment ratio reporting. The preliminary results of this study are released in January following the year for which the study is conducted. Final results are then certified to the Education Commissioner of the Texas Education Agency in July. This outside (third party) ratio study provides meaningful data to ACAD in regards to the accuracy and uniformity of yearly appraisal work while also providing assistance in identifying potential areas requiring reanalysis the following appraisal year.

Third Party -- Section 5.102 of the Texas Property Tax Code requires the comptroller to review at least once every two years, the governance of each appraisal district, taxpayer assistance provided, and the operating and appraisal standards, procedures, and methodology to determine compliance with generally accepted standards, procedures, and methodology. This review, referred to as the Methods and Assistance Program (MAP), will be conducted during the year in which a Property Value Study is not undertaken. The comptroller is required to deliver a written report to the chief appraiser, CAD board of directors, and each superintendent and board of trustees in school districts in the CAD concerning the MAP findings. This review provides the appraisal district with the opportunity to ensure that the office policies and procedures, and the appraisal standards and methodology are in compliance with Tax Code and USPAP requirements.

Pilot Studies

Whenever new procedures are considered it is prudent to conduct a pilot study of the new procedures, including a ratio study in one or two areas of a jurisdiction to ensure the new procedures produce accurate and reliable results prior to full implementation. Per IAAO standards, pilot studies are considered for major changes in procedures.

2. Analysis of Available Resources

Staffing and budget requirements for tax year 2021 are detailed in the 2021 appraisal district budget, as adopted by the board of directors. Staffing and budget requirements for tax year 2020 will be addressed in the 2020 budget to be adopted in accordance with Section 6.06 of the Property Tax Code. Staffing will impact the cycle of real property re-inspection and personal property on-site review that can be accomplished in the 2021-2022 time period.

Personnel Resources

The office of the Chief Appraiser is primarily responsible for overall planning, organizing, staffing, coordinating, and controlling of district operations. The administration department's function is to plan, organize, direct and control the business support functions related to human resources, budget, finance, records management, purchasing, fixed assets, facilities and postal services. The appraisal department is responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, business personal, mineral, utilities, and industrial. The district's appraisers are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with the Texas Board of Tax Professional Examiners. Support functions including records maintenance, information and assistance to property owners, and hearings are coordinated by personnel in support services.

The appraisal district staff consists of 19 full-time employees and two part-time employee with the following classifications:

- 2 -Official/Administrator (executive level administration)
- 2 -Professional (supervisory and management)
- 8 -Technicians (appraisers, program appraisers and mappers)
- 7 -Administrative Support (professional, customer service, clerical and other)

Staff Education and Training

All appraisal personnel receive extensive training in data gathering processes including statistical analyses of all types of property to ensure equality and uniformity of appraisal of all types of property. On-the-job training is delivered by department managers for new appraisers and managers meet regularly with staff to introduce new procedures and regularly monitor appraisal activity to ensure that standardized appraisal procedures are being followed by all personnel. All personnel that are performing appraisal work are registered with the Texas Department of Licensing and Regulation and are required to take appraisal courses to achieve the status of Registered Professional Appraiser within five years of employment as an appraiser. After they are awarded their license, they must receive additional training of a minimum of 75 hours of continuing education units, USPAP & Ethic course, every five years. Failure to meet minimum standards results in the termination of the employee.

Existing appraisal practices, which are continued from year to year, will be reviewed and kept current. In each year, real property cost and depreciation tables will be tested against verified sales data to ensure they accurately reflect current market data. Residential analyst staff will evaluate the residential cost and depreciation tables to ensure consistency of data with that of *Marshall & Swift*, which is a nationally recognized cost service. Commercial analyst staff will update studies of capitalization rates and current market rents to update income models.

Information Systems (IS) support will be detailed with year specific functions identified and system upgrades scheduled. Computer generated forms will be reviewed for revisions based on year and reappraisal status. Legislative changes will be scheduled for timely completion and testing. Existing maps and data requirements will be specified and updates put in production as needed.

3. Planning and Organization

For each year, a calendar of key events with critical completion dates will be prepared for each major work area. This calendar identifies key events for appraisal, administrative, inquiry, and information systems. Production goals for field activities will be established and incorporated in the planning and scheduling process. See Calendar of Events.

Appraisers begin the reappraisal year by employing existing mass appraisal statistical analysis, gathering sales data from deed records, survey letters, local builders, appraisers and other sources. They confirm and analyze sales data, run internal ratio study reports, check outliers, establish and adjust classification system, review and update cost/market schedules as necessary, establish land values on newly platted subdivisions. They will then begin carrying out field inspections, work sales information and review real estate renditions, review neighborhood sales recap sheets, work subdivisions as required by reappraisal cycle, check all existing data, and work building permits, investigate sales information that may need confirmation, take photographs of improvements, draw plans of new home construction from builder plans or from actual measurements for entry into computer, conduct field inspections of newly platted subdivisions.

Reappraisal 2021

This effort will be conducted beginning in 2020 to April 1, 2021. Field work and re-inspections will be substantially complete by January 1, 2021, allowing sufficient time for market area analysis and schedule updates from January 1 to April 1. The time period of May 1 to July 25, 2021 will be reserved for property owner protests.

Reappraisal 2022

This effort will be conducted beginning in 2021 to April 1, 2022. Field work and re-inspections will be substantially complete by January 1, 2022, allowing sufficient time for market area analysis and schedule updates from January 1 to April 1. The time period of May 1 to July 25, 2022 will be reserved for property owner protests.

4. Mass Appraisal System

Computer Assisted Mass Appraisal (CAMA) system revisions are specified and scheduled with Information Systems. All computer forms and Information System procedures are reviewed and revised as required. The following details these procedures as they relate to the 2019 and 2020 tax years:

(1) Review and revise user set-up, user rights, and user security
(2) Review and revise set-ups for CAMA and Assessments
(3) Review and revise system codes
(4) Review, update and advise staff of specific field information required for data entry
(5) Review and revise all system forms for upcoming tax year based on administrative and legislative changes
(6) Test forms revisions against sample property accounts
(7) Monitor system for installation of new releases and patches
(8) Test sample property accounts to verify functionality of releases and patches
(9) Schedule Web-ex seminars for system revisions and updates with software vendor
(10) Produce preliminary totals and edit check reports
(11) Perform January 1st functions as specified by software vendor's documentation
(12) Perform shared property processing and test and advise
(13) Perform notice processing functions as specified by TSG documentation
(14) Perform certification functions as specified by TSG documentation
(15) Schedule and perform regular system back-ups, ad hoc updates and rebuilds, CAMA and assessment calculations
(16) Assist users in PC backups, clearing cache, and virus software maintenance
(17) Perform supplemental processing
(18) Generate Reports
(19) Perform data queries as necessary

The district utilizes the PACS system developed by True Automation. All computers, forms, and IS procedures will be reviewed and revised as required. The following details these procedures as they relate to the 2021-2022 tax years:

Real Property Valuation

Revisions to cost models, income models, and market models will be specified, updated and tested each tax year. Cost schedules will be tested with market data (sales) to insure that the appraisal district is in compliance with Texas Property Tax Code, Section 23.011. Replacement cost new tables as well as depreciation tables will be tested for accuracy and uniformity through ratio studies and comparison with cost data from *Marshall & Swift*.

Land tables will be updated using current market data (sales) and then tested with ratio studies.

Value modifiers will be developed for property categories by market area and tested on a pilot basis with ratio studies.

Income, expense, and occupancy data will be updated in the income models for each market area or property type, and cap rate studies will be completed using current sales data. The resulting models will be tested using ratio studies.

Personal Property Valuation
Density schedules will be updated as needed using data received during the previous tax year from renditions and hearing documentation. Valuation procedures will be reviewed and modified as needed, and tested.

Appraisal Notices
Appraisal notices will be reviewed for legal sufficiency and correctness. Enclosures will be updated as needed to comply with legal requirements.

Hearing Process
Protest hearing scheduling procedures for informal and formal appraisal review board hearings will be reviewed and updated as required. Standards of documentation will be reviewed and amended as required. The appraisal district hearing documentation will be reviewed and updated to reflect the current valuation methods and practices. Production of documentation will be tested and compliance with Tax Code requirements will be ensured.

5. Identifying and Updating Relevant Characteristics for Each Property

The Systems Administrator and the computer mapping department manage and maintain the district's data processing facility, software applications, Internet website, and geographical information system. The district uses the windows based server system. The software operates via local PC network maintained in house. The GIS mapping system is maintained in house with ESRI software.

Field and office procedures will be reviewed and revised as required for data collection. Activities scheduled for each tax year include inspection of new construction, demolition, and remodeling, re-inspection of problematic market areas, and periodic re-inspection of the universe of properties.

Properties are identified as part of the appraiser's physical inspection process each year, through data submitted by the property owner, or by other reliable means of identification, including deeds or other legal documentation, photographs, maps and property sketches.

New Construction/ Demolition
Field and office review procedures for inspection of new construction will be identified and revised as required. Field production goals will be established along with audit procedures.
Remodeling

Property identified as having remodel or improvement updates will be scheduled for onsite inspections to verify property characteristics data.

Market Area Review
Real property market areas, stratified by property classification, will be tested for low or high sales ratios, and high coefficients of dispersion. Market areas that fail any or all of these tests will be reviewed. Field reviews will be scheduled to verify and correct property characteristics data. Additional sales data will be researched and verified in order to assess whether the market area is correctly defined and stratified.

Market Area Delineation
Market areas are defined by the physical, economic, governmental and social forces that influence property values. The effects of these forces were used to identify, classify, and stratify or delineate similarly situated properties into smaller, more comparable and manageable subsets for valuation purposes. Delineation can involve the physical drawing of neighborhood boundary lines on a map or, it can also involve statistical separation or stratification based on attribute analysis. These homogeneous properties have been delineated into valuation neighborhoods for residential property or economic class for commercial property. Because there are discernible patterns of growth that characterize a neighborhood or market segment, analyst staff will evaluate and redefine the neighborhood boundaries or market segments when necessary in order to ensure homogeneity of property characteristics.

Re-inspection of the Universe of Properties
Re-inspection of properties will be completed using a combination of field inspections and office review. Office review of property for the 2021 tax year will include the examination of aerial photography using the 2020 orthographic imagery provided by *Eagleview*, property sketches, and existing property characteristics.

The district is responsible for establishing and maintaining approximately 66,000 real and personal property accounts within Angelina County Appraisal District's jurisdiction. A district goal will be to inspect approximately 20,000 real parcels each year.

Field or Office Verification of Sales Data and Property Characteristics
Sales information must be verified and property data (characteristics), contemporaneous with the date of sale, must be captured. Valid statistical analyses for direct and indirect equalization using sales ratios require the appraisal data to reflect the condition of the property at the time of sale.

The date of last inspection and the CAD appraiser responsible are listed on the computer assisted mass appraisal software record or property card. If a property owner or jurisdiction disputes the district's records concerning this data during a hearing, via a telephone call or other correspondence received, the record may be corrected based on the evidence provided or an on-site inspection may be conducted. Typically, a field inspection is requested to verify this information for the current year's valuation or for the next year's valuation. Every year a

field review of real property located in certain areas or neighborhoods in the jurisdiction is done during the data review/re-list field effort. A field review is performed on all personal property accounts, with available situs, each year.

Office reviews are completed on properties where update information has been received from the owner of the property and is considered accurate and correct. When the property data is verified in this manner, and considered accurate and correct, field inspections may not be required. The personal property department mails property rendition forms in January of each year to assist in the annual review of the property.

6. Valuation by Tax Year

Appraisals established by ACAD allocate the year's tax burden on the basis of each taxable property's January 1 market value as defined in the Texas Property Tax Code, Section 1.04(7).

"Market Value" means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if: exposed for sale in the open market with a reasonable time for the seller to find a purchaser; 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 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 appraised value of real estate is calculated using specific information about each property. The District utilizes computer-assisted appraisal programs, and recognized appraisal methods and techniques that are necessary to produce and communicate credible mass appraisals. That information is compared with the data for similar properties, and with recent market data. The district has adopted the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures, and subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable.

Valuation models are specified and calibrated using market analysis of comparable sales and cost data, and market area specific income and expense data. Calculated values are tested for accuracy and uniformity using ratio studies. Property values in all market areas are reviewed for update each year. Using market analysis of comparable sales and locally tested cost data, market area specific income and expense data, valuation models are specified and calibrated in compliance with the supplemental standards from the International Association of Assessing Officers and the Uniform Standards of Professional Appraisal Practice. The calculated values are tested for accuracy and uniformity using ratio studies. Performance standards are those established by the IAAO Standard on Ratio Studies. Property values in all market areas are updated each reappraisal year. Properties in selected market areas are updated in non-reappraisal years. The non-reappraisal year is used to add new construction, new subdivisions, new business personal property, new oil and gas leases, adjust for changes in property characteristics that affect value, and adjust the previous year's values on individual properties, property categories or market areas where the level of appraisal and/or uniformity of appraisal

is unacceptable. However, the following property types are reappraised annually: oil and gas reserves, business personal property, industrial real property, industrial personal property, utilities, special inventory residential property, and properties qualified for agricultural use or timber use productivity valuation.

APPRAISALS GENERALLY

Sec. 23.01, Texas Property Tax Code, as follows:

(a) Except as otherwise provided by this chapter, all taxable property is appraised at its market value as of January 1.
(b) The market value of property shall be determined by the application of generally accepted appraisal methods and techniques. If the appraisal district determines the appraised value of a property using mass appraisal standards, the mass appraisal standards must comply with the Uniform Standards of Professional Appraisal Practice. The same or similar appraisal methods and techniques shall be used in appraising the same or similar kinds of property. However, each property shall be appraised based upon the individual characteristics that affect the property's market value, and all available evidence that is specific to the value of the property shall be taken into account in determining the property's market value.
(c) In determining the market value of a residence homestead, the chief appraiser may not exclude from consideration the value of other residential property that is in the same neighborhood as the residence homestead being appraised and would otherwise be considered in appraising the residence homestead because the other residential property:
    a. was sold at a foreclosure sale conducted in any of the three years preceding the tax year in which the residence homestead is being appraised and was comparable at the time of sale based on relevant characteristics with other residence homesteads in the same neighborhood; or
    b. has a market value that has declined because of a declining economy.

In accordance with Sec. 23.0101 Property Tax Code, the cost, income and market data comparison methods of appraisal are considered and the most appropriate one is used.

If the cost method of appraisal is used, the appraisal district shall, in accordance with Sec. 23.011:

(1) "use cost data obtained from generally accepted sources;
(2) make any appropriate adjustments for physical, functional or economic obsolescence;
(3) make available to the public on request cost data developed and used by the chief appraiser as applied to all properties within a property category;
(4) clearly state the reason for any variation between generally accepted costs data and locally produced cost data if the data vary by more than 10 percent;

(5) make available to the property owner on request all applicable market data that demonstrate the difference between the replacement costs of the improvements to the property and the depreciated value of the improvements."

If the income method of appraisal is used, the appraisal district shall, in accordance with Sec. 23.012:

(1) analyze comparable rental data available to the appraisal district or the potential earnings capacity of the property, or both, to estimate the gross income potential of the property;
(2) analyze comparable operating expense data available to the appraisal district to estimate the operating expenses of the property;
(3) analyze comparable data available to the appraisal district to estimate rates of capitalization or rates of discount; and
(4) base projections of future rent or income potential and expenses on reasonably clear and appropriate evidence.

In developing income and expense statements and cash flow projections, the appraisal district shall consider:

(1) historical information and trends;
(2) current supply and demand factors affecting those trends; and
(3) anticipated events such as competition from other similar properties under construction."

The appraised value of real estate is calculated using specific information about each property. Using computer-assisted mass appraisal programs, and recognized appraisal methods and techniques, we compare that information with the data for similar properties, and with recent cost and market data. The district follows the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures, and subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable.

Appraisers in the field have property records that contain specific information regarding the property being appraised in a paper format. These records contain brief legal descriptions, ownership interest, property use codes, property addresses, land size and characteristics, sketches of improvements as well as any available detailed information of the improvements. Regardless of method, re-inspections require appraisers to check all information on the property and the property record, and to update the appraisal roll as necessary. The appraiser's primary duty is to ensure the accuracy of ACAD's property records. Appraisers note their opinion of classification, condition and characteristics of the property. If changes in the size of any structures are observed, the appraiser measures and lists those dimensions.

Appraisers take digital photos of each property field inspected. All work is reviewed by a senior appraiser.

In addition to reappraisal, all exemptions and special valuations for properties in the reappraisal area are reviewed to verify qualification.

ACAD appraisers will also be responsible for inspecting and maintaining all business personal property records, inspecting land designated for special agricultural valuation, inspecting land where the property owner has applied for special agricultural valuation, and administering special inventory valuations.

APPRAISAL FREQUENCY AND METHOD SUMMARY

Residential Property – Residential property is physically examined at least every 3-years with appraisers measuring side of each home, noting condition of the improvement and looking for changes that might have occurred to the property since the last on-site check. In some subdivisions where change of condition is frequent, homes are examined annually. Exterior pictures are taken of homes frequently. Ratios are run yearly to check the market values and schedules are adjusted regularly to compensate for the market trends.

Commercial Property – Commercial and industrial real estate is observed annually to verify class and condition. The inspection occurs as Business Personal Property appraisers are checking personal property accounts. Real estate accounts are analyzed against sales of similar properties in Angelina CAD. The income approach to value is also utilized to appraise larger valued commercial properties such as shopping centers, apartment complexes, office buildings, restaurants, motels and hotels, and other types of property that typically sell based on net operating income.

Business Personal Property – Business personal property is checked annually with appraisers going into businesses to develop quality and density observations. A rendition is mailed by January 1 for the business to complete and a letter is mailed explaining the 10% penalty for failure to render. Accounts are worked by using a combination of renditions and personal inspection.

Minerals – Working and royalty interests of producing oil and gas wells are appraised annually. Angelina CAD contracts with Capitol Appraisal Group, to appraise minerals.

Utilities and Pipelines – Angelina CAD contracts with Capitol Appraisal Group, to appraise utilities and pipelines.

Sales

Sales data is gathered by sending sales letter to the buyers of properties that the district knows changed ownership. ACAD is not subscribed to the Multiple Listing Service.

Sales are confirmed from the direct parties involved whenever possible. Confirmation of sales from local real estate appraisers is also considered a reliable source. Sales data is compiled and the improved properties are physically inspected and photographed. Individual sales are analyzed to verify whether they meet the definition of market value per Texas Property Tax Code Section 1.04(7). Only market transactions are used for mass appraisal purposes. Sales use and adjustments are made in accordance with IAAO Standards.

The valuation methods for each major property category are described in the following sections of this plan.

Residential Real Property

Ratio studies will be conducted on each of the residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy--level and uniformity of value. The valuation process for residential property typically begins in September. Land analysis, sales outlier review, neighborhood sales analysis, and finalization of proposed estimates of value will likely occur from September through March.

Residential Homesteads Subject To the Homestead Cap:

The appraised value of a residence homestead may not exceed the lesser of :

1. The market value of the property for the most recent year that the market value was determined by the appraisal office; or
2. The sum of (a) 10 percent of the appraised value of the property for the preceding tax year (b) the appraised value of the property for the preceding tax year; and (c) the market value of all new improvements to the property. The term “new improvement” means an improvement to a residence homestead made after the most recent appraisal of the property that increases the market value of the property and the value of which is not included in the appraised value of the property for the preceding tax year. New improvements do not include repairs to or ordinary maintenance of an existing structure or the grounds or another feature of the property.
3. If the appraised value for the current year exceeds the limits established by the above criteria, then a homestead cap adjustment is calculated and applied to reduce the appraised value to the allowable level. A review of homestead cap adjustments is made with larger adjustments subject to further review
4. The limitation takes effect on January 1 of the tax year following the first year the property owner qualifies for any homestead exemption and expires on January 1 of the first tax year that neither the owner nor the owner’s spouse qualifies for a homestead exemption. When an owner makes application for a homestead exemption, the qualification year is entered into the district’s computer assisted mass appraisal system.
5. The field appraiser maintains a record of the date of physical inspection, changes made based upon that inspection and determinations as to whether changes constitute new improvement value. Values for new physical additions and further progress of construction

work in progress are calculated as new improvement value. Changes in value resulting from ordinary maintenance and remodeling are not considered as new improvements.

Single Family Land Adjacent to Ag Use or Open Space Land

Land that is (1) used for single family residential purposes (2) contiguous to a parcel of land appraised under agricultural or open space land valuation and (3) under common ownership is appraised in accordance with Sec. 23.25.

Valuation Methods Used

Cost Approach

The district will use a combined cost-market approach when valuing single-family and multifamily residential properties. A review and revision as needed of the base cost and additional residential cost schedules will be performed before each reappraisal year.

Residential cost schedules are reviewed and revised using sales of newly constructed sold properties of varying construction quality in Angelina County. In this method, the indicated "base cost" must be "backed into". In the last several years this process has become more difficult with many home-builders using widely varying profit margins, often from one project to the next.

The district also uses the comparative unit method to develop the "base" cost of a structure. In this method the base would be the remaining difference (constant) after all additional components are determined by using the unit-in-place method. Table-driven cost factors, taken from Marshall & Swift, a nationally recognized commercial cost service, will be adjusted for local or regional differences in construction and labor costs. When reliable data is available from the local market it will be used, particularly with regards to secondary structures. The results of this comparison will be analyzed using several measures, including stratification by quality and review of estimated building costs, as well as land value to sales prices. The focus on new cost (discussed above), may result in a pattern of under-appraisal of older properties and neighborhoods. This sometimes occurs because of limited data in our market required to accurately adjust depreciation tables. Ratio studies limited to sales of homes with depreciated RCNs may be used to determine the necessary adjustment to the base-cost to more accurately appraise the older homes/neighborhoods. This enables efficient and more accurate direct equalization between neighborhoods, in effect providing for direct compensation of any appraisal inaccuracies in new construction on a neighborhood basis.

The methods described above will be used and the results reconciled to determine appropriate adjustments to the base-cost.

Neighborhood or Market Adjustment factors will be developed from appraisal statistics provided by ratio studies to ensure that estimated values reflect both the supply and demand side of the market. The following equation denotes the model used:

$$MV= [((RCN-D) +AV)*MA] + L$$

Where MV= appraised or estimated market value

RCN= replacement cost new of improvement(s)
MA= Market Area-specific adjustment factor
D= accrued depreciation
AV= additional improvement value
L= land value

Sales Comparison Approach

As indicated in *Property Appraisal and Assessment Administration* (IAAO, 1990), in the absence of a sale of the subject, sales prices of comparable properties are usually considered the best evidence of market value. The sales comparison approach models the behavior of the market by comparing the properties being appraised with comparable properties that have recently sold or for which offers to purchase have been made. Their sales prices will then be adjusted for differences from the subject and a market value for the subject is estimated from the adjusted sales prices of comparable properties.

Although the district does not use the direct sales comparison approach as a primary method of valuation, it is, on occasion, used for verification of market value estimates.

Market Area-specific adjustment factors are applied to account for local differences between defined areas.

This appraisal phase is also known as direct equalization.

Residential land values are estimated based on market sales. Adjustments to land appraisals may be based on parcel size, shape, rights-of-way or easements, slope, drainage issues, and where necessary, economic obsolescence. Land values are calculated by any of the various units in place or, when data is insufficient to accurately determine the appropriate unit or unit values, by site value.

In saturated Market Areas (Neighborhoods) where there are insufficient vacant land sales available, market area specific adjustment factors for land are calculated based upon ratio studies. The appropriate land adjustment will be determined by calculating the MA required to achieve an appropriate land: total value or land: total sale price ratio. This model may be described in equation form as follows:

MV= ((RCN-D) +AV) + (L*MA)

After this has been completed the ratio study will then be used to determine whether an additional MA is required to adjust the improvement values to accomplish accurate appraisals.

The model required to adjust both the improvement and land values may be described in the equation form as follows:

MV= [((RCN-D) +AV)*MA] + (L*MA)

The sales used to determine the market adjustment factor(s) will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The market adjustment factor(s) calculated for each update neighborhood will be applied uniformly to all properties within a neighborhood and a second set of ratio studies will be generated that compares recent sale prices with the proposed market values for these sold properties. From this set of ratio studies, the analyst will judge the appraisal level and uniformity in both update and non-update neighborhoods.

Income Approach
The income approach is based on the principle that the value of an investment property reflects the quality and quantity of the income it is expected to generate over its life. In other words, value is the estimated present value of future benefits, namely income and proceeds from the sale of the property. The appraiser must estimate income from a property and capitalize the income into an estimate of current value.

The model used to estimate the present value of income expected in the future is represented by the following formulas known as IRV.
Value = Income/Rate or, Income = Rate x Value or, Rate = Income/Value

The income approach is most suitable for types of properties frequently purchased and held for the purpose of producing income, such as apartments, commercial buildings, and office buildings. It is not conducive to the valuation of single-family residential properties that are seldom rented, or where market demand factors such as personal preferences or location unduly influence the market.

Inventory Residential Property
Residential improved and vacant property, when qualified as an inventory, will be appraised in compliance with the Texas Property Tax Code, Section 23.12 (a).

In general, the district uses its land value estimates and the actual itemized construction, labor, and material costs, plus other soft or indirect costs to estimate market value as of the assessment date. The market values of improved inventory will be reviewed annually and inventory consideration will be eliminated when ownership transfers to the individual property owner.

Vacant residential inventory, when appropriate, will be valued using a discounted cash flow formula that considers value relative to the income or cash flow, the interest or discount rate, and the number of years the property is likely to be held. As with improved inventory, full market value will be applied once the vacant land is absorbed and ownership transfers for the purpose of residential construction.

Agricultural and Timber Land
The appraisal of agricultural or timber land is governed by Chapter 23 of the Property Tax Code. The appraised value of qualified open-space or timber land is determined on the basis of the

category of land, using accepted income capitalization methods applied to average net to land. Schedules for valuing qualified land have been developed for various agricultural uses and types of timber production. These schedules are reviewed annually and updated as needed using data from recognized sources such as the Texas Forest Service and the Texas Agricultural Extension Service as well as local landowners engaged in leasing land for agricultural use.

Commercial Real Property

All commercial properties including but not limited to retail properties, apartments, warehouses, medical offices, golf courses, office buildings and mobile home parks will be valued by the cost approach, the income approach, or the sales comparison approach as deemed most appropriate pursuant to Section 23.0101 of the Property Tax Code. Ratio studies will be performed to test the level and uniformity of appraisal within specific property use categories.

Valuation Methods Used:

Cost Approach

The cost approach to value will be applied using the comparative unit method. This methodology involves the use of national cost data estimating services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on *Marshall & Swift Service* and cost tables developed from local construction indexes. Cost models include the use of replacement cost new (RCN) of all improvements. The "replacement cost" will be used because it values the cost of a property that is a utility equivalent of the property being appraised using current construction methods and materials. Such costing is contra to "reproduction cost", which is defined as the cost to construct an exact duplicate of the property being appraised. Replacement cost new includes comparative base rates, per unit adjustments and lump sum adjustments. Time and location modifiers will be necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time. Because a national cost estimating service is used as a primary basis for our cost models, local modifiers will be applied to adjust the base costs specifically for Angelina County.

Depreciation schedules will be developed based on what is typical for each property type of a specific age. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. Schedules have been developed for improvements with various terms of estimated expected economic life. These schedules will be tested periodically to ensure they will be reflective of current market conditions. The actual and effective ages of improvements will be noted in the PACS software. Effective age estimates will be based on the utility of the improvements relative to the improvement's total economic life and its competitive position in the marketplace.

Market adjustment factors such as external, economic and functional obsolescence will be applied, if warranted. A depreciation calculation override will be applied if the condition or effective age of a property varies from the norm. This override is indicated by appropriately noting the physical condition and functional utility ratings on the property data characteristics.

These adjustments will typically be applied to a specific property type or location and will be developed through ratio studies or other market analyses. Accuracy in the development of the cost schedules, condition ratings, and depreciation schedules usually minimize the necessity of this type of an adjustment factor.

Sales Comparison Approach

Although all three of the approaches to value are based on market data, the Sales Comparison Approach is most frequently referred to as the Market Approach. This approach is utilized not only as a primary method for estimating land value but also in comparing sales of similarly improved properties to each parcel on the appraisal roll. Pertinent data from actual sales of properties, both vacant and improved, will be obtained throughout the year in order to analyze relevant information, which is then used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the cost approach, rates and multipliers used in the income approach, and as a direct comparison in the sales comparison approach. Improved sales will also be used in ratio studies, which afford the analyst an excellent means of judging the present level and uniformity of the appraised values.

Based on the market data analysis and review discussed in the cost, income and sales approaches, the cost and income models will be calibrated annually. The calibration results will be keyed to the schedules and models in the PACS system for utilization on all commercial properties in the district.

Income Approach

The income approach to value will be applied to those real properties that are typically viewed by market participants as “income producing”, which are bought and sold based on the property’s ability to produce income, and for which the income methodology is considered a value indicator. The first step in the income approach pertains to the estimation of market rent. This is derived primarily from actual rent data furnished by property owners and local market study publications. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent.

A vacancy and collection loss allowance is the next item to consider in the income approach. The projected vacancy and collection loss allowance is established from actual data furnished by property owners and local market publications. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. The market derived stabilized vacancy and collection loss allowance is subtracted from the potential gross rent estimate to yield an effective gross rent. A secondary income or service income is calculated as a percentage of stabilized effective gross rent. Secondary income represents parking income, escalations, reimbursements, and other miscellaneous income generated by the operations of real property. The secondary income estimate is derived from actual data collected and available market information. The secondary income estimate is then added to effective gross rent to arrive at an effective gross income or EGI.

Allowable expenses and expense ratio estimates will be based on a study of the local market, with the assumption of “prudent management”. An allowance for non-recoverable expenses such as leasing costs and tenant improvements will be included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios will be developed for different types of commercial property based on use. For instance, retail properties are most frequently leased on a triple-net basis, whereby the tenant is responsible for his pro-rata share of taxes, insurance and common area maintenance. In comparison, a multi-tenant office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. However, any amount in excess of the total per unit expenditure in the first year is the responsibility of the tenant. Under this scenario, the total operating expense in year one establishes the base rate. Any increase in expense over the base rate throughout the remainder of the lease term would be the responsibility of the tenant. As a result, expense ratios will be implemented based on the type of commercial property.

Another form of allowable expense is the replacement of short-lived items, such as roof or floor coverings, air conditioning or major mechanical equipment, or appliances requiring expenditures of large lump sums. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses.

When performed according to local market practices by commercial property type, these expenses when annualized are known as replacement reserves. Subtracting the allowable expenses (inclusive of non-recoverable expenses and replacement reserves) from the effective gross income yields an estimate of net operating income or NOI.

Rates and multipliers will be used to convert income into an estimate of market value. These include income multipliers, overall capitalization rates, and discount rates. Each of these is used in specific applications. Rates and multipliers also vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, application of the various rates and multipliers must be based on a thorough analysis of the market and are substantiated by national and regional surveys.

Capitalization analysis will be used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property. Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analyses will be derived from the market. Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time. Additionally, overall capitalization rates can be derived from the built-up method, band-of-investment, debt coverage ratio, and published sources for similar properties, as well as results from verified sales. The capitalization rates relate to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications, as well as

cap rate studies conducted by the district using verified sales and income information for that specific property.

Rent loss concessions will be made on specific properties with known vacancy problems. A rent loss concession accounts for the impact of lost rental income while the building is moving toward stabilized occupancy. The rent loss will be calculated by multiplying the rental rate by the percent difference of the property's stabilized occupancy and its actual occupancy. Build out allowances (for first generation space or retrofit/second generation space) and leasing expenses will be added to the rent loss estimate. A leasing expense necessary to bring the property to a stabilized level is also included in this adjustment. The total adjusted loss from these real property operations will be discounted using an acceptable risk rate. The discounted value, inclusive of rent loss due to extraordinary vacancy, build out allowances and leasing commissions, becomes the rent loss concession and will be deducted from the value estimate of the property at stabilized occupancy. A variation of this technique allows that for every year that the property's actual occupancy is less than stabilized occupancy a rent loss deduction may be estimated. Conversely, if a property were consistently above the stabilized occupancy level as of the appraisal date, the market would pay a premium for this situation. In this instance, the present value of the excess income over the stabilized level will be added to the value of the property.

Industrial Real Property

These properties will be valued each tax year by Capital Appraisal Group and to a lesser extent by the district staff. Industrial properties will typically be valued on a cost approach basis since these properties have a low frequency of being bought and sold in the open market compared to commercial and residential properties. In addition, since these properties are owner occupied, the income approach to value will rarely be applicable to industrial properties. Some special use properties, such as amusement facilities, will be valued in the commercial section. An income approach may be used to value these properties.

Valuation Methods Used:

Cost Approach

The cost approach is most applicable to the valuation of industrial properties. The values will be appropriately adjusted for age and condition and, if warranted, additional adjustment will be made for facility utilization. For example, two facilities making the same or similar products will not necessarily have values close together because one facility may have better efficiencies, which makes that facility worth more in the market. The market's estimation of the worth of a facility will be taken into account since there will rarely be any similar properties available for comparison under the sales or income approaches to value. Cost schedules will be tested to ensure that the appraisal district is in compliance with Texas Property Tax Code, Section 23.011. Replacement cost new tables as well as depreciation tables will be tested for accuracy and uniformity using cost data primarily from *Marshall & Swift*.

Sales Comparison Approach

As previously stated, industrial real property does not have a history of being bought and sold with any regularity in the open market. In fact, most industrial facilities remain just as they are, without changing ownership. The few sales of industrial facilities that do occur are not typically used as market sales, because the sales are usually part of a merger or acquisition or liquidation and other assets and intangible considerations are part of the sales price, and are not disclosed. There will usually not be enough verifiable sales of stand-alone industrial properties to have a representative sample of properties to which to compare when valuing industrial properties. Utility properties, such as electric generation, electric transmission, telephone, and cable systems will rarely be sold in the open market on a stand-alone basis. In other words, when a utility sells, it sells as an entire company, not piecemeal assets. The sales comparison approach is not an appropriate method of valuation.

Income Approach

Industrial facilities are rarely valued by the income approach to value since they are usually owner occupied. These facilities are usually general commercial structures built to meet an industrial owner's very specific needs over a certain period of time. In other words, an industrial facility is built for that owner's needs and not built to lease out the facility to another industrial user. There are not enough industrial facilities built by industrial users that are leased out to other industrial users to be a meaningful universe of properties for valuation purposes, if they can be found at all.

Industrial real property valuation analysts consider all three approaches to value to see which approach is most applicable to the property being valued. Usually, the cost approach is most applicable for the reasons previously given, but if there are any commercial properties that are closely similar to the industrial property being valued, then the approach to value for the commercial property is reviewed to see if its method is suitable for the industrial property being examined.

The income approach is the most valid approach to use in valuing utility properties. The reason is that the unit as a whole is being valued and the result apportioned to the component parts of the whole. The worth of this income stream can be compared to other investment opportunities to select the proper capitalization rate to apply to the income stream to estimate the value of the system. The worth of a utility is the income stream the system will generate compared to alternative investments that may have less risk in the market. The capitalization rate that is used to estimate the value of the income stream from the utility will always have a risk component in the capitalization rate. The usual forms of depreciation will be applied to the valuation and any additional consideration for economic issues will be applied. These factors will usually be reflected in the risk portion of the capitalization rate.

Business and Industrial Personal Property

Valuation Methods Used:

Cost Approach

The primary approach to the valuation of business and industrial personal property is the cost approach. Cost schedules will be developed based on Standard Industrial Classification (SIC)

codes. These schedules will be reviewed to conform to changing market conditions, if necessary.

Actual original cost data is used to derive valuation models for specific categories of assets and/or SIC codes. The models indicate a range of values for replacement cost new (RCN) per square foot (or applicable unit).

These model values will be used to estimate the value of new accounts for which no property owner's rendition is filed. They also establish parameters for testing the valuation of property for which prior years' data exist or for which current year rendered information is available. This approach uses RCN, which is developed from property owner reported historical cost or from existing valuation models provided by the Property Tax Division of the State Comptroller's Office.

The percent good depreciation factors will be consistent with the depreciation schedules for furniture, fixtures, and equipment provided by the Property Tax Division of the State Comptroller's Office each year. This mass appraisal percent good depreciation schedule is used to ensure that estimated values are uniform and consistent within the market. RCN and percent good depreciation factors will be utilized to develop value estimates using the following formula: MARKET VALUE ESTIMATE = RCN X PERCENT GOOD FACTOR

Sales Comparison Approach

Business personal property is typically sold as part of the business as a whole and not by itself, which makes this approach unsuitable for valuing most personal property. This approach is only suitable for the valuation of certain types of vehicles, heavy equipment, and airplanes. Value estimates for vehicles will be provided by independent sources and are based on data furnished by National Market Reports. These types of properties will be appraised using published market guides such as NADA book values or Aircraft Bluebook Price Digest.

There are not enough known sales of industrial personal property to have a meaningful population of sales for value comparison purposes. This category of personal property is inclusive of all types at a facility, such as furniture, computers, and machinery. It is typical for personal property to be included in the sale of a facility, instead of being sold separately. There may be subsets of personal property that are sold, but that does not provide the sales of all personal property necessary to make value comparisons under the sales approach.

Income Approach

The income approach has limited use in the appraisal of machinery, equipment, furniture, fixtures, and leasehold improvements because of the difficulty in estimating future net benefits; except in the case of certain kinds of leased equipment. When reliable data on equipment leases is available, the income approach may be used to estimate fair market value of the equipment.

The income approach is not suitable in the appraisal of industrial personal property because the industrial facility operator in the production of an end service or product is using the personal property. Industrial facilities are not in the business of leasing their personal property to another industrial facility for the production of an end service or product.

Oil and Gas Property

Angelina County Appraisal District contracts with Capital Appraisal Group to appraise all oil and gas properties annually. See ***Attachment.***

Data Collection Validation

Data collection of real property involves maintaining data characteristics of the property on the windows based server using SQL. Which includes characteristics, such as land size and topography, and improvement data, such as square foot of living area, year built, quality of construction, and condition Field appraisers are required to use a property classification system that establishes uniform procedures for the correct listing of real property. All properties are coded according to a classification system. The approaches to value are structured and calibrated based on this coding system and property description and characteristics. The field appraisers use property classification references during their initial training and as a guide in the field inspection of properties. Data collection for personal property involves maintaining information on software designed to record and appraise business personal property. The type of information contained in the BPP file includes personal property such as business inventory, furniture and fixtures, machinery and equipment, with details such as cost and location. The field appraisers conducting on-site inspections use a personal property classification system during their initial training and as a guide to correctly list all personal property that is taxable. The listing procedure utilized by the field appraisers is available in the district offices. Appraisers periodically update the classification system with input from the valuation group.

The sources of data collection are through property inspection, new construction field effort, data review/relist field effort, data mailer questionnaires, hearings, sales validation field effort, commercial sales verification and field effort, newspapers and publications, and property owner correspondence by mail or via the Internet. A principal source of data comes from building permits received from taxing jurisdictions that require property owners to take out a building permit. Paper permits are received and matched manually with the property's tax account number for data entry. Fee appraisers and realtors in Lufkin area are a reliable source of data for both property description and market sales data. Sales letters mailed to the buyer and the sellers are also very valuable information. Soil surveys and agricultural surveys of farming and ranching property owners and industry professionals are helpful for productivity value calibration. Timber production information is gathered from the Texas Forest Service and furnished by the Comptroller's office. The Texas Railroad Commission is the source for mineral production data and leasing information. Improvement cost information is gathered from local building contractors and Marshall and Swift Valuation Service. Various income and rental surveys are performed by interviewing property managers and operators to determine operating income and expenses for investment and income producing real property.

Data review of entire neighborhoods is generally a good source for data collection. Appraisers inspect entire neighborhoods to review the accuracy of our data and identify properties that have to be relisted. The sales validation effort in real property pertains to the collection of market data for properties that have sold. In residential, the sales validation effort involves onsite inspection by field appraisers to verify the accuracy of the property characteristics and confirmation of the sales price. In commercial, the commercial sales group is responsible for contacting sales participants to confirm sales prices and to verify pertinent data.
Property owners are one of the best sources for identifying incorrect data that generates a field check. Frequently, the property owner provides reliable data to allow correction of records. The field appraiser rechecks property at an owner's request. As the district has increased the amount of information available on the Internet, property owners have the opportunity to review information on their property and forward corrections. Reappraisal notices notify the owner of a change and provides a good opportunity for review. Property identified in this manner are added to a work file and inspected at the earliest opportunity. Accuracy and validity in property descriptions and characteristics data is the highest goal and is stressed throughout the appraisal process from year to year.

Data Collection Procedures
The appraisers are assigned specific areas throughout the district to conduct field inspections. These geographic areas of assignment are maintained for several years to enable the appraiser assigned to that area to become knowledgeable of all the factors that drive values for that specific area. Appraisers of real estate and business personal property conduct field inspections and record information on real estate cards printed from the appraisal records on all data dealing with the property and allows for the entry of corrections and additions that the appraiser may find in his or her field inspection.

The quality of the data used is extremely important in estimating market values of taxable property. While work performance standards are established and upheld for the various field activities, quality of data is emphasized as the goal and responsibility of each appraiser. New appraisers are trained in the specifics of data collection and the classification system set forth and recognized as "rules" to follow. Experienced appraisers are routinely re-trained in listing procedures prior to major field projects such as new construction, sales validation or data review. A quality assurance process exists through supervisory review of the work being performed by the field appraisers. Quality assurance supervision is charged with the responsibility of ensuring that appraisers follow listing procedures, identify training issues and provide uniform training throughout the field appraisal staff.

Data Maintenance
The computer operator is responsible for the data entry of fieldwork into the computer file. This responsibility includes not only data entry, but also quality assurance. The majority of the data collected in the field is input by computer staff with supervision by the field appraiser. Data updates and file modification for property descriptions and input accuracy is conducted as the responsibility of the field appraiser and appraisal supervisors.

6. The Mass Appraisal Report

Each tax year the Tax Code required mass appraisal report will be prepared and certified by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th). The mass appraisal report is completed in compliance with USPAP Standard Rule 6-8. The signed certification by the chief appraiser is compliant with USPAP Standard Rule 6-9.

7. Value Defense

The appraisal district, to meet its burden of proof for market value and equity in both informal and/or formal appraisal review board hearings, will rely on data in its possession or data obtained from other sources, as appropriate. Inspection and/or disclosure of evidence and related materials will comply with Section 41.461 of the Property Tax Code. Disclosure of such data will be compliant with statutory confidentiality requirements.

LIMITING CONDITIONS

The appraised value estimates provided by the district are subject to the following conditions:

1. The appraisals were prepared exclusively for ad valorem tax purposes.
2. The property characteristic data upon which the appraisals are based is assumed to be correct. Exterior inspections of the property appraised were performed as staff resources and time allowed. Some interior inspections of property appraised were performed at the request of the property owner and required by the district for clarification purposes and to correct property descriptions.
3. Validation of sales transactions was attempted through questionnaires to buyer and seller, telephone survey and field review. In the absence of such confirmation, residential sales data obtained from vendors was considered reliable.
4. I have attached a list of staff providing significant mass appraisal assistance to the person signing this certification.

Certification Statement:
"I, Tim Chambers, Chief Appraiser for the Angelina County Appraisal District, solemnly swear that I have made or caused to be made a reappraisal plan for Angelina County Appraisal District as required by law."

Tim Chambers, RPA
Chief Appraiser

Attachment 1

Calendar of Key Events 2021 and 2022

A calendar of key events is prepared along with a schedule of critical completion dates for each major work area. This calendar identifies all key events for appraisal, clerical, customer service, and information systems.

Detailed Activity Delineation and Scheduling

- Administration & Planning — Ongoing
- Public Relations
  - Program Design — January - December
  - Program Implementation — Ongoing
- Mapping
  - Enhancement — Ongoing
  - Maintenance — Ongoing
- Data Collection
  - Market/Economic Data — January – February
  - Property Characteristics — January – February
  - Data Up-date — August – February
  - Routing — August – November
- Valuation
  - Analysis & Processing — October – January
  - Review — November – March
- Records & Data Control
  - System Design/Installation — Ongoing
  - Scanning/Verification — Ongoing
  - Forms Review/Revisions — August – February
- Notification — April – June
- Hearings — May – July
- Implement New Legislation — Specific to Bill

Organization and Planning

- Work plan development — August – December
- Progress Monitoring/Reporting — August – July
- Public Relations — January – Ongoing

Data Systems Design

- Hardware and Software Modifications — September – January
- Data Collection Forms/Procedures — August – December
- Valuation Form/s Procedures — August – December
- Research Forms/Procedures — August – December
- Internal Control Forms/Procedures — August – December

Research and Analysis

- Sales File Development — Ongoing
- Documentation Gathering — Ongoing
- Cost Schedules/Tables — August – January
- Depreciation Guidelines — August – January
- Income/Expense Models — August – January
- Capitalization/GRM Rate Tables — August – January
- Comparable Sales/Models — August – January
- Neighborhood Models — August – January
- Agricultural Use Value — November – January
- Personal Property Models — August – January
- Ratio Study Production — August – March

Data Collection – New Construction, Splits, and Rechecks

A. Commercial/Industry Property
    - Field Worksheet Production — August – September
    - Field Map Production — August
    - Training/Orientation — August – October
    - Parcel Inventory Control — August – January
    - Document Assemblage/Routing — August – September
    - Field Data Collection — August – January
    - Quality Control — Ongoing

B. RESIDENTIAL/AGRICULTURAL PROPERTY
    - Field Worksheet Production — August – October
    - Field Map Production — August – September
    - Training/Orientation — August – October
    - Parcel Inventory Control — Ongoing
    - Document Assemblage/Routing — August – November
    - Field Data Collection — August – January
    - Quality Control — Ongoing

VALUATION/REVIEW

A. LAND
    a. Land Map Production — August – September
    - Land Value Analysis — August – January
    - Post Rates — August – January
    - Field Review — September – February
    - Quality Control — Ongoing

B. COMMERCIAL/INDUSTRIAL/PERSONAL PROPERTY

- Apply Cost and Income Value Models January -February
- Production Sale Listings and Ratios December – March
- Final Review December – February
- Rendition Processing January – April
- Quality Control Reports October – April
- Produce Edit Reports November – April
- Process Corrections Ongoing

C. RESIDENTIAL/AGRICULTURAL PROPERTY

- Apply Cost Tables January
- Production Sale Listings and Ratios December – March
- Apply Comparable Sales Models December – February
- Apply Market Value December – April
- Final Review December – March
- Quality Control Reports October – April
- Produce Edit Reports November – April
- Process Corrections Ongoing

D. NOTIFICATION AND APPEALS

- File Calculations January – February
- File Creation May – June
- Totals Report Production May – June
- Staffing and Orientation March – April
- Notification Process March – June
- Informal Appeals April – July
- Appraisal Review Board May – January

E. REINSPECTION

- Identification and process September – February

JANUARY

1-Jan thru 31-Jan

- Continue field work relating to reappraisal and inspection of identified properties.
- Continue reappraisal of portions of rural land and subdivisions.
- Continue discovery of new improvements.
- Continue personal property discovery.
- Continue commercial property discovery.
- Collect, verify and process sales information.
- Collect, verify and process income and expense information.
- Conduct ratio studies on entire market.
- Update appraisal manuals.
- Update cost schedules.
- Mail renditions.
- Mail Agricultural Use applications to new owners and to owners with questionable eligibility.
- Mail exemption applications for new owners.
- Mail Agriculture surveys.
- Publish legal requirements for electronic notices/protest.

- 1-Jan
  - Date that current year taxable values and qualifications for certain exemptions are determined (except for inventories appraised September 1) (Secs. 11.42, 23.01,23.12).
  - Date that members of county appraisal district (CAD) boards of directors begin two year terms; half of members begin two-year terms if the CAD has staggered terms(Secs. 6.03, 6.034).
  - Date that half of appraisal review board (ARB) members begin two-year terms (Sec. 6.41).
  - Complete employee evaluations.
- 2-Jan
  - Date rendition period begins; continues through April 15 for those property owners not requesting a filing extension (Sec. 22.23).
  - 15-Jan(on or about)
  - Board of Director's meeting third Thursday of the month
- 22-Jan
  - Elections of ARB Officers and review of procedures.
  - All required publications in paper
  - Recommendations of Officers by ARB members for Board of Directors
  - Review ARB procedures.
- 31-Jan
  - Deadline for Texas Comptroller's current year preliminary Property Value Study (PVS) findings to the Texas Education Commissioner and each school district (Government Code Sec. 403.302).

- Last day for chief appraiser to deliver applications for agricultural designation and exemptions requiring annual applications (Secs. 11.44, 23.43).
- Last day for appraisal district to give public notice of capitalizations used to appraise property with low and moderate-income housing exemption (Sec. 11.1825).

FEBRUARY

- 1-Feb thru 28-Feb
  - Continue field work relating to reappraisal and inspection of identified properties.
  - Continue reappraisal of portions of rural land and subdivisions.
  - Continue discovery of new improvements.
  - Continue personal property discovery.
  - Continue commercial property discovery.
  - Collect, verify and process sales information.
  - Collect, verify and process income and expense information.
  - Conduct ratio studies on sub-markets.
  - Send PTAD sales submission.
  - Publish legal requirements for filing rendition statements and availability of forms (Sec. 22.21).
  - Schedule ARB Training.
- 1-Feb
  - Normal deadline for 25.25d (one third) and 41.411 (failure to give notice) protests.
  - Last day for motor vehicle, boat and outboard motors, heavy equipment and manufactured housing dealers to file dealer's inventory declarations (Secs. 23.121, 23.124, 23.1241, 23.127).
  - Deadline for a chief appraiser to provide notice regarding the availability of agreement forms authorizing electronic communication, on or before this date (or as soon as practicable) if delivering the form (Sec. 1.085).
- 28-Feb
  - Last day to request separate appraisal for interest in a cooperative housing corporation (Sec. 23.19).

MARCH

- 1-Mar thru 31-Mar
  - Continue field work relating to reappraisal and inspection of identified properties.
  - Continue reappraisal of portions of rural land and subdivisions.
  - Continue discovery of new improvements.
  - Continue personal property discovery.
  - Continue commercial property discovery.
  - Collect, verify and process sales information.
  - Collect, verify and process income and expense information.

    - Continue ratio studies on sub-markets.
    - Determine neighborhood adjustments.
    - Conclude schedule changes.
- 19-Mar (on or about)
    - Board of Director's meeting third Thursday of the month.
    - Board action regarding Notices of Appraised Value mail out (Sec. 25.19 (e)).
- 31-Mar
    - Last day for taxing units' second quarterly payment for CAD budget (Sec. 6.06).
    - Last day for cities to report information regarding reinvestment zones and tax increment financing to Texas Comptroller (Sec. 311.019).
    - Last day for qualified community housing development organizations to file listing of property acquired or sold during past year with the chief appraiser (Sec. 11.182).

APRIL

- 1-Apr thru 30-Apr
    - Conclude field work relating to reappraisal and inspection of identified properties.
    - Conclude reappraisal of rural land and subdivisions.
    - Conclude discovery of new improvements.
    - Conclude personal property discovery.
    - Conclude commercial property discovery.
    - Collect, verify and process sales information.
    - Collect, verify and process income and expense information.
    - Begin informal hearings with property owners and agents.
    - Schedule Budget Workshop.
    - Bids for Bank Depository every two years.
    - Publish legal requirements for filing protest (Secs. 41.41, 41.70).
- 1-Apr
    - Last day (or as soon as possible) for the chief appraiser to mail notices of appraised value for single-family residence homestead properties (Sec. 25.19).
    - Last day for property owners to file exemption application for vehicle used for personal and income-producing activities (Sec. 11.253).
    - Last day for the chief appraiser to notify the taxing units of the form in which the appraisal roll will be provided to them (Sec. 26.01).
- 15-Apr
    - Last day for property owners to file renditions and property information reports unless they request a filing extension in writing (Sec. 22.23).
    - Board of Director's meeting third Tuesday of the month.
    - Audit report.
- 30-Apr
    - Last day for property owners to file these applications or reports with the CAD:
    - Some exemptions applications (Sec. 11.43);

- Notice to chief appraiser that property is no longer entitled to an exemption not requiring annual application (Sec. 11.43);
- Applications for special appraisal or notices to chief appraiser that property no longer qualifies for 1-d and 1-d-1 agricultural land, timberland, restricted-use timberland, recreational-park-scenic land and public access airport property (Secs. 23.43, 23.54, 23.75, 23.84, 23.94, 23.9804);
- Railroad rolling stock reports (Sec. 24.32);
- Requests for separate listings of separately owned land and improvements (Sec. 25.08);
- Requests for proportionate taxing of a planned unit development property (Sec. 25.09);
- Requests for separate listing of separately-owned standing timber and land (Sec. 25.10);
- Requests for separate listing of undivided interest (Sec. 25.11); and
- Requests for joint taxation of separately owned mineral interest (Sec. 25.12).
- Last day for the chief appraiser to certify estimate of school district's taxable value for school district to use for publishing notice of budget and proposed tax rate and adopting its budget for a fiscal year that begins July 1. Chief appraiser must also certify estimate of taxable value for county and cities unless the taxing units choose to waive the estimate (Sec. 26.01).
- Last day for property owners to file protest with ARB (or by 30th day after notice of appraised value is delivered, whichever is later) in connection with properties that are single-family residence homesteads; however, a property owner may file a protest before June 1 if the ARB has not approved the appraisal records (Sec. 41.44).

MAY

- 1-May thru 31-May
  - Collect, verify and process sales information.
  - Collect, verify and process income and expense information.
  - Continue informal hearing with property owners and agents.
  - Appraisal Review Board (ARB) meeting as needed on Tuesdays and Thursdays.
  - Publish legal requirements for filing protests.
- 1-May
  - Last day (or as soon as possible) for the chief appraiser to mail notices of appraised value for properties other than single-family residence homesteads (Sec. 25.19).
- 1-May thru 14-May
  - Period to file resolutions with chief appraiser to change CAD finance method (Sec. 6.061).
- 1-May thru 15-May
  - Period when chief appraiser must publish notice about taxpayer protest procedures in a local newspaper with general circulation (Sec. 41.41, 41.70).

- 15-May
    - Last day for property owners to file renditions and property information reports if they requested in writing an extension. For good cause, chief appraiser may extend this deadline another 15 days (Sec. 22.23).
    - Last day (or as soon as possible) for chief appraiser to mail notices of appraised value, denial of exemptions, denial of special appraisal and notices of overlapping appraisal districts (Secs. 6.025, 11.45, 23.57, 23.79, 23.85, 23.95, 23.9805, 25.19).
    - Date (or as soon as practicable) for chief appraiser to prepare appraisal records and submit to ARB (Secs. 25.01, 25.22).
- 19-May
    - Last day for chief appraiser to determine whether a sufficient number of eligible taxing units filed resolutions to change CAD's finance method (Sec. 6.061).
- 21-May (on or about)
    - Board of Director's meeting third Thursday of month.
    - Budget workshop.
- 24-May
    - Last day for chief appraiser to notify taxing units of change in the CAD's finance method (Sec. 6.061).
- 28-May
    - Appraisal Review Board (ARB) meeting.
- 31-May
    - Last day for property owners to file protest with ARB (or by 30th day after notice of appraised value is delivered, whichever is later)(Sec. 41.44).
    - Last day for taxing units to file challenges with ARB (or within 15 days after ARB receives appraisal records, whichever is later)(Sec. 41.04).
    - Last day for religious organizations to amend charters and file new applications for Sec. 11.20 exemption (or within 60 days of exemptions denial, whichever is later)(Sec. 11.421).

JUNE

- 1-June thru 30-June
    - Collect, verify and process sales information.
    - Collect, verify and process income and expense information.
    - Continue informal hearing with property owners and agents.
    - Appraisal Review Board (ARB) meeting as needed on Tuesdays and Thursdays.
- 14-June
    - Last day for chief appraiser to submit recommended budget to CAD board and taxing units (unless taxing units have changed CAD's fiscal year)(Sec. 6.06).
- 16-June
    - Beginning date that CAD board may pass resolution to change CAD finance method, subject to taxing units' unanimous approval. Period ends before August 15, (Sec. 6.061).

- 18-June
    - Board of Director's meeting third Thursday of the month.
    - Select depository (two years) odd number years only
    - Evaluate Chief Appraiser.
- 30-June
    - Last day for taxing units' third quarterly payment for CAD budget (Sec. 6.06).
    - Last day to form a taxing unit to levy current year property taxes (Sec. 26.12).
    - Last day for taxing units to adopt local option percentages homestead exemptions (Sec. 11.13).
    - Last day for private schools to amend charters and file new applications for Sec. 11.21 exemption (or within 60 days of exemptions denial, whichever is later)(Sec. 11.422).
    - Last day for CADs to report formation of reinvestment zones and tax abatement agreements to the Texas Comptroller (Sec. 312.005).

JULY

- 1-July thru 31-July
    - Collect, verify and process sales information.
    - Collect, verify and process income and expense information.
    - Conclude informal hearing with property owners and agents.
    - Appraisal Review Board (ARB) meeting as needed on Tuesdays and Thursdays.
- 1-July
    - Last day for review and protests of appraisals of railroad rolling stock values (or as soon as practicable); once the appraised value is approved, the chief appraiser certifies to the Comptroller the allocated market value (Secs. 24.35, 24.36)
- 16-July
    - Board of Director's meeting third Thursday of the month.
    - Award audit contract (two year) even number years only
- 20-July
    - Date ARB must approve appraisal record, but may not do so if more than 5 percent of total appraised value remains under protest (Sec. 41.12).
- 25-July
    - Last day for the chief appraiser to certify appraisal roll to each taxing unit (Sec. 26.01).
    - Last day for Texas Comptroller to certify apportionment of railroad rolling stock value to counties, with supplemental records after that date (Sec. 24.38).
- 31-July
    - Last day for property owners to apply for September 1 inventory appraisal for next year (Sec. 23.12).

AUGUST

- 1-Aug thru 31-Aug
    - Commence field work relating to reappraisal and inspection of identified properties.

- Commence reappraisal of portions of rural land and subdivisions.
- Commence discovery of new improvements.
- Commence personal property discovery.
- Commence commercial property discovery.
- Collect, verify and process sales information.
- Collect, verify and process income and expense information.
- Appraisal Review Board meeting as needed on Tuesdays and Thursdays.
- EARS submission to PTAD.
- Sales submission to PTAD.
- Adopt Appraisal District budget.
- Approve reappraisal plan (Sec. 6.05i), even number years only.

- 14-Aug
- 15-Aug (on or about)
  - Board of Director's meeting third Thursday of the month.
  - Last day for CAD board to pass resolution to change number of directors, method for appointing both, and deliver to each taxing unit (Sec. 6.031).
  - Last day for CAD board to pass resolution to change CAD finance method, subject to taxing unit's unanimous consent (Sec. 6.061).
- 15-Aug
  - Deadline for Texas Comptroller to certify final PVS findings to Education Commissioner and each school district (Comptroller Rule Sec. 9.4317).
- 31-Aug
  - Last day for property owner to give correct address to CAD in writing for tax bill; penalties and interest waived if bill not sent to correct address 21 days before delinquency date (Sec. 33.011).
  - Last day taxing units may file resolutions with the CAD board to oppose proposed change in the CAD finance method (Sec. 6.061).
  - Last day for taxing unit entitled to vote for appointment of CAD directors to file a resolution opposing a change by the CAD board in selection of directors (Sec. 6.031).

SEPTEMBER

- 1-Sept thru 30-Sept
  - Continue field work relating to reappraisal and inspection of identified properties.
  - Continue reappraisal of portions of rural land and subdivisions.
  - Continue discovery of new improvements.
  - Continue personal property discovery.
  - Continue commercial property discovery.
  - Collect, verify and process sales information.
  - Collect, verify and process income and expense information.
  - Review Mineral Utility Contract.
  - Review Auditors Contract.

- 1-Sept
    - Current year taxable value may be determined as of this date, at property owner's written option (Sec. 23.12).
- 14-Sept
    - Last day for CAD board to adopt next year budget unless district has changed its fiscal year (Sec. 6.06).
    - Last day for CAD board to notify taxing units in writing if a proposal to change a finance method by taxing units' unanimous consent has been rejected (Sec. 6.061).
    - Last day for CAD to notify taxing units in writing if a proposal to change number or method of selecting CAD directors is rejected by a voting taxing unit (Sec. 6.031).
- 16-Sept (on or about)
    - Board of Director's meeting third Thursday of the month.
    - Review Board of Director's election process.
- 30-Sept
    - Last day for taxing units' fourth quarterly payment for CAD budget (Sec. 6.06).

OCTOBER

- 1-Oct thru 31-Oct
    - Continue field work relating to reappraisal and inspection of identified properties.
    - Continue reappraisal of portions of rural land and subdivisions.
    - Continue discovery of new improvements.
    - Continue personal property discovery.
    - Continue commercial property discovery.
    - Collect, verify and process sales information.
    - Collect, verify and process income and expense information.
    - Date (1st) tax assessor mails current year tax bills (or soon after)(Sec. 31.01).
    - Board of Director's meeting third Thursday of the month.
    -

November

- 1-Nov thru 30-Nov
    - Continue field work relating to reappraisal and inspection of identified properties.
    - Continue reappraisal of portions of rural land and subdivisions.
    - Continue discovery of new improvements.
    - Continue personal property discovery.
    - Continue commercial property discovery.
    - Collect, verify and process sales information.
    - Collect, verify and process income and expense information.

    - Prepare Allotment Letters.
- 18-Nov
- 18-Nov (on or about)
-
    - Board of Director's meeting third Thursday of the month.
    - Award Utility/Mineral appraisal contract (two year), odd number years only.
    - Nominate/Consider ARB and Ag Board members.

DECEMBER

- 1-Dec thru 31-Dec
    - Continue field work relating to reappraisal and inspection of identified properties.
    - Continue reappraisal of portions of rural land and subdivisions.
    - Continue discovery of new improvements.
    - Continue personal property discovery.
    - Continue commercial property discovery.
    - Collect, verify and process sales information.
    - Collect, verify and process income and expense information.
    - Time when chief appraiser may conduct a mail survey to verify homestead exemption eligibility (Sec. 11.47).
- 17-Dec(on or about)
    - Board of Director's meeting third Thursday of the month.
    - Appoint ARB and Ag Boards.
- 31-Dec
    - Last day for taxing units' first quarterly payment for CAD budget (Sec. 6.06).

Attachment 2

2021 – 2022 REAPPRAISAL AREAS

ACAD appraisers will conduct inspections of the following areas in the reappraisal ISD's and Regions based on certification totals. This inspection will involve single family residential, multi-family residential, vacant lots, commercial, utilities, and personal property.

School District	2021	2022
Central ISD	Region 5, 8A, 15	Region 5, 8A, 15
Hudson ISD	Region 6	Region 1
Huntington ISD	Region 14	Region 16
Zavalla ISD	Region 11	Region 18
Lufkin ISD	Region 1, 3	Region 1, 2, 3, 4
Diboll ISD	Regions 7 & 13	Region 3

Regions are identified as the following:

Region 1 City of Lufkin South

Starting at Lufkin City Limits and Ford Chapel and going west on Ford Chapel to Lufkin Ave and west on Lufkin Ave to Frank St and west of Frank St to Raguet and west on Raguet to Lufkin City Limits and going south with Lufkin city Limits to FM 1194 and south on FM 1194 to Hudson City Limits . Following Hudson city Limits west and south to 94 cross 94 and follow Hudson city limits south and east to Lufkin city limits, then south, east and west with Lufkin city limits to point of beginning.

Region 2 City of Lufkin North

Starting at Lufkin City Limits and Ford Chapel and going west on Ford Chapel to Lufkin Ave and west on Lufkin ave to Frank St and west of Frank St to Raguet and west on Raguet to Lufkin City Limits and going north with Lufkin city Limits to the point of beginning.

Region 3 East and South of City of Lufkin

Starting at Lufkin City Limits and Ford Chapel and going south and west with Lufkin's City Limits to City of Burke then going west south of the airport and west of Fm 58 and south to Cotton Thompson Rd. Then east with cotton Thompson Rd to the Lufkin, Huntington ISD line. Then North with the Lufkin Huntington Line to US Hwy 69. Then West on US hwy 69 to FM 326 Then North on FM 326 to Lawery's property Then North and east with Lowery's property to FM 1475. Then east to just west of Mill Creek Rd. Then North and east to Hwy 103. Then West with Hwy 103 to City of Lufkin. Then south with city of Lufkin to point of beginning.

Region 4 North and West of Lufkin

Starting at City Limits of Lufkin and Mill Creek close to Loop 287. Thence Northeast with mill creek about 1 mile then North with the west boundary line of the large acreage tracts to FM2021. Then north and west with FM 2021 to US Hwy 59 North of Lufkin. Then North with US

Hwy 59 to River Bottom then east and south with River Bottom and Lake Front Property to State Hwy 103 East of Lufkin. Then west with 103 to City of Lufkin.

Region 5 Central ISD
Central ISD North of FM 2021
Starting at the intersection of FM 2021 and US 59 N (Redland) then North with US Hwy 59 to River Bottom then West and north River Bottom and to Angelina and Cherokee County Line. Then south and west with the County Line to the Neches River Bottom. Then with the Neches River Bottom to Jack Creek Bottom. Then North thru Jack Creek Bottom to 103 West of Lufkin. Then East/ SE with 103 to FM 2012 back east to US 59 N.

Region 6 Hudson ISD
Starting at Hwy 103 West and City of Lufkin. Then West on Hwy 103 to the Start of Jack Creek Bottom then South thru Jack Creek Bottom to Start of River Bottom. Then south with River bottom to crossing Hwy 94 South about ¾ of a mile then east to the City of Hudson Water treatment plant and the Hudson City Limits. Then north and East with City of Hudson to FM 1194. Then North and East with 1194 to City Limits Of Lufkin. Then north with Lufkin City Limits to point of beginning.

Region 7
Starting at the Huntington and Zavalla School line with the Lake Front Property. Then South with the Lake Front Property to Angelina National Forest (USFS land). Then West/ SW following abstract lines around the sparsely populated areas south of Zavalla City limits continuing on to the end of FM 1270 then Northeast to the end of FM 844 and on to ward FM 1818 towards Diboll shadowing FM 1818 around the City of Diboll and back to Region 3 south line back East to Region 12 South line to point of beginning

Region 8
River Bottom Land on the Neches and Angelina River. Each ISD is assigned an alphanumeric subset identifier.

Region 9
Lake Front Property from Hanks Creek Park south to Jasper County line.

Region 10 Lake Property
From Property from Hanks Creek Park north to Marion's Ferry.

Region 11 Zavalla City
City of Zavalla

Regions 12 and 17 Huntington School
Starting at Lake Rayburn and Huntington and Zavalla ISD boundary line. Then southwest following Huntington's boundary Line to Huntington and Lufkin ISD boundary line. Then north with Lufkin and Huntington boundary line to US Hwy 69. Then West on US hwy 69 to FM 326 Then North on FM 326 to Lowery's property. Then North and East with Lowery's property to

FM 1475. Then east to just west of Mill Creek Rd. Then North and east to Hwy 103. Then east with Hwy 103 to Lake Rayburn. Then south with lake front property to Point of Beginning. All parcels east of US Hwy 69 are Region 12 and all parcels west are Region 17.

Region 13 Diboll Burke
Property in the City of Diboll and city of Burke.

Region 14 Huntington City
City of Huntington

Region 15 Northwest Lufkin
From Loop 287 to FM 2021 Mainly Central ISD
Starting at City Limits of Lufkin and Mill Creek close to Loop 287 Thence Northeast with mill creek about 1 mile then North with the west boundary line of the large acreage tracts to FM2021 . Then north and west with FM 2021 to US Hwy 59 North of Lufkin.

Region 16
Rural Zavalla ISD to Rural Diboll ISD
Starting at the State HWY 147 highway at National Forest (US Forest Service Land) then south with County Line to Neches River Bottom. Then North with the Neches River Bottom to Region 17 line just east of Diboll. Then west following Zavalla ISD line back to point of beginning.

These seventeen regions will be used to apply rural land schedules. The region designations are evolving as data is confirmed after collection. The regions will expand as rural land analysis dictates or merge if market data indicates the necessity to do so.

The 2021 reappraisal will involve the inspection of approximately 25,000 real property accounts in the reappraisal ISDs, based on 2020 certification totals. Additionally, ACAD appraisers will inspect approximately 3,000 real property accounts in the remaining five ISDs due mainly to new improvements and permit activity.

ACAD appraisers will also be responsible for inspecting and maintaining all business personal property records, inspecting land designated for special agricultural valuation, inspecting land where the property owner has applied for special agricultural valuation, and administering special inventory valuations.

This effort will be conducted beginning in 2020 to April 1, 2021. Field work and re-inspections will be substantially complete by January 1, 2021, allowing sufficient time for market area analysis and schedule updates from January 1 to April 1. The time period of May 1 to July 25, 2021 will be reserved for property owner protests. ACAD typically has 6,000-8,000 property owner protests annually. Most are resolved informally with approximately 1,000 resulting in formal hearings before the Appraisal Review Board.

The 2022 reappraisal will involve the inspection of approximately 28,000 real property accounts in the reappraisal ISDs, based on 2021 certification totals. Additionally, ACAD appraisers will inspect approximately 3,000 real property accounts in the remaining eight ISDs due mainly to new improvements and permit activity.

ACAD appraisers will also be responsible for inspecting and maintaining all business personal property records, inspecting land designated for special agricultural valuation, inspecting land where the property owner has applied for special agricultural valuation, and administering special inventory valuations.

This effort will be conducted beginning in 2021 to April 1, 2022. Field work and re-inspections will be substantially complete by January 1, 2022, allowing sufficient time for market area analysis and schedule updates from January 1 to April 1. The time period of May 1 to July 25, 2022 will be reserved for property owner protests. ACAD typically has 600-800 property owner protests annually. Most are resolved informally with approximately 25 resulting in formal hearings before the Appraisal Review Board.

Attachment 3: Capital Appraisal Group Reappraisal Plan

Attachment 4: Map of county identifying each market segment

Attachment 5: List of staff providing significant mass appraisal assistance to the chief appraiser

CAPITOL APPRAISAL GROUP

2021-2022 Reappraisal Plan

Document 1

Value Defense Procedures for Informal Meetings and Formal Hearings

Industrial Real Property

Informal hearings are conducted by phone, mail, or in person by Capitol Appraisal Group appraisers. Appraisers may present sales data or data specific to the property in defense of our values. Income, expense and capitalization data are reviewed and presented if available. If the taxpayer wishes to pursue a dispute further, the appraiser guides them through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Taxpayer's Rights, Remedies, and Responsibilities* published by the State Comptroller's Office. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. Any income and expense information derived from the market is accumulated and developed into charts containing general data. No confidential income, expense or other information received from taxpayers on specific accounts will be released. Equity evidence is generated by Capitol using programs and tools it has developed to compare other properties to the subject property. Applicable appraisal reports and research data applicable to the property are also included in this packet.

Utilities

Informal hearings are conducted by phone, mail, or in person by Capitol Appraisal Group appraisers. Appraisers may present sales data or data specific to the property in defense of our values. Income, expense and unit appraisal data (when applicable) are reviewed and presented if available. If the taxpayer wishes to pursue a dispute further, the appraiser guides them through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Taxpayer's Rights, Remedies, and Responsibilities* published by the State Comptroller's Office. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. No confidential income, expense or other information received from taxpayers on specific accounts will be released. Equity evidence is generated by Capitol using programs and tools it has developed to compare other properties to the subject property. Applicable appraisal reports and research data applicable to the property are also included in this packet.

Oil and Gas Property

Informal hearings are conducted by phone, mail, or in person by Capitol Appraisal Group appraisers. Mineral operators and third party agents with the proper fiduciary in place may also view the parameters used in the appraisal of their oil and gas properties on Capitol's web site at www.cagi.com. Other taxpayers with an interest in a mineral lease may request a copy of their appraisals at the same web site. Appraisers may present recent production data and sales prices to compare with the actual income received by the taxpayer in defense of our values. Income, expense and capital expense data are reviewed and presented if available. If the taxpayer wishes to pursue a dispute further, the appraiser guides them through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Taxpayer's Rights, Remedies, and Responsibilities* published by the State Comptroller's Office. Since oil and gas leases have multiple owners, all owners who pursue a formal protest on the same property will be scheduled at the same time for a hearing. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. No confidential income, expense or other information received from taxpayers on specific accounts will be released. Capitol uses its MINARB procedure to generate copies of the appraisal reports and product pricing data for the current and prior tax years. These reports are also included in this packet.

Industrial Personal Property

Informal hearings are conducted by phone, mail, or in person by Capitol Appraisal Group appraisers. Appraisers may present general data specific to the property in defense of our values. Renditions other than that of the subject property will not be released. If the taxpayer wishes to pursue a dispute further, the appraiser guides them through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Taxpayer's Rights, Remedies, and Responsibilities* published by the State Comptroller's Office. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. Capitol provides copies of appraisal reports generated by its Industrial Personal Property System for inclusion in the packet. As previously stated, no confidential renditions of competing properties will be provided as evidence.

Client Plan

In the event that the client's value defense plan differs with the plan of Capitol Appraisal Group, the client's plan will be followed and supersedes the provisions of the Capitol Appraisal plan.

Value Defense Procedures for ARB Hearings

Industrial Real Property

If the taxpayer wishes to pursue a dispute beyond informal proceedings, the appraiser guides him through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Taxpayer's Rights, Remedies, and Responsibilities* published by the State Comptroller's Office. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. Any income and expense information derived from the market is accumulated and developed into charts containing general data. No confidential income, expense or other information received from taxpayers on specific accounts will be released. Equity evidence is generated by Capitol using programs and tools it has developed to compare other properties to the subject property. Applicable appraisal reports and research data applicable to the property are also included in this packet.

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Oil and Gas Property

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When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Taxpayer's Rights, Remedies, and Responsibilities* published by the State Comptroller's Office. Since oil and gas leases have multiple owners, all owners who pursue a formal protest on the same property will be scheduled at the same time for a hearing. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. No confidential income, expense or other information received from taxpayers on specific accounts will be released. Capitol uses its MINARB procedure to generate copies of the appraisal reports and product pricing data for the current and prior tax years. These reports are also included in this packet.

Industrial Personal Property

If the taxpayer wishes to pursue a dispute beyond informal proceedings, the appraiser guides him through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Taxpayer's Rights, Remedies, and Responsibilities* published by the State Comptroller's Office. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. Capitol provides copies of appraisal reports generated by its Industrial Personal Property System for inclusion in the packet. As previously stated, no confidential renditions of competing properties will be provided as evidence.

Client Plan

In the event that the client's value defense plan differs with the plan of Capitol Appraisal Group, the client's plan will be followed and supersedes the provisions of the Capitol Appraisal plan.

Capitol Appraisal Group, LLC
Formal and Informal Procedures

It is the Capitol Appraisal policy to follow the formal and informal procedures as established by each individual client. Those policies will supersede the below referenced general practices used by this company if there is a conflict.

Informal

Informal meetings with agents or taxpayers/owners on utility properties occur either on the telephone or in the offices of Capitol Appraisal if requested by the agent or owner. This procedure may also take place upon filing of a protest and is useful to finalize issues such as allocations and ownership.

Formal Meetings

Formal meetings with agents or taxpayers/owners take place at the physical location as directed by the appraisal district. Discussions with the agents or taxpayer/owners may take place prior to the scheduled meeting time with the Appraisal Review Board. A deadline for timely action is dictated by the appraisal district. Prior to the deadline and in the absence of the agent or taxpayer/owner being physically present there may be telephone conversations to discuss the protested issues. Failure to resolve the protested issue(s) and no representation by the agent or taxpayer/owner will result in the recommendation to affirm the noticed value and "no show" the agent or taxpayer/owner.

Affidavits used for evidence are presented to the Appraisal Review Board as scheduled by the appraisal district.

Documents 9A-J

Contractor's Appraisal Documentation Delivered to the CAD

Note: Appraisal formats subject to change

Industrial

Unit Pipeline	**9A**
Investor-owned Electric	**9B**
Investor-owned telephone8	**9C**
Electric Coop	**9D**
Telephone Coop	**9E**
Plant Summary	**9F**

Oil and Gas

Oil lease #1	**9G**
Oil lease #2	**9H**
Gas Property #1	**9I**
Gas Property #2	**9J**

2010

DOCUMENT 9A

SAMPLE PIPELINE COMPANY

UNIT APPRAISAL

10/5/2010

INCOME APPROACH

YEAR	AFTER TAX NOI	NET PLANT IN SERVICE		NOI / AVG of prev yr and current yr NPIS
2004	18,111,707	84,791,838		
2005	18,726,411	497,538,026		0.0643
2006	56,177,093	535,687,803		0.1087
2007	66,740,951	851,292,542		0.0962
2008	84,283,848	1,236,732,019		0.0807
2009	146,430,277	1,820,553,365	1.472067786	0.0958

PROJECTIONS OF NOI

MOST RECENT YEAR			146,430,277
FIVE YEAR AVERAGE			74,471,716
FIVE YEAR WEIGHTED AVERAGE			93,372,682
TREND ON 3 YR RETURN ON NPIS		0.0907	165,117,335
LINEAR REGRESSION ON NOI	CORR. COEFF. =	0.96	159,526,062
LIN. REGRESS. ON NOI/NPIS	CORR. COEFF. =	0.98	200,947,084

PROJECTED TYPICAL NET OPERATING INCOME	120,000,000
NET INCOME ATTRIBUTABLE TO CWIP (SEE P. 3)	24,277,319
TOTAL NET INCOME TO CAPITALIZE	144,277,319
CAPITALIZATION RATE	0.1085
VALUE INDICATED BY INCOME APPROACH	1,329,202,314

NET INCOME ATTRIBUTABLE TO
CONSTRUCTION WORK IN PROGRESS
NOT IN THE RATE BASE

TOTAL CONSTRUCTION WORK IN PROGRESS			364,645,300
CONSTRUCTION WORK IN PROGRESS IN RATE BASE			0
CONSTRUCTION WORK IN PROGRESS NOT IN RATE BASE			364,645,300
DISCOUNTED FOR 3	YEAR(S) AT A RATE OF :	0.1085	267,677,257
PROJECTED NET INCOME FROM CWIP			24,277,319

COST APPROACH

UTILITY PLANT	1,904,925,695
CONSTRUCTION WORK IN PROGRESS	364,645,300
TOTAL UTILITY PLANT	2,269,570,995
ACCUMULATED DEPRECIATION AND AMORTIZATION	93,270,899
NET UTILITY PLANT	2,176,300,096
GAS STORED - BASE GAS	0
SYSTEM BALANCING GAS	0
GAS STORED UNDERGROUND - NON-CURRENT	0
GAS STORED - SYSTEM GAS	0
GAS STORED - CURRENT	7,453,749
PLANT MATERIAL AND OPERATING SUPPLIES & STORES EXPENSE UNDISTRIBUTED	1,444,820
NET BOOK VALUE	2,185,198,664
ECONOMIC OBSOLESCENCE (SEE BELOW)	874,079,466
VALUE INDICATED BY COST APPROACH	1,311,119,199

CALCULATION OF ECONOMIC OBSOLESCENCE

HISTORICAL RATE OF RETURN (5 YEAR AVG.)	0.0907
CURRENT DESIRED RATE OF RETURN	0.1085
INDICATED FRACTION NON-OBSOLESCENT	0.8356
MOST RECENT RATE OF RETURN	0.0958
CURRENT DESIRED RATE OF RETURN	0.1085
INDICATED FRACTION NON-OBSOLESCENT	0.8825
PROJECTED RATE OF RETURN	0.0659
CURRENT DESIRED RATE OF RETURN	0.1085
INDICATED FRACTION NON-OBSOLESCENT	0.6073
APPRAISER'S OPINION OF FRACTION NON-OBSOLESCENT	0.6000
FRACTION OBSOLETE	0.4000
ECONOMIC OBSOLESCENCE	874,079,466

CORRELATION

INCOME INDICATOR OF VALUE	1,329,202,314
COST INDICATOR OF VALUE	1,311,119,199
CORRELATED UNIT VALUE	**1,315,000,000**
MARKET VALUE /ORIGINAL COST	0.5771
MARKET VALUE/NET BOOK VALUE	0.6018
REPLACEMENT COST NEW OF SOFTWARE	0
MARKET VALUE OF SOFTWARE	0
MARKET VALUE TO ALLOCATE	1,315,000,000
MARKET VALUE /ORIGINAL COST (EXCLUDING SOFTWARE)	0.5771
MARKET VALUE/NET BOOK VALUE (EXCLUDING SOFTWARE)	0.6018

ALLOCATION

PLANT IN SERVICE

NET PLANT IN SERVICE	1,811,654,796
NET BOOK VALUE	2,185,198,664
PERCENT TO PLANT IN SERVICE	0.8291
CORRELATED UNIT VALUE	1,315,000,000
PERCENT TO NET UTILITY PLANT	0.8291
UNIT VALUE OF PLANT IN SERVICE	1,090,210,284

TEXAS PLANT IN SERVICE

	TEXAS	TOTAL CO.	% TO TEXAS
NET PLT IN SRVC	1,811,654,796	1,811,654,796	1.0000
GRS PLT IN SRVC	1,904,925,695	1,904,925,695	1.0000
CONCLUSION			1.0000

UNIT VALUE OF PLANT IN SERVICE	1,090,210,284
PERCENT TO TEXAS	1.0000
UNIT VALUE OF TEXAS PLANT IN SERVICE	1,090,210,284

TEXAS GATHERING & TRANSMISSION PIPE

	TEXAS PIPE	TEXAS PLANT IN SERVICE	% TO PIPE
NET INVESTMENT	1,343,744,175	1,811,654,796	0.7417
GROSS INVESTMENT	1,397,895,771	1,904,925,695	0.7338
		CONCLUSION	0.7378

UNIT VALUE OF TEXAS PLANT IN SERVICE	1,090,210,284
% TO PIPE	0.7378
UNIT VALUE OF TEXAS PIPE	804,332,157
REPLACEMENT COST NEW LESS DEPRECIATION OF TEXAS PIPE	970,647,820
CORRELATED MARKET VALUE OF TEXAS PIPE	**800,000,000**
PTD's SCHEDULE 1 VALUE OF TEXAS PIPE	640,872,407
RATIO OF CORRELATED VALUE TO SCHEDULE VALUE (ENS)	1.2483

2010

DOCUMENT 9B

SAMPLE ELECTRIC IOU COMPANY

UNIT APPRAISAL

Appraiser

INCOME APPROACH

YEAR	NET OPERATING INCOME*	NET PLANT IN SERVICE*		NOI/NPIS OF PRV. YR. & CURRENT YR.
2004	68,027,209	685,658,796		
2005	61,265,796	706,760,852	1.030776	0.0894
2006	56,814,104	685,850,642	0.970414	0.0804
2007	32,745,832	732,197,728	1.067576	0.0477
2008	50,477,347	749,480,314	1.023604	0.0689
2009	46,565,398	824,721,310	1.100391	0.0621

*INCLUDES M&S AND STORED GAS.

PROJECTIONS OF NOI

MOST RECENT YEAR			46,565,398
THREE YEAR AVERGAE			43,262,859
FIVE YEAR AVERAGE			49,573,695
THREE YEAR WEIGHTED AVERGAE			45,566,120
FIVE YEAR WEIGHTED AVERAGE			47,191,192
FIVE YR. AVG. RETURN ON NPIS		0.0697	57,492,045
LINEAR REGRESSION ON NOI	CORR. COEFF. =	(0.71)	38,852,429
LIN. REGRESS. ON NOI/NPIS	CORR. COEFF. =	(0.00)	49,560,383

PROJECTED TYPICAL NET OPERATING INCOME	48,000,000
NET INCOME ATTRIBUTABLE TO CWIP (SEE P. 3)	2,258,138
TOTAL NET INCOME TO CAPITALIZE	50,258,138
CAPITALIZATION RATE	0.0994
VALUE INDICATED BY INCOME APPROACH	505,450,487

NET INCOME ATTRIBUTABLE TO
CONSTRUCTION WORK IN
PROGRESS
NOT IN THE RATE BASE

TOTAL CONSTRUCTION WORK IN PROGRESS				82,283,128
CONSTRUCTION WORK IN PROGRESS - MAINTENANCE				46,669,321
CONSTRUCTION WORK IN PROGRESS NOT IN RATE BASE				35,613,807
DISCOUNTED FOR	1	YEAR(S) AT A RATE OF :	0.0994	32,392,904
PROJECTED NET INCOME FROM CWIP				2,258,138

COST APPROACH

UTILITY PLANT	1,357,257,700
CONSTRUCTION WORK IN PROGRESS	82,283,128
TOTAL UTILITY PLANT	1,439,540,828
NET NUCLEAR FUEL	0
ACCUMULATED DEPRECIATION AND AMORTIZATION	552,521,228
NET UTILITY PLANT	887,019,600
MERCHANDISE	0
FUEL STOCK	9,645,377
PLANT MATERIAL AND OPERATING SUPPLIES	10,339,461
LIQUIFIED NATURAL GAS HELD FOR PROCESSING	0
NET BOOK VALUE	907,004,438
ECONOMIC OBSOLESCENCE (SEE BELOW)	380,941,864
VALUE INDICATED BY COST APPROACH	526,062,574

CALCULATION OF ECONOMIC OBSOLESCENCE

HISTORICAL RATE OF RETURN (5 YEAR AVG.)	0.0697
CURRENT DESIRED RATE OF RETURN	0.0994
INDICATED FRACTION NON-OBSOLESCENT	0.7011
MOST RECENT RATE OF RETURN	0.0621
CURRENT DESIRED RATE OF RETURN	0.0994
INDICATED FRACTION NON-OBSOLESCENT	0.6248
PROJECTED RATE OF RETURN	0.0582
CURRENT DESIRED RATE OF RETURN	0.0994
INDICATED FRACTION NON-OBSOLESCENT	0.5853
APPRAISER'S OPINION OF FRACTION NON-OBSOLESCENT	0.5800
FRACTION OBSOLETE	0.4200
ECONOMIC OBSOLESCENCE	380,941,864

STOCK AND DEBT APPROACH

EQUITY	
NO. SHARES	403,554,634
$ / SHARE	30.26
EQUITY VALUE	12,211,563,225
PERCENT TO COMPANY	0.0816
ALLOCATED EQUITY VALUE	995,860,423
LONG -TERM DEBT	368,964,682
TOTAL STOCK AND DEBT VALUE	1,364,825,105

CORRELATION

INCOME INDICATOR OF VALUE	505,450,487
COST INDICATOR OF VALUE	526,062,574
STOCK & DEBT INDICATOR OF VALUE	1,364,825,105
DISCOUNTED CASH FLOW INDICATOR OF VALUE	591,713,506
APPRAISER'S OPINION OF MARKET VALUE	510,000,000
MARKET VALUE /ORIGINAL COST	0.3494
MARKET VALUE/NET BOOK VALUE	0.5623
TOTAL VALUE OF TRANSMISSION AND DISTRIBUTION	343,397,389

ALLOCATION

ORIGINAL COST OF DIST. SYSTEM INCL. INVEST IN GENERAL PLANT	624,524,151
ORIGINAL COST OF TRANSMISSION SYSTEM	411,838,471
ORIGINAL COST OF PRODUCTION PLANT	295,065,069
ORIGINAL COST OF INTANGIBLE PLANT	22,895,904
TOTAL ORIGINAL COST	1,354,323,595

DISTRIBUTION PLANT

ORIGINAL COST OF DIST. SYSTEM INCL. INVEST IN GENERAL PLANT	624,524,151
ORIG. COST OF LAND AND LAND RIGHTS	1,103,824
ORIG. COST OF STRUCTURES AND IMPROVEMENTS	111,337
ORIG. COST OF STATION EQUIPMENT	74,929,157
ORIG. COST OF LAND AND LAND RIGHTS IN GENERAL PLANT	1,876,687
ORIG. COST OF STRUCTURES AND IMPROVEMENTS IN GENERAL PLANT	24,144,259
ORIGINAL COST OF INTANGIBLES	387,073
DIST. PLANT EXCL. SUBSTATIONS AND LAND	521,971,814
MARKET VALUE/ ORIGINAL COST	0.3494
MARKET VALUE OF DIST. EXCL. SUSTATIONS AND LAND	182,391,876
TOTAL METERS	192,937
MARKET VALUE PER METER	945

TRANSMISSION PLANT

ORIGINAL COST OF TRANSMISSION SYSTEM	411,838,471
ORIG. COST OF LAND AND LAND RIGHTS	11,235,765
ORIG. OF STRUCTURES AND IMPROVEMENTS	1,365,537
ORIG. COST OF STATION EQUIPMENT	189,158,884
ORIG. COST OF LAND AND LAND RIGHTS IN GENERAL PLANT	570,685
ORIG. COST OF STRUCTURES AND IMPROVEMENTS IN GENERAL PLANT	7,342,067
ORIGINAL COST OF INTANGIBLES	6,962,453
TRANS. PLANT EXCL. SUBSTATIONS AND LAND	195,203,080
MARKET VALUE/ ORIGINAL COST	0.3494
MARKET VALUE OF TRANS. EXCL. SUBSTATIONS AND LAND	68,209,538

	LINE TYPE	ORIG. COST	M.V./O.C.	MARKET VALUE	NO. MILES	MKT. VAL. PER MILE
	69 KV	73,552,521	0.3494	25,701,354	2,619.35	9,812
	138 KV	81,868,172	0.3494	28,607,080	1,458.78	19,610
	345 KV	39,801,908	0.3494	13,907,925	222.53	62,499
	115 KV	0	0.3494	0	0.00	0
	161 KV	0	0.3494	0	0.00	0
TOTALS		195,222,601		68,216,359	4,300.66	

SUBSTATIONS

ORIGINAL COST DIST. SUBSTATIONS	75,040,494
ORIGINAL COST TRANS. SUBSTATIONS	190,524,421
TOTAL ORIGINAL COST OF SUBSTATIONS	265,564,915
MARKET VALUE/ ORIGINAL COST	0.3494
MARKET VALUE OF SUBSTATIONS	92,795,975
TOTAL SUBSTATION KVA CAPACITY	9,279,606
VALUE PER KVA	10.00
Total T & D Value	343,397,389

* ACKNOWLEDGEMENT OF NEW VALUE FOR AD VREM TAXATION *

THE ABOVE LISTED NEW VALUES ARE RECOMMENDED BY TAP PRAISER FOR THE DISTRICT AND ACCEPTED BY THE AGENT/OWNER FOR THEXPAYER AS 2008 VALUES. THE AGENT/OWNER HEREBY WITHDRAWS PROTEST AND WAIVTHE RIGHT TO FURTHER NOTIFICATION OF VALUES.

TO BE VALID THIS SIGN-OFF MUST BE EXECUTED AND RRNED TO CAPITOL BY MIDNIGHT PRIOR TO YOUR ARB HEARING.

DISTRICT	CAPITOL	TAXPAYER/AGENT	BRA
Date	Date	Date	Date

APPENDIX A

DISCOUNTED CASH FLOW 2010

ASSUMPTIONS:

FIT RATE : 0.35000
DISC RATE: 0.09943
GROWTH RA 0.04355

NOI	46,565,398
Income Taxes - Federal (409.1)	10,992,511
EBFIT (NOI + INCOME TAXES)	57,557,909
Interest on Long-Term Debt (427)	19,501,675
Depreciation Expense (403)	42,404,799
UTILITY PLANT	1,357,257,700
Capital Expenditures %	3.00%
Capital Expenditures	40,717,731

(000'S)

	2009	2010	2011
EBFIT (LESS DEPREC)	57,558	60,064	62,680
INTEREST	19,502	19,502	19,502
EARN. BF. TAX	38,056	40,563	43,179
FED INC TAX	(13,320)	(14,197)	(15,112)
NET INC AFTER FIT	24,737	26,366	28,066
INTEREST	(19,502)	(19,502)	(19,502)
DEPREC	42,405	42,405	42,405
CAP EXP	(40,718)	(40,718)	(40,718)
CASH FLOW	45,925	47,555	49,255
DISC FACT	0.95371	0.86746	0.78900
P.W.	43,799	41,251	38,862

	2012	2013	2014
EBFIT (LESS DEPREC)	65,410	68,258	71,231
INTEREST	19,502	19,502	19,502
EARN. BF. TAX	45,908	48,757	51,729
FED INC TAX	(16,068)	(17,065)	(18,105)
NET INC AFTER FIT	29,840	31,692	33,624
INTEREST	(19,502)	(19,502)	(19,502)
DEPREC	42,405	42,405	42,405
CAP EXP	(40,718)	(40,718)	(40,718)
CASH FLOW	51,029	52,881	54,813
DISC FACT	0.71765	0.65274	0.59371
P.W.	36,621	34,517	32,543

CAPITOL APPRAISAL GROUP, LLC

	2015	2016	2017
EBFIT (LESS DEPREC)	74,333	77,570	80,948
INTEREST	19,502	19,502	19,502
EARN. BF. TAX	54,831	58,068	61,447
FED INC TAX	(19,191)	(20,324)	(21,506)
NET INC AFTER FIT	35,640	37,745	39,940
INTEREST	(19,502)	(19,502)	(19,502)
DEPREC	42,405	42,405	42,405
CAP EXP	(40,718)	(40,718)	(40,718)
CASH FLOW	56,829	58,933	61,129
DISC FACT	0.54001	0.49117	0.44675
P.W.	30,689	28,947	27,310

	2018
EARN. BF. TAX	84,473
INTEREST	19,502
EARN. BF. TAX	64,972
FED INC TAX	(22,740)
NET INC AFTER FIT	42,232
INTEREST	(19,502)
DEPREC	42,405
CAP EXP	(40,718)
CASH FLOW	63,420
DISC FACT	0.40635
P.W.	25,771

	RVRSN	TOTAL PW
EBFIT (LESS DEPREC)		
INTEREST		
EARN. BF. TAX		
FED INC TAX		
NET INC AFTER FIT		
INTEREST		
DEPREC		
CAP EXP		
CASH FLOW	618,690	
DISC FACT	0.40635	
P.W.	251,404	$ 591,714

SAMPLE TELEPHONE COMPANY

DOCUMENT 9C

1/1/10 APPRAISAL

Appraiser

CAPITOL APPRAISAL GROUP, LLC

INCOME APPROACH

	ADJUSTED NOI excludes Pension Gains & Equip Sales		NPIS		NOI/NPIS
2004	27,609,661		213,294,189		0.129444
2005	31,403,708	114%	198,144,756		0.158489
2006	31,663,733	101%	181,767,566	92%	0.174199
2007	30,279,656	96%	166,977,937	92%	0.181339
2008	34,468,837	114%	152,788,425	92%	0.225598
2009	40,010,863	116%	136,460,682	89%	0.293204
		144.92%			

1.	Prior Year	40,010,863		40,010,863
2.	Simple 3 Year Average	34,919,785		34,919,785
				31,777,005
3.	Weighted 3 Year Average	219,249,919		36,541,653
		34,007,885		
4.	Adjusted Weighted 3 Year Average	34,047,670		34,391,486
		34,053,193		
5.	Linear Regression on NOI		0.81	39,571,184
6.	Linear Regression on NOI/NPIS		(0.81)	37,606,141
7.	Typical Return on Plant			39,582,694
8	Linear regression on NOI vs. Access Lines		(0.85)	38,158,859

PROJECTION less allowance for equipment sales:	35,000,000
INCOME ATTRIBUTED TO CWIP	0
Total Income to be Capitalized	35,000,000

INCOME APPROACH

	SUBSCRIBER ACCESS LINES	
20043	167,000	
2005	162,000	97%
2006	156,489	97%
2007	151,717	97%
2008	147,248	97%
2009	139,353	95%
		83.44%

Market Value Estimate -- Income Approach

	Projection		Cap. Rate		Market Value	
Tangible NOI	27,465,176	/	0.1146	=	239,718,500	
Less V. S.	5,706,117	/	0.1146	=	49,803,501	0.16
Less DSL	1,828,707	/	0.1146	=	15,961,115	
System NOI	35,000,000	/	0.1146	=	305,483,115	

COST APPROACH

Plant in Service	$566,897,345
Construction WIP	2,998,765
Non-Op Plant	
Subtotal	569,896,110
Miscellaneous Physical Property	0
Materials and Supplies	643,038
Total Operating Property	570,539,148
Less Depreciation Reserve:	
Depreciation & Amortization Reserve	430,436,663
Amortization Reserve	0
Depreciation Reserve	0
Total Depreciation Reserves & Plant Adjustments	430,436,663
NET BOOK	140,102,485
LESS: Software @ Net	0
INDICATED OBSOLESCENCE	150,000,000
COST APPROACH INDICATOR (INCLUDING INTANGIBLES)	290,102,485
Other Intangibles (trade name from D&T Appraisal)	9,300,000
Work Force	5,000,000
Buildings	24,099,934
COST APPROACH (EXCLUDING INTANGIBLES)	251,702,551

FINAL VALUE ESTIMATE

Income Approach Estimate (Excluding Intangibles)	$239,718,500
Cost Approach Estimate (Excluding Intangibles)	251,702,551
AUS RCNLD STUDY	$240,679,972
Income Approach System (Include Intangibles)	$305,483,115
Cost Approach (Including Intangibles)	290,102,485

After careful consideration of this information, the total system value of SAMPLE COMPANY A excluding intangibles is as follows:

FINAL VALUE ESTIMATE	$240,000,000
FINAL VALUE ESTIMATE SYSTEM (Including Intangibles)	$305,483,115
MARKET VALUE TO COST	42.07%
MARKET VALUE TO NB	171.30%

* ACKNOWLEDGEMENT OF NEW VALUE FOR AD VALO
THE ABOVE LISTED NEW VALUES ARE RECOMMENDED BY THE REM TAXATION *
DISTRICT AND ACCEPTED BY THE AGENT/OWNER FOR THEXTA APPRAISER FOR THE
THE AGENT/OWNER HEREBY WITHDRAWS PROTEST AND WAIVES PAYER AS 2010 VALUES.
THE RIGHT TO FURTHER
NOTIFICATION OF VALUES.
TO BE VALID THIS SIGN-OFF MUST BE EXECUTED AND RETU
RNED TO CAPITOL
BY MIDNIGHT PRIOR TO YOUR ARB HEARING.

District	Capitol	Taxpayer/Agent	ARB
Date	Date	Date	Date

ALLOCATION

(A)	Total System Value		$240,000,000
(B)	Texas Utility Plant in Service	$566,897,345	
(C)	System Gross Utility Plant	$566,897,345	
(D)	Texas Apportionment Factor (B)/(C)		100.00%
(E)	Texas Net Utility Plant	$140,102,485	
(F)	System Net Utility Plant	$140,102,485	
(G)	Texas Apportionment Factor (E)/(F)		100.00%
(H)	Average Apportionment Factor [(D)+(G)]/2		100.00%
(I)	Texas Value (H) * Total Market Value		$240,000,000
(J)			
(K)	Buildings & Land		$24,099,934
(L)	Total Land and Buildings (J)+(K)		$24,099,934
(M)	Original Cost		$570,539,148
(N)	Percentage Attributable to Land and Buildings (L)/(M)		4.22%
	Other Intangibles (trade name from D&T Appraisal)		9,300,000
	Work Force		5,000,000
	Value to Allocate [(I)-(I*N)]		$215,562,248
	Total Rendered Value		171,000,000
	ratio of Value to Allocate to Rendered Value		1.2606
	Ratio of Value to Allocate to Original cost		0.3782

NET OPERATING INCOME ATTRIBUTED TO CONSTRUCTION WORK IN PROGRESS

(A) Total Construction work in progress	$2,998,765
Less:	
(B) Short term plant in rate base	$0
(C) Modernization - Long term plant replacing plant in rate base	$2,998,765
(D) Construction Work in Progress not in rate base	$0
(E) Capitalization Rate	11.46%
(F) Present value of (D) discounted for one period at capitalization rate	$0
(G) Net operating income attributed to construction work in progress adjusted for 80% market penetration	$0

COST APPROACH OBSOLESCENCE

(A)	Total Net Plant In Service	$136,460,682
(B)	Required Rate of Return	11.46%
(C)	Prior 3 Year's Net Operating Income - Avg.	34,919,785
(D)	Required Net Operating Income (A)*(B)	$15,634,657
(E)	Income Shortfall (D)-(C)	($19,285,128)
(F)	Capitalization Rate	11.46%
(G)	Indicated Obsolescence	($168,322,312)

Method 2

(A)	Projected Net Operating Income	35,000,000
(B)	Total Net Plant In Service	$136,460,682
(C)	Rate of Return (A) / (B)	25.65%
(D)	Expected Rate of Return (Capitalization Rate)	11.46%
(E)	Percent Good (C)/(D)	223.86%
(F)	Percent Obsolescence Equals (100.00%) - (E)	-123.86%
(G)	Total Economic Obsolescence (B)*(F)	($169,022,433)
	SAY	(150,000,000)

Capital Charge - the annual return required on all corporate assets used in the
production of the economic income associated with the subject intangible asset.

Net Plant In Service	Cost of Capital		Required Return
144,624,554	11.46%	=	$ 16,570,014

Vertical Svces Revenue (VS NOI / co. exp ratio)	Total Operating Revenues	Percent of VS Revenue
14,428,016	172,550,486	8.36%

Allocated Capital Charge on Supporting Assets	$1,385,522
Estimated Vertical Services NOI	7,091,639
Vertical Services NOI Less Capital Charge	$5,706,117

2010

DOCUMENT 9D

SAMPLE ELECTRIC COOP COMPANY

UNIT APPRAISAL

Unit # 000

Appraiser

DATA YEAR: 2010

INCOME APPROACH

YEAR	NET OPERATING INCOME	NOI GROWTH	NET PLANT IN SERVICE	NPIS GROWTH	NOI/NPIS NOI - CURR YR NPIS - PRV YR
2004	4,625,201		81,787,622		
2005	5,661,681	0.2241	85,798,675	0.0490	0.0692
2006	4,748,314	-0.1613	92,154,509	0.0741	0.0553
2007	4,460,508	-0.0606	100,759,381	0.0934	0.0484
2008	4,928,287	0.1049	109,974,664	0.0915	0.0489
2009	4,458,440	-0.0953	115,898,957	0.0539	0.0405

MOST RECENT YEAR			4,458,440
THREE YEAR AVERAGE			4,615,745
FIVE YEAR AVERAGE			4,851,446
THREE YEAR WEIGHTED AVERAGE			4,615,400
FIVE YEAR WEIGHTED AVERAGE			4,703,012
FIVE YR. AVG. RETURN ON NPIS		0.0525	6,082,869
LIN. REGRESS. ON NOI	CORR. COEFF. =	(0.39)	4,183,493
LIN. REGRESS. ON NOI/NPIS	CORR. COEFF. =	(0.62)	4,261,525

PROJECTED TYPICAL NET OPERATING INCOME	3,700,000
NET INCOME ATTRIBUTABLE TO CWIP (SEE BELOW)	0
TOTAL NET INCOME TO CAPITALIZE	3,700,000
CAPITALIZATION RATE	0.1398
VALUE INDICATED BY INCOME APPROACH	26,460,653

INCOME ATTRIBUTABLE TO CONSTRUCTION WORK IN PROGRESS

CONSTRUCTION WORK IN PROGRESS			2009		0
DISCOUNTED AT:	0.1398	FOR	1	YEAR(S)	0
PROJECTED NET INCOME FROM CWIP					0

COST APPROACH

TOTAL UTILITY PLANT IN SERVICE (C1)	146,384,363
CONSTRUCTION WORK IN PROGRESS (C2)	0
TOTAL UTILITY PLANT	146,384,363
DEPRECIATION (C4)	30,485,407
NET UTILITY PLANT	115,898,957
MATERIALS & SUPPLIES (C21)	179,002
NET INVESTMENT	115,719,955
ECONOMIC OBSOLESCENCE (SEE BELOW)	89,821,691
COST APPROACH INDICATOR OF VALUE	25,898,263

CALCULATION OF ECONOMIC OBSOLESCENCE

HISTORICAL RATE OF RETURN (5 YEAR AVG.)	0.0525
CURRENT DESIRED RATE OF RETURN	0.1398
INDICATED FRACTION NON-OBSOLESCENT	0.3753
MOST RECENT RATE OF RETURN	0.0405
CURRENT DESIRED RATE OF RETURN	0.1398
INDICATED FRACTION NON-OBSOLESCENT	0.2899
PROJECTED RATE OF RETURN	0.0319
CURRENT DESIRED RATE OF RETURN	0.1398
INDICATED FRACTION NON-OBSOLESCENT	0.2283
APPRAISER'S OPINION OF FRACTION NON-OBSOLESCENT	0.2250
FRACTION OBSOLETE	0.7750
ECONOMIC OBSOLESCENCE	89,821,691

CORRELATION

INCOME APPROACH INDICATOR OF VALUE	$26,460,653
COST APPROACH INDICATOR OF VALUE	$25,898,263
APPRAISER'S OPINION OF MARKET VALUE	$26,000,000

MARKET VALUE/ ORIGINAL COST	0.1776
MARKET VALUE/ NET BOOK VALUE	0.2243

* ACKNOWLEDGEMENT OF NEW VALUE FOR AD VALOREM TAXATION *** *

THE ABOVE LISTED NEW VALUES ARE RECOMMENDED BY THE APPRAISER FOR THE DISTRICT AND ACCEPTED BY THE AGENT/OWNER FOR THE TAXPAYER AS 2010 VALUES. THE AGENT/OWNER HEREBY WITHDRAWS PROTEST AND WAIVES THE RIGHT TO FURTHER NOTIFICATION OF VALUES.

TO BE VALID THIS SIGN-OFF MUST BE EXECUTED AND RETURNED TO CAPITOL BY MIDNIGHT PRIOR TO YOUR ARB HEARING.

DISTRICT	CAPITOL	TAXPAYER/AGENT	ARB
DATE	DATE	DATE	DATE

ALLOCATION

DISTRIBUTION PLANT

ORIGINAL COST OF DISTRIBUTION SYSTEM (E14E)	122,565,286
ORIGINAL COST OF LAND AND LAND RIGHTS (E1E)	123,409
ORIGINAL COST OF STRUCTURES AND IMPROVEMENTS (E2E)	916,416
ORIGINAL COST OF STATION EQUIPMENT (E3E)	11,720,471
DIST. PLANT EXCL. SUBSTATIONS AND LAND	109,804,991
MARKET VALUE/ ORIGINAL COST	0.1776
MARKET VALUE OF DIST. EXCL. SUBSTATIONS AND LAND	19,502,969

TYPE	MARKET VALUE	NO. UNITS		MKT VAL/UNIT
METERS	19,502,969	31,056	(R10L)	$628
MI. OF LINE	19,502,969	4,217	(B6B+B7B)	$4,625

TRANSMISSION PLANT

ORIGINAL COST OF TRANSMISSION SYSTEM (E33E)	11,818,671
ORIGINAL COST OF LAND & LAND RIGHTS (E26E)	16,336
ORIGINAL COST OF STRUCTURES AND IMPROVEMENTS (E27E)	170,820
ORIGINAL COST OF STATION EQUIPMENT (E28E)	4,458,909
TRANS. PLANT EXCL. SUBSTATIONS AND LAND	7,172,606
MARKET VALUE/ ORIGINAL COST	0.1776
MARKET VALUE OF TRANS. EXCL. SUBSTATIONS AND LAND	1,273,960
MILES OF TRANSMISSION LINE (B5B)	104
MARKET VALUE PER MILE OF LINE	$12,281

SUBSTATIONS

ORIGINAL COST OF SUBSTATIONS - DIST.	12,636,887
ORIGINAL COST OF SUBSTATIONS - TRANS.	4,629,729
ORIGINAL COST OF SUBSTATIONS - TOTAL	17,266,616
MARKET VALUE/ ORIGINAL COST	0.1776
MARKET VALUE OF SUBSTATIONS	3,066,803
TOTAL SUBSTATION KVA CAPACITY	269,025
MARKET VALUE PER KVA	$11

CAP RATE

COST OF EQUITY

MODIFIED DCF - DIVIDEND YIELD	Ke = (Div/P) + G	0.1630
DIVIDEN / PRICE = ((CASH PATRONAGE + REDEMPTIONS) / TOTAL PATRONAGE CAPITAL)		0.1571
GROWTH RATE = [1 - (CASH PATRONAGE / NET INCOME)]* (NET INCOME / PATRONAGE CAPITAL)		-0.0570
GROWTH RATE - GROWTH OF NPIS		0.0724
GROWTH RATE - GROWTH OF NOI		0.0023
CALCULATED GROWTH RATE		0.0059
CASH PATRONAGE		7,000,090
REDEMPTIONS		0
TOTAL PATRONAGE CAPITAL		44,570,184
NET INCOME		4,458,440
MODIFIED DCF - EARNINGS	Ke = (E/P) + G	0.1059
NET INCOME		4,458,440
TOTAL PATRONAGE CAPITAL		44,570,184
CALCULATED GROWTH RATE		0.0059
BUILD UP METHOD	Ke = Rf + Rp + SIZE PREMIUM	0.1570
RISK FREE RATE (TREASURY)		0.0400
EQUITY RISK PREMIUM (PRATT / WASATA)		0.0550
SIZE PREMIUM (IBBITSONS)		0.0620
MODIFIED CAPM	Ke = Rf + (b * ERP)	0.1391
RISK FREE RATE (TREASURY)		0.0400
EQUITY RISK PREMIUM (PRATT / WASATA)		0.0550
BETA (SEE BELOW)		1.8024
BETA		
RETURN ON ASSETS		0.0525
S & P AVERAGE RETURN ON ASSETS		0.0946
CALCULATED BETA		1.8024
AVERAGE COST OF EQUITY		0.1413
OPINION OF COST OF EQUITY		0.1413

COST OF DEBT

ELECTRIC UTILITY BOND	0.0818
COST OF DEBT	0.0818

CAPITAL STRUCTURE

TOTAL DEBT	61,388,492
TOTAL ASSETS	133,029,617
PERCENT DEBT	0.4615
PERCENT EQUITY	0.5385

WEIGHTED COST OF CAPITAL

	CAPITAL STRUCTURE	COST	WEIGHTED COST	FLOTATION COST	ADJ WEIGHTED COST
EQUITY	0.5385	0.1413	0.0761	0.0360	0.0789
DEBT	0.4615	0.0818	0.0377	0.0150	0.0383
					0 .1173

2010

DOCUMENT 9E

SAMPLE TELEPHONE COOP COMPANY

APPRAISAL

UNIT # 000

Appraiser

DATA YEAR: 2010

INCOME APPROACH

NOI PROJECTION NO. 1		
NET OPERATING REVENUES (B7B)	2009	$3,585,327
NET OPERATING REVENUES (B7B)	2008	$3,606,611
NET OPERATING REVENUES (B7B)	2007	$3,263,862
PROJECTED NET OPERATING REVENUES		$3,485,267
TYPICAL INVESTOR-OWNED TELEPHONE CO. EXPENSE RATIO		0.8100
PROJECTED EXPENSES		$2,823,066
PROJECTED NOI BASED ON TYPICAL INVESTOR-OWNED EXP. RATIO		$662,201
NOI PROJECTION NO. 2		
NET PLANT IN SERVICE 2010		$7,324,320
TYPICAL INVESTOR-OWNED TEL. CO. RETURN RATE ON NPIS		0.1010
PROJECTED NOI BASED ON INVESTOR-OWNED RETURN RATE		$739,756
NOI PROJECTION NO. 3		
NET OPERATING REVENUES (B7B)	2010	$3,585,327
TOTAL OPERATION & MAINTENANCE EXPENSE (B14B)		$2,873,408
TOTAL OPERATING TAXES (B20B)		$74,428
NET OPERATING INCOME BEFORE FED. INCOME TAXES	2010	$637,491
NET OPERATING INCOME BEFORE FED. INCOME TAXES	2009	$861,211
NET OPERATING INCOME BEFORE FED. INCOME TAXES	2008	$1,848,531
PROJECTED NOI BEFORE FEDERAL INCOME TAXES		$1,354,871
PROJECTED EFFECTIVE FEDERAL INCOME TAX RATE		0.00
PROJECTED NOI AFTER FEDERAL INCOME TAXES		$1,354,871

INCOME PROJECTIONS

NOI PROJECTION NO. 1	$739,756
NOI PROJECTION NO. 2	$739,756
NOI PROJECTION NO. 3	$1,354,871
APPRAISER'S OPINION	$900,000
INCOME ATTRIBUTABLE TO CWIP (SEE BELOW)	$0
TOTAL INCOME TO CAPITALIZE	$900,000
CAPITALIZATION RATE	0.1322
INCOME APPROACH INDICATOR OF VALUE	$6,807,893

INCOME ATTRIBUTABLE TO CONSTRUCTION WORK IN PROGRESS

CONSTRUCTION WORK IN PROGRESS				2010	$0
DISCOUNTED AT:	0.1322	FOR	1	YEAR(S)	$0
TYPICAL INVESTOR-OWNED ELECTRIC CO. RETURN RATE ON NPIS					0.1010
PROJECTED NET INCOME FROM CWIP					$0

CAPITOL APPRAISAL GROUP

COST APPROACH

TELECOMMUNICATIONS PLANT-IN-SERVICE (A20)	$12,539,923
PROPERTY HELD FOR FUTURE USE (A21)	$0
CONSTRUCTION WORK IN PROGRESS (A22)	$0
TOTAL UTILITY PLANT	$12,539,923
DEPRECIATION (A24)	$5,215,603
NET UTILITY PLANT	$7,324,320
MATERIALS AND SUPPLIES (A7+A8)	$200,601
NET INVESTMENT	$7,524,921
PERCENT NON-OBSOLETE (SEE BELOW)	0.9000
COST APPROACH INDICATOR OF VALUE	$6,772,429

CALCULATION OF ECONOMIC OBSOLESCENCE

RETURN RATE BASED ON NOI PROJECTION NO. 1	0.1010
CURRENT DESIRED RATE OF RETURN	0.1322
INDICATED FRACTION NON-OBSOLETE	0.7640
RETURN RATE BASED ON NOI PROJECTION NO. 2	0.1010
CURRENT DESIRED RATE OF RETURN	0.1322
INDICATED FRACTION NON-OBSOLETE	0.7640
RETURN RATE BASED ON NOI PROJECTION NO. 3	0.1850
CURRENT DESIRED RATE OF RETURN	0.1322
INDICATED FRACTION NON-OBSOLETE	1.3993
RETURN RATE BASED ON PROJECTED NOI	0.1229
CURRENT DESIRED RATE OF RETURN	0.1322
INDICATED FRACTION NON-OBSOLETE	0.9295
CO-OP'S NET PLANT / ORIG COST	0.5841
TYPICAL I.O.U. NET PLANT / ORIG COST	0.6230
CO-OP'S IOU-ADJUSTED NET PLANT / ORIG COST	0.9375
TYPICAL I.O.U. NET PLANT / MARKET VALUE	0.8250
CO-OP'S I.O.U.-ADJUSTED FRACTION NON-OBSOLETE	0.7735
TYPICAL INVESTOR-OWNED ELECTRIC PERCENT NON-OBSOLETE	0.8250
COMPTROLLER'S PERCENT NON-OBSOLETE PRIOR YEAR	1.1375
APPRAISER'S OPINION OF FRACTION NON-OBSOLESCENT	0.9000

CAPITOL APPRAISAL GROUP

CORRELATION

INCOME APPROACH INDICATOR OF VALUE	$6,807,893
COST APPROACH INDICATOR OF VALUE	$6,772,429
APPRAISER'S OPINION OF MARKET VALUE	$6,800,000
MARKET VALUE/ ORIGINAL COST	0.5337
MARKET VALUE/ NET BOOK VALUE	0.9037

ALLOCATION

CENTRAL OFFICE EQUIPMENT

ORIGINAL COST OF CENTRAL OFFICE SWITCHING (D2E)	$1,193,274
ORIG. COST OF OPERATOR SYSTEMS (D3E)	$0
ORIG. COST OF CENTRAL OFFICE TRANSMISSION (D4E)	$683,810
ORIGINAL COST OF CENTRAL OFFICE EQUIPMENT	$1,877,084
ALLOCATED CWIP	$0
TOTAL ORIGINAL COST	$1,877,084
MARKET VALUE/ ORIGINAL COST	0.5337
MARKET VALUE OF CENTRAL OFFICE EQUIPMENT	$1,001,856
NO. CENTRAL OFFICE EQUIPMENT ACCESS LINES (GET+GFT)	2,907
VALUE PER COE ACCESS LINE	$345

MAIN STATIONS

ORIGINAL COST OF INFOR ORIG/TERM ASSETS (D5E)	$0
ORIG. COST OF CABLE & WIRE FACILITIES (D6E)	$10,380,881
ORIGINAL COST OF OTHER TANGIBLE ASSETS (D7E)	$0
TOTAL OUTSIDE PLANT ORIGINAL COST	$10,380,881
ALLOCATED CWIP	$0
TOTAL ORIGINAL COST	$10,380,881
MARKET VALUE/ ORIGINAL COST	0.5337
MARKET VALUE OF OUTSIDE PLANT	$5,540,588
TOTAL NO. MAIN STATIONS (C4C)	2,907
MARKET VALUE PER MAIN STATION	$1,906

Document 9F

V A L U A T I O N O P I N I O N

2010 PRELIMINARY REPORT

OF

FACILITIES AT

ABC LARGE INDUSTRIY COMPANY

V A L U A T I O N S U M M A R Y

REALTY IMPROVEMENTS	17,389,600
PERSONAL PROPERTY	17,623,800
TOTAL PRESENT WORTH, EXCLUDING LAND	35,013,400

CERTIFICATION: THIS APPRAISAL IS INTENDED TO REFLECT THE FAIR MARKET VALUE OF THE REALTY IMPROVEMENTS AND PERSONAL PROPERTY FOR SUBJECT PROPERTY, EXCLUDING LAND, AS OF JANUARY 1, 2010. THIS OPINION IS TO BE USED BY OUR CLIENT, TEXAS APPRAISAL DISTRICT, ITS CHIEF APPRAISER AND A.R.B., IN THEIR CONSIDERATIONS OF MARKET VALUE FOR PURPOSES OF AD VALOREM TAXATION. OWNERSHIP AND SITUS ARE NOT ASSURED.

APPRAISED BY:

APPRAISER, ENGR.
CAPITOL APPRAISAL GROUP, LLC

PRINTED: 10/08/10 12:04:10

ABC LARGE INDUSTRIY COMPANY
2010 PRELIMINARY REPORT

REALTY IMPROVEMENTS VALUATION SUMMARY

CATEGORY	REPLACEMENT COST	VALUATION FACTOR	PRESENT WORTH
1. PROCESS GROUP	49,590,000	.194	9,598,100
2. UTILITIES	19,340,100	.183	3,539,500
3. RECEIVING, SHIPPING, AND STORAGE	6,942,600	.182	1,261,400
4. SERVICE FACILITIES.	11,681,200	.184	2,144,400
5. GENERAL BUILDINGS	4,408,000	.192	846,200
6. OFF SITE FACILITIES			
7. RESEARCH AND DEVELOPMENT			
SUB-TOTAL	91,961,900		17,389,600
8. CONSTR. IN PROGRESS			
9. OUT OF SERVICE	22,040,000	.000	
10. NEW UNITS			
SUB-TOTAL	22,040,000		
IMPROVEMENTS TOTAL	114,001,900		17,389,600

PRINTED: 10/08/10 12:04:10

ABC LARGE INDUSTRIY COMPANY
2010 PRELIMINARY REPORT

PERSONAL PROPERTY VALUATION SUMMARY

CATEGORY	REPLACEMENT COST	VALUATION FACTOR	PRESENT WORTH
1. AUTOS & TRUCKS	2,360,000	.430	1,014,800
2. FF&E	250,000	.485	121,300
3. COMPUTERS	150,000	.143	21,500
4. SUPPLIES & PARTS	1,026,000	.750	769,500
5. MOB MACH/TOOLS	327,800	.600	196,700
6. INVENTORY	15,500,000	1.000	15,500,000
PERSONAL PROPERTY	19,613,800		17,623,800

ABC LARGE INDUSTRIY COMPANY
2010 PRELIMINARY REPORT

THE OPERABLE FACILITY HAS A SERVICE LIFE OF 27.8 YEARS AND THE DOLLAR AVERAGE REMAINING LIFE IS 1.1 YEARS THE ESTIMATED INTEREST RATE FOR AN INVESTMENT IN THIS TYPE OF PLANT IS 8.6%. NORMALLY, A PLANT IN THIS RANGE OF INVESTMENT WOULD BE LOCATED ON A SITE VALUED AT $ 8,110,000.

VALUATION SUMMARY

TYPE VALUE	VALUE	CONSIDERATION
REPLACEMENT	114,001,900	
PHYSICAL	39,900,600	74,101,300
FUNCTIONAL	21,733,500	18,167,100
LOC & EXT OBSO	17,389,600	4,343,900

THE PERSONAL PROPERTY INDEXES FOR THIS PLANT ARE:

	CLASSIFICATION	I	B	F
1.	AUTOS & TRUCKS	2.3600	1,000.0000	.4300
2.	FF&E	.2500	1,000.0000	.4850
3.	COMPUTERS	.1500	1,000.0000	.1430
4.	SUPPLIES & PARTS	1.2000	.7500	.7500
5.	MOB MACH/TOOLS	1.1500	.2500	.6000
6.	INVENTORY	15.5000	1,000.0000	1.0000
	PROCESS UNITS	20.0000	20.0000	.0000
	OVERALL PLANT FACTORS	123-999	1.0000	1.1020
				.8000

DOCUMENT 9G

OIL LSE Sample #1-Smaller

MAP111 C A P I T O L A P P R A I S A L G R O U P , I N C .
10/06/10 13.55 DETAILED MINERAL APPRAISAL PAGE 1
INCOME APPROACH: DNCF TECHNIQUE

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777011 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3
LEASE NAME: A E SMITH COMMENT: SAMPLE **OIL LSE #1-SML** MODIFICATION USER: CHAR

HISTORICAL PRODUCTION:

DATE OF FIRST PRODUCTION: 41/10/01

DATE	OIL (BBL)	GAS (MCF)	WATER(E)-B/D	%WC-WT	FLOW	LIFT	WELLS
PRIOR	1123821	162					
1999	16133					6	6
2000	14603					6	6
2001	13668					6	6
2002	10161					6	6
2003	9016					5	5
2004	7720					5	5
2005	8922					5	5
2006	9071					5	5
2007	11892					5	5
2008	13024					5	5
JAN	949					5	5
FEB	673					5	5
MAR	1115					5	5
APR	1063					5	5
MAY	1003					5	5
JUN	936					5	5
JUL	841					6	6
AUG	577					6	6
SEP	791					6	6
OCT	924					7	7
NOV	855					7	7
DEC	1400					7	7
2009	11127					7	7
TOTAL	1249158	162					

PROJECTION PARAMETERS:

PROJECTION DATE: 11/01/01 LIMIT DATE: 00/00/00
ANNUAL OIL PRODUCTION: 11127 OIL RESERVE LIMIT:
ANNUAL GAS PRODUCTION: GAS RESERVE LIMIT:
NUMBER OF PRODUCING WELLS: 7 NUMBER OF INJECTION WELLS: 1

DECLINE PARAMETERS:

----CALCULATED PARAMETERS-----			-----APPRAISER PARAMETERS-----			
	OIL	GAS	P	START-RATE	DECL-%	N-FACT MOS
DATE:	07/07/01	07/07/01	O	45.0	25.00	12
DAILY-A:	30.5		B		15.00	
DECL-%:	35.53	35.53				
N-FACT:						

SECONDARY PRODUCT RATIO: SECONDARY PRODUCT RATIO:

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777011 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: A E SMITH COMMENT: SAMPLE OIL LSE #1-SML MODIFICATION USER: CHAR

ECONOMIC PARAMETERS:		PRODUCING WELLS:	7	BASE DISCOUNT RATE:	1.1300
OIL PRICE:	94.09	INJECTION WELLS:	1	AD VALOREM TAX BURDEN:	2.00
OIL GRAVITY:	28.0	DEPTH:	2600	ECONOMIC LIFE:	19
OIL GRAVITY ADJUSTMENT:		OPERATING COST ($/WELL):	6378	P-TO-I (7/8-1/8):	4.7 4.8
GAS PRICE:	10.04	*** SECTION 22.27 RESTRICTION ***		PAYOUT (7/8-1/8):	4.7 4.8
GAS PRICE PARITY:	1.00	EQUIPMENT COST ($/WELL):	8269	R/P RATIO (OIL-GAS):	6.0

CASH FLOW ANALYSIS:

START	-----PRODUCTION-----		------PRODUCT PRICES-----				-7/8 REVENUE(M$)-		---OP COST(M$)---		--UNDISC INCOME--		--DISCOUNTED INCOME--	
DATE	OIL (BBL)	GAS (MCF)	OIL	NET	GAS	NET	OIL	GAS	DIRECT	CAP EXP	7/8(M$)	1/8(M$)	7/8($)	1/8($)
10/01/01	14275		35.19	33.57	6.06	5.61	419		45		375	60	349376	55858
11/01/01	11372		40.69	38.82	6.61	6.11	386		42		344	55	278830	44746
12/01/01	9669		50.59	48.26	7.49	6.93	408		42		366	58	257988	41128
13/01/01	8239		65.98	62.94	8.26	7.64	454		45		409	65	250900	39744
14/01/01	6984		74.78	71.34	9.36	8.66	436		46		390	62	207980	33205
15/01/01	5938		83.57	79.73	10.46	9.68	414		47		367	59	170153	27437
16/01/01	5045		92.37	88.12	10.94	10.12	389		49		340	56	137204	22403
17/01/01	4301		101.61	96.94	11.24	10.40	365		50		315	52	110322	18270
18/01/01	3645		105.67	100.81	11.53	10.67	322		52		270	46	82274	14002
19/01/01	3097		108.84	103.83	11.81	10.92	281		53		228	40	60487	10655
20/01/01	2635		111.56	106.43	12.09	11.18	245		55		191	35	43937	8080
21/01/01	2245		113.79	108.56	12.36	11.43	213		56		157	30	31436	6106
22/01/01	1902		114.93	109.64	12.62	11.67	182		58		124	26	21675	4543
23/01/01	1617		116.08	110.74	12.87	11.90	157		60		97	22	14676	3392
24/01/01	1374		117.24	111.85	13.11	12.13	134		62		73	19	9598	2532
25/01/01	1173		118.41	112.96	13.34	12.34	116		63		52	17	6010	1898
26/01/01	993		119.59	114.09	13.56	12.54	99		65		34	14	3361	1411
27/01/01	844		120.79	115.23	13.77	12.74	85		67		18	12	1537	1053
28/01/01	718		122.00	116.39	13.97	12.92	73		69		4	10	282	787
	86066		<====== SUB-TOTAL ======>				5180		1027		4153	740	2038026	337250
	86066		<======= TOTAL ======>				5180		1027		4153	740	2038026	337250
							EQUIPMENT ADJUSTMENT:				58		3793	
							VALUE AT BASE DISCOUNT RATE:						2041819	337250
							VALUE AT MAF ADJUSTMENT:	94/90					1919309	317015
		IN PLACE	DAILY AVG				SECTION 23.175 VALUE:						1764393	288734
	7/8 $/BBL:	23.43	44810				TOTAL APPRAISED VALUE:						1764393	288734
	7/8 $/MCF:													
	7/8 $/BOE:	23.43	44810				AVERAGE ANNUAL ROR:			20		20		
							DIVISION ORDER TOTAL WORKING INTEREST & VALUE:				.825000		1648900	

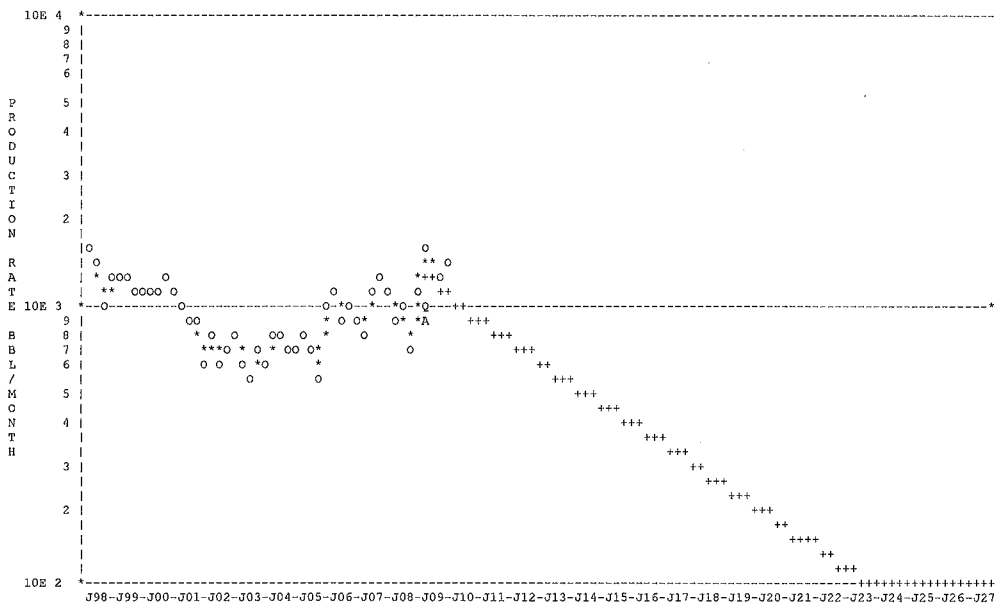
*** SECTION 22.27 RESTRICTION ***

JURISDICTIONS: SAMPLE COUNTY 1.0000
SAMPLE ISD 1.0000

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777011 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: A E SMITH COMMENT: SAMPLE OIL LSE #1-SML MODIFICATION USER: CHAR

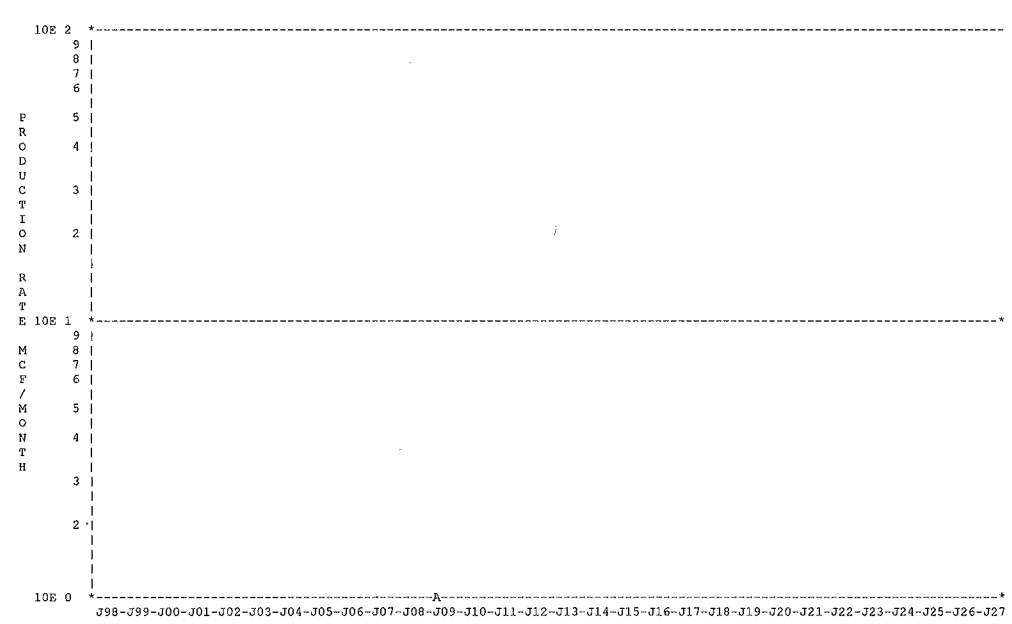
DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --				CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --			
PRIOR	1123821	162		MON	OIL(BBL)	GAS(MCF)	WLS	DATE:	07/07/01	07/07/01	MON	OIL(BBL)	GAS(MCF)	WLS
1999	16133		6	JAN	949		5	DAILY-A:	30.5		JAN	1544		7
2000	14603		6	FEB	673		5	DECL-%:	35.53	35.53	FEB	1484		7
2001	13668		6	MAR	1115		5	N-FACT:			MAR	1478		7
2002	10161		6	APR	1063		5	----- APPRAISER DECLINE ------			APR	1296		7
2003	9016		5	MAY	1003		5	P START-RATE DECL-% N-FACT MOS			MAY	1326		7
2004	7720		5	JUN	936		5	O 45.0	25.00	12	JUN	1227		7
2005	8922		5	JUL	841		6	B	15.00		JUL	1267		7
2006	9071		5	AUG	577		6				AUG	1268		7
2007	11892		5	SEP	791		6				SEP	1352		7
2008	13024		5	OCT	924		7				OCT	1440		7
2009	11127		7	NOV	855		7				NOV			
2010	13682			DEC	1400		7				DEC			



CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777011 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: A E SMITH COMMENT: SAMPLE OIL LSE #1-SML MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION -- MON	OIL(BBL)	GAS(MCF)	WLS	CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION -- MON	OIL(BBL)	GAS(MCF)	WLS
PRIOR	1123821	162						DATE:	07/07/01	07/07/01				
1999	16133		6	JAN	949		5	DAILY-A:	30.5		JAN	1544		7
2000	14603		6	FEB	673		5	DECL-%:	35.53	35.53	FEB	1484		7
2001	13668		6	MAR	1115		5	N-FACT:			MAR	1478		7
2002	10161		6	APR	1063		5	----- APPRAISER DECLINE ------			APR	1296		7
2003	9016		5	MAY	1003		5	P START-RATE DECL-% N-FACT MOS			MAY	1326		7
2004	7720		5	JUN	936		5	O 45.0	25.00	12	JUN	1227		7
2005	8922		5	JUL	841		6	B	15.00		JUL	1267		7
2006	9071		5	AUG	577		6				AUG	1268		7
2007	11892		5	SEP	791		6				SEP	1352		7
2008	13024		5	OCT	924		7				OCT	1440		7
2009	11127		7	NOV	855		7				NOV			
2010	13682			DEC	1400		7				DEC			



DOCUMENT 9H

OIL LSE Sample #2-Larger

MAP111 C A P I T O L A P P R A I S A L G R O U P , I N C .
10/06/10 13.55 DETAILED MINERAL APPRAISAL PAGE 1
INCOME APPROACH: DNCF TECHNIQUE

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777002 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: HUGH KELKER COMMENT: OIL SAMPLE #2 --LG MODIFICATION USER: CHAR

HISTORICAL PRODUCTION:

DATE OF FIRST PRODUCTION: 48/06/01

	RAILROAD COMMISSION PRODUCTION						
DATE	OIL (BBL)	GAS (MCF)	WATER(E)-B/D	%WC-WT	FLOW	LIFT	WELLS
PRIOR	16008540	3803197					
1999	46797	24076	94965	67	1	4	5
2000	32629	12793	77798	70	1	5	6
2001	31256	13091	33968	52	1	5	6
2002	28777	12535	31046	52	1	5	6
2003	26339	12354	24472	48	1	5	6
2004	27390	13510	31046	53	1	5	6
2005	28852	13754	33238	54	1	5	6
2006	29559	12400	23741	45	1	5	6
2007	20790	11571	1461	7	1	5	6
2008	22477	11550	2557	10	1	5	6
JAN	1694	869			1	5	6
FEB	1541	861			1	5	6
MAR	1566	809			1	5	6
APR	1504	931			1	5	6
MAY	2439	1565			1	5	6
JUN	1875	1169	3	1	1	5	6
JUL	1815	972	8	1	1	5	6
AUG	1932	1214			1	5	6
SEP	1999	740	69	2	1	5	6
OCT	2133	668	13	1	1	5	6
NOV	2446	1210			1	5	6
DEC	3162	1751			1	5	6
2009	24106	12759	33968	58	1	5	6
TOTAL	16327512	3953590					

PROJECTION PARAMETERS:

PROJECTION DATE: 11/01/01 LIMIT DATE: 00/00/00
ANNUAL OIL PRODUCTION: 24106 OIL RESERVE LIMIT:
ANNUAL GAS PRODUCTION: 12759 GAS RESERVE LIMIT:
NUMBER OF PRODUCING WELLS: 6 NUMBER OF INJECTION WELLS:

DECLINE PARAMETERS:

CALCULATED PARAMETERS		APPRAISER PARAMETERS				
	OIL	GAS	P	START-RATE	DECL-%	N-FACT MOS
DATE:	98/01/01	98/01/01	O	75.0	6.00	
DAILY-A:	66.0	34.9				
DECL-%:	6.06	6.06				
N-FACT:						

SECONDARY PRODUCT RATIO: 529 SECONDARY PRODUCT RATIO:

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777002 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: HUGH KELKER COMMENT: OIL SAMPLE #2 --LG MODIFICATION USER: CHAR

ECONOMIC PARAMETERS:		PRODUCING WELLS:	6	BASE DISCOUNT RATE:	1.1300
OIL PRICE:	94.09	INJECTION WELLS:		AD VALOREM TAX BURDEN:	2.00
OIL GRAVITY:	43.0	DEPTH:	8545	ECONOMIC LIFE:	42
OIL GRAVITY ADJUSTMENT:		OPERATING COST ($/WELL):	15076	P-TO-I (7/8-1/8):	8.0 7.8
GAS PRICE:	10.04	*** SECTION 22.27 RESTRICTION ***		PAYOUT (7/8-1/8):	5.8 5.8
GAS PRICE PARITY:	1.00	EQUIPMENT COST ($/WELL):	14095	R/P RATIO (OIL-GAS):	15.4 15.3

CASH FLOW ANALYSIS:

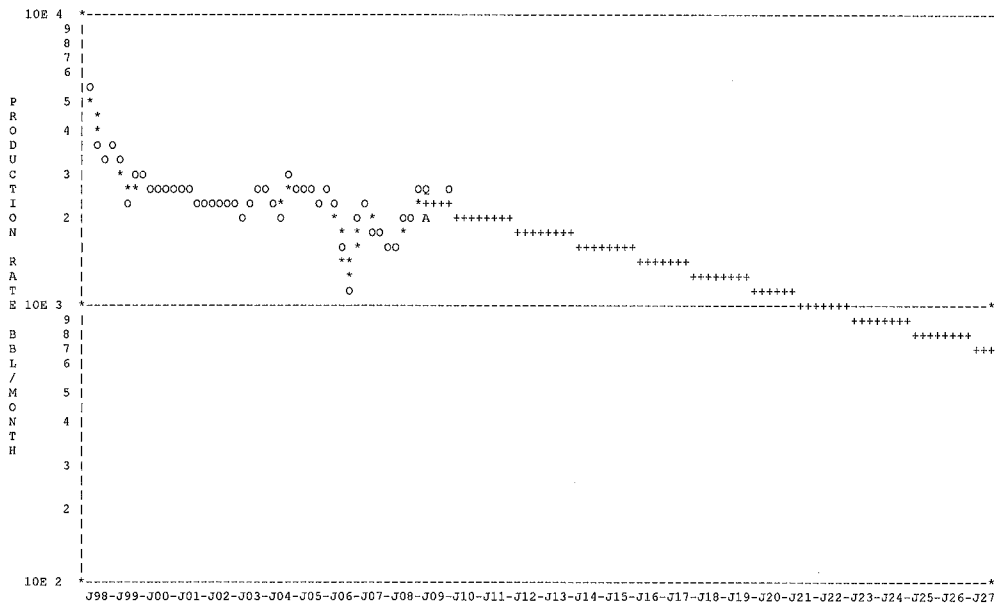
START	-----PRODUCTION-----		------PRODUCT PRICES------				-7/8 REVENUE(M$)-		---OP COST(M$)---		--UNDISC INCOME--		--DISCOUNTED INCOME--	
DATE	OIL (BBL)	GAS (MCF)	OIL	NET	GAS	NET	OIL	GAS	DIRECT	CAP EXP	7/8(M$)	1/8(M$)	7/8($)	1/8($)
10/01/01	26546	12349	35.19	33.57	6.06	5.61	780	61	90		750	120	699302	111950
11/01/01	24954	11601	40.69	38.82	6.61	6.11	848	62	86		824	130	667928	105372
12/01/01	23458	10898	50.59	48.26	7.49	6.93	991	66	86		971	151	684464	106436
13/01/01	22110	10266	65.98	62.94	8.26	7.64	1218	69	90		1196	184	733343	112666
14/01/01	20726	9617	74.78	71.34	9.36	8.66	1294	73	93		1274	195	679092	104091
15/01/01	19484	9032	83.57	79.73	10.46	9.68	1359	77	96		1340	205	621275	95094
16/01/01	18316	8487	92.37	88.12	10.94	10.12	1412	75	99		1389	212	559896	85663
17/01/01	17263	7995	101.61	96.94	11.24	10.40	1464	73	102		1435	220	503230	76976
18/01/01	16181	7489	105.67	100.81	11.53	10.67	1427	70	105		1393	214	424524	65202
19/01/01	15213	7037	108.84	103.83	11.81	10.92	1382	67	108		1342	207	355631	54884
20/01/01	14299	6610	111.56	106.43	12.09	11.18	1332	65	111		1285	199	296263	45977
21/01/01	13477	6226	113.79	108.56	12.36	11.43	1280	62	114		1228	192	246164	38439
22/01/01	12634	5831	114.93	109.64	12.62	11.67	1212	60	118		1154	182	201108	31661
23/01/01	11877	5479	116.08	110.74	12.87	11.90	1151	57	121		1087	173	164689	26152
24/01/01	11165	5148	117.24	111.85	13.11	12.13	1093	55	125		1022	164	134748	21601
25/01/01	10522	4848	118.41	112.96	13.34	12.34	1040	52	129		964	156	110439	17883
26/01/01	9863	4543	119.59	114.09	13.56	12.54	985	50	133		902	148	89881	14727
27/01/01	9272	4267	120.79	115.23	13.77	12.74	935	48	136		846	140	73304	12162
28/01/01	8716	4009	122.00	116.39	13.97	12.92	888	45	141		792	133	59707	10043
29/01/01	8215	3775	123.22	117.55	14.16	13.10	845	43	145		743	127	48712	8314
	314291	145507	<======	SUB-TOTAL		======>	22934	1228	2226		21937	3452	7353700	1145293
	95511	43638	<======	REMAINING		======>	10773	553	4554		6772	1618	196637	38698
	409802	189145	<======	TOTAL		======>	33707	1782	6780		28709	5070	7550337	1183991
							EQUIPMENT ADJUSTMENT:				85		223	
							VALUE AT BASE DISCOUNT RATE:						7550560	1183991
							VALUE AT MAF ADJUSTMENT:		00/00				7550560	1183991
		IN PLACE	DAILY AVG				SECTION 23.175 VALUE:						6026555	940986
	7/8 $/BBL:	15.87	86710				TOTAL APPRAISED VALUE:						6026555	940986
	7/8 $/MCF:	2.03	11011											
	7/8 $/BOE:	15.57	85013				AVERAGE ANNUAL ROR:				20	20		
							DIVISION ORDER TOTAL WORKING INTEREST & VALUE:				.825000		5650160	
											*** SECTION 22.27 RESTRICTION ***			

JURISDICTIONS: SAMPLE COUNTY 1.0000
SAMPLE ISD 1.0000

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777002 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: HUGH KELKER COMMENT: OIL SAMPLE #2 --LG MODIFICATION USER: CHAR

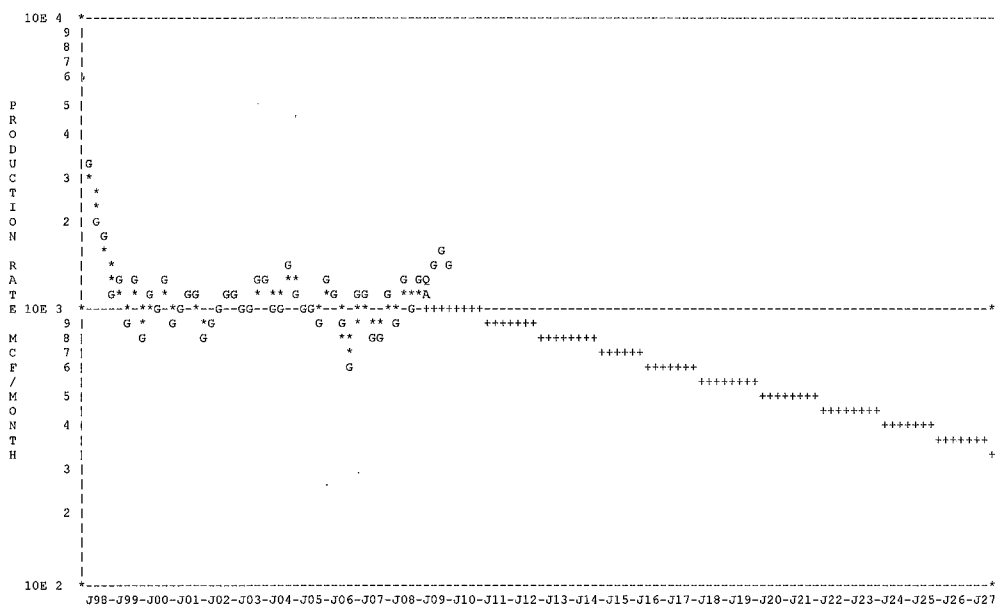
DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --				CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --			
PRIOR	16008540	3803197		MON	OIL(BBL)	GAS(MCF)	WLS	DATE:	98/01/01	98/01/01	MON	OIL(BBL)	GAS(MCF)	WLS
1999	46797	24076	5	JAN	1694	869	6	DAILY-A:	66.0	34.9	JAN	2829	1655	6
2000	32629	12793	6	FEB	1541	861	6	DECL-%:	6.06	6.06	FEB	2189	1328	6
2001	31256	13091	6	MAR	1566	809	6	N-FACT:			MAR	2309	787	6
2002	28777	12535	6	APR	1504	931	6	------ APPRAISER DECLINE ------			APR	2623	1438	6
2003	26339	12354	6	MAY	2439	1565	6	P START-RATE DECL-% N-FACT MOS			MAY	2364	1359	6
2004	27390	13510	6	JUN	1875	1169	6	O 75.0 6.00			JUN	2114	1269	6
2005	28852	13754	6	JUL	1815	972	6				JUL	2271	1723	6
2006	29559	12400	6	AUG	1932	1214	6				AUG	2336	1439	6
2007	20790	11571	6	SEP	1999	740	6				SEP	2120	1495	6
2008	22477	11550	6	OCT	2133	668	6				OCT	2539	1403	6
2009	24106	12759	6	NOV	2446	1210	6				NOV			
2010	23694	13896		DEC	3162	1751	6				DEC			



CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777002 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: HUGH KELKER COMMENT: OIL SAMPLE #2 --LG MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION -- MON	OIL(BBL)	GAS(MCF)	WLS	CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION -- MON	OIL(BBL)	GAS(MCF)	WLS
PRIOR	16008540	3803197						DATE:	98/01/01	98/01/01				
1999	46797	24076	5	JAN	1694	869	6	DAILY-A:	66.0	34.9	JAN	2829	1655	6
2000	32629	12793	6	FEB	1541	861	6	DECL-%:	6.06	6.06	FEB	2189	1328	6
2001	31256	13091	6	MAR	1566	809	6	N-FACT:			MAR	2309	787	6
2002	28777	12535	6	APR	1504	931	6	----- APPRAISER DECLINE ------			APR	2623	1438	6
2003	26339	12354	6	MAY	2439	1565	6	P START-RATE DECL-% N-FACT MOS			MAY	2364	1359	6
2004	27390	13510	6	JUN	1875	1169	6	O 75.0 6.00			JUN	2114	1269	6
2005	28852	13754	6	JUL	1815	972	6				JUL	2271	1723	6
2006	29559	12400	6	AUG	1932	1214	6				AUG	2336	1439	6
2007	20790	11571	6	SEP	1999	740	6				SEP	2120	1495	6
2008	22477	11550	6	OCT	2133	668	6				OCT	2539	1403	6
2009	24106	12759	6	NOV	2446	1210	6				NOV			
2010	23694	13896		DEC	3162	1751	6				DEC			



DOCUMENT 9I

GAS LSE Sample #1-Smaller

MAP111 C A P I T O L A P P R A I S A L G R O U P , I N C .
10/06/10 13.53 DETAILED MINERAL APPRAISAL PAGE 1
INCOME APPROACH: DNCF TECHNIQUE

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777004 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: LAZY LINDA COMMENT: SAMPLE GAS LSE-SML MODIFICATION USER: CHAR

HISTORICAL PRODUCTION:

DATE OF FIRST PRODUCTION: 86/12/01

DATE	OIL (BBL)	GAS (MCF)	WATER (B/D)	FTP	FLOW	LIFT	WELLS
	RAILROAD COMMISSION PRODUCTION						
PRIOR	98202	14147992					
1999	1476	378102	12	900	1		1
2000	6717	1139201	30	950	1		1
2001	6618	1218292	30	550	1		1
2002	6678	1138126	40	380	1		1
2003	5675	935663	29	252	1		1
2004	4269	795303	51	240	1		1
2005	2876	601597	40	250	1		1
2006	2231	598200	56	100	1		1
2007	1349	477221		140	1		1
2008	1223	472678	37	80	1		1
JAN	22	29304			1		1
FEB	197	36798			1		1
MAR	156	38188			1		1
APR	292	39689			1		1
MAY	84	40934			1		1
JUN	167	36969			1		1
JUL	162	42031			1		1
AUG	134	29926			1		1
SEP	90	10870			1		1
OCT							
NOV	63	12018	13	60	1		1
DEC	228	47049			1		1
2009	1595	363776	13	60	1		1
TOTAL	138909	22266151					

PROJECTION PARAMETERS:

PROJECTION DATE: 11/01/01 LIMIT DATE: 00/00/00
ANNUAL OIL PRODUCTION: 1595 OIL RESERVE LIMIT:
ANNUAL GAS PRODUCTION: 363776 GAS RESERVE LIMIT: 1750000
NUMBER OF PRODUCING WELLS: 1 NUMBER OF INJECTION WELLS:

DECLINE PARAMETERS:

----CALCULATED PARAMETERS-----			-----APPRAISER PARAMETERS-----			
	OIL	GAS	P	START-RATE	DECL-%	N-FACT MOS
DATE:	00/01/01	00/01/01	G	1250.0	15.00	
DAILY-A:	4.8	1086.5				
DECL-%:	14.07	14.07				
N-FACT:						

SECONDARY PRODUCT RATIO: 4 SECONDARY PRODUCT RATIO:

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777004 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: LAZY LINDA COMMENT: SAMPLE GAS LSE-SML MODIFICATION USER: CHAR

ECONOMIC PARAMETERS:		PRODUCING WELLS:	1	BASE DISCOUNT RATE:	1.1300
OIL PRICE:	106.29	INJECTION WELLS:		AD VALOREM TAX BURDEN:	2.00
OIL GRAVITY:	51.0	DEPTH:	11000	ECONOMIC LIFE:	7
OIL GRAVITY ADJUSTMENT:		OPERATING COST ($/WELL):	20285	P-TO-I (7/8-1/8):	3.5 3.5
GAS PRICE:	10.00	*** SECTION 22.27 RESTRICTION ***		PAYOUT (7/8-1/8):	3.8 3.8
GAS PRICE PARITY:	1.00	EQUIPMENT COST ($/WELL):	7882	R/P RATIO (OIL-GAS):	4.7 4.5

CASH FLOW ANALYSIS:

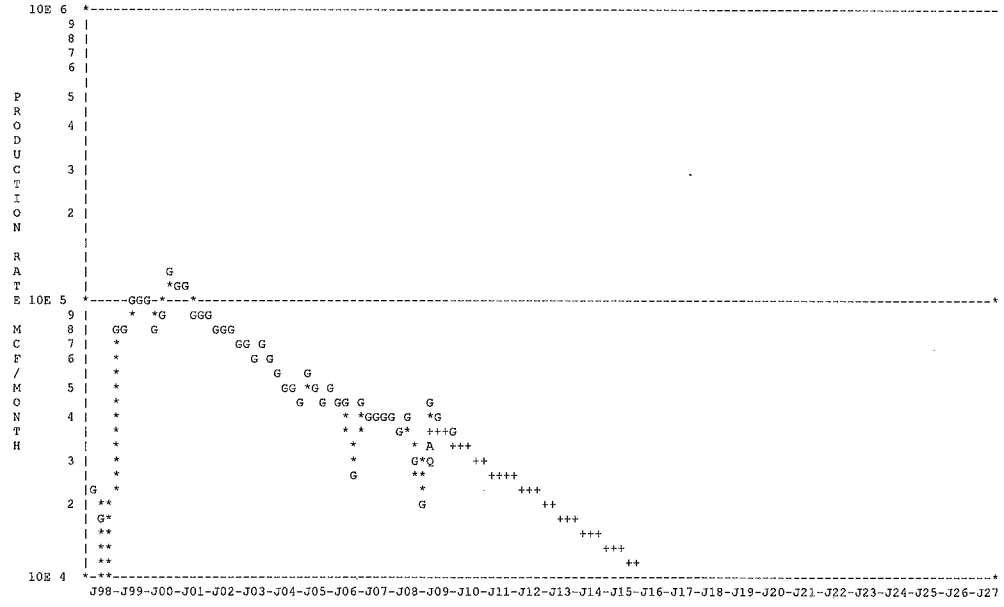
START	PRODUCTION		PRODUCT PRICES				7/8 REVENUE(M$)		OP COST(M$)		UNDISC INCOME		DISCOUNTED INCOME	
DATE	OIL (BBL)	GAS (MCF)	OIL	NET	GAS	NET	OIL	GAS	DIRECT	CAP EXP	7/8(M$)	1/8(M$)	7/8($)	1/8($)
10/01/01	1625	421127	39.75	37.92	6.04	5.59	54	2060	20		2093	302	1952171	281584
11/01/01	1396	357998	45.97	43.86	6.59	6.10	54	1911	19		1945	281	1577245	227553
12/01/01	1200	304332	57.16	54.53	7.47	6.91	57	1840	19		1878	271	1324229	191118
13/01/01	1035	259364	74.55	71.12	8.24	7.62	64	1729	20		1773	256	1087387	157113
14/01/01	888	219831	84.49	80.60	9.34	8.64	63	1662	21		1704	246	908352	131352
15/01/01	762	186877	94.43	90.09	10.44	9.66	60	1580	21		1618	234	750219	108596
16/01/01	656	158864	104.37	99.57	10.92	10.10	57	1404	22		1439	209	580130	84150
	7562	1908393	<====== SUB-TOTAL ======>				409	12185	143		12451	1799	8179733	1181466
	7562	1908393	<====== TOTAL ======>				409	12185	143		12451	1799	8179733	1181466
							EQUIPMENT ADJUSTMENT:				8		2763	
							VALUE AT BASE DISCOUNT RATE:						8182496	1181466
							VALUE AT MAF ADJUSTMENT:		90/90				7364247	1063319
		IN PLACE	DAILY AVG				SECTION 23.175 VALUE:						7424498	1071908
7/8 $/BBL:		34.69	54658				TOTAL APPRAISED VALUE:						7364247	1063319
7/8 $/MCF:		4.27	6523											
7/8 $/BOE:		28.37	43340				AVERAGE ANNUAL ROR:				20	20		
							DIVISION ORDER TOTAL WORKING INTEREST & VALUE:				.825000		6938920	
												*** SECTION 22.27 RESTRICTION ***		

JURISDICTIONS: SAMPLE COUNTY 1.0000
SAMPLE ISD 1.0000

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777004 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: LAZY LINDA COMMENT: SAMPLE GAS LSE-SML MODIFICATION USER: CHAR

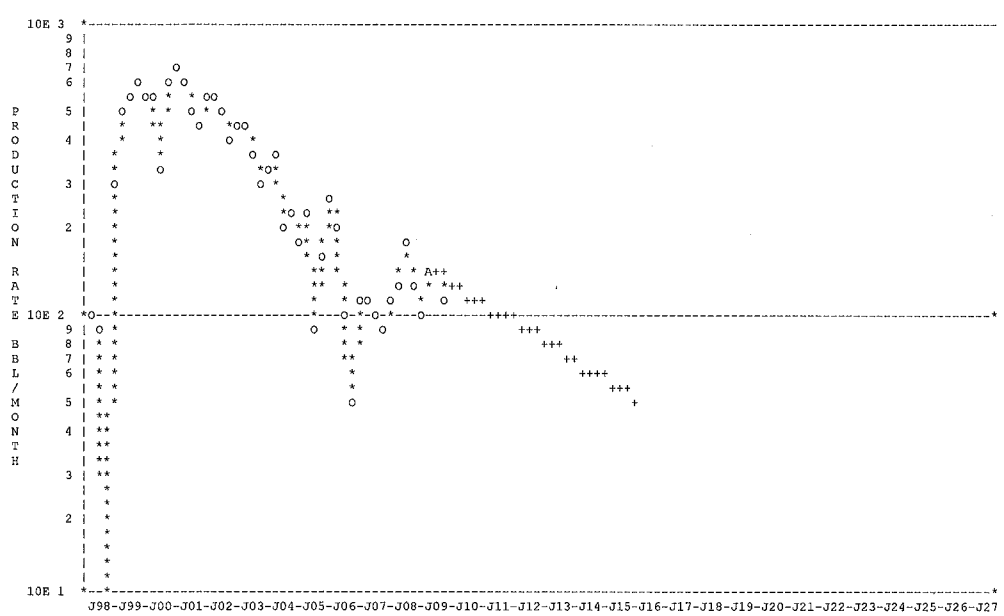
DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --				CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --			
PRIOR	98202	14147992		MON	OIL(BBL)	GAS(MCF)	WLS	DATE:	00/01/01	00/01/01	MON	OIL(BBL)	GAS(MCF)	WLS
1999	1476	378102	1	JAN	22	29304	1	DAILY-A:	4.8	1086.5	JAN	227	46713	1
2000	6717	1139201	1	FEB	197	36798	1	DECL-%:	14.07	14.07	FEB	145	39738	1
2001	6618	1218292	1	MAR	156	38188	1	N-FACT:			MAR	32	42709	1
2002	6678	1138126	1	APR	292	39689	1	----- APPRAISER DECLINE -------			APR	167	40399	1
2003	5675	935663	1	MAY	84	40934	1	P START-RATE DECL-% N-FACT MOS			MAY	78	37741	1
2004	4269	795303	1	JUN	167	36969	1	G 1250.0 15.00			JUN	159	40099	1
2005	2876	601597	1	JUL	162	42031	1				JUL	83	37813	1
2006	2231	598200	1	AUG	134	29926	1				AUG	141	37367	1
2007	1349	477221	1	SEP	90	10870	1				SEP	98	35619	1
2008	1223	472678	1	OCT							OCT	125	35437	1
2009	1595	363776	1	NOV	63	12018	1				NOV			
2010	1255	393635		DEC	228	47049	1		GRL:	1750000	DEC			



CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777004 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: LAZY LINDA COMMENT: SAMPLE GAS LSE-SML MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION -- MON	OIL(BBL)	GAS(MCF)	WLS	CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION -- MON	OIL(BBL)	GAS(MCF)	WLS
PRIOR	98202	14147992						DATE:	00/01/01	00/01/01				
1999	1476	378102	1	JAN	22	29304	1	DAILY-A:	4.8	1086.5	JAN	227	46713	1
2000	6717	1139201	1	FEB	197	36798	1	DECL-%:	14.07	14.07	FEB	145	39738	1
2001	6618	1218292	1	MAR	156	38188	1	N-FACT:			MAR	32	42709	1
2002	6678	1138126	1	APR	292	39689	1	----- APPRAISER DECLINE -------			APR	167	40399	1
2003	5675	935663	1	MAY	84	40934	1	P START-RATE DECL-% N-FACT MOS			MAY	78	37741	1
2004	4269	795303	1	JUN	167	36969	1	G 1250.0 15.00			JUN	159	40099	1
2005	2876	601597	1	JUL	162	42031	1				JUL	83	37813	1
2006	2231	598200	1	AUG	134	29926	1				AUG	141	37367	1
2007	1349	477221	1	SEP	90	10870	1				SEP	98	35619	1
2008	1223	472678	1	OCT							OCT	125	35437	1
2009	1595	363776	1	NOV	63	12018	1				NOV			
2010	1255	393635		DEC	228	47049	1		GRL:	1750000	DEC			



DOCUMENT 9J

GAS LSE Sample #2-Larger

MAP111 C A P I T O L A P P R A I S A L G R O U P , I N C .
10/06/10 13.55 DETAILED MINERAL APPRAISAL PAGE 1
INCOME APPROACH: DNCF TECHNIQUE

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777003 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: FLYING ARROW COMMENT: SAMPLE GAS LSE --LG MODIFICATION USER: CHAR

HISTORICAL PRODUCTION:

DATE OF FIRST PRODUCTION: 86/06/01

RAILROAD COMMISSION PRODUCTION

DATE	OIL (BBL)	GAS (MCF)	WATER (B/D)	FTP	FLOW	LIFT	WELLS
PRIOR	253	33236764					
1999		1599264	23	322	1		1
2000	2	1380913	28	288	1		1
2001		1201564	39	306	1		1
2002		758541	14	263	1		1
2003		823634	14	300	1		1
2004	4	591383	11	300	1		1
2005		280666	2	300	1		1
2006		192861	2	300	1		1
2007		183998	3	300	1		1
2008		177500	1	320	1		1
JAN		14132			1		1
FEB		15285			1		1
MAR		14972			1		1
APR		15605			1		1
MAY		12575	3	830	1		1
JUN		11876			1		1
JUL		12207			1		1
AUG		12153			1		1
SEP		10424			1		1
OCT		12252			1		1
NOV		11985			1		1
DEC		11254			1		1
2009		154720	3	830	1		1
TOTAL	259	40581808					

PROJECTION PARAMETERS:

PROJECTION DATE: 11/01/01 LIMIT DATE: 00/00/00
ANNUAL OIL PRODUCTION: OIL RESERVE LIMIT:
ANNUAL GAS PRODUCTION: 154720 GAS RESERVE LIMIT:
NUMBER OF PRODUCING WELLS: 1 NUMBER OF INJECTION WELLS:

DECLINE PARAMETERS:

CALCULATED PARAMETERS	OIL	GAS	APPRAISER PARAMETERS	P	START-RATE	DECL-%	N-FACT	MOS
DATE:	98/01/01	98/01/01		G	400.0	15.00		
DAILY-A:		423.6						
DECL-%:	23.39	23.39						
N-FACT:								

SECONDARY PRODUCT RATIO: SECONDARY PRODUCT RATIO:

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777003 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: FLYING ARROW COMMENT: SAMPLE GAS LSE --LG MODIFICATION USER: CHAR

ECONOMIC PARAMETERS:

OIL PRICE:	96.27	PRODUCING WELLS:	1	BASE DISCOUNT RATE:	1.1300
OIL GRAVITY:	40.0	INJECTION WELLS:		AD VALOREM TAX BURDEN:	2.00
OIL GRAVITY ADJUSTMENT:		DEPTH:	15200	ECONOMIC LIFE:	24
GAS PRICE:	7.10	OPERATING COST ($/WELL):	13082	P-TO-I (7/8-1/8):	4.1 4.1
GAS PRICE PARITY:	1.00	*** SECTION 22.27 RESTRICTION ***		PAYOUT (7/8-1/8):	4.5 4.6
		EQUIPMENT COST ($/WELL):	6547	R/P RATIO (OIL-GAS):	6.5

CASH FLOW ANALYSIS:

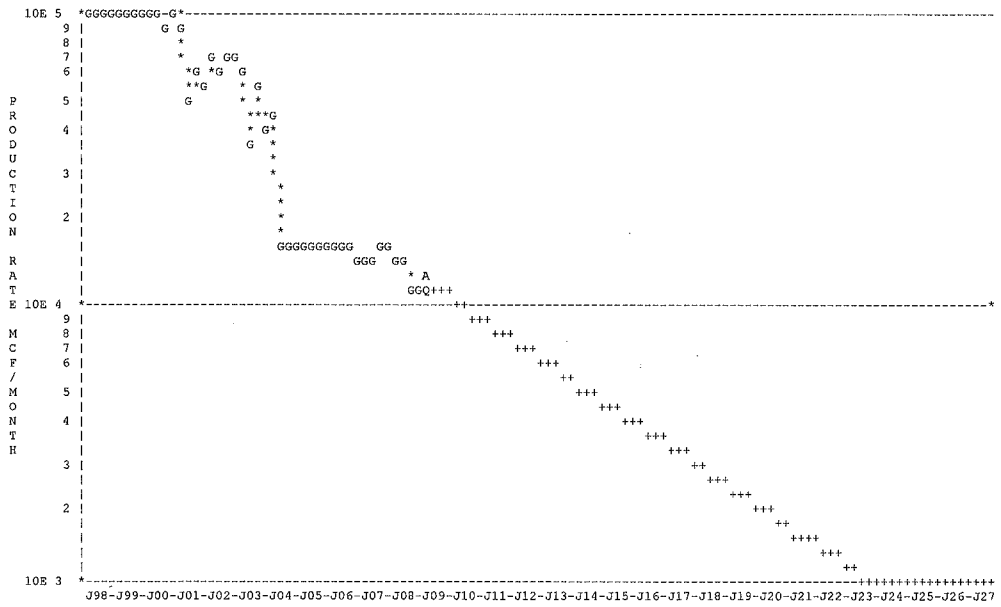
START	-----PRODUCTION-----		-------PRODUCT PRICES-----			-7/8 REVENUE(M$)-		---OP COST(M$)---		--UNDISC INCOME--	--DISCOUNTED INCOME--	
DATE	OIL (BBL)	GAS (MCF)	OIL	NET	GAS	NET	OIL	GAS	DIRECT	CAP EXP	7/8(M$)	1/8(M$)	7/8($)	1/8($)
10/01/01		134761	36.00	34.34	4.29	3.97	468	13			455	67	424331	62361
11/01/01		114559	41.63	39.72	4.68	4.33	434	12			422	62	341870	50278
12/01/01		97385	51.76	49.38	5.30	4.90	418	12			405	60	285646	42058
13/01/01		82996	67.51	64.40	5.85	5.41	393	13			380	56	232890	34413
14/01/01		70346	76.51	72.99	6.63	6.13	377	13			364	54	194006	28739
15/01/01		59802	85.51	81.58	7.41	6.85	358	14			345	51	159761	23740
16/01/01		50836	94.51	90.16	7.75	7.17	319	14			305	46	122829	18368
17/01/01		43324	103.96	99.18	7.96	7.36	279	15			264	40	92661	13973
18/01/01		36721	108.12	103.15	8.17	7.56	243	15			228	35	69436	10578
19/01/01		31217	111.36	106.24	8.37	7.74	211	16			196	30	51911	8006
20/01/01		26537	114.14	108.89	8.57	7.93	184	16			168	26	38744	6063
21/01/01		22614	116.42	111.06	8.76	8.10	160	17			144	23	28812	4589
22/01/01		19169	117.58	112.17	8.94	8.27	139	17			122	20	21209	3454
23/01/01		16296	118.76	113.30	9.12	8.44	120	18			103	17	15582	2606
24/01/01		13852	119.95	114.43	9.29	8.59	104	18			86	15	11341	1960
25/01/01		11805	121.15	115.58	9.45	8.74	90	19			72	13	8214	1478
26/01/01		10006	122.36	116.73	9.61	8.89	78	19			59	11	5847	1108
27/01/01		8505	123.58	117.90	9.76	9.03	67	20			47	10	4113	832
28/01/01		7232	124.82	119.08	9.90	9.16	58	20			38	8	2836	624
29/01/01		6163	126.07	120.27	10.04	9.29	50	21			29	7	1911	469
		864126	<====== SUB-TOTAL ======>				4552	322			4230	650	2113950	315697
		16657	<====== REMAINING ======>				139	90			49	20	2487	955
		880783	<====== TOTAL ======>				4691	412			4279	670	2116437	316652
							EQUIPMENT ADJUSTMENT:				7		213	
							VALUE AT BASE DISCOUNT RATE:						2116650	316652
							VALUE AT MAF ADJUSTMENT:		90/97				2053151	307152
		IN PLACE	DAILY AVG				SECTION 23.175 VALUE:						1846443	275009
7/8 $/BBL:							TOTAL APPRAISED VALUE:						1846443	275009
7/8 $/MCF:		2.40	5276											
7/8 $/BOE:		20.13	44315				AVERAGE ANNUAL ROR:				19	19		
							DIVISION ORDER TOTAL WORKING INTEREST & VALUE:				.825000		1736440	
												*** SECTION 22.27 RESTRICTION ***		

JURISDICTIONS: SAMPLE COUNTY 1.0000
SAMPLE ISD 1.0000

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777003 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: FLYING ARROW COMMENT: SAMPLE GAS LSE --LG MODIFICATION USER: CHAR

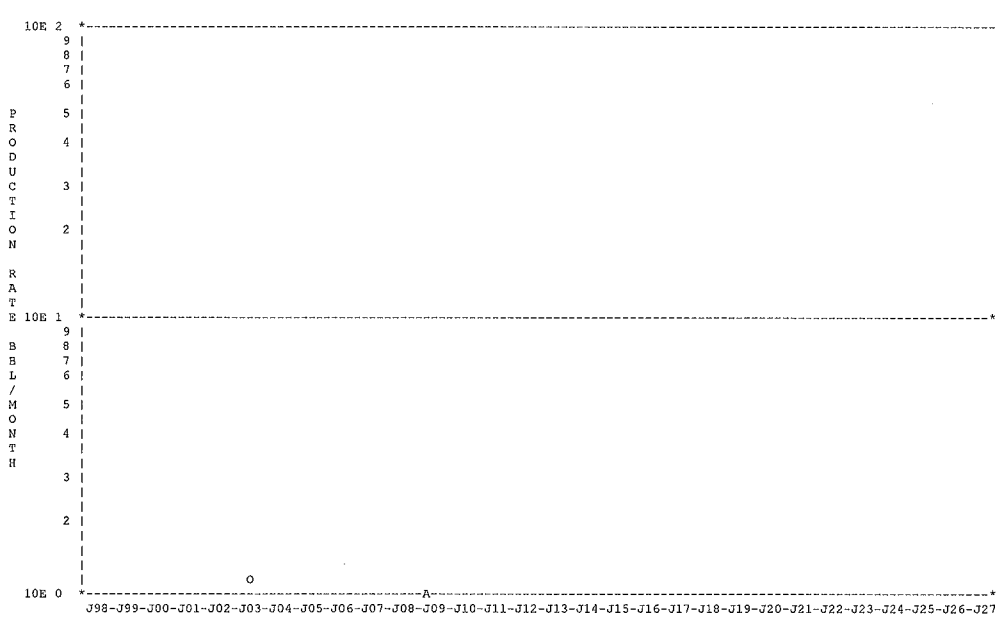
DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --				CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --			
PRIOR	253	33236764		MON	OIL(BBL)	GAS(MCF)	WLS	DATE:	98/01/01	98/01/01	MON	OIL(BBL)	GAS(MCF)	WLS
1999		1599264	1	JAN		14132	1	DAILY-A:		423.6	JAN		11602	1
2000	2	1380913	1	FEB		15285	1	DECL-%:	23.39	23.39	FEB		10651	1
2001		1201564	1	MAR		14972	1	N-FACT:			MAR		11644	1
2002		758541	1	APR		15605	1	----- APPRAISER DECLINE ------			APR		10865	1
2003		823634	1	MAY		12575	1	P START-RATE DECL-% N-FACT MOS			MAY		11379	1
2004	4	591383	1	JUN		11876	1	G 400.0 15.00			JUN		11028	1
2005		280666	1	JUL		12207	1				JUL		11516	1
2006		192861	1	AUG		12153	1				AUG		10856	1
2007		183998	1	SEP		10424	1				SEP		11283	1
2008		177500	1	OCT		12252	1				OCT		11193	1
2009		154720	1	NOV		11985	1				NOV			
2010		112017		DEC		11254	1				DEC			



CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777003 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: FLYING ARROW COMMENT: SAMPLE GAS LSE --LG MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION -- MON	OIL(BBL)	GAS(MCF)	WLS	CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION -- MON	OIL(BBL)	GAS(MCF)	WLS
PRIOR	253	33236764		JAN		14132	1	DATE:	98/01/01	98/01/01	JAN		11602	1
1999		1599264	1	FEB		15285	1	DAILY-A:		423.6	FEB		10651	1
2000	2	1380913	1	MAR		14972	1	DECL-%:	23.39	23.39	MAR		11644	1
2001		1201564	1	APR		15605	1	N-FACT:			APR		10865	1
2002		758541	1	MAY		12575	1	----- APPRAISER DECLINE -------			MAY		11379	1
2003		823634	1	JUN		11876	1	P START-RATE DECL-% N-FACT MOS			JUN		11028	1
2004	4	591383	1	JUL		12207	1	G 400.0 15.00			JUL		11516	1
2005		280666	1	AUG		12153	1				AUG		10856	1
2006		192861	1	SEP		10424	1				SEP		11283	1
2007		183998	1	OCT		12252	1				OCT		11193	1
2008		177500	1	NOV		11985	1				NOV			
2009		154720	1	DEC		11254	1				DEC			
2010		112017												



3 Copy of Reappraisal Plan Provided by Contractor

See four files in Operating Procedures folder
Reappraisal Plan subfolder

Document 8

Procedure for CAD Verification of Services
Provided by Appraisal Contractor

1. Verify lists of properties provided by the contractor agree with CAD's lists.

2. Verify appropriate methods of appraisal are used for each type of property [market, cost, income].

    a. Inquire if there has been any change in agreed appraisal methodology or application.
    b. Any variations from USPAP guidelines shall be documented and reviewed the following year.

3. Verify that complete and correct data resources, including market data, are used appropriately for each type of property.

    a. Inquire if there are added or deleted sources.
    b. If so, document reason for change and track affected properties.

4. Verify that contractor follows laws and statues applicable for all properties being appraised, including rendition compliance.

    a. Verify that Property Tax Code [P. T. C.] 1.04 (7) is met for all relevant properties such that both the appraisal approach and its conclusions meet the definition of fair market value.
    b. For minerals verify compliance with P. T. C 23.175 for mineral properties:
        - Use of Comptroller's Manual for Discounting Oil and Gas Income
        - Use of average product prices for the year prior to Jan 1

5. Verify agreed scheduling of:

    a. Preliminary appraisal report summarizing progress in completing the year's appraisals.
    b. Mail dates:
        - Notices of Appraisal
        - Last date to file a protest
        - ARB meeting dates
    c. Compilation of Certified Estimate of Value in accordance with P. T. C. 26.01 (e)
    d. copies of all appraisal and supporting data in agreed format

6. Verify timely receipt and correct format of following information:
    a. Value
        - preliminary appraised value
        - preliminary appraisal roll
        - certified roll including all documentation
    b. Reports
        - new property listing
        - list of renditions
        - protests and waives of protest
        - pending protest list
        - value change report

5 Contractor's procedures for appraising oil and gas property

See in Appraisal Standards folder
Property Appraisal Manuals subfolder
Procs for appraisal of Oil&Gas file

6 Contractor's procedures for identifying new property

Industrial Real Property
Industrial properties are identified as part of the appraiser's physical inspection process each year and through submitted data by the property owner. The appraiser may also refer to legal documents, photography and other descriptive items.

Industrial Personal Property
Through inspection the appraiser identifies personal property to be appraised. The appraiser begins with properties from the previous tax year and identifies new properties from visual identification and/or publications, newspaper articles, or information obtained through the interview of property owners. The appraiser may also refer to other documents, both public and confidential, to assist in identification of these properties. Such documents might include, but are not limited to, the previous year's appraisal roll, vehicle listing services and private directories.

Utility, Railroad and Pipeline Property
Utility, railroad and pipeline properties that are susceptible to inspection are identified by inspection. The appraiser may also refer to other documents, both public and confidential, to assist in the identification of these properties.

Oil and Gas Property
As subsurface mineral properties lie within the earth, they cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these properties. To identify new properties, CAG obtains monthly oil and gas lease information from the Railroad Commission of Texas [RRC] to compare against oil and gas properties already identified. The situs of new properties is determined using plats and W-2/G-1 records from the RRC, as well as CAG's in-house map resources.

Procedure for Evaluating Results of Contractor's Property Discovery for all property other than Oil and Gas

1. Review renditions and compare to appraisal roll.
2. Review local news articles.
3. Have chief appraiser or another appraiser ride with contract personnel during inspection process.
4. Meet with contract personnel and go over any discrepancies.
5. Stay aware of what is going on in the area and meet with contractor about new projects.
6. Review contractor's appraisal roll and discuss any discrepancies.

Procedure for Evaluating Results of Contractor's Oil and Gas Property Discovery

1. Obtain a list from the Texas Railroad Commission of all new leases currently producing in the CAD.
2. Choose a sample of leases or if time permits list all new leases producing on January 1st. of current tax year.
3. Check to see if the lease was completed prior to January 1st or producing before January 1st of current tax year.
4. Compare to list of new leases currently producing or completed prior to January 1st of current tax year. If discrepancies exist contact contractor to discover why lease may be left off tax rolls. Some reasons may include but are not limited to: incorrect RRC reporting data, lease being listed under its permit number on current tax roll, or lease being currently listed under a prior RRC lease number.
5. If contractor has accounted for all new production and leases, the CAD has complied with the MAP requirement.

Document 5

CAD Procedure for Identifying New Utility Properties and Producing Wells

Appraisal of industrial properties is limited to those properties indicated in the contract with the appraisal district unless the appraisal district requests the appraisal of other properties. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal.

Utility, Railroad and Pipeline Property

Utility, railroad and pipeline properties that are susceptible to inspection are identified by inspection. The appraiser may also refer to other documents, both public and also confidential to assist in identification of these properties.

Oil and Gas Property

As subsurface mineral properties lie within the earth, they cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these properties. To identify new properties, CAG uses the following procedure:

1. Obtain a list from the Texas Railroad Commission of all leases currently producing or permitted in the CAD. Obtain permit plat for leases contained within the county.
2. Obtain a list of leases currently producing or permitted in neighboring counties with common borders and map relative location of leases to county's border. Obtain permit plat to determine if leases may have lease boundaries extending into county.
3. Using plats of leases with partial or all lease boundaries within the county, create a list of potential additional property to be added to the appraisal roll.
4. Compare list of potential leases with all currently producing leases in the CAD on January 1st. of current tax year to determine any lease duplication.
5. Check to see if the lease was completed prior to January 1st or producing before January 1st of current tax year.
6. If lease has not previously been added to the CAD's appraisal roll, do so and obtain ownership.

Document 6B

Industrial Personal Property
Mass Appraisal Procedure and Timeline

Although valuation is set for either January 1 of the tax year of September 1 of the previous calendar year prior to the current tax year, the appraisal process begins in September of the previous year and continues through August of the tax year.

September 1 of previous year to March 31 of the current tax year

Discovery and listing. This includes physical inspection of existing properties to appraise and discovery of potential new properties to appraise. New potential properties are reported to the appraisal district to determine if Capitol Appraisal will value the property for the current tax year.

April 1 until complete

Appraisal of properties both market value and taxable value. Deadlines for completion of appraisals and sending out value notices are based upon individual deadlines set by the appropriate appraisal district. Every effort is made to appraise every property timely so that values can be included in certification. Properties not included in certification are reported to the appraisal district and the appraisal process continues until final value is reached. Supplementing the tax roll with those properties is based upon the timeline established by the appraisal district.

July 25

Appraisal roll is certified. Every effort is made to ensure all properties have a final valuation by this date. Exceptions may include properties with late renditions, extensions, or other allowable justifications which preclude final valuation by July 25.

July 26 to August 31

Review current tax year methods and procedures, and begin general property classification research for the next tax year. Special reports for the appraisal districts are created at this time as requested.

Document 6A

Industrial Real Property
Mass Appraisal Procedure and Timeline

Although valuation is set for either January 1 of the tax year of September 1 of the previous calendar year prior to the current tax year, the appraisal process begins in September of the previous year and continues through August of the tax year.

September 1 of previous year to March 31 of the current tax year

Discovery and listing. This includes physical inspection of existing properties to appraise and discovery of potential new properties to appraise. New potential properties are reported to the appraisal district to determine if Capitol Appraisal will value the property for the current tax year.

April 1 until complete

Appraisal of properties both market value and taxable value. Deadlines for completion of appraisals and sending out value notices are based upon individual deadlines set by the appropriate appraisal district. Every effort is made to appraise every property timely so that values can be included in certification. Properties not included in certification are reported to the appraisal district and the appraisal process continues until final value is reached. Supplementing the tax roll with those properties is based upon the timeline established by the appraisal district.

July 25

Appraisal roll is certified. Every effort is made to ensure all properties have a final valuation by this date. Exceptions may include properties with late renditions, extensions, or other allowable justifications which preclude final valuation by July 25.

July 26 to August 31

Review current tax year methods and procedures, and begin general property classification research for the next tax year. Special reports for the appraisal districts are created at this time as requested.

Document 6D

Oil and Gas
Mass Appraisal Procedures and Timeline

Capitol Appraisal Group, LLC (CAGL) contracts with Appraisal Districts and other governmental entities to appraise all oil and gas subsurface, producing, mineral interests within the purview of the law.

October-December:

SEC 10(k) data gathered for use in discount rate study.

A base discount rate is developed using the Securities and Exchange Commission (SEC) 10k Standard Measure of Value, before Federal Income Tax (BFIT), for a grouping of Exploration and Production (E&P) companies, and then matching their 10k Standard Measure of Value (BFIT), reserves and costs, through a discounted cash flow (DCF) technique. This reserve and cost match is used with Section 23.175 pricing directives to determine a discount rate necessary to equal the stock and debt value of the companies, as of January 1 for a given tax year. This analysis is calibrated with a WACC for the same companies that are used in the stock and debt analysis. Management determines an appropriate base discount rate to be used.

January:

Discount rate study finalized

November-March:

The appraiser commences the annual appraisal cycle with identification of new property and determination of situs.

"Minerals in place" and an estate or interest in the same, are classified by the state of Texas as real property. They cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these minerals in place and estates or interests in the same. CAGL obtains monthly oil and gas lease production information from the Railroad Commission of Texas [RRC] and compares it to existing oil and gas properties already identified and appraised. New properties are identified in this process by comparing existing data to new information obtained from the RRC.

The appraiser determines the validity of new properties and then determines the situs of these new properties by obtaining plats, W-2/G-1 records obtained from the RRC, and using in-house mapping resources.

January-March:

Appraisers begin entering detailed new property information.

Along with RRC lease specific information, the appraiser enters the lease's legal description, its situs, and detailed lease information obtained from the RRC. This process of discovery and entry into the appraisal system continues year round to identify assessable properties that are obtained because of delays in the RRC reporting system.

February:

Comptroller's 23.175 pricing data and market condition factors are obtained and incorporated into the appraisal system.

February-April:

Properties are appraised and values are posted on the CAG web site for clients, operators and agents to review and submit information.

Appraiser(s) access production declines for leases to be appraised. Based on the appraiser's decline rate analysis and review of previous year's appraisal parameters and current Comptroller pricing data, the estimated value for the current appraisal year is determined.

Preliminary appraised values are available from the CAG web site www.cagi.com following appraiser and supervisor review.

April-May:

Preliminary appraisals reviewed.

Appraisers review operating expenses, product prices, new or revised information about production submitted by operators and agents before Notifications of Value are mailed to taxpayers.

May-July:

Notified values formally & informally reviewed.

Appraisers work with taxpayers following Notification of Value and continue to review information submitted by royalty owners, operators and agents. The ARB process is part of this review

Document 6C

Utility, Railroad and Pipeline Property Mass Appraisal Procedure and Timeline

Although valuation is set for either January 1 of the tax year of September 1 of the previous calendar year prior to the current tax year, the appraisal process begins in September of the previous year and continues through August of the tax year.

September 1 of previous year to March 31 of the current tax year

Research and capitalization rate development. For properties valued via the income approach data is obtained and analyzed for calculation of a capitalization rate appropriate to a specific property type.

October to December

Submission of appraisals to the Property Tax Assistance Division PTAD) of the Comptroller's office and preparation of value defense for any properties included in their ratio study. Defense documentation and appraisal analysis of the PTAD appraisal is prepared and submitted to the appraisal district or the representative of the taxing jurisdictions whichever is appropriate.

April 1 until complete

Appraisal of properties both market value and taxable value. Deadlines for completion of appraisals and sending out notice of value are based upon individual deadlines set by the appropriate appraisal district. Every effort is made to appraise every property timely so that values can be included in certification. Properties not included in certification are reported to the appraisal district and the appraisal process continues until final value is reached. Supplementing the tax roll with those properties is based upon the timeline established by the appraisal district.

July 25

Appraisal roll is certified. Every effort is made to ensure all properties have a final valuation by this date. Exceptions may include properties with late renditions, extensions, or other allowable justifications which preclude final valuation by July 25.

July 26 to August 31

Review current tax year methods and procedures, and begin general property classification research for the next tax year. Special reports for the appraisal districts are created at this time as requested.

Document 3A

2021-2022

CAD Plan for Periodic Reappraisal of Industrial Real Property

Subsections (a) and (b), Section 25.18, Tax Code:

(a) CAD shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).

(b) The plan provides for annual reappraisal of selected industrial property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.

(1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal. Industrial properties are identified as part of the appraiser's physical inspection process each year and through submitted data by the property owner. The appraiser may also refer to legal documents, photography and other descriptive items.

(2) Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Confidential rendition, assets lists and other confidential data also provide additional information. Subject property data is verified through previously existing records and through published reports.

(3) Defining market areas in the district: Market areas for industrial properties tend to be regional, national and sometimes international. Published information such as prices, financial analysis and investor services reports are used to help define market area.

(4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: Among the three approaches to value (cost, income and market), industrial properties are most commonly appraised using replacement/reproduction cost new less depreciation models because of readily available cost information. If sufficient income or market data are available, those appraisal models may also be used.

(5) Comparison and Review: The appraiser considers results that best address the individual characteristics of the subject property and that are based on the most reliable data when multiple models are used. Year-to year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process.

Document 3D

2021-2022

CAD Plan for Periodic Reappraisal

of Oil and Gas Property

In accordance with Section 25.18 of the Tax Code:

(a) CAD shall implement the plan for periodic reappraisal of property as approved by the board of directors under Section 6.05 (i).

(b) The plan provides for annual reappraisal of all oil and gas property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.

(1) Identification of new property and its situs. As subsurface mineral properties lie within the earth, they cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these properties. To identify new properties, CAGL obtains monthly oil and gas lease information from the Railroad Commission of Texas [RRC] to compare against oil and gas properties already identified. The situs of new properties is determined using plats and W-2/G-1 records from the RRC, as well as CAGL's in-house map resources.

(2) Identifying and updating relevant characteristics of all oil and gas properties to be appraised. Relevant characteristics necessary to estimate value of remaining oil or gas reserves are production volume and pattern, product prices, expenses borne by the operator of the property, and the rate at which the anticipated future income should be discounted to incorporate future risk. CAGL obtains information to update these characteristics annually from regulatory agencies such as the RRC, the Comptroller of Public Accounts, submissions from property owners and operators, as well as from published investment reports, licensed data services, service for fee organizations and through comparable properties, when available.

(3) Defining market areas in the district and identifying property characteristics that affect property value in each market area. Oil and gas markets are regional, national and international. Therefore they respond to market forces beyond defined market boundaries as observed among more typical real properties.

(4) Developing an appraisal approach that best reflects the relationship among property characteristics affecting value and best determines the contribution of individual property characteristics. Among the three approaches to value (cost, income and market), the income approach to value is most commonly used in the oil and gas industry. Through use of the discounted cash flow technique in particular, the appraiser is able to bring together relevant characteristics of production volume and pattern, product prices, operating expenses and discount rate to determine an estimate of appraised value of an oil or gas property.

(5) Comparison and Review. Use of the income approach is the first step in determining an estimate of market value. After that the appraiser reviews the estimated market value compared to its previous certified value and also compares it to industry expected payouts and income indicators. The appraiser examines the model's value with its previous year's actual income, expecting value to typically vary within in a range of 2-5 times actual annual income, provided all appropriate income factors have been correctly identified. Finally, periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser further expand the review process.

Document 3C

2021-2022

CAD Plan for Periodic Reappraisal of

Utility, Railroad and Pipeline Property

Subsections (a) and (b), Section 25.18, Tax Code:

(a) CAD shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).

(b) The plan provides for annual reappraisal of all utility, railroad and pipeline property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.

(1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal. Utility, railroad and pipeline properties that are susceptible to inspection are identified by inspection. The appraiser may also refer to other documents, both public and also confidential to assist in identification of these properties. Due to the varied nature of utility, railroad, and pipeline properties there is no standard data collection form or manual. New permitting documents on record with the Railroad Commission of Texas provide a source to identify potential new pipeline projects but does not provide indication if the project was actually started, completed, or a distinct location of the proposed project. Every effort is made to discover new utility, railroad, and pipeline properties through personal observation combined with permitting documents.

(2) Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through data collected as part of the inspection process and through later submissions by the property owner, sometimes including confidential rendition. Additional data are obtained through public sources, regulatory reports and through analysis of comparable properties.

(3) Defining market areas in the district: Market areas for utility, railroad and pipeline property tend to be regional or national in scope. Financial analyst and investor services reports are used to help define market areas.

(4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: For all three types of property, the appraiser must first form an opinion of highest and best use. Among the three approaches to value (cost, income and market), pipeline value is calculated using a replacement/reproduction cost new less depreciation

model [RCNLD]. In addition to the RCNLD indicator, a unit value model may also be used if appropriate data are available. Utility and railroad property are appraised in a manner similar to pipeline except that the RCNLD model is not used.

(5) Comparison and Review: The appraiser considers results that best address the individual characteristics of the subject property when multiple models are used. Year-to year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process. These types of property are also subject to review by the Property Tax Division of the Texas Comptroller's Office through their annual Property Value Study.

Document 3B

2021-2022

CAD Plan for Periodic Reappraisal of Industrial Personal Property

Subsections (a) and (b), Section 25.18, Tax Code:

(a) CAD shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).

(b) The plan provides for annual reappraisal of all industrial personal property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.

(1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal. Through inspection the appraiser identifies personal property to be appraised. The appraiser begins with properties from the previous tax year and identifies new properties from visual identification and/or publications, newspaper articles, or information obtained through the interview of property owners. The appraiser may also refer to other documents, both public and also confidential, to assist in identification of these properties. Such documents might include but are not limited to the previous year's appraisal roll, vehicle listing services and private directories.

(2) Identifying and updating relevant characteristics of each property in the appraisal records: Data identifying and updating relevant characteristics of the subject properties are collected as part of the inspection process through directories and listing services as well as through later submissions by the property owner, sometimes including confidential rendition. These data are verified through previously existing records and through public reports.

(3) Defining market areas in the district: Market areas for industrial personal property are generally either regional or national in scope. Published price sources are used to help define market areas.

(4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics. Personal property is appraised using replacement/reproduction cost new less depreciation models. Income approach models are used when economic and/or subject property income is available, and a market data model is used when appropriate market sales information is a available.

(5) Comparison and Review: The appraiser reconciles multiple models by considering the model that best addresses the individual characteristics of the subject property. Year-to year property value changes for the

subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process.

Calibration Models

BUSINESS PERSONAL PROPERTY

APPRAISED BY CAPITOL APPRAISAL GROUP

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 computer-assisted statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance and are used when possible. However sales for some types of personal property are very infrequent. Furthermore, many market transactions 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. Lastly, Capitol Appraisal Group's industrial appraisal methods and procedures for real and personal property are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review as well as appraisal-to-sale ratios and comparisons with single-property appraisals indicate the validity of the models and the calibration techniques employed. Commercial personal property appraised by Capitol Appraisal Group, LLC is not subject to a methods and procedures review however it is included in the Property Tax Division's annual ratio study with satisfactory results.

Calibration Models

INDUSTRIAL PROPERTY

APPRAISED BY CAPITOL APPRAISAL GROUP

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 computer-assisted 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. Lastly, Capitol Appraisal Group'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 indicate the validity of the models and the calibration techniques employed.

Calibration Models

OIL AND GAS RESERVES

CAPITOL APPRAISAL GROUP

Review and Testing

Each year we review the estimated market value for each mineral property appraised according to its year-to-year value change and also to industry expected payouts and income indicators. We also examine income projected to be received with the previous year's income and test that income against the lease's appraised value. Market value for income producing properties is a multiple of its monthly or annual income. Our experience through the years indicates that values typically vary within in a range of 2-5 times income, provided all appropriate income factors have been appropriately identified. Periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser also contribute to the review process.

Application of appraisal-to-sales ratios is another method for measuring performance. However, single property sales or sales of interest(s) within a property remain difficult to obtain due Texas' disclosure laws. Furthermore many market transactions are normally for multiple properties in multiple areas and include both real and personal property, tangible and intangible. We access licensed databases providing statistical data for company and property sales to compare our efforts. We also measure our performance through comparison of valid single-property market transactions, if any, that are submitted for staff review. Lastly, Capitol Appraisal's mineral appraisal values are subject to review each year in the Property Value Study conducted by the Property Tax Division of the Texas Comptroller of Public Accounts. The Property Tax Division's review as well as comparisons to industry transactions and to single-property market value sales (when available), indicate the validity of the models, techniques and assumptions used.

Calibration Models

UTILITY, RAILROAD, AND PIPELINE PROPERTIES

APPRAISED BY CAPITOL APPRAISAL GROUP

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 computer-assisted 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 indicate the validity of the models as well as the calibration techniques employed.

Document 7B

MASS APPRAISAL REPORT

BUSINESS PERSONAL PROPERTY

APPRAISED BY CAPITOL APPRAISAL GROUP

2021-2022

Overview

This type of property consists of tangible personal property owned by a business or individual for the purpose of producing an income. The Uniform Standards of Professional Appraisal practice define personal property as "identifiable portable and tangible objects which are considered by the general public as being "personal," e.g. furnishings, artwork, antiques, gems and jewelry, collectibles, machinery and equipment; all property that is not classified as real estate.". The Texas Property Tax Code (Sec. 1.04(5)) defines tangible personal property as "...personal property that can be seen, weighed, measured, felt, or otherwise perceived by the senses but does not include a document or other perceptible object that constitutes evidence of a valuable interest, claim, or right and has negligible or no intrinsic value." The Texas Property Tax Code (Sec. 1.04(4)) defines personal property as "...property that is not real property."

Capitol Appraisal Group, LLC is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. 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.

A separate definition of the value of inventory is found in the Texas Property Tax Code (Sec. 23.12(a)), "...the market value of an inventory is the price for which it would sell as a unit to a purchaser who would continue the business." Additionally, some inventories may qualify for appraisal as of September 1 in accordance with the provisions of Texas Property Tax Code Section 23.12(f).

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 date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district.

The appraisal results will be used as the tax base upon which a property tax will be levied. A listing of the personal property appraised by Capitol Appraisal Group, LLC for the appraisal district is available at the appraisal district office. Personal property is normally re-inspected 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; 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.

Capitol's personal property appraisal staff includes licensed engineers as well as experienced appraisers who are knowledgeable in all three approaches to value. Personal property appraisal staff stays abreast of current trends affecting personal property through review of published materials, attendance at conferences, course work, and continuing education. All personal property 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 Requested 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 has been obtained by members of Capitol Appraisal Group's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes. As such some valuation formulas may be required by the property tax code as opposed to generally accepted appraisal practices.

Data Collection and Validation

Data on the subject properties are 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 which 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 multitude of personal property types there is no standard data collection form or manual.

Valuation Approach and Analysis

Personal property is 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. 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 value estimate derived from an income approach model in which the operating income of a business was capitalized must be reduced by the value of any real property in order to arrive at the value of the operating personal property. A market data model based on typical selling prices per item or unit of capacity is also used when appropriate market sales information is available. In the case of some personal property types, such as licensed vehicles, market data from published pricing guides is used to construct a market value model. In other cases, models are based on sales information available through published sources or through private sources.

Because cost information is the most readily available type of data, the cost approach model is always considered and used. If sufficient data is available either of both of the other two models may also be considered and used. The market data and income approach models may need to 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.

The mathematical form of each model is described below.

Cost Approach

RCN
-PD
-FO
-EO
=Cost Indicator of Value

Where:
RCN = Replacement or Reproduction Cost New
PD = Physical Depreciation
FO = Functional Obsolescence
EO = Economic Obsolescence

Income Approach

PGR
-VCL
-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:
PGR = Potential Gross Rent
VCL = Vacancy and Collection Loss
FE = Fixed Expenses
VE = Variable Expenses

R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI
NOI for year n x DF for year n = PW of year n NOI
Net Reversion x DF for year n = PW of Reversion
Sum of PW's for all years 1 - n = Income Indicator of Value

Where:
NOI = Net Operating Income
DF = Discount Factor
PW = Present Worth
n = Last year of holding period

Market Data Approach

ASPCP/U = PU
PU x SU = Market Data Indicator of Value

Where:
ASPCP = Adjusted Sales Price of Comparable Property
U = Unit of comparison
ASPU = Adjusted Sales Price per Unit of comparison
SU = Subject Property's number of Units of comparison

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

Highest and best use analysis of personal property is based on the likelihood of the continued use of the personal property in its 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 computer-assisted statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance and are used when possible. However sales for some types of personal property are very infrequent. Furthermore, many market transactions 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. Lastly, Capitol Appraisal Group's industrial appraisal methods and procedures for real and personal property are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review as well as appraisal-to-sale ratios and comparisons with single-property appraisals indicate the validity of the models and the calibration techniques employed. Commercial personal property appraised by Capitol Appraisal Group, LLC is not subject to a methods and procedures review however it is included in the Property Tax Division's annual ratio study with satisfactory results.

Document 7A

MASS APPRAISAL REPORT

INDUSTRIAL PROPERTY

APPRAISED BY CAPITOL APPRAISAL GROUP

2021-2022

Overview

This type of property consists of processing facilities and related personal property. Capitol Appraisal Group, LLC is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. 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 date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district.

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 © Comment of the Uniform Standards of Professional Appraisal Practice 2008. A listing of the industrial properties appraised by Capitol Appraisal Group, LLC for the appraisal district is available at the appraisal district office. Industrial properties are normally re-inspected 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.

Capitol'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 requested 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 has been obtained by members of Capitol Appraisal Group's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes. As such some valuation formulas may be required by the property tax code as opposed to generally accepted appraisal practices.
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.

Data Collection and Validation

Data on the subject properties 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 which 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

Industrial properties are 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 always considered and used. If sufficient data is available either of both of the other two models

may also be considered and used. The market data and income approach models may need to 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.

The mathematical form of each model is described below.

Cost Approach

RCN
-PD
-FO
-EO
=Cost Indicator of Value

Where:
RCN = Replacement or Reproduction Cost New
PD = Physical Depreciation
FO = Functional Obsolescence
EO = Economic Obsolescence

Income Approach

PGR
-VCL
-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:
NOI = Net Operating Income
PGR = Potential Gross Rent
VCL = Vacancy and Collection Loss
FE = Fixed Expenses
VE = Variable Expenses
R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI
NOI for year n x DF for year n = PW of year n NOI
Net Reversion x DF for year n = PW of Reversion
Sum of PW's for all years 1 - n = Income Indicator of Value

Where:
DF = Discount Factor
PW = Present Worth
n = Last year of holding period

Market Data Approach

ASPCP/U = PU
PU x SU = Market Data Indicator of Value

Where:
ASPCP = Adjusted Sales Price of Comparable Property
U = Unit of comparison
PU = Price per Unit of comparison
ASPU = Adjusted Sales Price per Unit of comparison
SU = Subject Property's number of Units of comparison

In reconciling multiple model results for a property the appraiser considers the model results that best address the individual characteristics of the subject property and that are based on the most reliable data 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 computer-assisted 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. Lastly, Capitol Appraisal Group'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 indicate the validity of the models and the calibration techniques employed.

Document 7D

MASS APPRAISAL REPORT

OIL AND GAS RESERVES

CAPITOL APPRAISAL GROUP

2021-2022

Overview

Capitol Appraisal Group, LLC (CAGL) contracts with Appraisal Districts and other governmental entities to appraise all oil & gas subsurface, producing, mineral interests within the purview of the entity. The contractual purpose is to estimate market value as defined in Section 1.04 of the Texas Property Tax Code as of January 1 of each year and report these values to the entity. The results of our work are used as part of the tax base upon which property taxes are levied. Each mineral interest is listed on the appraisal roll separately from other interests in the minerals-in-place in conformance with the Texas Property Tax Code Sec. 25.12. Subsurface mineral rights are not susceptible to physical inspection. This condition creates the need to invoke the **Departure Provision** as Requested by the 2003 edition of the Uniform Standards of Professional Appraisal Practice Standards Rule 6-7 (f). However, the inability to physically examine the sub-surface mineral rights does not appreciably affect the appraisal process or the quality of the results.

Assumptions and Limiting Factors

All appraisals are subject to the following:

1. Title to the property is assumed to be good and marketable and the ownership interest and legal description is assumed to be correct.
2. No responsibility for legal matters is assumed. Properties are appraised as if free and clear of any encumbrance and operated under responsible ownership and competent management.
3. Not every property is inspected every year.
4. All information in the appraisal documents has been obtained by Capitol Appraisal Group's employees or through other reliable sources.
5. The appraisals were prepared exclusively for ad valorem tax purposes. As such some valuation formulas may be required by the property tax code as opposed to generally accepted appraisal practices.

Data Collection

Data on the properties appraised are collected from regulatory agencies, such as the Texas Railroad Commission and the Texas Comptroller of Public Accounts, from submissions by the property operator or owner(s), or from other sources. **Submitted data from operators, taxpayers and/or their agents on the appraised properties are considered "rendition statements" and, as such, are confidential data, subject to Sec. 22.27 of the Texas Property Tax Code.** Additional data are obtained through published sources, regulatory reports, public investment reports, licensed data services, service for fee organizations and through comparable properties, if any. The state of Texas is a non-disclosure state and thus many forms of information, pertinent to the value of the properties, are not available to the appraiser.

Valuation and Analysis

The Income Method of Appraisal, as described in Section 23.012 of the Texas Property Tax Code, is the principal appraisal method used. The Market Data Comparison Method of Appraisal (section 23.013) and the Cost Method of Appraisal (section 23.011) are considered. Industry averages of reserve replacement cost and acquisition cost are used for comparative purposes. The non-disclosure nature of the laws of Texas makes market data comparison unreliable. However, if within the scope of Capitol's work assignment market sales disclosures on interests are available, then those data is considered. The nearly exclusive reliance on the income approach, using the discounted cash flow (DCF) technique adjusted for specific property risk and market conditions, is typical of the oil and gas industry. Fee for service organizations are used for survey data with respect to price expectations and discount rates, and licensed data services are used for Industry indicators detailing costs, income, acquisitions costs in dollars per barrel of oil equivalent ($/BOE), finding and development costs ($/BOE) and reserve replacement costs ($/BOE) for over 100 E&P companies.

Due to the demands of Section 23.175 of the Texas Property Tax Code and the Texas Constitution, Capitol Appraisal Group, LLC takes great care to not appraise properties in excess of their fair market value. We analyze a segment of the Petroleum Producing E&P market, determining the impact on their stock and debt value of the pricing requirements of Sec. 23.175 and also the pricing that could be reasonably anticipated from the market. Capitol Appraisal Group LLC's opinion of oil and gas prices is guided by the market's anticipation of those prices through the futures market, oil and gas stock prices and oil and gas industry indexes. A base discount rate is developed using the Securities and Exchange Commission (SEC) 10k Standard Measure of Value, Before Federal Income Tax (BFIT), for a grouping of 20 Exploration and Production (E&P) companies, and then matching their 10k Standard Measure of Value (BFIT), reserves and costs, through a discounted cash flow (DCF) technique. This reserve and cost match is used with Capitol's developed pricing scenario and Section 23.175 pricing directives to determine a discount rate necessary to equal the stock and debt value of the companies, as of January 1 for a given tax year.

The Weighted Average Cost of Capital (WACC) technique is also performed for a subset of these companies grouped according to the Petroleum Producing Industry Exploration and Production companies used in the *The Valueline Investment Survey*. These separate pricing scenarios and the resulting discount rates derived from using the aforementioned stock and debt techniques are applied to the universe of oil and gas properties we appraise. In seeking to avoid appraising any oil and gas property **above** its fair cash market value, Capitol Appraisal employs a market adjustment factor (MAF) to its base discount rate in order to apply property specific risk(s). These factors, which create a wide range of discount rates for the properties that Capitol appraises, are necessary to equitably evaluate disparate leases with respect to remaining reserves, price and costs. By performing two DCF income approach appraisals on each property, Capitol Appraisal provides clients with our opinion of market value, while always endeavoring to guard against appraising a mineral lease at greater than its fair cash market value. [A **jurisdictional exception** to the Discounted Cash Flow technique, as this process is described in the Statement on Appraisal Standards #2, 2003 edition of the Uniform Standards of Professional Appraisal Practice, must be taken. Section 23.175(a) of the Texas Property Tax Code both specifies the directives concerning oil and gas pricing that appraisal districts in Texas must follow and also that each appraisal district must adhere to procedure and methodology contained in manuals developed by the Property Tax Division (PTD) of the Texas Comptroller of Public Accounts. Because adherence to this Property Tax Code directive, without discretion, can result in values greater than fair cash market value, we must express caution.]

The resulting oil and gas lease value is then allocated to each owner on the lease based upon his fractional mineral ownership interest. Royalty and working interests have different impacts on their respective values, since only working interests bear the costs of lease operation. Therefore royalty

mineral interest owner's values are allocated from 100% of the appraised royalty value of the lease, according to their fractional royalty interest, while the working interest owner's value(s) are allocated from 100% of the determined working interest value of the lease, according to their fractional working interest.

Review and Testing

Each year we review the estimated market value for each mineral property appraised according to its year-to-year value change and also to industry expected payouts and income indicators. We also examine income projected to be received with the previous year's income and test that income against the lease's appraised value. Market value for income producing properties is a multiple of its monthly or annual income. Our experience through the years indicates that values typically vary within in a range of 2-5 times income, provided all appropriate income factors have been appropriately identified. Periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser also contribute to the review process.

Application of appraisal-to-sales ratios is another method for measuring performance. However, single property sales or sales of interest(s) within a property remain difficult to obtain due Texas' disclosure laws. Furthermore many market transactions are normally for multiple properties in multiple areas and include both real and personal property, tangible and intangible. We access licensed databases providing statistical data for company and property sales to compare our efforts. We also measure our performance through comparison of valid single-property market transactions, if any, that are submitted for staff review. Lastly, Capitol Appraisal's mineral appraisal values are subject to review each year in the Property Value Study conducted by the Property Tax Division of the Texas Comptroller of Public Accounts. The Property Tax Division's review as well as comparisons to industry transactions and to single-property market value sales (when available), indicate the validity of the models, techniques and assumptions used.

Document 7C

MASS APPRAISAL REPORT

UTILITY, RAILROAD, AND PIPELINE PROPERTIES

APPRAISED BY CAPITOL APPRAISAL GROUP

2021-2022

Overview

This type of property consists of operating property, excluding land, owned by utility, railroad, and pipeline companies, and related personal property and improvements. Capitol Appraisal Group, LLC is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. 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 date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district

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 Standards Rule 6-5 (c) comment of the Uniform Standards of Professional Appraisal Practice 2008. A listing of the utility, railroad, and pipeline properties appraised by Capitol Appraisal Group, LLC for the appraisal district is available at the appraisal district office. 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.

Capitol'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 Requested 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 has been obtained by members of Capitol Appraisal Group's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes. As such some valuation formulas may be required by the property tax code as opposed to generally accepted appraisal practices.
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.

Data Collection and Validation

Data on the subject properties 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 which 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

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 company.

The mathematical form of each model is described below.

RCNLD Approach

RCN
-PD
-FO
-EO
=RCNLD Indicator of Value

Where:
RCN = Replacement or Reproduction Cost New
PD = Physical Depreciation
FO = Functional Obsolescence
EO = Economic Obsolescence

Unit Cost Approach

OC

-AD
-EO
=Unit Cost Approach Indicator of Value

Where:
OC = Original Cost
AD = Allowed Depreciation
EO = Economic Obsolescence

Unit Income Approach

PGR
-VCL
-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:
PGR = Potential Gross Rent
VCL = Vacancy and Collection Loss
FE = Fixed Expenses
VE = Variable Expenses
R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI
NOI for year n x DF for year n = PW of year n NOI
Net Reversion x DF for year n = PW of Reversion
Sum of PW's for all years 1 - n = Income Indicator of Value

Where:
NOI = Net Operating Income
DF = Discount Factor
PW = Present Worth
n = Last year of holding period

Stock and Debt Approach

MVE
+MVD
=Market Value of Assets

Where:
MVE = Market value of Equity
MVD = Market value of Debt

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 computer-assisted 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 indicate the validity of the models as well as the calibration techniques employed.

MASS APPRAISAL REPORT

OIL AND GAS RESERVES

APPRAISED BY CAPITOL APPRAISAL GROUP

2021-2022

Overview

Capitol Appraisal Group, Inc. (CAGI) contracts with Appraisal Districts and other governmental entities to appraise all oil & gas subsurface, producing, mineral interests within the purview of the entity. The contractual purpose is to estimate market value as defined in Section 1.04 of the Texas Property Tax Code as of January 1 of each year and report these values to the entity. The results of our work are used as part of the tax base upon which property taxes are levied. Each mineral interest is listed on the appraisal roll separately from other interests in the minerals-in-place in conformance with the Texas Property Tax Code Sec. 25.12. Subsurface mineral rights are not susceptible to physical inspection. This provision requires a jurisdictional exception to Standards Rules 5-2 (c) of the Uniform Standards of Professional Appraisal Practice 2018-2019. However, the inability to physically examine the sub-surface mineral rights does not appreciably affect the appraisal process or the quality of the results.

Assumptions and Limiting Factors

All appraisals are subject to the following:

1. Title to the property is assumed to be good and marketable and the ownership interest and legal description is assumed to be correct.
2. No responsibility for legal matters is assumed. Properties are appraised as if free and clear of any encumbrance and operated under responsible ownership and competent management.
3. Not every property is inspected every year.
4. All information in the appraisal documents has been obtained by Capitol Appraisal Group's employees or through other reliable sources.
5. The appraisals were prepared exclusively for ad valorem tax purposes

Data Collection

Data on the properties appraised are collected from regulatory agencies, such as the Texas Railroad Commission and the Texas Comptroller of Public Accounts, from submissions by the property operator or owner(s), or from other sources. **Submitted data from operators, taxpayers and/or their agents on the appraised properties are considered "rendition statements" and, as such, are confidential data, subject to Sec. 22.27 of the Texas Property Tax Code.** Additional data are obtained through published sources, regulatory reports, public investment reports, licensed data services, service for fee organizations and through comparable properties, if any. The state of Texas is a non-disclosure state and thus many forms of information, pertinent to the value of the properties, are not available to the appraiser.

Valuation and Analysis

The Income Method of Appraisal, as described in Section 23.012 of the Texas Property Tax Code, is the principal appraisal method used. The Market Data Comparison Method of Appraisal (section 23.013) and the Cost Method of Appraisal (section 23.011) are considered. Industry averages of reserve replacement cost and acquisition cost are used for comparative purposes. The non-disclosure nature of the laws of Texas makes market data comparison unreliable. However, if within the scope of Capitol's work assignment market sales disclosures on interests are available, then those data is considered. The nearly exclusive reliance on the income approach, using the discounted cash flow (DCF) technique adjusted for specific property risk and market conditions, is typical of the oil and gas industry. Fee for service organizations are used for survey data with respect to price expectations and discount rates, and licensed data services are used for Industry indicators detailing costs, income, acquisitions costs in dollars per barrel of oil equivalent ($/BOE), finding and development costs ($/BOE) and reserve replacement costs ($/BOE) for over 100 E&P companies.

Due to the demands of Section 23.175 of the Texas Property Tax Code and the Texas Constitution, Capitol Appraisal Group, Inc. takes great care to not appraise properties in excess of their fair market value. We analyze a segment of the Petroleum Producing E&P market, determining the impact on their stock and debt value of the pricing requirements of Sec. 23.175 and also the pricing that could be reasonably anticipated from the market. Capitol Appraisal Group Inc.'s opinion of oil and gas prices is guided by the market's anticipation of those prices through the futures market, oil and gas stock prices and oil and gas industry indexes. A base discount rate is developed using the Securities and Exchange Commission (SEC) 10k Standard Measure of Value, Before Federal Income Tax (BFIT), for a grouping of 20 Exploration and Production (E&P) companies, and then matching their 10k Standard Measure of Value (BFIT), reserves and costs, through a discounted cash flow (DCF) technique. This reserve and cost match is used with Capitol's developed pricing scenario and Section 23.175 pricing directives to determine a discount rate necessary to equal the stock and debt value of the companies, as of January 1 for a given tax year.

The Weighted Average Cost of Capital (WACC) technique is also performed for a subset of these companies grouped according to the Petroleum Producing Industry Exploration and Production companies used in the *The Valueline Investment Survey.* These separate pricing scenarios and the resulting discount rates derived from using the aforementioned stock and debt techniques are applied to the universe of oil and gas properties we appraise. In seeking to avoid appraising any oil and gas property **above** its fair cash market value, Capitol Appraisal employs a market adjustment factor (MAF) to its base discount rate in order to apply property specific risk(s). These factors, which create a wide range of discount rates for the properties that Capitol appraises, are necessary to equitably evaluate disparate leases with respect to remaining reserves, price and costs. By performing two DCF income approach appraisals on each property, Capitol Appraisal provides clients with our opinion of market value, while always endeavoring to guard against appraising a mineral lease at greater than its fair cash market value. [A **jurisdictional exception** to the Discounted Cash Flow technique, as this process is described in the Statement on Appraisal Standards #5, 2018-2019 edition of the Uniform Standards of Professional Appraisal Practice, must be taken. Section 23.175(a) of the Texas Property Tax Code both specifies the directives concerning oil and gas pricing that appraisal districts in Texas must follow and also that each appraisal district must adhere to procedure and methodology contained in manuals developed by the Property Tax Division (PTD) of the Texas Comptroller of Public Accounts. Because adherence to this Property Tax Code directive, without discretion, can result in values greater than fair cash market value, we must express caution.]

The resulting oil and gas lease value is then allocated to each owner on the lease based upon his fractional mineral ownership interest. Royalty and working interests have different impacts on their respective values, since only working interests bear the costs of lease operation. Therefore royalty mineral interest owner's values are allocated from 100% of the appraised royalty value of

the lease, according to their fractional royalty interest, while the working interest owner's value(s) are allocated from 100% of the determined working interest value of the lease, according to their fractional working interest.

Review and Testing

Each year we review the estimated market value for each mineral property appraised according to its year-to-year value change and also to industry expected payouts and income indicators. We also examine income projected to be received with the previous year's income and test that income against the lease's appraised value. Market value for income producing properties is a multiple of its monthly or annual income. Our experience through the years indicates that values typically vary within in a range of 2-5 times income, provided all appropriate income factors have been appropriately identified. Periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser also contribute to the review process.

Application of appraisal-to-sales ratios is another method for measuring performance. However, single property sales or sales of interest(s) within a property remain difficult to obtain due Texas' disclosure laws. Furthermore many market transactions are normally for multiple properties in multiple areas and include both real and personal property, tangible and intangible. We access licensed databases providing statistical data for company and property sales to compare our efforts. We also measure our performance through comparison of valid single-property market transactions, if any, that are submitted for staff review. Lastly, Capitol Appraisal's mineral appraisal values are subject to review each year in the Property Value Study conducted by the Property Tax Division of the Texas Comptroller of Public Accounts. The Property Tax Division's review as well as comparisons to industry transactions and to single-property market value sales (when available), indicate the validity of the models, techniques and assumptions used.

MASS APPRAISAL REPORT

UTILITY, RAILROAD, AND PIPELINE PROPERTIES

APPRAISED BY CAPITOL APPRAISAL GROUP, INC.

2021-2022

Overview

This type of property consists of operating property, excluding land, owned by utility, railroad, and pipeline companies, and related personal property and improvements. Capitol Appraisal Group, Inc. is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. 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 date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district

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 Standards Rule 6-5 (c) comment of the Uniform Standards of Professional Appraisal Practice 2008. A listing of the utility, railroad, and pipeline properties appraised by Capitol Appraisal Group, Inc. for the appraisal district is available at the appraisal district office. 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.

Capitol'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 Requested 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 has been obtained by members of Capitol Appraisal Group'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.

Data Collection and Validation

Data on the subject properties 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 which 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

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 company.

The mathematical form of each model is described below.

RCNLD Approach

RCN
-PD
-FO
-EO
=RCNLD Indicator of Value

Where:
RCN = Replacement or Reproduction Cost New
PD = Physical Depreciation
FO = Functional Obsolescence
EO = Economic Obsolescence

Unit Cost Approach

OC
-AD
-EO
=Unit Cost Approach Indicator of Value

Where:
OC = Original Cost
AD = Allowed Depreciation
EO = Economic Obsolescence

Unit Income Approach

PGR
-VCL
-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:
PGR = Potential Gross Rent
VCL = Vacancy and Collection Loss
FE = Fixed Expenses
VE = Variable Expenses
R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI
NOI for year n x DF for year n = PW of year n NOI
Net Reversion x DF for year n = PW of Reversion
Sum of PW's for all years 1 - n = Income Indicator of Value

Where:
NOI = Net Operating Income
DF = Discount Factor
PW = Present Worth
n = Last year of holding period

Stock and Debt Approach

MVE
+MVD
=Market Value of Assets

Where:
MVE = Market value of Equity
MVD = Market value of Debt

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 computer-assisted 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 indicate the validity of the models as well as the calibration techniques employed.

MASS APPRAISAL REPORT

BUSINESS PERSONAL PROPERTY

APPRAISED BY CAPITOL APPRAISAL GROUP

2021-2022

Overview

This type of property consists of tangible personal property owned by a business or individual for the purpose of producing an income. The Uniform Standards of Professional Appraisal practice define personal property as "identifiable portable and tangible objects which are considered by the general public as being "personal," e.g. furnishings, artwork, antiques, gems and jewelry, collectibles, machinery and equipment; all property that is not classified as real estate.". The Texas Property Tax Code (Sec. 1.04(5)) defines tangible personal property as "...personal property that can be seen, weighed, measured, felt, or otherwise perceived by the senses but does not include a document or other perceptible object that constitutes evidence of a valuable interest, claim, or right and has negligible or no intrinsic value." The Texas Property Tax Code (Sec. 1.04(4)) defines personal property as "...property that is not real property."

Capitol Appraisal Group, Inc. is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. 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.

A separate definition of the value of inventory is found in the Texas Property Tax Code (Sec. 23.12(a)), "...the market value of an inventory is the price for which it would sell as a unit to a purchaser who would continue the business." Additionally, some inventories may qualify for appraisal as of September 1 in accordance with the provisions of Texas Property Tax Code Section 23.12(f).

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 date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district.

The appraisal results will be used as the tax base upon which a property tax will be levied. A listing of the personal property appraised by Capitol Appraisal Group, Inc. for the appraisal district is available at the appraisal district office. Personal property is normally re-inspected 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; 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.

Capitol's personal property appraisal staff includes licensed engineers as well as experienced appraisers who are knowledgeable in all three approaches to value. Personal property appraisal staff stays abreast of current trends affecting personal property through review of published materials, attendance at conferences, course work, and continuing education. All personal property 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 Requested 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 has been obtained by members of Capitol Appraisal Group's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes.

Data Collection and Validation

Data on the subject properties are 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 which 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 multitude of personal property types there is no standard data collection form or manual.

Valuation Approach and Analysis

Personal property is 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. 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 value estimate derived from an income approach model in which the operating income of a business was capitalized must be reduced by the value of any real property in order to arrive at the value of the operating personal property. A market data model based on typical selling prices per item or unit of capacity is also used when appropriate market sales information is available. In the case

of some personal property types, such as licensed vehicles, market data from published pricing guides is used to construct a market value model. In other cases, models are based on sales information available through published sources or through private sources.

Because cost information is the most readily available type of data, the cost approach model is always considered and used. If sufficient data is available either of both of the other two models may also be considered and used. The market data and income approach models may need to 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.

The mathematical form of each model is described below.

Cost Approach

RCN
-PD
-FO
-EO
=Cost Indicator of Value

Where:
RCN = Replacement or Reproduction Cost New
PD = Physical Depreciation
FO = Functional Obsolescence
EO = Economic Obsolescence

Income Approach

PGR
-VCL
-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:
PGR = Potential Gross Rent
VCL = Vacancy and Collection Loss
FE = Fixed Expenses
VE = Variable Expenses
R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI
NOI for year n x DF for year n = PW of year n NOI
Net Reversion x DF for year n = PW of Reversion

Sum of PW's for all years 1 - n = Income Indicator of Value

Where:
NOI = Net Operating Income
DF = Discount Factor
PW = Present Worth
n = Last year of holding period

Market Data Approach

ASPCP/U = PU
PU x SU = Market Data Indicator of Value

Where:
ASPCP = Adjusted Sales Price of Comparable Property
U = Unit of comparison
ASPU = Adjusted Sales Price per Unit of comparison
SU = Subject Property's number of Units of comparison

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

Highest and best use analysis of personal property is based on the likelihood of the continued use of the personal property in its 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 computer-assisted statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance and are used when possible. However sales for some types of personal property are very infrequent. Furthermore, many market transactions 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. Lastly, Capitol Appraisal Group's industrial appraisal methods and procedures for real and personal property are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review as well as appraisal-to-sale ratios and comparisons with single-property appraisals indicate the validity of the models and the calibration techniques employed. Commercial personal property appraised by Capitol Appraisal Group, Inc. is not subject to a methods and procedures review however it is included in the Property Tax Division's annual ratio study with satisfactory results.

MASS APPRAISAL REPORT

INDUSTRIAL PROPERTY

APPRAISED BY CAPITOL APPRAISAL GROUP

2021-2022

Overview

This type of property consists of processing facilities and related personal property. Capitol Appraisal Group, Inc. is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. 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 date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district.

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 © Comment of the Uniform Standards of Professional Appraisal Practice 2008. A listing of the industrial properties appraised by Capitol Appraisal Group, Inc. for the appraisal district is available at the appraisal district office. Industrial properties are normally re-inspected 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.

Capitol'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 requested 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 has been obtained by members of Capitol Appraisal Group'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.

Data Collection and Validation

Data on the subject properties 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 which 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

Industrial properties are 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 always considered and used. If sufficient data is available either of both of the other two models may also be considered and used. The market data and income approach models may need to

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.

The mathematical form of each model is described below.

Cost Approach

RCN
-PD
-FO
-EO
=Cost Indicator of Value

Where:
RCN = Replacement or Reproduction Cost New
PD = Physical Depreciation
FO = Functional Obsolescence
EO = Economic Obsolescence

Income Approach

PGR
-VCL
-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:
NOI = Net Operating Income
PGR = Potential Gross Rent
VCL = Vacancy and Collection Loss
FE = Fixed Expenses
VE = Variable Expenses
R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI
NOI for year n x DF for year n = PW of year n NOI
Net Reversion x DF for year n = PW of Reversion
Sum of PW's for all years 1 - n = Income Indicator of Value

Where:
DF = Discount Factor
PW = Present Worth
n = Last year of holding period

Market Data Approach

ASPCP/U = PU
PU x SU = Market Data Indicator of Value

Where:
ASPCP = Adjusted Sales Price of Comparable Property
U = Unit of comparison
PU = Price per Unit of comparison
ASPU = Adjusted Sales Price per Unit of comparison
SU = Subject Property's number of Units of comparison

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

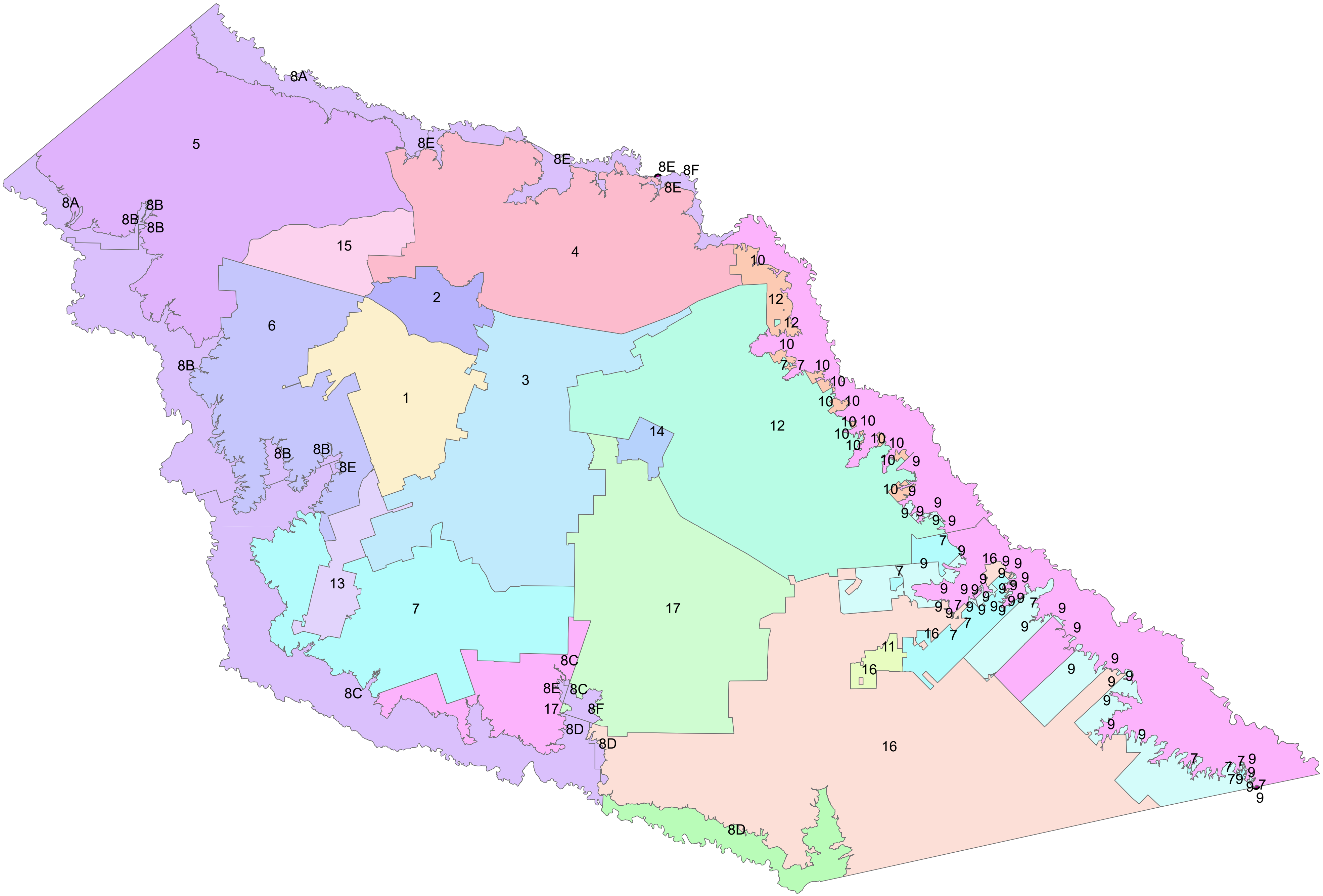
Land valuation for industrial properties is the responsibility of appraisal district staff as is the highest and best use analysis of the site. Sites are analyzed for highest and best use as though they were vacant. Highest and best use analysis of the improvements is based on the likelihood of the continued 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 computer-assisted 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. Lastly, Capitol Appraisal Group'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 indicate the validity of the models and the calibration techniques employed.

ANGELINA CAD REGIONS



ANGELINA COUNTY RE-APPRAISAL PLAN 2021-2022

ATTACHMENT # 5:

APPRAISERS:
TIM CHAMBERS
SHANA KIRKLAND
DAVID TOWNSEND
BRANDON OWENS
JOSH IVY
TRYNESHIA FORD
SCOTT BAILEY
ROBBIE KESSLER
BRITTANY TOLER
JOHN TERRY

MAPS AND DATA:
KENNETH JOHNSON
CADE DOWNS