Contemporary Land, Oil and Gas Valuations, Estate Planning Opportunities, and Possible Strategies in the New Estate and Tax Environment

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ABSTRACT

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The paper presents the topic of Federal Income Taxation from the stand point of strategic tax planning, preservation of income, wealth and estate taxes in regard to land and mineral estates. The implications and potential of splitting or fracturing the surface, mineral, royalty, overriding royalty, and water rights/estates, supported by professional valuation techniques is presented. Allocation and definition of various income streams are discussed which include but are not limited to oil and gas bonus monies, damages, pipelines easements, royalties, overriding royalties, and income from the sale of water for drilling and completion are presented. Approaches to oil and gas rights valuations are discussed and a “sample” appraisal report table of contents is provided. Variables to the market value of minerals include: geology, oil and gas lease terms, percent royalty, pooling, unit size, quality of operator, discount values, production decline curves and projection of future oil and gas prices. (Keywords/themes: Estate planning, mineral valuations, oil and gas valuations, damages, estate taxes, and income taxes)

Note: The author nor the TLMA are not offering specific tax advice to the reader. Property owners and mineral owners should seek the advice of their professional CPAs, Estate Lawyers, and others in regards to any concepts presented here. Each farm, ranch, estate, and objectives of their owners are as unique as the Texas landscape. This paper is for academic purposes only and to generate discussion on theoretical topics.

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INTRODUCTION

There is no clear reference as to who said "The only two things in life for certain are death and taxes." This paper acknowledges only that death is certain. However, the United States Federal Prisons are full of people who choose not to pay their taxes. There are others who honestly, ethically and professionally, minimize their Federal Income Taxes and Estate Taxes under the published laws passed or interpreted by the U.S. Congress, the Federal Income Tax Code and Federal Tax Court cases. This paper reconsiders the "Death and Taxes" certainty concept and offers strategies and changes to the state Death and Now. What can we do now to maximize after-tax wealth and income in regards to land/mineral/water/land related components?

The American people were offered change in the presidential elections of 2008, when the truth of the matter is that tax law changes are perpetual over time and flow with the economy, politics, federal debt levels, and major events (wars, natural disasters, etc.) as referred to in published work "Ever-changing Tax Laws Make Long-Term Tax Planning a Joke" (Baen 1995). The proposed changes in the U.S. Federal income taxes combined with the expiration of the Bush Administration tax policies are scheduled to shock the country into the most serious drain of personal, family, and business wealth in the history of the U.S. Much of the accumulated wealth is "stored" in historic ranchlands, timberlands, and various components that are a part of these assets. (Surface estate, mineral estate, water rights, etc.)

The Land Report (www.landreport.com, Fall 2010) lists the largest 100 landowners in America from 2+ million acres (Ted Turner's) to "smallest" having only 89,000 total acres. Many of these historic and heritage ranches, unless donated to charity, face forced sales due to the federal estate taxes scheduled to take effect January 1, 2011 based on only a $1 million exclusion and estate tax rates of 55% on the balance. Many of these ranches are in Texas and New Mexico and represent 150 years of stewardship and waves of different types of threats, which would require their being sold… families squabbles, condemnation for federal parks, highways, military training, areas, bankruptcies, etc. etc. and now estate taxes.

What may follow in years to come is the forced sale and liquidation of farms and ranchlands, or sale of 55% of all lands in order to pay the estate taxes. This would cause a sudden collapse of land values and surely result in a transfer of wealth from private land owners to the U.S. Government as never before seen or experienced in the history of the U.S.

This research considers contemporary theories and strategies to legally, ethically, and professionally preserve assets and reduce taxes under the assumption that forever new and changing tax laws, policies, and challenges will be facing all land owners having total assets, including their homesteads' value, land, mineral interest, etc. over $1 million. The onerous redistribution of privately accumulated wealth and income streams back to the U.S. Government appears to be imminent.

LAND: The True Basis of Wealth as an Asset Class "Under All is the Land"

For thousands of years, all across America, various Native American tribes basically had on-going wars for the best hunting grounds, and who would control the best hunting and fishing lands all across North America. Today's Indian chiefs corporate CEO's/land owners and tribes modern families use economic and financial warfare to "own" the best hunting and economic lands and control, manage, improve, and pass on to their offspring. The dominant tribes over the best lands, controlled by modern-day chiefs (the owners), include but not limited to:

- Immediate family
- Family owned corporations, partnerships and trusts
- Paid hunters who pay "trespassing" fees for the right to harvest a trophy animal

The richest, smartest, and wisest people in America, usually acquire wealth in unrelated business that come and go over time, but "park" a great deal of their "wompum/money" in the timeless investment of land! Preservation and protection of wealth in land, which includes hidden treasures of additional wealth from land that could spring forth, has been accomplished by:

Tribe	Business		Acres
Ted Turner	movies/media	→	2.3 million
H.L. Hunt Family	oil	→	10's of 1000's
Archie Emerson	wood products	→	1.7 million
Singleton Family	technology	→	1.0 million
Ross Perot	technology	→	undisclosed

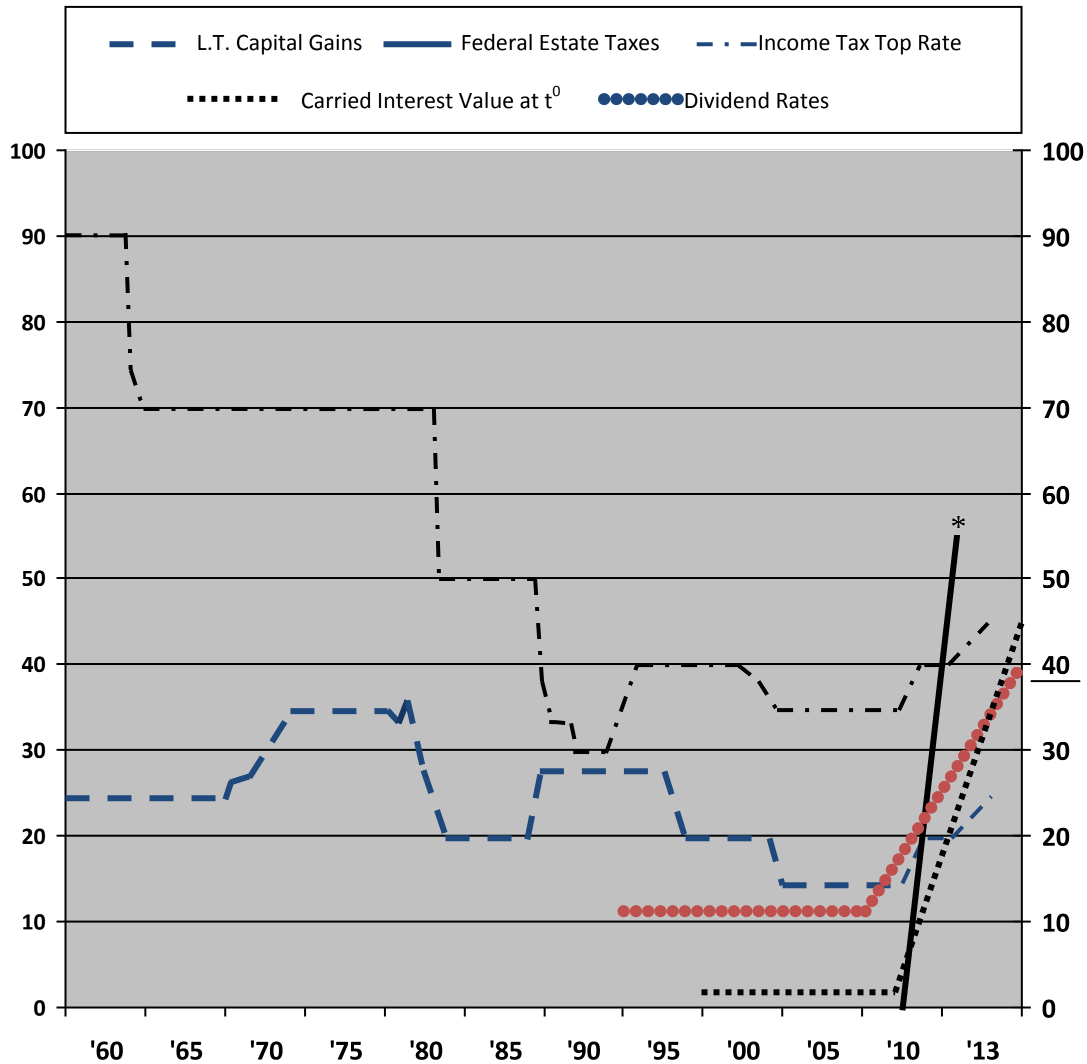
All wealth comes from LAND, LABOR, and CAPITAL ($). The "supply" of land is finite and is shrinking from erosion, shrinking beaches, earthquakes, reservoirs, power line right-of-ways, rising seas, roads, etc, etc,… All this while the demand for land increases from population growth and new land uses: solar farms, continued urbanization, etc. etc…

Rural land, as a long term investment and a vehicle for preserving wealth is a standard workhorse for the long term man/woman/family who has a vision beyond their own lifetime. Hidden wealth in land is the topic of the paper and the blessings that have changed my life. Presenting the preservation of after tax benefits of land during my generation and for generations to come is my primary objective. Encourage your clients to have land as an asset class of not less than 40% of their total investment portfolio. It is the only thing that lasts if you can avoid the new federal estate taxes.

The Current and Proposed Federal Income Tax and Estate Tax Environment

The following summary is historical overview of the various taxes and tax rates since 1960, and assumes the expiration of the Bush Tax Cuts in 2011. At the time of the writing of this research, the United States Government and Congress have not acted to appeal or change the expiration for high income families (over $250,000 per year) and individuals (over $200,000 per year), trusts, family limited partnerships, etc.

Table 1. Historic view of tax rates on estate taxes, capital gains and ordinary income.



2011-13: Assuming expiration of Bush Tax cuts. 2013: Includes new 3.8% Medicare surtax on investment income. *Source: CCH, a Wolters Kluwer business.*

* Federal Estate Taxes 2010 = 0, 2011 = 55% > 1 Million

Without repeal or changes in Tax Laws, the following tax rates are projected to be implemented.

Table 2. Projected taxes after January 1, 2011

	2010	2011
Top Income Tax Rate	35%	39.6% – 41%
Capital Gains Rates	15%	20% - 23.8% - 28%*
Passive Income Rates (interest, rents, royalties)	35%	43.4%
Top Dividend Rates (Taxes limit liability companies? S-Corps? C-Corps?)	15%	39.6%
Carried Interest Income Taxes	0%	39.6 – 41% at time zero (t^o)***
Gift Taxes (over 13,000 per year per parent/person)	35%	45%
New Medicare Taxes (2013)		
Investment Income	0%	3.8%**
Wages Income	0%	0.9%
Federal Estate Taxes (Jan. 1, 2011) (over 1,000,000 total value including homestead, land, etc.)	0%	55%

* In 1986 the Capital Gains Taxes rose from 20% to 30% leading to a selloff of Wall Street securities that was 200% of normal

** May be exempt for partnerships, subs corporations that you actively manage. (Do you actively manage your royalties or are they passive income? What form of ownership do you hold your mineral rights?)

** 2010 zero % taxes until income realized, currently taxed on sales as long-term capital gains, proposal is to tax carried interest at time of assignment as a "Present Value" Income Sources at ordinary tax rates prior to any income being received and the taxed again at perhaps dividend rates on income. Could include FLP/Trust ownership assignments and overriding royalty interests? (ORRI)

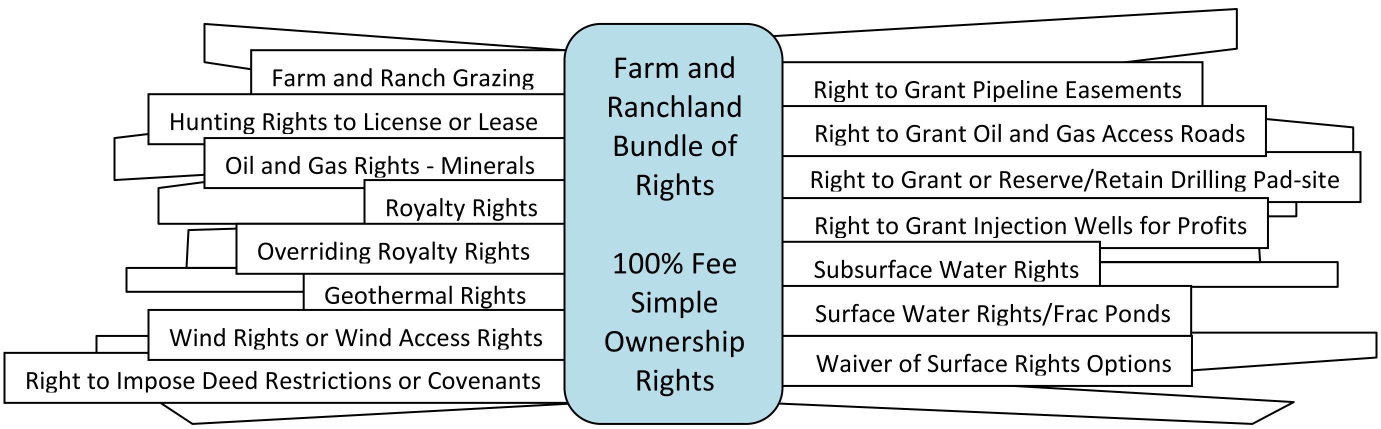
***The value of carried interest is taxed a 100% of value at t^0 not when income realized in the future.

Contemporary Oil and Gas Relates Federal Taxes Pending for Land/Mineral and Royalty Owners for 2011 and Beyond

Farm and Ranchland Bundle of Rights Theory

by John S. Baen, Ph.D.,
University of North Texas 2010

The partition, separation on transfer of various rights can have positive or negative value implications for the value of the separate components.



Real estate ownership is, in actuality, the ownership of rights to land. The largest bundle of rights available for private ownership is called "fee simple."

Minus the Following Value Components

Note that the fee simple bundle shrinks as well as the value of the surface rights as an owner voluntarily removes rights from it.

The effect of unbundling various rights by deeding-off or reserving any or all of the above farm and ranch Fee Simple Ownership Rights can greatly reduce the value of the various estates (i.e. the surface estate), and/or reallocates components of value to other rights and offers innovative tax and estate planning opportunities that can yield higher <u>after tax annual income</u> and/or <u>reduced estate taxes</u> using professional valuation and innovative tax planning. The Appraisal literature and basic professional theory is that <u>the sum of their parts cannot be greater than the market value of fee simple</u>. However, reduced value and marketability of the surface can be greatly reduced by "clouds" on the title.

Research Assumption

1. That under the IRS Tax Codes, definition, and Tax Court Cases, that owners of assets and income streams and/or their professional CPA's, Tax Professional and Estate Planners can legally and ethically reduce their federal income/estate taxes based on sound, logic and professionally prepared bookkeeping, annual reports, tax returns and valuation reports/appraisals.
2. That in the ever-changing annual income tax, tax policies/rules/ruling, and estate tax environment, (Baen, 1995), that there can be no such thing as a permanent solution, strategy or estate plan/planning that is static or inflexible that will solve or reduce tax rate risk to any ownership farm or estate.
3. That there are cycles of increases and decreases of income taxes and estate taxes over time that are based on the following variables:
    a. The U.S. economy
    b. The long and short term budgets of the U.S. Government
    c. The long term federal debt levels and changes in interest rates over time
    d. The political environment and variables of the president, U.S. Congress, and senate
    e. Cycles of war and other events requiring additional funds
    f. Interpretations of various federal tax court decisions and interpretations of the Tax Code.
4. That the classification of income and deductable expenses for accounting purposes will never be clearly defined and will always be open to interpretation until such time or there is a permanent "flat" tax on gross income tax without any deductions or exceptions.
5. That the determination of basic and estate valuation is unique for each parcel of land based on the status of the title bundle of rights remaining and/or deeded off or retained by prior owners/grantors. Rights that may be deeded off, retained or partitioned include but are not limited to the following economic units of "value":*
    a. Surface Rights
    b. Access Rights
    c. Oil and Gas Rights
    d. Subsurface Water Rights
    e. Other mineral rights – clay, rock, sand
    f. Royalty Rights
    g. Overriding Royalty Rights
    h. Thermal Energy Rights
    i. Easement Rights
    j. Wind/Rights or Reserved Wind Rights, Turbine Sites and Access Roads

    * Some having negative effects and possible damages on other components or land units of value

Sum of the Parts Theory – Special Tax Planning Opportunities

A 1000 Acre Ranch with "Good" Title Worth $3.5 million Causing Chaos in the Ranch Title and/or Valuation of Components from $3500/Acre to $1704 – $2721/Acre

Divide, deed off, or partition the estates into segments, estates and ownerships, that "could" conflict, encroach or cause significant damages to the "unrelated" estates. Example: using qualified professionals to divide ranch "A" 1000 acres… theoretically partition or deed off from the fee simple estate into the following separate estates, each having its own valuation.

$3,500,000 at $3500/Acre Original Farm and Ranch 1000 Acres, 100% of the Bundle of Rights Intact.

1000 Acres Surface Estate (say $1500/acre)

- by original ownership retained or new ownership entity created by deed (FLP, Trust, etc.)
- or partition land into parcels for kids, Uncle Sam, taxes, etc.
- other rights "sold off"
- Surface become subject to superior rights or rights deeded off
- Market value is greatly reduced

1000 Acre Mineral Estate (say $1000/acre or $1/acre if unleased)

- By mineral deed
- Reduce fracturing of mineral title
- Reduce political/family frictions
- Single oil and gas lease negotiator (GP, Trustee, etc.)
- Agreement in FLP of 51% or goes to Bank Trust Department?
- Long-term management of minerals, multigenerational

1000 Acre Less/Existing Royalty Rights Wells and/or Units (say $200/acres PV)

- Via royalty deed or non-participation royalty deed
- Only present royalty/existing well-bores or all future production and new wells?
- All 1000 acres present and future royalty?

*1000 Acres Subsurface Water Rights

- Water rights deed
- 100% or partial say $10/acre or appraised value
- Some areas $1/acre

*1000 Acre Wind Rights or Access Roads (ROW) and Turbine Pad-sites at 2 Acres Each (say $1/acre)

*1000 Acres of Geothermal Rights (say $1/acre)

- Via deed
- Abandoned oil and gas wells, etc.

*1000 Acres ORRI or Pad-sites/Damages for Designated Pad-sites to Surface Owner or Wells Drilled into Others' Minerals On-site or Off-site (say $10/acre)

- Via transfer deed or document for the benefit of surface owner? A trust? Others?

1000 Acre of Produced Water Rights

- Salt water rights
- Injection rights
- Water flood rights
- Disposal well rights

Discussions and Definitions of Market Value, Price, Costs, and Other Types of Value

For the year 2001, an appraiser's report and conclusion have been changed from an "estimated market value" to "an opinion of market value."

DEFINITION OF MARKET VALUE (2001)

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- buyer and seller are typically motivated;
- both parties are well informed or well advised, and each acting in what he considers his own best interest;
- a reasonable time is allowed for exposure in the open market;
- payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Other definitions and concepts of value:

- Market Value (as vacant or improved)
- Market Value vs. Price vs. Cost
- Use Value or Value In Use
- Investment Value
- Going Concern Value
- Insurable Value
- Liquidation Value
- Assessed Value (should be equal to market value in Texas)
- Value for Estate Planning Purposes
- The present value of options (i.e. working interest in oil and gas wells)
- Options to buy/sell rights

Highest and Best Use of the Subsurface Mineral Estate vs. the Highest and Best Use of the Surface Estate (subordinate estate) however 100% dependent on Permitting and Approvals for a Drill site (which varies greatly: Urban vs. Rural)

The production of oil and gas is the Highest and Best Use of the subsurface estate of the majority of most mineral estate. There will be some anticipated cost, damages or inconvenience to the surface estate. Without a drill site in the right direction and location, the mineral estate has questionable and only speculative economic value.

Highest and Best Use is defined as:

> Highest and Best Use[1] – The reasonably probable and legal use (of mineral rights and access to land), which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria of highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum profitability.

For highest and best use of both mineral and royalty estates, a use must meet four criteria. The criteria are that the highest and best use must be:

1. Physically possible
2. Legally permissible
3. Financially feasible
4. Maximally productive

All criteria for complete development of oil and gas rights are quite achievable. There are no conflicts in regards to being legally permissible from the standpoint of Federal, State (Texas Railroad Commission/Oil and Gas Regulations/Permitting) or County Regulations. There are, however, some new and evolving local ordinances that can require special use or site-planning approvals prior to drilling from the pad-site. There are understandable and expected conflicts between the development of both the surface and mineral estates. Pipelines are required to sell natural gas and without pipelines, wells in any general area or unit would not be drilled and completed without pipeline access. The mineral estate includes separate components:

1. Leasing bonus value (assume depth limitation to known geological formation)
2. Value of royalty rights
3. Value of unknown deeper mineral rights
4. Value of ORRI
5. Value of working interests and options

[1] Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 3rd ed. (Chicago: Appraisal Institute, 1993), page 171.

Three (3) Approaches to Value and Other Valuation Techniques for Valuing Mineral Estates

There are three (3) approaches to be considered in valuing real estate and the various associated estates or components: market, income and replacement approaches to value. While the income approach to valuation of minerals and royalty estates are perhaps the most appropriate, there is very much a market and demand for the sale of mineral rights in Texas although few sales are made public and many sales occur in absolute confidential conditions in the normal cause of business. Texas is a non-disclosure state and no details of minerals being sold are found in the public records in regards to sale prices.

There are six (6) valuation approaches or indications of market value for mineral / royalty rights or interests in land located in areas having proven reserves and/or income from oil and gas production. (1988, Baen, Appraisal Journal, pp. 205-216) However, seven (7) are often used including "AFE" cost approach to drill or replace a well.

I. Residual values or value by extraction of mineral rights from comparable sales (comparison of land sales with and without minerals for appropriate adjustment to comparables)

II. Comparable sales of mineral and royalty rights by deeds or assignments

III. Sale of undeveloped or underdeveloped reserves by oil and gas companies

IV. The use of cash flow analysis of existing well performances, productivity, decline curves and allocation of values to producing and/or proven but non-producing mineral acres.

V. The use of assessed values by local tax appraisal boards (County Appraisal Districts) which follow state laws and utilizes a combination of methods I-IV while utilizing oil and gas reserve engineers and publicly available production reports, mineral sales, and operating costs, taxes, etc.

VI. The use of multiples of current bonus monies per acre (2-3 times bonus/monies per acre). The IRS Tax Courts have accepted this methodology as a general policy for non-producing minerals.

VII. "Replacement Cost" Approach to value knowing the <u>true cost</u> of the average well. Assumes well is productive and yields a return of capital or return on mineral values. Royalty income (RI) streams generally sell in the open market for <u>twice</u> working interest (WI) in wells due to <u>expenses and recapture</u> of cost of drilling required by direct oil and gas well investors. Royalty owners pay no well costs to drill or operational costs of wells.

Comparable Sales of Minerals and Royalty Rights by Deeds or Assignments

Market Approach to Value

The market approach to mineral rights to valuing mineral rights, royalty rights and overriding royalty rights is clouded by the fact that mineral deeds, contracts, and details of sales terms and conditions are found nowhere in the public records. However, the large numbers of mineral deeds being filed in Texas counties number in the thousands over the last several years indicates an active market that is very secretive.

While there is a strong market for proven reserves and mineral rights in many areas, they are most often sold in one of the following ways:

1. Outright Sale or Purchase of Mineral Rights. There are standing offers by individuals and firms who are actively willing to buy mineral rights. Blind mail-out offers and checks are received regularly by mineral owners within the established fields. Some offers are disguised as "leases" but are in fact mineral deeds and allegations of fraud have been discussed by public officials who are concerned with the elderly or uninformed who might sign such instruments and cash the attached checks (examples attached).

2. Outright Sale of Mineral Rights/Leased but not Drilled. Undeveloped mineral rights often are valued for IRS estate purposes and/or sold for multiples of 3-5x (300-500% of prevailing bonus rates) paid per acre (or $18,000/acre at three (3) years or move up there $30,000/acre at five (5) years).

3. Outright Sale of Royalty Rights and future income streams in existing wells generally sell for between 36 months and 60 months of income (however up to 10 years of income; see June 2006 oil and gas investor p. 53) depending on the following variables which are lease and/or well specifics.

    a. age of well(s) [pre or post "flush" production]
        - water produced
        - BTU of gas
        - Oil/distillate produced, etc.
        - Etc, etc

    b. percentage of monthly net royalty income which varies according to:
        - operator
        - pipeline / pipeline contract
        - lease provisions
        - pooling provisions
        - pipeline pressures

    c. depth limitations, if any, as many sales and leases are depth/zone specific, leaving other zones above or below the Barnett Shale formation having significant although speculative present and future value

    d. The type of royalty deed or deeds varies widely with some inclusive of mineral rights and some are not.

e. Individual characteristics of wells for additional well locations.

f. Geology

g. Quality of operator

4. Comparable or market value royalty rights generally sold is based on actual income and in my opinion "averages" 36-42 months of net income. The conclusion is then that the current minerals as of July 1, 2008 could have been sold for between $25,000 and $35,000 per net mineral acre. *

(*Assumes full development of minerals, a market price for gas [$8.00/MCF as of July 1, 2008, taxes, compressor charges, transportation charges, etc.] and pipeline capacity with normal pressures, etc. This is a major assumption and hypothetical appraisal factor. While one (1) high volume horizontal well could yield the same income as the assumptions made here, this report assumes two (2) stand-alone typical horizontal wells are drilled on the property.

Types of Mineral Rights, Assumptions, and Valuation Assignments

1. Market value of 100% of the mineral rights/royalty variables:
    - Non-producing, unleased
    - Leased but not drilled/lease detail dependent
    - Drilled but not completed
    - Old well(s) Held by Production (HBP)
    - Partially developed of known productive zones
    - Value of minerals below known productive zones

2. Market value of partial mineral rights variables:
    - Known ownership of 100% of the mineral estate or splintered/unmarketable due to many owners (the more owners, the less likely for 100% to be leased)
    - Splintered minerals with clouds on the title can be worthless
    - Executive rights and/or non-participating royalty owners
    - Revisionary mineral rights that revert back to surface estate over time

3. Land owner working interest/participation and/or option rights to directly interest in wells at "cost" of operator variables: (there are some tax benefits and serious risks):
    - Prior to well commencement
    - After logging the well
    - After casing
    - After completion
    - After 100% of payback to operator (sometimes both royalty plus working interests ownership is negotiated in leases)
    - As a land owner "partner" it is difficult to sue due to conflicts of interest in the event of excess damages to surface, environmental contamination or many other situations.

(Changes in tax laws over time may make working interest participating option less "attractive" - depletion, intangible drilling costs, etc., and may make it more difficult for operator to sell operation to a major oil company. This gives rise to possibility of selling the land owners option to participate.)

Income Approach to Value Assumptions (07/01/2008) "Average Well" Property Mineral / Royalty Estate Denton County, Texas

1. The current realizable gross price of gas will continue to range between $3.50-$5.00/MCF (currently is at $8.00/MCF±) will generally remain at current levels, an increase of 3.25% per year over the next ten (10) years but will be arbitrarily "capped" at $10 per MCF. Oil /distillate will remain at $30 per barrel and capped at $40 per barrel. (It should be noted that the future prices for natural gas in June 2012 is $6.85/MCF and is 82% reliable.
2. The productive and economic "life" of each well is thirty (30) years.
3. No wells will be "refracked," rejuvenated, restimulated or recompleted during the 30 year life. (Conservative assumptions / common practice of Barnett Shale wells being refractured every 5-10 years and often brings them back to new well or near new well productivity levels, however only for vertical wells.
4. Assumes no other productive formations exist or are found "up-hole" above the Barnett Shale Formation. (Conservative assumption / wells to the south, west and northwest, in the immediate area indicate valuable "strawn" sands at 3,000-4,000 feet and several wells have been completed in the Conglomerate / Boonsville Bend zone located just above the primary zone.)
5. Flat state severance tax to royalty / mineral owners will remain 4.61% for oil and 7.50% for gas.
6. Ad Valorum Taxes to mineral / royalty owners' royalty valuation will remain approximately 2.4-3% (variables by local tax rates) and will continue to be based on income only rather than based on the value of reserves or "market value" (State Law).
7. Royalty / Mineral owner operating expenses will be $20 per month ($240/year) per well that will include accounting, monitoring, and miscellaneous expenses.
8. Initial "flush" production per well will vary between 800 MCF/day - 2 million MCF/day. This report assumes an "average" first year production (gas sold) of 1.7 million MCF/day for horizontal a 60 acre unit. (Conservative estimates although many variables exist in each well.)
9. "Barnett Shale Well," (or whatever formation) decline curves for oil and gas production will be typical for each well in the field and average: Year 1 – 50% decline; Year 2 – 35%decline; and Years 3-30 – 10% decline per year. (This is a very conservative assumption, as many wells do not experience these drastic declines.)
10. Discounted cash flow rates vary between oil and gas operators and royalty / mineral owners. Royalty / mineral owners have no risk, overhead, or operating expenses; however, little impact in the operations or management of wells. While oil companies must both return of and return on investments to drill wells, royalty owners have less risk and exposed capital and therefore generally have a much lower discount rate for royalty cash flows. Sales of pure royalty interests in the marketplace sell for between 36 and 60 months of income (gross income multipliers – See References Attached). Discounted rates of 5-6% are not uncommon but are considered aggressive, while many factors and variables (# of well sites, etc.) are associated with such low rates. It is my professional opinion that a 10% discount rate is appropriate for the subject property's analysis based on the number of wells that have not been drilled and other related factors.

Baen's Barnett Productivity / "Cash Flows"
Oil and Gas Reserve and Cashflow Analysis

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Oil and Gas Leasing
Lease Negotiating
Land/Well Planning
Estate Planning/Mineral Valuation/Appraisal

Ewing - Assume ~~#~~ 5ºº Gas
25 % Roy or Ratio
per well
Assum. 980 MCF Avg yr 1

				DECLINES		ESCALATION: PRICES:		ESCALATION: EXPENSES:	
LEASE:	N/A	SER.TAX, O:	4.61%	GAS, YR1:	50%				
FIELD		SER.TAX, G:	7.50%	GAS, YR2:	25%	GAS, YR2:	3.25%	EXP, YR2:	3.25%
COUNTY:	Denton	AD Valor:	2.40%	GAS, YR3:	10%	GAS, YR3:	3.25%	EXP, YR3:	3.25%
STATE:	Texas	OP EXP/MO:	$1000	GAS, YR4:	10%	GAS, YR4:	3.25%	EXP, YR4:	3.25%
OPER:		# WELLS:	1	AFTER:	10%	AFTER:	3.25%	AFTER:	3.25%
OWNER:		OIL, $/BO:	$25.00						
BCPD:	1.0	OIL, MAX$:	$100.00	OIL, YR1:	50%	OIL, YR2:	3.25%		
MCFD:	980	GAS, $/MCF:	$4.00	OIL, YR2:	25%	OIL, YR3:	3.25%		
WI:	0.000%	GAS, MAX$:	$12.00	OIL, YR3:	10%	OIL, YR4:	3.25%		
W. NRI:	0.000%	CAP. EXPS:	$750,000	OIL, YR4:	10%	AFTER:	3.25%		
ORRI:(*)	25.000%	DISC FACT:	10.00%	AFTER:	10%				

YEAR	OIL BARRELS		GAS MCF			REVENUE		EXPENSES			NET INCOME		DISCOUNT C/FLW		PRICES	
	GROSS	NET(*)	DAILYAVG	GROSSYR	NET(*)	OIL	GAS	TAXES	LOE	ADVAL/TAX	NET C/FLW/YR	CUM C/FLW	NET 10%	CUM 10%	OIL $/BO	GAS $/CF
1	263	66	980	357,700	89,425	3,945	447,125	33,716	0	4,500	412,854	412,854	375,322	375,322	$60.00	$5.00
2	132	33	490	178,850	44,713	2,037	230,828	17,406	0	2,250	213,209	626,063	176,206	551,527	$61.95	$5.16
3	99	25	368	134,138	33,534	1,577	178,748	13,479	0	1,688	165,158	791,221	124,086	675,613	$63.96	$5.33
4	89	22	331	120,724	30,181	1,466	166,101	12,525	0	1,519	153,523	944,744	104,858	780,471	$66.04	$5.50
5	80	20	298	108,651	27,163	1,362	154,350	11,639	0	1,367	142,706	1,087,450	88,609	869,080	$68.19	$5.68
6	72	18	268	97,786	24,447	1,265	143,429	10,816	0	1,230	132,649	1,220,099	74,877	943,957	$70.40	$5.87
7	65	16	241	88,008	22,002	1,176	133,282	10,050	0	1,107	123,300	1,343,399	63,272	1,007,230	$72.69	$6.06
8	58	15	217	79,207	19,802	1,093	123,852	9,339	0	996	114,609	1,458,008	53,466	1,060,696	$75.06	$6.25
9	52	13	195	71,286	17,822	1,015	115,090	8,679	0	897	106,530	1,564,537	45,179	1,105,875	$77.49	$6.46
10	47	12	176	64,158	16,039	944	106,947	8,065	0	807	99,019	1,663,556	38,176	1,144,051	$80.01	$6.67
11	42	11	158	57,742	14,435	877	99,380	7,494	0	726	92,037	1,755,593	32,258	1,176,309	$82.61	$6.88
12	38	10	142	51,968	12,992	815	92,349	6,964	0	654	85,547	1,841,140	27,258	1,203,567	$85.30	$7.11
13	34	9	128	46,771	11,693	757	85,816	6,471	0	588	79,513	1,920,653	23,032	1,226,599	$88.07	$7.34
14	31	8	115	42,094	10,523	704	79,744	6,013	0	530	73,905	1,994,558	19,461	1,246,061	$90.93	$7.58
15	28	7	104	37,884	9,471	654	74,102	5,588	0	477	68,692	2,063,250	16,444	1,262,505	$93.89	$7.82
16	25	6	93	34,096	8,524	608	68,859	5,192	0	429	63,846	2,127,095	13,895	1,276,399	$96.94	$8.08
17	23	6	84	30,686	7,672	564	63,988	4,825	0	386	59,341	2,186,436	11,740	1,288,140	$100.00	$8.34
18	20	5	76	27,618	6,904	508	59,461	4,483	0	347	55,138	2,241,574	9,917	1,298,057	$100.00	$8.61
19	18	5	68	24,856	6,214	457	55,254	4,165	0	313	51,233	2,292,806	8,377	1,306,434	$100.00	$8.89
20	16	4	61	22,370	5,593	411	51,345	3,870	0	281	47,604	2,340,411	7,076	1,313,510	$100.00	$9.18
21	15	4	55	20,133	5,033	370	47,712	3,595	0	253	44,233	2,384,644	5,977	1,319,487	$100.00	$9.48
22	13	3	50	18,120	4,530	333	44,336	3,341	0	228	41,101	2,425,745	5,049	1,324,536	$100.00	$9.79
23	12	3	45	16,308	4,077	300	41,199	3,104	0	205	38,190	2,463,935	4,265	1,328,801	$100.00	$10.11
24	11	3	40	14,677	3,669	270	38,285	2,884	0	185	35,486	2,499,421	3,603	1,332,404	$100.00	$10.43
25	10	2	36	13,209	3,302	243	35,576	2,679	0	166	32,973	2,532,394	3,043	1,335,447	$100.00	$10.77
26	9	2	33	11,889	2,972	219	33,059	2,489	0	150	30,638	2,563,033	2,571	1,338,018	$100.00	$11.1[illegible]
27	8	2	29	10,700	2,675	197	30,720	2,313	0	135	28,469	2,591,502	2,172	1,340,189	$100.00	$11.4[illegible]
28	7	2	26	9,630	2,407	177	28,547	2,149	0	121	26,453	2,617,955	1,834	1,342,024	$100.00	$11.8[illegible]
29	6	2	24	8,667	2,167	159	26,000	1,957	0	109	24,093	2,642,048	1,519	1,343,543	$100.00	$12.[illegible]
30	6	1	21	7,800	1,950	143	23,400	1,762	0	98	21,684	2,663,732	1,243	1,344,785	$100.00	$12.[illegible]
Total	1329	332	4953	1807724	451931	$24,643	$2,878,883	$217,052	$0	$22,742	$2,663,732		$1,344,785			

*No future profits may be promised and productivity varies widely
** Projections only, based on "average" to "above average well"
***All wells are "different", perform "differently" and are unique
****Variables over time are significant and can alter results (gas prices, gas contracts, line pressure, BTU content and supply/demand for gas)

@ 5ºº Gas (above Mark 1-28-08)
= 11,206 / min Acre.
< 20% Market to 4ºº
= 8965 / min Ac @ 25% Roy
10

Replacement Cost Approach Using AFE (Authorization for Expenditure)

Well Name & Number:	County & State:	Date:	Proposed Operation: Drill and complete a horizontal well with 4000 lateral		
Exhibit 13 –e **John S. Baen, Ph.D.** **J.S. Baen & Associates Inc., 2007**			5-1-07 Real/Unprompted Cost		
			High Tech H Well		
				ESTIMATED	
			Dry Hole	**Completion**	**Producer**
Intangible Drilling Costs:					
Survey, settle, damages, build location & road			$ 50,000		50,000
Drilling Operations: Rig Mobilization			75,000		75,000
Daywork: 21 days at $20,500/day			430,500		430,500
Fuel & Power			30,000		30,000
services – surface csg (single stage)			17,890		17,890
Mud, chemicals & corrosion inhibitor			25,000		25,000
Bits, reamers, stabilizer			32,800	600	33,400
Rental tools & services			122,997		122,997
Drill stem testing			0		0
Coring and core analysis			0		0
Electric logging and surveys (at TD only)			34,250		34,250
Mud logging			11,250		11,250
Drilling water (drill & equip well, pump rental)			2,000		2,000
Transportation			8,400		8,400
Supervision: 23 days at $1350/day			31,050		31,050
Casing crew, surface, clean-drift-tally, P/U mach			0		0
Communications/housing/computer			2,300		2,300
Professional services			0		0
Administration & Overhead			5,000		7,500
Miscellaneous labor & supplies			22,000	2,500	48,350
Insurance – well control			35,400	26,350	35,400
TOTAL DRILLING INTANGIBLES:			**$935,837**	**$29,450**	**$965,287**
Intangible Completion Costs:					
Cementing				32,620	32,620
Casing, crew, production: clean, drift, tally, P/U machine, Torq-tur				12,000	12,000
Completion unit: 12 days at $1750/day				21,000	21,000
Completion rental tools (test tbg, BOPs, frac stack)				5,000	5,000
Cased hole electric line (CBL & perforate)				4,500	4,500
Perforating				48,000	48,000
Fracturing – 5 stages				1,250,000	1,250,000
Frac water, tank rental & packer fluid				16,000	16,000
Flowback				4,500	4,500
Supervision				0	0
Transportation & disposal of flowback fluid				11,000	11,000
Miscellaneous labor & supplies				20,500	20,500
TOTAL COMPLETION INTANGIBLES:				**1,425,120**	**1,425,120**
Contingencies (5%)			48,932	89,099	138,030
TOTAL DRILLING and COMPLETION INTANGIBLES:			**$984,768**	**$1,543,669**	**$2,528,430**
Tangible Pipe & Equipment Costs:					
Conductor Pipe					
Surface casing: 15,000' of 9 5/8"			42,000		42,000
Intermediate casing					
Liner Hanger					
Liner Casing					
Production casing: 5 ½" 17#P-110				210,000	210,000
Tubing: 7000' of 2 3/8" at $4.75/ft.				33,250	33,250
Packers, seal assembly & service				7,500	7,500
Float equipment (no DV tool for surface csg)					
Wellhead equipment (re-manufactured where possible)			800	10,650	11,450
Separators, Dehydrators				15,000	15,000
Tank battery				15,000	15,000
Production equipment installation, valves & fittings				16,900	16,900
Labor to install production equipment, transportation				14,600	14,600
Line pipe & installation				0	0
Meter run & recorder				4,500	4,500
TOTAL TANGIBLE EQUIPMENT COSTS:			**$42,800**	**$327,400**	**$370,200**
TOTAL DRILLING INTANGIBLES:			**$1,027,568**	**$1,871,069**	**$2,898,630***

*Replacement Cost (20% royalty) * (200% factor) ÷ 60 acres = $_______PV/acre

**Assume average or actual economic well drilled and performed

Correlation of Various Approaches to Value/Mineral Estate

		Mineral Acres
I.	Residual/Extracted Value of Minerals (Assumes bonus at $6,000 paid to others and $24,000 per acre present value of CF	$ 30,000/acre
II.	Comparable Sales of Mineral and Royalty Rights (36-60 months production) and/or top bonuses paid 7/1/2008	$30,000/acre
III.	Sale/Purchase of Mineral Reserves/Barnett Shale Field 2.4 BCF/well × 2.00 wells/119± acres × 2.50/MCF × 25% “Royalty”= $3,000,000 ÷ 119± acres = $25,210/acre	$25,210/acre* (PV of Reserves)
IV.	Income Approach to Value/Discount Cash Flow= $24,000/mineral acre + 6,000 bonuses paid at t^0	$30,000/acre
V.	Appraisal District Indicated Value of Producing Royalty	“$12,000-15,000/ acre” at 15% discount rate
VI.	Based on prevailing bonuses being paid July1, 2008 at $6,000/acre times (3-5x) or 300-500% = $18,000-30,000/acre	
VII.	Conclusion: Speculative/Market Value of the Minerals	$25,000/acre (plus other bonuses)

It is the opinion of this appraiser that based on several assumptions and six (6) indications of value, as found above, that the mineral value of the subject property is $30,000 per mineral acre as of July 1, 2008.

* Assumes sold based on reserves only and no bonuses paid, or bonuses already paid
** Based on known market factors, gas prices, market bonuses being paid at the time, and fully developed mineral lease with two (2) best practices wells drilled on 119± acres or the equivalent number of wells drilled on any unit formed based on one (1) well per sixty acres. This valuation assumes all wells are drilled in July 2008.

Assumptions and Limiting Conditions

The valuation of mineral and royalty interests involving known reserves generally involves petroleum engineering and detailed geological studies. The appraiser assumes that the subject property's mineral rights and royalty interests are "typical" for the "Barnett Shale" (or whatever geological productive zones) and that the existing wells and proposed wells are "average" for the area. The client and users of any report are urged to have the attached report reviewed by professional engineers, financial analysts, and others that may disagree with various assumptions and conclusions found in this valuation report.

The appraiser assumed the following factors for the attached report that:

1. Title to the land and mineral estates are marketable and complete to allow legal, ethical and accurate deeds and/or division orders to be prepared for any and all on the subject property. No title search was conducted.
2. Any and all federal, state, county and local ordinances and/or valuation will allow the full development of both the surface and subsurface estates in a timely fashion and without long approval process or litigation of any time.
3. The surface estate owners and mineral owners have agreed and will continue to agree to the location of indicated drill-sites.
4. There are no conflicts of interest or disagreement between any historic, present or future surface and mineral owners that could in any way prevent, stop or hinder the complete development of the subsurface estate.
5. One hundred percent (100%) of the produced gas, oil and distillates will be marketable as produced and that no long-term curtailment or shut-in gas requirements either elected or imposed by others will occur.
6. This report assumes that all wells will be drilled by the operator (or an equally competent operator) and completed within one (1) years / 12 months and that all gas will be accepted by any gathering system and sold at market value. (*There are currently curtailments and "no" gas-lines in the immediate area, however, new and expanded gas pipelines and gathering systems are under construction in the market area. Users of this report are cautioned and urged to independently verify all assumptions.)
7. Production, compression and ad valorem tax charges do not change over the production period.

Case Studies and Actual Examples of Applied Land/Mineral Estate Tax Planning and Wealth Preservation

I. Estate Planning and Gifting of Rights

Parents sell a ranch to a Trust having their minor children as beneficiaries for $16,000,000. The Trustees signs a note and mortgage payable to the parents. The value of the ranch was at market value supported by a certified appraisal and the note and mortgage was at market interest rates. The plan was to "develop out" of the property over time and pay off the mortgage with land development proceeds.

Two (2) years after the arms length sale and transfer of the property, oil and gas was discovered on the adjoining property and geology indicated the same zone covered the entire ranch. The parents had failed to retain of keep the mineral rights as no commercial producing wells had ever been drilled in the area.

After several mineral lease offers were made and an independent mineral appraisal and reserve report was commissioned it was determined that there was an opportunity for the parents to repurchase the minerals from the children's trust. A certified mineral appraisal determined that the undeveloped minerals were worth nearly as much as the surface estate. The parents purchased the minerals, and the mortgage was paid off with the proceeds, thereby relieving the children's trust with the burden of mortgage payments and/or pressure to develop and sell the land.

Within five (5) years of the sale/purchase of the minerals, actual production verified the appraised value of the mineral estate. It is also interesting to note that significant damage payments per pad-site and additional damages paid per well-bore ($10,000) as well as pipeline and road damages was paid to the surface owner which provided the children's trust with cash payments that were classified as "damages" and therefore reduced their basis in the land. It is quite interesting to think that the surface owner (the children's trust) could have sued the mineral owners (their parents) and the oil and gas operator if the "reasonable accommodation" had been abused and the land had been "wasted" or "damaged" beyond reasonable use of the surface to extract the minerals.

This example offers estate planners and tax attorneys a simple example of how various estates in land can be both interpreted and applied to legal and equitable apply tax strategies. It should also be noted that the mineral royalties being earned now by the parents have offered another estate planning challenge under the pending estate taxes.

II. Water Rights Income and Estate Planning Opportunities

During oil and gas lease negotiations, an oil company requests the right to drill a very expensive water well into a large aquifer. They offer to "give" the water well to surface owner after oil and gas operations are complete. (Complete is a very vague term)

Land owner and his consultants agreed by a complicated contract to allow the oil company to drill and use water based on the following:

- The water well(s) and all equipment ($180,000 cost) would belong to the land owner at time zero (time of drilling) (Became asset to ranch)
- Landowner could use the water for farm and ranch uses
- That the water would be purchased for 10¢ per barrel whether used on the ranch's minerals/wells or off-site

The results were positive with serious cash flow and many exciting tax and estate tax planning opportunities for the ranch owner.

III. <u>Drill-site Opportunities for Additional Damages and Income</u>

A drilling location pad-site was negotiated on the boundary line of a 300 acre tract of land having all rights intact. An oil and gas lease was structured such that any oil and gas well drilled from the pad-site would first drill the owner's minerals. Then after full development of the subject's minerals surface, owner would be paid a 3% ORRI for accommodations and additional damages for each additional well-bore.

The federal income tax and estate planning opportunities yielded the following results:

- The surface estate was placed in a Family Limit Partnership and later sold with the drill-site and access road being retained for possible future wells (a perpetual "easement" in the deed together with all future damages and ORRI). A "tax free exchange" (IRS 1031) was considered for minerals, royalty or other lands with the sale proceeds, but suitable exchange property was not found to shelter the gains. Long-term capital gains were paid on the sale of the sum.
- The ORRI earned for allowing access to off-site minerals from their pad-site was placed in a trust for long-term income, possible sale in the future or tax deferred trade (1031) for additional lands in the future.
- The royalty and mineral rights from the five (5) producing wells was placed in another Family Limited Partnership

IV. <u>Drill-site Opportunities for Additional Damages and Income</u>

A designated drill-site location was negotiated on the boundary-line of a 300 acre tract of land having all rights intact. The drill-site location position was such that additional horizontal wells could be drilled into other owner minerals off the subject property's land. The lease called for the 300 acres to be drilled and fully developed first.

After full development of the 300 acres, the land owner/surface owner would be paid a 3% overriding royalty interest (ORRI) for accommodating other wells and as damages for each well-bore drilled. A total of nine (9) wells were drilled, each paying $5000 per well-bore damages, with five (5) into the leased land and four (4) into the adjoining land yielding a 3% ORRI.

Other aspects of the agreement included the following:

- The access roads and pad-site would be owned by the surface owner and would be maintained by the oil company
- The access roads and pad-site use was non-exclusive to the oil and gas company, allowing development of the property, adding value to the ranch, etc, etc.

The very positive results concluded in the splitting of the various estates and components of value into three (3) ownership classes:

- Surface estate transferred to a Family Limited Partnership (99%) with a General Partnership (1%) as manager
- 20% of the minerals and royalty were deeded directly to various family members to help with their monthly needs. In my opinion, executive rights should have been retained or a Non-participating Royalty assigned but was not what the clients wanted. (for mineral management and future leasing)
- The minerals and royalty were also placed into a different Family Limited Partnership for annual tax reasons and long-term mineral management reasons.

- The ORRI of 3% was transferred/deeded into a trust to separate it from the land and protect the title/income of the override due to accidental sale with any land sale, long-term capital appreciation, and other estate planning purposes.

Results: Positive for all parties. The oil company only had to construct and spend $250,000 for only one (1) access road and one (1) drill site. This preserved the land and maximized income for all parties. The non-exclusive pad-site agreement could allow deeper zones to be drilled from the same location which could pay the surface owner some serious percentages of the cost/cost saving of a pad-site for the new operation and additional royalties and ORRI.

Suggestions and Theories to Discuss with Your Estate Planners, Tax Attorneys and Certified Public Accountant

Discuss your primary objectives carefully as to what your estate and business model wants to preserve (in no particular order as follows, and no you cannot achieve them all).

a. The ranch – multi operational surface estate and operations preservation, lowering the value of the ranch for estate purposes.
b. The mineral estate and income stream. Protect from:
    a. Splintering of title which reduces leas ability
    b. Estate taxes
    c. Annual income taxes on royalty
    d. Lowering the present value or market value of the minerals (could be good or bad.)

c. Maximize annual after tax cash flow for the owners/beneficiaries
d. Your tolerance for tax rate risk, IRS audits and tax court litigation
e. Leave your estate rich in land and "poor" in accumulated cash by either paying the 55% estate tax and/or buying life insurance which may also become essentially taxable as part of estates (Note2) see IRS United States and Generation-skipping Transfer Tax Return Form dated December 31, 2008, which clearly requires listing of insurance of the Decedents Life as a part of the estate tax return pp14 and15, Form 706 and Schedule D.

There are two (2) primary courses of action:

1. Retaining existing, highly organized, expensive and historic estate planning strategies, ownership forms and consolidated single plan or basket of all assets on, over and under the land and take the low risk route of paying huge estate taxes under the pending clause.

2. Anticipating the new estate taxes, future tax changes, and aggressively causing chaos by changing and unbundling various rights and titles to various land components and bundle of rights, some imposing real negative market valuation impacts such as stripping away and separating any actual economic or future/potential economic rights to the land resource. In chaos there are opportunities, risks and expenses involved.

Specific Tax Planning Concepts and Strategies to Consider by John S. Baen, PhD

1. Farm and ranchlands having low tax basis have little benefits if large damages monies are negotiated and paid for:
    a. Access roads
    b. Pad-sites
    c. Pipelines right-of-ways (% damages vs. easement)
    d. Frac tanks
    e. Seismic activities
    f. Micro-seismic permanent locations at $10,000/site

    Conversely land having high taxable basis should specify in documents and instruct checks to be classified as damages.

2. Royalties have few deductions and are often "pure" taxable income unless the ownership entities have bonafied expenses directly related to their management/active management
    a. Manager's truck, phone, travel expenses, office expenses, TLMA membership dues
    b. Oil company audits
    c. Legal and professional fees
    d. Trust or custodial account management fees
    e. Title curative work
    f. Depletion (if still available in 2011)
    g. Litigation expenses

3. Oil and gas lease bonus monies disguised as "advanced damages" or taking improvements to the land in lieu of lease bonus money is a dangerous and aggressive approach.

4. All royalty and overriding royalty check stubs (the bottom portion) should be kept each month in order to account for various royalty expenses (compression, transportation, severance taxes paid by operator/oil and gas purchaser, etc.) Oil and gas companies send the royalty owner a IRS 1099 based on gross income not net income.

5. The gifting of land, minerals, royalty, etc. is limited to $13,000 per person/donor, per year or gift taxes must be paid by the recipient
    a. The valuation of said gifts of noncash: land, minerals, royalty, etc. should be valued by a disinterest third party
    b. The reduced value of Family Limited Partnership shares (generally unmarketable) may be attacked under new tax laws and especially land with royalty interests
    c. The gifting or legacy of undivided ownership shares of land ownership have generally been considered to be valued at less than the sum of the whole, (less marketable and real problem potential for the tile). However, there are proposals that have been submitted by the IRS to counter this. Any such proposal should be attacked in the courts on their own merits… undivided partial interest are worth less (royalties and minerals may be an exception to this argument).

6. Professional appraisers of ranchland values should be specifically instructed to include
    a. % of mineral rights and current activity/income of all comparable sales
    b. The impact of mineral/oil and gas pad-sites, access roads, and potential disruption or risk from oil and gas activities to surface value and surface activities like hunting

7. Any pipeline easement, seismic survey, or oil and gas lease should clearly indentify that appropriate damages will clearly be outlined in the document (defined 50-80% damages) and paid by checks that are clearly marked damages by the issuer, and to whom the damages will be paid to:
    a. Damages can bolster income shifted to surface ranch operations/income, which often have more expenses than income
    b. Frac tanks/lakes, access roads, pad-sites, etc. can generate damages which could be also interpreted as ranch/surface improvements
    c. Easements should be paid in two (2) checks

8. The sale of water from surface water lakes/ponds or subsurface sources are opportunities for serious tax planning and income allocation designations
    a. Condemnation of water rights in Texas?
    b. Creating value of water rights by drilling water wells
    c. Allocating income to entities having losses

9. Carried interest in whatever form or type of assignments (i.e. land, minerals, royalty, ORRI) may be valued as ordinary income on the day of acquisition after 2011 rather than taxed to the individual as income when it is actually received or both!

10. Ranch house/homesteads: the ranch house of ten(10) acres should be identified, surveyed, valued, and kept separate for several reasons
    a. It is unclear whether homestead will be included in the $1,000,000 estate limitation threshold.
    b. If included in an estates total value, the value of a large ranch house on 10 acres is very low if the surrounding ranchland belongs to another owner/entity. Ranch value is due to 10 acre tract being “out.”

11. There are great business land economic risks and opportunities in separating various land rights in order to minimize other property rights estate valuations
    a. Requires a great deal of thought, planning and very long-term perspectives. What are you trying to preserve the most? (land, minerals, other)
    b. Should be reversible? (questionable)
    c. May cause one asset ownership entity to sue another due to excess waste, pollution of aquifers, destroying one value at the benefit of another, etc.

12. The sale of land, minerals and/or royalty can be traded (1031) for different asset classes. (Land for minerals, etc.)

Definition, Acronym and Terms for the Layman by John S. Baen, PhD

Mineral Interests (MI):	oil, gas, methane, radioactive elements, and other materials, liquids or gases that may be produced without unreasonable disruption or destroying the surface estate (land) by strip-mining or quarrying from the surface.
Mineral Reservations (MR):	can be oil and gas rights or specific in nature (exceptions to the land title) such as sand, clay, gravel, lignite, and coal
Royalty Rights (ROY):	rights or partial/fractional rights to income stream for minerals, no operating expenses are changed to the owner of royalty; however, they generally pay their own ad valorem or property taxes based on the value of their royalty. May be participating royalty rights (shares in lease signing bonuses and all income over time) or non-participating royalty rights (dues not shared in signing bonuses or decisions making but only in actual income stream in producing wells, etc.)
Executive Rights (ExR):	the right to execute leases on behalf of other mineral owners, which carries some fiduciary obligation to be fair and just to all parties without extra benefits to the executive rights owners benefits.
Overriding Royalty Rights: (ORR)	(or ORRI) an ownership after classified as a personal
Working Interest (WI):	is a share or interest in an oil and gas well when an investor earns an interest in the well proportionate to the amount of money invested as a percentage of the cost of the well and also pays their proportion share of all operating costs and expenses each month.
Carried Working Interest: (CWI)	is a “free” or carried interest in the drilling and/or completion of an oil and gas well. However, they pay for the proportionate ownership share or percentage of all operating costs and expenses each month.
Working Interest Options: (WIO)	for mineral and landowners are sometimes a part of oil and gas lease negotiations prior to the drilling of a well. The option to participate in the cost to drill and complete a well can be timed and written into the leases for excursion the option at various stages of a well – drilling, after logging, after completion or after payout. WIOs are generally in addition to royalty (ROY) and offer the possibility of additional income as well as some tax shelter and planning benefits. Oil companies sometimes are willing to pay for or buy back these options at a later date when additional wells are drilled or when selling the project. Profits from the land owner/mineral owner selling their option can be treated as long-term capital gains.

Non-participating Royalty: (NPR) is a mineral ownership interest that yields income based on a percentage of the 100% mineral estate and/or percentage of royalty negotiated on a lease. There are no executive signing or negotiating rights, and the mineral owner (not the NPR owner) receives the bonus monies but not without serious fiduciary responsibilities to the NPR owner.

Net Revenue Interest (NRI): generally associated with net or real economic benefits from a resource expressed as a percentage (%) of 100% of income or as a decimal. An example would be that a participating investor paying their part of the drilling and completion costs of an oil and gas well might own fifty percent (50%) working interest (WI) in a well but might only has a NRI of forty percent (40%) due to a twenty percent (20%) royalty being paid first to the mineral owner(s).
(100% <-20%ROY>) (50%WI) = 40% NRI

Waver of Surface Rights: (WSR) are often included in mineral transfers or reservations when the purchaser of the surface estate, generally in urban drilling areas, does not purchase the mineral rights and does not want surface disruption by any oil and gas activities. This can increase the value of the surface estate and possibly reduce the value of the mineral estate unless horizontal drilling is possible.

Water Rights: (WtrR) or (H_2OR) while generally referring to subsurface water rights, there have many instances of surface water rights being routinely referred to in oil and gas leases, water agreements and other.

Thermal Rights (ThR): are generally owned by the surface owner, however can theoretically be sold, leased, retained or transferred and include economic (if any) and legal rights to subsurface thermal heat right.

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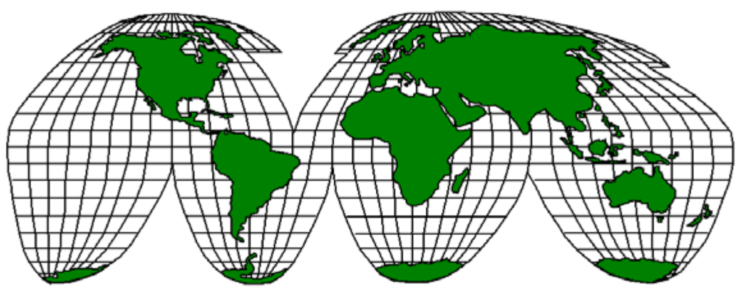
An Evaluation, Appraisal, Valuation, and Review Appraisal of Various Mineral Estate/Interests Located in the City of Argyle, Country Lakes Estates in Denton County, Texas
(Abbreviated Report and Exhibits Attached)
(Subsurface Only)

Re: Litigation in Regards to Country Lakes Estates Mineral Rights
For: Marilyn K. Lahr, Attorney-at-Law
RL Marsh & Associates, PC



Valuation of 100% of Mineral Estate on a per acre basis as of May 1, 2008

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