

Lease Name.: LAGER UNIT 1H-2H Owner Name.: Tax Year....: 2017
 Lease Number: 91405 Owner Number:
 Operator....: PENN VIRGINIA OIL & Owner NRI...: 0.004563 RI
 RRC Dist....: 02 - OIL
 RRC Number...: 11040 Unit?.....: NO
 Well Number.: Unit Number:

Railroad Commission District and Oil or Gas designation.

RRC Number is the RRC's "Lease Number."

APPRAISAL PARAMETERS (see acronyms/definitions on next page):

Oil ADP: 98.4 bopd (starting production rate)
 Gas ADP: 233.0 mcfpd (starting production rate)
 Products ADP: 0.0 bbls per day (starting production rate)
 Months Shift: 6 months
 Gross Oil Price: 47.99 dollars per bbl, year 1 of appraisal (adjusted price per Section 23.175)
 Gross Gas Price: 1.83 dollars per mcf, year 1 of appraisal (adjusted price per Section 23.175)
 Gross Products Price: 0.00 dollars per bbl, year 1 of appraisal (adjusted price per Section 23.175)
 Oil Severance Tax Rate: 4.60% (deducted from gross price to derive net price shown below)
 Gas Severance Tax Rate: 7.50% (deducted from gross price to derive net price shown below)
 Prod Severance Tax Rate: 4.60% (deducted from gross price to derive net price shown below)
 Ad Valorem Tax Rate: 5.00% (deducted from gross price to derive net price shown below)
 Discount Rate: 14.000% (cost of money plus risk)
 Economic Life: 3 years (normally an appraisal result, not an input parameter)
 Participation Factor: 0.000000000 (Only applies if lease or tract is part of a unit)

SUMMARY DISCOUNTED CASHFLOW:

	LSE bbls	LSE mfcfs	\$/bbl	\$/mcf	OWNER \$\$	OWNER \$\$
	Projected	Projected	Projected	Projected	Total Proj	Discounted
Future	Future Oil	Future Gas	Future Net	Future Net	Future Net	Future Net
Year	Production	Production	Oil Price	Gas Price	Revenue	Revenue
====	=====	=====	=====	=====	=====	=====
2017	26,636	63,071	43.38	1.61	5,736	5,372
2018	15,301	36,232	43.52	1.61	3,805	2,715
2019	9,916	23,481	43.66	1.61	2,148	1,548
2020	0	0	.00	.00	0	0
2021	0	0	.00	.00	0	0
2022	0	0	.00	.00	0	0
2023	0	0	.00	.00	0	0
2024	0	0	.00	.00	0	0
2025	0	0	.00	.00	0	0
2026	0	0	.00	.00	0	0
2027	0	0	.00	.00	0	0
2028	0	0	.00	.00	0	0
2029	0	0	.00	.00	0	0
2030	0	0	.00	.00	0	0
2031	0	0	.00	.00	0	0
2032	0	0	.00	.00	0	0
2033	0	0	.00	.00	0	0
2034	0	0	.00	.00	0	0
2035	0	0	.00	.00	0	0
2036	0	0	.00	.00	0	0
2037	0	0	.00	.00	0	0
2038	0	0	.00	.00	0	0
2039	0	0	.00	.00	0	0
2040	0	0	.00	.00	0	0
2041	0	0	.00	.00	0	0
2042	0	0	.00	.00	0	0
2043	0	0	.00	.00	0	0
2044	0	0	.00	.00	0	0
	51,853	122,784			11,189	9,635
	= oil reservs	= gas reservs		Percent in County:		100.0000 %
	for lease	for lease				9,640 **

Sample Only

** Value may not exactly match NOTICE OF APPRAISED VALUE or enrolled value due to rounding.

Note: Projected owner income for any year in cashflow above is calculated by multiplying together these four items: Projected lease production (barrels or mcf) x projected net price (\$ per bbl or \$ per mcf) x owner's net revenue interest (decimal) x participation factor (applies only if this lease or tract is part of a unit). Oil income and gas income are calculated separately and then added together for each year's total projected income. This projected owner income for each year is then discounted to present worth with a discount factor which assumes income is spread evenly throughout the year (a standard mid-year formula).

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Acronyms / Definitions:

ADP: Average Daily Production. Denotes the appraisal's starting production rate for projection of future production from the lease, typically an average of several recent months' production due to monthly volatility.

BBL: Barrel, the standard unit of measurement for oil, equals 42 gallons.

BOPD: Barrels of oil per day, a typical unit of measurement.

Discount Rate: This parameter reduces (discounts) projected future net revenue to present day worth (fair market value), accounting for the cost of money and risk.

Economic Life: Describes the total projected years the lease can be operated profitably. After that point the expenses exceed the revenue for the working interest owner(s), and therefore the appraisal program assumes the well will be abandoned and the royalty income will cease.

MCF: Thousand cubic feet, the standard unit of measurement for gas. The letter "M" is is of Roman numeral origin.

MCFPD: Thousand cubic feet per day, a typical unit of measurement for natural gas.

Months Shift: This parameter enables the discounted cashflow program to relate, or shift, the stated starting production rates to January 1, the "as of" date for all ad valorem tax work in Texas. Starting rates can be assigned from actual production from various months either before or after January 1 depending on appraiser discretion of what is typical for the lease.

NRI: Net Revenue Interest, the amount of fractional ownership in the lease, typically expressed in decimal form. Appraisals for ad valorem tax purposes consolidate interests of the same type for cashflow purposes. For example, all royalty interests are consolidated to one sum, typically 12.5% to 25%, so that total royalty value is derived. Individual owners' values are calculated prorata to the portion of the total royalty interest they own individually.

RRC: Railroad Commission (of Texas), responsible for regulation of the oil and gas industry. Primary responsibilities include protection of correlative rights and prevention of waste, mainly achieved through well spacing and production allowables.

Participation Factor: Percentage that a lease or tract "participates" in a larger unitized production operation (called a "unit"). In this case the unit is the basis of the appraisal, not the lease or tract by itself. The total appraised royalty value for the unit is first allocated to each lease or tract of the unit by its participation factor; this allocated lease or tract royalty value is then apportioned to each owner in that tract or lease prorata to each owner's net revenue interest (NRI).

NOTE: Section 23.175 of the Texas Property Tax Code requires appraisal districts to use the previous year monthly average crude oil and natural gas price multiplied by a "PRICE ADJUSTMENT FACTOR" (one for oil, one for gas) as the year 1 forecasted price in the discounted cashflow appraisal. In the second through sixth year, the oil and gas price in the appraisal must be increased or decreased per a separate factor (one for oil, one for gas) as calculated with reference to the average change since 1982 in the Producer Price Index as published by the U. S. Bureau of Labor Statistics. For more details, please see the Texas Comptroller's Property Tax Assistance Division (PTAD) website.

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