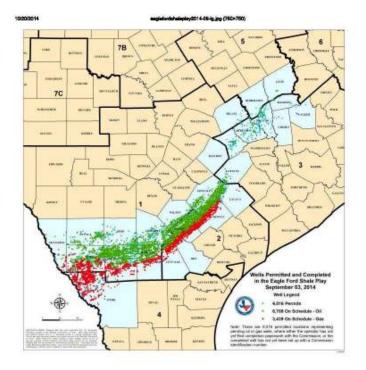


MINERAL ESTATE EVALUATIONS

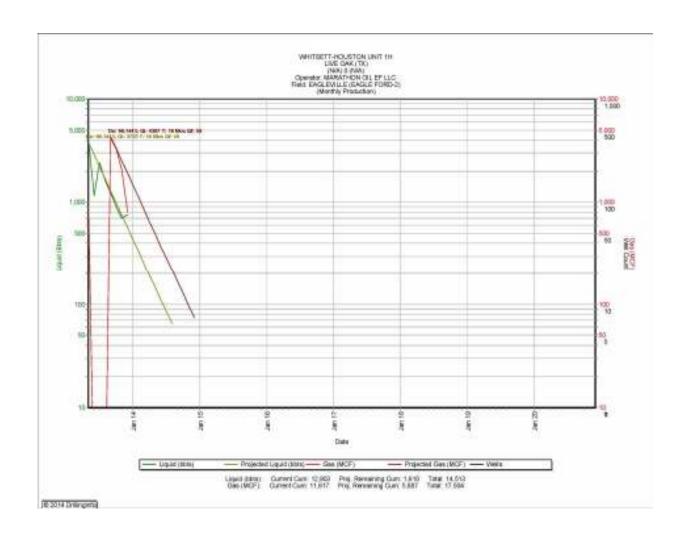
By

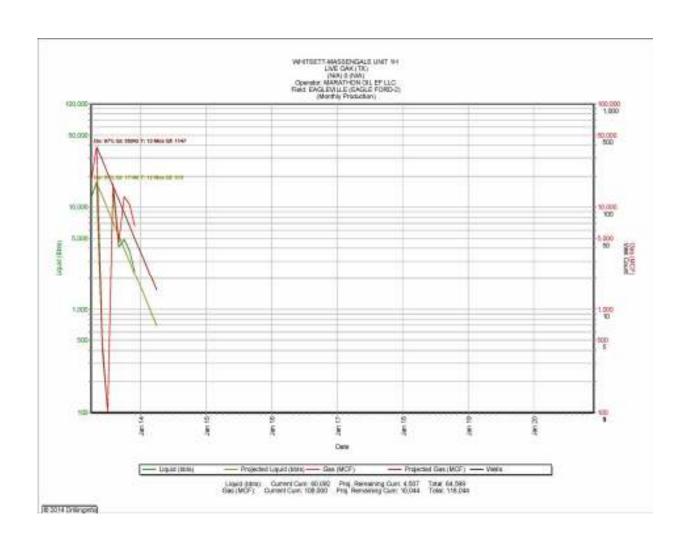
Malcolm P. Wardlaw, BA. MSPE. PE.

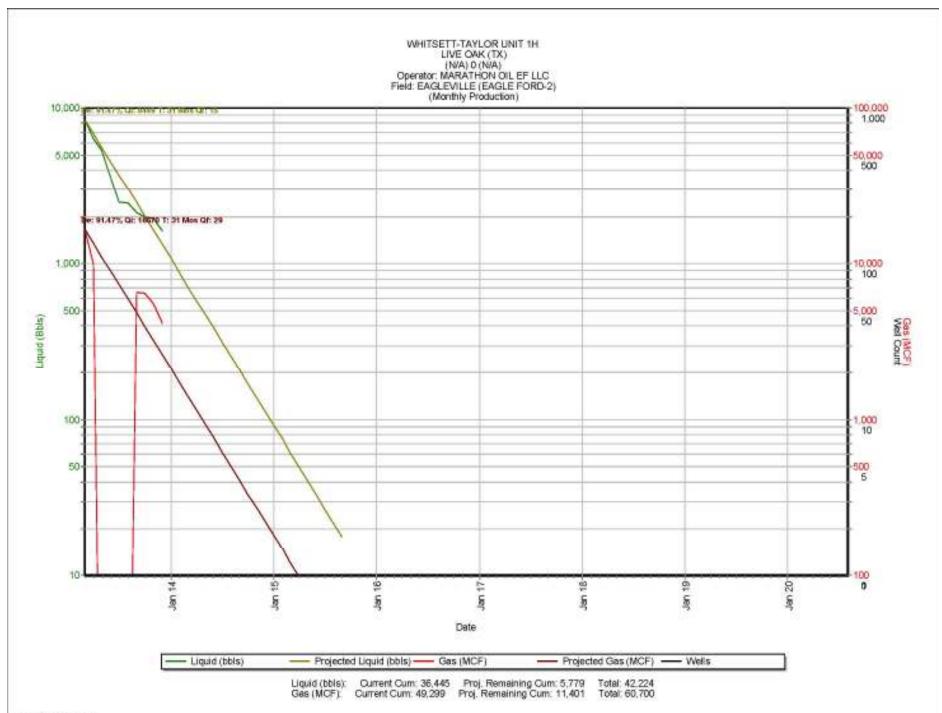


FAIR MARKET VALUE

- > Three Approaches to Value
 - Market Approach
 - **Cost Approach**
 - Income Approach
- Discounted Cash Flow Method
 - **Decline Curve Analysis**
 - **Product Pricing**
 - **Operating Costs**
 - **Severance Taxes**
 - **Undiscounted Cash Flow**
 - **Discounted Cash Flow**
 - **Risk Factors**







Annual Reserve and Cashflow Projection

Company Name Wall Name Value Unit Operator DOS Zessairs Well ID 66		County Kates Field Engineed Effective Date 10 / 1 / 2014 Projection Date 1 / 2015			Reserve Class Provid Reserve Category Underdiged Working Interest 0.0000000 Not Revenue Interest 0.00028211					
Year .	WiGrossOlf	GressGas	Offrice	GasPriez	Olkevenue	GasRevenue	Net Rovenue	Not Exponse	CashFlow	DiscCash
2014	0	ø	0.00	0.00	0	0	0	0	G.	0
2015	346,815	244,861	0.96	4.00	832,943	979,443	120,260	0	120,272	112,682
2016	115,590	90,389	0.96	4.00	130,966	351,558	43,274	0	43,295	35,720
2017	37,629	30,484	0.96	4.00	36,124	121,937	14,473	0	14,480	11,338
2018	D	0	0.00	0.00	.0	0	0	0	Q.	
2019	0	a	0.00	0.00	e	0	0	0	0	
1020	.0	9.	0.00	0.00	.9		0		0	
2021	0	0	0.00	0.00	0	0	0	0	G.	- 1
2022	.0	0	0.00	0.00	0	0	0	0	0	- 3
1023	0	0	0.00	0.00	0	0		0	a	
em.	0	n	0.00	0.00	.0	0	.0	0	0	- 0
otal	500,034	365,734			480,033	1,462,938	178,007	٥	179,038	160,746

OWNERSHIP

> Data from Clients:

Recorded Deeds.

Oil and Gas Leases.

Operator Division Orders.

Royalty Check Stubs.

Data From Public Sources:

County Appraisal Districts

County Courthouse Records

TRRC Unit Plats

Data From Appraiser:

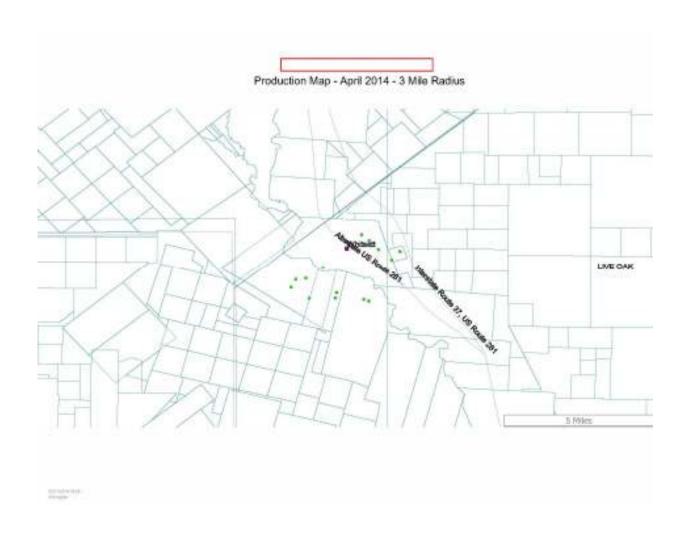
Metes and Bounds Maps

Cut and Paste Unit Maps

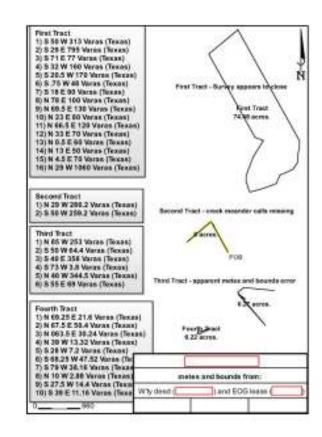
Calculation of Decimal Ownership

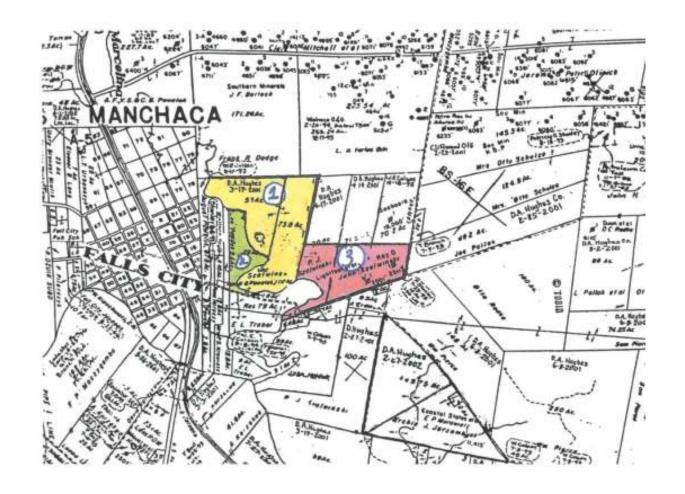
Type of Interest MI, WI, RI, NPRI, ORRI, NPI

Table of Royalty Interest Calculation









CLIENT STRATEGIC DECISIONS

- Professional Advice
 Attorneys
 - **Accountants**
- Timing of Gifting (Gift at lowest value)
 After Bonus Money is Received
 Before Well Starts Producing
- ➤ Partial Gifting (separate parts)
 Minerals, Royalty, NPRI, ORRI, NPI
 By Unit or by Tract.