

MINERAL MARKETING.COM -- STERLING COUNTY TEXAS

Mineral Legal Description

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1. Disclaimer: Information is taken from sources believed reliable; however, no guarantee is made by Mineral Marketing.Com

2. Basic Information: This is a 1/2 mineral interest or 960 MI acres being 1/2 executive lease rights, bonus, with royalty interest. Property is under Lease with Crown Rock L.P. out of Midland Texas. There is no production at this time.

3. Legal Descriptions per Mineral Deed: 1/2 mineral interest in 960 acres in SE/480 acres of Sec.58 and the N/480 acres of Sec.62 in Block 1, H&TC Irion County, TX

Producing/Non-Producing Properties for Sale/Exchange/Lease Geology, Reservoir, Valuation Study Southeast of Midland, TX in the Permian Basin

- Area 1. Irion County, Texas: 50% mineral interest and 50% royalty fee owned infield minerals on two 480-acre tracts (N/480 in Section 62 and SE/480 acres in Section 58, Block 1, H&TC Survey).
- Area 2. Sterling County, Texas: 50% mineral interest and 37.5% royalty fee owned field extension producing minerals in six sections (Sections 23, 24, 25,26,39, and 40 Block 7, H&TC Survey).

Producing formations include San Angelo (1,800 ft), Clearfork (3,200 ft), Wolfcamp (5,600 ft), "Wolfberry" (~4,500-6,000 ft), and Canyon Sands (6,200-7,200 ft). Deeper potential zones include Strawn (9,000 ft), Fusselman (10,000 ft), and Ellenburger (10,500 ft). (See Generalized Cross-Section.)

Good production of oil and gas with wells initially flowing due to good gas pressure. (See Production Map.)

Sale of mineral estate only, no surface rights. The minerals are paramount over surface rights in Texas and a surface owner can never prevent mineral exploration.

Tax-free exchange of investment for investment also considered.

All tracts have been or are currently under lease by major oil companies. Typically, Leases are three year terms with an upfront signing bonus of approximately \$250 to \$350/acre with 75-80% royalty, leaving mineral royalty owner with 20-25% royalty.

Typically, 40-acre well spacing in shallow zones and 80-acre spacing in deeper zones; however, San Angelo would produce on 10-acre spacing.

Geological Analysis

Geologically, Areas 1 and 2 are low risk due to the large area extent of production from shallow blanket deposits along the shelf margin (Wolfcamp and Canyon). Shallow beds dip to the west, thus making strike fall almost north/south. Subsurface features locally align themselves accordingly to strike. The San Angelo sands occur in lenticular form and in most cases cannot be traced over a very large area as a correlative horizon. However, where present, the San Angelo is quite prolific and produces from at least nine different intervals from 1,700 ft. to 2,300 ft. Additional wells in the Canyon or Clearfork zones can be considered development wells being infield or offsetting existing wells. There are no known faults, major anticlines, or traps; and similar geological conditions exist along the shelf margin in both Irion and Sterling Counties; making it reasonable to assume low-risk, wells in the Clearfork and Canyon north of existing wells in Section 62 and, south and west in Section 58 at moderate risk. The same reasoning can be applied to the six sections north of current production in the Canyon Sands of Sterling County.

The "Wolfberry" (includes the Leonard, Spraberry, and Wolfcamp formations) has been a very popular and successful venture for many exploration companies in recent years. Scattered production in both areas is from these individual zones and were plugged before the Wolfberry concept and technology became popular. Great success has been achieved penetrating these formations and perforating the entire column where porosity and resistivity increases occur. The western basin shelf has been the thrust of Wolfberry activity until recently. Now the eastern shelf margin is being explored.

In conclusion, both areas are in close proximity and in trend with known shallow fields of excellent quality. Economic costs are low at present and drilling hazards are rather low compared to other areas. Multiple pay zones on flanks of anomalies and nosing trends show nearby reservoirs historically have rapid recovery of capital invested with a good rate of return.

Reservoir Analysis

Area 1. Irion County.

Canyon Zone. Section 57 has produced 350,000 BO and 4 BCF from seven wells, averaging 50,000 BO and .5 BCF per well. Section 42, northeast corner of Section 58 has produced 242,000 BO and 1.5 BCF from nine wells, averaging 27,000 BO and .17 BCF per well. Seven wells in Section 62 produced 156,000 BO and 1 BCF, averaging 22,000 BO and 0.15 BCF per well. However; two wells, Carson #1 and #2 in Section 62 produced over 35,000 BO each. Section 60 has produced to date 164,000 BO and 1.6 BCF from seven wells, averaging 23,400 BO and .23 BCF. Similar production from the Canyon is in Section 61. Some wells may need fracture treatment in order to improve reservoir in some areas. Typically, 35,000 BO and .3 BCF will produce from the average Canyon well in the vicinity of Area 1.

Clearfork Zone. The Clearfork zone will average approximately 31,000-35,000 BO from fields trending north/south. This is based on the eight well Sixty-Seven field, 4 miles to the south and several Clearfork producers in the vicinity of Area 1. Decline curves are relatively flat and the reservoir produces for a long time. The eight wells in the Sixty-Seven field produced a total of245,000 BO and .26 BCF. One well in *NW/4* of *NW/4* of Section 59 has produced to date 60,000 BO. Two wells in the *SE/4* of Section 63 have produced 87,000 BO and .2 BCF and still producing. Two wells in Section 46, 3 miles to the northwest of Area 1, have produced 65,000 BO since 2001 and still producing.

Wolfcamp Zone. Wolfcamp discoveries in Sections *35/36*, approximately two miles northwest of Area 1, have produced 52,000 BO and .36 BCF since 2001 from two wells. One additional well in Section 36 has produced 109,000 BO and .5 BCF since 1999. Typically, the Clearfork and Wolfcamp will dual produce from each well. An indication of Wolf camp production in Area 1 comes from the Tucker Lindley well in Section 59. It produced over 6,000 BO from 1981 to April 1986. One reason the well stopped producing may be that during this time period the price of oil and gas bottomed out and became very uneconomical to produce. This well may produce more. Also, it is likely on the fringes of a Wolfcamp reservoir that could extend into Section 58. The *"Wolfberry"* as discussed above may not be a viable reservoir scenario here due to Area 1's close proximity to the southern limits of the eastern shelf; however the individual zones have shown some productive success from smaller reservoirs.

Deep Zones. Deep structural traps are possible in both Area 1 and 2 in the Fusselman, and Ellenburger (Green and Red in color on the Production Map). Strawn production is associated with the Canyon production to the south in Area 1 but the Strawn is deeper and usually not penetrated by existing wells. Both Fusselman and Ellenburger Formations are very prolific reservoirs. Most wells in Area 1 and 2 did not drill deep

enough to penetrate the Fusselman or Ellenburger formations. However, 3 miles to the east of Area 1, several wells produced minor amounts of oil and gas from the Ellenburger.

Area 2. Sterling County.

Production in Area 2 is based on Canyon Sands extending from the Probandt and Sugg Ranch Fields to the south. These fields strike north/south from Irion County through a small portion of Tom Green County into Sterling County. The Sugg Ranch Field is an extension of the Miss Ela Canyon Field and is being drilled to the north, northeast toward Area 2 since 2005 (See Terrain map). A larger portion of the Sugg Ranch Field is also located to the west and drillsites are moving toward Area 2. Dry holes on the six-section tract did not penetrate the Lower Canyon and Fusselman formations, where newer production is being found in the area. Canyon production is characteristically 50% better than Area 1 due to being situated further up the shelf margin, therefore; structurally higher and producing more gas, which stimulates more oil production. The deeper Fusselman formation to the north (Green on the Production Map) produces from a pinchout (structural and stratigraphic) reservoir oriented north/south that extends several 10s of miles. Regionally, these pinchouts offset several miles to the east as evidenced by additional Fusselman Fields to the north going through Howard, Borden, Dawson, and Lynn Counties. According to a Geologist Report, a fault is expected to cross Area 2 that could trap hydrocarbons. Area 2 is situated to the south and east of these pinchouts, making it an ideal exploration area for the Fusselman. The Fusselman also produces from localized structures west of these pinchouts. Typical Fusselman reservoirs in the area produce approximately 250,000 BO and 0.5 BCF per well. The Leonard/Spraberry and Wolfcamp formations have only been tested in several wells within the area, however being close to the shelf margin makes Area 2 ideal for reservoir quality accumulations of oil. The Parker/Parsley #1 Horwood in Section 40 produced 34,664 BO and 95.5 MMCF over 9 years before being plugged in 1993. The well was still producing over 5 BOPD and 19 MCFPD. The decline curve indicates flat production. With today's prices, this would gross a mineral interest holder \$7,200 a month. It is believed that 1993 economics stimulated the plugging and could be economical today if the Leonard, Spraberry, and Wolfcamp or Canyon zones were perforated and stimulated by fracture/acid treatment. A recently drilled well in Section 39 made a Canyon discovery and after 4 months online is producing 150 BO and 400 MCF per month, could gross a 37.5% mineral interest holder \$6,650 a month. The "Wolfberry" has been a very popular and successful venture for many exploration companies in recent years. The Leonard has produced in Sections 39 and 40 from one well each but plugged before the Wolfberry concept became popular in the area. Offset locations have been permitted in both Sections 39 and 40, and the Wolfberry and Canyon trends indicate further locations in the 4 Sections to the north. The Wolfberry should produce a conservative average of 100,000 BO per well. The Canyon is anticipated to produce 70,000 BO and 500,000 MCF per well. Operators of the Sugg Ranch Field and Probandt Field are currently permitting and drilling wells in the direction of Area 2 and have been doing so for several years. Over 640' of Wolfcamp zone (with potential

Wolfberry zone presents) according to RRC logs are in Sections 39 and 40.

Summary

- Sale/exchange of 50% gross mineral interest with 50%-37.5% royalty.
- No surface rights. Minerals take precedent over surface rights in Texas.
- Multiple pay zones per well as infield/field extensions.
- Low risk geology; pay zones from broad blanket deposits not dependent on localized structure or stratigraphy.
- Good potential for deeper zones on trend that have not been penetrated yet.
- Areas currently under lease with renewal 2010. Lease money is a bonus bringing about \$250-350/acre for 1/5 to 14 royalty interest remaining to mineral owner, projects revenue of \$120-168,000 for Area 1 and \$483,662-\$677,127 for Area 2.

Area 1 Sale Estimate.

- Estimating 9 Canyon drill sites in Section 62 and 12 sites in Section 58 at 35,000 BO and 300,000 MCF per site.
- Estimating 20 Clearfork drill sites, 10 each in Sections 58 and 62 at 32,500 BO.
- Estimating 5 Wolfcamp drill sites in Section 58 at 50,000 BO and 400,000 MCF per site.
- Estimating 1/5 (20%) royalty lease.
- 5-year average wellhead oil price is over \$75/BBL, therefore \$75/BBL is a reasonable estimate. The one-year price trend indicates oil is going up to \$91/BBL. (in 11/2009) and up to \$100/BBL in early 2011.
- 5-year average wellhead gas price is over \$6.72/MCF, therefore \$6.5/MCF is a reasonable estimate for gas price. The average 2008 price was \$8.07/MCF. (Energy Information Administration, 10/30/2009).
- Deeper zones of the Strawn, Fusselman, and Ellenburger present a contingency reserve of approximately 10%.
- Gross Mineral Interest = .50 Gross Royalty Interest = .50

<u>Area 1 reserves at \$100/BBL are estimated to be worth approximately \$173,500,000 for</u> <u>the working interest and all royalty interest plus \$5/mcf gas approximately \$41,000,000.</u> .50 mineral owner Royalty Interest at 20% lease royalty is approximately \$21,450,000.

Area 2 Sale Estimate.

- Estimating 12 drill sites on 40 acres per section (6) for the Wolfberry (100,000 BO per well) and Canyon (70,000 BO and 500,000 MCF per well)
- Fusselman is estimated at producing 250,000 BO and 500,000 MCF per well.
- Estimating 1/5-1/4 (20%-25%) royalty lease.
- 5-year average wellhead oil price is over \$75/BBL, therefore \$75/BBL is a

reasonable estimate. The one-year price trend indicates oil is going up to \$91/BBL. (Oil-Price in 11/2009) and up to \$100/BBL in early 2011.

- 5-year average wellhead gas price is over \$6.72/MCF, therefore \$6.5/MCF is a reasonable estimate for gas price. The average 2008 price was \$8.07/MCF. (Energy Information Administration, 10/30/2009).
- Gross Mineral Interest = .5 Gross Royalty Interest = .375

<u>Area 2 reserves at \$100/bbl are estimated to be worth approximately \$2,000,000,000 for</u> working interest and all royalty interest plus gas at approximately \$5/mcf \$260,000,000. .375 mineral owner Royalty Interest at 25% royalty lease is approximately \$211,875,000.

Disclaimer: This Appraisal, Geology Report and Reservoir Study is based on the detailed correlation of the past and present data of production of existing wells from the Texas Railroad Commission, Drilling Info, logs and other industry records, and the trends of the estimated projection of the present and further potential development and production is as estimated by Neal Genphysics Group, certified geologist and oil consultants; and is subject to omissions, errors, price changes and risk, and subject to the due-diligent verification by the prospective BuyerlAcquirer/Leasee. No value is herein expressed or implied, the Appraisal, Geology and Reservoir Study Report is for information purposes only. No taxes are considered, either advaldrem or on production.

