South Texas Energy Corporation

Company Background

South Texas Energy Corporation was founded in 1979 by Roy Williamson, a geologist by education, and Alan Magee, a petroleum engineer. Mr. Williamson had previously been a regional exploration manager with Chevron Corporation and Mr. Magee had been an operations manager with Texaco, Inc. Mr. Williamson and Mr. Magee had met each other through a joint venture between Chevron and Texaco that extended from 1974 to 1978. In early 1979 Mr. Williamson decided that he would take his life savings, most of which was generated through stock options from Chevron, and start his own oil and gas exploration firm. He approached Mr. Magee at that time about joining him in this endeavor. Mr. Magee viewed this as an excellent opportunity and decided to join the venture on a 50-50 basis. Mr. Williamson was named president and Mr. Magee was to act as vice-president of the newly formed firm, South Texas Energy Corporation (STEC).

The basic business strategy which South Texas Energy Corporation implemented in its early years was to generate the low risk types of development drilling prospects and package them for sale to non-industry investors. Because of attractive product prices for oil and natural gas at this time and the generous tax benefits for investors or participants in these drilling ventures, Mr. Magee and Mr. Williamson were able to quickly undertake a drilling program within STEC.

By the end of 1981 STEC had drilled over 60 wells and had commercially completed nearly 40% of these wells. All of these drilling projects had been sold on a "promoted" basis - that is, the investors usually paid 100% of the dry hole, land and seismic costs to earn a 75% working interest in the initial well (1/3 for 1/4). If the well was completed then STEC paid its proportionate share (25%) of the completion costs. In addition to this, since STEC was dealing with non-industry investors, a lucrative management fee was also charged by STEC. At this time STEC was generating in excess of $400,000 per month in production revenue to its account. The company had 8 employees including geologists, engineers, landmen, accountants and support staff. Along with its growth in revenues, STEC managed to generate healthy profits by minimizing overhead through the efficient operation of its producing properties.

In early 1983 Mr. Williamson and Mr. Magee began to assess more closely the developments in the industry as a whole. It was apparent that an industry-wide slowdown was underway and that a re-evaluation of the firm's strategy might be necessary. The sources of capital for their close-in low risk development prospects had decreased substantially and they were concerned about the rather short production lives of these types of wells. Mr. Magee had always been reluctant to earmark substantial amounts of capital for "wildcat" or exploration type of prospects because of the associated high risk. However, Mr. Williamson felt that the only way to build a substantial and long-lasting oil company was to search for the bigger fields. His attraction to these higher risk plays had always been tempered by Mr. Magee's more conservative approach to risky ventures. "A lot of hard work has gone into this company and I can't see risking most or all of it by trying to go for the big hit" argued Mr. Magee. Mr. Williamson countered, "If we ever expect to make a real oil company out of this, we are going to have to take some risk - prudent risk - but risk".

Capitalization

Mr. Williamson and Mr. Magee agreed that STEC was in need of an additional infusion of working capital to undertake a more aggressive oil and gas exploration and development posture. Under the guidance of its two principals, STEC developed a formal business plan and financial forecast for presentation to a number of venture capitalists and investment bankers. Since STEC could demonstrate a track record of net profits, Mr. Williamson and Mr. Magee had decided that their preferred form of financing was through an issuance of preferred stock rather than some type of convertible note or debenture. They felt that convertible notes had the disadvantages of (1) making the investor a creditor which might complicate the relationship between the investor and STEC's management; and (2) reducing the firm's debt capacity, even if the notes are subordinated to other debt. In addition, Mr. Williamson and Mr. Magee had decided that any financing arrangement must allow them to ultimately retain ownership control of the firm.

By the end of 1983 STEC had closed a deal with Haskins, Benoit and Anderson, a mid-sized investment banking house in Chicago, for a staged financing arrangement through the issuance of preferred stock. The preferred stock would be convertible to common stock at variable rates based upon STEC's achievement of certain performance objectives. If the objectives were met, Mr. Williamson and Mr. Magee would retain a larger percentage ownership than the investor group. The staged financing process would

coincide with the achievement of pre-designated performance objectives, specifically, an aggregate measure consisting of return on investment, reserve additions and internal rate of return. The original financing would call for a private placement of $9.5 million. Coupled with STEC's internal financing, this would provide the company an exploration/development budget of about $12 million for the next 12 to 18 months. Because of this infusion of new capital, Mr. Williamson voiced even more strongly his aggressive exploration philosophy, "Now that we have some real capital available, let's see if we can find us a 'company-maker'". However, Mr. Magee protested, "We should stick with what has worked - a change in strategy now would send a bad signal to our investors". He added that it might be best to just increase the number of close-in development type of prospects; especially since the non-industry investors were becoming harder to find.

Glasscock Ranch Prospect

In July of 1984 STEC had developed a Yegua prospect in Duval County, Texas which was particularly attractive to Mr. Williamson. It was an over-pressured reservoir which was a known gas and condensate producer along trend to the north and northeast of their area of interest. Though a higher risk prospect and considerably more expensive to drill than their typical play both Mr. Williamson and Mr. Magee agreed that it was too attractive to pass up. The seismic survey expense which STEC had incurred to date through the purchase of some regional seismic lines was $75,000. The seismic and subsurface mapping confirmed a structure; however, without some additional seismic control, picking a location would be difficult. They estimated it could cost as much as an additional $175,000 to shoot and process the additional seismic. The lease which encompassed the play was 2000 acres and in preliminary negotiations it was evident that they could acquire a lease with a 3 year term and an 80% net revenue interest. Mr. Magee and Mr. Williamson felt the terms of the lease were fairly reasonable; however, the lease bonus cost of $150 per acre was relatively high for this area. Further detailed mapping was undertaken by STEC based on the data available. Mr. Williamson and Mr. Magee agreed that a look at the total economics for this prospect was necessary before committing to the additional seismic, lease purchase and drilling of a well.

In early 1985, Crystal Oil drilled a Yegua discovery well approximately 4 miles to the north of the STEC leaseholdings and reported substantial initial flows. Though the results were not made public, Mr. Magee had confirmed through a third party that indeed the Crystal well appeared to be commercial. Though located in a different fault block

than STEC's Glasscock Ranch Prospect, the Crystal well was on the same regional structural feature as STEC's prospective lease. Mr. Magee and Mr. Williamson felt the timing was right to proceed with the testing and evaluation of their Glasscock Ranch Prospect. With the additional data from the Crystal well and increased industry interest in the Yegua trend, they both felt this was the ideal time to maximize the value of their Glasscock Ranch prospect. The two principals agreed that if the economics on their Glasscock Ranch Prospect were reasonably attractive, they would commit to the seismic, lease purchase and a well.

Mr. Williamson and Mr. Magee both had different feelings about the best approach to the Glasscock Ranch Prospect. Mr. Williamson felt strongly about the technical merits of this prospect and felt that STEC should not give up the majority of the interest, even on a promoted basis. With their recent infusion of working capital, he felt this was one prospect that STEC should take some risk on. "I'm not sure that a better opportunity than this will come along for a while; I think we have really identified a major play here," commented Mr. Williamson. He added that this type of prospect would have to be marketed to an industry partner, rather than a non-industry investor group, and therefore result in less promotional value. He and Mr. Magee both knew that the best deal they could get in the current market would be to have the partner assume their share of all the capital costs, including remaining seismic and acreage costs, as well as pay an additional cash premium based on the share acquired. However, this type of deal structure would result in a significantly less premium than the old standard of 1/3 for 1/4 and a substantial override. In addition, there would be no management fee which was normally earmarked for a portion of STEC's completion costs in the initial well. "Given the present industry conditions, I don't think we should be giving away a large portion of this high-quality prospect - I'm for keeping a big portion, if not all of this one," Mr. Williamson pronounced. In the end, STEC felt that they would probably get some cash premium for selling a portion of the prospect to an industry partner. That cash premium would depend on the level of interest that they sold off and could be applied towards STEC’s drilling costs on the initial test well.

Mr. Magee also reviewed this prospect’s characteristics in detail and basically felt that he would prefer to minimize STEC's risk. Mr. Magee was quite hesitant to earmark a substantial amount of the firm's newly found source of working capital into this higher risk project. Though STEC had ample reserves of working capital at this time he felt that changing what had seemed to be a sound philosophy of sticking to low-risk ventures would be detrimental to the company. "Let's don't get carried away here by falling in love

with our own prospect," Mr. Magee stated, "I'd like us to maintain our traditional conservative posture and let someone else take the risk." He felt that a possible sale of the prospect for cash and an override or selling the majority of the working interest and retaining a small "carried" working interest was in STEC's best interest. (A carried working interest is a participation interest in a property that is funded by the partner as part of the premium received for allowing the partner to participate.) Mr. Williamson countered that given the current industry conditions it was unlikely that STEC could negotiate a carried working interest on this prospect – at least at an interest level that would be attractive to STEC.

Unlike many prior decisions in the company, Mr. Magee and Mr. Williamson were having problems resolving this issue - but both knew they needed to move fairly fast. Mr. Magee suggested that since this would be the single most significant decision they would make since they had founded the company that it may be wise to get some outside advice. A friend of Mr. Magee's at Texaco had suggested that he contact Peter Williams, a management consultant specializing in the oil and gas industry. He and Mr. Williamson decided to set up a meeting.

Meeting With Peter Branson

On January 20, 1986 Mr. Williamson and Mr. Magee met with Peter Branson in their offices to discuss the Glasscock Ranch Prospect. Peter asked for a few particulars concerning the prospect and the possible risk sharing options open to STEC. Mr. Magee and Mr. Williamson agreed that there was only a 20% chance that STEC's initial test well would be successful. Basically they had derived this estimate by looking at the success ratios of offset producers in the fields along the Yegua producing trend. They estimated, based on the mapped thickness of the pay zone, interstitial water saturation, pressure data and other reservoir factors in the Yegua formation, which were available, that recoverable reserves would be approximately 3 billion cubic feet (BCF) of natural gas and 75,000 barrels of condensate per well. Mr. Magee informed Peter that more precise production rates, reservoir decline estimates, capital costs and operating expenses could be provided by STEC's engineering staff for any analysis he felt was necessary to undertake. The only other issue was accessibility to a pipeline for sale of the natural gas. In preliminary discussions with NGPL, a gas purchaser, STEC had learned that they would receive $2.20/MCF at the wellhead but would have to pay approximately $210,000 to lay a 2.6 mile section of pipeline to transport the gas to NGPL. In addition, there was a transportation fee through NGPL to the end purchaser of $0.10/MCF.

Mr. Magee and Mr. Williamson advised Peter Branson that this prospect was considerably more expensive than the typical low-risk development prospects they operated in the upper Texas Gulf Coast region. For the initial well test alone they estimated that the land and lease expense would amount to $300,000. In addition, the dry hole cost (DHC) for the initial exploration well was estimated to be $1,000,000. These costs, as well as the additional $150,000 seismic expense needed to establish an acceptable drilling location and the $75,000 expense already allocated for regional seismic data, would all be spent before any of the uncertainty concerning the presence of hydrocarbons was resolved. After testing this initial well and determining the presence of oil and gas, it then would be necessary to spend an additional $1,600,000 to complete the well and begin oil and gas production. Because of the nature of the corrosive gas associated with this particular producing reservoir, completion expenses were extremely costly. For each of the development wells on the prospect, the costs were estimated to be slightly lower. The DHC would be $400,000 per well and the completion expense was estimated at $1,050,000 per well. There would be no additional land or seismic expenses.

In terms of joint venture options, Mr. Williamson provided the following information to Peter based on their preliminary talks with other companies who were interested in participating in the Glasscock Ranch Prospect. Options 1, 2 and 3 are based on selling a percentage of the working interest on a "promoted" basis; that is, STEC would require the partner to pay a cash premium above and beyond the cost of the partner's proportional working interest for the right to participate in the venture. On any subsequent development wells, STEC must pay its proportionate share of any and all costs. With regards to Option 4, STEC retains only an overriding royalty in the property which allows them to share in a portion of the revenues; however, under this option STEC does not contribute payments to any capital cost category for the initial test well or any future development wells.

JOINT VENTURE OPTIONS

1. Buyer pays 25% of geological, land, seismic and dry hole cost (DHC) on the initial well to earn a 25% working interest. Buyer pays an additional $200,000 cash consideration to STEC as a premium for participating in the project. Buyer pays 25% of completion costs on the initial well. On all

subsequent wells both parties contribute their proportionate share of all cost categories based on the earned interest in the first well (25% for partner, 75% for STEC).

2. Buyer pays 50% of geological, land, seismic and dry hole cost (DHC) on the initial well to earn a 50% working interest. Buyer pays an additional $350,000 cash consideration to STEC as a premium for participating in the project. Buyer pays 50% of completion costs on the initial well. On all subsequent wells both parties contribute their proportionate share of all cost categories based on the earned interest in the first well (50% for partner, 50% for STEC).
3. Buyer pays 75% of geological, land, seismic and dry hole cost (DHC) on the initial well to earn a 75% working interest. Buyer pays an additional $450,000 cash consideration to STEC as a premium for participating in the project. Buyer pays 75% of completion costs on the initial well. On all subsequent wells both parties contribute their proportionate share of all cost categories based on the earned interest in the first well (75% for partner, 25% for STEC).
4. Buyer makes lump sum cash payment for purchase of entire working interest and STEC retains a 5.0% overriding royalty on all production (5.0% of the present value of the cash flows from each well); total cash payment made to STEC is in the amount of $500,000.

Mr. Williamson and Mr. Magee felt that any of the above options were available based on their conversations with other oil companies who were representative of potential partners. They agreed that any industry partner would probably require that they retain at least a 25% working interest or go into a sale and override position (Option #4). The area in which the Glasscock Ranch Prospect is located was of interest to quite a few companies who had been active in the down dip Yegua trend. Also, STEC was keeping its option open to retain total ownership in the prospect and participate in the venture at the 100% working interest level.

Peter Branson then questioned Mr. Magee and Mr. Williamson about their feelings on the likelihood of development locations being successful, given that the initial well was a discovery. After some thought and discussion, Mr. Williamson and Mr. Magee

agreed that if the initial well was successful there were probably four additional offset locations which would be fairly low risk. They assumed a binomial distribution for this set of four wells where each trial (well outcome) is independent of the others and the probability of success remains constant over the four-well drilling period. They estimated the probability success at 70%. They estimated that the reserve potential on these wells would be equivalent to the initial test. It was decided that if the initial well was successful, then a decision would be made to either drill all four development wells or no additional wells. All the development wells would be drilled regardless of each well's outcome. Mr. Magee and Mr. Williamson also felt that if all four development wells were successful then they would consider drilling two additional step-out wells that would test the extent of the mapped structure. They consider these wells higher risk, even if the original test and development wells were a success. Since these two wells would be on the flank of the mapped structure, STEC's engineering staff estimated that the per well reserve potential would only be about 75% of what was estimated for the original test well. They informed Mr. Branson that based on the current information the two step-out wells had only a 30% chance of success. Again, they would treat these wells as a binomial distribution where each well's outcome is independent of the other.

Peter indicated that the data provided by STEC would be helpful in beginning his review of the project. He said that he would like to do some cash flow analysis on the project based on the information supplied by STEC. Peter suggested that he meet in a few days wiith Mr. Williamson and Mr. Magee in order to (1) discuss his findings with regard to the economic evaluation of the Glasscock Prospect, and (2) try and establish more explicitly their willingness to take on financially risky projects.

Later in the week, Peter Branson met with STEC to present some of his preliminary findings. Based on the reserve and product pricing data supplied by STEC's geological and engineering staff, Mr. Branson estimated the gross revenues (100% basis) from the initial well at $10.82 million, $11.14 million for each of the development wells and $8.77 million for each of the two step-out wells. Mr. Branson projected the present value of the cash inflows from the initial well, for a 100% working interest (80% net revenue interest) would be $7.40 million and the present value of the cash inflows from each of the development wells would be $7.64 million. The analysis from the step-out wells, which was based on STEC's more conservative estimates, indicated cash inflow present values for each of $5.95 million. Present value cash flows for each stage, at the 80% net revenue interest, were provided on a before tax undiscounted basis, net of operating expenses, transportation costs and severance taxes, but not capital costs. Inflation factors

were ignored in the analysis. STEC's engineering/evaluation manager concurred with Mr. Williams' cash flow projections and cash flow present value analyses.

Peter Branson then provided Mr. Magee and Mr. Williamson some brief background on decision science methods that have been utilized quite successfully in the oil and gas setting as a technique for making capital allocation decisions. He explained to each of the principals that a formal assessment of their respective preference functions, which quantitatively describes an individual's attitudes and feelings about money, would be quite helpful in making a recommendation for action on the Glasscock Ranch Prospect. Peter explained to Mr. Williamson and Mr. Magee that it was important to analyze each individual's risk preferences as a means to explain and mediate any differences in their respective and preferred course of actions on the Glasscock Ranch Prospect. Though unfamliar with and somewhat dubious about this approach, the two principals agreed.

Peter Branson then met individually with Mr. Williamson and Mr. Magee in order to assess each principal's risk propensity as agents for South Texas Energy Corporation. In his meeting with Mr. Williamson, Peter proposed the following question: "What is the sum of STEC money that you would be willing to risk such that you are indifferent as a company investment to a 50-50 chance of losing that sum and winning twice that sum?" Peter indicated to Mr. Williamson that he would like him to think hard about the question before answering and to provide an answer such that if he was really faced with that gamble he would agree to it. Peter also indicated that if Mr. Williamson were uncomfortable with the question that there were other means of measuring his risk propensity. Mr. Williamson indicated to Peter that he was quite comfortable with the question. Mr. Williamson responded by saying "a 50-50 chance of success is very appealing to me; I don't see those kind of opportunities come along very often in this business. If it were really a 50-50 chance of success, I would be willing to risk up to $10 million if I had an even chance of making $20 million."

Peter Branson then met with Mr. Magee and presented him with the same question with regard to the amount of money he would be willing to risk such that he were indifferent as a company investment to a 50-50 chance of losing that sum and winning twice that sum. Mr. Magee indicated that he was not very comfortable with answering that question and asked Peter if there were some other procedure he might use. Peter indicated that another approach for eliciting risk preferences involved a series of lottery questions. For each of these 50-50 lotteries Mr. Magee would be asked to provide his certainty equivalent for the lottery. Peter explained to Mr. Magee that the certainty

equivalent is that certain value for an uncertain event which a he is *just* willing to accept in lieu of the gamble represented by the event. Peter indicated that it is, in essence, the "cash value" attributed to a decision alternative which involves uncertain outcomes. Mr. Magee indicated that that this method sounded a bit more appealing to him. Listed below are the set of 50-50 gambles presented to Mr. Magee and his certainty equivalents for each.

Mr. Alan Magee
50-50 Gamble Assessment

Success	Failure	Certainty Equivalent
$40 million	- $ 2 million	$3 million
$40 million	$ 3 million	$8 million
$3 million	- $ 2 million	$0 million
$40 million	$ 8 million	$14 million
$3 million	$ 0 million	$ 1 million

Mr. Williamson and Mr. Magee expressed to Peter their interest in getting his input as soon as possible. Their land broker had indicated that a couple of other major players in the area had contacted the lessor concerning a lease acquisition. Interest in the area was growing and both principals agreed they did not want to miss out on this particular investment opportunity.

Glossary of Terms

Mcf	A standard measurement unit for volumes of natural gas that equals one thousand cubic feet. Six Mcf of natural gas is approximately the energy equivalent of one barrel of oil.
MMcf	Million cubic feet
BCF	Billion cubic feet
TCF	Trillion cubic feet
Bbl	Barrel of oil
MBbl	One thousand barrels
MMBbl	Million barrels
BOE	Barrel of oil equivalent. A method of equating oil, gas and natural gas liquids. Gas is converted to oil based on its relative energy content at the rate of six Mcf of gas to one barrel of oil. Natural gas liquids are converted based upon volume where one barrel of natural gas liquids equals one barrel of oil.
MMBOE	Million barrels of oil equivalent
3-D Seismic	Technology that bounces sound waves off underground rock formations and processed to create a three-dimensional picture of the subsurface. Identifies rock formations most likely to contain accumulations of oil and gas.
Development Well	A well drilled in the area of an oil or gas reservoir known to be productive. These wells are generally low-risk.
Dry Hole	A well that does not provide oil or gas in sufficient quantities to justify completion.
Exploratory Well	A well drilled in an unproved area, sometimes referred to as a wildcat.

Field Formation	A geographical area with one or more oil and gas reservoirs. An identifiable layer of rocks named after its geographical location and dominant rock type.
Lease	A legal contract that specifies the terms of the business relationship between an energy company and a landowner or mineral rights holder on a specific tract.
Production	Total production refers to all the oil and gas produced from a property. Gross Production: Total production before deducting royalties. Net Production: Gross production, minus royalties, multiplied by the company's fractional working interest.
Prospect	An area designated for the potential drilling of development or exploratory wells.
Reserves	Oil or gas contained in underground rock formations called reservoirs. Proved reserves are the estimated quantities that geologic and engineering data demonstrate can be produced with reasonable certainty from known reservoirs under existing economic and operating conditions. Recoverable reserves are those that can be produced using all known primary and enhanced recovery methods.
Royalty Interest	An interest in an oil and gas property entitling the owner to a share of oil and gas production free of costs of exploration, development and production.
Working Interest	The operating interest that gives the owner the right to drill, produce and conduct operating activities on the property and to share in the production.