



Institute of Certified Management Accountants of Sri Lanka
September 2010 Examination
Case Study (CaS / 804)

Instructions to candidates:

The Case Study (CaS / 804) of September 2010 Examination comprises of two scenarios, **scenario I**, **scenario II** and the **Question** paper.

Scenario I

Scenario I is provided in this web site and has information about the company and industry, on which the question paper will be based.

This is **not** allowed in the examination hall.

Scenario II

Scenario II is a continuation of **Scenario I**. **Scenario I** together with **Scenario II** will be provided with the **Question paper**, at the **Examination**.

Question paper

The question paper will be of **3 hours** duration and will have **one** question based on **Scenarios I** and **II**.

The Answers are tested on knowledge gained at all areas of CMA Syllabus and work experience.

VICTORIA PETROLEUM

Scenario I

Oil Industry

The Oil Industry started more than five thousand years ago. It is one of the most important industries in the world today as many trade and commerce operations are dependent on the price of oil. It has been observed that whenever oil prices increase, the prices of various products also increase. The Oil Industry accounts for a large percentage of the world's energy consumption.

According to statistics, the amount of oil consumed by the world every year is as much as 30 billion barrels, of which nearly 25 percent is consumed by the United States of America. The importance of oil in the world evolved at a slow pace. However once it was identified, it became one of the most important requirements in the lives of human beings.

Saudi Arabia is the world's largest oil producer, with the production of 10.665 million barrels a day. With the advantage of holding the world's largest oil reserve, Saudi Arabia is expected to remain the largest oil producer for decades. Their abundance of oil is coupled with proactive energy sector investment initiatives and low production costs, to maximize yield. Russia follows Saudi Arabia as the second largest oil producer. While it is the biggest consumer of oil, the US is the third-largest oil producer. Iran, China, Mexico and Canada are the world's other major oil producers.

The non-OECD (Organization for Economic Co-operation and Development) countries in Asia (Including both India and China) account for approximately 40% of the total increase in world oil consumption. It is estimated that, to meet the projected increase in world oil demand, the total oil supply in 2030 will need to reach 118 million barrels per day, compared to the 2003 production of 80 million barrels per day.

Following are some products derived from crude oil:

- Gasoline
- Naphtha
- Kerosene
- Liquefied petroleum gas
- Lubricants
- Perfumes
- Insecticides
- Synthetic rubbers
- Detergents

The Oil Industry is divided into two major operational components, Upstream and Downstream. Oil exploration is the first activity of oil's long value chain. Exploration and production are often referred to as the "upstream" activities of the value chain and refining, distribution, and marketing, which are typically considered "downstream" activities.

Diesel

The most common form of diesel is petrodiesel. Petrodiesel is refined, like gasoline, from petroleum.

There are various types of synthetic diesels, such as biodiesel, gas-to-liquid diesel and coal-to-liquid diesel. These are derived from natural wastes like remnants of food, sewage and wood scraps. Compared to gasoline, diesel fuel is more economical, has lower emissions, is less volatile, safer, has a higher fuel efficiency and higher mileage.

Petroleum diesel, which is also called petrodiesel or fossil diesel, is produced from the fractional distillation of crude oil (petroleum) at atmospheric pressure, within a temperature range of 200°C to 350°C. This results in a mixture of hydrocarbon ‘chains’ that contain around 8 to 21 carbon atoms per molecule. The viscosity and the boiling point of the fuel increase with an increase in the number of carbon atoms, and helps in the separation of various components.

Gasoline

Gasoline is a complex liquid mixture that is processed from petroleum. Among Commonwealth nations, it is known as petrol. It consists of more than 500 hydrocarbons which have five to twelve carbon atoms per molecule. To enhance its performance and reduce emissions, small quantities of alkane cyclic and aromatic compounds, such as benzene are added to gasoline. These additives also boost gasoline’s octane rating, which is gasoline’s measure of resistance. Higher octane levels are needed for high-performance gasoline. For example, for high performance racing cars use higher octane gasoline for better performance.

Production of gasoline takes place in oil refineries through the fractional distillation of crude oil - this is the process in which crude oil is segregated into different fractions spanning varied boiling points and different hydrocarbon chain lengths. During fractional distillation, every barrel of crude oil yields 25% of gasoline. After processing, the various fractions are cooled and blended together to produce gasoline of different grades.

The world’s oil reserves are depleting rapidly. The oil reserves in the Middle East will last for 80 years. In Latin America, it will last for 40 years while in North America, it will last only for 12 years. The search for new and effective alternatives for gasoline continues.

Oil Prices

Supply and demand of the international economy drives global oil prices. Since oil comes in a variety of qualities, it is essential that there is a benchmark quality, which is called the marker crude. In the London-based oil market, Brent Crude is used as the benchmark quality against which the price of other oil varieties are determined. Brent Crude determines the prices of almost two-third of the world’s oil trade. Gulf countries refer to Dubai Crude as their oil price benchmark. Dubai Crude is available in spot transactions rather than long-term supply contracts. The US refers to West Texas Intermediate or ‘sweet crude’ to determine oil prices. Because of its high quality, West Texas Intermediate is the highest priced crude.

All oil trading markets consider the US dollar their trading currency. Thus the US plays a key role in regulating oil commerce.

The Organization of Petroleum-Exporting Countries (OPEC) has developed the OPEC Basket Price index. This is an average of the oil prices in OPEC nations, which include Algeria, Angola, Ecuador, Indonesia, Iran, Libya and Saudi Arabia. Member nations tend to regulate oil production to keep oil prices within the desired range. The OPEC Basket Price is the lowest priced crude due to high sulfur content.

The two major trading exchanges for the oil sector are the New York Mercantile Exchange in the US and the Intercontinental Exchange in London, UK. In 2008, the Iranian Oil Bourse emerged as another international oil exchange center. These international exchanges act as the hub to buy oil futures and options. Changes in trading prices at these centers affect global oil prices and the international economy.

Two different trends are predicted that will result in oil price hikes. First, based on historical patterns, it is expected that oil prices will reach \$113 per barrel (after adjusting for inflation) in 2030. Second, the oil price index is measured in extreme situations, for example if the demand soars beyond supply, the price of oil will be in the vicinity of US\$186 per barrel (inflation adjusted).

Oil Futures

Futures contracts also play a dominant role in international oil commerce. Oil futures contracts involve an agreement wherein the buyer promises to buy a particular quantity of oil and the seller offers to deliver the said oil at a mutually agreed fixed price at a specific future date. Like other commodity futures, oil futures contracts provide the opportunity to mitigate risk factors associated with the global oil economy. It acts as risk reducing tool for producers and distributors against unpredictable prices in the oil industry.

Oil Costs

For an oil producing company costs include expenditure on exploration, extraction, refining and transportation. The oil industry is highly capital intensive. The investment to revenue ratio is about 8% for the entire industry and approximately 17% for oil producing companies.

The demand and supply cycle is a component to oil costs. Demand grows on average of 2% each year and will spike with economic growth and political threats and drop when recessions hits. The lifespan of an oil field is about 15-20 years and requires significant upfront capital investment. Hence, in order to meet the escalating demand, oil companies have to continuously search for new fields and take calculated risks in their development based on expected oil prices over the lifetime of the oil field.

The major costs can be categorized as follows:

Exploration costs: The costs associated with exploration vary significantly, depending on the scope of a particular project and the region explored. The exploration stage includes the cost of conducting geological surveys and scientific studies, both preliminary and advanced. Even unsuccessful explorations involve the cost of seismic programs and drilling dry wells, which can vary between US\$5 million and US\$20 million. Drilling expenses are the most significant exploration cost, which could be in the millions of US dollars.

Development costs: These include the costs of developing the extraction site; such as surface installations, subsea installations and other production units. Heavy labor costs are also a significant aspect of overall development costs. The magnitude of the project defines the structure and equipment for installations.

Treatment costs: Crude oil has to be refined for obtaining marketable oil products. The setting up of refineries requires huge installations. Furthermore, the refining process includes heavy machinery, all of which adds to the cost of oil in the international market.

Transportation costs: The oil industry is one of the biggest consumers of steel, as it is required for export pipelines and oil tankers, to refineries. There are more than 10,000 oil tankers in the world, some with a capacity of 350 million gallons. For an offshore site, export pipelines have to be laid, whereas an onshore oil field uses oil tankers. Transportation costs are less for countries that produce oil by themselves. For such countries, transportation costs include only the cost of transporting oil to the refinery and then to the distribution centers.

Apart from these visible costs, there are also several indirect costs, such as hiring equipment for production, consumables at oil sites, services to workers which is a considerable cost.

Ownership

Oil resources are typically owned by the government of the host country, where the government issues licenses to explore, develop and produce its oil resources. These licenses are typically administered by the Ministry of Oil/ Petroleum.

Companies issued with the license would pay the host government a royalty on oil produced, together with tax on profits. In some cases, there are various bonuses, ground rents and license fees payable to the host government. Appraisal by drilling additional delineation wells or acquiring extra seismic data will confirm the size of the field and lead to project sanction.

Governments are keen to cash in on the high price of oil but lack the expertise to develop the reserves themselves and are reluctant capital investment. Hence, they prefer royalty agreements or production-sharing agreements and encourage investment in exploration in exchange for a share of revenues once production is underway.

Oil Reserves

Oil reserves are the main income source of an oil company and *booking* is the process by which they are added to the Balance sheet. **Proven reserves** – are defined as oil "Reasonably Certain" to be producible using current technology at current prices. It is also known in the industry as P90, i.e., having a 90% certainty of being produced. **Probable reserves** – are defined as oil "Reasonably Probable" of being produced using current or likely technology at current prices, with current commercial terms and government consent. Some Industry specialists refer to this as P50, i.e., having a 50% certainty of being produced. **Possible reserves** – are defined as oil "having a chance of being developed under favorable circumstances". Some industry specialists refer to this as P10, i.e., having a 10% certainty of being produced. In many cases, these reported reserves are audited by external geologists although this is not a legal requirement. Official estimates of proven reserves will always be understated compared to what oil companies think, actually exists. For practical purposes, companies use proven plus probable estimates and will look at primarily, possible reserves for long term planning.

Key Drivers of Oil Exploration

Price of oil - The backdrop to all conversations of oil exploration is both the price and the current worldwide proven reserves of oil. When oil prices are higher, the more expensive explorations to draw oil out of the ground may still make profits. Further, this may make small fields, remote fields and oil requiring more processing, viable. Taken together, these determine whether a specific exploration project will be economically attractive.

Technology - As one might imagine, the availability of information technology and advances in seismic technology has drastically improved the process of oil exploration, which was once little more than drilling a well and 'crossing your fingers'. Advances have pushed the envelope on what is feasible, both in terms of discovering where oil is and figuring out how to extract it. General Electric Company (GE) for example, offers "Intelligent Drilling" technology, while a variety of engineering and seismic services firms offer the latest in technology to find oil, using for example 3D seismic mapping.

Availability of oil field services - The availability of equipment and qualified professionals represents a genuine bottleneck in oil exploration. The price of "oilfield services," which includes all the ancillary requirements for drilling and operating a well has risen. Lack of availability of drill rigs for drilling oil, skilled petroleum services professionals, seismic trucks, etc., can be a constraint in oil exploration.

Weather - Difficult weather, especially hurricanes and tropical storms can create a challenging environment for oil & gas companies. Bad weather can disrupt current supply chains, like making oil tanker deliveries difficult, or disrupting refining processes. Further, they may also disrupt or disable offshore drill rigs. This disruption ultimately trickles down to and impacts oil field services pricing, as discussed above.

OPEC and Political Instability – The majority of current oil reserves are controlled by a handful of politically unstable countries, especially those in the international energy oligopoly, OPEC. OPEC's control over the market allows it to control how much oil enters the market and the fact that majority of OPEC countries constantly contend with terrorism adds an element of unpredictability to the international oil price mechanism. Oil companies thus have a major incentive to explore for oil, in order to diversify their reserve holdings and protect against unforeseen issues from unstable part of the world.

Victoria Petroleum

Victoria Petroleum (VP) is an integrated energy company, committed to developing its activities in research, exploration, production, transport, refining and marketing oil. It was incorporated in an Asian Country in 1980 and specializes in oil exploration and refining. It currently operates in ten countries and plans to extend its operations to ten other countries during the next five years.

VP was founded and is controlled today by the third generation members of a wealthy family from the Finance and Insurance industries, together with a team of well-trained experts from the Petroleum industry. The executive management team of the business reports to the expert team with minimal interference from the controlling family. The CEO of VP is the former CEO of one of the top 3 oil companies in the world. The CFO is in his early sixties, and was heading the Finance operations of a leading Fast Moving Consumer Goods (FMCG) company prior to joining VP.

VP's production has reduced by 15% last year because of the impact of unplanned downtime, security issues in a few countries and mature fields declining in production in two countries have been offset by a recent expansion in Africa. Only 30% of VP's oil reserves are in politically stable countries. A total of 20 new exploratory wells were drilled in addition to 5 exploratory wells in progress at year end. The overall commercial success rate was 40%.

Exploration

At VP, an exploration venture is chosen, based on possibilities and probabilities of a discovery. These probabilities are based on fundamental geological elements which include studies and surveys, knowledge of the area, evaluation of the mining risk, and other economic considerations.

Exploring operations start with a geophysical survey that identifies any rock reservoirs that permit the formation and storage of hydrocarbons. As a rule, a seismic reflection survey is run, to reconstruct the stratigraphy of the rocks forming the subsoil and in favorable cases, to also supply, after further processing, other information such as, nature of fluids, etc.

It is the task of exploration to ascertain whether the rock reservoir contains hydrocarbons, identify their type and quantity. The requisite information is obtained from a direct examination of the rocks and fluids, supplemented by data acquired indirectly from logs that measure the various physical parameters of the rocks through which the well runs. In marine areas, exploration wells are bored by drilling rigs mounted on mobile structures, or on drilling vessels.

Development

To recover oil, the field has to be brought into production by drilling an optimal number of production wells, installing the equipment necessary to free the oil of undesirable components such as solid particles, water & salts and separating the liquid phase of the oil from the gaseous one.

Offshore development operations are more complex. The production wells are drilled from fixed platforms of various types, of steel or concrete, semi submersible, anchored with cables, etc..., often of giant dimensions and carried out at an angle to drain the largest possible amount from a reservoir from a single position. In the last few years, deep-water fields, more than 400 meters in depth, have been brought into production through the use of 'submarine completion' systems with wellheads, installed on the seabed and operated on the bed itself.

Production

Once development has been completed, production activities begin. Through these the oil is extracted from the reservoir, treated in the refineries and conveyed to the market through pipelines or by tankers. During its productive life, which may decades, the field is constantly monitored. Measurements of the wells are taken to optimize production and in some cases, enhanced recovery projects are executed, with the injection of gas or water, to increase the quantity of oil recovered.

Marketing

VP places its oil on the international market according to the opportunities of the best prices that vary from day to day.

Joint Venture

The Papua New Guinea (PNG) Government has reduced its taxes with the intention of attracting more foreign oil explorers. PNG offers five types of licenses to successful applicants as follows: petroleum prospecting license, petroleum retention license, petroleum development license, petroleum pipeline license and petroleum processing facility license. The expected turn-around time from the date of application to the granting of a license is only 8 weeks. The licenses are for an initial 6-year term followed by a 5-year extension. While PNG's reserves and production capacity don't fit the profit requirements of major oil companies, they may fit the profit requirements for a smaller operator.

Recently, VP established a joint venture with an Australian Company and obtained a license from the PNG Government to drill off-shore oil wells. VP retains a 45% shareholding of the joint venture, while PetroAustra, a leading South Australian Company, holds 55% of the shares. In view of the close relationship the PNG Government maintains with Australia, venturing with an Australian Company was a key reason that VP was granted a license.

Although PetroAustra holds the majority of the shares, it was not initially in a position to invest in the joint venture. VP provided the necessary investment through redeemable preference shares that would not impact shareholder control. These preference shares are entitled to a cumulative fixed dividend of 8% per annum.

PetroAustra is keen to exit from this project and focus on opportunities in its core Australian market and has requested that VP submit a proposal to de-merge or exit. Senior representatives of PetroAustra have expressed reluctance to visit PNG due to security concerns in the country.

A feasibility study of the joint venture project was conducted by a leading company from Europe who suggested that PNG is one of the world's large untapped oil reserves. This joint venture project currently employs over 500 skilled employees from seven countries and reduction of overall costs were achieved by hiring cheap labour from South Asia. Lack of needed infrastructure is a major threat faced by oil explorers in this PNG.

Oil Sabotage

VP faces a significant threat to its oil pipelines in one of the African countries where it has operated for the last ten years. Tampering with oil pipelines and installations has assumed huge proportions. Various terms, such as illegal oil bunkering, pipeline vandalism, fuel scooping and oil terrorism have been used to describe the various forms of the theft of crude oil and its refined products.

Thieves build a temporary enclosure around a small section of underwater pipe. Water is then pumped out from the enclosure and a hole is drilled into the steel casing of the pipe through which the crude passes. The hole is then fitted with a pipe and control valve. The creek water is allowed to flow back and fill the enclosure so that the set-up is underwater and therefore hidden from oil company inspectors.

Oil bunkering is a lucrative, illegal business in Africa, with its own demand and supply chain and network of players who sustain the illegal activities. These players include, but are not limited to, cult leaders, politicians, serving and retired security agents, shipping lines, international oil dealers, and youths conscripted by the cult leaders to puncture the pipelines as well as provide so called 'security' during the transportation of the oil to the market.

VP maintains 400 km of oil pipelines which runs across two African countries. It is estimated that oil bunkering steals around 10% of the oil being sent through the pipelines. Currently, the project in Africa provides 15% of VP's overall oil production. Of the 400 km of pipeline, 60 km is under the direct control of the oil bunkering group.

Fire

There was an incident of major fire on a VP off-shore oil project in a South Asian country a few weeks ago, which resulted in a major damage to the entire operation. The cause of the fire is not yet known. However, management suspect's negligence by workers and lack of adequate supervision. This was not yet a production site, but an exploration operation.

The fire accident resulted in a huge plume of smoke that was 15 kms high. Helicopters and ships were utilized to search for 3 missing workers. The sinking of the oil rig can pose considerable environmental damages. This incident has created a highly adverse image of VP in the international market and will affect its bidding for new licenses in the future. A large team of journalists are expected to visit the site next week to investigate and report on it.

Pearland

The Government of Pearland has agreed in principle to grant VP the right to dig wells on their Northern Shores. They have obtained Parliamentary approval and the agreement is expected to be signed within a month. The Ministry of Energy in Pearland has been given total authority to handle all issues related to oil exploration. The newly appointed Minister of Energy called for an emergency meeting with the Directors of VP and inquired about VP's past experience and its controls and processes.

At the end of the meeting, the Minister's Secretary indicated that the Minister expected a bribe of 1% on gross sales of the project to proceed with the signing of the contract as planned in a month's time. He also indicated that the second short listed company is prepared to pay the same and that the Ministry has the authority to reject VP on certain technical grounds such as the recent fire incident and give the other company the contract. The Minister of Energy is a close relative of the country's Prime Minister.

If VP fails to win this bid, their ability to bid for future licenses in the Pearland region will be seriously affected. Pearland is a rapidly developing nation with a 7% GDP growth rate but has very high levels of corruption and bribery. Pearland is well located and as a result oil distribution costs are 25% lower than VP's current average distribution costs.

Tongo

VP has successfully completed analysis and confirmed a large oil reserve in Tongo, an African country and has consequently obtained a license for 20 years from the government with the condition to pay a 10% royalty on all production. VP is the only oil explorer in the country to have obtained a license. VP has been approached by a leading European company to buy the well in Tongo for USD 100 Million. To date, VP has spent approximately USD 30 Million on the well. Tongo has a population of over 50 million people and has returned to normalcy this year after 40 years of riots and terrorism. The newly elected President is a Harvard educated professional and a dynamic leader.

The typical selling price, dependent on location and degree of certainty in reserves, is roughly USD 10 per barrel of oil equivalent (boe), of proven reserves. At 80 boe, VP's well is worth USD 80 million. High oil prices and a decline in the number of "major" oil discoveries has created a market for much smaller "independents," who independently scour the planet for oil, but are not typically involved in refining and distributing the finished product.

Merger

VP has been extracting oil from the oil rich Middle East region for the last 5 years. In close proximity to their extraction and refining plant, a Russian company has recently received the license to explore and export oil. The Russian company has approached VP through an international Mergers and Acquisition (M&A) consultancy firm based in Hong Kong about the possibility of VP merging its Middle East operations with them. This merger is expected to provide substantial synergistic benefits for exploration, refinement and distribution. Both companies could reduce their Middle East staff in half.

VP usually competes aggressively against this particular Russian company for many new bids. VP's operation in the Middle East is 30% larger than the Russian Company's operations. The Middle East region has the best infrastructure and holds the largest pool of skilled labour. The possible merger will need to be approved by competition watchdogs. Both companies could reduce its investments in upgrades and capacity expansion if they opt to go for a merger.

There are thus many pros and cons for their operational and financial implications, with reference to the past performance and core strengths of each organization with respect to exploration and production capabilities, retail network, leverages in domestic and foreign markets, relationships with international players, openings for global competition and other relevant factors.

Accidents

VP management is very concerned about the increasing number of accidents in its operations. The number of deaths as a result of accidents has increased by 20% during the last financial year and these disturbing statistics have caught the attention of global human rights groups. Despite VP employing better and safer technology than its rivals, VP has not been able to reduce the level of accidents. As a result VP's Board agreed in the last Board meeting to replace the Human Resource Director.

Accident investigation reports show that investigators detected potential safety violations in the recent VP offshore oil rig fires. VP paid an USD\$ 85,000 penalty for safety violations found after a contract welder suffered minor burns in 2009. Other violations found were: repair crews working without a proper permit in a hazardous area, inoperable gas detectors, faulty firefighting equipment and an unsecured hatch that spewed oil over hot engines.

As a norm, VP works with their contractors to determine the cause of any accident in order to determine whether additional safety measures should be implemented. The company also expects all of its independent contractors to have adequate procedures and employ competent personnel with appropriate training.

Bushland

VP is in the process of bidding for a license in Bushland, a country in Asia, where it is one of five short listed companies. Two large global petroleum companies have been operating in the country for many decades. There was a recent press release that stated that the Government of Bushland has plans to nationalize all companies in the oil and gas trade in order to gain more control over its resources. Reportedly, a three member team has been appointed to study and submit a report to the Ministry and President, and the Government is in negotiation with the Bank of Bushland to finance the Government's nationalization drive.

The Government may only consider agreements based on the book value of the projects rather than the much larger current network. The two large existing companies maintain close relationships with the current government and was one of their main financiers in the last election campaigns. VP has an edge over other bidders in terms of their pricing and is the only company from Asia to be included in the short listed set. It is mandatory that all short listed bidders submit a bid bond guarantee of USD 1 Million prior to the next stage of evaluation. News of nationalization has caused unrest among foreign oil companies but is seen by many observers as a means to apply pressure on international operators to cut output as prices slide.

Forward Integration

The newly appointed business development director of VP has submitted a forward integration proposal to the Board. He has proposed that VP launch their own lubricant brand and sell it globally.

Lubricants contain 90% base oil, most often called mineral oils, and less than 10% additives. He recommended creating a premium image for the VP lubricant brands and promoting it globally for premium cars. He has also proposed that the company build or acquire Petrol stations globally. These stations would have a comparatively premium design and superior service to existing stations. He has further proposed ties be established with a few large multinational automobile companies, where all parties would promote the VP oils.

The global lubricant market is highly competitive with numerous manufacturers and marketers. Overall, the western market may be considered mature 'with flat' to declining overall sales volumes. There is a strong growth in emerging economies outside the western market. Lubricant marketers generally use selling strategies that focus on specifications, original equipment approval, superior performance, longevity, efficiency, operational excellence, economy, environmental friendly and composition.

$\frac{1}{3}$ of the global lubricant industry is from the Asia Pacific region while Europe counts for $\frac{1}{4}$ of the global volume. The industry can be broadly grouped into two base oil qualities; re-refined oil which represent 70% of industry capacity and the remaining 30% is refined oil.

Strong growth in the Asian automotive, power and engineering sectors is creating new market opportunities for lubricant manufacturers according to a new study from the research and advisory firm. In the automotive sector, consumers are migrating to better quality vehicles and as a result, using higher grade lubricants which benefits multi-grade lubricant products with strong brand recognition and wide distribution. In the industrial segment, high levels of investment in the power, manufacturing and transport sectors should drive very strong growth for transformer oils, marine and aviation lubricants. While there are no restrictions on foreign lubricant manufacturers from establishing 100%-owned operations in most parts of Asia, many have chosen to partner with local companies.

The VP Business Development Director suggests offering a comprehensive range of VP lubricants under one common brand, with a line extension designed to meet the rigorous performance requirements of modern automotive engines, marines and industrial applications. All products are to be compatible and bendable with products currently available in the market under other major brands, so that consumer conversion to VP's brand is convenient and easy.

Stock Exchange Listing

VP shares are currently listed in an Asian Country. Political and economic problems have affected the country's Foreign Direct Investments. VP is in need of substantial capital to finance its future expansion and planned capital expenditure. The CFO feels the best source of raising funds is to make another public issue. However he prefers to float company shares in a European Stock exchange to achieve a higher offer price through the high networth investors.

Technology Upgrading

Over the next 30 years, global energy demand is projected to rise as high as 60%, a challenging trend that may be met only by revolutionary breakthroughs in energy science and technology. In response to increasing pressure from the CFO to reduce operating costs and increase the productivity of operations, the Head of Technical has proposed an upgrade of the existing technology to newer technology that is more environmental friendly, enables higher productivity and has a lower operating cost. VP might also be entitled to climate change grants from a few countries as a result of this new technology. The total operating cost plus depreciation of the new proposed technology is 20% lower than the current technology used. The technology supplier would need to agree to share their expertise with VP for a period of six months and train existing workers on the new technology.

The Head of Technical also proposed that the company shift to advanced technology which can effectively remove most unwanted by products from the fuel, identify effective refinery catalysts and also use another technology which can capture waste carbon dioxide and inject it deep underground.

VP is also very much in need of an advanced seismic and drilling enhancement technology to allow the company to identify and better characterize commercially viable resource deposits.

Breakthroughs in nanotechnology have opened up the possibility of moving beyond current alternatives for energy supply by introducing technologies that are more efficient and environmentally friendly. Nanotechnology is characterized by collaboration among diverse disciplines, making it inherently innovative and more precise than other technologies. Such technology could be the cornerstone of any future energy technology that offers great potential for innovative solutions. In oil applications, nanotechnology could be used to increase opportunities to improving down-hole separation and aiding in the development of noncorrosive materials that could be used for oil production.

Ocean Lines

Ocean Lines is one of the top 10 shipping companies in the world but faces a serious financial crisis. The majority shareholders have expressed interest in selling their shares if they are offered the right price. The company owns the largest fleet of oil tankers and is currently the exclusive transporters of VP's oil. These tankers move large quantities of unrefined crude oil from its point of extraction to refineries. The average age of Ocean Line oil tankers is 10 years. Of these, 30% are under 4 years old and 15% are over 20 years old.

The CFO of Ocean Lines had a discussion with the CFO of VP on the possibility of VP buying Ocean Lines shares. Ocean Lines lost two of its ships to the Somali Pirates last year and have increased their marine insurance premiums. This has also affected the Marine Insurance Company which is controlled by the family who owns VP.

Valuation of Oil Reserves

The Audit Committee of VP has raised concerns regarding the validity of the basis of valuation and capitalization of oils reserves in VP's books. There are media releases that state that 30% of the reserves are speculative reserves.

Many worrying signs concerning the depletion of 'proven reserves' have emerged in recent years. This was best exemplified by the 2004 scandal surrounding the 'evaporation' of 20% of Shell Company's reserves.

The three main reasons that proven reserves are overstated are: oil companies want to increase their perceived value; oil-producing countries gain a stronger international stature and governments of consumer countries may seek a means to foster sentiments of security and stability within their economies and among consumers.

Major discrepancies arise from accuracy issues with OPEC's self-reported numbers. Besides there is the possibility that OPEC nations have overstated their reserves for political reasons, during periods of no substantial discoveries. Over 70 nations also follow a practice of not reducing their reserves to account for yearly production. On the contrary, oil companies have a vested interest in making oil look rarer than it is, to justify higher prices.

The Audit Committee has requested that the VP CEO review existing valuation and capitalization policies and procedures and submit a report at the next Audit Committee meeting. The CEO plans to appoint a consultant to independently evaluate the current policy and procedures, benchmark it with other companies and submit his recommendations.

Contract Workers

VP employs most of its workers through outsourced labour agencies. These agencies take responsibility for recruiting, replacing staff at short notice and all staff welfare activities. The current labour turnover at this agency is high and this affects VP's productivity. This labour agency has sub-agents in many Asian and African countries and therefore attracts workforce from those countries.

There are many reported instances of laborers being cheated by sub-agents, due to improper welfare and not paid a fair compensation. Furthermore, these labourers were not adequately briefed by the agent/sub-agents about the risks and difficulties expected in their line of work. There were also instances where the sub-agents retained the passports of the labourers to prevent them from fleeing the country. The labourers hired by the agency generally have a lack of relevant experience which is a threat to the safety standards of VP. In a recent media release, it was revealed that these labourers only receive 50% of the wages paid by VP and that the remaining 50% is kept by the labour agency and sub-agents.

Oil Price Hedging

VP has a policy of hedging all of its oil contracts. It has incurred substantial losses in its commodity and exchange rate contracts during the last two years. The CFO is looking into the option of recruiting a new Treasury consultant for advice on oil and currency hedging contracts, the type of currency, tenor & type of the contracts, post-evaluation of past rates, etc.

VP currently uses swaps and floors options. A swap enables oil end- users *to fix the purchase price of future oil consumption and thus minimize any exposure to rising prices*. By locking in prices, end-users gain greater control over the variable revenues and costs inherent in their businesses. Floors, also referred to as "put options," establish a minimum average sale price for future oil production. They provide full protection from falling prices while allowing the buyer to benefit fully from increases in oil prices. Options are usually financially settled based on the average oil price over a specified period. While long dated maturities are available, monthly and quarterly averaging periods are the most popular.

Payment due from Governments

VP has large overdue payments from the governments of two countries. Despite several discussions, there have been no positive signs of repayment. One of the governments is in a major state of financial crisis and not in a position to settle VP's oil bills. The other government is disputing a term in the contract and is litigating the payment. VP is prepared to consider reduction in rates and granting an extended period during which the debts can be settled, but are yet to receive a positive reply. Auditors are insisting on making a full provision for Bad & Doubtful debts. If this is made, company financials and share prices will be significantly affected.

Appendices

- | | |
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Appendix 1:

Victoria Petroleum

Profit and Loss Account for the Financial Year ended 31st March 2010

(in \$ Millions)

	2008/2009	2009/2010
Total Revenue	150	175
Total Expenses	104	121
Total Net Income	46	54
Depreciation	42	49
Earnings Before Interest Tax and Depreciation	88	103
Interest	8	9
Profit Before Tax	38	45
Profit After Tax	29	35

Appendix 2:

Victoria Petroleum

Balance Sheet as at 31st March 2010

(in US\$ Millions)

	31st March 2009	31st March 2010
Total Assets	1,200	1,300
Total Equity	400	425
Total Debt	800	875

Appendix 3:

ICMA CASE STUDY – (CaS / 804) September 2010 - Marking Grid

	Marks	A	B	C	D	E
1. Management Accounting Sound technical knowledge in Management Accounting	20	High level of Management Accounting awareness relating to world examples 17-20	Good Management Accounting awareness relating to case study examples 11-16	Some level of Management Accounting awareness relating to few case study examples 10-14	Low level Management Accounting awareness 5-9	Lack of Management Accounting awareness 0-4
2. Application of theories Diverse knowledge clearly applied in an analytical and practical manner in solving the problems in the case study.	20	High level of application of theory in an analytical manner in solving problems in the case study 17-20	Good level of application of theory in an analytical manner solving problems in the case study. 11-16	Some level of application of theory in an analytical manner solving problems in the case study. 10-14	Low level of application of theory in solving problems in the case study 5-9	Lack of application of theory in solving problems 0-4
3. Identifying key issues Issues to be identified and prioritized in a logical manner with a clear rationale.	10	High level of recognition of key issues and these being prioritized logically with a clear rationale. 8-10	Good level of recognition of issues and these being prioritized logically 5-7	Some level of recognition of issues and these being prioritized 3-4	Low level of recognition of issues 1-2	Lack of recognition of issues 0
4. Decision making skills Ability to recognize and present appropriate alternate solutions and make effective judgment in a logical & rational manner.	20	High level of ability to recognize and present appropriate alternate solutions and make effective judgment in a logical and rational manner 17-20	Good level of ability to recognize and present alternate solutions and make effective judgment in a logical and rational manner. 11-16	Some level of ability to recognize and present alternate solutions in a logical and rational manner 10-14	Low level of ability to recognize alternate solutions 5-9	Lack of ability to recognize alternate solutions 0-4
5. Logical arguments Ability to communicate effectively with realistic recommendations in a concise and logical manner.	20	High level of ability to communicate effectively with realistic recommendations in a concise and logical manner 17-20	Good level of ability to communicate effectively with realistic recommendations in a concise manner 11-16	Some level of ability to communicate effectively with realistic recommendations in a concise manner 10-14	Low level of ability to communicate effectively 5-9	Lack of ability to communicate effectively 0-4
6. Communication skills Style and synthesis in evaluation of a good report to higher management.	10	High level of combining ideas and experiences in a professional manner using relevant appendixes 8-10	Good style in writing a Management Report encompassing ideas and recommendations with some appendixes 5-7	Some style in writing a Management Report encompassing ideas and recommendations 3-4	Poor style in writing a Management Report 1-2	Lack of knowledge in writing a Management Report 0
TOTAL	100					