Oil and gas accounting test review

Business, Accounting

Natural gas, and natural gas liquids which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions Proved Developed Reserves- reserves that can be expected to be recovered through existing wells with existing equipment and operating methods. Proved undeveloped reserves- reserves expected to be recovered by new wells on underlined acreage, or from existing wells where a relatively major expenditure Is required for recompilation Phases Encountered In upstream

Operations Pre-license prospecting Geological evaluation of relatively large areas Mineral right acquisition/contracting Activities related to obtaining from the mineral rights owner the legal rights to explore, develop and produce OLL In a particular area Production sharing contracts- arrangement by which companies obtain rights from the government to explore, develop and produce Exploration Evaluation and appraisal Development Drilling additional wells necessary to produce the commercial reserves, constructing platforms and gas treatment plants, constructing equipment and facilities necessary or getting the oil to the gas for processing and constructing pipelines. Production Extraction and treatment. Closure CHAPTER 4 Pre-license prospecting and nondrying exploration Identifying areas that may contain oil and gas reserves US Successful efforts- G&G costs expensed as Incurred Entry: Db Expense car cash (before or after license calculations) overhead costs with G&G activities Successful efforts- expensed as incurred. Successful Efforts Geological and Geophysical costs must be expensed as incurred. Doesn't matter if costs are Incurred before or after the license Is acquired.

G costs and contract counting If operation is conducted under Lease or concession agreement, it is unlikely that the contract would contain provisions that would permit cost recovery of these costs If the operation Is conducted under a SC or risk service agreement, the contractor may be permitted to recover G related expenditures incurred after license acquisition and possibly G costs Incurred before license acquisition Support equipment and faculties depreciation or operating costs become an exploration, development or production cost, as appropriate. Entries: Db G expense -depreciation Car Accumulated Depreciation Db G expense-operating costs Car Cash Reprocessing Seismic How to account for cost of re-evaluation or reprocessing of the data? If the reprocessing relates to the search for oil then it should be accounted for according to SE provisions regarding prospecting and nondrying exploration costs. If the purpose is to determine how best to develop the reserves in the field, then they should be capitalized as development costs.

License acquisition costs Costs of evaluating businessenvironment, signature bonus, negotiating, etc should be capitalized Entry: Db Intangible assets-unproved property Car Cash Development and production bonuses If the payment is actually a deferred signing bonus, the appropriate accounting treatment is to capitalize the development bonus as a license acquisition cost. Accrue once the operations are apparently proceeding to the development phase. Entries: To record signature bonus: Db Intangible Assets - unproved property Car Cash To transfer unproved property costs to proved due to commercial discovery: Db Proved property Car unproved property To record accrual of production bonus: Proved property Car production bonus payable To record payment of production bonus: Db

Production bonus payable Car Cash Internal costs relating to acquisition Can allocate capitalized costs to individual licenses acquired, on an acreage basis or an a potential licenses basis Costs of carrying and retaining unproved properties Costs relating to maintaining unproved properties be charged to expense as incurred Ex: delay rentals paid on lease mineral properties until specified work is commenced, property taxes, accounting costs, legal costs Impairment of unproved property Impairment has occurred if there is some indication that the capitalized cost of an unproved property is greater than the future economic benefits expected to be derived from the property. Under SE, loss should be realized. Negative G data and dry holes would typically suggest that part of the property's historical cost has expired and impairment should be recognized Db Impairment expense Car Allowance for impairment FAST permits impairment of individually insignificant properties on a group basis. Apply the impairment percentage to the total cost of the group of individually insignificant unproved properties. This determines the desired balance in the allowance for impairment account. Next the difference between the current balance and the desired balance is recognized as impairment expense.

Entry: Impairment Expense Car Allowance for impairment, group basis Abandonment of unproved property Full abandonment: When an individually significant license area is abandoned, its net capitalized acquisition costs should be charged to surrender and abandonment expense Ex: Db Surrender and abandonment expense (equal to acquisition cost) Db Allowance for impairment (balance) Car unproved property Partial Abandonment or Relinquishment the future economic benefit of the property, then the entire property should be assessed for additional impairment. Unproved property classification An unproved property should be reclassified too proved property status if and when commercial reserves are discovered on the property. Ex: Db Tangible Assets- proved property (acquisition costs) Db Impairment Allowance (balance) Car In tangible assets- unproved property Sales of unproved property If the property was individually significant, a gain or loss should be recognized on the sale.

Ex: Db Cash (sale price) Db allowance for impairment (balance) Db/Car(gain or loss) Car unproved property If the property was individually insignificant, a gain would be recognized only if the selling price exceeds the original cost of the property. Loss recognition is not allowed. CHAPTER 5 Accounting for Exploratory Drilling and Appraisal Costs Under SE, general nondrying exploratory costs are to be charged to expense as incurred; exploratory drilling type costs are initially capitalized. Exploratory Well- well drilled to find and produce oil or gas in an unproved area to find a new reservoir in a another reservoir or to extend a known reservoir.

Stereographic test well- drilling effort to obtain information pertaining to a specific geological condition. Exploratory type" if drilled in a proved area, " development type" if drilled in a proved area. Exploration well- well drilled to discover whether oil or gas exists in a previously unproved geological structure Appraisal well- well drill to determine the size, characteristics, and commercial potential of a reservoir by digging an exploratory well. Classifying Drilling costs Separate intangible drilling costs (DC) from equipment costs. IDS deducted in year incurred for US tax law. Equipment costs may be depreciated over 7-10 years. Besides tax purposes, distinction has no significance Targeted Depth

When evaluating after drilling : if commercial reserves have been discovered, the drilling in progress account balances are transferred to another type of asset account that will be subject to depreciation The first successful exploratory well's cost will be reclassified from an unproved to a proved property account If well is unsuccessful, plug and abandon hole and charges these costs to dry hole expense, net any equipment salvaged from well. If the license area is also relinquished, the net carrying value must be written off. Capitalized G SE- G costs are to be charged to expense as incurred. Current methods may capitalize AD and AD seismic methods used to determine drill sites.

Time Limit on exploration and evaluation or appraisal costs In order for cost to be capitalized in SE, there must be identifiable future benefit. IF an exploratory well has found oil reserves in an area requiring major capital expenditure to be classified as proved. In this case, the cost of drilling the exploratory well shall continue to be carried as an asset as long as 1. The well has found a sufficient quantity of reserves to Justify its completion and 2. Drilling of the additional wells is under way or planned for the near future All other wells, shall not be carried as an asset for more than one year following completion of drilling Post- balance Sheet Period GAP provisions that relate to information about conditions that existed at the financial statements are issued.

If well is determined dry, capitalized costs are written off to dry hole expense If commercial reserves are found, the capitalized drilling costs are transferred to the wells and equipment accounts All the capitalized costs of an exploratory well are typically reclassified as dry hole expense or as wells ND related equipment Cost approval, budget and monitoring APE-Authorization for expenditure CHAPTER 6 Drilling And Development Costs-US SE Development costs- costs incurred to obtain access to proved reserves and to provide facilities for extracting, treating, gathering and storing the oil and gas. More specifically, development costs, including depreciation and applicable operating costs of support equipment and facilities and other costs incurred to: Gain access to and prepare well locations for drilling, including surveying, draining, road building, etc

Drill and equip developmental wells, including costs of platforms Acquire, construct and install production facilities such as lease flow lines, separators, etc Provide improved recovery systems Development well- well drilled within the proved area of an oil or gas reservoir to the depth of a stereographic horizon known to be productive Service well- completed for the purpose of supporting production in an existing field. Development type stereographic well- stereographic test well drilled in a proved area Capitalization of Development-Related G Exploration Costs Requires capitalization of G in development activities. Unless it is performed on a development land area but to an unknown structure- expensed. If ad seismic is being used to study the reservoir and perhaps where addition development wells should be drilled, theoretically the cost should be capitalized to the field as development cost.

Overhead As a general rule, all G is expensed, however where the company has a defined method for allocation is permitted to capitalize these costs as part of development Capitalization of Depreciation of Equip and Facilities Depending on nature, costs can be expensed or capitalized Capitalization of Financing Costs Capitalization of Interest" requires that a portion of interest costs incurred during the construction phase of assets should be capitalized as a part of the cost of the self-constructed asset. Interest capitalization only applies to qualifying assets: 1 . Assets that are constructed or otherwise produced for an enterprise's own use 2.

Assets intended for sale or lease that are constructed or otherwise produced as discrete projects (ships or real estate developments) Amount to interest to capitalize- the portion of interest costs incurred during the period when the asset is being instructed that could have been avoided if the spending on the asset had not been made. Capitalization period shall begin when 3 conditions are met: Expenditures for asset have been made Activities that are necessary to get the asset ready for its intended use are in progress Interest cost is being incurred Sole Risk or Carried Interests If an asset requires a period of time in which to carry out the activities necessary to bring it to that condition and location, the interest cost incurred during that period as a result of expenditures for the asset is a part of the historical cost of acquiring the asset. CHAPTER 9 Production Costs Costs of labor to operate the wells and related equipment and facilities Repairs and maintenance Materials, supplies, and fuel consumed and services utilized in operating the wells and related equipment and facilities Property taxes and insurance applicable to proved properties and wells and related equipment and facilities Severance taxes Depreciation, depletion and amortization Accounting for Production Costs All costs relating to production activities, including workers costs incurred solely to maintain or increase levels of production from an existing completion interval, shall be charged to expense as incurred.

An expenditure that enhances original performance of the well should be capitalized Materials and supplies- capitalize if used in drilling or development. If used in repair or maintenance, they should be expensed. Recompilations- typically involve entering an existing well and deepening or plugging back in order to achieve production in a new formation or a zone in an existing formation. In a currently or previously producing formation or zone should be treated as an expense since the purpose is to restore production without an increase in commercial reserves If the objective is to develop reserves in a new urination or find new reserves, the activity would be new drilling. Drilling costs could be exploratory or development rather than production) Costs should then be capitalized or expensed depending on SE or FCC and on outcome of drilling Taxes (severance or production) should be expensed as production costs Crude Oil Production 1 Barrel = 42 gallons of oil at 60 degrees F API gravity (measure of density) of oil = the higher, the lighter the oil All crude contains BBS&W- basic sediments and water Disposition: outright sales, direct supply, indirect supply, exchanges, prefacers, or oil seed in operations Gas measurement Measurement in Mac is affected by temperature. , pressure, compressibility, gravity etc Standard pressure is 14. 73 pounds per square inch at 60 degrees Fahrenheit Pre Acquisitions Acquisition Exploratory 0 Development 0 Production List the four Oil & Gas Agreements used on a worldwide basis and describe each one. 1 .

US Domestic lease agreement- an oil and gas lease grants to the oil and gas company the right and obligation to operate a property. This includes the right to explore for, develop and produce oil and gas from the property and also obligates the many to pay all costs. (Company is a working interest owner). All costs, all risk. Agreement- encountered in operations outside the united states where the mineral rights owner is the local government. Sometimes the government is involved with a joint working interest. Payment of a bonus by the oil company to the government at the time the contract is signed. Payment of a royalty to the government. Responsible for paying all of the costs incurred in developing. 3.

Risk service agreement- oil companies reform workers aimed at restoring or stimulating production including application of currenttechnologyto currently producing fields. Bonus to national government at contract signing. Government retains ownership of reserve. Oil company incurs all costs and risks. Operating and capital costs incurred are recovered through payment of operating and capital fees. Government may participate in operations as a working interest owner. 4. Production Sharing contracts- companies obtain the rights from the government to explore for, develop and produce oil and gas. Company pays bonus to national government at contract date. Pays royalties to government. Government maintains ownership of reserves. Companies incur all risk and costs.

Company required to spend a predetermined amount ofmoney, which is recoverable from future production. 2.) Describe the life cycle (Phases) of an Oil & Gas Project. Include the Accounting Treatment (ii. Successful Efforts or Full Cost Pool) for each phase. 1. Pre-license prospecting- geological evaluation of relatively large areas before acquisition of petroleum rights. Analyzing G&G data. Successful Efforts (SE) Method The Financial Accounting Standards Board (FAST) has issued FAST Statement No. 19 dealing with the successful efforts method. Under the SE method, costs incurred in searching for, acquiring, and developing oil and gas reserves are capitalized if they directly result in producing reserves.

Costs which are attributable to activities that do not result in finding, acquiring, or developing specific reserves are charged to expense. The cost center for the SE method is a lease, field, or reservoir. The various types of costs are treated under the SE method as follows: 1 . Acquisition Costs: They are capitalized to unproven property until proved reserves are found or until the property is abandoned or impaired (a partial abandonment). If adequate reserves are discovered, the property is reclassified from unproven property to proven property. For tax purposes, acquisition costs are handled the same way except the cost cannot be partially written off as an impairment expense.

The property must be abandoned before any cost may be written off. 2. Exploration Costs: They are recorded in two different ways, depending upon the type of costs incurred. A. Nondrying Costs: Examples of these type of costs are geological and geophysical (G & G) costs, costs of carrying and retaining undeveloped properties, and dry hole and bottom hole contributions. These types of costs are expensed as they are incurred. For tax purposes, nondrying costs are capitalized to the applicable b. Drilling Costs: They are treated differently depending on whether the well drilled is classified as an exploratory well or a developmental well. An exploratory well is a well drilled in an unproven area.

A developmental well is a well drilled to produce from a proven reservoir. 1) If an exploratory well is a dry hole, the costs incurred in drilling the well are expensed. If the exploratory well is successful, the costs incurred in drilling the well are capitalized to wells and related equipment and facilities.) The costs incurred in drilling developmental wells are capitalized to related equipment and facilities even if a dry hole is drilled. The costs associated with tangible well equipment and facilities are capitalized, regardless of the type of well drilled. For tax purposes, certain costs associated with such equipment are eligible for treatment as deductible 'DC.

Tax depreciation methods usually allow for a more accelerated rate of depreciation than book or financial depreciation. Also, book depreciation will be computed on 1-1 The developmental dry holes and IDS which are capitalized for book purposes but expensed for tax purposes. Therefore, an M-1 adjustment will be required on the difference between the amount of book and tax depreciation. 3. Production Costs: These costs are expensed as incurred, which is the same treatment used for tax purposes. It should be noted, however, that many taxpayers erroneously expense overhead attributable to either acquisition or exploration activities as production costs.

Overhead attributable to acquisition and exploration costs must be capitalized. 4. Depletion: This usually requires an M-1 adjustment. Although the cost depletion formula is the same for book and tax purposes, the mount for the basis used in the computation of cost depletion will vary due to the difference in capitalization. In addition, many taxpayers will be allowed to use a larger percentage depletion deduction Full Cost Method Under the FCC method, all costs incurred in exploring, acquiring, and developing oil and gas reserves in a cost center are capitalized. 1. Geological and geophysical (G & G) studies, successful and unsuccessful, are capitalized for book and financial purposes.

For tax purposes, successful G & G costs are capitalized and unsuccessful G & G costs are expensed. An M-1 adjustment is required for the amount of unsuccessful G & G costs expensed. 2. Delay rental costs are capitalized for book and financial purposes. 3. 4. Exploratory dry hole costs are capitalized for book and financial purposes. For tax purposes, all dry hole costs (exploratory or developmental) are capitalized unless the taxpayer elects to expense them. Since most taxpayers expense these costs for tax purposes, an M-1 adjustment is required. 5. Impaired or abandoned property costs remain capitalized in the cost center for book and financial purposes.

For tax purposes, no deduction is allowed unless a property is totally worthless. An M-1 7. General and administrative costs which are not associated with acquisition, exploration, and development activities are expensed. However, overhead that can be associated with acquisition, exploration, and development activities is capitalized. The costs are handled the same way for tax purposes. 8. Depletion usually will require an M-1 adjustment. In many instances, taxpayers may be able to claim a larger percentage depletion deduction in lieu of cost depletion. Even where cost depletion is claimed for book and financial purposes because of the different capitalization rules, the amount of cost depletion allowable will vary.