Oil and Gas
Accounting 101

OG 1
OIL AND GAS ACCOUNTING 101
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ROBERT “BUTCH” ROGERS, CPA

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OVERVIEW AND BASIC CONCEPTS

LEARNING OBJECTIVES

- Become familiar with the operations of oil and gas exploration and production companies
- Introduce the accounting principles and practices related to the industry
- Review the various accounting methods employed by oil and gas producers
- Learn the common costs categorizes and sources of revenues for companies who produce crude oil and natural gas

I. OIL AND GAS PRODUCTION OPERATIONS

A. The “upstream” sector of the petroleum industry

The petroleum industry is divided into three major components: Upstream, midstream and downstream. The upstream component is the exploration and production sector of the industry. Midstream activities include the processing, storing, transporting and marketing of oil, natural gas and natural gas liquids (NGLs). The downstream sector includes oil refineries, petrochemical plants, petroleum product distribution, retail outlets and natural gas distribution companies.

<table>
<thead>
<tr>
<th>Table 1-1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sectors of the Petroleum Industry</strong></td>
</tr>
<tr>
<td><strong>Upstream</strong></td>
</tr>
<tr>
<td>Exploration, Development and Production Activities</td>
</tr>
</tbody>
</table>

Independent oil and gas companies are non-integrated producers that receive essentially all of their revenue from exploration and production activities (upstream). Independents range in size from small one-or-two person private companies to very large public firms. The Independent Petroleum Association of America (IPAA) recorded in a 2012-2013 survey that the median independent has gross revenues of $9,250,000 and median taxable income of $648,000 while employing 12 full-time and three part-time employees.

This course will cover basic accounting concepts and methods for small, independent oil and gas producers, recognizing that accounting methods employed by these producers are diverse and seldom uniform.

B. The uniqueness of the oil and gas exploration and production business

1. Depleting assets of an unknown quantity
Oil and gas producers’ main assets are the minerals in place on the developed and undeveloped properties it holds. Most of these properties have been leased by the producers. These minerals in place are known as reserves. The accounting for oil and gas reserves requires the use estimates made by petroleum engineers and geologists. Reserves estimation is a complex, and imprecise process.

Once properties are producing, the oil and gas reserves related to the producing properties will deplete resulting in a decline in production from the properties.

2. Commodity pricing

Crude oil and natural gas are commodities subject to the price swings of markets which are uncertain. As a result, profits of oil and gas producers fluctuate due to the swings in the price of crude oil and natural gas.

3. Joint operations

Due to the high risk, capital intensive nature of oil and gas exploration and production, producers often combine their capital and knowledge with other producers. These joint operations allow producers to share the risk and high costs of acquiring and developing oil and gas properties. These sharing arrangements present unique accounting challenges.

C. Oil and gas exploration and production activities

Basically, for upstream companies, oil and gas operations and the related accounting consists of the following activities:

- Exploration activities
- Land acquisition
- Drilling and development
- Production
- Abandonment

These activities represent the “life cycle of an oil and gas property”. At a minimum, the oil and gas accountant should have a general knowledge of each these activities.
D. Well Classifications

Drilling costs are either exploration costs or development costs depending on the well classification.

1. Exploratory well

An exploratory well is a well that is not a development well or a service well. It is drilled to locate new oil and gas fields. If successful, an exploratory well results in establishing new proved reserves.

2. Development well

A development well is a well drilled within a proved productive area to a depth known to be productive. Since development wells are drilled to build a production network, they generally result in reclassifying oil and gas reserves from proved undeveloped reserves category to the proved developed category.

3. Service well

A service well is a development well drilled to support production operations. Wells in this category include water supply wells, water disposal wells and injection wells.

4. Stratigraphic test well

A stratigraphic test well is a well drilled to obtain geological information on a field or potential field. These wells, often called "slim holes," cannot support production and are plugged and abandoned once the geological information is gathered.

II. ACCOUNTING FOR OIL AND GAS PRODUCTION OPERATIONS

A. Accounting principles and practices for oil and gas producers

1. Authoritative pronouncements for GAAP

The Energy Policy and Conservation Act of 1975 (EPCA) called for establishing a national energy data base which included financial information. The Securities Exchange Commission was given the
responsibility for developing accounting practices for use by all oil and gas producers. The SEC was allowed to delegate this task to the Financial Accounting Standards Board (FASB).

Since 1977, FASB has issued numerous pronouncements pertaining to the oil and gas exploration and production companies. These pronouncements include FAS 19, 25, 69, 95, 109, 121, and 144. FASB Current Text Section Oi5 contains the current applicable rules found in these pronouncements. Regulation S-X Rule 4-10 issued by the SEC prescribes the financial and reporting standards for publicly traded oil and gas producers.

2. Council of Petroleum Accountants Societies (COPAS)

Oil and gas exploration and development companies are diverse. This diversity is also reflected in the accounting practices of these companies. COPAS was formed to develop standardized documents which provide guidelines to oil and gas producers in the accounting areas unique to oil and gas producers like joint interest accounting and oil and gas revenue accounting. The organization is described as follows on its website (www.copas.org):

COPAS was established in 1961 by representatives from various independent local societies throughout the U.S. and Western Canada. These societies recognized the need for standardized procedures and guidelines as the oil and gas industry expanded across the country so that common issues and problems could be addressed in a central forum. The societies wanted to develop standardized documents in areas such as joint interest accounting, auditing, production volume and revenue accounting, and financial reporting and tax matters so that companies operating in all parts of the U.S. and Canada could be more effective and efficient by using the same standards and guidelines.

3. Tax and regulatory requirements

In order for oil and gas producers to comply with various laws and regulations imposed upon the industry, accurate accounting records are necessary. Many agencies have prescribed forms for reporting information to them. It is essential that companies have an understanding of the reporting requirements of these agencies and maintain compliance with them.

B. Accounting methods

1. GAAP
Companies required to provide annual audited financial statements, such as publicly traded companies and operators with significant bank credit, use an accounting method that follows Generally Accepted Accounting Principles (GAAP). For oil and gas producers two methods are acceptable under GAAP, successful-efforts accounting and full cost accounting.

a. Successful efforts

Under the successful efforts method, costs are capitalized only when the results are positive (minerals are found). Under this method dry hole costs, most geological and geophysical (G&G) costs, and delay rentals are charged to expense in the year incurred. Costs of successful exploratory wells and all development costs are capitalized. Capitalized costs are amortized using units of production calculations. The cost center under the successful efforts is usually a lease, field or reservoir.

b. Full cost

The full cost method capitalizes all acquisition, exploration, drilling and development cost including dry hole costs. The capitalized costs are amortized on a country-by-country basis using the units of production method. Under the full cost method, the net unamortized cost of the oil and gas properties minus the related deferred income taxes cannot exceed a ceiling consisting primarily of a computed present value of projected future cash flows, after income taxes.

2. Income tax methods

Most small independent producers, who are not required to use a GAAP method of accounting, use a tax method of accounting or a hybrid of successful efforts and tax. The rules for tax accounting are set forth in the Internal Revenue Code and the corresponding Treasury Regulations.

The general rule for accounting methods in the Internal Revenue Code states:

Taxable income shall be computed under the method of accounting on the basis of which the taxpayer regularly computes his income in keeping his books. (IRC Sec. 466(a))

It must be established that the method used to “keep the books” is an acceptable method. This code section goes on to define the permissible methods. The permissible accounting methods under IRC Sec. 466(c) are:
• Cash receipts and disbursement method (cash method),
• Accrual method,
• Any other method permitted under the law, and
• Any combination of the methods permitted under the regulations

The accounting method used must clearly reflect income and be consistently applied. Treas. Reg. Sec. 1.446-1 states:

It is recognized that no uniform method of accounting can be prescribed for all taxpayers. Each taxpayer shall adopt such forms and systems as are in his judgment best suited to his needs. However, no method of accounting is acceptable unless it clearly reflects income...provided all items are treated consistently from year to year.

Table 1-2
Accounting Methods

| GAAP          | Tax
|---------------|------
| Successful Efforts | Cash (Limited) |
| Full Cost      | Accrual |
|                | Hybrid |

C. Major cost categories

1. Exploration

Oil and gas producers spend money to obtain information necessary to determine what properties to acquire or retain. The information is provided by topographical, geological and geophysical studies and surveys, drilling of core holes, and bottom-hole contributions. By examining the data, the operator seeks to identify properties with the greatest potential to produce commercial quantities of oil and gas. These exploration costs are known in the industry as G&G costs (geological and geophysical).

The accounting treatment for G&G costs depends on the accounting method employed by the company. For the successful efforts method, exploration costs (G&G) are generally expensed when incurred. Under the full cost method, the costs are capitalized. Companies using a tax method capitalize the G&G costs. For tax purposes, cost paid or incurred after May 17, 2005 are required to be amortized over 24 months and are not allocated to any specific property.
2. Land acquisition (leasehold costs)

Oil and gas operators normally acquire drilling rights by the leasing of mineral properties. Customarily, the operator pays a lease bonus to the owner of the minerals. Various factors determine the amount of lease bonus paid such as proximity of the property to prove production, competition among potential lessees and many other variables.

Under a typical oil and gas lease, the operator has an obligation to drill by a certain date, or the lease will terminate. Under most leases, the drilling obligation can be deferred by making a payment to the lessor known as delay rentals.

The mineral property owner (the lessor) retains a royalty (landowner royalty) interest in the minerals. This interest entitles the lessor to receive, free and clear of all cost (except production taxes), a share of the oil and gas produced. The royalty share is negotiable.

Oil and gas leases normally grant each party the right to assign its rights and obligations without approval of the other party.

In addition to lease bonuses and delay rentals, other costs associated with acquiring the lease are capitalized as leasehold costs. These costs include commissions or finder’s fees, abstracting costs and travel expenses. The landman’s salary/contract labor should be a part of the capitalized leasehold cost, if they can be attributed to the acquisition of a particular lease.

All costs associated with acquiring land or a mineral lease must be capitalized under all methods of accounting (successful efforts, full cost or tax). Delay rentals are capitalized under the full cost and tax method. Companies using the successful efforts method expense delay rentals.

<table>
<thead>
<tr>
<th>Table 1-3</th>
<th>G&amp;G Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Successful Efforts</strong></td>
<td><strong>Full Cost</strong></td>
</tr>
<tr>
<td>Expense when incurred</td>
<td>Capitalize</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 1-4</th>
<th>Leasehold Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Successful Efforts</strong></td>
<td><strong>Full Cost</strong></td>
</tr>
<tr>
<td>Capitalize</td>
<td>Capitalize</td>
</tr>
</tbody>
</table>
3. Drilling and development

Drilling and development costs are the costs incurred to obtain access to the oil and gas reserves and to provide facilities for extracting, treating, gathering and storing the oil and gas. These costs include intangible drilling costs and equipment costs.

For exploratory wells (wildcats), under the successful efforts method, drilling costs are capitalized if oil and gas reserves are discovered. If the well is a dry hole, the costs are expensed. Under the full cost method the drilling cost is capitalized regardless of whether or not the well is successful.

The costs of drilling a well on a proven property are capitalized under both the successful efforts and full cost methods.

Companies using a tax method would normally expense intangible drilling costs and capitalize equipment costs. Costs associated with unsuccessful efforts are expensed as dry hole costs in the year incurred.

For companies using the successful efforts or full cost methods, capitalized costs are depreciated using the units of production method. Under a tax method of accounting, depreciation on tangible equipment is figured using either the units of production method or the Modified Accelerated Cost Recovery System (MACRS).

| Table 1-5 |
| Drilling and Development Costs |
|---|---|---|
| **Successful Efforts** | **Full Cost** | **Tax** |
| Wildcat – Expense if unsuccessful | Capitalize all drilling costs | Expense IDC |
| Wildcat – Capitalize if successful | | Capitalize Well and Lease Equipment |
| Proven – Capitalize | | |

4. Production costs (lease operating expense)

Production costs are also referred to as lease operating expenses (LOE). The costs are incurred in operating and maintaining producing properties. Examples of production costs are:

- Cost of labor to operate and maintain wells and related equipment
• Repairs and maintenance
• Materials, supplies, and fuel
• Utilities
• Property taxes and insurance applicable to the properties
• Severance taxes

Under all accounting methods, production costs are generally expensed when they are incurred.

5. Abandonment costs

It is a common practice for oil and gas producers to “abandon” properties that are not profitable. This includes both developed and undeveloped properties. Unprofitable wells are “plugged”, and leases with little or no potential are allowed to expire.

Accounting for abandonment losses depends upon the method of accounting used. Under the successful efforts method the recognition of a loss is conditional, while under the full cost method, generally no gain or loss is recognized on the abandonment or surrender of property. Companies that use a tax method of accounting will generally recognize a loss when the property is abandoned or a lease is surrendered.

Table 1-7

<table>
<thead>
<tr>
<th>Type of Cost</th>
<th>SE</th>
<th>FC</th>
<th>Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geological and Geophysical (G&amp;G)</td>
<td>Expense</td>
<td>Capitalize</td>
<td>Capitalize</td>
</tr>
<tr>
<td>Leasehold Costs</td>
<td>Capitalize</td>
<td>Capitalize</td>
<td>Capitalize</td>
</tr>
<tr>
<td>Drilling and Development Costs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Hole Exploratory Well</td>
<td>Expense</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Dry Hole Development Well</td>
<td>Capitalize</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Intangible Drilling Costs (IDC)</td>
<td>Capitalize</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Equipment</td>
<td>Capitalize</td>
<td>Capitalize</td>
<td>Capitalize</td>
</tr>
<tr>
<td>Production Costs (LOE)</td>
<td>Expense</td>
<td>Expense</td>
<td>Expense</td>
</tr>
<tr>
<td>Abandonment</td>
<td>Expense or Adjust Cost &amp; Accum Amort</td>
<td>Adjust Cost &amp; Accum Amort</td>
<td>Expense</td>
</tr>
</tbody>
</table>

D. Revenues

An independent oil and gas producer’s revenue consists primarily of:

• Oil and gas revenue
- Operating revenue
- Income from the sale or sublease of property
- Income from hedging transactions.

1. Oil and gas revenue

For producers the majority of the oil and gas revenue will be in the form of working interest. Overriding royalties are also common, while landowner royalties are less common for exploration and production companies. Oil and gas revenue might also be in the form of a net profits interest and production payments.

2. Operating revenue

Some operators generate income from operating wells, supervising drilling, transporting gas, hauling and disposing salt water, and other activities incidental to their operations.

3. Sale or sublease of property

Producers frequently sell or sublease property. Transactions include both developed and undeveloped property. Distinguishing between a sale and a sublease is critical for tax purposes.

4. Hedging transactions

Some exploration and production companies use derivatives in their operations to hedge risk associated with oil and gas prices. Derivatives are financial instruments whose values are derived from the value of an underlying asset. Typically, oil and gas companies use futures, options and swaps.

E. The cost center

Council of Petroleum Accountants Societies (COPAS) provides this definition for cost center in its training and reference guide, TR-9 Petroleum Industry Accounting Educational Training Guide:

The geological, geographical, or legal unit with which costs and revenues are identified and accumulated. Examples are the lease, the field, and the country.
1. Successful efforts and full cost methods

For a company using the successful efforts method, the cost center is generally a lease or larger area such as a reservoir or field. The rules for full cost accounting require the cost centers be established on a country-by-country basis. Companies using the full cost, maintain subsidiary records of individual unproved and proved properties for federal income tax reporting, complying with regulatory agencies, and providing information to management.

2. Tax method

The property rules set forth in the Internal Revenue Code and Treasury Regulations are not clearly defined. As a result the rules are often misunderstood and misapplied. For many small independent producers the cost center is a single well. Even though a well might be considered a property, a property is more often a lease under tax law. For those companies who maintain wells as their cost centers, records such as depletion schedules should be prepared applying the proper tax definition of property.
Review Questions

1. The primary activity of the upstream sector of the petroleum industry is:
   A. Processing, storing and transporting oil and natural gas
   B. Marketing petroleum products
   C. Refining crude oil
   D. Exploring for and producing oil and natural gas

2. Oil and gas exploration and production activities include all of the following except:
   A. Land acquisition for development
   B. Drilling and development of oil and gas properties
   C. Manufacturing of petrochemicals
   D. Producing oil and gas properties

3. Which of the following methods of accounting is considered GAAP for oil and gas producers?
   A. Completed contract
   B. Successful efforts
   C. Cash
   D. Hybrid

4. Which of the following methods would not be acceptable tax method of accounting?
   A. Deferral method
   B. Cash method
   C. Accrual method
   D. Hybrid method

5. G&G costs are expensed under which method of accounting?
   A. Full cost
   B. Successful efforts
   C. Tax basis – accrual
   D. Tax basis – cash

6. Drilling and development are categorized as either IDC or:
   A. Exploration costs
   B. Production costs
   C. Well and lease equipment
   D. Abandonment expense
7. All of the following are considered production costs except:
   A. Repairs and maintenance
   B. Delay rentals
   C. Severance taxes
   D. Labor

8. Which of the following is not a source of revenue for independent oil and gas producers?
   A. Retail sales of petroleum products
   B. Sale of crude oil and natural gas production
   C. Lease bonus received for a sublease
   D. Sale of producing oil and gas wells

9. What activity do oil and gas producers engage in due to the risky nature of commodity prices?
   A. Exporting crude oil
   B. Selling natural gas to directly to the consumer
   C. Price fixing
   D. Hedging

10. Which of the following statements is true regarding costs centers?
    A. Cost centers have no relevance for oil and gas producers
    B. A well is always the cost center for oil and gas producers
    C. COPAS examples are the lease, the field and the country
    D. Tax law gives a clear concise definition of a cost center
LEARNING OBJECTIVES

- Understand the concept of economic interest and be able to distinguish between the various types of economic interest
- Differentiate between various sharing arrangements
- Discuss the unique terms and concepts associated with joint interest accounting
- Introduce “revenue accounting”
- Learn to calculate depletion

I. ECONOMIC INTEREST

In the oil and gas industry common terms denote mineral ownership. The following are considered an economic interest:

- Working interest
- Royalty interest
- Overriding royalty interest
- Net profits interest
- Production payments.

A. Operating interest (working interest)

In the industry this interest is known as the working interest. The owner of the mineral rights possesses the working interest. Seldom do the landowners who own mineral rights have the capability of developing their properties for oil and gas production. As a result, landowners convey the working interest by means of an oil and gas lease for development of their acreage.

1. Oil and gas lease

A mineral lease is a contract between a mineral owner (lessor) and a second party (lessee). The lessor grants to the lessee the exclusive right to drill for and produce oil and gas, or other minerals on the property described in the lease. A lease usually provides for:

- Cash (lease bonus) payable to the lessor upon the execution of the lease and approval of title
- A specified term of years, usually from three to ten years
- Delay rental for each expiring year during which the lessee has not commenced drilling operations
• Lease cancellation if the lessee does not pay the delay rental by the due date

• The basis for division of oil and gas produced between the lessor and the lessee

• Continuation of the contract between the lessor and lessee as long as oil or gas is produced from the property.

The lessor’s share of the production is known as the royalty or landowner’s royalty. It is common for the share to be stated as a fraction of the oil and gas produced, for example 1/8. The lessee acquires the right to the oil and gas produced less the landowner’s royalty.

The lessee does not take on a specific obligation to develop the property or to pay delay rentals, but does agree that the lease will expire if the property is not developed or rentals are not paid. Normally the lessee can abandon the lease without penalty.

Illustration 2-1

<table>
<thead>
<tr>
<th>Before Lease</th>
<th>After Lease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer owns 100% surface and minerals</td>
<td>Farmer 1/8 LOR</td>
</tr>
<tr>
<td>O&amp;G Operator 100% WI</td>
<td></td>
</tr>
</tbody>
</table>

2. Division of oil and gas revenue

Gross revenue from an oil and gas property is divided among those who have an economic interest in the well. When production begins, a division order will be prepared based upon the terms in a lease, title opinions and any other agreements affecting ownership of the minerals. The division order gives the names of all parties who have interests in the well and their proportionate share of the revenue from the property.

See Appendix for sample division order.

The revenue interest is divided in fractions with 100 percent commonly expressed as 8/8. The royalty paid to landowners is paid from 8/8 of the revenue. Working interest owners and any interest created (“carved out”) from working interest share in the revenue less the “landowner” share.
Example 2-1: Brad Hustle leases a property from Jed Clampett agreeing to pay Jed a 1/8 royalty. Brad “farms out” the working interest to Apple Creek E&P and retains a 1/8 overriding royalty interest. Apple Creek partners with Kidron Oil to drill a well. Kidron contributes cash to the joint venture in exchange for 25% or the working interest. For the first month the well’s gross revenue is $5,000. The revenue will be divided as follows.

- Jed Clampett will receive $625 (1/8 of 8/8 of the gross revenue).
- Brad Hustle will receive $625 (1/7 of 7/8 of the gross revenue)
- Kidron will receive $937.50 (1/4 of 6/8 of the gross revenue)
- Apple Creek will receive $2,812.50 (3/4 of 6/8 of the gross revenue)

B. Non-operating interest

All economic interests other than the working interest are non-operating interest. The owner of a non-operating interest bears none of the risk or cost of developing or operating the oil and gas property. Common non-operating interest include:

- Landowner royalties
- Overriding royalties
- Net profits interest
- Production payments

<table>
<thead>
<tr>
<th>Type</th>
<th>Economic Interest</th>
<th>Operating Interest</th>
<th>Tax Treatment of Income</th>
<th>Eligible for Depletion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royalty</td>
<td>Yes</td>
<td>No</td>
<td>Royalties</td>
<td>Yes</td>
</tr>
<tr>
<td>Working Interest</td>
<td>Yes</td>
<td>Yes</td>
<td>Trade or Business</td>
<td>Yes</td>
</tr>
<tr>
<td>Overriding Royalty</td>
<td>Yes</td>
<td>No</td>
<td>Royalties</td>
<td>Yes</td>
</tr>
<tr>
<td>Net Profits</td>
<td>Yes</td>
<td>No</td>
<td>Royalties</td>
<td>Yes</td>
</tr>
<tr>
<td>Production Payments</td>
<td>Depends</td>
<td>No</td>
<td>Loan Payments or Royalties</td>
<td>Depends</td>
</tr>
</tbody>
</table>
1. Landowner royalties

The owner of the minerals in place generally retains a royalty interest, which is specified in the lease as a fraction or percentage of the total value of the oil and gas production. This royalty is commonly known as a landowner royalty.

2. Overriding royalties

An overriding royalty is created out of the working interest. Since it is created out of working interest, its life cannot exceed that of the working interest. The interest can either be “carved out” or “retained”. The working interest owner sometimes “carves out” a non-operating interest in exchange for services related to the acquisition and development of the property. An overriding royalty interest is also created when a working interest owner, under a “farmout” arrangement, transfers the working interest to another party and retains an overriding royalty.

3. Net profits interest

Like overriding royalties, a net profits interest is created (carved out or retained) out of the working interest. The primary difference between the two types of interest is how the owner’s share of gross production is measured. Under a net profits arrangement the owner’s share is calculated as a percentage of the net profits from the property. As a result, the owner of a net profits interest would receive no income if there were a loss from operations. The definition of net profits is critical, and should be clearly defined in the contract creating the interest.

4. Production payments

A production payment is a right to receive a share of production until a specific amount has been received. It is either carved out or retained from the working interest, and bears none of the development or operating costs.

Under Internal Revenue Code Section 636, a production payment is generally treated as a mortgage loan on the property. Payments received are loan payments. Production payments treated as mortgage loans are not considered to be an economic interest.

The law provides an exception where the consideration given for the production payment is pledged for the development of the property, or if the production payment is retained upon the lease of the mineral property. In such situations, the payment will qualify as an economic interest. The payments received are taxed as a royalty and the recipient is eligible for a depletion deduction.
II. JOINT OPERATIONS (JOINT INTEREST)

A. Sharing arrangements

Due to the capital intensive, high-risk nature of developing oil and gas properties, companies routinely combine their capital and knowledge in joint operations to share the cost and reduce risk. These sharing arrangements usually involve the transfer an operating interest or non-operating interest by one party to another in exchange for a contribution to the project.

1. Farm-out

In order to develop a property, the owner of an operating interest (working interest) may transfer (farm-out) the operating interest. In a farm-out arrangement some of the entire burden for developing the property is transferred to another person (farmee). In exchange for assuming the burden, the farmee receives the operating interest in the property.

As a part of the transaction, a non-operating interest is “carved-out” of the operating interest and retained by the owner. The retained interest is usually an overriding royalty, but could also be a net profits interest or a production payment.

In a farm-out arrangement, the assignor of the mineral interest will transfer any leasehold cost from the operating interest to the non-operating interest.

2. Joint ventures

Joint ventures are a type of sharing arrangement. A joint venture is a non-incorporated association of two or more persons or companies who pool their resources to drill, develop, and operate an oil and gas property or properties.

Each owner has an undivided interest in the property. Joint ventures may be created in several ways, some of the most common being:

- Two or more operators lease a single property as joint lessees.
- A working interest owner assigns an undivided fractional share of the property to another person or company in exchange for cash, property or services contributed to the “pool of capital” necessary to develop the property.
- Working interest is assigned to another operator under a carried-interest arrangement.
• Owners of mineral interest in various properties combine their interest under a pooling or unitization arrangement.

3. Carried interest

A carried interest occurs when joint owners of a working interest agree that one or more of the owners will advance the development cost on behalf of the other owners. The non-contributing owners are “carried” by the contributing owners.

a. Cost recoupment

In some arrangements, the carrying owners look to recoup the development cost from the carried owners’ share of production. The carrying party owns all the working interest during the complete payout period, and records on its books the drilling and development costs and the revenue and operating expense for the carried interest during the pay-out period.

Pay-out is the point at which the revenues from the carried interest equal the acquisition, drilling, completing and operating costs associated with the carried interest.

b. No cost recoupment

Adverse tax consequences can result for the carrying party for a carried interest where no cost is recouped. In tax law, this is known as the fractional interest rule. The rule provides, that the fractional share of IDC or equipment costs incurred in excess of the fractional share owned in the operating interest must be capitalized and added to depletable leasehold costs.

Example 2-2: WV Corp. agrees with OH, LLC to drill and equip a well on OH’s undeveloped property in exchange for a 75 percent working interest. WV incurs $650,000 in IDC and $350,000 in equipment costs.

✔ WV can deduct $487,500 of IDC ($650,000 x 75%).
✔ WV can depreciate $262,500 as equipment costs ($350,000 x 75%).
✔ The remaining $162,500 of IDC and $87,500 of equipment costs are added to depletable leasehold costs.
✔ OH has no right to deduct any cost since they were borne entirely by WV.
4. Partnerships

Oil and gas producers often form partnerships to attract capital and for tax purposes. Unlike unincorporated joint ventures, partnerships are legal entities that require separate accounting and tax return filings.

B. Joint interest accounting

1. Definitions

a. Joint operating agreement – Contractual agreement between two or more lease owners that provides for the operation of the lease. One party typically operates the lease with all owners sharing in the cost.

b. Joint property – The real and personal property subject to the joint operating agreement and owned by all the parties to the agreement.

c. Joint operations – Those activities required for one or more of the following operations:
   (1) Exploration
   (2) Development
   (3) Production
   (4) Abandonment/restoration of property

d. Joint account – The account or accounts in which the operator records charges and credits associated with the operations of the joint property.

e. Operator – The company or individual named in the joint operating agreement who has full control of all operations within the contract area.

f. Non-operators – Any person or company who is a party to the joint operating agreement and is not the operator.

g. Accounting procedure – The exhibit included with a joint operating agreement to govern the joint venture accounting. The accounting procedure addresses such topics as the basis for direct charges and credits to the joint account, overhead charges, disposal of equipment, basis of materials transferred on and off the property, inventories, billings, and advance payments. Over the years COPAS has developed several model Accounting Procedure Joint Operations exhibits.
2. Accounting for joint operations

The practices for accounting for joint operations vary depending on the size of the parties who are participating in the joint operation and the geographic location of the joint operations. For instance, small oil and gas producers in the Appalachian Basin typically offset the non-operators share of revenue with lease operating expenses. The more common practice in the industry is for the operator to bill the non-operators for their share of the expenses. The operator provides the non-operators with a joint interest bill (JIB) each month.

It should be noted that the joint venture is not a separate accounting entity. Each participant will record their proportionate share of the income and expenses from the joint property.

3. Joint interest audits

Disputes often arise over charges made to the joint account, as a result, Joint Operating Agreements (JOA) require the operator to grant to the non-operators full and free access to records. Audits of the joint account are authorized by the accounting procedure exhibit of the JOA. A non-operator, normally with the largest working interest, initiates, plans and executes the audit. The other non-operating owners can elect to participate in the audit.

The joint interest audit is a compliance type review to validate the charges to the joint account. The terms and conditions of the operating agreement and accounting procedure serve as the basis for determining the propriety of a particular charge.

An audit may also be performed to verify compliance with other types of agreements such as a farmout agreement or nets profits agreement.

III. ACCOUNTING FOR OIL AND GAS REVENUE

A. Specialized area of accounting

Oil and gas revenue accounting is a specialty area of accounting for oil and gas producers which is separate and distinct from financial accounting. In addition to accounting knowledge, revenue accounts must have knowledge of:

- Operations
- Marketing
- Transportation
- Governmental regulations
• Land and legal issues
• Contract terms

Accounting for oil and gas revenue is complicated by the fact that most of the revenue generating activities for a producer takes place in remote locations and the amount of product sold is measured by the customer. Another complicating factor is the determining the proper ownership of the product under existing joint operating agreements.

COPAS has published numerous accounting guidelines on oil and gas revenue accounting. In addition workshops on revenue accounting are available through COPAS MPACT.

B. Basic product definitions

1. Crude oil

Crude oil is produced as a liquid and is measured in barrels (BBLs). An oil barrel contains 42 U.S. gallons. Oil is produced and stored prior to being sold. The oil is stored in stock tanks, commonly referred to as a tank battery. Crude oil is usually sold at the lease or a central gathering point in the field. The oil that is sold is either measured in the tank before and after it is pumped into a tanker truck or pipeline, or the crude oil is measured as it passes through a LACT (Lease Automated Custody Transfer). In both cases the following information is obtained and recorded on a run ticket:

• Location of the tank
• Date of sale
• Observed gravity and temperature of the oil sample
• The tank level before the oil removal and the temperature (not necessary for LACT sales)
• The tank level after the oil removal and the temperature (not necessary for LACT sales)
• The BS&W content of the crude oil removed
• Purchaser’s name, operator’s name and run ticket number
• Signatures of purchaser and operator's representative

Crude oil prices vary according to geographic location, amount of sulfur in the crude oil, the date of sale and the oil density at 60 degrees. It is
the basic feed stock to oil refineries and is processed into many products such as gasoline, jet fuel, heating oil and asphalt.

2. Natural gas

Natural gas is produced as gas or vapor and is measured in thousand cubic feet (MCF), million cubic feet (MMCF) or billion cubic feet (BCF). Natural gas produced along with crude oil is referred to as “cashinghead gas”. Cashinghead gas is often “wet”, meaning that it contains a significant amount of natural gas liquids (NGLs).

Unlike crude oil, natural gas is not stored at the lease prior to sale. After the gas is separated from oil and water by lease equipment, it is delivered to a gatherings system or sales line. Volume is measured as gas passes through a meter. Chart-type meters or Electronic Flow Meters (EFM) are used to measure the gas.

For sales purposes, measuring and valuing natural gas is a complicated process. The following factors must be taken into consideration:

- Temperature
- Pressure base at which the volume is measured
- Btu content
- NGL content
- Contaminants

3. Natural gas liquids (NGLs)

NGLs are contained in most natural gas streams in differing quantities. Wet gas contains more NGLs than dry gas. These NGLs may be removed from natural gas in gas processing plants and sold as separate products. NGLs are accounted for and sold on a dollar per gallon basis. Common NGLs include:

- Ethane
- Propane
- Butane
- Pentanes
C. Recording revenue

1. Factors

Producers will record revenue on a cash basis or accrual basis and will take the following factors into consideration when recording revenue:

- Time period of sale
- Property identification
- Severance taxes
- Gas balancing status and related issues
- Compliance with purchaser contract terms
- Reversals
- Distribution of revenue to others

2. Cash receipts approach

Many small producers record revenue directly from information included on the purchaser’s check.

**Example 2-3:** Little Producer records the production revenue when it receives the check from the purchaser. For September, Little received a check from Resale Oil for $87,300 ($90,000 for crude oil sold less $2,700 in production taxes). The purchaser pays the royalties. Little owns 100 percent of the working interest. The following entry is made on Little’s books to record the revenue:

```
DR           CR
Cash         87,300
Production Taxes 2,700
Oil Income   90,000
```

3. Accounts receivable approach

Under the accounts receivable approach the revenue is recorded in the month the product was produced and sold. Since gas is not stored, the production month and sales month are the same however; the production volume and sales volume will usually differ due to field use and line loss between the wellhead and the sales delivery point. For oil, the month the oil is produced may be different from the month the oil is sold
Example 2-4: Based upon its internal records of quantities sold and prices, Midsize E&P estimates its crude oil income less the related production taxes to be $485,000 for September. The following entry is made to record the revenue on Midsize’s books:

\[
\begin{array}{c|c|c}
 & DR & CR \\
Accounts Receivable & 485,000 & \\
Production Taxes & 15,000 & \\
Oil Income & 500,000 & \\
\end{array}
\]

IV. DEPLETION

Producing oil and gas properties are depleting assets. U.S. tax law recognizes this by providing a depletion deduction to those having an economic interest in oil and gas properties.

Two methods exist for computing the depletion deduction:

- Cost depletion, and
- Percentage depletion.

The allowable depletion deduction is the higher of the two computations.

A. Cost depletion

1. Units-of-production method

   Generally cost depletion is computed using a units-of-production method and is calculated as follows:

   \[
   \text{Unamortized Cost (Book Value)} = \frac{\text{Units sold during the tax year} + \text{Remaining recoverable reserves at year end}}{\text{Units sold during the tax year}} \times \text{Current cost depletion}
   \]

   Example 2-3: At January 1, 2014, Monahans Energy had $20,000 in net leasehold cost in the Estes property. The property produced 36,000 barrels of oil, all of which was sold in 2011. At December 31, 2014 the Estes property had estimated reserves of 324,000 barrels.

   ✓ For 2014 Monahans’ cost depletion on the Estes property is $2,000.
2. Oil and gas reserves

In March 2007, the Society of Petroleum Evaluation Engineers issued the Petroleum Resources Management System which contained the following definition of oil and gas reserves:

…those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial and remaining.

The SEC has adopted definitions of proved, proved developed, and proved undeveloped reserves.

- **Proved reserves** – the estimated quantities of crude oil, 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 equipment and operating methods

- **Proved undeveloped reserves** – reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells for which a relatively major expenditure is required for recompletion.

The Society of Petroleum Evaluation Engineers define probable reserves as:

…those additional reserves that are less likely to be recovered than proved reserves but more certain to be recovered than possible reserves.

When calculating cost depletion for tax purposes, the estimated recoverable (proved) reserves include not only the proved developed reserves but also probable or prospective reserves. In a Coordinated Issue Paper the IRS stated that it would like to see taxpayers included proved reserves, developed and undeveloped, and probable and prospective reserves in the reserve estimates with computing cost depletion.

B. Percentage depletion

1. General rule
For oil and gas properties, percentage depletion is generally allowed at a rate of 15 percent of gross income from the property, limited to 100% of taxable income from the property. For marginal properties the rate increases by 1 percent (up to a maximum 25 percent rate) for each whole dollar that the reference price for crude oil for the preceding calendar year is less than $20 per barrel.

2. Taxable income limit

The regulations (Reg. Sec. 1.613-5) define taxable income from the property as gross income from the property less allowable deductions attributable to the property. The deductions include operating expenses, taxes, depreciation, IDC, and indirect cost.

The regulations do not provide a specific method for allocating indirect cost. According to the Internal Revenue Audit Manual it is acceptable to allocate overhead on the basis of gross income or direct expenses.

For “marginal properties” the net income limitation is suspended for years beginning after December 31, 1997 and before January 1, 2008 or beginning after December 31, 2008 and before January 1, 2012 (Sec. 613A(c)(6)(H)).

Marginal production is defined as domestic crude oil or natural gas produced from a property which:

- Is a stripper well property, or
- Substantially all production is heavy oil.

Stripper well property is property having average daily production of 15-barrel equivalents or less. Heavy oil is crude oil with a weighted average gravity of 20 degrees API or less (corrected to 60 degrees Fahrenheit).

3. 1,000 barrel per day limit

Percentage depletion is limited to an average of 1,000 barrels per day. Sec. 613A(c)(7) provides that the percentage depletion on each property will be equal to the percentage depletion otherwise allowable multiplied by a fraction the numerator of which is the depletable oil quantity (1,000 bbl.) and the denominator of which is the taxpayer’s average daily production.

The reduction does not apply to cost depletion, so it is necessary to compare the adjusted percentage depletion to the cost depletion on the property. A taxpayer will deduct the higher of the adjusted depletion or cost depletion.
a. **65% limitation**

Under 613A(d)(1) the deduction for percentage depletion may not exceed 65 percent of taxable income before percentage depletion. Taxable income does not include net operating losses and net capital loss carrybacks.

See Appendix for a sample depletion schedule example.
Review Questions

1. Which of the following is not usually considered an economic interest?
   A. Overriding royalty
   B. Net profits
   C. Production payment
   D. Working interest

2. A __________ is considered an operating interest.
   A. Landowner royalty
   B. Working interest
   C. Lease
   D. Net profits interest

3. Landowner royalties are paid from ____ of the gross revenue.
   A. 8/8
   B. 1/8
   C. 7/8
   D. 4/8

4. Under what sharing arrangement is an overriding royalty carved out and retained?
   A. Carried interest
   B. Joint venture
   C. Farm-out
   D. Partnership

5. Which statement best describes a joint venture?
   A. A legal entity registered with the state it does business in.
   B. Another form of a corporation.
   C. An entity required to be registered as a tax shelter.
   D. A joint venture is a non-incorporated association of two or more persons.

6. The fractional interest rule is applied to which type of sharing arrangement?
   A. Carried interest with no cost recoupment
   B. Pooling
   C. Farm-out
   D. Unitization
7. Which statement is true regarding cost depletion?
   A. Cost depletion can be figured without reserves.
   B. Cost depletion is figured on gross income.
   C. The units of production method is used to calculate cost depletion.
   D. Cost depletion is the only acceptable method for tax purposes.

8. All of the following are defined as reserves except:
   A. Calculated reserves
   B. Probable reserves
   C. Proved developed reserves
   D. Proved undeveloped reserves

9. The rate used to figure percentage depletion is:
   A. 5%
   B. 15%
   C. 10%
   D. 20%

10. Percentage depletion is subject to the following limitation:
    A. 25 percent of taxable income
    B. Net income limitation
    C. 10,000 barrel a day limitation
    D. Cost depletion limitation
LEARNING OBJECTIVES

- Review the general ledger accounts of an oil and gas exploration and production company
- Discuss the uniqueness of certain general ledger accounts and how they relate to the operations of an oil and gas producer
- Learn to record common transactions

As previously stated, accounting methods employed by small independent producers are diverse and seldom uniform. Oil and gas producers tailor their accounts, procedures, and subsidiary records according to their organizational needs and the expertise of accounting personnel. As a result companies may use different general ledger account names, but the categorization of expenditures and revenues should be similar depending on the method of accounting used. For purposes of this section the discussion will focus primarily on small producers who use a tax method of accounting.

See Appendix for an example of a chart of accounts.

I. BALANCE SHEET ACCOUNTS

A. Current assets

Balance sheet accounts expected to be converted into cash within one year in the normal course of business are classified as current assets. Current assets include:

- Cash
- Accounts receivable
- Inventory
- Marketable securities
- Prepaid expenses

1. Cash

Cash includes checking, savings accounts and CD’s held at banks and cash or cash equivalents held in brokerage accounts. Some companies maintain separate bank accounts for drilling activities and joint ventures, while others maintain only one account for all operations.

Funds put up for bonding purposes would normally not be considered a current asset and should be classified as “Other Assets”.

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2. Accounts receivable

Oil and gas producers generally have accounts receivable from two main sources:

- Oil and gas sales
- Funds owed by non-operators in joint ventures

a. Oil and gas sales

Under the accrual method, revenues are recognized when they are earned. As a result, accounts receivable represent uncollected revenues at any point in time. For oil and gas producers this would be for oil and gas sold in the current period and any prior periods for which payments have not be received.

Due to price fluctuations, shrinkage, and gas balancing requirements, the amount of estimated revenue from the sale of oil and gas is often different than the amount received. In order to simplify the accounting for oil and gas revenues, many small producers do not recognize the income from oil and gas sales until payment is received. This method of accounting is known as a modified accrual or hybrid method, which is an acceptable tax method of accounting but is not considered GAAP.

b. Funds owed by non-operator “partners”

It is common for oil and gas properties to be owned and operated jointly. The joint operating agreement (JOA) designates an operator. As a part of its responsibility, the operator pays all costs and expenses of the joint venture. The operator will recoup the non-operators share of the costs and expenses by either billing them or offsetting the non-operators’ share of revenue with its share of the costs and expenses.

With joint interest billings (JIB), the operator provides the non-operator with a monthly billing statement for their share of the expenses charged to the properties in which they have an interest. The amount billed and not collected will be the balance in the operator’s accounts receivable.

For most small producers in the Appalachian Basin, joint interest billing is not a common practice. Instead, the non-operators’ share of expenses is offset against their share of revenue and a disbursement of funds is made to the non-operator partners net of expenses. Under this method, when expenses exceed income, excess expenses are considered a receivable to the operator known as accounts receivable – well deficits.
See Appendix for example of joint interest billing (JIB) and an owner’s distribution statement.

3. Inventory

Inventory for oil and gas producers consists of warehouse inventory and possibly crude oil held in lease tanks.

a. Warehouse inventory

Oil and gas producers maintain supplies and equipment in warehouses or field yards for repairs and maintenance and equipment replacement. The inventory consists of both new and used items and would normally be carried at the lower of cost or market.

Used items “brought back” into inventory that are fully depreciated items will be carried at no cost. For items brought back into inventory for joint properties, the cost would be the amount of credit issued to the non-operator partners.

**Example 3-1:** Clinton Producing replaces a pumping unit on Ohio #1 with a new larger unit. The old pumping unit is brought back into Clinton’s inventory. The value of the old unit is $5,000 and Clinton issues a credit to the other working interest owners who own 50 percent of the working interest. The entry to record the transaction is:

<table>
<thead>
<tr>
<th>DR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory Warehouse</td>
<td>2,500</td>
</tr>
<tr>
<td>Production Distributions Payable</td>
<td>2,500</td>
</tr>
</tbody>
</table>

Operators of jointly owned properties often use used equipment. The used equipment will be charged to the non-operator for the value of the equipment.

**Example 3-2:** Clinton Producing replaces an existing pumping unit on Ohio #1 with one from its inventory. The value of the pumping unit is $8,000. Clinton owns 50 percent of the working interest and has no cost in the equipment. The entry to record the transaction is:

<table>
<thead>
<tr>
<th>DR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Distributions Payable</td>
<td>4,000</td>
</tr>
<tr>
<td>Other Income – Equipment Sales</td>
<td>4,000</td>
</tr>
</tbody>
</table>
b. Crude oil

Most companies ignore crude oil inventories in lease tanks. However, a few do record inventories in the tanks at the end of each year, adjusting the inventory account annually to reflect the amount of crude oil “in the tanks” at year-end. The crude oil inventory is recorded at the lower of cost or market.

4. Prepaid expense

Prepaid expenses are assets that become expenses as they expire or get used up. An example would be an annual premium paid for property and casualty insurance. Each month one-twelfth of the premium would be charged to expense.

5. Drilling in progress

Drilling in progress accounts are used to accumulate drilling costs until the well is completed. Upon the completion of the well the accumulated costs are removed from the drilling in progress account and are charged to the appropriate fixed asset and expense accounts.

Some companies include intangible drilling cost in the drilling in progress account, in order to better track total drilling costs. Under the current tax law intangible drilling costs are deducted in the year incurred for accrual basis taxpayers. Thus, it is important for all IDC incurred during the tax year to be removed from drilling in progress and charged to expense.

Non-operators either pay for their share of the drilling cost upfront or the operator will bill them for their share of the costs.

**Example 3-3:** Canton E&P pays for drilling costs totaling $50,000 for the month for the Hall of Fame #1. Canton, who owns 60 percent of the working interest, bills the other working interest owners for their share of the drilling costs. The entry to record the transaction is:

<table>
<thead>
<tr>
<th>DR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Receivable</td>
<td>20,000</td>
</tr>
<tr>
<td>Drilling in Progress</td>
<td>20,000</td>
</tr>
</tbody>
</table>

If the other working interest owners prepaid their share of the drilling cost, the entry would be:

<table>
<thead>
<tr>
<th>DR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor Deposits</td>
<td>20,000</td>
</tr>
<tr>
<td>Drilling in Progress</td>
<td>20,000</td>
</tr>
</tbody>
</table>
B. Fixed Assets (Property and Equipment)

1. Oil and gas property

For an oil and gas producers using the successful efforts method of accounting the general ledger accounts under oil and gas property include:

- Unproved property acquisition costs
- Impairment allowance
- Proved property acquisitions costs
- Accumulated amortization – proved property acquisition costs
- Proved property intangibles
- Accumulated amortization – proved property intangibles
- Tangible costs of wells and development costs
- Accumulated depreciation – tangible costs
- Support equipment & facilities
- Accumulated depreciation – support equipment & facilities

For a small producer using the tax method of accounting the accounts are similar but there may be fewer accounts. The oil and gas property accounts for these companies include:

- Leasehold cost – undeveloped leases
- Leasehold cost – developed leases
- Accumulated depletion – leasehold costs
- Geological and geophysical
- Accumulated amortization – G&G costs
- Well and lease equipment
- Accumulated depreciation – well and lease equipment

2. Other property and equipment

Oil and gas producers usually have a significant investment in other property and equipment such as heavy equipment, vehicles,
warehouse facilities and field offices. These items are carried on the books at cost.

3. Depletion, amortization and depreciation

a. Leasehold cost

Depletion is taken on leasehold costs. See Part II on depletion.

b. Amortization

Companies using a tax basis of accounting amortize G&G costs over 24 months using a mid-year convention.

c. Depreciation

Tangible well and lease equipment costs are depreciated using one of the following methods either the Modified Accelerated Cost Recovery System MACRS or Units of Production Method.

Other property and equipment are depreciated using the appropriate MACRS classification.

C. Other assets

All assets not classified as either current assets or property and equipment are considered other assets. Examples of other assets for small oil and gas producers include:

- Bonds or restricted cash accounts required by regulatory agencies
- Investments in oil and gas partnerships

D. Current liabilities

Liabilities expected to be paid within one year in the normal course of business are classified as current liabilities. Common current liabilities for an oil and gas producer are:

- Accounts payable
- Revenue distributions payable
- Revenue held in suspense
- Production taxes payable
- Accrued expenses
- Income taxes payable
• Bank line of credit
• Revenue clearing
• Expense clearing

1. Revenue (production) distributions payable and revenues (production) held in suspense

Revenue received by an operator that has not been paid out is considered a liability and would be recorded in an account with a name similar to revenue distribution payable.

It is a common practice for operators to set a minimum amount for revenue distributions. Revenue below the minimum amount is held in suspense until it exceeds the minimum amount. The amounts held as suspense are recorded in a current liability account properly named.

2. Production (severance) taxes payable

Most states assess a severance tax on oil and gas producers. The tax applies to both the working interest and royalty interest. Generally, it is the responsibility of the operator to collect and pay the severance tax. The tax collected but not paid is carried as a balance in production taxes payable.

3. Accrued expenses

Expenses incurred but not paid are reflected as current liabilities at the end of an accounting period. Common accrued expenses are:

• Salaries and wages
• Payroll taxes
• Retirement plan contributions
• Property taxes
• Interest expense

4. Clearing accounts

Clearing accounts are used accumulate expenses and revenue during an accounting period. At the end of the period, the balance of the accounts is allocated to other accounts on a predetermined basis. Ideally clearing accounts should have no balance at the end of a period.
E. Long-term liabilities

Any liability not expected to be paid within a year is classified as a long-term liability. Examples of long-term liabilities are:

- Notes payable
- Production payments payable

F. Equity accounts

The name given to equity accounts will depend upon the type of entity. The most common type of entities for oil and gas producers are:

- Corporations
- Partnerships
- LLCs

1. Corporations

For C Corporations the common equity accounts are:

- Common stock
- Additional paid in capital
- Dividends
- Retained earnings

An S Corporation will have the same accounts but dividends are typically called distributions.

2. Partnerships

For partnerships the common equity accounts are:

- Partner capital
- Partner contributions
- Partner withdrawals

3. LLCs

For LLCs the common equity accounts are:

- Member capital
II. INCOME AND EXPENSE ACCOUNTS

A. Oil and gas revenue

Accounting for oil and gas revenues can be complex. Factors contributing to the complexity are:

- Multiple working interest and royalty owners with varying interest
- Changes in ownership
- Varying production tax rates
- Changes in purchasers
- Purchaser/operator/pipeline accounting errors
- Gas imbalances

1. General issues for operators

Revenue accounting is affected by the following:

- Division orders
- Distribution accounting
- Revenue accounting centers

a. Division orders

As previously discussed, a division order is prepared based upon the terms in a lease, title opinions and any other agreements affecting ownership of the minerals. The division order gives the names of all parties who have interests in the well and their proportionate share of the revenue from the property.

The division orders authorize the operators to make payments to the various owners who have a revenue interest. Proceeds from oil and gas sales from the property must be distributed to each party reported on the division order. The operator should maintain copies of the division orders.

b. Distribution accounting
An oil and gas producer’s revenues are its share of revenues net of royalties and overriding royalties, excluding working interest owned by others.

**Example 3-3:** For the month the gross revenue for the Canton Unit #1 is $50,000. The production tax is $2,500. Hall of Fame E&P is the operator and has a 30 percent working interest in the well. A 1/8 royalty is owed to the landowner.

- The Landowner’s royalty is $6,250, and the production tax is $312.50.
- Other working interest owners’ share of the revenue is $30,625, and the production tax is $1,531.25.
- Hall of Fame’s share of the revenue is $13,125 and the production tax $656.25
- As the operator, Hall of Fame receives the full $50,000 of revenue proceeds. It keeps $12,468.75 and must distribute $37,531.25 to other interest owners and the state-taxing agency.

c. Revenue accounting centers

Revenue must be assigned and recorded to the correct property. Generally, the revenue accounting center is by well, but it may also be by field or lease. The centers are needed to record production, make proper distributions to the working interest and royalty owners, and calculate production taxes.

2. Revenue received from other operators

It is common for oil and gas producers to participate in joint ventures in which they are not the operator. As a non-operator, the company receives its share of income from the property and pays for their share of the expenses associated with the property. The expenses may be billed (JIB) to the non-operators or the expenses may offset revenue.

**Example 3-4:** Wilmont E&P owns working interest in wells operated by Mt. Eaton Oil & Gas. For January, the net distribution received by Wilmont from Mt. Eaton is $7,500. Expenses are netted against the revenue. The gross oil and gas revenue for the month is $10,000 and the expenses are $2,500 ($2,000 LOE and $500 severance tax). The following entry is made to record the revenue and expense on Wilmont’s books:
Cash 7,500
Lease Operating Expense 2,000
Severance Tax 500
Revenue – Working Interest 10,000

Example 3-5: Wilmont also owns a working interest in a property located in Texas, operated by Pecos Petro. For January, Wilmont receives a check for $6,000 from Midland O&G, the purchaser of the crude oil, for its share revenue less $300 in severance tax. Wilmont receives a joint interest billing from Pecos for the property’s expenses. The expenses total $1,500. The following entries are made to record the revenue and expense on Wilmont’s books:

Cash 6,000
Severance Tax 300
Revenue – Working Interest 6,300

Lease Operating Expense 1,500
Accounts Payable 1,500

B. Sales and subleases of oil and gas property

As previously mentioned, oil and gas producers frequently sell or sublease properties. Distinguishing between a sale and sublease is important for accounting and tax purposes.

1. Distinguishing between a sale and sublease

A sale takes place when an oil and gas property is conveyed without a non-operating interest being retained.

A sublease is created when a working interest in an oil and gas property is transferred and a non-operating interest such as an overriding royalty interest is retained.

2. Accounting for a sale

a. Undeveloped property

Undeveloped oil and gas properties consist of acreage under lease where oil and gas production has not been developed. Oil and gas producers routinely sell undeveloped properties.
Example 3-6: Lobo Producers receives $300,000 for undeveloped acreage. No interest is retained in the properties. The leasehold cost for the properties sold is $100,000. The following entry is made to record the sale Lobo’s books:

<table>
<thead>
<tr>
<th>DR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>300,000</td>
</tr>
<tr>
<td>Leaseholds – Undeveloped Properties</td>
<td>100,000</td>
</tr>
<tr>
<td>Gain on Sale of Oil and Gas Properties</td>
<td>200,000</td>
</tr>
</tbody>
</table>

b. Developed properties

Developed properties are producing properties. Assets associated with producing properties are leasehold cost and equipment. For various reasons, sales and exchanges of producing properties are common among oil and gas producers.

Example 3-7: Mustang Oil sells producing property to Yellow Jacket E&P for $1,000,000. For the properties sold, leasehold cost is $50,000 with accumulated depletion of $40,000 and equipment cost is $750,000 with accumulated depreciation of $600,000. The following entry is made to record the sale on Mustang’s books:

<table>
<thead>
<tr>
<th>DR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Leaseholds – Developed Properties</td>
<td>50,000</td>
</tr>
<tr>
<td>Accumulated Depletion</td>
<td>40,000</td>
</tr>
<tr>
<td>Equipment – Oil and Gas Properties</td>
<td>750,000</td>
</tr>
<tr>
<td>Accumulated Depreciation</td>
<td>600,000</td>
</tr>
<tr>
<td>Gain on Sale of Oil and Gas Properties</td>
<td>840,000</td>
</tr>
</tbody>
</table>

3. Accounting for a sublease

In a sublease, cash received is considered a lease bonus. Any basis in the transferred working interest becomes basis in the royalty interest retained.

Example 3-8: Panther O&G subleases 500 undeveloped acres to Eagle Operators for $2,000 an acre retaining a 2 percent ORRI. Panther has $50,000 in leasehold cost for the properties subleased. The following entry is made to record the transaction on Panther’s books:
C. Other operating revenue

As previously mentioned, some operators generate income from operating wells, supervising drilling, transporting gas, hauling and disposing salt water, and other activities incidental to their operations. The income from these activities will be recorded in the ordinary course of business in the appropriate accounts.

D. Cost of operations

Some oil and gas producers classify expenses directly associated with oil and gas production as cost of operations. These expenses include:

- Lease operating expenses
- Production taxes
- Intangible drilling costs
- Dry hole costs
- Abandonment expense
- Depletion, depreciation and amortization
- Other field expenses

1. Intangible drilling costs (IDC)

The treasury regulations under IRC Section 612 provide this definition of IDC:

In accordance with the provisions of section 263(c), intangible drilling and development cost incurred by an operator (one who holds a working or operating interest in any tract or parcel of land either a fee owner or under a lease or any other form of contract granting working or operating rights) in the development of oil and gas properties may at his option be chargeable to capital or expense. This option applies to all expenditures made by an operator for wages, fuel, repairs, hauling supplies, etc., incident to and necessary for the drilling of wells and preparation of wells for the production of oil or gas…. In general, this option applies
only to expenditures for those drilling and developing items, which in themselves do not have a salvage value.

Rev. Rul. 70-414, 1970-2 C.B. 132 provides additional guidance in determining what is considered IDC. The Revenue Ruling clarifies that:

- The cost of casing even though not salvageable is not IDC.
- IDC includes the cost of installing tangible equipment up to and including the cost of installing the “Christmas tree”.
- The cost of installing production and treatment equipment, such as pumping equipment and storage tanks is not considered IDC.

For companies who keep their books using a tax method of accounting IDC is expensed when incurred under an accrual method and when paid under a cash basis method of accounting.

2. Abandonment expense

When producing properties become unprofitable to operate, companies will plug and abandon the wells. The plugging cost and any remaining leasehold and equipment cost will be recorded to abandonment expense.

Leasehold cost in undeveloped properties are charged to abandonment expense when leases expire.

E. General and administrative expense

Expenses not associated with the production of oil and gas revenue but necessary for operating the business are commonly known as general and administrative expense. G&A expenses include:

- Salaries and benefits of executives
- Salaries and benefits of office personnel
- Legal and professionals fees
- Computer and information systems
- Telephone
- Office expense
- Advertising and marketing
- Insurance
• Rent
• Utilities

F. Other income and expenses

Typically income and expense not associated with operations are classified as other income and other expense. Examples include:

• Charitable donations
• Interest income
• Interest expense
• Investment income
• Investment expenses
Review questions

1. The following statement best describes accounting practices for oil and gas producers:
   A. The accounting procedures and practices are highly regulated.
   B. Accounting practices are the same for large and small producers.
   C. All oil and gas producers must follow GAAP.
   D. Accounting methods employed by small independent producers are diverse and seldom uniform.

2. Which of the following statements is true?
   A. Inventory is not considered a current asset.
   B. Under the accrual method of accounting revenues are recognized when they are received.
   C. Current assets are those balance sheet accounts expected to be converted into cash within one year.
   D. The hybrid method is not an acceptable tax method of accounting.

3. Regarding property and equipment all of the following statements are correct except:
   A. Depletion is taken on leasehold costs.
   B. G&G costs are included in leasehold cost.
   C. For companies using a tax method of accounting depreciation can be figured using the Modified Accelerated Cost Recovery System.
   D. Intangible drilling costs are expensed for companies using a tax method of accounting.

4. Current liabilities would not include which of the following accounts:
   A. Notes payable
   B. Revenue distributions payable
   C. Production taxes payable
   D. Accrued expenses

5. What type of accounts are used to accumulate expenses and revenue during an accounting period with the balances in the accounts being allocated to other accounts at the end of the period?
   A. Clearing accounts
   B. Accounts receivable – owner deficits
   C. Revenue held in suspense
   D. Production taxes payable

6. Retained earnings would be common account for what type of entity?
   A. Partnership
   B. Sole proprietorship
   C. LLC
   D. Corporation
7. Revenue accounting is affected by the all of the following except:
   A. Division orders
   B. State well spacing requirements
   C. Distribution accounting
   D. Revenue accounting centers

8. Which statement is true regarding a sublease?
   A. A non-operating interest is forfeited.
   B. The cash payment received is recorded as a lease bonus.
   C. The value of the overriding royalty received must be valued and recorded as an asset.
   D. Any leasehold cost in the transferred property is expensed

9. Lease operating expense is usually classified as what type account?
   A. An offset account to oil and gas revenue
   B. General and administrative expense
   C. Cost of operations
   D. Other expense

10. Which of the following is not considered a general and administrative expense?
    A. Legal and professional fees
    B. Production taxes
    C. Office expense
    D. Salaries of office personnel
LEARNING OBJECTIVES

- Review the basic financial statements and how they related to each other
- Identify various management reports that are utilized by management
- Examine and discuss the financial statements of a small oil and gas producer

I. FINANCIAL STATEMENTS AND MANAGEMENT REPORTS

A. Financial statements

The four main financial statements include:

- Balance sheet
- Income statement
- Cash flow statement
- Statement of stockholder’s (partner’s or member’s) equity

1. Balance sheet

The balance sheet provides detailed information about a company’s assets, liabilities and stockholder’s (owner’s) equity.

Assets are things a company owns that have value. Typically this means they can either be sold or used by the company to produce products or provide services. Liabilities are the amounts of money that a company owes to others. The difference between the total assets and the total liabilities is the equity of the owners. A company’s assets have to equal or “balance”, the sum of its liabilities and owner’s equity.

\[ \text{Assets} = \text{Liabilities} + \text{Equity} \]

A balance sheet shows a snapshot of a company’s assets, liabilities and equity at the end of the reporting period. It does not show the flows into and out of the accounts during the period.

a. Assets

Current assets are assets a company expects to convert to cash within one year. Conversely, non-current assets are assets that the company does not expect to convert to cash within one year. Non-current assets include fixed assets which are the assets used to operate the business.
b. Liabilities

Liabilities are classified as current or long-term. Current liabilities are the obligations of the company expected to be paid within a year. Long-term liabilities are obligations due more than one year away.

2. Income statement

An income statement is a report that shows how much revenue a company earned over a specific period of time. It also shows the costs and expenses associated with earning that revenue. The “bottom” line of the statement, net income, is the company’s net earnings or loss for the reporting period.

3. Cash flow statements

Cash flow statements report a company’s inflows and outflows of cash. While the income statement tells whether a company made a profit, a cash flow statement tells whether the company generated cash. The cash flow statement uses and reorders the information from a company’s balance sheet and income statement.

The bottom line of the cash flow statement shows the net increase or decrease in cash for the reporting period. In arriving at the bottom line, the statement reports cash flow from: (1) operating activities; (2) investing activities; and (3) financing activities.

See appendix financial statement examples.

B. Management reports

In addition to the basic financial statements, owners and managers rely on other financial reporting to evaluate the financial position of the company, determine the profitability of assets, budget and forecast profit and capital expenditures, and compare the company with others in the industry. Beneficial reports for owners and managers for small oil and gas companies include:

- Budgets
- Financial projections
- Selected financial ratios
- Evaluation of the profitability of projects
- Comparative benchmarking reports with other companies of similar size
II. REGULATORY REPORTING

The oil and gas industry is highly regulated, and a significant burden is placed upon producers to comply with laws and regulations of various federal, state and local agencies. Good accounting practices and systems enable companies to comply with the various agencies’ reporting requirements.
Review Questions

1. Which of the following is not considered a financial statement?
   A. Balance sheet
   B. Statement of changes in fixed assets
   C. Cash flow
   D. Income statement

2. The correct “balance sheet” formula is:
   A. Assets = Liabilities + Equity
   B. Liabilities = Assets + Equity
   C. Assets = Equity – Liabilities
   D. Equity = Assets + Liabilities

3. All of the following statements are true except:
   A. Leasehold cost is recovered through depletion
   B. A bond held by a state agency is a current asset
   C. Accrued expenses are current liabilities
   D. Accounts payable – minimum held production is a current liability

4. Which of the following is not considered operating revenue?
   A. Income from working interest
   B. Overriding royalties
   C. Lease bonus
   D. Interest income

5. Lease operating expense is best classified as:
   A. A negative revenue
   B. General and administrative expense
   C. Other expense
   D. Cost of operations

6. Which account would not be included as an equity account for a partnership?
   A. Partner withdrawals
   B. Partner contributions
   C. Partner capital
   D. Retained earnings
7. An increase in accounts receivable:
   A. Is an outflow of cash
   B. Has no effect on cash
   C. Is an inflow of cash
   D. Is reported on the balance sheet

8. An increase in accounts payable:
   A. Has no effect on cash
   B. Is reported as a financing activity
   C. Is an inflow of cash
   D. Is an outflow of cash

9. Proceeds from sale of equipment are reported on the cash flow statement as:
   A. An operating activity
   B. An investing activity
   C. A financing activity
   D. An add back on the income statement

10. Management reports would normally include all the following except:
    A. Budgets
    B. Projections
    C. Benchmarking with other companies
    D. Copies payroll tax reports
NADOA Model Form Division Order (Adopted 9/95)

DIVISION ORDER

To: 

Date: 

Property Number: Property Name: Operator: County and State: Property Description: 

Production: Oil Gas Other: 

Owner Name and Address: 

OWNER NUMBER: 

Type of Interest: Decimal Interest: 

The undersigned certifies the ownership of their decimal interest in production or proceeds as described above payable by (Payor). 

Payor shall be notified, in writing, of any change in ownership, decimal interest, or payment address. All such changes shall be effective the first day of the month following receipt of such notice. 

Payor is authorized to withhold payment pending resolution of a title dispute or adverse claim asserted regarding the interest in production claimed herein by the undersigned. The undersigned agrees to indemnify and reimburse Payor any amount attributable to an interest to which the undersigned is not entitled. 

Payor may accrue proceeds until the total amount equals , or pay whichever occurs first, or as required by applicable state statute. 

This Division Order does not amend any lease or operating agreement between the undersigned and the lessee or operator or any other contracts for the purchase of oil or gas. 

In addition to the terms and conditions of this Division Order, the undersigned and Payor may have certain statutory rights under the laws of the state in which the property is located. 

Special Clauses: 

Owner(s) Signature(s): 

Owner(s) Tax I.D. Number(s): 

Owner Daytime Telephone #: Owner FAX Telephone #: 

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number. Failure to comply will result in 28% tax withholding and will not be refundable by Payor.
### Big Ten Producing Company

#### Depletion Schedule

**2012**

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Gross Income</th>
<th>LOE</th>
<th>Depr</th>
<th>IDC</th>
<th>Direct Expense</th>
<th>Indirect Expense</th>
<th>Taxable Income</th>
<th>Depletion Limitation</th>
<th>Cost Depletion</th>
<th>Allowable Depletion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buckeyes</td>
<td>Non</td>
<td>100,000</td>
<td>25,000</td>
<td>-</td>
<td>-</td>
<td>25,000</td>
<td>6,029</td>
<td>68,971</td>
<td>15,000</td>
<td>-</td>
<td>15,000</td>
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<tr>
<td>Wolverines</td>
<td>Mar</td>
<td>75,000</td>
<td>20,000</td>
<td>-</td>
<td>-</td>
<td>20,000</td>
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<td>-</td>
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<td>Badgers</td>
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<td>24,500</td>
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<td>-</td>
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<tr>
<td>Nittany Lions</td>
<td>Mar</td>
<td>55,000</td>
<td>23,000</td>
<td>25,000</td>
<td>-</td>
<td>48,000</td>
<td>11,576</td>
<td>(4,576)</td>
<td>8,250</td>
<td>-</td>
<td>750</td>
</tr>
<tr>
<td>Fighting Illini</td>
<td>Mar</td>
<td>84,000</td>
<td>22,000</td>
<td>27,500</td>
<td>-</td>
<td>49,500</td>
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<td>22,563</td>
<td>12,600</td>
<td>750</td>
<td>12,600</td>
</tr>
<tr>
<td>Hoosiers</td>
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<td>32,000</td>
<td>31,500</td>
<td>-</td>
<td>63,500</td>
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<td>Hawkeyes</td>
<td>Mar</td>
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<td>31,000</td>
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<td>-</td>
<td>62,500</td>
<td>15,072</td>
<td>12,428</td>
<td>13,500</td>
<td>1,000</td>
<td>12,428</td>
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<td>Golden Gophers</td>
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<td>-</td>
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<td>16,037</td>
<td>42,463</td>
<td>18,750</td>
<td>1,000</td>
<td>18,750</td>
</tr>
<tr>
<td>Cornhuskers</td>
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<td>25,000</td>
<td>21,000</td>
<td>50,000</td>
<td>100,000</td>
<td>171,000</td>
<td>41,238</td>
<td>(187,238)</td>
<td>3,750</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Boilermakers</td>
<td>Mar</td>
<td>82,000</td>
<td>19,500</td>
<td>-</td>
<td>-</td>
<td>19,500</td>
<td>4,703</td>
<td>57,797</td>
<td>12,300</td>
<td>-</td>
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<td>Wildcats</td>
<td>Non</td>
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<td>24,000</td>
<td>-</td>
<td>-</td>
<td>24,000</td>
<td>5,788</td>
<td>75,212</td>
<td>15,750</td>
<td>-</td>
<td>15,750</td>
</tr>
<tr>
<td>Spartans</td>
<td>Mar</td>
<td>69,000</td>
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<td>-</td>
<td>-</td>
<td>23,000</td>
<td>5,547</td>
<td>40,453</td>
<td>10,350</td>
<td>-</td>
<td>10,350</td>
</tr>
</tbody>
</table>

**Total**

1,000,000 300,000 222,000 100,000 622,000 150,000 228,000 150,000 136,928 5,750 138,178

*Indirect expense allocated to properties based upon direct expenses*

**Other Information:**

Big Ten is a C-corporation and its taxable income before depletion is $225,000
<table>
<thead>
<tr>
<th>Account Name</th>
<th>Account Number</th>
<th>Account Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash - Checking</td>
<td>1001</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Cash - Savings</td>
<td>1002</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>1101</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Owner Deficits Receivable</td>
<td>1102</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Inventory - Material and Supplies</td>
<td>1201</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Inventory - Crude Oil</td>
<td>1202</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Prepaid Insurance</td>
<td>1301</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Drilling in Progress</td>
<td>1302</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Expense Clearing</td>
<td>1303</td>
<td>Current Asset</td>
</tr>
<tr>
<td>Leasehold Costs - Undeveloped Properties</td>
<td>1401</td>
<td>Fixed Asset</td>
</tr>
<tr>
<td>Leasehold Costs - Developed Properties</td>
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<td>Fixed Asset</td>
</tr>
<tr>
<td>Accumulated Depletion - Leasehold Costs</td>
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<td>Fixed Asset</td>
</tr>
<tr>
<td>Geological and Geophysical Costs</td>
<td>1404</td>
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<tr>
<td>Accumulated Amortization - G&amp;G Costs</td>
<td>1405</td>
<td>Fixed Asset</td>
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<tr>
<td>Well and Lease Equipment</td>
<td>1406</td>
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</tr>
<tr>
<td>Accum. Depreciation - Well and Lease Equip</td>
<td>1407</td>
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</tr>
<tr>
<td>Field Equipment</td>
<td>1501</td>
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</tr>
<tr>
<td>Accumulated Depreciation - Field Equipment</td>
<td>1502</td>
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</tr>
<tr>
<td>Vehicles</td>
<td>1503</td>
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</tr>
<tr>
<td>Accumulated Depreciation - Vehicles</td>
<td>1504</td>
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</tr>
<tr>
<td>Office Equipment</td>
<td>1601</td>
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</tr>
<tr>
<td>Accumulated Depreciation - Office Equip.</td>
<td>1602</td>
<td>Fixed Asset</td>
</tr>
<tr>
<td>Bond</td>
<td>1801</td>
<td>Other Asset</td>
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<tr>
<td>Investment in Partnerships</td>
<td>1802</td>
<td>Other Asset</td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>2001</td>
<td>Current Liability</td>
</tr>
<tr>
<td>Minimum Production Payments Held</td>
<td>2002</td>
<td>Current Liability</td>
</tr>
<tr>
<td>Severance Taxes Payable</td>
<td>2101</td>
<td>Current Liability</td>
</tr>
<tr>
<td>Payroll Taxes Payable</td>
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<td>Current Liability</td>
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<td>Sales Taxes Payable</td>
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<td>Property Taxes Payable</td>
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<td>Retirement Plan Payable</td>
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</tr>
<tr>
<td>Revenue Clearing</td>
<td>2301</td>
<td>Current Liability</td>
</tr>
<tr>
<td>Note Payable - Bank</td>
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<td>Capital Stock</td>
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<td>Equity</td>
</tr>
<tr>
<td>Account Name</td>
<td>Account Number</td>
<td>Account Type</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Additional Paid In Capital</td>
<td>3002</td>
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<tr>
<td>Retained Earnings</td>
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<td>Equity</td>
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<tr>
<td>Dividends</td>
<td>3004</td>
<td>Equity</td>
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<tr>
<td>Crude Oil Revenues</td>
<td>4001</td>
<td>Revenue</td>
</tr>
<tr>
<td>Gas Revenues</td>
<td>4002</td>
<td>Revenue</td>
</tr>
<tr>
<td>Royalties - Crude Oil</td>
<td>4101</td>
<td>Revenue</td>
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<tr>
<td>Royalties - Gas</td>
<td>4102</td>
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<tr>
<td>Operating Income</td>
<td>4201</td>
<td>Revenue</td>
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<tr>
<td>Sale of Materials and Supplies</td>
<td>4202</td>
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</tr>
<tr>
<td>Lease Bonuses</td>
<td>4301</td>
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<tr>
<td>Sale of Oil and Gas Properties</td>
<td>4302</td>
<td>Revenue</td>
</tr>
<tr>
<td>Sale of Other Equipment</td>
<td>4400</td>
<td>Revenue</td>
</tr>
<tr>
<td>Abandonment Expense</td>
<td>5001</td>
<td>Cost of Revenue</td>
</tr>
<tr>
<td>Dry Hole Costs</td>
<td>5002</td>
<td>Cost of Revenue</td>
</tr>
<tr>
<td>Intangible Drilling Costs</td>
<td>5003</td>
<td>Cost of Revenue</td>
</tr>
<tr>
<td>Lease Operating Expense</td>
<td>5004</td>
<td>Cost of Revenue</td>
</tr>
<tr>
<td>Other Field Expense</td>
<td>5005</td>
<td>Cost of Revenue</td>
</tr>
<tr>
<td>Severance Tax</td>
<td>5006</td>
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<td>Amortization</td>
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<td>Cost of Revenue</td>
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<td>Depreciation</td>
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<tr>
<td>Depletion</td>
<td>5009</td>
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</tr>
<tr>
<td>Officer's Salaries</td>
<td>6001</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Other Salaries</td>
<td>6002</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>6003</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Payroll Taxes</td>
<td>6004</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Rent</td>
<td>6005</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Office Supplies</td>
<td>6006</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Utilities</td>
<td>6007</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Dues and Subscriptions</td>
<td>6008</td>
<td>General &amp; Administrative</td>
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<tr>
<td>Travel</td>
<td>6009</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Meals and Entertainment</td>
<td>6010</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Legal and Professional</td>
<td>6011</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Insurance</td>
<td>6012</td>
<td>General &amp; Administrative</td>
</tr>
<tr>
<td>Interest Income</td>
<td>7001</td>
<td>Other Income</td>
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<tr>
<td>Contributions</td>
<td>8001</td>
<td>Other Expense</td>
</tr>
<tr>
<td>Income Taxes</td>
<td>9001</td>
<td>Income Taxes</td>
</tr>
</tbody>
</table>
Typical Small Producer, Inc  
Balance Sheet  
12/31/2014

### Assets

<table>
<thead>
<tr>
<th>Current Assets:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash - Checking</td>
<td>$ 100,000</td>
</tr>
<tr>
<td>Cash - Savings</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>40,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>150,000</td>
</tr>
<tr>
<td>Prepaid Insurance</td>
<td>80,000</td>
</tr>
<tr>
<td>Drilling in Progress</td>
<td>400,000</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td><strong>2,270,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property and Equipment:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leasehold Costs</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Accumulated Depletion - Leasehold Costs</td>
<td>(750,000)</td>
</tr>
<tr>
<td>Geological and Geophysical Costs</td>
<td>350,000</td>
</tr>
<tr>
<td>Accumulated Amortization - G&amp;G Costs</td>
<td>(275,000)</td>
</tr>
<tr>
<td>Well and Lease Equipment</td>
<td>3,200,000</td>
</tr>
<tr>
<td>Accum. Depreciation - Well and Lease Equip</td>
<td>(1,950,000)</td>
</tr>
<tr>
<td>Other Equipment</td>
<td>425,000</td>
</tr>
<tr>
<td>Accumulated Depreciation - Other Equipment</td>
<td>(250,000)</td>
</tr>
<tr>
<td><strong>Total Property and Equipment</strong></td>
<td><strong>4,750,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Assets:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond</td>
<td>50,000</td>
</tr>
<tr>
<td>Investment in Partnerships</td>
<td>125,000</td>
</tr>
<tr>
<td><strong>Total Other Assets</strong></td>
<td><strong>175,000</strong></td>
</tr>
</tbody>
</table>

| **Total Assets**       | $ 7,195,000 |

### Liabilities and Stockholders’ Equity

<table>
<thead>
<tr>
<th>Current Liabilities:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Payable</td>
<td>$ 80,000</td>
</tr>
<tr>
<td>Taxes Payable</td>
<td>16,000</td>
</tr>
<tr>
<td>Accrued Expenses</td>
<td>50,000</td>
</tr>
<tr>
<td>Income Tax Payable</td>
<td>600,000</td>
</tr>
<tr>
<td>Current Portion of Long-term Debt</td>
<td>200,000</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td>946,000</td>
</tr>
</tbody>
</table>

| Long-term Debt (Less Current Portion) | 1,450,000 |

<table>
<thead>
<tr>
<th>Stockholders’ Equity:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>5,000</td>
</tr>
<tr>
<td>Additional Paid in Capital</td>
<td>95,000</td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>4,699,000</td>
</tr>
<tr>
<td><strong>Total Stockholders' Equity</strong></td>
<td><strong>4,799,000</strong></td>
</tr>
</tbody>
</table>

| **Total Liabilities and Stockholders’ Equity** | $ 7,195,000 |
### Typical Small Producer, Inc

#### Income Statement

**For the Year Ended 12/31/14**

**Revenues:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil Revenues</td>
<td>$1,600,000</td>
</tr>
<tr>
<td>Gas Revenue</td>
<td>2,400,000</td>
</tr>
<tr>
<td>Royalties</td>
<td>200,000</td>
</tr>
<tr>
<td>Lease Bonus</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Gain on Sale of Oil and Gas Properties</td>
<td>500,000</td>
</tr>
<tr>
<td>Sale of Materials and Supplies</td>
<td>150,000</td>
</tr>
<tr>
<td>Operating Income</td>
<td>300,000</td>
</tr>
<tr>
<td><strong>Total Revenues</strong></td>
<td><strong>6,650,000</strong></td>
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</tbody>
</table>

**Cost of Operations:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lease Operating Expense</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Severance Tax</td>
<td>105,000</td>
</tr>
<tr>
<td>Abandonment Expense</td>
<td>75,000</td>
</tr>
<tr>
<td>Intangible Drilling Costs</td>
<td>600,000</td>
</tr>
<tr>
<td>Dry Hole Costs</td>
<td>100,000</td>
</tr>
<tr>
<td>Other Field Expense</td>
<td>500,000</td>
</tr>
<tr>
<td>Depletion, Depreciation and Amortization</td>
<td>600,000</td>
</tr>
<tr>
<td><strong>Total Cost of Operations</strong></td>
<td><strong>2,980,000</strong></td>
</tr>
</tbody>
</table>

**Profit From Operations**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Profit From Operations</strong></td>
<td><strong>3,670,000</strong></td>
</tr>
</tbody>
</table>

**General and Administrative Expenses:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers Salaries</td>
<td>300,000</td>
</tr>
<tr>
<td>Other Salaries</td>
<td>250,000</td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>90,000</td>
</tr>
<tr>
<td>Payroll Taxes</td>
<td>60,000</td>
</tr>
<tr>
<td>Rent</td>
<td>36,000</td>
</tr>
<tr>
<td>Office Supplies</td>
<td>6,000</td>
</tr>
<tr>
<td>Utilities</td>
<td>4,000</td>
</tr>
<tr>
<td>Dues and Subscriptions</td>
<td>2,000</td>
</tr>
<tr>
<td>Travel</td>
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<tr>
<td>Meals and Entertainment</td>
<td>1,000</td>
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<tr>
<td>Legal and Professional</td>
<td>6,000</td>
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<tr>
<td>Insurance</td>
<td>8,000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>10,000</td>
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<tr>
<td><strong>Total General and Administrative Expenses</strong></td>
<td><strong>775,000</strong></td>
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</tbody>
</table>

**Other Income (Expense):**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Interest Income</td>
<td>2,000</td>
</tr>
<tr>
<td>Interest Expense</td>
<td>(62,000)</td>
</tr>
<tr>
<td>Contributions</td>
<td>(25,000)</td>
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<tr>
<td><strong>Total Other Income (Expense)</strong></td>
<td><strong>(85,000)</strong></td>
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</table>

**Net Income Before Taxes**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td><strong>Net Income Before Taxes</strong></td>
<td><strong>2,810,000</strong></td>
</tr>
<tr>
<td>Income Taxes</td>
<td>(1,124,000)</td>
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</table>

**Net Income**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Income</strong></td>
<td><strong>$1,686,000</strong></td>
</tr>
</tbody>
</table>
Typical Small Producer, Inc
Cash Flow Statement
For the Year Ended 12/31/14

Cash Flow From Operating Activities:
Net Income $1,686,000
Add Depletion, Depreciation and Amortization 610,000
Gain on Sale of Oil and Gas Properties (500,000)
Abandonment Expense 75,000
Dry Hole Costs 100,000
Intangible Drilling Costs 600,000
Increase in Accounts Receivable (10,000)
Decrease in Inventory 25,000
Increase in Prepaid Insurance (2,000)
Decrease in Prepaid Drilling 100,000
Decrease in Accounts Payable (12,000)
Decrease in Taxes Payable (4,000)
Increase in Income Tax Payable 550,000
Increase in Accrued Expenses 40,000
Net Cash Flow From Operating Activities 3,258,000

Cash Flow From Investing Activities:
Acquisition and Development of Oil and Gas Properties (2,000,000)
Proceeds From Sale of Oil and Gas Properties 600,000
Purchase of Equipment and Vehicles 150,000
Net Cash Flow From Investing Activities (1,250,000)

Cash Flow From Financing Activities:
Principal Paid on Bank Borrowings (850,000)
Dividends Paid to Shareholders (93,000)
Net Cash Flow From Financing Activities (943,000)

Increase in Cash 1,065,000
Cash at Beginning of the Period 535,000

Cash at the End of the Period $1,600,000
## Joint Interest Billing Statement

**Sample Operating Company**

**PO Box 123**  
**Apple Creek, OH 44606**

---

**Statement Date:** 01/27/2009  
**Due Date:** 02/26/2009  
**Amount Due:** $625.00

---

<table>
<thead>
<tr>
<th>Date</th>
<th>Expense</th>
<th>Paid To</th>
<th>Gross Exp</th>
<th>Pct Share</th>
<th>Net Expense</th>
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<tr>
<td><strong>Intangible Completion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02/13/2008</td>
<td>Cement 4 1/2”</td>
<td>Ohio Edison</td>
<td>850.00@</td>
<td>(50.0000000%)</td>
<td>425.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intangible Completion</td>
<td>850.00</td>
<td>425.00</td>
<td></td>
</tr>
<tr>
<td><strong>Lease Operating Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/01/2007</td>
<td>Operation Fee</td>
<td>Sherwood Operating</td>
<td>250.00@</td>
<td>(50.0000000%)</td>
<td>125.00</td>
</tr>
<tr>
<td>11/01/2007</td>
<td>Pumping</td>
<td>Sherwood Operating</td>
<td>150.00@</td>
<td>(50.0000000%)</td>
<td>75.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lease Operating Expense</td>
<td>400.00</td>
<td>200.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Well Totals</td>
<td>1,250.00</td>
<td>625.00</td>
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<td></td>
<td>Current Totals</td>
<td>1,250.00</td>
<td>625.00</td>
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<tr>
<td></td>
<td></td>
<td><strong>Total Due</strong></td>
<td><strong>625.00</strong></td>
<td><strong>625.00</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Owner's Distribution Statement

**Sample Operating Company**  
**PO Box 123**  
**Apple Creek, OH 44606**

102  
Mallory Sherwood  
10474 Easton Road  
Orrville OH 44667  

Statement Date: 01/14/09  
Check Amount: $70.57  
Run No 001/2009

<table>
<thead>
<tr>
<th>W002</th>
<th>Cornerstone</th>
<th>Wayne</th>
<th>OH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Production Income</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominion East Ohio</td>
<td>-</td>
<td>100.00MCF @</td>
<td>5.670000</td>
</tr>
<tr>
<td>Gas Severance Tax</td>
<td></td>
<td>GTAX @</td>
<td>0.025000</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td></td>
<td></td>
<td>564.50</td>
</tr>
</tbody>
</table>

Your Royalty Interest This Well 70.57

Total Distribution This Run 70.57
Owner's Distribution Statement

Sample Operating Company
PO Box 123
Apple Creek, OH 44606

109
Sherwood Operating LLC
8957 Johnson Twp Rd
Smithville OH 44677

Statement Date: 01/14/09
Run No 001/2009
Posted To G/L: $445.11

<table>
<thead>
<tr>
<th>W003</th>
<th>Mannesman #1</th>
<th>Wayne</th>
<th>OH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dominion East Ohio 12/01-05/31 BBL</td>
<td>$500.00 X (46.8750000%)</td>
<td>2008/05</td>
<td>234.38</td>
</tr>
<tr>
<td>Dominion East Ohio - 200.00MCF @</td>
<td>$5.670000</td>
<td>$1,134.00 X (46.8750000%)</td>
<td>2008/07</td>
</tr>
<tr>
<td>Gas Severance Tax GTAX @</td>
<td>$0.025000</td>
<td>-$5.00 X (46.8750000%)</td>
<td>2008/07</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>$1,629.00</td>
<td></td>
<td>763.60</td>
</tr>
<tr>
<td><strong>Well Expenses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/01/07 Cement 4 1/2&quot;</td>
<td>$50.00 X (50.0000000%)</td>
<td>2007/10</td>
<td>25.00</td>
</tr>
<tr>
<td>11/01/07 Operation Fee</td>
<td>$250.00 X (50.0000000%)</td>
<td>2007/10</td>
<td>125.00</td>
</tr>
<tr>
<td>11/01/07 Pumping</td>
<td>$150.00 X (50.0000000%)</td>
<td>2007/10</td>
<td>75.00</td>
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<tr>
<td><strong>Total Well Expenses</strong></td>
<td>$450.00</td>
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<td>225.00</td>
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<tr>
<td>Your Working Interest This Well</td>
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<td>538.60</td>
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Program: 2007LLC001

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<tr>
<th>W001</th>
<th>Church Station</th>
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<tr>
<td><strong>Production Income</strong></td>
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<tr>
<td>Dominion East Ohio - 200.00MCF @</td>
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<td>$1,134.00 X (43.7500000%)</td>
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<td>02/13/08 Cement 4 1/2&quot;</td>
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<table>
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<tr>
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<tr>
<td>Dominion East Ohio - 100.00MCF @</td>
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<td><strong>Total Income</strong></td>
<td>$564.50</td>
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* = Prior Suspense
Owner's Distribution Statement

Sample Operating Company

Continuation of statement for: 109  Sherwood Operating LLC

Program: 2007LLC001

Well Expenses
11/01/07  Operation Fee  $250.00 X (40.0000000%)  2007/10  100.00
11/01/07  Pumping  $150.00 X (40.0000000%)  2007/10  60.00

Total Well Expenses  $400.00  160.00

Your Working Interest This Well

Moore Farm LLC  Program Total:  -93.49

Total Distribution This Run (Posted To G/L)  445.11

* = Prior Suspense
Abandon – To discontinue attempts to produce oil or gas from a well or lease and to plug the reservoir in accordance with regulatory requirements and recover equipment.

Advanced royalty – An advance payment made by the owner of an operating interest to the royalty owner for a specific number of units of minerals regardless of whether oil or gas was extracted within the year. The payment is recoverable out of future production.

AFE (Authorization for Expenditure) – A form used during the planning process for a well about to be drilled (and also used for other projects). It includes an estimate of costs to be incurred in the IDC category and in the tangible equipment category. Costs are shown in total with accompanying breakdowns. The form represents a budget for the project against which actual expenditures are compared.

Barrel (BBL) – A standard measure of volume of crude oil and liquid petroleum products. One barrel equals 42 U.S. gallons.

Bottom hole contribution – Money or property given to an operator for their use in drilling a well on property in which the payor has no property interest. The contribution is payable when the well reaches a predetermined depth, regardless of whether the well is productive or nonproductive. Usually, the payor receives geological data from the well.

Carried interest - A sharing arrangement in which one party agrees to pay the cost incurred on behalf of another which is the carried party. After production begins, the carried party receives no income until the carrying party has recouped all of their costs incurred on behalf of the carried party.

Carved-out interest – An interest that occurs when the owner of a working interest assigns it to another as an overriding royalty, net profits, or production payment.

Casing – Steel pipe placed in an oil or gas well as drilling progresses. The function of casing is to prevent the wall of the hole from caving during drilling and to provide a means of extracting the oil if the well is productive.

Conveyance – The assignment or transfer of mineral rights to another person.

Christmas tree – A term applied to the valves and fittings assembled at the top of a well to control the flow of oil.

Clearing Accounts – Accounts used to accumulate expenses during a period, with the balance allocated to other accounts on some predetermined basis at the end of the period.

Cost center – The geological, geographical, or legal unit with which costs and revenues are identified and accumulated. Examples are the lease, the field, country, etc.
Delay rental – Amounts paid to the lessor for the privilege of deferring the commencement of drilling a well on the lease.

Depletion – Amortization of capitalized cost of a mineral property. The deduction is based upon minerals produced. For federal income tax purposes, depletion may be based on the amount of gross income from the property.

Developed property - Property on which wells have been drilled and production equipment has been installed.

Developmental well – A well drilled to gain access to oil or gas classified as “proved reserves.”

Disposal well – A well through which salt water is pumped to subsurface reservoirs.

Division order – A document that describes the economic interest owners of a property and the types of interest owned. It is used by the purchaser as the basis for paying each economic interest owner their share of revenue.

Dry hole – An exploratory or development well that does not produce oil or gas in commercial quantities.

Dry hole contribution – Money or property paid by adjoining property owners to another operator drilling a well on property in which the payors have no property interest. Such contributions are payable in the event the well reaches an agreed depth and is found to be dry.

Economic interest – An economic interest is possessed in every case in which the taxpayer has acquired by investment any interest in minerals in place and secures, by any form of legal relationship, income derived from the extraction of the mineral to which one must look for a return of the capital.

Enhanced recovery – Any methods used to extract oil from reservoirs in excess of that which may be produced through primary recovery.

Exploration costs – Costs incurred in identifying areas that may warrant examination, and in examining specific areas, including drilling exploratory wells and exploratory stratigraphic type test wells.

Exploratory well – All wells drilled to search for or produce oil or gas except the cost of development wells and development type stratigraphic test wells drilled to gain access to proven reserves.

Farmout – An agreement in which the person holding a lease assign a working interest in the property to another in exchange for drilling one or more wells.

Field – An area consisting of a reservoir or multiple reservoirs related to the same geological structural feature.
Fracturing – A procedure to stimulate production by forcing under high-pressure a mixture of water, sand and chemicals into the formation.

Full Costing – An accounting concept under which all costs incurred in searching for, acquiring, and developing oil and gas reserves are capitalized.

Gas Well – A well producing natural gas

Geological and geophysical (G&G) – Surveys of a topographical, geological, and geophysical nature along with other costs incurred to obtain the rights to make these surveys and salaries and other expenses of personnel required to carry out the surveys are often referred to as “G & G” costs.

Gravity – A standard American Petroleum Institute (API) scale which is related to specific gravity of petroleum fluid based on a technical formula. On this scale the greater the density of the petroleum, the lower the API degree. The higher the API gravity, the greater the value of the oil.

Hydrocarbon – An organic compound of hydrogen and carbon

Independent producer – A nonintegrated oil company whose operations are in the field of petroleum production only excluding transportation, refining, and marketing.

Intangible drilling cost (IDC) – Any cost that in itself has no salvage value and is necessary for and incident to the drilling of wells and getting them ready for production. IDC can also occur when deepening or plugging back a previously drilled oil or gas well, or an abandoned well, to a different formation.

Integrated oil company – An oil company which engages in all phases of the oil industry, i.e., exploration, production, refining and marketing.

Joint Operating Agreement (JOA) – An agreement between two or more lease owners providing for the operation of a lease in which one operates the lease with all owners sharing in the costs.

Joint venture – An association of two or more persons or companies formed to drill, develop, and operate properties jointly. Each owner has an undivided interest in the properties.

Landman – A person experienced in mineral leasing activities.

Lease – (1) A contract in which the owner of minerals gives an oil company the right to explore for, develop, and produce minerals from the property. (2) Any transfer where the owner of a mineral interest assigns all or a part of the operating rights to another party but retains a continuing non-operating interest in production from the property.
**Lease and well equipment** – Capital investment in items of equipment having a potential salvage value and used in a well or on a lease. Such items include the cost of casing, tubing, well head assemblies, pumping units, lease tanks, treaters, and separators.

**Lease bonus** – The consideration paid by the lessee to the lessor for executing the lease.

**Lease operating expense (LOE)** – The expenses, usually recurring, which pay for operating the well and equipment on a producing lease.

**Lessee** – The person who leases the mineral rights from the owner in order to drill and operate wells.

**Lessor** – The person who owns the mineral rights and has executed a lease.

**Lifting costs** – Costs of operating wells for the production of oil and gas (producing costs).

**Marginal well** – A well producing 15 or less BOE per day. Also known as a stripper well.

**Mineral interest** – The working interest granted by an oil and gas lease. Bears obligation to develop the minerals on the lease.

**Mineral rights** – Rights of ownership, conveyed by deed, of gas, oil and other minerals beneath the surface.

**Net profits interest** – An interest carved out of the working interest. It is a nonoperating interest that shares in the net profits, if any, but has no liability for capital investments or losses.

**Nonoperating interest** – An interest in oil or gas property that bears no costs of development or operation, such as the landowner’s royalty interest.

**Operating interest** – See working interest.

**Operator** – One who holds the working interest or operating rights and is obligated for the cost of development and production, either as a fee owner or assignee.

**Overriding royalty interest** – An interest carved out of working interest that does not require the owner to bear a share of the developing or operating cost. It is a non-operating interest.

**Packer** – A ring made of metal and rubber that fits around the tubing. It provides a secure seal between everything above and below where it is set, keeping the fluids and pressure away from the casing above it.

**Pay-out** – The point at which the revenues from a given interest in well equal all land, acquisition, drilling, completing and operating costs allocated to that interest.
Percentage depletion – A deduction for Federal income tax purposes based on the gross income from mineral properties. Percentage depletion is in lieu of cost depletion. Also known as statutory depletion.

Pooling – The joining of tracts for form a drilling unit.

Probable and possible reserves – Unproven reserves where technical or other uncertainties preclude such reserves from being classified as proven reserves.

Production payment – A right to minerals in place, which entitles it owner to a specific fraction of production for a limited period time, or until a specific sum of money or a specific number of units, has been received.

Production taxes – Taxes levied by state governments on mineral production based on the value and/or quantity of production. Also called severance taxes.

Property – Each separate interest owned by a taxpayer in each mineral deposit in each separate tract or parcel of land. Certain interest may be combined to form a property.

Prospect – A lease or a group of leases on which an owner proposes to drill one or more during a period of time.

Proved developed reserves – Reserves which can be expected to be recovered through existing wells with existing equipment and operating methods.

Proved reserves – Quantities of reserves that, based on geologic and engineering data, appear with reasonable certainty to be recoverable in the future from known oil and gas reserves under existing economic and operating conditions.

Proved undeveloped reserves – Reserves which are expected to be recovered from new wells on undrilled proved acreage, or from existing wells where a relatively major expenditure is required for completion.

Retained interest – The interest created when the owner sells the working interest and retains an overriding royalty, a net profits interest, or a production payment. An owner can retain the working interest and sell the others.

Reversionary interest – A portion of an economic interest that will be returned to its former owner after a predetermined amount of production or income has been produced.

Royalty interest – An ownership interest that entitles its owner to share in the production for the mineral deposit, free of development and operating costs. It is a continuing nonoperating interest.

Shooting rights – Permission granted by landowners allowing others to enter upon their property for the purposes of conducting geological and geophysical surveys.
Spacing – The regulation of the number of wells which can be drilled on a given area of land.

Tangible costs – The cost of assets that in themselves have a salvage value.

Tertiary recovery – The use of sophisticated techniques such as flooding the reservoir with chemicals to increase the production of oil or gas.

Tubing – Small diameter pipe suspended in a well through which gas or oil is produced.

Undeveloped property – Property that has not been drilled or equipped for production.

Unitization – An agreement under which two or more persons owning operating mineral properties agree to have the properties operated on a unified basis and further agree to share in the production from all the properties on a stipulated percentage or fractional basis regardless of from which property the oil or gas is produced. All owners of economic interests in the properties should be involved in the agreement.

Wet gas – Gas that contains a large quantity of liquids.

Wildcat – A well drilled in unproved territory.

Working interest – An interest that entitles the owner to share in the production and requires the owner to bear its share of the developing and operating costs. Also known as an operating interest.