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Examination of Bituminous Coal Companies

By C. W. McDowell

Falling prices and keen competition in the bituminous coal industry have rendered it difficult for mining companies of a moderate size to operate profitably. Experience is rapidly teaching mine owners the necessity for seeking the economies which result from consolidated operation or merger. The promoters of such consolidations or mergers generally require assistance in financing the undertaking, and the conservative banker always insists upon an examination of the accounts and an appraisal of the physical properties of the companies which are to be acquired before he will grant the necessary credit.

Before undertaking an audit of this nature the accountant should confer with his clients in order to ascertain:

- I. The period to be covered by the examination.
- 2. The date or dates for which balance-sheets are desired.
- 3. The nature and terms of the contract for purchase of the various properties.
- 4. The date at which the audit must be completed and the report submitted.

The accountant should also confer with the engineer who is to appraise the properties in order that he may understand thoroughly the scope of the latter's examination, and be prepared to supplement it where necessary.

Before departing for the field to commence the audit, the accountant should obtain a list of the companies to be examined, the location of the mine or mines of each company and of the general office, and the names of the officers. It is also well to secure letters of introduction, if possible. This information will enable the auditor to arrange the order of examination of the various companies so as to secure maximum efficiency and a minimum of traveling time.

The audit of a bituminous coal company is in many respects similar to that of the average manufacturing company, but certain fundamental differences inherent in the mining industry will be discussed with the audit schedule, as it is not the purpose of this article to discuss the manner in which coal mining companies carry on their business.

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When an auditor represents a prospective purchaser, much of the routine necessary in an ordinary audit may be omitted. The seller will not ordinarily understate his profit and his assets, nor will he overstate his liabilities. However, the recent federal income-tax laws have caused many operators in the coal industry to calculate their profits with extreme conservatism in order to avoid the payment of large amounts for federal taxes. The auditor should bear these facts in mind while making his examination.

The investigation may be divided into two general parts:— I. the verification of the assets and liabilities and, 2. the examination of the profit-and-loss accounts. The same general procedure should be followed for the examination of all companies in order that the results obtained may be uniform.

The examination of assets and liabilities should proceed along the general lines laid down in the federal reserve board pamphlet *Approved Methods for the Preparation of Balance-sheet Statements*. Let us consider briefly the usual assets and liabilities to be examined, with a more detailed exposition of those peculiar to the coal mining industry.

All petty-cash funds, both at the mines and at the main office, should be counted and balanced. The cash in bank should be confirmed by correspondence with the depositories and should be reconciled with the books, using as a basis the schedule of outstanding cheques shown by the books. All cash transactions immediately prior and subsequent to the closing date should be carefully scrutinized for fraudulent or irregular entries. It will frequently be found that the cashbook has been held open for a day or two after the closing date in order that additional receipts may be recorded so as to indicate a larger cash balance than was actually in bank. The accountant should, of course, adjust any such entries in preparing his statements.

Most companies of a moderate size make a contract for the sale of their entire output with a sales company. The sales company furnishes a monthly account current giving the numbers of the cars sold, the weights and the selling prices. The account current for the month prior to the date of the balance-sheet should be compared with the car records of the company in order to ascertain whether any cars were mined and in transit but not invoiced on the last day of the fiscal period. Cars mined but not invoiced should be valued at cost and inventoried in the balance-sheet. If the company maintains its own sales force, the sales book and car records should be compared for at least ten days prior to the date of the balance-sheet. The accounts receivable should be examined as to age and collectibility and the larger accounts should be confirmed, if possible.

Inventories of mine supplies and store merchandise should be verified as thoroughly as possible, both by physical inspection and by examination of prices.

Examination of the plant and equipment accounts may be confined to a scrutiny of additions to the accounts during the period under examination. This will reveal any tendency to inflate the profits by charging revenue items to capital accounts. The accountant is not directly interested in the final valuation of the plant, as the engineer is responsible for those figures. A convenient method of quickly verifying the plant and equipment balances is to secure from invoices the unit cost of items making up the asset account and to multiply it by the number on hand to see if the resulting figure approximates the balance shown. It is possible to use this method with accounts such as mine cars, mining machines, mine locomotives, houses, fans, live stock, etc., providing the units are of standard make and size.

If the company leases its mineral lands from a development corporation, a copy of the lease should be examined and its terms noted. Leases of this nature generally contain two provisions for rental-first, a royalty rate per ton and, second, the minimum rental by the month. If sufficient coal is not mined during any month to earn the minimum rental, the amount unearned may be recovered during a subsequent period when more coal than the minimum is mined. Thus, if a lease provides for a minimum rental of \$400 a month and a royalty rate of 10 cents a ton, and the company mines 4,000 tons or more in one month, it has earned its minimum royalty. If only 3,500 tons are mined during a month, the royalty earned will amount to only \$350. But, since the minimum monthly rental is \$400, the difference between the royalty earned and the royalty paid is charged to unearned royalty. The amount of the royalty unearned is carried as a deferred asset in the balance-sheet.

In examining the liabilities, the auditor should be sure not only to verify the liabilities of record but to make a careful search for unrecorded and contingent liabilities. The notes payable should be confirmed by correspondence. Holders should be asked to state whether any security is held against the notes or not.

The accounts payable on the books should be compared with statements received from creditors. Invoices entered subsequent to the audit date should be examined to see if any of them apply to the prior period. The auditor should see that all royalty due and unpaid is recorded on the books. Accrued accounts payable such as payrolls, taxes, etc., should also be verified and recorded on the books.

A thorough analysis of surplus should also be made to show what distribution has been made of the profits for the period under examination. The auditor should carefully read the minute-book of the corporation and note any action of the directors which has affected or may affect the assets or liabilities of the corporation.

In examining the profit-and-loss accounts, the auditor should not spend unnecessary time in the inspection of expense vouchers, verification of postings and footings and similar work. Rather he should scrutinize expense accounts as shown by the ledger, and investigate only the items which appear to be questionable. It should be remembered that a large volume of work must be completed within a relatively short time and that the client is interested in the actual results rather than in small details.

Depreciation and depletion reserves should be carefully examined. It will frequently be discovered that excessive provision for depreciation has been made and that thereby the profits have been correspondingly reduced. The writer recently examined the accounts of a company which had made the following charges to depreciation account:

1918	\$23,720	1920	\$9,870
1919	24,087	1921	9,905

The fixed assets of the company had increased slightly each year and operations had been carried on at a normal rate for the entire period. When inquiry was made as to the reason for the extreme fluctuations in the rates, the writer was informed that during 1918 and 1919, the company had made large profits but in 1920 the net income had greatly decreased, and in 1921 the result of operations for the year was a loss of \$10,000. Manifestly, profit-and-loss statements prepared on the basis of book figures would not correctly reflect the operations for the period. In examining com-

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panies whose mines are in the same field and are operated under the same general conditions, the writer has adopted a policy of adjusting all book depreciation figures to normal rates as determined after consultation with several mining engineers. Profitand-loss statements of the companies examined can then be compared more equitably. I believe that this is a satisfactory method to pursue in examinations of this nature. Comparative statements prepared to conform to book records may be misleading.

If there is a leasehold account on the books, it will be necessary to verify depletion charges and reserves. It will be found that depletion is generally calculated at a fixed rate per ton of coal mined, based on the estimated recoverable tonnage in the mine. The proper method of verifying depletion charges is to secure a copy of the engineer's report and base all calculations on the tonnage figures contained therein.

The auditor should make a thorough test of the tonnage records of the company. Royalty payments and depletion charges both are based on tonnage. If the company sells all its coal through a sales agency, it is possible to compare the monthly account current of the agency with the tonnage book. The copies of the weight certificates of the railroad companies may be compared with the shipping record. If the company sells direct to consumers, the sales-book weights should be compared with the shipping record on way-bills of the railroad company. A substantial test of these records should be made covering the entire period under examination, and a summary of tonnage mixed and shipped by years should be prepared.

Individual audit reports of all companies examined should be prepared and with them the following statements should be submitted:

- 1. Balance-sheet as of closing date of period under examination.
- 2. Comparative statement of profit and loss by years for the period examined, showing costs per ton.
- 3. Analysis of surplus for the period under examination.
- 4. Summary of plant and equipment accounts (for comparison with engineer's figures).

Consolidated statements including the figures of all companies examined will be desired by the client and should be submitted with the other reports. Any unusual circumstances discovered in audit of one or more of the companies under consideration should be promptly reported to the client, in order that he may decide whether the work is to continue as originally planned or not. The auditor can render a real service to his client by preventing unnecessary expenditure of time and money on companies whose financial conditions are hopelessly involved.