Accounts of an Oil Company

H. G. Humphreys

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II

By H. G. Humphreys

At the present time executives are more concerned than ever before with regard to the conservation of their company resources. In my previous article on this subject, which appeared in the February issue of The Journal, attention was directed to the importance of the disposition-of-funds statement and the particular advantage of ascertaining the amount of gross additions to properties* (See schedule below) as well as the net additions (**). In the article mentioned, a brief outline was given of a method of developing the control figure of gross additions. This control figure may be analyzed by means of the appended form:

Changes in Property Account for the Period
from .... to ....

Vertical Classification:

Consisting of each general ledger property account, divided by departments, covering operating, developing and non-operating properties (e.g. oil and gas properties in operation, distributing stations—each in one amount).

Horizontal Classification:

Total expenditures, including additions to work in progress
Deduct:
Credits on disposals and retirements
Cash proceeds
Warehouse credits
Trade-in credits
(*)Remainder, being gross additions to properties
Transfers—
Total of "in" equal to total of "out"
Deduct:
Charges to reserves
Charges to profit and loss
Cancelled leases
Other property disposals and retirements
(**)Balance being net additions to properties

It is perhaps needless to say that before making capital expenditures an estimate of the cost of each project should be made in detail and be officially approved and that actual expenditures

*The first article in this series appeared in The Journal of Accountancy for February, 1933. The third article will appear in the May, 1933, issue.—Editor.

in excess of respective estimates should be investigated and report upon them made to the proper officers.

The peculiarities in the balance-sheet of an oil company, broadly speaking, will be found in four items: properties, reserves, inventories and tax liabilities. The other assets and liabilities are common to most industries.

Another interesting feature lies in the fact that while the debit for raw material (crude oil produced) is a current asset, the corresponding credit is given to oil earnings, valued at the posted market price prevailing at the date of production. The liabilities incident to production consist of operating and maintenance costs, including taxes and insurance, the total of which ordinarily average from ten to twenty cents a barrel. In normal times, the anticipated future earnings from settled crude oil production for a three months' period shown as a current asset in a balance-sheet specially prepared for bankers' information has been allowed as such by bankers. The depletion and depreciation reserves—to be discussed in a subsequent article—account for the decrease in book values of oil properties in respect of crude oil produced.

Come now the departmental investment and income statements. First, they will be submitted in condensed skeleton form, by departments, and in later articles the corresponding details will be discussed. These condensed statements, which follow, are usually compiled for the month and year to date:

(o) All Departments

Properties and Reserves

Cost of undeveloped and developing oil and gas properties and other non-operating properties	$	
Deduct: reserve for amortization of leases, etc.		$
Cost of properties in operation	$	
Deduct: reserve for depletion and depreciation.		
Total depreciated cost of properties		$

General Income Statement

1.	Gross earnings (with the exception of sales by distributing stations for company cars, etc., all inter-company and intra-company sales are eliminated, corresponding elimination being made from next item (2))	$
2.	Deduct:	
	Operating expenses, cost of sales, general taxes, selling and administrative expenses, etc.	
3.	Net earnings	

4.	Add:		
	Non-operating income—non-recurring	$	
	Non-operating income—recurring	———	———
6.	Gross income		
7.	Deduct: sundry non-operating charges	$	
8.	Allowance for income taxes	———	———
9.	Income available for interest		
10.	Deduct: interest and discount expenses		———
11.	Income before capital extinguishments (taken up as resources in disposition-of-funds account)		
12.	Deduct: depletion, depreciation, amortization, canceled leases, disposal of assets, retirements and other capital extinguishments		———
13.	Net income		$

NOTE: (a) Total depreciated cost of properties, as above, is the aggregate of corresponding costs per departmental statements (1–8) following: Costs of non-operating properties are charged against the department which will eventually operate them—e.g., undeveloped oil and gas properties are included in (1) statement of oil and gas properties. Accordingly, canceled leases are deducted from income in the same statement.

(b) Net income (item 13 above) less non-operating income, non-recurring (item 4 above) is the aggregate of net income per departmental statements (1–8) following.

(c) The following are the general expenses (net) which are apportioned over departments 1–8 in ratio to respective depreciated cost of properties at the date of the balance-sheet:

(1) Administrative expenses not directly allocable to departments
(2) Non-operating income—recurring
(3) Sundry non-operating charges
(4) Allowance for income taxes
(5) Interest and discount expenses

(d) In making state income-tax returns of a company which operates or has investments in two or more states, one is beset with many difficulties. Certain income and expenses may be directly allocated to a given state in accordance with the income-tax laws of that state. Some items of income are non-taxable and some expenses are non-deductible—these are eliminated. The balance may be distributed over states in accordance with the principle of apportionment above mentioned.

(1) Oil and Gas Properties

Cost of properties	$
Deduct: reserve for depletion, depreciation and amortization	———
Depreciated cost of properties	$

Condensed Summary of Income

*Crude oil sales—external	$
*Crude oil sales—internal	
*Inventory increase (closing inventory being valued at prevailing posted market prices at date of balance-sheet)	———
Crude oil production	

Gas sales	$	
Miscellaneous earnings		
Gross earnings		
Deduct:		
Operating and maintenance expenses	$	
General expenses—direct		
General expenses (net) apportioned		
Income before capital extinguishments		
Deduct: depletion, depreciation, amortization, canceled leases, other capital extinguishments and property disposals		
Net income		$

*Note: state barrels and amount

(2) CRUDE-OIL STORAGE

Cost of properties (land, easements, tanks, etc.)	$
Deduct:	
Reserve for depreciation	
Depreciated cost of properties	$

Condensed Summary of Income

*Sales—external		$
*Sales—internal		
Miscellaneous earnings—external		
Miscellaneous earnings—internal		
Total gross earnings		
Deduct:		
*Crude oil purchased	$	
*Inventory decrease or increase		
Operating and maintenance expenses		
General expenses—direct		
General expenses (net)—apportioned		
Income before capital extinguishments		
Deduct: depreciation and property disposals		
Net Income		$

*Note: state barrels and amount

(3) PIPE-LINE DEPARTMENT—CRUDE OIL

Cost of properties	$
Deduct: reserve for depreciation	
Depreciated cost of properties	$

Condensed Summary of Income

Pipage—external		$
Miscellaneous earnings—external		
Pipage—internal		
Miscellaneous earnings—internal		
Gross earnings		
Deduct: operating and maintenance expenses	$	
General expense—direct		
General expenses (net)—apportioned		
Income before capital extinguishments		

Deduct: depreciation and property disposals		$
Net income		$
Barrelage:		
Gross barrels gathered		
Pipe-line allowance		
Barrels to be accounted for		

NOTE: It is generally known that the large pipe line companies (common carriers) carry their accounts in accordance with the I.C.C. classification. The above form has to do with a comparatively small pipe-line system.

(4) Natural Gasoline Department

Cost of properties		$
Deduct: reserve for depreciation		
Depreciated cost of properties		$

Condensed Summary of Income

*Net sales of products		$
External		
Internal		
*Residue gas sales		
External		
Internal		
Miscellaneous earnings		
External		
Internal		
Gross earnings		
Deduct:		
**Casinghead gas purchases	$	
Dry gas purchases		
Operating and maintenance expenses		
*Production		
*Inventory decrease or increase		
Selling expenses—apportioned		
General expenses—direct		
General expenses (net)—apportioned		
Income before capital extinguishments		
Deduct: depreciation and property disposals		
Net income		$

NOTE: *state gallons and amount
**State M. cub. ft. and amount

(5A) Refinery Department

Cost of properties		$
Deduct: reserve for depreciation		
Depreciated cost of properties		$

Condensed Summary of Income

*Net sales of products—external		$

*Net sales of products—internal		$
Miscellaneous earnings—external		
Internal		———
Gross earnings		
Deduct:		
*Crude oil consumed, plus pipage	$	
Processing loss (quantity only)		
Operating & maintenance expenses		
*Purchased products		
*Inventory decrease or increase		
Selling expenses—apportioned		
General expenses—direct		
General expenses (net)—apportioned	———	———
Income before capital extinguishments		
Deduct: depreciation and property disposals		———
Net income		$ ═══

NOTE: *state gallons and/or barrels and amount

(5B) LUBRICATING DEPARTMENT

Cost of properties	$
Reserve for depreciation	———
Depreciated cost of properties	$ ═══

Condensed Summary of Income

*Net sales of products—external		
*Net sales of products—internal		———
Gross earnings		
Deduct:		
*Component oils, etc., used		
Operating and maintenance expense		
Inventory decrease or increase		
Selling expenses—apportioned		
General expenses—direct		
General expenses (net)—apportioned	———	———
Income before capital extinguishments		
Deduct: depreciation and property disposals		———
Net income		$ ═══

*NOTE: state gallons and amount

(6) TANK-CAR DEPARTMENT

Cost of properties	$
Deduct: reserve for depreciation	———
Depreciated cost of properties	$ ═══

Condensed Summary of Income

Car rentals—external	$
Car rentals—internal	
Mileage—company cars	
Mileage—leased cars	

Repairs for outside concerns		$
Miscellaneous earnings external		
Internal		
Gross earnings		
Car-shop expenses		
Repairs by railroads and others		
Car rents		
Miscellaneous operating expenses		
General expenses—direct		
General expenses (net)—apportioned		
Income before capital extinguishments		
Deduct: depreciation and property disposals		
Net income		$

NOTE: in the general income statement the net income of this department is applied in reduction of expense.

(7) DISTRIBUTING STATIONS

Cost of properties	$
Deduct: reserve for depreciation	
Depreciated cost of properties	$

Condensed Summary of Income

*Net sales of gasoline, lubricants, etc.		$
Net sales of other merchandise		
Gross earnings		
Deduct:		
*Purchases from refinery, lubrication department and natural gasoline department	$	
*Products purchased—external		
Other merchandise purchased—external		
Freight on purchases		
*Inventory decrease or increase		
Direct operating and maintenance expenses		
General expenses—direct		
General expenses (net)—apportioned		$
Income before capital extinguishments		
Deduct: depreciation and property disposals		
Net income		$

*NOTE: state gallons and amount

(8) INTERNAL UTILITIES

Drilling, cleaning out and fishing tools		
Ditching machines	Cost of properties	$
Water systems	Reserve for depreciation and property	
Telephone lines		
Field camps	disposals	
Warehouses	Depreciated cost of	
Office buildings	properties	$
Automotive investment		
Other internal utilities		

Condensed Summary of Income

(Subdivided by Properties listed above)

Gross earnings		$
Operating expenses and maintenance		
General expenses—direct	$	
General expenses—apportioned		
Income before capital extinguishments		
Deduct: depreciation and property disposals		
Net income		$

The foregoing forms 1–8 are somewhat more condensed than those used in actual practice, particularly as to natural gasoline, refinery, lubricating and stations departments. However, the details of these four departments are to be given in subsequent articles, together with a combined marketing statement. For the reader's present information, the following brief outline of the forms in the comptroller's summary book may suffice. This book contains a separate sheet for each department and internal utility, the horizontal classifications of which consist of fourteen (14) columns: (1) close of last year, (2) to (13) monthly transactions January to December of current year, (14) close of current year. The description of the vertical classification might be:

Property:
- Opening balance
- Gross additions
- Other changes
- Closing balance

Reserves:
- Opening balance
- Additions per profit and loss
- Other changes
- Closing balance

Income:
- (a) Gals. of sales (b) amount of sales divided by products (or commodities) subdivided by grades

Deductions from sales:
- Discount on sales
- Quantity discount allowance
- Other deductions

Other items would be substantially as shown in the forms 1–8 given here, arranged to show cost of sales or net back (sales less expenses), followed by essential per gallon and percentage figures.