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Petroleum Depletion Allowances: A Justification

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PETROLEUM DEPLETION ALLOWANCES: A JUSTIFICATION

I. INTRODUCTION

The depletion allowance provisions of the Internal Revenue Code[1] pertaining to oil and gas are among the most controversial and most frequently assailed sections of the code. Members of the petroleum industry explain the necessity of the depletion provisions by making a "return of capital" argument and by pointing out the necessity of providing an incentive to explore for oil to help overcome the risks inherent in exploration. Opponents strongly attack the deduction as a tax loophole through which oil millionaires are created.

Depletion deductions are not limited, however, to oil and gas tax returns. Nearly all other minerals including sulfur,[2] ball clay, china clay,[3] coal,[4] and even clam shells[5] are accorded preferential tax treatment through the use of depletion deductions. Admittedly the oil and gas industry achieves the most favored position among the mineral industries permitted a depletion deduction, since it can deduct twenty-seven and one-half per cent of its gross income,[6] the largest deduction permitted under the depletion provisions. The purpose of this Note is to discuss the dtpletion provisions and to justify the theory upon which they are based.

Before this task is undertaken, a few explanatory remarks concerning depletion itself are in order. In *Arkansas-La. Gas Co. v. City of Texarkana,*[7] depletion was defined as an emptying, exhausting, or wasting of assets. These words connote an unpleasant course of events. To oil men, however, they indicate one of the basic principles upon which the depletion deduction is founded. Depletion is to the oil man what depreciation is to the businessman. The former is permitted an allowance or deduction as he deplets his oil and/or gas reservoir; the latter is permitted a deduction for the depreciation of his business assets.

Currently, there are two methods by which a depletion deduction may be computed. First, there is the cost depletion method.[8] In order to compute the deduction using this method, it is necessary to estimate the number of recoverable units (usually barrels of oil or

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1 INT. REV. CODE OF 1954, §§ 612, 613.
2 Twenty-three per cent, INT. REV. CODE OF 1954, § 613(b)(2)(A).
3 Fifteen per cent, INT. REV. CODE OF 1954, § 613(b)(3).
4 Ten per cent, INT. REV. CODE OF 1954, § 613(b)(4).
5 Five per cent, INT. REV. CODE OF 1954, § 613(b)(5)(A).
6 INT. REV. CODE OF 1954, § 613(b)(1). Note the fifty per cent limitation.
7 17 F. Supp. 447, 460 (D.C. Ark. 1936).
8 INT. REV. CODE OF 1954, § 612.

thousands of cubic feet of gas) in the reservoir. After the number of units has been estimated, the adjusted cost basis of the property must be ascertained; this is either the actual cost or an appraised value determined by a competent appraiser. The cost figure is then divided by the number of recoverable units, and the resulting quotient is the unit cost. The depletion deduction for any year is obtained by multiplying the unit cost by the number of units sold during the year. Each year's deduction reduces the "cost basis" for the following year by the amount of the depletion deduction for that year.

The second method is the percentage depletion method.[9] This method is more widely used because it is simpler and because it can be used even though the basis of the property has been reduced to zero. Cost depletion does not apply when the basis of the property has been exhausted. The amount of the percentage depletion deduction is equal to twenty-seven and one-half per cent of the gross income obtained from the oil or gas well. However, there is a limitation. The deduction may not exceed fifty per cent of the taxable income from the property, computed without regard to the depletion allowance. While the percentage depletion method ordinarily permits recovery of much more capital than the cost of the well, if the cost depletion method results in a greater deduction, it must be used.[10]

II. HISTORY OF DEPLETION ALLOWANCES

A brief consideration of the legislative and judicial history[11] of this unique deduction yields a better understanding of the present depletion provisions and their development.

The first income tax to be imposed after the famous decision of *Pollock v. Farmers Loan and Trust Co.*[12] in 1895, wherein the income tax laws passed in 1894 were held unconstitutional, was the Corporation Tax Act of 1909.[13] This act provided for the imposition of a franchise tax upon corporations for the privilege of doing business. Although the tax, based on a percentage of the corporation's net business income, was assessed after deduction for certain items, including depreciation, a deduction for depletion was not permitted.[14]

The Revenue Act of 1913 permitted a "reasonable allowance for

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[9] INT. REV. CODE OF 1954, § 613.

[10] Treas. Reg. § 1.613-1 (1920).

[11] For a more detailed discussion of the legislative history of depletion allowances see STAFF OF THE JOINT COMM. ON INTERNATIONAL REVENUE TAXATION, 81st. CONG., 2D SESS., LEGISLATIVE HISTORY OF DEPLETION ALLOWANCES 10 (Comm. Print 1950).

[12] 157 U.S. 429 (1895).

[13] 36 Stat. 112 (1909).

[14] Goldfield Consol. Mines Co. v. Scott, 247 U.S. 126 (1918).

depletion . . . not to exceed 5 per centum of the gross value at the mine of the output."[15] This deduction was permitted in the computation of net income upon which corporations paid a corporation tax. The provision was interpreted by the Bureau of Internal Revenue to include oil and gas wells as well as mines.[16] The 1913 act was attacked on the premise that the amount permitted as a deduction was too small, and because of this inadequate deduction, there resulted a tax on capital rather than income.[17] Opponents of the 1913 act argued that it was in effect a direct tax on property which must be apportioned in order to be constitutional.[18] The United States Supreme Court was of a different opinion and consequently held that the tax was not a tax upon property, but a true excise tax levied on the results of the business of carrying on mining operations.

In the Revenue Act of 1916, Congress for the first time created a depletion allowance for oil and gas:

> In the case of oil and gas wells a reasonable allowance for actual reduction in flow and production to be ascertained not by the flush flow, but by the settled production or regular flow, . . . such reasonable allowance to be made . . . under rules and regulations to be prescribed by the Secretary of Treasury: Provided, that when the allowance authorized . . . shall equal the capital originally invested, or in the case of purchase prior to March 1, 1913, the fair market value as of that date, no further allowance shall be made.[19]

Thus, the five per cent of gross was discarded and replaced by a "reasonable allowance" not to exceed cost or the value on March 1, 1913.

Inequities resulted from the 1916 act because depletion of property producing on March 1, 1913, was computed on its value as of that date, while depletion on a property which became productive after that date was based on cost. This disparity became more noticeable as the income tax rates increased to finance World War I. Congress recognized the disparity, and in the Revenue Act of 1918 the application of fair market value was extended to newly discovered oil wells, gas wells, and mines:

> In the case of . . . oil and gas wells, . . . a reasonable allowance for depletion . . . according to the peculiar condition in each case, based upon cost including cost of development not otherwise deducted: Pro-

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[15] 38 Stat. 172 (1913).

[16] STAFF OF THE JOINT COMM. ON INTERNAL REVENUE TAXATION, 81ST. CONG., 2D SESS., LEGISLATIVE HISTORY OF DEPLETION ALLOWANCES 10 (Comm. Print 1950).

[17] Stanton v. Baltic Mining Co., 240 U.S. 103 (1916).

[18] U.S. CONST. art. 1, § 9, clause 4, "No Capitation, or other direct, tax shall be laid, unless in Proportion to Census or Enumeration herein directed to be taken."

[19] 39 Stat. 768 (1916).

> vided, that in the case of such properties acquired prior to March 1, 1913, the fair market value of the property (or the taxpayer's interest therein) on that date shall be taken in lieu of cost up to that date: Provided further, that in the case of . . . oil and gas wells, discovered by the taxpayer, on or after March 1, 1913, and not acquired as the result of purchase of a proven tract or lease, where the fair market value of the property is materially disproportionate to the cost, the depletion allowance shall be based upon the fair market value of the property at the date of discovery, or within thirty days thereafter; such reasonable allowance in all the above cases to be prescribed by the Commissioner with the approval of the Secretary. In the cases of leases the deduction allowed by this paragraph shall be equitably apportioned between the lessor and lessee.[20]

This method of computing depletion became known as "discovery depletion." The 1918 act also first provided for the apportionment between the lessor and lessee. This apportionment provision has remained ever since.[21]

While the 1918 act did clear up the disparities in the 1916 act, administration of the new law was difficult: controversies over the "fair market value" were seemingly endless; the methods for determination, within thirty days of discovery, were very expensive; and engineers' differences of opinion in appraisal resulted in long, drawn out tax cases. In 1925 the Select Senate Committee on Investigation of the Bureau of Internal Revenue conducted extensive hearings concerning the administrative practices of the Bureau, with particular emphasis on the administration of discovery depletion. The Committee's report revealed the difficulty of administration and cited several abuses arising under this method of computation.

Experience in the industry by 1925 had also revealed a reasonably consistent relationship between the discovery cost per barrel of oil and the price of crude oil as it was produced.[22] This fact, plus the problems of administration involved with discovery depletion, seemed to forecast percentage depletion. In 1926 the first in the series of acts to provide for percentage depletion in oil and gas properties was passed. This act abandoned discovery depletion, but cost depletion was retained. As to percentage depletion, it provided:

> In the case of oil and gas wells the allowance for depletion shall be 27½ per centum of the gross income from the property during the taxable year. Such allowance shall not exceed 50 per centum of the net income of the taxpayer (computed without allowance for depletion) from the property, except that in no case shall the depletion allowance be less than it would be if computed without reference to this paragraph.[23]

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[20] 40 Stat. 1078 (1918).
[21] INT. REV. CODE OF 1954, § 611(b)(1).
[22] MID-CONTINENT OIL AND GAS ASS'N, PERCENTAGE DEPLETION-ECONOMIC PROGRESS AND NATIONAL SECURITY 76 (1965).
[23] 44 Stat. 14 (1926).

In *Helvering v. Twin Bell Oil Syndicate*,[24] the words "gross income from property" for the purposes of computing the gross income of the property were held to mean only the gross income from oil and gas.

Why was the figure twenty-seven and one-half per cent chosen? This figure, like so many of the figures finally emanating from Congress, was the result of a compromise. The Senate Finance Committee, after studying the problem, recommended a figure of twenty-five per cent. The Senate, after rejecting some proposals of up to a forty per cent deduction, agreed that the proper figure should be thirty per cent. The House Ways and Means Committee had agreed to recommend twenty-five per cent of gross income as a proper depletion deduction for oil and gas, and the compromise figure was finally established by the House and Senate Committees in conference.[25] For all practical purposes the percentage depletion provisions for oil and gas have remained substantially unchanged since 1926.

III. ARGUMENTS IN FAVOR OF DEPLETION

Proponents of depletion allowances advance several arguments to sustain their position. Basically these arguments revolve around a "return of capital" concept and stress the fact that the oil and gas industry is a very high risk business. A brief summary of these arguments follows.

It is argued first that the depletion deduction is necessary because it provides for the return of capital invested in the wasting asset, the oil or gas reservoir. It is a commonly recognized principle that taxation will not be imposed on that part of the gross receipts which represents the return of capital invested.[26] The determination of the capital element is a relatively simple matter in the typical manufacturing business and presents no financing problems since the cost is substantially equal to the value. However, because of the peculiarities of exploration and drilling in the oil and gas industry, there may be a wide variance between cost and value. Thus conventional concepts used in measuring capital recovery are inadequate in this situation. The recovery of only the cost of a successful mineral property cannot assure the accumulation of funds needed to replace that property when it becomes fully depleted.[27] To eliminate the depletion allowance would result in a tax on capital. Ths would be tantamount to elimination of the depreciation deduction.

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[24] 293 U.S. 312 (1934).
[25] MID-CONTINENT OIL AND GAS ASS'N, *op. cit. supra* note 22, at 77.
[26] Eisner v. Macomber, 252 U.S. 189 (1920).
[27] MID-CONTINENT OIL AND GAS ASS'N, *op. cit. supra* note 22, at 33.

The second argument is that exploration and drilling costs are high and that these costs, plus the high risk inherent in the business, result in a situation in which the incentive of depletion allowances is needed to attract additional capital. Drilling and exploration costs are steadily increasing, due primarily to the fact that since oil is becoming increasingly more difficult to find, exploratory drilling is being carried on at deeper depths and in regions that are less readily accessible. This is illustrated by the increased drilling activities in the far northern reaches of Alaska. A basic financial axiom in the oil and gas industry is that each additional foot of hole drilled costs more than the preceding one. Figures show that an additional foot drilled in the 1,251 to 2,500 foot range costs ten dollars and five cents, while at depths in excess of 15,000 feet the cost per foot increases to ninety-two dollars and sixty-seven cents.[28]

The risk involved in the drilling of new wells is amply shown by the following statistics: only one well in nine yields any production, and the driller of only one well in forty-one finds reserves of 1,000,000 barrels or more. As a general rule a field of less than 1,000,000 barrels is considered economically unprofitable.[29] These figures, of course, are indicative of the percentages in locating the new field, but even after the discovery well is drilled it is not simply a matter of drilling all producers. Since 1950, the percentage of dry holes drilled in developing known fields has ranged from twenty-three to twenty-eight per cent.[30]

It is argued thirdly that oil and gas are vital to the security and defense of our country, since petroleum is vital in carrying on a war. The German forces discovered this when their effectiveness was seriously hampered by the shortage of petroleum in the closing months of World War II. The fact that more than half of the tonnage shipped from the United States to our military forces during World War II consisted of petroleum products[31] indicates the vital role which the oil and gas industry plays in national security. Petroleum is not merely a fuel for the vehicles of war but is also the basic ingredient of conventional explosives. Despite a trend toward nuclear power, the need for petroleum in defense remains apparent. It is imperative that the

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[28] AMERICAN PETROLEUM INSTITUTE, INDEPENDENT PETROLEUM ASS'N OF AMERICA, AND MID-CONTINENT OIL AND GAS ASS'N, JOINT INDUSTRY SURVEY (1962).

[29] Bulletin of the Am. Ass'n of Petroleum Geologists, June, 1965 Vol. 49, No. 6, Tables IX, X, p. 642.

[30] Oil and Gas Journal, Annual Review and Forecast Issues (1950-65).

[31] Petroleum in War and Peace (papers presented by the Petroleum Administration for War before the Senate Special Comm. to Investigate Petroleum Resources, citing DAVIS, OIL IN PEACE AND WAR 6).

United States not be caught with an inadequate supply of petroleum; hence the incentive provided by the depletion measures is essential to national security.

Volumes could be written on the arguments proffered by proponents of the theory of depletion deduction, but basically they emphasize a return of capital free of taxation and an incentive to lure new capital into the risky oil and gas industry.

In response to attacks made upon the depletion provisions, oil and gas spokesmen are quick to point out the consequences which would flow from reduction or elimination of depletion allowances. They maintain that such action would destroy the incentive to invest in oil and gas transactions. This, they say, would result in the following:

1. Prices of petroleum products would increase due to a decrease in supply. This increased scarcity, coupled with increased prices, would result in reduced quantities of petroleum consumed. Governments, both state and federal would feel the impact in reduced excise tax revenues.
2. Marginal producers such as stripper well operators and small wildcatters would be forced out of business.
3. Reduced drilling would cause reduction in orders placed with oil field equipment suppliers, thereby reducing income which the government could tax.
4. Shareholders of oil industries would receive smaller dividends, resulting in a smaller base upon which the government could assess taxes.
5. The oil industry payroll would be reduced, thereby providing less tax revenues for the government.

IV. ARGUMENTS IN OPPOSITION TO DEPLETION

Critics of depletion deduction state emphatically that it is a tax "loophole"[32] and a federal subsidy to oil and gas operators. While the thought of a subsidy to oil millionaires is itself unappealing, opponents are quick to complain further that this subsidy is financed by the rest of the taxpayers.

Many opponents of depletion allowances find no fault with the cost depletion.[33] They recognize that the oil and gas taxpayer, like any other business taxpayer, should be allowed to recover his invested capital before any tax is assessed on his income. This portion of the

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[32] Adamian, *The Oil Industry and Tax Depletion Allowance*, 32 B.U.L. REV. 389 (1952): "Although the depletion allowance provision is commonly referred to as a tax loophole, this is a misnomer. A loophole implies a deliberate or inadvertent omission or insertion of a provision which circumvents the real meaning of a statute. Such is not the situation here, where the express purpose of the depletion formula was obvious, explicitly intended and constantly under congressional scrutiny and surveillance."

[33] INT. REV. CODE OF 1954, § 612.

opposition focuses its dissatisfaction on the percentage depletion provisions[34] which enable the oil and gas taxpayer to recover, tax-free, more than he invested under the guise of a return of capital. It is because of this tax-free income in excess of capital invested that opponents of depletion urge elimination of depletion "tax loopholes," or at least a reduction in the percentage allowed in order to minimize the effect.

These opponents support their contentions with several arguments. First it is asserted that loss of large amounts of revenue is occasioned inasmuch as the amounts excluded from taxation under the percentage depletion provisions often exceed the amounts which cost depletion provisions would permit to be excluded or deducted. This, it is said, results in an increased tax burden on other taxpayers. Opponents urge that this inequity can be cured by eliminating percentage depletion and by permitting only the use of cost depletion methods.

It is urged secondly that percentage depletion does not really help the small producer for whose benefit proponents often maintain it is intended. This argument is bolstered by statistics showing that corporations accounted for ninety per cent of the depletion allowance[35] and that seventy per cent of depletion allowances went to corporations with assets in excess of 1,000,000 dollars.[36]

The critics' third argument is that although oil is important to national defense, other industries, which are equally essential, do not enjoy the favored tax treatment of the petroleum industry. They point to the importance of steel, aluminum, other metals, and the increasing importance of nuclear material.[37]

Opponents argue, fourthly, that percentage depletion creates such incentive for production that overproduction and waste result. They maintain that a return to a system more reliant on the normal forces of supply and demand rather than an artificial incentive would be in the best interests of conservation of our natural resources.[38]

Finally, opponents of depletion contend that the risk aspect of the oil and gas industry is exaggerated. One writer using 1958 figures published in the *Oil and Gas Journal* illustrates this exaggeration by showing that, of the forty largest companies submitting data on successful as opposed to unsuccessful drilling ventures, the worst record

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[34] INT. REV. CODE OF 1954, § 613.

[35] EISENSTEIN, THE IDEOLOGIES OF TAXATION 131 (1961).

[36] Batt, *The Gray Fleece of the Crimson Catt: A Primer of Tax Nonsense*, 51 KY. L.J. 187, 208 (1962).

[37] *Ibid.*

[38] Martin, *Percentage Depletion for Oil—Saint or Sinner?*, 9 BAYLOR L. REV. 247, 298 (1957).

was ninety-six dry holes with 105 productive wells.[39] As the writer aptly states. "This certainly is not the one of nine or ten the industry talks about."[40]

These are the main arguments presented by the opposition. Basically, as mentioned above, the discontentment is not with the allowance for depletion itself, but rather with the operation of a percentage depletion allowance which permits tax-free income to be realized in excess of the capital invested. The arguments are keyed to the central premise that the risks of the petroleum industry and the importance of the industry to national security do not differ from many other industries to such an extent as to merit special tax treatment.

V. OIL IN THE FUTURE—DEMAND AND SUPPLY

A direct correlation exists between a nation's standard of living and its consumption of energy. A connection between per capita energy consumption and per capita income can be shown. This is illustrated by the following statistics: In 1963, consumption of mineral energy in the United States was the equivalent of 1,781 gallons of crude oil per resident with a corresponding per capita income of 2,507 dollars; In the same year Spain used an equivalent of 208 gallons of crude oil per resident with a per capita income of 370 dollars.[41]

A comment on this tremendous consumption of mineral energy was made by Admiral H. G. Rickover:

> Man's muscle power is rated at 35 watts continuously, or one-twentieth horsepower. Machines therefore furnish every industrial worker with energy equivalent to that of 244 men, while at least 2,000 push his automobile along the road, and his family is supplied with 33 faithful household helpers. Each locomotive engineer controls energy equivalent to that of 100,000 men; each jet pilot of 700,000 men. Truly, the humblest American enjoys the services of more slaves than were once owned by the richest nobles, and lives better than most ancient kings.[42]

The massive job of supplying the energy necessary to allow the people of the United States to enjoy the services of "more slaves than were once owned by the richest nobles" is directly related to the oil and gas industry because petroleum accounts for approximately seventy-five per cent of the total energy used in the United States.[43]

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[39] Batt, *supra* note 36, at 208.

[40] *Ibid.*

[41] U.N., STATISTICAL YEARBOOK 23-24, 330-33, 527-28 (1964) (conversion based on 209 gallons of crude oil being equal to one ton of coal).

[42] Rickover, Energy Resources and Our Future (paper presented May 14, 1957, before the Annual Scientific Assembly of the Minn. State Medical Ass'n).

[43] THE CHASE MANHATTAN BANK, FUTURE GROWTH OF THE WORLD PETROLEUM INDUSTRY 11-12 (1961).

Not only is petroleum our country's leading source of energy, but the growing field of petrochemicals also relies upon petroleum. More than sixty-eight per cent of all synthetic organic chemicals produced in the United States is derived from petroleum. Furthermore, thirty-five per cent of the total chemical production of the United States is petrochemical. This production accounts for seventy per cent of the value of all chemicals produced.[44] As one can deduce, the petrochemical industry is putting an additional demand on the petroleum industry.

Petroleum has played a major role in obtaining for Americans the highest standard of living in the world. We do live "better than most ancient kings." Does the promise of vast amounts of atomic energy mean that the demand for petroleum will diminish greatly? This may happen in the distant future but certainly not in the near future. The Department of Interior anticipates that in 1980 nuclear energy will provide only two and four tenths per cent of the total energy consumed in the United States.[45] The Atomic Energy Commission in its report to President Kennedy estimated that by 1980 nuclear energy would account for only about three per cent of domestic energy requirements.[46] These statistics show that atomic energy will not replace petroleum overnight. This proposition is further supported by the fact that the Department of Interior predicts that by 1980 daily consumption of liquid petroleum will be seventeen and one-half million barrels, an increase of sixty-five per cent over 1964.[47]

VI. ARE DEPLETION ALLOWANCES JUSTIFIABLE TODAY?

Whether depletion allowances as permitted in previous years were justifiable is a moot question. The question which concerns us is whether the existing depletion allowances can be justified.

Nearly everyone concerned would allow cost depletion[48] to continue, since this device permits the taxpayer a tax-free return of invested capital, which is a fundamental concept of American tax law. The controversy arises over the percentage depletion provision,[49] since this provision often operates to entitle the taxpayer to a tax-

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[44] U.S. DEP'T OF THE INTERIOR, AN APPRAISAL OF THE PETROLEUM INDUSTRY OF THE UNITED STATES v (1965).

[45] U.S. DEP'T OF THE INTERIOR, SUPPLIES, COSTS, AND USES OF THE FOSSIL FUELS, Table 24 (1963).

[46] U.S. ATOMIC ENERGY COMMISSION, CIVILIAN NUCLEAR POWER . . . A REPORT TO THE PRESIDENT 69-70, apps. (1962).

[47] MID-CONTINENT OIL AND GAS ASS'N, *op. cit. supra* note 22, at 12 (quoting U.S. Dep't of the Interior figures).

[48] INT. REV. CODE OF 1954, § 612.

[49] INT. REV. CODE OF 1954, § 613.

free return of more than his invested capital. Whether this excess tax-free income can be justified under the guise of a return of capital is the central question.

The oil and gas industry is unique in that each day it is in business, it is one day nearer to being out of business.[50] This is true because its oil and gas reservoirs are being depleted. While manufacturing and service companies are also depleting their assets, the difference between these businesses and the petroleum industry is obvious. As the assets of the manufacturing concern are used, replacements are obtained by placing an order with a supplier. The oil and gas industry can also "order" replacements by directing exploration to this end, but this entails the risk and uncertainty of replacing these reservoirs.

Not all drilling is analogous to "ordering replacements." Two types of wells are drilled: exploratory and development. The exploratory, or "wildcat" well, is drilled in virgin territory in hope of discovering new sources of oil; this is "reordering." Development wells are drilled in a known or producing field. As the production rate in a field or pool declines, the drilling of an additional well will not replace the wasting asset—it only speeds the expiration of the supply on hand. The only way to replace the reservoir is to find a new one, *i.e.*, to drill exploratory wells.

It is the failure to distinguish between the two types of wells that causes the gross exaggeration of the probabilities of drilling a producing well as the 1958 figures previously cited[51] tend to indicate. Typically, when the ratio of dry holes to successful wells is reported, the exploratory and development ventures are grouped together and considered only as either dry holes or successful wells. When the wells are grouped in this fashion, the total figure is not indicative of the high degree of risk involved in "replacing" oil reserves. The ratio of drilling dry holes encountered in drilling development wells is approximately one in five.[52] Of the exploratory wells, one in nine is a producer, but only one in forty-one produces petroleum on an economically feasible basis. This is so because the exploratory well seeks unknown reservoirs to replace reserves, while the development well merely taps a known pool and depletes the already discovered reserve.

Because of the small chance of drilling a reserve-replacing well that is financially successful, the well which does produce must return more capital to the taxpayer than he originally invested in that

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[50] Admittedly similar problems plague all extractive industries.
[51] See text at note 40 *supra*.
[52] See note 30 *supra*.

individual well. It is true that he can deduct some of the exploration and drilling expenses incurred while drilling the dry holes, and one relatively recent provision permits the taxpayer the option of either capitalizing or treating as an expense certain items,[53] but all of this is of little benefit to a taxpayer who has no income from which to take deductions. Of course it is an extreme situation where one has no income at all, but it is possible, since one narrows the odds by drilling dry holes in anticipation of drilling a producer. In these circumstances the only opportunity to replace the capital risked is to realize a return on the successful well greater than the expense of all the wells drilled. The percentage depletion method provids th means by which the additional capital return can be realized.

Should the government continue this tax advantage, or subsidy as some call it, now that atomic energy has made its appearance? As shown previously, in the immediate future atomic energy will make only a small contribution to the energy market; by 1980 the petroleum industry will be supplying seventeen and one-half million barrels of crude oil per day. This represents an increase of sixty-five per cent over 1964. For at least the immediate future, the justification for the depletion allowance is unaffected by atomic power.

This sixty-five per cent increase raises still another question, namely, are the present proved reserves sufficient to supply these increased demands? If they are, further exploration is unnecessary, and depletion allowances are rendered unjustifiable.

The following table[54] illustrates the present state of the reserves:

	Liquid hydrocarbons (Billions of barrels)
Anticipated Production, 1964-1980	69
Proved Reserves at 12/31/1980 (12 times estimated production in 1980)	60
Total	129
Less—Proved Reserves at 12/31/1963	39
Required Additions to Reserves, 1964-1980	90

The ninety billion barrels of required new reserves which must be found between 1964 and 1980 represent a greater number of barrels

[53] Treas. Reg. § 1.612-4 (1965): "In accordance with the provisions of section 263(c), intangible drilling and development costs incurred by an operator . . . in the development of oil and gas properties may at his option be chargable to capital or to expense. . . ."

[54] U.S. DEP'T OF THE INTERIOR, *op. cit. supra* note 44, at 18 n.12.

than have been produced in the United States during the entire history of the petroleum industry.[55]

This compilation shows that the oil industry is not on the wane. The national interest in maintaining adequate reserves is keen because oil is an important energy source and provides vast amounts of chemicals. The contributions which the industry makes both to our standard of living and to our national security cannot be ignored.

Because exploration must continue at an accelerated pace to meet increasing needs and because incentives must be provided to induce drillers to brave the risks of exploration, would the government be wise to simply subsidize the wildcatter and abolish depletion allowances? One writer takes the negative position.[56] Using 1949 figures, he states that the cost to the petroleum industry of dry holes in that year was approximately 700,000,000 dollars. At that time, this figure was greater than the amount which the Treasury Department hoped to attain through a change in the depletion allowances. Similar figures would in all probability show the same relation today. Furthermore, this writer points out that a subsidy would result in additional dry holes as drilling contractors, in an effort to keep all their drilling rigs working, would drill holes where they did not really expect to find petroleum. Subsidies have never been noted for their ability to increase efficiency. Coupled with the possibility of abuse through needless drilling, the shortcomings of the subsidy proposal can easily be seen.

In response to the assertion that corporations, and not the small operators for whose benefit it is sometimes urged the allowances were intended, are the main recipients of the depletion benefits, one must keep in mind that the benefits are keyed to a percentage of gross income. It is only logical that a large corporation will reap more value from the depletion allowances than will a small operator. However, the small operator is entitled to the same percentage as the large corporation. While it is true that ninety percent of the allowances are taken by corporations, twenty per cent of these are corporations with assets of less than 1,000,000 dollars.[57] Those corporations with assets exceeding 1,000,000 dollars are composed of millions of stockholders who, because of the depletion provisions, are willing to risk their capital for a possible profit on their investment.[58] Moreover, it is

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[55] MID-CONTINENT OIL AND GAS ASS'N, *op. cit. supra* note 22, at 13.

[56] Baker, in Baker and Griswold, *Percentage Depletion—A Correspondence*, 64 HARV. L. REV. 361, 367 (1951).

[57] See notes 35 and 36 *supra*.

[58] Hughes, *Percentage Depletion*, 37 TAXES 883 (1959).

interesting to note that the largest single investment of the endowment funds of our private universities is in oil stocks.[59]

While petroleum is essential to our national security, industries such as steel, aluminum, and nuclear power are equally vital. In the interest of national security should not they also be entitled to favorable tax treatment? A review of the depletion provisions[60] discloses that while the percentages vary,[61] depending on the mineral produced, they do participate in the depletion provisions.

VII. CONCLUSION

The demand for petroleum is increasing and will continue to increase in the foreseeable future. In order to meet the demands created by our high standard of living and by national security requirements, more exploration must be undertaken in the coming years. This increased exploration means more money will be required to support the industry. The strong incentives provided by the depletion provisions are necessary to attract capital into this extremely risky and costly business. Basically, then, the maintenance of our high standard of living and of our national security justify depletion allowances today.

O. Lawrence Mielke

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[59] See *College Endowments Favor Oil*, The Exchange, March, 1957, p. 5.

[60] INT. REV. CODE OF 1954, § 613.

[61] While oil and gas have the largest percentage depletion rate, aluminum and uranium have a twenty-three per cent rate and iron has a fifteen per cent rate. These differences are generally reconciled on the basis of the varying difficulties encountered in the exploration and exploitation of the various minerals.