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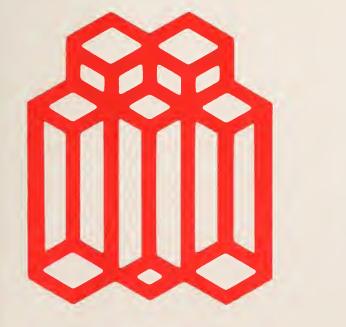
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# **1987** Census of Mineral Industries

MIC87-S-1

SUBJECT SERIES

# **General Summary**



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Many persons participated in the various activities of the 1987 Census of Mineral Industries.

The overall planning and review of the census operations were performed by the staff of the Office of the Assistant Director for Economic and Agriculture Censuses.

This report was prepared in the Industry Division. John Govoni, Assistant Chief for Census/ASM Programs, was responsible for the overall planning, management, and coordination of the census of mineral industries. Planning and implementation were under the direction of John P. McNamee, Chief, Minerals Branch, assisted by Patricia L. Horning.

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If you have any questions concerning the statistics in this report, call (301) 763-5938.

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# **General Summary**

Issued March 1991



U.S. Department of Commerce Robert A. Mosbacher, Secretary Michael R. Darby, Under Secretary for Economic Affairs

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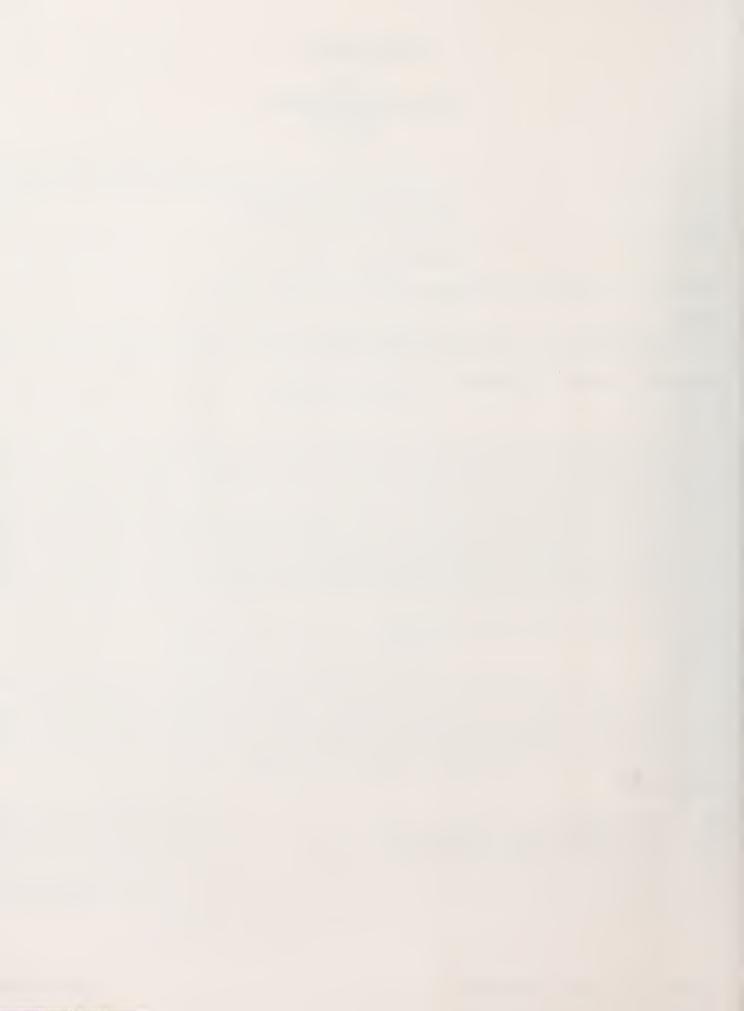
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### INTRODUCTION

#### 1. PURPOSE AND USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local Governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries, and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

#### 2. AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the

Census of Retail Trade Census of Wholesale Trade Census of Service Industries Census of Transportation Census of Manufactures Census of Mineral Industries Census of Construction Industries Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

#### 3. AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

#### 4. WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

#### 5. HISTORICAL INFORMATION

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying intervals.

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

#### 6. AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as *Current Business Reports* (retail and wholesale trade and service industries), the *Annual Survey of Manufactures, Current Industrial Reports*, and the *Quarterly Financial Report*. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the censuses. The *County Business Patterns* program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

#### 7. SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1987 Economic Censuses and Related Statistics.* More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1987 Economic Censuses.* Contact Customer Services for information on availability.

#### 8. CONTENT OF THE ECONOMIC CENSUSES

General-The economic censuses provide a comprehensive statistical profile of a large segment of the national economy. This program includes censuses of manufactures, retail trade, wholesale trade, service industries, mineral industries, and construction industries. In 1987, these industries accounted for nearly 60 percent of the \$4.5 trillion of the gross domestic product and 68 percent of that originating in the private sector. The principal industry groups not covered were finance, insurance, and real estate; agriculture, forestry, and fishing; communications; and electric, gas, and sanitary services; and transportation. Limited information on transportation is collected, e.g., truck registration and distances travelled, and shipments of commodities by type of transport and distance shipped. The dates of each of the economic censuses are shown in table A.

Enterprise statistics-Through the history of the economic censuses, the unit of enumeration has been the establishment; i.e., a single physical location engaged in a specific line of business (for more discussion, see item 11). This unit is suited for obtaining measures of direct output and input labor, material, capital, etc. It is also best suited for providing refined industry and geographic tabulations. Statistics measuring overall income and balance sheet data are best collected at the company or enterprise level. In the early 19th century, these two business units were often identical. With the rise of large scale operations, it became guite common for the large companies to operate many separate establishments in a number of diverse industries so that today the establishment and enterprise frequently are not the same. Enterprise measures and balance-sheet data have typically been provided by the Internal Revenue Service (IRS) in its Statistics of Income and the Census Bureau in its Quarterly Financial Report of Corporations.

In 1954, as part of the economic censuses program, the Bureau of the Census also developed an enterprise statistics program. This program relates census company-level

Table A. Tears covered by Ed		c1130303.	1000 10 11					
Year covered	Manufac- tures	Mineral industries	Fisheries	Construc- tion indus- tries	Retail trade	Wholesale trade	Service industries <sup>1</sup>	Transporta- tion <sup>2</sup>
1987. 1982. 1977. 1972. 1967.	× × × × ×	X X X X X X	       	X X X X X	X X X X X	X X X X X	× × × ×	X X X X X
1963 1958 1954 1948 1947	× × ×	× × –	×  -  -		× × × ×	× × ×	× × × ×	× 
1939 1937 1935 1933 1931	× × × × ×	_x 		x 	× × ×	× ×	× × ×	
1929 1927 1925 1923 1921	x x x x x	×  -  -		× 	×  -  -	×     		
1919. 1914. 1909. 1908. 1904.	× × × ×	× × -	     					
1902. 1899. 1889. 1880. 1879.		×       	- - - -					
1870	- - - - -	×       						
1849. 1840. 1839. 1819. 1809.	× × × ×	×     						

#### Table A. Years Covered by Economic Censuses: 1809 to 1987

- Not published. X Published.

<sup>1</sup>Actual coverage varied from census to census.

<sup>2</sup>Limited information only.

data to data measuring activities of individual operating units or establishments within the companies. Thus, a measurement of the integration and diversification of the American enterprise system became available. The enterprise statistics program also made it possible to link census establishment-based data on a modified basis to enterprise-based statistical systems, such as the IRS's *Statistics of Income for Corporations.* 

#### 9. ECONOMIC SIGNIFICANCE OF THE MINING SECTOR

The mineral industries, in recent years, have accounted for about 1 percent of national income and have provided employment for less than 1 percent of all gainful workers in the United States. Nevertheless, the mineral industries furnished a large proportion of the raw-materials base of the economy. In 1987, the mining industries accounted for 44 percent of the gross domestic product for the combined domestic raw materials industries of mining, agriculture, forestry, and fishing.<sup>1</sup>

Minerals production in the United States requires relatively larger capital expenditures than does manufacturing production. Although value added by mining in 1987 amounted to only 8.7 percent of total value added for mining and manufacturing combined, capital expenditures in the mineral industries were 16.4 percent of the total for mining and

<sup>&</sup>lt;sup>1</sup>U.S. Bureau of Economic Analysis, **Survey of Current Business**, January 1991.

#### Table B. Value Added, Capital Expenditures, and Employment in Mineral and Manufacturing Industries: 1987

Item	Value added (million dollars)	Capital expendi- tures (million dollars	Employment (1,000)
Mineral industries: All mining Oil and gas extraction only	110 959.1 80 048.8	15 418.1 11 717.4	698.1 377.9
Manufacturing industries Mineral industries as percent of mineral and manufacturing industries:	1 165 746.8	78 647.8	18 950.3
All mining Oil and gas extraction	8.7	16.4	3.6
only	6.3	12.5	1.9

manufacturing (see table B). Moreover, the oil and gas extraction industries alone accounted for 12.5 percent of all capital expenditures for mining and manufacturing. In comparing figures in table B, it should be noted that value added by mining includes a measure of value added in the development of mineral properties (see item 24), and capital expenditures include expenditures for development of mineral properties (see item 25).

#### 10. THE CENSUS OF MINERAL INDUSTRIES—SURVEY DESCRIPTION

In the farm-oriented economy of the early 19th century, the need for mineral statistics for setting government policy, except for tariffs and taxes, was slight. The only sources of information on the mining sector were the censuses of mineral industries, then taken at 10-year intervals. Today, the need for mining statistics has greatly increased so there is now a vast array of detailed information covering virtually every measurable aspect of mining activity including employment; payrolls; hours worked; production; prices; inventories; orders; investment in structures; machinery and equipment; and consumption of raw materials, fuels, and water. The census of mineral industries, though conducted only at 5-year intervals, still plays an essential role, since no other source measures the structure of the mining sector in such a comprehensive and detailed way.

For every mining establishment with one employee or more, the census obtains data on its input of labor, materials, and capital; its output of products and services; its location; and the legal form of organization of the owning firm.<sup>2</sup>

A set of summary or general statistics is developed for each establishment (i.e., total employment, payroll, productionworker employment, hours worked, wages, cost of supplies, value of shipments and receipts, capital expenditures, and value added by mining) and aggregated by industry, by area, by employment size of establishment, and by type of ownership. Reports are published on the detailed industrial characteristics of each State, and overall measures of mining activity are shown at the county level provided the information can be published without compromising the confidentiality of individual company data. Since census legislation guarantees confidentiality to the firms that are required to report, it is frequently necessary to suppress some aggregates.

The census of mineral industries also is used to update other indicators of economic activity, especially the national income accounts. Census data on materials consumed and product output by industry are basic to the input-output matrix developed by the Bureau of Economic Analysis for the mining sector. The Federal Reserve Board monthly Index of Industrial Production, a key indicator of current economic activity, relies on census industry and product data as benchmarks and weights to sum industries to higher levels of aggregation. The census also provides benchmarks for surveys conducted by other government agencies and by associations.

#### 11. INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

**Structures of the standard industrial classification**—The establishments in the census of mineral industries are classified according to the Standard Industrial Classification (SIC) Manual.<sup>3</sup> The SIC manual covers the entire field of economic activities, subdivided as follows:

Below the major group level, the SIC provides for three-digit groups and finally for four-digit industries. To illustrate:

#### **Division B, Mining**

Major group 10	Metal mining
Industry group 104	Gold and silver ores
Industry 1044	Silver ores

The SIC was developed to classify establishments as distinguished from similar systems used to classify companies or enterprises. An establishment is defined as a single physical location engaged in one of the industry categories of the SIC.

The SIC is the responsibility of an interagency technical committee established by the Office of Management and Budget. The system is used by all Federal Government agencies engaged in the classification of establishments. Many State and local governments and business concerns also organize their own records along SIC lines in order to facilitate comparison with Federal statistics.

<sup>&</sup>lt;sup>2</sup>Since 1967, some of this information for small companies was not obtained directly, but estimated from other government records. See the discussion of coverage of establishments in items 11 and 13.

<sup>&</sup>lt;sup>3</sup>Standard Industrial Classification Manual: 1987: For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

The first SIC manual was issued in 1939. For the mining sector, the nucleus was the set of industry classifications developed over many years for use in the census of mineral industries. A revised manual was issued for the mining industries in 1945 and, with minor modifications, used for the 1954 Census of Mineral Industries. Minor revisions of the SIC between 1958 and 1967 introduced some four-digit industry changes, but none of them crossed three-digit group lines. Another revision of the SIC for 1972 produced additional four-digit industry changes. This revision affected 17 industries, as defined for 1967, by meraing them into 6 newly defined industries. These revisions and their impact on comparability appear in the introduction, "Industry and Product Classification" of the 1972 census General Summary. The latest revision affecting comparability was issued for 1987. Appendix A of the 1987 manual notes the revisions in the four-digit industry levels between 1972 and 1987.

**Structure of the SIC mining division**—For the mining division, there are 4 two-digit SIC major groups (10, 12, 13, and 14), which are subdivided into 20 three-digit SIC groups (101 to 149), and further subdivided into 31 four-digit industries (1011 to 1499).

Most of the 31 mineral industries are defined in terms of specific groups of related products. In determining the boundaries of industries, it is essential that each industry comprises a group of establishments that are highly specialized in producing products that define the industry (primary products) and that a large proportion of all the products be made in establishments classified in the industry.

There are wide differences among industries in their purity; i.e., the extent to which the establishments classified in the industry:

- 1. Account for the total production of commodities "primary" to the industry.
- 2. Produce products or services "belonging" to other industries; i.e., secondary products.
- 3. Use similar materials or processes.

These variations are frequently construed to be shortcomings. However, these limitations in the classification structure arise from the inherent complexity of our economic system and from the variation in types of production that take place in individual establishments.

While the SIC is the basis for aggregating census data, the data collected, in turn, provide the statistical basis for periodic critical evaluation of that classification system and its revision.<sup>4</sup> No general-purpose system of industrial classification can satisfy all users of census data. Some business users are interested primarily in a narrow range of products which they and their competitors produce. Others are involved in a wide range of products that move through the same marketing channel. Others seek data relating to the consumers of one or more types of materials. Some are interested only in the data for highly specialized plants; others, for plants producing a "full line" of products. Those studying productivity may require data for plants using the same techniques.

The large number of SIC industries provides the analyst with the "building blocks" for making useful approximations, even if specific data cannot be developed to resolve many of these problems. A single general-purpose system of classification can only partially satisfy these diverse needs; a point is soon reached at which the adaptation of a system to better serve one use will reduce its ability (sometimes disproportionately) to serve an alternative use.

Accordingly, users of data frequently regroup detailed SIC industries differently from the two- and three-digit SIC categories. Public and private agencies also recombine the detailed classes. The four-digit industries are more susceptible to allocation to such categories than the two-digit SIC groups.

**Subindustries**—The Bureau of the Census frequently has further classified some of the basic four-digit SIC industries into "subindustries." Subindustries are employed where there are wide disparities in the operating ratios of the establishment in the industry because the establishment is operated as a mine only, a mine with treatment plant, a treatment plant only, or because the operated mine is underground, open pit, or a combination. This technique was used for all mining industries for editing purposes, and many were regarded as significant enough to be used for publication.

**Definition of mining**—The mineral industries include all establishments primarily engaged in mining. This term is used in the broad sense to include the extraction of:

- 1. Minerals occurring naturally.
- 2. Solids, such as coal and ores.
- 3. Lquids, such as crude petroleum.
- 4. Gases, such as natural gas.

The term "mining" is also used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation and beneficiating needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately within this division.

<sup>&</sup>lt;sup>4</sup>See Industry Classification and Sector Measures of Industrial Production by James W. McKid, Bureau Working Paper No. 20, 1965, and Historical Comparability of Census of Manufactures Industries, 1929-1958 by Harold T. Goldstein, Bureau of the Census Working Paper No. 9, 1959.

Mining operations are classified by industry on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

Mineral preparation plants are usually operated together with mines or quarries and, frequently, no separate records are maintained. All such preparation plants are included in the scope of the minerals census. Coal cleaning and sizing plants operated at mines or as separate establishments are also included. However, crushing, grinding, and other treatment of certain nonmetallic minerals at separately operated plants are included in the manufacturing industries. Contract hauling (except out of open pits in conjunction with mining) is excluded from the mineral industries.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants) are not within the scope of this census. However, certain information on these operations has been obtained in the census of manufactures and is included in some of the industry reports and in the State reports. Wherever such inclusion occurs, it is clearly specified.

All blast furnaces; metal smelters; metal and petroleum refineries; plants manufacturing cement, brick, tile, and pottery; and plants engaged in dressing or polishing stone are classified in the manufacturing industries. Separate reports were obtained and included in the minerals census for the few ore dressing plants operated in conjunction with smelters.

**SIC classifies establishments**—The SIC is an establishment classification system, and the census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location. On the other hand, a company engaged in distinctly different lines of activity at one location is required to submit a separate report for each activity if the plant records permit such a separation and if the activities are substantial in size.

For oil and field operations and contract services, reporting was somewhat different from the "establishment" reporting basis used for other types of mining. Concerns operating oil and gas wells, drilling wells, or exploring for oil and gas for their own account were required to submit a separate report for each State or offshore area adjacent to each State in which they conducted such activities. Concerns which supplied contract services for mining establishments were required to submit one report covering all such activities in the United States. Information on receipts for services, production-workers' wages and hours, was requested by State. These consolidated reports were then allocated to State establishments based on the data reported at the State level. The 1987 figures for establishments include the summation of operations for each State allocated from these nationwide reports.

The requirement that distinct lines of activity at the same location be separately reported was applied only where the establishment produced and shipped significant amounts of products classified in different SIC industries. In widely varying degrees, many mining establishments extract products that fall into different SIC industries. Generally, the amounts involved are not significant enough to warrant the filing of separate reports, even if feasible. However, there are a number of locations at which large numbers of employees are engaged in activities defined in different industries of the SIC. Frequently, companies organize their operations and their records separately for the diverse activities and report them as separate plants. When they do not do so on their own initiative, the Bureau of the Census requests separate reports if it appears that 100 employees or more are involved in each activity. For the most part, companies have cooperated and "split out" the different activities that would otherwise significantly distort the relationship of the industry and product statistics. Frequently, however, the two groups of products cannot be distinguished sufficiently in company records to provide establishment-type reporting.

Establishments included in census of mineral industries—Since the 1967 Census of Mineral Industries, the censuses have included only establishments of companies with one paid employee or more. Prior to 1967, different criteria were used to determine if an establishment had to report in the census. In the 1963, 1958, and 1954 censuses, establishments without paid employees were excluded if any of the following three items amounted to less than \$500 for the entire year:

- 1. Value of products shipped and services performed for others.
- 2. Expenses for wages, salaries, supplies, minerals received for preparation, fuel, purchased electric energy, contract work, and purchased machinery.
- 3. Capital expenditures for development and exploration of mineral properties, new construction and major alterations, and new and used machinery and equipment.

In general, small establishments were excluded from the 1939 and 1929 censuses if each of three similar items amounted to less than \$2,500 and from the 1919 census if value of products was less than \$500 and expenditures for development work less than \$5,000. An output criterion of

Table C.	Percent of Mining Establishments, Value
	Added by Mining, and Capital Expendi-
	tures, by Employment-Size Class: 1987

	Percent of total		
Employment-size	Mining	Value	Capital
	establish-	added by	expendi-
	ments	mining	tures
All establishments	100.0	100.0	100.0
0 to 4 employees	50.4	5.9	7.3
5 to 9 employees	16.9	4.6	4.9
10 to 19 employees	14.0	7.4	6.9
20 to 49 employees	11.2	13.7	13.2
50 to 99 employees	3.9	12.9	11.9
100 to 249 employees         250 to 499 employees         500 to 999 employees         1,000 employees or more	2.3	15.8	17.4
	.9	12.4	11.9
	.3	13.2	12.0
	.1	14.0	14.5

1,000 tons for bituminous coal and lignite was used in these three censuses. Common sand and gravel operations were excluded in 1939 if they produced less than 15,000 tons of sand and gravel and had expenses of less than \$15,000. For 1929, common sand and gravel establishments producing less than 25,000 tons were excluded. This industry was not covered in censuses prior to 1929. In earlier censuses, there were no minimums for size of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is production of these items by highway contractors and construction contractors who do not maintain separate records for sand and gravel production.

The census includes, however, mining establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and mills where all of the ore is transferred to a company-owned smelter.

The percent of mining establishments, value added by mining, and capital expenditures by employment-size classes are shown in table C.

In general, the 1987 minerals census reports provide complete coverage of production and development operations although there are certain limitations to coverage in some industries. These limitations are discussed in detail in the industry reports.

**Special treatment of small establishments**—Beginning with the 1967 census, an effort was made to relieve the very small establishments from the necessity of filing a census report. In the 1987 minerals census, small singleunit companies with up to 20 employees (the cut off varied by industry), were excused from filing reports. Approximately 12,500 companies fell into this category in 1987. Limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration (SSA) and the Internal Revenue Service (IRS) were made available to the Bureau of the Census. (Special arrangements were made to safeguard the confidentiality of both tax and census records.) Data other than payrolls and sales for these small establishments were imputed from industry average ratios. The effect on industry aggregates is slight in most industries; for mining as a whole, these small "administrative records" accounted for only 2.5 percent of the value added. Detailed product and materials data for these small establishments were not estimated; the entire value of product shipments and cost of materials was imputed to a "not specified by kind" category.

If these establishments had been included in the 1982 Census of Mineral Industries, they were assigned the industry classifications to which they had been coded. If they had started operations later, they were coded on the basis of brief descriptions of the general activity of the establishment as reported to the Social Security Administration. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between mining and nonmining activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the Bureau of the Census conducted a special classification survey in order to clarify the industry codes of some of the establishments in the administrative-record file. All establishments without specific four-digit codes and those where there could be significant misclassification between mining and other sectors were either sent a classification guestionnaire or a general schedule, Form NC-9923, Nevertheless, the total establishment counts in most industries should be viewed as approximations rather than precise measurements. The counts for establishments with 20 employees or more are far more reliable than the total number of establishments.

Auxiliary units—Mining requires a wide range of diverse support activities. These activities include general administrative; supervisory; purchasing; accounting; general engineering and systems planning; and legal, financial, and related management functions usually performed centrally for other establishments of the same company. These separate locations are referred to as auxiliaries. An auxiliary is an establishment whose employees work primarily in supporting services for other establishments of the same company (i.e., its mines, factories, retail stores, etc.) rather than for other business firms or organizations. Employment and payroll data for auxiliary units are included in the published data for the census of mineral industries.

**Product codes**—The SIC coding system is designed to describe industries and operates in such a way that the definitions become progressively narrower with successive additions of numerical digits. There are 4 very broad two-digit groups, 20 three-digit groups, and 31 four-digit industries. Based on the SIC, the Bureau of the Census has developed a product coding system along similar lines which contains 75 five-digit product classes and 180

individual seven-digit products. The seven-digit products and five-digit product classes are considered the primary products of the industry with the same first four digits as the product code. For example, the seven-digit product code number 10211 05 refers to crude copper ore mined from open pit operations. The first five digits of this code number 10211, refer to the "product class" crude copper bearing ores, and the first four digits, 1021, refer to the industry in which these products are made (the copper ores industry). The same system is applied to the coding of materials. The first four digits of a material code (for example, the code number 102100, copper ores, concentrates, and precipitates) used as a material describe the industry that produces it; e.g., 1021, the copper ore industry.

The SIC-based commodity classification is used in the Bureau of the Census' entire industrial statistics program, including monthly, quarterly, and annual surveys, and also in the census of wholesale trade. The Bureau of the Census also publishes data on imports and exports in terms of SIC-based categories as well as the traditional Schedule B and Tariff Schedule of United States Annotated (TSUSA) systems.<sup>5</sup>

Primary and secondary products of establishments—An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. The industry code assigned to the establishment is derived from a summation of values of sevendigit product codes to their four-digit industry and the selection of the largest four-digit value as the establishment's industry classification. However, as mentioned earlier, the industry classification of an establishment may be determined not only by the products it makes but also by the processes employed or materials used in making those products.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in any industry specialize to this extent. Therefore, the general statistics (employment, payrolls, inventories, value added by mining, total value of shipments and receipts, capital expenditures, etc.) shown for an industry (tables 1 to 4 of the industry reports) encompass not only the primary activities of the establishments in that industry but also their secondary activities. On the other hand, the product statistics in table 6 of the industry reports measure the total output of specific products whether they are produced by establishments classified in the same industry as the product or not. For this reason, in relating the general statistics of an industry, especially the industry total value of shipments (industry reports, tables 1 to 4), to the product statistics (table 6), the composition of the industry's output as shown in table 5 should be considered.

#### Table D. Value Added by Mining for States: 1987

Table D. Value Added by	mining for ou	ates. 1907
Geographic area	Value added (million dollars)	Percent
United States	110 959.1	100
Alabama	1 234.7	1.1
Alaska	8 018.8	7.2
Arizona	1 142.8	1.0
Arkansas	521.3	.5
California	6 484.2	5.8
Colorado	1 832.1	1.7
Connecticut	105.6	.1
Delaware and District of Columbia	11.4	(V)
Florida	1 027.4	.9
Georgia	827.6	.7
Hawaii	23.5	(V)
Idaho	171.3	.2
Illinois.	2 180.5	2.0
Indiana	815.4	.7
Iowa	131.3	.1
Kansas.	1 671.7	1.5
Kentucky.	3 698.6	3.3
Louisiana.	16 655.7	15.0
Maine.	5.5	(V)
Maryland.	273.9	.2
Massachusetts	132.0	.1
Michigan	1 499.6	1.4
Minnesota	554.5	.5
Mississippi.	930.8	.8
Missouri	466.1	.4
Montana	1 167.1	1.1
Nebraska	119.0	.1
Nevada	1 177.5	1.1
New Hampshire	40.9	(V)
New Jersey.	241.2	.2
New Mexico New York North Carolina North Dakota Ohio	3 539.1 484.3 414.2 978.1 1 839.8	3.2 .4 .9 1.7
Oklahoma	5 523.1	5.0
Oregon	78.5	.1
Pennsylvania	2 561.6	2.3
Rhode Island	15.6	(V)
South Carolina	143.1	.1
South Dakota	190.8	.2
Tennessee	458.4	.4
Texas	29 676.5	26.7
Utah	1 552.0	1.4
Vermont.	57.8	.1
Virginia	1 554.4	1.4
Washington	275.7	.2
West Virginia	3 674.1	3.3
Wisconsin	155.2	.1
Wyoming	4 362.0	3.9
Offshore areas not associated with a State	263.1	.2

(V) Rounds to zero.

#### 12. GEOGRAPHIC CLASSIFICATION

**Census divisions and regions**—The 1987 Census of Mineral Industries measures industrial activity at the National, State, and county levels. Prior to 1977, similar information

 $<sup>^5\</sup>mbox{Schedule B}$  is the U.S. export classification, while TSUSA is applied to imports.

was summarized for the traditional nine geographic divisions (e.g., New England, Middle Atlantic, etc.) and the four geographic regions (Northeast, South, Middle Atlantic, and West).

The presentation of data for individual industries and industry groups at all these geographic levels has always created serious problems in protecting the confidentiality of individual company data. Consequently, it has frequently been necessary to set priorities as to what will be published. In the past, the preference was given to publishing data for the broad geographic regions over States leading to greater suppression of industry detail at the State level. There has been increasing interest in State information in preference to the broader regions. As a result, since 1977 the censuses of mineral industries has given first precedence to publishing State figures. A decision also was made to forgo publication of any divisional and regional totals. This was desirable to avoid suppressing industry detail that could have been published in one State to protect data for another State in the same division that had to be suppressed to preserve the confidentiality of a respondent's figures.

Thus, some summary tables for the nine geographic divisions and four regions that were published prior to the 1977 censuses, do not appear in the publications of the 1987 Census of Mineral Industries. The relative importance of mining among the States is shown in table D.

#### **II. SURVEY METHODS**

#### **13. PLANNING AND PREPARATION**

**General**—The Bureau of the Census has an obligation to meet public needs for timely and reliable information while holding costs and the burden on respondents to a minimum. During the planning stages of each economic census, the advice of trade and professional associations, Federal and State Government agencies, individual companies, labor unions, and research and educational organizations is sought in an effort to reach both the users of data and the respondents who supply the basic figures. Simultaneously, the problems encountered in the previous censuses are studied; and improved methods of collection, processing, and tabulation are explored.

Mailing lists-Beginning with the 1954 economic censuses, the basic mailing lists have been obtained from IRS and SSA records. These records also were sampled to develop statistics for retail and service establishments with no employees. After the 1963 censuses, feasibility studies indicated that greater use could be made of the data in the IRS-SSA records. In the 1967 censuses, over 2,000,000 firms were exempted from the filing requirement, including 10,000 small mining firms. Instead, census-type statistics for this group were developed from IRS-SSA records. In close cooperation with IRS and SSA, specific procedures for the use of individual tax returns that assured confidential treatment of them were developed and set forth in Executive Order No. 10911, dated January 17, 1961, and Treasury Decision No. 6547 of the same date. The records used were business income tax returns (IRS forms 1040C, 1065, 1120, and 1120S) and payroll tax returns (IRS form 941). The name, address, payroll, and general business receipts were obtained from these reports, in addition to the SIC industrial activity code assigned by SSA. Other census statistics for these small firms were imputed using industry average ratios of the data item to payrolls and sales.6

This procedure was repeated in the 1972, 1977, 1982, and 1987 economic censuses. In 1972, there was a

concerted effort by the Bureau of the Census to improve the industry coding of the administrative records by mailing a nature-of-business inquiry to establishments whose industry codes could have been affected by the 1972 revision to the SIC. Similar efforts were made in 1977, 1982, and 1987 to clarify the classification of firms which SSA had not been able to code precisely.

**Planning the content of questionnaires**—As in previous censuses, the content of the 1987 questionnaires was developed in consultation with a large number of organizations and individuals, representing both the mineral concerns who supply the data and those who use the statistics. Those consulted included Government agencies, individual firms, the American Statistical Association, the American Economic Association, the American Marketing Association, and all mining associations covering specific industries.

Many individual mining companies and their trade associations were consulted about the content of the sections of the report forms dealing with the output of specific products. Drafts of the proposed 1987 product sections were circulated among trade associations and mining companies. These draft report forms included new product detail reflecting suggestions received by the Bureau of the Census after the 1982 canvass. Items whose total value was \$10 million or less were not retained separately in the list unless they were needed to assure correct classification of other products or were of strategic importance. A restriction was also placed on proposals for new product detail; it was stipulated that the 1987 value of any new product category should exceed \$20 million.

The mining operations were requested to comment specifically on the availability of the data requested in their records and the appropriateness of the product descriptions and units of measure.

The many comments and suggestions received in this clearance procedure were evaluated by the census staff. A detailed account of the clearance procedure and the

<sup>&</sup>lt;sup>6</sup>Imputation was only about 2 percent of overall totals.

decisions reached was forwarded to the Office of Management and Budget, along with the product sections developed by the Bureau of the Census as a result.

A final review was made by the Office of Management and Budget with the assistance of the Advisory Council on Federal Reports. The latter organization is a group of business executives such as controllers, economists, and market research directors, representing a cross section of all industries.

#### 14. REPORTING FORMS

A representative selection of the reporting forms used in the census are discussed below.<sup>7</sup>

**General forms**—This group of forms was used in the economic censuses, either as company-wide reports or as reports for establishments whose classification was not known precisely in advance of mailing.

**NC-9901, Report of Organization**—This companywide report was used prior to mailing the 1987 census questionnaires to develop the directory of establishments operated by multiunit companies. A more detailed account of their use is given in item 15, Mailing Lists.

**NC-9920, Listing of Additional Establishments**—This form was included with the economic censuses forms mailed to multiestablishment companies to obtain a list of establishments that were acquired after the NC-9901 was filed. These additional plants were classified, added to the NC-9901 directory list, and mailed the appropriate 1987 economic censuses report forms.

NC-9923, General Schedule—This questionnaire was designed to obtain information from small companies for which the industry code available in the SSA records was not precise enough to indicate which one of the standard census questionnaires should be mailed. The information provided on form NC-9923 was used to classify these companies by industry and tabulate their data in the appropriate census.<sup>8</sup>

**ES-9200, Auxiliary Establishment Report**—Many multiestablishment companies maintain separate establishments to provide centralized administrative, management, or other supporting services for other establishments of the same company, but not for the general public or other companies. They were asked to complete form ES-9200 for those establishments. The form contained questions on the approximate number of employees engaged in such functions as centralized administration, research and development, warehousing, and other auxiliary activities, and on the cost of research and development work performed by these nonmining establishments. The respondent also was asked to describe the industry activity of the operating establishments serviced by the auxiliary unit reporting on form ES-9200.

**ES-9100, Enterprise Summary Report**—Each large multiestablishment company received a form ES-9100, in addition to a specific questionnaire for each establishment. The ES-9100 requested consolidated company totals for receipts, new capital expenditures, inventories, and fixed assets, which are published as part of the Census Bureau's Enterprise Statistics Program described in item 8.

**Census of mineral industries forms and instruction manuals**—The questionnaire and instructions reproduced in the appendix, form MC-1403, is typical of the 10 long forms used for operating mining establishments. Each of these forms was designed to be used for a specific group of industries. The inquiries on the 10 long forms were identical except for the detailed questions on products shipped, materials used, assets for oil and gas extraction industries, and miscellaneous topics such as operations performed and metal contents of complex ores.

**Short form**—The stone and sand and gravel industries include a large number of small-to-medium sized firms that account for a significant portion of the industry's output. Usually these firms are not so small that the limited data in the administrative-record files would meet the needs of the census. To obtain sufficient data, yet hold the reporting burden down for these smaller firms, a special abbreviated short form was designed (MC-1471). Key input and output statistics were obtained without the detail requested on the standard form.

#### 15. MAILING LISTS

**General**—As discussed in item 13, the list of respondents for 1987 was obtained from IRS-SSA records. Since the IRS-SSA lists consist essentially of the names and addresses of companies rather than establishments,<sup>9</sup> it was necessary to follow separate procedures for multiestablishment companies (those operating at more than one location).

The precanvass—Multiestablishment companies were required to file at least one establishment report<sup>10</sup> covering

<sup>&</sup>lt;sup>7</sup>Samples of general forms and mineral industry forms are reproduced in appendix E.

<sup>&</sup>lt;sup>8</sup>Use of form NC-9923 is also discussed in item 15, Mailing Lists.

<sup>&</sup>lt;sup>9</sup>SSA records for multiestablishment companies identify "reporting units," which, in many instances, correspond to census establishments. Differences are such, however, that it was found necessary to obtain up-to-date lists of establishments as described in this section. Also, the Bureau of the Census concept of a company differs from IRS-SSA definition, since the Census company includes all establishments under common ownership or control. In IRS-SSA records, subsidiary corporations are often treated as independent companies.

<sup>&</sup>lt;sup>10</sup>If two or more distinct lines of activity were carried on at one location, separate reports were obtained under some circumstances. (For a complete discussion, see SIC Classification of Establishments, item 11.)

each location. In order to mail the appropriate questionnaires it was necessary to determine the type of activity at each location operated by multiestablishment companies. The Bureau of the Census conducts an annual update of its directory of establishments operated by large companies in which "Report of Organization" (form NC-9901) is mailed each year to known multiestablishments.

This form consists of a report on company affiliation and a list of the domestic establishments operated by the company. The company's establishments as identified in census records are prelisted and the respondents are asked to correct this list. They are also asked to describe new establishments not prelisted and indicate their size.

Large multiestablishment companies are segregated for special handling because of possible overlap and duplication. Many of these companies are active in manufacturing, retail, and wholesale trade as well as in mining. The reporting instructions are reviewed in discussions with officials of the accounting departments of many of these firms to make certain that the procedure is understood and the establishments are properly described on form NC-9901.

**Single-establishment companies**—The mailing lists for single establishment companies (those operating at only one location) were developed from an initial control file assembled from IRS and SSA records. Out-of-scope companies (those whose activities were not to be surveyed in the economic censuses) and those identified as multiestablishments in the multiestablishment directory were removed.

The final step was to identify the small companies to which forms were not to be mailed because census-type statistics were to be developed from administrative records. The remaining records constituted the mailing lists for single-establishment companies.

**General schedule**—While these lists generally contained adequate industry information to determine the proper form for mailing, a number of the records did not have precise industry information. Form NC-9923, General Schedule, was mailed to these companies. Since it was assumed that these companies were quite small, only the dollar volume of business was requested. The completed reports were coded and included in the tabulations. If form NC-9923 indicated that the company was actually large, it was later requested to file one or more of the appropriate standard questionnaires.

#### 16. COVERAGE AND ACCURACY

Since the list of companies obtained from IRS and SSA records was considered to be complete, no field coverage check was conducted. The precanvass and other special procedures for multiestablishment companies described in Item 15, Mailing Lists, and Item 18, Data Collection, were designed to secure complete lists of establishments, thereby

amplifying the IRS-SSA company list. Control totals, in terms of employment and payrolls of multiestablishment companies, also were used to verify the completeness of establishment coverage.

Comparison of statistics tabulated from the census of mineral industries with data originating with other agencies was possible in many instances, thus providing a further confirmation of completeness and accuracy. In the industry reports, differences between the census of mineral industries and other statistics are explained wherever possible. Census of mineral industries' comparability with broad measures (such as National income, new capital expenditures, and production indexes) is discussed elsewhere in this introduction. The Bureau of the Census' other procedures designed to improve the accuracy of the census data are discussed below in the items of data collection and processing.

#### 17. GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required in order to tabulate the minerals census data by State and county. Prior to the census, the mailing address information was matched by computer to geographic reference files in order to assign geographic codes. The reference files were the Address Reference File, which contained about 2.2 million street and building records with their associated ZIP, State, county, and place codes, and the City Reference File, which contained over 90,000 possible combinations of post office names, State abbreviations, and ZIP Codes with their related State, county, and place codes.

The computerized geographic coding system assigned codes to each establishment by matching the street address to the Address Reference File whenever possible. If this was not possible, geographic codes were assigned by matching the post office name, State, and ZIP Code to the City Reference File. Computer file flags were assigned to indicate how confident we were of the codes assigned. Large establishments with low confidence codes were researched clerically.

As in previous censuses, a post office box address or ZIP Code of the establishment was not accepted as defining the physical location. Respondents were requested to check the address labels on the questionnaires and if incorrect or with a nonphysical location address (such as post office box) to provide the following information; street address, place (post office name), State abbreviation, ZIP Code, county name, type place, and whether the establishment was located inside or outside the legal boundaries of the place. Any changes and corrections that were returned were noted and geographically coded accordingly.

Because of the unique establishment definitions in mineral industries and the rural locations of mining establishments in general, geographic coding is particularly difficult. In these cases, the name or number of the nearest highway and the distance from the nearest town or urban place was requested.

#### **18. DATA COLLECTION**

Although the greater use of administrative records in 1987 substantially reduced the number of companies canvassed directly, there remained over 2 million that were required to file, including about 19,500 mineral operations; small mineral operators for whom the administrative records sufficed numbered about 12,500. The assembly of several hundred different questionnaires into mailing packages was an extensive operation.

Most of the 1987 questionnaires were mailed by late December 1987, with a due date of February 15, 1988. The collection phase was completed by late August 1988. Companies which did not return their questionnaires by the due date had to be reminded that their returns were overdue. In all, there were five mail followups. Telephone calls were made to the large companies to help with reporting problems and to request that the forms be completed and returned.

Estimates based on data from administrative records were included in the census tabulations for the relatively small number that had not responded by the closeout date in August 1988. Thus, reported or estimated data for all companies and establishments in the original mailing list (except those determined to be inactive during 1987) were included in the final statistical results. A special effort was made to obtain actual returns from all large firms, so that the dollar volume of business represented by proxy returns was relatively small.

#### **19. DATA PROCESSING**

**General**—The editing,<sup>11</sup> coding, and tabulation of data for the 6 million establishments represented in the 1987 economic censuses were complicated tasks. Automated data processing and other advanced techniques were used in all phases.

The questionnaires were mailed from and returned to the Bureau of the Census office at Jeffersonville, Indiana, where most noncomputer (that is, clerical) processing operations were performed. Data were placed on a keyto-disc system, and the encoded data sent to Washington on a high-speed transmission system. The Washington, DC staff handled computer operations and all operations in connection with the use of IRS and SSA records.

**Preliminary processing**—After they were checked in, the questionnaires were keyed and subjected to simple edits to see that they conformed to certain minimum requirements before further processing. For multiestablishment companies, the sums of employment and payroll reported on its establishment questionnaire were compared with the control totals received on IRS form 941. Questionnaires received from single-establishment firms were reviewed to ascertain whether they had become multiestablishments through merger or acquisition. Questions arising in these operations were resolved by writing or telephoning the respondents. Complex problems were referred to the Washington, DC professional staff.

**Computer editing**—The review for consistency among data items and completeness was done on the computer. Average values and tolerance limits for key operating ratios (for example, cost of materials per dollar of shipments, payroll per employee, production-worker wages per hours worked, etc.) played a fundamental role in the editing process.

A detailed description of the step-by-step processing procedures appears in the Bureau of the Census publication, *History of the 1987 Economic Censuses*. This volume describes the procedures followed in both the centralized overall processing and in the individual censuses such as mineral industries.

#### **III. COMMENTS ON STATISTICAL MEASURES AND TABLES**

(Explanations and definitions of the various measures of activity for which statistics are compiled in the census of mineral industries are presented in appendix A. In the following text, the limitations and other characteristics of some of these measures are discussed, the content of the statistical tables is described, and comparisons with other statistical series are presented.)

#### 20. ESTABLISHMENTS DURING THE YEAR AND AT THE END OF THE YEAR

The establishment data shown as "Establishments during year" in the tables represent all establishments of companies with one paid employee or more that have production, development, or exploration activities at any time during the year. Also included are separately operated auxiliary establishments. Of the approximately 33,600 establishments with such activities during the year, 33,000 or 98 percent of them were also operating at the end of the year.

#### 21. EMPLOYMENT AND PAYROLL IN AUXILIARIES

Employment, payroll, and establishment counts of auxiliaries are included in all tables of the census of mineral industries. Table 8 in chapter 2 and table 4 in chapter 3 of this report show employment and payroll data separately by industries and States.

#### 22. SUPPLIES CONSUMED

Every establishment was requested to report the total cost of supplies. In addition, quantity and cost information

<sup>&</sup>lt;sup>11</sup>In data processing, the term editing means the review of information collected on questionnaires or from other sources, with the objective of locating and correcting erroneous entries.

were collected for approximately 50 specific supplies. Supplies were generally collected only in those industries in which the supplies were important inputs. Detailed consumption information was collected in item 17B of the questionnaire, the standard supplies inquiry. The resulting statistics are presented mainly in table 7a of the industry reports.

In using the detailed data on supplies consumed, the following limitations should be noted:

- Supplies were reported for the establishment as a whole, and no attempt was made to ascertain how much of the material was used in each of various products. Thus, the industry total for supplies appearing in tables 7a of the industry reports includes consumption in secondary products as well as primary products of the industry. The extent of secondary production in each industry is shown in table 5, chapter 2 of this report.
- 2. Special attention should be paid to the codes ending in "000" and captioned "Undistributed minerals, purchased machinery, parts, attachments and supplies used." The amounts appearing on these lines are totals imputed for:
  - a. Establishments whose statistics were developed from administrative records.
  - b. Establishments whose reports were not received at the time the data were tabulated.
  - c. Totals for establishments that returned report forms but failed to report their consumption in specific terms.

Thus, for most industries, the data for specific supplies are understated. A judgement on the statistical significance of the understatement may be made from the ratio of the value shown for the "not specified by kind" (code 000) to the total of selected supplies, minerals received for preparation, and purchased machinery installed for the industry.

- Establishments consuming less than a specified amount of a supply were not requested to report consumption of the supply separately. For the majority of individual supplies, the minimum amount was \$25,000. The use of this cutoff is not believed to have had a significant effect on the totals; in 1977, a lower cutoff of \$10,000 was used.
- A total of "not elsewhere classified" (n.e.c.), supply code 970099, was collected on most forms and is published for each industry. This is the total cost of supplies for an industry for which no supply items were prelisted on the form.

#### 23. VALUE OF SHIPMENTS AND RECEIPTS

Value of shipments of multiestablishment companies—Respondents were instructed to report net selling values, f.o.b. mine, well, or plant, after discounts and allowances and excluding freight charges and excise and sales taxes. Multiestablishment companies were instructed to report for each establishment as if it were a separate economic unit and, in particular, to report interplant transfers at their full economic value. Full economic value is defined as not only the cost of production but also a reasonable proportion of company overhead and profits. Generally, there is no advertising or other selling cost assigned by companies to interplant transfers, so it would be expected that the value per unit of such transfers would be less than that for commercial sales. To assure consistency in the valuation as the interplant transfer moved through the company, the plant receiving the transferred goods was instructed to include them in its cost of materials at the same value as at the shipping point plus the cost of freight and other handling charges.

Individual products—In the 1987 census program, information was collected on the output of 180 individual product items.<sup>12</sup> A "product," as used in the census of mineral industries, is the finest level of detail for which output information was requested. It is not necessarily synonymous with the term "product" as used in the marketing sense. In some cases, it may be much more detailed, and in other cases, it is more aggregative. If detailed production figures are available from other government sources or reliable private surveys, it was not considered necessary to request extensive detail in the census. Frequently, large aggregative values at the products level indicated that detailed production figures were available from other statistical programs.

Typically, both quantity and value of shipments were collected. However, physical quantity measures are not meaningful for some product lines, and for these, only value of shipments was collected. If a product was used to a large degree in the fabrication of other products within the same establishment in which it was produced, total quantities produced and often the quantities consumed were collected. Information on production, as well as shipments, was also collected for products for which there are significant differences between the two in a given year.

**Classes of products**—The individual products were aggregated into classes of products which were, in turn, grouped into all primary products of each industry. In the code structure, a seven-digit number is assigned to the individual product, a five-digit code to the class of product, and a four-digit code to the total primary products in an industry. (See item 11 for application of coding structure to the assignment of SIC codes for establishments.)

The 180 product items in the 1987 census were grouped into 75 separate product classes. General similarity was the basis for the product class combinations within each four-digit industry; i.e., kind or use of the products. The

<sup>&</sup>lt;sup>12</sup>See 1987 Census of Manufactures and Census of Mineral Industries, MC87-R-1, Numerical List of Manufactured and Mineral Products.

economic significance of the class was also taken into account; residual products of an industry were grouped when the dollar value of the products did not warrant separate classes.

Effect of use of administrative records on product data—As noted elsewhere in this Introduction, approximately 12,500 small mining companies were not mailed report forms and most of their detail was imputed based on limited information in IRS and SSA administrative records used in conjunction with industry averages and other information. All of the value of products of these small establishments were coded only to the four-digit products of the industry in which they were classified. These product shipments are uniquely identified in table 6 of the industry reports. Also included are product shipments of reporting companies that were described too generally to code below the four-digit level. Frequently, these were residuals in the company's records which the company felt it could not further break down.

One factor tends to reduce the value of products, n.s.k., attributed to administrative-record companies. In some four-digit industries, there is only one product category (an example is Industry 1422, Crushed and Broken Limestone). Administrative-record estimates for these products were treated as specific information and not published as "n.s.k."

In using the data for the specific seven-digit products shown in table 6 of the industry reports, the importance of the "n.s.k." has to be considered. The shipments of individual products tend to be understated somewhat in proportion to the size of the "n.s.k." Census-to-census comparison of seven-digit products should be made with caution if there has been a significant increase or decrease in the importance of the "n.s.k."

#### 24. VALUE ADDED BY MINING

**General**—Value added is computed by subtracting the cost of supplies, purchased fuels and electric energy, contract work, purchased machinery installed, and minerals received from other establishments and used in mineral production from the value of shipments and receipts plus capital expenditures. This measure avoids the duplication in the value of shipments and receipts that results from the use of products of some establishments as supplies, energy sources, or materials by other establishments. Moreover, it provides a measure of value added in mineral production and also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments and receipts," used in this calculation, includes the shipments of all products of the mining establishment, together with receipts for work done for others. "Capital expenditures" includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The "costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

Value added and gross national product—The measure of value added produced by the Bureau of the Census differs from the estimate of gross product originating (GPO) in mining, which is included in the U.S. income and product accounts, prepared by the Bureau of Economic Analysis (BEA) of the Commerce Department. As explained below, these measures are conceptually and statistically different.

Recall that Census value added is calculated as the value of shipments and receipts plus capital expenditures, less the cost of supplies used in exploration, development, and production. The cost of purchased services is not excluded from this value. On the other hand, GPO in mining is that industry's share of the Nation's output of goods and services valued at market prices before deductions for depreciation charges. It is calculated either as:

- 1. The sum of income payments (for example, wages, profits, and interest) and other costs (e.g., depreciation and indirect business taxes).
- 2. The difference between the value of production and the cost of materials and services used in production.

GPO differs from the census value added not only because the BEA measure excludes purchased services, but also because it includes sales and excise and other indirect business taxes other than property taxes, and reflects inventory change valued at replacement cost. These differences arise because the Census Bureau:

- 1. Does not collect data for all purchased services.
- 2. Defines shipments to exclude excise and sales taxes.
- 3. Calculates inventory change using data as reported by the mining establishment.

The BEA adjusts inventories of establishments as reported to the Census Bureau with a relevant inventory valuation adjustment (IVA) factor, which converts them to a replacement cost valuation to make them consistent with the definition of gross national product.

A direct reconciliation of the Census value added and GPO measures is not possible for a number of reasons. For example, of the three differences mentioned above, the GPO measure provides separate estimates of only the taxes and the IVA. Estimates of purchased services are not available because the BEA calculates GPO using the sum of income payments and costs method. Furthermore, the different sources of data used by the Census Bureau to

compute value added and by the BEA to estimate GPO give rise to statistical differences between the two series, especially at the more detailed industry levels. Some of the income and cost components of GPO are available only on a consolidated company-industry basis. Profits and depreciation, which are based on tabulation of income tax returns, also are converted by BEA. However, because current income tax data are not available and because of problems with the conversion procedures used by BEA, the resulting establishment-industry distributions may have significant errors, especially at the two-digit SIC industry levels. For net interest, another component of GPO derived from tax return information, no such conversion is attempted. Another statistical difference, which is a major factor at the two-digit industry levels, is the industry classification underlying the estimates of wages and salaries. Census collects wages and salaries directly from employers, while the BEA uses Bureau of Labor Statistics (BLS) tabulations of wages paid to employees covered by unemployment insurance. While both systems use the SIC as the basis of classification, differences arise because Census and BLS use different information upon which to base the classification of individual establishments. Finally, the BEA measure includes the GPO of nonemployer firms. These firms, which are not covered in the Census of Minerals, are usually very small and do not constitute a significant share of GPO.

#### 25. CAPITAL EXPENDITURES AND GROSS ASSETS

**Capital expenditures**—Under this heading, mining establishments were instructed to report expenditures of the type chargeable to fixed assets accounts for which depreciation reserves are normally maintained. Actual capital outlays during the year were requested, not the final value of equipment put in place or structures completed during the year. Included in such expenditures totals are expenditures for development and exploration of mineral properties. Excluded are cost of maintenance and repair charged to current operating expense, and cost of land and mineral rights.

The Bureau of the Census estimates of capital expenditures tend to be lower than those published by the Bureau of Economic Analysis. The major source of difference results in the scope of the two series. Census data relate only to mining establishments, whereas the BEA-SEC series relating to mining includes all establishments of mining companies, nonmining as well as mining, but excludes mining establishments of companies that they have classified as chiefly nonmining.

Gross value of fixed assets—In addition to reporting capital expenditures during the year, assets data were collected on buildings, other structures, machinery, equipment, capitalized mineral exploration and development, and mineral land and rights for which depreciation, amortization, or depletion accounts are maintained, along with depreciation and/or depletion and retirements during the year. As the Census capital expenditure series differs from the BEA series, the Census gross asset series will differ from similar series based on company level reports; i.e., those appearing in the IRS *Statistics of Income* and the Bureau of the Census *Quarterly Financial Report of Corporations.* (See appendix A for more complete definition of terms.)

#### 26. INVENTORIES

The value of end-of-year inventories held by each mining establishment was obtained for 1986 and 1987. For the majority of the mineral industries, separate information was requested for:

- 1. Mined or quarried products.
- 2. Supplies, parts, fuels, etc.

A measure of the changes in mined or quarried product inventories from the beginning to the end of each is essential to the conversion of value of shipments during the year to value of production. The ratios of inventories to shipments at different times also are used in analysis of trends and business-cycle movements. For the best use of all of these measures, the inventories should be valued in the same prices as the shipments are valued.

The inventories, as collected in 1977, have been the inventories as carried in the books of each respondent. Beginning in the 1982 Census of Mineral Industries, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census when respondents were permitted to value their inventories using any generally accepted accounting method. The inventory figures for 1982 and 1987, therefore, will not be comparable to prior census data because of the change in reporting instructions.

In using inventory data by stage of production for all industries at the industry level, it should be noted that an item treated as a mined or quarried product by an establishment in one industry may be reported as a raw material by another establishment in a different industry. Such differences are present in the inventory figures by stage of production shown for individual industries, industry groups, and "all mining" which are merely aggregates of figures reported by establishments in specified industries.

#### 27. CONFIDENTIALITY

The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. However, the number of companies classified in a given industry is not considered a disclosure, so this item may be given even though other information is withheld. In suppressing figures to avoid disclosing information of individual companies, individual States are given precedence over geographic regions and divisions. This change was initiated in 1977. In prior censuses, the large geographic areas were given precedence. As a result of this change in philosophy, it has become more difficult to produce industry detail for the larger geographic areas, and data for these areas are no longer published. States are given precedence over counties.

In tables showing industry detail, major industry group (two-digit totals take precedence over industry group (threedigit) totals which, in turn, take precedence over individual (four-digit) industries. Similarly, in product tables, four-digit product groupings take precedence over five-digit product classes and the latter over individual seven-digit products.

Such order of precedence was used because:

- It was considered preferable to show State data for an industry, even at the cost of withholding data for a region. In recent years, there seemed to be more need for and use of data for individual States than for the larger regions especially since many regional development programs encompassed clusters of States different from the standard regions and divisions.
- 2. By giving preference to industry-group statistics over individual industries within each State, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

The disclosure analysis for the State statistics in the tables of this report is based on the total value of shipments and receipts and capital expenditures. Whenever the total value of shipments and receipts cannot be shown without disclosing information for individual companies, the complete line has been suppressed. If capital expenditures alone is a disclosure, only total capital expenditures and cost of supplies statistics are suppressed. However, the suppressed data are included in higher level totals.

#### 28. SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Mineral Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as the regular publications. Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief, Industry Division, Bureau of the Census, Washington, DC 20233.

#### 29. ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- Represents zero.
- (D) Withheld to avoid disclosing data for individual companies.
- (NA) Not available.
- (NC) Not comparable.
- (S) Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
- (X) Not applicable.
- (Z) Less than half the unit shown.
- do Ditto.
- n.e.c. Not elsewhere classified.
- n.s.k. Not specified by kind.
- r Revised.
- SIC Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, and bbl, are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons" or "I tons."

#### **30. CONTACTS FOR DATA USERS**

Subject Area	Contact	Phone
Mineral Industries-Five- year industry and product statistics	Minerals Branch Industry Division Bureau of the Census	(301) 763-5938
Mineral Indus- tries-Annual product statis- tics (domestic and interna- tional) except fuels	Bureau of Mines Metals Nonmetallic minerals International	(202) 634-1055 (202) 634-1202 (202) 632-8970
Mineral Indus- tries- Coal and oil and gas pro- duction	National Energy Information Center (NEIC) staff Department of Energy	(202) 586-8800
To order any Census Bureau publication	Customer Ser- vices (DUSD) Bureau of the Census	(301) 763-4100
Import/Export publications	Foreign Trade Division	(301) 763-5140

### CHAPTER 1. Historical Statistics

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#### Table 1. Historical Statistics: 1987 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	Establishmen	its during year	All em	ployees		tion, developm ploration work			Cost of supplies used,		
Year	Total (numbar)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	purchased machinery installed, etc. (million	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
19871 19821 19771 19771 19721 19677 1963 1963	33 617 42 241 31 359 25 269 28 579 38 651 36 392	6 299 (NA) 6 632 5 312 5 682 5 499 6 045	698.1 1 113.6 798.8 595.1 567.3 615.6 733.9	21 739.1 28 637.5 13 166.8 6 225.5 4 188.8 3 742.5 3 749.0	451.1 762.2 592.8 442.9 432.6 481.5 565.4	942.2 1 577.9 1 183.3 909.0 892.0 973.0 1 080.5	12 443.2 18 030.1 9 082.3 4 250.2 2 888.2 2 679.5 2 623.0	110 959.1 188 055.0 68 013.1 26 470.6 19 330.2 15 910.0 13 385.2	62 423.4 109 697.4 46 079.4 14 884.0 10 576.2 8 974.0 7 521.0	157 964.3 249 999.6 96 374.7 36 318.6 <sup>2</sup> 322 783.6 <sup>2</sup> 18 804.4 <sup>2</sup> 16 373.1	15 418.2 47 752.8 17 718.0 5 035.9 4 057.8 3 263.6 2 804.1

<sup>1</sup>Beginning with 1967, data for single-establishment companies without paid employees were excluded from the census. <sup>2</sup>Rapresents nat value of shipments and recaipts. <sup>3</sup>Includes gross shipments for ferroalloy ores and metallic ores, n.e.c. In 1963, difference between gross and net shipments for these industries was about \$7.6 million.

#### Table 2. Statistics for Industry Groups and Industries: 1987 and 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

						198	7				-
1097			Establishm ye		All emp	loyees		on, developme loration worke			Cost of supplies
1987 SIC code	Industry group and industry	Companies (number)	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	used, purchased machinery installed, etc. (million dollars)
	All industries	25 218	33 617	6 299	698.1	21 739.1	451.1	942.2	12 443.2	110 959.1	62 423.4
10	Metal mining	639	1 027	260	44.1	1 353.5	33.7	67.8	952.0	4 609.5	3 141.2
101	Iron ores	39	51	16	7.1	224.2	5.6	11.2	165.8	767. <b>9</b>	618.5
1011	Iron ores	39	51	16	7.1	224.2	5.6	11.2	165.8	767.9	618.5
102	Copper ores	27	61	33	13.9	404.8	10.6	20.9	282.7	1 301.3	1 053.4
1021		27	61	33	13.9	404.8	10.6	20.9	282.7	1 301.3	1 053.4
103	Lead and zinc ores	21	39	19	2.0	58.3	1.4	3.0	40.0	176.2	104.1
1031		21	39	19	2.0	58.3	1.4	3.0	40.0	176.2	104.1
104	Gold and silver ores	299	372	101	13.1	423.0	10.4	21.4	305.0	1 814.2	1 001.4
1041	Gold ores	260	319	91	11.4	371.5	8.9	18.2	263.8	1 689.1	920.6
1044	Silver ores	45	53	10	1.7	51.5	1.5	3.1	41.2	125.1	80.8
106	Ferroalloy ores, except vanadium	51	58	777	1.3	46.2	.8	1.5	24.2	61.1	56.3
1061	Ferroalloy ores, except vanadium	51	58		1.3	46.2	.8	1.5	24.2	61.1	56.3
108	Metal mining services	115	268	42	2.8	80.8	2.2	4.6	59.8	175.6	101.3
1081	Metal mining services	115	268	42	2.8	80.8	2.2	4.6	59.8	175.6	101.3
109	Miscellaneous metal ores	127	178	42	3.8	116.3	2.7	5.2	74.5	313.1	206.2
1094	Uranium-radium-vanadium ores	59	101	27	2.3	72.1	1.5	2.9	43.6	174.7	115.8
1099	Miscellaneous metal ores, n.e.c	72	77	15	1,6	44.1	1.2	2.3	30.9	138.4	<b>9</b> 0.4
12	Coal mining	2 914	3 <b>905</b>	1 418	163.4	5 567.0	128.7	2 <b>5</b> 9.3	4 251.4	17 067.9	10 552.5
122	Bituminous coal and lignite mining	2 589	3 507	1 335	157.5	5 410.2	123.8	249.5	4 125.3	16 678.9	10 282.1
1221	Bituminous coal and lignite surface mining	1 367	1 804	612	63.8	2 204.0	48.0	99.5	1 580.1	7 893.7	6 460.3
1222	Bituminous coal underground mining	1 302	1 703	723	93.7	3 206.1	75.8	149.9	2 545.2	8 785.2	3 821.8
123	Anthracite miningAnthracite mining	88	107	26	1.9	41.2	1.6	2.9	32.4	109.4	109.0
1231		88	107	26	1.9	41.2	1.6	2.9	32.4	109.4	109.0
124	Coal mining services	254	291	57	4.0	115.7	3.3	6.8	93.7	279.6	161.4
1241	Coal mining services	254	291	57	4.0	115.7	3.3	6.8	93.7	279.6	161.4
13	Oil and gas extraction	17 875	22 9 <b>10</b>	3 167	377.9	11 960.5	206.2	437.3	5 283.3	80 048.8	44 031.7
131	Crude petroleum and natural gas	8 120	10 203	1 171	198.8	7 510.0	69.4	142.3	2 153.8	67 954.9	19 112.2
1311	Crude petroleum and natural gas	8 120	10 203	1 171	198.8	7 510.0	69.4	142.3	2 153.8	67 954.9	19 112.2
132	Natural gas liquids	97	714	210	12.7	433.0	9.7	20.2	320.0	4 024.9	21 107.4
1321	Natural gas liquids	97	714	210	12.7	433.0	9.7	20.2	320.0	4 024.9	21 107.4
138	Oil and gas field services	9 772	11 993	1 786	166.5	4 017.5	127.1	274.8	2 809.5	8 068.9	3 812.1
1381	Drilling oil and gas wells	2 060	2 5 <b>9</b> 1	620	55.0	1 318.0	45.6	93.3	1 012.3	2 549.4	1 397.5
1382	Oil and gas field exploration services	1 591	1 917	143	16.9	452.1	12.8	27.1	310.7	771.3	394.1
1389	Oil and gas field services, n.e.c.	6 239	7 485	1 023	94.6	2 247.5	68.7	154.3	1 486.4	4 748.2	2 020.4
14	Nonmetallic minerals, except fuels	3 975	5 775	1 454	112.7	2 858.0	82.5	177.9	1 956.4	9 23 <b>2.9</b>	4 698.0
141	Dimension stone	130	149	19	1.3	24.5	1.1	2.0	17.7	64.7	25.2
1411	Dimension stone	130	149	19	1.3	24.5	1.1	2.0	17.7	64.7	25.2
142	Crushed and broken stone, including riprap	1 129	2 002	711	43.7	1 081.8	32.8	72.4	753.8	3 465.3	1 823.3
1422	Crushed and broken limestone	714	1 335	456	28.9	702.3	21.6	47.0	482.9	2 091.4	1 161.8
1423	Crushed and broken granite	104	238	129	6.5	168.6	5.0	11.7	120.4	696.2	339.2
1429	Crushed and broken stone, n.e.c.	357	429	126	8.3	210.9	6.2	13.7	150.5	677.8	322.3
144	Sand and gravel	2 192	2 750	436	32.8	772.0	23.9	51.1	550.8	2 319.9	1 056.7
1442	Construction sand and gravel	2 087	2 559	371	28.9	673.0	21.1	45.4	489.3	2 011.6	899.3
1446	Industrial sand	121	191	65	3.9	98.9	2.8	5.7	61.5	308.3	157.4
145	Clay, ceramic, and refractory minerals	122	197	100	9.9	272.2	7.1	15.3	165.2	827.2	532.7
1455	Kaolin and ball clay	24	45	36	5.3	169.5	3.5	7.9	95.8	498.6	328.9
1459	Clay, ceramic, and refractory minerals, n.e.c	105	152	64	4.6	102.7	3.5	7.4	69.5	328.6	203.9
147	Chemical and fertilizer mineral mining	101	148	79	16.3	500.8	11.6	24.4	335.9	1 998.9	964.6
1474	Potash, soda, and borate minerals	25	30	19	6.9	234.5	5.3	11.4	177.0	915.0	439.1
1475	Phosphate rock	32	39	26	5.3	139.5	3.9	7.7	92.5	595.1	365.9
1479	Chemical and fertilizer mineral mining, n.e.c	52	79	34	4.2	126.7	2.5	5.3	66.4	488.7	159.6
148	Nonmetallic minerals services, except fuels	152	177	23	1.8	44.9	1.3	2.8	31.9	119.0	71.8
1481	Nonmetallic minerals services, except fuels	152	177	23	1.8	44.9	1.3	2.8	31.9	119.0	71.8
149 1499	Miscellaneous nonmetallic minerals, except fuels Miscellaneous nonmetallic minerals, except fuele	304	352 352	86	7.0	161.9	4.8	9.8 9.8	101.1 101.1	438.0 438.0	223.7 223.7
	fuels	304	352	86	7.0	161.9	4.8	9.6	101.1	430.0	223.1

	1987—	Con.				1982	······		
Value of shipments and receipts (million dollars)	Capital expendi- tures (million	Inven End of year (million dollars)	tories Beginning of year (million dollars)	All employ Number (1,000)	ees Payroli (1,000)	Value added by mining (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	1987 SIC code
157 964.3	15 418.2	7 380.0	<b>7</b> 584.0	1 113.6	28 637.5	188 055.0	249 999.6	47 752.8	
6 851.6		1 171.7	1 162.3	68.1	1 860.3	3 214.4	5 287.2	1 160.9	
1 362.4	24.0	214.2	217.3	11.7	339.8	770.3	1 414.3	62.7	
1 362.4	24.0	214.2	217.3	11.7	339.8	770.3	1 414.3	62.7	
2 149.7	205.0	354.4	321.0	21.9	603.6	671.7	1 550.6	422.6	
2 149.7	205.0	354.4	321.0	21.9	603.6	671.7	1 550.6	422.6	
268.3	11.9	33.6	38.5	4.3	111.8	200.6	318.3	56.8	
268.3	11.9	33.6	38.5	4.3	111.8	200.6	318.3	56.8	
2 260.9	554.7	264.4	219.7	10.4	262.7	649.7	741.4	237.5	1041
2 067.1	542.6	219.1	171.9	7.7	187.9	479.2	521.1	204.5	
193.8	12.2	45.3	47.8	2.6	74.8	170.6	220.3	33.0	
109.9	7.5	51.8	60.0	4.7	149.8	145.8	205.5	109.5	
109.9	7.5	51.8	60.0	4.7	149.8	145.8	205.5	109.5	
251.3	25.7	22.0	21.9	2.5	60.6	89.5	125.4	26.8	
251.3	25.7	22.0	21.9	2.5	80.6	89.5	125.4	26.8	
449.0	70.3	231.4	283.9	12.6	332.0	686.8	931.8	245.1	1094
251.5	39.0	189.7	248.0	10.5	285.4	578.8	775.1	223.9	
197.5	31.3	41.6	35.9	2.1	46.6	107.9	156.7	21.2	
25 955.2	1 665.2	1 513.1	1 585.3	251.2	6 805.3	18 631.0	28 554.0	3 222.5	12
25 346.9	1 614.1	1 451.8	1 524.6	240.9	6 570.1	18 041.2	27 695.4	3 141.3	1221
13 617.5	736.4	812.4	863.0	(NA)	(NA)	(NA)	(NA)	(NA)	
11 729.3	877.7	639.3	661.7	(NA)	(NA)	(NA)	(NA)	(NA)	
206.3	12.1	41.5	41.9	3.4	66.9	171.7	286.6	22.9	
206.3	12.1	41.5	41.9	3.4	66.9	171.7	286.6	22.9	
402.0	39.0	19.8	18.8	6.9	168.2	418.1	572.0	58.4	
402.0	39.0	19.8	18.8	6.9	168.2	418.1	572.0	58.4	
112 363.0	11 717.4	2 933.1	3 <b>002</b> .6	684.5	17 693.3	159 936.6	207 090.7	42 215.5	13
76 518.1	10 549.0	2 182.3	2 314.5	264.2	8 084.3	126 035.2	134 969.4	34 280.8	131
76 518.1	10 549.0	2 182.3	2 314.5	264.2	8 084.3	126 035.2	134 969.4	34 280.8	1311
24 749.5	382.7	157.4	127.4	14.2	401.9	8 864.8	41 009.6	1 131.1	132
24 749.5	382.7	157.4	127.4	14.2	401.9	8 864.8	41 009.6	1 131.1	1321
11 095.4	785.7	593.5	560.7	406.1	9 207.2	25 036.6	31 111.7	6 803.6	138
3 625.9	321.0	148.1	142.9	165.5	4 006.7	11 315.6	13 797.8	4 205.7	1381
1 096.2	69.3	68.9	55.3	41.8	809.5	2 306.4	2 960.4	390.8	1382
6 373.2	395.4	376.4	362.5	198.9	4 391.0	11 414.6	14 353.6	2 207.1	1389
12 <b>7</b> 9 <b>4</b> .5	1 136.4	1 762.1	1 813.8	109.8	2 278.5	6 2 <b>7</b> 3.0	9 067.7	1 153.9	14
85.8	4.0	14.1	12.9	1.5	21.2	50.2	63.8	3.3	141
85.8	4.0	14.1	12.9	1.5	21.2	50.2	63.8	3.3	1411
4 768.0	520.6	586.7	578.3	36.8	700.9	1 787.2	2 571.5	269.3	1423
2 914.4	338.7	417.5	402.6	25.8	497.9	1 228.7	1 756.1	184.7	
922.7	112.7	75.0	83.8	4.5	76.7	259.0	384.2	39.1	
931.0	69.2	94.2	91.9	6.5	126.4	299.6	431.2	45.5	
3 139.0 2 696.8 442.1	237.6 214.1 23.5	394.1 348.5 45.6	376.8 327.2 49.5	27.8 23.4 4.3	520.4 437.2 83.2	1 335.6 1 112.1 223.5	1 877.2 1 535.3 341.9	211.3 170.4 40.9	144 1442
1 248.6	111.3	159.3	156.0	10.5	212.0	509.8	886.9	107.3	1455
750.5	77.0	73.9	72.6	5.3	119.5	301.5	529.5	70.1	
498.1	34.4	85.4	83.5	5.2	92.6	208.3	357.3	37.2	
2 772.0	191.5	496.0	580.6	25.6	680.7	2 237.2	3 134.9	223.0	147
1 271.8	82.3	171.0	194.5	10.5	310.5	954.3	1 290.8		1474
886.7	74.3	225.2	275.1	7.8	179.6	732.5	1 047.7		1475
613.4	34.9	99.7	110.9	7.4	190.6	550.4	796.5		1479
165.4	25.4	10.3	10.1	1.6	34.6	70.4	100.7	6.6	148
165.4	25.4	10.3	10.1	1.6	34.6	70.4	100.7	6.6	1481
615.7	46.0	101.6	99.1	6.0	108.6	282.5	432.7	37.0	149
615.7	46.0	101.6	99.1	6.0	108.6	282.5	432.7	37.0	1495



## CHAPTER 2. Industry Statistics

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#### Table 1. Statistics by Major Group: 1987 and Earlier Census Years

		Establishment	s during year	All em	ployees		on, developme ploration worke			Cost of supplies used,	Value of shipments and receipts (million dollars)	
SIC code	Major group and year	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	purchased, machinery installed, etc. (million dollars)		Capital expendi- tures (million dollars)
10	METAL MINING											
	1987'	1 027 1 434 1 206 1 014 1 155 1 614 2 351	260 (NA) 328 285 318 298 386	44.1 68.1 87.6 80.8 70.9 77.2 91.6	1 353.5 1 860.3 1 485.4 852.9 552.4 515.2 486.2	33.7 46.8 64.6 62.9 55.4 62.2 70.8	67.8 89.7 128.6 126.7 113.9 125.7 136.2	952.0 1 222.2 1 032.0 621.7 396.1 383.7 355.0	4 609.5 3 214.4 3 503.9 2 381.6 1 556.6 1 418.2 1 180.2	3 141.2 3 233.7 3 005.2 1 535.3 1 079.4 941.0 861.1	6 851.6 5 287.2 5 369.4 3 515.4 2 296.2 2 128.2 1 826.2	899.1 1 160.9 1 139.8 401.5 339.8 230.9 215.1
12	COAL MINING											
	19871 19821 19721 19772 19771 1963 1963 1958	3 905 5 087 5 451 3 595 4 484 7 374 8 188	1 418 (NA) 1 733 1 169 1 125 1 269 1 534	163.4 251.2 245.3 159.6 131.6 145.6 210.7	5 567.0 6 805.3 4 170.8 1 777.6 967.3 821.1 1 008.5	128.7 201.3 206.8 136.0 115.1 128.9 183.7	259.3 386.0 373.2 269.1 224.0 237.1 299.0	4 251.4 5 244.9 3 343.9 1 466.3 811.8 700.8 841.5	17 067.9 18 631.0 11 266.3 3 753.8 2 091.3 1 727.2 1 780.2	10 552.5 13 145.5 8 493.1 2 474.0 1 350.1 1 139.2 1 180.8	25 955.2 28 554.0 16 935.7 5 524.2 3 100.6 2 632.9 2 756.0	1 665.2 3 222.5 2 823.8 703.6 340.7 233.4 205.1
13	OIL AND GAS EXTRACTION											
	19871	22 910 29 974 18 447 14 498 16 358 21 242 18 522	3 167 (NA) 3 128 2 393 2 681 2 448 2 691	377.9 684.5 349.2 240.6 244.9 271.5 312.9	11 960.5 17 693.3 5 901.5 2 525.0 1 855.1 1 744.7 1 700.7	206.2 434.0 230.8 154.2 167.2 192.0 214.0	437.3 938.6 492.6 318.7 346.5 397.3 440.3	5 283.3 10 033.0 3 559.9 1 393.4 1 091.4 1 093.0 1 011.2	80 048.8 159 936.6 48 587.0 17 612.1 13 394.3 11 019.8 9 032.5	44 031.7 89 369.6 31 694.5 9 471.1 7 066.2 6 044.4 4 799.5	112 363.0 207 090.7 67 337.7 23 627.2 17 455.9 14 512.5 11 637.9	11 717.4 42 215.5 12 943.8 3 456.1 3 004.6 2 551.7 2 194.0
14	NONMETALLIC MINERALS, EXCEPT FUELS											
	1987 <sup>1</sup> 1982 <sup>1</sup> 1977 <sup>1</sup> 1977 <sup>1</sup> 1963 1963	5 775 5 746 6 255 6 162 6 582 8 421 7 323	1 454 (NA) 1 443 1 465 1 559 1 486 1 436	112.7 109.8 116.9 114.2 119.9 121.2 118.6	2 858.0 2 278.5 1 609.0 1 070.0 812.0 661.5 553.5	82.5 80.1 90.6 89.4 94.8 98.4 96.8	177.9 163.5 188.8 194.7 207.6 212.8 204.9	1 956.4 1 529.9 1 146.4 768.7 588.9 502.0 415.0	9 232.9 6 273.0 4 655.9 2 723.0 2 288.0 1 744.8 1 391.5	4 698.0 3 948.6 2 886.7 1 403.6 1 080.7 849.7 679.5	12 794.5 9 067.7 6 731.9 3 651.7 2 996.0 2 346.9 1 881.1	1 136.4 1 153.9 810.7 474.8 372.7 247.5 189.8

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

<sup>1</sup>Beginning with 1967, data for single-establishment companies without paid employees were excluded from the census.

## Table 2. Statistics by Industry Group for Selected States and Offshore Areas: 1987 and 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

								1987						1	982
1987			Establishments during year		All employees		Production, development, and exploration workers				Cost of supplies used.				
SIC code	Geographic area and industry group	E1	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees <sup>2</sup> (1,000)	Value added by mining (million dollars)
10	Metal mining	-	1 027	260	44.1	1 353.5	33. <b>7</b>	67.8	952.0	4 609.5	3 141.2	6 <b>851</b> .6	899.1	68.1	3 214.4
	Alaska Arizona Arkansas California Colorado Florida Idaho Michigan Minnesota Missouri	E2 - E1 E1 -	39 94 7 123 5 57 17 21 13	5 32 22 28 22 12 7 7 8	BB 10.4 .2 EE 2.7 BB 1.5 FF 4.5 CC	(D) 301.4 6.7 (D) 88.5 (D) 48.1 (D) 141.6 (D)	(D) 8.2 1.5 1.6 (D) 1.2 (D) 3.7 (D)	(D) 15.6 3.0 3.4 (D) 2.4 (D) 7.5 (D)	(D) 219.7 40.1 49.2 (D) 33.6 (D) 111.5 (D)	(D) 873.3 13.4 255.8 161.9 (D) 87.3 (D) 449.0 (D)	(D) 750.1 15.2 114.4 134.0 (D) 47.3 (D) 422.6 (D)	(D) 1 410.6 27.9 313.0 236.4 (D) 122.3 (D) 856.6 (D)	(D) 212.8 .7 57.2 59.6 (D) 12.4 (D) 14.9 (D)	.9 14.1 .5 EE 7.3 BB 1.9 FF 7.7 2.6	11.2 534.5 18.9 (D) 326.4 (D) 116.1 (D) 521.3 169.4
	Montana Nevada New Mexico Ohio Pennsylvania South Dakota Tennessee Texas Utah Washington Wyoming	E1 E7 E1 E1	44 142 43 16 11 14 12 11 34 57 32 31	11 53 8 7 4 1 4 8 4 16 5 3	1.7 6.1 1.8 CCC BB .2 EE 1.0 .4 2.2 .6 .5	45.0 192.4 55.5 (D) 5.3 (D) 23.0 11.2 64.1 19.2 15.9	1.4 5.0 1.5 (D) .1 (D) .8 3.6 .4 .4	2.9 10.6 3.2 (D) .2 (D) 1.8 .6 3.3 .7 .6	37.5 151.5 47.5 (D) 3.5 (D) 18.6 8.0 37.9 10.9 10.9	196.3 1 050.6 251.6 (D) (D) 8.0 (D) 50.1 45.6 323.5 91.1 5.2	135.1 582.6 214.4 (D) (D) (D) (D) 34.1 (D) 23.7 18.1	291.6 1 293.1 452.6 (D) (D) 14.9 (D) 95.9 71.9 446.2 102.8 21.6	39.8 340.0 13.4 (D) (D) 2.0 (D) 7.9 (D) 12.0 1.8	1.5 3.6 5.2 EE .8 4 EE 1.5 1.8 FF CC 2.7	104.1 274.7 223.8 (D) 6.6 10.3 (D) 36.1 87.6 (D) (D) 190.6

See footnotes at end of table.

## Table 2. Statistics by Industry Group for Selected States and Offshore Areas: 1987 and 1982–Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	1987									1982					
			Establishr	nents during	All oms		Productio	n, developr	ment, and		Cost of				
1987 SIC code	Geographic area and industry group	E1		With 20 employees or more (number)	All emp Number <sup>2</sup> (1,000)	Payroll (million dollars)		Hours (millions)		Value added by mining (million dollars)	supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees <sup>2</sup> (1,000)	Value added by mining (million dollars)
10	Metal mining-Con.														
101	Iron ores	-	51	16	7.1	224.2	5.6	11.2	165.8	767.9	618.5	1 362.4	24.0	11.7	770.3
	Michigan Minnesota Missouri Ohio		6 12 2 2	4 6 1 2	EE FF AA BB	0000	(D) (D) (D)	(D) (D) (D)	(D) (D) (D) (D)	(D) (D)	(D) (D)	000) '	(D) (D) (D)	EE 7.6 BB .7	(D) 515.8 (D)
102	Copper ores	-	61	33	13.9	404.8	10.6	20.9	282.7	1 301.3	1 053.4	2 149.7	205.0	21.9	671.7
	Arizona Michigan	-	28 2	18	9.6 CC	278.6	7.6 (D)	14.3	203.2	841.6	712.2	1 359.8 (D)	194.0	13.4 CC	51 <b>3</b> .4
	Montana	-	1 9	1	BB	(D) (D) (D)	(D) (D)	(D) (D) (D)	(D) (D) (D)	(D) (D) (D)	(D) (D) (D)		(D) (D) (D)	CC 1.0	(D) (D) 29.2
	New York Tennessee	-	2	1	BB	(D)	(D)	-	(D)	(D)	(D)	(D) (D)	(D)	.8 BB	-
	Utah	-	9	4	EE	(D) (D)	(D)	(D) (D)	(D)	(D)	(D)	(D)	(D)	FF	(D) (D)
103	Lead and zinc ores	-	39	19	2. <b>0</b>	58.3	1.4	3 <b>.0</b>	40.0	176.2	104.1	268.3	11.9	4.3	<b>200</b> .6
	Missouri New York	E1	9 5	7 3	CC AA	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	EE BB	(D) (D)
	Pennsylvania Tennessee	E9 -	1	1 7	AA CC	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	BB EE	(D) (D) (D)
104	Gold and sliver ores_	-	372	101	13.1	423.0	10.4	21.4	3 <b>0</b> 5.0	1 814.2	1 001.4	2 260.9	554.7	10.4	649.7
	Alaska Arizona	E2 E8	30 18	4	BB .2	(D) 7.7	(D) .2	(D) .3	(D) 4.6	(D) 4.0	(D) (D)	(D) 7.4	(D) (D)	.3 .4	9.9 5.8
	California Colorado	E1	54 45	15 13	1.4 1.1	42.0 35.5	1.1 .8	2.2 1.6	29.9 2 <b>3</b> .8	206.8 81.5	82.8 77.6	237.8 124.1	51.8 35.0	1.0 EE	35.3 (D)
	Idaho Michigan	E1	26	7	1.0 AA	31.1 (D)	.7 (D)	1.5 (D)	20.6 (D)	64.1 (D)	24.4 (D)	78.9 (D)	9.6 (D)	1.5 (NA)	108.7 (NA)
	MontanaNevada	-	2 23 90	5 39	.8 5.4	22.0 171.5	.7 4.4	1.4 9. <b>3</b>	18.2 134.1	110.7 1 002.1	70.9 551.8	166.1 1 222.0	15.5 331.9	CC 2.8	(D) 236.1
	South Dakota	-	4 14	2 3	EE BB	(D) (D) (D)	(D) (D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	EE .1	(D) 37.7
	Washington	-	15	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1 <b>0</b> 6	Ferroalloy ores, except vanadium	-	58	7	1.3	46.2	.8	1.5	24.2	61.1	56. <b>3</b>	1 <b>0</b> 9.9	7.5	4.7	145.8
	Colorado Idaho	-	13 4	4 1	CC BB	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	FF (NA)	(D) (NA)
108	Metal mining services	E1	268	42	2.8	80.8	2.2	4.6	59.8	175.6	101.3	251.3	25.7	2.5	89.5
	Arizona California	E4	24 20	7	.3 .2	8.7 4.6	.3	.5	6.8 3.9	15.9 12.6	(D) 7.6	24.6 17.7	(D) 2.4	.2 (NA)	9.1 (NA)
	Colorado Montana	Ξ	25 13	5	BB BB	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D) 7.2	(NA) (NA)	(NA) 5.8 (NA)
3	Nevada South Dakota	-	33 8	10 2	.5 AA	16.2	.5 (D)	1.0 (D)	13.8	45.4 (D)	24.0 (D)	62.2 (D)	7.2 (D)	.3 (NA)	10.2 (NA)
	Utah Washington	E4 _	14 8	5 2	.2 AA	(D) 6.4 (D)	.2 (D)	.3 (D)	(D) 4.1 (D)	9.8 (D)	3.9 (D)	12.5 (D)	1.2 (D)	.1 (NA)	4.8 (NA)
1 <b>0</b> 9	Miscellaneous metal ores	-	178	42	<b>3</b> .8	116. <b>3</b>	2.7	5.2	74.5	313.1	206.2	449.0	<b>70</b> .3	12.6	686.8
	Arizona Arkansas	E2	18 5	5	.2 AA	5.9 (D)	.2 (D)	.4 (D)	4.7 (D)	11.4 (D)	(D) (D)	17.9 (D)	(D) (D)	(NA) (NA)	(NA) (NA)
	California Colorado	E3	13 35	2 5 6	BB BB	000000000000000000000000000000000000000	0000000	(D) (D)	(D)	(D) (D) (D)	ÌDÍ	(D) (D)		BB 2.3	24.4 152.1
	Florida Montana	Ξ	2 6	2 2 3	BB AA	(D) (D)	(D) (D)	000	(D) (D)	(D) (D)	00000	(D) (D) (D)	(D) (D) (D) (D) (D) (D) (D) (D) (D) (D)	BB (NA)	(D) (NA)
	New Mexico	E3 -	8 13	3	AA BB	(D) (D)	(D) (D)	(D) (D)	() () () () () () () () () () () () () (	(D) (D)	(D) (D) (D)	(D)	(D)	.3 2.9	11.4 156. <b>3</b>
	Texas Utah	-	15 13	4	.3 BB	8.2 (D)	.2 (D)	.4 (D)	5.5 (D) 9.9	36.9 (D)	(D)	56.4 (D)	(D) (D)	1.4 .7	67.1 15.0
10	Wyoming	-	22	3	.5	15.7	.3	.6		4.8	(D)	20.9	(D)	EE	(D)
12	Coal mining Alabama		3 9 <b>0</b> 5 96	1 418 51	163.4 7.7	5 567.0 238.0	128.7 5.7	259.3 11.1	4 251.4 175.0	17 067.9 651.8	10 552.5 368.8	25 955.2 959.8	1 665.2 60.8	251.2 11.9	18 63 <b>1.0</b> 874.8
	Alaska Arizona	-	27	1	AA	(D) (D)	(D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	AA	(D) (D) (D)
	California Colorado	E9 -	12 54	1 25	BB 3.0	(D) 114.9	(D) (Z) 1.7	(Z) 3.4	.2 58.4	.6 226. <b>3</b>	.3 109.3	.8 295.9	.1 39.6	EE CC 7.1	(D) 359.6
	Illinois Indiana	-	104 87	62 36	13.6 4.6	496.4 170.9	10.7 3.4	20.8 7.2	370.2 120.7	1 448.9 576.5	682.3 282.3	2 024.7 800.8	106.6 58.0	19.2 6.3	1 449.0 497.6
	Iowa Kansas Kentucky	E6 E1	6 10 1 027	2 2 352	AA AA	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	.1 BB	9.8 (D)
	Maryland	E1 E2	32	352	33.4 .6	1 076.1	28.2 .6	57.7 1.2	885.6 19.4	3 258.0 68.6	2 394.3 31.2	5 <b>3</b> 4 <b>3</b> .9 95.9	308.4 3.9	47.9	3 570.2 67.8
	Missouri Montana New Mexico	-	2 <b>3</b> 12 11	14 6 8	1.6 1. <b>3</b> 2.0	65.2 48.9 79.5	.9 .7	1.8 1.4 2.1	32.0 27.3	118.3 445.8 419.7	53.9 71.6 117.0	161.6 510.1	10.6 7.4	2.2 1.2	118.9 349.1 330.3
	North Dakota	-	16 201	8 9 75	2.0 1.2 8.7	79.5 46.8 300.6	1.5 .8 6.8	3.1 1.5 14.2	61.1 30.5 225.9	419.7 153.5 94 <b>3</b> .6	47.7 671.0	457.4 194.9 1 512.6	79.3 6.3 102.0	2.1 1.2 1 <b>3</b> .5	330.3 1 <b>33</b> .5 1 02 <b>3</b> .4
	Oklahoma Oregon	E1	32	/5 13 1	CC AA	(D) (D)	(D)	(D)	(D)	943.6 (D)	(D)	(D)	(D)	1.5 BB	112.0
	Pennsylvania Tennessee	E1 E3	646 114	180 30	22.5 2.4	715.0 61.6	18.2 1.7	36.3 3.4	558.5 43.3	1 776.5 145.7	1 459.0 (D)	3 069.3 215.0	166.1 (D)	35.8 3.9	2 1 <b>3</b> 4.0 217.1
					1	01101	1	0.71				2.0.01	(0)	0.01	

See footnotes at end of table.

## Table 2. Statistics by Industry Group for Selected States and Offshore Areas: 1987 and 1982–Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		1987								1982					
			Fetablishr	nents during			Productio	n, developr	ment and		Cost of				962
1987 SIC code	Geographic area and industry group			With 20 employees or more	All emp	Payroll (million		Hours		Value added by mining (million	Cost of supplies used, purchased machinery installed, etc. (million	Value of shipments and receipts (million	Capital expendi- tures (million	All em- ployees <sup>2</sup>	Value added by mining (million
		E1	(number)	(number)	(1,000)	dollars)	(1,000)	(millions)	dollars)	dollars)	dollars)	dollars)	dollars)	(1,000)	dollars)
12	Coal mining—Con. Texas Utah Wirginia West Virginia Wyoming	- E1 E1	28 19 511 7 759 48	12 14 182 297 30	4.2 2.7 14.5 CC 30.6 4.8	171.9 92.8 444.9 (D) 1 075.2 196.6	3.0 2.2 11.7 (D) 25.0 3.5	6.2 4.4 22.9 (D) 50.7 7.1	116.0 72.4 347.1 (D) 886.9 136.6	377.7 325.7 1 225.2 (D) 3 232.2 1 258.7	245.8 (D) 1 143.1 (D) 2 237.7 255.1	601.4 406.7 2 219.8 (D) 5 074.5 1 441.0	22.0 (D) 148.5 (D) 395.3 72.9	4.2 5.3 20.7 CC 55.6 6.1	230.9 370.9 1 284.7 (D) 3 945.8 1 285.3
122	Bituminous coal and lignite mining	-	3 507	1 335	157.5	5 410.2	123.8	249.5	4 125.3	16 678.9	10 282.1	25 346.9	1 614.1	240.9	18 041.2
	AlabamaAlaskaAlaskaArizonaCaliforniaColoradoIlinoisIndianaIowaKansasKentuckyMaryland	- E8 - E6 E1 E2	95 2 6 11 50 99 81 6 9 974 28	50 1 4 1 25 62 36 2 2 344 6	FF AA EE BB 3.0 13.6 4.5 AA AA 32.8 CC	(D) (D) (D) 114.7 496.4 169.5 (D) (D) 1 057.7 (D)	(D) (D) (D) 1.7 10.7 3.4 (D) 27.6 (D)	(D) (D) (D) 3.4 20.8 7.1 (D) 56.4 (D)	(D) (D) 58.3 370.1 119.5 (D) 870.1 (D) 870.1	(D) (D) (D) 225.9 1 448.7 572.4 (D) (D) 3 206.4 (D)	(D) (D) (D) 109.1 682.2 281.0 (D) 2 356.5 (D)	(D) (D) (D) 295.4 2 024.4 795.6 (D) (D) 5 263.0 (D)	(D) (D) (D) 39.6 106.5 57.9 (D) 299.9 (D)	FF AA EE BB 7.0 FF FF .1 .4 46.8 1.0	(D) (D) 357.2 (D) (D) 9.8 27.1 3 497.0 67.6
	Missouri	- - - E1 E3	21 11 9 16 173 26 2 481 108	14 6 8 9 68 12 1 142 29	EE EE 1.2 8.3 .9 AA 19.7 2.3	(D) (D) 46.8 286.2 24.9 (D) 654.9 59.4	(D) (D) (D) .8 6.4 .6 - 15.9 1.7	(D) (D) (D) 1.5 13.3 1.4 - 32.2 3.3	(D) (D) 30.5 213.8 15.7 - 511.7 42.3	(D) (D) 153.5 913.6 50.2 	(D) (D) (D) 47.7 655.7 47.2 - 1 332.1 80.2	(D) (D) 194,9 1 471.6 92.7 - 2 808.5 209.7	(D) (D) (D) 6.3 97.7 4.7 - 151.9 12.2	EE CC 2.1 13.0 1.2 BB 31.7 3.9	(D) (D) 330.0 (D) 986.9 98.2 - 1 927.1 213.6
	Texas Utah Virginia Washington West Virginia Wyoming	- E1 E1	24 17 480 6 697 42	11 14 176 2 280 28	FF FF 14.2 CC 29.6 FF	(D) (D) 436.5 (D) 1 042.9 (D)	(D) (D) 11.4 (D) 24.1 (D)	(D) (D) 22.4 (D) 48.9 (D)	(D) (D) 340.3 (D) 858.7 (D)	(D) (D) 1 205.0 (D) 3 172.4 (D)	(D) (D) 1 134.9 (D) 2 184.1 (D)	(D) (D) 2 192.3 (D) 4 974.9 (D)	(D) (D) 147.6 (D) 381.6 (D)	FF 5.3 19.8 CC 54.3 FF	(D) 370.2 1 234.8 (D) 3 874.9 (D)
123	Anthracite mining Pennsylvania	E1 E1	107 107	26 26	1.9 1.9	<b>41.2</b> 41.2	1.6 1.6	<b>2.</b> 9 2.9	32.4 32.4	<b>10</b> 9.4 109.4	109.0 109.0	206.3 206.3	12.1 12.1	3.4 3.4	<b>171.7</b> 171.7
124	Coal mining services Kentucky Ohio Pennsylvania Virginia West Virginia	E1 E1 E3 E3 E1	291 53 28 58 4 31 62	57 8 7 12 1 6 17	<b>4.0</b> .7 .5 .8 BB .3 1.0	115.7 18.4 14.5 18.8 (D) 8.5 32.3	3.3 .6 .4 .6 (D) .3 .8	6.8 1.3 .9 1.2 (D) .5 1.8	93.7 15.5 12.1 14.4 (D) 6.8 28.1	279.6 51.6 29.9 38.6 (D) 20.2 59.7	161.4 37.8 15.4 17.9 (D) 8.2 53.6	<b>402.0</b> 80.9 41.0 54.5 (D) 27.4 99.6	39.0 8.5 4.4 2.0 (D) 1.0 13.8	6.9 1.1 .5 .7 AA .9 1.3	418.1 73.2 36.5 35.3 (D) 50.0 70.9
13	Oil and gas extraction Alabama Alaska Arizona Arkansas California Colorado Connecticut	E1 E1 E7 E3 E9	22 910 157 124 55 318 936 1 015 11	3 167 23 41 4 23 217 133 3	3 <b>77.</b> 9 1.4 FF BB 2.4 32.5 14.8 BB	11 960.5 39.9 (D) (D) 59.0 1 028.5 557.7 (D)	206.2 1.1 (D) 1.6 16.8 5.4 (D)	437.3 2.5 (D) (D) 3.3 34.5 11.6 (D)	5 283.3 29.3 (D) (D) 35.1 457.5 157.4 (D)	80 048.8 467.4 (D) (D) 409.9 5 215.7 1 368.8 (D)	44 031.7 288.2 (D) (D) 784.9 2 571.1 862.9 (D)	112 363.0 660.4 (D) 1 067.1 6 994.5 1 951.7 (D)	11 717.4 95.2 (D) 127.6 792.3 280.0 (D)	684.5 2.2 12.3 .6 4.0 40.2 29.8 BB	159 936.6 1 035.7 14 054.9 44.6 957.3 11 067.4 2 312.9 (D)
	Delaware and District of Columbia Florida Georgia Indiana Iowa Kansas Kentucky Louisiana Maryland Mishigan_ Mississippi	E2 E8 E3 E5 E7 E1 E1 E4 E1 E7 E1	10 144 45 626 194 11 1 185 319 1 871 19 336 28 462	1 9 1 42 5 1 122 29 402 3 50 1 54	.2 CC 4.5 CC BB 11.1 4.0 48.4 BB 4.1 .2 4.3	7.5 (D) 6.5 101.5 (D) 267.2 103.2 103.2 1538.7 (D) 118.3 8.3 107.4	- (D) .1 3.0 (D) 7.0 1.5 30.6 (D) 3.0 .1 3.3	- (D) .2 5.8 (D) 14.1 3.0 65.6 (D) 6.4 .1 7.0	(D) 2.5 57.3 (D) 145.6 28.9 834.8 (D) 74.2 1.1 75.5	(D) 22.4 387.3 (D) (D) 1 574.3 299.4 16 408.3 (D) 981.4 7.7 879.0	(D) (D) 198.0 (D) 2 040.1 152.0 10 908.5 (D) 796.9 3.0 311.0	(D) 27.6 522.6 (D) 3 433.9 417.1 24 310.9 (D) 1 635.7 9.6 1 048.1	(D) (D) 62.7 (D) 180.5 34.3 3 006.0 (D) 142.6 1.0 141.8	.2 EE AA 7.2 1.6 (NA) 18.2 4.0 99.1 .2 5.3 BB 8.6	.4 (D) (D) 898.2 185.0 (NA) 3 117.5 475.1 32 919.8 8.4 1 669.1 (D) 1 734.8
	Missouri Montana Nebraska Nevada New Jersey New Mexico New York North Dakota Ohio Oklahoma	E9 E1 E3 E6 E6 E3 E1	52 307 140 69 37 640 197 284 712 2 842	1 33 10 5 4 120 22 31 60 325	AA 2.0 .9 5 CC 9.3 4.2 2.5 FF 43.6	(D) 52.4 22.7 13.0 (D) 255.8 204.1 64.5 (D) 1 330.4	(D) 1.4 .5 .3 (D) 6.2 .7 2.0 (D) 19.9	(D) 2.8 1.1 .8 (D) 13.1 1.6 4.2 (D) 41.3	(D) 31.2 11.7 8.8 (D) 155.6 15.7 50.6 (D) 462.2	(D) 480.3 79.6 54.7 (D) 2 732.8 153.5 799.0 (D) 5 384.5	(D) 152.6 43.3 25.4 (D) 1 469.7 55.2 280.8 (D) 3 617.1	(D) 568.5 110.1 74.9 (D) 3 877.6 185.9 988.8 (D) 8 172.8	(D) 64.4 12.8 5.3 (D) 324.9 22.7 91.0 (D) 828.8	.3 5.2 1.5 1.5 1.0 16.4 2.4 7.0 10.5 100.8	23.1 1 207.5 211.0 106.9 10.7 6 442.3 198.2 1 852.7 1 118.9 13 075.0
	Oregon Pennsylvania Tennessee Texas Utah Virginia Washington Son featrates at and of the		35 420 66 7 643 256 58 45	2 49 3 1 148 27 3 2	.2 4.6 .3 146.8 2.1 .5 BB	3.1 115.4 6.5 4 801.3 56.9 12.7 (D)	.2 3.0 .2 75.3 1.3 .2 (D)	.3 6.7 .4 160.4 2.9 .4 (D)	2.6 66.2 3.3 1 883.8 35.9 4.3 (D)	14.0 422.8 59.5 28 671.9 844.5 40.0 (D)	5.6 187.3 13.5 13 955.6 279.9 15.3 (D)	16.9 538.9 56.1 38 869.9 1 019.6 43.6 (D)	2.8 71.2 16.9 3 757.6 104.9 11.8 (D)	BB 7.2 1.0 253.6 5.8 BB .7	(D) 592.0 126.2 53 608.7 1 040.6 (D) 38.2

See footnotes at end of table.

# Table 2. Statistics by Industry Group for Selected States and Offshore Areas: 1987 and 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[For n	neaning of abbreviations and syr	nbois	, see introd	uctory text. F	or explana	uon or term	s, see appe	1987						1	982
	•			nents during ear	All emp	ployees		n, developr oration wor			Cost of supplies				
1987 SIC code	Geographic area and industry group	E1	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	used, pur based machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees <sup>2</sup> (1,000)	Value added by mining (million dollars)
13	Oii and gas extraction—Con.														
	West Virginia Wyoming Atlantic Northern Gulf of Mexico	E1 - -	453 656 7 32	36 91 2 25	3.7 8.2 AA 3.4	80.2 235.5 (D) 115.5	2.8 6.0 (D) 2.9	6.0 13.0 (D) 6.3	56.3 164.6 (D) 93.1	386.6 2 646.7 (D) 252.3	395.1 1 572.0 (D)	735.7 3 761.8 (D) 1 449.0	46.1 457.0 (D) (D)	6.4 20.4 (NA) 3.2	806.2 4 913.2 (NA) 2 218.2
131	Crude petroleum and natural gas	E1	10 203	1 171	198.8	7 510.0	69.4	<b>142</b> .3	2 153.8	67 954.9	19 1 <b>12.2</b>	76 <b>518</b> .1	10 549.0	264. <b>2</b>	126 035.2
	Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware and District of	E1 E8 E1 E3 -	46 33 26 156 381 515 9	6 15 2 11 72 86 2	.4 FF AA 1.2 19.1 10.8 AA	11.0 (D) 32.0 673.6 452.7 (D)	.2 (D) (D) .6 6.5 2.5	.5 (D) 1.1 13.3 5.1 -	6.4 (D) 13.8 198.5 86.5 -	403.2 (D) 349.0 4 432.0 1 143.3	155.3 (D) 140.8 1 930.8 488.0	470.4 (D) 369.5 5 681.7 1 378.9	88.1 (D) (D) 120.4 681.0 252.3	.4 FF 1.2 19.9 16.2 AA	858.3 (D) 20.9 784.7 9 682.7 1 385.0
	Columbia Florida Illinois	– E2 E4	9 52 333	1 3 24	AA BB 2.8	(D) (D) 70.7	(D) 1.6	(D) 3.0	(D) 33.3	(D) 317.6	(D) 163.3	(D) 424.1	(D) 56.8	.2 BB 3.5	(D) 679.2
	Indiana Iowa Kansas Kentucky Louisiana Maryland Michigan Minnesota Mississippi Montana	E5 E8 E1 E9 E1 E9 E1 E9 E1 E1	106 4 589 189 604 7 140 11 170 127	3 1 56 20 115 1 18 18 12 10	BB AA 6.1 3.2 23.4 AA 1.4 .2 1.2 .9	(D) (D) 162.7 88.1 909.2 (D) 48.1 7.1 36.2 28.5	(D) (D) 2.9 .8 11.0 (D) .7 (Z) .7 .5	(D) (D) 5.5 1.6 22.8 (D) 1.4 (Z) 1.5 .9	(D) (D) 64.4 17.2 376.1 (D) 20.2 .2 21.0 12.4	(D) (D) 1 251.9 251.0 14 395.1 (D) 787.6 4.7 707.4 427.0	(D) (D) 340.6 55.1 3 794.3 (D) 272.5 1.5 204.9 113.3	(D) (D) 1 440.3 274.6 15 343.4 (D) 930.3 5.5 783.5 480.6	(D) (D) 152.2 31.5 2 846.0 (D) 129.9 .8 128.8 59.7	.6 (NA) 7.7 2.4 31.8 (NA) 2.0 AA 2.0 1.4	131.9 (NA) 2 115.8 297.3 26 573.5 (NA) 1 309.8 1 309.0 1 309.0 1 000.4
	Nebraska New Jersey New Mexico New York North Dakota Ohio Ohio Pennsylvania Tennessee Texas	E2 - E6 E3 E1 E2 E6 E1	65 13 250 107 100 337 1 320 199 31 3 547	4 1 29 16 6 29 118 27 3 418	BB CC 3.7 3.6 2.4 24.2 2.3 AA 76.7	(D) (D) 123.3 189.6 18.7 57.1 852.9 65.3 (D) 3 058.3	(D) - 1.6 .3 .4 1.4 6.2 1.2 (D) 23.0	(D) 3.2 .7 .9 3.0 12.1 2.6 (D) 47.8	(D) 52.5 6.8 13.4 29.6 167.3 28.3 (D) 713.1	(D) 2 270.4 128.0 655.6 430.7 4 153.2 313.3 (D) 23 981.2	(D) 475.5 42.0 139.2 137.0 1 352.9 122.0 (D) 5 738.0	(D) 2 490.2 149.4 719.7 492.8 4 796.3 372.6 (D) 26 373.6	(D) 255.8 20.7 75.1 75.0 709.7 62.7 (D) 3 345.6	.4 CC 4.4 1.0 1.3 4.2 39.3 3.5 .4 103.2	151.7 5 130.5 106.3 1 386.2 727.7 8 407.7 347.7 91.5 42 039.3
	Utah Virginia West Virginia Wyoming Northern Gulf of Mexico	E1 E4 E2 -	91 25 306 180 5	16 - 15 25 2	1.0 AA 2.1 3.0 CC	29.4 (D) 43.9 109.4 (D)	.4 (D) 1.4 1.8 (D)	.9 (D) 2.9 3.9 (D)	13.4 (D) 27.3 67.4 (D)	771.8 (D) 284.2 2 317.7 (D)	136.5 (D) 79.2 747.1 (D)	809.2 (D) 323.5 2 662.8 (D)	99.1 (D) 40.0 402.0 (D)	1.7 .2 2.7 5.0 1.1	691.5 33.8 472.0 3 759.9 1 988.2
132	Natural gas liquids California Colorado Kansas Louisiana Michigan Mississippi New Mexico North Dakota Oktahoma Texas Utah Virginia Wyoming	E1	714 5 36 24 19 74 10 5 28 9 9 102 331 9 1 331 34	210 4 15 4 8 22 1 1 9 4 24 24 91 2 1 6	12.7 .2 .8 .3 .5 .1.2 .2 .4 .9 .2 .3 .5 .5 .1.3 .5 .5 .1.3 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	433.0 5.4 27.4 9.7 15.5 39.8 (D) 28.3 8.2 45.4 204.6 3.9 (D) 15.1	9.7 2.5 5.2 4.9 1.0 8.8 2.1 1.1 4.4 1.5	20.2 .3 1.1 .4 .8 2.0 2.0 (D) 1.6 .5 2.4 9.1 .2 .2 .4 9.1 .2 .9	320.0 5.0 17.3 5.7 12.1 32.6 3.9 (D) 24.5 8.0 39.1 143.9 3.6 - 13.9	4 024.9 17.6 72.0 43.9 127.8 744.1 56.1 (D) 240.6 67.1 522.4 1 694.8 20.9 - 118.3	21 107.4 101.4 371.9 291.9 1 614.4 6 499.0 461.0 (D) 904.8 105.4 1 884.8 6 807.0 118.3 722.6	24 749.5 118.0 399.0 322.5 7 213.6 515.5 (D) 1 094.8 164.1 2 362.1 8 365.5 138.4 802.5	382.7 .9 44.9 13.3 9.8 29.5 1.6 (D) 50.7 8.4 45.1 136.3 .9 .9 .38.4	14.2 .1 .7 .1 .4 1.6 .2 (NA) 1.1 .2 1.4 6.9 .1 (NA) .4	8 864.8 74.2 256.2 108.6 448.0 1 873.7 1114.7 (NA) 718.5 133.7 1 017.2 3 453.6 103.0 (NA) 230.6
138	Oil and gas field services	E2	11 993	1 786	166.5	4 017.5	127.1	274.8	2 809.5	<b>8 068</b> .9	3 812.1	11 095.4	785.7	406.1	<b>25 0</b> 36.6
	Alabama	- E4 E2 E3 E9 E4 E5 E3	106 89 29 159 519 476 2 90 28 291	13 26 2 130 43 1 4 - 18	.9 EE AA 12.6 3.7 AA .5 AA EE	23.6 (D) (D) 327.6 95.4 (D) 10.6 (D) (D)	.7 (D) (D) 9.8 2.7 (D) .4 (D) (D)	1.6 (D) (D) 20.2 6.1 (D) 1.0 (D) (D)	17.9 (D) (D) 241.6 65.2 (D) 8.3 (D) (D)	46.7 (D) (D) 711.7 181.7 (D) 29.0 (D) (D)	31.5 (D) (D) 268.5 83.0 (D) 14.5 (D) (D)	72.0 (D) (D) 913.8 250.3 (D) 40.6 (D) (D)	6.2 (D) (D) 66.4 14.5 (D) 3.0 (D) (D)	1.6 8.2 .5 FF 19.6 13.5 BB .8 AA 3.8	103.2 845.8 23.7 (D) 1 128.5 819.4 (D) 46.4 (D) 219.0
	Indiana Kansas Kentucky Dusisiana Maryland Mississippi Montana Nebraska Nevada See feetnetee at and of table	E4 E2 E3 E1 E2 E2 E2 E2 E3 E1	88 577 128 1 193 12 186 287 176 72 45	2 58 7 265 2 30 41 22 5 5	BB 4.5 CC 23.9 AA 2.6 FF 1.1 BB .4	(D) 88.9 (D) 589.7 (D) 64.4 (D) 22.7 (D) 10.5	(D) 3.7 (D) 18.7 (D) 2.1 (D) .9 (D) .3	(D) 7.8 (D) 40.8 (D) 4.7 (D) 1.9 (D) .7	(D) 69.1 (D) 426.1 (D) 50.0 (D) 17.9 (D) 7.3	(D) 194.6 (D) 1 269.1 (D) 137.7 (D) 46.8 (D) 23.0	(D) 85.1 (D) 615.3 (D) 63.3 (D) (D) (D) (D) 10.1	(D) 261.1 (D) 1 753.8 (D) 189.9 (D) 64.4 (D) 31.4	(D) 18.5 (D) 130.5 (D) 11.1 (D) (D) (D) 1.6	1.0 10.1 EE 65.6 (NA) 3.2 6.6 FF CC 1.4	53.1 553.7 (D) 4 472.6 (NA) 244.6 415.8 (D) (D) 85.0

# Table 2. Statistics by Industry Group for Selected States and Offshore Areas: 1987 and 1982–Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	leaning of addreviations and syn		, 300 111 04		or explained		5, 500 uppe								000
							Dec La stra	1987						1	982
1987				nents during ear	All emp	oloyees		n, developr oration wor			Cost of supplies				
1987 SIC code	Geographic area and industry group	E1	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees <sup>2</sup> (1,000)	Value added by mining (million dollars)
13	Oil and gas extraction—Con.									-					
138	Oil and gas field services—Con.														
	New Jersey           New Mexico           New York           North Dakota           Ohio           Odkahorma           Oregon           Pennsylvania           Tennessee           Texas	E6 E1 E4 E2 E2 E4 E3 E2	24 362 90 175 375 1 420 23 219 35 3 765	3 72 6 21 31 183 2 22 639	AA 4.7 .6 FF 18.2 AA EE AA 64.2	(D) 104.2 14.5 37.6 (D) 432.1 (D) (D) (D) 1 538.4	(D) 3.8 .4 (D) 12.5 (D) (D) (D) 48.0	(D) 8.3 1.0 2.8 (D) 26.8 (D) (D) 103.5	(D) 78.6 8.8 29.2 (D) 255.8 (D) (D) (D) 1 026.8	(D) 221.8 25.4 76.2 (D) 708.9 (D) (D) (D) (D) 2 995.8	(D) 89.3 13.1 36.3 (D) 379.4 (D) (D) (D) 1 410.6	(D) 292.7 36.5 104.9 (D) 1 014.4 (D) (D) (D) 4 130.7	(D) 18.4 2.1 (D) 73.9 (D) (D) (D) 275.7	AA 10.9 EE 5.5 FF 60.1 BB FF .6 143.4	10.7 593.2 (D) 332.8 (D) 3 650.2 (D) (D) 34.6 8 115.8
	Utah Virginia Washington West Virginia Wyoming Atlantic Northern Gulf of Mexico	E2 E3 E5 E1 E2 -	156 32 38 141 442 5 27	9 2 20 60 2 23	1.0 AA BB 1.5 4.7 AA FF	23.6 (D) (D) 33.9 111.0 (D) (D)	.8 (D) (D) 1.3 3.7 (D) (D)	1.8 (D) (D) 2.9 8.2 (D) (D)	18.8 (D) (D) 27.0 83.3 (D) (D)	51.7 (D) (D) 77.2 210.8 (D) (D)	25.2 (D) (D) 44.9 102.4 (D) (D)	71.9 (D) 116.1 296.5 (D) (D)	4.9 (D) 5.9 16.7 (D) (D)	3.9 AA .7 FF 15.0 (NA) 2.1	246.2 (D) 36.7 (D) 922.7 (NA) 230.0
14	Nonmetallic minerals, except fuels	E1	5 775	1 454	112.7	2 858.0	82.5	177.9	1 956.4	9 232.9	4 698.0	12 794.5	1 136.4	109.8	6 <b>273.0</b>
	Alabama Arizona Arkansas California Colorado Connecticut Delaware and District of	E2 E1 E1 E2 E1 E2 E1	93 88 83 340 117 72	25 13 18 110 16 19	EE CC 1.4 9.1 1.2 EE	(D) (D) 26.1 272.5 29.4 (D)	(D) (D) 1.0 6.9 .9 (D)	(D) (D) 2.1 14.4 1.8 (D)	(D) (D) 18.4 198.2 20.4 (D)	(D) (D) 94.9 1 012.1 75.0 (D)	(D) (D) 50.2 463.2 41.8 (D)	(D) (D) 132.1 1 385.0 107.3 (D)	(D) (D) 12.9 90.3 9.5 (D)	1.8 CC .8 8.6 1.7 .9	66.7 (D) 33.6 683.0 99.3 37.8
	Columbia Florida Georgia Hawaii	- - E4	12 190 164 9	3 67 82 4	.2 8.3 7.8 .2	4.9 193.9 204.0 7.4	.2 6.6 6.3 .2	.3 13.2 14.1 .4	4.1 140.2 148.9 5.7	11.4 713.8 802.5 23.5	6.8 493.7 473.9 10.4	17.4 1 074.6 1 158.1 31.1	.8 132.9 118.2 2.8	(NA) FF 7.3 AA	(NA) (D) 421.3 (D)
	Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Marland Massachusetts	E1 E2 E2 E2 E2 E2 E6 E1 E2	46 243 187 183 113 112 84 29 76 100	11 58 36 28 22 33 21 1 33 18	.9 FF 2.3 2.0 EEE EA 2.1 EE	23.4 (D) 55.3 46.1 (D) (D) (D) (D) 49.9 (D)	.7 (D) 1.7 1.5 (D) (D) (D) 1.7 (D)	1.4 (D) 3.7 3.2 (D) (D) (D) (D) 3.7 (D)	16.9 (D) 38.4 30.5 (D) (D) (D) (D) 39.6 (D)	83.9 (D) 168.8 124.0 (D) (D) (D) 196.2 (D)	60.2 (D) 82.2 66.8 (D) (D) (D) 104.1 (D)	120.5 (D) 226.3 177.3 (D) (D) (D) 262.8 (D)	23.6 (D) 24.6 13.5 (D) (D) (D) 37.5 (D)	.9 4.7 2.3 1.9 1.3 2.2 FF (NA) 1.4 .9	70.6 196.0 85.1 49.9 95.6 (D) (NA) 91.1 46.8
	Michigan Minesota Mississippi Montana Nebraska Nevada New Hampshire New Hampshire New Mexico	E1 E2 E1 E1 E2 E1 E2 E1 E2 E1 E2 E1	188 112 63 238 35 85 53 47 111 58	29 20 17 42 10 7 16 9 39 14	FF 1.3 1.0 2.9 .7 CC 1.0 .5 3.2 1.8	(D) 36.0 17.3 62.9 17.0 (D) 26.4 11.5 105.3 46.9	(D) 1.0 .7 2.3 .5 (D) .8 .3 1.7 1.4	(D) 2.1 1.5 4.8 1.0 (D) 1.5 .8 3.5 3.0	(D) 25.0 11.7 48.5 11.6 (D) 19.0 8.6 41.6 37.5	(D) 97.8 51.8 195.0 44.7 (D) 72.1 40.4 220.8 135.0	(D) 44.1 34.9 100.0 23.9 (D) 35.7 (D) 107.0 68.7	(D) 133.1 80.0 275.6 61.6 (D) 100.6 49.3 299.0 194.0	(D) 8.8 6.7 19.4 7.0 (D) 7.2 (D) 28.9 9.7	FF 1.2 CC 2.8 .6 CC 1.5 .2 2.2 2.9	(D) 57.2 (D) 106.8 34.2 (D) 85.8 10.1 102.2 130.4
	New York	E1 E3 E1 E1 E4 E1 E1 E1	247 161 26 316 101 112 302 16 70 38	48 75 4 60 20 11 84 4 28 5	3.9 3.9 .3 4.5 1.4 1.0 6.2 .2 1.5 .4	105.8 93.3 8.1 112.3 29.6 21.9 142.0 5.3 32.2 9.0	3.1 2.8 .2 3.4 1.1 .7 3.4 .2 1.2 .3	6.8 6.3 7.6 2.4 1.5 7.5 .3 2.6 .6	78.3 61.6 5.6 78.1 21.4 16.2 77.1 4.4 24.9 6.3	315.5 405.3 25.7 310.3 84.4 55.1 354.4 15.6 128.4 29.8	152.5 147.8 12.8 158.8 41.2 34.6 166.4 6.7 65.8 12.5	429.2 515.0 35.9 429.1 117.7 83.8 478.9 20.4 170.7 40.8	38.8 38.1 2.5 40.0 8.0 5.9 42.0 2.0 23.5 1.5	3.4 3.7 BB 4.1 1.6 .9 4.6 AA 1.5 CC	192.5 181.4 (D) 176.7 81.2 40.6 200.4 (D) 70.5 (D)
	Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming	E1 E1 E1 E1 E1 E1 E1 E1	150 317 48 45 145 105 43 153 39	51 87 11 9 66 11 16 25 18	2.9 6.6 .8 .7 3.7 1.0 EE 3.6	67.3 153.5 23.0 18.1 87.2 27.6 (D) (D) 131.9	2.0 4.9 .6 .5 2.8 (D) (D) 2.8	4.6 10.9 1.4 .9 6.4 1.7 (D) (D) 6.0	41.3 105.6 15.6 9.3 59.9 21.3 (D) 102.2	203.1 581.3 58.3 57.8 285.9 90.6 (D) (D) 451.3	117.4 232.8 32.3 39.4 151.3 44.7 (D) (D) 215.1	294.0 775.8 79.3 89.5 395.6 124.4 (D) (D) 622.2	26.5 38.2 11.3 7.7 41.6 10.9 (D) (D) 44.2	2.6 7.1 EE .7 3.1 .9 1.0 1.7 4.9	118.3 525.5 (D) 34.3 132.1 44.7 31.0 76.6 469.6
141	Dimension stone Georgia Pennsylvania Vermont Wisconsin	- E1 -	149 19 16 8 12	19 3 3 2 3	1.3 .3 .2 AA .1	24.5 3.4 2.9 (D) 2.7	1.1 .2 .1 (D) .1	2.0 .4 .2 (D) .2	17.7 3.2 2.3 (D) 2.0	6 <b>4.7</b> 7.2 9.0 (D) 8.7	25.2 3.5 4.2 (D) (D)	8 <b>5.8</b> 10.0 12.6 (D) 13.1	4.0 .7 .6 (D) (D)	1.5 .2 (NA) BB (NA)	3.6 (NA) (D) (NA)

# Table 2. Statistics by Industry Group for Selected States and Offshore Areas: 1987 and 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	neaning of abbreviations and syr							1987						1	982
				nents during ear	All emp	loyees		n, developn pration worl			Cost of supplies				
1987 SIC code	Geographic area and industry group	E1	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees <sup>2</sup> (1,000)	Value added by mining (million dollars)
14	Nonmetallic minerals, except														
142	fuels—Con. Crushed and broken stone, including	-		744	<b>10 T</b>	1 001 0	00.0	70.4	750.0	0.405.0	4 000 0	4 768.0	500.0	00.0	4 707 0
	riprap Alabama Arizona Arkansas Colorado Connecticut Florida Georgia Hawaii Illinois Indiana Iowa Kansas Kentucky Mayland Miscouri Nissouri Nebraska	E1 E1 E2 E3 E1 E2 E3 E1 E2 E1 E2 E2 E1 E2 E2 E1	2 002 38 122 17 78 29 18 66 70 10 67 115 53 79 25 24 23 24 23 24 155 15	711 14 26 26 4 8 33 32 8 17 3 28 19 25 14 19 25 29 16 9 8 7 7 33 33 3	43.7 1.2 AA 1.8 3.3 5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 1.1 1.6 7.7 1.7 1.7 2.9 4 2.2 2.9 4 2.2 2.4 4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.5 2.4 2.4 2.5 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4	1 081.8 3(D) 8.0 52.9 7.9 17.4 53.5 61.4 (D) 62.9 27.5 37.4 13.8 35.7 26.7 (D) D) 24.5 10.5 48.6 (D)	32.8 .7 (D) .3 1.4 2.2 1.9 (D) 1.6 6 1.4 (D) 1.6 6 1.4 .9 (D) .8 .3 .3 1.7 (D) .8 .1.7 (D) .9 (D) .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	72.4 1.7 (D) 7,7 2.9 5,5 3.8 4.5 (D) 3.4 1.9 2.5 1.3 3.0 (D) 1.5 6 3.6 (D) 1.5 (D) 0 0 0 0 0 0 0 0 0 0 0 0 0	753.8 14.1 (D) 5.9 39.0 5.9 7.7 40.2 42.9 (D) 45.4 19.4 24.2 211.6 26.5 21.8 (D) 19.4 6.9 37.1 (D)	3 465.3 71.3 (D) 19.5 145.5 145.5 145.5 145.5 145.5 192.4 262.5 (D) 174.9 83.8 104.6 41.9 118.3 119.9 (D) 66.1 26.6 148.5 (D)	1 823.3 44.7 (D) 13.3 79.8 10.8 11.6 142.3 134.2 (D) 87.7 45.2 56.1 22.2 61.8 65.7 (D) 27.2 13.2 73.8 (D)	4 766.0 105.9 (D) 27.5 208.9 22.9 62.3 267.0 363.3 (D) 239.3 114.4 149.7 58.6 164.4 157.6 (D) 89.4 37.6 (D) 89.4 37.6 (D) 239.3 (D) 207.2 (D) (D) (D) (D) (D) (D) (D) (D)	520.6 10,1 (C)) 5.4 2.8 3.1 67.7 33.4 (D) 23.2 14.6 11.0 5.5 15.7 28.0 (C) 3.9 2.2 2.1 5.1 (C)	36.8 1.1 (NA) 4 EE .5 .3 1.7 1.8 AA 1.8 1.1 1.4 .7 1.9 .6 .3 EE .3 1.7 1.9 .6 .3 1.9 .6 .3 .3 EL .5 .5 .5 .5 .3 .1 .7 .8 .4 .7 .8 .5 .5 .3 .1 .7 .8 .4 .5 .5 .3 .1 .7 .8 .5 .5 .3 .1 .7 .8 .8 .1 .7 .8 .5 .5 .3 .1 .7 .8 .8 .1 .7 .8 .8 .1 .7 .8 .8 .1 .7 .8 .8 .1 .7 .8 .8 .1 .7 .8 .8 .1 .7 .8 .8 .1 .7 .8 .8 .1 .1 .8 .5 .5 .6 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	1 787.2 42.5 (NA) 19.0 (D) 13.9 13.1 94.7 103.2 (D) 112.0 51.6 69.7 27.7 78.2 52.0 15.3 (D) 15.7 67.5 67.5 (D)
	New Hampshire New Jersey New Mexico North Carolina Ohio Oklahoma Oregon Pennsylvania South Carolina	E1 E1 E1 E1 E5 -	9 25 7 1 81 84 49 55 150 23	5 16 25 53 25 17 3 59 13	AA 1.2 .1 1.6 2.1 1.7 1.0 .4 3.4 3.4 .6	(D) 33.6 3.8 45.4 54.1 42.1 22.1 9.7 87.0 12.4	(D) .8 .1 1.3 1.5 1.2 .8 .3 2.3 2.3 .5	(D) 1.7 .3 3.1 3.5 2.7 1.7 .7 5.2 1.1	(D) 21.0 3.1 35.8 34.1 27.6 15.8 7.5 54.6 10.1	(D) 122.6 13.8 136.2 209.0 108.4 59.7 24.4 257.3 68.6	(D) 56.3 8.2 75.0 82.9 70.8 31.3 14.6 123.7 33.5	(D) 162.7 19.6 188.5 265.1 164.9 84.5 36.3 347.5 84.9	(D) 16.1 2.4 22.6 26.8 14.4 6.5 2.7 33.5 17.2	(NA) .6 (NA) EE 1.8 1.6 1.2 .4 2.9 .5	(NA) 42.9 (NA) (D) 88.0 64.5 57.4 20.2 131.0 27.5
	Tennessee Texas Vermont Virginia Washington West Virginia Wisconsin	E1 E1 E1 E1 E1	88 71 8 92 34 25 58	34 35 3 50 4 10 13	1.9 2.2 AA 2.6 .4 .7 .9	45.5 48.2 (D) 59.9 10.3 13.4 23.7	1.3 1.7 (D) 2.0 .3 .5 .7	3.0 3.9 (D) 4.6 .7 1.0 1.5	26.7 34.8 (D) 42.1 7.9 8.7 17.2	140.4 130.3 (D) 211.1 32.3 37.6 92.6	72.8 69.4 (D) 115.6 17.1 18.9 44.1	193.5 184.9 (D) 294.6 43.5 49.1 121.8	19.8 14.8 (D) 32.0 5.8 7.5 15.0	1.3 1.9 AA 2.1 .3 .6 .8	63.0 102.0 (D) 88.0 12.6 18.8 44.3
144	Sand and gravel Alabama Arizona Arkansas California Colorado Connecticut Delaware and District of Columbia	E2 E2 E3 E3 E3 E3 E3	2 750 37 52 47 190 59 43 8	436 5 9 7 65 9 8 8	32.8 .4 .6 .4 3.6 .6 .5 AA	772.0 7.4 11.6 7.2 107.9 16.5 17.0 (D)	23.9 .3 .5 .3 2.7 .5 .3 (D)	51.1 .8 1.0 .7 5.7 1.0 .6 (D)	550.8 5.3 8.8 5.4 81.0 11.7 8.2 (D)	2 319.9 25.3 34.2 18.3 364.5 48.6 37.6	1 056.7 13.9 17.2 13.7 132.3 23.9 15.8 (D)	3 139.0 35.1 48.6 28.1 468.6 67.2 50.3 (D)	237.6 4.1 2.7 3.9 28.2 5.3 3.1 (D)	27.8 .4 BB .3 2.5 .6 .3 (NA)	1 335.6 12.9 (D) 10.2 158.1 32.4 21.7 (NA)
	Georgia Idaho	E2 E2 E3	68 35 21	14 5 -	1.3 .3 .1	25.7 6.7 2.0	1.1 .3 .1	2.5 .6 .2	21.2 5.1 1.4	97.0 22.0 3.7	38.3 12.6 3.1	127.4 30.7 6,5	7.9 3.9 .3	EE .4 .1	(D) 12.2 3.5
	Illinois	E2 E2 E2 E2 E2 E2 E2 E2 E2 E2 E2 E2 E2 E	115 110 56 46 24 62 41 65 151 73	23 13 2 7 1 8 15 7 16 11	1.6 1.0 .3 .5 .2 .7 .7 1.3 .8	46.2 24.2 6.9 13.0 4.3 11.6 20.9 18.9 33.7 21.6	1.2 .7 .3 .4 .1 .5 .7 .5 1.0 .6	2.5 1.7 .6 .8 .3 1.0 1.5 1.0 2.2 1.4	32.2 17.2 5.3 9.2 2.7 8.5 16.1 13.5 24.9 17.0	148.7 77.7 16.4 33.3 12.1 30.4 69.4 67.3 103.6 68.1	(D) 34.4 8.7 13.1 5.0 17.5 34.8 32.7 49.4 27.9	199.8 102.8 23.0 43.2 16.0 45.4 95.1 88.7 144.4 90.4	(D) 9.3 2.1 3.2 1.1 2.6 9.2 11.2 8.6 5.6	1.3 .9 .4 .4 AA 1.0 .7 .6 1.1 .7	69.2 40.1 14.3 15.6 (D) 41.4 37.2 31.0 42.4 37.8
	Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina	E4 E2 E2 E2 E1 E3 E2 E2 E2 E2 E2 E2	45 47 14 68 15 35 72 26 148 49	9 5 2 4 5 3 18 2 15 8	.6 .4 AA .4 .2 1.0 .2 EE .5	9.7 9.1 (D) 7.8 6.8 5.8 27.3 3.5 (D) 10.5	.4 .3 (D) .3 .3 .2 .8 .2 (D) .4	.8 .7 (D) .6 .5 .4 1.6 .3 (D) 1.0	6.6 7.1 (D) 5.3 5.7 4.2 18.2 2.4 (D) 8.4	24.8 27.8 (D) 20.2 22.7 21.0 88.6 9.5 (D) 34.4	14.5 12.2 (D) 9.8 9.3 5.2 45.1 5.3 (D) 14.8	35.8 37.1 (D) 27.7 29.3 25.1 122.0 13.6 (D) 46.8	3.5 2.9 (D) 2.3 2.7 1.1 11.7 1.2 (D) 2.4	.7 .4 (NA) .5 .2 .2 .2 1.0 .1 .9 CC	19.4 17.5 (NA) 15.3 13.9 7.7 54.6 3.1 43.1 (D)
	North Dakota Ohio Oklahoma Oregon Pennsylvania South Carolina South Dakota Tennessee Texas Utah Virginia Washington West Virginia	E3 E1 E3 E4 E1 E1 E2 E3 E1 E5 E2	20 195 37 41 99 22 24 1 181 15 37 55 15	4 30 2 6 14 7 1 7 30 3 9 9 6 5	.3 2.2 .3 .4 2.0 .4 .1 .5 2.4 .1 .7 .5 .4	7.6 52.5 5.9 9.0 34.4 7.9 3.3 9.9 50.4 2.8 15.9 13.0 9.8	.2 1.6 .2 .3 .8 .3 .1 .3 1.9 .1 .5 .4 .2	.4 3.8 5 .6 1.6 .6 .2 .7 4.2 .2 1.2 .8 .4	5.3 37.7 4.4 6.3 16.8 4.9 2.2 5.8 38.5 1.8 12.4 10.3 4.6	23.8 163.9 20.2 20.5 69.4 22.2 10.3 30.8 148.5 6.0 48.5 44.0 13.5	(D) 70.5 (D) 13.0 29.4 12.3 3.3 13.1 71.4 3.1 23.9 19.3 (D)	33.4 215.2 27.0 31.2 92.4 32.4 13.2 41.5 204.3 8.5 67.5 59.6 18.9	(D) 19.1 (D) 2.4 6.3 2.1 .4 2.4 15.6 .6 4.9 3.6 (D)	AA 1.8 .4 1.0 .5 (NA) .5 2.7 (NA) .5 .4 BB	(D) 80.9 19.5 17.1 57.5 14.8 (NA) 19.1 159.2 (NA) 31.1 22.4 (D)

### Table 2. Statistics by Industry Group for Selected States and Offshore Areas: 1987 and 1982-Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

								1987						1	982
				nents during ear	All emp	loyees		n, developr oration wor			Cost of supplies				
1987 SIC code	Geographic area and industry group	E1	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)	All em- ployees <sup>2</sup> (1,000)	Value added by mining (million dollars)
14	Nonmetallic minerals, except fuels—Con.														
144	Sand and gravel— Con.														
145	Clay, ceramic, and	E2	78 1 <b>97</b>	9	.7 9.9	16.8 272.2	.5	1.0 1 <b>5.</b> 3	11.3 16 <b>5.2</b>	45.0 8 <b>27.2</b>	22.9 53 <b>2.7</b>	61.0	6.9	.8	28.7
	refractory minerals _ Alabama Arkansas	-	14 7	5 3	.2 BB	4.1 (D)	7.1 .2 (D)	.4 (D) (D)	3.5 (D)	827.2 13.8 (D) (D)	10.5 (D)	1 248.6 23.4 (D) (D)	111.3 .8 (D)	10.5 .3 (NA)	509.8 6.5 (NA)
	California		11 4	5 4	BB .3	(D) 7.3	(D) .3	.6	(D) 5.9	20.0	(D) (D)	33.8	(D) (D)	.1 BB	1.8 (D
	Georgia	-	29 2	23 2	4.4 AA	124.9 (D)	3,6 (D)	7.9 (D)	92.3 (D)	482.4 (D)	318.1 (D)	725.2 (D)	75.3 (D)	4.7 BB	291.
	Kentucky	-	4	3	.1	3.2 4.3	.1	.2	(D) 2.1 3.1	9.7 17.9	(D) 13.1	13.0 28.6	(D) (D) 2.3	AA	(D (D 8.7
	Mississippi Nevada	-	6	3	.3 AA	(D)	.2 (D)	 (D) (D)	(D)	(D)	(D)	(D)	(D)	.2 BB	8. (D (D
	New Jersey	-	5	3	CC	(D) (D)	(D) (D)		(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D)	CC	(D 6.4
	Ohio	E1	9	2	AA .1	2.8	.1	(D) .2	2.1	8.4	5.2	13.1	(D) .5	.3	6.
	Pennsylvania	E4	10	2	AA .3	(D) 7.8	(D) .3	(D) .6	(D) 7.2	(D) 23.2	(D) 16.0	(D) 36.5	(D) 2.8	.2	2.9 17.1
	South Dakota	-	5	1 5	AA .3	(D) 6.5	(D) .2	(D) .5	(D) 5.2	(D) 18.4	(D) 13.4	(D) 29.8	.) (D) 2.8 (D) 2.0	BB .4	(D 13.
	Texas	-	12	6	.4	10.5	.3	.7	7.1	38.5	20.7	55.3	4.0	BB	(D 9.8
	Virginia Wyoming	-	5 12	5 9	.3 .4	5.3 8.1	.2 .3	.5 .6	3.8 6.3	17.5 37.1	8.2 24.9	22.9 54.0	2.7 8.0	.2 .6	9.8 46.2
147	Chemical and fertilizer mIneral mining	-	148	79	16.3	<b>500</b> .8	11.6	24.4	33 <b>5.9</b>	1 998.9	964.6	2 772.0	191.5	25.6	2 237.2
	California	-	9	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	FF	(D
	Florida	-	21 3	12	4.0 AA	102.0 (D)	3.0 (D)	5.9 (D)	68.9 (D)	387.6 (D)	281.7 (D)	622.9 (D)	46.4 (D)	5.4 AA	579.4 (D
	Idaho	-	7	2 5 2	BB	(D) (D)	(D) (D)	(D) (D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	.4 EE	54.
	Illinois Louisiana	-	13	8	1.1	31.8	.8	1.7	21.0	146.3	6Ò.Ś	185.7	21.2	EE	000 000
	Montana	E6	4	25	AA 1.2	(D) 35.3	(D) 1.0	(D) 2.1	(D) 28.9	(D) 99.6	(D) 49.0	(D) 143.3	(D) 5.3	AA 2.6	(D 117.
	New York	-	35	2	BB CC	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	.8 CC	54. (D
	Ohio	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	24.
	Pennsylvania	-	3	2	AA	(D) (D)	-	-		-	(D)	(D)		AA BB	(D (D
	Tennessee Texas	-	5 17	4 10	AA EE	(D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D)	(D)	(D) (D)	1.7	228.
	Utah Wyoming	-	76	5	.5 3.0	13.7 118.4	.4 2.4	.8 5,0	9.6 91.7	35.5 397.8	(D) 183.0	48.8 545.7	(D) 35.2	.7 4.0	68. 410.
148	Nonmetallic minerals														
	services, except fuels	_	177	23	1.8	44.9	1.3	2.8	31.9	119.0	71.8	165.4	25.4	1.6	70.4
	Georgia	_	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA
	Idaho Nevada	- E1	4	23	AA .1	(D) 5.3	(D)	(D) .2	(D) 3.9	(D) 16.3	(D) 4.5	(D) 18.3	(D) 2.4	.2 (NA)	9. (NA
	Pennsylvania	-	7	4	.2	4.4	.1	.2	1.8	10.6	3.7	13.6	.7	.1	3.9
149	Miscellaneous														
	nonmetallic minerals, except														· · · ·
	fuels	-	352	86	7.0	161.9	4.8	9.8	101.1	438.0	223.7	615.7	46.0	6.0	282.5
	Arizona Arkansas	E2 E1	17 11	2	AA AA	(D) (D) (D) 3.2	(D) (D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(NA) (NA)	(NA (NA
	California Colorado	-	38 12	2 9 3	EE .2	(D)	(D)	(D) (D) .2	(D) 1.7	(D) 8.3	(D) 5.1	(D) 12.3	(D) 1.1	1.3 AA	68.4 (D
	Illinois	E1	9 25	3	.1	2.9	.1	.2	2.4	5.4	5.0	9.6	.8	(NA)	(NA
	Florida Louisiana	Ξ	6	2 4	.2 BB	3.8 (D)	.1 (D)	.3 (D)	2.7 (D)	14.0 (D)	6.9 (D)	18.1 (D)	2.8 (D) (D)	BB	7.4 (D
	Massachusetts	-	4 10	25	CC BB	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D)	(NA) AA	(NA) (D) 22.0
	Montana	-	9	5	.4	10.6	.3	.7	7.4	32.7	14.9	44.4	3.2	.4	
	Nevada New Mexico	- E1	14 9	4	.3 .1	6.9 3.2	.2 .1	.5 .2	4.9 2.3	24.1 10.2	14.7 (D)	37.0 14.7	1.8 (D)	AA AA	(D) (D)
	New York	-	13 16	5	.5	11.5	.4	.7	8.2	36.9	(D) 20.9	46.6 36.5	(D) (D) 3.2	BB	(D) 10.2
	North Carolina Oregon	E3	10	2	.4 .1	8.9 2.4	.4 .1	.7 .2	6.4 1.9	18.8 9.0	4.5	12.7	.7	.3 (NA)	(NA)
	South Carolina Texas	-	5 19	2 6	AA BB	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	AA CC	(D) (D)
	Utah	E1	10	2	.1	3.7	.1	.2	(D) 2.2	10.4	3.7	12.7	1.4	BB	(D) (D)
	Vermont Washington	-	7 10	3 1	.2 AA	5.3 (D)	.1 (D)	.3 (D)	2.8 (D)	15.5 (D)	8.2 (D)	22.0 (D)	1.7 (D)	.3 AA	10.5 (D)

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1--01 to 19 percent; E2--20 to 29 percent; E3--30 to 39 percent; E4--40 to 49 percent; E5--50 to 59 percent; E6--60 to 69 percent; E7-70 to 79 percent; E8--80 to 89 percent; E9--90 percent or more. <sup>2</sup>Statistics for some producing States and offshore areas are withheld to avoid disclosing data for individual companies. However, for such States and offshore areas with 100 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: AA-100 to 249 employees; BB-250 to 499 employees; CC-500 to 999 employees; EE-1,000 to 2,499 employees; FF-2,500 employees or more.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

<u>[  0    </u>	neaning of abbreviations and symbols, see introducto	Establishm	nents during	All emp			on, developn loration worl			Cost of		
1987 SIC code	Major group, industry, type of company ownership, and legal form of organization	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
	All Industries	33 617	6 <b>2</b> 99	698.1	21 739.1	451.1	942.2	12 443.2	110 959.1	62 423.4	157 964.3	15 418.2
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership Legal form of organization:	9 639 9 201 438 23 978 16 803 7 175	3 787 3 648 139 2 512 2 197 315	49 <b>6</b> .3 476.7 19.5 201.9 167.3 34.5	17 155.0 16 525.1 629.9 4 584.1 3 876.8 707.3	294.5 280.4 14.0 156.6 129.9 26.7	626.3 595.8 30.5 315.9 262.9 53.0	9 087.8 8 664.8 423.0 3 355.4 2 837.2 518.2	92 090.4 88 044.9 4 045.5 18 868.7 14 985.2 3 883.5	53 774.0 51 453.4 2 320.6 8 649.4 7 096.7 1 552.7	132 913.1 126 859.0 6 054.2 25 051.2 20 101.9 4 949.3	12 951.3 12 639.4 311.9 2 466.8 1 980.0 486.8
10	Čorporate         Noncorporate         Individual proprietorships         Partnerships         Other and unknown	26 004 7 613 2 301 2 123 3 189 1 0 <b>27</b>	5 845 454 92 241 121 <b>260</b>	644.0 54.1 12.1 28.3 13.7 <b>44.1</b>	20 401.8 1 337.3 231.9 802.4 303.0 1 353.5	410.3 40.8 8.9 21.4 10.5 33.7	858.7 83.5 17.6 45.1 20.8 <b>67.</b> 8	11 502.0 941.2 157.9 567.9 215.4 9 <b>52.0</b>	103 030.1 7 929.0 1 178.9 4 927.0 1 823.1 4 609.5	58 550.1 3 873.2 475.9 2 614.0 783.4 3 141.2	146 960.8 11 003.5 1 526.0 7 087.1 2 390.4 6 851.6	14 619.4 798.7 128.7 453.9 216.1 899.1
10	Metal mining           Type of company ownership:           Multi-establishment companies           Corporate ownership or control           Noncorporate ownership           Single-establishment companies           Corporate ownership           Corporate ownership           Oroporate ownership           Corporate ownership	468 450 18 559 387 172	195 182 13 65 54 11	37.6 33.5 4.1 6.4 5.0 1.5	1 173.5 1 045.5 128.0 180.0 140.1 40.0	28.4 25.0 3.4 5.3 4.0 1.2	56.7 49.8 7.0 11.0 8.5 2.6	809.1 707.2 101.9 142.9 109.9 33.0	4 059.2 3 623.4 435.7 550.3 402.3 148.0	2 756.7 2 418.2 338.5 384.4 300.8 83.7	6 104.3 5 371.8 732.5 747.3 540.0 207.3	711.6 669.9 41.8 187.5 163.1 24.4
	Legal form of organization: Corporate Noncorporate Individual proprietorships Partnerships Other and unknown	837 190 26 100 64	236 24 1 22 1	38.5 5.6 .4 5.0 .2	1 185.6 168.0 9.7 152. <b>6</b> 5.7	29.0 4.6 .3 4.1 .2	58.2 9.5 .8 8.4 .3	817.1 134.9 8.6 121.5 4.7	4 025.8 583.7 40.4 535.8 7.5	2 719.0 422.2 28.8 384.4 9.0	5 911.8 939.8 68.2 856.4 15.2	833.0 66.2 1.1 63.8 1.3
1011	Iron ores	51 26 24 25 15 10	16 16 14 2 - -	7.1 (D) (D) .1 .1 (Z)	224.2 (D) (D) 2.1 1.6 .5	5.6 (D) (D) .1 .2 (Z)	11.2 (D) (D) .2 .1 .1	165.8 164.3 (D) (D) 1.5 1.1 .4	767.9 762.1 (D) (D) 5.8 4.4 1.4	618.5 611.0 (D) 7.5 5.9 1.6	1 362.4 1 350.6 (D) (D) 11.8 9.0 2.8	24.0 (D) (D) 1.6 1.3 .2
	Legal form of organization: Corporate Noncorporate Individual proprietorships Partnerships Other and unknown	39 12 1 7 4	14 2 - 2	(D) (D) (D) (D)	(D) (D) (D) (D)		(D) (D) (D) (D)	(D) (D) (D) (D)	(D) (D) (D) (D)	(D) (D) (D) (D)	(D) (D) (D) (D)	(D) (D) (D) (D)
1021	Copper ores Type of company ownership:	61	33	13.9	404.8	10.6	20.9	282.7	1 301.3	1 053.4	2 149.7	205.0
	Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership Legal form of organization:	46 44 15 8 7	29 27 2 4 3 1	12.5 (D) (D) 1.4 (D) (D)	370.8 (D) (D) 34.0 (D) (D)	9.5 (D) (D) 1.1 (D) (D)	18.5 (D) (D) 2.4 (D) (D)	255.4 (D) (D) 27.3 (D) (D)	1 190.2 (D) (D) 1111.2 (D) (D)	980.4 (D) (D) 72.9 (D) (D)	1 967.2 (D) (D) 182.5 (D) (D)	203.4 (D) (D) 1.5 (D) (D)
1031	Corporate Noncorporate Individual proprietorships Partnerships Other and unknown Lead and zinc ores	52 9 3 3 3 3	30 3 1 2 - 19	(D) (D) (D) (D) <b>2.0</b>	(D) (D) (D) (D) (D) 58.3	(D) (D) (D) (D) 1.4	(D) (D) (D) (D) 3.0	(D) (D) (D) (D) (D) 40.0	(D) (D) (D) (D) (D) 176.2	(D) (D) (D) (D) (D) 104.1	(D) (D) (D) (D) (D) 268.3	(D) (D) (D) (D) (D) 11.9
	Lead the of company ownership:           Multi-establishment companies           Corporate ownership or control           Noncorporate ownership	27 24 3 12 11 1	16 14 2 3 3 -	1.8 (D) (D) .2 (D) (D)	52.4 (D) (D) 5.9 (D) (D)	1.3 (D) (D) .2 (D) (D)	2.7 (D) (D) .3 (D) (D)	34.8 (D) (D) 5.1 (D) (D)	168.9 (D) (D) 7.3 (D) (D)	94.6 (D) 9.5 (D) (D)	252.9 (D) 15.5 (D) (D)	10.6 (D) (D) 1.3 (D) (D)
1041	Corporate Noncorporate Partnerships Gold ores	35 4 4 319	17 2 2 91	(D) (D) (D) 11.4	(D) (D) (D) 371.5	(D) (D) (D) <b>8.9</b>	(D) (D) (D) 18.2	(D) (D) (D) 263.8	(D) (D) (D) 1 689.1	(D) (D) (D) 9 <b>20</b> .6	(D) (D) (D) 2 067.1	(D) (D) (D) 542.6
	Type of company ownership: Multi-establishment companies	100 96 4 219 140 79 236	60 58 2 31 23 8 8	(D) 8.4 (D) (D) 2.1 (D) 10.4	(D) 276.7 (D) 63.9 (D) 340.5	(D) 6,5 (D) 1.7 (D) 8.2	(D) 13.1 (D) 3.7 (D) 16.8	(D) 191.5 (D) 51.6 (D) 243.1	(D) 1 354.0 (D) 234.0 (D) 1 588.0	(D) 706.0 (D) 163.2 (D) 869.2	(D) 1 674.6 (D) 264.3 (D) 1 938.9	(D) 385,4 (D) 132.9 (D) 518.3
1044	Corporate Noncorporate Individual proprietorships Partnerships Other and unknown Silver ores	236 83 9 47 27 53	81 10 - 9 1 1	10.4 1.0 (Z) .9 .1 <b>1.7</b>	340.5 30.9 .4 27.4 3.1 51.5	8.2 .7 (Z) .1 1.5	16.8 1.5 (Z) 1.3 .2 <b>3.1</b>	243.1 20.7 .4 17.8 2.6 <b>41.2</b>	1 588.0 101.1 .5 96.9 3.7 <b>125.1</b>	869.2 51.4 1.4 45.0 5.0 80.8	1 938.9 128.2 1.7 118.7 7.8 193.8	24.2 .1 23.3 .9 12.2
	Type of company ownership: Multi-establishment companies Corporate ownership or control Single-establishment companies Corporate ownership or control Noncorporate ownership		10 10 - - -	1.6 1.6 .1 .1 (Z)	48.6 48.6 2.9 2.6 .3	1.4 1.4 .1 .1 (Z)	3.0 3.0 .2 (Z)	38.8 38.8 2.4 2.2 .2	118.3 118.3 6.9 6.4 .5	72.6 72.6 8.2 7.6 .6	179.8 179.8 13.9 12.9 1.0	11.0 11.0 1.2 1.1 .1

#### MINERAL INDUSTRIES-SUBJECT SERIES

# Table 3. Industry Statistics by Type of Company Ownership and Legal Form of Organization: 1987-Con.

	eaning of abbreviations and symbols, see introductory te	Establishm	ients during	All emp			on, developr ploration wor			Cost of supplies		
1987 SIC code	Major group, industry, type of company ownership, and legal form of organization	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
1044	Silver ores-Con.											
	Legal form of organization: Corporate	48	10	1.7	51.2	1.5	3.1	41.0	124.6	80.2	192.8	12.1
	Noncorporate Partnerships	5	-	(Z) (D) (D)	.3 (D)	(Z) (D) (D)	(Z) (D) (D)	.2 (D)	.5 (D)	.6 (D)	1.0 (D)	.1
	Other and unknown	2	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) (D)
1061	Ferroalloy ores, except vanadium	58	7	1.3	46.2	.8	1.5	24.2	61.1	<b>56</b> .3	109.9	7.5
	Type of company ownership: Multi-establishment companies	17	7 7	(D)	(D)	(D)	(D)	(D) (D)	(D)	(D)	(D)	(D)
	Corporate ownership or control Single-establishment companies	17 41	7	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D)	(D) (D)	(D) (D)	(D) (D) (D)	(D) (D) (D) (D)
	Corporate ownership or control Noncorporate ownership	34 7	1	(D) (Z)	(D) .5	(D) (D) (D) (D) (Z)	(D) (Z)	(D) .4	(D) .7	(D) .8	(D) 1.3	(D) .1
	Legal form of organization: Corporate	51	7	1.3	45.7	.8	1.5	23.8	60.5	55.6	108.6	7.4
	Noncorporate Other and unknown	777		(Z) (Z)	.5 .5	(Z) (Z)	(Z) (Z)	.4 .4	.7 .7	.8 .8	1.3 1.3	.1
1081	Metal mining services	268	42	2.8	80.8	2.2	4.6	<b>5</b> 9.8	175.6	101.3	251.3	25.7
	Type of company ownership:				50.0			00.4	105.1		171.0	
	Multi-establishment companies	143 143	25 25	1.8 1.8	53.0 53.0	1.4 1.4	3.0 3.0	39.1 39.1	125.1 125.1	65.7 65.7	171.6 171.6	19.3 19.3
	Single-establishment companies Corporate ownership or control	125 86	17 15	1.0 .8	27.8 22.8	.8 .6	1.6 1.2	20.7 16.6	50.5 36.8	35.6 24.1	79.7 56.6	6.4 4.3
	Noncorporate ownership Legal form of organization:	39	2	.2	5.0	.2	.4	4.1	13.7	11.5	23.1	2.1
	Čorporate Noncorporate	229 39	40 2	2.6 .2	75.8 5.0	2.0	4.3 .4	55.7 4.1	162.0 13.7	89.8 11.5	228.2 23.1	23.6 2.1
	Individual proprietorships Partnerships	8 20	2	(D) (D) (Z)	(D) (D)	(D) (D) (Z)	(D) (D) (Z)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
1094	Other and unknown	11 101	- 27	(2) <b>2.</b> 3	.4 72.1	( <i>Z</i> ) 1.5	(2) <b>2</b> .9	.3 43.6	.8 174.7	.4	1.2 251.5	.1 39. <b>0</b>
1034	Type of company ownership:	101	21	2.0	72.1	1.5	2.5	40.0	114.1	113.0	231.3	33.0
	Multi-establishment companies Corporate ownership or control	71 66	24 21	2.0 (D)	66.2 (D)	1.3 (D)	2.5 (D)	39.2 (D)	161.4 (D)	99.1 (D)	236.7 (D)	23.9 (D)
	Noncorporate ownershipSingle-establishment companies	5 30	3	(D) (D)	(D) 6.0	(D) .2	(D) (D) .3	(D) 4,4	(D) 13.3	(D) 16.6	(D) 14.8	(D) (D) 15.1
	Corporate ownership or control Noncorporate ownership	22 8	3	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) - (D)	(D) (D)	(D) (D)	(D) (D)
	Legal form of organization: Corporate	88	24	2.1	68.6	1.4	2.7	40.9	172.2	(D)	245.2	
	Noncorporate Individual proprietorships	13 3	3	.1 (D)	3.5 (D)	.1 (D)	.2 (D)	2.7 (D)	2.5 (D)	(D) (D)	6.3 (D)	(D)
	Partnerships Other and unknown	73	3	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D) (D) (D)
1099	Miscellaneous metal ores, n.e.c.	77	15	1.6	44.1	1.2	2.3	30.9	138.4	90.4	197.5	31.3
	Type of company ownership:										450.0	
	Multi-establishment companies Corporate ownership or control	20 18	8	1.1 (D)	32.8 (D)	.8 (D)	1.5 (D)	22.2 (D)	113.1 (D)	64.5 (D)	152.0 (D)	25.6 (D)
	Noncorporate ownership Single-establishment companies Corporate ownership or control	2 57 41	2 7 7	(D) .5	(D) 11.4	(D) .4	(D) .8	(D) 8.7	(D) 25.2	(D) 25.9	(D) 45.5	(D) (D) 5.7
	Noncorporate ownership	16	-	.5 .1	10.2 1.2	.4 (Z)	.7 .1	7.8 1.0	24.0 1.2	24.1 1.9	42.7 2.8	5.4 .3
	Legal form of organization: Corporate Noncorporate	59 18	13	(D)	(D)	(D)	(D)	(D) (D)	(D)	(D)	(D)	(D)
	Individual proprietorships Partnerships	2	- 2	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
	Other and unknown	7	-	(Z)	.7	(Z)	(Ž)	.6	1.1	1.2	2.1	.2
12	Coal mining	3 9 <b>05</b>	1 418	163.4	5 567.0	128.7	<b>25</b> 9.3	4 251.4	17 067.9	10 552.5	25 955.2	1 665.2
	Type of company ownership: Multi-establishment companies	1 232	762	121.8	4 482.6	92.8	188.2	3 330.4	13 981.0	8 726.7	21 321.3	1 386.3
	Corporate ownership or control	1 196 36	744 18	118.3 3.5	4 355.0 127.6	89.9 2.9	182.4 5.8	3 230.5 99.9	13 438.6 542.4	8 508.9 217.8	20 587.3 734.0	1 360.2 26.1
	Single-establishment companies Corporate ownership or control	2 673 2 102	656 594	41.6 36.9	1 084.5 968.4	35.9 31.9	71.1 63.0	921.0 820.9	3 087.0 2 715.7	1 825.7 1 619.0	4 633.9 4 089.4	278.8 245.3
	Noncorporate ownership	571	62	4.7	116.1	4.1	8.1	100.1	371.2	206.7	544.5	33.5
	CorporateNoncorporate	3 298 607	1 338 80	155.2 8.2	5 323.4 243.6	121.8 6.9	245.4 13.9	4 051.4 200.1	16 154.3 913.6	10 127.9 424.5	24 676.7 1 278.5	1 605.5 59.6
	Individual proprietorships Partnerships	128 200	17 38	1.5 4.5	33.8 149.7	1.2 3.8	2.4 7.8	28.1 122.2	125.7 582.1	44.6 269.0	164.1 819.0	6.3 32.1
	Other and unknown	279	25	2.2	60.1	1.9	3.7	49.8	205.8	110.9	295.4	21.2
1221	Bituminous coal and lignite surface mining Type of company ownership:	1 804	612	63.8	2 204.0	48.0	99.5	1 580.1	7 893.7	6 460.3	13 617.5	736.4
	Multi-establishment companies Corporate ownership or control	638 613	371 358	46.8 44.7	1 777.5 1 695.5	33.4 31.8	68.5 65.0	1 223.2 1 163.1	6 423.3 6 058.2	5 352.3 5 212.5	11 193.5 10 705.5	582.2 565.2
	Noncorporate ownership Single-establishment companies	25 1 166	13 241	2.2 17.0	82.0 426.5	1.7 14.6	3.5 31.1	60.1 356.9	365.2 1 470.4	139.8 1 107.9	488.0 2 424.0	17.0
	Corporate ownership or control	886	241 219 22	14.8	372.7 53.8	12.7 1.9	27.1 3.9	311.3 45.6	1 261.8 208.6	970.1 137.9	2 424.0 2 100.4 323.7	131.5
	Legal form of organization: Corporate	1 499	577	59.5	2 068.2	44.5	92.1	1 474.4	7 319.9	6 182.6	12 805.8	696.7
1	Noncorporate Individual proprietorships	305 78	35	4.3	135.8	3.5	7.4	105.7	573.8 32.2	277.7 20.0	811.7 48.9	39.8 3.3
	Partnerships Other and unknown	102	20 10	2.7 1.2	92.9 34.4	2.1 1.0	4.6 2.1	70.6 27.9	423.6 117.9	193.3 64.4	596.3 166.5	20.6 15.9
		.201	, 5 1	1.21	01.1	1.0 1	2	2		0		

[⊢or m	eaning of abbreviations and symbols, see introductory te	xτ. ⊢orexpl	anation of terr	ns, see app	endixesj							
			ients during ear	Allemp	oloyees		on, developn Iloration worl			Cost of supplies used,		
1987 SIC code	Major group, industry, type of company ownership, and legal form of organization	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
1222	Bituminous coal underground mining	1 703	723	93.7	3 206.1	75.8	149.9	2 545.2	8 785.2	3 821.8	11 729.3	877.7
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership	536 526 10 1 167 968 199	369 364 5 354 318 36	73.0 (D) 20.6 (D) (D)	2 651.1 (D) 555.0 (D) (D)	57.8 (D) 18.0 (D) (D)	116.7 (D) (D) 33.3 (D) (D)	2 066.1 (D) (D) 479.1 (D) (D)	7 407.2 (D) (D) 1 378.0 (D) (D)	3 244.6 (D) (D) 577.2 (D) (D)	9 875.0 (D) (D) 1 854.3 (D) (D)	776.8 (D) (D) 100.8 (D) (D)
	Legal form of organization: Corporate Noncorporate Individual proprietorships	1 494 209 27	682 41 10	90.3 3.3 .8	3 108.3 97.8 22.4	7 <b>2</b> .9 2.9 .7	144.3 5.6 1.4	2 459.2 86.1 18.3	8 471.7 313.5 85.9	3 687.5 134.3 20.7	11 <b>2</b> 99.6 429.8 104.4	859.7 18.0 <b>2</b> .3
	Partnerships Other and unknown	65 117	17 14	1.6 .9	52.5 <b>22</b> .9	1.4 .8	2.8 1.4	48.3 19.5	147.1 80.5	70.4 43.2	206.5 118.9	10.9 4.8
1231	Anthracite mining	107	26	1.9	41.2	1.6	2.9	32.4	109.4	109.0	206.3	12.1
	Type of company ownership: Multi-establishment companies Corporate ownership or control Single-establishment companies Corporate ownership or control Noncorporate ownership Legal form of organization:	28 28 79 50 29	1 <b>2</b> 12 14 13 1				(D) (D) (D) (D)	00000000000000000000000000000000000000	00 00 00 00	(D) (D) (D) (D)	(D) (D) (D) (D) (D)	(D) (D) (D) (D)
	Corporate Noncorporate Individual proprietorships Partnerships	78 29 3 17	25 1 - 1	1.8 .2 (D)	38.2 3.0 (D) (D)	1.4 .2 (D) (D)	2.6 .3 (D) (D)	29.6 2.8 (D) (D)	101.3 8.2 (D) (D)	104.6 4.4 (D) (D)	194.1 1 <b>2.2</b> (D) (D)	11.8 .3 (D) (D)
	Other and unknown	9	-	(D) (Z)	.5	(Z)	(Z)	.5	1.3	.8	2.0	.1
1241	Coal mining services Type of company ownership:	291	57	4.0	115.7	3.3	6.8	93.7	279.6	161.4	402.0	39.0
	Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control	30 29 1 261 198 63	10 10 - 47 44 3	(D) (D) (D) (D) (D)	(D) (D) (D) (D) (D)	0000000		(D) (D) (D) (D) (D)	(D) (D) (D) (D) (D) (D) (D) (D) (D) (D)	(D) (D) (D) (D) (D)	(D) (D) (D) (D) (D)	(D) (D) (D) (D) (D)
	Noncorporate ownership Legal form of organization: Corporate	227	54	3.7	108.7	3.0	6.3	88.2	261.4	153.2	377.2	37.4
	Noncorporate Individual proprietorships Partnerships Other and unknown	64 20 16 28	3 2 - 1	.4 (D) (D) .1	7.0 (D) (D) 2.4	.3 (D) (D) .1	.5 (D) (D) .2	5.5 (D) (D) 2.0	18. <b>2</b> (D) (D) 6.1	8.2 (D) (D) 2.5	24.8 (D) (D) 8.0	1.6 (D) (D) .5
13	Oll and gas extraction	22 910	3 167	377.9	11 960.5	206.2	437.3	5 283.3	80 048.8	44 031.7	112 363.0	11 717.4
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership	5 416 5 096 320 17 494 12 096 5 398	1 780 1 697 83 1 387 1 196 191	256.4 247.2 9.2 121.5 99.1 22.4	9 353.9 9 059.8 294.1 2 606.6 2 168.2 438.4	115.4 109.6 5.7 90.8 74.1 16.7	254.4 241.1 13.4 182.9 149.8 33.1	3 511.1 3 345.2 165.9 1 772.2 1 473.7 298.6	66 833.9 64 039.5 2 794.4 13 214.8 10 181.9 3 032.9	38 664.3 37 009.9 1 654.3 5 367.4 4 288.4 1 079.0	95 515.0 91 299.8 4 215.2 16 848.0 13 123.7 3 724.3	9 983.2 9 749.6 233.6 1 734.2 1 346.6 387.6
	Legal form of organization: Corporate	17 19 <b>2</b> 5 718 1 880 1 517 2 321	2 893 274 64 135 75	346.3 31.6 8.7 14.0 8.9	11 228.0 732.5 161.5 377.5 193.4	183.7 22.5 6.1 9.8 6.6	390.9 46.4 11.9 21.4 13.2	4 818.9 464.4 99.7 236.3 1 <b>2</b> 8.5	74 <b>22</b> 1.5 5 827.3 938.7 3 418.9 1 469.7	41 298.3 2 733.3 363.5 1 773.8 596.1	104 423.6 7 939.4 1 192.0 4 861.3 1 886.2	11 096.2 621.2 110.2 331.4 179.6
1311	Crude petroleum and natural gas	10 203	1 171	198.8	7 510.0	69.4	142.3	2 153.8	67 954.9	19 <b>112.2</b>	76 518 <b>.1</b>	10 549.0
	Type of company ownership: Multi-establishment companies	2 760 2 562 198 7 443 4 706 2 737	855 815 40 316 250 66	162.2 158.0 4.2 36.5 26.8 9.8	6 591.8 6 444.2 147.6 918.2 706.1 212.2	48.1 46.4 1.6 21.4 15. <b>2</b> 6. <b>2</b>	100.5 97.1 3.3 41.8 <b>2</b> 9.9 11.9	1 686.0 1 639.6 46.4 467.8 348.7 119.1	58 602.3 56 387.2 2 215.0 9 352.7 6 909.9 2 442.8	15 971.7 15 698.6 273.1 3 140.5 2 352.9 787.6	65 412.6 63 124.5 2 288.1 11 105.5 8 201.5 2 904.0	9 161.4 8 961.3 200.1 1 387.6 1 061.3 326.3
	Corporate Noncorporate Individual proprietorships Partnerships Other and unknown	7 268 2 935 750 876 1 309	1 065 106 29 60 17	184.8 14.0 4.1 5.9 4.0	7 150.2 359.7 87.5 180.0 92.2	61.6 7.8 <b>2.2</b> 3.2 2.3	127.1 15.2 4.3 6.4 4.5	1 988.3 165.5 40.8 79.4 45.3	63 297.1 4 657.8 725.3 2 733.0 1 199.5	18 051.5 1 060.7 265.9 445.4 349.4	71 326.0 5 192.1 901.7 2 897.7 1 392.7	10 022.6 526.4 89.4 280.7 156.2
1321	Natural gas liquids	714	210	12.7	433.0	9.7	20.2	320.0	4 024.9	21 107.4	24 749.5	382.7
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership	681 639 42 33 21 12	206 196 10 4 2 2	12.3 (D) (D) .3 (D) (D)	424.1 (D) (D) 9.0 (D) (D)	9.4 (D) (D) .3 (D) (D)	19.7 (D) (D) .6 (D) (D)	313.1 (D) (D) 6.9 (D) (D)	3 973.7 (D) (D) 51.2 (D) (D)	20 465.5 (D) (D) 641.9 (D) (D)	24 066.8 (D) (D) 682.7 (D) (D)	372.4 (D) (D) 10.4 (D) (D)
	Legal form of organization: Corporate	660 54 6 41 7	198 12 2 8 2	12.0 .7 (D) .5 (D)	411.4 21.6 (D) 15.5 (D)	9.1 .6 (D) .4 (D)	19.0 1.2 (D) .8 (D)	302.8 17.2 (D) 12.0 (D)	3 747.6 277.3 (D) 2 <b>2</b> 6.6 (D)	19 784.2 1 323.2 (D) 1 130.3 (D)	23 161.4 1 588.2 (D) 1 349. <b>2</b> (D)	370.3 12.4 (D) 7.7 (D)
1381	Drilling oil and gas wells	2 591	620	55.0	1 318.0	45.6	93.3	1 012.3	2 549.4	1 397.5	3 625.9	321.0
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership	61 <b>9</b> 575 44	279 259 20	29.6 26.4 3.2	794.5 701.7 92.8	23.6 20.8 2.8	50.1 43.8 6.3	583.0 504.1 78.9	1 383.5 1 189.9 193.6	853.3 800.5 52.7	2 030.3 1 803.6 2 <b>2</b> 6.7	206.5 186.8 19.6

			nents during ear	All emp	oloyees		on, developn ploration wor			Cost of supplies used,		
1987 SIC code	Major group, industry, type of company ownership, and legal form of organization	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
1381	Drilling oil and gas wells-Con.											
	Type of company ownership—Con. Single-establishment companies Corporate ownership or control Noncorporate ownership Legal form of organization: Corporate	1 972 1 450 522 2 025	341 295 46 554	25.4 21.4 4.0 47.8	523.4 446.2 77.3 1 147.9	22.0 18.5 3.5 39.3	43.2 36.4 6.9 80.2	429.3 364.6 64.7 868.7	1 165.9 972.1 193.8 2 162.0	544.3 458.1 86.2 1 258.6	1 595.7 1 342.8 252.9 3 146.4	114.5 87.5 27.1 274.3
	Noncorporate Individual proprietorships Partnerships Other and unknown	566 173 187 206	66 8 38 20	7.2 1.0 4.5 1.7	170.0 18.8 114.1 37.1	6.2 .9 3.8 1.5	13.2 1.9 8.2 3.0	143.7 16.5 93.2 34.0	387.4 47.8 240.6 99.0	138.9 18.2 92.7 28.0	479.6 60.3 302.0 117.3	46.7 5.7 31.2 9.8
138 <b>2</b>	Oil and gas field exploration services	1 917	143	16.9	452.1	12.8	27.1	310.7	771.3	394.1	1 096.2	69.3
	Type of company ownership: Multi-establishment companies	275 271 4 1 642 1 262 380	81 81 62 51 11	9.9 (D) (D) 7.0 (D) (D)	293.8 (D) (D) 158.3 (D) (D)	7.0 (D) (D) 5.8 (D) (D)	15.6 (D) (D) 11.5 (D) (D)	190.1 (D) (D) 120.7 (D) (D)	447.5 (D) (D) 323.8 (D) (D)	234.7 (D) (D) 159.4 (D) (D)	638.8 (D) (D) 457.4 (D) (D)	43.5 (D) (D) 25.8 (D) (D)
1389	Öorporate	1 533 384 143 97 144 7 485	132 11 2 6 3 1 023	15.8 1.1 (D) .4 (D) 9 <b>4.</b> 6	431.8 20.4 (D) 8.5 (D) 2 247.5	11.9 .9 (D) .4 (D) 68.7	25.4 1.8 (D) .8 (D) <b>154.</b> 3	295.2 15.5 (D) 6.6 (D) 1 486.4	719.3 52.0 (D) 25.2 (D) 4 748.2	368.5 25.6 (D) 12.9 (D) 2 020.4	1 023.1 73.2 (D) 35.6 (D) 6 373.2	64.7 4.5 (D) 2.5 (D) 39 <b>5.</b> 4
	Type of company ownership: Multi-establishment companies	1 081	359	42.4	1 249.8	27.3	68.6	738.9	2 427.0	1 139.1	3 366.5	199.5
	Motine-stabilise     Corporate ownership or control       Noncorporate ownership     Single-establishment companies       Corporate ownership or control     Corporate ownership       Noncorporate ownership     Control       Noncorporate ownership     Control	1 049 32 6 404 4 657 1 747	336 13 664 598 66	42.4 41.1 1.3 52.2 44.8 7.4	1 249.8 1 214.0 35.7 997.7 872.7 125.0	27.3 26.4 .9 41.4 35.3 6.1	65.7 2.8 85.8 73.5 12.2	738.9 712.4 26.5 747.5 651.4 96.1	2 427.0 2 297.4 129.6 2 321.3 1 998.1 323.2	1 076.3 62.9 881.3 759.3 122.0	3 177.8 188.7 3 006.7 2 588.9 417.8	195.5 195.8 3.7 195.9 168.5 27.4
	Corporate Noncorporate Individual proprietorships Partnerships Other and unknown	5 706 1 779 808 316 655	944 79 23 23 33	85.9 8.7 3.2 2.7 2.8	2 086.7 160.7 47.4 59.5 53.9	61.8 7.0 2.6 2.1 2.3	139.2 15.1 5.0 5.2 4.9	1 363.8 122.6 36.4 45.1 41.1	4 295.5 452.7 127.1 193.5 132.2	1 835.5 184.9 41.8 92.6 50.5	5 766.8 606.5 157.5 276.9 172.1	364.3 31.1 11.4 9.2 10.6
14	Nonmetallic minerals, except fuels	5 775	1 454	112.7	2 858.0	8 <b>2.5</b>	177.9	1 956.4	9 <b>2</b> 3 <b>2</b> .9	4 698.0	12 794.5	1 136.4
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership	2 523 2 459 64 3 252 2 218 1 034	1 050 1 025 25 404 353 51	80.4 77.7 2.8 32.3 26.3 5.9	2 145.0 2 064.8 80.3 713.0 600.0 112.9	57.9 55.9 2.0 24.6 19.9 4.7	126.9 122.5 4.4 50.9 41.7 9.3	1 437.1 1 381.8 55.3 519.3 432.8 86.5	7 216.4 6 943.3 273.0 2 016.6 1 685.3 331.3	3 626.3 3 516.4 109.8 1 071.8 888.5 183.3	9 972.5 9 600.0 372.5 2 822.0 2 348.8 473.3	870.1 859.7 10.4 266.3 225.0 41.3
	Legal form of organization: Corporate	4 677 1 098 267 306 525	1 378 76 10 46 20	104.0 8.7 1.5 4.8 2.3	2 664.8 193.2 26.9 122.5 43.8	75.8 6.7 1.2 3.7 1.8	164.2 13.7 2.6 7.5 3.6	1 814.6 141.8 21.6 87.9 32.3	8 628.6 604.4 74.0 390.3 140.1	4 404.9 293.1 38.9 186.7 67.5	11 948.8 845.7 101.8 550.3 193.6	1 084.7 51.8 11.2 26.6 14.0
1411	Dimension stone	149	19	1.3	24.5	1.1	2.0	17.7	64.7	25.2	85.8	4.0
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership	37 36 1 112 55 57	7 7 12 9 3	.5 (D) (D) .8 (D) (D)	11.4 (D) (D) 13.1 (D) (D)	.4 (D) (D) .6 (D)	.8 (D) (D) 1.2 (D) (D)	7.5 (D) (D) 10.2 (D) (D)	27.6 (D) (D) 37.1 (D) (D)	9.0 (D) (D) 16.2 (D) (D)	35.4 (D) (D) 50.4 (D) (D)	1.2 (D) (D) 2.8 (D) (D)
	Legal form of organization: Corporate Noncorporate Individual proprietorships Partnerships Other and unknown	91 58 21 12 25	16 3 1 - 2	1.1 .3 .1 .1	20.5 3.9 1.2 .9 1.9	.9 .2 .1 (Z) .1	1.6 .4 .1 .1 .2	14.6 3.0 .9 .7 1.4	52.7 12.0 3.0 3.3 5.7	19.3 5.9 1.6 1.6 2.7	68.7 17.1 4.3 4.7 8.0	3.3 .8 .2 .2 .4
1422	Crushed and broken limestone	1 335	456	28.9	<b>702</b> .3	21.6	47.0	482.9	2 091.4	1 161.8	2 914.4	338. <b>7</b>
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership	845 824 21 490 374 116	347 336 11 109 101 8	21.5 20.9 .6 7.4 6.5 .9	540.6 526.3 14.3 161.8 146.9 14.9	15.9 15.5 .5 5.7 4.9 .8	35.1 34.2 1.0 11.9 10.4 1.5	367.2 358.4 8.8 115.7 103.7 11.9	1 655.8 1 620.9 34.9 435.6 392.2 43.4	906.1 893.1 13.0 255.7 230.5 25.1	2 288.6 2 243.1 45.5 625.8 563.8 62.0	273.3 271.0 2.3 65.4 59.0 6.5
	Legal form of organization: Corporate Noncorporate Individual proprietorships Partnerships Other and unknown	1 198 137 30 51 56	437 19 3 11 5	27.4 1.5 .3 .9 .4	673.1 29.2 4.7 18.5 6.0	20.4 1.2 .2 .6 .3	44.6 2.4 .5 1.4 .6	462.1 20.8 3.9 11.9 5.0	2 013.1 78.3 12.0 44.4 21.8	1 123.7 38.1 8.2 20.6 9.3	2 806.8 107.6 17.7 61.2 28.6	329.9 8.8 2.5 3.8 2.5
14 <b>2</b> 3	Crushed and broken granite	238	129	6.5	168.6	5.0	11.7	120.4	696. <b>2</b>	339. <b>2</b>	9 <b>22.7</b>	112.7
	Type of company ownership: Multi-establishment companies Corporate ownership or control Single-establishment companies Corporate ownership or control Noncorporate ownership	174 174 64 53 11	117 117 12 12 -	5.5 5.5 1.0 1.0 .1	143.1 143.1 25.5 24.1 1.4	4.2 4.2 .8 .8 (Z)	9.9 9.9 1.8 1.7 .1	101.9 101.9 18.5 17.8 .7	598.0 598.0 98.2 94.5 3.7	292.5 292.5 46.7 44.9 1.8	794.5 794.5 128.2 123.1 5.2	96.0 96.0 16.7 16.4 .3

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[For m	neaning of abbreviations and symbols, see introductory te	xt. ⊢or expl	anation of ter	ms, see app	endixes]							
			nents during ear	All emp	loyees		on, developr ploration wor			Cost of supplies used,		
1987 SIC code	Major group, industry, type of company ownership, and legal form of organization	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
1 <b>42</b> 3	Crushed and broken granite-Con.											
	Legal form of organization: Corporate	227	129	6.4	167.2	4.9	11.6	119.7	692.5	337.4	917.5	112.4
	Noncorporate Individual proprietorships	11	-	.1	1.4	(Z) (Z) (D)	.1	.7	3.7 1.3	1.8 .5	5.2 1.7	.3 .1
	Partnerships Other and unknown	4 2	-	(Z) (D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
1429	Crushed and broken stone, n.e.c.	429	126	8.3	210.9	6.2	13.7	150.5	677.8	322.3	931.0	69.2
	Type of company ownership: Multi-establishment companies	170	86	5.2	139.7	3.8	8.6	96.5	468.8	208.2	634.2	42.8
	Corporate ownership or control Noncorporate ownership	168	86 -	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
	Single-establishment companies Corporate ownership or control	259 179	40 38	3.1 (D)	71.2 (D)	2.4 (D)	5.1 (D)	54.0 (D)	209.0 (D)	114.2 (D)	296.8 (D)	26.4 (D)
	Noncorporate ownership Legal form of organization:	80	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Corporate Noncorporate	347 82	124 2	7.9 .4	202.8 8.1	5.9 .3	13.0 .7	144.1 6.4	652.1 25.8	309.9 12.4	896.4 34.6	65.6 3.6
	Individual proprietorships Partnerships	27 23 32	1	.1 .1	2.4 2.0	.1 .1	.2	1.9 1.6	8.6 6.2	3.5 3.3	10.7 8.0	1.4 1.5
1442	Other and unknown	2 559	1 371	.2 28.9	3.7 6 <b>7</b> 3 <b>.0</b>	.1 2 <b>1.1</b>	.2 45.4	2.8 489.3	10.9 2 011.6	5.7 899.3	15.9 2 696.8	.7 214.1
1442	Type of company ownership:											
	Multi-establishment companies	810 797	210 206	14.4 14.1	349.0 342.6	10.2 10.0	22.8 22.3	250.5 245.7	1 097.1 1 068.8	447.9 429.8	1 441.2 1 399.1	103.8 99.5
	Noncorporate ownership Single-establishment companies	13 1 749 1 140	4 161 137	.3 14.5 11.5	6.4 324.0 264.5	.2 10.9 8.6	.5 22.6 17.8	4.7 238.8 192.0	28.3 914.5 745.8	18.0 451.5 367.1	42.1 1 255.7 1 020.7	4.3 110.3 92.1
	Corporate ownership or control Noncorporate ownership Legal form of organization:	609	24	3.0	59.5	2.4	4.8	46.8	168.6	84.4	235.0	18.1
	Corporate	1 937 622	343 28	25.6 3.3	607.2 65.9	18.5 2.6	40.1 5.3	437.7 51.5	1 814.6 197.0	796.9 102.5	2 419.8 277.0	191.6 22.4
	Individual proprietorships Partnerships	144 146	4 15	.8 1.2	15.1 27.4	.7	1.4 1.9	12.2 21.6	39.9 90.4	19.3 52.4	53.6 132.2	5.6 10.6
	Other and unknown	332	9	1.3	23.4	1.0	2.0	17.7	66.7	30.8	91.2	6.3
1446	Industrial sand	191	65	3.9	98.9	2.8	5.7	61.5	308.3	157.4	442.1	23.5
	Type of company ownership: Multi-establishment companies Corporate ownership or control	117 110	57 57	3.2 3.1	83.5 82.0	2.2 2.2	4.7 4.6	50.7 50.2	265.8 263.0	131.7 130.8	377.7 374.1	19.8 19.6
	Noncorporate ownership Single-establishment companies	7	- 8	.1 .7	1.5 15.4	(Z) .6	(Z)	.4 10.9	203.0 2.8 42.5	1.0	3.6 64.4	.2
	Corporate ownership or control Noncorporate ownership	59 15	7	.6 .1	12.9 2.5	.5	.9	9.0 1.8	34.3 8.2	20.4 5.2	51.9 12.5	2.9 .9
	Legal form of organization: Corporate	169	64	3.8	94.9	2.7	5.6	59.2	297.3	151.2	426.0	22.5
	Noncorporate Individual proprietorships	22 3	1 -	.1 (D) (D)	4.0 (D)	.1 (D)	.2 (D)	2.3 (D)	11.0 (D)	6.2 (D)	16.1 (D)	1.1 (D)
	Partnerships Other and unknown	12 7	- 1	(D) .1	(D) 2. <b>5</b>	(D) .1	(D) .1	(D) 1.6	(D) 8.4	(D) 4.4	(D) 12.0	(D) .8
1455	Kaolin and ball clay	45	36	5.3	169.5	3.5	7.9	95.8	498.6	328.9	750.5	77.0
	Type of company ownership: Multi-establishment companies	37	31	5.1	164.6	3.4	7.6	92.6	483.7	320.1	729.6	74.3
	Corporate ownership or control Noncorporate ownership	36 1	30 1	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
	Single-establishment companies	8 3 5	5 3 2	.2 (D) (D)	4.9 (D) (D)	.2 (D) (D)	 (D) (D)	3.1 (D) (D)	14.9 (D) (D)	8.7 (D) (D)	20.9 (D) (D)	2.7 (D) (D)
	Noncorporate ownership Legal form of organization: Corporate	39	33	(D) 5.1	(D) 164.3	(D)	(D) 7.6	(D) 92.3	(D) 481.3	319.8	(D) 72 <b>5</b> .8	75.3
	Noncorporate Individual proprietorships	6	3	.2 (D)	5.1 (D)	.1 (D)	.3 (D)	3.5 (D)	17.3 (D)	9.0 (D)	24.7 (D)	1.6 (D)
1	Partnerships Other and unknown	4	3	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
1459	Clay, ceramic, and refractory minerals, n.e.c.	152	64	4.6	102.7	3.5	7.4	69.5	328.6	203.9	498.1	34.4
	Type of company ownership: Multi-establishment companies	90	57	3.9	90.8	3.0	6.4	60.8	297.8	182.3	449.5	30.6
	Corporate ownership or control Noncorporate ownership	84 6	53 4	3.8 .2	86.2 4.6	2.9 .1	6.2 .2	58.6 2.2	287.3 10.5	175.6 6.7	433.4 16.0	29.4 1.2
	Single-establishment companies Corporate ownership or control	62 37	7 5 2	.2 .6 .5	11.9 9.2	.5 .4	1.0 .7	8.7 6.6	30.8 23.0	21.5 16.0	48.6 35.9	3.8 3.1
	Noncorporate ownership Legal form of organization:	25		.2	2.7	.1	.3	2.1	7.8	5.5	12.7	.6
	Corporate Noncorporate	121 31	58 6	4.2 .4	9 <b>5</b> .4 7.3	3.3 .2	6.9 .5	65.1 4.3	310.3 18.3	191.6 12.3	469.4 28.7	32.5 1.9
	Individual proprietorships Partnerships Other and unknown	9 12 10	1	.1 .2 (Z)	1.1 5.7	.1 .2 (7)	.1 .3 1	.9 3.1	4.3 12.8 1.2	2.0 9.1 1.2	5.8 20.6 2.3	.5 1.3 1
1474	Potash, soda, and borate minerals	30	- 19	(Z) 6.9	.4 23 <b>4.5</b>	(Z) 5.3	.1 11.4	.3 177.0	91 <b>5.0</b>	439.1	2.3 1 271.8	.1 82.3
	Type of company ownership: Multi-establishment companies	26	17									
	Corporate ownership or control	20 19 7	17 16 1	(D) (D) (D) (D) (D)	(D) (D) (D)	(D) (D)	(D) (D) (D)	(D) (D) (D)	000		(D) (D) (D)	(D) (D)
	Single-establishment companies Corporate ownership or control	4 1	2				(D)	(D) (D)		(D) (D)		(D) (D) (D) (D) (D)
	Noncorporate ownership Legal form of organization:	3	2		(D)	(D)	(D) (D)	(D)		(D)	(D) (D)	
	Čorporate	20	16	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

#### MINERAL INDUSTRIES-SUBJECT SERIES

			ients during ear	All emp	loyees		on, developm loration work			Cost of supplies		
1987 SIC code	Major group, industry, type of company ownership, and legal form of organization	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
1474	Potash, soda, and borate minerals—Con.											
	Legal form of organization—Con. Noncorporate Individual proprietorships Partnerships Other and unknown	10 1 8 1	3 - 3 -	(D) (D) (D) (D)	(D) (D) (D)	(D) (D) (D)	(D) (D) (D) (D)	(D) (D) (D)	(D) (D) (D)	(D) (D) (D) (D)	(D) (D) (D) (D)	(D) (D) (D) (D)
1475	Phosphate rock	39	26	5.3	139.5	3.9	7.7	92.5	5 <b>95.1</b>	36 <b>5.9</b>	886.7	74.3
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership Legal form of organization: Corporate	28 24 4 11 9 2 33	22 20 2 4 3 1 23	5.2 (D) (D) .1 (D) (D)	136.8 (D) 2.7 (D) (D) (D)	3.8 (D) (D) .1 (D) (D) (D)	7. <b>5</b> (D) (D) .2 (D) (D)	90.6 (D) 1.9 (D) (D) (D)	587.4 (D) (D) 7.8 (D) (D) (D)	354.3 (D) (D) 11.6 (D) (D) (D)	868.1 (D) (D) 18.6 (D) (D) (D)	73.6 (D) (D) .7 (D) (D)
	Corporate Noncorporate Partnerships	6 3	3 2	(D) (D)	(D) (D)	(D) (D)	(D) (D) (D)	(D) (D)	(D) (D)	(D) (D)	(D)	(D) (D) (D)
	Other and unknown	3	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1479	Chemical and fertilizer mineral mining, n.e.c	79	34	4.2	126.7	2.5	5.3	66.4	488.7	159.6	613.4	34.9
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership	47 46 1 32 22 10	30 29 1 4 3 1	3.9 (D) (D) .3 (D) (D)	121.8 (D) (D) <b>5</b> .0 (D) (D)	2.3 (D) (D) (D) (D)	4.9 (D) (D) .4 (D) (D)	63.0 (D) (D) 3.5 (D) (D)	473.5 (D) (D) 15.2 (D) (D)	151.4 (D) (D) 8.2 (D) (D)	592.0 (D) (D) 21.4 (D) (D)	32.9 (D) (D) 2.0 (D) (D)
	Corporate Noncorporate	68 11	32 2	4.1	124. <b>5</b> 2.3	2.4	5.2 .2	64.9 1.5	480.3 8.4	156.3 3.4	602.5 10.9	34.0 .9
	Individual proprietorships Partnerships Other and unknown	1 5 5	-	(D) (D) (D)	(D) (D) (D)	(D) (D) (D)	(D) (D) (D)	: 000 000	(D) (D) (D)	(D) (D) (D)	(D) (D) (D)	.) (D) (D)
1481	Nonmetallic minerals services, except fuels	177	<b>2</b> 3	1.8	44.9	1.3	2.8	31 <b>.9</b>	119.0	71.8	165.4	25.4
	Type of company ownership: Multi-establishment companies Corporate ownership or control Single-establishment companies Corporate ownership or control Noncorporate ownership Legal form of organization:	34 34 143 108 35	9 9 14 14 -	.5 .5 1.2 1.1 .1	15.0 15.0 29.8 27.2 2.7	.4 .4 .9 .8 .1	.9 .9 2.0 1.7 .2	10.5 10.5 21.4 1 <b>9</b> .4 2.0	35.1 35.1 83.8 73.4 10.4	34.1 34.1 37.7 31. <b>5</b> 6.1	57.9 57.9 107.4 93.4 14.1	11.3 11.3 14.1 11.6 2. <b>5</b>
	Corporate Noncorporate	142 35	23 -	1.6 .1	42.2 2.7	1.2 .1	2.6 .2	29.9 2.0	108.5 10.4	65.7 6.1	151.3 14.1	22.9 2.5
	Individual proprietorships Partnerships Other and unknown	12 9 14	-	.1 (Z) .1	.9 .6 1.1	(Z) (Z) (Z)	.1 .1 .1	.7 .5 .8	2.2 3.2 5.0	2.0 (D) (D)	3.7 5.3 5.1	.6 (D) (D)
1499	Miscellaneous nonmetallic minerals, n.e.c.	35 <b>2</b>	86	7.0	161.9	4.8	9.8	101.1	438.0	223.7	615.7	46.0
	Type of company ownership: Multi-establishment companies Corporate ownership or control Noncorporate ownership Single-establishment companies Corporate ownership or control Noncorporate ownership Legal form of organization:	108 107 1 244 178 66	60 59 1 26 21 5	(D) (D) (D) (D) (D)	(D) (D) (D) (D) (D)	000000	(D) (D) (D) (D) (D)	00000000000000000000000000000000000000	(D) (D) (D) (D) (D)	(D) (D) (D) (D) (D)	00000000000000000000000000000000000000	(D) (D) (D) (D)
	Corporate Noncorporate Individual proprietorships Partnerships Other and unknown	285 67 13 17 37	80 6 - 5 1	6.3 .7 (Z) .5 .1	148.9 13.0 .5 10.1 2.4	4.3 . <b>5</b> (Z) .4 .1	8.7 1.1 .1 .8 .2	91.2 9.8 .4 7.6 1.8	402.6 35.4 1.8 23.0 10.6	1 <b>9</b> 8.0 25.8 1.2 17.5 7.0	560.7 55.1 2.9 36.2 16.0	39.9 6.1 .2 4.3 1.6

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

I-or meaning of abbreviations and symbols, see introductory text. For explanation	or territs, see append	inesj	Majo	group 10, Metal m	nining	
ltem	All mineral industries	Total	Industry 1011, Iron ores	Industry 1021, Copper ores	Industry 1031, Lead and zinc ores	Industry 1041, Gold ores
Establishments during year number With 0 to 19 employees do	33 617 27 318 5 062 1 237	1 027 767 167 93	51 35 6 10	61 28 10 23	39 20 11 8	319 228 61 30
All employees: Average for year1.000 Payroll for yearmil dol	698.1 21 739.1	44.1 1 353.5	7.1 224.2	13.9 404.8	2.0 58.3	11.4 371.5
Production, development, and exploration workers:         1,000	451.1 437.5 447.3 457.1 461.0	33.7 31.6 32.9 34.5 35.6	5.6 4.7 5.2 6.3 6.1	10.6 10.2 10.6 10.7 11.0	1.4 1.4 1.4 1.4 1.5	8.9 8.3 8.6 9.1 9.7
Hours         millions           January to March         do           April to June         do           July to September         do           October to December         do	942.2 225.0 233.9 240.3 242.9	67.8 15.7 16.6 17.5 17.9	11.2 2.4 2.7 2.9 3.2	20.9 5.0 5.2 5.3 5.4	3.0 .7 .8 .8	18.2 4.2 4.4 4.8 4.9
Wagesmil dol	12 443.2	952.0	165.8	282.7	40.0	263.8
Supplemental labor costs not included in payroll do do Legally required expenditures, including Social Security	4 960.0	325.4	69.0	87.7	12.3	83.4
contributions dodo	2 103.2 2 856.9	137.4 188.0	28.9 40.0	35.4 52.3	5.0 7.3	34.5 48.9
Value added by mining do	110 959.1	4 609.5	767.9	1 301.3	176.2	1 689.1
Cost of supplies do	62 423.4	3 141.2	618.5	1 053.4	104.1	920.6
Supplies used, minerals received, and purchased machinery installed dodo	46 376.1 522.9 2 685.2	1 899.5 .6 211.9	260.8 (Z) 65.6	674.7 	71.8 - 2.9	585.8 
Purchased electric energy: Quantity mil kWh mil dol Cost mil dol Electric energy generated less sold mil dol Contract work mil dol	68 176.8 3 113.8 6 005.6 9 725.4	14 103.1 607.6 472.4 421.5	6 261.8 258.1 - 34.0	4 815.9 212.4 (D) 96.0	414.9 21.1 (D) 8.3	1 315.7 56.3 (D) 242.0
Cost of purchased communication services do	163.5	7.9	1.2	1.7	.2	
Value of shipments and receipts do	157 964.3 655.8	6 851.6 .7	1 362.4 (Z)	2 149.7 -	268.3 -	2 067.1
Beginning-of-year inventories       do         Detail by method of valuation:       do         Subject to LIFO costing <sup>1</sup> mil dol         LIFO reserve       do         Not subject to LIFO costing       do         Valuation method not reported <sup>2</sup> do         Amount subject to LIFO reported without associated reserve and       do	7 564.0 762.5 367.6 394.9 5 079.4 1 528.3 193.8	1 162.3 62.0 26.2 35.8 962.9 100.9	217.3 (D) (D) 192.8 3.4	321.0 - - 291.4 9.4	38.5 (D) (D) 24.6 (D)	(D)
value <sup>3</sup> do Detail by type of inventory: Mined or quarried productsmil dol	3 636.7	36.4 711.1	(D) 104.9	20.2	- 25.2	(D) 105.8
Supplies, parts, fuels, etc do	3 927.3	451.2	112.4	147.7	13.3	66.1
End-of-year inventories do Detail by method of valuation: Subject to LIFO costing 1 do LIFO reserve do LIFO value do Not subject to LIFO costing do	7 380.0 628.9 211.2 417.8 4 992.7	1 171.7 55.9 18.1 37.8 970.7	214.2 (D) (D) (D) 193.3	354.4 - - 320.0	33.6 (D) (D) (D) 22.9	219.1 - - 178.0
Not subject to LIFO costing do	1 577.7 180.7	100.3 44.8	2.9 (D)	9.7	(D)	(D)
Detail by type of inventory: Mined or quarried productsmil dol Supplies, parts, fuels, etcdo	3 436.8 3 943.2	723.7 448.1	111.3 102.9	215.9 138.5	17.4 16.2	
			Major group 10, M	etal mining-Con.	<u></u>	
ltem	Industry 1044, Silver ores	Industry Ferroalloy except van	ores, Me	tal mining Ur	Industry 1094, anium-radium- vanadium ores	Industry 1099, Miscellaneous metal ores, n.e.c.
Establishments during year number	53 43 4 6		58 51 4 3	268 226 40 2	101 74 21 6	77 62 10 5

1.7 51.5

1.5 1.4 1.4 1.5 1.6

3.1 .7 .8 .8 .8

41.2

Wages	mil dol
-------	---------

All employees: Average for year \_\_\_\_\_1,000\_\_\_ Payroll for year \_\_\_\_\_mil dol\_\_

 Average for year
 1,000

 March
 do

 May
 do

August \_\_\_\_\_ do\_\_\_\_\_ do\_\_\_\_\_\_ do\_\_\_\_\_ do\_\_\_\_\_\_ do\_\_\_\_\_\_ do\_\_\_\_\_\_

 January to March
 do. 

 April to June
 do. 

 July to September
 do. 

 October to December
 do.

\_\_\_\_\_ millions\_\_

Production, development, and exploration workers:

Hours \_

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2.3

1.5 1.5 1.5 1.5 1.5

2.9 .8 .7 .7

72.1

1.6 44.1

1.2 1.2 1.2 1.2 1.2

2.3 .6 .6 .6

30.9

2.8

80.8

2.2 2.0 2.1 2.1 2.4

4.6 1.0 1.1 1.3 1.3

59.8

1.3 46.2

.8 .9 .9 .7

1.5

.4 .4 .4 .3

24.2

	Major group 10, Metal mining-Con.							
Item	Industry 1044, Silver ores	Industry 1061, Ferroalloy ores, except vanadium	Industry 1081, Metal mining services	Industry 1094, Uranium-radium- vanadium ores	Industry 1099, Miscellaneous metal ores, n.e.c.			
Supplemental labor costs not included in payroll	16.5	13.1	19.2	15.0	9.3			
Legally required expenditures, including Social Security contributions do do Payments for voluntary programs do	6.2 10.3	5.1 8.0	11.6	7.0 8.1	3.6 5.6			
Value added by mining do	125.1	61.1	175.6	174.7	138.4			
	80.8	56.3	101.3	115.8	90.4			
Cost of supplies do do Supplies used, minerals received, and purchased machinery installed do do do	58.2	31.9	82.6	75.2	58.6			
Resales do Purchased fuels consumed do	6.0	(D) 3.8	(D) 13.5	- 6.5	(D) 6.8			
Purchased electric energy: Quantity mil kWh	281.0	446.0	24.1	313.2	230.7			
Costmil dol Electric energy generated less soldmil kWh	10.3	18.7 (D)	.9	18.3 (D)	11.! (Z (D			
Contract workmil dolmil dol	6.2	(D)	(D)	15.7				
Cost of purchased communication services do	.4 193.8	.4 109.9	.5 251.3	.6 251.5	 197.5			
Value of resales do	-	(D)	(D)	- 251.5	(D)			
Beginning-of-year inventories do Detail by method of valuation:	47.8	60.0	21.9	248.0	35.9			
Subject to LIFO costing <sup>1</sup> mil dol LIFO reservedo	_	(D) (D)	-	(D) (D)	(D)			
LIFO value dodddodd	26.5	(D) (D)	3.5	(D) 208.8	(D (D 26.4			
Valuation method not reported <sup>2</sup> do do Amount subject to LIFO reported without associated reserve and	21.3	1.5	18.3	(D)	(D			
value <sup>3</sup> do	-	-	-	5.0				
Detail by type of inventory: Mined or quarried productsmil dol	34.7	27.2	(Z) 21.9	221.0	18.9			
Supplies, parts, fuels, etc do	13.1	32.8		26.9	17.1			
nd-of-year inventories do Detail by method of valuation:	45.3	51.8	22.0	189.7	41.6			
Subject to LIFO costing <sup>1</sup> do LIFO reserve do	_	(D) (D)	-	(D) (D)	(D (D			
LIFO value dododo	27.2	(D) (D)	3.6	(D) 149.5				
Valuation method not reported <sup>2</sup> do Amount subject to LIFO reported without associated reserve and	18.0	1.5	18.4	(D)	(D			
value <sup>3</sup> do Detail by type of inventory:	-	-	-	5.0	-			
Mined or quarried productsmil dol Supplies, parts, fuels, etcdododododo	31.0 14.3	21.8 29.9	(Z) 22.0	163.7 26.1	21.4 20.2			
		Major group 12	2, Bituminous coal and	lignite mining				
- Item	Industry 1221, Industry 1222,							
	Total	Bituminous coal and lignite surface mining	Bituminous coal underground mining	Industry 1231, Anthracite mining	Industry 1241, Coal mining services			
Establishments during yearnumber	3 905	1 804	1 703	107	291 234			
With 0 to 19 employees	2 487 1 030 388	1 192 457 155	980 496 227	81 24 2	53			
Il employees:	300	155	221	2				
Average for year1,000 Payroll for yearmil dol	163.4 5 567.0	63.8 2 204.0	93.7 3 206.1	1.9 41.2	4.0 115.7			
Production, development, and exploration workers:								
Average for year1000_ March do_ May do_	100 7	40.0	75.0	1.6				
	128.7 129.3	48.0 47.8	75.8 76.4 75.7	1.6 1.8	3.3			
August do	129.3 128.8 128.0	47.8 48.0 48.0	76.4 75.7 75.3	1.8 1.8 1.4	3.: 3.: 3.:			
August do November do do	129.3 128.8 128.0 128.1	47.8 48.0 48.0 47.5	76.4 75.7 75.3 75.7	1.8 1.8 1.4 1.5	3. 3. 3. 3.			
August	129.3 128.8 128.0 128.1 259.3 65.4	47.8 48.0 48.0 47.5 99.5 24.9	76.4 75.7 75.3 75.7 149.9 38.0	1.8 1.8 1.4 1.5 2.9 .8	3. 3. 3. 3. 3. 1. 6.			
August         do           November         do           Hours         millions           January to March         do           April to June         do           July to September         do	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9	47.8 48.0 48.0 47.5 99.5	76.4 75.7 75.3 75.7 149.9	1.8 1.8 1.4 1.5 2.9 .8 .8 .8 .8	3. 3. 3. 3. 3. 3. 4. 6. 1. 1. 1. 1.			
August         do           November         do           Hours	129.3 128.8 128.0 128.1 259.3 65.4 65.3	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8	76.4 75.7 75.3 75.7 149.9 38.0 37.9 36.6	1.8 1.8 1.4 1.5 2.9 .8 .8	3.3 3.3 3.3 3.3 3.3 6.6 1.6 1.7 1.8 1.8			
August	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8	76.4 75.7 75.3 75.7 149.9 38.0 37.9 36.6 37.4	1.8 1.8 1.4 1.5 2.9 .8 .8 .8 .6 .7	3.3 3.2 3.3 3.3 3.3 6.8 1.6 1.6 1.6 1.8 1.8 93.7			
August         do           November         do           Hours         do           January to March         do           April to June         do           July to September         do           July to September         do           Wages         millions           supplemental labor costs not included in payroll         do           Legally required expenditures, including Social Security         do           contributions         do	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8 24.8 1 580.1 697.4 256.9	76.4 75.7 75.3 75.7 149.9 38.0 37.9 36.6 37.4 2 545.2 1 543.2 591.6	1.8 1.8 1.4 1.5 2.9 .8 .8 .8 .6 .7 32.4 22.7 18.4	3.2 3.2 3.3 3.3 6.6 1.7 1.7 1.6 93.7 32.6 16.0			
August	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9 1 413.1	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8 1 580.1 697.4 256.9 440.5	76.4 75.7 75.3 75.7 149.9 38.0 37.9 36.6 37.4 2 545.2 1 543.2 591.6 951.6	1.8 1.8 1.4 1.5 2.9 .8 .8 .8 .6 .7 32.4 22.7 18.4 4.3	3.3 3.3 3.3 6.8 1.6 1.6 1.6 93.7 32.6 16.6			
August	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9 1 413.1 17 067.9	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8 24.8 24.8 24.8 24.8 24.8 24.8	76.4 75.7 75.3 75.7 149.9 38.0 37.9 36.6 37.4 2 545.2 1 543.2 591.6 951.6 8 785.2	1.8 1.8 1.4 1.5 2.9 .8 .8 .8 .8 .7 32.4 22.7 18.4 4.3 109.4	3.3 3.2 3.3 3.3 3.3 1.6 1.7 1.6 1.7 1.6 93.7 32.6 16.6 279.6			
August	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9 1 413.1 17 067.9 10 552.5	47.8 480 48.0 47.5 99.5 24.9 25.0 24.8 24.8 24.8 24.8 24.8 24.8 24.8 24.8	76,4 75,7 75,3 75,7 149,9 38,0 37,9 36,6 37,4 2 545,2 1 543,2 591,6 951,6 8 785,2 3 821,8	1.8 1.8 1.4 1.5 2.9 8 8 8 6 7 7 32.4 22.7 18.4 4.3 109.4 109.0	3.3 3.2 3.3 3.3 3.3 3.3 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7			
August	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9 1 413.1 17 067.9 10 552.5 7 617.6 315.2	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8 24.8 24.8 580.1 697.4 256.9 440.5 7 893.7 6 460.3 4 916.1 223.0	76,4 75,7 75,3 75,7 149,9 38,0 37,9 36,6 37,4 2 545,2 1 543,2 591,6 951,6 8 785,2 3 821,8 2 501,6 84,3	1.8 1.8 1.4 1.5 2.9 8 8 8 8 6 7 7 32.4 22.7 18.4 4.3 109.4 109.0 86.7 (D)	3.3 3.3 3.3 3.3 3.3 3.3 3.3 1.6 1.7 1.6 1.7 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6			
August	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9 1 413.1 17 067.9 10 552.5 7 617.6 315.2 424.4	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8 24.8 1 580.1 697.4 256.9 440.5 7 893.7 6 460.3 4 916.1 223.0 354.7	76,4 75,7 75,3 75,7 149,9 38,0 37,9 36,0 37,4 2 545,2 1 543,2 591,6 951,6 8 785,2 3 821,8 2 501,6 84,3 45,7	1.8 1.8 1.4 1.5 2.9 8 8 8 6 6 7 7 32.4 22.7 18.4 4.3 109.4 109.0 86.7 (D) 7.1	3.3 3.3 3.3 3.5 3.5 1.6 1.6 1.6 93.7 32.6 16.6 279.6 161.4 113.2 (D) 17.0			
August	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9 1 413.1 17 067.9 10 552.5 7 617.6 315.2 424.4 13 360.2 585.8	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8 24.8 24.8 580.1 697.4 256.9 440.5 7 893.7 6 460.3 4 916.1 223.0	76.4 75.7 75.3 75.7 149.9 38.0 37.9 36.6 37.4 2 545.2 1 543.2 591.6 951.6 8 785.2 3 821.8 2 501.6 84.3 45.7 7 681.2 338.0	1.8 1.8 1.4 1.5 2.9 8 8 8 8 6 7 7 32.4 22.7 18.4 4.3 109.4 109.0 86.7 (D)	3.3 3.2 3.3 3.3 3.3 3.3 1.6 1.7 1.7 1.7 93.7 32.6 16.0 16.6 279.6 161.4 113.2 (D) (D) (D) (D) (T).7 71.7			
August       do         November       do         Hours       millions         January to March       do         April to June       do         July to September       do         October to December       do         Wages       mill dol         upplemental labor costs not included in payroll       do         Legally required expenditures, including Social Security       do         Cotober to voluntary programs       do         Value added by mining       do         Supplies used, minerals received, and purchased machinery       do         Purchased fuels consumed       do         Purchased fuels consumed       do         Quantity       mil kWh	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9 1 413.1 17 067.9 10 552.5 7 617.6 315.2 424.4 13 360.2	47.8 48.0 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8 1 580.1 697.4 256.9 440.5 7 893.7 6 460.3 4 916.1 223.0 354.7 5 480.9 237.6	76.4 75.7 75.3 75.7 149.9 38.0 37.9 36.6 37.4 2 545.2 1 543.2 591.6 951.6 8 785.2 3 821.8 2 501.6 84.3 45.7 7 681.2	1.8 1.8 1.4 1.5 2.9 8 8 8 6 7 32.4 22.7 18.4 4.3 109.4 109.0 86.7 (D) 7.1 126.5	3.3 3.2 3.2 3.3 3.3 3.3 3.3 3.3 4.6 1.7 1.7 1.7 1.7 1.7 1.7 32.6 161.4 113.2 (D) 17.0 71.7 2.6 - (D)			
August	129.3 128.8 128.0 128.1 259.3 65.4 65.3 63.9 64.7 4 251.4 2 296.0 882.9 1 413.1 17 067.9 10 552.5 7 617.6 315.2 424.4 13 360.2 585.8 (D)	47.8 48.0 48.0 47.5 99.5 24.9 25.0 24.8 24.8 24.8 24.8 24.8 24.8 24.8 24.8	76.4 75.7 149.9 38.0 37.9 36.6 37.4 2 545.2 1 543.2 591.6 951.6 8 785.2 3 821.8 2 501.3 8 25.2 3 821.8 2 501.3 45.7 7 681.2 338.0 (D)	1.8 1.8 1.4 1.5 2.9 8 8 8 6 6 7 7 32.4 22.7 18.4 4.3 109.4 109.0 86.7 (D) 7.1 126.5 7.6	3.2 3.2 3.2 3.3 3.3 3.3 3.3 1.6 1.7 1.7 1.7 1.7 1.7 32.6 160.0 166.0 166.0 279.6 161.4 113.2 (D) 17.0 71.7 2.6			

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	Major group 12, Bituminous coal and lignite mining							
Item	Total	Industry 1221, Bituminous coal and lignite surface mining	Industry 1222, Bituminous coal underground mining	Industry 1231, Anthracite mining	Industry 1241, Coal mining services			
Beginning-of-year inventories       mil dol_         Detail by method of valuation:       Subject to LIFO costing1       mil dol_         LIFO reserve       do_       do_         LIFO value       do_       do_         Not subject to LIFO costing       do_       do_         Valuation method not reported <sup>2</sup> do_       Amount subject to LIFO reported vithout associated reserve and value <sup>3</sup>	1 585.3 22.4 2.9 19.5 1 261.3 287.3 14.3	863.0 11.9 2.3 9.6 697.0 150.3 3.8	661.7 10.5 .7 9.8 545.2 95.6 10.4	41.9 - - 12.0 29.9	18.8 - 7.2 11.5 .1			
Detail by type of inventory: Mined or quarried productsmil dol Supplies, parts, fuels, etc do	802.0 783.3	395.9 467.1	374.3 287.4	31.8 10.1	18.8			
End-of-year inventories       do         Detail by method of valuation:       do         Subject to LIFO costing <sup>1</sup> do         LIFO reserve       do         Not subject to LIFO costing       do         Valuation method not reported <sup>2</sup> do         Amount subject to LIFO reported without associated reserve and value <sup>3</sup> do	1 513.1 24.3 22.0 1 200.7 281.8 6.3	812.4 8.5 (D) (D) 657.0 144.1 2.9	639.3 15.8 (D) 523.4 96.9 3.2	41.5 - - 12.1 29.5 -	19.8 - - 8.3 11.4 .2			
Detail by type of inventory: Mined or quarried productsmil dol Supplies, parts, fuels, etc do	753.4 759.7	372.1 440.3	349.3 290.0	32.0 9.5	19.8			

			1			
			Major group 13, Oil	and gas extraction	1	
Item	Total	Industry 1311, Crude petroleum and natural gas	Industry 1321, Natural gas liquids	Industry 1381, Drilling oil and gas wells	Industry 1382, Oil and gas field exploration services	Industry 1389, Oil and gas field services, n.e.c.
Establishments during year         number_           With 0 to 19 employees         do_           With 20 to 99 employees         do_           With 100 employees or more         do_	22 910 19 743 2 568 599	10 203 9 032 836 335	714 504 198 12	2 591 1 971 507 113	1 917 1 774 121 22	7 485 6 462 906 117
All employees: Average for year1.000 Payroll for yearmil dol	377.9 11 960.5	198.8 7 510.0	12.7 433.0	55.0 1 318.0	16.9 452.1	94.6 2 247.5
Production, development, and exploration workers:         1,000	206.2 198.8 201.6 209.2 214.8	69.4 68.5 69.6 69.6 69.8	9.7 9.7 9.7 9.7 9.5	45.6 41.5 42.4 47.2 51.1	12.8 12.4 12.5 12.9 13.3	68.7 66.6 67.3 69.7 71.0
Hours         millions           January to March         do           April to June         do           July to September         do           October to December         do	437.3 104.2 106.2 111.7 115.2	142.3 35.4 35.4 35.9 35.6	20.2 5.1 5.1 5.1 5.1 5.0	93.3 20.9 21.4 24.3 26.7	27.1 6.4 6.6 6.9 7.1	154.3 36.4 37.7 39.5 40.7
Wagesmil dol	5 283.3	2 153.8	320.0	1 012.3	310.7	1 486.4
Supplemental labor costs not included in payroll do do Legally required expenditures, including Social Security	1 699.3	901.9	90.9	255.0	72.1	379.4
contributions do do do do do do	801.1 898.2	342.2 559.7	30.6 60.3	171.3 83.7	40.9 31.2	216.2 163.3
Value added by mining do	80 048.8	67 954.9	4 024.9	2 549.4	771.3	4 748.2
Cost of supplies do Supplies used, minerals received, and purchased machinery	44 031.7	19 112.2	21 107.4	1 397.5	394.1	2 020.4
dodddodddddddddddddddddddddddd_	33 971.8 125.4 1 333.2	10 364.0 27.1 860.1	20 725.1  100.1	1 004.6 (D) 159.0	293.5 (D) 31.7	1 584.5 84.6 182.2
Ouanity	28 418.1 1 315.7 4 595.3 7 285.6	24 842.1 1 157.3 2 905.7 6 703.6	2 610.1 113.1 1 109.5 169.1	131.2 6.2 576.4 (D)	152.2 7.6 (D) (D)	682.4 31.5 (D) 137.6
Cost of purchased communication services do	118.0	73.1	5.6	10.2	3.6	25.5
Value of shipments and receipts do	112 363.0 142.2	76 518.1 31.3	24 749.5 -	3 625.9 (D)	1 096.2 (D)	6 373.2 94.5
Beginning-of-year inventories do Detail by method of valuation:	3 002.6	2 314.5	127.4	142.9	55.3	362.5
Subject to LIFO costing1mil dol         LIFO reservedo         LIFO valuedo         Not subject to LIFO costingdo         Valuation method not reported2do         Amount subject to LIFO reported without associated reserve and	372.2 275.6 96.6 1 922.7 613.2	(D) (D) 70.4 1 518.4 (D)	(D) (D) 1.6 59.6 (D)	(D) (D) (D) 110.9 (D)	- - 16.7 38.6	(D) (D) (D) 217.2 (D)
Amount subject to LIFO reported without associated reserve and value <sup>3</sup> do	94.6	43.7	49.8	.1	-	1.0
Detail by type of inventory: Mined or quarried productsmil dol Supplies, parts, fuels, etc do	713.1 2 289.5	631.4 1 683.1	81.0 46.5	.1 142.8	55.3	.6 361.8
End-of-year inventories dodo	2 933.1	2 182.3	157.4	148.1	68.9	376.4
Subject to LIFO costing1       do_         LIFO reserve       do_         Not subject to LIFO costing       do_         Not subject to LIFO costing       do_         Nation method not reported2       do_         Amount subject to LIFO reported without associated reserve and       do_	253.1 134.7 118.3 1 952.8 648.7	(D) (D) 90.4 1 486.0 (D)	4.0 (D) (D) 99.8 11.7	(D) (D) 111.7 (D)	- - 29.6 39.3	(D) (D) (D) 225.6 (D)
value <sup>3</sup> do	78.5	35.5	41.9	.1	_	1.0

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			Major grou	ip 13, Oil and ga	as extraction		
Item	Tota	Industry Crude petro I and natura	bleum Nat		ustry 1381, C ling oil and gas wells	Industry 1382, Dil and gas field exploration services	Industry 1389, Oil and gas field services, n.e.c.
End-of-year inventories—Con. Detail by type of inventory: Mined or quarried productsmil dol Supplies, parts, fuels, etcdo	608.4 2 324.7		537.5 644.8	70.2 87.2	.1 148.0	68.9	.6 375.8
			Major group 14,	Nonmetallic mir	erals, except f	uels	
Item	Total	Industry 1411, Dimension stone	Industry 1422, Crushed and broken limestone	Industry 1423, Crushed and broken granite	broken stone	d Construction e, sand and	Industry 1446,
Establishments during year number	5 775 4 321 1 297 157	149 130 18 1	1 335 879 421 35	238 109 122 7		3 2 188	126 61
All employees: Average for year1,000 Payroll for yearmil dol	112.7 2 858.0	1.3 24.5	28.9 702.3	6.5 168.6	8. 210.		
Production, development, and exploration workers: Average for year1,000 March do May do	82.5 77.8 84.0	1.1 1.0 1.1	21.6 19.8 22.2	5.0 4.8 5.1	6.	.8 19.2	2.8
August do November do	85.4 82.5	1.1 1.1	22.5 21.7	5.2 5.0	6.	.2 21.1	2.7
Hours        millionsdo           January to March	177.9 39.7 45.8 47.3 45.0	2.0 .4 .5 .5	47.0 9.9 12.3 12.9 12.0	11.7 2.6 3.0 3.1 3.0		.0 9.7 .5 11.8 .7 12.4	1.3 1.5 1.5
Wagesmil dol	1 956.4	17.7	482.9	120.4	150.		
Supplemental labor costs not included in payroll do Legally required expenditures, including Social Security contributions do Payments for voluntary programs do	639.3 281.8	5.4 2.6	148.7	33.1 15.5		.6 72.8	10.0
Payments for voluntary programs do	357.5 9 232.9	2.9 64.7	76.6 2 091.4	17.6 696.2			
Cost of supplies do Supplies used, minerals received, and purchased machinery	4 698.0	25.2	1 161.8	339.2	322.	.3 899.3	157.4
installed dodododododododo	2 887.1 81.7 715.6	14.4 .8 3.8	774.0 31.8 130.5	245.3 2.2 21.5	3.	.6 25.9	2.2
Quantity       mil kWh_         Cost       mil dol.         Electric energy generated less sold       mil kWh_         Contract work       mil dol.	12 295.4 604.8 (D) 408.9	51.9 2.7 - 3.5	2 381.1 135.3 16.4 90.2	467.6 30.2 (D) 40.1		.6 124.5 .6 8.3	31.0 (D)
Cost of purchased communication services do	18.9	.1	5.2	1.1		.9 2.8	
Value of shipments and receipts do d	12 794.5 97.3	85.8 1.1	2 914.4 34.0	922.7 2.3	931. 4.		
Beginning-of-year inventories do do do	1 813.8	12.9	402.6	83.8	91.	.9 327.2	49.5
Subject to LIFO costing1	305.9 62.8 243.1 932.5 526.9	(D) (D) (D) 9.5	67.8 12.0 55.9 207.0 116.9	(D) (D) (D) 46.7 (D)	(C (C (C (C (C) (C) (C)	D) 2.9 D) 6.6 .2 108.7	.6 2.0
Amount subject to LIFO reported without associated reserve and value3 do	48.6	-	10.8	1.4	1.	.0 5.6	.8
Detail by type of inventory: Mined or quarried productsmil dol Supplies, parts, fuels, etc do	1 410.5 403.3	11.2 1.7	333.4 69.3	74.2 9.6			
End-of-year inventoriesdo	1 762.1	14.1	417.5	75.0			
Subject tc LIFO costing¹       do         LIFO reserve	295.7 56.0 239.6 868.6 546.8	(D) (D) (D) 9.7	69.1 13.1 56.0 215.9 122.1	(D) (D) (D) 40.0 (D)	(C (C 35. (C	D) 2.8 D) 6.8 8 120.6	.5 1.6 32.9
Value <sup>3</sup> value <sup>3</sup> do do do do	51.1	-	10.4	1.5		.9 7.5	.5
Mined productsdo	1 351.4 410.7	12.5 1.6	346.6 70.9	65.2 9.8			
		Ma	jor group 14, Nor	nmetallic minera	ls, except fuels	G—Con.	
Item		Industry 1459,	Industry 1474		Industry 1479		Industry 1499, Miscellaneous

Item	Industry 1455, Kaolin and ball clay	and refractory minerals,		Industry 1475,		Industry 1481, Nonmetallic minerals services, except fuels	Industry 1499, Miscellaneous nometallic minerals, except fuels
Establishments during year number	45 9 20 16	152 88 54 10	30 11 5 14	39 13 11 15	79 45 19 15	177 154 22 1	352 266 72 14
All employees: Average for year1,000 Payroll for yearmil dol	5.3 169.5	4.6 102.7	6.9 234.5	5.3 139.5	4.2 126.7	1.8 44.9	7.0 161.9

1-24 GENERAL SUMMARY

#### MINERAL INDUSTRIES-SUBJECT SERIES

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	Major group 14, Nonmetallic minerals, except fuels-Con.							
Item	Industry 1455, Kaolin and ball clay	Industry 1459, Clay, ceramic, and refractory minerals, n.e.c.	Industry 1474, Potash, soda, and borate minerals	Industry 1475, Phosphate rock	Industry 1479, Chemical and fertilizer mineral mining, n.e.c.	Industry 1481, Nonmetallic minerals services, except fuels	Industry 1499, Miscellaneous nometallic minerals, except fuels	
Production, development, and exploration workers: Average for year1,000	3.5	3.5	5.3	3.9	2.5	1.3	4.8	
March	3.5 3.5 3.6 3.5	3.5 3.5 3.5 3.5 3.5	5.3 5.3 5.3 5.3 5.2	3.7 3.9 3.9 3.9	2.5 2.5 2.5 2.5	1.2 1.3 1.4 1.3	4.8 4.9 4.8 4.7	
Hours         millions           January to March         do           April to June         do           July to September         do           October to December         do           October to December         do	7.9 1.9 2.0 1.9 2.0	7.4 1.8 1.8 1.9 1.9	11.4 2.8 2.9 2.9 2.9	7.7 1.9 1.9 2.0 1.9	5.3 1.4 1.3 1.3 1.4	2.8 .6 .7 .8 .8	9.8 2.4 2.5 2.5 2.5	
Wagesmil dol_	95.8	69.5	177.0	92.5	66.4	.0	101.1	
Supplemental labor costs not included in payroll do do do do	40.3	21.1	61.6	33.8	28.5	9.0	37.2	
contributions do Payments for voluntary programs do	11.4 28.8	9.5 11.6	21.6 40.0	13.6 20.1	10.6 17.9	5.0 4.0	14.4 22.8	
Value added by miningdo	498.6	328.6	915.0	595.1	488.7	1 19.0	438.0	
Cost of supplies do Supplies used, minerals received, and purchased machinery	328.9	203.9	439.1	365.9	159.6	71.8	223.7	
installed do Resales do Purchased fuels consumed do Purchased electric energy:	192.3 (D) 51.1	121.3 (D) 45.2	212.0 (D) 149.0	202.1 	90.2 (D) 41.7	46.7 2.2 12.9	134.7 6.1 38.8	
Ouantity mil kWh Cost mil doL Electric energy generated less sold mil kWh Contract work mil doL	963.2 40.8 (D)	396.4 20.0	1 114.2 50.2 789.2	2 585.1 90.4	220.8 12.4 (D)	29.5 1.4 (D)	523.9 29.0 (D)	
Cost of purchased communication services do	(D) 1.3	(D) 1.0	(D) 1.8	50.3 1.6	(D) .7	8.7 .2	15.1 1.1	
Value of shipments and receipts do do do do	750.5 (D)	498.1 (D)	1 271.8 (D)	886.7	613.4 (D)	165.4 3.9	615.7 8.6	
Beginning-of-year inventories do Detail by method of valuation:	72.6	83.5	194.5	275.1	110.9	10.1	99.1	
Subject to LIFO costing        iii doliii           LIFO reservedododo	(D) (D) (D) 2.9	7.3 2.7 4.6 51.2 20.9	(D) (D) 113.2 (D)	68.3 7.9 60.3 195.7 .3	43.5 5.3 38.1 35.4 31.8	- - 4.4 5.6	18.0 6.9 11.1 46.0 32.5	
Amount subject to LIFO reported without associated reserve and value3 do	-	4.1	11.0	10.9	.3	.1	2.6	
Detail by type of inventory: Mined or quarried productsmil dol Supplies, parts, fuels, etc do	45.8 26.8	60.0 23.5	115.9 78.7	225.2 49.9	92.2 18.7	2.4 7.6	71.1 28.0	
End-of-year inventories do	73.9	85.4	171.0	225.2	99.7	10.3	101.6	
Detail by method of valuation:         do           Subject to LIFO costing1         do           LIFO reserve.         do           LIFO value.         do           Not subject to LIFO costing         do           Valuation method not reported2         do           Amount subject to LIFO reported without associated reserve and value3         do	(D) (D) (D) 2.8	10.6 2.5 8.1 50.3 20.7 3.8	(D) (D) 93.5 (D) 10.9	75.8 10.0 65.7 135.3 2.0 12.2	29.6 4.8 24.7 37.3 32.5 .3	- 4.7 5.6	15.9 5.9 10.0 48.1 34.6 3.1	
Detail by type of inventory: Mined or quarried productsmil dol Supplies, parts, fuels, etc do	47.3 26.6	59.8 25.7	92.4 78.6	174.4 50.8	82.7 17.0	2.4 8.0	71.9	

10nly includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures. <sup>2</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information. <sup>3</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

#### Table 4b. Gross Assets, Retirements, Capital Expenditures, Depreciation, and Rental Payments by Industry Group and Industry: 1987

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Major group 10, Metal mining						
Item	All mineral industries	Total	Industry 1011, Iron ores	industry 1021, Copper ores	Industry 1031, Lead and zinc ores	Industry 1041, Gold ores		
Gross book value of depreciable assets (usually original cost) at beginning of year <sup>1</sup>	82 879.4 9 082.0 63 237.5 4 923.3 5 636.5	13 153.0 2 496.3 8 324.3 1 662.0 670.4	4 180.8 1 282.2 2 815.7 (D) (D)	2 798.6 469.5 1 942.9 298.9 87.3	406.2 73.1 191.9 57.0 84.3	2 272.4 284.9 1 300.2 508.4 178.9		
Capital expenditures during year (except land and mineral rights) New capital expenditures during year Buildings and other structures, except land Machinery and equipment Used capital expenditures during year Buildings and other structures, except land Machinery and equipment Machinery and equipment	6 4 1 0 0	899.1 632.8 78.4 554.4 58.3 8.4 49.9 208.1	24.0 (D) 21.4 .8 - 8 (D)	205.0 170.8 6 170.2 19.5 2 19.3 14.7	11.9 (D) (D) (D) (D) (D) (D) 1.6	542.6 361.5 63.9 297.5 18.1 1.4 16.7 163.0		

#### MINERAL INDUSTRIES-SUBJECT SERIES

# Table 4b. Gross Assets, Retirements, Capital Expenditures, Depreciation, and Rental Payments by Industry Group and Industry: 1987–Con.

		Major group 10, Metal mining					
ltem	All mineral industries	Total	Industry 1011, Iron ores	Industry 1021, Copper ores	Industry 1031, Lead and zinc ores	Industry 1041, Gold ores	
Capitalized mineral land and rights <sup>3</sup>	279.2	51.6	(D)	1.6	1.7	46.4	
Deductions from depreciable assets during year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	3 742.2 205.5 3 126.1 290.3 120.3	434.0 32.6 233.5 148.1 19.8	(D) (D) 42.7 .1 .1	35.5 2.5 31.2 1.2 .5	3.6 (Z) 3.1 .3 .2	61.5 2.9 36.1 19.2 3.3	
Depreciation and depletion charges for year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	5 491.1 496.0 4 418.2 308.8 267.8	729.5 105.2 441.4 128.0 54.8	138.3 32.4 101.7 (D) (D)	111.1 16.7 86.2 6.3 1.9	26.0 4.9 10.0 4.0 7.0	238.2 35.5 116.6 70.1 16.0	
Gross book value of depreciable assets at end of year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	84 285.5 9 313.6 64 142.5 5 034.1 5 795.4	13 669.7 2 550.3 8 695.2 1 721.9 702.2	4 162.2 1 282.9 2 795.2 (D) (D)	2 969.7 467.8 2 101.2 312.3 88.4	416.3 74.0 198.1 58.3 85.9	2 799.9 347.3 1 578.3 652.2 222.1	
Rental payments during year Buildings and other structures, except land Machinery and equipment	1 553.7 417.7 1 136.1	36.7 6.1 30.6	3.8 (D) (D)	7.6 .5 7.1	.5 (Z) .5	11.1 1.7 9.5	
Lease rents	229.8	27.3	(D)	.3	(D)	9.5	
Expensed mineral exploration, development, land, and rights <sup>4</sup> Mineral exploration and development Mineral land and rights	5 724.6 5 215.6 509.0	102.4 67.9 34.5	(D) 16.0 (D)	1.8 1.7 .2	(D) 1.9 (D)	55.5 38.6 16.9	
			Major group 10, N	letal mining-Con.	1990		
ltem	Industry 104	Industry			Industry 1094,	Industry 1099, Aiscellaneous metal	

	Industry 1044, Silver ores	Ferroalloy ores, except vanadium	Metal mining services	Uranium-radium- vanadium ores	Miscellaneous metal ores, n.e.c.
Gross book value of depreciable assets (usually original cost) at beginning of year <sup>1</sup>	362.3 42.4 229.3 73.0 17.5	1 341.4 124.2 925.5 179.5 112.3	131.6 8.2 123.3 -	1 372.2 178.8 603.8 449.8 139.9	287.5 32.9 191.7 (D) (D)
Capital expenditures during year (except land and mineral rights) New capital expenditures during year Buildings and other structures, except land Machinery and equipment Used capital expenditures during year Buildings and other structures, except land Machinery and equipment Mineral exploration and development <sup>4</sup>	12.2 (D) (D) (D) (D) (D) (D) (D) .9	7.5 2.4 .2 (Z) 5.1	25.7 21.5 99 20.6 4.2 .5 3.7 -	39.0 11.5 3.2 8.3 8.8 4.5 4.2 18.7	31.3 23.0 5.3 17.6 (D) (D) 2.9 (D)
Capitalized mineral land and rights <sup>3</sup> Deductions from depreciable assets during year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	(Z) 5.8 .1 4.9 .6 .1	(Z) 42.2 1.3 28.6 12.2 .1	- 9.9 .3 9.7 -	(D) 24.7 75.1 114.2 (D)	(Z) 2.8 (D) 2.0 .3 (D)
Depreciation and depletion charges for year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	25.0 3.3 17.6 3.5 .6	25.7 1.8 21.9 1.0 1.0	13.3 .5 12.8 - -	134.5 8.7 60.3 39.9 25.6	17.4 1.3 14.3 (D) (D)
Gross book value of depreciable assets at end of year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	368.7 44.0 233.9 73.3 17.5	1 306.7 123.1 899.0 172.4 112.2	147.4 9.4 137.9 - -	1 182.8 161.8 541.2 354.3 125.4	316.0 39.9 210.3 (D) (D)
Rental payments during year Buildings and other structures, except land Machinery and equipment	3.4 2.9 .4	.2 (Z) .2	6.4 .6 5.8	1.0 .1 1.0	2.6 (D) (D)
Lease rents Expensed mineral exploration, development, land, and rights <sup>4</sup> Mineral exploration and development Mineral land and rights	(Z) - - -	- .2 (D) (D)	(D) (D) (Z)	(D) (D) (D) .5	(D) (D) (D) (D)
		Major group	12, Bituminous coal and	l lignite mining	· · ·
Item	Total	Industry 1221, Bituminous coal and lignite surface mining	Industry 1222, Bituminous coal underground mining	Industry 1231, Anthracite mining	Industry 1241, Coal mining services
Gross book value of depreciable assets (usually original cost) at beginning of year <sup>1</sup>	25 856.7 3 692.4 16 690.6 2 508.7 2 964.9	12 660.3 1 538.4 8 834.2 738.7 1 549.0	12 751.9 2 128.6 7 470.6 1 750.3 1 402.4	190.1 12.6 144.3 19.8 13.5	254.4 12.8 241.5 -
Capital expenditures during year (except land and mineral rights) New capital expenditures during year Buildings and other structures, except land Machinery and equipment Used capital expenditures during year Buildings and other structures, except land Machinery and equipment Mineral exploration and development <sup>4</sup>	1 665.2 1 092.9 136.5 956.4 409.1 57.2 351.9 163.2	736.4 511.4 80.8 430.6 144.9 9.9 134.9 80.1	877.7 562.4 53.6 508.8 234.9 46.8 188.1 80.4	12.1 5.3 (D) 4.1 (D) 2.7	39.0 13.8 (D) 25.2 (D) (D)

# Table 4b. Gross Assets, Retirements, Capital Expenditures, Depreciation, and Rental Payments by Industry Group and Industry: 1987–Con.

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		٨	lajor group 12	2, Bituminous	coal and lignite	mining	
Item	Tc	Bitun	ustry 1221, ninous coal and lignite ace mining	Industr Bitumino under	us coal ground	Industry 1231, hracite mining	Industry 1241, Coal mining services
Capitalized mineral land and rights <sup>3</sup>	15	1.4	121.8	_	29.1	.5	-
Deductions from depreciable assets during year <sup>1</sup>	1 25		667.3		569.9	6.2	11.4
Buildings and other structures, except land <sup>2</sup>	7 1 00	3.5 9.3	48.8 529.4		24.0 464.2	.4 4.6	.3 11.2
Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	12	3.3 8.7	50.3 38.7		72.3	.6 .6	
	1 79		849.9		884.8	30.4	26.3
Depreciation and depletion charges for year <sup>1</sup> Buildings and other structures, except land <sup>2</sup>	18	3.2	71.9		109.2	.9	1.2
Machinery and equipment <sup>2</sup>		5.4	647.1 50.2		646.9 87.6	14.5 7.5	25.1
Mineral land and rights <sup>3</sup>	12		80.6		41.1	7.5	-
Gross book value of depreciable assets at end of year <sup>1</sup> Buildings and other structures, except land <sup>2</sup>	26 41 3 81		12 851.3 1 580.3		205.0	196.5 12.9	281.9 14.3
Machinery and equipment <sup>2</sup>	16 98 2 54	9.6	8 870.4 768.5	7	703.3 758.3	148.3 21.8	267.6
Mineral land and rights <sup>3</sup>	3 06		1 632.1		422.1	13.4	-
Rental payments during year	34		206.4		131.9	4.1	7.6
Buildings and other structures, except land Machinery and equipment		9.6 0.3	31.4 175.0		7.6 124.2	4.0	.4 7.2
Lease rents	18	0.2	103.4		76.4	.4	-
Expensed mineral exploration, development, land, and rights4	62		400.0		218.3	1.8	-
Mineral exploration and development Mineral land and rights	24 37		177.7 222.3		65.4 152.9	1.3	
			Major or	oup 13. Oil an	d gas extraction		
			1				
Item		Industry 13	311. Indus	stry 1321,	Industry 1381,	Industry 1382 Oil and gas field	
	Total	Crude petrole and natural	eum Na	atural gas liquids	Drilling oil and gas wells	exploration services	Oil and gas field
	, ora,	uno natora	guo		guo mono		
Gross book value of depreciable assets (usually original cost) at beginning of year <sup>1</sup>	27 661.1		NA)	8 015.9	12 015.4	899.5	6 730.3
year <sup>1</sup> Building and other structures, except land <sup>2</sup> Building and other structures, except land <sup>2</sup> Building and equipment <sup>2</sup>	1 344.0 26 317.2		NA) NA)	343.9 7 672.0	204.6 11 810.8	79.2 820.3	
Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>		(	NA)	(NA)	(NA)	(NA)	(NA)
Capital expenditures during year (except land and mineral rights)	- 11 717.4	10 54	NA)	(NA) 382.7	(NA) 321.0	(NA) 69.3	
New capital expenditures during year	4 710.9	3 76	6.0	358.4	198.5	48.2	339.8
Buildings and other structures, except land Machinery and equipment	662.7 4 048.1	3 17	39.9 76.1	12.2 346.2	10.9 187.5	2.6 45.6	
Used capital expenditures during year Buildings and other structures, except land	458.7 32.5		35.2 17.7	24.3	122.5 2.7	21.0	55.6
Machinery and equipment	426.2	21	7.5	24.1	119.9	20.8	43.9
Mineral exploration and development <sup>4</sup> Capitalized mineral land and rights <sup>3</sup>	6 547.9	6 54	NA)	(NA) (NA)	(NA) (NA)	(NA) (NA)	
Deductions from depreciable assets during year <sup>1</sup>	1 498.9		NA)	225.2	547.7	103.4	
Buildings and other structures, except land <sup>2</sup>	70.3	(	NA)	12.1	13.6	2.2	42.4
Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup>	1 428.6	i i	NA)   NA)	213.1 (NA)	534.2 (NA)	101.2 (NA)	(NA)
Mineral land and rights <sup>3</sup>	-		NA)	(NA)	(NA)	(NA)	
Depreciation and depletion charges for year <sup>1</sup> Buildings and other structures, except land <sup>2</sup>	1 895.5 94.4		NA)   NA)	418.8 23.5	827.0 17.5	82.7 4.0	49.3
Machinery and equipment <sup>2</sup>	1 801.1		NA) NA)	395.2 (NA)	809.5 (NA)	78.6 (NA)	
Mineral land and rights <sup>3</sup>	-		NA)	(NA)	(NA)	(NA)	
Gross book value of depreciable assets at end of year <sup>1</sup> Buildings and other structures, except land <sup>2</sup>	27 330.7 1 361.3		NA)	8 173.4 344.2	11 788.6 204.6	865.4 79.8	
Machinery and equipment <sup>2</sup>	25 969.3	) (I	NA)	7 829.2	11 584.0	785.6	5 770.6
Mineral exploration and developments Mineral land and rights <sup>3</sup>			NA) NA)	(NA) (NA)	(NA) (NA)	(NA) (NA)	(NA) (NA)
Rental payments during year	1 016.5	67	9.3	31.1	75.3	88.3	142.5
Rental payments during year Buildings and other structures, except land Machinery and equipment	361.8 654.8		9.9 9.5	2.7 28.4	17.1 58.2	12.9 75.4	
Lease rents	-		NA)	(NA)	(NA)	(NA)	
Expensed mineral exploration, development, land, and rights4	4 804.5	4 80		(NA)	(NA)	(NA)	
Mineral exploration and development Mineral land and rights	4 804.5	4 80		(NA) (NA)	(NA) (NA)	(NA) (NA)	(NA)
					minerals, excep		(
			ajor group 14	, Normetanic	minerais, excep		
Item	In	dustry 1411,	Industry 1422 Crushed and	, Industry 14 Crushed			
	Total	Dimension	broker	n bro	ken broken st	one, sand a	ind Industry 1446,
	Total	stone	limestone	e gra	nice n	.e.c. gra	
Gross book value of depreciable assets (usually original cost) at beginning of year <sup>1</sup>	16 208.6	56.2	3 264.8	84	1.4 7	67.0 2 88	6.6 539.4
Building and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup>	1 549.3 11 905.4	6.3 33.6	228.3 2 717.5	3 3		96.9 17 21.6 2.32	3.2 86.0
Mineral exploration and development <sup>3</sup>	752.6	4.5	28.3	3	3.4	3.2 3	1.9 (D)
Mineral land and rights <sup>3</sup>	2 001.3	11.8	290.7				0.2 (D)
Capital expenditures during year (except land and mineral rights) New capital expenditures during year	1 136.4 912.6	4.0 2.7	338.7 260.5	5 9	4.2	69.2 21 58.8 14	9.6 20.3
Buildings and other structures, except land Machinery and equipment	61.6 851.0	.4	14.3 246.2		4.5 9.7		4.2 (D) 5.4 (D) 7.5 (D)
Used capital expenditures during year Buildings and other structures, except land	194.1 7.5	1.2	74.1	] 1		10.1 5	7.5 (D) 2.9 (D)
Machinery and equipment	186.6	(Z) 1.1	72.6		7.1		2.9 (D) 4.6 (D)
					OENE		LADV 1-27

MINERAL INDUSTRIES-SUBJECT SERIES

### Table 4b. Gross Assets, Retirements, Capital Expenditures, Depreciation, and Rental Payments by Industry Group and Industry: 1987-Con.

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[Million dollars. For meaning of abbreviations and symbols, see introductory text.		-		Nonmetallic mine	erals, except fue	s		
Item	Total	Industry 1411, Dimension stone	Industry 1422, Crushed and broken limestone	Industry 1423, Crushed and broken granite	Industry 1429, Crushed and broken stone, n.e.c.	Industry 1442, Construction sand and gravel	Industry 1446, Industrial sand	
Capital expenditures during year (except land and mineral rights)—Con. Mineral exploration and development <sup>4</sup>	29.7	.2	4.1	1.3	.3	7.0	(D)	
Capitalized mineral land and rights <sup>3</sup>	76.2	.9	18.4	3.4	2.2	26.5	(D)	
Deductions from depreciable assets during year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	554.5 29.1 454.7 18.9 51.8	3.5 .4 2.2 .2 .8	171.4 5.5 151.4 1.6 12.9	35.2 .4 32.6 .1 2.0	53.3 3.8 38.7 .3 10.5	140.3 8.4 112.4 4.5 15.1	(D) 1.0 15.7 (D) 1.5	
Depreciation and depletion charges for year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	1 074.7 113.2 842.1 35.4 83.8	4.2 .4 3.0 .2 .6	273.7 37.5 223.0 2.0 11.1	81.2 2.8 74.9 .5 2.9	73.1 8.0 63.5 .1 1.4	202.2 12.9 165.3 2.1 21.7	42.9 6.7 31.1 (D) (D)	
Gross book value of depreciable assets at end of year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	16 866.8 1 589.3 12 488.4 763.5 2 025.6	57.6 6.4 34.8 4.5 11.9	3 450.5 238.6 2 884.9 30.7 296.2	922.3 40.7 819.7 4.6 57.3	785.1 97.8 647.1 3.2 37.0	2 986.9 181.8 2 398.8 34.5 371.7	550.1 87.1 384.5 (D) (D)	
Rental payments during year Buildings and other structures, except land Machinery and equipment	150.6 10.2 140.4	.8 .1 .8	29.1 2.0 27.1	9.1 .5 8.6	14.5 .8 13.7	54.4 4.7 49.6	3.3 .1 3.2	
Lease rents	22.2	(D)	10.8	2.4	.8	3.4	.6	
Expensed mineral exploration, development, land, and rights <sup>4</sup> Mineral exploration and development Mineral land and rights	197.7 98.9 98.8	(Z) (Z)	50.4 38.9 11.5	7.8 1.8 6.0	18.8 9.5 9.3	52.3 18.3 34.1	7.4 1.2 6.1	
	Major group 14, Nonmetallic minerals, except fuels-Con.							
ltem	Industry 1455, Kaolin and ball clay	Industry 1459, Clay, ceramic, and refractory minerals, n.e.c.	Industry 1474, Potash, soda, and borate minerals	Industry 1475, Phosphate rock	Industry 1479, Chemical and fertilizer mineral mining, n.e.c.	Industry 1481, Nonmetallic minerals services, except fuels	Industry 1499, Miscellaneous nometallic minerals, except fuels	
Gross book value of depreciable assets (usually original cost) at beginning of year <sup>1</sup>	717.0 58.7 554.5 3.4 100.4	490.3 73.6 370.5 1.9 44.4	2 604.6 371.1 1 636.2 496.8 100.4	2 466.2 217.2 1 414.2 (D) (D)	746.9 101.8 470.0 (D) (D)	128.6 9.5 119.2 - -	699.5 90.1 521.0 16.5 71.9	
Capital expenditures during year (except land and mineral rights) New capital expenditures during year Buildings and other structures, except land Machinery and equipment Used capital expenditures during year Buildings and other structures, except land Machinery and equipment Mineral exploration and development <sup>4</sup>	77.0 76.0 5.2 70.8 (D) .(D) .4 (D)	34.4 25.5 3.3 22.1 (D) (D) 7.2 (D)	82.3 71.4 (D) (D) (D) (D) (D) (D)	74.3 (D) (D) (D) (D) (D) (D) (D)	34.9 (D) (D) (D) (D) (D) (Z)	25.4 18.5 (D) (D) 6.9 (D) (D)	46.0 35.3 32.0 6.6 .3 6.3 4.1	
Capitalized mineral land and rights3	6.2	4.8	(D)	(D)	(Z)	-	1.5	
Deductions from depreciable assets during year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	13.5 (D) 12.3 (D) (Z)	26.8 (D) 17.2 (D) 6.2	(D) (D) (D) (D)	(D) (D) 21.2 (D)	21.1 (D) (D) (D) (D)	9.5 .6 8.9 -	20.9 1.3 16.1 1.3 2.2	
Depreciation and depletion charges for year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	41.3 4.4 33.4 .3 3.2	37.1 4.2 31.6 .1 1.2	124.0 11.2 74.4 (D) (D)	91.0 13.2 61.7 (D) (D)	45.8 5.6 33.1 (D) (D)	13.2 .7 12.5 (Z)	45.1 5.6 34.6 .6 4.3	
Gross book value of depreciable assets at end of year <sup>1</sup> Buildings and other structures, except land <sup>2</sup> Machinery and equipment <sup>2</sup> Mineral exploration and development <sup>3</sup> Mineral land and rights <sup>3</sup>	786.7 63.4 613.3 3.5 106.6	502.7 75.1 382.6 2.1 42.9	2 669.3 374.7 1 687.9 505.4 101.2	2 524.2 219.4 1 464.6 34.7 805.6	760.7 102.8 491.4 (D) (D)	144.6 9.2 135.4 - -	726.2 92.3 543.3 19.4 71.2	
Rental payments during year Buildings and other structures, except land Machinery and equipment	2.1 .2 2.0	1.0 .2 .8	9.8 (Z) 9.8	7.8 (D) (D)	6.4 (D) (D)	4.4 .4 4.0	8.0 1.1 6.9	
Lease rents	1.7	.7	.2	.2	(D)	-	1.1	
Expensed mineral exploration, development, land, and rights <sup>4</sup> Mineral exploration and development Mineral land and rights	11.0 7.0 4.0	11.9 10.8 1.1	(D) (D) (D)	20.3 (D) (D)	(D) (D) (D)		5.0 3.7 1.3	

1Excludes data for crude petroleum and natural gas industry. Data for mineral exploration and development, and mineral land and rights portions are excluded for mining service industries <sup>1</sup>Excludes data for crude petroleum and natural gas industry.
 <sup>2</sup>Excludes data for crude petroleum and natural gas industry.
 <sup>2</sup>Excludes data for crude petroleum and natural gas industry.
 <sup>3</sup>Excludes data for mining service industries and oil and gas extraction industries.
 <sup>4</sup>Excludes data for mining service industries and natural gas liquids industry.

### Table 5. Industry Shipments and Receipts and Net Shipments of Primary Products by Industry: 1987

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			Value of	shipments and	Value of net shipments of primary products or services				
1987 SIC code	Industry	Total	Primary products	Secondary products	Receipts for secondary services	Products purchased and resold without further processing	Total produced or performed in all industries	Produced or performed in this industry	Produced or performed in other industries
10	METAL MINING								
1011 1021 1031 1041 1044	Iron ores Copper ores Lead and zinc ores Gold ores Silver ores	1 362.4 2 149.7 268.3 2 067.1 193.8	(D) 2 013.1 (D) 2 053.4 193.8	(D) 136.6 (D) (D)	- - (D) -	(Z) - - -	<sup>11</sup> 360.5 1 909.1 (D) 2 053.4 (D)	(D) 1 894.5 (D) 2 053.4 (D)	(D) 14.6 (D) (D)
1061 1081 1094 1099	Ferroalloy ores, except vanadium Metal mining services Uranium-radium-vanadium ores Miscellaneous metal ores, n.e.c.	109.9 251.3 251.5 197.5	109.8 248.7 251.4 195.2	(D) (D) (D)	- (D) (D)	(D) (D) (D)	(D) 249.2 <sup>2</sup> 226.4 (D)	(D) 248.7 <sup>2</sup> 226.4 (D)	(D) .5 (D)
12	COAL MINING								
1221 1222 1231 1241	Bituminous coal and lignite surface mining Bituminous coal underground mining Anthractice mining Coal mining services	13 617.5 11 729.3 206.3 402.0	13 261.2 11 571.3 200.2 382.7	35.0 (D) (D) (D)	10.1 (D) (D)	311.2 93.5 (D) (D)	<sup>3</sup> 9 558.7 <sup>3</sup> 10 362.6 <sup>4</sup> 138.3 405.5	<sup>3</sup> 9 498.4 <sup>3</sup> 10 342.5 <sup>4</sup> 138.3 382.7	60.3 20.1 22.8
13	OIL AND GAS EXTRACTION								
1311 1321 1381 1382 1389	Crude petroleum and natural gas Natural gas liquids Drilling oil and gas wells Oil and gas field exploration services Oil and gas field services, n.e.c.	76 518.1 24 749.5 3 625.9 1 096.2 6 373.2	76 210.6 (D) 3 450.7 1 093.1 6 092.3	16.2 143.6 (D) (D) 63.7	260.0 (D) 132.6 2.3 122.7	31.3 - (D) 94.5	76 285.3 <sup>5</sup> 5 488.1 3 677.0 1 105.3 6 367.1	76 210.6 (D) 3 450.7 1 093.1 6 092.3	74.7 (D) 226.3 12.2 274.8
14	NONMETALLIC MINERALS, EXCEPT FUELS								
1411 1422 1423 1429 1442	Dimension stone Crushed and broken limestone Crushed and broken granite Crushed and broken stone, n.e.c Construction sand and gravel	85.8 2 914.4 922.7 931.0 2 696.8	80.8 2 702.7 899.0 875.0 2 544.0	3.9 152.8 20.6 49.8 88.5	- 24.9 .7 2.0 33.5	1.1 34.0 2.3 4.2 30.8	(D) <sup>6</sup> 2 824.7 <sup>6</sup> 914.5 <sup>6</sup> 980.9 <sup>2</sup> 2 946.7	(D) <sup>6</sup> 2 664.6 <sup>6</sup> 897.7 <sup>6</sup> 872.6 <sup>2</sup> 2 500.6	(D) 160.1 16.8 108.3 446.1
1446 1455 1459 1474 1475	Industrial sand Kaolin and ball clay Clay, ceramic, and refractory minerals, n.e.c Potash, soda, and borate minerals Phosphate rock	442.1 750.5 498.1 1 271.8 886.7	398.8 746.7 480.3 1 265.1 (D)	(D) (D) 10.8 (D) (D)	(D) (D) -	2.8 (D) (D) (D)	<sup>2</sup> 408.1 732.2 487.5 (D) 844.6	<sup>2</sup> 395.1 729.6 474.3 (D) 844.6	13.0 2.6 13.2 - -
1479 1481 1499	Chemical and fertilizer mineral mining, n.e.c	613.4 165.4 615.7	592.3 146.2 586.8	(D) 14.7 18.6	- .6 1.6	(D) 3.9 8.6	(D) 214.5 ²609.6	(D) 146.2 <sup>2</sup> 578.6	(D) 68.3 31.0

<sup>1</sup>Represents sum of direct-shipping ores, treated iron ores for consumption, and iron agglomerates.
 <sup>2</sup>Represents gross shipments less minerals received for preparation.
 <sup>3</sup>Represents gross shipments excluding coal not specified by kind and less coal received for preparation.
 <sup>4</sup>Represents raw coal for use without preparation plus prepared coal.
 <sup>5</sup>Represents net natural gas liquids only.
 <sup>6</sup>Represents net shipments obtained by subtracting stone received for preparation from gross shipments.

### Table 6. Number of Mineral Establishments by Employment-Size Class, Industry Group, and Industry: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

				E	stablishmen	ts during ye	ar with an a	average em	ployment-siz	ze class of-	-		Estab-
1987 SIC code	Industry group and industry	Estab- lishments during year	0 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more	during year covered by admin- istrative records
	Ali industries	33 617	16 95 <b>0</b>	5 665	4 703	3 755	1 307	<b>78</b> 5	290	115	44	3	12 485
10	Metai mining	1 027	473	162	132	112	55	54	20	14	4	1	280
101 1011	Iron ores Iron ores	51 51	17 17	9 9	9 9	5 5	1	1	2 2	5 5	2 2	-	22 22
102 1021	Copper ores Copper ores	61 61	15 15	6 6	7 7	8 8	2 2	7 7	7	7 7	1 1	1	8 8
103 1031	Lead and zinc oresLead and zinc ores	39 39	10 10	4 4	6 6	5 5	6 6	7 7	1	-	-	=	6 6
104 1041 1044	Gold and silver ores Gold ores Silver ores	372 319 53	173 142 31	53 45 8	45 41 4	41 38 3	24 23 1	26 23 3	8 5 3	1 1 -	1 1 -		133 106 27
106 1061	Ferroalloy ores, except vanadium Ferroalloy ores, except vanadium	58 58	41 41	777	3 3	1 1	3 3	1	1 1	1	-	=	36 36
108 1081	Metal mining services Metal mining services	268 268	157 157	41 41	28 28	30 30	10 10	2 2	-	-	-	-	31 31
109_ 1094 1099	Miscellaneous metal ores Uranium-radium-vanadium ores Miscellaneous metal ores, n.e.c	178 101 77	60 24 36	42 30 12	34 20 14	22 14 8	9 7 2	10 6 4	1 - 1	- - -	-		44 22 22

See footnotes at end of table.

#### MINERAL INDUSTRIES—SUBJECT SERIES

# Table 6. Number of Mineral Establishments by Employment-Size Class, Industry Group, and Industry: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

				Es	tablishment	ts during ye	ar with an a	average em	ployment-siz	ze class of-	_		Estab- lishments
1987 SIC code	Industry group and industry	Estab- lishments during year	0 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more	during year covered by admin- istrative records
12	Coal mining	3 9 <b>05</b>	1 078	625	784	740	29 <b>0</b>	229	124	31	4	-	1 337
122 1221 1222	Bituminous coal and lignite mining Bituminous coal and lignite surface mining Bituminous coal underground mining	3 507 1 804 1 703	910 557 353	548 320 228	714 315 399	684 304 380	269 153 116	225 109 116	122 38 84	31 7 24	4 1 3		1 190 712 478
123 1231	Anthracite mining Anthracite mining	107 107	35 35	28 28	18 18	17 17	7 7	1 1	1 1	_	Ξ	-	47 47
124 1241	Coal mining services Coal mining services	291 291	133 133	49 49	52 52	39 39	14 14	3 3	1	-	-	-	100 100
13	Oil and gas extraction	22 91 <b>0</b>	13 545	3 648	2 <b>550</b>	1 887	681	376	128	60	33	2	9 397
131 1311	Crude petroleum and natural gas Crude petroleum and natural gas	10 203 10 203	6 678 6 678	1 493 1 493	861 861	599 599	237 237	176 176	85 85	46 46	26 26	2 2	4 509 4 509
132 1321	Natural gas liquids Natural gas liquids	714 714	203 203	147 147	154 154	158 158	40 40	12 12	-	-	-	-	-
138 1381 1382 1389	Oil and gas field services Drilling oil and gas wells Oil and gas field exploration services Oil and gas field services, n.e.c.	11 993 2 591 1 917 7 485	6 664 1 183 1 423 4 058	2 008 378 226 1 404	1 535 410 125 1 000	1 130 335 77 718	404 172 44 188	188 87 16 85	43 22 3 18	14 3 2 9	7 1 1 5	- - -	4 888 948 948 2 992
14	Nonmetallic minerals, except fuels	5 775	1 854	1 230	1 237	1 016	281	126	18	10	3	-	1 471
141 1411	Dimension stone Dimension stone	149 149	76 76	38 38	16 16	15 15	3 3	1 1	-	Ξ	:	-	60 60
142 1422 1423 1429	Crushed and broken stone, including riprap Crushed and broken limestone Crushed and broken granite Crushed and broken stone, n.e.c.	2 002 1 335 238 429	407 261 26 120	333 231 21 81	551 387 62 102	517 329 100 88	141 92 22 27	52 34 7 11	1 1 - -	- - -			267 150 22 95
144 1442 1446	Sand and gravel Construction sand and gravel Industrial sand	2 750 2 559 191	1 059 1 015 44	717 672 45	538 501 37	341 295 46	77 62 15	17 13 4	- - -	1 1 -	-		939 890 49
145 1455 1459	Clay, ceramic, and refractory minerals Kaolin and ball clay Clay, ceramic, and refractory minerals, n.e.c	197 45 152	50 5 45	22 22	2 <b>5</b> 4 21	49 14 35	2 <b>5</b> 6 19	19 9 10	5 5 -	2 2 -	-	-	35 1 34
147 1474 147 <b>5</b> 1479	Chemical and fertilizer mineral mining Potash, soda, and borate minerals Phosphate rock Chemical and fertilizer mineral mining, n.e.c	148 30 39 79	38 3 7 28	18 5 3 10	13 3 3 7	23 4 7 12	12 1 4 7	24 4 10 10	12 5 2 5	5 3 2 -	3 2 1 -		28 2 5 21
148 1481	Nonmetallic minerals services, except fuels Nonmetallic minerals services, except fuels	177 177	75 75	47 47	32 32	18 18	4 4	1 1	-	-	-	-	40 40
149 1499	Miscellaneous nonmetallic minerals, except fuels _ Miscellaneous nonmetallic minerals, except	352	149	55	62	53	19	12	-	2	-	-	102
	fuels	352	149	55	62	53	19	12	-	2	-	-	102

#### Table 7. Industry Statistics by Employment-Size Class of Establishment: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

				All em	ployees		ion, develop ploration wo			Cost of supplies		
1987 SIC code	Major group and employment-size class	E1	Estab- lishments during year (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
	All Industries	-	33 617	698.1	21 739.1	451.1	942.2	12 <b>443.2</b>	110 959.1	62 423.4	157 964.3	15 418.2
	Establishments with an average of -											
	0 to 4 employees	E3	16 950	28.2	618.5	21.0	41.4	405.3	6 535.6	4 051.5	9 461.3	1 125.8
	5 to 9 employees	E2	5 665	37.8	869.8	26.7	55.0	576.2	5 105.7	4 549.9	8 900.3	755.2
	10 to 19 employees	E1 E1	4 703	64.2	1 558.2	46.7	96.3	1 063.2	8 244.4	6 316.4	13 502.1	1 058.6 2 035.3
	20 to 49 employees50 to 99 employees		3 755 1 307	113.8 89.1	3 046.4 2 630.6	83.8 60.9	175.9 129.2	2 068.3 1 585.8	15 225.7 14 367.0	14 531.4 9 898.6	27 721.7 22 431.8	1 833.8
	100 to 249 employees	1 2	785	119.2	3 890.9	79.3	167.2	2 353.8	17 499.5	7 811.6	22 624.7	2 686.4
	250 to 499 employees		290	98.2	3 548.5	61.9	129.1	2 071.0	13 790.7	5 644.6	17 598.6	1 836.6
	500 to 999 employees		115	77.2	2 869.9	40.2	84.0	1 299.4	14 673.8	5 112.3	17 928.5	1 857.7
	1,000 to 2,499 employees	-	44	70.3 (D)	2 706.5	<u>30.6</u> (D)	<u>64.3</u> (D)	1 020.2	<u>15 516.7</u>	4 507.1	<u>17 795.3</u>	2 228.6
	2,500 employees or more	-	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Covered by administrative records <sup>2</sup>	E9	12 485	30.8	484.7	24.8	46.1	357.9	2 773.4	1 062.4	3 464.5	371.3

See footnotes at end of table.

#### 1-30 GENERAL SUMMARY

#### MINERAL INDUSTRIES-SUBJECT SERIES

#### Table 7. Industry Statistics by Employment-Size Class of Establishment: 1987-Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

					ployees	Product	ion, develop ploration wo	ment, and rkers		Cost of supplies used.		
1987 SIC code	Major group and employment-size class	E1	Estab- lishments during year (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by mining (million dollars)	purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expendi- tures (million dollars)
	All Industries-Con.											
10	Metal mining	-	1 027	44.1	1 353.5	33.7	67.8	9 <b>5</b> 2.0	4 609.5	3 141.2	6 851.6	899.1
	Establishments with an average of           0 to 4 employees	E5 E4 E2 E1 - - - -	473 162 132 112 55 54 20 14 4 1	7.1 (D) (D) 3.8 8.0 6.6 9.3 9.2 (D)	214.8 (D) (D) 136.9 252.4 193.7 282.0 <u>273.8</u> (D)	4.7 (D) (D) (D) 2.4 6.0 5.1 7.6 7.7 (D)	9.9 (D) (D) 5.1 12.0 10.4 15.3 <u>15.1</u> (D)	130.8 (D) (D) 70.5 173.9 134.3 219.0 <u>223.5</u> (D)	454.0 (D) (D) 298.4 1 087.4 860.9 1 093.0 <u>815.8</u> (D)	404.2 (D) (D) 236.5 571.4 424.6 920.9 <u>583.6</u> (D)	646.4 (D) (D) 501.2 1 399.8 1 209.7 1 881.0 <u>1 213.4</u> (D)	211.8 (D) (D) 33.6 259.0 75.8 132.8 186.1 (D)
	Covered by administrative records <sup>2</sup>	E9	280	.6	13.5	.6	1.1	11.5	23.2	25.2	44.7	3.7
12	Coal mining	-	3 9 <b>05</b>	163.4	5 567.0	128.7	259.3	4 251.4	17 067.9	10 552.5	25 955.2	1 665.2
	Establishments with an average of	E3	1 078 625 784 740 290 229 124 31 4	2.0 4.3 11.0 22.6 <u>98.7</u> (D) (D) <u>25.1</u> (D)	50.2 104.3 271.1 660.5 <u>3 597.2</u> (D) <u>883.7</u> (D)	1.6 3.3 8.6 18.0 <u>77.3</u> (D) (D) <u>19.9</u> (D)	3.0 6.5 16.7 35.6 <u>157.8</u> (D) (D) <u>39.5</u> (D)	35.6 75.7 205.3 502.5 <u>2 733.4</u> (D) (D) <u>699.0</u> (D)	189.4 319.6 776.4 1 821.6 <u>11.250.1</u> (D) <u>2 710.9</u> (D)	264.9 253.4 550.8 2 119.6 <u>6 418.3</u> (D) (D) <u>945.5</u> (D)	421.8 540.7 1 248.1 3 771.8 <u>16 609.2</u> (D) <u>3 363.7</u> (D)	32.6 32.3 79.0 169.3 <u>1 059.2</u> (D) <u>292.8</u> (D)
	Covered by administrative records <sup>2</sup>	E9	1 337	7.4	136.6	6.4	12.2	113.6	458.7	219.9	636.3	42.4
13	Oll and gas extraction	E1	22 910	377.9	11 960.5	206.2	437.3	5 283.3	80 048.8	44 031.7	112 363.0	11 717.4
	Establishments with an average of         0 to 4 employees         5 to 9 employees         20 to 49 employees         20 to 49 employees         50 to 99 employees         100 to 249 employees         50 to 99 employees         50 to 49 employees         50 to 249 employees         50 to 249 employees         50 to 249 employees         500 to 249 employees         500 to 249 employees         2,500 employees or more	E3 E2 E1 	13 545 3 648 2 550 1 887 681 376 128 60 33 2	22.0 24.0 34.4 57.2 46.6 55.9 43.7 <u>94.0</u> (D)	475.2 552.1 843.1 1 517.0 1 359.2 1 803.8 1 574.6 <u>3 835.5</u> (D) (D)	16.1 16.3 24.2 40.5 30.3 30.9 18.5 <u>29.5</u> (D)	31.7 33.7 49.7 84.3 64.3 67.8 39.9 <u>65.9</u> (D)	301.8 348.8 545.9 963.2 750.7 825.1 550.8 <u>997.1</u> (D)	6 033.6 4 224.4 6 208.3 10 702.9 <u>21 790.9</u> (D) 6 556.4 <u>24 532.1</u> (D)	3 618.1 3 939.4 5 036.4 10 967.4 6 839.8 4 073.4 2 834.3 <u>6 722.7</u> (D)	8 600.1 7 545.3 10 485.7 20 209.9 16 181.2 13 241.9 8 238.4 <u>27 860.6</u> (D)	1 051.6 618.6 759.1 1 460.5 <u>3 281.1</u> (D) 1 152.3 <u>3 394.3</u> (D)
	Covered by administrative records <sup>2</sup>	E9	9 397	18.3	268.7	14.2	25.9	181.8	2 064.4	705.1	2 464.4	305.2
14	Nonmetallic minerals, except fuels	E1	5 <b>77</b> 5	112.7	2 858.0	82.5	177.9	1 956.4	9 232.9	4 698.0	12 794.5	1 136.4
	Establishments with an average of           0 to 4 employees           5 to 9 employees           10 to 19 employees           20 to 49 employees           50 to 99 employees           100 to 249 employees           500 to 99 employees           500 to 249 employees           500 to 299 employees           500 to 299 employees           1,000 to 2,499 employees	E1 E1 - -	1 854 1 230 1 237 1 016 281 126 18 10 3	59.5 (D) (D) (D) (D) (D) (D) (D) (D) (D) (D)	1 404.4 (D) (D) (D) 1 152.1 (D) 301.5 (D)	44.9 (D) (D) 31.5 (D) 6.1 (D) 6.1	97.2 (D) (D) (D) <u>68.2</u> (D) (D) <u>12.4</u> (D)	<u>1 003.5</u> (D) (D) (D) <u>772.0</u> (D) <u>181.1</u> (D)	4 381.2 (D) (D) 3 813.1 (D) (D) 1 038.7 (D)	2 294.9 (D) (D) (D) <u>1 956.4</u> (D) (D) <u>446.7</u> (D)	6 115.8 (D) (D) 5 273.6 (D) (D) <u>1 405.1</u> (D)	560.2 (D) (D) 496.0 (D) (D) 80.3 (D)
	Covered by administrative records <sup>2</sup>	E9	1 471	4.4	65.9	3.6	6.8	51.1	227.1	112.1	319.2	20.1

Note: Data shown as (D) are included in underscored figures above.

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1-10 to 19 percent; E2-20 to 29 percent; E3-30 to 39 percent; E4-40 to 49 percent; E5-50 to 59 percent; E6-60 to 69 percent; E7-70 to 79 percent; E8-80 to 89 percent; E9-90 percent or more. <sup>2</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

# Table 8. Employment at Auxiliaries and Related Facilities by Industry Group and Industry: 1987 and 1982

1987 1982 1987 1982 1987 SIC 1987 Industry group and industry SIC Industry group and industry Number of employees (1,000) Payroll (million Payroll (million Payroll (million Payroll (million Number of Number of Number of code employees (1,000) employees (1,000) code employees (1,000) dollars) dollars) dollars) dollars) All industries \_\_\_\_\_ 115.9 4 856.8 139.8 4 698.2 13 Oll and gas extraction \_\_\_\_\_ 4 000.0 109.6 3 741.3 93.4 131 1311 Crude petroleum and natural gas\_ Crude petroleum and natural 82.4 3 591.7 95.8 3 315.5 256.5 Metal mining \_\_\_\_\_ (D) (D) 8.1 10 824 3 591 7 95.8 3 315 5 das 101 1011 Iron ores \_\_\_\_\_ (D) (D) (D) (D) 1.3 1.3 41.5 41.5 132 Natural gas liquids\_\_\_\_\_\_ Natural gas liquids\_\_\_\_\_\_ 1.4 1.4 53.6 39.7 1.3 Iron ores 1321 53.6 13 39.7 102 Copper ores \_\_\_\_\_ 1.0 47.3 47.3 2.1 73.6 73.6 Oil and gas field services\_\_\_\_\_ 9.6 2.9 354.7 104.6 12.5 4.9 386.0 155.0 138 Drilling oil and gas wells..... Oil and gas field exploration 1021 138 1382 103 1031 Lead and zinc ores \_\_\_\_\_\_ (D) (D) (D) (D) .6 .6 19.7 19.7 services .4 15.1 1.1 29.3 Oil and gas field services, 1389 235.0 6.6 201.7 6.4 n.e.c. 104 Gold and silver ores (D) (D) (Z) (D) (D) 1.0 1.5 43.2 Nonmetallic minerals, except 14 Gold ores\_\_\_\_\_\_ Silver ores\_\_\_\_\_\_ (D) (D) (D) (D) 1041 fuels ..... 8.5 274.4 7.7 243.6 1044 Dimension stone (D) (D) 141 (D) (D) 1.8 1.8 .1 .1 Dimension stone 106 Ferroalloy ores, except 1411 (D) (D) (D) (D) vanadium \_\_\_\_\_ Ferroalloy ores, except 142 Crushed and broken stone, 1061 including riprap \_\_\_\_\_\_ Crushed and broken limestone \_ Crushed and broken granite \_\_\_\_ Crushed and broken stone, 3.4 110.7 2.4 68.0 (D) (D) (D) (D) vanadium ..... 1422 45.3 71.7 20.1 15 .2 1423 Metal mining services \_\_\_\_\_\_ Metal mining services \_\_\_\_\_ 108 .2 (D) (D) (D) (D) 7.9 1429 1081 79 n.e.c.\_\_\_\_ .6 18.9 .6 16.3 Sand and gravel\_\_\_\_\_ Construction sand and gravel \_\_ Industrial sand \_\_\_\_\_ 109 Miscellaneous metal ores (D) (D) (NA) (NA) 144 2.1 1.7 46.9 34.7 (D) (D) (D) (D) 8.5 1094 Uranium-radium-vanadium 1442 50.4 .3 12.5 ores 1.6 1446 .3 12.2 Miscellaneous metal ores, 1099 145 Clay, ceramic, and refractory (NA) (D)(D) (NA) n.e.c.\_\_\_\_\_ Minerals \_\_\_\_\_ Kaolin and ball clay \_\_\_ (D) 43.3 1.1 29.7 20.2 (D) 1455 456.8 12 Coal mining (D) (D) 14.4 1459 Clay, ceramic, and refractory minerals, n.e.c. (D)(D) -5 9.5 122 Bituminous coal and lignite 147 Chemical and fertilizer mineral Bituminous coal and lignite Surface mining Bituminous coal underground 10.8 437 1 142 453.9 1.0 40.1 (D) (D) 1221 mining\_\_\_\_\_ Potash, soda, and borate 1474 5.7 244.9 (NA) (NA) minerals \_\_\_\_\_\_ Phosphate rock \_\_\_\_\_\_ (D) (D) (D) (D) .6 .9 29.0 1222 27.8 1475 mining\_\_\_\_\_ 5.1 192.1 (NA) (NA) 1479 Chemical and fertilizer mineral Anthracite mining \_\_\_\_\_\_ Anthracite mining \_\_\_\_\_ mining, n.e.c.\_\_\_\_ (D) (D) (NA) (NA) 123 1231 (D) (D) (D) (D) (D) (D) (D) (D) 149 Miscellaneous nonmetallic (D) (D) .1 1.8 minerals, except fuels\_\_\_\_\_ Miscellaneous nonmetallic Coal mining services (D) 1499 124 (D)(D)(D)1241 (D) (D) ίD) (D) minerals, except fuels \_\_\_\_ (D) (D) 1.8 .1

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Note: Figures represent auxiliary establishments at different location from establishments managed or served, or at same location but not operated as an integral part of it. All figures in this table have been included in reports for industries with which they have been associated.

### Table 9. Selected Statistics by Type of Operation and Industry: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

							Producin	ig establish	ments					
					Mine	s only		Mir	ies with pr	eparation pl	ants			
1987 SIC code	Industry group, industry, and item	All types of operations	Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods	Sepa- rately operated prepara- tion plants	Undistri- buted <sup>1</sup>	Non- pro- ducing estab- lish- ments
	ALL INDUSTRIES													
	Establishments number Employees 1,000 Value added in mining mil dol	33 617 698.1 110 959.1	32 947 692.7 111 053.4	12 356 174.3 73 287.3	1 401 34.4 2 668.9	1 597 23.2 2 152.5	9 358 116.7 68 465.9	4 208 208.1 23 450.0	401 68.3 7 391.4	3 627 125.0 14 647.5	180 14.8 1 411.1	816 16.6 4 869.1	15 567 293.6 9 446.9	670 5.5 –94.2
10	METAL MINING													
	Establishments number Employees 1,000 Value added in mining mil dol	1 027 44.1 4 609.5	910 42.6 4 633.8	148 (D) (D)	84 (D) (D)	58 1.6 128.1	6 .1 7.4	140 (D) (D)	44 (D) (D)	87 19.9 2 939.7	9 5.5 441.1	23 1.3 298.5	599 (D) 249.1	117 1.5 –24.2
101	Iron ores													
	Establishments number Employees1,000 Value added in mining mil dol	51 7.1 767.9	50 (D) (D)	27 (D) (D)	-	27 (D) (D)	-	12 6.5 756.7	1 (D) (D)	11 (D) (D)	-	5 (D) (D)	6 (D) -	1 (D) (D)
1011	Iron ores													
	Establishments number Employees 1,000 Value added in mining mil dol	51 7.1 767.9	50 (D) (D)	27 (D) (D)		27 (D) (D)		12 6.5 756.7	(D) (D)	11 (D) (D)	-	5 (D) (D)	6 (D) -	1 (D) (D)

See footnotes at end of table.

#### 1-32 GENERAL SUMMARY

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	eaning of abbreviations and symbols, see	line occurrently						ig establishi	ments					
					Mines	sonly		-		eparation pl	lants			
1987 SIC code	Industry group, industry, and item	All types of operations	Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods	Sepa- rately operated prepara- tion plants	Undistri- buted <sup>1</sup>	Non- pro- ducing estab- lish- ments
10	METAL MINING-Con.													
102	Copper ores Establishmentsnumber Employees1,000 Value added in mining mil dol	61 13.9 1 301.3	61 13.9 1 301.3	25 1.1 73.9	1 (D) (D)	23 (D) (D)	1 (D) (D)	18 11.0 1 001.9	3 (D) (D)	13 (D) (D)	2 (D) (D)	3 .7 225.5	15 1.0 -	- -
1021	Copper ores Establishmentsnumber Employees1.000	61 13.9 1 301.3	61 13.9 1 301.3	25 1.1 73.9	1 (D) (D)	23 (D) (D)	1 (D) (D)	18 11.0 1 001.9	3 (D) (D)	13 (D) (D)	2 (D) (D)	3 .7 225.5	15 1.0	-
103	Value added in mining mil dol Lead and zinc ores	1 301.3	1 301.3	73.9	(0)	(D)	(0)	1 001.9	(0)	(D)	(D)	220.0	-	-
	Establishments	39 2.0 176.2	32 (D) (D)	15 .4 23.8	15 .4 23.8		- -	11 1.3 148.4	11 1.3 148.4	-		1 (D) (D)	5 (D)	7 (D) (D)
1031	Lead and zinc ores			15	45								-	-
	Establishments number Employees1,000 Value added in mining mil dol	39 2.0 176.2	32 (D) (D)	15 .4 23.8	15 .4 23.8	-		11 1.3 148.4	11 1.3 148.4	-		(D) (D)	5 (D)	(D) (D)
104	Gold and silver ores													
	Establishmentsnumber Employees	372 13.1 1 814.2	309 (D) (D)	41 .4 51.3	37 (D) (D)	4 (D) (D)	-	76 10.0 1 719.0	18 2.2 233.1	55 (D) (D)	3 (D) (D)	3 (D) (D)	189 (D) (D)	63 (D) (D)
1041	Gold ores Establishmentsnumber Employees	319 11.4 1 689.1	261 10.6 1 700.0	4 (D) (D)	- -	4 (D) (D)	-	67 8.5 1 599.9	11 (D) (D)	53 6.0 1 334.0	3 (D) (D)	3 (D) (D)	187 (D) (D)	58 .8 -10.9
1044	Silver ores			x=7		ζ-γ			χ=γ			x-7	ζ-γ	
	Establishmentsnumber Employees	53 1.7 125.1	48 (D) (D)	37 (D) (D)	37 (D) (D)	Ξ	-	9 1.5 119.1	7 (D) (D)	2 (D) (D)	-		(Z) -	5 (D) (D)
106	Ferroalloy ores, except vanadium													
	Establishmentsnumber Employees	58 1.3 61.1	52 (D) (D)	1 (D) (D)		1 (D) (D)		4 (D) (D)	3 (D) (D)	1 (D) (D)	-	1 (D) (D)	46 (D) (D)	6 (D) (D)
1061	Ferroalloy ores, except vanadium													
	Establishmentsnumber Employees	58 1.3 61.1	52 (D) (D)	1 (D) (D)		1 (D) (D)		4 (D) (D)	3 (D) (D)	1 (D) (D)	-	1 (D) (D)	46 (D) (D)	6 (D) (D)
108	Metal mining services Establishments number	268	268										268	
	Employees 1,000 Value added in mining mil dol	2.8 175.6	2.8 175.6	=	-	Ξ	-	Ē	-	Ē	-	Ξ	2.8 175.6	Ξ
1081	Metal mining services													
	Establishmentsnumber Employees	268 2.8 175.6	268 2.8 175.6	Ē			=			Ē		Ē	268 2.8 175.6	Ξ
109	Miscellaneous metal ores													
	Establishmentsnumber Employees	178 3.8 313.1	138 (D) (D)	39 (D) (D)	31 .4 24.3	3 .1 8.9	5 (D) (D)	19 1.7 204.8	8 (D) (D)	7 .9 105.5	4 (D) .(D)	10 .4 60.4	70 (D) (D)	40 (D) (D)
1094	Uranium-radium- vanadium ores													
	Establishmentsnumber Employees	101 2.3 174.7	71 1.8 176.3	37 .5 32.5	31 .4 24.3	1 (D) (D)	5 (D) (D)	12 .8 86.6	7 (D) (D)	1 (D) (D)	4 (D) (D)	7 .3 57.2	15 .3 -	30 .4 -1.5
1099	Miscellaneous metal ores, n.e.c.													
	Establishmentsnumber Employees	77 1.6 138.4	67 (D) (D)	2 (D) (D)	-	2 (D) (D)	-	7 .9 118.2	1 (D) (D)	6 (D) (D)	:	3 .1 3.2	55 (D) (D)	10 (D) (D)
12	COAL MINING	3 905	2 010	2 500	1 919	1 105	24	605	205	200	50	01	EE A	02
	Establishmentsnumber Employees1,000 Value added in mining mil dol	163.4	3 812 (D) (D)	2 532 (D) (D)	1 313 33.4 2 605.6	1 185 (D) (D)	34 1.3 157.1	635 91.3 11 805.9	285 (D) (D)	298 31.5 5 050.9	52 (D) (D)	91 (D) (D)	554 (D) 279.6	93 (D) (D)

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			Producing establishments											
					Mine	s only		Min	es with pre	eparation pl	ants			
1987 SIC code	Industry group, industry, and item	All types of operations	Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods	Sepa- rately operated prepara- tion plants	Undistri- buted <sup>1</sup>	Non- pro- ducing estab- lish- ments
12	COAL MINING-Con.													
122	Bituminous coal and lignite mining													
	Establishments number Employees1,000 Value added in mining mil dol	3 507 157.5 16 678.9	3 417 (D) (D)	2 457 (D) (D)	1 249 33.0 2 584.9	1 176 18.1 1 783.2	32 (D) (D)	620 90.3 11 748.5	283 55.2 6 207.5	292 31.0 5 019.1	45 4.1 521.9	81 3.2 429.0	259 10.8 -	90 (D) (D)
1221	Bituminous coal and lignite surface mining													
	Establishments number Employees 1,000 Value added in mining mil dol	1 804 63.8 7 893.7	1 755 (D) (D)	1 208 (D) (D)	-	1 176 18.1 1 783.2	32 (D) (D)	337 35.1 5 541.0		292 31.0 5 019.1	45 4.1 521.9	81 3.2 429.0	129 5.7 -	49 (D) (D)
1222	Bituminous coal underground mining													
	Establishmentsnumber Employees	1 703 93.7 8 785.2	1 662 93.3 8 792.4	1 249 33.0 2 584.9	1 249 33.0 2 584.9		- - -	283 55.2 6 207.5	283 55.2 6 207.5	-			130 5.1 -	41 .4 -7.1
123	Anthracite mining Establishments number	107	104	75	64	9	2	15	2	6	7	10	4	3
	Employees1,000 Value added in mining mil dol	1.9 109.4	(D) (D)	.7 42.3	.4 20.7	(D) (D)	(D) (D)	1.0 57.4	(D) (D)	.6 31.8	(D) (D)	(D) (D)	(D)	(D) (D)
1231	Anthracite mining Establishments number	107	104	75	64	9	2	15	2	6	7	10	4	3
	Employees1,000 Value added in mining mil dol	1.9 109.4	(D) (D)	.7 42.3	.4 20.7	(D) (D)	(D) (D)	1.0 57.4	(D) (D)	.6 31.8	(D) (D)	(D) (D)	(D) -	(D) (D)
124	Coal mining services													
	Establishments number Employees1,000 Value added in mining mil dol	291 4.0 279.6	291 4.0 279.6	-			-	-		-	-		291 4.0 279.6	-
1241	Coal mining services Establishmentsnumber_	291	291	-	-	-	-	-	_	-	-	_	291	_
	Employees 1,000 Value added in mining mil dol	4.0 279.6	4.0 279.6	-	-	-	-	-	-	-	-		4.0 279.6	-
13	OIL AND GAS EXTRACTION	00.010	00.510	0.000			0.000						40.550	
	Establishments number Employees1,000 Value added in mining mil dol	22 910 377.9 80 048.8	22 513 (D) (D)	9 308 114.2 67 972.7		- -	9 308 114.2 67 972.7			-	-	646 (D) (D)	12 559 250.3 8 068.9	397 (D) (D)
131	Crude petroleum and natural gas													
	Establishmentsnumber Employees	10 203 198.8 67 954.9	9 846 196.6 67 972.7	9 308 114.2 67 972.7			9 308 114.2 67 972.7	Ē	- - -	-			538 82.4 -	357 2.2 -17.7
1311	Crude petroleum and natural gas								-		1		0	
	Establishmentsnumber Employees	10 203 198.8 67 954.9	9 846 196.6 67 972.7	9 308 114.2 67 972.7	Ē	-	9 308 114.2 67 972.7		=	-	-	-	538 82.4 -	357 2.2 -17.7
132	Natural gas liquids Establishments number	714	674									646	28	40
	Employees1,000 Value added in mining mil dol	12.7 4 024.9	(D) (D)	I	-	-	-	Ξ	Ξ	=	1	(D) (D)	1.4	(D) (D)
1321	Natural gas liquids													
	Establishmentsnumber Employees1,000 Value added in mining mil dol	714 12.7 4 024.9	674 (D) (D)	-	=	Ξ	-	-	Ξ	-	Ξ	646 (D) (D)	28 1.4 -	40 (D) (D)
138	Oil and gas field services													
	Establishments number Employees1,000 Value added in mining mil dol	11 993 166.5 8 068.9	11 993 166.5 8 068.9	Ē		-		-	Ē	-	Ē		11 993 166.5 8 068.9	Ξ
1381	Drilling oil and gas wells													
	Establishments number Employees 1,000 Value added in mining mil dol	2 591 55.0 2 549.4	2 591 55.0 2 549.4	Ē		-	-	-	-	-	Ξ	Ξ	2 591 55.0 2 549.4	-
1382	Oil and gas field exploration services	2 349.4	2 349.4		-		-	-	-			-	2 049.4	
	Establishments number Employees1,000 Value added in mining mil dol	1 917 16.9 771.3	1 917 16.9 771.3	Ξ	-	Ξ	-	-	-	-	Ē	-	1 917 16.9 771.3	Ξ

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

								g establishi	ments					
					Mines	s only		Min	es with pre	eparation pl	lants			
1987 SIC code	Industry group, industry, and item	All types of operations	Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods	Sepa- rately operated prepara- tion plants	Undistri- buted <sup>1</sup>	Non- pro- ducing estab- lish- ments
13	OIL AND GAS EXTRACTION-Con.													
138	Oil and gas field													
1389	services-Con. Oil and gas field													
	services, n.e.c. Establishments number Employees 1,000 Value added in mining mil dol	7 485 94.6 4 748.2	7 485 94.6 4 748.2		- - -		-	-		-	-		7 485 94.6 4 748.2	-
14	NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments number Employees 1,000 Value added in mining mil dol	5 775 112.7 9 232.9	5 712 112.2 9 243.6	368 4.4 566.5	4 (D) (D)	354 (D) (D)	10 1.0 328.7	3 433 (D) (D)	72 6.9 660.0	3 242 73.6 6 656.9	119 (D) (D)	56 (D) (D)	1 855 21.2 849.2	63 .5 -10.6
141	Dimension stone Establishmentsnumber Employees1,000 Value added in mining mil dol	149 1.3 64.7	147 (D) (D)	129 1.1 55.8	-	129 1.1 55.8		17 (D) (D)	-	17 (D) (D)		- - -	1 (D) -	2 (D) (D)
1411	Dimension stone													
	Establishments number Employees 1,000 Value added in mining mil dol	149 1.3 64.7	147 (D) (D)	129 1.1 55.8		129 1.1 55.8		17 (D) (D)		17 (D) (D)		- - -	1 (D) -	2 (D) (D)
142	Crushed and broken stone, including riprap													
	Establishmentsnumber Employees1,000 Value added in mining mil dol	2 002 43.7 3 465.3	1 992 (D) (D)	23 (D) (D)	1 (D) (D)	21 .3 30.2	1 (D) (D)	1 839 39.6 3 410.9	48 (D) (D)	1 779 37.5 3 247.6	12 (D) (D)	19 .3 18.9	111 3.4 -	10 (D) (D)
1422	Crushed and broken limestone													
	Establishments number Employees 1,000 Value added in mining mil dol	1 335 28.9 2 091.4	1 330 (D) (D)	15 .2 22.4		14 (D) (D)	1 (D) (D)	1 227 26.3 2 058.1	44 1.5 110.1	1 172 24.5 1 918.2	11 .3 29.8	12 (D) (D)	76 2.2 -	5 (D) (D)
1423	Crushed and broken granite													
	Establishments number Employees 1,000 Value added in mining mil dol	238 6.5 696.2	237 (D) (D)	3 (D) (D)	Ξ	3 (D) (D)		214 5.8 691.1		214 5.8 691.1	-	1 (D) (D)	19 .7 -	1 (D) (D)
1429	Crushed and broken stone, n.e.c.													
	Establishmentsnumber Employees	429 8.3 677.8	425 (D) (D)	5 (D) (D)	1 (D) (D)	4 (D) (D)	-	398 7.5 661.8	4 (D) (D)	393 7.2 638.3	1 (D) (D)	6 .1 7.9	16 .6 -	4 (D) (D)
144	Sand and gravel Establishments number	2 750	2 727	79	1	77	1	1 101	3	1 017	81	34	1 513	23
1442	Employees1,000 Value added in mining mil dol Construction sand and	32.8 2 319.9	(D) (D)	(D) (D)	(D) (D)	.6 33.6	(D) (D)	18.3 1 507.5	(D) (D)	16.7 1 396.0	(D) (D)	(D) (D)	13.0 730.2	23 (D) (D)
	gravel Establishments number	2 559	2 537	78	1	76	1	925	3	848	74	32	1 502	22 .2
	Employees1,000 Value added in mining mil dol	28.9 2 011.6	28.7 2 014.5	.6 33.7	(D) (D)	(D) (D)	(D) (D)	14.7 1 200.6	(D) (D)	13.3 1 101.7	(D) (D)	.7 50.0	12.7 730.2	-2.9
1446	Industrial sand Establishmentsnumber Employees	191 3.9 308.3	190 (D) (D)	1 (D) (D)	- - -	1 (D) (D)		176 3.6 306.9		169 3.4 294.3	7 .2 12.6	2 (D) (D)	11 .3 -	1 (D) (D)
145	Clay, ceramic, and refractory minerals													
	Establishmentsnumber Employees1,000 Value added in mining mil dol	197 9.9 827.2	195 (D) (D)	65 (D) (D)	- - -	65 (D) (D)		115 8.1 770.0		112 (D) (D)	3 (D) (D)	- - -	15 (D) -	2 (D) (D)
1455	Kaolin and ball clay Establishments number Employees 1,000 Value added in mining mil dol	45 5.3 498.6	45 5.3 498.6	3 (D) (D)	- -	3 (D) (D)		35 (D) (D)	- - -	35 (D) (D)	-		7 .9 -	
	See footnotes at end of table			/.		(/				<b>v</b> -7				

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

							Producin	g establishi	ments					
					Mines	only		Min	es with pre	paration pl	ants			
1987 SIC code	Industry group, industry, and item	All types of operations	Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods	Sepa- rately operated prepara- tion plants	Undistri- buted <sup>1</sup>	Non- pro- ducing estab- lish- ments
14	NONMETALLIC MINERALS, EXCEPT FUELS-Con.													
145	Clay, ceramic, and refractory minerals— Con.													
1459	Clay, ceramic, and refractory minerals, n.e.c.													
	Establishments number_ Employees 1,000 Value added in mining mil dol	152 4.6 328.6	150 (D) (D)	62 .6 57.2	- - -	62 .6 57.2		80 (D) (D)	- - -	77 3.7 271.2	3 (D) (D)		8 (D) -	2 (D) (D)
147	Chemical and fertilizer mineral mining													
	Establishmentsnumber Employees	148 16.3 1 998.9	139 16.2 2 003.1	42 (D) (D)	1 (D) (D)	33 (D) (D)	8 (D) (D)	71 13.7 1 632.9	19 (D) (D)	39 6.3 884.0	13 (D) (D)	1 (D) (D)	25 1.0 -	9 .1 -4.1
1474	Potash, soda, and borate minerals													
	Establishments number Employees1,000 Value added in mining mil dol	30 6.9 915.0	27 (D) (D)		- -			25 (D) (D)	8 3.1 381.8	7 (D) (D)	10 (D) (D)	-	2 (D) -	3 (D) (D)
1475	Phosphate rock													
	Establishmentsnumber Employees	39 5.3 595.1	36 (D) (D)	10 (D) (D)	-	9 (D) (D)	1 (D) (D)	23 4.8 560.1	1 (D) (D)	21 (D) (D)	1 (D) (D)	1 (D) (D)	(D)	3 (D) (D)
1479	Chemical and fertilizer mineral mining, n.e.c.													
	Establishments number Employees 1,000 Value added in mining mil dol	79 4.2 488.7	76 (D) (D)	32 (D) (D)	1 (D) (D)	24 (D) (D)	7 (D) (D)	23 (D) (D)	10 1.7 130.5	11 .3 27.3	2 (D) (D)		21 (D) -	3 (D) (D)
148	Nonmetallic minerals services, except fuels													
	Establishmentsnumber Employees1,000 Value added in mining mil dol	177 1.8 119.0	177 1.8 119.0		Ξ		Ē		-	-			177 1.8 119.0	Ē
1481	Nonmetallic minerals services, except fuels													
	Establishmentsnumber Employees	177 1.8 119.0	177 1.8 119.0		Ξ	-	Ē			-			177 1.8 119.0	Ξ
149	Miscellaneous nonmetallic minerals, except fuels													
	Establishmentsnumber Employees	352 7.0 438.0	335 6.8 440.6	30 (D) (D)	1 (D) (D)	29 .4 15.8	-	290 5.5 419.5	2 (D) (D)	278 4.8 350.9	10 (D) (D)	2 (D) (D)	13 (D) -	17 .2 –2.5
1499	Miscellaneous nonmetallic minerals, except fuels													
	Establishmentsnumber Employees	352 7.0 438.0	335 6.8 440.6	30 (D) (D)	1 (D) (D)	29 .4 15.8		290 5.5 419.5	2 (D) (D)	278 4.8 350.9	10 (D) (D)	2 (D) (D)	13 (D) -	17 .2 -2.5

Includes data for separately operated auxiliary establishments and establishments that were not possible to classify based on information available.

# Table 10. Selected Statistics for Nonproducing Establishments by Industry Group and Industry: 1987 and 1982

Base         Industry group and industry         Existencement shims         All anguyees         Production, development with seven	<u>[1 01 111</u>	eaning of appreviations and sympols, see introd		-		19	87				19	982
Code         Tarta         With 30 (under)         Number (under)         Partol collary         Mutery (million)         Wage (being)         Capata (being)	1987				All emp	loyees						
Netal mining		Industry group and industry		employees or more	Number (1,000)	(million		Hours (millions)	(million	expenditures (million	employees	expenditures (million
100         100 <td></td> <td>All Industries</td> <td>6<b>70</b></td> <td>69</td> <td>5.5</td> <td>169.4</td> <td>3.2</td> <td>5.6</td> <td>93.7</td> <td><b>32</b>9.3</td> <td>11.5</td> <td>1 774.2</td>		All Industries	6 <b>70</b>	69	5.5	169.4	3.2	5.6	93.7	<b>32</b> 9.3	11.5	1 774.2
103       Lad at size ore       7       -       (D)	10	Metal mining	117	18		46.0		1.7	28.9		4.2	332.1
Index Index Silver ores         Gaid and giver ores         Gaid ores         G		Iron ores Iron ores			(D) (D)	(D)		(D)		(D) (D)		2.5
1044       Schol dres       Set       1       8       251       6       9       153       58.6       8       88.6       00 </td <td></td> <td>Lead and zinc ores Lead and zinc ores</td> <td></td> <td></td> <td>(D) (D)</td> <td>(D) (D)</td> <td>(D) (D)</td> <td>(D) (D)</td> <td>(D) (D)</td> <td>(D) (D)</td> <td>(D) (D)</td> <td>(D) (D)</td>		Lead and zinc ores Lead and zinc ores			(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
Misselinces mel ers	1041	Gold ores	58	11	.8	25.1	.6	.9	15.3	58.6	.8	98.5
Obse         Unanum-radium ores			6 6		(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
122       Bituminous coal and lightle mining	1094	Uranium-radium-vanadium ores	30	4	.4	12.9	.3	.4	8.2	23.2	1.3	93.0
1221       Bituminous coal and light surface       49       6       0	12	Coal mining	93	11	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
123       Anthracile mining </td <td></td> <td>Bituminous coal and lignite surface</td> <td></td>		Bituminous coal and lignite surface										
13       Oil and gas extraction       397       31       (D)       (D	1222	mining Bituminous coal underground mining		6 5		(D) 9.9	(D) .2	(D) .4	(D) 6.6	(D) .2	(NA) (NA)	(NA) (NA)
131       Crude petroleum and natural gas	123 1231	Anthracite mining Anthracite mining		-	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
1311       Crude petroleum and natural gas inquids       357       25       2.2       72.2       1.0       1.6       30.8       178.2       5.0       1 294.5         132       Natural gas liquids       40       6       (D)         1321       Natural gas liquids       63       9       .5       12.5       .4       .6       7.1       16.7       (D)       (D)       (D)         141       Dimension stone       .2       .6       (D)       (D)       (D)       (D)       (D)       (D)         142       Crushed and broken stone, including       .2       .6       (D)       (D)<	13	Oil and gas extraction	39 <b>7</b>	31	(D)	(D)	(D)	(D)	(D)	(D)	5.0	1 294.8
1321       Natural gas liquids		Crude petroleum and natural gas Crude petroleum and natural gas		25 25								1 294.5 1 294.5
141 1411       Dimension stone       2       -       (D)       (D) <td></td> <td>Natural gas liquids Natural gas liquids</td> <td></td> <td></td> <td>(D) (D)</td> <td>(D) (D)</td> <td></td> <td>(D) (D)</td> <td>(D) (D)</td> <td>(D) (D)</td> <td>(Z) (Z)</td> <td></td>		Natural gas liquids Natural gas liquids			(D) (D)	(D) (D)		(D) (D)	(D) (D)	(D) (D)	(Z) (Z)	
1411       Dimension stone	14	Nonmetallic minerals, except fuels	63	9	.5	12.5	.4	.6	7.1	16.7	(D)	(D)
ripra         ripra         10         -         (D)		Dimension stone Dimension stone	2 2	_	(D) (D)	(D) (D)	(D) (D)	(D) (D)		(D) (D)	(Z) (Z)	Ξ
1446Industrial sand1-(D)<	1422 1423	riprap Crushed and broken limestone Crushed and broken granite	5		(D) (D)	(D) (D) (D) (D)	(D) (D) (D) (D)	(D) (D) (D) (D)	(D) (D)	(D) (D) (D)	.2	6.8
1459       Clay, ceramic, and refractory minerals, n.e.c.       C <thc< th="">       C       C</thc<>	1442	Construction sand and gravel	22		(D) .2 (D)	3.8	.2	.3 [		.6	.4	12.4
147 1474Chemical and fertilizer mineral mining Phosphate rock n.e.c.9 31 31 - (D)1 (D)2.5 (D)(Z) (D)0 (D)9 (D)13.4 (D)1 1.7 - 1.7 1.9.61479Chemical and fertilizer mineral mining, n.e.c.3 3- 3(D) (D)(D) (D)(D) (D)(D) (D)(D) (D)1 1.9.61479Miscellaneous nonmetallic minerals, except fuels17323.2122.12.4(Z).1		Clay, ceramic, and refractory minerals,		1								
149     Miscellaneous nonmetallic minerals, except fuels     17     3     .2     3.2     1     .2     2.1     2.4     (Z)     .1	1474 1475	Chemical and fertilizer mineral mining Potash, soda, and borate minerals Phosphate rock Chemical and fertilizer mineral mining,	9 3 3		.1 (D) (D)	2.5 (D) (D)	(Z) (D) (D)	(Z) (D) (D)	.9 (D) (D)	13.4 (D) (D)	.1 .1	19.7
fuels         17         3         .2         3.2         .1         .2         2.1         2.4         (Z)         .1           1499         Miscellaneous nonmetallic minerals.         17         3         .2         3.2         .1         .2         2.1         2.4         (Z)         .1	140		3	1	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.1
except rueis 1/ 3 .2 3.2 .1 .2 2.1 2.4 (Z) .1		fuels	17 17	3	.2 .2	3.2 3.2	.1 .1	.2 .2	2.1 2.1	2.4 2.4	(Z) (Z)	.1 .1



### CHAPTER 3. Geographic Area Statistics

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### Table 1. Statistics for States and Offshore Areas: 1987 and 1982

				1987				
		Establishments	during year	All employ	rees	Production, devel	opment, and explor	ation workers
Geographic area	Companies (number)	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)
United States	25 218	33 617	6 <b>2</b> 99	698.1	21 739.1	451.1	942.2	12 443.2
Alabarna	280	350	99	11.1	320.6	8.1	16.6	228.0
Alaska	141	175	47	7.4	404.1	4.4	10.0	231.8
Arizona	206	244	53	12.8	372.3	9.9	18.7	266.0
Arkansas	382	416	43	4.0	92.5	2.8	5.8	58.8
California	1 155	1 387	350	44.1	1 383.8	25.2	51.9	695.9
Colorado	1 140	1 309	202	21.7	790.4	9.6	20.2	285.4
Connecticut	76	87	24	1.5	55.2	.6	1.3	18.3
Delaware and District of Columbia	25	27	4	.5	12.7	.2	.3	4.1
Florida	298	343	78	9.6	231.9	7.5	15.3	164.5
Georgia	156	216	83	8.1	211.5	6.4	14.4	152.0
Hawaii	9	9	4	.2	7.4	.2	.4	5.7
Idaho	97	109	23	2.4	71.6	1.8	3.8	50.6
Illinois	835	977	162	22.5	727.8	16.8	33.1	511.3
Indiana	359	472	78	7.7	241.5	5.7	12.1	170.2
Iowa	101	200	31	2.4	58.1	1.6	3.5	33.5
Kansas	1 207	1 309	146	12.5	301.5	8.1	16.7	172.1
Kentucky	1 220	1 460	414	39.5	1 222.9	31.3	64.3	946.0
Louisiana	1 649	1 963	425	50.7	1 593.9	32.3	69.2	873.0
Maine	32	34	1	.2	2.9	.1	.2	1.9
Maryland	112	129	43	2.9	81.4	2.4	5.2	62.5
Massachusetts	100	108	18	1.8	54.8	1.0	2.1	27.7
Michigan	471	543	86	9.8	273.0	7.5	15.8	191.8
Minnesota	144	161	28	6.1	185.8	4.8	9.8	137.6
Mississippi	491	525	71	5.3	124.7	4.0	8.5	87.2
Missouri	252	326	65	5.6	165.2	3.9	8.0	103.1
Montana	373	398	60	5.7	163.4	4.1	8.2	107.7
Nebraska	201	228	17	1.6	36.2	1.0	2.1	21.7
Nevada	232	264	74	7.6	231.8	6.2	12.9	179.3
New Hampshire	48	53	9	.5	12.0	.4	.8	8.7
New Jersey	141	154	44	4.2	153.3	1.9	4.0	46.7
New Mexico	679	752	150	14.8	437.7	10.6	22.4	301.7
New York	396	466	77	8.8	342.1	3.9	8.7	98.8
North Carolina	125	191	75	4.0	95.5	2.9	6.5	63.3
North Dakota	296	326	44	4.0	119.5	3.0	6.1	86.8
Ohio	1 080	1 240	199	19.0	550.1	13.8	29.7	379.5
Oklahoma	2 700	2 981	358	46.0	1 387.1	21.6	45.2	500.4
Oregon	168	172	16	1.4	33.5	1.0	2.0	20.9
Pennsylvania	1 144	1 382	314	33.4	977.6	24.7	50.7	705.2
Rhode Island	15	16	4	.2	5.3	.2	.3	4.4
South Carolina	57	85	30	1.5	34.9	1.2	2.8	26.4
South Dakota	75	84	10	2.1	62.3	1.7	3.5	48.7
Tennessee	276	341	92	6.5	158.5	4.7	10.1	106.4
Texas	7 029	8 021	1 251	158.0	5 137.8	83.5	178.0	2 113.3
Utah	337	380	68	7.9	236.7	5.7	11.9	161.8
Vermont	42	45	9	.7	18.1	.5	.9	9.3
Virginia	593	723	252	18.8	546.8	14.7	29.7	412.0
Washington	179	189	20	2.8	83.8	2.2	4.4	61.4
West Virginia	1 048	1 259	350	35.4	1 180.2	28.4	58.3	957.3
Wisconsin	156	169	27	1.8	46.3	1.4	2.9	32.3
Wyoming	658	774	142	17.1	579.9	12.7	26.7	413.5
Offshore areas not associated with a particular State: Atlantic Offshore Northern Gulf of Mexico Offshore Pacific Offshore	7 24 6	7 32 6	2 25 2	(D) 3.4 (D)	(D) 115.5 (D)	(D) 2.9 (D)	(D) 6.3 (D)	(D) 93.1 (D)

		1987 —	-Con.					1982			
Value added by mining (million	Cost of supplies used, purchased machinery installed, etc. (million	Value of shipments and receipts (million	Capital expendi- tures (million	End of year (million	Beginning of year (million	All emp Number	Payroll (million	Value added by mining (million)	Value of shipments (million	Capital expenditures (million	Geographic area
dollars)	dollars) 62 423.4	dollars) 157 964.3	dollars)	dollars) 7 380.0	dollars) 7 564.0	(1,000)	dollars) 28 637.5	dollars) 188 055.0	dollars) 249 999.6	dollars) 47 752.8	U.S.
1 234.7	729.5	1 792.6	171.6	133.8	132.4	15.9	375.0	1 979.7	2 428.5	592.8	AL
8 018.8	1 340.2	8 566.6	792.4	273.7	286.6	13.4	524.8	14 093.2	13 782.5	3 241.7	AK
1 142.8	840.9	1 751.7	232.0	329.2	310.0	16.6	426.5	748.4	1 352.5	167.2	AZ
521.3	852.0	1 231.7	141.6	34.2	35.7	5.4	115.3	1 015.1	1 201.2	215.0	AR
6 484.2	3 149.0	8 693.2	939.9	397.6	389.4	51.3	1 466.2	11 844.3	13 643.0	3 438.1	CA
1 832.1	1 148.0	2 591.3	388.8	212.7	211.3	45.8	1 320.4	3 098.3	4 127.5	1 340.3	CO
105.6	36.5	130.2	11.8	12.0	13.1	1.9	67.6	47.3	65.4	5.6	CT
11.4	6.8	17.4	.8	1.4	2.0	.2	5.7	2.2	3.0	.2	DE/DC
1 027.4	617.7	1 478.6	166.5	246.9	305.3	10.5	216.0	1 860.4	2 775.5	321.9	FL
827.6	487.2	1 192.7	122.1	108.3	111.7	7.6	142.2	430.1	722.8	81.5	GA
23.5	10.4	31.1	2.8	2.5	3.1	.2	3.8	9.7	12.8	2.7	HI
171.3	107.6	242.8	36.1	73.5	69.6	3.1	86.6	199.5	303.7	31.6	ID
2 180.5	1 054.4	3 026.4	208.5	226.9	252.2	31.3	845.1	2 543.9	3 607.8	512.7	IL
815.4	394.5	1 118.2	91.7	98.6	105.1	10.3	269.1	785.8	1 155.8	90.0	IN
131.3	79.1	195.5	15.0	28.6	25.9	2.1	38.2	103.5	153.1	16.9	IA
1 671.7	2 087.0	3 566.3	192.4	108.9	95.9	19.9	461.2	3 195.7	6 344.7	418.5	KS
3 698.6	2 618.6	5 956.8	360.4	312.5	324.5	54.2	1 371.7	4 141.9	7 336.1	637.0	KY
16 655.7	11 005.9	24 629.7	3 032.0	497.0	529.3	102.4	2 694.4	33 117.0	43 786.1	9 284.1	LA
5.5	4.2	8.1	1.6	1.9	1.3	.1	2.3	5.3	7.7	.4	ME
273.9	138.9	370.6	42.2	32.7	34.3	2.6	58.6	167.3	223.4	29.8	MD
132.0	64.7	177.7	18.9	20.6	20.4	1.1	24.6	54.4	73.5	10.0	MA
1 499.6	1 097.4	2 425.9	171.1	114.7	107.9	10.7	276.7	1 934.7	2 659.4	256.1	MI
554.5	469.6	999.4	24.7	179.8	167.7	9.2	247.9	598.8	1 049.3	53.3	MN
930.8	345.9	1 128.2	148.6	34.8	31.6	9.6	213.2	1 765.7	2 156.6	542.2	MS
466.1	205.4	635.5	36.1	88.2	94.8	7.9	198.0	418.2	604.4	80.2	MO
1 167.1	383.3	1 431.7	118.6	77.2	72.8	8.5	213.7	1 694.9	2 026.1	425.2	MT
119.0	62.1	163.9	17.2	10.6	10.1	2.3	46.5	246.0	334.5	45.0	NE
1 177.5	643.7	1 468.6	352.5	144.3	118.1	6.6	154.9	467.6	608.0	124.1	NV
40.9	12.8	49.8	3.9	6.1	5.8	.3	6.7	17.3	25.2	2.5	NH
241.2	116.2	326.2	31.2	37.1	36.4	3.4	101.8	120.1	181.3	16.5	NJ
3 539.1	1 869.7	4 981.5	427.3	255.1	307.0	26.6	660.0	7 126.7	9 683.3	1 423.3	NM
484.3	219.9	641.7	62.5	86.5	78.7	7.8	204.5	414.7	576.8	99.2	NY
414.2	152.0	526.9	39.3	47.5	49.9	4.0	67.6	198.3	303.9	33.6	NC
978.1	341.4	1 219.6	99.8	65.7	72.3	8.5	226.1	1 999.1	2 229.0	1 100.7	ND
1 839.8	1 054.1	2 662.8	231.1	171.9	168.8	28.9	707.6	2 325.5	3 237.1	547.9	OH
5 523.1	3 707.4	8 388.6	841.8	265.6	286.0	104.1	2 666.6	13 274.5	18 447.0	4 522.4	OK
78.5	44.1	112.4	10.2	12.3	11.6	1.8	37.0	60.3	80.4	12.5	OR
2 561.6	1 821.6	4 102.0	281.2	275.9	263.4	48.0	1 180.2	2 936.8	4 575.6	540.2	PA
15.6	6.7	20.4	2.0	2.5	2.7	.2	2.9	7.3	9.8	.8	RI
143.1	85.1	178.5	49. <b>7</b>	15.5	14.4	1.5	24.0	72.2	108.6	16.4	SC
190.8	101.0	262.6	29.1	21.0	20.0	2.3	49.7	115.9	172.7	28.2	SD
458.4	263.0	661.0	60.4	60.9	62.1	9.0	186.1	497.7	793.1	101.4	TN
29 676.5	14 468.3	40 319.0	3 825.8	1 243.3	1 309.5	266.8	6 755.5	54 452.6	72 462.2	12 247.7	TX
1 552.0	582.5	1 951.8	182.7	203.2	209.5	17.5	466.8	1 664.8	2 700.9	624.3	UT
57.8	39.4	89.5	7.7	12.5	11.7	.8	15.1	36.1	57.9	8.0	VT
1 554.4	1 312.1	2 664.4	202.1	175.4	170.2	24.4	532.7	1 466.8	2 677.6	271.7	VA
275.7	137.0	380.3	32.3	32.6	31.6	2.8	66.8	161.9	237.5	43.4	WA
3 674.1	2 665.4	5 889.0	450.4	237.7	262.8	63.1	1 679.9	4 789.8	7 312.9	898.3	WV
155.2	78.5	209.3	24.4	28.4	29.1	1.9	38.4	85.8	131.5	10.4	WI
4 362.0	2 060.4	5 846.5	5 <b>7</b> 5.9	301.4	279.7	34.2	939.6	6 858.8	8 606.9	2 198.7	WY
(D)	(D)	(D)	(D)	(D)	(D)	.9	21.0	96.9	123.5	88.2	AO
252.3	(D)	1 449.0	(D)	18.2	17.7	3.2	95.4	2 218.2	2 191.0	733.9	GO
(D)	(D)	(D)	(D)	(D)	(D)	1.3	39.3	488.3	529.0	218.7	PO

# Table 2. Gross Assets, Retirements, Capital Expenditures, Depreciation, and Rental Payments for States and Offshore Areas: 1987

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[Million dollars. For meaning of appreviations and symbols, see introductory text.	1	1								
Item	United States		a Ala	ska	Arizona	Arkans	as	California	Colorado	Connecticut
Capital expenditures during year (except land and mineral rights)	15 418.2 7 349.2 939.2 6 410.0 1 120.1 105.6 1 014.6 6 948.9	2 90.: 2 8.0 0 82. 14. 5 14. 5 14.0 0 66.	2 43 0 29 1 14 7 1 5 1	92.4 38.8 95.1 13.7 19.3 3 19.0 34.3	232.0 192.3 4.0 188.2 23.1 .3 22.8 16.6	30 30 11	0.1 3.7 5.5 1.4 .4 1.0 0.0	939.9 431.4 24.9 406.5 33.9 9.1 24.8 474.6	388.8 155.0 27.0 128.1 26.8 1.1 25.7 207.0	11.8 10.3 .3 9.9 1.1 (Z) 1.1 .5
Capitalized mineral land and rights <sup>2</sup>	279.2			2.1	3.8		.5	9.3	7.4	.4
Deductions from depreciable assets during year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	3 742.2 205.5 3 126.1 290.3 120.3	5 1. 50. 3 1.	3 3 2 4	29.2 .6 28.2 .2 .1	33.3 2.6 28.3 1.4 1.0	12	4.5 .5 2.9 .1 1.0	97.2 4.7 87.9 1.1 3.4	112.7 3.8 91.6 15.6 1.7	2.8 .1 2.4 .1 .2
Depreciation and depletion charges for year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	5 491.1 496.0 4 418.2 308.8 267.8	0 7.4 2 111.3 3 9.1	4 3 3 7	10.7 2.5 35.5 2.4 .3	91.2 16.3 62.7 9.3 2.9	123	5.1 1.3 3.3 (Z) .4	266.0 16.4 215.3 13.8 20.5	147.6 22.2 103.1 12.7 9.5	5.6 .7 4.6 (Z) .3
Gross book value of depreciable assets at end of year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	84 285.5 9 313.6 64 142.5 5 034.1 5 795.4	5 141.3 5 1 321.9 271.4	3 7 9 56 3 3	77.8	681.6 482.5 747.3 347.0 104.7	272	5.4	3 664.9 285.6 3 027.9 182.8 168.7	2 366.5 334.3 1 695.5 182.7 154.0	92.5 11.0 75.5 .8 5.2
Rental payments during year Buildings and other structures, except land Machinery and equipment	1 553.7 417.7 1 136.1	7 1.3	3	26.0 3.9 22.1	8.4 .6 7.8	1	5.6 1.1 1.5	81.5 15.3 66.3	32.4 14.3 18.1	1.3 .2 1.1
Lease rents	229.8			(Z)	.8		.1	2.3	3.1	.1
Expensed mineral exploration, development, land, and rights <sup>1</sup> Mineral exploration and development Mineral land and rights	5 724.6 5 215.6 509.0	33.3	3 25	59.4 54.6 4.8	(D) (D) (D)		9.5 9.4 .1	606.9 592.6 14.3	242.8 233.3 9.5	
Item	Delaware and District of Columbia	Florida	Georgia	Hawa	ii lo	daho	Illinois	Indiana	a lowa	Kansas
Capital expenditures during year (except land and mineral rights) New capital expenditures during year Buildings and other structures, except land Machinery and equipment Buildings and other structures, except land Buildings and other structures, except land Machinery and equipment Mineral exploration and development <sup>1</sup> Capitalized mineral land and rights <sup>2</sup>	.8 .6 (Z) .2 (Z) .2 (Z) 2.2	166.5 130.3 8.6 121.7 14.6 .3 14.3 21.7 15.1	122.1 110.8 6.6 104.2 8.6 .1 8.5 2.7 7.3	1.	0 2 8 7 7 7 7 7 7	36.1 (D) (D) 1.3 .1 1.3 (D) .6	208.5 123.4 15.0 108.4 43.8 .6 43.2 41.3 19.1	91. 65. 18. 46.9 16.4 9.7 4.0	2 8.8 2 .9 3 5.3 3 .1 4 5.2 7 .8	71.7 7.7 64.0 14.7 .3 14.5 106.0
Deductions from depreciable assets during year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	.5 (Z) .5 (Z) (Z)	43.0 .8 39.5 .2 2.5	18.5 .3 17.2 .5 .5	4.	3 1 7 ()	22.7 .2 21.9 .2 .3	188.0 21.3 124.4 27.0 15.3	59.4 51.3 3.5 3.5	4 11.2 3 .7 3 9.4 5 .1	56.5 2.6 53.1 .1
Depreciation and depletion charges for year <sup>3</sup>	.8 .1 .4 (Z) .2	127.7 17.7 89.5 .7 19.9	72.7 4.9 63.4 .7 3.7	2. 2. (2 (2	2	24.2 3.8 17.2 1.5 1.7	216.5 27.6 159.6 19.7 9.5	84.4 2.6 66.0 4.9 10.8	6 .7 0 14.5 9 .1	5.0 47.0 .2
Gross book value of depreciable assets at end of year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	23.0 2.7 13.6 .2 6.5	2 692.5 224.8 1 657.1 36.5 774.1	1 162.2 69.7 966.0 10.3 116.3		6 1 4 4 2 1	14.8	8 004.7 477.8 938.8 308.1 279.9	1 119. 59. 797.9 58.2 203.9	9.8 9 182.3 2 1.2	36.3 650.9 1.9
Rental payments during year Buildings and other structures, except land Machinery and equipment	(D) (Z) (D)	12.7 .9 11.9	5.6 .4 5.3	1. (2 1.		4.3 .1 4.2	17.8 1.5 16.3	25.4 1.2 24.2	2 .2	3.6
Lease rents	(Z)	2.4	3.0		-	.1	1.4	10.9	9 1.0	.5
Expensed mineral exploration, development, land, and rights <sup>1</sup> Mineral exploration and development Mineral land and rights	(D) _ (D)	18.2 15.6 2.6	15.0 8.2 6.8	(C	-	(D) (D) (D)	104.5 86.2 18.3	33.7 21.7 12.1	7 (D)	99.3 98.9 .4
Item	Kentucky	Louisiana	Maine	Marylan		issa- setts M	ichigan	Minnesota	Missis- sippi	Missouri
Capital expenditures during year (except land and mineral rights) New capital expenditures during year Buildings and other structures, except land Machinery and equipment Used capital expenditures during year Buildings and other structures, except land Machinery and equipment Mineral exploration and development <sup>1</sup>	360.4 222.1 18.8 203.3 94.5 2.8 91.7 43.9	3 032.0 1 316.8 121.0 1 195.8 79.6 5.1 74.5 1 635.6	1.6 1.2 .1 1.1 .4 (Z) .4	42. 33. 1. 32. 8. (Z 8.	6 2 4 1	18.9 14.4 3.8 10.6 3.9 .9 3.1 .6	171.1 62.3 6.0 56.3 32.5 (D) (D) 76.4	24.7 20.9 1.9 19.0 2.8 (Z 2.8 1.1	61.0       3.8       57.3       4.6       4.3	27.8 1.6 26.2 4.9 .1 4.7
Capitalized mineral land and rights <sup>2</sup>	34.7	.5	.1		5	1.4	3.7	2.8	3 .3	6.9
Deductions f:oni depreciable assets during year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	273.9 11.5 246.0 5.3 11.1	298.9 9.2 289.4 .1 .2	1.1 .1 1.0 (Z) .1	29. 1. 26. 1.	2	11.4 3.3 6.7 .3 1.1	30.6 .8 27.8 .1 1.9	48.3 1.0 46.2 .1 1.0	0.8 2.17.3 1.1	1.0 21.0 .6

# Table 2. Gross Assets, Retirements, Capital Expenditures, Depreciation, and Rental Payments for States and Offshore Areas: 1987–Con.

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[Million dollars. For meaning of abbreviations and symbols, see introductory text.	For explanal	ion of terms, s	see appendi	xesj					
Item	Kentucky	Louisiana	Maine	Maryland	Massa- chusetts	Michigan	Minnesota	Missis- sippi	Missouri
Depreciation and depletion charges for year <sup>3</sup>	324.0 22.7 265.0 14.0 22.2	320.6 14.8 304.1 .8 .8	.8 .1 .7 (Z) .1	28.9 1.1 26.3 .5 1.0	15.9 2.7 12.6 .1 .6	109.7 26.1 77.0 4.6 2.0	116.6 30.3 80.8 1.8 3.5	29.4 1.5 27.7 (Z) .2	49.3 5.8 35.1 4.1 4.3
Gross book value of depreciable assets at end of year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	4 447.9 514.0 3 073.7 250.8 609.4	4 908.0 243.1 4 630.2 9.2 25.5	13.4 1.2 10.5 .3 1.3	406.7 22.1 338.4 14.3 31.8	153.9 20.8 121.0 1.5 10.6	1 845.2 163.5 1 606.2 43.0 32.4	3 219.4 1 203.1 1 931.4 31.1 53.8	407.4 21.7 379.5 .4 5.8	789.7 80.7 515.2 47.2 146.6
Rental payments during year Buildings and other structures, except land Machinery and equipment	78.2 12.9 65.2	214.3 35.5 178.8	.1 (Z) .1	4.5 .4 4.2	2.3 .4 1.9	19.6 3,2 16.5	5.6 .2 5.4	11.4 1.7 9.7	3.3 .2 3.1
Lease rents	74.1	2.9	(Z)	.7	.2	.4	16.3	.1	1.2
Expensed mineral exploration, development, land, and rights1 Mineral exploration and development Mineral land and rights	92.8 19.5 73.2	811.8 810.7 1.1	(D) (D)	(D) (D)	11.7 4.3 7.3	64.2 58.7 5.6	34.1 16.2 17.8	39.4 39.0 .4	9.8 1.6 8.1
Item	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	North Carolina	North Dakota
Capital expenditures during year (except land and mineral rights)	118.6	17.2	352.5	3.9	31.2	427.3	62.5	39.3	99.8
New capital expenditures during year Buildings and other structures, except land	59.4 9.9	7.8	257.8 23.1	2.2	24.7 2.7	212.1	40.4	33.8 1.6	38.2
Machinery and equipment Used capital expenditures during year	49.5	7.2	234.7 17.8	2.1 1.3	22.0 4.8	195.4	36.6	32.3 4.9	33.6 4.9
Buildings and other structures, except land	1.8 6.8	.1 1.7	1.4 16.5	1.3	4.7	17.6		4.8	.5
Mineral exploration and development <sup>1</sup> Capitalized mineral land and rights <sup>2</sup>	50.7	7.7	76.9 26.3	.3	1.6	196.9 7.6	15.1	.6 1.0	56.7
Deductions from depreciable assets during year <sup>3</sup>	21.5	5.3	58.6	1.3	18.1	111.9	22.3	22.8	23.3
Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup>	1.1 18.6	.4 4.6	3.7 36.0	(Z) 1.1	1.2 13.9	8.8 100.3	.7	.2	3.1 19.9
Mineral exploration and development <sup>2</sup> Mineral land and nghts <sup>2</sup>	.5	(Z) .2	16.2 2.8	(Z)	.4 2.5	2.2	.5	8.6 .8	.1
Depreciation and depletion charges for year <sup>3</sup>	68.2	10.6	145.5	2.5	29.8	137.9	33.9	41.8	63.2
Buildings and other structures, except land <sup>4</sup>	10.8 40.4	.5 9.8	23.3 87.6	.1 2.1	3.2 25.4	7.7	4.3 27.7	3.4 37.4	7.5 53.3
Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	13.6 3.4	(Z) .1	28.5 6.0	(Z) .2	.5	7.4 8.3	.6	(Z) 1.0	1.9 .5
Gross book value of depreciable assets at end of year <sup>3</sup>	1 121.6	104.7	1 658.4	38.9	347.1	2 764.4	504.4	596.8	824.4
Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup>	155.5 798.3	6.3 95.3	207.4 1 059.0	2.1 27.9	41.4 270.6	209.0 2 040.7	56.6 398.4	33.3 543.4	112.0 654.9
Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	99.5 68.3	.7 2.4	303.3 88.7	.2 8.5	12.4 22.7	190.2 324.5	9.3 40.1	.7 19.4	34.3 23.1
Rental payments during year	23.8	1.8	8.6	.7	4.7	28.6		5.6	21.4
Buildings and other Structures, except land Machinery and equipment	5.1 18.8	.3 1.5	1.1 7.5	.1	.3 4.4	7.1	1.1	.2 5.4	3.7 17.7
Lease rents	.3	.2	7.9	.1	.2	.6	.7	.8	.3
Expensed mineral exploration, development, land, and rights <sup>1</sup> Mineral exploration and development Mineral Land and tights	77.6 74.5 3.1	11.9 11.7	29.2 26.8	(D) (D) (D)	(D) (D) (D)	138.3 131.9	8.8	2.6	54.5 49.4 5.1
Mineral land and rights	3.1	.2	2.4		insyl-	6.4 Rhode	.4 South	1.3 South	5.1
	Ohic	-		gon	vania	Island	Carolina	Dakota	Tennessee
Capital expenditures during year (except land and mineral rights) New capital expenditures during year Buildings and other structures, except land	231.1 150.3 17.4	286.1	1		281.2 173.3 13.6	2.0 1.8 .2	49.7 41.8 15.1	29.1 26.8 6.5	60.4 33.7 2.0
Machinery and equipment	132.9	261.8	3		159.8	1.6	26.8 2.4	20.3	31.7 9.9
Used capital expenditures during year Buildings and other structures, except land	.8	3.1	1	.1 1.9	1.8	(Z)	2.4 .2 2.3	(Z) .4	.2 9.7
Machinery and equipment Mineral exploration and development <sup>1</sup>	52.5			.7	62.4	.1 (Z)	5.5	1.9	16.8
Capitalized mineral land and rights <sup>2</sup>	16.9			1.6	11.3	(Z)	4.5	.3	.7
Deductions from depreciable assets during year <sup>3</sup> Buildings and other structures, except land <sup>4</sup>	193.2		5	.4	103.6 3.8	.4 (Z)	11.0 .3	2.1 (Z)	17.2 .4
Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup>	146.9 30.6			5.8 1.7	94.1 1.5	.3 (Z)	9.7 .4	1.9 .1	15.3 .5
Mineral land and rights <sup>2</sup>	9.2	3.	3	1.1	4.2	.1	.5	.1	.5 1.1
Depreciation and depletion charges for year <sup>3</sup> Buildings and other structures, except land <sup>4</sup>	146.8 23.5	5 11.3	3	.7	256.9 14.6	1.7 .2	16.0 1.2	11.2	45.7 2.3
Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup>	107.9 7.2	4	4	.1	201.0 24.3	1.4 (Z)	11.8 1.0	9.6 .1	38.8 1.3
Mineral land and rights <sup>2</sup>	8.2			.2	17.0	.1	2.0	.2	3.4
Gross book value of depreciable assets at end of year <sup>3</sup>	2 077.8	128.3	3   1	1.7	581.7 329.2	18.0 1.6	205.5 24.0	212.2	538.2 35.5
Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	1 299.2	3.2	2	3.8	689.7 256.3	15.6	147.0 15.3	184.6	428.8 17.1
	176.8				306.5	.8	19.2	6.7	56.8
Rental payments during year Buildings and other structures, except land Machinear and aquingment	61.5 21.8	35.3	3	2.5	59.1 18.5	.6 .1	1.0 (Z) 1.0	2.1	4.7 .7
Machinery and equipment	39.7 9.7			.3	40.6	.5 (Z)	1.0 .9	2.0	3.9 1.0
Expensed mineral exploration, development, land, and rights <sup>1</sup>	42.7			.3 (D)	54.7	(Z) (D)	.9 1.5	1.4	13.1
Mineral exploration and development	42.7 26.1 16.6	390.8	3		37.7 17.0		.4 1.1	1.0	8.9 4.2
See footnotes at end of table		0.0				,		1	7.2

#### Table 2. Gross Assets, Retirements, Capital Expenditures, Depreciation, and Rental Payments for States and Offshore Areas: 1987-Con.

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Texas	Utah	Vermont	Virginia	Washing- ton	West Virginia	Wisconsin	Wyoming	Offshore areas
Capital expenditures during year (except land and mineral rights) New capital expenditures during year Buildings and other structures, except land Machinery and equipment Used capital expenditures during year Buildings and other structures, except land Machinery and equipment Mineral exploration and development <sup>1</sup>	3 825.8 1 461.7 130.0 1 331.6 154.8 8.9 145.9 2 209.3	182.7 75.0 4.8 70.2 14.3 4.7 9.5 93.4	7.7 7.1 .2 6.9 .5 (Z) .5 .1	202.1 140.4 10.1 130.3 40.7 .3 40.4 21.0	32.3 18.0 1.8 16.1 3.5 .5 3.0 10.8	450.4 222.3 23.1 199.3 169.0 52.2 116.8 59.1	24.4 16.9 1.7 15.2 6.5 (D) (D) 1.0	575.9 297.2 24.7 272.5 41.7 2.1 39.6 236.9	109.6 (D) (D) 21.4 .1 21.3 (D)
Capitalized mineral land and rights <sup>2</sup>	3.5	5.8	.3	7.6	1.6	22.5	.9	33.5	-
Deductions from depreciable assets during year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	784.8 54.0 643.7 78.0 9.2	141.9 4.6 86.1 37.0 14.2	3.8 .2 3.3 .1 .2	126.8 10.6 106.6 6.0 3.5	16.2 .6 14.6 .2 .9	213.8 10.6 174.8 26.0 2.3	14.6 .5 13.1 .3 .7	132.0 13.9 91.1 20.9 6.1	37.5 1.5 36.0 - -
Depreciation and depletion charges for year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	847.1 47.3 783.8 10.1 6.0	95.2 6.5 76.1 6.0 6.6	8.9 .9 7.7 .1 .2	150.5 9.2 129.6 6.8 4.8	38.6 1.4 25.3 7.5 4.5	342.2 51.7 251.5 23.3 15.7	14.8 .7 13.5 .1 .6	349.1 27.3 204.2 66.1 51.5	86.2 .7 85.5 -
Gross book value of depreciable assets at end of year <sup>3</sup> Buildings and other structures, except land <sup>4</sup> Machinery and equipment <sup>4</sup> Mineral exploration and development <sup>2</sup> Mineral land and rights <sup>2</sup>	12 256.4 696.9 11 308.3 130.4 120.8	1 861.5 166.5 1 124.6 156.5 413.8	127.1 20.2 97.1 2.1 7.8	2 249.0 261.8 1 656.6 191.8 138.9	556.2 23.9 337.0 90.6 104.7	4 773.9 826.1 3 098.0 464.4 385.4	214.0 17.2 163.3 9.6 23.9	5 645.9 861.1 3 548.3 833.4 403.0	1 276.8 13.4 1 263.4 - -
Rental payments during year Buildings and other structures, except land Machinery and equipment	432.3 203.7 228.6	10.0 1.4 8.6	.6 (Z) .6	31.8 2.1 29.7	3.6 .6 2.9	84.8 6.7 78.2	2.4 .3 2.1	40.5 5.3 35.1	(D) 2.8 (D)
Lease rents	3.5	.5	.1	18.4	.4	44.5	.4	.9	-
Expensed mineral exploration, development, land, and rights <sup>1</sup> Mineral exploration and development Mineral land and rights	1 612.6 1 604.4 8.2	57.8 43.3 14.5	(D) (D)	32.0 15.2 16.8	12.3 5.4 6.9	106.5 19.5 87.1	1.6 1.5 .1	278.4 237.0 41.4	(D) (D)

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry.
 <sup>2</sup>Excludes data for mining service industries and oil and gas extraction industries.
 <sup>3</sup>Excludes data for crude petroleum and natural gas industry. Data for mineral exploration and development, and mineral land and rights portions are excluded for mining service industries and natural gas industry.
 <sup>4</sup>Excludes data for crude petroleum and natural gas industry.

### Table 3. Number of Mineral Establishments by Employment-Size Class for States and Offshore Areas: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Establishments during year with an average employment-size class of-									-	Estab-
Geographic area	Estab- lishments during year	0 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more	during year covered by admin- istrative records
United States	33 617	16 9 <b>50</b>	5 665	4 703	3 755	1 307	785	290	115	44	3	12 485
Alabama Alaska Arizona Arkansas California	350 175 244 416 1 387	130 87 109 241 599	60 18 45 72 250	61 23 37 60 188	55 18 29 31 198	17 14 9 6 71	18 11 4 6 47	4 - 3 - 23	5 2 6 7	- 2 1 - 5	- - 1 -	73 38 73 145 403
Colorado Connecticut Delaware and the District of Columbia Florida Georgia	1 309 87 27 343 216	749 38 16 160 71	216 13 2 58 34	142 12 5 47 28	112 18 2 38 43	48 4 - 20 21	29 2 14 13	9 - 3 5	4 - 2 1	- - 1 -		442 24 4 121 59
Hawaii Idaho Illinois Indiana Iowa	9 109 977 472 200	2 51 505 208 96	1 24 167 103 39	2 11 143 83 34	3 12 86 58 24	1 4 29 6 5	- 5 23 8 2	- 2 19 6 -	- 5 -			2 39 418 149 38
Kansas Kentucky Louisiana Maine Maryland	1 309 1 460 1 963 34 129	805 511 957 25 43	207 221 322 5 23	151 314 259 3 20	111 264 240 1 25	25 69 76 - 13	8 56 72 - 4	1 19 23 - 1	- 5 10 - -	1 1 4 -		613 572 605 17 38
Massachusetts Michigan Minnesota Mississippi Missouri	108 543 161 525 326	37 301 76 305 141	22 84 29 76 63	31 72 28 73 57	13 46 16 49 41	3 26 4 18 13	1 10 2 4 10	- 1 - 1	1 2 4 -	- 1 1 -		22 197 58 182 97
Montana Nebraska Nevada New Hampshire New Jersey	398 228 264 53 154	251 148 112 28 62	55 37 47 8 25	32 26 31 8 23	37 11 37 8 26	9 6 17 1 11	10 15 5	4 - 4 -	- - 1 - 2			147 82 64 18 47

# Table 3. Number of Mineral Establishments by Employment-Size Class for States and Offshore Areas: 1987–Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			E	stablishmen	ts during ye	ar with an a	average em	ployment-si	ze class of-			Estab- lishments
Geographic area	Estab- lishments during year	0 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more	during year covered by admin- istrative records
United States-Con.												
New Mexico New York North Carolina North Dakota Ohio	752 466 191 326 1 240	392 214 60 179 585	118 89 30 65 246	92 86 26 38 210	93 51 61 24 122	29 14 7 12 49	18 6 7 20	7 3 1 1 6	3 2 - 1	- 1 - 1		234 140 58 82 475
Oklahoma Oregon Pennsylvania Rhode Island South Carolina	2 981 172 1 382 16 85	1 803 89 549 3 24	488 39 288 5 11	332 28 231 4 20	209 14 167 4 24	81 1 77 - 5	48 1 44 - 1	12 21 -	4 - 5 -	2 - - - -	2 - - -	1 387 67 580 3 8
South Dakota Tennessee Texas Utah Vermont	84 341 8 021 380 45	57 116 4 499 213 23	7 47 1 302 56 9	10 86 969 43 4	4 63 730 35 4	4 19 280 12 4	1 7 132 17 1	- 3 60 3 -	- 29 1 -	1 - 20 -		19 115 3 317 116 21
Virginia Washington West Virginia Wisconsin Wyoming	723 189 1 259 169 774	179 95 514 74 404	121 37 198 42 140	171 37 197 26 88	179 13 196 21 75	42 3 77 5 35	20 3 49 1 17	10 19 11	- 1 9 - 3	1 - - 1		205 65 499 54 253
Offshore areas not associated with a particular State: Atlantic Offshore Northern Gulf of Mexico Offshore Pacific Offshore	7 32 6	5 5 4	- 1 -	- 1 -	1 11 2	1 4 -	- 5 -	- 4 -	- 1 -	=		-

### Table 4. Employment at Auxiliaries and Related Facilities for Selected States: 1987 and 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	19	87	19	82		19	87	19	82
Geographic area	Number of employees (1,000)	Payroll (million dollars)	Number of employees (1,000)	Payroll (million dollars)	Geographic area	Number of Pay employees (mill (1,000) dolla		Number of employees (1,000)	Payroll (million dollars)
United States	115.9	4 856.8	139.8	4 698.2	United States-Con.				
Alabama	(D)	(D)	.5	17.8	Montana	(D)	(D)	.1	1.0
Alaska	(D)	(D)	(D)	(D)	Nebraska	.3	8.4	.4	6.3
Arizona	.7	29.8	1.0	29.7	Nevada	.1	5.2	.4	11.4
Arkansas	.3	12.0	.1	4.1	New Hampshire	(D)	(D)	(D)	(D)
California	10.6	390.4	11.4	427.7	New Jersey	(D)	(D)	1.4	58.1
Colorado	7.4	329.8	11.7	426.9	New Mexico	(D)	(D)	.4	11.2
Connecticut	.8	31.1	1.2	52.6	New York	(D)	(D)	2.3	87.1
Delaware and District of Columbia	(D)	(D)	(D)	(D)	North Carolina	.5	16.3	(D)	(D)
Florida	.2	7.3	.1	3.8	North Dakota	(D)	(D)	.1	3.8
Georgia	.4	14.0	(D)	(D)	Ohio	(D)	(D)	2.1	73.6
Idaho	(D)	(D)	(D)	(D)	Oklahoma	16.6	649.9	23.4	777.6
Illinois	2.1	78.4	3.1	97.8	Oregon	(D)	(D)	(D)	(D)
Indiana	(D)	(D)	1.0	31.0	Pennsylvania	4.0	124.5	4.6	135.6
Iowa	.3	11.6	.2	4.1	South Carolina	(D)	(D)	.1	1.9
Kansas	1.5	54.1	1.9	74.9	South Dakota	(D)	(D)	(D)	(D)
Kentucky	3.5	121.2	1.4	33.8	Tennessee	.8	24.0	.3	8.3
Louisiana	7.5	336.0	11.5	389.4	Texas	40.8	1 829.9	49.9	1 632.4
Maine	(D)	(D)	(D)	(D)	Utah	(D)	(D)	.5	15.5
Maryland	(D)	(D)	(D)	(D)	Vermont	(D)	(D)	(D)	(D)
Massachusetts	(D)	(D)	(D)	(D)	Virginia	1.4	47.5	1.3	41.3
Michigan	(D)	(D)	.8	23.1	Washington	(D)	(D)	.1	2.4
Minnesota	.3	12.9	.4	13.9	West Virginia	1.2	43.8	2.0	51.5
Mississippi	(D)	(D)	(D)	(D)	Wisconsin	.1	1.5	(D)	(D)
Missouri	.7	30.9	1.3	41.1	Wyoming	(D)	(D)	.6	18.4

Note: Figures in this table represent auxiliary establishments at different locations from establishments managed or served, or at same location as one of these establishments but not operated as an integral part of it.

### Table 5. Selected Statistics by Type of Operation for States and Offshore Areas: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Producing establishments											
				Mines	s only		Mir	nes with pre	paration pl	ants			
Geographic area and item	All types of operations	Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods	Sepa- rately operated prepara- tion plants	Undistri- buted <sup>1</sup>	Non- pro- ducing estab- lish- ments
UNITED STATES													
Establishmentsnumber Employees1,000 Value added by miningmil dol	33 617 698.1 110 959.1	32 947 692.7 111 053.4	12 356 174.3 73 287.3	1 401 34.4 2 668.9	1 597 23.2 2 152.5	9 358 116.7 68 465.9	4 208 208.1 23 450.0	401 68.3 7 391.4	3 627 125.0 14 647.5	180 14.8 1 411.1	816 16.6 4 869.1	15 567 293.6 9 446.9	670 5.5 -94.2
Alabama													
Establishmentsnumber Employees1,000 Value added by miningmil dol	350 11.1 1 234.7	344 (D) (D)	111 2.0 527.4	2 (D) (D)	67 1.2 98.9	42 (D) (D)	84 6.8 627.1	10 (D) (D)	73 2.5 186.3	1 (D) (D)	6 .2 36.9	143 (D) (D)	6 (D) (D)
Alaska	475	4.57	10			10	_		-			100	10
Establishmentsnumber Employees1,000 Value added by miningmil dol	175 7.4 8 018.8	157 (D) (D)	19 (D) (D)	1 (D) (D)	2 (D) (D)	16 (D) (D)	7 (D) (D)		7 (D) (D)	-	2 (D) (D)	129 (D) (D)	18 (D) (D)
Arizona Establishmentsnumber	244	230	39	3	16	20	58	4	51	3	3	130	14
Employees1,000 Value added by miningmil dol	12.8 1 142.8	12.6 1 146.4	(D) (D)	(D) (D)	(D) (D)	(D) (D)	10.6 1 052.0	(D) (D)	(D) (D)	(D) (D)	(D) (D)	1.6 44.7	.2 -3.6
Arkansas Establishmentsnumber Employees1,0001,000 Value added by miningmil dol	416 4.0 521.3	412 (D) (D)	164 1.2 399.5	1 (D)	14 (D) (D)	149 (D) (D)	44 .9 43.0	-	41 (D) (D)	3 (D) (D)	8 (D) (D)	196 1.7 64.7	4 (D) (D)
California									(-)		(-)		(-)
Establishmentsnumber Employees1,000 Value added by miningmil dol	1 387 44.1 6 484.2	1 366 43.8 6 483.7	356 10.0 4 442.3	4 (D) (D)	27 (D) (D)	325 9.8 4 432.1	230 8.5 1 140.2	5 (D) (D)	212 7.2 1 034.0	13 (D) (D)	42 .7 79.1	738 24.7 822.2	21 .3 .4
Colorado													
Establishmentsnumber Employees1,000 Value added by miningmil dol	1 309 21.7 1 832.1	1 260 21.2 1 840.7	481 5.7 1 244.1	20 .3 38.6	24 .4 39.7	437 5.0 1 165.9	86 3.6 320.1	18 2.3 209.3	68 1.4 110.8	-	24 .3 (D)	669 11.6 (D)	49 .4 –8.6
Connecticut													
Establishmentsnumber Employees1,000 Value added by miningmil dol	87 1.5 105.6	87 1.5 105.6	11 (D) (D)		4 (D) (D)	(D) -	21 (D) (D)	-	20 (D) (D)	1 (D) (D)	1 (D) (D)	54 1.1 32.0	-
Delaware and District of Columbia Establishmentsnumber	27	26	2		2		4		3	1		20	1
Employees1,000 Value added by miningmil dol	.5 11.4	(D) (D)	(D) (D)		(D) (D)	-	(D) (D)	-	(Z) .1	(D) (D)	-	.4 11.0	(D) (D)
Florida Establishmentsnumber Employees	343 9.6 1 027.4	333 (D) (D)	54 (D) (D)		10 .1 6.7	44 (D) (D)	130 7.8 717.4	-	125 7.6 705.8	5 .1 11.6	4 .3 28.4	145 1.2 56.0	10 (D) (D)
Georgia													
Establishmentsnumber Employees1,000 Value added by miningmil dol	216 8.1 827.6	213 8.1 827.6	44 .4 31.4		31 (D) (D)	13 (D) (D)	100 (D) (D)	2 (D) (D)	96 6.5 738.2	(D) (D)	1 (D) (D)	68 .8 27.9	3 (Z) (Z)
Hawaii												1	
Establishmentsnumber Employees1,000 Value added by miningmil dol	9 .2 23.5	9 .2 23.5			=		8 (D) (D)		8 (D) (D)			(D) (D)	-
Idaho Establishmentsnumber Employeesnumber Value added by miningmil dol_	109 2.4 171.3	99 2.3 171.5	23 .5 53.4	12 (D) (D)	10 (D) (D)	1 - -	24 1.3 87.6	4 (D) (D)	20 (D) (D)	-	2 (D) (D)	50 (D) (D)	10 .1 2
Illinois													
Establishmentsnumber Employees1,000 Value added by miningmil dol	977 22.5 2 180.5	964 22.4 2 182.6	357 (D) (D)	14 (D) (D)	19 .4 33.5	324 2.1 318.0	206 13.9 1 511.6	26 (D) (D)	174 5.5 699.0	6 (D) (D)	9 (D) (D)	392 4.2 102.5	13 .1 –2.0
Indiana													
Establishmentsnumber Employees1,000 Value added by miningmil dol	472 7.7 815.4	464 7.6 816.7	144 1.0 138.9	1 (D) (D)	42 (D) (D)	101 .4 63.1	145 5.2 637.5	6 (D) (D)	138 5.1 618.5	1 (D) (D)	5 (D) (D)	170 (D) (D)	8 (Z) -1.2
lowa Establishmentsnumber Employees1,000	200 2.4	197 (D)	12 .1	-	10 (D)	2 (D)	136 1.8	6 (D)	127 1.7	3 (D) (D)	2 (D)	47 .5	3 (D) (D)
Value added by miningmil dol	131.3	(D)	9.5	-	(D)	(D)	117.5	(D)	108.0	(D)	(D)	7.4	(D)
Kansas Establishmentsnumber Employees	1 309 12.5 1 671.7	1 301 (D) (D)	585 4.9 1 265.7		14 (D) (D)	571 (D) (D)	71 1.1 69.8	5 (D) (D)	61 .8 46.1	5 (D) (D)	18 (D) (D)	627 6.2 208.6	8 (D) (D)
See footnotes at end of table													

#### Table 5. Selected Statistics by Type of Operation for States and Offshore Areas: 1987-Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[Por meaning of abbreviations and symbols,							g establishr	nents					
				Mines	only		Mir	nes with pre	paration pla	ants			
Geographic area and item	All types of operations	Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods	Sepa- rately operated prepara- tion plants	Undistri- buted <sup>1</sup>	Non- pro- ducing estab- lish- ments
UNITED STATES—Con. Kentucky Establishmentsnumber Employees1.000 Value added by miningmil dol	1 460 39.5 3 698.6	1 434 (D) (D)	944 17.6 1 530.9	456 10.4 708.5	302 5.6 537.9	186 1.6 284.5	216 15.8 1 972.1	88 9.9 1 193.1	113 5.1 649.8	15 .8 129.1	25 (D) (D)	249 5.0 94.0	26 (D) (D)
Louisiana Establishmentsnumber Employees1,000 Value added by miningmil dol	1 963 50.7 16 655.7	1 927 (D) (D)	536 16.8 14 497.2		4 (D) (D)	532 (D) (D)	42 1.6 137.1	3 (D) (D)	36 .7 67.2	3 (D) (D)	68 (D) (D)	1 281 30.9 1 276.9	36 (D) (D)
Maine Establishmentsnumber Employees1,000 Value added by miningmil dol	34 .2 5.5	32 (D) (D)	2 (D) (D)	-	2 (D) (D)		9 (D) (D)		9 (D) (D)			21 .1 2.9	2 (D) (D)
Maryland Establishmentsnumber Employees1,000 Value added by miningmil dol	129 2.9 273.9	127 (D) (D)	33 .2 16.8	1 (D) (D)	27 .2 15.9	5 (D) (D)	53 (D) (D)	2 (D) (D)	51 1.8 180.8	- - -		41 .6 30.0	2 (D) (D)
Massachusetts Establishmentsnumber Employees1,000 Value added by miningmil dol	108 1.8 132.0	106 1.8 132.0	11 .1 3.7	- - -	8 (D) (D)	3 (D) (D)	43 (D) (D)		43 (D) (D)		4 (D) (D)	48 1.0 39.1	2 (Z) (Z)
Michigan Establishmentsnumber Employees1,000 Value added by miningmil dol	543 9.8 1 499.6	535 (D) (D)	142 1.3 797.2	- - -	12 (D) (D)	130 (D) (D)	100 (D) (D)	2 (D) (D)	97 3.8 449.2	1 (D) (D)	10 .2 56.1	283 (D) (D)	8 (D) (D)
Minnesota Establishmentsnumber Employees1,000 Value added by miningmil dol	161 6.1 554.5	158 (D) (D)	16 .1 6.6	- - -	8 (D) 1.9	8 (D) 4.7	60 (D) (D)		59 5.3 525.3	1 (D) (D)	- - -	82 .7 22.0	3 (D) (D)
Mississippi Establishmentsnumber Employees1.000 Value added by miningmil dol	525 5.3 930.8	513 5.2 932.9	161 1.1 710.2	- - -	4 (D) (D)	157 (D) (D)	28 (D) (D)	-	26 (D) (D)	2 (D) (D)	5 (D) (D)	319 3.4 155.3	12 .1 -1.9
Missouri Establishmentsnumber Employees1,000 Value added by miningmil dol	326 5.6 466.1	320 (D) (D)	50 (D) (D)	1 (D) (D)	25 .3 11.7	24 .1 14.7	186 4.2 423.5	11 1.0 142.9	164 2.7 204.8	11 .6 75.9	1 (D) (D)	83 1.0 14.9	6 (D) (D)
Montana Establishmentsnumber Employees1,000 Value added by miningmil dol	398 5.7 1 167.1	391 (D) (D)	137 1.1 436.1	5 (D) (D)	10 (D) 8.4	122 .9 (D)	29 2.9 643.6	4 .7 (D)	25 2.2 (D)		4 (Z) 6.4	221 (D) (D)	7 (D) (D)
Nebraska Establishmentsnumber Employees1,000 Value added by miningmil dol	228 1.6 119.0	223 1.6 (D)	60 .2 58.2	- - -	3 (D) (D)	57 (D) (D)	36 (D) (D)	1 (D) (D)	26 (D) (D)	9 (D) (D)	3 (D) (D)	124 .9 28.9	5 (D)
Nevada Establishmentsnumber Employees1,000 Value added by miningmil dol	264 7.6 1 177.5	223 7.0 1 196.2	33 .1 46.2	7 (D) (D)	11 (Z) 4.1	15 (D) (D)	66 5.4 1 045.5	2 (D) (D)	61 (D) (D)	3 (D) (D)	-	124 1.5 104.5	41 .6 -18.7
New Hampshire Establishmentsnumber Employees1,000 Value added by miningmil dol	53 .5 40.9	53 .5 40.9	4 (D) (D)		2 (D) (D)	2 (D) (D)	15 (D) (D)		14 .3 26.4	1 (D) (D)	1 (D) (D)	33 .1 8.6	:
New Jersey Establishmentsnumber Employees1.000 Value added by miningmil dol	154 4.2 241.2	154 4.2 241.2	15 (D) (D)	- - -	4 (D) (D)	11 (D) -	64 1.9 193.1	- - -	62 (D) (D)	2 (D) (D)	1 (D) (D)	74 (D) (D)	
New Mexico Establishmentsnumber Employees1.000 Value added by miningmil dol	752 14.8 3 539.1	737 14.5 3 545.9	266 3.5 2 353.5	11 (D) (D)	15 (D) (D)	240 2.5 2 272.7	36 (D) (D)	5 1.5 112.1	29 2.5 541.2	2 (D) (D)	26 (D) (D)	409 6.1 229.5	15 .3 -6.7
New York Establishmentsnumber Employees1,000 Value added by miningmil dol	466 8.8 484.3	457 8.8 484.3	101 .7 139.4	3 (D) (D)	10 (D) (D)	88 .5 127.9	132 3.1 271.1	3 (D) (D)	127 2.5 197.2	2 (D) (D)	3 (D) (D)	221 (D) (D)	9 (Z) (Z)

See footnotes at end of table.

#### Selected Statistics by Type of Operation for States and Offshore Areas: 1987-Con. Table 5.

Producing establishments Mines only Mines with preparation plants Combina-Geographic area and item tion Sepa Nonmethods. pro-ducing estab-Combinarately well operations, tion All types Under Open Under-Open preparaground ground pit Dit and other other tion I Indistri lish. 0 operations Total Total mines methods Total methods plants buted' ments UNITED STATES --- Con. North Carolina Establishments\_\_\_\_\_number\_ 191 188 13 12 101 101 74 1 1 1 -\_ (D) (D) (D) (D) Employees \_\_\_\_\_1,000\_ Value added by mining \_\_\_\_\_mil dol\_ -4.0 (D) (D) (D) (D) 3.1 390.2 3.1 .8 111 2 ..... 13.5 North Dakota Establishments\_\_\_\_\_number\_\_ 326 100 319 6 94 16 16 194 \_ -Employees \_\_\_\_\_1,000\_\_\_ Value added by mining \_\_\_\_\_mil dol\_\_ 4.0 (D) (D) (D) (D) (D) (D) 1.0 1.0 \_ (D) (D) (D) (D) . (D) (D) .8 671.9 978.1 142.3 142.3 Ohio Establishments\_\_\_\_\_number\_\_ 1 240 1 221 447 109 331 249 224 12 13 8 517 19 Employees \_\_\_\_\_1,000\_\_\_\_ Value added by mining \_\_\_\_\_mil dol\_\_\_ 19.0 (D) (D) (D) (D) (D) (D) (D) (D) 18.9 4.4 2.7 9.3 3.3 4.4 1.6 1 839.8 1 841.6 657.6 488.5 886.5 340.6 344.3 201.6 -1.6 Oklahoma 2 981 1 258 22 1 236 76 40 .2 -.8 Establishments\_\_\_\_\_number\_\_ 2 941 65 11 96 1 511 \_ -Employees \_\_\_\_\_1,000\_\_\_\_ Value added by mining \_\_\_\_\_mil dol\_\_\_ 46.0 45 7 (D) (D) .2 (D) (D) (D) (D) 31.8 715.9 18 5 523.1 5 524.0 122.8 117.0 5.8 Oregon Establishments\_\_\_\_\_number\_ 172 168 13 9 75 74 2 78 2 Λ -(Z) 9.1 (Z) (D) Employees \_\_\_\_\_1,000\_ Value added by mining \_\_\_\_\_mil dol\_ (Z) (D) (Z) (D) (Z) (D) .6 22.3 (Z) (D) 1 4 78.5 (D) 46.4 (D) Pennsylvania Establishments\_\_\_\_\_number\_ 272 13.8 262.5 1 382 1 359 641 124 327 190 20 222 21 25 421 23 Employees \_\_\_\_\_1,000\_ Value added by mining \_\_\_\_\_mil dol\_ 10.9 1 041.6 4.8 389.2 6.7 649.6 6.0 538.1 33.4 33.3 3.8 316.0 2.3 336.3 1.1 74.9 8. 72.9 7.7 -4.0 2 561.6 2 565.6 1 **Bhode Island** Establishments\_\_\_\_\_number 16 16 10 10 Employees \_\_\_\_\_1,000\_ Value added by mining \_\_\_\_\_mil dol\_ \_ -(D) (D) (D) (D) 1 \_ .2 15.6 .2 .1 12.9 12.9 -South Carolina Establishments\_\_\_\_\_number. 85 8 £ 45 45 30 (Z) (D) (D) (D) Employees \_\_\_\_\_1,000\_ Value added by mining \_\_\_\_\_mil dol\_ (Z) 1.6 \_ (D) (D) 1.5 (D) (D) 1.3 -1.3 143 1 (D) 129.5 129.5 \_ \_ South Dakota Establishments\_\_\_\_\_number 84 80 16 16 15 48 Employees \_\_\_\_\_1,000\_\_ Value added by mining \_\_\_\_\_mil dol\_\_ (D) (D) (D) (D) (D) (D) -(D) (D) (D) (D) (D) (D) (D) (D) 2.1 1 1.6 \_ 190.8 28.5 145.7 Tennessee Establishments\_\_\_\_\_number 341 338 126 41 30 130 12 3 79 3 55 111 Employees \_\_\_\_\_1,000\_ Value added by mining \_\_\_\_\_mil dol\_ 1.0 62.5 3.6 274.7 1.2 22.4 6.5 6.5 1.7 1.1 65.5 2.3 .3 17.7 (Z) (Z) 458.4 458.4 156.7 42.0 52.2 191.6 4.6 Texas Establishments\_\_\_\_\_number\_ 8 021 3 286 297 4 135 132 7 889 5 39 3 242 171 2 162 (D) (D) (D) (D) 42.4 24 213.6 (D) (D) 7.3 Employees \_\_\_\_\_1,000\_... Value added by mining \_\_\_\_\_mil dol\_. 158.0 42.8 7.6 585.9 (D) (D) 101.7 105.2 .8 9.1– 1573 29 676.5 29 685.6 24 271.9 1 722.6 3 Utah Establishments\_\_\_\_\_number\_ 380 205 369 109 9 15 85 43 18 21 12 11 .9 772.2 3.8 425.3 2.8 318.1 (Z) -1.4 Employees \_\_\_\_\_1,000\_\_\_\_ Value added by mining \_\_\_\_\_mil dol\_\_\_ 7.9 1 553.3 (D) 1.7 831.1 1 552.0 Vermont Establishments\_\_\_\_\_number. 16 (D) (D) 45 44 17 20 -(D) (D) Employees \_\_\_\_\_1,000\_\_\_\_\_ Value added by mining \_\_\_\_\_mil dol\_\_ (D) (D) (D) (D) -(D) (D) -(Z) (Z) -57.8 57.8 37.8 Virginia 723 18.8 3 .2 11.4 Establishments\_\_\_\_\_number 712 430 320 87 23 141 28 110 11 130 11 18.7 8.0 .6 70.9 7.7 642.5 6.4 463.8 1.2 4.8 504.7 3.1 262.3 2.3 64.2 .2 46.3 1 555.9 132.4 -1.6 1 554.4 778.3 Washington 2 (D) (D) Establishments\_\_\_\_\_number\_ 189 180 13 3 61 59 101 a -(Z) 1.5 (D) (D) (Z) -5.3 Employees \_\_\_\_\_1,000\_ Value added by mining \_\_\_\_\_mil dol\_ (D) (D) (Z) (D) (D) (D) 2.8 2.8 (D) (D) 1.9 221.2 280.9 48.8 West Virginia Establishments\_\_\_\_\_number 262 27 1 259 1 232 776 328 149 299 159 84 63 12 35 Employees \_\_\_\_\_1,000\_\_ Value added by mining \_\_\_\_\_mil dol\_\_ 35.4 35.2 12.7 8.3 2.3 2.1 17.7 15.1 2.2 224.2 1.0 3.8 .3 -3.5-

1 274 2

728.1

257.9

288 2 2 157.5 1 871 6

3 677.6

3 674 1

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

See footnotes at end of table

.4

137.9

108.0

#### Table 5. Selected Statistics by Type of Operation for States and Offshore Areas: 1987-Con.

			Producing establishments										
				Mines	only		Mir	nes with pre	paration pla	ants			
Geographic area and item	All types of operations	Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods	Sepa- rately operated prepara- tion plants	Undistri- buted <sup>1</sup>	Non- pro- ducing estab- lish- ments
UNITED STATES-Con.													
Wisconsin													
Establishmentsnumber Employees1,000 Value added by miningmil dol	169 1.8 155.2	166 (D) (D)	16 .1 10.6	1 (D) (D)	14 .1 3.1	1 (D) (D)	102 (D) (D)		101 (D) (D)	1 (D) (D)	- - -	48 .3 17.2	3 (D) (D)
Wyoming													
Establishmentsnumber Employees1,000 Value added by miningmil dol	774 17.1 4 362.0	754 16.8 4 370.9	184 (D) (D)	7 (Z) .7	7 (D) (D)	170 3.0 (D)	55 8.0 1 669.2	5 (D) (D)	46 4.8 1 249.2	4 (D) (D)	34 (D) (D)	481 (D) (D)	20 .2 –8.8
Atlantic Offshore										:			
Establishmentsnumber Employees1,000 Value added by miningmil dol	7 (D) (D)	5 (D) (D)			-			-	- - -			5 (D) (D)	2 (D)
Northern Gulf of Mexico Offshore													
Establishmentsnumber Employees1,000 Value added by miningmil dol	32 3.4 252.3	29 (D) (D)	2 (D) (D)	-	-	2 (D) (D)		- - -				27 (D) (D)	3 (D) (D)
Pacific Offshore													
Establishmentsnumber_ Employees1,000 Value added by miningmil dol	6 (D) (D)	4 (D) (D)			Ē				-		-	4 (D) (D)	2 (D)

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

1Includes data for separately operated auxiliary establishments and establishments that were not possible to classify based on information available.



### APPENDIX A. Explanation of Terms

**Employment and related items**—The report forms requested separate information on production, development, and exploration workers for a specific payroll period within each quarter of the year and on other employees as of the payroll period which included the 12th of March.

All employees-This item includes all full-time and part-time employees on the payrolls of mining establishments during any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees working for miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers-This item includes employees (up through the working-supervisor level) engaged in manual work (using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or vards). Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and guard services, auxiliary production for use at establishments (such as power plant), record keeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and supervisors who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and persons engaged by them and paid out of the total amount received by these miners. In addition, other employees at the establishment but not on its payroll are included if paid directly through its own employees, such as superintendents and supervisors. The payments received by these types of employees are included as part of the establishments payroll. Employees above the working-supervisor level are excluded from this category.

All other employees—This item covers nonproduction employees of the establishment including those engaged in the following activities: supervision above the working-supervisor level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Separately operated auxiliary establishments employees—This item includes employment at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment during the payroll period which included March 12. Establishments are classified on the basis of the industry or principal industry served. Employees at an office located at or near the mining establishment are usually included in the mine report.

All employees, average for year—The 1987 census report form requested employment figures for production, development, and exploration workers for four selected pay periods (mid-March, May, August, and November). For all other employees, only a mid-March figure was requested. The annual average is an average of the four monthly figures for production, development, and exploration workers plus the March figure for all other employees. This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods closely approximates, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods.

**Payroll**—This item includes the gross earnings of all employees on the payroll of mining establishments paid in the calendar year 1987. Respondents were told that in reporting they could follow the definition of payroll used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, payments received on a ton, car, or yard basis, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of corporations; it excludes payments to the proprietor or partners of unincorporated concerns, and payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

As in the case of employment and establishment figures, the annual payrolls of separate auxiliary establishments of multiestablishment companies are included in the totals for individual industries and for States.

**Production-, development-, and exploration-worker hours**—This item represents all hours that production, development, and exploration workers worked, both on active days during which there was production or development work and on inactive days when only security guards, inspectors, repair persons, and other maintenance persons were on duty. It includes all hours worked or paid for at the mining operations, except hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Included are actual overtime hours, not straight time equivalent hours. Hours of working proprietors or partners are excluded.

Supplemental labor costs—This item represents employer's cost for fringe benefits not included in payrolls.

Legally required expenditures, including Social Security contributions—This cost includes employer contributions for all programs required under Federal and State legislation, such as Federal Old Age and Survivors' Insurance, unemployment compensation, and worker's compensation. Also included are legally required State temporary disability payments.

Payments for voluntary programs—Included in this cost are payments resulting from union negotiated contracts and all employer payments of insurance premiums on hospital and medical plans, life insurance premiums, and premiums on supplementary accident and sickness insurance. For programs supported by joint employer-employee contributions, only the employer payments are included. Also included are payments or allocations on all pension plans regardless of methods of administration, supplemental unemployment compensation plans, welfare plans, stock purchase plans in which the employer payment is not subject to withholding tax, and deferred profit sharing plans.

Value added by mining—This measure of mining activity is derived by subtracting the cost of supplies, minerals received for preparation, purchased machinery installed, purchased fuel, purchased electricity, and contract work from the sum of the value of shipments (mining products plus receipts for services rendered) and total capital expenditures. This statistic avoids the duplication in value of shipments and receipts which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure of value added not only in mineral production but also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

Cost of supplies used, purchased machinery installed, etc .- Besides supplies used and purchased machinery installed, this cost includes fuels and electric energy used and contract work done by others for each establishment. It includes charges to both the current and capital accounts. It also includes the cost of items used during 1987 whether they were purchased, withdrawn from inventories, or received from other establishments of the company. For selected supplies and fuels and for electric energy, both quantity and cost data were requested. The cost data refer to direct charges actually paid or payable (after discounts) for items used during the year. Freight charges and other direct charges incurred by the establishment in acquiring the item are included. Companies whose records did not show actual amounts used were asked to approximate use by adding purchases (or receipts) during the year to opening inventory and subtracting closing inventory. Separate figures were requested for (1) selected supplies used, minerals received for preparation, and purchased machinery installed; (2) electric energy purchased; (3) purchased fuels used for heat, power, or the generation of electricity; (4) contract work done by others; and (5) products bought and resold in the same condition. Supplies and equipment used in mine development, plant expansion, and capitalized repairs, which are chargeable to fixed assets accounts, are included in this item, as are supplies furnished without charge to contractors for use at the mining operation and supplies sold to employees for use at the establishment. Excluded are such costs as advertising, insurance, telephone, and research and consulting services of other establishments or such overhead costs as depreciation charges, rent, interest, and royalties.

Selected supplies used, minerals prepared, etc.—In addition to the total cost of supplies used, purchased machinery installed, etc., which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These inquiries were restricted to supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available. On report forms for most mineral industries (except the contract services and the crude petroleum and natural gas industries), a uniform inquiry was included on minerals prepared at the reported establishments. Figures were obtained on crude minerals mined at the establishment (quantity), received from other establishments of the company or purchased from others (quantity and cost), and received for preparation on a custom or toll basis (quantity and estimated value). Establishments consuming less than a specified amount (usually \$25,000) were not required to report the cost of a supply. For small establishments for which administrative records were used, the cost of supplies was included in "not specified by kind."

Value of shipments and receipts and net shipments-The amounts shown as value of shipments and receipts for each industry, and for individual products or classes of products, are the net selling values, f.o.b. mine or plant after discounts and allowances, excluding freight charges. Shipments includes all products physically shipped from the establishment during 1987, including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1987. Prepared material or concentrates includes preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, companies were requested to report the estimated value, not merely the cost of producing the items. Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

For all establishments classified in an industry, value of shipments and receipts includes (1) the value of all primary products of the industry, (2) the value of secondary products which are primary to other industries, (3) the receipts for contract work done for others, except custom milling, and (4) the value of products purchased and resold without further processing. Receipts for custom milling are not included to avoid duplication with the value of custom milled ores included in an industry's primary and secondary products.

Some duplication exists in industry and industry group totals because of the inclusion of materials transferred from one establishment to another for mineral preparation or resale. When this duplication is significant, figures generally are shown for both gross and net shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Shipments of individual products—In the 1987 Census of Mineral Industries, information was collected on output for about 200 individual mineral products. In general, the shipments figures of the 1987 and 1982 minerals censuses were confined to separate totals for each crude and each prepared mineral. When shipments were significant, separate figures were also obtained on crude minerals going to preparation plants and those going to consumers.

Figures were collected on both quantity and value of shipments. Shipments includes commercial shipments and transfers of products to other operations of the same company. For products that are used to a significant extent within the same establishment for power or heat, and for minerals mined and prepared in the same establishment, total production figures or separate data on production for such uses were collected. Typically, production was also collected for products for which there was usually significant differences between total production and total shipments because of stock changes.

For service industries, the amount received or due for services performed during 1987 was collected as a measure of output. For mine operators who also perform services, the amount received for such services was added to the total value of products shipped to determine total value of shipments and receipts for each establishment.

Capital expenditures—This item covers expenditures made during the year for development and exploration of mineral properties, for new construction, and for purchased machinery chargeable to fixed assets accounts of the mineral establishment. They are the type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1987 were determined as "additions completed during the year plus construction in progress at the end of the year minus construction in progress at the beginning of the year." Reported capital expenditures includes work done on contract, as well as by the mine forces. Expenditures for machinery and equipment includes those made for replacement purposes, as well as those for additions to capacity. Excluded from these expenditures were costs of maintenance and repairs charged as current operating expense and expenditures for land and mineral rights.

Whenever applicable, separate figures were provided for expenditures for development and exploration of mineral property, construction of preparation plants and other construction, new machinery and equipment, used plant, and used equipment acquired from others.

**Gross value of depreciable assets**—Assets data were collected on buildings, other structures, machinery, equipment, capitalized mineral exploration and development, and mineral land and rights for which depreciation, amortization, or depletion accounts are maintained. The values shown represent the actual cost of assets at the time they were acquired, including all costs incurred in making the assets usable (such as transportation and installation costs). The data were collected for the beginning and end of the year. Assets at the beginning of the year plus new and used capital expenditures minus retirements should equal assets at the end of the year. For new construction or other improvement projects in progress but not completed by the end of the year, the cumulative capital expenditures were included in the beginning- and end-ofyear assets figures.

**Retirements**—This item represents the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during 1987. The values shown are the acquisition costs of the retired assets. This item includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

**Depreciation**—This item shows the reduction in value of depreciable assets brought about through use, gradual obsolescence, or the effect of the elements (decay or corrosion) during the year. Included are charges against assets acquired or completed during the year.

**Rental payments**—This item consists of rental payments made to other companies for use of such depreciable assets as buildings, other structures, machinery, and equipment. It does not include payments made to the parent company or another subsidiary of the parent company for the use of buildings and equipment owned by the parent company or its subsidiary. The value of such company-owned assets is included in the gross value of depreciable assets.

For 1987, a clarification was made to the instructions for rental payments to indicate that the equipment should be reported according to the type of lease negotiated with the lessor. If the lease qualified as an "operating lease" the periodic payments made to the producer or the lessor should be reported in the rental section. However, if the leasing arrangement met the criteria set down by the Financial Accounting Standards Board for a "capital lease", the original cost or market value of the equipment or building was to be reported as a value of fixed assets and not as rental payments. **Current account expenditures**—This item includes all expenses for mineral properties, exploration, and development charged to current accounts. This includes all supplies, machinery, equipment, parts, fuels, power, etc., used for development or exploration and charged to current operating expenses. Also included are royalty payments, acquisition costs for mineral land and rights which were not capitalized, and the cost of maintenance and repairs associated with exploration or development activity and charged to current accounts.

**Inventories**—This item includes inventories of mined or quarried products and supplies, parts, fuels, etc., at the beginning and end of the year. Included as mined or quarried products are stockpiles of products ready for shipment and stocks of raw products awaiting treatment or beneficiation. Beginning in the 1982 Census of Mineral Industries, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method. The inventory figures for 1987 and 1982, therefore, will not be comparable to prior census data because of the change in reporting instructions.

Fuels and electric energy used—This item includes the quantity and cost of fuels and electric energy used in mining. For most industries, separate quantity and cost figures are shown for purchased coal, distillate fuel oil, residual fuel oil, gas, gasoline, and electric energy, and a cost figure is shown for "other fuels" (see table 7b of the industry reports). Data were also obtained on the quantity of fuels and electric energy produced and consumed at the same establishment. These data are shown for coal, crude petroleum, and natural gas used at the producing establishments for heat and power, and for electric energy generated and used at the same mining operations. For electric energy, the quantity generated and used is approximated by subtracting the quantity of electric energy sold from the total quantity generated (excluding generating station use).

## APPENDIX B. Industry Descriptions

#### **10 METAL MINING**

This major group includes establishments primarily engaged in mining, developing mines, or exploring for metallic minerals (ores). These ores are valued chiefly for the metals contained, to be recovered for use as such or as constituents of alloys, chemicals, pigments or other products. This major group also includes all ore dressing and beneficiating operations, whether performed at mills operated in conjunction with the mines served or at mills, such as custom mills, operated separately. These include mills which crush, grind, wash, dry, sinter, calcine, or leach ore, or perform gravity separation or flotation operations. Magnesite and brucite operations are classified in industry 1459, and crushed dolomite operations are classified in industry 1422. Smelters and refineries are classified in Manufacturing, major group 33, and establishments engaged in producing primary magnesium metal are classified in Manufacturing, industry 3339. The operation of brine wells or sea water plants for the production of magnesium is classified in Manufacturing, major group 28.

When performed by operators of the properties, exploration under preliminary phases of operation should be classified according to the type of ore expected to be found. Exploration performed on a contract or fee basis is classified in industry 1081.

#### 101 IRON ORES

#### 1011 Iron Ores

Establishments primarily engaged in mining, beneficiating, or otherwise preparing iron ores and manganiferous ores valued chiefly for their iron content. This industry includes production of sinter and other agglomerates except those associated with blast furnace operations. Blast furnaces primarily engaged in producing pig iron from iron ore are classified in Manufacturing, industry 3312.

#### **102 COPPER ORES**

#### 1021 Copper Ores

Establishments primarily engaged in mining, milling, or otherwise preparing copper ores. This industry also includes establishments primarily engaged in the recovery of copper concentrates by precipitation and leaching of copper ore. Establishments primarily engaged in the recovery of refined copper by leaching copper concentrates are classified in Manufacturing, major group 33.

#### 103 LEAD AND ZINC ORES

#### 1031 Lead and Zinc Ores

Establishments primarily engaged in mining, milling, or otherwise preparing lead ores, zinc ores, or lead-zinc ores.

#### **104 GOLD AND SILVER ORES**

#### 1041 Gold Ores

Establishments primarily engaged in mining gold ores from lode deposits or in the recovery of gold from placer deposits by any method. In addition to ore dressing methods such as crushing, grinding, gravity concentration, and froth flotation, this industry includes amalgamation, cyanidation, and the production of bullion at the mine, mill, or dredge site.

#### 1044 Silver Ores

Establishments primarily engaged in mining, milling, or otherwise preparing silver ores. The production of bullion at the mine or mill site is included.

#### **106 FERROALLOY ORES, EXCEPT VANADIUM**

#### 1061 Ferroalloy Ores, Except Vanadium

Establishments primarily engaged in mining, milling, or otherwise preparing ferroalloy ores, except vanadium. The mining of manganiferous ores valued chiefly for their iron content is classified in industry 1011. Establishments primarily engaged in mining vanadium ore are classified in industry 1094, and those mining titanium ore are classified in industry 1099.

#### **108 METAL MINING SERVICES**

#### 1081 Metal Mining Services

Establishments primarily engaged in performing metal mining services for others on a contract or fee basis, such as the removal of overburden, strip mining for metallic ores, prospect and test drilling, and mine exploration and development. Establishments which have complete responsibility for operating mines for others on a contract or fee basis are classified according to the product mined rather than as metal mining services. Establishments primarily performing hauling services are classified in Division E, Transportation.

#### 109 MISCELLANEOUS METAL ORES

#### 1094 Uranium-Radium-Vanadium Ores

Establishments primarily engaged in mining, milling, or otherwise preparing uranium-radium-vanadium ores.

#### 1099 Miscellaneous Metal Ores, Not Elsewhere Classified

Establishments primarily engaged in mining, milling, or otherwise preparing miscellaneous metal ores, not elsewhere classified. Production of metallic mercury by furnacing or retorting at the mine site is also included.

#### 12 COAL MINING

This major group includes establishments primarily engaged in producing bituminous coal, anthracite, and lignite. Included are mining operations and preparation plants (also known as cleaning plants and washeries), whether or not such plants are operated in conjunction with mine sites. The production of coal fuel briquettes and packaged fuel is classified in Manufacturing, industry 2999. Establishments primarily engaged in the production of gas and hydrocarbon liquids from coal at the mine site are classified in major group 13.

#### 122 BITUMINOUS COAL AND LIGNITE MINING

#### 1221 Bituminous Coal and Lignite Surface Mining

Establishments primarily engaged in producing bituminous coal or lignite at surface mines or in developing bituminous coal or lignite surface mines. This industry includes auger mining, strip mining, culm bank mining, and other surface mining, by owners or lessees or by establishments which have complete responsibility for operating bituminous coal and lignite surface mines for others on a contract or fee basis. Bituminous coal and lignite preparation plants performing such activities as cleaning, crushing, screening or sizing are included if operated in conjunction with a mine site, or if operated independently of any type of mine.

#### 1222 Bituminous Coal Underground Mining

Establishments primarily engaged in producing bituminous coal in underground mines or in developing bituminous coal underground mines. This industry includes underground mining by owners or lessees or by establishments which have complete responsibility for operating bituminous coal underground mines for others on a contract or fee basis. Bituminous coal preparation plants performing such activities as cleaning, crushing, screening or sizing are included if operated in conjunction with a mine. Independent bituminous coal preparation plants are classified in industry 1221.

#### **123 ANTHRACITE MINING**

#### 1231 Anthracite Mining

Establishments primarily engaged in producing anthracite or in developing anthracite mines. All establishments in the United States that are classified in this industry are located in Pennsylvania. This industry includes mining by owners or lessees or by establishments which have complete responsibility for operating anthracite mines for others on a contract or fee basis. Also included are anthracite preparation plants, whether or not operated in conjunction with a mine.

#### 124 COAL MINING SERVICES

#### 1241 Coal Mining Services

Establishments primarily engaged in performing coal mining services for others on a contract or fee basis. Establishments which have complete responsibility for operating mines for others on a contract or fee basis are classified according to the product mined, rather than as mining services.

#### **13 OIL AND GAS EXTRACTION**

This major group includes establishments primarily engaged in: (1) producing crude petroleum and natural gas; (2) extracting oil from oil sands and oil shale; (3) producing natural gasoline and cycle condensate; and (4) producing gas and hydrocarbon liquids from coal at the mine site. Types of activities included are exploration, drilling, oil and gas well operation and maintenance, the operation of natural gasoline and cycle plants, and the gasification, liquefaction, and pyrolysis of coal at the mine site. This major group also includes such basic activities as emulsion breaking and desilting of crude petroleum in the preparation of oil and gas customarily done at the field site. Pipeline transportation of petroleum, gasoline, and other petroleum products (except crude petroleum field gathering lines) is classified in Transportation and Public Utilities, major group 46, and of natural gas in major group 49. Establishments primarily engaged in petroleum refining and in the production of lubricating oils and greases are classified in Manufacturing, major group 29.

#### 131 CRUDE PETROLEUM AND NATURAL GAS

#### 1311 Crude Petroleum and Natural Gas

Establishments primarily engaged in operating oil and gas field properties. Such activities may include exploration for crude petroleum and natural gas; drilling, completing, and equipping wells; operation of separators, emulsion breakers, desilting equipment, and field gathering lines for crude petroleum; and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This industry includes the production of oil through the mining and extraction of oil from oil shale and oil sands and the production of gas and hydrocarbon liquids through gasification, liquefaction, and pyrolysis of coal at the mine site. Also included are establishments which have complete responsibility for operating oil and gas wells for others on a contract or fee basis. Establishments primarily engaged in performing oil field services for operators on a contract or fee basis are classified in industry group 138.

#### 132 NATURAL GAS LIQUIDS

#### **1321 Natural Gas Liquids**

Establishments primarily engaged in producing liquid hydrocarbons from oil and gas field gases. Establishments recovering liquefied petroleum gases incidental to petroleum refining or to the manufacturing of chemicals are classified in Manufacturing, major group 28 or 29. Establishments recovering helium from natural gas are classified in Manufacturing, major group 28.

#### 138 OIL AND GAS FIELD SERVICES

#### 1381 Drilling Oil and Gas Wells

Establishments primarily engaged in drilling wells for oil or gas field operations for others on a contract or fee basis. This industry includes contractors that specialize in spudding in, drilling in, redrilling, and directional drilling.

#### 1382 Oil and Gas Field Exploration Services

Establishments primarily engaged in performing geophysical, geological, and other exploration services for oil and gas on a contract or fee basis.

#### 1389 Oil and Gas Field Services, Not Elsewhere Classified

Establishments primarily engaged in performing oil and gas field services, not elsewhere classified, for others on a contract or fee basis. Services included are excavating slush pits and cellars; grading, and building of foundations at well locations; well surveying; running, cutting, and pulling casings, tubes, and rods; cementing wells; shooting wells; perforating well casings; acidizing and chemically treating wells; and cleaning out, bailing, and swabbing wells. Establishments which have complete responsibility for operating oil and gas wells for others on a contract or fee basis are classified according to the product extracted rather than as oil and gas field services. Establishments primarily engaged in hauling oil and gas field supplies and equipment are classified in Division E, Transportation and Public Utilities. Establishments primarily engaged in oil and gas field machine shop work are classified in Manufacturing, industry 3599.

#### 14 MINING AND QUARRYING OF NONMETALLIC MINERALS, EXCEPT FUELS

This major group includes establishments primarily engaged in mining or guarrying, developing mines, or exploring for nonmetallic minerals, except fuels. Also included are certain well and brine operations, and primary preparation plants, such as those engaged in crushing, grinding, washing, or other concentration. Establishments primarily engaged in manufacturing cement are classified in industry 3241; those engaged in manufacturing lime are classified in industry 3274; those engaged in cutting and finishing stone and stone products are classified in industry 3281; and those engaged in manufacturing brick and other structural clay products are classified in industry group 325. Establishments primarily engaged in crushing, pulverizing, or otherwise treating earths, rocks, and minerals mined in industry group 145 or 149; or barite mined in Industry 1479, not in conjunction with mining or guarrying operations, are classified in Manufacturing, industry 3295; establishments primarily engaged in these activities in conjunction with mines or quarries are classified in Mining. Establishments primarily engaged in crushing, pulverizing, or otherwise treating other nonmetallic minerals are classified in Mining, whether or not they are operated in conjunction with mines. Establishments primarily engaged in manufacturing other stone, clay, glass, and concrete products from minerals mined at the same establishment are classified in Manufacturing, major group 32, when separate reports are not available for the mining and manufacturing activities.

#### 141 DIMENSION STONE

#### 1411 Dimension Stone

Establishments primarily engaged in mining or quarrying dimension stone. Also included are establishments engaged in producing rough blocks and slabs. Establishments primarily engaged in mining dimension soapstone or in mining or quarrying and shaping grindstones, pulpstones, millstones, burrstones, and sharpening stones are classified in industry 1499. Establishments primarily engaged in dressing (shaping, polishing, or otherwise finishing) blocks and slabs are classified in Manufacturing, industry 3281. Nepheline syenite mining operations are classified in industry 1459.

#### 142 CRUSHED AND BROKEN STONE, INCLUDING RIPRAP

#### 1422 Crushed and Broken Limestone

Establishments primarily engaged in mining or quarrying crushed and broken limestone, including related rocks, such as dolomite, cement rock, marl, travertine, and calcareous tufa. Also included are establishments primarily engaged in the grinding or pulverizing of limestone, but establishments primarily engaged in producing lime are classified in Manufacturing, industry 3274.

#### 1423 Crushed and Broken Granite

Establishments primarily engaged in mining or quarrying crushed and broken granite, including related rocks, such as gneiss, syenite, and diorite.

#### 1429 Crushed and Broken Stone, Not Elsewhere Classified

Establishments primarily engaged in mining or quarrying crushed and broken stone, not elsewhere classified.

#### 144 SAND AND GRAVEL

#### 1442 Construction Sand and Gravel

Establishments primarily engaged in operating sand and gravel pits and dredges, and in washing, screening, or otherwise preparing sand and gravel for construction uses.

#### 1446 Industrial Sand

Establishments primarily engaged in operating sand pits and dredges, and in washing, screening, and otherwise preparing sand for uses other than construction, such as glassmaking, molding, and abrasives.

#### 145 CLAY, CERAMIC, AND REFRACTORY MINERALS

Establishments primarily engaged in mining, milling, or otherwise preparing clays and refractory minerals. Mines operated in conjunction with plants manufacturing cement, brick or other structural clay products, or pottery and related products, are included in this industry when separate reports are available. Establishments primarily engaged in grinding, pulverizing, or otherwise treating clay, ceramic, and refractory minerals not in conjunction with mining or quarrying operations are classified in Manufacturing, industry 3295.

#### 1455 Kaolin and Ball Clay

Establishments primarily engaged in mining, milling, or otherwise preparing kaolin or ball clay, including china clay, paper clay, and slip clay.

#### 1459 Clay, Ceramic, and Refractory Minerals, Not Elsewhere Classified

Establishments primarily engaged in mining, milling, or otherwise preparing clay, ceramic, or refractory minerals, not elsewhere classified. Establishments producing clay in conjunction with the manufacture of refractory or structural clay and pottery products are classified in Manufacturing, major group 32.

#### 147 CHEMICAL AND FERTILIZER MINERAL MINING

#### 1474 Potash, Soda, and Borate Minerals

Establishments primarily engaged in mining, milling, or otherwise preparing natural potassium, sodium, or boron compounds. Establishments primarily engaged in mining common salt are classified in industry 1479.

#### 1475 Phosphate Rock

Establishments primarily engaged in mining, milling, drying, calcining, sintering, or otherwise preparing phosphate rock, including apatite. Establishments primarily engaged in the production of phosphoric acid, superphosphates, or other manufactured phosphate compounds or chemicals are classified in Manufacturing, major group 28.

#### 1479 Chemical and Fertilizer Mineral Mining, Not Elsewhere Classified

Establishments primarily engaged in mining, milling, or otherwise preparing chemical or fertilizer mineral raw materials, not elsewhere classified. Establishments primarily engaged in milling, grinding, or otherwise preparing barite not in conjunction with mining or quarry operations are classified in Manufacturing, industry 3295; similar establishments preparing other minerals of this industry are included here. Establishments primarily engaged in producing salt by evaporation of sea water or brine are classified in Manufacturing, industry 2899.

#### 148 NONMETALLIC MINERALS SERVICES, EXCEPT FUELS

#### 1481 Nonmetallic Minerals Services, Except Fuels

Establishments primarily engaged in the removal of overburden, strip mining, and other services for nonmetallic minerals, except fuels, for others on a contract or fee basis. Establishments primarily engaged in performing hauling services are classified in Division E, Transportation and Public Utilities.

#### 149 MISCELLANEOUS NONMETALLIC MINERALS, EXCEPT FUELS

#### 1499 Miscellaneous Nonmetallic Minerals, Except Fuels

Establishments primarily engaged in mining, quarrying, milling, or otherwise preparing nonmetallic minerals, except fuels. This industry includes the shaping of natural abrasive stones at the quarry. Establishments primarily engaged in the production of blast, grinding, or polishing sand are classified in industry 1446, and those calcining gypsum are classified in Manufacturing, industry 3275.

# APPENDIX C. Authority for Census: Title 13, United States Code

# COLLECTION AND PUBLICATION; FIVE-YEAR PERIODS (131)

The Secretary shall take, compile, and publish censuses of manufactures, of mineral industries, and of other businesses ... in the year 1964, then in the year 1968, and every fifth year thereafter, and each such census shall relate to the year immediately preceding the taking thereof.

#### **GEOGRAPHIC SCOPE OF CENSUSES (191A)**

(a)Each of the censuses authorized by this chapter shall include each State, the District of Columbia, the Virgin Islands, the Commonwealth of Puerto Rico, and as may be determined by the Secretary, such other possessions and areas over which the United States exercises jurisdiction, control, or sovereignty. Inclusion of the other areas over which the United States exercises jurisdiction or control shall be subject to the concurrence of the Secretary of State.

# WRONGFUL DISCLOSURE OF INFORMATION (214)

Whoever, being or having been an employee or staff member referred to in subchapter II of chapter I of this title, having taken and subscribed the oath of office, or having sworn to observe the limitations imposed by section 9 of this title, publishes or communicates any information, the disclosure of which is prohibited under the revisions of section 9 of this title, and which comes into his possession by reason of his being employed (or otherwise providing services) under the provisions of this title, shall be fined not more than \$5,000 or imprisoned not more than 5 years, or both.

#### FAILURE TO ANSWER QUESTIONS AFFECTING COMPANIES, BUSINESSES, RELIGIOUS BODIES, AND OTHER ORGANIZATIONS: FALSE ANSWERS (224)

Whoever, being the owner, official, agent, person in charge or assistant to the person in charge of any company, business, institution establishments, religious body, or organization of any nature whatsoever, neglects or refuses, when requested by the Secretary or other authorized officer or employee of the Department of Commerce or bureau or agency thereof, to answer completely and correctly to the best of his knowledge all questions relating to his company, business, institution, establishment, religious body, or other organization, or to records or statistics in his official custody, contained on any census or other schedule or questionnaire prepared and submitted to him under the authority of this title, shall be fined not more than \$500; and if he willfully gives a false answer to any such question, he shall be fined not more than \$10,000.

# APPENDIX D. Alphabetic Index of Products and Services of Mineral Establishments

This index provides an alphabetic list of products and services classified in the mineral industries for which data are shown in table 6 of the industry reports. The references in this index refer to items for which statistics are either shown separately in that table or are included as part of a group of products or services. The index also includes products and services referred to in the industry descriptions in the explanatory text of the separate industry reports.

References to products may be found in various tables in the industry chapters; however, detailed product information is typically given in table 6. The industry codes are based on the 1987 edition of the *Standard Industrial Classification (SIC) Manual*<sup>1</sup> published by the Office of Management and Budget.

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Abandoning of wells for oil or gas field operations \_13890 Abrasive, natural (except quartz and sand) \_\_\_\_\_14994 Acidizing and other chemical treatment of wells,

Acidizing and other chemical treatment of wells,	
except hydraulic fracturing	13890
Agate	14999
Alabaster, crude	14997
Alabaster, prepared	14997
Alum, natural, crude	
Alum, natural, prepared	
Aluminum ores, crude	
Aluminum ores, prepared	
Amblygonite	14799
Amethyst	
Andalusite, crude	14599
Andalusite, prepared	
Anthracite, crushed	
Anthracite, mechanically cleaned	
Anthracite, raw, shipments, other than to coal	
preparation plants	12311
Anthracite, raw, shipped to coal preparation plants	
Anthracite, screened	
Anthracite, sized	
Anthracite, stripping overburden services	12410
Antimony concentrates	10999
Antimony ores, crude	10999
Apatite, crude, shipped to washer or concentrate	
Apatite, dried	
Aplite, crude	
Aplite, prepared	
Argillite, crude, dimension stone	
Arsenic minerals	
Asbestos	
Ash, volcanic	
Asphalt, native	
Auger mining services, bituminous coal	12410
Auger mining services, lignite	
rager mining oervices, ngritte	12410

<sup>&</sup>lt;sup>1</sup>Standard Industrial Classification Manual: 1987: For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

D	
Bailing out wells, oil and gas field	13890
Ball clay, crude	
Ball clay, prepared	
Barite, crude	
Barite, crushed	
Barite flotation concentrates	
Barite, ground	
Barite, prepared	
Barium ores, crude	
Basalt, rough, dimension stone	14119
Basalt, crushed and broken	14290
Bastnaesite, crude	
Bastnaesite, prepared	10999
Bauxite, calcined or activated	10992
Bauxite, crude, undried	10992
Bauxite, crude, undried, for direct shipping	10992
Bauxite, dried	10992
Bentonite, crude	14591
Bentonite, prepared	14591
Beryllium concentrates	10999
Beryllium ores, crude	10999
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Bituminous coal, crushed-surface	
Bituminous coal, crushed-underground	12222
Bituminous coal, mechanically cleaned-surface	
Bituminous coal, mechanically cleaned-undergroun	d_12222
Bituminous coal, raw, shipments other than to	
coal preparation plants from surface	12211
Bituminous coal, raw, shipments other than to	10001
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Bituminous coal, raw, shipped to coal preparation plants from underground	10001
Bituminous coal, screened-surface	
Bituminous coal, screened-underground	
Bituminous coal, sized-surface	
Bituminous coal, sized-underground	
Bituminous limestone	14992

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Bituminous sandstone14992Blasting services for anthracite mining12410Blasting services for bituminous coal mining12410Blasting services for lignite mining12410Blasting services for metal mining10810Blasting services for nonmetallic minerals14810(except fuels) mining14593Bleaching clay, crude14593Bluestone, crude, dimension14119Board roads, building of, for oil or gas field operations13890Borate compounds14744Boron compounds14744Boron compounds14794Brimstone14794Briquets, iron10112Brucite, crude14599
Brucite, prepared
Bullion, gold, produced at mine site
C
Cadmium, concentrates10612Calamine, prepared10312Calaverite, prepared10412Calcareous tufa, rough, dimension14111Calcareous tufa, crushed and broken14220Calcined phosphate rock14752Calcite, optical grade14999Canal dredging for oil or gas field operations13890Carbonates, sodium14743Celestite14799
Cement rock, crushed and broken14220Cementing wells for oil or gas field operations13890Cerium concentrates10999Cerium ores, crude10999Cerrusite, prepared10312Cesium10999Chalcocite, prepared10212Chalcopyrite, prepared10212Chalk, crushed and broken14220Chemical treatment of wells for oil or gas field13890
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C—Con.
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Clay, common, prepared
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Condensate, cycle13212Construction of oil or gas pipelines on lease; construction of gathering lines to point where distribution company takes over13890Construction sand, crude14421Construction sand, treated14422Contract services, general, for oil or gas field operations13890Copper concentrates10212Copper ore, crude, and old tailings shipped to 
Core drilling, oil or gas field exploration services13820Cornwall stone, crude

Cuprite, prepared	.10212
Cutting casing, tubes or rods for oil or gas field	
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Cutting cores in oil or gas wells	13890
Cyanite, crude	14599
Cyanite, prepared	14599
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D	

<b>D</b>
_

Diabase, crude, dimension stone1	4119
Diabase, crushed and broken1	4290
Diamonds, industrial1	4994
Diaspore, crude1	4592
Diaspore, prepared1	4592
Diatomaceous earth1	4996
Diatomite1	4996
Dimension stone, rough, other than granite	
or limestone1	4119
Diorite, crude, dimension stone1	4115
Diorite, crushed and broken1	4230

Directional drilling for oil or gas field operations1381	0
Dirt work in oil or gas fields1389	90
Disposal systems, salt water, for oil or gas field	
operations1389	90
Dolomite, rough, dimension stone1411	1
Dolomite, crushed and broken1422	20
Dolomite marble, rough, dimension, stone1411	9
Dolomitic marble, crushed and broken1429	90
Dragstones1499	94
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drilling13890
Drilling, core, oil or gas field exploration services13820
Drilling, directional, oil or gas field13810
Drilling dry holes for gas and oil field13810
Drilling gas wells13810
Drilling oil wells13810
Drilling rat holes and mouse holes for oil or gas
field operations13890
Drilling service wells for oil or gas field operations _13810
Drilling, shot hole, oil or gas field exploration services_13820
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Drilling, stratigraphic oil or gas field exploration

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Drilling water intake wells, oil or gas field1381	0
Drilling wells for gas or oil field operations	0
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Dumortierite, prepared1459	99
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Earth, diatomaceous1499	96
Earth, fuller's (including all natural bleaching clays)_1459	93
Emery1499	94
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Erecting, cleaning, repairing, and dismantling	
lease tanks for oil or gas field operations	13890
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Excavating mud pits, slush pits, and cellars for	
oil or gas field operations	13890
Exploration services for anthracite mining	
Exploration services for bituminous coal mining	
Exploration services for lignite mining	
Exploration services for metal mining	
Exploration services for nonmetallic minerals	
(except fuels) mining	1/810
(except ideis) mining	
Feldspar, crude	1/506
Feldspar, crushed or ground	
Feldspar, prepared	
Ferberite concentrates	
Ferberite crude ores	
Ferroalloy ores, except molybdenum and	
vanadium, crude	10611
Fertilizer minerals, natural	
Fire clay, crude (including plastic, flint, diaspore,	14799
burley and stoneware)	14502
Fire clay, plastic, crude	
Fire clay, plastic, prepared	14092
Fishing for tools (for oil or gas field operations)	13890
Flagstones, crude, dimension	14119
Flint, fire clay, crude	14592
Flint, fire clay, prepared	14592
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field operations	13890
Fluorite, crude	14792
Fluorspar, crude	14792
Fluorspar, crushed	14792
Fluorspar flotation concentrates	14792
Fluorspar, ground	14792
Fluorspar, prepared	14792
Fuller's earth	14593
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Gabbro, crude, dimension stone	
Gabbro, crushed and broken stone	14290
Galena, prepared	
Ganister, crushed and broken stone	14290
Garnet	14994
Gas, natural	
Gas or oil field geological exploration	13820
Gas or oil field geophysical exploration	13820
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Gasoline, natural	13212
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General oil or gas field contracting	
Geological exploration, oil or gas field	
Geophysical exploration, oil or gas field	13020
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Geophysical surveying services for bituminous	
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Geophysical surveying services for lignite mining	
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Glass sand for melting only	14461
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Gold mill bullion and precipitates recovered by	-10412
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cyanidation	10/12
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Grading well foundations at well locations for oil	10410
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Granite, rough, dimension stone	
Granite, crushed and broken	
Granules, slate	
Graphite	
Gravel, crude	
Gravel, prepared	
Gravel, run of pit or bank	
Gravel, washed and screened Greensand	
Greenstone, crude, dimension	
Grinding pebbles	
Grindstones	
Grits, crushed and broken stone	
Guano	
Gypsite, crude	
Gypsite, prepared	
Gypsum, crude	
Gypsum, crushed, ground, screened or dried	_14997
н	
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Hones	
Huebnerite, crude	
Huebnerite, prepared	
Humus, peat	
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Iceland spar	14999
Ilmenite, concentrates	
Ilmenite ore, crude	.10991
Indium	

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Industrial sand	,
operations	)
Iridium10999	
Iron briquets, agglomerates10112	2
Iron ore, crude, beneficiating-grade and/or	
agglomeration-grade10111	
Iron ore, crude, for direct shipping10111	
Iron pellets, agglomerates	
Iron sinter, agglomerates	
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Kyanite, prepared14599	)
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Laterite, prepared	
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and repairing	)
Lepidolite14799	
Leveling for oil or gas field operations13890	)
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Lignite, mechanically cleaned	
Lignite, raw, shipped to coal preparation plants12211	
Lignite, screened12212	
Lignite, sized12212	
Limestone, bituminous	
Limestone, rough, dimension stone	
Limestone, crushed and broken	
Limonite, for agglomeration plants not at blast	
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Lithium, minerals14799	)
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Magnetite, for treatment10111	
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M—Con.	
Manganese concentrates	10612
Manganese and manganiferous ores, crude for	
treatment	10611
Manganese nodules	
Manganese ore, crude, for treatment	
Manganese ore, crude, beneficiating-grade and	
agglomeration grade	10611
Manganese ore, crude, direct shipping	
Manganese ores, treated	
Manganese sinter	
Manganite, crude, for treatment	
Manganite, prepared	10612
Markle aruda dimension atono	14110
Marble, crude, dimension stone	14119
Marble, including dolomitic marble, crushed	1 1 0 0 0
and broken	
Marcasite	
Marl, crushed and broken	
Meerschaum	
Mercury ore, crude	
Mercury, metal	10993
Mica	14991
Mica schist, crude, dimension	14119
Mica schist, crushed and broken	14290
Microlite, crude	
Microlite, prepared	
Millstones	
Mine shaft sinking services for anthracite	12410
Mine shaft sinking services for bituminous coal	
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Mine shaft sinking services for lignite mining	
Mine shaft sinking services for metal mining	10810
Mine shaft sinking services for nonmetallic	
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Mine tunneling services for anthracite mining	12410
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mining	12410
Mine tunneling services for lignite mining	
Mine tunneling services for metal mining	10810
Mine tunneling services for nonmetallic minerals	
(except fuels) mining	
Mineral pigments, natural	
Molding sand	
Molybdenite, crude	
Molybdenite, prepared	10612
Molybdenum concentrates	10612
Molybdenum ores, crude	
Molybdite, crude	
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Molybdite, prepared	
Monazite, crude	
Monazite, prepared	10999
Mouse hole and rat hole drilling for oil or gas	
field operation	13890
Mud logging for oil or gas field operations	13890

# Native asphalt14992Natural abrasives (except quartz)14994Natural gas13115Natural gasoline13212Nepheline syenite, crude (feldspathic material use)14596Nepheline syenite, prepared (feldspathic14596Nickel concentrates10612Nickel ores, crude10611

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#### Ρ

Palladium	10999
Paper clay, crude	
Paper clay, prepared	14552
Paraffin services for oil or gas field operations	13890
Pavers	14994
Peat	
Pebbles, grinding	
Pegmatite (feldspar), crude	
Perforating well casing, oil or gas field services	
Perlite, crude or prepared	14999
Petroleum, crude	13111
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Phosphate rock, crude, shipped to washer or	
concentrator	14751
Phosphate rock, dried, calcined or sintered	14752
Phosphate rock, washed or concentrated: shipped	
to drier	
Pigments, mineral, natural	14799
Pinite, crude	
Pinite, prepared	.14599
Pipe line construction on lease; construction of	
gathering lines to point where distribution	
company takes over (oil or gas only)	13890
Pipe testing for oil or gas field operations	13890
Pipestones	14999
Pitchblende, crude	
Pitchblende, prepared	
Placer gold	
Placer silver	

#### -Con **D**

P—Con.			
P—Con. Plastic fire clay, crude			
operations			
minerals (except fuels) mining14810 Psilomelane, crude, ore for treatment10611 Pulling casing, tubes, or rods for oil or gas field operations13890 Pulpstones, natural14994 Pumice14993			
Pumicite14993Pumps installed for oil or gas field operations13890Pyrite concentrates14799Pyrites, fines14799Pyrites, lump ore14799Pyrolusite, crude, for treatment10611Pyrolusite, prepared10612Pyrophyllite, crude14998Pyrophyllite flotation concentrates14998Pyrophyllite, prepared14998Pyrophyllite, sawed, crushed or ground14998Pyrrhotite14799			
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Quartz crystal (pure)14999Quartzite, crushed and broken14290Quartzite, ganister, crushed and broken14290Quicksilver (metal), prepared at mine site10993Quicksilver ore10993			

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Radium ores	<b>.</b> 10941
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R—Con.
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Rig building, repairing and dismantling oil or gas wells13890
Rig skidding, for oil or gas field operations
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or gas field operations
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Rubber clay, prepared14552
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Salt, (rock), sodium chloride14793
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Sand, blast
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Sand, common, prepared14422
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Sand, construction, washed, screened, ground,
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Sand, filtration
Sand, filtration

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Selenite, prepared	
Semianthracite, mechanically cleaned from	
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Semianthracite, raw, (shipped to preparation	
plants) from surface operations	12211
Semianthracite, raw, (shipped to preparation	
plants) from underground operations	12221
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Serpentine, crude, dimension stone	
Serpentine, crushed and broken stone	14290
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Shale, prepared	
Shell mining	
Shooting wells for oil or gas field operations	
Shot hole drilling, oil or gas field services	
Siderite (carbonate), crude, for treatment	10111
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not at blast furnace	10112
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Sillimanite, crude	14599
Sillimanite, prepared	
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Silver mill bullion and precipitates recovered by	
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Silver mill bullion and precipitates recovered by	
cyanidation	10443
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Silver ore, crude, and old tailings shipped to	
mills for treatment	10441
Silver ore, crude, and old tailings shipped to	
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Silver placer	
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Slate, crush and broken	
Slate granules, crushed and broken	14000
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treatment	10311
Smithsonite, prepared	10312
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Soapstone flotation concentrates	
Soapstone, prepared	
Soda ash, natural	
Sodium borates	14744
Sodium carbonates, natural	14743
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Spar, Iceland, prepared	
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treatment	
Sphalerite, prepared	10312
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Steatite, crude	
Steatite, prepared	14998
Stone, crude, dimension other than limestone	
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or limestone	
Stone, abrasive	
Stoneware fire clay, crude	
Stoneware fire clay, prepared	
Stratigraphic drilling, oil or gas field exploration	
Strip mining services for anthracite mining	12410
Strip mining services for bituminous coal mining	12410
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preparation plants from surface operations	

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preparation plants from underground operation	s12221
Subsurface remedial work for oil or gas field	
operations	13810
Sulfate, sodium	14743
Sulfate, native	14794
Surveying wells for oil or gas field operations	13890
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Talc, flotation concentrates	14998
Talc, prepared	
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Tantalum, crude ores for direct shipment	10611
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Telluride (gold) mining, crude, for shipment to	
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Thorite, prepared	
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Thorium, prepared	10999
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Ulexite	14744
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Uraninite, prepared	
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Vanadium, concentrates1094	2
Vanadium ores, crude1094	1
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Vermiculite	9
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Volcanic rock, light colored, rough, dimension1411	9
Volcanic rock, light colored, crushed and broken1429	0

#### W

vv	
Washeries, anthracite	2
Washeries, bituminous coal12212	2
Water injection or flooding for oil or gas field operations	h
Water intake well drilling for oil or gas field	ĺ
operations13810	)
Well casing running, cutting and pulling for oil or	
gas field operations	)
Well logging, oil or gas field	
Well plugging, for oil or gas field operations13890	
Well surveying, for oil or gas field operations13890	)
Wellhead fittings, installed for oil or gas field	
operations	
Wells, oil, gas, dry, or service: reworking13810	J
Wells, oil, gas, or service: drilling in, spudding	
in, tailing in13810	
Whetstones14994	
Whiting, crushed and broken	
Willemite, crude, for shipment to smelters10311	
Willemite, prepared	
Wireline services for oil or gas field operations	
Wolframite, crude	
Wollastonite	
Workover of wells for oil or gas field operations	
wondover of wens for on of gas held operations	·

tronterer er nene fer en er gae nene operationerter
Wulfenite, crude
Wulfernite, prepared10612
Wurtzilite
v

Yttrium, p	prepared	
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#### Ζ

Zinc concentrates	.10312
Zinc ore, crude, for shipment to smelters	.10311
Zinc ore, crude, and old tailings shipped to	
mills for treatment	.10311
Zinc ore, crude, and old tailings shipped to	
smelters	.10311
Zirconium concentrates	.10999
Zirconium ores, curde	.10999

# APPENDIX E. Report Forms

This appendix contains reproductions of a representative selection of the report forms used in the 1987 Economic Censuses with emphasis on the census of mineral industries. The use of each of the forms is described in the Introduction, item 7, Report Forms. Following is a list of forms included in this appendix:

Number	Title	Number	Title
NC-9901	<b>Report of Organization</b> —This company- wide report was used prior to mailing the 1987 census questionnaires to develop the directory of establishments operated by multiunit companies.	ES-9100	<b>Enterprise Summary Report</b> —This form was sent to each large multiestablish- ment company in addition to a specific questionnaire for each establishment and requested consolidated company totals of selected data.
NC-9920 NC-9923	Listing of Additional Establishments— This form was mailed to all multiestablish- ment companies to obtain a list of estab- lishments that were acquired after the NC-9901 was filed. General Schedule—This questionnaire	ES-9200	Auxiliary Establishment Report—This form was completed by establishments whose function was to provide central- ized administrative, management, or other supporting services for other establish- ments of the same company, but not for the general public or other companies.
	was used to obtain information from small companies for which the industry code available in the Social Security Adminis- tration records was not precise enough to indicate which one of the standard ques- tionnaires should be mailed.	MC-1403	Chemical and Fertilizer and Miscella- neous Nonmetallic Minerals—This is a typical example of the types of general statistics, supplies, and product and serv- ice questions asked and how each form was tailored to reflect the uniqueness of

each industry

	DATE: FEBRUARY 15, 1988					OMB No.	0607-053	5: Approv	al Expires De	cember 31, 1988
FORM 1	NC-9901 (Items 1—4)		NOTICE — Res report to the Ce used only for st from legal pro	atistical purpos	confident confident ies. The lay	quired by law ( Ini. It may be se v also provides (	Title 13, en only by that copies	U.S. Code sworn Ce reteined i	). By the sam nsus employe n your files er	ne lew, your ses and may be re immune
	U.S. DEPARTMENT OF COMMERCE		In correspond please refer to		g to this r ile Numb	eport pr (CFN)				
	BUREAU OF THE CENSUS									
	1987 ECONOMIC CENSU	SEC								
	REPORT OF ORGANIZATIO									
			Pleese	correct errors in	name, ad	dress, and Zip C	ode. Enter	street end	l number if no	ot shown.
Cens										
-						i		<u>.</u>		
		Этро	rtant — 1	Please n	read					
			s report by Fe	bruery 15,	1988 e	nđ				
		BURE	AU OF THE	CENSU	5					
			East Tenth sonville, In		134					
		00110	Jon 1110, 111		104					
Ite	m 1 - CERTIFICATION									
	Neme of person to contact regarding this report	Address	(if different from a	bove address)			Are	a code N	Telephon	e Extension
	This report is substantially accurate.									
	Signature of euthorized person	Title						D	ete	# <u></u>
	m 2 - COMPANY OWNERSHIP OR CONT									
F	Does enother U.S. (domestic) company ow	n more ther	n 50 percent o	f the voting	stock d	of your com	pany Ol	R heve t	he power	to control
	the management and policies of your comp 1 YES — Enter the following inform	- nation on	2		o to iten	n 3.				
	the owning or controlling then go to item 3.	company 7								
	Name of owning or controlling compeny	Home of	ice address (Num	ber end street,	city, stete,	end ZIP Code)		Emofo	ployer Identi wning or con	fication Number
	Percent of voting stock owned — Mark (X) one	→ 1 🗆 Les	<b>is than 50%</b> 2	<b>50%</b> 3		than 50%				
lite	m 3 - COMPANY OWNERSHIP OR CONT	ROL - FOR	EIGN							
	Does a foreign entity (company, individual, other equity rights of your company?	governmen	it, etc.) own d	lrectly or In	directly	10 percent	or more	of the	voting sto	ek or
	1 YES - Enter the following inform	nation	2	🗆 NO – G	o to iterr	4.				
	on the owning entity 7 then go to item 4.									
	Name of foreign beneficiel owner	Home of	ice eddress (Num	ber and street,	city, count	ny)				
	Percent of ownership (direct or indirect) — Merk (X) one	> 1 □ Les	<b>a then 10%</b> 2	10-24%	э 🗆 з	25-49% 4	50%	s 🗆 t	5199%	6 🗆 100%
Ite	m 4 — FOREIGN AFFILIATES									
	Does this company alone, or with its domes business enterprise, or en equivelent intere	stic offiliate st in en unk	s, own 10 pa ncorporated f	rcent or mo oreign busi	re of the ness en	e voting stor terprise, inc	ck of an luding o	Incorpo pwnerst	prated fore htp of real	elgn estate?
	1 YES 2 NO									

☆U.S. Government Printing Office: 1987-175-888

FORM NO	INC-9901 (Item 5A) (9902) 1987 ECONOMIC CENSUSES REPORT OF ORGANIZATION U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS Refor to this CENSUS FILE NUMBER in any correspondence pertaining to this report										
This com requ este iden this	<b>5A</b> — <b>ESTABLISHMENTS OF YOUR COMPANY AND ITS SUBSIT</b> Item should include an up-to-dete list of all esteblishments of your peny end its subsidiaries for which separate esteblishment reports era to ised for the 1987 Economic Censuses. For your convenience the preliste blishments heve been grouped in the following sequence: Employer tification Number, mejor activity, and geogrephic locetion. Pleese bring list up to dete as follows: column (a) — Corract eny errors or omissions in the prelisted information	Column (b), 1987 ext. end payroll for each est do notice employment provide your best estim Columns (c) — Report s Places read the definitions	blishment data — Report number of amployees ablishment (including pert-yeer operetions), Pleese establishments, if book figures ere not evelleble for and peyroll deta for each extablishment, please								
Line No,	Employer Identification (El) Number, astablishment name, address of <b>physical</b> location (including ZIP Code), and major activity Add store or plant number, if any, and correct any errors or omissions (el	1987 establishmant dete Report the number of employees end peyrall for each establishment (including part-yeer operations) [b]	Status of establishment et end of 1987 Merk (X) one box end complete ee indicated								
	Employer ID numbar Mejor activity	Employees (Number) (during pay period Including March 12, 1987)	Icl       1     In operation       2     Idle or inactive (but atill owned) →       3     Closed (no new owner or operator), dismanted, or destroyed on →>								
	Store or plant number Physicel location — Number and street	Peyroli for 1st querter of 1987 before deductions	4 □ Sold or leased to another operator - Give dete at right → AND enter neme, etc., below ↓ Neme of new owner or operator								
Consus use only	City         State         ZIP           Cansus file number         TO         IND         TAB         WT           GEO         SC         TE         CCS         NID	Total ennual perroll for 1987 Before deductions	Number and street City State ZIP Code								
	Employer ID number Major activity Neme Store or plent number	Employees (Number) (during pay period Including March 12, 1987) Paynoli for Mil. Thou. Doi.	s □ Other - Describe → 1 □ In operation 2 □ Idle or inective (but still owned) → 3 □ Closed (no new owner or operator), dismentied, or destroyed on → 4 □ Sold or leesed to enother operator - Give dete at night →								
	Physical location - Number and street City State ZIP	Total	AND enter neme, etc., below z								
Consus use only	Census file number         TO         JND         TAB         WT           GEO         SC         TE         CCS         NID	annusi payroli lor 1987 befors deductions	City  State  ZIP Code s □ Other - Describe ->								
	Employar ID number Major activity	Employees (Number) (during pay period including March 12, 1987) Mil. Thou. Dol.	1 ☐ In operation 2 ☐ Idle or inactive (but still owned) → Month Year 3 ☐ Closed (no new owner or operator), dismantind, nr destruyed nn → 4 ☐ Sold or leased to enother								
	Store or plant number           Physical location - Number and street           City         State	Payroll for 1st quarter of 1987 before deductions	AND enter name, etc., below 2								
Census uss only	Census file number TO IND TAB WT GEO SC TE CCS NID	Total ennual payroll for 1987 belore deductions	Number and street City  State  ZIP Code s □ Other - Describe ->								
	Employer ID number Major activity	Employess (during pay period including March 12, 1987) Mil. Thou. Dol.	I □ In operation 2 □ Idle or inactive (but still ownad) → Month 3 □ Closed (no new owner or operator), diamantied, or destroyed on →→ 4 □ Sold or leased to enother								
	Physical location - Number and street City  State  ZIP	Psyroll for 1st quester of 1987 belors deductions	operator — Give date at right → AND enter neme, etc., below → Name of new nwner or nperator								
Census use only	Census file number TO IND TAB WT GEO SC TE CCS NID	Total annual perroll for 1987 before deductions	Number and street City  State  ZIP Code s □ Other - Describe ->								
	Employer ID number Major activity Nema Store or plent number	Employees (Number) (during pay period March 12, 1987) Psyroll for 1 85 querter of 1 95 7	1     In operation       2     Idle or inactive (but still owned) →       3     Closed (no new owner or operator), dismentied, or destroyed on →       4     Sold or leased to enother operator → Give date at right.→>       AND enter name, etc., below y       Neme of new owner or operator								
	Physical location — Number and street City City Census file number TD IND ITAB WT	Total	Number and street								
Cansus Uss only	GEO SC TE CCS NID	payroll for 1987 before deductione	City State ZIP Code s □ Other - Describe ->								

AU.S. Government Printing Office: 1987-175-887

#### **DEFINITIONS – INSTRUCTIONS**

- Census File Number A Census File Number has been assigned to your company and appears in the upper right corner of the item 5A page. Always refer to the complete number in any correspondence with the Bureau of the Census in order to expedite a reply. Also, be sure to fill in the Census File Number in the upper right corner of the pages used for any entries in item 5B.
- Employer Identification Number The Employer Identification Number is the nine-digit taxpayer identification number assigned by the Internal Revenue Service and used by all business firms and other legal entities to file Federal employment tax returns such as forms 941, 943, or CT-1 and Federal income returns such as forms 1065, 1120, 1120S, and 990 series.
- Subsidiary A company which is owned or controlled by another firm or company. Subsidiaries include firms in which your company owns more than 50 percent of the outstanding voting stock, as well as firms in which your company has the power to direct or cause the direction of the management and policies.
- Establishment A single physical location where business is conducted or where services or industrial operations are performed.
- Number of Employees During the Pay Period Including March 12, 1987 All full-time and part-time employees on the payroll during the March 12 pay period.

Include salaried officers and executives if an incorporated firm; do not include proprietors or partners if an unincorporated firm.

• **Payroll** — The gross earnings paid to employees prior to any deductions.

Do **not** include payments to or withdrawals by proprietors or partners of unincorporated firms.

• **Banks** — The prelisting of your establishments in item 5A should include only the Employer Identification Numbers used to report either Federal employment taxes (IRS Form 941) or income (IRS Forms 1065, 1120, and 990). Employer Identification Numbers assigned to trust funds or estates which are administered by the bank and reported on IRS Form 1041, U.S. Fiduciary Income Tax Return, should not be listed in items 5A or 5B.

FORM NC-9901 (Item 5A)

		Pege of pege
FORM T	VC-9901 (Item 58) (9903) 1987 ECONOMIC CENSUSES REPORT OF ORGANIZATION	PLEASE ENTER YOUR CENSUS FILE NUMBER (See front page)
r	REPORT OF ORGANIZATION	
• • • • • • • • • • • • •	Column (a) — List seperately eny establishments of your company end its aubsidiaries, located in the United States or any of its territories, which are not eccounted for in item EA or on other report forms in this mailing package, but were in operation or under construction during part or all of 1987.         Instructiona for questions (a) and (f) — Answer question (a) for acquired establishments. Complete question (f) entering the date the establishment opened. If not yet in operation, enter the expected opening date and the expected malor material and the expected stablishment.         Column (b) — Complete this column for each listed establishment.         Column (c) — Mark (X) the box which best describes the activity of each astablishment. See box codes at right.         Column (d) — Describe mejor ectivity or list principal products or services.         DTE: Additional copies of Item 5B ere evilable upon request to Burseu of Ho Census, 01 est Tent Street. Jeffersonville, Indiena 47134. If you prefer, you may use your in paper to list additionel establishments; in such instances, however, please follow asmer format as shown on the report form. Be sure to enter the item number, your many 'e name end eddress, and the Census File Number in the upper right corner of the edditional sheet.	<ul> <li>DESCRIPTION AND CODES FOR COLUMN (c)</li> <li>Agriculturel production</li> <li>Agriculturel services</li> <li>Minerels extraction or ore processing services</li> <li>Construction</li> <li>Menufacturers' sales brenches, menufacturers' sales offices</li> <li>Manufacturers' sales brenches, menufacturers' sales offices</li> <li>Manufacturing</li> <li>Finance, insurance, or real estate</li> <li>Retail concessions/departments in reteil stores</li> </ul>
Im	portant DO NOT DUPLICATE ESTABLISHMENTS A	LREADY PRELISTED IN ITEM 5A
		1987 establishment data Kind of business activity in 1987
Line No.	Employer Identification (EI) Number, establishment name, your store or plant number, if any, and address of <b>physical</b> location (including ZIP Code) (a)	1987 establishment data     Major activity       Report number of employees and payroll for each establishment (including part-year operations)     Major activity Mark (X) one box from the above descriptions     Description of major activity or principal products or services       (b)     (c)     (d)
	Employer Identification Number – Store or plant number	Employees         (Number)           (during pay period including         1         10           March 12, 1987)         3         12
	Physical location - Number and street City State ZIP Code	Mil.         Thou.         Dol.         4         13
	(e) Was this establishment ecquired from enother company?       1□ Yes - Enter dete →       Month       Year         2□ No       2□ No       Name and address of former owner or operator	Total ennuel payroll for 1987 before deductions         8         17
	(f) Date establishment opened or is expected to open end expected employment	Census use only         Census file number         SC         TO         IND         FORM           Use only         TAB         WT         CCS         OIO         OIO         OIO
	Employer Identification Number - Store or Name Store or plant number Physical location - Number and street City Stete ZIP Code	Employees (during pey period including March 12, 1987)         (Number)           1         10           2         11           March 12, 1987)         3           12         11           Peyroll for 1st querter of 1987 deductions         10           4         13           5         14           6         15           7         16
	(e) Was this establishment acquired from another company?       1□ Yes - Enter date → 2□ No       Month       Yeer         Name and address of former owner or operator	Total ennuel payroll for 1987 before deductions     8 17 9 9 18       Census file number     SC TO IND
	(7) Date establishment opened Month <sup>1</sup> Year Expected employment or is expected to open and expected employment	Census use only TAB WT CCS OID
	Employer Identification Number – – Store or Name – Store or plant number Physicel location – Number and street	Employees         (Number)           (during pay parted Including March 12, 1987)         1         10           Peyroll for 1st querter of 1987         Mil. Thou. Dol.         2         11
	City State ZIP Code	before deductions         s   15   7   16   s   17             Totel ennuel         s   17
	Compeny? 2 No	1987 before deductione         Image: Census file number         SC         TO         INO         FORM
	(f) Date establishment opened or is expected to open end expected employment	only TAB WT CCS OID
	Employer Identification Number — Store or plant number Physicel location — Number and street	Employees         (Number)           Iduring pay parted Including Merch 12, 1987)         1         10           Warch 12, 1987)         2         11           S         12           Peyroll for         4         13           Ist querter of 1987         5         14           Before         8         16
	City Stete ZiP Code	deductions         7         16
	ecquired from enother 1 ☐ Yes - Enter date → company? 2 ☐ No Neme and eddress of former owner or operator	Totel ennual payroll for 1987 before deductions     9 18
	(f) Date establishment opened or le expected to open and expected employment	Consus use only TAR WT CCS OID
L		

#### MINERAL INDUSTRIES—SUBJECT SERIES

DUE DATE: 7 DAYS AFTER RECEIPT		OMBIN	lo. 0607-0536: Approval Expires December 31, 1988			
FORM NC-9920 U.S. DEPARTMENT OF COMMET BUREAU OF THE CEN	used only for statist	NOTICE — Response to this inquiry is required by lew (Title 13, U.S. Code). By the same law, your report to the Census Bureeu is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are Immune from legel process.				
	In correspondence please refer to this	In correspondence pertaining to this report, please refer to this Census File Number (CFN)				
1987 ECONOMIC CENSUSES						
LISTING OF ADDITIONAL ESTABLISHMENTS			I			
YOUR FILE COPY						
CENSUS USE ONLY	Please correc	t errors in name, address, and ZIP	Code. Enter street end number if not shown.			
Item 1 – Does your organization or any of its subsidiari have any astablishments located in the United States or any of its territories which are not accounted for on other report forms in this mailing package?	$\Box$ YES $- a$	Go to item 2 omplete CERTIFICATION o	n reverse side and return report			
Item 2 - LISTING OF ADDITIONAL ESTABLISHMENT						
Column (a) — Complete this column for each est Column (b) — Mark (X) the box which best descr			ng the following code box descriptions:			
1 — Agricultural production	11 -					
<ul> <li>2 — Agricultural services</li> <li>3 — Minerals extraction or ore processing</li> </ul>		Retail concessions/departm Transportation, communica				
<ul> <li>4 — Mining services or oil and gas field</li> <li>5 — Construction</li> </ul>		Legal, educational, or healt Services	h services			
6 — Merchant wholesalers	16 —		e: accounting, purchasing, legal			
<ul> <li>7 — Commission merchant/broker/ager</li> <li>8 — Manufacturers' sales branches,</li> </ul>	17 —	Other auxiliary establishme	nts such as storage warehouses			
manufacturers' sales offices 9 — Manufacturing		own or affiliated company	rimarily providing service to your rather than customers or clients			
10 — Finance, insurance, or real estate		Other — Specify major acti				
Column (c) — List in order of importance the prin services provided; kinds of constru	cipal products mined of ction work done; or th	or made; kinds of wholesale ne types of crops grown or a	e or retail business; types of animals raised, etc.			
Column (d) — Complete as indicated.						
NOTE — Please return this report	form whether or no	t you report additional as	tablishments.			
Employer Identification (El) Number, establishment name, your store or plant number, if any, and address of <b>physical</b> location (including ZIP Code)	Major activity Mark (X) one box from the above descriptions	Description of major activity or principal products or services List in order of importence	Operating status			
(a)	(b)	(c)	(d)			
Employer Identification Number - Store or			Dete esteblishment opened or is expected to open end expected employment			
plant numbe	2 11 3 12 1		Month Year Expected employment			
Physical location - Number and street	4 13		Was this establishment acquired from another company?			
City State ZIP Code	5 14		Yes - Enter date Month Year			
CENSUS USE ONLY	6 15		□ No			
Census file number SC TO IND FC	8 17		Name and address of former owner or operetor			
TAB WT CCS OID	9 18 1					
Employer Identification Number -	1 10 10		Date establishment opened or is expected to open and expected employment			
Neme Store or plent numbe			Month Yeer Expected employment			
Physical location — Number and street	3 12		Was this establishment ecquired from			
City Stete ZIP Code	4 13		enother company?			
CENSUS USE ONLY	6 15		Yes - Enter date			
	7 18 1		Name and address of former owner or operator			
TAB WT CCS OID	9 18					
Employer Identification Number			Dete establishment opened or is expected			
Neme Store or			to open and expected employment Month !Year Expected employment			
plent numbe	2 11 3					
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City State ZIP Code	6 14		Yes Enter date			
CENSUS USE ONLY	6 16 16 I					
	8 17		Name end address of former owner or operator			
TAB WT CCS OID	9 18					

CONTINUE ON REVERSE SIDE

Address of physical location (nucluing ZIP Code)     The interaction of the second and the second an											-			
Brinker (anticitation hander)         I	your store or plant number, if any, and							tivity () one box he above	activity or principal products or services	Operating status				
Summe			- <u>r</u>	(a)	1 1 1			(Ь)	(c)					
joint Aunder     2     i     Month     isse     Particular       hysical location     Aunder and streat     4     is     Month     isse       right     CENSUS USE ONLY     0     N     N     N       right     Surf or only     0     N     N     N       right     Surf or only     0     N     N     N       right     Surf or only     0     N     N     N     N       right     Surf or only     0     0     N     N     N     N       right     Surf or only     0     0     N     N     N     N       right     Surf or only     0     0     N     N     N     N       right     Surf or only     0     0		lumber				Store or		10 🗖		to open	and axp	ent opan ected am	ad or is axp ployment	ected
Thy Side Distanon – Marriker and street       0       10       0       10						plent number				Month	Yaar	Expacta	d employm	ent
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Oracle of the control of the contro					10	719.0.4				anothar	compar	iy?		
create the number         created as yes only.         -	ity				State	ZIP Code	-	1			– Enter d	data ——»	Month	Yaar
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Sime     Size or public function     Size or	nployer Identification N	lumber		-			10	10		Date est	ablishm	ent open	ed or is exp	ected
y special location - Aumber and street y second locatio	ime													ent
Y     State     2P Code     State     State <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>3 🗆</td><td>12 🗆</td><td></td><td>-</td><td></td><td></td><td></td><td></td></t<>							3 🗆	12 🗆		-				
main     State     Zife Code     6     14       CENSUS USE OVLY     9     16       main     7     16       main     1     10       main     1     10       main     1     10       main     10       <	vsical location - Num	ber and	street				40	13 🗖		Was this	compar	shment a	cquired fro	m
CENSUS US ONLY         ID	tγ				State	ZIP Code	5 🗆	14 🗖					Month	Year
Inclusifier number       SC       TO       NO       FORM       7       16       Inclusion       Name and address of former ow         18       WT       CC5       010       9       16       17       9       16       17       18       17       18       18       17       18       18       18       18       17       18       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       17       18       1			ENSU	S USE O	NLY		6				enter			
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Image     State     Image							9	18 🗌						
plant number     2     1		lumber		-			10	10 🗆		Date est to open	and exp	ected em	ed or is exployment	pected
ywalcal location - Number and streat       4       13       Yes - Enter date	me						2	11						ent
4     13     another company?       11     12P Code     another company?       11     12P Code     another company?       11     12P Code     another company?       11     10     Pase antibulishment opened of company?       11     10     Pase antibulishment acquarity       11     10     Pase antibulishment acquarity       12     11     10     Pase antibulishment acquarity       12     11     10     Pase antibulishment acquarity       12     11     10     Pase antibulishment acquarity       13     Pase antibulishment acquarity     10     10       14     13     Pase antibulishment acquarity       15     17 </td <td>union lacentine</td> <td>hor ·</td> <td></td> <td></td> <td></td> <td></td> <td>3 🗆</td> <td>12 🗖</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td>	union lacentine	hor ·					3 🗆	12 🗖		-				
CENSUS USE ONLY       a       15	lysical location - NUM	ber and	street							- Was this another	compar	shment a 1y?	cquired fro	m
CENSUS USE ONLY       Point	ty				State	ZIP Code	_			- Yes -	– Enter	date —	Month	Yea
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AB WT CCS LOID			SC			FORM				Name an	u addres	a or torma	ownar or	operato
	AB	WT		ccs	OID		1							
Item 3 Name of person to contect regarding this report Address (if different from label address) Area code Telephone number	Item 3	Nan	na of pe	rson to c	ontect regardin	g this report	Address		t from label address)	Area cod	e Tele	phone nu	mber Ex	tension
CERTIFICATION							L				_	_		
This report (including attsched continuetion pages) is substantially accurate and hes been prepared in eccordance with instructions.           Signeture of authorized person         Title         Date						tinuetion pages) is sub	ostantially			ince with ins	tructions			

#### MINERAL INDUSTRIES—SUBJECT SERIES

DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS FORM NC-9923	1987 ECC General SC		
NOTICE — Response to this inquiry is required by law (title 13, U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files ere immune from legal process. Please complete this form and RETURN TO	In correspondence please refer to this	OMB NO. 0607-0548: Approv pertaining to this report, Emplo Census File Number (CFN) Numb	over Identification (EI)
<b>DUE DATE: 30 DAYS AFTER RECEIPT</b> The Bureau of the Census is now updating the industrial classifications and physical locations of organizations in the United States. Please answer the questions on this form and return it in the enclosed envelope within 30 days. <b>NOTE</b> — Please read the accompanying			
instructions before answering the questions.	L		
	Please correct errors	in name, address, and ZIP Code. ENTER street	t and number if not shown.
Item 1 — EMPLOYER IDENTIFICATION NU Is the Employer Identification (EI) Number shown in as that used for this establishment on its latest 199 Quarterly Federal Tax Return, Treasury Form 9417	n the label the SAME 87 Employer's	Item 4 — SOURCE OF SALES, RECEIN List below the principal lines of merchandis work done, products produced or services the approximate percentage each was of the of business in 1987 as reported in item 3 (e auto repairs 10%, oil 5%).	e sold, construction provided, and indicete to total dollar volume
$^{094}$ 1 YES 2 NO – Enter current	9 digits)	Source	Percent
El Number			%
Item 2 — PHYSICAL LOCATION OF ESTAB Answer items a, b, c, and d	LISHMENT		%
NOTE: P.O. boxes or rural routes are not physic	cal locations.		%
a. 🗌 Same as shown in mailing label. If different,	, indicate change. 7		70
NUMBER AND STREET			%
		and the second sec	%
			%
CITY, TOWN, VILLAGE, ETC. STATE ZIP	CODE	TOTAL Should equal 100%	100 %
<ul> <li>b. Is this establishment physically located inside th the city, town, village, etc.?</li> <li>095 1 YES</li> <li>2 NO</li> <li>3 No legal boundaries</li> <li>4 Don't know</li> <li>c. Type of municipality where physically located</li> </ul>	e legal boundaries of	Item 5 — MATERIALS CONSUMED If you are a manufacturer, list the primary m producing the manufactured products.	naterials consumed in
096 1 City, village, or borough			
2 Town or township 3 Other or don't know			
		Item 6 CLASS OF CUSTOMER	
d. Name of county where physically located		To whom do you sell most of your products your services?	s or provide
HOW TO REPORT DOLLAR FIGURES REPORT COLLAR FIGURES REPORT COLLAR FIGURES REPORT REPORT COLLAR FIGURES REPORT COLLAR FIGURES REPORT COLLAR FIGURES REPORT COLLAR FIGURES REPORT FIGURES FIGURES FIGURES REPORT FIGURES FIGUR	Mil- lions         Thou- sands         Dol- lars           1         126         (000)           1         125         628	To the general public (household consu and individuals) To retail or wholesale establishments To construction contractors	2
Item 3 - DOLLAR VOLUME OF BUSINESS IN 1987	Mil. Thou. Dol.	To institutional, industriel, commercial, government, or farm users	
	010	Other customers - Specify	5 🗖
Item 7 REMARKS			
PENALTY FOR FAILURE TO REPORT		CONT	TINUE ON PAGE 2

nem o -	- BUSINESS OR ACTIVITY	TRANSPORTATION (T)
Mark (X)	the ONE box which best describes the PRINCIPAL	Local trucking without storage
	of this establishment in 1987.	421240 3 Agricultural products
<sup>070</sup> 881	1100 2 Private household (employing domestic help,	421270 9 Dump trucking
	e.g., cooks, maids, gardeners, secretaries, etc.)	421260 1 Garbage and trash collection
	TRADE (R)	421220 5 General freight trucking
	3120 7 🖵 Automotive and home supply store	421230 4 Hazardous waste trucking
	1300 1 🛄 Bar or tavern	421210 6 Household goods moving
_	1230 0 🛄 Cafeteria	421250 2 - Messenger service, except telephone
	3230 0 🖵 Computer and software store	and radio telephone
	1250 8 Contract feeding	421250 2 Parcel delivery service (including
541	1120 2 Convenience food store	parcel courier service)
554	110 7 🔲 Gasoline service station	421290 8 🗌 Other specialized local trucking — Specify type
594	1700 7 Gift, novelty, or souvenir shop	
541	1110 3 Grocery store	
581	1260 7 🔲 Ice cream/frozen yogurt stand	Trucking, except local
592	2100 2 Liquor store	421340 1 🛄 Agricultural products
581	1210 2 Restaurant (full service)	421320 3 General freight trucking
	1240 9 Restaurant (limited menu, e.g., fast food)	421330 2 Hazardous waste trucking
581	1220 1 Social caterer	421310 4 Household goods moving
553	a110 8 Tire, battery, and accessory store	421350 0 Parcel delivery service (including parcel
	120 6 Truck stop	courier service)
999	9999 6 🗌 Other kind of retail business – Specify type –	421390 6 Other specialized trucking - Specify type
SERVICE		Local trucking with storage
	3100 8 Accounting, auditing, or bookkeeping service	421410 2 Household goods moving
	1110 9 Architectural service	421490 4 🗌 Other local trucking with storage —
811	1110 6 Attorney's office	Specify type
	3100 7 🔲 Automotive body shop, except paint shop	¥
	3810 1 🔲 Automotive repair shop, general	
723	3100 4 D Beauty shop	Water transportation service
	1900 4 🔲 Building cleaning, maintenance, and janitorial service	446910 2 Marina
	100 9 Child day care service	446990 4 Other water transportation service –
866	5100 1 🔲 Church, synagogue, convent, monastery, etc.	Specify type 7
	100 3 Civic, social, or fraternal association	
	7920 9 🔲 Computer maintenance and repair	
	7910 0 Computer rental or leasing	
	210 3 Construction management service	
	7210 5 Custom computer programming service	
	2100 8 Dentist's office	CONSTRUCTION (C)
		Building construction — general contractor
	9240 0 🔲 Economic and sociological research service	152100 4 🔲 Single-family housing construction
		999999 6 🗌 Other building construction – Specify type –
	100 4 Labor union or organization	¥
	9210 3 L Management and administrative service	
	9230 1 Management consulting service	
	1110 8 Medical doctor's office (M.D. degree only)	Heavy construction contractor
701	130 7 🛄 Motel or tourist court	161190 4 Highway and street construction
733	3200 0 🖵 Photocopy service	999999 6 Other heavy construction - Specify type -
737	7220 4 🛄 Prepackaged computer software	r i i i i i i i i i i i i i i i i i i i
739	220 2 Public relations service	
891	1307 L Surveying service	Special trade contractor
739	9450 5 🔲 Video tape rental	
	200 7 🔲 Welding repair	1751007 Carpentry contractor
999	9999 6 Other kind of service - Specify type -	1731009 Electrical contractor
	4	1721000 Painting contractor
		1711001 Plumbing, heating, or air
HOLES	SALE TRADE (W)	conditioning contractor 9999996 Other special trade contractor — Specify type
	_	
	5300 2 Country or terminal grain elevator wholesaler	
	100 7 General line grocery wholesaler	
_	7111 1 L Petroleum bulk plant or terminal wholesaler	
	t or broker	MANUFACTURING (M)
_ Merci	hant wholesaler	275200 4 Instant or quick print, except photocopy servic
_ Other	r type of wholesaler — Specify type 7	999999 6 Other commercial printing - Specify type 7
	-	¥
INANC	E, INSURANCE, AND REAL ESTATE (F)	
		359900 8 Machine shop, jobbing and repair
	100 3 Insurance agent or broker	999999 6 Other manufacturing – Specify type $\frac{1}{7}$
	300 6 Owner-operator of apartment building	
	7100 9 Pension, health, or welfare fund	
653	3100 8 Real estate agent or manager	AGRICULTURAL PRODUCTION
	5200 4 Subdivider and developer, except cemetery	
655	DOOD OL Truck Education of anti-truck to the truck	MINERAL EXTRACTION
655 673	3200 2 Trust: Educational, religious, and charitable	
655 673	3300 0 🗌 Trust, except educational, religious,	MINERAL SERVICE
655 673 673	and charitable	
655 673 673	3300 0 🗌 Trust, except educational, religious,	$\square \text{ mineral service} \\ \square \text{ other business or activity} - Specify type} \\ $
655 673 673	3300 0 ☐ Trust, except educational, religious, and charitable 999 6 ☐ Other kind of finance, insurance, or	
655 673 673 999	3300 0 ☐ Trust, except educational, religious, and charitable 999 6 ☐ Other kind of finance, insurance, or	OTHER BUSINESS OR ACTIVITY – Specify type Z
655 673 673 999	3300 0 ☐ Trust, except educational, religious, and charitable 9999 6 ☐ Other kind of finance, insurance, or real estate — Specify type 7	□ OTHER BUSINESS OR ACTIVITY - Specify type → → → → → → → → → → → → → → → → → → →
655 673 673 999	a300 0 ☐ Trust, except educational, religious, and charitable 2999 6 ☐ Other kind of finance, insurance, or real estate — Specify type Z — CERTIFICATION — This report is substantially accurate a	DTHER BUSINESS OR ACTIVITY - Specify type

Page 2

FORM	<sup>™</sup> 1987 ECONOMIC CENSUSE	5
ES-9100	ENTERPRISE SUMMARY REPORT	0607-0569: Approval Expires June 30, 1
<b>IOTICE</b> — Response to this inquiry <b>is required</b> <b>aw (title 13, U.S. Code)</b> . By the same law, y eport to the Census Bureau is <b>confidential</b> . It r is esen only by sworn Census employees and r used only for statistical purposes. The law a rovides that copies retained in your files <b>mmune from legal process</b> .	our please refer to this Census File Number (CFN) nay nay also	ES-9100
BUREAU OF THE CENSU omplete this orm and BETURN TO BETURN TO BETURN TO		
DUE DATE: FEBRUARY 15, 1988		
If filing by the due date causes an und burden, a time extension request should sent to the above address; please inclu your 11-digit Census File Number (CFN).	be	
<b>NOTE</b> — Please read the instructions before answering the questions.		
902 903	Please correct errors in name, address, and ZIP Code. ENTER	streat and number if not show
IMPORTA	NT — This is an enterprise summary repor	t
PURPOSE OF THIS FORM		
<ul> <li>The purpose of this form is to obt</li> </ul>	tain consolidated information for domestic activities of	your enterprise.
WHAT IS AN ENTERPRISE?		
	ce, or membership organization consisting of one or mo	re establishments
under common ownership or con		
	ubsidiary companies, where there is more than 50 perc hich the enterprise has the power to direct or cause the	
	sition ranging from a single legal entity (e.g., corporatio under common ownership or control.	n, partnership, etc.) to
WHAT SHOULD BE REPORTED?	·	
<ul> <li>Report for all establishments of y offices owned or controlled by th</li> </ul>	our firm. Include operating locations, administrative off is enterprise and its subsidiaries.	ices, and sales
	es in all 50 states and the District of Columbia. Do not in ions such as Puerto Rico, Guam, etc., except for report	
<ul> <li>Include subsidiaries whether or n</li> </ul>	ot they are consolidated in your enterprise's books.	
Report consolidated information.	Exclude domestic intra-enterprise transfers.	
ending between October 31, 198	r. If calendar year records are not available, fiscal year r 87 and February 29, 1988 are acceptable. Be sure to co able, enter your best estimates. Enter ''O'' in items whe	mplete every item. If
Generally Accepted Accounting I	Principles (GAAP) should be followed when filling out th	nis form.
• For assistance in completing this	form, call the Census Bureau's Enterprise Statistics Bra	anch (301) 763–1758.
	Value figures may be reported in dollars or rounded to thousands. <b>Example:</b> If a figure is \$1 179 125 529	Bil-         Mil-         Thou-         Dol-           lions         lions         sands         lars           (000)         (000)         (000)         (000)
IOW TO REPORT DOLLAR FIGURES		1   179   126
IOW TO REPORT DOLLAR FIGURES	is \$1,179,125,628, report either Acceptable	1 179 125 628

Item A — SALES AND OPERATING RECEIPTS DURING 1987	
INCLUDE	
<ul> <li>Operating receipts from taxable operations as well as total revenues from tax-exempt activities</li> </ul>	
<ul> <li>Assets sold under a capital lease agreement</li> <li>Export transfers to your foreign subsidiaries</li> </ul>	
EXCLUDE	
<ul> <li>Sales and other taxes collected and paid directly to government taxing connection</li> </ul>	
taxing agencies <ul> <li>Domestic intra-enterprise transfers</li> </ul>	
<ul> <li>Sales by foreign subsidiaries</li> </ul>	
Nonoperating income	
	Bil. Mil. Thou. Dol.
	011
1. Consolidated SALES and operating receipts (net of taxas)	L L
2. Did this enterprise sell depreciable assets to 630 1 YES - Report amount	631
others through capital leases during 1987? 2 NO - SKIP to Item B	
A capital lease is an agreement where the lessee acquires equity in the assets. Accounting rules	
A capital lease is an agreement where the lessee acquires equity in the assets. Accounting rules generally require that owned assets "sold" or transferred through capital leases be treated as SALES for the year in which they are leased. If your enterprise owned assets that were leased to others under a capital lease agreement in 1987, report these "sales" at the fair market value of the assets when they were leased.	
3. Is the amount of leased assets "sold" reported	
In line 2 also included in line 1? 2 NO	
Item B - EMPLOYMENT AND PAYROLL DURING 1987	
Include full and part-time employees and their pre-tax wages and salaries (gross	
earnings) as defined on Treasury Form 941, Employers Quarterly Federal Tax Return.	
Include salaried officers and executives of incorporated firms and payments made to them. Exclude proprietors or partners of unincorporated firms and their payments.	
	Number
4. Number of paid EMPLOYEES for the pay period including March 12, 1987	
Report all employees including persons on paid sick leave, paid holidays, and paid vacations.	
report all employees including persons on para sick reave, para nondays, and para vacanois.	
Payroll:	
Report gross earnings paid to employees prior to such deductions as employee's social security contributions, withholding taxes, group insurance premiums, union dues, and savings bonds. Gross earnings include all wages, salaries, commissions, dismissal pay, paid bonuses, vacation and sick leave pay, and the cash equivalent of compensation paid in kind. Exclude employer's costs for fringe benefits.	
	Bil. Mil. Thou, Dol.
	031
5. FIRST QUARTER payroll	
	030
8. TOTAL ANNUAL payroll	Lii
Item C - EMPLOYER'S COST FOR FRINGE BENEFITS DURING 1987	
(SUPPLEMENTAL LABOR COSTS)	Bil. Mil. Thou. Dol.
	101
7. Legally required programs	· · · · · · · · · · · · · · · · ·
For example: Employer's social security tax, unemployment tax, workmen's compensation insurance, and state disability insurance programs.	102
8. Voluntary programs	
For example: Premiums on life insurance, hospital and medical plans; pension	
plans, union negotiated benefits; welfare plans; and stock purchase plans.	103
9. TOTAL FRINGE BENEFITS	
(SUM of lines 7 and 8)	

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Page 2

	ase enter your 11-digit Census File Number N) from the address lebel on page 1		
Iter	m D – INVENTORIES		
	Report consolidated information concerning within the United States. The SUM of the ir approximately equal to the TOTAL inventor	nventories of all domestic establishments	of your enterprise should be
	INCLUDE		
	<ul> <li>Finished products; work in process;</li> <li>Inventories in transit for which your</li> <li>EXCLUDE</li> </ul>	materials, supplies, fuels, etc., for resale enterprise has taken title	e or further fabrication
	<ul> <li>Inventories owned by others but hel</li> <li>Items not held for resale, such as fix</li> </ul>		
NOT	FE: Progress billings should not be deducted from th	e reported amounts.	
10.	Did this enterprise have inventories at the end of 1986?	<sup>200</sup> 1 ☐ YES 2 ☐ NO — <i>SKIP to line 16</i>	
11.	Total inventories at cost or market value for the generelly accepted eccounting principles. (For in use the SUM of the LIFO value PLUS the LIFO reserv	nventories at LIFO cost,	Bil. Mil. Thou. D
12.	Inventories reported on line 11 which ere NCT s for the year ending 1986		240
13.	Did this enterprise have inventorles at LIFO cost at the end of 1986?	<sup>220</sup> 1 ☐ YES 2 ☐ NO — <i>SKIP to line</i> 16	
14.	Inventories which are subject to LIFO costing in (Report the SUM of LIFO value PLUS the LIFO reser		
		Bil. Mil. Thou. Dol.	
150	. LIFO reserves associeted with the inventories o	on line 14 .	
b	. LIFO value of inventories reported on line 14 (n	let)	
b	PLEASE VERIFY — SUM of lines 15a and		
	PLEASE VERIFY — SUM of lines 15a and SUM of lines 12 and	I 15b should equal line 14.	
16.	PLEASE VERIFY — SUM of lines 15a and SUM of lines 12 and Did this enterprise have inventorles et the	115b should equal line 14. 14 should equal line 11. <sup>250</sup> 1 □ YES 2 □ NO - SKIP to Item E year ending 1987, using hventories at LIFO cost,	Bil. Mil. Thou. D
16. 17.	PLEASE VERIFY — SUM of lines 15a and SUM of lines 12 and Did this enterprise have inventorles et the end of 1987? Total inventories at cost or market value for the generally accepted eccounting principles. (For in	115b should equal line 14.         14 should equal line 11.         250       1 YES         2 NO - SKIP to Item E         year ending 1987, using         nventories at LIFO cost,         ve.)         ubject to LIFO costing	
16. 17. 18.	PLEASE VERIFY – SUM of lines 15a and SUM of lines 12 and         Did this enterprise have inventorles et the end of 1987?         Total inventories at cost or market value for the generally accepted eccounting principles. (For in use the SUM of the LIFO value PLUS the LIFO reserved inventories reported on line 17 which are NOT s for the year ending 1987.	115b should equal line 14.         14 should equal line 11.         250       1 YES         2 NO - SKIP to Item E         year ending 1987, using         nventories at LIFO cost,         ve.)         ubject to LIFO costing	290
16. 17. 18.	PLEASE VERIFY – SUM of lines 15a and SUM of lines 12 and         Did this enterprise have inventorles et the end of 1987?         Total inventories at cost or market value for the generally accepted eccounting principles. (For ir use the SUM of the LIFO value PLUS the LIFO reserved inventories reported on line 17 which are NOT s for the year ending 1987.         Did this enterprise have inventories at LIFO cost at the end of 1987?	115b should equal line 14.         14 should equal line 11.         250       1 YES         2 NO - SKIP to Item E         year ending 1987, using         nventories at LIFO cost,         ve.)         270         1 YES         270         1 YES         2 NO - SKIP to Item E         1 YES         2 NO - SKIP to Item E	260
16. 17. 18. 19. 20.	PLEASE VERIFY – SUM of lines 15a and SUM of lines 12 and         Did this enterprise have inventories at the end of 1987?         Total inventories at cost or market value for the generally accepted eccounting principles. (For in use the SUM of the LIFO value PLUS the LIFO reservent Inventories reported on line 17 which are NOT s for the year ending 1987         Did this enterprise have inventories at LIFO cost at the end of 1987?         Inventories which are subject to LIFO costing in	115b should equal line 14.         14 should equal line 11.         250       1 YES         2 NO - SKIP to Item E         year ending 1987, using         nventories at LIFO cost,         ve.)         270         1 YES         2 NO - SKIP to Item E         nve.)         Bil.         Mil.         Thou. Dol.         282         1	290
16. 17. 18. 19. 20.	PLEASE VERIFY – SUM of lines 15a and SUM of lines 12 and         Did this enterprise have inventories at the end of 1987?         Total inventories at cost or market value for the generally accepted eccounting principles. (For in use the SUM of the LIFO value PLUS the LIFO reserved inventories reported on line 17 which are NOT s for the year ending 1987.         Did this enterprise have inventories at LIFO cost at the end of 1987?         Inventories which are subject to LIFO costing in (Report the SUM of LIFO value PLUS the LIFO reserved)	115b should equal line 14.         14 should equal line 11.         250       1 YES         2 NO - SKIP to Item E         Year ending 1987, using         Inventories at LIFO cost, ve.)         ubject to LIFO costIng         270       1 YES         2 NO - SKIP to Item E         n 1987 (gross)         ve.)       Bil. Mil. Thou. Dol.         281       1	290
16. 17. 18. 19. 20. 21a	PLEASE VERIFY – SUM of lines 15a and SUM of lines 12 and         Did this enterprise have inventories at the end of 1987?         Total inventories at cost or market value for the generally accepted eccounting principles. (For in use the SUM of the LIFO value PLUS the LIFO reserved.         Inventories reported on line 17 which are NOT s for the year ending 1987.         Did this enterprise have inventories at LIFO cost at the end of 1987?         Inventories which are subject to LIFO costing in (Report the SUM of LIFO value PLUS the LIFO reserved.         LIFO reserves associated with the inventories of the SUM of inventories reported on line 20 (marked sector).         LIFO value of inventories reported on line 20 (marked sector).	115b should equal line 14.         14 should equal line 11.         250       1 YES         2 NO - SKIP to Item E         year ending 1987, using         nventories at LIFO costing         270       YES         2 NO - SKIP to Item E         nubject to LIFO costing         270       YES         2 NO - SKIP to Item E         n 1987 (gross)         rve.)       Bil. Mil. Thou. Dol.         281       Image: State st	290

Page 4			
lte	<ul> <li>m E – DEPRECIABLE ASSETS AND CHANGES IN E ACCOUNTS DURING 1987</li> <li>Report the gross cost of assets for which depreciation maintained. Gross cost represents the acquisition co <i>INCLUDE</i></li> <li>Depreciable assets (buildings, structures, mai (special tools, film, etc.) as reported in Item H</li> <li>Cost of depreciable assets owned by this ent operating lease agreement</li> <li>Cost of all capitalized drilling and completion</li> <li>Cost of depreciable assets obtained through</li> <li><i>EXCLUDE</i></li> <li>Cost of land and depletable assets such as tim leases, bonus payments, royalties and overring</li> <li>Current assets (inventories, cash, accounts r patents, copyrights, etc.) (Include on line 35.</li> <li>Cost of depreciable assets leased to others un</li> </ul>	on or amortization accounts are ord ost to your enterprise. chinery, equipment, etc.) and amo l. erprise, but rented or leased to oth costs capital leases nber and mineral rights, including p ding mineral interests, and fee land eccivable, etc.,) and intangible ass ) s and U.S. possessions (Include of nder a capital lease agreement	rtizable assets ers under an producing or nonproducing ( <i>Include on line 35.</i> ) ets (goodwill,
22.	DEPRECIABLE ASSETS, at the END OF 1986	Bil. Mil. Thou. Dol.	
		301	
	a. Buildings and structures	· · · <u> </u>	
		302	
	b. Machinery and equipment		
		303 ! ! !	
	c. Other depreciable assets $\dots$ Please describe $\swarrow$	· · · · · · · · · · · · · · · · · · ·	
	304		Bil. Mil. Thou. Dol
	TOTAL DEPRECIABLE ASSETS, at the end of 1986 (SUM of lines 22a through 22c)         TOTAL CAPITAL EXPENDITURES during 1987 includin capitalized to asset accounts and for which depreciation reserves are maintained (See Item H for further instructions)	g all costs that are or amortization	333
25.	OTHER ADDITIONS and acquisitions made (at fair mark enterprise during 1987. If mergers and acquisitions are not of interests," enter the fair market value on this line	treated as a "pooling	334
26.	DEDUCTIONS from depreciable asset accounts for asse		()
27.	DEPRECIABLE ASSETS, at the END OF 1987	Bil. Mil. Thou. Dol.	
		351	
	a. Buildings and structures		
		352	
	b. Machinery and equipment	· · <u>L_ii</u>	
		353 1 1	
	c. Other depreciable assets		
	354		
			355
28.	TOTAL DEPRECIABLE ASSETS, at the end of 1987 (SUM of lines 27a through 27c)		
	PLEASE RECONCILE — SUM of lines 23 through should equal line 28. If no remarks section.		

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		Page
Item F — CHANGES IN ACCUMULATED DEPRECIATION DURING 1987		
INCLUDE		
<ul> <li>Total depreciation and amortization for the assets included in lines 22 through</li> <li>Additions made to the accumulated depreciation and amortization accounts do 1987 for assets owned at the beginning of the year or acquired during the year</li> </ul>	uring	
EXCLUDE		
<ul> <li>Reserves for intangible assets</li> <li>Depreciation of assets held in foreign countries and U.S. possessions</li> </ul>		
	Bil. Mil	Thou. C
29. ACCUMULATED DEPRECIATION AND AMORTIZATION at the end of 1986		
30. DEPRECIATION AND AMORTIZATION EXPENSE charged to income during 1987	452	
31. OTHER ADDITIONS to the accumulated depreciation and	453	
amortization accounts during 1987	· · · L	<u>. l l</u>
32. DEDUCTIONS from the accumulated depreciation and amortization	454	
accounts due to sales, retirements, renewals, and replacements during 1987	[	
33. ACCUMULATED DEPRECIATION AND AMORTIZATION	455 !	1 1
at the and of 1007		i i
		i i
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32)	[	<u>ii</u>
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32)		ii
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32)		i i
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32)	Bil.   Mil.	Thou.
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32)	Bil.   Mil.	Thou. [
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32)	Bil.   Mil. 501   	Thou.
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32)	Bil.   Mil.	Thou. [
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32) Item G – TOTAL ASSETS, AT THE END OF 1987 NOTE: Report total assets on a consolidated basis. 34. NET DEPRECIABLE ASSETS (Should equal line 28 MINUS line 33) Include only domestic assets. 35. CURRENT AND OTHER ASSETS	Bil.   Mil. 501   	Thou. [
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32) Item G – TOTAL ASSETS, AT THE END OF 1987 NOTE: Report total assets on a consolidated basis. 34. NET DEPRECIABLE ASSETS (Should equal line 28 MINUS line 33) Include only domestic assets. 35. CURRENT AND OTHER ASSETS INCLUDE	Bil.   Mil. 501   	Thou. [
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at the end of 1987 (SUM of lines 29 through 31 MINUS line 32) Item G – TOTAL ASSETS, AT THE END OF 1987 NOTE: Report total assets on a consolidated basis. 34. NET DEPRECIABLE ASSETS (Should equal line 28 MINUS line 33) Include only domestic assets. 35. CURRENT AND OTHER ASSETS INCLUDE • Current and other domestic assets for which depreciation or amortization reserves are NOT maintained, such as inventories, cash, investments, accounts receivable, etc. • Land, depletable and intangible assets such as timber, mineral rights, goodwill, patents, copyrights, etc. Report all other assets net of all	Bil.   Mil. 501   	Thou. [
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32) Item G – TOTAL ASSETS, AT THE END OF 1987 NOTE: Report total assets on a consolidated basis. 34. NET DEPRECIABLE ASSETS (Should equal line 28 MINUS line 33) Include only domestic assets. 35. CURRENT AND OTHER ASSETS INCLUDE • Current and other domestic assets for which depreciation or amortization reserves are NOT maintained, such as inventories, cash, investments, accounts receivable, etc. • Land, depletable and intangible assets such as timber, mineral rights, goodwill, patents, copyrights, etc. Report all other assets net of all	<u>Bil.</u>   Mil. 501   	
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32) Item G – TOTAL ASSETS, AT THE END OF 1987 NOTE: Report total assets on a consolidated basis. 34. NET DEPRECIABLE ASSETS (Should equal line 28 MINUS line 33) Include only domestic assets. 35. CURRENT AND OTHER ASSETS INCLUDE • Current and other domestic assets for which depreciation or amortization reserves are NOT maintained, such as inventories, cash, investments, accounts receivable, etc. • Land, depletable and intangible assets such as timber, mineral rights, goodwill, patents, copyrights, etc. Report all other assets net of all reserves and allowances.	<u>Bil.</u>   Mil. 501   	
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32) Item G – TOTAL ASSETS, AT THE END OF 1987 NOTE: Report total assets on a consolidated basis. 34. NET DEPRECIABLE ASSETS (Should equal line 28 MINUS line 33)	<u>Bil.</u>   Mil. 501   	
at the end of 1987 (SUM of lines 29 through 31 MINUS line 32) Item G – TOTAL ASSETS, AT THE END OF 1987 NOTE: Report total assets on a consolidated basis. 34. NET DEPRECIABLE ASSETS (Should equal line 28 MINUS line 33) Include only domestic assets. 35. CURRENT AND OTHER ASSETS INCLUDE • Current and other domestic assets for which depreciation or amortization reserves are NOT maintained, such as inventories, cash, investments, accounts receivable, etc. • Land, depletable and intangible assets such as timber, mineral rights, goodwill, patents, copyrights, etc. Report all other assets net of all reserves and allowances. 36. FOREIGN ASSETS Include all assets in foreign countries and U.S. possessions, regardless of type.	502   	

Page	6 6								
	Item H - CAPITAL EXPENDITURES DUR	ING 1987 (Excl	uding land	and m	ineral rights)	)			
	INCLUDE								
	<ul> <li>All costs that are capitalize or amortization reserves ar</li> </ul>		s and for whi	ich depre	eciation				
	All assets obtained through								
	EXCLUDE								
	<ul> <li>Cost of land and mineral right</li> </ul>	thts, such as produ	icing and nor	nroduci	na leases				
	<ul> <li>Cost of maintenance and real</li> </ul>	epairs charged as c	urrent opera	ting exp	enses				
	<ul> <li>Capital expenditures by su</li> </ul>	bsidiaries in foreigr	n countries ar	nd U.S. p	possessions				
	and the second sec		Bil. Mil.	Thou.	Dol				
	38. NEW MACHINERY AND EQUIPMENT		401						
	a. New automobiles, trucks, trailers, special vehicles, etc., for highway use			i i					
			402	1	_				
	b. New computers and peripheral data proces	ssing							
	equipment		L_1	<u> </u>					
	c. All other expenditures for new machinery				-				
	Include production machinery, office equipme tools having useful life of more than one year.		403						
	replacements as well as additions to capacity.			i		Bil.	Mil.	Thou.	Dol.
	39. TOTAL new machinery and equipment					404			
	(SUM of lines 38a through 38c)								
	40. New buildings, structures, and additions to								
	Include new construction, major alterations, c of buildings both completed and in progress bu					1005			
	Include expenditures for structures which, on					405		i	1
	back to your enterprise						i	.i	1
						406		1	T
	41 LICED alast and used a submer as a sized	fee							!
	41. USED plant and used equipment acquired	from others	• • • • • • • • • •					-	
	42. Capitalized development and exploration on Include capitalized expenditures for oil and gas					407			T
	explorations; for the drilling of oil, gas, dry, an							1	
						408			1
	43. Other capital expenditures					L		.i	<u></u>
1	Please describe								
	409								
						410		1	!
	44. TOTAL CAPITAL EXPENDITURES								
	(SUM of lines 39 through 43)			• • • • • • •				1	1
	PLEASE VERIFY — Line 44 should be	e the same as on i	ine 24. If no	ot, expla	in in the rema	rks s	ection	1_	
	Item I - CAPITAL LEASES DURING 1987	- ACQUISITI	ON COST						
r	INCLUDE								
	<ul> <li>Costs of assets obtained the</li> </ul>	rough a capital lea	se agreemen	t from					
	others during 1987, at fair	market value (also	include in Ite	em H)					
	EXCLUDE								
	<ul> <li>Assets obtained through op Assets leased to others und</li> </ul>		-			Bil.	Mil.	Thou.	Dol
	<ul> <li>Assets leased to others une</li> </ul>		•			611		1	
	45. Did this enterprise acquire assets through	610 1 YES -			>				1
	capital leases during 1987?	2 LI NO -	Skip to Item	J					
	46. Are these capital lease acquisitions	612 1 YES							
	included in Item H?	2 🗌 NO							
	Item J - ASSETS ACQUIRED AND LEASE	D DURING 19	37			lou l		1 These	Inel
-						Bil. 621	Mil.	Thou.	1001.
	47. Did this enterprise acquire depreciable assets during 1987 that were leased to	620 1 YES -	Report asse	t cost	>				
	others under an OPERATING lease		SKIP to Item					L	
	agreement?	622							
	48. Are these operating lease expenditures included in Item H?	622 1 YES							
L		2 🗌 NO							

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								Page
Item k	- RENTAL P	AYMENTS DURI	NG 1987					
	space), i	payments made to ot machinery and equip uisition value of these	ment. Exclude pay	ments for assets ol	tained throu			
49 Di	this optomalos	make rental payme	550 1	YES				
otl	ers during 198	7?	2	NO - SKIP to Iten	٦ <i>L</i>			
							Bil. Mil	. Thou. Do
							551	
50. Re	ntal payments	for use of buildings	and structures					
							552	
51. Re	ntal payments f	for use of machine	y and equipmen					
							553	1
							555	
52. Ot	ner rental paym	ents	•••••	• • • • • • • • • • • • • •	• • • • • • • • •			<u> </u>
Ple	ase describe <sub>7</sub>							
554								
52 70	TAL RENTAL P	AVMENTS					555	
55. 10		es 50 through 52) .						
Item L	- ROYALTY	PAYMENTS DUR	ING 1987					
	l this enterprise ments during 1	e <b>make royalty</b> 19877 Include payme	ents					. Thou. Do
to	inaffiliated organ	nizations or individual	s <sup>670</sup> 1	YES — Report amo	ount	>	671	
		gible property rights rademarks, copyright	2 🗆	NO			L i	i i
	of natural resou		.3,					
Itom B	- ADVERTI	SING SERVICES	DURING 1987				*	
ob. Die du	this enterprise	purchase advertisl Ide services from					Bil. Mil	Thou. Do
oth	ers including pay	ments for printing,		YES - Report amo	ount		682	
	dia coverage, an terials.	d other services and	2	NO			L i	<u> </u>
DESCAL	NC Disease							
REMA	<b>IKS —</b> Please u	se this space for any	explanations that	may be essential in	understand	ing your repo	orted data	
Itom N	- CERTIEIO	ATION — This repo	t in outpotentially	pouroto and bac h		in apporter	oo with in	structions
me of pe		egarding this report -		Period covered		in accordan		Mo. Year
50				by this report		1		1_
51	Area code	Number	Extension	Signature of auth	orized person	n	Da	ate
elephone								

FORM ES-9100

U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CINSUS FOR ES-9200		NOMIC CENSUSES TABLISHMENT REPORT					
NOTICE – Response to this inquiry is required b Code). By the same law, your report to the Cansus It may be seen only by sworn Census employees a statistical purposes. The law also provides thet co are immume from legal process.	nd mey be used only for		0607-0571: Approv loyer Identification abar ES-9200	IEI)	as June 3	0, 1989	
Please complete this BUREAU 1201 East	OF THE CENSUS Tenth Street ville, IN 47134			I			
DUE DATE: FEBRUARY 15, 1988 If you cannot file by the due date, a time exter be sent to the ebove eddress; pleese include File Number (CFN).							
Note — Please read the instruction answering the questions.							
902 903	304	Please correct errors in name, eddress, and ZIP Code.	ENTER street and nu	mber if n	ot showr	ı.	
	IMPOR	TANT — Please read					
		GENERAL INSTRUCTIONS					
Who should report? <ul> <li>All auxiliary establishments which were op</li> </ul> What is an auxiliary establishment?	erated during any part of	operating activities which produce g 1987 Economic Censuses report for	poods or services repo m li.e., manufacturing	rted on a g, selling	, etc.).		
<ul> <li>An establishment primerily engeged in peri- general administrative functions, and supp establishments of the aame enterprise, ration other business firms.</li> </ul>	orting services for other her than for the generel pu	blic or • Be sure to complete every item. Enter	ical purposes.				
Examples of euxiliery establishments: Cen regional offices, accounting offices; resear leboratories; central repair shops; werehou	ch, development, end tes	ting    An enterprise consists of a parent fir		ments ar	br		
Item 1 — EMPLOYER IDENTIFICATIO Is the Employer Identification (EI) Number show SAME as that used tiff this establishment on its Employer's Quartertly Federal Tax Return, Treat	n in the label the latest 1987	Item 4 — EMPLOYMENT BY FUNCTION List both full and part-time employees as defined on Treesu this euxiliary location, by each employee's primery function Exclude • Employees working in or from other establishm though paid from this location	n. ents, even		Number		
094 1 ☐ YES 2 ☐ NO — Enter current	(9 digits)	<ul> <li>Proprietors or partners if an unincorporated firm</li> <li>Employment by function for pay period including Merch</li> <li>records do not provide actual employee counts in terma s</li> <li>listed, estimates of the approximate number in each are a performing a variety of functions should be reported in th</li> <li>during the pey period.)</li> </ul>	12, 1987. (Where of the functions acceptable. Those				
El Number	TABLISHMENT	<ul> <li>Administrative and managerial employees (Exclude employees engaged in office and clerical work.)</li> </ul>		015			
Answer Items a. b, c, and d NOTE: P.O. boxes or rural routes are not pl a. Same as shown in mailing label. If differe		<ul> <li>(2) Office and clerical employees — except sales supported in the sale of the</li></ul>	ort	010 017 018			
NUMBER AND STREET	, k	<ul> <li>(5) Trucking employees</li> <li>(6) Communication employees (including telephone and telecommunication)</li> </ul>		015			
CITY, TOWN, VILLAGE, ETC. STATE	ZIP COOE	<ul> <li>(7) Repair service employees</li> <li>(8) Electronic data processing employees (Include prog and systems design.)</li> </ul>	gramming	021 022			
b. Is this establishment physically located inside	the legal houndaries	(9) Sales support employees (Include office and clerica		023 024			
of the city, town, villege, etc.?	No legal boundaries	employees directly supporting the sales personnel in	n line (9).	024			
	Don't know	(11) Other employees - Specify 026 b. TOTAL March 12 employment - Sum of lines (1) the		032			
	] Other or don't know	HOW TO REPORT Value figures may be reported in dollars or rounded to thousands.	• PREFERRED	Mil- lions (000)	Thou- sands (000)	Dol- lars (000)	
2 Town or township d. Name of county where physically located		Item 5 – PAYROLL IN 1987, BEFORE	Acceptable	1 Mil.	126 Thou.	626 Dol.	
Item 3 – OPERATIONAL STATUS • How many months during 1987 did this firm or organization actively operate this	Number of months	DEDUCTIONS Report total payroll of ell employees es defined on Treasury Form 941. Include • Gross earnings paid to employees prior to such deductions as: • Employee's Social Security contributions		030			
<ul> <li>b. Mark (X) the ONE box which best describes this establishment at the end of 1987.</li> </ul>	Figures only	Withholding taxes     Group insurance premiums     Union dues     Savings bonds     All weges and salaries including:	e. TOTAL ANNUAL PAYROLL	031		_	
001 1 In operation 2 Temporarily or seasonally Inactive	Month Day Year	Commissions end peid bonuses     Dismissol pay     Vacation and sick pay     Cash equivalent of compensation paid in kind     Salaries of officers if a corporation     Exclude • Payments to proprietors or partners if	b. FIRST				
3 Ceesed operation — Give dete 4 Sold or leased to another operator — Give dete at right — AND enter name, etc., below <sub>2</sub>		an unincorporated concern • Employer's cost for fringe benefits Itam 6 – EMPLOYER'S COST FOR FRINGE BENEFITS IN 1987		101			
AND enter name, etc., below		(Supplemental Labor Costs) LEGALLY REQUIRED — For example: • Employer's Social Security tax • Unemployment tex	e. Legally required programs including Sociel Security	102			
NUMBER AND STREET		Workmen's compensation insurance     State disability insurance programs VOLUNTARY PROGRAMS — For example:     Union penotiated benefits	102				
CITY STATE	ZIP COOE	Life insurance premiume     Pension plens and welfare plans     Insurance premiums on hospital and     medical plans     Stock purchase plana	progrems c. TOTAL fringe benefits Sum of lines e and b	103	N PAGE		

		Page 2
Item 7 — PRINCIPAL ACTIVITY OF THIS ESTABLISHMENT a. Does this establishment perform management, generel edministrative, or other supporting services PRIMARILY for establishments of your enterprise rether the for other business firms or for the general public? ("Enterprise" refers to the parent firm end ell its establishments end subsidierles undar common ownership or control.)	P 1 YES - Merk (X) the box which best 3 Werehous	development, and testing ing deta processing cations
	then SKIP to Item 9.         s □         Selling           158         9 □         Other - 5           157         157	Specify Z
b. Is this esteblishment the corporate headquarters, executive office or head offic for your entire enterprise?	$e^{152}$ 1 $\Box$ YES – <i>SKIP</i> to Item 8 2 $\Box$ NO	
<ul> <li>Does this establishment perform these management and administrative function or support services for ALL establishments of your enterprise?</li> </ul>	ns 153	
d Does this establishment perform these management and administrative function		
or services for a SINGLE operating establishes which is located at the seme physical location es shown in the eddress label?	1 YES 2 NO	
Item 8 — PRINCIPAL BUSINESS OR ACTIVITY OF THE OPERATING ESTABLISHMENTS SERVICED	155 1 Minerels extrection, production, 5 Wholesale or exploretion manufect	trade (including urer's sales branches)
a. Merk (X) the ONE box which BEST describes the MAJOR kind of business or industrial activity of the operating establishments of your enterprise thet ere meneged or serviced by the euxiliary referred to in the lebel.	2       Construction (including general contrecting, subcontrecting, end lend subdividing end developing)       s       Retail trad.         3       Menufecturing (including publishing end printing)       155	dustries
b. List in order of importance, the principel kinds of merchandlee sold, products	Source of seles or receipts	Percent of total
produced, types of services rendered, or construction activities performed by the operating establishments that are managed or serviced by the auxiliary liste in the address lebal. For each line, also indicete the percent of total sales or		sales or receipts
receipts that each line represents.	(1)	%
	(2)	%
	(3)	%
	CENSUS USE ONLY 801	
Item 9 - BILLINGS TO OTHER ESTABLISHMENTS OF YOUR           Interprise In 1987           Report billings to all other establishments of your enterprise during 1987           Include • All merchandles billed by this establishment in 1987           • All billings, whether or not the merchandles was shipped directly by the supplier or shipped from this establishment	Did this establishment have billings to other establishments of your enterprise during 1987? 710 1	Mil. Thou. Dol. 711
<ul> <li>Exclude • Sales to establishments of other enterprises, and franchise sales</li> <li>Purchases made directly by your enterprise's individual establishments</li> </ul>	s 2 🗆 NO	
Item 10 - SALES TO CUSTOMERS OUTSIDE YOUR ENTERPRISE IN 1987	Did this establishment have     seles of products or services	011
Report ell seles mede by this establishment during 1987 to customers outside you enterprise. EXCLUDE sales texes end other taxes collected. Include • Merchandias estes, receipts for services, end other business receipts • Export transfers to foreign subsidieries of your enterprise • Cost of research end development for the Federal Government or for other enterprises on contrect, es reported in Item 11 • Frenchise seles	to customers outside your	
Exclude • Intra-enterprise transfers to other domestic establishments of your enterpris • Seles to outside customers mede by other establishments of your enterpris even though billed centrelly by this establishment • Sales and/or menufecturer's shipments already reported on other Census forms	<ul> <li>b. Of the total sales reported In line a, report the approximate percent of receipts from —</li> </ul>	Whole percents
Nonopersting income	(1) Products	013
	(2) Services	720
Item 11 — COST OF RESEARCH AND DEVELOPMENT IN 1987 Report all costs incurred at this establishment during 1987 to support research and development activities (i.e., wages and selaries, direct meterials costs, services and supporting costs, and an appropriate shere of deprecietion and overhead).	<ul> <li>a. Did this establishment perform research and development during 1987?</li> </ul>	1 🗌 YES – Go to b 2 🗋 NO – SKIP to Item 12
If this establishment performed research end development for the Federel Government or for other enterprises on contrect during 1987, include the totel emount charged for such work performed. Also, report such receipts in item 10.	b. Source of funds for research and development performed	Mil. Thou. Dol.
	(1) Federel Government contrects end subcontracts	722
	(2) Nonfederel sourcas outside your enterprise (other enterprises, local governments, etc.)	722
	(3) Other esteblishments of your enterprise	
	(4) TOTAL cost of research and development	724
Item 12 — CAPITAL EXPENDITURES DURING 1987 (EXCLUDING LAND AND MINERAL RIGHTS) Capitel expenditures refer to all costs that are cepitelized to the fixed esset eccour and for which depreciation or amortization reserves are meintained. Include all item obtained through a capital lease.	Did this establishment meke capital expenditures during 1987? ns	400 1 □ YES - Go to b 2 □ NO - SKIP to Item 13
Include • Line b(1)(e) — New vehicles purchased for highwey use including pessenger automobiles, trucks, commercial cars and buses, truck trectors and trailers, and speciel purpose vehicles	b. Type of cepitel expenditures	MII. Thou. Dol.
<ul> <li>Line b(1)(c) — Other new mechinery end equipment including office mechines and fixtures, furniture, warehouse lifts, end similar equipment. Report replacements as well as additions to capacity. Include vehicles whose primery use is off highwey.</li> </ul>	<ol> <li>New machinery end equipment</li> <li>New automobiles, trucks, trailers, special</li> </ol>	
<ul> <li>Line b(2) — New construction, mejor elterations, cepitelized repairs and improvement of buildings, other fixed structures, and site improvements (such as roads, parking lots, fences, utilities)</li> </ul>	purpose vehicles, etc., for highway use	402
improvements (such as roads, parking lots, fences, utilities) • Expenditures for structures which, on completion, ere to be sold enc leesed beck to you		403
<ul> <li>The cost of ell improvements and new construction which were in progress, but hed not been completed et the end of 1987</li> </ul>	(c) All other expenditures for new mechinery end equipment	
<ul> <li>Equipment that is en integrel or permenent pert of a building or struc</li> <li>Une b(3) — Total expenditures for old or existing plants and for second hend equipment acquired from others. Include mechinery or</li> </ul>	ture (d) TOTAL new mechinery end equipment — Sum of lines (a) through (c)	404
equipment transferred from other plants of your enterprise at epproximate merket velue. Exclude • Cost of lend end minerel rights	(2) New buildings, structures, end edditions to plant	405
<ul> <li>Cost of maintenance and repeirs charged as current operating expense</li> </ul>	(3) Used plant and used equipment acquired from others	408
<ul> <li>Cepital expenditures mede by outside owners of property rented or leased to this establishment</li> <li>Cepital expenditures mede by this establishment for other locations of your enterprise</li> </ul>	(4) TOTAL cepitel expenditures — Sum of lines (1)(d), (2), and (3)	410
FORM ES-9200		TINUE ON PAGE 3

Include       Cost of improvements and new construction that were in progress but not completed at the end of 1987       Buildings 2       Mil.       Thou.         Cost of depreciable essets owned by this establishment, but rented or lessed to others under en operating lesses agreement       Cost of depreciable essets obtained through cepitel lesses       Buildings and structures       300         Exclude       Cost of lend and depletable essets limber and mineral rights       (1) Buildings and structures       300         Curren tessets linventories, cash, accounts receivable, etc.) and intengible essets (goodwill, patents, copyrights, etc.)       Cost of depreciable assets at other locations for which this establishment meinteins records       Did this establishment       450       1       YES - Report depreciation experiments of make rental payments.         Item 15 - RENTAL PAYMENTS IN 1987       Did this establishment during 1987 for assets owned at the beginning of the year or acquired during the year.       0id this establishment methers are fracturers for mechinery, and equipment. <i>ISee Item 12 instructions for breakout of buildings and structures for mechinery or end equipment.</i> 0id this establishment or enterpise or envid assets hound as the begin ment in term 13.       Copital eases Ishould be reported as assets)       4.       0id this establishment in term 13.         Payments mede by this establishment in term 13.       Copital eases Ishould be reported as assets)       Copital eases Ishould be reported as assets)       0id this establishment in term 13.       6.       Building and structures for mechine	S 350 C 1 2 r both years, SKIP Dol. Mil. 351 352 355 Mil. 4 452 452 ctures binery ipment 731 741	d of 1987
Proport to conscrete of depreciable same of this exhibitment or which depreciable exects of the end of the specified with end with end with the specified with end with the specified with the specified with end with the specified with the specified with the specified with the specified with end with the specified with end with the specified with end with the specified withe specified with the specified with the specified with the specif	S 350 C 1 2 r both years, SKIP Dol. Mil. 351 352 355 Mil. 4 452 452 ctures binery ipment 731 741	YES NO Yes Yo Item 14 Thou, Dol
depreciation or amortization accounts are ordinarily maintelined. Gross cost of association or amortization sociation and another the same for which control essents should finduce all types of term for or which the control association that were in progress.       2 □ NO         include       Cost of depreciable association that were in progress.       0	2           ar both years, SKIP           Dol.         Mil.           351           352           355           452           452           452           artures           561           arctures           552           bings           551           arctures           552           binery           552           731           741	to Itom 14 Thou, Dol
but not completed at the end of 1987 <ul> <li>Cost of depreciable assets owned by this establishment, but rented or lessed to others under en operating lease agreement. Cost of depreciable assets obtained through ceptiel lease agreement. Cost of depreciable assets lither tongh ceptiel lease agreement. Cost of depreciable assets lither tongh ceptiel lease agreement. Cost of depreciable assets lither tongh ceptiel lease agreement. Cost of depreciable assets lither tongh ceptiel lease agreement. Cost of depreciable assets lither tongh ceptiel lease agreement. Cost of depreciable assets lither tongh ceptiel lease agreement. Cost of depreciable assets lither tongh ceptiel lease agreement. Cost of depreciable assets at oth lease to be completed agreement agreement. Cost of depreciable assets at oth lease to be completed agreement agreement. Cost of depreciable assets and lease to be completed agreement. Cost of proceeding link and depreciable agreement. Cost of proceeding link and depreciable agreement. The value of such enterprise owned agreement of your enterprise. The value of such enterprise owned agreement of your enterprise.</li> <li>Item 17 - COST OF PURCHASED ELECINCITY IN 1987</li> <li>Include - The total equivaments of your enterprise.</li> <li>Item 18 - COST OF PURCHASED FUEL IN 1987</li> <li>Include - The total equivament of agreement agree</li></ul>	351       352       355       355       355       Mill.       452       452       ing6       ictures       binery       ipment       741	
<ul> <li>Cost of depreciable assets obtained through cepitel leases</li> <li>Exclude </li> <li>Cost of land and depictable essets light weat or accurs receivable, etc.) and intengible sessets ago within parents. Copyrights, etc.)</li> <li>Cost of depreciable assets at other locations for which this establishment meintening records</li> <li>Item 14 - DEPRECIATION CHARGES DURING 1987</li> <li>Item 15 - RENTAL PAYMENTS IN 1987</li> <li>Include * Payments for equivalent charges in add to other entropies evend as establishment in the stabilishment is the stabilishment in th</li></ul>	A A A A A A A A A A A A A A A A A A A	Thou. Dol
Current essets (movernories, caps), accounts receivable, etc.) and Intentiole essets (goodwill, patents, copyrights, etc.)     Cost of daprociable assets at other locations for which this establishment meintening records     Item 14 - DEPRECIATION CHARGES DURING 1987     Appart additions made to accurulated dapreciable and accurulated dapreciable and the beginning of the year or acquired during the year.     Item 15 - RENTAL PAYMENTS IN 1987     Include * Payments lor equivalent charges inde to other entroprises or entry of its subsidiertes. The value of such entroprise or entry of its subsidiertes. The value of such entroprise or entry of its subsidiertes. The value of such entroprise or entry of its subsidiertes. The value of such entroprise or entry of its subsidiertes. The value of such entroprise or entry of its subsidiertes. The value of such enterprise or entry of its subsidiertes. The value of such enterprise or entry of its subsidiertes. The value of such enterprise or entry of its subsidiertes. The value of such enterprise or entry purchased during the year from other enterprises, or received from Exclude * The total encount ectually paid or payable for electric entry purchased during the year from other enterprise, or received from Exclude * The total encount ectually paid or payable for electric entry functions * The total encount ectually paid or payable for electric entry functions * the stablishments of your enterprise, or received from Exclude * The total encount ectually paid or payable for electric entry functions for phase to unit the stablishment fermitel payments made by this establishment fermitel payments     ecos of purchesed fuel which is included as part of normal remail payments     ecos of purchesed fuel which is included as part of normal remail payments     fermitel payments     ecos of purchesed fuel which is included as part of normal remail payments	Mil. 1       452       452       452       ings       651       ictures       ipment       FAL       mot       731	Thou. Dol
Cost of depreciable assets at other locations for which this satubilishment meintenins records as stabilishment meintenins records during 1987 for assets owned at the beginning of the year or acquired during 1987?      Item 15 - RENTAL PAYMENTS IN 1987 Include - Payments for equivalent charges) made to acther enterprises for the use of buildings including land and office space) structures or mechanized using 1987?      Item 15 - RENTAL PAYMENTS IN 1987 Include - Payments for equivalent charges) made to acther enterprises or mechanized using 1987?      Item 15 - COST OF PURCHASED ELECTRICITY IN 1987 Include - The total amount actually paid or payable for electric energy purchased during the year fam of the set of listentiation account as approximate and by this establishment for plant and space for more therefore and and the set of year enterprise.      Item 16 - COST OF PURCHASED ELECTRICITY IN 1987 Include - The total amount actually paid or payable for electric energy purchased during the year fam of your enterprise.      Item 18 - COST OF PURCHASED FUEL IN 1987 Include - Cost of purchesed for the include as part of normal method or bescaption.      Item 18 - COST OF PURCHASED FUEL IN 1987 Include - The total amount actually paid or payable for electric energy purchased during the year fam of the set of lament and payments     record of the set operated and use of the set operated and use of the set operated and the set operated and the set operated and the set of operated and the set operated and the set operated and the set operated and the set of operated and the set operated and the set of the set operated and the set operated and the set of the set operated and the set operated and the set operate and the set operated and the set of the set operated and the set of the setholishment in the toperated and the set operated and the set ope	Af52 Af52 Affings Affings Affinery Affine	Thou. Do
Report additions made to accumulated deprecision and amortization accumts drag 1397 for assets owned at the beginning of the year or acquired during the year or acquired as astactines and the restablishment to the perfectin	Af52 Af52 Affings Affings Affinery Affine	Thou. Dol
Item 15 - RENTAL PAYMENTS IN 1987         Include       • Report equivalent charges) made to other enterprises for the use of buildings (including land and office space) structures, multiling (including land structures, mu	ding6 ictures ictures b52 ipment ipment ICAL mod b 731  → 741	
Include       Case of the child of the chil	ipment ipment immof ad b 731 741 741	
Exclude       Peyments mede by this establishment to the period enterprise or envoid its subsidiaries. The value of such enterprise owned assets should be reported as if actually owned by this establishment in tem 13.       2       NO         Cepital leases Ishould be reported as if actually owned by this establishment in tem 13.       2       NO       2.       NO         Rentel payments made by this establishment for plent end equipment et other establishments of your enterprise       2       NO       2.       NO         Item 16 - COST OF PURCHASED ELECTRICITY IN 1987       Did this establishment purchase electricity during 1837?       730 1       YES - Report cost of purchased electricity	rhinery ipment IFAL → B56 m mot samot TAL → 731   → 731   741	
of its subsidiaries. The value of such enterprise owned assets should be reported as if actually owned by this establishment in tem 13.       2 \ NO       orgute orgute subsidiaries. The value of such enterprise owned assets should be reported as if actually owned by this establishment in tem 13.       2 \ NO       orgute orgute subsidiaries. The value of such enterprise owned assets should be reported as if actually owned by this establishment in tem 13.       2 \ NO       orgute c. Tot subsidiaries. The value of such enterprise.         Item 16 - COST OF PURCHASED ELECTRICITY IN 1987 Include       The totel emount actually paid or payable for electric energy purchasse during the year from other enterprise. or received from other establishments of your enterprise.       Did this establishment prochase electricity during 1887?       730 \ YES - Report cost of purchase electricity during 1887?         Item 17 - COST OF PURCHASED FUEL IN 1987 Include       The total amount actually paid or payable during the year for ell fuels consumed for heat, power, or the generation of electricity e Coel, coke, neturel end menufactured ges, fuel oil, liquified petroleum ges, gesoline, erc.       Did this establishment purchase fuels in 1987?       740 \ YES - Report cost of purchase fuels in 1987?         Item 18 - COST OF PURCHASED FUEL IN 1987       NO       Vere these costs included in rental payments (item 15)?       742 \ YES         Item 18 - Cost of purchesed fuel which is included as part of normal econsumed for heat, power, or the generation of electricity ecost of purchesed for highwer vehicles       742 \ YES       YES - Report cost of purchase fuels in 1987?         Item 18 - Cost of purchesed fuel which i	ipment i TAL → 555 mm of m of a b 731 i 741 i 741 i 741 i 1	
Bentel payments made by this establishment for plent end equipment of other establishments of your enterprise         Sur line           Item 16 - COST OF PURCHASED ELECTRICITY IN 1987 purchased during the year from other enterprises, or received from other establishments of your enterprise.         Did this establishment purchase electricity         730 1         YES - Report cost of purchased electricity           Exclude         The value of electricity generated and used et this establishment rentel payments         Did this establishment purchase electricity         730 1         YES - Report cost of purchased electricity           Item 17 - COST OF PURCHASED FUEL IN 1987 Include         The total amount actually paid or payable during the year for of lightified petroleum gas, gespline, etc.         740 1         YES - Report cost of purchased fuels           Exclude         Cost of purchesed fuel which is included as part of normal rentel payments         Did this establishment portage fuels         740 1         YES - Report cost of purchased fuels           Icoude         The total amount actually paid or payable during the year for of lightified petroleum gas, gespline, etc.         Vere these costs         742 1         YES - Report cost of purchase fuels           Item 18 - COST OF PURCHASED COMMUNICATION SERVICES IN 1987         The total spont, etelegraph, data transmission, telex, teletype, ticker tope, phototransmission, end all other related services         750 1         YES - Report cost of purchase communication services           Include         Poyments for telephone, telegraph, data tra	mod         mod           mod b         731           →         731           →         741	
a to the exclusion entroping       a to the exclusion exclusion of your entroping         I term 16 - COST OF PURCHASED ELECTRICITY IN 1987       Did this establishment purchase during the year from other enterprises, or received from other establishments of your enterprise.       730 1 YES - Report cost of purchase delectricity         Exclude • The value of electricity operated and used et this establishment is of your enterprise.       2 NO         Exclude • The value of electricity generated and used et this establishment is included as part of normal rental payments.       740 1 YES - Report cost of purchase delectricity         Item 17 - COST OF PURCHASED FUEL IN 1987       Did this establishment purchase fuels in 1987?       740 1 YES - Report cost of purchase fuels.         Include • The total amount actually paid or payable during the year for ell fuels consumed for heat, power, or the generation of electricity       2 NO         Code, coke, neturel end menutractured ges, fuel oil, liquified petroleum gas, gesoline, etc.       740 1 YES - Report cost of purchase fuels in 1987?         Item 18 - COST OF PURCHASED COMMUNICATION SERVICES IN 1987       Teletype, ticker tege, phototrasmission, telex, teletype, ticker tege, phototrasmission, end all other related services       750 1 YES - Report cost of purchase costs in 1987?         Include • Peyments for telephone, telegreph, data transmission, telex, teletype, ticker tege, phototransmission, end all other related services       752 1 YES         Exclude • Cost of purchesed communication services which is included as       752 1 YES	nd b 731   → 741   741	
Include       • The totel emount actually paid or payable for electric energy purchased during the year from other enterprises, or received from other establishments of your enterprise.       purchase during the year from other enterprises, or received from other establishments of your enterprise.       1 UYES - Report cost of purchased electricity	→	
purchased during the year from other enterprises, or received from other establishments of your enterprise.       2       NO         Exclude       • The value of electricity generated and used et this establishment rentel payments       2       NO         • Cost of purchesed electricity which is included as part of normal rental payments       ************************************	→	
• Cost of purchesed electricity which is included as part of normal rented payments         includad in rental payments         1 YES           • Cost of purchesed fuels         > No           • Item 17 - COST OF PURCHASED FUEL IN 1987         Did this establishment purchase fuels in 1987?         1 YES - Report cost of purchesed fuels           • Cost, orke, orke, orke, orke and the on menufactured ges, tuel oil, liquified petroleum gas, gesoline, etc.         Did this establishment purchase fuels         740           • Exclude         • Cost of purchesed fuel which is included as part of normal rental payments         Were these costs         742         YES - Report cost of purchesed fuels           • Cost of purchesed fuel which is included as part of normal rental payments         Were these costs         742         YES - Report cost of purchesed for highwey vehicles           • Gesoline end fuel purchesed for highwey vehicles         payments (Item 15)?         2 NO           • Item 18 - COST OF PURCHASED COMMUNICATION SERVICES IN 1987         Did this establishment purchase communication services in 1987?         750 1 YES - Report cost of purchese did services           • Include         • Poyments for telephone, telegreph, data transmission, telex, teletyce, ticker teps, phototransmission, end all other related services         752 1 YES           • Exclude 6 Cost of purchesed communication services which is included as         752 1 YES	→	
Include       • The total amount actually paid or payable during the yeer for ell fuels consumed for heat, power, or the generation of electricity       • purchase fuels in 1987?       1 YES - Report cost of purchesed fuels         2 NO       • Coel, coke, neturel and menufactured ges, fuel oil, liquified petroleum gas, gesoline, etc.       • Were these costs       742 1 YES         • Cost of purchesed fuel which is included as part of normal rental payments       • Include in rental       750 1 YES - Report cost of purchese         • Item 18 - COST OF PURCHASED COMMUNICATION SERVICES IN 1987       Did this establishment purchase communication services in 1987;       750 1 YES - Report cost of purchese         • Include       • Poyments for telephone, telegreph, data transmission, telex, teletype, ticker teps, phototransmission, end all other related services       752 1 YES         • Exclude 6 cost of purchesed communication services which is included as       752 1 YES	→	
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gas, gesollne, etc.       Were these costs       742 1 UYES         Exclude • Cost of purchesed for highwey vehicles       included in rentel payments (item 15)?       2 NO         Item 18 - COST OF PURCHASED COMMUNICATION SERVICES IN 1987       Did this establishment purchase communication services in 1987?       760 1 VES - Report cost of purches communication services         Include • Payments for telephone, telegreph, data transmission, end all other related services       Were these costs       752 1 VES         Exclude • Cost of purchesed communication services which is included as       Were these costs       752 1 VES	1751 !	
	1761 1	
SERVICES IN 1987       communication services         Include • Peyments for telephone, telegreph, data transmission, telex, teletype, ticker tepe, phototransmission, end all other related services       services in 1987?       2 NO         Exclude • Cost of purchesed communication services which is included as       Were these costs       752 1 YES	head 101	
Include • Peyments for telephone, telegreph, data transmission, telex, telexype, ticker tope, phototransmission, end all other related services       2 NO         Exclude • Cost of purchesed communication services which is included as       Vere these costs       752 1 YES		
Exclude • Cost of purchased communication services which is included as		
Item 19 - COST OF PURCHASED REPAIR SERVICES IN 1987	esed 701	i
Include • The total emount peld to other establishments for purchased repair services (outside contractors, garages, etc.) purchased repair services in 1987?		
All noncapitelized repeirs to buildings, structures, machinery, and equipment (such es repeirs to motor vehicles, peinting, roof repair, Were these costs 762		
mechlnery end equipment repair, etc.)     included in rentel     included in rentel       NOTE: Report the cost of purchased repeir services for equipment thet is an     payments (Item 15)?     2		
integral or permenent pert of a building or structure as repeirs for buildings and structures, not as equipment. <b>b.</b> Did this establishment purchesa repeir services <b>b.</b> Did this establishment purchesa repeir services <b>c.</b> per services for mechanicy	ed 771	
exclude • Repeirs performed on leese abuildings or equipment and paid for by for mechinery and and equipment		i
eccounts ere ordinently meintelined		<b>L</b>
by the employees of this enterprise peyments (Item 15)? 2 U NO		1 -4 1097
The Census inventory inquines are designed to collect information concerning specified?		d of 1987
ell of tha inventories owned by eech enterprise and which ere located within the United Stetes. 2 NO	7 2	DNO Z
esteblishment thet is responsible for the inventories even if these inventories SKIP	"No" for both yea to item 21, Certifi	
are held at a separate location. In this way, all inventories ere eccounted for on a nonduplicated besis. The sum of the inventories of all establishments of an b. Report inventories et cost or merkat value using Mil.   Thou.	. Dol. Mil.	Thou. Doi
after adjusting for veluation differences. Inventories at LIFO cost, use the sum of the LIFO amount plus the LIFO reserve when	260	1
For lines e through e report only those inventories that ere ettributeble to this establishment's operations. Report such inventories as if this establishment owns them. Do not include inventories cated at this establishment which ere		
the responsibility of other esteblishments of your enterprise.  C. Did this esteblishment have inventories End of 1 Subject to LIFO costing at the end of the 220	270	d of 1987
specified veer?	nplete 11	VES – Complete Items
Materials, supplies, fuels, etc., which are for resale or for further     den     den	nde	d and e
Inventories in trensit for which this auxiliary has responsibility	"No" for both yes	
Exclude • Inventories owned by others but held by this auxiliary	to Item 21, Cortifi	Thou. Dol
Items not held for resele, such as fixtures, equipment, and supplies     Items not held for resele, such as fixtures, equipment, and supplies     d. (1) Total Inventories reported on line b     which is not subject to LIFO costing.	290	1
NOTE: Sum of lines d11) end d(2) should equel totel inventories on line b and sum of lines d12) should equel totel amount of line d(2) (2) Total inventories reported on line b 230	280	
which is subject to LIFO costing (gross) — Should equal sum of lines e(1) and e(2)		
6. (1) LIFO reserve associated with the inventories reported on line d(2)	282	
(2) LIFO value of inventories reported 231	281	
on line d(2) (net)	i li	
REMARKS — Please use this space for any explanations that may be essential in understanding your reported data.		
Item 21 - CERTIFICATION - This report is substantially accurate and has been prepared in accordance with instructions.	170	1 Ver
Name of person to contact regarding this report - Print or type Period covered by this report - Print or type	TO: Mo.	. Year
Telephone Aree code Number Extension Signature of authorized person	Date	

MC-1403			-		US NONMETALLIC MINERALS OM6 APPROVAL NO. 0607-0554: EXPIRE
IOTICE — Response to this inquiry is reque code). By the same law, your report to the may be seen only by sworn Census emplo tetistical purposes. The lew also provides t re Immune from legel process.	Census E vees and	Bureeu Is I mey be	confide used only	entie). v for	In correspondence pertaining to this report, please refer to this Consue File Number (CFN) Rumber MC-1403
lease complete this BUR 1201	East T	F THE ( Tenth S Ile, IN	treet		
UE DATE: FEBRUARY 15, 1988					
you cannot file by the due dete, a tim	e exten	sion rea	uest sho	ould	
e sent to the ebove address; please in le Number (CFN).					~
Note — Please read the accurations before a questions.	ompanı answer	ying ing the			Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.
Item 1A - EMPLOYER IDENTIFIC	CATIO	NNUM	BER		(9 digits)
Is the Employer Identification (EI) Number establishment on its latest 1987 Employe	shown i r's Quer	in the lab terly Fed	el the SA erel Tex	AME es t Return,	, Treasury Form 941? El Number>
Item 1B — PHYSICAL LOCATION parts a through d.				NT A	Answer b. Is this establishment physically located inside the legal boundaries of the city, tow village, etc.?
NOTE: P.O. boxes or rurel routes are a. Seme as shown in malling label. If				hysicel	I location. c. Type of municipelity where physically located
NUMBER AND STREET		_			Oes         1 City, village, or borough         3 Other or don't know           2 Town or township         3 Other or don't know
CITY, TOWN, VILLAGE, ETC.		STATE	z	IP CODE	d. Name of county where physically located
Item 1C - ORGANIZATIONAL ST	ATUS	- Mark	k (X) the	ONED	box which best describes this establishment during 1987.
003 1 Individuel propriatorship	3 🗌 Coo	perative	associat	lion (taxa	xable) s covernment – Specify Z x-exempt) 0 Corporetion (do not mark s Other – Specify Z sexempt)
2 Menufacturing (fabricating, into new products. Also Inc apparel jobbing, publishing,	printing,	ling, or pi h ectivitie , and med	rocessing es es: log chine sho	g meterio gglng, ops)	s 5 7800 Stores riëls 6 Other If you have marked (X) in boxes 2 through 6 above, describe your principal ectivity below. 🚡
al Commission P. A. P.					
3 Construction (including gen home building, end lend sub	eral cont dividing	end deve	subcontr elopment	recting, t)	
COMPLE	TE EAC	end hour	, ENTER	a "O" W	WHEN APPROPRIATE Mil- 1 Thou-1 bions I sands 1 10000 1 (0000 1 0)
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COMPLE Figures for may report Camplete sech item, enter "O" when exproylets Item 2 – EMPLOYMENT IN 1987 a. Number of production, development, and exploration workers during pay period including 12th of month I and the appropriate I and the appropriate I and the appropriate I and the appropriate Camplete sech item, enter I and the appropriate I and the appropriate Camplete appropriate I and the selaries and weges (for employees reported in item 2c) I and there selaries and weges (for employees reported in item 2d) C. TOTAL PAYROLL Sum of lines a and b I and the selaries and weges (for employees reported in item 2d) C. TOTAL PAYROLL Sum of lines a and b I and fines	Key           301           302           303           304           305           306           307           308           307           308           309           310           311	Mil.	Thou.	Dol,	WHEN APPROPRIATE       Mile       Mil
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PENALTY FOR FAILURE TO REPORT

Form MC-1403																		Page 2
Itom 8 – ASSETS, CAPITAL EXPENDITURES, AND RETIREMENTS	Key	Merk (X) if ''O''	т	OTAL — S columns through (1)	(2)	S1	ui)dings a ructures d in item (2	(Exclud s 8 and 9	e	P	Mach)nery equipm	/ and ent	M	ineral ex nd deve	ploration lopment		Mineral I and rig	
a. Gross value of deprecieble end/or deplcteble essets (ecquisition costl et the			Key		lou. Dol.	Key	Mil.	Thou.	Dol.	Key	Mil. T	hou. Do	I. Key	Mil.	Thou. [	Dol. Ke	V Mil. T	hou. Dol.
b. TOTAL capital expenditures			341			339				340			270			27		
during the year (1) Capital expanditures for new	250		350			378				379			273			27	•	
(2) Cepitel expenditures for used buildings end machinery						342				343								
c. Retirements end disposition of						345				346		i					+	
deprecieble end/or depletable essets (i.e., gross velue of essets sold, retired, destroyed, abendoned, screpped, etc.)	253		353	(		351	(		,	352	(		) 278	(		) 27	7 (	)
d. Gross velue of deprecieble end/or depleteble essets et the and of the year (lines 8e plus 8b minus 8c equels 8d)			356			354				366			279			28	0	
Item 9 - DEPRECIATION AND/OR DEPLETION CHARGES FOR THE YEAR 1987	258		359			357				350			282			28	3	
Item 10 - RENTAL PAYMENTS DURING YEAR								-										
FOR BUILDINGS AND MACHINERY	252		382			360				381					     1   1			į
Item 11 - CURRENT ACCOUNT EXPENDITURES DURING THE YEAR																		
FOR MINERAL PROPERTIES	187		-										285			28	-	
Item 12 - COST OF PURCHA (TELEPHONE, TEL)					N SERV	ICE	5									39	1	Thou, Ool
Item 13 - LEASE RENTS FOR	MI	NERA		ROPERTIE	s											28		
3 Ceesed operation	OM e	compa enothe	any —	Give date a	t right AN	VD er	iter name,	etc., bel	ow.		· · · · · · · ·				GIVE DA Enter figu	ires oni	y Mont	
NUMBER ANO STREET								CITY					STATE		ZIP C	:00E		
b. Is the FIRST OIGIT of your Census (imprinted in the eddress box) e ze	File for ''C	Numbe D''7 —	er					🗆 YES -	- Co	om <i>pl</i> e	te items 1	5e throug	gh đ			10 – <i>s</i> .	KIP to item 1	6
Item 15 - OWNERSHIP AND CONTROL		If m	ora si	compeny ne pece is need	ed to list a	comp	enies, use	remarks	eet, sec	city, S tion.	State, ZIP (	Code) an	d El Nu	mber.				
e. Is this company og7 1 1 1 owned or controlled by 2 1 t another company?		->														EIN	lumber <i>(9 di</i>	gits)
b. Does this compeny 098 1 1 1 own or control any 098 2 1 other compeny or 2 1		> NA	ME AN	O AOORESS OF	OWNED OR	CONTI	ROLLEO COM	IPANY								EIN	lumber <i>(9 di</i>	gits)
c. Did this company have any minere development but not in production	el est n et ti	eblishr ne end	nent of the	under explore e yeer?	etion or		113	VES							2 🗆 N	ю		
d. Did this company operate at more If more space is needed, attach se	than pere	one lo te shee	ocatio et. —	n during 198	37?	->	079	YES -	– Li:	stedd	litionel loce	ntions be	low 7		2 🗌 N	10 - s	KIP to item 1	6
Physical address of busin (Number and street State, ZIP Code	, city		n	Empl	loyer ider Numb	ntific. er	ation	Kind of at this	busi loca	ness tion	Sales	and rec	aipts	A	nnual pay (5)	roll	Number of employees during pay period Including March 12	Are these figures included on the front of this report?
(1)				-	(2) (9 digi	tel			3)		Mil.	Thou.	Dol.	Mil.	Thou.	Dol.	(6)	(7)
					10 digi											1		
					(9 digi	ts)										1		VES NO
Item 16 CHECKS TO ASSU The Bureeu of the Censue reviews yu inconsistencies, end unusuel ratios. correspondence ebout these problem following checks before returning yo	ourre Tosa	eport fellow	or om u futu	issions, re	ACCUR	ATE	<ul> <li>Review</li> <li>Celcula</li> <li>Correct</li> </ul>	v the repo ate end e t your rep	nter oort	figure for en	y errors yo	our "reas u find er	d expla	ness'' ch in unusu	ecks belo al figuree i	w, end in reme	review the r rks.	
"Reesonebleness" check	s		T		(	Calcu	For most					scomp	nea us		s for sur		r Usu	el renge
<ul> <li>Average hourly wages per product</li> <li>Hours worked per yeer per product</li> <li>Selaries end weges per dollar of side</li> </ul>	tion	worke	r Ite	m 3Ae (Prod m 4e (Total ) m 3Ac (Tota = 54 (Total )	nours wor I payroll)	ked) ≁ite	+ item 20 m 18B (To	: (Avereg otel value	e nu of s	mber hipme	of product ents)		ers)				/yr. 100 ¢ 05	3-\$20 0-3000 ¢-95¢
<ul> <li>d. Supplies cost per dollar of shipme</li> <li>a. Is the total of velue of shipments (</li> </ul>	item	188)	olus te	m 5f (Total 6 otel of cepita	l expendi	tures	. except le	and (item	8b.	-								¢—95¢
(3), end (4), greeter then the sum	of pe	yroll (i	tem 3	Ac) plus tota	al cost of	supp	lies, etc.,	(item 5f)	?				_	YES	N	CONT	xplain In rem	AGE 3 -

## MINERAL INDUSTRIES—SUBJECT SERIES

## APPENDIX E E-21

							Page
PLEASE ENTER	THIS ESTAB	LISHMENT"	s D				
Name of estab	lishment (S	ame as ad	dress box)				
	-						341
ers, 2	1 to 9 milli	on gallons	5	50 to 99	million gallo	ons	
ncoming 2	] NO						349
		SED					
or toll basis a Include the c	is if purchas ost of items	ed.					
If the informe	ation es requ	ested canno acceptable.	ot be taken d	irectly from	your book re	cords,	
			this co and m	ompany, p ninerals re	ourchased eceived for	from o	thers,
	Census material code	measur	е	Jantity	Cost, inc cost	luding d (freight-	elivery in)
	671 (B-1)	(B-2)	573	(C)	574 Millions	Thou- sands	Dollar
ion as	147091 :	dry besi	s)		\$	1	
	353020	-				 	
	353030	,				1	
essories	289210		_			1	1
, wire products,	331201 4						
castings, drill er purchesed) —	970099	3					
	-		1				
						1 1 1 1	8 9 1 1
-1						     	
LZ					\$	1	!
- Please re Minerals mine only be report	ad od for sale as ted in item 1	BB. If crude	ot for prepar ore is record	ation at this led in cubic	s establishme yards, estim	ent shoul ate shor	ld t
tons nom me		Census naterial code		prepare	d at this e		
			Short tons	-	(C)		
	1	47091 3	(dry besis)				
				1987 CC	ONSUMPT	ION	
	Census code	Unit of measur for	e Q.	antity	Cost, inc cost	luding d (freight-i (D)	ellvery in)
		measur	e Ques 563	antity (C)	Cost, inc cost 564 Millions	(freight-i	in) T
	code	measur for quantitie (B-2)	e Qu		Cost	(frelght-i (D) Thou-	in) T
	code 561 (B-1)	measur for quantitie (B-2) Short tor Berrels	e Qu 35 563		564 Millions	(frelght-i (D) Thou-	in) T
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	Mare of estab	Mark (X) one bo     Mark (X) one bo     the     1	Mark (X) one box only         rite       1         Less than 1 million gallons         atment,       2         1 to 9 million gallons         atment,       1         1 to 19 million gallons         atment,       1         1 to 19 million gallons         atment,       1         atmaterial code       1         atmaterial code       1         attrestatt       3         battracts	Mark (X) one box only         rite       1         destablishment (Same as address box)         Mark (X) one box only         rite       1         destablishment (Same as address box)         atment,       1         destablishment (Do 19)         atment,       1         destablishment (Do 19)         destablishment (Do 19)	Image: of establishment (Same as address box)         Mark (X) one box only         rite       Image: constraint of the set of t	Instruct Census price numbers       Image: census price numbers         Name of establishment (Same as address box)         Mark (X) one box only         refer       Image: census price numbers         arr, 2       I to 9 million gallons         arr, 2       No           TION, AND PURCHASED          ISHMENTS AND USED          arr, 1       Please read             Report quantity and estimated cost of minerals received for preparation o of roll basis as if purchased.          Include the cost of items for which less then 625,000 worth wes used in supplies," line 8.          Unit of measure       Corput for a custom or toll or a	Name of establishment (Same as address box)         Mark (X) one box only         rise       1         1       Less than 1 million gallons         streent,       1         2       1 to 5 million gallons         streent,       2         1       VES         nooming       2         1       VES         nooming       2         1       VES         nooming       2         1       No         TON, AND PURCHASED         Istements AND USED         Please read         Report quantity and estimated cost of minerals received for preparation on a cust or toll basis as if purchased.         The cost of items for which less then 6.25,000 worth was used in "All oth supples," line 6.         Hit of measure for quantities         0       Census         Unit of guantities       Cost, including discorpany, purchased from o an acust or or toll basis         0       Cost, including discorpany, purchased from o an acust or or acust or or acust or or acust or or or acust or or acust or or or acust or or acust or or or

FO	orm MC-1403			Page 4
$\triangleright$	Item 18A - T	YPE OF OPERATION DURING 1987 (Include production, development, and explore	ntion op	erations.)
Line No		Item	Key	Mark (X) appropriate boxes
1	MINING METHODS Mark (X) one or more	(If mine is under development or exploration, or meintenence is being performed, indicete method most likely to be used when production is started or resumed.) Open-pit	401	6205
2		Underground	402	8304
3		Other Isuch es well, brine, or dredge)	403	6395
4	No mine or abandon	ed mine	404	6106
5	Preparation plant (su	ich as crushing, grinding, washing, evaporation, drying, calcining, etc.)	405	6999
6	No preparation plan		406	6601
D	Item 18B - P	RODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1987		

### Instructions — Please read

Do not combine product lines — Report seperately and include all products produced or physically shipped from the establishment during 1987. Include material withdrewn from stockpiles; products shipped on consignment; and prepared minerals from crude material mined at this establishment, purchased, received from other establishments of your company, or received for preparation on a custom or toll basis. Report the estimated value of products prepared on a custom basis and or products transferrer for preparation or other use to other establishments of your company, or the products prepared on a custom basis and or products transferrer is sheets, part D, for the procedure of epproximating interplant transfer values.)

Do not include es crude shipments any crude materials mined and also prepared at this establishment. These materials should be reported on the appropriate line for the prepared product. Include in the value of shipments, royalties and also bonuses or other credits for minerals contained. Penalties for impurities, such as ersenic, should be excluded from the value of shipments. Report the net total values F.O.B.mine or plant after discounts and ellowances end exclusive of freight charges and excise texes.

Include in crude production, any crude materials mined and prepared at this esteblishment. Report shipments of the product recovered after preparation. If products are shipped in bags or other packages, report the packaged value.

Report quantities in the unit of meesure specified in column (B-2). Short tons are equal to 2,000 pounds. Long tons equal 2,240 pounds.

#### PHOSPHATE ROCK PRODUCTION

Line 12 — Report the total amount of all crude phosphete rock mined at this establishment. If crude ore or matrix is recorded in cubic yerds, estimate short tons from the volume mined. The quantity mined for preparation at this establishment should also be reported in item 178, part II. Line 13 — Report the quantity of all washed and concentrated phosphate rock produced at this establishment, including all beneficieted products such as pebble, wet rock concentrates, and clessified concentrates that will eventually be dried, nodulized, sintered, or calcined at either this location or elsewhere.

Lines 14 and 15 — Report the quentity of ell dried, celcined, sintered, or nodulized phosphete rock produced et this establishment.

#### PHOSPHATE ROCK SHIPMENTS

Lines 15 and 18 — Report the quantity and value of shipments of any crude ore shipped to a washer and concentrator that is not included as part of this establishment on line 16. If any marketable crude ore is shipped from this establishment, report quentity end value on line 18. If crude ore or matrix is recorded in cubic yerds, estimete short tons from the volume mined.

Lines 17 and 19 — Report the quantity and value of any washed and concentrated phosphate rock shipped to a preparation plant that is not included as a part of this establishment on line 17. If any marketable washed and concentrated phosphate rock is shipped from this establishment, report quantity and value on line 19.

Lines 20 and 21 — Report the quantity end value of shipments of eny dried, calcined, sintered, or nodulized phosphete rock on lines 20 end 21.

The Bureau of Mines, U.S. Department of the Interior, generally collects deteiled figures on the mineral products listed here. This item provides only summary figures which will serve to relate the statistics compiled from the Cansus of Mineral Industries to the statistics compiled from the Bureau of Mines surveys.

L						Shipments and interplant transfers						
ine No.		Description	Census product code	Unit of measure for quantities	Quantity of production	Quanti	584	e, f.o.b. m or plant (E) Thou-				
		(A)	(B-1)	(8-2)	(C)	(D)	Millions	sands	Dollars			
1	BARITE	Crude	14721 00 5	Î			\$	+				
2	FLUORSPAR	Prepared (crushed or ground, including flotation concentrates)	14722 00 3									
3		Crude	14731 00 4					+ +				
4		Prepared (crushed or ground, including flotation concentratea)	14732 00 2									
5	Zinc concentrates		10312 21 3									
6	POTASSIUM	SIUM		Short tons								
7		Processed or refined	14742 00 1									
8	Sodium carbonates	14743 01 7					<u> </u>					
9	Sodium sulfates (na							i i				
10	BORON COMPOUNDS	Sodium boretes (natural)	14744 01 5					<u> </u>				
11		Other boron compounds (natural)	14744 03 1					t   1				
12	PHOSPHATE ROCK PRODUCTION	Crude (ore or matrix)	14751 01 0	Î								
13		Washed and concentrated	14752 01 8									
14		Dried	14752 08 7									
15	PHOSPHATE	Calcined, sintered, or nodulized	14752 08 3									
16	ROCK SHIPPED TO PREPARATION PLANTS NOT	Crude (ore or metrix) (Report production on line 12.)	14751 03 6	Short tons (dry basis)								
17	INCLUDED IN THIS REPORT	Washed and concentrated (Report production on line 13.)	14752 03 4									
18	MARKETABLE PHOSPHATE ROCK SHIPMENTS	Crude (ore or metrix) (Report production on line 12.)	14751 05 1									
9	officiario	Washed and concentrated (Report production on line 13.)	14752 05 9									
20		Dried (Report production on line 14.)	14752 06 7									
21		Calcined, sintered, or nodulized (Report production on line 15.)	14752 08 3									

_					DAT DOT									Page 5
FO	MC-1403			PARTMENT OF CON BUREAU OF THE	CENSUS	PLEASE I 11-DIGIT	CENSUS FILE	STABLISHMENT'S NUMBER						
	CHEM	ENSUS OF MINE	R MINERALS	AND		Name of	f establishme	ent (Same es edd	ress box)					
	Item 18B - P	RODUCTS AND S	ERVICES O	F THIS EST	ABL	SHME	NT DURI	NG 1987 — C	ontir	nued				
L						ensus		Quantity	SI	alpments	end h	nterpler	nt trens	fors
i n e N		Description	1		pr	oduct	Unit of measure for quentities	of production	Quantity			Value o	, f.o.b. m or plant (E)	nine
٥.		(A)			581	B-1)	(B-2)	582 (C)	583	(D)		84 Millions	Thou- sends	   Doliars
22	Rock selt				14	760 00 3	Short tons				4			
23	Native sulfur (Frasci	sulfur or sulfur ore)				770 00 2	Long tons							
-	Chemical and fertiliz	er minerals, n.e.c., such as	iene,			Long cons						1	1	
		tc. (ore, fines, and concent			790 00 0	1						1		
26	Asbestos				14	999 01 5	-				-+			
28	Diatomite (diatomac GYPSUM	ceous earth)			14	996 00 3	-		-				1	<u>i</u>
27		Crude (run of mine)			14	991 00 4	-						<u> </u>	<u> </u>
28		Crushed, ground, screen,	or dried		- 14	922 00 9			-				1	ļ
29	Mice					991 00 4							1	1
30	Native asphalt and b sandstone, and glise	oltumens (bituminous limes onite)	tone, bltuminous	_	14	992 00 2								1
31	Natural abrasives, e	xcept sand (garnet, diamon	id, tripoli, emery,	etc.)	14	994 00 8	Short tons							
-	Peat					995 00 5			1		1			
	Perlite					999 05 8								
							-						1	   
		e, Including volcenic esh en	d scorie			993 00 0	-	· · · · · · · · · · · · · · · · · · ·						1
35	Shell, crushed or bro TALC,	oken			14	999 07 2	-							
36	SOAPSTONE, AND PYROPHYLLITE	Crude			14	961 00 7								
37		Crushed, ground, or sewe concentrates			14	962 00 5	*		-					 
	staurolite, greensen	d, etc. — Specify kind	micunte, grephite	, genatonea,										
38					14	999 98 1							<u> </u>	i
39	ALL OTHER PRODUCTS OF THIS ESTABLISHMENT	Describe and raport sepan acch product with a valu cannot be assigned to on of maasure for quantity. I ""Other" and report a sing	a of the lines abo For all ramaining j	va. Specify unit	18									
					34				-					<u> </u>
41	hauling, stripping, sl	services performed for oth haft sinking, pumping, end r preparation of minarals on	shop work		14	810 90 7								
-	RESALES	Sales of products bought	t and sold witho	ut further										
43		processing. The cost of reported in item 5b.	such products sh	nould ba	99	989 00 6			-				1	
44		ue of shipments 1–43, column (E)	and receip	ts	77	000 00 8					$\rightarrow$			
5		- Not applicable to	this report.			000000			1				i	·
F	EMARKS — <i>Pleas</i> i	e use this space for any o	explanations th	et mey be esse	ntial in	understar	nding your re	ported data.						
		RTIFICATION -T	his report is sub		rate en	d has bee	n prepared in				ITC:	Mar	IV a cr	
re	me of person to co port — Print or type	entect regerding this	Area code Nur	Telephone mber	Exte		arlod covere this report	d FROM: Mo	. Year		TO:	Wo.	Yeer	
Ad	ldress — Number e	and street				Si	gneture of eu	uthorized parson			1			
Ci	y		Stete	ZIP Cod	6	Ti	tle					Dete		
_										GOVERNMEN				453 (0030

## MINERAL INDUSTRIES-SUBJECT SERIES

## **1987 CENSUS OF MINERAL INDUSTRIES** INSTRUCTIONS FOR REPORTING NONMETALLIC **MINERALS (EXCEPT FUELS) MINING** FORMS MC-1401, MC-1402, AND MC-1403

In all correspondence with the Bureau of the Census, please include the 11-digit Census File Number which appears in the eddress box of the report form. Address ell correspondance to



Bureau of the Census 1201 Eest Tenth Street Jeffersonville, IN 47134

As you complete the report for each establishment, please enter the 11-digit Census File Number at the top
of the odd-numbered pages as requested.

Please read these instructions end those eppeering on the report form for eech item before entering your figures.

#### ▶ A. WHO SHOULD REPORT?

The Census of Mineral Industries reports are required by law (title 13, U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files ere immune from legel process.

Every concern is required to submit e seperete Census report for eech of its minerel esteblishments in the United Stetes, including mines under development and preparation plants under construction. Enterprises with more than one establishment must submit e seperete report for eech esteblishment operated during ell or any part of 1987. Reports should be returned to the Jeffersonville, Indiana, office as shown on the enclosed envelope.

Eech report should be submitted by the operator of the astablishment, whether he/she is the owner or is operating it under lease or contract.

Based on Bureau of the Census records, a report form is provided for eech establishment which your company operated in 1987. If you have not received sufficient forms to cover all the mineral establishments operated by your compeny, write to the ebove address for needed forms. Be sure to describe the type of ectivity cerried on et the establishments for which you request edditionel forms.

#### 1. What is a mineral establishment?

For purposes of the Census, a **minerel establishment** is defined as a single physical location where mineral operations are conducted; for example, a mine only (a mine may be an underground operation, a quarry or pit, a well or group of wells, or a river, lake, or ocean deposit), a mine end preparation plant (such plants may be engaged in milling, washing, celcining, crushing, cleasifying, or other types of mineral preparetion), or e preparetion plant only. Since the information reported will be summarized to totels for each industry. Stete, end county, separete reports ere required for different physical locations even though the establishments may be engaged in the same type of mining or preparation. preparation

Thus, a mineral establishment represents a working or group of workings et e given locelity in which operations are conducted as a unit or are unified by common management or joint hendling of some pert of the mining or preperetion process. Individuel shefts, openings, or sites should not necessarily be considered as individuel mines; open-pit mines, however, should be reported separately from underground mines wherever possible. Plants engaged solely in preparing minerels mined et other locations should be reported separately.

Separate reports ere required for leese end lend ecquisitions of mineral rights if they ere loceted in e county different then eny establishment operated. (These reports should include e designetion of the kind of mineral expected to be produced.) Such ecquisitions may be included with the report for the nearest operating establishment producing the same kind of minerel if the establishment is located in the same county as the acquisition.

For portable send end grevel preperetion end portable stone-crushing plents, only one report is required for ell operations of a plant during the year. Specify in the report the principel locations at which the plant was operated in 1987.

In completing your reports, carefully prepared estimates are acceptable if the date requested are not available from book records.

2. How to report for establishments with no production during 1987.

If env of your company's mineral establishments had no production at all during 1987 you should, nevertheless, return the report for each such establishment with ell other information completed and with "O" entered In item 188. If a mining location was not in production, but had custodiel employees, maintained inventories, or made shipments during the year, the information should be reported in the appropriate section of the report form. The Census includes sites under exploration, mines under development or meintenence only, and plents under construction.

## 3. How to report if this questionneire does not pertain to your operations.

If this questionnaire does not pertain to your type of activity, pleese complete ell eppropriete items, euch es employment, peyroll, shipments, etc., of thie report, end uee the "Remerks" section to describe your type of ectivities.

#### ▶ B. WHAT ACTIVITIES SHOULD BE REPORTED?

Each report should cover (1) the operations of a mine, pit, or querry, together with its associated shops, euxiliary units, yards, mill or preparation plent, end offices; or (2) e mill or preparation plant not at the site of the mines served or operated under separate management from the mines, together with its esocieted shops, euxillery units, and offices. The report should elso include such ectivitiee es generating electricity for the mine or

plant (a central power plant serving two or more mineral establishments should be included in the report for that establishment to which the power plant furnishes the greetest quantity of electric energy); maintenance of mine, plant, and equipment; and receiving, shipping, storage, reseerch, recordkeeping, health, safety, cafeteria, and other services, when cerried on at the seme physicel location by the minerel establishment. The report should exclude the operation of company stores, boarding houses, bunk houses, end recreationel fecilities. The report should also **exclude** sales brenches, reseerch leboretories, and general administrative offices, if they were operated as separate establishments. Such operations should be reported, where applicable, on separate Census of Business, Census of Manufactures, or central office or auxiliary forms.

The report should not include plents primerily producing cement, lime, structural clay or pottery products, or synthetic ebrasives. Such operations should be reported on Census of Menufectures forms. The report should also exclude construction ectivities but should include separate stone, sand, and grevel querrying end crushing operations carried on by a company whose primary ectivity is construction.

#### C. WHAT PERIOD SHOULD EACH REPORT COVER?

Each report should cover the celenter way 1987. However, e report is required even if the establishment was operated only pert of the yeer. If your book records are not on e celendar yeer besis, cerefully prepared estimates will be accepteble. If reporting on e celender yeer besis will involve considerable additional costs, and your fiscal year covers at least 10 months of calender yeer 1987 (i.e., ends between October 31, 1987 and February 29, 1988), you may report on a fiscal basis. However, all employment, payroll, and hours worked figures should relate to the calendar year rether than the fiscal year. (These calendar year payroll records should be aveileble from your tax records.)

In the certification, the dates should show the period which the report covers. Thus, if an establishment begen to operate or ceesed to operate within the yeer 1987, the dates should spen only that pert of the year during which the mine or plent was operated. If the operator changed during the yeer, complete the report only for the part of 1987 in which your company operated the establishment. Report in item 14 the appropriate information on changes in operator or operations.

# D. HOW SHOULD MULTIPLE ESTABLISHMENT COMPANIES DETERMINE TRANSFER VALUES OF PRODUCTS AND MATERIALS FROM ONE ESTABLISHMENT TO ANOTHER ("INTERPLANT TRANSFERS")?

One of the important statistical measures of minIng ectivity is "value added by mining," which is derived by the Census Bureeu from the figures reported for value of shipments, cepitel expenditures, cost of supplies, minerels received for preparation, purchesed fuels end electric energy, contrect work, end purchesed mechinery instelled during the yeer.

In order for stetistics on velue edded end other subjects to be comparable from industry to industry or aree to erea, it is necessary that the operations of each establishment of e multiple establishment organization be reported es though the establishment were a separate "coronnic" unit. This meens that the value of interplant transfers within e company should include, in addition to direct costs of production, e reeconcelle proportion of "ell other costs (company overheed) end profits." The establishments receiving such trensfers should report them es purchased minerals for preparation, supplies, fuels, or electric energy et the seme velue plus costs of freight and other direct hendling cherges. (See item 5.)

#### SPECIFIC ITEMS

- Item 1A EMPLOYER IDENTIFICATION NUMBER Be certein to enter in item 1A, the current Employer Identification Number if it is different from the one printed in the eddress lebel. This information is needed so that the Census Burceu can evoid sending duplicate report forms for the same location. Our file of new business formations is besed on the new Employer Identification Numbers issued each yeer. However, we exclude meiling report forme to new Employer Identification Numbers if we identify them as belonging to existing respondents. Item 1A
- Item 1B PHYSICAL LOCATION OF ESTABLISHMENT Accurate end precise information on the physical location of eech establishment is needed in order to prepare the tebulations of mining ectivity in eech State and county. Eech esteblishment has tentetively been coded geogrephicelly besed on the eddress in the meiling lebel. Pleese be sure to complete item 18, pert e, if this is not the correct physicel location eddress of the esteblishment. Alweys complete item 18, pert d. ▶ Item 1B -

(Definitions of employees and payrolls used to calculate withholding taxes generally mey be followed in completing items 2 and 3, Employment end Payrolls.)

Item 2 — EMPLOYMENT IN 1987 — Report employees at the establishment who worked or received pey for eny part of the pay period including the 12th of the specified month. Include ell persons on paid sick leeve, peid holidays, and paid vacation during these pey periods; æxclude members of Armed Forces and pensioners carried on your ective rolls. Include officers et this establishment, if a corporation; if an unincorporated concern, exclude proprietor or partners. Include persons at egeneral office serving two or more mines if it is located et or near this establishment. Include employees paid on a per ton, car, or yard basis. However, exclude employees worked at the mine but were on the payroll of another employer (such as employees of contractors). Exclude workers at cement, lime, structural clay, and other manufacturing plants, compeny stores, boarding houses, bunk houses, and recreational centers.

If manufacturing, distribution, or construction activities are also carried on et this location, employees such as medicel staff, yardmasters, etc., who work in units that serve one or more such operetions es well as the mineral establishment, should be distributed among the respective establishments. The eernings end hours worked of these employees should be likewise distributed.

Itom 2a — Production, Development, end Exploration Workers — Include workers (up through the working-supervisor level) engaged in manual work, using tools, operating machines, hauling meteriels, loading and hauling products; caring for mineral properties; exploration work, development, storage, shipping, maintenance, repair, guerd services, euxiliery production for own use (e.g., power plant), recordkeeping, end other services closely associeted with these production and development operations. Exclude supervisory employees above working-supervisor level. For reports from operators, exclude employees of contractors.

Item 2c — Divide the total on line 2b by 4 and enter the result on line 2c; divide by 4 even if the establishment did not operate in all four periods.

Item 2d — All Other Employees — Include nonproduction personnel at this establishment engaged in supervision ebove working-supervisor level, seles, highway trucking and other transportetion, edvertising, credit, collection, clericel end routine office functions, executive, purchesing, finence; and in legel, personnel (including cefeteria, medical, etc.), and technical work. Include force-account construction employees on your payroll engaged in construction of major additions or alterations to your facilities who are utilized as e separete work force. Workers engaged in regular maintenance and repeir operations should be included with production, development, and exploration workers. For reports from operators, exclude employees of contractors.

Item 3A — ANNUAL PAYROLL — Report the gross earnings peid in calendar year 1987 to employees of the establishment prior to such deductions as employee's Social Security contributions, withholding texes, group insurance premiums, union dues, and sevings bonds. Include in gross earnings: commissions, dismissal pay, peid bonuses, vecetion and sick-leave pay, end the cash equivalent of compensation peid in kind, such es boerd and housing, end payments in the form of shared profits and speciel stock purchases which ere subject to withholding tax. Include seleries of officers of this establishment, if e corporation; if en unincorporated concern, exclude payments to members of Armed Forces and pensioners carried on your ective peyroll. Exclude royalty peyments to unos.

Exclude here, but include in item 5e, the cost of smithing, explosives, fuses, electric cap lemps, end mine supplies used in production, development, and exploretion work but charged to employees and deducted from their wages.

#### Item 3B — EMPLOYER'S COST FOR FRINGE BENEFITS (Supplemental lebor costs not included in peyrolls)

Item 38e — Legelly Required Expenditures, Including Sociel Security Contributions — Report employer contributions for all programs required under Federel and State legisletion, such es: Federal Old Age and Survivors' Insurance; unemployment compensetion; end worker's compensation. Also include legally required State temporery disability payments.

Item 3Bb — Peyments for Voluntery Programs — Include peyments for union negotieted contracts. For programs supported by joint employeremployee contributions, Include only the employer payments. Include employer payments of: (e) insurence premiums on hospital and medical plans, (b) life insurance premiums, end (c) premiums on supplementary accident and sickness insurance. In reporting peyments for insurence, report net peyments, i.e., gross payments less any offsetting dividends, refunds, or other reductions in premiums.

Also **include** payments or ellocetions on: (a) all pension plans regardless of method of edministration, (b) supplementel unemployment compensation plans, (c) velfare plans, (d) stock purchese plans in which the employer payment is not subject to withholding tax, end (e) deferred profit sharing plans.

The items listed in the peregraph above are generally considered es deferred rather than current income to employees end are not subject to withholding of income tax. If the payments or ellocations by the compeny are made to a fund, payments to employees out of these funds should not be reported. However, payments made directly to retired employees or their survivors thet do not pess through a fund should be included in item 3Bb.

Exclude expenditures not of the type listed above, such as losses on company operated cefeteries end sneck bers, cost of in-plant medical services, cost of free perking lots, discounts on employee purcheses, cost of uniforms and other work clothing supplied to employees, end similar expenditures.

Exclude payments which should be reported es wages and salaries in item 3A, such as payments for holideys, vacations, sick pay, bonuses, unused vacation, jury pay, night shift bonus, suggestion ewerds, end the payments in the form of shared profits and special stock purcheses which ere subject to withholding tex.

If any of the items ere meintelned in your records only at the company level, allocate to the mining esteblishments. In such cases, you may distribute the total on the basis of the ratio of the pervoll of each mining esteblishment to the total company payroll unless you heve developed your own method of making such ellocations. Specify in "Remarks" the method used end the epproximete portion that has been allocated.

Item 4 — HOURS WORKED BY PRODUCTION, DEVELOPMENT, AND EXPLORATION WORKERS, BY QUARTER — Include all hours worked or peid for, except hours for paid vacetions, holideys, or sick leeve, when the employee was not at the esteblishment. If en employee elects to work during the vecetion period, report only actual hours worked by such employee. Overtime hours should be reported as actual hours worked, not streight-time equivelent hours.

The figures should eccount for all hours worked et this esteblishment for the entire yeer by ell full-time and pert-time production, development, end exploration workers reported in item 2a. Exclude hours worked by employees of contractors or by proprietors or partners.

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An hour worked is the work of one person for one hour. Report figures from ectual records of hours worked wherever eveileble. If no records of hours worked were kept, estimate hours worked from payroll or other records.

Item 5 — COST OF SUPPLIES, ETC. — The entries in this item are used by the Census Bureau to calculate the 1987 value added by mining. The figures reported should represent the total purchase cost of supplies, minerels received for preperation, machinery Instelled, fuels, etc., actually used or processed during 1987 whether purchesed or withdrawn from inventories. Include items charged to both the current end cepital eccounts.

Include items consumed by the esteblishment during the year although purchesed prior to 1987, such as minerals received from other mines for preparetion (these should elso be reported seperately in item 178); purchesed supplies consumed for production, development, exploration, meintenence, and repeir of mine, plent, end equipment, end in plent construction; supplies which you furnished without charge to contrectors or sold to employees for use at this esteblishment; and consumption of items received from other establishments of your company for which separate reports are being submitted.

Exclude items received during the yeer which were not consumed; services such as edvertising, telephone, telegreph, ceble, insurence, development, and research rendered by other establishments to this establishment, or services of engineering, menagement, merketing, legel, end other professional consultents, etc.; expense such as depreciation end depletion charges egeinst plent end equipment, rent and rental allowances, interest payments, royalties, end use of patent fees; supplies (such as timber or lumber), perts, or mechinery produced et this establishment; extreordinary losses such es by fire end flood; end lebor costs of your employees (these labor costs should be reported in items 3A end 3B).

If there are no records of consumption, purcheses mey be reported instead for minor items. This cen elso be done for major items if purchases do not differ significently from the amounts actually used. Where consumption of mejor items differs significently from purchases, consumption may be estimated by adding beginning inventoriee to the emount purchased and subtracting ending inventories.

Cost is delivered cost—i.e., the amount peid or peyable after discounts end including freight and other direct charges incurred by the establishment in ecquiring the meterials.

Include ell meterials received for consumption; i.e., purcheses from other compenies, trensfers from other esteblishments of your own compeny, end withdrewals from inventories.

If minerals were mined and also prepared in this esteblishment in 1987, the velue of such crude minerals should not be included in the cost figures reported.

For supplies, minerels for preperation, machinery instelled, fuels, and electric energy received from other esteblishments of your company, cost should be checked egeinst the velues reported by the esteblishment producing end trensferring the supply (see instruction D on pege 1). Freight end other direct hendling cherges should be edded.

Item 5e — Cost of Supplies Used, Minerels Received for Preperetion, end Purchesed Mechinery Installed — The following list of examples of supplies will indicet the types of items which should be included. The list is shown only as an exemple. It should not be considered a complete list of the items which should be included.

Bearings Belting and screen cloth Bolts, screws, and nuts Breke blocks end linings Cerbon end grephite brushes Cement Chemicel reegents Diel, jigs, and fixtures Drill bits and accessories Explosives First eid end sefety supplies Floor gratings Foorgings end cestings Fuses Gears and pinions Grinding balls and rods Hemmers Handtools Headlights and lamps

Jecks Lubricating end treating oils Lumber end timber purchased Peckeging materiels Picks Picks Piks Piks Piese end fittings Piese end fittings Piese end sheets Rell and accessories Rodf bolts Stetionery, stemps,end office supplies Treck accessories Water purchased Welding rods, electrodes, end ecetylene Wire, ceble, end chein

Industriel diemonds

Include ell new end used mechinery, equipment, and perts instelled whether purchesed or received from other esteblishments of your compeny. Include only physicel goods used or put into production. Exclude services used or overheed cherges. Report the cost of services performed for you by others in item 5e.

Item 5b — Cost of Products Bought end Resold Without Further Processing — Report the cost of all products bought and sold in the same condition as when purchesed. (Totel seles velue of such products resold is to be reported in Item 1BB under "Reseles.")

Item 5c — Cost of Purchesed Fuels Consumed — Report the totel cost for ell purchased fuels consumed during 1987 for heat, power, transportation, or the generation of electricity. Fuels consumed at this establishment, but produced in another establishment of your company, should be reported here end in item 17C, end commerciel velues essigned to them. Include enthracite, lignite, bituminous end subbituminous coel, coke, neturel and menufectured ges, fuel oil, liquefied petroleum ges, gesoline, wood, and all other fuels, including purchesed steem. Be sure to include fuel used to power delivery trucks, forklifts, or other motor vehicles associated with the establishment.

Item 5d — Cost of Purchesed Electricity — Report the totel emount ectuelly peid or peyeble for electric energy purchesed during 1987 from other compenies or received from other esteblishments of your compeny. Exclude the velue of electricity genereted end used et this esteblishment, but report its quentity in item 6b.

Item 5e — Cost of Contrect Work Done for You by Others — Report the total peyments mede for contrect services performed during 1987, Including peyments for supplies end equipment furnished by the contrector incidental to this work. Include services performed in the operation or development of this establishment, such as pumping, tunneling, shaft sinking, stripping, boring teet holes, shop work, repeir work, end construction.

Exclude peyments to miners on your peyroll but peid on e per ton, cer, yerd, or footage basis. The compensation of such workers should be included in item 3A.

If pert of the peyment to e contractor was in material produced, en estimete of the velue of the service should be included.

CONTINUE ON PAGE 3 -----

#### U.S. DEPARTMENT OF COMMERCE

#### **1987 CENSUS OF MINERAL INDUSTRIES**

#### INSTRUCTIONS FOR REPORTING NONMETALLIC MINERALS (EXCEPT FUELS) MINING - Continued FORMS MC-1401, MC-1402, AND MC-1403

Include payments to contrectors who strip-mined minerals for your account.

Exclude peyments to suppliars who minad for thair own account on property owned or leased by them and who paid royalties either directly or indirectly on the minarals mined. Such peymants to suppliers should be reported In Item 5b, if the minerels were bought for resale without further processing, or in Itams 5a and 17B, part I, if the minerals were purchased for praparetion at this establishmant.

Exclude paymants to other establishmants for the cost of custom preparation of minarals mined by this establishmant.

Item 6 — QUANTITY OF ELECTRICITY — Raport all quantitias for elactricity in thousands of kilowatthours.

Item 6e — Purchased Electricity — Report the quantity of electricity for which cost is reported in item 5d.

Item 6b – Generated Electricity – Report the totel quantity of electric anergy generated at this astablishment (gross less generating station use) during 1887. When a figure is reported on this line, data relating to the activity of the power stations should also be included in other sections of this report. For example, tha number of employeas assigned to the power station, their wages, and hours worked should be included in the figures reported in items 2, 3, and 4; and the cost of fuels used to generate electricity, in items 5c and 17C.

Itom 6c — Elactricity Sold or Transferred — Report the quantity of electric energy which was also included in items 6e and 6b, but which was sold to other companias or transfarred to other establishments of your company, Report the value of electricity sold in item 18B on the "All other products" line.

Item 7 — INVENTORIES OF THIS ESTABLISHMENT — Report the valua of all inventories owned by this establishment regardless of where the inventories are held. The data on each report form should axclude inventories ownad by others, but held by your company.

In reporting inventories of individual establishments, multiestablishment companies should assign to each astablishment those inventories that the establishment is responsible for as if it owned them. For example in complating the report of e minarals establishment, report those inventorias that ere attributable to its operations, even if tha inventories are held elsewhere, e.g., at a warehouse, a centrally located stockpile, or a storage area. The inventories included in the report for an oparating establishment which are held elsewhera should not be included in tha report of tha establishment where thay are actually stored. Thus, inventories should not be duplicated on establishmant reports.

Itam 7a — Mined or Quarried Products — Report stockpiles of products (raw or beneficiated ores end quarried products) reedy for shipment. Include stocks of raw products ewaiting treatment or benefication that were mined or querried et this establishment.

Item 7b — Supplies, Parts, Fuels, etc. — Report the cost of items to be used for extracting or beneficiating. Include stockpiles of minerals recaived from other establishmants for preparation.

itam 7d — The sum of 7d(1) and 7d(2) should equal the total inventories reported in itam 7c.

Itam 7e(1) — LIFO Reserve represents the excess of currant pariod cost over the LIFO carrying valua. LIFO reserve is the diffarence between the current cost (e.g., FIFO) of inventorias (gross value) and the LIFO carrying value (net value).

#### Items 8, 9, 10, and 11

Items 8 and 9 provida for reporting assets, capital expanditures, retiremants, and depreciation and/or daplation for buildings and other structuras, machinery and equipment, mineral exploration and development, and for minaral land and rights. Item 10 provides for reporting rentel peyments for buildings and machinery. Item 11 provides for reporting all current account expenditures for mineral exploration and development, and for mineral land and rights.

#### COLUMNAR INSTRUCTIONS FOR ITEMS 8, 9, 10, AND 11

**Column (2) — Buildings and othar structures —** Report buildings and structures directly related to mineral exploration, development, and production. Exclude company houses and ganeral recreation facilities. Include machinery which is an integrel part of a building, such as hoists, cranes, crushers, separators, and power plants. Include, where capitalized, values from construction by your own employees. Exclude value of land in items 8 and 9. Item 10 should include rental peymants for the land on which the buildings and other structures stand.

**Column (3)** — **Machinary and Equipmant** — Report all exploration, development, and production mechinery; transportation equipment; end office aquipment. Include such equipment as excavators, loaders, locomotivas, tractors, trucks, hoists, drills, compressors, pumps, end treatment plant machinery, as well as furniture and fixtures for offices, cafeterias, and change rooms. Include the velue of equipment produced end used at this establishment. Include all mining, loeding, transportation, and similar equipment for use at mines; treatment plant equipment which is not an integral part of e building; and automobiles, trucks, and similar equipment. Include replecements as well as additions to new capacity.

**Column (4)** — **Minerel exploration and davelopment** — Report development and exploration outlays which were charged to a capital or Office of Minerals Exploration eccount (itams 8 and 9) as well as those charged to a current account (item 11). Include capitalized expenditures for entries, shafts, rall and other road construction, test boring, surveying, and the like.

**Column (5) — Mineral land and rights** — Report expenditures for acquiring either undeveloped or developed acreage, including lease bonuses and any other outlays necessery to ecquire leases, mineral rights, end fee lands incident to mineral exploretion, development, or production.

Item 8 — ASSETS, CAPITAL EXPENDITURES, AND RETIREMENTS — (If this establishment was involved in a leasing errangement, sea spacial instructions on page 4.)

Items 8e end 8d — Gross Value of Daprecleble and/or Depletable Assats — Report the acquisitiun cost (not current market value) of depraciable buildings, other structures, machinery, and equipmant for which depreciation or amortization reserves are maintained. Also report the acquisition cost of assets, such as capitalized minaral axploration and development or acquisition cost for mineral land and rights for which dapreciation, amortizetion, or depletion accounts are maintained.

For naw construction or other improvement projacts in prograss but not yet completad, include in the value of depreciable assets (items 8a and 8d) the cumulative capital expendituras for such projects already in place at the beginning and end of the year respectively. (Also include the expenditures capitalized for these projects during 1987 in item 8b.)

If the astablishment was acquired during the year, tha value at tha end of tha year (item 8d) should represent your purchese cost adjusted for capital expenditures (itam 8b) and deductions (itam 8c) since the time of purchasa.

If the establishment was sold by your company during the year, report the gross value at the beginning of the year (item 8a) at its acquisition cost. (Also report this acquisition cost plus capital expenditures which may have occurred since the beginning of the year and the time of sale in item 8c.)

Include usad assets purchased during the year et their merket value at the time of transfar rather than at original book value.

If the establishment maintains e tanent ralationship with the parent company or one of its subsidiaries and pays "rent" for tha use of aither plant or equipmant, the gross value of the assets made aveilable to the establishmant should be reported as if the establishment owned them. (Sae instructions below for rantal payments. In item 10, DO NOT report rent paid to the parant or subsidiary for assets reported in item 8.)

The gross assets reported for tha end of each year should be consistent with the gross assets at the beginning of tha year and the annual asset changes during the year. Item 8e plus item 8b minus item 8c equals item 8d.

**Item 8b** — Cepitel Expenditures During the Year — Report the actual capital outlays during 1987, not the final value of buildings or other structures completed or equipment put in place during the year, in columns (2) and (3). Also see the columnar instructions for columns (4) and (5).

Capital expenditures during 1987 may be determined by tha following computation: (a) the cost of additions completed during the year, plus (b) work-in-progress at the end of the year, minus (c) work-in-progress at the beginning of tha year. Include labor and installation costs whether on contract or by your own forcas. Thase expenditures are of the type for which depletion, depreciation, or amortization accounts are ordinarily maintained. Exclude tha cost of maintenance and rapairs charged as current operating expense. If no expenditures of tha kind described were mada, mark (X) in the zero check-box.

Break down the total capital expenditures for buildings, structures, machinery, and aquipmant shown in item 8b, columns (2) and (3) between 8b(1), capital expenditures for new buildings and machinery, and 8b(2), capital expenditures for used buildings and machinery.

Item 8b(1) — Cepitel Expenditures for New Bulldings and Machinery — Report raplacements as well as additions to capacity for new depreciable assets of tha type to be included in columns (2) and (3). Report the value of improvements and cepitalizad repairs to machinery and equipment including those done to essats transfarrad from other establishments of this company.

Item 8b(2) — Cepital Expenditures for Used Buildings and Machinery — Report expenditures at this establishment for old or existing plants and for second-hand equipment ecquired from others (including tha U.S. Government). Include at gross book value machinery or equipment transferrad from other establishments of your company.

Item 8c — Retirements and Disposition of Depreciable and/or Depletable Assets During the Year — Report the gross value of depreciable assets sold, retired, screppad, destroyed, abandoned, etc., during the year at their acquisition cost. Also include the value of assets transferred to othar establishments of your company et their acquisition cost rathar than current market valua. Do not include charges to deprecietion or amortization reserves.

Item 9 — DEPRECIATION AND/OR DEPLETION CHARGES DURING THE YEAR — (If this establishment was involved in a leasing arrangement, sea special instructions on page 4.)

Report the reduced value of assets (reported in item 8d) brought about through use, minerel extraction, gredual obsolescence, or the effect of the elements (decay or corrosion). Include charges egainst those acquired or completad during the year. Raport cost depletion as an allocation of wasting investment rathar than percentage or statutory depletion used for Fedaral income tex purposas.

Itam 10 — RENTAL PAYMENTS DURING THE YEAR — (If this astablishment was involved in a leasing arrangament, sae spacial instructions on page 4.)

Raport rental payments made to other compenies for use of such deprecieble essats as buildings, other structures, machinery, and equipment. Do not include as rent any peyments made by tha establishmant to the perent company or another subsidiary of the parent for use of buildings and equipment owned by the parent company or its subsidiary. The velue of such company-owned assats should be raported in items 8a and 8d as if they were owned by the establishment and any capital expenditures made to acquire them or eny depracietion charges against them should also be included in the proper section. Rental payments for buildings and other structures should include the rental payment for the land on which they stand.

If the establishment uses buildings or equipment leased from other companies, and rental payments are not made directly from the establishment's account but are handled centrally at a company or division level, pleese report the shere of rentel overheed cherged to the establishment or estimate the shere of rental cherges appropriete to the operations of the esteblishment. Columns (4) end (5) do not epply to item 10.

- Item 11 CURRENT ACCOUNT EXPENDITURES DURING THE YEAR — Report expenses for mineral properties charged to current accounts. Include all supplies, machinery, equipment, parts, fuel, power, etc., used for development or exploration (whether purchased or received from other establishments of your company), and charged as current operating expenses. Include the cost of maintenance and repairs associated with development or exploration activity which is charged to current accounts. Include acquisition costs for mineral land and rights which were not capitalized. Include the cost of royalty payments related to mineral production; however, exclude lease rents which should be reported separately in item 13. Also include labor costs whether on a contract basis or by your own forces. Columns (2) and (3) do not apply to item 11.
- Items 14 and 15 CHANGE IN OWNERSHIP OR COMPANY AFFILIATION AND ORGANIZATION — Please complete these items fully if pertinent. Accurate completion of these items will avoid unnecessary correspondence, as well as reduce the possibility of your receiving more than one report form for the mining activity at this location.
- Item 17A WATER USE DURING 1987 In question 1, report the total annual new water intake, including fresh, brackish, and salt water from all sources.
- Item 17B SUPPLIES USED, MINERALS FOR PREPARATION, AND PURCHASED MACHINERY INSTALLED DURING 1987

Part I — Items Purchased or Received From Other Establishments and Used — This inquiry calls for a breakdown of supplies used, minerals received for preparation at this establishment, and purchased machinery installed during 1987, reported in item 5a of this form. Separate figures are required for each item listed. The total cost in item 17B, part I, column (D), should agree with the total cost reported in item 5a.

 $\label{eq:column} \begin{array}{l} \textbf{(C)} - \textbf{Quantity} - \text{Report the quantities actually used in terms of} \\ \text{the unit of measure specified in column (B-2). Report the quantity of crude} \\ \text{minerals received for preparation before removal of refuse and waste.} \end{array}$ 

**Column (D)** – **Delivered Cost** – Report amounts actually paid or payable after discounts, and include freight and direct charges incurred in acquiring the listed items during 1987. For supply items transferred from other establishments of this company, report values as described in instruction D on page 1. For crude minerals transferred, report the value prior to preparation.

Purchased Machinery Installed (Census material code 3530201) – Include all machinery, equipment, and used plant which were purchased, or which were received from other establishments of your company, whether charged to the current or capital accounts. (Machinery charged to the capital account should also be reported in item 8b.) Include equipment which was installed in the mine, mill, or preparation plant as well as mobile loading and transportation equipment.

**Explosive materials and blasting accessories** – Blasting accessories should include items such as safety fuses, detonator caps, detonating fuses, and liquid oxygen.

Part II — Quantity of Minerals Mined and Prepared at This Establishment — (Not applicable to the production of crushed and broken stone or sand and gravel.) Include here only the material mined and prepared by the mine employees covered by this report or by pit or quarry contractors mining for your account, for which contract cost is reported in item 5e. Do not include in this section materials received from other establishments of your company. Such materials should be included in columns (C) and (D) of part I.

Item 17C — FUELS USED DURING 1987 — Report all fuels purchased from other companies or transferred from other establishments of your company and used at this establishment. A purchased fuel is considered to be any substance that was purchased or transferred from outside of the defined boundaries of the establishment in which it was consumed, for the production of heat, power, or generated electricity.

Report quantities in the specified unit of measure in column (C) and cost in thousands of dollars in column (D). Cost is delivered cost, that is, the amount paid or payable after discounts and including freight and other direct charges incurred by the establishment in acquiring the fuels. Fuels transferred or received from other establishments of your company should be reported at their approximate market value.

Lines 2 and 3 — Fuel Oil — If quantities are billed in gallons, divide quantity by 42 to obtain barrels.

**Line 4 – Gas –** If your gas is billed in therms, convert as follows: For natural gas: 10,000 therms equal one million cubic feet. For manufactured gas: 6,000 therms equal one million cubic feet.

Line 5 – Gasoline – Include gasoline used in automotive and other equipment.

Line 7 - Total - Should be the same as item 5c.

Items 18A and B — TYPE OF OPERATION AND PRODUCTS AND SERVICES — See instructions on form.

## ▶ Item 22 - CERTIFICATION

**Period covered by the report** — Enter the month of the beginning and the end of the period your report covers. If a calendar year report, "From January, 1987, to December, 1987." If a fiscal year, specify which, such as "From December, 1986, to November, 1987." If a part-year report is submitted because the establishment was not in operation or under your company's control for the entire year, specify the period covered, for example, "January, 1987, to August, 1987," or "June, 1987, to December, 1987."

## ESTABLISHMENTS INVOLVED WITH LEASING ARRANGEMENTS FOR EQUIPMENT AND/OR BUILDINGS

**Note** — The following instructions are a modification to those included in prior census instructions. We believe they are merely making explicit what has been reported to us in prior censuses.

If any of the equipment or buildings used by this establishment in its production are leased from other companies, the equipment should be reported according to the type of lease negotiated with the producer or the lessor.

If the leasing arrangements meet the criteria set down by the Financial Accounting Standards Board (FASB) for a **capital lease**, please report the original cost or market value of that equipment and building as a value of fixed assets. Report annual depreciation and retirements charged against this equipment. If any building or equipment has been acquired this year under a capital lease, please report the cost (at the market value) as a capital expenditure and include this value in the end of year assets and charge the first year depreciation (and retirements if any). Do not report the periodic payments made to the lessor in the rental section.

If the lease qualifies as an **operating lease**, do not include the value of the building and equipment as assets, capital expenditures, depreciation, or retirements, but report the periodic payments made to the producer or the lessor in the rental section.

常 U.S. GOVERNMENT PRINTING OFFICE: 1991 — 281-558/40608

## **PUBLICATION PROGRAM**

## **1987 CENSUS OF MINERAL INDUSTRIES**

Publications of the 1987 Census of Mineral Industries, containing data on establishments primarily engaged in the extraction of minerals, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233.

## **Preliminary Reports**

## Industry series—12 reports (MIC87-I-10A(P) to -14E(P))

Preliminary data from the 1987 census are issued in 12 separate reports covering 31 mineral industries. Preliminary summary data for the U.S. and States are released in one report.

## **Final Reports**

## Industry series—12 reports (MIC87-I-10A to -14E)

Each of the 12 reports provides information for an industry or a group of related industries (e.g., clay, ceramic, and refractory minerals). Final figures for the United States are shown for each of 31 mineral industries on quantity and value of products shipped and supplies used; inventories; quantity and cost of fuels and electric energy purchased, and the quantities of fuels produced and consumed; capital expenditures; assets; rents; employment; depreciation, amortization and depletion; payrolls; hours worked; cost of purchased machinery; value added by mining; mineral development and exploration costs; number of establishments; and number of companies. Comparative statistics for earlier years are included. Industry statistics are shown by State, type of operation, and size of establishment.

### Geographic area series-9 reports (MIC87-A-1 to -9)

A separate report for each of the nine geographic divisions presents statistics for individual States for two- and three-digit industry groups by type of operation and by county. Also, data are shown for value of shipments, value added by mining, employment, payroll, hours worked, capital expenditures, cost of supplies, etc., purchased machinery installed, and number of mining establishments, with comparative 1982 data on employment and value added by mining

## Subject series—2 reports (MIC87-S-1 to -2)

One of these reports is a general National-level summary; the other report contains detailed statistics on fuels and electric energy consumed by mineral industries.

## **Reference series—1 report (MC87-R-1)**

The Numerical List of Manufactured and Mineral Products includes a description of the principal products and services published in the 1987 Censuses of Manufactures and Mineral Industries.

## MICROFICHE

Every final published report in the 1987 Census of Mineral Industries will be available on microfiche.

# PUBLIC-USE COMPUTER TAPES AND COMPACT DISCS

Data from the final industry series, and geographic area series will be available on public-use computer tapes and compact discs-read only memory (CD-ROM). These tapes will provide the same information found in the final reports. Computerized data products are available for users who wish to summarize, rearrange, or process large amounts of data. These products, with corresponding technical documentation, are sold by Data User Services Division, Customer Services (Tapes), Bureau of the Census, Washington, DC 20233.

## OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, manufactures, transportation, enterprise statistics, minority-owned businesses, and women-owned businesses also are available from the 1987 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. Separate announcements describing these reports are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233.



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