

**3. End use (Shipments of direct-shipping ore, concentrate, and agglomerates, by end use. If data estimated, indicate by "E" after estimated figure.)**

Please identify your REPORTING UNIT by placing an "X" in the appropriate box.

(1) Short tons     (2) Long tons     (3) Metric tons

| End use<br>(1)                   | Code       | DIRECT SHIPPING ORE |  | CONCENTRATES <i>(specify)</i> |  | AGGLOMERATES     |  |
|----------------------------------|------------|---------------------|--|-------------------------------|--|------------------|--|
|                                  |            | Shipments<br>(2)    | Total market value f.o.b. mine or plant<br>(3) | Shipments<br>(4)              | Total market value f.o.b. mine or plant<br>(5) | Shipments<br>(6) | Total market value f.o.b. mine or plant<br>(7) |
| For pig iron and steel.....      | 301        |                     | \$   |                               | \$   |                  | \$   |
| For other use:                   |            |                     |  |                               |  |                  |  |
| Cement.....                      | 302        |                     |  |                               |  |                  |  |
| Heavy media.....                 | 304        |                     |  |                               |  |                  |  |
| Chemicals.....                   | 305        |                     |  |                               |  |                  |  |
| Fertilizers.....                 | 306        |                     |  |                               |  |                  |  |
| Other agricultural products..... | 307        |                     |  |                               |  |                  |  |
| Ballast.....                     | 308        |                     |  |                               |  |                  |  |
| Ferrites.....                    | 309        |                     |  |                               |  |                  |  |
| Fluxes.....                      | 310        |                     |  |                               |  |                  |  |
| Paint.....                       | 311        |                     |  |                               |  |                  |  |
| Pigments.....                    | 312        |                     |  |                               |  |                  |  |
| Pyrites.....                     | 313        |                     |  |                               |  |                  |  |
| Refractories.....                | 314        |                     |  |                               |  |                  |  |
| Other <i>(specify)</i>           |            |                     |  |                               |  |                  |  |
| _____                            |            |                     |  |                               |  |                  |  |
| _____                            |            |                     |  |                               |  |                  |  |
| <b>TOTAL.....</b>                | <b>319</b> |                     |  |                               |  |                  |  |

**4. Average analysis of shipments of ore, concentrates, and agglomerates (wet basis).**

| Product<br>(1)                       | Code | Fe %<br>(2) | P %<br>(3) | SiO <sub>2</sub> %<br>(4) | Mn %<br>(5) | Al <sub>2</sub> O <sub>3</sub> %<br>(6) | CaO %<br>(7) | MgO %<br>(8) | S %<br>(9) | Moisture %<br>(10) |
|--------------------------------------|------|-------------|------------|---------------------------|-------------|---|--------------|--------------|------------|--------------------|
| Direct shipping ore <i>(specify)</i> | 401  |             |            |                           |             |   |              |              |            |                    |
| Concentrates for consumer:           |      |             |            |                           |             |   |              |              |            |                    |
| Standard.....                        | 402  |             |            |                           |             |   |              |              |            |                    |
| Filter cake.....                     | 403  |             |            |                           |             |   |              |              |            |                    |
| Agglomerates (for consumer):         |      |             |            |                           |             |   |              |              |            |                    |
| Sinter.....                          | 404  |             |            |                           |             |   |              |              |            |                    |
| Pellets, standard or acid:           |      |             |            |                           |             |   |              |              |            |                    |
| Grade 1.....                         | 405  |             |            |                           |             |   |              |              |            |                    |
| Grade 2.....                         | 406  |             |            |                           |             |   |              |              |            |                    |
| Pellets, self-fluxing:               |      |             |            |                           |             |   |              |              |            |                    |
| Grade 1.....                         | 407  |             |            |                           |             |   |              |              |            |                    |
| Grade 2.....                         | 408  |             |            |                           |             |   |              |              |            |                    |
| Pellets, prereduced:                 |      |             |            |                           |             |   |              |              |            |                    |
| Grade 1.....                         | 409  |             |            |                           |             |   |              |              |            |                    |
| Grade 2.....                         | 410  |             |            |                           |             |   |              |              |            |                    |
| Olivine pellets.....                 | 411  |             |            |                           |             |   |              |              |            |                    |
| Pellet chips.....                    | 412  |             |            |                           |             |   |              |              |            |                    |
| Other <i>(specify)</i>               |      |             |            |                           |             |   |              |              |            |                    |
| _____                                |      |             |            |                           |             |   |              |              |            |                    |
| _____                                |      |             |            |                           |             |   |              |              |            |                    |

Remarks:



A02

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY  
986 NATIONAL CENTER  
RESTON, VIRGINIA 20192

**IRON ORE**  
**(Containing less than 5 percent manganese)**

INDIVIDUAL COMPANY  
DATA - PROPRIETARY

Unless authorization is granted in the section above the signature, the data furnished in this report will be treated in confidence by the Department of the Interior, except that they may be disclosed to Federal defense agencies, or to the Congress upon official request for appropriate purposes. Unless objection is made in writing to the USGS, the information furnished in this report may be disclosed to the respondent's State Geological Survey (or similar State agency) if the State has appropriate safeguards to prevent disclosing company proprietary data.

FACSIMILE NUMBER  
1-800-543-0661

(Please correct if name or address has changed.)

Public reporting burden for this voluntary collection of information is estimated to average 30 MINUTES per response. A Federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. Comments regarding this collection of information should be directed to: U.S. Geological Survey, Statistics and Information Systems Section, 988 National Center, Reston, VA 20192. **Please do not mail survey forms to this address.**

Collection of nonfuel minerals information is authorized by Public Law 96-479 and the Defense Production Act. This information is used to support executive policy decisions pertaining to emergency preparedness, national defense, and analyses for minerals legislation and industrial trends. The USGS relies on your voluntary and timely response to assure that its information is complete and accurate.

Please return this form in the enclosed envelope or fax to the above toll-free number **BY FEBRUARY 15TH**. Complete a separate form for each mineral establishment that was active during the reporting period. A mineral establishment is defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. If you do not have exact data, please enter your best estimates and mark with an /e. Use zero (0) when appropriate. Do not report decimals or fractions. Round to the nearest whole number. If you have nothing to report, please complete "Establishment covered by this report", sign, and return the form. Please use the space for "Remarks" to provide any specific information that will help us in the use or interpretation of the data. Any statement on the effect of changes in economic conditions upon the reporting establishment will be useful. Additional forms are available upon request.

If you have any questions concerning completion of this form, please contact the Mineral Commodities Data Unit, U.S. Geological Survey, 985 National Center, Reston, VA 20192, Telephone (703) 648-7960.

**NOTE:** Submit a separate report for each mine and associated concentrator and agglomerator mill. Custom mills and agglomerators should not report mine production.

**Establishment covered by this report**

Name and location of mine

|        |       |                      |          |       |
|--------|-------|----------------------|----------|-------|
| Name   |       | Nearest city or town |          |       |
| County | State | Section              | Township | Range |

Status during year *(Check appropriate boxes)*

|            |              |      |    |               |      |
|------------|--------------|------|----|---------------|------|
| (1) Active | (2) Inactive | From | To | (3) Abandoned | Date |
|------------|--------------|------|----|---------------|------|

|            |          |               |                                    |                |
|------------|----------|---------------|------------------------------------|----------------|
| (4) Leased | (5) Sold | (6) Purchased | If transfer, occurred during year: | Date of change |
|------------|----------|---------------|------------------------------------|----------------|

|                                 |         |
|---------------------------------|---------|
| Name of other party in transfer | Address |
|---------------------------------|---------|

Is this establishment a subsidiary?  Yes  No If yes,

|                             |         |
|-----------------------------|---------|
| Name of controlling company | Address |
|-----------------------------|---------|

|  |                |      |                |
|--|----------------|------|----------------|
| Name of person to be contacted regarding this report | Tel. area code | No.  | Ext.           |
| Address No.  | Street         | City | State ZIP Code |

May tabulations be published which could indirectly reveal the data reported above?

Value data  (1) Yes  (2) No Other (including quantity) data  (1) Yes  (2) No

|           |       |      |
|-----------|-------|------|
| Signature | Title | Date |
|-----------|-------|------|

OVER

**1. Mining and concentration.**

Please identify your **REPORTING UNIT** by placing an "X" in the appropriate box. If dry measurement is used for crude ore, indicate average moisture content.

(1) Short tons    (2) Long tons    (3) Metric tons    (A) Natural weight    (B) Dry weight \_\_\_\_\_ % Moisture

1.1 Dominant mineralogical type of ore mined (*check one*)

(1) Hematite    (2) Magnetite    (3) Limonite    (4) Siderite    (5) Other (*specify*) \_\_\_\_\_

1.2 **CRUDE ORE:** Stocks at mine site, production, and shipments (Total weight)

| Product<br>(1)                          | Code | Physical inventory adjustment<br>(2) | Stocks at mine, beginning of year<br>(3) | PRODUCTION DURING YEAR |                 |  | Shipments during year<br>(7) | Stocks at mine, end of year<br>(8) |
|---|------|--------------------------------------|--|------------------------|-----------------|--|------------------------------|------------------------------------|
|   |      |                                      |  | Underground<br>(4)     | Open pit<br>(5) | From tailings, dumps or placers<br>(6) |                              |                                    |
| Direct-shipping ore <sup>1/</sup> ..... | 101  |                                      |  |                        |                 |  |                              |                                    |
| Ore for concentration.....              | 102  |                                      |  |                        |                 |  |                              |                                    |
| <b>TOTAL</b> .....                      | 109  |                                      |  |                        |                 |  |                              |                                    |

<sup>1/</sup> Include crushed, screened, and sized ore not further treated.

1.3 Name and location of concentrator (if not at mine site)

Name \_\_\_\_\_ Nearest town \_\_\_\_\_ County \_\_\_\_\_

1.4 Method of concentration (*check all that apply*)

(1) Wash    (2) Magnetic    (3) Classifiers (hydrocyclones, spirals, etc.)    (4) Heavy media    (5) Flotation    (6) Other (*specify*) \_\_\_\_\_

1.5 **CRUDE ORE:** Stocks, receipts, and consumption. (at concentrator)

| Product<br>(1)             | Code | Physical inventory adjustment<br>(2) | Stocks at concentrator, beginning of year<br>(3) | Receipts<br>(4) | ORE PROCESSED DURING YEAR |                      |                 | Stocks at concentrator, end of year<br>(8) |
|----------------------------|------|--------------------------------------|--|-----------------|---------------------------|----------------------|-----------------|--|
|                            |      |                                      |  |                 | Total weight<br>(5)       | IRON CONTENT IN TONS |                 |  |
|                            |      |                                      |  |                 |                           | Total<br>(6)         | Magnetic<br>(7) |  |
| Ore for concentration..... | 111  |                                      |  |                 |                           |                      |                 |  |

1.6 **CONCENTRATE:** Stocks, production, and shipments.

| Concentrate<br>(1)          | Code | Physical inventory adjustment<br>(2) | Stocks at mill, beginning of year<br>(3) | Total weight<br>(4) | PRODUCTION           |                 | Shipments during year<br>(7) | Stocks at mill, end of year<br>(8) |
|-----------------------------|------|--------------------------------------|--|---------------------|----------------------|-----------------|------------------------------|------------------------------------|
|                             |      |                                      |  |                     | IRON CONTENT IN TONS |                 |                              |                                    |
|                             |      |                                      |  |                     | Total<br>(5)         | Magnetic<br>(6) |                              |                                    |
| For consumer: Standard..... | 121  |                                      |  |                     |                      |                 |                              |                                    |
| Filter cake....             | 122  |                                      |  |                     |                      |                 |                              |                                    |
| For agglomeration.....      | 123  |                                      |  |                     |                      |                 |                              |                                    |
| <b>TOTAL</b> .....          | 129  |                                      |  |                     |                      |                 |                              |                                    |

If dry measurement is used for concentrate, indicate average moisture content.    (A) Natural weight    (B) Dry weight \_\_\_\_\_ % Moisture

**2. Agglomeration (Do not report agglomeration at blast furnace or steel plant).**

Please identify your **REPORTING UNIT** by placing an "X" in the appropriate box. If dry measurement is used for agglomerates, indicate average moisture content.

(1) Short tons    (2) Long tons    (3) Metric tons    (A) Natural weight    (B) Dry weight \_\_\_\_\_ % Moisture

2.1 Name and location of agglomerator

Name \_\_\_\_\_ Nearest town \_\_\_\_\_ County \_\_\_\_\_

2.2 Stocks, receipts, and consumption of material

| Material<br>(1)                   | Code | Physical inventory adjustment<br>(2) | Stocks at plant, beginning of year<br>(3) | Receipts during year<br>(4) | Consumption during year<br>(5) | Stocks at plant, end of year<br>(6) |
|-----------------------------------|------|--------------------------------------|---|-----------------------------|--------------------------------|-------------------------------------|
| Iron ore:<br>Natural fines.....   | 201  |                                      |   |                             |                                |                                     |
| Concentrate fines.....            | 202  |                                      |   |                             |                                |                                     |
| Limestone and dolomite.....       | 203  |                                      |   |                             |                                |                                     |
| Organic binders.....              | 204  |                                      |   |                             |                                |                                     |
| Coal.....                         | 205  |                                      |   |                             |                                |                                     |
| Bentonite.....                    | 206  |                                      |   |                             |                                |                                     |
| Coke breeze.....                  | 207  |                                      |   |                             |                                |                                     |
| Olivine.....                      | 208  |                                      |   |                             |                                |                                     |
| Other ( <i>specify</i> )<br>_____ |      |                                      |   |                             |                                |                                     |
| <b>TOTAL</b> .....                | 219  |                                      |   |                             |                                |                                     |

2.3 Stocks, production, and shipments of products

| Product<br>(1)                            | Code | Physical inventory adjustment<br>(2) | Stocks at plant, beginning of year<br>(3) | PRODUCTION DURING YEAR |                             | Shipments during year<br>(6) | Stocks at plant, end of year<br>(7) |
|---|------|--------------------------------------|---|------------------------|-----------------------------|------------------------------|-------------------------------------|
|   |      |                                      |   | Total weight<br>(4)    | Iron content in tons<br>(5) |                              |                                     |
| Sinter.....                               | 221  |                                      |   |                        |                             |                              |                                     |
| Pellets, standard or acid<br>Grade 1..... | 222  |                                      |   |                        |                             |                              |                                     |
| Grade 2.....                              | 223  |                                      |   |                        |                             |                              |                                     |
| Pellets, self-fluxing<br>Grade 1.....     | 224  |                                      |   |                        |                             |                              |                                     |
| Grade 2.....                              | 225  |                                      |   |                        |                             |                              |                                     |
| Pellets, prereduced<br>Grade 1.....       | 226  |                                      |   |                        |                             |                              |                                     |
| Grade 2.....                              | 227  |                                      |   |                        |                             |                              |                                     |
| Olivine pellets.....                      | 228  |                                      |   |                        |                             |                              |                                     |
| Pellet chips.....                         | 229  |                                      |   |                        |                             |                              |                                     |
| Other ( <i>specify</i> )<br>_____         |      |                                      |   |                        |                             |                              |                                     |
| <b>TOTAL</b> .....                        | 239  |                                      |   |                        |                             |                              |                                     |

OVER