U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

MI-1002

1997 CENSUS OF MINERAL INDUSTRIES COPPER, LEAD, ZINC, GOLD, AND SILVER ORES

OMB No. 0607-0845: Approval Expires 09/30/99

DUE DATE FEBRUARY 12, 1998

If you have questions concerning this report, please call or write the Census Bureau. In any communication, be sure to refer to the 11-digit Census File Number (CFN) printed in the label to the right. Please return any correspondence with your completed report to:

BUREAU OF THE CENSUS 1201 East 10th Street Jeffersonville, IN 47134-0001

Call for assistance, 8:00 a.m. to 8:00 p.m., Eastern Time, Monday through Friday:

1-800-233-6136

Please read the accompanying instructions before answering the questions.

(Please correct any errors in name, address, and ZIP Code.)

YOUR RESPONSE IS REQUIRED BY LAW. Title 13, United States Code, requires businesses and other organizations that receive this questionnaire to answer the questions and return the report to the Census Bureau. By the same law, YOUR CENSUS REPORT IS CONFIDENTIAL. It may be seen only by Census Bureau employees and may be used only for statistical purposes. Further, copies retained in respondents' files are immune from legal process. Item 1B. PHYSICAL LOCATION - Answer parts a-d Item 1A. EMPLOYER IDENTIFICATION NUMBER Is the Employer Identification Number (EIN) shown in the label the If this establishment's physical location is NOT the same as the address shown in the label, mark corrections below. SAME as the one used for this establishment on its latest 1997 Employer's Quarterly Federal Tax Return, Treasury Form 941? P.O. box and rural route addresses are not physical locations. 1 ☐ Yes Number and street 2 ☐ No - Report current EIN (9 digits)-Item 1C. PRINCIPAL ACTIVITY – Mark (X) the ONE box which best describes the PRINCIPAL kind of business or industrial activity of this establishment. City, village, or other place ZIP Code State Is this establishment physically located inside the legal boundaries of the city, town, village, etc.? 1 Minerals extraction, quarrying, production, exploration or oil and gas field operations 070 2 Manufacturing 095 1 Yes 2 No 3 No legal boundaries 4 Do not know 3 Construction c. In what type of municipality is this establishment located? 4 Wholesale operations 5 Retail operations 1 ☐ City, village, or borough 096 3 Other or do not know 6 Other 2 Town or township If you have marked (X) in boxes 2 through 6, describe your principal activity below. d. In what COUNTY is this establishment located? Number Item 2. EMPLOYMENT IN 1997 Key Number of PRODUCTION, DEVELOPMENT, AND EXPLORATION WORKERS during pay period including the 12th of March (Include both full- and part-time employees) 301 ALL OTHER EMPLOYEES (Pay period including March 12) 307 С Total (Sum of lines a and b) Mark Report dollars and hours rounded to thousands. Be careful to (X) if enter your figures in the correct columns. HOW TO REPORT Example: If a figure is \$1,125,628 - Report -126 If item value is equal to "0" (or less than \$500 or 500 hours) - Mark (X) \mathbf{X}_0 Item 3A. ANNUAL PAYROLL IN 1997 (Exclude fringe benefits reported in item 3C) Mark (X) if Key Mil. Thou **Annual production, development, and exploration workers' wages** (For the type of employee reported in item 2, line a) □ 0 309 \Box 0 b. All other salaries and wages (For the type of employee reported in item 2, line b) 310 □ 0 Total annual payroll (Sum of lines a and b) 311 Item 3B. FIRST QUARTER PAYROLL IN 1997 (Exclude fringe benefits) \Box 0 Total payroll for the first quarter (January-March) 315 Item 3C. EMPLOYER'S COST FOR FRINGE BENEFITS (Annual supplemental labor costs) **Total legally required expenditures and payments for voluntary programs** (Exclude from items 3A and 3B) \Box 0 314 HOURS WORKED BY PRODUCTION, DEVELOPMENT, AND EXPLORATION WORKERS IN 1997 (Annual) \Box 0 Total annual hours worked by production, development, and exploration workers in 1997 320

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Page 2

lte	m 5.	Not applicable to this report.				
lte	m 6.	ASSETS, CAPITAL EXPENDITURES, AND RETIREMENTS	Kev	Mil.	Thou.	Mark (X)
		(Refer to the instructions on how to report leasing arrangements.)	110,			if "0"
2	Gross	s value of depreciable and/or depletable assets (acquisition cost)				
a.		e beginning of the year	341	\$	 	□0
b.	Total	capital expenditures (new and used) during the year is sum of lines $b(1) + b(2) + b(3)$				
	equa	IS SUIT OF TIMES D(1) + D(2) + D(3))	350			
	(1) C:	apital expenditures for new and used buildings, structures,				
		achinery, and equipment (excluding land)	272			□0
					 	
	(2) Ca	apital expenditures for mineral exploration and development	273			□o
	(_,	prui experiurareo for immerar exprerancir una actoropinoni	2/3		<u> </u>	
	(3) Ca	apital expenditures for mineral land and rights	274			□0
C.		retirements and disposition of depreciable and/or depletable s (gross value of assets sold, retired, scrapped, destroyed, etc.)	353		 	□0
d.		s value of depreciable and/or depletable assets at the end of ear (Line a plus b minus c equals d.)				□o
Ito		TOTAL DEPRECIATION AND/OR DEPLETION CHARGES FOR THE YEAR 1997	356		<u> </u>	
110	7.	TOTAL DEFINE CIATION AND/ON DEFECTION CHANGES FOR THE FEAR 1997			 	
			359			□0
lte	m 8.	TOTAL RENTAL PAYMENTS FOR THE YEAR (Including land)				
a.	Renta	al payments for buildings and other structures, including land	360		 	□o
			300		<u> </u>	
b.	Renta	al payments for machinery and equipment	361		<u> </u>	□0
c.		Total (Sum of lines a and b)	000		 	□0
	m 9Δ	CURRENT ACCOUNT EXPENDITURES DURING THE YEAR FOR MINERAL	362			
	0,	PROPERTIES			 	
		Total current operating expenses for exploration, development,			[]	
		mineral land, and rights. (Exclude lease rents reported in item 9B.)	287		<u> </u> 	□0
lte	m 9B.	LEASE RENTS FOR MINERAL PROPERTIES	288			□o
lte	m 9C	COST OF PURCHASED COMMUNICATION SERVICES (TELEPHONE, DATA	200			
		TRANSMISSION, FAX, ETC.)	392			□0
lte	m 10.	COST OF SUPPLIES AND CONTRACT WORK FOR 1997				

INSTRUCTIONS

The figures reported should represent the total purchase cost of supplies, minerals received for preparation, machinery installed, fuels, etc., actually used or processed during 1997. Include purchases, interplant transfers, and withdrawals from inventories.

Cost is delivered costs; i.e., the amount paid or payable after discounts and including freight and other direct charges incurred by the establishment in acquiring the

materials. If there are no records of consumption, purchases may be reported instead if they do not differ significantly from the amounts actually used. Where consumption of major items differs significantly from purchases, consumption may be estimated by adding beginning inventories to the amount purchased and subtracting ending inventories.

See accompanying instructions for additional information.

		Key	Mil.	∣ ∣ Thou.	Mark (X)
		,			if "0"
a.	Cost of supplies used, minerals received for preparation, and purchased machinery installed (Report detail in item 17A)	321	\$	 	□0
b.	Cost of products bought and sold as such without further processing (Report sales in item 18B as resales)	322		 	□0
c.	Cost of purchased fuels consumed for heat, power, or the generation of electricity (Report detail in item 17B)	323		 	□0
d.	Cost of purchased electricity (Report quantity in item 11, line a)	324		 	□0
e.	Cost of contract work done for you by others	325		 	□0
f.	Total (Sum of lines a through e)	326		 	□0
lte	m 11. QUANTITY OF ELECTRICITY		Kilowat	thours	
		Key	Mil.	Thou.	Mark (X) if "0"
a.	Purchased electricity (Quantity comparable to cost reported in item 10, line d)	327		 	□0
b.	Generated electricity (Gross less generating station use)	328		 	□0
C.	Electricity sold or transferred to other establishments (Included in item 11a or 11b)	329		 	□0

	t shown, please enter your 11 the address label on page 1	-digit Census File No	umber	Census File N	lumber					
	12. INVENTORIES OF THIS E	STABLISHMENT AT	Vov	1997		Mark (X)	Key	19	96	Mark (X)
Re	END OF YEAR (Report be eport inventories at cost or		Key	Mil.	Thou.	if "0"	Key	Mil.	Tho	
ac	arket using generally cepted accounting methods.	products b. Supplies, parts	s, fuels,	\$		0	332	\$	 	0
es	re inventories of this tablishment subject to the FO method of valuation?	etc. c. Total invent	337	<u>i</u> !		0 	333		<u>i</u> !	0
	1 Yes − Use the sum of the	(Sum of lines d. Of the value of				0	334		<u> </u> 	0
	LIFO amount plus the LIFO reserve for completing lines a through d(2).	report: (1) Amount no subject to	LIFO	 		□0				□0
	Note: If you changed to LIFO for calendar year 1997, specify in	costing (2) Amount su				□0	364		!	
	the REMARKS section.	e. Report the follopping	lowing				365			
	2 ☐ No – Complete only lines a through d(1).	(1) Amount of				□0	366		 	□0
	Line d(1) should equal line c	(2) LIFO value d(2) (net)				0	367		 	□0
Item	13. Not applicable to this rep		1 3/1	<u>'</u>			337			
	14. LEGAL FORM OF ORGANI ark (X) in the ONE box that b		ablishment during	1997.						
	☐ Individual proprietorship ☐ Partnership		Government – S		any fori	m of cor	nera	tive assoc	riation)
3[Cooperative association (ta	axable) 9[Other - Specify		arry rorr	11 01 000	эрсга	iive assor	Jation	,
4 (Cooperative association (ta	ax-exempt)								
Item	15. OPERATIONAL STATUS	Mark (X) in the Ol	NE box that best d	escribes this	establi	ishment	at the	e end of	1997.	
	In operation (Include operati		ent, exploration, or	construction)				Mo	nth [Day Year
3	Ceased operation - Give dat	e at right					DAT			
	☐ Sold or leased TO another o☐ Acquired or leased FROM a	another operator - G				only	r figui	res		
	Name of new/former owner		En	nployer Identi umber <i>(9 digit</i>	fication	002		_		
	Number and street	C	City	imber (9 digit	3)	State		ZIP (Code	
	16. OWNERSHIP, CONTROL,									
	the FIRST DIGIT of your C Yes - Answer parts b-d	ensus File Numbe □ No - SKIP to it	•	address box	() "0"?					
097		Name and address	of owning or contr	olling comp	any	Kind	d of b	usiness c	of this (company
	ompany 1 □ Yes →									
C b	ontrolled 2 □ No 🗾 No					Emp	loyer l	dentificatio	on Num	ber (9 digits
098	ompany?	Name and address of the space is need to be a space in the space is need to be a space in the space is need to be a space in the space is need to be a space in the space is need to be a space in the space in the space is need to be a space in the space in the space is need to be a space in the space	of owned or contro	olled compa	ny	Kind	d of b	usiness c	of this	company
C	oes this ompany own r control 1 Yes→	II THOI'E SPACE IS HEE	ейей, апаст а ѕера	arate srieet						
aı	ny other 2 □ No 🗾 No					Emp	loyer l	dentification	on Num	nber <i>(9 digits</i>
	ompanies? id this company operate a	t more than one lo	cation including	operations	under	explor	ation	or		
d	evelopment during 1997? Yes – List additional location	If more space is need	ded, attach a sepa □ No - SKIP to ite	rate sheet.						
				Calaa		0		Numb		Are these figures
Phy (Num	sical address of business locaber and street, city, State, ZIP	Code) location	usiness (KB) at thi on and Employer fication Number	s Sales recei		Ann pay		during peri	j pay od	included in other items
	(1)	iueilli	(2)	Mil.	Thou.	(4 Mil.) Thou	includ March	า 12 📙	on this report? (6)
	(1)	КВ	(4)	IVIII.	inou.	IVIII.	- 1110U 	(5)		
					' 		 			☐ Yes ☐ No
		КВ			 				\dashv	_
										☐ Yes

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Item 17A. SUPPLIES USED, ORES FOR CONCENTRATION, AND PURCHASED MACHINERY INSTALLED DURING 1997

Part I. ITEMS PURCHASED OR RECEIVED FROM OTHER ESTABLISHMENTS AND USED

INSTRUCTIONS

Report:

- Delivered cost of individual items listed below.
- Quantities in the unit of measure specified in column (C).
- The estimated cost of ores received for treatment on a custom or toll basis, as if purchased.
- Concentrated products in item 18B, lines 4–15.

Include:

- Ores received for treatment which were used or concentrated in 1997.
- Items listed below whether charged to current or capital accounts.
- Cost of items for which less than \$25,000 worth was used in "All other supplies," line 11.

Include: - Con.

 Supplies purchased by this establishment for use by companies performing contract work at this establishment.

Exclude

- Associated labor costs of the kind reported in items 3A, 3B, and item 10, line e.
- Payments made for contract services performed, including payments for supplies and equipment furnished by the contractor incidental to this work.

For valuation, see instructions for item 10. If the information cannot be taken directly from your records, reasonable estimates are acceptable.

		Ores o	concentrated, machinery installed,	Census material	Unit of measure	Received from this company, and ores receiv a custo	purchased for concom or toll ba	from ot entrations asis	hers, on on
	Line No.		and supplies used	code	for quantities	Quantity		ding de reight-i (E)	elivery n)
-	Ľ		(A)	(B)	(C)	(D)	574 Millions	Thou- sands	l Dollars
	1		FOR CONCENTRATION – Crude ore and strated, except in placer operations	100091 8	Short tons		\$	 	
	2	PURCHASED M. loading, transpo operation (Inclu accounts)	353020 1				 	 	
	3	PARTS AND AT preparation, cor equipment	353030 0				 		
	4	SUPPLIES USED	Explosive materials (including ammonium nitrate) and blasting accessories	289210 7				 	
	5		280110 8				 		
	6		Tires and tubes	301100 4				 	
	7		Lime (including quicklime and hydrated lime) and dead-burned dolomite	327400 8				 	
	8		Iron and steel castings	332002 5				 	
	9		Iron and steel forgings	346211 6				i I	
1	0		331066 1				 	 	
1	1	All other supplies (such as wood products, stumpage, drill bits, and reamers) List the three principal types of supplies included here.		970098 0				 	
								[[
1	2	TOTAL Sum of lin	es 1–11 should equal item 10, line a (page 2)				\$	[]]]	

CONTINUE WITH ITEM 17A ON PAGE 5

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If not shown, please enter your 11-digit Census File Number from the address label on page 1

Census File Number

Item 17A. SUPPLIES USED, ORES FOR CONCENTRATION, AND PURCHASED MACHINERY INSTALLED DURING 1997 – Continued

Part II. QUANTITY OF ORES MINED AND CONCENTRATED AT THIS ESTABLISHMENT

INSTRUCTIONS

- Report below the quantity, in the unit of measure specified, of each listed item mined and also concentrated at this establishment. Purchases or receipts of such items should be reported only in part I.
- Ores mined for sale as such and not for concentration at this establishment should only be reported in item 18B, lines 1–3. Report concentrated products in item 18B, lines 4–15.

Line No.	ltem (A)		Census material code	Unit of measure for quantities -	Quantities mined and also concentrated at this establishment (D)		
1	Crude ore and residues concentrated, except in placer operations (Include material for leaching)		100092 6	Short tons			
2	Material processed in placer operations		104010 4	Cubic yards			
lt	em 17B. FUELS USED DURING 1997						
	Kind of fuel		Unit of	19	97 consumption		
ne No.	(Report total delivered cost, not cost per unit. Fuels received from other establishments of your company should be included at estimated market value.)	Census fuel code	measure for quantities	Quantity	Cost, including delivery cost (freight-in) (E)		
		561		563	564		

			Kind of fuel		Unit of	1997	consumption	n	
	e No.	received fro	al delivered cost, not cost per unit. Fuels m other establishments of your company e included at estimated market value.)	Census fuel code	measure for quantities	Quantity		ding de eight-ir (E)	elivery n)
1	Line	(A)		561	(0)	563	564	ı Thou- I	_
_	\dashv		(A)	(B)	(C)	(D)	Millions	sands _l	Dollars
		Coal – hitumino	us, subbituminous, lignite,						
	1	and anthracite	us, subbitummous, nginto,	120005 4	Short tons		\$		
		FUEL OIL			↑			 	
	2		Distillate (light) grade numbers 1, 2, 4, and light diesel fuel	291141 0	 Barrels			 	
					(42 gal)			 	
	3		Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel	291151 9	↓			 	
	_	C		101150.0	Million				
_	4	Gas – natural, n	nanufactured, and mixed	131159 6	cubic feet			-	
	5	Gasoline		291111 3	Thousand gallons			 	
	6	Other fuels – liquefied petroleum gas, coke, wood, and other		960018 0					
		TOTAL							
	7	Sum of lin							

Item 18A. TYPE OF OPERATION DURING 1997 (Include production, development, and exploration operations)

Line No.		ltem	Key	Mark (X) appropriate boxes		
	MINING METHODS Mark (X) one	(If mine is under development or exploration, or maintenance is being performed, indicate method most likely to be used when production is started or resumed.)				
1	or more	Open-pit and/or dredge	401	6205		
2		Underground	402	6304		
		Other – Specify				
3			403	6395		
4	No mine or aba	ndoned mine	404	6106		
5	Concentration o	oncentration or other treatment methods				
6	No concentratio	n or other treatment methods	406	6601		

Item 18B. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1997

INSTRUCTIONS

Report:

- Net total values f.o.b. mine or plant after discounts and allowances and exclusive of freight charges and excise taxes.
- Metal contained in item 19.
- Crude ores for concentration in item 17A.
- Short tons equal to 2,000 pounds.

Include:

- All products produced or physically shipped from this establishment in 1997.
- Material withdrawn from stockpiles.
- Products shipped on consignment.
- Concentrated ores and metals from ores mined at this establishment, purchased, or received from other establishments of your company.

Include: - Con.

- Quantity and estimated value of products concentrated on a custom or toll basis.
- Products transferred for concentration or other use to other establishments of your company.
- Bonuses or other credits for metal contained, as well as royalties.

Exclude:

- From crude ore shipped any material mined and also concentrated at this establishment. Report these on the appropriate line for the treated or concentrated product.
- Penalties for impurities.

The U.S. Geological Survey, U.S. Department of the Interior, generally collects detailed figures on the mineral products listed here. This item provides only summary figures which will serve to relate the statistics compiled from the Census of Mineral Industries to the statistics compiled by the U.S. Geological Survey.

								Shipments and interplant transfers						
	No.		Description		Census product code	mea (D	t of sure ry ght)	Quantity of production	Quantity		.o.b. mi plant (E)	ine		
:	Line No.		(4)		581 (B)	,,	21	582	583 (D. 2)	584 Millions	Thou-sands			
	+	Copper,	(A)		(B)	,	<u>(C)</u>	(D-1)	(D-2)			 		
	1	Lead, Zinc, Lode Gold, and Lode	Crude ore mine material for lea		10001 04 8					\$	 	 		
	2	Silver Bearing Ores	CRUDE ORE AND RESIDUES NOT CONCEN-	For shipment to smelters	10001 21 2						 			
	3		TRATED AT THIS ESTABLISH- MENT	For shipment or transfer to other mills for concentration, including custom shipments	10001 23 8						 			
	4	CONCEN- TRATES (From "Ores concen-	Copper (Report metal content		10212 00 9		ort ns				 	 		
	5	trated" in item 17A, line 1, parts I and II)	Lead (Report m item 19, line 4)	netal content in	10312 01 5						 	 		
	6		Zinc (Report mo item 19, line 5)	etal content in	10312 21 3						 			
	7		Gold (Report m item 19, line 6)	netal content in	10412 00 5								 	
	8		Silver (Report r in item 19, line	metal content 7)	10442 00 2						 			
	9		Molybdenum		10997 31 0	cont	0 lb., ained denum				 			
			Other – Specify of measure	kind and unit	67						 	 		
	1	by amalgamatic	re, and precipita on or cyanidation on item 19, line 8)	n) <i>(Report</i>	10003 03 6						 	 		
1	2	Copper-water precipitates, including precipitates from ore leached in place (Report metal content in item 19, line 9)		10213 01 5		ort ns				 	 			
1	3	Electrowon cop operations	per recovered fr	om leaching	10213 03 1		sand Inds				 			
1	4	PLACER METALS	Gold		10413 07 8		troy				[[
1	5	5 Silver		10443 07 5		ļ _				1				

If not shown, please enter your 11-digit Census File Number from the address label on page 1

Census File Number

Item 18B. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1997 – Coi	ntinued
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			Census	Unit of		Shipments a	and interplar	nt trans	sfers
No.		Description		measure (Dry	Quantity of production	Quantity		mine o	r plant
Line			581	weight)	582	583		Thou-	
		(B)	(C)	(D-1)	(D-2)	Millions	sands	Dollars	
	ALL OTHER PRODUCTS OF THIS ESTABLISH- MENT Describe and report separately each product with a value of \$50,000 or more which cannot be assigned to lines 1–15 on the preceding page. Specify unit of measure for quantity. For all remaining products, write "Other" and report a single total value.							 	
16	<u> </u>		18				\$		ì
17	_		26						
18	В		34						
19	other establish	rk or services performed for nents. <i>Exclude receipts for</i> <i>f ores on a custom or toll basis.</i>	10810 00 0					 	
20	RESALES	Sales of products bought and sold without further processing. The cost of such items should be reported in item 10, line b (page 2).	99989 00 6					 	
21	TOTAL va Sum of lin	lue of shipments and receipts es 1-20 column (E)	77000 00 8				\$	 	

Item 19. METAL CONTENT (Report metal content of production where both production and shipments are reported in item 18B)

						s contained bas ncentrates repoi		
		Description	Census code	The	ousand pound	ds	Fine tro	y ounces
Line No.	(A)		591	Copper 592	Lead 593	Zinc ₅₉₄	Gold 595	Silver
Ë			(B)	(C)	(D)	(E)	(F)	(G)
	CRUDE ORE AND RESIDUES							
1	NOT CONCEN- TRATED AT	For shipment to smelters	9894					
	THIS ESTABLISH-	Familian and automorfont						
2		For shipment or transfer to other mills for concentration	9902					
3	CONCEN- TRATES Copper		9910					
4	/Erom "Oron	Lead	9928					
5	in item 17A, line 1, parts l	Zinc	9936					
6	1.111	Gold	9944					
7		Silver	9951					
8	Copper-water precipitates, including		9969					
9			9985					
10	TOTAL Sum of lin	es 1–9	9993					

Items 20 and 21. Not applicable to this report.

REMARKS – Please use this space for any explanations that may be essential in understanding your reported data.

_	Item 22. CERTIFICATION – This report is substantially accurate and has been prepared in accordance with instructions.										
	Name of person to contact regarding this report (<i>Print or type</i>) Area code Number Extension										
	667 1					Telephone	2				
	Name of compan	У			Add	ress (Numbe	r and street, o	city, State, ZIP	Code)		
		FROM: Month	Day	Ye	ar	TO: Mo	nth	Day		Year	
	Period covered	666 1				2		İ			
	Signature of auth	orized person		Title					Date		

1997 CENSUS OF MINERAL INDUSTRIES

INSTRUCTIONS FOR REPORTING METAL MINING FORMS MI-1001 AND MI-1002

GENERAL INFORMATION

Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget (OMB). The OMB 8-digit number appears in the upper right corner of this questionnaire.

If you require an extension of time to complete this report or if there are any other questions regarding this report, please write or call the Census Bureau as instructed on page 1 of the report form.

We estimate that it will take from 2 to 10 hours to complete this form, with almost 4 hours being the average. This includes time to read instructions, develop or assemble material, conduct tests, organize and review the information, and maintain and report the information. If you have any comments regarding these estimates or any other aspect of this survey, send them to the Associate Director for Administration/Comptroller, Attn: Paperwork Reduction Project 0607-0845 Room 3104, Federal Building 3, Bureau of the Census, Washington, DC 20233.

WHO SHOULD REPORT?

- A separate report must be filed for each mineral establishment operated by the company during any part of 1997. This includes mines under development and concentration or agglomeration plants under construction.
 The report should be completed by the operator of the establishment, whether the operator is the owner or is operating it under lease or contract.
- If you have not received forms to cover each of your operations, call or write the Census Bureau, describing the activity at the establishments for which you are requesting forms.
- If this questionnaire does not pertain to your type of activity, complete all appropriate items, such as employment, payroll, shipments, etc., of this report. Describe your activities in Item 1C, Principal Activity.

WHAT IS A MINERAL ESTABLISHMENT?

A mineral establishment is a single physical location where mineral operations are performed. It represents a working or group of workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or concentration process.

- Individual shafts, openings, or sites should not necessarily be considered as individual mines.
- Report open-pit mines separately from underground mines, whenever possible.

Examples of mineral establishments are:

- mine only (a mine may be a lode operation, pit, beach, underground, or a placer deposit)
- mine and concentration plant (such plants may be engaged in milling, washing, agglomeration, or other types of mineral concentration)
- concentration plant only
- mines or sites under exploration, development, or maintenance
- plants under construction

Separate reports are required for lease and land acquisitions of mineral rights if they are located in a county different than any establishment operated. Include a designation of the kind of mineral expected to be produced. Such acquisitions may be included in the report of the nearest operating establishment if the establishment is located in the same county as the acquisition and produces the same type of mineral.

HOW TO REPORT FOR ESTABLISHMENTS WITH NO PRODUCTION DURING 1997

Return a completed report for any of your company's mineral establishments that had no production during 1997. Enter "0" in item 18B. Report information in the appropriate items, such as custodial employees, inventories, assets, or capital expenditures.

WHAT ACTIVITIES SHOULD BE REPORTED?

Include

- operations of a mine together with its associated shops; auxiliary units; yards; mill; beneficiating, concentration or washing plant; and offices
- a mill, beneficiating, or concentration plant not at the site of the mines served, or operated under separate management from the mines, together with its associated shops, auxiliary units, and offices
- other associated activities when carried on at the same physical location such as:
 - generating energy for the mine or plant (include a central power plant serving two or more mines or plants with the one for which the power plant furnishes the most electric energy)
 - maintenance of mine, plant, and equipment
 - receiving, shipping, storage, research, recordkeeping, health, safety, cafeteria, and other services

Exclude:

- operation of company stores, boardinghouses, bunkhouses, and recreational facilities
- separate sales branches, research laboratories, and general administrative offices. Report these on appropriate Census of Business, Census of Manufactures, or central office or auxiliary forms
- sintering plants operated in conjunction with blast furnaces
- recovery of metals through smelting or refining (except for mercury)

WHAT PERIOD SHOULD EACH REPORT COVER?

- Each report should cover the calendar year 1997.
- If book records are not on a calendar-year basis, carefully prepared estimates are acceptable.
- If your fiscal year covers at least 10 months of calendar year 1997, and reporting on a calendar-year basis involves considerable cost, you may report on a fiscal-year basis. However, all payroll and hours-worked figures should relate to the calendar year rather than the fiscal year. (Use calendar-year payroll records from your tax records.)
- If an establishment began to operate or ceased to operate during 1997, report only the part of the year that the establishment was in operation.
- If the operator changed during the year, report only for that part of the year that your company operated the establishment. Report in item 15 the appropriate information on changes in **operator** or operations.
- Specify in the certification, item 22, the exact period that the report covers.

MULTIESTABLISHMENT COMPANIES ONLY

If any of the items requested are maintained in your records only at a divisional or company level, allocate their costs to each establishment for which you received a questionnaire. When determining transfer values of products and materials from one establishment to another (interplant transfers), include, in addition to direct costs of production, a reasonable proportion of "all other costs (company overhead) and profits." The establishments receiving such transfers should report them as purchased minerals for concentration, supplies, fuels, or electric energy at the same value plus cost of freight and other direct handling charges. (See item 10.)

SPECIFIC ITEMS

Item 2 - Employment in 1997

Include:

 all full- and part-time employees on the payroll of this establishment during any part of the pay period that includes the 12th of March

- persons on paid sick leave, paid holidays, and paid vacations
- officers of the establishment, if a corporation
- persons at a general office serving two or more mines if located at or near this establishment
- employees paid on a per ton, car, or yard basis
- a distribution of those who work in units that serve manufacturing, distribution, or construction operations also carried on at this establishment in addition to the mineral operation (examples: medical staff, yardpersons). Also, distribute the earnings and hours worked of these employees among the respective establishments

Exclude:

- members of Armed Forces and pensioners carried on your active rolls
- proprietor or partners, if an unincorporated concern
- those who worked at the mine but were on the payroll of another employer (such as employees of contractors)
- workers at blast furnaces, smelters, and other manufacturing plants, company stores, boardinghouses, bunkhouses, and recreational centers

Item 2, Line a – Production, Development, and Exploration Workers

Include:

- workers (up through the working-supervisor level) engaged in services closely associated with production and development operations such as:
 - manual work
 - tools use and machine operation
 - materials and products loading and hauling
 - mineral properties care
 - exploration and development work
 - storage, shipping, maintenance, repair, and guard services
 - auxiliary production for own use (e.g., power plant)
 - recordkeeping
 - regular maintenance and repairs

Exclude.

- supervisory employees above the working-supervisor level
- employees of contractors

Item 2, Line b - All Other Employees

Include:

- nonproduction personnel at this establishment engaged in supervision above the working-supervisor level and employees engaged in activities such as:
 - sales, advertising, purchasing, finance
 - highway trucking and other transportation
 - credit, collection, executive, legal, clerical, and routine office functions
 - personnel (including cafeteria, medical, etc.)
 - professional (engineers, geologists, etc.) and technical work
- force-account construction employees on your payroll engaged in construction of major additions or alterations to your facilities who are utilized as a separate workforce

Exclude employees of contractors

Item 3A - Annual Payroll in 1997

Report the **gross earnings** paid in calendar year 1997 to employees of this establishment prior to such deductions as employee's Social Security contributions, withholding taxes, group insurance premiums, union dues, and savings bonds.

Include:

- · commissions, dismissal pay, and paid bonuses
- employee contributions to pension plans such as a 401(k) plan
- · vacation and sick-leave pay
- cash equivalent of compensation paid in kind such as:
 - board and housing
 - payments in the form of shared profits and special stock purchases that are subject to withholding tax
- salaries of officers of this establishment, if a corporation

Exclude:

- payments to proprietor or partners, if an unincorporated concern
- payments to members of Armed Forces and pensioners carried on your active payroll
- · royalty payments to unions
- cost of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production, development, and exploration work but charged to employees and deducted from their wages (Include this cost in item 10, line a, if applicable.)

Item 3C - Employer's Cost for Fringe Benefits

Include employer payments for:

- employer contributions for all programs required under Federal and State legislation such as:
 - Federal Old Age and Survivors' Insurance
 - unemployment compensation
 - Workers' compensation
 - legally required State temporary disability payments
- insurance premiums on hospital and medical plans
- life insurance premiums
- premiums on supplementary accident and sickness insurance
- union negotiated contracts
- programs supported by joint employer-employee contributions
- items generally considered as deferred rather than current income to employees and **not** subject to withholding tax such as:
 - all pension plans regardless of method of administration
- supplemental unemployment compensation plans
- welfare plans
- stock purchase plans in which the employer payment is not subject to withholding tax
- deferred profit sharing plans
- payments made directly to retired employees or their survivors that do not pass through a fund

When reporting payments for **insurance**, report **net** payments, i.e., gross payments less any offsetting dividends, refunds, or other reductions in premiums.

Exclude:

- losses on company-operated cafeterias and snack bars
- cost of in-plant medical services
- cost of free parking lots
- discounts on employee purchases
- cost of uniforms and other work clothing supplied to employees and similar expenditures
- wages and salaries reported in item 3A such as:
 - holidays, vacations, unused vacation, and sick pay
 - bonuses, night shift bonuses, and suggestion awards
 - jury pay
- payments in the form of shared profits and special stock purchases that are subject to withholding tax
- payments to employees out of a fund to which payments or allocations are made by the company

INSTRUCTIONS FOR REPORTING METAL MINING FORMS MI-1001 AND MI-1002 - Continued

Item 4 - Hours Worked by Production, Development, and Exploration Workers

An hour worked is defined as the work of one person for 1 hour. Report figures from actual records of hours worked wherever available. If no records of hours worked were kept, estimate hours worked from payroll or other records.

Include

- all hours worked or paid (except hours paid for vacations, holidays, or sick leave)
- overtime hours (report as actual hours worked, not straight-time equivalent hours)
- actual hours worked by an employee who elects to work during a vacation period
- all hours worked at this establishment for the entire year by all full-time and part-time production, development, and exploration workers of the type reported in item 2, line a.

Exclude:

- hours worked by employees of contractors
- · hours of proprietors or partners

Items 6, 7, and 8 - Assets, Capital Expenditures, Retirements, Depreciation, and Rental Payments

Multiestablishment Companies

- If this establishment is part of a multiestablishment company and the establishment maintains a tenant relationship with the parent company or one of its subsidiaries and pays "rent" for the use of either its buildings or equipment, exclude the value of this rent from Item 8, Rental Payments. Instead, report the gross value of assets made available to this establishment as a result of this "rental" agreement in item 6, as if the establishment owned them.
- If this establishment uses buildings or equipment rented directly from other companies, but rental payments are handled centrally at a company or division level, report the share of overhead charged to this establishment or estimate the share of rental charges appropriate to the operations of this establishment in item 8.

Establishments Involved With Leasing Arrangements for Equipment and/or Buildings

- Report leased equipment according to the type of lease negotiated with the producer or the lessor.
- Capital Leases (as defined by the Financial Accounting Standards Board (FASB)) report:
 - original cost or market value of that equipment and building as a value of fixed assets. Include annual depreciation and retirements charged against this equipment
 - cost (at market value) of acquisitions of building and equipment during the year as a capital expenditure and include it in the end-of-year assets and charge the first year depreciation (and retirements, if any)
- Operating Leases report the periodic payments made to the producer or lessor in the rental section (item 8).
 Exclude the value of the building and equipment as assets, capital expenditures, depreciation, or retirements.

Item 6, Lines a and d - Gross Value of Depreciable and/or Depletable Assets

Report the acquisition cost (not current market value) of depreciable assets for which depreciation or amortization reserves are maintained. Also, report the acquisition cost of assets such as capitalized mineral exploration and development or acquisition cost for mineral land and rights for which depreciation, amortization, or depletion accounts are maintained.

- For new construction or other improvement projects in progress but not yet complete, include:
 - cumulative capital expenditures for such projects already in place at the beginning and end of the year, respectively, in item 6, lines a and d
 - expenditures capitalized for these projects during 1997 in item 6, line b

- If the establishment was acquired during the year, report the value at the end of the year (item 6, line d) as your purchase cost adjusted for capital expenditures (item 6, line b) and deductions (item 6, line c) since the time of purchase. Include used assets purchased during the year at their market value at the time of transfer rather than at original book value.
- If the establishment was sold by your company during the year, report the gross value at the beginning of the year (item 6, line a) at its acquisition cost. Also report this acquisition cost plus capital expenditures that may have occurred since the beginning of the year and the time of sale in item 6, line c.
- Report gross assets for the end of the year consistently with the gross assets at the beginning of the year and the annual asset changes during the year. Item 6, line a plus line b minus line c equals line d.

Item 6, Line b - Capital Expenditures During Year

Report the actual capital outlays during 1997, not the final value of buildings or other structures completed or equipment put in place during the year. (These expenditures are of the type for which depreciation or amortization accounts are ordinarily maintained.)

- Capital expenditures during 1997 may be determined by the following computation:
- (a) 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 the year.
- Include labor and installation costs whether on contract or by your own forces.
- Exclude the cost of maintenance and repairs charged as current operating expense.

Include:

- replacements as well as additions to capacity for new depreciable assets
- value of improvements and capitalized repairs to machinery and equipment including those done to assets transferred from other establishments of this company
- expenditures at this establishment for old or existing plants and for secondhand equipment acquired from others (including the U.S. Government)
- gross book value of machinery or equipment transferred from other establishments of your company

Item 6, line b(1) - Capital Expenditures for New and Used Buildings, Structures, Machinery, and Equipment

Include:

- buildings and structures directly related to mineral exploration, development, and production
- machinery, such as hoists, cranes, crushers, separators, and power plants
- values from construction by your own employees, where capitalized
- exploration, development, and production machinery; transportation and office equipment
- equipment such as excavators, loaders, locomotives, tractors, hoists, drills, compressors, pumps, and treatment plant machinery, as well as furniture and fixtures for offices, cafeterias, and change rooms
- value of equipment produced and used at this establishment
- all mining, loading, transportation, and similar equipment for use at mines
- treatment plant equipment
- automobiles, trucks, and similar equipment
- replacements as well as additions to new capacity

Exclude:

- · company houses and general recreational facilities
- · value of land

Item 6, line b(2) - Capital Expenditures for Mineral Exploration and Development

Include:

- all development and exploration outlays that were charged to a capital or Office of Minerals Exploration
- capitalized expenditures for entries, shafts, rail and other road construction, test boring, surveying, etc.

Item 6, line b(3) - Capital Expenditures for Mineral Land and Rights

Include:

- all capital expenditures for acquiring either undeveloped or developed acreage
- capitalized lease bonuses and any other outlays necessary to acquire leases, mineral rights, and fee lands incident to mineral exploration, development, or production

Item 6, Line c - Retirements and Disposition of Depreciable and/or Depletable Assets During the Year

Include:

- gross value of assets sold, retired, scrapped, destroyed, abandoned, etc., during the year at their acquisition cost
- value of assets transferred to other establishments of your company at their acquisition cost, rather than current market value

Exclude charges to depreciation or amortization reserves.

Item 7 - Depreciation and/or Depletion Charges During the Year

Report the reduced value of assets (reported in item 6, line d) brought about through use, mineral extraction, gradual obsolescence, or the effect of the elements (decay or corrosion) for 1997 only.

Include charges against assets acquired or completed during the year.

Report cost depletion as an allocation of wasting investment rather than percentage of statutory depletion used for Federal income tax purposes.

Item 8 - Rental Payments During the Year

Report rental payments made to other companies for use of depreciable assets such as buildings, other structures, machinery, and equipment. Include rental payments for

If this establishment is part of a multiestablishment company or is involved with leasing arrangements, see special instructions on page 3.

Item 9A - Current Account Expenditures During the Year for Mineral Properties

Include:

- expenses for mineral properties charged to current accounts, such as:
 - 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
 - cost of maintenance and repairs associated with development or exploration activity that is charged to current accounts
- · acquisition costs for mineral land and rights that were not
- cost of royalty payments related to mineral production
- labor costs whether on a contract basis or by your own forces associated with exploration and development or the acquisition of mineral properties

Exclude lease rents reported separately in item 9B.

Item 10 - Cost of Supplies and Contract Work

Include:

- all materials received for consumption
- · items charged to both the current and capital accounts
- items consumed during 1997 although purchased earlier
- minerals received from other mines for preparation
- supplies consumed for production, development, exploration, maintenance, and repair of mine, plant and equipment, or in-plant construction
- supplies furnished without charge to contractors or sold to employees for use at this establishment
- fuels and electric energy consumed and cost of products resold
- contract work

Exclude:

- supplies received during 1997 that were not consumed
- cost of minerals mined and also prepared in the establishment in 1997
- services such as advertising, telephone, fax, cable, insurance, development, and research rendered by other establishments
- services of engineering, management, marketing, legal, and other professional consultants, etc.
- · depreciation and depletion charges against plant and
- rent and rental allowances, interest payments, royalties, and use of patent fees
- supplies, parts, or machinery produced at this establishment
- extraordinary losses such as fire and flood
- labor costs of your employees (report these labor costs in items 3A and 3B)

Multiestablishment Companies

• If supplies, minerals for preparation, machinery installed, fuels, and electric energy are received from other establishments of your company, check the cost against the values reported by the establishment transferring the supply (see instructions for Multiestablishment Companies on page 1). Add freight and other direct handling charges.

Item 10, Line a – Cost of Supplies Used, Minerals Received for Preparation, and Purchased Machinery Installed

Include:

- (The following list is shown only as an example; it should not be considered a complete list.)
- bearingsbelting and screen clothbolts, screws, and nutsbrake blocks and linings
- carbon and graphite brushes
- cement
- chemical reagentsdies, jigs, and fixturesdrill bits and accessories
- explosives first aid and safety supplies
- floor gratingsforgings and castings fusesgears and pinions

- grinding balls and rodshammers
- handtools
- hardware
- headlights and lamps

- industrial diamondsjackslubricating oilslumber and timber

- purchased packaging materials
- piling
- pipe and fittings plates and sheets

- rail and accessories rods and bars roof bolts stationery, stamps, and office supplies

 - track accessories
- water purchased
- welding rods, electrodes, and
- acetylene wire, cable, and chain
- all new and used machinery, equipment, and parts installed whether purchased or received from other establishments of your company
- physical goods used or put into production

Exclude services used or overhead charges. Report services performed for you by others in item 10, line e.

INSTRUCTIONS FOR REPORTING METAL MINING FORMS MI-1001 AND MI-1002 - Continued

Item 10, Line b - Cost of Products Bought and Sold Without Further Processing

Include:

- cost of all products bought and resold in the same condition as when purchased
- total value of all products resold in item 18B on the line for "Resales"

Item 10, Line c - Cost of Purchased Fuels Consumed

Report the total amount actually paid or payable for all purchased fuels consumed.

Include:

- fuels consumed at this establishment, but produced at another establishment of your company, in items 10, line c and 17B. Assign commercial values to them
- fuel used to power onsite trucks, forklifts, or motor vehicles
- anthracite, lignite, bituminous and subbituminous coal, coke, natural and manufactured gas, gasoline, wood, purchased steam, and all other fuels

Item 10, Line d - Cost of Purchased Electricity

Report total amount actually paid or payable for electric energy purchased during 1997 from other companies or received from other establishments of your company.

Exclude value of electricity generated and used at this establishment, but report its quantity in item 11, line b.

Item 10, Line e - Cost of Contract Work Done for You by Others

Include:

- payments for supplies and equipment furnished by the contractor incidental to the contract work
- services performed in the operation or development of this establishment, such as pumping, tunneling, shaft sinking, stripping, boring test holes, shop work, repair work, and construction
- an estimate of the value of the service if part of the payment to a contractor was in material produced
- payment to contractors who were engaged in mining for your own account

Exclude:

- payments to miners paid on a per ton, car, yard, or footage basis. Include the compensation of such workers in item 3A
- payments to suppliers who mined for their own account on property owned or leased by them and who paid royalties either directly or indirectly on the ores mined. Report such payments to suppliers in item 10, line b, if the ores were bought for resale without further processing; or in items 10, line a and 17A, part I, if the ores were purchased for treatment at the establishment

Item 11 - Quantity of Electricity

Report all quantities of electricity in thousands of kilowatthours.

Item 11, Line a - Purchased Electricity

Report the quantity of electricity for which the cost is reported in item 10, line ${\bf d}$.

Item 11, Line b - Generated Electricity

When a figure is reported on this line, include data relating to the activity of the power stations in other sections of this report. For example, include the number of employees assigned to the power station, their wages, and hours worked in the figures reported in items 2, 3, and 4, and the cost of fuels used to generate electricity, in items 10, line c and 17B.

Item 11, Line c - Electricity Sold or Transferred

Include:

- quantity of electric energy that was also included in item 11, lines a and b, but was sold to other companies or transferred to other establishments of your company
- value of electricity sold in item 18B on "All other products" line

Item 12 - Inventories of This Establishment At End of Year

Include:

- The value of all inventories that are attributable to the establishment's operations regardless of where the inventories are held or stored
- for multiestablishment companies:
 - an assignment of the value of inventories that the establishment is responsible for, as if it owned them
- the value of inventories held elsewhere for this establishment (centrally located stockpile, warehouse, etc.), and exclude the value from the report of the establishment where they are actually stored

Item 12, Line a – Inventories; Mined or Quarried Products

Include:

- stocks of raw products awaiting treatment or beneficiation that were **mined** at this establishment
- stockpiles of products (raw, concentrated, or beneficiated ores and quarried products) ready for shipment

Item 12, Line b - Inventories; Supplies, Parts, Fuels, Etc.

Include:

- stockpiles of ores received from other establishments for further processing
- cost of items to be used for extracting or beneficiating

Item 12, Line d

The sum of item 12, lines d(1) and d(2) should equal the total inventories reported in item 12, line c.

Item 12, Line e(1)

LIFO reserve represents the excess of current period cost over the LIFO carrying value. LIFO reserve is the difference between the current cost (e.g., FIFO) of inventories (gross value) and the LIFO carrying value (net value).

Item 17A – Supplies Used, Ores for Treatment/Concentration, and Purchased Machinery Installed During 1997

Part I – Items Purchased or Received from Other Establishments

Include

- tonnage (excluding overburden) before removal of refuse and waste of crude ores or tonnage of concentrates received and treated at this establishment.
- amounts actually paid or payable after discounts; include freight and direct charges incurred in acquiring the quantities of the listed items during 1997
- values as described in instructions for multiestablishments on page 1 for supply items transferred from other establishments of this company.
- the value prior to treatment for crude ores transferred

Purchased Machinery Installed

Include:

- all new and used machinery and equipment that were purchased, or that were received from other establishments of your company whether charged to current or capital accounts
- machinery charged to the capital account in item 6, line b as well as here
- equipment that was installed in the mine, mill, treatment, beneficiating, or washing plant as well as mobile loading and transportation equipment

Part II - Quantity of Ores Mined and Treated/Concentrated at This Establishment

Include:

- ore mined by the mine employees covered by this report or by contractors mining for your account (for which contract cost is included in item 10, line e) and residues from this plant
- tonnage of crude ore mined and treated before removal of refuse and waste

Exclude:

- ore received from other establishments of your company. Report such ore in Part I
- waste material handled, such as overburden and material stripped

Item 17B - Fuels Used During 1997

Include

 fuels that were purchased or transferred from outside of the defined boundaries of the establishment where they were consumed, for the production of heat, power, or generated electricity Include: - Con.

 all fuels purchased from other companies or transferred from other establishments of your company and used at this establishment

Cost is delivered cost, the amount paid or payable after discounts, including freight and other direct charges incurred by the establishment in acquiring the fuels.

Conversions:

- fuel oil: 42 gallons = 1 barrel
- natural gas: 10,000 therms = 1 million cubic feet
- manufactured gas: 6,000 therms = 1 million cubic feet