THE MINERAL INDUSTRY OF OREGON

In 1997, Oregon ranked 38th in the Nation in total nonfuel mineral production value,[1] according to the U.S. Geological Survey (USGS). The State was 37th in 1996. The estimated value for 1997 was $272 million, about a 3% increase compared with that of 1996. This followed a 10.8% increase from 1995 to 1996 (based on final 1996 data). The State accounted for less than 1% of the U.S. total nonfuel mineral production value.

Industrial minerals accounted for all of Oregon's raw nonfuel mineral production value. Construction sand and gravel and crushed stone, by value, are Oregon's two leading nonfuel mineral commodities, accounting for nearly 74% of the State's total value in 1997. A $15 million increase in the value of construction sand and gravel more than compensated for decreases in the values of gemstones and crushed stone (*table 1*), resulting in Oregon's net gain in nonfuel mineral production value for the year. All other minerals showed at least a small increase, except for nickel, for which there was no domestic mine production. Production of common clays remained the same. The Glenbrook Nickel Co., a joint venture of Cominco American Inc. and Cominco Resources International Ltd., operated its smelter in Riddle at full capacity during 1997. The company received its ore from foreign sources, mostly garneritic laterite ore from Société Minière du Sud Pacifique of New Caledonia. The Nickel Mountain Mine was idle all of 1997 because of low nickel prices and the ore's nickel content, which was lower than the ore from foreign sources. Nickel Mountain has been the sole domestic producer of primary nickel in the United States in recent years, operating on an intermittent basis—mine production depending on the price of nickel.

Based on USGS estimates of the quantities of raw minerals produced in the United States during 1997, Oregon remained first among the 50 States in pumice and pumicite, the only State to produce emery, third in diatomite and zeolites, and seventh in bentonite. The State dropped in rank from second to sixth in gemstones (by value). Additionally, significant quantities of construction sand and gravel and crushed stone were produced in the State.

[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 1997 USGS mineral production data published in this chapter are estimates as of January 1998. For some commodities (for example, construction sand and gravel, crushed stone, and portland cement), estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset, and request Document # 1000 for a telephone listing of all mineral commodity specialists, or call USGS information at (703) 648-4000 for the specialist's name and number. This telephone listing may also be retrieved over the Internet at http://minerals.er.usgs.gov/minerals/ contacts/comdir.html. All Mineral Industry Surveys–mineral commodity, State, and country–also may be retrieved by way of MINES FaxBack or over the Internet at http://minerals.er.usgs.gov/minerals/.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN OREGON 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral		1995 Quantity	1995 Value	1996 Quantity	1996 Value	1997 p/ Quantity	1997 p/ Value
Clays:							
Bentonite		17	917	33	1,530	34	1,560
Common		222	354	213	154	213	154
Gemstones		NA	4,570	NA	6,730	NA	1,940
Nickel ore	metric tons	1,560	W	1,330	W	-- 3/	--
Sand and gravel, construction		18,200	85,000	18,300	86,800	20,900	102,000
Stone, crushed		20,700	95,700	22,000	102,000	20,800	98,000
Talc and pyrophyllite	metric tons	W	W	64	84	W	W
Combined value of cement (portland), diatomite, emery (1995-96), lime, pumice and pumicite, zeolites, indicated by symbol W		XX	52,500	XX	67,100	XX	68,100
Total		XX	239,000	XX	265,000	XX	272,000

p/ Preliminary. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined value" data. XX Not applicable.
1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
2/ Data are rounded to three significant digits; may not add to totals shown.
3/ Quantity of local ore fed to smelter after rejection of lower grade material. The Nickel Mountain Mine reportedly was idle all of 1997 because of disappointing prices for nickel ore. However, the smelter operated at full capacity. Since 1992, the smelter has been using lateritic ore imported from New Caledonia in addition to lateritic ore mined on Nickel Mountain. In a normal year, the value reflects the grade of the local ore, the projected average unit customs value for competing ore imported from New Caledonia, and the average reported by the London Metal Exchange ($6,927 per metric ton Ni in 1997).

TABLE 2
OREGON: CRUSHED STONE SOLD OR USED, BY KIND 1/

Kind	1995 Number of quarries	1995 Quantity (thousand metric tons)	1995 Value (thousands)	1995 Unit value	1996 Number of quarries	1996 Quantity (thousand metric tons)	1996 Value (thousands)	1996 Unit value
Limestone	1	W	W	$4.96	1	W	W	$5.42
Granite	27	47	$234	4.98	27	70	$306	4.37
Traprock	285 r/	18,400 r/	85,300 r/	4.62 r/	288	19,700	91,000	4.61
Sandstone and quartzite	67	380	1,960	5.15	67	389	1,770	4.56
Slate	1	W	W	6.04	1	W	W	5.07
Volcanic cinder and scoria	50 r/	35	221	6.31	50	35	221	6.31
Shell	1	W	W	3.67	1	W	W	3.31
Miscellaneous stone	33 r/	695 r/	2,680 r/	3.85 r/	33	510	2,560	5.01
Total	XX	20,700	95,700	4.63	XX	22,000	102,000	4.65

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.
1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 3
OREGON: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1996, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Macadam	65	$218	$3.35
Riprap and jetty stone	291	970	3.33
Filter stone	141	570	4.04
Other coarse aggregate	125	523	4.18
Coarse aggregate, graded:			
Concrete aggregate, coarse	594	2,500	4.21
Bituminous aggregate, coarse	704	3,840	5.46
Bituminous surface-treatment aggregate	517	2,770	5.36
Railroad ballast	55	443	8.05
Other graded coarse aggregate	142	646	1.12
Fine aggregate (-3/8 inch):			
Stone sand, bituminous mix or seal	133	894	6.72
Screening, undesignated	144	457	3.17
Other fine aggregate 3/	29	221	7.62
Coarse and fine aggregates:			
Graded road base or subbase	5,880	28,800	4.89
Unpaved road surfacing	1,780	8,180	4.60
Terrazzo and exposed aggregate	66	260	3.94
Crusher run or fill or waste	1,900	5,170	2.72
Other coarse and fine aggregates	419	1,560	3.72
Other construction materials 4/	16	20	1.25
Chemical and metallurgical, cement manufacture	(5/)	(5/)	3.98
Other miscellaneous uses:			
Sugar refining	(5/)	(5/)	10.86
Other specified uses not listed	(5/)	(5/)	7.18
Unspecified: 6/			
Actual	4,480	22,700	5.07
Estimated	3,530	16,100	4.58
Total	22,000	102,000	4.65

1/ Includes granite, limestone, miscellaneous stone, sandstone and quartzite, shell, slate, traprock, and volcanic cinder and scoria.
2/ Data are rounded to three significant digits; may not add to totals shown.
3/ Includes stone sand (concrete).
4/ Includes drain fields.
5/ Withheld to avoid disclosing company proprietary data; included in "Total."
6/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.

TABLE 4
OREGON: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1996, BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction aggregates:						
Coarse aggregate (+1 1/2 inch) 2/	496	1,770	W	W	W	W
Coarse aggregate, graded 3/	1,490	7,120	W	W	227	1,890
Fine aggregate (-3/8 inch) 4/	110	673	--	--	W	W
Coarse and fine aggregate 5/	6,700	29,800	2,070	8,740	616	2,980
Other construction materials 6/	--	--	182	667	59	348
Chemical and metallurgical 7/	--	--	--	--	--	--
Other miscellaneous uses 9/	(8/)	(8/)	--	--	--	--
Unspecified: 10/						
Actual	(8/)	(8/)	19	87	--	--
Estimated	2,190	9,990	309	845	439	1,900
Total	13,800	66,100	2,580	10,300	1,340	7,120

Use	District 4		District unspecified	
	Quantity	Value	Quantity	Value
Construction aggregates:				
Coarse aggregate (+1 1/2 inch) 2/	46	202	--	--
Coarse aggregate, graded 3/	W	W	--	--
Fine aggregate (-3/8 inch) 4/	W	W	--	--
Coarse and fine aggregate 5/	658	2,460	--	--
Other construction materials 6/	393	1,580	--	--
Chemical and metallurgical 7/	(8/)	(8/)	--	--
Other miscellaneous uses 9/	(8/)	(8/)	--	--
Unspecified: 10/				
Actual	(8/)	(8/)	835	1,980
Estimated	--	--	583	3,400
Total	2,880	13,300	1,420	5,380

W Withheld to avoid disclosing company proprietary data; included with "Other construction materials."
1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Includes filter stone, macadam, riprap and jetty stone, and other coarse aggregate.
3/ Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregate.
4/ Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and other fine aggregate.
5/ Includes graded road base or subbase, terrazzo and exposed aggregate, unpaved road surfacing, crusher run (select material or fill), and other coarse and fine aggregates.
6/ Includes drain fields.
7/ Includes cement manufacture.
8/ Withheld to avoid disclosing company proprietary data; included in "Total."
9/ Includes sugar refining and other specified uses not listed.
10/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.

TABLE 5
OREGON: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1996,
BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate and concrete products 2/	5,400	$24,500	$4.53
Asphaltic concrete aggregates and other bituminous mixtures	1,250	7,350	5.87
Road base and coverings	3,730	18,600	4.98
Fill	957	3,180	3.32
Snow and ice control	19	141	7.42
Other miscellaneous uses 3/	596	2,690	4.51
Unspecified: 4/			
Actual	2,280	9,170	4.02
Estimated	4,020	21,300	5.29
Total or average	18,300	86,800	4.75

1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Includes plaster and gunite sands.
3/ Includes railroad ballast.
4/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.

TABLE 6
OREGON: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1996, BY USE AND DISTRICT 1/ 2/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 4	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products 3/	4,160	18,300	776	3,270	463	2,860
Asphaltic-bituminous mixtures	849	5,310	335	1,750	67	292
Road base and coverings 4/	3,780	18,100	472	1,800	455	2,020
Other miscellaneous uses 5/	545	2,380	51	309	--	--
Unspecified: 6/						
Actual	1,940	7,890	245	826	96 7/	459 7/
Estimated	3,570	19,000	41	207	412 7/	2,100 7/
Total	14,800	70,900	1,920	8,160	1,490 7/	7,720 7/

1/ Production reported in District 3 was included with "District 4" to avoid disclosing company proprietary data.
2/ Data are rounded to three significant digits; may not add to totals shown.
3/ Includes plaster and gunite sands.
4/ Includes fill, and snow and ice control.
5/ Includes railroad ballast.
6/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.
7/ Includes production within the State with no district reported.