

ESTIMATED DIRECT OPERATING COSTS FOR ZINC SMELTERS
AND REFINERIES (1983)

<u>COUNTRY</u>	<u>COMPANY</u>	<u>SMELTER</u>	<u>CAPACITY</u> (000 mt/year)	<u>COST</u> (U.S.\$/lb)
United States	St. Joe	Herculanum, Mo.	218	11
France	SMM de Pennaroya	Noyelles Godault	150	11
Mexico	IMM	Chihuahua	120	12
Australia	BHAS	Port Pirie	230	12
Belgium	Metallurgie Hoboken-Overpelt	Hoboken	125	13
Yugoslavia	Trepca	Zvecan	60	13
Peru	Centromin	La Oroya	90	14
United States	Asarco	El Paso, Texas	68	15
Canada	Cominco	Trail, B.C.	150	15
Japan	Mitsubishi/Cominco	Naoshima	35	16
Canada	Brunswick	Bellefleur, N.B.	68	19

COMPETITIVE COST RANKING OF MAJOR LEAD SMELTING & REFINING REGIONS (1984)

UNITED STATES	- 63
AFRICA	- 71
EUROPE	- 76
MEXICO	- 76
SOUTH AMERICA	- 82
AUSTRALIA	- 88
CANADA	- 100
ASIA	- 100
WESTERN WORLD AVERAGE	- 76

ESTIMATED DIRECT OPERATING COSTS FOR SELECTED ZINC PLANTS
AND REFINERIES (1983)*

<u>COUNTRY</u>	<u>COMPANY</u>	<u>SMELTER</u>	<u>CAPACITY</u> (000 mt/year)	<u>COST</u> (U.S.\$/lb)
Canada	Cominco	Trail, B.C.	272	12
Australia	Electrolytic Zinc	Risdon, Tas.	214	14
Canada	CSZ	Valleyfield, Que.	218	15
United States	Jersey Minerals	Clarksville, Tenn.	82	17
Netherlands	Budelco	Budel	180	17
Canada	Kidd Creek	Kidd Creek, Ont.	127	18
Finland	Outokumpu Oy	Kokkola	160	18
France	Austrienne	Auby-Les-Douai	115	18
Canada	HMBS	Flin Flon, Man.	73	21
Belgium	Vielje-Montagne	Balen	190	21
Japan	Toho Zinc	Annaka	140	23
Japan	Akita Smelting	Akita	156	23
Mexico	IMM	Nueva Rosita	168	23
United States	Asarco	Corpus Christi, Tex.	106	27

COMPETITIVE COST RANKING OF MAJOR ZINC SMELTING & REFINING REGIONS (1984)

CANADA	- 62.5
AUSTRALIA	- 75.0
EUROPE	- 74.2
SOUTH AMERICA	- 83.3
MEXICO	- 95.8
UNITED STATES	- 95.8
AFRICA	- 100.0
ASIA	- 100.0
WESTERN WORLD AVERAGE	- 79.0

*SOURCE: Charles River Associates