



## Appendix G – Major minerals processing projects (November 1999)

Project	Company	Location	Status	Startup	New capacity	Capital expend.
<b>Alumina</b>						
<b>Projects under construction or committed</b>						
Pinjarra alumina refinery	Alcoa World Alumina	Darling Ranges, WA	Efficiency improvements under construction	2001	165 kt alumina	na
Worsley alumina refinery	Reynolds Australia Alumina	Darling Ranges, WA	Expansion, under construction	late 2000	1250 kt alumina	\$800m
<b>Less advanced projects</b>						
Comalco alumina refinery project	Comalco Aluminium Malaysia	Gladstone, Qld or study underway	New project, location	after 2000	1400 kt alumina	\$1.4 b
Wagerup refinery expansion (stage 2)	Alcoa World Alumina	Darling Ranges, WA	Expansion, feasibility study completed	na	1100 kt alumina	\$700m
<b>Aluminium</b>						
<b>Less advanced projects</b>						
Lithgow aluminium smelter	Aust-Pac Aluminium	Lithgow, NSW	New project, feasibility study underway	na	450 kt aluminium	\$2.75 b

Project	Company	Location	Status	Startup	New capacity	Capital expend.
Kurri Kurri aluminium smelter	Capral Aluminium	Kurri Kurri, NSW	Expansion, feasibility study completed	na	50 kt aluminium	\$250m
<b>Copper</b>						
<b>Projects under construction or committed</b>						
Port Kembla copper smelter/refinery	Furukawa/Nittetsu/Nissho/Iwai/ITOCHU consortium	Port Kembla, NSW	Reconstruction, under construction	early 2000	120 kt Cu cathode	\$271m
<b>Less advanced projects</b>						
Qsmelt copper smelter	Queensland Minex (Mineral Commodities)	Phosphate Hill Qld	New project, feasibility study underway	2002	105 kt Cu matte 175 kt sulphuric acid	\$120m
<b>Crude iron and steel</b>						
<b>Projects under construction or committed</b>						
Blast furnace expansion-	BHP	Port Kembla, NSW	Expansion, under construction	2001	0.4 Mt	\$93 m
<b>Less advanced projects</b>						
DRI plant	Australian United Steel Industries	Pilbara, WA	New project, feasibility study completed	na	3.6 Mt DRI	\$1.8 b
DRI and steel plant	An Feng Kingstream	Geraldton, WA	New project, feasibility study completed	na	2.4 Mt steel	\$1.4 b
HBI plant	Mt Gibson Iron	Geraldton, WA	New project, feasibility study completed	na	2.6 Mt HBI	\$1.1 b
Pellet and HBI plant	Mineralogy	Pilbara, WA	New project, feasibility study completed	na	6.0 Mt pellets 4.0 Mt HBI	\$1.8 b
Pig iron plant	Australian Bulk Minerals	Port Latta, Tas	New project, feasibility study completed	na	0.5 - 1 Mt pig iron	\$120m
Pig iron plant	SA Steel and Energy	Cooper Pedy, SA	New project, feasibility study underway	na	2.5 Mt pig iron	\$830m
Steel mini mill	Boulder Group, Australian Overseas Resources, Danieli	Newcastle, NSW	New project, feasibility study underway	na	110 kt steel	\$215m

Project	Company	Location	Status	Startup	New capacity	Capital expend.
Steel plant	Compact Steel	Rockingham, WA	New project, feasibility study underway	na	1.4 Mt steel	\$1.5 b
<b>Gold</b>						
<b>Projects under construction or committed</b>						
Fosterville	Perserverance	Fosterville, Vic	Expansion, committed	late 2000	50 000 oz	\$29m
Mt Rawdon	Equigold	Bundaberg, Qld	New project, under Construction	2000	80 000 oz	\$32m
Vera Nancy	Normandy	Charters Towers, Qld	Expansion, under construction	early 2000	100 000 oz	\$48m
<b>Less advanced projects</b>						
Ashburton	Taipan	Ashburton, WA	New project, feasibility study completed	2000	na	\$43m
Ballarat	Ballarat Goldfields	Ballarat, Vic	New project, pre-feasibility study completed, on hold	na	100 000 oz	\$65m
Bendigo	Bendigo Mining	Bendigo, Vic	New project, pre-feasibility study completed	early 2002	150 000 oz	\$70-\$100m
Boddington/Wandoo	Normandy	Perth, WA	Expansion, feasibility study underway	2003	> 300 000 oz	\$350m
Cowal	North	West Wyalong, NSW	New project, feasibility study underway	na	250 000 oz	\$220m
Gwalia Deeps	Sons of Gwalia	Gwalia, WA	Expansion underground feasibility study underway	2003	150 000-200 000 oz	\$60m
Maud Creek	Kilkenny Gold	Katherine, NT	New project, feasibility study underway	2000	55 000 oz	\$24m
Ridgeway	Newcrest	Orange, NSW	New project, feasibility study underway	early 2001	150 000 oz 12 kt Cu	\$175m
Sarsfield	MIM/Haoma Mining	Ravenswood, Qld	New project, feasibility study completed	2000	60 000 oz	\$45m

Project	Company	Location	Status	Startup	New capacity	Capital expend.
St Ives	WMC	Kambalda, WA	Expansion, on hold	na	150 000-300 000 oz	\$157m
White Foil	Cogema SA	Kalgoorlie, WA	New project feasibility study underway	mid 2000	na	na
<b>Magnesium</b>						
<b>Less advanced projects</b>						
Arthur/Lyons River magnesium metal project	Crest Magnesium	Bell Bay, Tas	New project feasibility study underway	2003	95 kt magnesium metal/alloy	\$1.08b
Batchelor magnesium project	Mount Grace Resources	Darwin, NT	New project, pre-feasibility study nearing completion	2002	50 kt magnesium metal	\$625m
Magmetal project	Australian Magnesium Corp (QMC/Normandy/Fluor Daniel)	Rock-hampton, Qld	New project, feasibility study nearing completion	2002	90 kt magnesium metal	\$800m
PMMA project	Pilbara Magnesium Metal Associates	Pilbara, WA	New project, feasibility study underway	na	50 kt magnesium metal	na
South Australia magnesium project	SAMAG (Pima Mining/RFC)	Port Augusta, SA	New project, feasibility study underway	2003	52.5 kt magnesium metal/alloy	\$640m
Woodsreef magnesium project	Golden Triangle Resources	Woodsreef, NSW	New project, pre-feasibility study underway	2003	80 kt magnesium metal/alloy	\$630m
<b>Nickel</b>						
<b>Less advanced projects</b>						
Marlborough	Preston Resources	Rock-hampton, Qld	New project, feasibility study completed	2001	25 kt Ni 2 kt Co	\$738m
Murrin Murrin 2	Anaconda Nickel	Leonora, WA	Expansion, feasibility study underway	2001	55 kt Ni 4.5 kt Co	\$1 b
Syerston	Black Range Minerals	Parkes, NSW	New project, feasibility study underway	na	13 kt Ni 3 kt Co	\$493m
Yabulu refinery expansion	Billiton	Townsville, Qld	Expansion, feasibility study underway	2002	35 kt Ni 1.3 kt Co	\$200m

Project	Company	Location	Status	Startup	New capacity	Capital expend.
<b>Silicon</b>						
<b>Less advanced projects</b>						
Lithgow silicon project	Doral Mineral Industries/ Portman Mining JV	Lithgow, NSW	New project, feasibility study nearing completion	early 2001	30 kt silicon metal 17 kt silica fume	\$100m
<b>Titanium</b>						
<b>Less advanced projects</b>						
Kemerton TiO <sub>2</sub> pigment plant	Millenium Inorganic Chemicals	Kemerton, WA	Expansion, on hold	na	190 kt TiO <sub>2</sub> pigment	\$470m
Kwinana TiO <sub>2</sub> pigment plant	Tiwest JV	Kwinana, WA	Three stage expansion, on hold	na	180 kt TiO <sub>2</sub> pigment	\$200m
Pinjarra rare earth plant	Rhodia Pinjarra.	Pinjarra, WA	New project, feasibility study underway	late 1999	15 kt rare earth nitrates	\$60m

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