

Ore reserves

Ore reserves and mineral resources for Rio Tinto managed operations are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, December 2004 (the JORC Code) as required by the Australian Securities Exchange (ASX). Codes or guidelines similar to JORC with only minor regional variations have been adopted in South Africa, Canada, US, Chile, Peru, the Philippines, UK, Ireland and Europe. Together these Codes represent current best practice for reporting ore reserves and mineral resources.

The JORC Code envisages the use of reasonable investment assumptions, including the use of projected long term commodity prices, in calculating reserve estimates. However, for US reporting, the US

Securities and Exchange Commission require historical price data to be used. For this reason, some reserves reported to the SEC in the Form 20-F may differ from those reported below.

Ore reserve and mineral resource information in the tables below is based on information compiled by Competent Persons (as defined by JORC), or 'recognised overseas mining professionals' as defined by the ASX, most of whom are full time employees of Rio Tinto or related companies. Each has had a minimum of five years relevant estimation experience and is a member of a recognised professional body whose members are bound by a professional code of ethics. Each Competent Person consents to the inclusion in this report of information they have provided in the form and context in which it

appears. A register of the names of the Competent Persons who are responsible for the estimates is maintained by the Company Secretaries in London and Melbourne and is available on request. Where operations are not managed by Rio Tinto the reserves are published as received from the managing company.

The ore reserve figures in the following tables are as of 31 December 2008. Summary data for year end 2007 are shown for comparison. Metric units are used throughout. The figures used to calculate Rio Tinto's share of reserves are often more precise than the rounded numbers shown in the tables, hence small differences might result if the calculations are repeated using the tabulated figures.

	Type of mine (a)	Proved ore reserves at end 2008		Probable ore reserves at end 2008		Total ore reserves 2008 compared with 2007				Rio Tinto share			
		Tonnage		Tonnage		Tonnage		Grade		Interest %	Recoverable mineral		
		2008	2007	2008	2007	2008	2007	2008	2007				
BAUXITE (b)		millions of tonnes	%Al ₂ O ₃	millions of tonnes	%Al ₂ O ₃	millions of tonnes	millions of tonnes	%Al ₂ O ₃	%Al ₂ O ₃			millions of tonnes	
Reserves at operating mines													
Gove (Australia) (c)	O/P	111	49.5	64	49.0	175	143	49.4	49.2	100.0		175	
Porto Trombetas (MRN) (Brazil) (d)	O/P	147	50.8	59	50.1	205	166	50.6	51.2	12.0		25	
Sangaredi (Guinea) (e)	O/P			133	52.4	133	–	52.4	–	23.0		30	
Weipa (Australia) (f)	O/P	337	51.5	1,398	52.6	1,736	1,224	52.4	53.6	100.0		1,736	
Total												1,966	
BORATES (g)													
Reserves at operating mine													
Rio Tinto Minerals – Boron (US)	O/P	14.2		7.1		21.3	21.5			100.0		21.3	
COAL (h)													
	Coal type (i)	Reserves		Marketable reserves		Marketable reserves		Marketable coal quality		Avg. % Yield to give marketable reserves		Marketable reserves	
		Proved at end 2008	Probable at end 2008	Proved at end 2008	Probable at end 2008	Total 2008	Total 2007	(j)	(j)				
Reserves at operating mines													
Rio Tinto Energy America (US)													
Antelope (US)	O/C	SC	260	36	260	36	296	325	20.59	0.24	100	100.0	296
Colowyo (US) (k)	O/C	SC	17	3	17	3	20	25	23.84	0.44	100	100.0	20
Cordero Rojo (US) (l)	O/C	SC	300	65	300	65	365	241	19.54	0.30	100	100.0	365
Decker (US)	O/C	SC	9		9		9	12	21.98	0.53	100	50.0	4
Jacobs Ranch (US)	O/C	SC	299	47	299	47	346	383	20.35	0.43	100	100.0	346
Spring Creek (US)	O/C	SC	238	49	238	49	287	295	21.75	0.33	100	100.0	287
Sub-total													1,318

See notes on page 116

	Type of mine (a)	Coal type (i)	Reserves		Marketable reserves		Marketable reserves		Marketable coal quality		Average % Yield to give marketable reserves	Interest %	Marketable reserves
			Proved at end 2008	Probable at end 2008	Proved at end 2008	Probable at end 2008	Total 2008	Total 2007	Calorific value MJ/kg (j)	Sulphur content % (j)			
COAL (h) (continued)													
Rio Tinto Coal Australia													
Bengalla (Australia)	O/C	SC	94	81	70	62	132	137	28.21	0.47	75	30.3	40
Blair Athol (Australia)	O/C	SC	33	0.5	29	0.3	29	37	26.17	0.31	87	71.2	21
Hail Creek (Australia)	O/C	MC	145	102	93	73	167	174	32.20	0.35	68	82.0	137
Hunter Valley Operations (Australia) (m)	O/C	SC+MC	390	94	267	63	330	298	28.78	0.57	68	75.7	250
Kestrel Coal (Australia)	U/G	SC+MC	58	100	49	83	131	136	31.60	0.59	83	80.0	105
Mount Thorley Operations (Australia)	O/C	SC+MC	31	5	21	3	24	23	29.41	0.43	65	60.6	14
Warkworth (Australia) (n)	O/C	SC+MC	241	185	157	121	278	242	30.67	0.44	65	42.1	117
Sub-total													684
Total reserves at operating mines													
2,002													
Other undeveloped reserves (o)													
Rio Tinto Coal Australia													
Clermont (Australia)	O/C	SC	193	5	185	4	189	189	27.90	0.33	96	50.1	95
Mount Pleasant (Australia)	O/C	SC		459		350	350	350	26.73	0.51	76	75.7	265
Total undeveloped reserves													
360													
COPPER													
Reserves at operating mines													
Bingham Canyon (US)	O/P		359	0.53	259	0.39	618	612	0.47	0.51	86	100.0	2,525
Escondida (Chile)													
– sulphide	O/P		732	1.16	958	1.05	1,690	1,704	1.10	1.14	85	30.0	4,756
– sulphide leach	O/P		717	0.55	1,486	0.54	2,202	2,399	0.54	0.55	33	30.0	1,177
– oxide (p)	O/P		88	0.87	48	1.07	137	158	0.94	0.88	68	30.0	0,264
Grasberg (Indonesia)	O/P+U/G		823	1.11	1,842	0.97	2,665	2,712	1.01	1.04	89	(q)	7,201
Northparkes (Australia)													
– open pit and stockpiles (r)	O/P		7.2	0.53	2.7	0.37	9.8	0.7	0.48	0.69	85	80.0	0.032
– underground (s)	U/G				81	0.83	81	47	0.83	0.97	89	80.0	0.478
Palabora (South Africa) (t)	U/G		91	0.62			91	104	0.62	0.62	88	57.7	0.284
Total													
16,718													
Reserves at development projects													
Eagle (US) (u)	U/G				3.6	2.93	3.6	3.2	2.93	3.04	95	100.0	0.102
Oyu Tolgoi (Mongolia)													
– Southern Oyu	O/P		127	0.58	803	0.48	930	930	0.50	0.50	87	9.9	0.399
Total													
0.500													
DIAMONDS (b)													
Reserves at operating mines													
Argyle (Australia)	O/P+U/G		19	1.3	70	2.3	89	94	2.1	2.1	100.0		188.6
Diavik (Canada) (v)	O/P+U/G		7	2.7	13	3.4	20	22	3.1	3.5	60.0		37.9
Murowa (Zimbabwe)	O/P				21	0.7	21	21	0.7	0.7	77.8		11.0
Total													
237.6													

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Ore reserves continued

	Type of mine (a)	Proved ore reserves at end 2008		Probable ore reserves at end 2008		Total ore reserves 2008 compared with 2007				Average mill recovery %	Rio Tinto share	
		Tonnage	Grade	Tonnage	Grade	Tonnage		Grade			Interest %	Recoverable metal
						2008	2007	2008	2007			
		millions of tonnes	grammes per tonne	millions of tonnes	grammes per tonne	millions of tonnes	millions of tonnes	grammes per tonne	grammes per tonne			millions of ounces
GOLD												
Reserves at operating mines												
Bingham Canyon (US)	O/P	359	0.30	259	0.23	618	612	0.27	0.29	64	100.0	3.396
Cortez/Pipeline (US) (w)	O/P+U/G					–	130	–	2.73	–		–
Grasberg (Indonesia)	O/P+U/G	823	1.11	1,842	0.79	2,665	2,712	0.89	0.90	70	(q)	13.785
Greens Creek (US) (x)	U/G					–	7.7	–	3.68	–		–
Northparkes (Australia)												
– open pit and stockpiles (r)	O/P	7.2	0.40	2.7	0.20	9.8	0.7	0.34	0.58	76	80.0	0.066
– underground (s)	U/G			81	0.31	81	47	0.31	0.40	73	80.0	0.470
Total												17.717
Reserves at development project												
Oyu Tolgoi (Mongolia)												
– Southern Oyu	O/P	127	0.93	803	0.27	930	930	0.36	0.36	71	9.9	0.753
												Marketable product
												millions of tonnes
IRON ORE (b)												
Reserves at operating mines												
Corumbá (Brazil) †	O/P	102	66.9	107	67.0	209	210	67.0	67.0	100.0		209
Hamersley Iron wholly owned (Australia)												
– Brockman 2 (Brockman ore) (y)	O/P	14	62.7	6	62.8	20	25	62.7	62.7	100.0		20
– Brockman 4 (Brockman ore)	O/P	366	62.2	255	61.9	621	570	62.0	62.3	100.0		621
– Marandoo (Marra Mamba ore) (z)	O/P	52	62.0	7	59.6	59	50	61.7	61.7	100.0		59
– Mt Tom Price (Brockman ore) (aa)	O/P	41	64.1	52	64.6	93	125	64.4	64.4	100.0		93
– Mt Tom Price (Marra Mamba ore)	O/P	31	61.4	3	59.4	34	33	61.2	61.2	100.0		34
– Nammuldi (Marra Mamba ore)	O/P	21	61.4	3	60.0	24	30	61.3	61.2	100.0		24
– Paraburdoo (Brockman ore) (bb)	O/P	10	63.6	4	62.9	14	28	63.4	63.9	100.0		14
– Paraburdoo (Marra Mamba ore)	O/P			0.9	63.1	0.9	0.8	63.1	63.3	100.0		0.9
– Western Turner Syncline (Brockman ore) (cc)	O/P	222	62.5	92	60.6	313	–	61.9	–	100.0		313
– Yandicoogina (Pisolite ore HG) (dd)	O/P	225	58.5	4	58.5	229	277	58.5	58.7	100.0		229
– Yandicoogina (Process Product) (ee)	O/P	146	58.2			146	119	58.2	58.5	100.0		146
Hamersley Iron – Channar (Australia)												
– Brockman ore (ff)	O/P	67	63.4	22	63.0	89	106	63.3	63.4	60.0		54
Hamersley Iron – Eastern Range (Australia)												
– Brockman ore (ff)	O/P	63	63.0	22	63.0	85	111	63.0	63.2	54.0		46
Hope Downs (Marra Mamba ore)	O/P	28	61.8	315	61.4	343	344	61.4	61.4	50.0		172
Iron Ore Company of Canada (Canada) (gg)	O/P	394	65.0	176	65.0	571	538	65.0	65.0	58.7		335
Robe River (Australia)												
– Pannawonica (Pisolite ore)	O/P	250	57.3	37	56.6	287	304	57.2	57.2	53.0		152
– West Angelas (Marra Mamba ore)	O/P	178	62.1	195	61.5	373	392	61.8	61.8	53.0		198
Total												2,720
												Recoverable metal
												millions of tonnes
LEAD												
Reserves at operating mine												
Greens Creek (US) (x)	U/G					–	7.7	–	3.79	–		–

See notes on page 116

	Type of mine (a)	Proved ore reserves at end 2008		Probable ore reserves at end 2008		Total ore reserves 2008 compared with 2007				Average mill recovery %	Rio Tinto share	
		Tonnage	Grade	Tonnage	Grade	Tonnage		Grade			Interest %	Recoverable metal
		2008	2007	2008	2007	2008	2007	2008	2007			
MOLYBDENUM		millions of tonnes	%Mo	millions of tonnes	%Mo	millions of tonnes	millions of tonnes	%Mo	%Mo			millions of tonnes
Reserves at operating mine												
Bingham Canyon (US) (hh)	O/P	359	0.044	259	0.044	618	612	0.044	0.045	67	100.0	0.182
NICKEL		millions of tonnes	%Ni	millions of tonnes	%Ni	millions of tonnes	millions of tonnes	%Ni	%Ni			millions of tonnes
Reserves at development project												
Eagle (US) (u)	U/G			3.6	3.47	3.6	3.2	3.47	3.9	84	100.0	0.106
SILVER		millions of tonnes	grammes per tonne	millions of tonnes	grammes per tonne	millions of tonnes	millions of tonnes	grammes per tonne	grammes per tonne			millions of ounces
Reserves at operating mines												
Bingham Canyon (US)	O/P	359	2.43	259	1.80	618	612	2.16	2.35	73	100.0	31.576
Grasberg (Indonesia)	O/P+U/G	823	4.30	1,842	4.25	2,665	2,712	4.26	4.11	70	(q)	82.693
Greens Creek (US) (x)	U/G					–	7.7	–	471	–		–
Total												114.269
												Marketable product
TALC (g)		millions of tonnes		millions of tonnes		millions of tonnes	millions of tonnes					millions of tonnes
Reserves at operating mines												
Rio Tinto Minerals – talc (ii) (Europe/North America/Australia)	O/P+U/G	24.3		6.2		30.6	33.5			100.0		30.6
TITANIUM DIOXIDE FEEDSTOCK (g)		millions of tonnes		millions of tonnes		millions of tonnes	millions of tonnes					millions of tonnes
Reserves at operating mines												
QIT (Canada)	O/P	28.6		23.5		52.1	53.5			100.0		52.1
QMM (Madagascar)	D/O	11.8		0.5		12.2	12.4			80.0		9.8
RBM (South Africa)	D/O	5.7		18.6		24.3	24.2			50.0		12.1
Total												74.1
												Recoverable metal
URANIUM		millions of tonnes	%U ₃ O ₈	millions of tonnes	%U ₃ O ₈	millions of tonnes	millions of tonnes	%U ₃ O ₈	%U ₃ O ₈			millions of tonnes
Reserves at operating mines												
Energy Resources of Australia (Australia) – Ranger #3	O/P	27.0	0.135	3.2	0.232	30.2	32.1	0.146	0.155	86.38	68.4	0.026
Rössing (Namibia) (jj)	O/P	34.2	0.035	156.1	0.034	190.3	150.2	0.034	0.037	85.00	68.6	0.038
Total reserves at operating mines												0.064
ZINC		millions of tonnes	%Zn	millions of tonnes	%Zn	millions of tonnes	millions of tonnes	%Zn	%Zn			millions of tonnes
Reserves at operating mine												
Greens Creek (US) (x)	U/G					–	7.7	–	10.18	–		–

See notes on page 116

Notes

- (a) Type of mine: O/P = open pit, O/C = open cut, U/G = underground, D/O = dredging operation.
 - (b) Reserves of iron ore, bauxite and diamonds are shown as recoverable reserves of marketable product after accounting for all mining and processing losses. Mill recoveries are therefore not shown.
 - (c) Following completion of drilling, economic and technical studies at Gove, reserves have increased.
 - (d) The increase in reserves at Porto Trombetas operations results from updated models incorporating additional drilling.
 - (e) Following the completion of technical and economic studies Sangaredi reserves are presented for the first time.
 - (f) Following economic and technical studies at Weipa, reserves have increased.
 - (g) Reserves of industrial minerals are expressed in terms of marketable product, i.e. after all mining and processing losses. In the case of borates, the marketable product is B_2O_3 .
 - (h) For coal, the yield factors shown reflect the impact of further processing, where necessary, to provide marketable coal.
 - (i) Coal type: SC = steam/thermal coal; MC = metallurgical/coking coal.
 - (j) Analyses of coal from the US were undertaken according to 'American Standard Testing Methods' (ASTM) on an 'As Received' moisture basis whereas the coals from Australia have been analysed on an 'Air Dried' moisture basis according to Australian Standards (AS). MJ/kg = megajoules per kilogramme.
 - (k) During 2008, Rio Tinto acquired a 100 per cent interest in the Colowyo mine, having previously held a partnership interest. The decrease in reserves follows production.
 - (l) Reserves at Cordero Rojo have increased following the acquisition of a federal lease, drilling and technical studies.
 - (m) Hunter Valley reserves increased commensurate with technical and economic studies, followed by pit redesigns.
 - (n) Updated economic studies have led to an increase in reserves at Warkworth.
 - (o) The term 'other undeveloped reserves' is used here to describe material that is economically viable on the basis of technical and economic studies but for which mining and processing permits may have yet to be requested or obtained. There is a reasonable, but not absolute, certainty that the necessary permits will be issued and that mining can proceed when required.
 - (p) Changes in the Escondida reserves resulted from technical studies.
 - (q) Under the terms of a joint venture agreement between Rio Tinto and FCX, Rio Tinto is entitled to a direct 40 per cent share in reserves discovered after 31 December 1994 and it is this entitlement that is shown.
 - (r) Open pit reserves at Northparkes have increased as a result of upgrading of resources.
 - (s) The increase in underground reserves at Northparkes results from updated models following additional drilling, technical studies and the application of new economic parameters.
 - (t) Production, combined with technical updates have led to a reduction of reserves at Palabora.
 - (u) Additional drilling, mine design changes and upgrade of resources have yielded further reserves at Eagle.
 - (v) Production depletion and technical studies have resulted in a slight decrease in grade of the remaining reserve at Diavik.
 - (w) On 5 March 2008, Rio Tinto completed the sale of its interest in the Cortez joint venture to its partner.
 - (x) On 16 April 2008, Rio Tinto completed the sale of its interest in the Greens Creek joint venture to its partner.
 - (y) Hamersley Iron – Brockman 2 reserves decreased commensurate with production and pit redesigns.
 - (z) An increase in Marandoo reserves resulted from upgrade of resources, a new geological model and pit redesign.
 - (aa) A model update followed by pit redesign led to decreased Mt Tom Price (Brockman ore) reserves.
 - (bb) A decrease in Paraburdoo (Brockman ore) reserves followed from production depletion and a pit redesign.
 - (cc) Following completion of technical and economic studies the reserve at Western Turner Syncline is reported for the first time.
 - (dd) Yandicoogina (pisolite ore HG) reserves reduced as a result of production and technical studies.
 - (ee) Remodelling and technical studies led to reserve increases for Yandicoogina (process product).
 - (ff) Channar and Eastern Range reserve depletions result from production, technical studies and pit redesign.
 - (gg) Reserves at Iron Ore Company of Canada (IOC) are reported as marketable product, using process upgrade factors derived from current IOC concentrating and pellet operations. The mined material equivalent is 1,393 million tonnes at 38 per cent iron.
 - (hh) Molybdenum grades reflect reconciliation of model and plant grades.
 - (ii) Rio Tinto Minerals – Talc reserves declined with production and mine redesigns.
 - (jj) Reserves at Rössing have increased as a result of conversion of resources to reserves and the development of a new pit design incorporating a new resource model and results from additional drilling.
- † In January 2009, Rio Tinto announced that it had signed a definitive agreement to sell its 100 per cent interest in the Corumbá mine.