

Reference Sites

ELECTRO-REFINING- as at February, 2017	Year	kT Cu
Copper Refineries Ltd, Townsville, Australia #	1978/1998/2005	300
Copper Range Company, White Pine, USA*	1982	70
(Falconbridge) - Kidd Creek, Canada*	1986	147
Olympic Dam Operations, Roxby Downs, Australia	1988/1998	230
Montanwerke Brixlegg, Austria	1988	75
Norddeutsche Affinerie AG, Hamburg, Germany	1989/1992	370
Freeport Miami, Claypool, USA *	1994	190
Huttenwerke Kayser AG, Lunen, Germany #	1994	180
Kennecott Utah Copper, USA #	1994	280
Atlantic Copper SA, Huelva, Spain #	1995	258
Boliden Mineral AB, Skellefthamn, Sweden #	1995/2000	240
Cumerio, Ole, Belgium (formerly UM) now Aurubis	1996	350
Sterlite Industries, Silvassa, India	1996/2001	175
Minera Mexico, La Caridad, Mexico	1997	300
LS-Nikko Refinery #2, South Korea	1997	160
PT Smelting Company, Gresik, Indonesia	1998/2003	230
Hindalco Industries (Birla Copper), Dahej, India	1998/2001/2005	500
Canadian Copper Refinery (CCR), Canada #	1998	360
Port Kembla Copper, Port Kembla, Australia *#	2000	120
LS-Nikko Refinery #2 Expansion, South Korea	2001	60
Pan Pacific Copper, Hitachi, Japan	2002	180
Jiangxi Copper Company, Guixi, China	2003/2007	400
Jhagadia Copper (SWIL), Bharuch, India*	2004	50
Thai Copper Industries Public Co Ltd, Rayong, Thailand*	2004	165
Codelco Chuquibambilla Division, Chile #	2004	870.5
Sterlite Industries, Tuticorin, India	2005/2006	195
Sumitomo Toyo, Japan	2005	150
LS-Nikko Refinery #1, South Korea #	2005	275
Pan Pacific Copper, Tamano, Japan	2006	150
Pan Pacific Copper, Saganoseki, Japan	2006	187
Jinlong Copper Co., China	2006	100
Pasar, Lide, Philippines #	2007/2016	220
Pirdop, Bulgaria, Aurubis	2009	180
Kazzinc, Ust Kamenogorsk, Kazakhstan	2011	80
Yunnan Copper Co., China	2010	180
Sterlite Industries, Tuticorin 4LTPA Project, India	NYC	400
Tongling Non Ferrous Co. Stage One	2013	200
Yunnan Tin Co., China	2012	150
Pan Pacific Copper, Tamano, Japan #	2014	120
Mopani Copper Mines, Mufulira, Zambia#	2016	225

Electrorefining Total (Licences and Capacity)

40 9,072,500

Reference Sites

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BHAS Port Pirie, Australia	1985	5
Gibraltar Mines Ltd, McLeese Lake	1986	5
BHP Copper, San Manuel, USA*	1986/1988	60
BHP Copper, Pinto Valley, Miami, USA	1989	12
Buena Vista del Cobre (Cananea)	1989/1990/2001	60
Birla Minerals, Mt Gordon, Australia (formerly Gunpowder)*	1990/1998	45
Mount Isa Mines Limited, Australia*	1990	3.5
Compania Minera Disputa De Las Condes SA, El Soldada Chile	1992	6.5
Birla Minerals, Nifty Copper, Australia	1993/2000	43
Straits Resources, Girilambone Copper, Australia (now Whim Creek)*	1993	15
Escondida Coloso, Antofagasta, Chile *	1994	80
Compania Minera Quebrada Blanca SA, Iquique, Chile	1994	83
Minera Michilla SA, Chile	1994	27
Codelco Quebrada M, El Salvador, Chile	1994	26
Codelco Chuqui LGSO, Chiquicamata, Chile	1994	20
Compania Minera Cerro Colorado Ltd, Iquique, Chile	1994/1998	120
Compania Minera Zaldivar, Antofagasta, Chile	1995	130
Mexicana de Cobre, La Caridad, Mexico	1995	22
Freeport, South Side, Morenci, USA	1995/1998	140
Southern Peru Copper, Toquepala, Peru	1995/1999	50
Empresa Minera de Mantos Blancos Mantoverde, Chile	1995	40
Empresa Minera de Mantos Santa Barbara, Chile	1995	40
Impala Platinum Limited, Springs, South Africa #	1996	10
Hellenic Copper Mines Ltd, Nicosia, Cyprus*	1996	8
Great Australia Copper Mine, Cloncurry, Australia*	1996	6.5
Matrix Metals, Cloncurry, Australia*	1996	5.5
Compania Minera Carmen de Andacollo, Chile	1996	20
Sociedad Contractual Minera El Abra, Chile	1996	225
Codelco Chuqui Ripios, Chuquicamata, Chile	1997	65
NICICO National Iranian Copper Industries Co, Sarchesmeh, Iran	1997	15
Asarco Inc., Silver Bell, USA	1997	16.5
Codelco Radomiro Tomic, Chile	1997	150
Myanmar Ivanhoe Copper Company, Yangon, Myanmar	1998	25
Compania Minera Disputada De Las Condes, Los Bronces, Chile	1998	7
Freeport, Central, Morenci, USA #	1998	140
Glencore Lomas Bayas, Chile	1998	60
Compania Minería Dona Ines de Collahuasi, Chile	1998	55
Minera Escondida Ltda., Chile	1998	137
Minera Maria Mariquita, Mexico	1998	18
Radomiro Tomic Expansion, Chile	1999	80
Equatorial Tonopah Inc., Tonopah, USA *	2000	25
Disputada Los Bronces, Chile	2000	18
Glencore Tintaya, Peru	2000	25
Vale Copper Cliff, Canada #	2000	20

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Freeport, Stargo, Morenci, USA	2001	112
Minera El Tesoro, Sierra Gorda, Chile	2001	75
Norilsk Nickel, Severonickel, Monchegorsk, Russia	2001	15
Umicore, Hoboken, Belgium	2003	40
Korea Zinc, Onsan, Korea	2004	15
Kansanshi Mining plc, Zambia	2005/2006/2008/2013	180
Mantos De La Luna, Chile	2005	20
Escondida Sulphide Leach, Chile	2006	180
Frontera Copper, Piedras Verdes, Mexico	2006	32
Carlota Copper Company, Claypool, USA	2008	26
Freeport Safford, Arizona, USA	2008	110
Compania Minera Riochilex (BHP-Billiton), Spence, Chile	2006	200
Mopani Copper Mines, Nkana, Zambia #	2006	40
Lady Annie, CopperCo, Australia	2007	19
Whim Creek, Straits Resources, Australia*	2007	15
Codelco, Gaby, Chile	2007	150
Browns Oxides, Compass Resources NL*	2007	10
Chelopech, Dundee Precious Metals, Bulgaria	NYC	20
Tenke Fungurume Mining Sarl, DRC	2009/2012	200
Kamoto Copper Co, DRC	2009/2010/2012	200
Mutanda Mining Sarl, DRC	2010/2011/2013	200
Kinsevere, AMCK Mining Sarl, DRC	2011	60
Kansuki Mining sprl, DRC	2011	100
Somika sprl, DRC	2011	15
Newmont, Phoenix, USA	2013	9
Kipoi, DRC	2014	50
Ongopolo Mining, Tschudi, Namibia	2014	17
Wanbao Mining, NORINCO Intl. Myanmar	2015	150
Vale, Long Harbor, Newfoundland, Canada	2016	4.5
Antucoya, Chile	2015	90
Chemaf Etoile, DRC	2016	20
Wetar, Indonesia	2016	20

Electrowinning Total (Licencees and Capacity) 76 4,559,000

Combined EW and ER TOTAL 116 13,631,500

notes:

*not in operation

converted from starter sheet