

South Australia's Major Operating/Approved Mines  
Resource Estimates and Production Statistics



Prepared by DSD 18/02/2018

Major Operating/Approved Mines	Commodity	Status	Total Resource (unless otherwise stated)	Ore Reserve	Contained Commodity (from Resource)	Annual Production
Olympic Dam – BHP Billiton Olympic Dam Operations Pty Ltd <a href="http://www.bhpbilliton.com">www.bhpbilliton.com</a>	Cu-U-Au-Ag	Operating	10 400 Mt at 0.77% Cu, 0.25 kg/t U <sub>3</sub> O <sub>8</sub> , 0.32 g/t Au, 1.0 g/t Ag <i>Annual Report 2016</i>	505 Mt at 1.96% Cu, 0.58 kg/t U <sub>3</sub> O <sub>8</sub> , 0.71 g/t Au, 4.0 g/t Ag <i>Annual Report 2016</i>	(total resource, sulphide only) 80 080 000 t Cu 2 525 000 t U <sub>3</sub> O <sub>8</sub> 97 416 763 oz Au 324 722 544 oz Ag (reserve) 9 898 000 t Cu 285 560 t U <sub>3</sub> O <sub>8</sub> 11 515 111 oz Au 62 243 845 oz Ag	2016–17: 166 300 t Cu (cathode), 3661 t UOC, 104 146 oz Au, 768 000 oz Ag <i>qtr rpt June 2017</i>
Prominent Hill – OZ Minerals Prominent Hill Operations Pty Ltd <a href="http://www.ozminerals.com">www.ozminerals.com</a>	Cu-Au-Ag	Operating	140 Mt (copper resource) at 1.2% Cu, 0.5 g/t Au and 3 g/t Ag  25 Mt (gold resource) at 0.1% Cu, 1.3 g/t Au and 2 g/t Ag <i>ASX Release 22/11/17</i>	74 Mt at 1.0% Cu, 0.6 g/t Au and 3.0 g/t Ag <i>ASX Release 22/11/17</i>	copper resource 1 600 000 t Cu, 2 500 000 oz Au and 13 000 000 oz Ag gold resource 20 000 t Cu, 970 000 oz Au, 1 300 000 oz Ag <i>ASX Release 22/11/17</i> 740 000 t Cu, 1 500 000 oz Au, 7 000 000 oz Ag <i>ASX Release 22/11/17</i>	2016–17: 111 756 t Cu, 118 942 oz Au and 842 672 oz Ag (in conc.) <i>qtr rpt June 2017</i>
Kanmantoo – Hillgrove Resources Limited <a href="http://www.hillgroveresources.com.au">www.hillgroveresources.com.au</a>	Cu-Au-Ag	Operating	34.5 Mt at 0.6% Cu, 0.10 g/t Au, 1.2 g/t Ag <i>ASX release 18/10/16</i>	9.5 Mt at 0.6% Cu, 0.07 g/t Au, 1.0 g/t Ag <i>ASX release 18/10/16</i>	Resource: 211 000 t Cu, 113 813 oz Au and 1 331 040 oz Ag <i>ASX release 18/10/16</i> Reserve: 57 000 t Cu, 21 380 oz Au and 305 432 oz Ag <i>ASX release 18/10/16</i>	2016–17: 13 987 t Cu, 6 775 oz Au, 103 885 oz Ag (in conc) <i>qtr rpt June 2017</i>
Hillside – Rex Minerals Ltd <a href="http://www.rexminerals.com.au">www.rexminerals.com.au</a>	Cu-Au	ML granted (PEPR pending)	337 Mt at 0.6% Cu, 0.14 g/t Au <i>ASX release 25/5/15</i>	82 Mt at 0.62% Cu, 0.16 g/t Au <i>ASX release 25/5/15</i>	(resource) 1 967 600 t Cu 1 416 240 oz Au <i>ASX release 25/5/15</i> (reserve) 509 262 t Cu 431 504 oz Au <i>ASX release 25/5/15</i>	proposed: 6 Mtpa for 35 000 t Cu, 24 000 oz Au as Cu-Au conc, first 12 years <i>Ext Feas Study May 2015</i>
Middleback Range – SIMEC Mining <a href="http://www.simec.com/mining">www.simec.com/mining</a>	Fe <sub>2</sub> O <sub>3</sub> , Fe <sub>3</sub> O <sub>4</sub>	Operating	Hematite 183.3 Mt at 56.7% Fe Magnetite 179.0 Mt at 36.6% DTR and 34.8% Fe  beneficiated hematite stockpile 57.4 Mt at 45.9% Fe <i>ASX release 19/08/15</i>	Hematite reserves 23.1 Mt at 57.9% Fe, 5.8% SiO <sub>2</sub> , 2.8% Al <sub>2</sub> O <sub>3</sub> , 0.05% P Magnetite reserves 61.9 Mt at 39.6% DTR and 38.3% Fe, 19.9% SiO <sub>2</sub> Beneficiated hematite stockpile 15.9 Mt (52% recovery) 61.0% Fe <i>ASX release 19/08/15</i>	Resource: 103 900 000 t Fe (hematite) 62 300 000 t Fe (magnetite) 26 300 000 t Fe (stockpile) <i>(MRD estimate)</i> Reserve: 13 300 000 t Fe (hematite) 23 700 000 t Fe (magnetite) <i>(MRD estimate)</i>	2016–17: ~9.5 Mt iron ore
Cairn Hill – Cu-River Mining Australia Pty Limited	Fe <sub>3</sub> O <sub>4</sub> , Cu, Au	Operating	11.4 Mt at 49.5% Fe (magnetite) 0.4% Cu and 0.1 g/t Au	6.9 Mt at 51.2% Fe, 0.43% Cu, 0.13 g/t Au (Phase 1 pit area 28/12/09)	5 643 000 t Fe <i>(MRD estimate)</i>	2016–17: ~0.6 Mt magnetite concentrate, ramping up to 3 Mtpa by 2018
Peculiar Knob – Southern Iron Pty Ltd (Subject to Deed of Company Arrangement) <a href="http://www.simec.com/mining">www.simec.com/mining</a>	Fe <sub>2</sub> O <sub>3</sub>	Care and Maint.	Southern Iron (Peculiar Knob and Hawks Nest) Hematite resources 34.2 Mt at 61.0% Fe, 9.75% SiO <sub>2</sub> , 1.1% Al <sub>2</sub> O <sub>3</sub> , 0.05% P <i>2014 ore statement</i>	Southern Iron (Peculiar Knob and Hawks Nest) Hematite reserves 19.7 Mt at 61.8% Fe, 0.03% P (as at June 2014, no reserve declared June 2015) <i>2014 ore statement</i>	Southern Iron Hematite contained resource 25 200 000 t Fe <i>(MRD estimate)</i> no reserve declared June 2015	N/A <i>qtr rpt June &amp; December 2015</i>
Central Eyre Iron Project – Iron Road Limited <a href="http://www.ironroadlimited.com.au">www.ironroadlimited.com.au</a>	Fe <sub>3</sub> O <sub>4</sub>	ML granted (PEPR pending)	4 510 Mt (meas. ind. & inf.) at 16.0% Fe, 53.0% SiO <sub>2</sub> , 13.0% Al <sub>2</sub> O <sub>3</sub> , 0.08% P and 3.5% LOI <i>ASX release 27/02/15</i>	3 681 Mt (prov. and prob.) at 15.07% Fe, 53.7% SiO <sub>2</sub> , 12.06% Al <sub>2</sub> O <sub>3</sub>	~721 600 000 t Fe (resource) <i>(MRD estimate)</i> ~554 700 000 t Fe (reserve)	~21.5 Mtpa, 67% Fe conc. +25 year mine life
Wilgerup – Centrex Metals Limited <a href="http://www.centremetals.com.au">www.centremetals.com.au</a>	Fe <sub>2</sub> O <sub>3</sub>	PEPR Approved	13.3 Mt (ind.) at 57.7% Fe, 4.9% SiO <sub>2</sub> , 2.8% Al <sub>2</sub> O <sub>3</sub> , 5.1% LOI, 0.5% P <i>Annual Report 2015</i>		7 616 400 t Fe <i>(MRD estimate)</i>	proposed: 1–1.5 Mtpa

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Four Mile – Quasar Resources P/L	U	Operating	Four Mile 9.8 Mt at 0.33% U <sub>3</sub> O <sub>8</sub> Four Mile Northeast 7.5 Mt(inf.) at 0.30% U <sub>3</sub> O <sub>8</sub>		Four Mile 32 000 t U <sub>3</sub> O <sub>8</sub> Four Mile Northeast 22 680 t U <sub>3</sub> O <sub>8</sub>	2016: 1690 t UOC
Beverley – Heathgate Resources P/L <i>www.heathgate.com.au</i>	U	Operating	Beverley: 7.7 Mt at 0.27% U <sub>3</sub> O <sub>8</sub> Beverley North: 2.2 Mt at 0.18% U <sub>3</sub> O <sub>8</sub>		Beverley: 21 000 t U <sub>3</sub> O <sub>8</sub> Beverley North: 4000 t U <sub>3</sub> O <sub>8</sub> (0.15m% GT cut-off) (MRD estimate)	N/A
Honeymoon – Boss Resources Ltd <i>www.bossresources.com.au</i>	U	Care and Maint.	43.5 Mt at 660 ppm eU308 (includes Gould's Dam & Jason's) <i>ASX Release 15/03/17</i>	3.64 Mt (prob) at 0.063% U <i>ASX Release 31/12/12</i>	28 800 t U308 (resource) (includes Gould's Dam & Jason's) <i>ASX Release 16/09/16</i> 2 688 t U (reserve) <i>ASX Release 31/12/12</i>	proposed restart–400tpa for 12mths, stage2 –900tpa, stage3 –1450 tpa <i>ASX Release 31/05/17</i>
Jacinth-Ambrosia – Iluka Resources Limited <i>www.iluka.com</i>	HM	Operating	208.5 Mt material for 5.7 Mt in situ HM, 48.7% zircon, 26.4% ilmenite, 4.5% rutile <i>ASX release 20/02/2017</i>	103.4 Mt at 3.8% HM, for 3.95 Mt HM, 49.8% zircon, 27.3% ilmenite, 4.5% rutile <i>ASX release 20/02/2017</i>	2 766 200 t zircon, 1 502 400 t ilmenite, 257 272 t rutile, (of total resource) <i>ASX release 20/02/2017</i> (reserve) 1 961 778 t zircon, 739 715 t ilmenite, 177 262 t rutile <i>ASX release 20/02/2017</i>	2016: 247 000 t zircon, 37 600 t rutile, 113 000 t ilmenite (saleable and upgradeable) <i>qtr rpt June 2017</i>
Mindarie – Murray Zircon Pty Ltd <i>www.murrayzircon.com.au</i>	HM	Rehab.		48.1 Mt material at 3.7% HM for 1.8 Mt in situ HM, 19.9% zircon, 48.9% ilmenite, 5.0% rutile & 6.5% leucoxene <i>Website 01/01/16</i>	(reserve) 358 200 t zircon, 880 200 t ilmenite, 90 000 t rutile, 117 000 t leucoxene	N/A
Challenger – WPG Resources Ltd <i>www.wpgresources.com.au</i>	Au	Operating	1 621 000 t at 6.99 g/t Au <i>ASX release 29/09/17</i>	537 200 t at 5.60 g/t Au <i>ASX release 29/09/17</i>	364 000 oz Au (resource) <i>ASX release 29/09/17</i> 96 700 oz Au (reserve) <i>ASX release 29/09/17</i>	2016–17: 45 703 oz Au <i>qtr rpt June 2017</i>
Portia – Benagerie Gold Pty Ltd (100%subsidiary of Havilah Resources) <i>www.havilah-resources.com.au</i>	Au	Operating	720 000 t at 2.9 g/t Au (inf.)	53 200 oz Au (PEPR 17/12/2014)	67 000 oz Au	2016–17: 19 192 oz Au <i>ASX Release 20/07/2017</i>
White Dam – Exco Resources Ltd <i>www.whsp.com.au</i> Washington H. Soul Pattinson–owner (through subsidiary Exco)	Au	Operating	5.42 Mt at 0.97 g/t Au <i>website 11/08/2017</i>	5.4 Mt at 1.04g/t gold	169 400 oz Au (resource) <i>website 11/08/2017</i> 181 000 oz Au (reserve) (PEPR 01/01/2012)	2016: ~2500 oz Au
Tarcoola – WPG Resources Ltd <i>www.wpgresources.com.au</i>	Gold	Operating	1 600 000 t at 1.7 g/t Au <i>ASX Release 21/09/2017</i>	567 200t at 3.0 g/t Au <i>ASX Release 21/09/2017</i>	87 600 oz Au <i>ASX Release 21/09/2017</i> 54 300 oz Au <i>ASX Release 21/09/2017</i>	2017: 5 179 oz Au <i>qtr rpt June 2017</i>
Beltana – Perilya Limited <i>www.perilya.com.au</i>	Zn	Care and Maint.	Total resource 972 000 t at 29.8% Zn, (ind.) 375 600 t at 32.6% Zn (2009 remaining) 308 000 at 28% Zn	Stockpile depleted by 2011/12		N/A
Angas – Terramin Australia Limited	Pb, Zn, Cu, Au, Ag	Care and Maint.	1.29 Mt of 5.75% (combined zinc and lead) <i>Annual Mining Compliance Report 2016</i>	0.19 Mt at 8.27% Zn, 3.29% Pb, 0.22% Cu, 40 g/t Ag, 0.55 g/t Au		N/A <i>sept qtr rpt 2013</i>
Leigh Creek – Alinta Energy Group <i>www.alintaenergy.com</i>	Coal	Rehab.	900 Mt coal (upper series, middle series and lower series)	40 Mt coal (reserves to 2009)		2016 (final): 0.6 Mt coal
Uley – Quantum Graphite Operations Pty Ltd (Subject to Deed of Company Arrangement)	graphite	Care and Maint.	4.54 Mt at 11.63% TGC (3.5% cutoff) <i>ASX release 14/5/15</i>	2.917 Mt at 12.1% TGC <i>ASX Release 14/5/15</i>	520 000 t TGC (resource) 353 618 t TGC (reserve) <i>ASX Release 14/5/15</i>	Stage 1 up to 14 000tpa 2015 Stage 2 up to 64 000 tpa 2018/19
Campoona – Archer Exploration Limited <i>www.archerexploration.com.au</i>	graphite	ML granted (PEPR pending)	8.55 Mt at 9.0% Cg <i>ASX release 06/08/14</i>		~ 770 800 t Cg <i>ASX release 06/08/14</i>	campaign mine up to 10,000 tpa graphite concentrate over 16 year mine life

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Kookaburra Gully - Lincoln Minerals Limited <a href="http://www.lincolnminerals.com.au">www.lincolnminerals.com.au</a>	graphite	ML granted (PEPR pending)	2.03 Mt at 15.2% TGC (5% cutoff grade) <i>ASX release 17/5/17</i>		331 778 t TGC	proposed: Up to 40 000tpa TGC (up to 98%) <i>ASX Release 27/04/17</i>

Blank fields indicate parameters that have not been published by the company

\*Expansion underway or in approvals stage

\*\* Annual production published in company reports or reported to DSD if not published

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