

**South Australia's Developing Projects  
Resource Estimates and Production Statistics**



Prepared by DSD 24/11/2017

Developing Projects	Commodity	Status	Total Resource & Ore Reserve (unless otherwise indicated)	Estimated Contained Commodity (from Resource)	Proposed Annual Production
Carrapateena – OZ Minerals Carrapateena Pty Ltd <i>www.ozminerals.com</i>	Cu-Au-Ag	Assessment	134 Mt (ind. & inf.) at 1.5% Cu, 0.6 g/t Au, 6.5 g/t Ag <i>ASX Release 24/08/2017</i>  <b>Ore Reserve</b> 79 Mt (probable) at 1.8% Cu, 0.7 g/t Au, 8.5 g/t Ag <i>ASX Release 24/08/2017</i>	1 970 000 t Cu, 2 570 000 oz Au, 27 900 000 oz Ag <i>ASX Release 24/08/2017</i> (reserve) 1 400 000 t Cu, 1 800 000 oz Au, 22 000 000 oz Ag <i>ASX Release 24/08/2017</i>	4 Mtpa first 3 years: 66 000 tpa Cu, 80 000 ozpa Au LOM (20 years): 65 000 tpa Cu, 67 000 ozpa Au <i>ASX Release 24/08/2017</i>
Kalkaroo – Havilah Resources Limited <i>www.havilah-resources.com.au</i>	Cu-Au	Assessment	copper-gold 232.5 Mt at 0.49% Cu, 0.37 g/t Au gold cap 21.7 Mt at 0.74 g/t Au <i>ASX Release 29/03/17</i>	1 139 000 t Cu, 2 770 000 oz Au + 515 000 oz Au (in gold cap)	9 Mtpa ore for 34 000 tpa copper and 104 000 oz pa gold 14+ years
Khamsin – OZ Minerals Ltd <i>www.ozminerals.com</i>	Cu-Au-Ag	JORC Resource	202 Mt at 0.6% Cu, 0.1 g/t Au, 1.7 g/t Ag and 86 ppm U <i>ASX Release 26/05/14</i>	1.1 Mt Cu, 900 000 oz Au and 110 000 oz Ag	N/A
North Portia – Havilah Resources Limited <i>www.havilah-resources.com.au</i>	Cu-Au-Mo	JORC Resource	11.3 Mt (ind & inf) at 0.89 % Cu, 0.64 g/t Au, 500 g/t Mo <i>ASX Release 23/11/10</i>	101 095 t Cu, 232 514 oz Au, 5650 t Mo	N/A
Bungalow – Centrex Metals Limited <i>www.centrexmetals.com.au</i>	Fe <sub>3</sub> O <sub>4</sub>	JORC Resource	338 Mt at 29.6% Fe (34.3% DTR conc. at 69.7% Fe) includes Minbrie <i>ASX Release 25/05/12</i>	80 806 000 t Fe (MRD estimate)	5 Mtpa of magnetite concentrate production to be exported via a 100km slurry pipeline from Port Spencer
Snaefell – Cu-River Mining Australia Pty Limited <i>www.curiver.com.au</i>	Fe <sub>3</sub> O <sub>4</sub>	JORC Resource	569 Mt at 27.1% Fe (using 18% Fe cut-off)	<154 000 000 t Fe (MRD estimate)	Stage 3
Fusion – Eyre Iron Pty Ltd <i>www.eyreiron.com.au</i> <i>www.centrexmetals.com.au</i> Wuhan Iron & Steel (Group) Co.	Fe <sub>3</sub> O <sub>4</sub>	JORC Resource	969.4 Mt at 25.5% Fe, 48.7% SiO <sub>2</sub> (22.4% DTR at 66.9% Fe, 5.2% SiO <sub>2</sub> ) includes Koppio, Brennand, Kapperna, Iron Mount and Bald Hill deposits <i>ASX Release 17/09/15</i>	145 270 406 t Fe (MRD estimate)	N/A
Gum Flat – Lincoln Minerals Limited <i>www.lincolnminerals.com.au</i>	Fe <sub>2</sub> O <sub>3</sub> – Fe <sub>3</sub> O <sub>4</sub>	JORC Resource	109 Mt includes Barnes magnetite 88.9 mt at 23.5% Fe and 17.1% DTR	14 227 599 t Fe (MRD estimate)	N/A
Hawks Nest – Central Iron Pty Ltd (Subject to Deed of Company Arrangement) <i>www.simec.com/mining</i>	Fe <sub>2</sub> O <sub>3</sub> – Fe <sub>3</sub> O <sub>4</sub>	JORC Resource	102.5 Mt (ind. & inf.) at 37.4% Fe 569 Mt (meas. ind. & inf.) at 35% Fe	11 080 000 t Fe (hematite) and <199 150 000 t Fe (magnetite) (MRD estimate)	N/A
Maldorky – Havilah Resources Limited <i>www.havilah-resources.com.au</i>	Fe <sub>3</sub> O <sub>4</sub>	Assessment	147 Mt (ind.) at 30.1% Fe <i>ASX Release 10/6/11</i>	<44 247 000 t Fe (MRD estimate)	2.4 Mtpa. Start-up 1 Mtpa; studying options to 40 Mtpa
Mutooroo Magnetite – Minotaur Exploration Pty Ltd <i>www.minotaurexploration.com.au</i>	Fe <sub>3</sub> O <sub>4</sub>	JORC Resource	1.5 Bt magnetite at 15.2% Fe DTR and 69.8% Fe <i>ASX Release 24/11/11</i>	<159 000 000 t Fe (magnetite) (MRD estimate)	N/A
Razorback – Magnetite Mines Limited <i>www.magnetitemines.com</i> MOU with Sinosteel Resources	Fe <sub>3</sub> O <sub>4</sub>	Feasibility Studies	2 732 Mt (ind. & inf.) at 15.3% eDTR, 18.2% Fe, 48.1% SiO <sub>2</sub> , 8.0% Al <sub>2</sub> O <sub>3</sub> , 0.18% P = 418 Mt (contained conc. equivalent) 16.5% at 67.4 % Fe, 4.74% SiO <sub>2</sub> , 0.54% Al <sub>2</sub> O <sub>3</sub> , 0.016% P and 0.003% S Ironback 1.187(inf.)at 21% Fe, 44.1 SiO <sub>2</sub> ,7.2% Al <sub>2</sub> O <sub>3</sub> , 0.21% P <i>ASX Release 11/06/13</i>	Razorback 281 732 000 t Fe (MRD estimate)	9.3 Mtpa magnetite concentrate (67.4% Fe), proposed +25 year mine life
Crocker Well – Sinosteel Uranium SA Pty Ltd	U	JORC Resource	18.84 Mt (ind. & inf.) at 0.03% U <sub>3</sub> O <sub>8</sub> 250 000t (inf.) at 0.16% U <sub>3</sub> O <sub>8</sub>	5290 t U <sub>3</sub> O <sub>8</sub>	N/A
Gould's Dam – Boss Uranium Pty Ltd <i>www.bossresources.com.au</i>	U	JORC Resource	22.1 Mt (ind and inf) at 510 ppm eU <sub>3</sub> O <sub>8</sub> <i>ASX release 01/04/2016</i>	11 340 t U <sub>3</sub> O <sub>8</sub> <i>ASX release 8/04/16</i>	N/A
Junction Dam – Marmota Energy Limited <i>www.marmotaenergy.com.au</i>	U	JORC Resource	4.36 Mt at 0.044% (basal) and 0.025% (upper) eU <sub>3</sub> O <sub>8</sub> <i>ASX Release 18/11/11</i>	1 510 t eU <sub>3</sub> O <sub>8</sub>	N/A
Samphire – Samphire Uranium Ltd <i>www.samphireuranium.com.au</i>	U	JORC Resource	64.5 Mt at 230ppm (100ppm eU <sub>3</sub> O <sub>8</sub> cut-off grade-Blackbush deposit) <i>ASX release 27/09/13</i>	14 850 t eU <sub>3</sub> O <sub>8</sub>	N/A
Atacama – Iluka (Eucla Basin) Pty Ltd <i>www.iluka.com</i>	HM	Feasibility Studies	93.0 Mt (inf.) at 8.2 % HM, 7.63 Mt in-situ HM, 13% zircon, 2% rutile, 69% ilmenite <i>ASX Release 20/02/2017</i>	7 626 000 t HM, 1 442 210 t zircon, 152 520 t rutile, 1 006 020 t ilmenite (MRD estimate)	N/A

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**Government of South Australia**  
Department of State Development

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Sonoran – Iluka Resources Limited <i>www.iluka.com</i>	HM	Feasibility Studies	27.9 Mt (inf.) at 7.4% HM, 2 Mt in-situ HM, 17% zircon, 2% rutile, 67% ilmenite <i>ASX Release 20/02/2017</i>	2 064 600 t HM, 398 873 t zircon, 30 868 t rutile, 1 369 180 t ilmenite (MRD estimate)	N/A
Tripitaka – Iluka (Eucla Basin) Pty Ltd <i>www.iluka.com</i>	HM	JORC Resource	53.7 Mt (inf.) at 1.9% HM, 998 kt in-situ HM, 64.8% zircon, 4.8% rutile, 11.1% ilmenite <i>ASX Release 20/02/2017</i>	1 020 300 t HM, 646 704 t zircon, 47 904 t rutile and 110 778 t ilmenite (MRD estimate)	N/A
Typhoon – Iluka Resources Limited <i>www.iluka.com</i>	HM	Feasibility Studies	26.3 Mt (inf.) at 6.3% HM, 1.49 Mt in-situ HM, 13.2% zircon, 0.9% rutile, 62.7% ilmenite <i>ASX Release 20/02/2017</i>	1 656 900 t HM, 196 416 t zircon, 13 392 t rutile and 932 976 t ilmenite (MRD estimate)	N/A
Bird-in-Hand – Terramin Australia Limited <i>www.terramin.com.au</i>	Au	Developing Mining Proposal	588 000 t at 13.3 g/t Au and 6.0 g/t Ag <i>ASX release 10/08/16</i>	252 000 oz Au ASX release 10/08/16	N/A
Barns – Andromeda Metals Ltd <i>www.andromet.com.au</i>	Au	JORC Resource	2.11 Mt at 1.6 g/t Au	107 000 oz Au	N/A
Tunkillia – WPG Resources Ltd <i>www.wpgresources.com.au</i>	Au-Ag	Developing Mining Proposal	12.32 Mt at 1.41 g/t Au, 3.7 g/t Ag <i>ASX Release 04/02/15</i>	558 000 oz Au, 1.5 Moz Ag ASX Release 04/02/15	492 000 oz over 6 years ~70 000 ozpa
Flinders – Perilya Freehold Mining Pty Ltd <i>www.perilya.com.au</i>	Zn	JORC Resource	Reliance 308 000 t at 27.9% Zn and 1.5% Pb North Moolooloo (ind.) 214 000 t (ind.) at 34.36% Zn and 1.35% Pb	73 500 t Zn	N/A
Menninnie Dam – Terramin Australia Limited <i>www.terramin.com.au</i>	Zn-Pb-Ag	JORC Resource	7.7 Mt (inf.) at 3.1% Zn, 2.6% Pb and 27 g/t Ag	238 700 t Zn, 200 200 t Pb and 6 684 140 oz Ag (MRD estimate)	N/A
Paris – Investigator Resources Limited <i>www.investres.com.au</i>	Ag	Feasibility Studies	9.3 Mt (inf.) at 139 g/t Ag using 50 g/t silver cut-off <i>ASX Release 19/04/17</i>	42 Moz Ag (inf.) ASX release 19/04/17	N/A
Mutooroo – Havilah Resources Limited <i>www.havilah-resources.com.au</i>	Cu-Co	Feasibility Studies	13.1 Mt at 1.48% Cu, 0.14% Co <i>ASX Release 18/10/10</i>	192 000 t Cu, 17 500 t Co, 92 000 oz Au, 2.5 Mt sulphur	N/A
Arckaringa – Arckaringa Coal Chemical Joint Venture Co Pty Ltd <i>www.altonaenergy.com</i>	UCG	JORC Resource	7.8 billion t (nonJORC est.) sub-bituminous coal Wintinna JORC est. 1.287 billion tonnes – 187 Mt (meas.), 650 Mt (ind.) and 450 Mt (inf.)	Up to 7 Billion barrels of diesel/naphtha	N/A
Poochera – Minotaur Exploration Pty Ltd <i>www.minotaurexploration.com.au</i>	kaolin	JORC Resource	Carey's Well – 16.3 Mt (meas.) bright white kaolinised granite yielding 8 Mt of -45micron kaolin within 47.2 Mt (inf.) of white to off-white kaolinised granite  <b>Ore Reserve</b> Properties for Poochera hydrous – 90.7 ISO, 0.6 CIE b, 92% -2mm, 99% qz 0.1% kaolinite, 0.3% Fe <sub>2</sub> O <sub>3</sub> , 43.6% Al <sub>2</sub> O <sub>3</sub> , 0.07% TiO <sub>2</sub> , BDL <1.6ppm lead		N/A
Campoona – Archer Exploration Limited <i>www.archerexploration.com.au</i>	graphite	Assessment	8.55 Mt at 9.0% Cg <i>ASX release 06/08/14</i>	~ 770 800 t Cg ASX release 06/08/14	campaign mine up to 10,000 tpa graphite concentrate over 16 year mine life
Oakdale – Oakdale Resources Limited <i>www.oakdaleresources.com.au</i>	graphite	JORC Resource	6.22 Mt (ind. & inf.) at 4.8% TGC <i>ASX Release 27/10/15</i>	298 560 t graphitic carbon	94 500 tpa over 3 years
Sivour – Renascor Resources Limited <i>www.renascor.com.au</i>	graphite	Feasibility Studies	80.6 Mt (ind. & inf.) @ 7.9% TGC (3% cutoff grade) <i>ASX Release 17/03/17</i>	6.2 Mt TGC	N/A

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

\*Expansion studies underway

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

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