



30 March 2015

**ASX & MEDIA RELEASE**

**THUNDERBOX FEASIBILITY STUDY – ADDITIONAL INFORMATION**

**Saracen Mineral Holdings Limited (ASX:SAR)** (“Saracen” or the “Company”) refers to the Company announcement titled “Thunderbox Feasibility Study, Fully Funded Development Approval & Gold Hedging / Finance Facility” released to the ASX on 23 March 2015 and provide this additional information.

The announcement contained information from the Feasibility Study (“FS”) for the development of the Thunderbox Operations (“TBO”) referenced gold production and financial analysis.

The information on the Thunderbox Project Mineral Resources and Ore Reserves is extracted from the ASX announcement titled “2014 Mineral Resources and Ore Reserves” dated 9 October 2014 and the ASX announcement titled “2014 Mineral Resources and Ore Reserve Statement Explanatory Notes and Tables” dated 9 October 2014. Those reports are available on the ASX Website at [www.asx.com.au](http://www.asx.com.au) and on the Company’s website at [www.saracen.com.au](http://www.saracen.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources and Ore Reserves, that all market assumptions and technical assumptions underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

The relevant sections of those tables that relate to the Thunderbox Project Location is noted below in Tables 1 and 2 below.

GOLD MINERAL RESOURCES (JORC 2012 COMPLIANT)														
Location	District	Deposit	Measured			Indicated			Inferred			Total		
			tonnes	g/t	oz	tonnes	g/t	oz	tonnes	g/t	oz	tonnes	g/t	oz
Thunderbox	Thunderbox	Thunderbox				20,547,000	1.8	1,167,000	9,137,000	1.5	451,000	29,684,000	1.7	1,618,000
		Mangilla				726,000	2.1	48,000	278,000	2.1	19,000	1,004,000	2.1	67,000
		Rainbow	226,000	1.5	11,000	588,000	1.2	23,000	909,000	1.0	30,000	1,723,000	1.2	64,000
		<b>Thunderbox Sub-Total</b>	<b>226,000</b>	<b>1.5</b>	<b>11,000</b>	<b>21,861,000</b>	<b>1.8</b>	<b>1,238,000</b>	<b>10,324,000</b>	<b>1.5</b>	<b>500,000</b>	<b>32,411,000</b>	<b>1.7</b>	<b>1,749,000</b>
	Bannockburn	Bannockburn				8,979,000	2.0	564,000	3,152,000	1.6	161,000	12,131,000	1.9	725,000
		North Well				4,321,000	1.5	209,000	2,460,000	1.6	124,000	6,781,000	1.5	333,000
		<b>Bannockburn Sub-Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>13,300,000</b>	<b>1.8</b>	<b>773,000</b>	<b>5,612,000</b>	<b>1.6</b>	<b>285,000</b>	<b>18,912,000</b>	<b>1.7</b>	<b>1,058,000</b>
	All	<b>Thunderbox Mineral Resources</b>	<b>226,000</b>	<b>1.5</b>	<b>11,000</b>	<b>35,161,000</b>	<b>1.8</b>	<b>2,011,000</b>	<b>15,936,000</b>	<b>1.5</b>	<b>785,000</b>	<b>51,323,000</b>	<b>1.7</b>	<b>2,807,000</b>

Table 1: Thunderbox Project Gold Mineral Resources

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GOLD ORE RESERVES (JORC 2012 COMPLIANT)													
Location	District	Deposit	Mine Type	Proved Reserves			Probable Reserves			Total Ore Reserves			
				tonnes	g/t	oz	tonnes	g/t	oz	tonnes	g/t	oz	
Thunderbox	Thunderbox	Thunderbox	OP				10,727,000	1.7	593,000	10,727,000	1.7	593,000	
									0	0.0	0		
		<b>Thunderbox Sub-Total</b>			0	0.0	0	10,727,000	1.7	593,000	10,727,000	1.7	593,000
	Bannockburn	Bannockburn	OP				4,005,000	1.5	190,000	4,005,000	1.5	190,000	
										0	0.0	0	
		<b>Bannockburn Sub-Total</b>			0	0.0	0	4,005,000	1.5	190,000	4,005,000	1.5	190,000
All													
		<b>Thunderbox Ore Reserves</b>			0	0.0	0	14,732,000	1.7	783,000	14,732,000	1.7	783,000

Table 2: Thunderbox Project Gold Ore Reserves

### **Thunderbox Feasibility Study – Stage 1**

As advised in the The Thunderbox Feasibility Study release of 23 March 2014, and detailed in Table 2 in that release, the production targets advised for the Thunderbox open pit Stage 1 of 10,908,000 tonnes at 1.70g/t for 596,522 ounces is based on Indicated Resources of which 98.3%, or 10,727,000 tonnes at 1.7g/t for 593,000 ounces, is in Probable Reserves (refer Tables 1 & 2 above).

### **Thunderbox Underground – Stage 2**

The production forecasts for the Thunderbox Underground – Stage 2 is based on Indicated and Inferred Mineral Resources as per Table1 below:

Resource Category	Tonnes	Grade (g/t)	Ounces	Percentage of	
				Tonnes	Ounces
Indicated	3,058,640	2.15	211,052	59.3%	64.1%
Inferred	2,101,360	1.75	118,387	40.7%	35.9%
<b>Total</b>	<b>5,160,000</b>	<b>2.00</b>	<b>329,439</b>	<b>100.0%</b>	<b>100.0%</b>

Table 3: Resource categories for Thunderbox Feasibility Study – Stage 2

It should be noted that, in general, there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target will itself be realised. However, the Company also refers to the ASX announcement dated 23 March 2015 titled “Thunderbox Exploration Update” where additional deep drilling has been undertaken at Thunderbox and the results of which have not yet been incorporated into revised Reserve and Resources Statements.

### **Satellite Open Pits – Stage 3**

The production forecasts for the Satellite Open Pits – Stage 3 is based on three open pits, namely Bannockburn, Rainbow and Mangilla each of which have a different mix of reserve and resource material categories which are individually detailed in the tables below.

Bannockburn production forecast is based entirely on Probable Ore Reserves (refer Table 2 above).

Mangilla production forecast is based on predominately Indicated and a small portion of Inferred Mineral Resources:

Resource Category	Tonnes	Grade (g/t)	Ounces	Percentage of	
				Tonnes	Ounces
Indicated	373,082	2.13	25,519	93.7%	96.3%
Inferred	24,917	1.20	979	6.3%	3.7%
<b>Total</b>	<b>398,000</b>	<b>2.07</b>	<b>26,498</b>	<b>100.0%</b>	<b>100.0%</b>

Table 4: Resource categories for Mangilla Open Cut within Thunderbox Feasibility Study – Stage 3

It should be noted that, in general, there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target will itself be realised.

Rainbox production is based on Measured, Indicated and Inferred Mineral Resources:

Resource Category	Tonnes	Grade (g/t)	Ounces	Percentage of	
				Tonnes	Ounces
Measured	159,414	1.45	7,409	30.7%	34.6%
Indicated	269,607	1.22	10,602	51.8%	49.5%
Inferred	90,979	1.16	3,389	17.5%	15.8%
<b>Total</b>	<b>520,000</b>	<b>1.28</b>	<b>21,400</b>	<b>100.0%</b>	<b>100.0%</b>

Table 5: Resource categories for Rainbow Open Cut within Thunderbox Feasibility Study – Stage 3

It should be noted that, in general, there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target will itself be realised.

## **Material Assumptions**

The material assumptions as stated in the Feasibility Study are applicable to all 3 Stages of the TBO development.

Operating costs were derived from a number of sources and methodologies including:-

- Open Pit and underground mine designs and detailed mine schedule prepared by Saracen personnel;
- Contract equipment hire and maintenance rates for open pit mining equipment supplied by contractors;
- Contract drill and blast schedule of rates supplied by contractors;
- Recent cost data from CDO;
- Processing, maintenance and general consumables are based on historical operational report from 2003-06 and compared with current CDO operational data;
- Processing reagents and major consumption rates are derived from operational reports from 2003-6. Costs of reagents and consumables are based on current rates;

- Power costs are based on Dual Fuel/Spark Ignition generator sets provided by Pacific Energy. Gas and transport pricing were provided by suppliers;
- Personnel accommodation and FIFO costs are derived from a manning schedule with costs calculated and distributed within each cost area;
- Business Services cost structure is based on current CDO costs checked against 2003-06 actual operational reports.

For additional clarity, the “other material assumptions” in the announcement are applicable to the various Stages are stated below.

Other key production and financial assumptions for the Thunderbox open pit (Stage 1) are:-

- Gold price of A\$1,500/oz;
- Diesel Fuel of \$0.90/L net of rebate;
- Mining dilution of 10% and ore loss of 2%;
- Processing life of mine recovery of 93.3%;
- Royalties including the WA State Government Royalty of 2.5% and Norilsk Royalty of 1.5% which is capped at \$17m;
- Work rosters are a combination of 8 days on 6 days off and 2 weeks on 1 week off;
- Direct mining costs from proposals received from vendors and existing CDO data.

Other key production and financial assumptions for the Bannockburn open pit ore (part of Stage 3) are:-

- Gold price of A\$1,500/oz;
- Diesel Fuel of \$0.90/L net of rebate;
- Mining dilution of 20% and ore loss of 7%;
- Processing life of mine recovery of 93.3%;
- Royalties including the WA State Government Royalty of 2.5% and Norilsk Royalty of 1.5% which is capped at \$17m;
- Work rosters are a combination of 8 days on 6 days off and 2 weeks on 1 week off;
- Direct mining costs from proposals received from vendors and existing CDO data.

Other key production and financial assumptions for the Thunderbox underground (Stage 2) and Mangilla and Rainbow open pits (part of Stage 3) are:-

- Gold price of A\$1,500/oz;
- Diesel Fuel of \$0.90/L net of rebate;
- No ore reserves are stated, with mineral inventories based on measured, indicated and inferred mineral resources as detailed in Tables 3, 4 and 5;
- Processing life of mine recovery of 93.5% for the Thunderbox underground;
- Processing life of mine recovery of 95.0% for the Mangilla and Rainbow open pits;
- Royalties including the WA State Government Royalty of 2.5% and Norilsk Royalty of 1.5% which is capped at \$17m;
- Work rosters are a combination of 8 days on 6 days off and 2 weeks on 1 week off;
- Direct mining costs from proposals received from vendors and existing CDO data.

**For further information please contact:**

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**Competent Persons Statement:**

The information in above mentioned Feasibility Study and this release that relates to Mineral Resources is based upon information compiled by Mr Daniel Howe, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Daniel Howe is a full-time employee of the Company. Daniel Howe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore reserves'. Daniel Howe consents to the inclusion in the Feasibility Study of matters based on his information in the form and context in which it appears.

The information in the in above mentioned Feasibility Study and this release that relates to open pit Ore Reserves at Thunderbox and satellite deposits is based upon information compiled by Christopher Burton, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Christopher Burton is a full-time employee of the Company. Christopher Burton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Christopher Burton consents to the inclusion in the Feasibility Study of matters based on his information in the form and context in which it appears.