MATSA RESOURCES LIMITED
ABN 48 106 732 487

ASX Announcement **18th February 2019**

Matsa Commences Mining at Red October Gold Project

Highlights

- *Mining at Matsa's 100% owned Red October Gold Mine commencing with first ore expected to be delivered in April*
- *Detailed mining studies indicate mining of 56,673t of ore at 5.61g/t for 10,222 oz gold during an initial seven-month mining operation*
- *AISC of approximately A$1,300 per ounce for a cash surplus of A$4.075M is anticipated.*
- *Mining expected to continue beyond the initial seven month period as operations ramp up – and represents the start of Matsa's plan to develop the Project into a long-term mining operation*
- *Key staffing appointments finalised*
- *Toll milling/ore sale agreement discussions continuing and will be finalised prior to commencement of mining of ore*
- *Drilling commenced 12th February 2019 on key mining targets identified in the Red October underground gold mine*
- *Further drilling is expected during 2019 to infill potential mining targets and opportunities to extend the existing resource*
- *A number of new underground exploration targets have been identified within the existing datasets, utilising a new geomechanical strain model*

CORPORATE SUMMARY

Executive Chairman

Paul Poli

Director

Frank Sibbel

Director & Company Secretary

Andrew Chapman

Shares on Issue

176.93 million

Unlisted Options

22.4 million @ $0.17 - $0.30

Top 20 shareholders

Hold 53.42%

Share Price on 15th February 2019

16 cents

Market Capitalisation

$28.31 million

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Matsa Resources Limited ("Matsa" or "the Company" ASX: MAT) is pleased to announce the commencement of underground mining operations at the Company's core asset, the 100%-owned Red October gold project in Western Australia's Eastern Goldfields.

Mining activities, including decline preparation and other site preparation are underway with first ore scheduled to be produced and ready for delivery in April.

The commencement of mining operations at Red October is the culmination of two mine studies, which have delivered a comprehensive mine plan, that proposes a highly profitable, low cost targeted mining operation over an initial seven month period – with strong potential to extend mining in-line with the Company's goal of delivering a substantial long term mining operation at Red October.

The mining operation is expected to generate revenue of A$16.09 million and deliver a net cash surplus A$4.075 million.

All necessary approvals for mining at Red October are in place, and toll milling/ore purchase agreements are currently being negotiated. The key parameters for the initial seven month mining operation are summarised in Table 2.

Matsa Executive Chairman Mr Paul Poli said:

"I am delighted with the work done in getting the Red October gold mine to the point where we can announce mining and production in early 2019, subject to a suitable toll milling/ore purchase agreement being finalised. Although planning indicates initial production over a 7-month period, I am very confident ongoing exploration and increased knowledge will see production go beyond that timeframe."

Expansion Potential

The initial phase of mining at Red October represent the start of Matsa's plan for the potential long-term mining of the Project.

At the conclusion of the initial seven month mining operation, Matsa plans to then ramp up mining operations as mine characteristics and knowledge increases, and with the benefit of further exploration drilling to confirm anticipated new mineable resources. A number of new potential targets have already been identified for future mining as a result of the mining studies undertaken to date.

The Red October resource remains open in all directions, and Matsa considers the deposit as largely unexplored along strike and down-dip (Figure 8). In addition, within the existing drilling dataset, there is evidence of high-grade drilling intersections both within and outside the existing mine footprint, which indicates expansion potential immediately adjacent to workings and further afield.

Summary Details of the Stage 2 Mining Study are included in this announcement

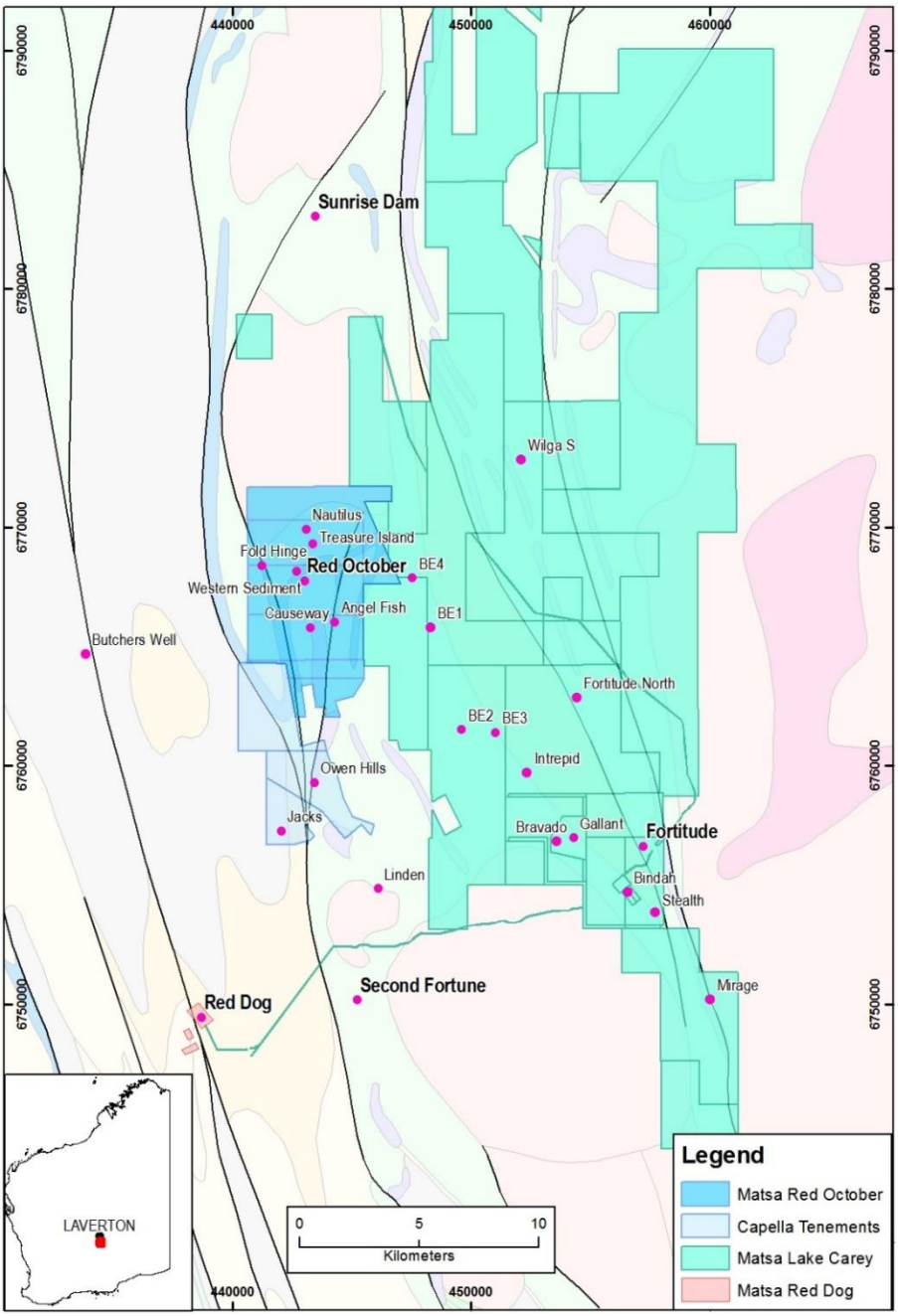

***Figure 1:* Red October Location Map Lake Carey Project Summary**

Mining Study Delivers Initial Robust Mining Plan

Recommendations from Matsa's completed mining study on the Red October gold mine include immediate commencement of an initial mining phase planned for a period of approximately seven months, producing 56,673 tonnes of ore at 5.61g/t for 10,222oz sourced from 8 lodes. The mine will be operated by Matsa as an owner operator with all mining equipment and machinery purchased outright.

The initial mine plan includes an establishment period of around one month prior to mining, and is expected to generate a cash surplus of A$4.075M at a gold price of A$1,750 per oz gold. All necessary approvals are in place, with agreements for toll milling/ore purchase currently being negotiated. Mining activities are expected to commence in March with first ore produced and ready for delivery in April 2019.

Key parameters for the initial mining phase at Red October project are presented in Table 1 below and detailed in Appendix 1.

Key Project Statistics	
Mineral Resources (Underground)	
Indicated Resources: 89,000t at 12.1 g/t Au	35,000 oz
Inferred Resources: 106,000t at 14.6 g/t Au	50,000 oz
Total Resources: 195,000t at 13.6 g/t Au	85,000 oz
Production Summary	
Mine Plan: 56,673t at 5.6 g/t Au	10,222 oz
Life of Mine, mining (months)	7
Life of Mine, incl. haulage & rehab (months)	8
Metallurgical Recovery	90%
Gold Mined (oz)	10,222 oz
(average stope width of 1.5m)	
Project Economics	
Gold Price (A$/oz)	1,750
Revenue (A$M)	16.09
Costs (A$M)	12.02
Cash Surplus (A$M)	4.075
AISC (A$/oz)	1,307

Table 1: Red October Initial 7 month mine Key Parameters (Refer Forward Looking and Cautionary Statements below)

Forward Looking and Cautionary Statements

Information included in this release constitutes forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue" and "guidance" or other similar words, and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, staffing and litigation. Forward looking statements are based on the company and its management's assumptions made in good faith relating to the financial, market, regulatory and other relevant environments that exist and affect the company's business operations in the future. Readers are cautioned not to place undue reliance on forward looking statements.

Forward looking statements are only current and relevant for the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or advise of any change in events, conditions or circumstances on which such statement is based.

The Company believes that it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to any mining and financial estimates, based on the information compiled in this announcement. Key aspects of the mining study were compiled by specialist consulting groups, each with a particular expertise for the area of study reported. The Company considers that the investigations and studies carried out for this study comply with the requirements of a mining study.

Stage 1 Mining Study

In April 2018, Matsa announced that it had entered into Stage 1 Mining Study into the economic viability of the Red October underground gold mine.

Stage 1 was an initial high level mine design and financial model, which identified areas within the existing underground resource of 195,000t at 13.6g/t for 85,000oz Au *(SAR announcement to the ASX dated 02/08/2017, and Appendix 2)*.

Twelve additional targets outside of the existing resource were also identified as having near mine potential and were flagged for further exploration and evaluation (Figure 2).

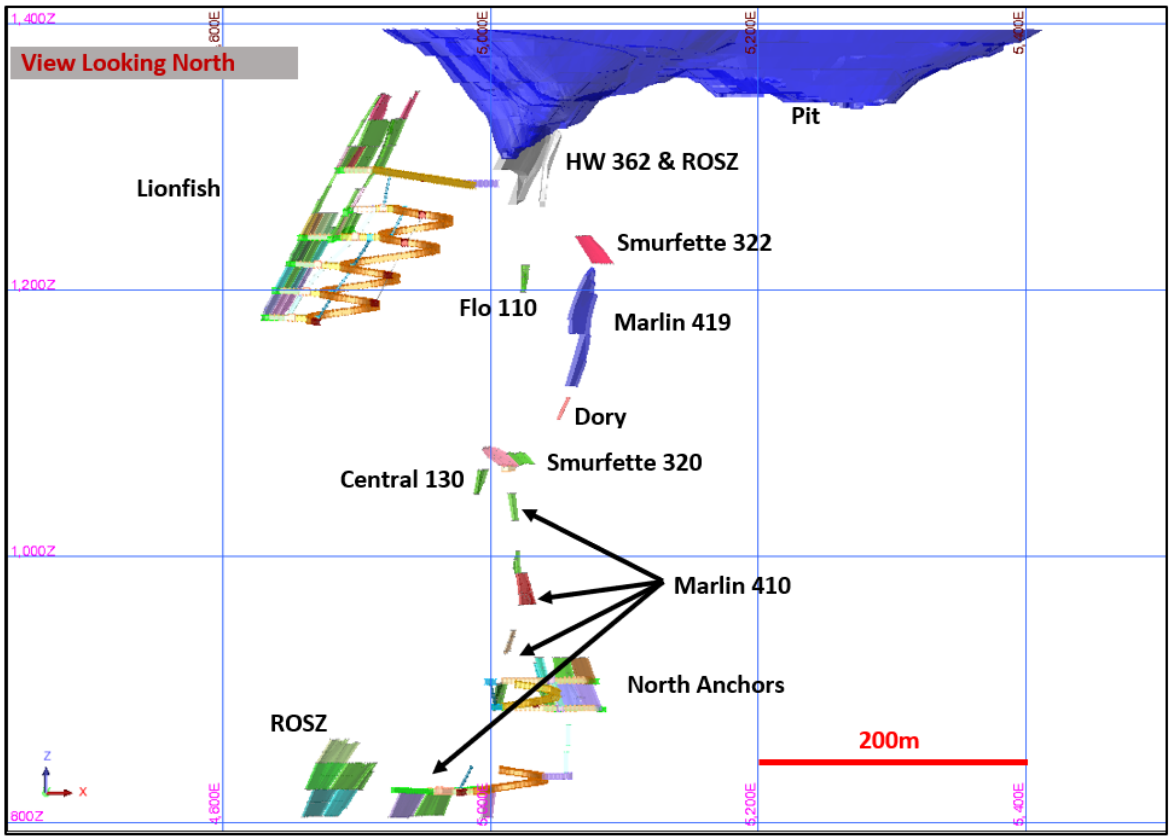

Figure 2: ***Mining Study Stage 1 targets (Cross-section view)***

Stage 2 Mining Study

The highly encouraging results of the Stage 1 mining study led to a much more detailed study in Stage 2, which comprised the following components:

- mine infrastructure planning
- development designs
- stope designs and economic analysis
- mine definition drilling designs
- cost models
- mine production schedules
- metallurgy studies
- lodgement of necessary permits and approvals applications
- commence of tenders
- staffing requirements

For this stage of the study, Matsa secured the services of Red Rock Engineering to provide expert mine planning and stope economic analysis in combination with geology assessments.

Importantly, the Stage 2 study focused on further refinement of Stage 1 targets, plus an optimisation run on the current block model to identify additional mining targets.

Stage 2 has produced a mine plan to commence mining on a small scale over an initial seven-month period with plans to then ramp up mining operations as further mine characteristics knowledge increases and with exploration drilling confirming anticipated mineable resources.

There have been a number of other potential targets identified for future mining as a result of the mining studies undertaken. This initial seven month mining phase offers Matsa an opportunity to learn more about the deposit, fine-tune narrow vein mining techniques, and potentially expose unmodelled mineralised lodes.

Initial 7 Month Mining Project

The Red October Mining Study has been based on the following:

- Underground mining via an owner-operator model with all mining equipment and machinery being company owned, but with the haulage operation conducted by contractors (Figure 2)
- Suitable ore purchase/toll treatment agreement to be confirmed

The Key parameters for an initial 7 month mining project are summarised in Error! Reference source not found..

Key Project Statistics	
Mineral Resources (Underground)	
Indicated Resources: 89,000t at 12.1 g/t Au	35,000 oz
Inferred Resources: 106,000t at 14.6 g/t Au	50,000 oz
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Cash Surplus (A$M)	4.075
AISC (A$/oz)	1,307

Table 1: Initial 7 month Mining Project Parameters

Project Approvals

All regulatory approvals for mining are in place and include:

- Project Management Plan
- Explosives Licence

Figure 3: ***Matsa-owned R1300 underground loader***

Material Mining Assumptions

The output from this study carries a confidence level of +/- 20%.

The 2017 Red October Mineral Resource estimate was used to create an initial mining plan, with a minimum mining grade of 3g/t Au applied (Appendix 2).

Mining is planned to be carried out in eight separate but near-by lodes.

As noted above, all mining operations will be carried out by Matsa staff, principally utilising Matsa owned equipment and machinery. The underground mine consists of various accesses and strike drives and incorporates development, drill and blast, load and haul and ore and waste management tasks.

Material haulage is costed based on quotes and invoices received during Matsa's previous successful mining of the Red Dog gold project, completed late last year *(ASX announcement, 11 January 2019)*. Mining is scheduled to operate at an average of ~7,550t per month, using a single boom jumbo, twin boom jumbo, R1300 and R1700 loaders, a 40t truck and a 50t truck. Pre-mining activities include grading the declines and site preparation. Ore haulage will commence after a manageable run of mine (ROM) stockpile has been established. Underground mining in the initial stage is expected to take approximately 7 months with ore haulage completed shortly afterwards**.** It is expected that diamond drilling and geology mapping will be successful, and subsequent mining will be extended further with additional ounces included into a new long term mine plan.

All ore mined will be hauled from the local ROM to an external treatment facility using road-trains along a yet to be determined haulage route. The study was based on a FIFO workforce working on double shift, which will be accommodated at the Company's 100% owned Red October Village nearby.

Dilution and mining recovery parameters have not been applied to planned mining. The mining phase utilises narrow vein mining techniques with narrower development drives than were previously mined at Red October by Saracen Minerals Ltd.

The initial mining phase aims to give Matsa vital information for planning and mining assumptions for the future long term mine planning (Figure 4).

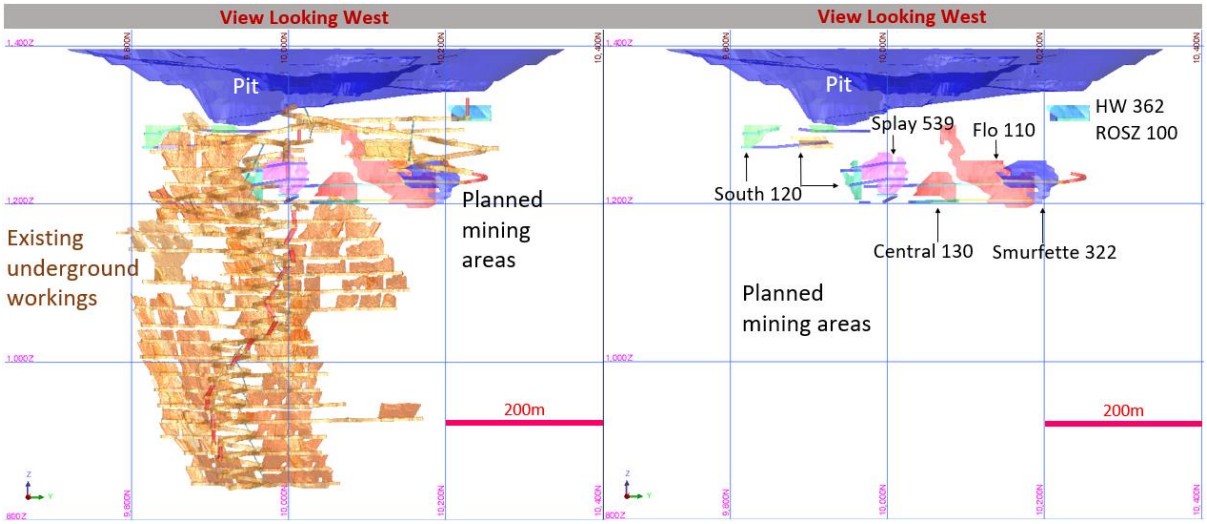

***Figure 4:* Red October Mining Areas**

Smurfette 322

The initial seven month mining operation will be undertaken at 8 different lodes including the Smurfette 322 lode. Planned mining at the 1220N Level aims to develop the next level down-dip of 1240N, which was mined by Saracen previously.

Below the planned 1220N Level, the Smurfette 322 lode is largely untested and presents a compelling drilling target to prove up mineable ounces beyond the initial seven month mining stage (Figure 5).

The Smurfette 322 lode is a shear-hosted ore zone, with associated alteration (sericite, biotite) and sulphides (pyrite) with visible gold also noted occasionally and the potential for high gold grades. While the planned mining is above the 1220N level, there is significant further potential down plunge below this level.

Examples of underground face sample results and corresponding photographs in the mined 1240N Level are presented in Appendix 3.1 and present a good example of the potential new drilling targets outside the existing resource.

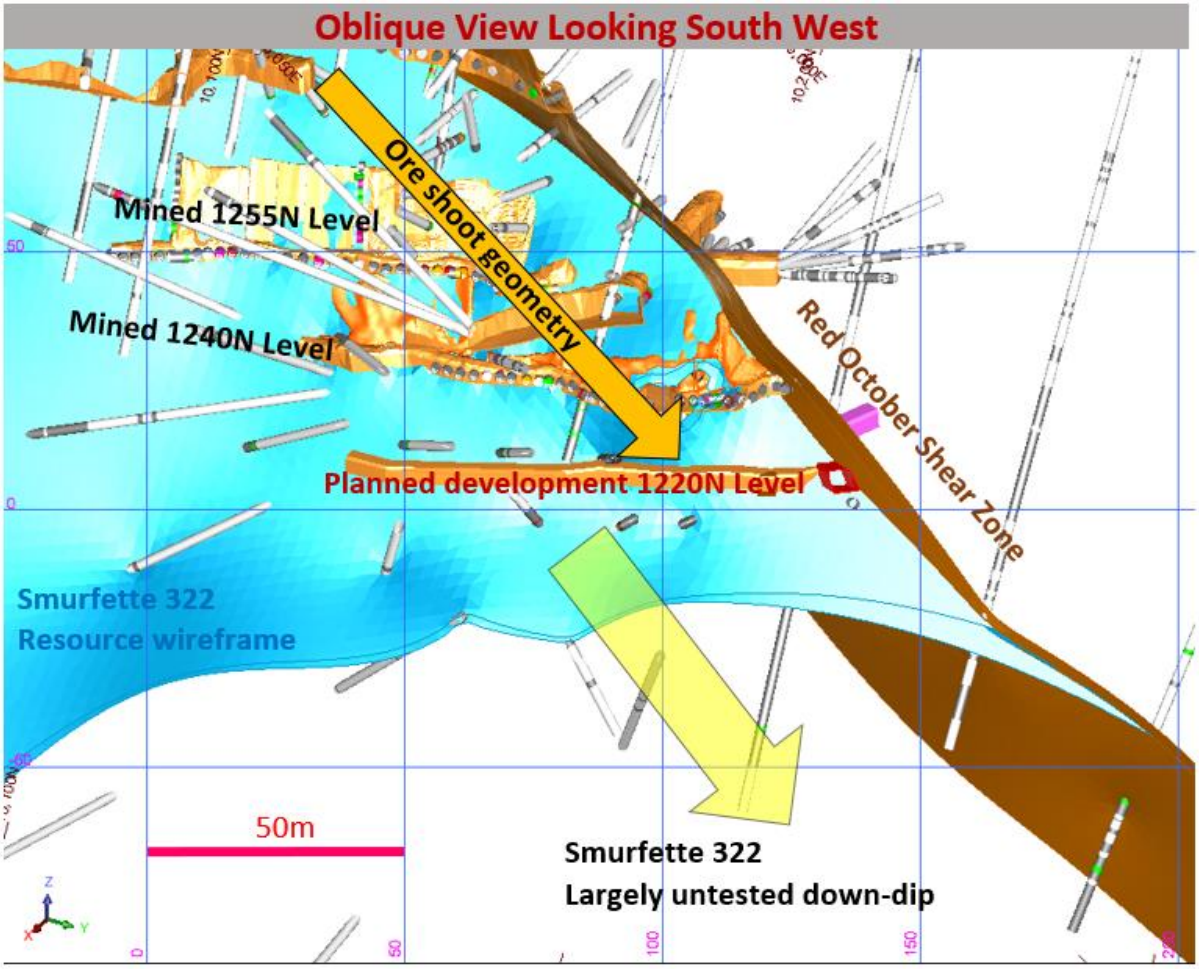

Figure 5: ***Smurfette 322 mined levels and planned development***

Geotechnical Considerations

The planned mining occurs within the existing footprint of the mine workings, and as such, Matsa has adopted the existing Ground Control Management Plan (GCMP) and Ground Support Standards for the mine. There are no extensions of the South Decline planned during the initial mining phase, which is the deepest part of the mine (552m below surface). As per the GCMP, seismicity is not expected to be an issue until depths exceed 700m below the surface. The condition of existing ground and ground support will be inspected prior to mining activities recommencing.

Metallurgy and Ore Processing

A historical metallurgical data review was managed by Macromet. Historical metallurgical testwork data has been compiled by various owners since the 2000's (Sons of Gwalia – Leonora processing plant, and Saracen – Carosue Dam processing plant). Historical testwork methodology to date has aimed to define metallurgy recoveries specific to these plants (predominantly cyanidation of P80 grind size, typically screened at various sizes ranging from 75µm - 180µm). Saracen utilised an 84% average metallurgy recovery for Red October ore to the Carosue Dam processing plant for mine planning assumptions.

Metallurgical testwork is planned to occur from existing core samples, diamond drilling and underground samples. Testwork will be managed by Macromet using ALS Metallurgical

Laboratories. A series of composites will be collected for analysis as per the requirements of an ore purchase or toll treatment agreement to reflect the plant configuration.

Matsa is of the view that selecting a processing plant with a fine grind circuit and float circuit will see an improvement to the average metallurgy recovery. An average of 90% recovery has been used in financial modelling.

Historical testwork recoveries using Sons of Gwalia and Saracen's testwork methodology and including gravity, grind and cyanidation processing techniques provided a highly variable 40% - 98% gold recovery.

Historical Bond Ball Mill Work indices ranged from a moderate 19.9 kW/t to very hard characteristics of 28.1 kWh/t dependent upon the ore type. Further testwork is planned for Bond Ball Mill Work indices.

Gravity Au recovery testwork via a Knelson concentrator (including variable methods; with or without intensive cyanidation) at the tested P80 grind size demonstrated a variable extraction from 4% - 54%.

Ore processing will be via an external processing facility. Terms for ore purchase or toll treatment are underway.

No deleterious elements were noted.

Infrastructure, Transport and Services

Infrastructure for mining is mostly in place as the mine is on care and maintenance. Offices and facilities, a workshop, power generators and fuel storage are in place. Acquisition of all equipment and machinery required to fully recommission the mine and services is complete.

Matsa has purchased the following mining machinery:

- R1300 Elphinstone Loaders x 2
- R1700 Elphinstone Loader
- Caterpillar AD40 Truck
- Atlas Copco MT5010 Truck
- Atlas Copco T1D Single Boom Jumbo
- Atlas Copco H157 Single Boom Jumbo

A twin boom jumbo will be contracted prior to trial mining commencement.

The haul route to a processing plant will be based on existing roads.

Accommodation will be at Matsa's Red October Village, located ~1km away.

Cost Estimate

Total cost to mine is A$12.02M, with A$1.4M allocated to capital costs with a salvage value of A$840,000 after 7 months mining giving a A$560,000 capital expense and A$12.3M to operating costs. Mining and haulage costs are based on calculations and received quoted rates. Flights, accommodation, services and other non-mining costs are derived from costs incurred at Mata's Fortitude trial mine and Red Dog mine. A breakdown of costs is shown in **Error! Reference source not found.**6.

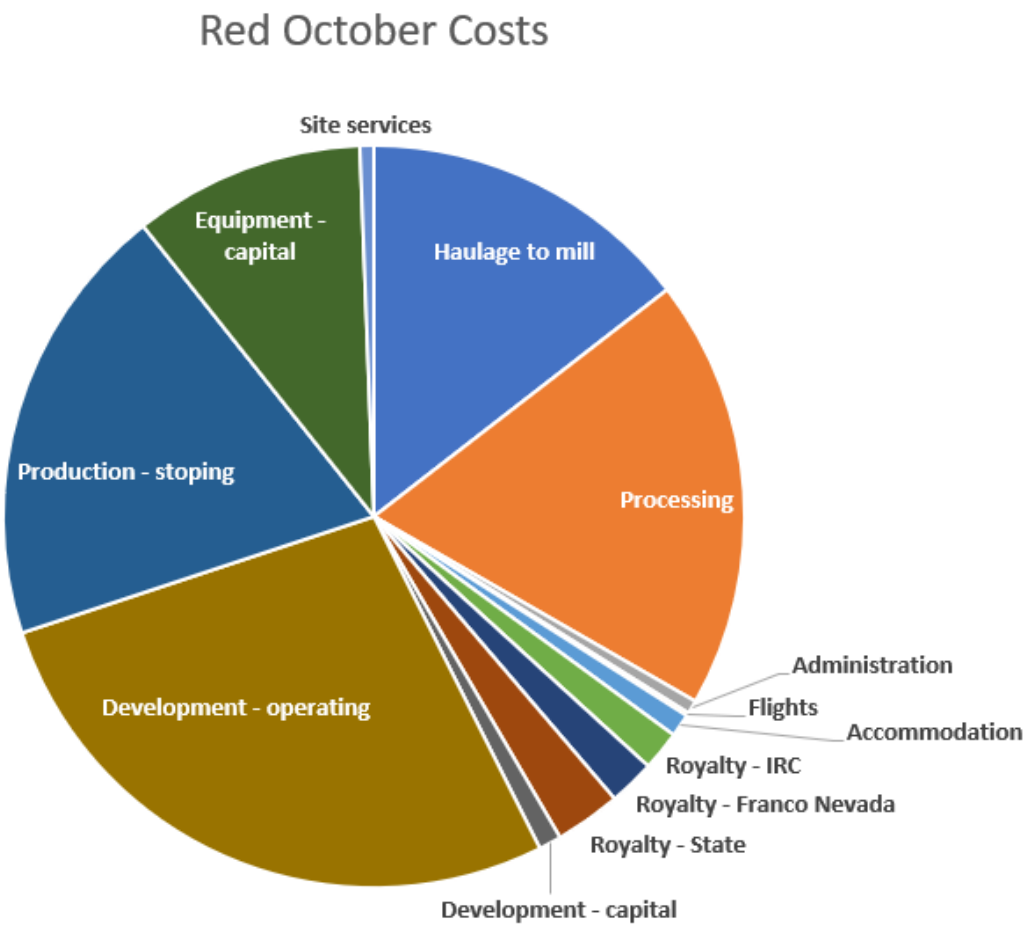

Figure 1: ***Cost breakdown***

Approvals and Permitting

During the mining study, Matsa lodged all necessary applications with the appropriate authorities. By December 2018, Matsa received approval from the Department of Mines Industry, Regulation and Safety (DMIRS) for its Project Management Plan and approval of the Explosives Licence for the Red October mine. All regulatory approvals had now been received.

Land Tenure and Social Heritage

The Mineral Resource and proposed mining area cover one granted mining lease. Red October Gold Pty Ltd (a wholly owned subsidiary of Matsa) is the 100% owner of the tenements.

International Royalty Corporation hold a 1.5% of royalty on proceeds of sale. Franco Nevada hold a 1.75% royalty. No other 3rd party royalties apply apart from the normal state government royalties.

Mine Plan and Schedule

The mine schedule is based on equipment and schedules defined during the mine planning process. Mining of development and stopes is expected to occur over approximately 7 months on double-shift producing 56,673t @ 5.61g/t for 10,222oz mined. Approximately 9,200 oz of mill recovered gold is expected at an All in Sustainable Cost (AISC) of approximately A$1,300 per recovered ounce. The timeframe for haulage to the selected processing facility is dependent upon the ore purchase or toll treatment agreement.

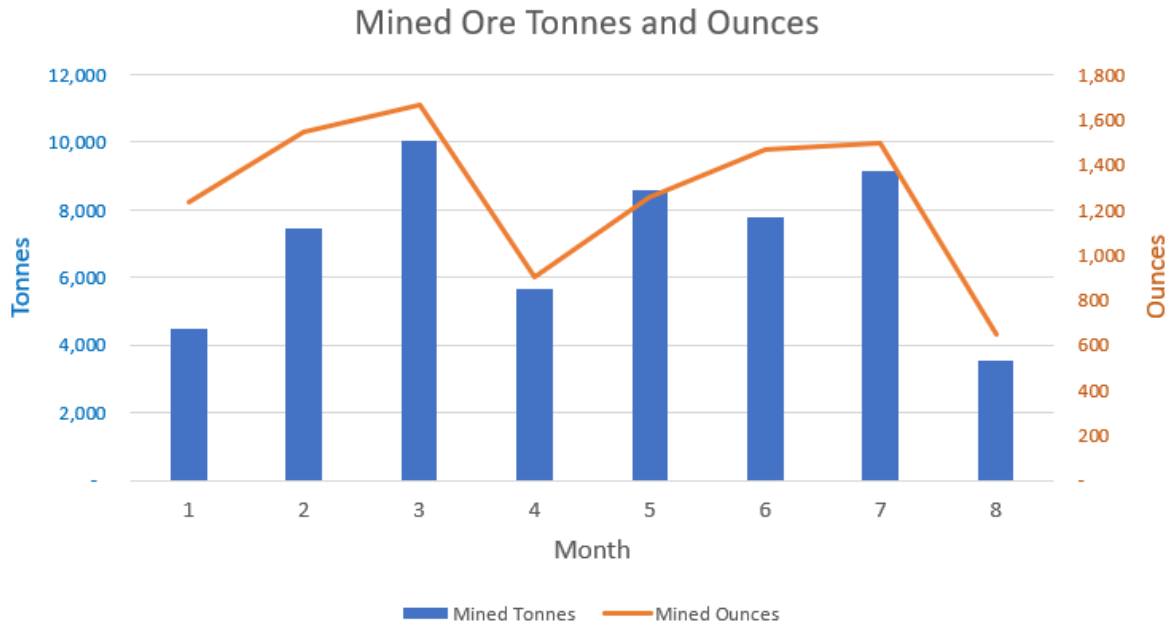

Figure 2: ***Mine Schedule***

Minimum Mining Grade

The trial mine plan has utilised a minimum mining grade of 3g/t Au. This was based on estimated mine and mill costs, mining and mill recoveries and mining method. A gold price of A$1,750 was used.

Sensitivity Analysis

Sensitivity analysis for gold price, grade and costs were estimated at +15% to -15% variation to base case assumptions. The analysis indicates the project is viable within -15% to +15%.

	Operating Surplus ($M)				
Parameter	85%	92.5%	Base Case	107.5%	115%
Au Price (A$/oz) - Base Case A$1706	-0.3	0.9	2.0	3.2	4.4
Grade (g/t) - Base Case 5.61g/t Au	-0.3	0.9	2.0	3.2	4.4
Costs ($t) - Base case A$13.7M	4.1	3.1	2.0	1.0	0.0

Table 2: Sensitivity Analysis (A$M)

Funding Requirements

Matsa is a well-funded and diversified mineral exploration and mining company. Matsa has a market capitalisation of A$24.7M and cash and liquid assets of approximately A$5.1 million as at 31st December 2018.

Matsa has the financial capacity via a $4 million loan facility and internal funds to fund the capital and maximum cash requirements of this project.

Opportunities

The initial mining study represents an opportunity for Matsa to fine-tune narrow-vein mining techniques, undertake diamond drilling to define new mining areas and create a substantial cash surplus.

By opening up the ore deposit there is also the opportunity to learn more about the detailed geological controls of the mineralisation to assist in further exploration. The initial mining phase is the start of Matsa's long-term position on the potential for future mining at Red October.

Risks

A key number of risks that are normal for this type of operation have been identified, such as:

- Reduction in the $A gold price will negatively impact on revenue
- Confidence in the geological model
- Variability of metallurgical recovery
- Achieving the unit cost mining rates as used in the study

Mining Study Participants

The study was managed by Matsa. Contributing consultants include:

- Red Rock Engineering – Mine Design, Costs and Physicals
- Blue Tiger Mining – Mining Techniques, Costs and Physicals
- Macromet - Metallurgy

Staffing

As a result of the mining studies conducted, Matsa has identified experienced and qualified professionals who will manage the mining operations at Red October. To that end Matsa has appointed Mr Noel Weymss as Underground Manager and Ms Rhianna Farrell as Chief Geologist.

Matsa intends to make further appointments in due course to ensure appropriate staffing is in place to undertake efficient mining operations. Matsa intends to operate Red October in its own right as an owner operator rather than appoint an underground contractor to conduct the mining.

Near-Mine Exploration Potential

The Red October resource remains open in all directions, and Matsa considers the deposit as largely unexplored along strike and down-dip (Figure 8). The existing resource wireframe extents are largely constrained by the lack of drilling information along strike, dip and plunge.

Within the existing drilling dataset, there is evidence of high-grade drilling intercepts both within the existing mine footprint, and outside of it. Figure 9 shows intercepts greater than 1 ounce in reference to the existing mine workings, which indicates potential both immediately adjacent to workings and further afield.

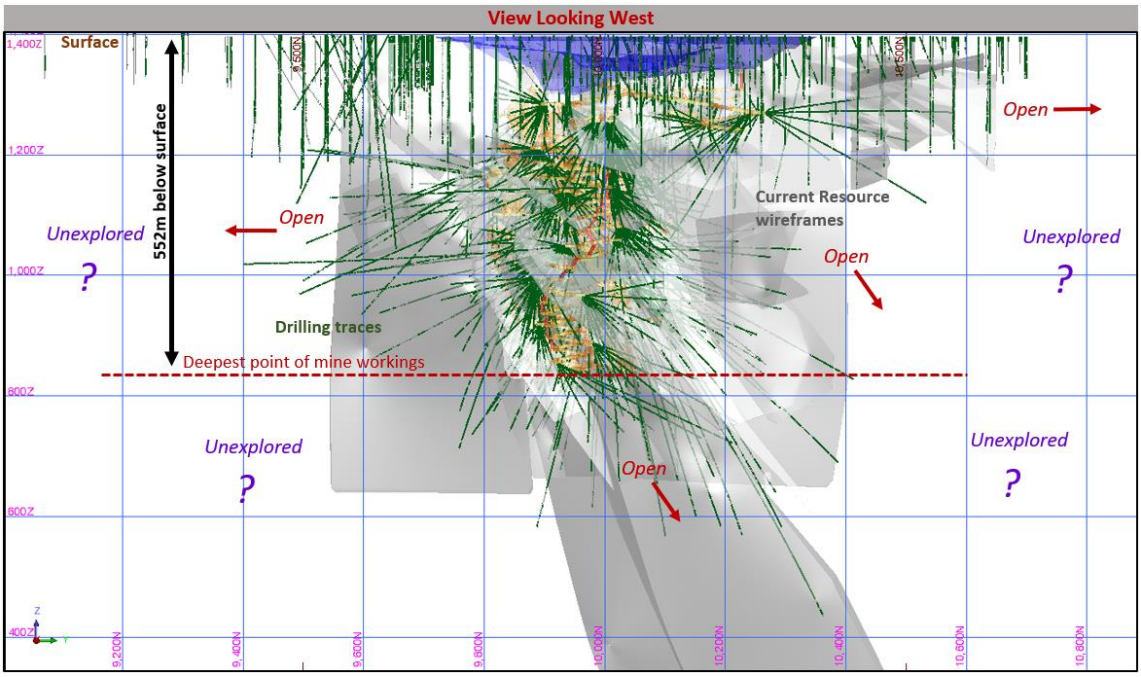

Figure 8: Long-section view of the existing Resource wireframes, drilling and mine workings (RO Local Grid)

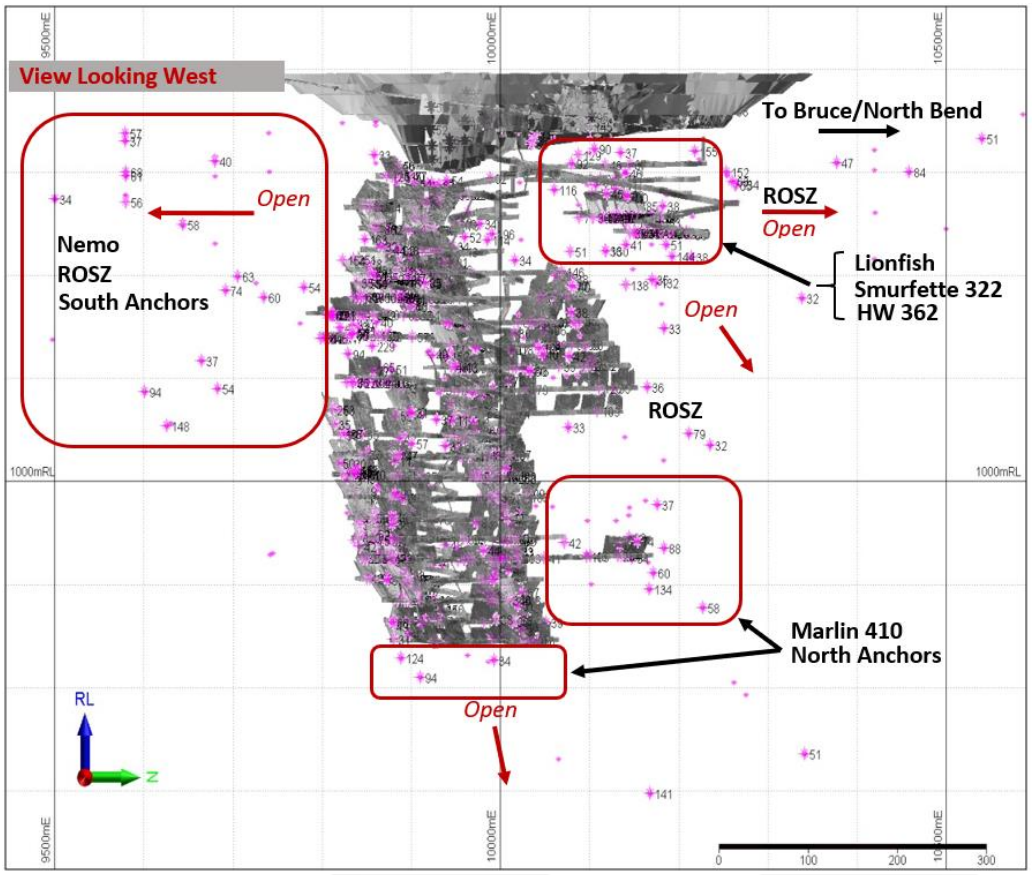

Figure 9: View looking West; Greater than 1 Ounce drilling intercepts versus existing mine workings (RO Local Grid)

Geomechanical Strain Studies

During 2018, Matsa commissioned the services of GMEX (Dr. John McLellan) to construct a geomechanical model to aid in the prediction of mineralised fluid flow within structures. The technique has been used successfully at Red October previously by Saracen Minerals Ltd, and has also been used at Sunrise Dam by Anglogold Ashanti Ltd. The geomechanical model was instrumental in the 2Moz+ Vogue deposit discovery at Sunrise Dam by AngloGold Ashanti.

The Red October model has recently been completed, and initial results show favourable conditions along known structures for localised fluid flow and potential for mineralisation. The model shall be interrogated further during H1 of 2019 to assist with the finalisation of an exploration targeting pipeline in addition to existing structural geology, lithology, geochemistry and geophysics datasets. Figure 10 below shows the initial areas of interest evident in the geomechanical model.

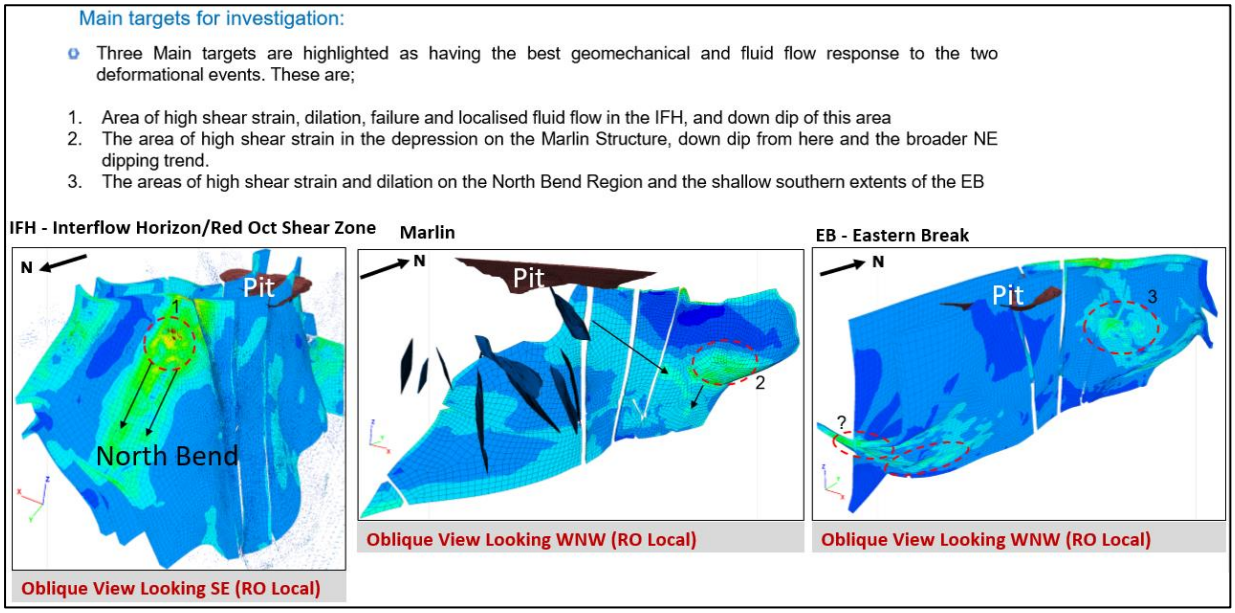

***Figure 3:* Exploration target areas of interest from the GMEX geomechanical model**

For further information please contact:

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Web www.matsa.com.au

Competent Person

The exploration information in this report is based on information compiled by Mark Csar, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mark Csar is a full time employee of Matsa Resources Limited. Mark Csar has sufficient experience which is relevant to the style of mineralisation and the type of ore deposit under consideration and the activity which he is undertaking 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'. Mark Csar consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Sampling activities conducted at Red October by Saracen include reverse circulation (RC), surface and underground diamond drilling (DD) and underground face chip sampling. Historic sampling methods conducted since 1989 have included aircore (AC), rotary air blast (RAB), RC and surface and underground DD holes • Sampling for RC, DD and face chip sampling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC chips and NQ diamond core provide high quality representative samples for analysis. RC, RAB, AC and surface DD drilling completed by previous holders is assumed to adhere to industry standard at that time 1989- 2004. • Saracen sampling activities have been carried out to industry standard. Reverse circulation drilling is used to obtain 1 m samples, diamond core is sampled to geological intervals • (0.2m to 1.2m) and cut into half core and UG faces are chip sampled to geological intervals (0.2 to 1m), with all methods producing representative samples weighing less than 3kg. Samples are selected to weigh less than 3 kg to ensure total sample inclusion at the pulverisation stage. Saracen core and chip samples are crushed, dried and pulverised to a nominal 90o/o passing 75µm to produce a 40 g sub sample for analysis by FA/AAS. Visible gold is occasionally encountered in drillcore and face samples. Historical AC, RAB, RC and diamond sampling is assumed to have been carried out to industry standard at that time. Analysis methods include fire assay, aqua regia and unspecified methods.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• The deposit was initially sampled by 495 AC holes, 73 RAB holes, 391 RC holes (assumed standard 5 %" bit size) and 159 surface diamond NQ and HQ core holes. 5 RC holes were drilled using a 143mm diameter bit with a face sampling hammer. The rig was equipped with an external auxiliary/ booster. Saracen has previously completed 6 reverse circulation drill holes, 9 surface HQ and NQ diamond drill holes, 839 underground NQ diamond drill holes and sampled 2931 underground faces. Diamond drill core has been oriented using several

Criteria	JORC Code explanation	Commentary
		different methods which include Ezi-Mark, ACT, and more recently Ori-Finder. Some historic surface diamond drill core appears to have been oriented by unknown methods.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• RC chip recoveries are recorded in the database as a percentage based on a visual weight estimate. Underground and surface diamond core recoveries are recorded as percentages calculated from measured core versus drilled metres, and intervals are logged and recorded in the database. Diamond core recoveries average >90%. Limited historic surface sampling and surface diamond recoveries have been recorded. • During RC drilling daily rig inspections are carried out to check splitter condition, general site and address general issues. Ground condition concerns led to extensive hole conditioning meaning contamination was minimised and particular attention was paid to sample recovery. Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against depth given on the core blocks. UG faces are sampled left to right across the face allowing a representative sample to be taken due to the vertical nature of the orebody. Historical AC, RAB, RC and diamond drilling to industry standard at that time. • There is no known relationship between sample recovery and grade for RC drilling. Diamond drilling has high recoveries due to the competent nature of the ground meaning loss of material is minimal. Any historical relationship is not known.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Logging of all RC chips and diamond drill core is carried out. Logging records lithology, mineralogy, texture, mineralisation, weathering, alteration and veining. • Logging is both qualitative and quantitative in nature. Geotechnical and structural logging is carried out on all diamond core holes to record recovery, RQD, defect number, type, fill material, shape and roughness and alpha and beta angles. Core is photographed in both dry and wet state. All faces are photographed and mapped. Qualitative and quantitative logging of historic data varies in its completeness. Some surface diamond drill photography has been preserved. • All RC and diamond drill holes are logged in full and all faces are mapped. Historical logging is approximately 95% complete, some AC, RAB and RC pre-collar information is unavailable.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation*	• All diamond core is cut in half on-site using an automatic core saw. Samples are always collected from the same side. • RC drilling has been cone split and was dry sampled. UG faces are chip sampled using a hammer. AC, RAB and RC drilling has been sampled using spear, grab, riffle and unknown methods. • The sample preparation of RC chips, diamond core and UG face chips adhere to industry best

Criteria	JORC Code explanation	Commentary
	technique. • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	practice. It is conducted by a commercial laboratory and involves oven drying, coarse crushing then total grinding using an LM5 to a grind size of 90% passing 75 microns. Best practice is assumed at the time of historic sampling. • All subsampling activities are carried out by commercial laboratory and are considered to be satisfactory. Sampling by previous holders is assumed to adhere to industry standard at the time. • RC field duplicate samples are carried out at a rate of 1:20 and are sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. No duplicates have been taken of UG diamond core, face samples are duplicated on ore structures. Sampling by previous holders assumed to be industry standard at the time. • Sample sizes of 3kg are considered to be appropriate given the grain size (90% passing 75 microns) of size of the material of the material sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• A 40 gram fire assay with MS finish is used to determine the gold concentration for RC chip, UG diamond core and face chip samples. This method is considered one of the most suitable for determining gold concentrations in rock and is a total digest method. Historic sampling includes fire assay, aqua reqia and unknown methods. • No geophysical tools were utilised for reporting gold mineralisation. • Certified reference material (standards and blanks) with a wide range of values are inserted into every RC, diamond drill hole (1 in 30) and UG face jobs to assess laboratory accuracy and precision and possible contamination. These are not identifiable to the laboratory. Blanks are also included at a rate of 1 in 30 for diamond drill core and one per lab dispatch for face samples. Feldspar flush samples are requested after each sample with visible gold, or estimated high grade. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly and demonstrates sufficient levels of accuracy and precision. Sample preparation checks for fineness are carried out to ensure a grind size of 90o/o passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. Industry best practice is assumed for previous holders. Historic QAQC data is stored in the database but not reviewed.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Significant intercepts are verified by the Geology Manager and corporate personnel. • No specific twinned holes have been drilled at Red October but underground diamond drilling has confirmed the width and grade of previous exploration drilling. • Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Chips from RC drill holes are stored in chip trays for future reference. Remaining half core is stored in core trays and archived on site. Hard copies of face mapping, backs mapping and sampling records are kept on site. Digital scans are also kept on the corporate server. Data from previous owners was taken from a database compilation and was validated as much as practicable before entry into the Saracen acQuire database. • No adjustments have been made to assay data. First gold assay is utilised for resource estimation. Re-assays carried out due to failed QAQC will replace original results, though both are stored in the database.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All drill hole collars are picked up by company surveyors using a Leica TS15i (total station) with an expected accuracy of +/~2mm. Underground faces are located using a Leica D5 disto with an accuracy of+/-1mm from a known survey point. Exploration RC holes have been gyroscopically downhole surveyed by ABIMS where possible once drilling is completed. Surveys are carried out every 30m downhole during RC and diamond drilling using an Eastman single shot camera. Previous holders' survey accuracy and quality is generally unknown. • A local grid system (Red October) is used. It is rotated 44.19 degrees east of MGA_GDA94.The two point conversion to MGA_GDA94 zone 51 is: ROEast RONorth RL MGAEast MGANorth RL Point 1 5890.71 10826.86 0 444223.25 6767834.66 0 Point2 3969.83 9946.71 0 442233.31 6768542.17 0 Historic data is converted to Red October local grid on export from the database • DGPS survey has been used to establish topographic surface
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The nominal spacing for the reported results are not uniform and therefore a definitive drill spacing will not be quoted. • Not all data reported meets the required continuity measures to be considered for inclusion in a resource estimate. Holes reported inside or within 40m of the resource will be incorporated into the resource model, or if sufficient density of data confirms continuity, it will be considered for inclusion in the resource. • RC drill holes are sampled to 1 m intervals and underground core and laces are sampled to geological intervals; compositing is not applied until the estimation stage. Some historic RAB

Criteria	JORC Code explanation	Commentary
		and RC sampling was composited into 3-4m samples with areas of interest resampled to 1 m intervals. It is unknown at what threshold this occurred.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• RC drilling was carried out at the most appropriate angle possible. The mineralisation is intersected at closely as possible to perpendicular. The steeply dipping nature of the mineralisation means that most holes pass through mineralisation at lower angles than ideal. Production reconciliation and underground observations indicate that there is limited sampling bias. Underground diamond drilling is designed to intersect the orebody in the best possible orientation given the constraints of underground drill locations. UG faces are sampled left to right across the face allowing a representative sample to be taken due to the vertical nature of the orebody. • No significant sampling bias has been recognised due to orientation of drilling in regards to mineralised structures
Sample security	• *The measures taken to ensure sample security.*	• Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into larger secured bags and delivered to the laboratory by Saracen personnel.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures. No external audits or reviews have been conducted.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Red October is wholly located within Mining Lease M39/412. Mining Lease M39/412 is held 100% by Saracen Gold Mines Ply Ltd a wholly owned subsidiary of Saracen Mineral Holdings Limited and is subject to a bank mortgage (499142). Mining Lease M39/412 has a 21 year life (held until 2019) and is renewable for a further 21 years on a continuing basis. There is one Registered Native Title Claim over M39/412 for the Kurrku group (WC10/18), lodged December 2010. Mining Lease M39/412 was granted prior to registration of the Claim and is not affected by the Claim. Aboriginal Heritage sites within the tenement (Site Numbers WO 2442, 2447, 2448, 2451, 2452 and 2457) are not affected by current mining practices. Third party royalties are payable on the tenement. A Royalty is payable under Royalty Deed M39/411, 412, 413 based on a percentage of deemed revenue (minus allowable costs) on gold produced in excess of 160,000 ounces. A Royalty is payable based on a percentage of

Criteria	JORC Code explanation	Commentary
		proceeds of sale or percentage of mineral value. All production is subject to a Western Australian state government NSR royalty of 2.5%. • The tenement is in good standing and the licence to operate already exists
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Mount Martin carried out exploration including RAB and RC drilling in 1989. This along with ground magnetics was used to delineate a number of anomalies on islands to the immediate north and south of Red October. Mount Burgess Gold Mining identified a north east trending magnetic anomaly on Lake Carey between the islands considered analogous to Sunrise Dam in 1993. Aircore and RC drilling was carried out to define what would become the Red October pit. Sons of Gwalia entered into a joint venture with Mount Burgess, carrying out RC and diamond drilling to define a pittable reserve before purchasing Mount Burgess' remaining equity. Extension RC and diamond drilling from within and around the pit defined the potential underground resource.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Red October gold mine is situated within an Archaean greenstone belt of the Laverton Tectonic Zone. The stratigraphic sequence consists of footwall tholeiitic basalts, mineralised shale (containing ductile textures defined by pyrite mineralisation) and a hanging wall dominated by ultramafic flows interbedded with high-Mg basalts. Prenhite- pumpellyite facies are evident within both the tholeiitic basalts and komatiite flows. Sulphide mineralisation is hypothesised to have been caused from interaction with an auriferous quartz vein, which has caused the intense pyrite-defined ductile textures of the shale in the upper levels. The fluid is believed to have been sourced from the intruding granitoid to the (grid) south of the deposit.

Criteria	JORC Code explanation	Commentary

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• All material data is periodically released on the ASX:07/12/2016, 07/09/2016, 27/07/2016, 11/05/2016, 25/05/2015, 0/03/2015,25/05/2015,16/01/2014,14/10/2013, 23/07/2013, 17/04/2013, 25/01/2013, 14/06/2012, 27/04/2012, 28/07/2011, 03/06/2011

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• All significant intercepts have been length weighted with a lower cut-off Au grade of 2.5ppm. No high grade cut is applied. • Intercepts are aggregated with minimum width of 1 m and maximum width of 3m for internal dilution. Where stand out higher grade zone exist with in the broader mineralised zone, the higher grade interval is reported also. • No metal equivalents are reported.
Relationship between mineralisation widths and intercept	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	• The geometry of the mineralisation is highly variable and the complex nature of the ore bodies makes the definitive calculation of true thickness difficult. Drilling has been orientated to intersect the various ore bodies at most optimum angle where possible. This has not always been achieved. Where holes have drilled parallel to or within a lode, additional holes have been drilled at a more suitable orientation to account for the poor

Criteria	JORC Code explanation	Commentary
lengths	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	angle.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Diagrams are referenced in the body of the release
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All results have been reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Dr John McLellan from GMEX Pty Ltd was contracted to carry out a stress modelling study on the Red October deposit. A data set of structural observations from core and field mapping was compiled and used to create a three dimensional mesh of the deposit. A series of regional scale stress fields of varying deformational stages and strengths were applied to the mesh to predict the behaviour of the Red October deposit and highlight areas of increased stress and strain and thus likely mineralisation. Two targets were drilled in the recent RC campaign with results supporting John's findings. Model Earth Pty was engaged to conduct a structural review of the Red October camp area in May 2015. Several local and regional scale targets were identified for follow-up.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Red October is currently under review.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Saracen utilises AcQuire software on an SQL server database to securely store and manage all drill hole and sample information. Data integrity protocols are built into the system to ensure data validity and minimise errors are built into the data entry and import processes. • Data that is captured in the field is entered into Excel templates which are checked on import into the database for errors. Assay jobs are dispatched electronically to the lab to minimise the chance of data entry errors. Assay results from the lab are received in CSV format and are checked for errors on import into the database. Data is regularly validated using the mining software. The data validation process is overseen by the Database Administrator.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person regularly visits site (Monthly and more so when the geological work is more complex and demanding) to assess geological competency and ensure integrity across all geological disciplines.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The resource categories assigned to the model directly reflect the confidence in the geological interpretation that is built using structural, mineral, and alteration geology obtained from UG mapping, core logging and drill results. Confidence in the interpretation improved with increased data density from close-spaced grade control drilling at 20m X 20m and UG drive mapping. • The geological interpretation has considered all available geological information from drill core and UG mapping. It includes rock types, mineral association as well as alteration and veining assemblage information altered from all sources to help define the mineralised domains and regolith boundaries. • The geological wireframes defining the mineralised zones are considered to be robust. Alternative interpretations were trialled earlier and had a negative effect on the estimation process with zones becoming less robust. • The wireframed domains are estimated as hard boundaries during the Mineral Resource Estimation. They are constructed using all available geological information (as stated above) and terminate along known structures. Mineralisation styles, geological homogeneity, and grade distributions for each domain (used to highlight any potential for bimodal populations) are all assessed to ensure effective estimation of the domains. • "Grade continuity is affected by both structural and lithological controls. Higher grades

Criteria	JORC Code explanation	Commentary
		(nuggetty gold) are associated with vertical N-S striking (mine) quartz breccia structures plunging along the northern contacts of NE (mine) dipping fault zones. Where these zones interact with the main Shale contact, high grade shoots tend to occur with steep northerly plunges internal of the shale contact. Structurally the quartz breccia and shale units are offset by the NE dipping fault zones."
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• Mineralization at Red October occurs over 900m along strike and to a depth of 700m. Mineralization is hosted in vertical quartz breccia zones as well as where they intersect the primary host of graphitic black shales sitting on a Mafic/ultramafic contact. Inside the primary ore zone ore is seen as nuggetty visible gold and moving away from these zones mineralization is patchy with continuity along strike of between 5-20m and sub mineralization outside zones of silica flooding/brecciation.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.*	• The mineralised ore domains were wireframed based on geological homogeneity, grade populations, mineralisation styles and orientation of grade continuity. The domain wireframes were estimated as hard boundaries during the estimation process. RAB, Air-core and grab samples were excluded from the estimation process due to the unreliability of results. Negative gold grades were replaced with a grade of 0.001 g/t and null gold grades were excluded from the estimation process. Drillhole assays were composited to 1m intervals with a minimum length of 0.3m that best conformed to the sample length of the majority of the RC/DD data. High grades within each domain were identified and top cuts were applied where necessary. Variograms were produced to determine the directional influence of each sample during the estimation process. The Mineral Resource Estimate was interpolated using Ordinary Kriging in Micromine. • The Mineral Resource Estimation is checked against the previous block model estimations and reconciled production numbers. • No assumptions have been made regarding the recovery of by-products for this Mineral Resource Estimation. • No estimation of deleterious elements or non-grade variables is required. • The model has been created using a parent cell size of 2.5m (East- West) x 10m (North-South) x 10m (vertical). Sub-cells have been used to a resolution of 0.25m x 1 m x 1 m to ensure high resolution at ore boundaries. The search distances are variable and are adjusted according to the directional ranges calculated from the variograms, and the geological understanding of Au and geometry continuity for each domain. Search ellipsoids are variable and reflect individual domain conditions and are extended in later search asses with a decreased number of minimum samples where data is sparse.

Criteria	JORC Code explanation	Commentary
	• *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• No assumptions have been made regarding the modelling of selective mining units for this Mineral Resource Estimation. • No assumptions have been made regarding the correlation between variables for this Mineral Resource Estimation. • Mineralised domains were wireframed within the context of the known local and structural geology which was supported by the geological mapping UG and the geology logging of drillholes. Correlations between rock type, texture, alteration, and gold mineralisation were investigated. • Samples with extreme high grades that bias the mean grade and positively skew the grade population within each mineralised domains are top cut to reduce the influence high grade outliers. The geostatistical analysis to determine to cuts includes probability plots and the coefficient of variation. • A number of statistical and visual measures are used to validate the accuracy of the estimation. The mean grade of the block model is compared to the mean grade of composites by domain. These are then further investigated by appropriate northing, easting and bench intervals in the form of swathe plots. The volume variance between the wireframed domains and block model domains are assessed. Kriging efficiency, and slope results give an indication of the quality of the estimate. A visual inspection of the drill hole assay results are compared to the estimated block model in section.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• A cut-off grade of 2 g/t was chosen after economic considerations for the reporting of the Red October Mineral Resource
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not*	• No assumptions have been made as to possible mining methods or dilution factors due to the variable nature of the dip and thickness of the ore body. Current mining methods employed at Red October utilize both air legging and long hole production rigs and is determined by ore body dimensions. Dilution is calculated using a low grade wireframe encompassing the ore domains which typically grades at 0.01 g/t.

Criteria	JORC Code explanation	Commentary
	always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Red October has a variable recovery in certain zones dependant on the mineralized host. The lowest recoveries are in domain 110, which has a high refractory component with most ore locked in arsenopyrite, and in the unbreacciated primary shale unit which has recorded up to 2% active carbon causing it to have a preg robbing nature. Both are between 45-65% recovery. The quartz breccia has a high gravity gold component and most mineralization hosted in pyrite with recoveries varying between 80-93%. The average recovery applied to Red October and seen through the mill is 84%.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Waste rock characterisation has been conducted on the deposit with no environmental issues identified except dispersive oxidised material and waste dump construction plan in place to manage. Tailings from the deposit are stored in an appropriate licensed tailings facility and closure plan in place at Carosue Dam.

Criteria	JORC Code explanation	Commentary
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• The bulk densities for Red October were determined via testing of representative intervals from diamond drill holes, regular sampling via grab samples from the pit development. The sample size is generally between 0.5 and 1.5kg and the method of calculation is the water displacement technique. Measurements have been recorded in the acquire database and extraction schemes pair this data with the major lithology code for statistical analysis. • Ore zones predominantly exist in fresh non porous material, so additional measures to reduce moisture intake during the water displacement method is unnecessary at this stage. Coating more friable oxides and sediments (to reduce moisture loss or moisture gain during the process) is considered on a deposit by deposit basis. • An average mean of densities collected for each lithological type has been uniformly applied to the modelled geological units. The oxide and transitional zones have an assumed density based on regional work in similar deposits and general goldfields region
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Resource classifications were defined by a combination of data; drill hole spacing, estimation quality (search pass, Kriging Efficiency and Slope results), geological confidence and Au continuity of domains. Based on these factors hard boundaries were wireframed for measured, indicated and inferred material. Measured material exhibits high confidence defined by development drives and closed spaced GC drilling, with estimates in the first search and Kriging Efficiency and Slope results >80%. Indicated material is defined by close spaced drilling, having good geological continuity along strike and down dip and in such is reflected with good KE and Slope results. Inferred classification is given to the estimate outside the mineable area with more sparse drill intercepts (>25m X 25m) and having poorer estimation quality. • All relevant factors have been taken into account and are validated through thorough QAQC of the drill hole database and geological knowledge and interpretation of the Red October deposit. Thorough model validations and reviews ensure the integrity of the final estimation and the grade and tonnage numbers. • The reviewing process allows the Competent Person's to assess and sign off on the model.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• At the completion of resource estimation Saracen Gold Mines undertake an extensive review of the model that covers model inventory and comparisons to previous models. Geological interpretation, wireframing, domain selection, statistics by domain, assay evaluation, parent cell sizes, data compositing, variography, search strategy, estimation and Kriging Neighbourhood Analysis and finally model validation and resource categorisation are all discussed and scrutinised by the geological and mine planning teams.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Mineral Resource has been reported in accordance with the guidelines of the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Saracen Gold Mine uses a standard approach to resource estimation and the procedure requires the systematic completion of the Saracen Resource Estimation Document that is thoroughly investigated and assessed in the Model review process, as stated above. • The statement relates to global estimates. • Previous Mineral Resource estimates have had on average a positive reconciliation against mill figures

Appendix 2: Red October Gold Mine Background

The Red October gold mine was acquired from Saracen Mineral Holdings Limited ('Saracen") in late 2017 with settlement occurring in March 2018 *(refer ASX announcement date 28 March 2018).*

The Red October gold mine and project area covers 44 km^2 and consists of six granted Mining Leases (ML's), an extensive well-maintained underground gold mine, a 68-person camp, offices, workshops and exploration base, wet and dry messes, underground mine equipment (Figure 2) and a JORC 2012 compliant Mineral Resource of ~99,000 oz of gold, including an underground resource of **85,000 oz @ 13.6g/t Au** (Table 1).

Mineral Resource and Geology

The Red October Mineral Resource Estimate for underground totals 195,000t at 13.6g/t for 85,000oz Au *(ref SAR report to ASX 02/08/2017)*.

Material	Indicated			Inferred			Total		
	Tonnes (t)	Grade (g/t) Au	Gold (oz)	Tonnes (t)	Grade (g/t) Au	Gold (oz)	Tonnes (t)	Grade (g/t) Au	Gold (oz)
Red October OP	251,000	1.7	14,000				251,000	1.7	14,000
Red October UG	89,000	12.1	35,000	106,000	14.6	50,000	195,000	13.6	85,000
Total	**340,000**	**4.5**	**49,000**	**106,000**	**14.7**	**50,000**	**446,000**	**6.9**	**99,000**

***Table 1:* 30 June 2017 Red October Resource Estimate (ref SAR report to ASX 02/08/2017) * - Underground portion reported at a 2g/t Au cut-off, and Open Pit at 0.5g/t Au cut-off**

**The Company confirms that it is not aware of any new information or data that materially affects the information included in the above resource estimate and that all material assumptions and technical parameters underpinning the above resource estimate continue to apply and have not materially changed.*

A helicopter-borne magnetic survey in 1993 identified a northeast trending magnetic anomaly that was considered analogous to Sunrise Dam. In 1993, a 400m by 100m pattern of aircore holes were drilled by a track mounted rig over the Red October area, with the best intercepts being 2m @ 1.78g/t Au, 7m @ 0.42g/t and 3m @ 0.37g/t and 2m @ 0.30g/t. Follow up RC drilling in mid-1994 filled in the drilling pattern to 50m sections, with the best intercept of 21.5m @ 53.7g/t in what was to be subsequently the open pit.

In early 1995, Sons of Gwalia Ltd entered into a joint venture agreement with Mount Burgess, spending $10 million to acquire 50% of the project. After further resource development drilling to a 20m by 20m spacing in the pit area, a total mineralisation inventory of 2.1Mt @ 5.8g/t (Jankowski, 1999) and an open pittable reserve of 520kt @ 6.2g/t for 105koz (Russell, 1999) was estimated in February 1999. Shortly thereafter, Sons of Gwalia purchased Mt Burgess' remaining equity less a production royalty.

The first ore was produced in January 2000, with ore trucked the 140km from the mine site to Sons of Gwalia's Leonora treatment plant for processing. The final pit is approximately 650m long, 500m wide and has a maximum depth of 95m below the natural surface. Open pit mining ceased in November 2000. Total production was 535,000t @ 6.5 g/t with 112,200 ounces of gold recovered.

The mine was then placed into care and maintenance, and following the collapse of Sons of Gwalia, most of the infrastructure was removed.

Re-commissioning by Saracen of the Red October gold mine site began in late 2010. There were two declines developed to service the mine (North and South Declines). The first underground grade control drilling was undertaken in January 2012. First underground ore was trucked in February 2012 and total production to March 2017 (closure) is 1.2Mt at 5.9g/t for 229koz. The mine was then placed on care and maintenance by Saracen.

Red October Gold Pty Ltd (A wholly owned subsidiary of Matsa Resources Limited) purchased Red October in March 2018. The mine has continued to be kept dewatered under care and maintenance.

The Red October gold mine is a structurally controlled gold deposit located in the Laverton Greenstone Belt (LGB) which hosts a number of world class gold mines with resources >25M oz of gold which include Sunrise Dam, Granny Smith, Wallaby and Mt Morgans (Figure 1).

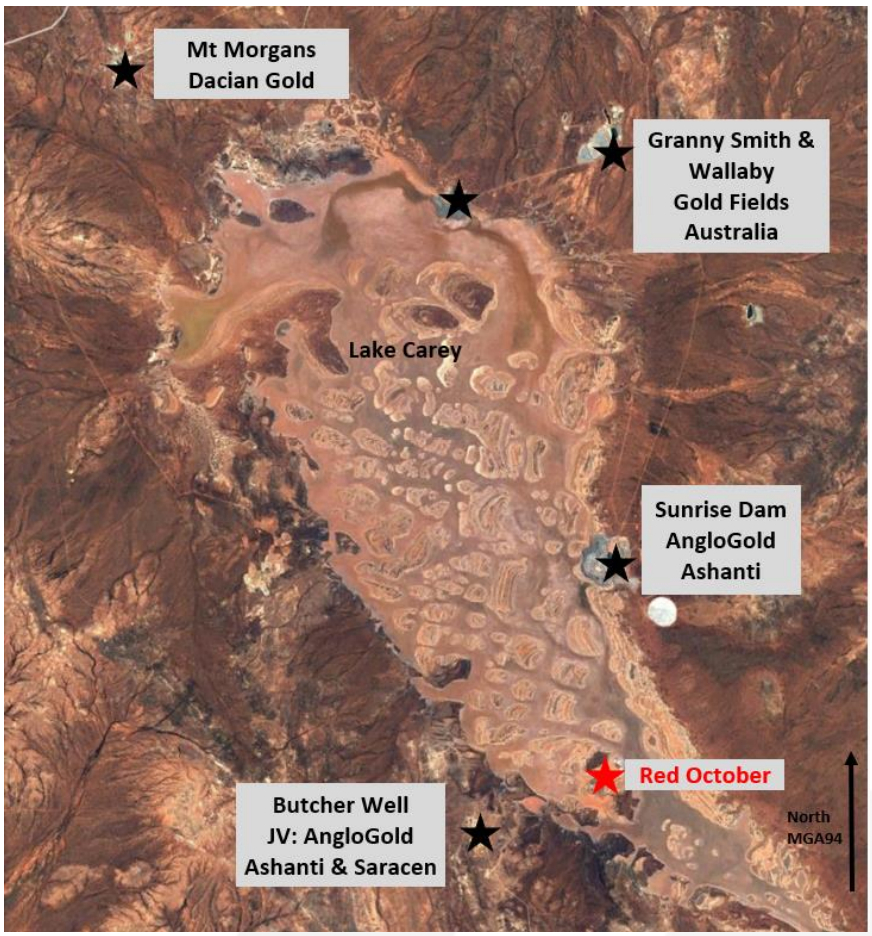

Figure 1: ***Lake Carey district, Laverton - a world class address for gold mining***

Appendix 3: Smurfette 322 Lode Face Sampling Summary