MATSA RESOURCES LIMITED
ABN 48 106 732 487

ASX Announcement **18th July 2018**

Mining to Commence
Red Dog Gold Project

Highlights

- *Red Dog Gold deposit gets green light with mining activities to commence early August and to be completed within 16 weeks*
- *Mining study parameters for the Red Dog gold mine are:*
  - *All in sustainable cash cost (AISC) of A$1,294 per oz gold*
  - *Cash surplus A$5.4M after all operating costs*
  - *Total production 182,000t @ 2.5g/t Au (13,400 recovered oz gold)*
  - *Total material movement 0.6Mt at a strip ratio of 2.4:1*
  - *AngloGold Ashanti to buy all ore produced through an ore purchase agreement with ore treated at SDGM*
- *All statutory and regulatory approvals are in place*
- *Contracts for mining and haulage being finalised*

CORPORATE SUMMARY

Executive Chairman

Paul Poli

Director

Frank Sibbel

Director & Company Secretary

Andrew Chapman

Shares on Issue

176.93 million

Unlisted Options

13.70 million @ $0.25 - $0.30

Top 20 shareholders

Hold 51.68%

Share Price on 17th July 2018

15.5 cents

Market Capitalisation

$27.42 million

Head Office: Suite 11, 139 Newcastle Street, Perth Western Australia 6000 **Tel**: +61 8 9230 3555 **Fax:** +61 8 9227 0370
Bangkok Office: Unit 1801, Pacific Place 2, 142 Sukhumvit Road, Klongtoey, Bangkok 10110 **Tel**: +66 0 2653 0258 **Fax**: +66 0 2653 0258
reception@matsa.com.au www.matsa.com.au

Matsa Resources Limited ("Matsa" or "the Company" ASX: MAT) is pleased to report the results of a mining study at its Red Dog gold deposit. The study shows that the mine will produce a cash surplus of A$5.4M over a period of 3 months which includes all mining and haulage of gold ore to AngloGold Ashanti Australia Limited's (AGAA) Sunrise Dam Gold Mine (SDGM) treatment facilities.

The board of Matsa has decided to commence mining at the Red Dog gold deposit as soon as possible. The capital and operational cash requirements of the mine can be funded by Matsa's existing cash reserves without the need to raise any additional capital.

Mining Study Overview

Matsa has completed a mining study on the Red Dog gold depsoit. The mine has a short mine life of only 3 months, with 1 month for establishment prior to mining and is expected to generate a cash surplus of A$5.4M at a gold price of A$1,700 per oz. All necessary approvals and ore purchase agreement are in place, with contracts for mining and haulage being finalised. Mining activities will commence in early August.

Key statistics of the Red Dog gold project are presented in Table 1 below.

Key Project Statistics	
Mineral Resources	
Indicated Resources: 333,000t at 2.3 g/t Au	24,800 oz
Inferred Resources: 35,000t at 1.4 g/t Au	1,500 oz
Total Resources: 368,000t at 2.2 g/t Au	26,300 oz
Ore Reserves	
Probable: 182,000t at 2.5 g/t Au	13,400 oz recovered
Production Summary	
Mine Plan: 182,000t at 2.5 g/t Au	14,500 oz
Life of Mine, mining (months)	2
Life of Mine, incl. haulage & rehab (months)	4
Strip Ratio (Waste : Ore)	2.4 : 1
Metallurgical Recovery	92.5%
Gold Mined (oz)	14,500 oz
Gold Produced (oz)	13,400 oz
Project Economics	
Gold Price (A$/oz)	1,700
Revenue (A$M)	22.7
Costs (A$M)	17.3
Cash Surplus (A$M)	5.4
AISC (A$/oz)	1,294

Table 1: Key Project Statistics

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 effect 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 production targets 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 carries out for this study comply with the requirements of a mining study.

Project Background

Red Dog is 100% owned by Matsa Resources Limited and located just north of Mount Celia Road and west of the Saracen Haul Rd near Mt Howe Well, approximately 25km west of Matsa's Fortitude Gold Mine, 7km west of Second Fortune Gold Mine and 10km south of Butchers Well gold deposit. The tenement package comprises 3 mining licences and associated Miscellaneous Licences (Figure 1).

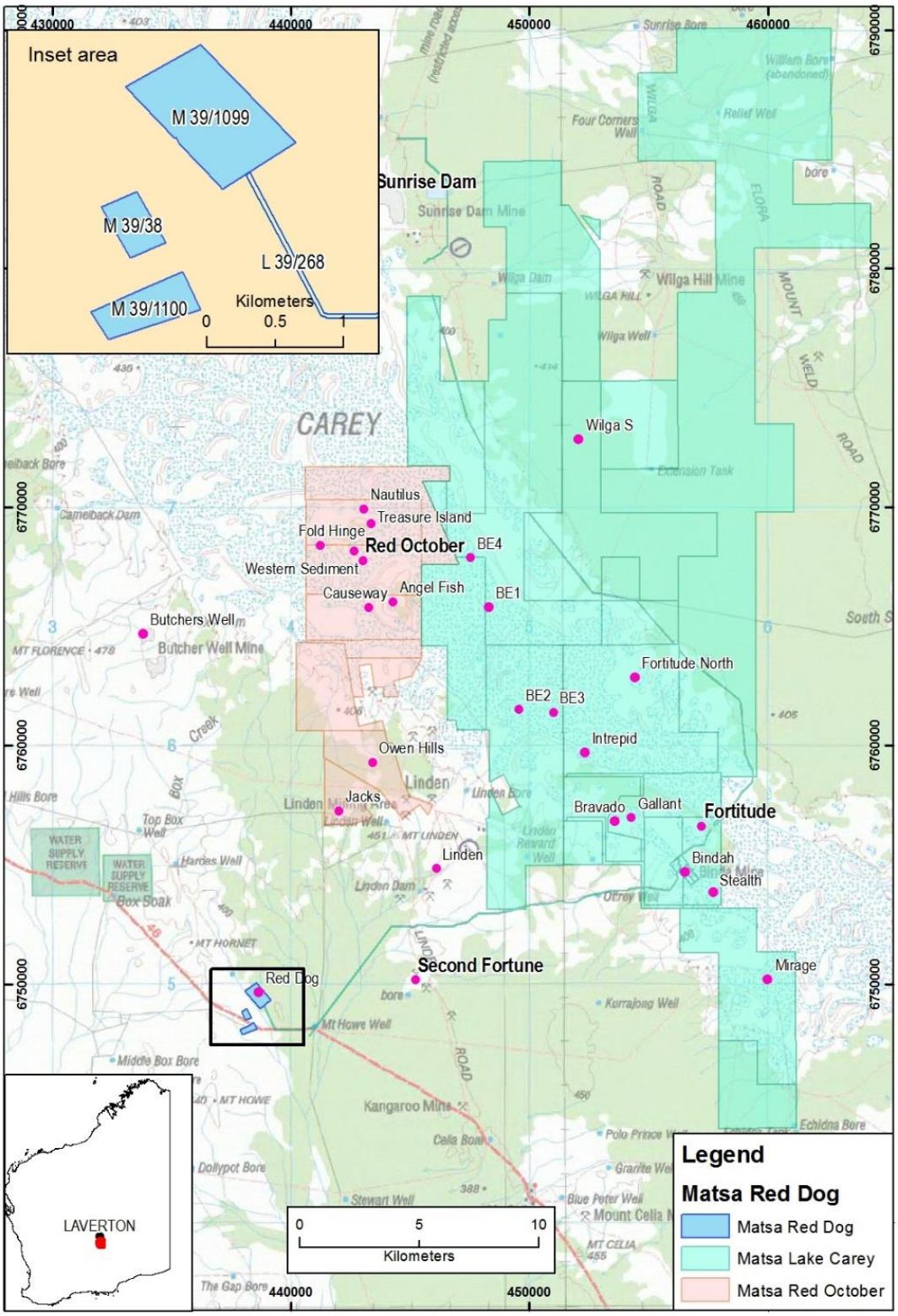

Figure 1: ***Red Dog Location Plan***

Study Parameters

The Red Dog Mining Study has been based on the following parameters:

- The JORC 2012 Red Dog Mineral Resource Estimate of 369,000t at 2.2g/t for 26,300oz Au *(MAT announcement to the ASX dated 18th January 2018)*.
- Open pit and haulage operation conducted by contractors

- Purchase of ore by AGAA and processed at AGAA's SDGM processing facility
- Matsa will manage all mining activities

Mining Study Participants

The study was managed by Matsa. Contributing consultants include:

- Optiro Consulting - Resource Estimation and Pit Optimisations
- Orelogy - Mine Design
- Peter O'Bryan & Associates - Geotechnical
- Macromet and ALS Metallurgy - Metallurgy
- AQ2 - Water Management
- Gerrard Consulting - Environmental Management
- Terrestrial Ecosystems - Fauna, Short Range Endemics and Subfauna
- Plantecology - Flora
- Landloch - Waste Rock Design
- GLSC and Snappy Gum - Heritage

Key Outcomes

Key outcomes for the Mining Study are provided in Table 1. The Ore Reserve, classified in accordance with the JORC Code (2012), constitutes almost 100% of the Mine Plan, with only 100t for 10 oz Au within the pit design deriving from Inferred Resources. As this Inferred Resource material is less than the rounding error, it has not been reported in the key statistics.

Key Project Statistics	
Mineral Resources	
Indicated Resources: 333,000t at 2.3 g/t Au	24,800 oz
Inferred Resources: 35,000t at 1.4 g/t Au	1,500 oz
Total Resources: 368,000t at 2.2 g/t Au	26,300 oz
Ore Reserves	
Probable: 182,000t at 2.5 g/t Au	13,400 oz recovered
Production Summary	
Mine Plan: 182,000t at 2.5 g/t Au	14,500 oz
Life of Mine, mining (months)	2
Life of Mine, incl. haulage & rehab (months)	4
Strip Ratio (Waste:Ore)	2.4 : 1
Metallurgical Recovery	92.5%
Gold Mined (oz)	14,500 oz
Gold Produced (oz)	13,400 oz
Project Economics	
Gold Price (A$/oz)	1,700
Revenue (A$M)	22.7
Costs (A$M)	17.3
Cash Surplus (A$M)	5.4
AISC (A$/oz)	1,294

***Table 2:* Key Project Statistics**

Project Approvals

All regulatory approvals for mining are in place and include:

- Native Vegetation Clearing Permit
- Mine Plan
- Mine Closure Plan
- Mining Proposal

Mineral Resource and Geology

The Red Dog Mineral Resource Estimate totals 369,000t at 2.2g/t for 26,300oz Au *(MAT announcement to the ASX dated 18th January 2018)*.

Material	Indicated			Inferred			Total		
	Tonnes t	Grade g/t	Gold ounces	Tonnes t	Grade g/t	Gold ounces	Tonnes t	Grade g/t	Gold ounces
Oxide	2,000	1.3	100	2,000	0.9	100	**5,000**	**1.1**	**200**
Transitional/Fresh	330,000	2.3	24,700	33,000	1.4	1,500	**363,000**	**2.2**	**26,200**
Total	**333,000**	**2.3**	**24,800**	**35,000**	**1.4**	**1,500**	**368,000**	**2.2**	**26,300**

***Table 3:* Mineral Resources Jan 2018 - reported at 0.5g/t Au cut-off and no pit constraints**

Red Dog, formerly known as Tin Dog, was discovered by Whim Creek Consolidated in 1984. The Red Dog project occurs within the Archaean greenstone belt, consisting of a predominately intermediate to mafic volcanic sequence with interbedded sediments and Banded Iron formations (BIF). In 1985, Hallberg identified the N-NNW trending Mt Hornet Fault to the west of the Red Dog project as a complex zone of ductile deformation. Local geology at Red Dog comprises basalt and andesite. In the volcanics, mineralisation appears to be associated with an increase in the abundance quartz-carbonate veining. The highest grades are found in crackle breccia. Hosted in silica washed basalt, mineralisation is related to zones of intense micro-fracturing with hematite, pyrite, silica flooding and carbonate alteration halos. Typically, the ore is lighter coloured than the surrounding basalt due to alteration. Gold mineralisation appears to be flat lying, 2 - 3m thick and typically 6 - 7m below surface.

Mining

Material Mining Assumptions

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

An allowance has been made for in pit grade control and is applied on a cost per tonne of ore mined basis.

Classification Criteria

The 2018 Red Dog Mineral Resource estimate was used to determine the ore reserves. The Ore Reserves have been estimated from the ore classified as indicated only, there has been no Inferred Ore included in the Ore Reserves.

Mining will be carried out by a mining contractor with technical and management direction from Matsa. The mine consists of one open pit and incorporates drill and blast, load and haul and ore and waste management tasks.

Material movement is scheduled and costed based on quotes received during a tender process. Mining is scheduled to operate at approximately 30,000 bank cubic metres (BCM) per month, using a 120 - 130t excavator and a fleet of 777 dump trucks. Pre-mining activities include upgrade of the haul route and site preparation. Mining will commence prior to ore haulage in order to construct a manageable run of mine (ROM) stockpile. Mining of the open pit is scheduled to take 2 months to complete with ore haulage to the mill continuing for a further month.

All ore mined will be hauled from the local ROM to the SDGM external treatment facility using standard triple road-trains along a privately held haul road. The study was based on a FIFO workforce working on single shift, which will be accommodated at the Company's 100% owned Red October Village and commuting between the Red October Village and the minesite.

Dilution parameters applied to the Mineral Resource estimate as modifying factors for Reserve calculation include a mining dilution of 15% and a mine recovery of 95% being used in the study. This is considered appropriate for a flat lying deposit.

Financial modelling results indicates the project shows a positive cash flow with or without the inferred material as this material totals only 10 oz Au and does not significantly impact project financials.

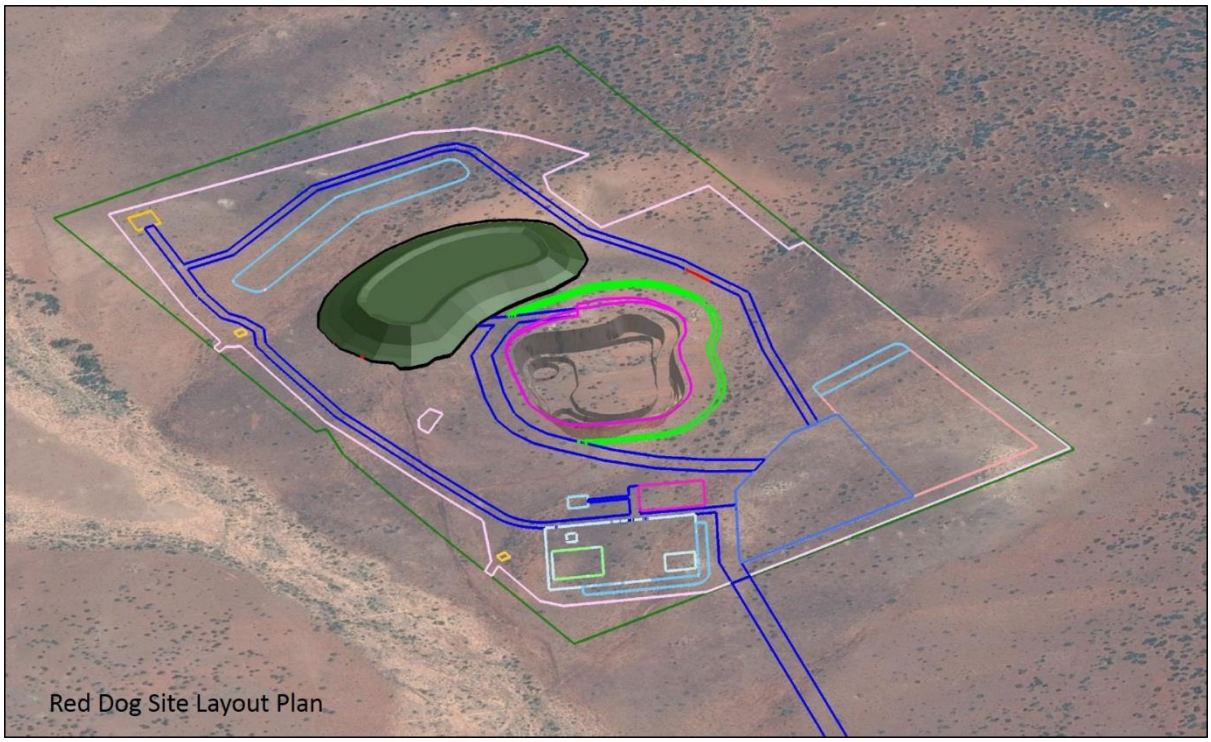

Figure 2: ***Red Dog Site Layout Plan***

Geotechnical

The Red Dog pit is less than 20m deep and comprises largely of strong transitional to fresh material. Transitional material outcrops at surface over much of the deposit with oxide material restricted largely to the periphery of the mineralised area. Peter O'Bryan and Associates completed a desktop geotechnical study and concluded walls up to 20m face height can be up to 70° angle and constructed without berms.

Ore Reserves and Mine Plan

The Ore Reserves are reported according to the JORC Code 2012 Edition. The Indicated category portion of the Mineral Resource estimate (Table 3) was converted to Probable Ore Reserves after material modifying factors were considered. Those modifying factors are discussed in this report and include mining method, geotechnical considerations, metallurgy and ore processing, infrastructure, transport and services and costs. Confidence in these factors is considered consistent with a Probable Ore Reserve classification. Mineral Resource estimates are reported inclusive of those Mineral Resources converted to Ore Reserves. The Probable Ore Reserve estimate is provided in Table 4.

Ore Reserves are based on a gold price of A$1,700/oz Au. Ore dilution of 15% and ore loss of 5% has been assumed. A mill recovery of 92.5% has been used in metal estimations.

Material	Tonnes	Gold (g/t)	Ounces Au Recovered
Oxide	-	-	-
Transitional	127,000	2.5	9,300
Fresh	55,000	2.4	3,900
Total	182,000	2.5	13,400

Table 4: Red Dog Probable Ore Reserve

Figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding

The Mine Plan is presented in Table 5. A minor amount of inferred material totalling 110t for 10 oz Au is included in the mine plan. This amount is within the rounding errors of the Ore Reserve and Mine Plan estimates.

Material	Tonnes	Gold (g/t)	Ounces Au
Oxide	-	-	-
Transitional	127,000	2.5	9,300
Fresh	55,000	2.4	3,900
Total	182,000	2.5	13,400

Table 5: Red Dog Mine Plan (includes Inferred Resource Material)

Figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding

Metallurgy and Ore Processing

Red Dog metallurgical work was managed by Macromet using ALS Metallurgical Laboratories for testwork. A total of 8 composites of Red Dog ore were collected for analysis for a range of assay grades and for transitional and fresh rock types.

Testwork recoveries using AGAA's Sunrise Dam testwork methodology and including gravity, floatation, regrind and cyanidation processing techniques provided 92% - 95% gold recovery. The weighted average of 92.5% recovery has been used in financial modelling.

Bond Ball Mill Work indices ranged from a moderate 14.4 kW/t (SPRK20) to very hard characteristics of 23.4 kWh/t (Fresh) and generally increasing with depth of the ore type. The majority ore type (SPRK5) BBMWi value of approximately 20 kWh/t indicates hard ball milling characteristics.

Gravity Au recovery to amalgam at the tested 140 µm P80 grind size demonstrated relatively consistent extraction (13% to 31%) for an average of approximately 21% for the entire programme.

Ore processing will be via AGAA's Sunrise Dam processing facility. Terms for ore purchase have been agreed and financial modelling has been based on the agreed parameters. No deleterious elements were noted.

Infrastructure, Transport and Services

Infrastructure for mining will be mobilised by the mining contractor and will include workshop, offices and facilities, power and fuel storage. All facilities will be removed and land rehabilitated post mining.

The Red Dog open pit is above the water table and while there is no dewatering requirements, water will be required for dust suppression. An agreement to take water for dust suppression from the nearby Second Fortune mine is in place.

The haul route to the SDGM mill is based on existing roads. Upgrade of these roads is required to allow for haulage and these works have been costed and scheduled as part of the study.

Accommodation will be at Matsa's Red October Village, located 30km by road to the north.

Costs

All costs have been considered as operating costs due to the short mine life. Total cost to mine is A$17.3M. Mining and haulage costs are based on received quoted rates. Flights, accommodation, services and other non-mining costs are derived from costs incurred at Mata's recently completed Fortitude trial mine. There are no sustaining capital costs. A breakdown of costs is shown in Figure 3.

Approvals and Permitting

During the mining study, Matsa lodged all necessary applications with the appropriate authorities. On 7 June 2018, Matsa advised that it had received approval from the Department of Mines Industry, Regulation and Safety (DMIRS) for its Mining Proposal, Mine Closure Plan and Project Management Plan for its Red Dog Gold mine and that all regulatory approvals had now been received.

Land Tenure and Social Heritage

The Mineral Resource and proposed mining area covers 1 granted mining lease. Matsa Gold Pty Ltd (a wholly owned subsidiary of Matsa) is the 100% owner of the tenements which are located on the Mt Yundamindra pastoral lease.

Mr R Hodges and Mr M Hodges hold a 2.25% net smelter royalty for production up to 10,000oz of gold and a 1.5% net smelter royalty thereafter. No other 3rd party royalties apply apart from the normal state government royalties.

There are no native title claims over the area. The heritage survey located three small heritage sites outside of the operational envelope that are planned to be protected.

There are no impediments to obtaining a license to operate.

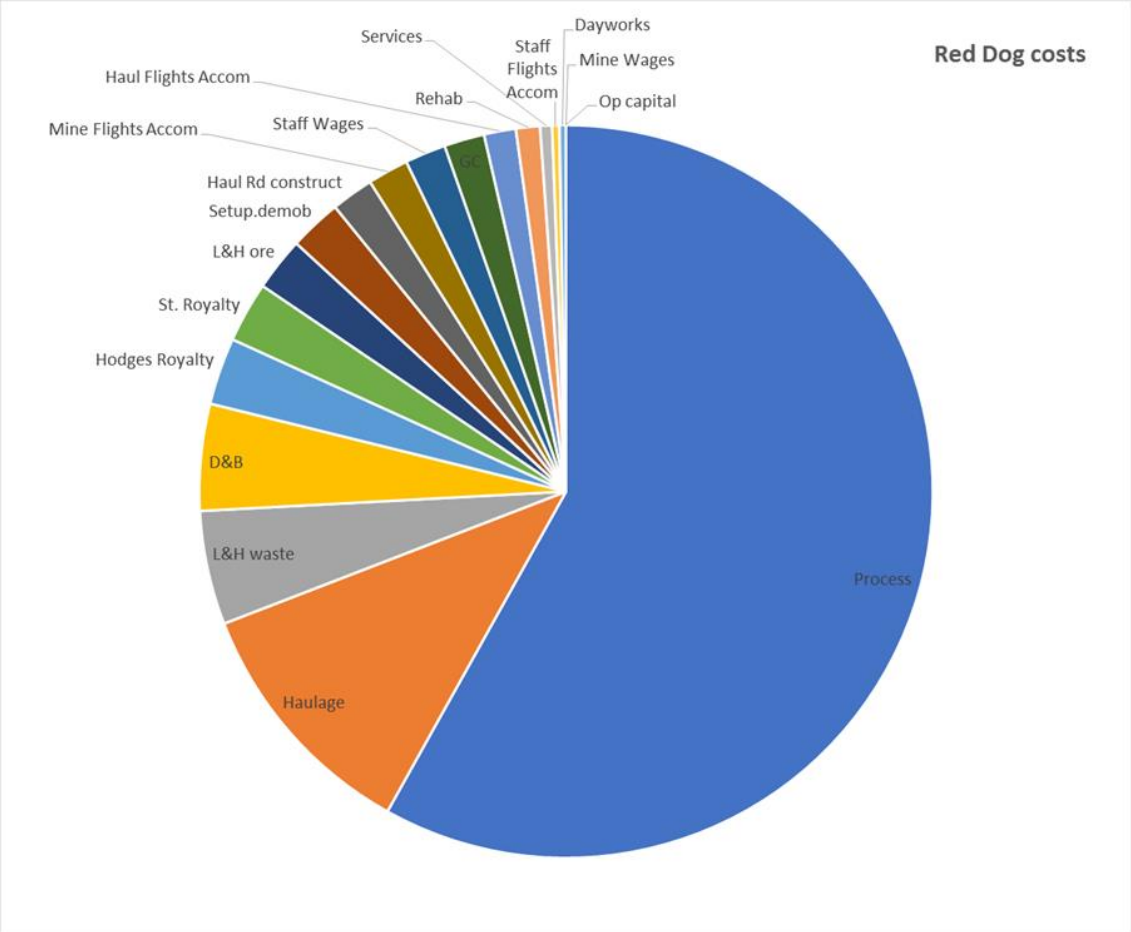

Figure 3: ***Cost breakdown***

Mine Schedule

The mine schedule is based on equipment and schedules supplied during the tender process. Mining of the single pit is expected to occur over 8 – 9 weeks on single shift producing 13,400 ounces of gold at an All in Sustainable Cost (AISC) of $1,294 per recovered ounce. The same timeframe for haulage to the SDGM processing facility via a delayed start until ROM stockpiles are established is expected (Figure 4).

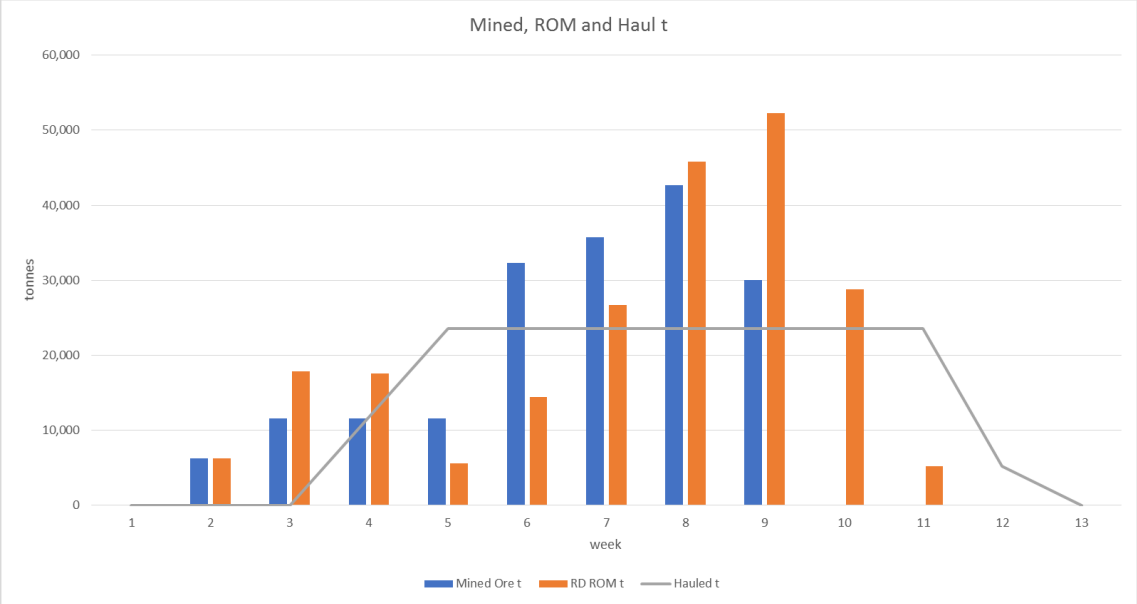

***Figure 4:* Mine Schedule**

Cut-off Grade

The Ore Reserve has been reported at a cut-off grade of 1.5g/t Au. The Ore Reserve cut-off grade was based on an optimisation using mine and mill costs, mining and mill recoveries and an open cut mining method as detailed herein. A gold price of A$1,700 was used.

Sensitivity Analysis

Sensitivity analysis for gold price, grade and costs were estimated at +20% to -20% variation to base case assumptions. The analysis indicates the project is viable within these sensitivities.

	Operating Surplus ($M)				
Parameter	80%	90%	Base Case	110%	120%
Au Price (A$/oz) - Base Case A$1700	3.1	4.2	5.4	6.6	7.7
Grade (g/t) - Base Case 2.5g/t Au	1.1	3.3	5.4	7.6	9.7
Costs ($t) - Base case A$17.3M	8.8	7.1	5.4	3.7	2.0

***Table 6:* 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$27.4M and cash and liquid assets of approximately A$8.8 million as at 30th June 2018.

Matsa has the financial capacity to internally fund the capital and maximum cash requirements of this project.

Opportunities

The mining study represents an opportunity for Matsa to create a significant low risk cash surplus. By opening up the ore deposit there is also the opportunity to learn the detailed geological controls of the mineralisation to assist in further exploration.

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
- Achieving the unit cost mining rates as used in the study

For further information please contact:

Paul Poli
Executive Chairman

Phone	**+61 8 9230 3555**
Fax	**+61 8 9227 0370**
Email	**reception@matsa.com.au**
Web	**www.matsa.com.au**

Competent Person Statements

The information in this report that relates to Exploration results 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.

The information contained in this ASX release relating to Mineral Resources has been compiled by Susan Havlin of Optiro Ltd. Susan Havlin is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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". Susan Havlin consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

The information in this report that relates to Ore Reserve results is based on information compiled by Mr Frank Sibbel, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Sibbel is a non-executive director of Matsa Resources Limited. Mr Sibbel 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'. Mr Sibbel 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 - *Matsa Resources Limited – Red Gold Deposit*

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.* • *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.*	RC drilling using cyclone split on 1m intervals. Samples typically 2- 3 kg and pulverized to 50g charge for FA-AAS. Historical: RAB and RC drilling sampled with drill chips. RAB sampled with 2 to 5m composites with 1m splits in areas of elevated results. RC drilling sampled at 1m intervals. Samples were sub-split for assay by Aqua Regia or Fire assay.
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).*	RC drilling using face sampling bit. Historical: Details of pre 2015 (Billiton/Newmont/SOG) drilling by RAB, RC and Diamond methods unknown. Post 2015 RAB drilling carried out with small scale rig using 60mm drill bit Post 2015 RC drilling carried out by 5 inch face sampling bit with KDA 250 RC Rig.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	Recoveries visually assessed for weight consistency. Historical: No records of recovery noted is records. Shallow drilling is expected to have high recovery based on nearby drilling experience.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	Geologist on rig whilst drilling. On-rig assessments and remedy, if required, completed at rig. Historical: No record noted.

Criteria	JORC Code explanation	Commentary
	• *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.*	No relationship between recovery and grade noted in QA/QC review. Historical: Not determined
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.*	Chips have been logged for, but not limited to qualities including lithology, hardness, oxidation and weathering. This detail is considered appropriate for ongoing studies. Logging in generally qualitative in nature. Holes have been chip trayed for reference. All holes and intervals have been logged. Historical: A limited number of holes have qualitative geological logging. A selected number of samples have been petrographically described in detail.
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 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.*	RC chips sub-sampled using cone splitter and sampled dry. Splitter regularly checked for cleanliness and correct operation. Duplicates taken 1:20. QAQC samples taken at 1:20. Sample weights of ~3kg documented are considered adequate. All samples were dry. Historical: NQ Diamond holes are RC pre-collared in the area of interest (top 50m). Data on subsampling methodology of holes drilled prior to 2015 is absent. Some early historical drill programs report selective sampling, assumedly on visual veins. This may limit validity of some intersections. Since 2015, holes DDRC21 to 33 were spear sampled and DDRC34 to 57 were riffle split. Sample prep in Lab is standard for all assay procedures. Samples, where recorded, were sent to industry labs. Anomalous composites repeated with individual 1m splits. Unknown Sample weights of ~3kg documented are adequate for fine gold.
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.*	Samples were dispatched for gold determination by Fire Assay with AAS finish, which are industry standard processes. Standards/blanks used for QAQC at 1:20 sampling frequency. No significant bias noted. Historical: Assay accuracy determined by laboratory QACQ processes. Standards, blanks and duplicates are incorporated in the sample submissions to quantify any accuracy or precision issues. Historical: Samples were dispatched for low level gold determination by Fire Assay or Aqua Regia, which are industry standard processes. Assay accuracy determined by laboratory QACQ process.

Criteria	JORC Code explanation	Commentary
		Drilling QAQC not recorded. Lab reports show standard industry QA QC procedures in place.
	• *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.*	
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.*	All results were checked by senior staff. Several holes were twinned adjacent to historical RC holes. Data logged electronically on site with automated validation procedures and data entry checks. Data transferred to company database on completion of program. No adjustments to assay data made. Historical: Composites validated by individual 1m splits. No twinned holes carried out. Historical data transferred from publically available reports. Post 2015 data available as hardcopy reports. No amendments to assay data have been made.
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.*	Holes marked out prior to drilling using decimetre accuracy DGPS (+/- 0.3m). Holes not surveyed post drilling. Historical hole collars surveyed using decimetre accuracy DGPS where collars reliably located. Red Dog is located in GDA94 UTM co-ordinate system Zone 51. A local 2 point grid transformation is used: Local MGA51 East Point 1 10539.3 438407.6 North Point 1 11020.5 6749871.0 East Point 2 11037.4 439039.9 North Point 2 10384.7 6749387.8 Topographic control via decimetre accuracy DGPS is considered suitable for level of control required.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	Data spacing over main mineralised area is 20m x 20m, surrounded by 40 m x 40m away from mineralised area. Some historical RC drill spacing has been brought down to 10m x 10m. Samples have been composited for reporting results as appropriate using 0.5g/t Au lower cut. RC sampling was carried on a 1m basis.

Criteria	JORC Code explanation	Commentary
	• *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.*	
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 vertical and tests a relatively flat lying basalt/andesite unit. The minimum 1m sampling interval may have diluted parts of the mineralised unit to this minimum sampling width in parts and on edges of the unit. Historical drilling data was also to a minimum 1m sampling interval. No bias, apart from that mentioned herein is thought to have occurred due to orientation of drilling direction.
Sample security	• *The measures taken to ensure sample security.*	Samples transported to assay lab were collected from Fortitude site by laboratory staff. Samples numbered and recorded. Historical: Unknown-Post 2015 samples are either on site or relocated to another accessible area.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No audit carried out.

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 license to operate in the area.*	Tenements M39/38, M39/1009 and M39/1100 are live and held by M and R Hodges. The tenements are operated by Matsa Resources under an option to purchase agreement with the tenement holder. There are no known impediments to operating in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Previous explorers include CSR, Pennzoil-Vam JV, Shell Company Australia, Billiton Australia (1985 – 1990), Billiton-Newmont Australia JV (1990 – 1992), M Hodges – Welcome Stranger Mining (1993), M. Hodges (1994 – 1998), Goldfields Kalgoorlie (1999), Sons of Gwalia (2000 – 2003), Wilson (2004-2011) Saracen (2012- 2015), M. Hodges (2015 – 2017).
Geology	• *Deposit type, geological setting and style of mineralisation.*	The deposit type being sought at Red Dog are orogenic syntectonic gold mineralisation. Gold is interpreted to be associated with major NW striking shear zones and flat lying localised shearing and alteration.

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.*
		See Appendix 2 for listing of drill holes.

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*	Intercepts are weight averaged with a lower cut of 0.5g/Au and no upper cut.

Criteria	JORC Code explanation	Commentary
	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.*	
Relationship between mineralisation widths and intercept lengths	• *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.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	All intercepts quoted relate to downhole depth. The mineralised unit is flat to gently dipping. Intercepts in are expressed in downhole metres.
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 have been included in the text.
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.*	Refer Appendix 2.
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.*	Surface geology interpretation and geophysics exists over the area of interest.
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.*	Forward activities include resource estimation and potential for mining evaluation as well as further drilling.

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.*	Geological and sampling data was entered directly into a computer on site. Assay data was received from the laboratory in digital format and lookup tables were used to match sampling and assay data. Survey data was imported from DGPS csv output files. All geological, sampling and assay data was reviewed to ensure validity. Data audits were conducted using industry software. Audits included checks for missing or erroneous holes, samples, assay, hole depths, geological codes and survey data. Missing data (e.g. LNR samples) recorded and noted.
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.*	Mr Mark Csar is the competent Person who has visited site on numerous occasions. No Optiro personnel have been to site. All aspects of drilling and sampling are considered by the Competent Persons to be of high industry standard.
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.*	Drilling on a 20 m x 20 m pattern shows consistency of interpretation between sections. An alternate mineralisation interpretation is difficult to suggest. There are isolated high grade intercepts which likely reflect short length structural anomalism (faulting), but the influence of these appears to be less than drill spacing. Lithology (MB) is largely uniform through the area. Alteration is commonly associated with mineralisation and was used to confirm grade outlines. Grade shells were generated using a minimum 2m thickness and a 0.5 g/t gold cut-off. This grade represents an inflection in the cumulative population distribution and enabled the mineralisation to be captured in a coherent envelope, which agreed with the geological model. A lower grade inflection of 0.2 g/t gold is present but this is too low to define potential economic boundaries.
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.*	The Red Dog deposit extends approximately 240 m in a grid N-S direction and 200 m in an E-W direction. The mineralisation is flat lying and extends from just below surface to a depth of at least 30 m below the surface. Mineralisation is typically 3 -14 m thick.

Criteria	JORC Code explanation	Commentary
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.* • *Any assumptions about correlation between variables.* • *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.*	Estimation was completed in Datamine Studio RM using dynamic anisotropy on an Ordinary Kriged (OK) model to estimate the gold grade. Grades were estimated into parent blocks of 10 mE by 10 mN by 5 mRL. Sub-celling down to 5 mE by 5 mN by 1.25 mRL was employed for resolution of the mineralisation boundary. The mineralisation wireframe was used to code both the 1 m composites as well as the block model. Kriging neighbourhood analysis was performed to optimise the block size, sample numbers, and discretisation levels with the goal of minimising conditional bias in the gold grade estimates. A total of three search passes was used, with the first search pass set to the range of the variogram. A minimum of 8 and a maximum of 30 samples were used. The search stayed the same for the second pass but was increased by a factor of 2 for the third and final pass. The minimum number of samples was reduced to 6 for the second and third pass. A nearest neighbour approach was used to fill blocks which did not fill in the first three passes. This situation applied to 1% of the mineralised blocks. No deleterious elements have been identified. No selective mining units have been assumed. Top-cuts were applied to reduce the variability of the data and to remove the outliers. The estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the drillhole data and by northing, easting and elevation slices. Global comparison between the input data and the block grades for each variable is considered acceptable (±10%). This is a maiden Mineral Resource so no comparison was carried out.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The Mineral Resource has been reported at a 0.5 g/t gold cut-off and has been based on assumptions about economic cut-off grades for open pit mining from current mining operations in the region. The resource estimate has not been constrained by a pit shell.
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*	It has been assumed that the deposit could potentially be mined using open pit methods.

Criteria	JORC Code explanation	Commentary
	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 always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	No assumptions have been made to date regarding minimum mining widths or dilution.
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.*	No assumptions have been made regarding metallurgy. Mining of this style of gold deposit is common in the area. The metallurgy, processing and waste management of these deposits is typically simple and well-understood. Results of preliminary historical metallurgical test work conducted by Hodges in 2016 suggests ~90% recovery. This figure is expected to improve with further targeted testwork.
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.*	No assumptions regarding possible waste and process residue disposal options have been made. It is assumed that such disposal will not present a significant hurdle to exploitation of the deposit and that any disposal and potential environmental impacts would be correctly managed as required under the regulatory permitting conditions.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	The Mineral Resource estimate has an effective date of January 2018. The resource estimate was based on a 0.5g/t Au cut-off and the estimate was not constrained within a pit shell. Mineral Resources are reported inclusive of Ore Reserves.

Criteria	JORC Code explanation	Commentary
conversion to Ore Reserves		
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.*	A site visit to Red Dog has not been undertaken by the Competent person. The Competent person has extensive knowledge of the area gained from mining the nearby Fortitude deposit.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	Feasibility level studies have been completed. Conversion of Mineral Resources to Ore Reserves has been accounted for in material classification.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	Ore Reserve cut-off parameters are based on positive cash flows. The mining cut-off grade is calculated to be 1.5g/t Au, and is based on expected costs and revenues.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	The conversion of Mineral Resource to Ore Reserve was by optimisation parameters using costs from nearby operations followed by detailed design for final pit design and subsequent Ore Reserve estimation. The deposit will be mined by conventional open pit methods using 100 - 120t excavators and 100t trucks. Geotechnical parameters were completed by O'Bryan and Associates based on lithologies and weathering profiles from drilling. Ore Reserves are reported with a 15% mining dilution factor and a 95% mining recovery factor. A minimum width of 2.5m was used as a mining bench. Inferred resources make up <1% of the resource and are immaterial to sensitivities. Required infrastructure is industry standard for a small open pit and will include offices, workshops, ROM pads and Waste dumps. No ore processing facilities will be constructed.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	Ore will be treated though a customer plant. Metallurgical testwork using parameters of the plant was carried out by an accredited laboratory and supervised by an independent consultant metallurgist. Testwork comprising various composite samples taken over the entirely of the deposit has been completed using testwork procedures of the customer plant. The customer mill operates with known technology. Composite samples were domained on both grade and rock type and are considered appropriate to the deposit. No bulk or pilot study testwork was completed due to the small size of the deposit. Ore Reserves are reported inclusive of mill recoveries.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	Environmental studies on the Red Dog deposit have been completed and include flora, terrestrial and sub terrestrial fauna, groundwater and surface water impacts. A native vegetation clearing permit (NVCP) has been received from DMIRS. Studies and testwork on waste rock have been completed and no acid generating material is noted. Waste rock designs have been completed is accordance with independent recommendations. The Mining Proposal and Mine Closure Plan have been approved by DMIRS.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	No infrastructure currently exists on site. The deposit is approximately 1km from Saracen's Haul road and roads to the mill are in existence though need some upgrade. Accommodation is available at Red October camp and labour is expected to be found within the current WA contractor pool. No impediments to mining via infrastructure constraints are envisaged.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	Capital and operating costs have been derived using tendered quotes for the Red Dog mine. No allowance has been made for deleterious elements. An exchange rate of 0.76AUD to USD has been used where applicable Treatment and refining charges are based on negotiated charges and payments. Royalties are payable to the Government and the previous tenement holder.

Criteria	JORC Code explanation	Commentary
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	Ore production grades are determined by an optimized pit shell which has then been designed in detail for a final pit design. The model includes all mining, haulage and processing charges. The model has been based on indicative and anticipated costs and revenue negotiations with the ore processing facility.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	The market for gold appears robust. Red Dog has a short mine life with mining expected to commence in the near term. No long term forecasting was used in estimations.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	All operating and capital costs were included in the financial model. Capital items were treated as operating due to the short mine life. Costs are considered robust as they are based on a current operation. Sensitivity analysis has shown the project is robust and relatively insensitive to changes in price, operating costs and pit designs.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	The company has undertaken consultation with local pastoralists, government organizations and mining operations. Access agreements, where required are in place.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	No impediments to mining are noted. All regulatory approvals for mining are in place.

Criteria	JORC Code explanation	Commentary
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	Indicated Resources were classified as Probable Reserves after consideration of the appropriate modifying factors. Results reflect the view of the competent person. No measured mineral resources were estimated. A minor amount (10oz) of inferred material is included in the Mine Plan. This amount does not materially affect financials.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	Audits or reviews have been conducted internally with experienced Matsa personnel. Metallurgical results have also been reviewed by SDGM.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The accuracy of estimates in this Ore Reserve are mostly determined by the order of accuracy of the Mineral Resource, metallurgical input, and cost inputs. Some risk factors include: Local and global bias within the Mineral Resource Geotechnical risks associated with unforeseen risks Variation in recovery between metallurgical testwork and the customer mill Gold and Fuel price variation Final costs returned once mining is underway/completed.

Appendix 2: Matsa Resources Limited – Red Dog Project

Drill hole collar information and intervals > 0.5g/t Au (summary)

Hole_ID	East Local	North Local	RL	m Depth	Dip	Azimuth	M From	M To	M Thick	Au_ppm
17RDRC001	10580	10750	386	20	-90					
17RDRC002	10620	10750	386	20	-90					
17RDRC003	10660	10750	386	20	-90					
17RDRC004	10580	10710	386	20	-90					
17RDRC005	10620	10710	386	20	-90					
17RDRC006	10660	10710	387	20	-90					
17RDRC007	10700	10710	387	20	-90		16	17	1	0.66
17RDRC008	10740	10710	387	20	-90					
17RDRC009	10580	10670	386	20	-90					
17RDRC010	10620	10670	387	20	-90					
17RDRC011	10660	10670	388	20	-90		13	14	1	0.87
17RDRC012	10700	10670	390	20	-90		5	6	1	1.76
17RDRC013	10740	10670	388	20	-90		16	18	2	2.76
17RDRC014	10620	10650	387	20	-90		19	20	1	0.9
17RDRC015	10660	10650	389	20	-90		8	15	7	1.69
17RDRC016	10680	10650	389	20	-90		12	14	2	1.09
17RDRC017	10700	10650	390	20	-90		7	8	1	1.01
17RDRC018	10720	10650	390	16	-90		3	4	1	0.76
17RDRC019	10740	10650	389	16	-90					
17RDRC020	10620	10630	387	20	-90					
17RDRC021	10640	10630	388	20	-90		15	17	2	1.87
17RDRC022	10660	10630	389	20	-90		15	16	1	1.23
17RDRC023	10680	10630	389	20	-90		8	12	4	2.32
17RDRC024	10700	10630	389	20	-90		5	10	5	1.27
17RDRC025	10720	10630	389	16	-90		6	12	6	2.01
17RDRC026	10740	10630	388	16	-90		12	14	2	3.33
17RDRC027	10800	10630	386	20	-90					
17RDRC028	10620	10610	387	20	-90					
17RDRC029	10640	10610	387	20	-90		13	19	6	4.57
17RDRC030	10660	10610	388	20	-90		13	16	3	1.44
17RDRC031	10680	10610	388	16	-90		7	12	5	3.15
17RDRC032	10700	10610	388	16	-90		4	12	8	3.11
17RDRC033	10720	10610	388	16	-90		4	7	3	3.93
17RDRC034	10740	10610	388	16	-90		6	11	5	3.34
17RDRC035	10620	10590	386	16	-90		12	14	2	3.72
17RDRC036	10640	10590	387	16	-90		11	16	5	3.14
17RDRC037	10660	10590	387	16	-90		12	14	2	1.94
17RDRC038	10680	10590	388	16	-90		8	10	2	5.33
17RDRC039	10700	10590	387	16	-90		5	6	1	5.47
17RDRC040	10720	10590	387	16	-90		4	6	2	1.79
17RDRC041	10740	10590	386	16	-90		6	7	1	2.41

17RDRC042	10760	10590	386	16	-90		10	12	2	2.83
17RDRC043	10800	10590	385	20	-90		17	20	3	1.21
17RDRC044	10620	10570	386	16	-90		10	12	2	2.98
17RDRC045	10640	10570	386	16	-90		11	16	5	3.79
17RDRC046	10660	10570	386	16	-90		9	13	4	3.68
17RDRC047	10680	10570	386	16	-90		5	10	5	1.53
17RDRC048	10700	10570	386	16	-90		3	6	3	5.43
17RDRC049	10720	10570	386	16	-90		3	6	3	3.45
17RDRC050	10740	10570	385	16	-90		7	9	2	2.5
17RDRC051	10760	10570	385	16	-90		11	14	3	1.32
17RDRC052	10580	10550	385	20	-90					
17RDRC053	10620	10550	386	16	-90		5	6	1	1.4
17RDRC054	10640	10550	386	16	-90		13	15	2	1.63
17RDRC055	10660	10550	386	16	-90		9	11	2	3.48
17RDRC056	10680	10550	386	16	-90		7	8	1	5.11
17RDRC057	10700	10550	385	16	-90		4	7	3	2.22
17RDRC058	10720	10550	385	16	-90		6	8	2	4.26
17RDRC059	10740	10550	385	16	-90		8	12	4	1.11
17RDRC060	10760	10550	385	16	-90		14	15	1	2.76
17RDRC061	10800	10550	385	20	-90		17	18	1	0.78
17RDRC062	10620	10530	386	20	-90		12	13	1	0.75
17RDRC063	10640	10530	386	20	-90		6	9	3	2.72
17RDRC064	10660	10530	385	20	-90		6	11	5	2.9
17RDRC065	10680	10530	385	16	-90		7	9	2	2.75
17RDRC066	10700	10530	385	16	-90		2	6	4	3.11
17RDRC067	10720	10530	385	16	-90		4	6	2	5.84
17RDRC068	10740	10530	385	20	-90		10	12	2	3.75
17RDRC069	10760	10530	385	20	-90		14	19	5	2.3
17RDRC070	10580	10510	384	20	-90		3	4	1	0.74
17RDRC071	10620	10510	385	20	-90		10	11	1	0.6
17RDRC072	10640	10510	385	20	-90		11	19	8	2.56
17RDRC073	10660	10510	385	20	-90		5	16	11	2.87
17RDRC074	10680	10510	385	20	-90		15	16	1	0.94
17RDRC075	10700	10510	385	12	-90		2	5	3	0.92
17RDRC076	10720	10510	385	12	-90		4	5	1	1.44
17RDRC077	10740	10510	385	12	-90		6	12	6	155.11
17RDRC078	10760	10510	384	12	-90					
17RDRC079	10800	10510	385	20	-90					
17RDRC080	10640	10490	384	20	-90		0	2	2	1.21
17RDRC081	10660	10490	384	20	-90		8	18	10	2.56
17RDRC082	10680	10490	384	20	-90		2	16	14	2.3
17RDRC083	10700	10490	384	20	-90		6	12	6	1.76
17RDRC084	10720	10490	384	12	-90		4	8	4	1.29
17RDRC085	10740	10490	384	12	-90		11	12	1	0.6
17RDRC086	10760	10490	384	15	-90		12	15	3	1.54
17RDRC087	10640	10470	384	36	-90		23	30	7	3.3

17RDRC088	10660	10470	384	36	-90		3	4	1	0.51
17RDRC089	10680	10470	384	36	-90		13	23	10	1.25
17RDRC090	10700	10470	384	36	-90		10	19	9	0.98
17RDRC091	10720	10470	384	36	-90		8	13	5	2.69
17RDRC092	10740	10470	384	36	-90		15	17	2	3.43
17RDRC093	10760	10470	384	36	-90		19	21	2	0.72
17RDRC094	10640	10450	384	36	-90		33	34	1	3.1
17RDRC095	10660	10450	384	36	-90		22	24	2	4.48
17RDRC096	10680	10450	384	36	-90		25	27	2	1.96
17RDRC097	10700	10450	384	36	-90		20	24	4	2.35
17RDRC098	10720	10450	384	36	-90		4	6	2	0.77
17RDRC099	10740	10450	384	36	-90		14	23	9	0.87
17RDRC100	10660	10430	384	36	-90		30	32	2	1.75
17RDRC101	10700	10430	384	36	-90					
17RDRC102	10740	10430	384	36	-90		22	23	1	1.22
17RDRC103	10720	10331	383	60	-90		28	29	1	2.46
DDD001	10700	10515	385	200.5	-71.5	0	2	8	6	1.68
DDRC001	10696	10681	389	124	-60	180	9	10	1	0.54
DDRC004	10697	10632	389	100	-60	180	7	11	4	1.78
DDRC007	10696	10683	389	100	-60	90	17	18	1	0.55
DDRC008	10645	10684	387	100	-60	90	17	18	1	1.17
DDRC011	10697	10657	390	110	-90		7	8	1	2.13
DDRC012	10698	10606	388	120	-90		4	8	4	2.82
DDRC013	10647	10631	388	120	-90		13	16	3	0.72
DDRC015	10750	10631	388	100	-90		30	31	1	0.69
DDRC016	10699	10554	386	77	-90		6	8	2	1.56
DDRC21	10732	10489	384	24	-90		8	9	1	0.85
DDRC22	10721	10488	384	26	-90		4	6	2	15.78
DDRC23	10711	10488	384	26	-90		7	8	1	1.83
DDRC24	10701	10488	384	26	-90		2	3	1	1.17
DDRC25	10691	10489	385	26	-90		2	17	15	2.25
DDRC26	10691	10500	385	17	-90		2	12	10	1.36
DDRC27	10691	10509	385	17	-90		1	5	4	2.07
DDRC28	10701	10509	385	20	-90		1	7	6	0.99
DDRC29	10711	10509	385	14	-90		2	6	4	21.61
DDRC30	10730	10508	385	17	-90		6	7	1	1.09
DDRC31	10731	10498	384	14	-90		7	8	1	1.02
DDRC32	10730	10518	385	14	-90		3	8	5	13.73
DDRC33	10740	10527	385	18	-90		10	13	3	1.75
RDRC35	10692	10479	384	34	-90		4	20	16	1.41
RDRC36	10681	10481	384	37	-90		9	24	15	1.71
RDRC37	10681	10489	384	31	-90		4	5	1	0.81
RDRC38	10680	10498	385	20	-90		3	16	13	2.36
RDRC39	10680	10508	385	18	-90		11	12	1	1.56
RDRC40	10680	10519	385	16	-90		4	6	2	2.21
RDRC41	10679	10529	385	16	-90		6	10	4	2.67

RDRC42	10680	10539	386	16	-90		7	9	2	1.51
RDRC43	10679	10550	386	16	-90		7	9	2	2.12
RDRC44	10679	10559	386	16	-90		8	10	2	5.53
RDRC45	10678	10570	386	16	-90		4	5	1	0.99
RDRC46	10678	10580	387	16	-90		8	12	4	2.95
RDRC47	10676	10589	387	16	-90		9	12	3	2.44
RDRC48	10687	10589	388	13	-90		7	9	2	3.06
RDRC49	10688	10579	387	13	-90		8	9	1	6.97
RDRC50	10689	10569	386	13	-90		7	9	2	9.35
RDRC51	10689	10558	386	13	-90		7	9	2	3.94
RDRC52	10690	10549	386	13	-90		7	8	1	3.77
RDRC53	10690	10539	386	13	-90		7	9	2	4.17
RDRC54	10690	10529	385	13	-90		0	1	1	0.62
RDRC55	10691	10519	385	13	-90		3	8	5	1.79
RDRC56	10733	10517	385	13	-60	270				
RDRC57	10728	10520	385	13	-60	90	7	8	1	1.77
SDDRC17	10724	10611	388	114	-60	270	6	8	2	2.82
SDDRC19	10723	10569	386	124	-60	270	6	8	2	3.55
WSDDRC19	10682	10479	384	22	-60	270	16	20	4	4.7
WSDDRC20	10681	10428	383	32	-60	270				

Where a hole has more than one intercept, only the upper intercept is reported. Historical holes were used only if the collar could be reliably identified and collar co-ordinates recorded. All holes are RC drilled. Diamond Hole DDD001 is RC drilled for the upper 50m.