ASX Release

14 April 2022

DATELINE RESOURCES LIMITED

(ACN 149 105 653)

CAPITAL STRUCTURE

Share Price (13/04/22)	$0.12
Shares on issue	438 million
Market Cap	$52.0 million

MAJOR SHAREHOLDERS

Southern Cross Exploration NL	21.8%
Mr. Mark Johnson AO	19.8%
National Nominees Ltd	11.9%
Stephen Baghdadi	5.9%

DIRECTORS & MANAGEMENT

Mark Johnson AO
Chairman

Stephen Baghdadi
Managing Director

Greg Hall
Non-Executive Director

Tony Ferguson
Non-Executive Director

Bill Lannen
Non-Executive Director

Mark Ohlsson
Company Secretary

CONTACT

Mark Ohlsson

Phone: +61 2 9375 2353

Postal Address: P.O. Box 553
South Hurstville NSW 2221

Email: info@datelineresources.com.au

Colosseum Rare Earths Genetically Linked to Mountain Pass REE Mine, Expert Advisors Appointed

Highlights

- Rare Earth Element (REE) and Carbonatite experts, Dr Anthony N. Mariano, PhD. and Mr Anthony Mariano Jr have now been appointed as Senior Advisors to the Company.
- The two experts have been associated with the Mountain Pass REE mine for over 50 years
- Since September of 2021, Messrs Mariano have confirmed:
  - The USGS radio metric signature at the Colosseum mine is 3-5 times background reading
  - Outcrops at the Colosseum mine are genetically related to the geological events that created the Mountain Pass REE mine
- A follow up program of detailed structural mapping, sampling, and petrography will be completed in Q2 2022

Dateline Resources Limited (ASX: DTR) (**Dateline** or the **Company**) is pleased to announce the appointment of REE and Carbonatite experts, Dr Anthony N. Mariano, PhD. and Mr Anthony Mariano Jr to advise on REE exploration of the Colosseum mine area.

The Mountain Pass REE mine is located ~10km south-east of the Colosseum mine. The Mountain Pass REE mine is the only operating REE mine in the USA. Messrs Mariano have been mapping, sampling and advising on REEs in the Mountain Pass - Colosseum area for over 50 years.

Commenting on the REE potential of the Colosseum Mine Dr. Mariano, PhD, said,

"Realizing the close relationship between mineralized carbonatite bodies at the Mountain Pass mine and their genetically related alkaline rocks, the need for further exploration in the Mountain Pass-Colosseum corridor is obvious and cannot be over emphasized and we look forward to working with Dateline on the Colosseum project."

Figure 1. Looking north showing ~10km between Colosseum and Mountain Pass

About Messrs Mariano

Anthony N. Mariano, PhD, and Anthony Mariano (Jr.) are mineral exploration geologists. They work as a team and specialize in the geology and mineralogy of rare elements on a world level. They have worked extensively in the field and in the laboratory for more than 50 years and in more than 50 countries. Their emphasis is on geology and mineralogy in the evaluation of economic mineral deposit potential and ranking of specialties metals and rare earth element (REE) deposits. They work in close collaboration with mineral processing specialists to help refine ore processing.

They have field experience in multiple countries in North and South America, Africa, and Asia. In addition to their expertise in REEs, niobium and tantalum, their commodity experience includes gold, platinum, iron, copper, tin, tungsten, and phosphates in over 75-targeted mineral deposits. Expertise in laboratory analytical techniques used for mineral deposit evaluation includes petrography, cathodoluminescence microscopy, scanning electron microscopy/energy dispersive x-ray analysis, x-ray diffraction, electron microprobe analysis, and bench scale mineral processing techniques.

They have extensive experience with the Mountain Pass mine in south-eastern California, located ~10km to the south of the Colosseum mine, one of the few producing REE deposits outside of China. Anthony Sr. was the chief consulting geologist at Mountain Pass for over a decade during the time when Mountain Pass was the chief producer of REEs to the world market.

In more recent years, they have continued to consult to the current owners of the Mountain Pass REE mine (MP Materials) drawing on their extensive knowledge of the surrounding geology and ore mineralogy.

Mountain Pass REE mine is the only operating REE mine in the USA and MP Materials major asset. MP Materials is listed on the NYSE and has a market capitalisation of over US$9 billion.

Radiometric anomalies

In July 2021, Dateline announced a review of USGS geophysics data indicated anomalous radiometric anomalies trend towards Colosseum from the Mountain Pass Rare Earth Mine located south of Colosseum gold mine. The survey shows a marked increase in radioactivity relative to normal crustal rocks. The trends are oriented approximately N15°W and persist directionally toward the Mountain Pass REE mine approximately 10km to the southeast (Figure 2).

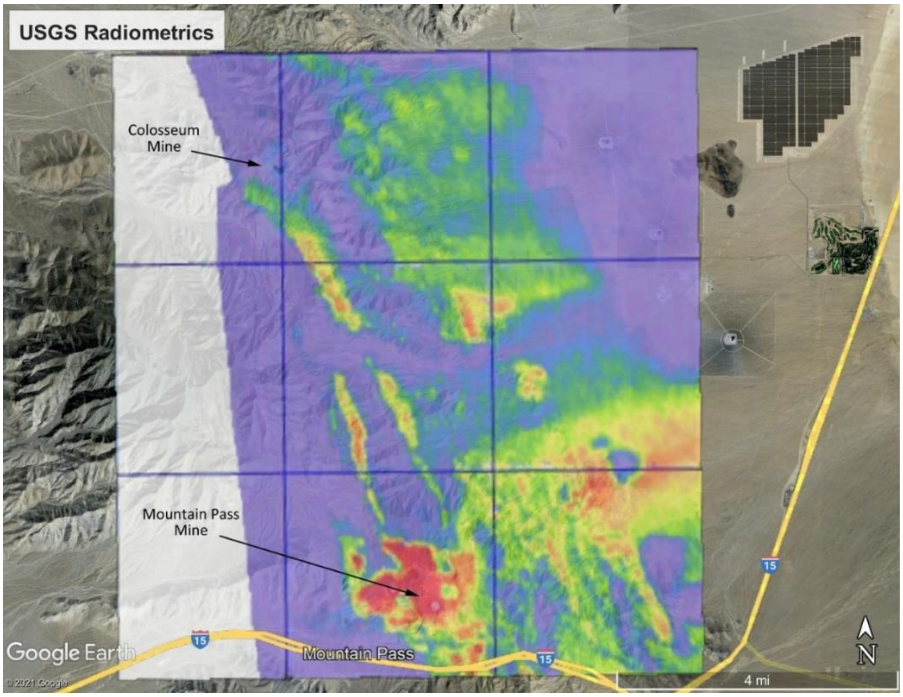

Figure 2. Airborne Radiometric Thorium anomaly trends from USGS geophysical data. Note the directional relationship between the Colosseum gold mine and the Mountain Pass REE mine.

The Company retained Messrs Mariano to undertake a brief field program to measure radiometric readings and collect samples for analyses. A brief field investigation was conducted in September 2021 to measure ground radiometric readings and observe the rock units associated with the trends within the Colosseum claims. Some limited geochemical sampling was also conducted.

The ground radiometric measurements taken in the field confirmed the USGS airborne data of the southern ridge as being the source of the airborne radiometric anomaly. Along the ridgetop that extended to the south from the mine pit, readings were 70-100 µR/h, well above the background readings of 18-20 µR/h, confirming the anomaly demonstrated in the airborne data.

Samples

Eight samples were collected in the field during two site visits (Figure 3). Two samples (COR-1 and COR-2) were collected from the mine breccia ore rock to investigate the potential presence of the REE mineral monazite. Monazite was previously reported by USGS geologists in the mine rock from the breccia pipes. The breccia samples include one boulder located on the south rim of the mine pit and one boulder from the waste rock (tailings) area. Two samples (COR-3 and COR-4) were collected from along a ridge line which showed the radiometric high (Figure 2). Figures 3 shows COR sample areas. Radio metric readings for samples COR-1 to 4 are shown in figures 5-8. Results for samples COR-5 to COR-8, collected on the new eastern zone, are pending final review and analysis.

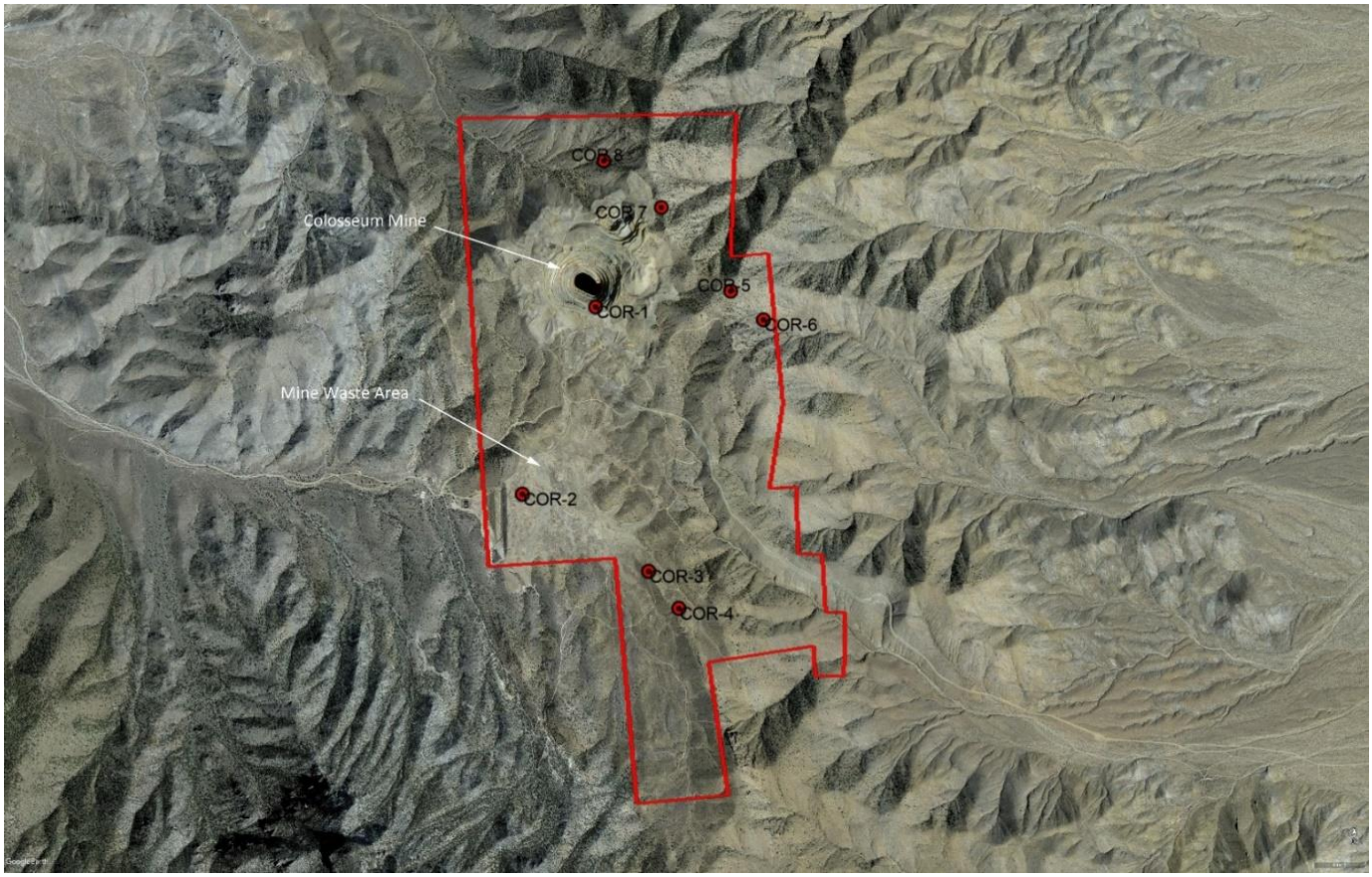

Figure 3 Sample locations

Observations and Preliminary Results

When examining geophysical data for the Colosseum mine area, as collected and interpreted by the United States Geological Survey (USGS), it was observed that linear trends of radiometric highs within the Colosseum claims were oriented in an NNW/SSE direction, demonstrating a possible relationship with radiometric data surrounding the Mountain Pass rare earth element (REE) deposit to the southeast. The particular orientation of these trends were directionally consistent with the same linear trends immediately surrounding the Mountain Pass mine area, further suggesting a possible relationship.

While evaluating the data and observations from the September 2021 field excursion, it was noted that a reference was made in the historical literature to the presence of a small outcrop of fenite rock located within the Colosseum claim area, approximately 800m east of the main mine pit.

Fenite is a rock type produced through fenitisation. Fenitisation is a process of alkali metasomatism whereby late residual solutions enriched in alkali elements emanating from an alkali igneous rock complex replace pre-existing rocks. The process of fenitisation is not confined to country rock, but almost invariably has invaded the earlier crystallized igneous rocks in carbonatite complexes.

A rock thin section of this historical sample was obtained and examined. Through the application of cathodoluminescence, it was confirmed that this sample was exposed to fenitising fluids. Fenites are derived from Alkali Carbonatite intrusions. Fenite outcrops have been found in several areas surrounding the Mountain Pass REE mine deposit.

The fenites identified at the Colosseum mine are similar to the fenites found at the Mountain Pass REE mine. The fenites found at the Mountain Pass REE mine are related to the carbonatite intrusion bearing the Mountain Pass REE mineralization.

Because of the spatial proximity of this fenite occurrence to the Mountain Pass intrusion and the fact that fenites only occur in association with alkaline and carbonatite systems, it can be strongly inferred that the fenite found on the Colosseum claims is genetically related to the geological events that created the Mountain Pass REE mine.

Another brief field investigation was conducted during the week of February 21, 2022, to follow-up on this reported fenite occurrence. Consistent with the reported observation, a fenite outcrop was located within the Colosseum claims east of the pit. The outcrop was observed to be larger than historically described, with the fenite showing linear exposure of approximately 75 metres.

Further field reconnaissance was conducted during February 2021, with additional rock samples of interest collected for analysis. These samples were chosen based on several field analytical parameters including field rock-type classification, ground radiometric readings, and field based semi-quantitative geochemical analyses (Niton instrumentation).

A small vein of rock was observed in the far northeast portion of the Colosseum claim area that showed field indications of fenite. Follow-up lab analytical studies are now being conducted to investigate this further.

Samples were examined visually in the laboratory as well as through the use of cathodoluminescence (CL). CL aids in the identification of specific minerals through their luminescent properties. It can also provide information as to the potential mode of origin of certain minerals and their association with crustal or mantle derived rocks.

Commenting on the results, Dateline's Exploration Director, Greg Hall, said:

"*A report of fenitization of a quartz syenite near Colosseum is encouraging, as syenite is part of the family of rocks that includes carbonatite, and fenitization is an alteration product associated with carbonatite.*

"We are now seeing evidence of rare earth potential across a larger part of the Colosseum claims, not just in the southern area as previously thought.

"While the primary aim at Colosseum has historically targeted gold, the rare earth potential deserves to be fully investigated."

Summary and Next Steps

The study by Messrs' Mariano confirm that there exists the potential for REE's near the Colosseum mine and that the geology is linked to that found at the Mountain Pass REE Mine, located ~10km to the southeast.

Further surface geological mapping, rock sampling and petrographic analyses will be completed in Q2, 2022, with a structural geologist contracted to provide detailed structural mapping of the Colosseum claims.

In order to ensure the REE program is executed to the highest level, the Company has retained Messrs Mariano as Senior REE Expert Advisors to the exploration program.

Figure 4. Anthony Mariano Jr Mapping and sampling of the fenitized outcrop to the east of the open pit mine

a

b

Figure 5. Breccia waste rock at south rim of Colosseum mine pit where sample COR-1 was collected. Photo (a) shows radiometric reading (µR/h) of the rock sampled. Photo (b) Dr Anthony N. Mariano, PhD studying the nature of the breccia waste rock.


a


b

Figure 6. Breccia waste rock in Colosseum mine tailings area where sample COR-2 was collected. Photo (a) shows radiometric reading (µR/h) of the rock sampled. Photo (b) The waste rock that Dr Anthony N. Mariano, PhD collected sample COR-2 from

a

b

Figure 7. Outcrop at north end of ridge where sample COR-3 was collected (a). Photo (b) shows the radiometric reading (µR/h) of the rock sampled.

a

b

Figure 8. Outcrop on the ridge at the southern extent of the Colosseum mine property where sample COR-4 was collected (a). Photo (b) radiometric reading (µR/h) of the rock sampled.

Financing

The Company has raised $810,000 by way of loans and placements to sophisticated investors. The amounts raised are for working capital requirements and have been raised are on the following terms

1. $600,000 loan agreement on commercial terms. The Company will issue the lender 6 million Options exercisable at $0.11 with an expiry 24 months after issue.
2. $210,000 by way of a placement of fully paid ordinary shares at $0.11 per share.

This announcement has been authorised for release on ASX by the Company's Board of Directors.

For more information, please contact:
Stephen Baghdadi
Managing Director
+61 2 9375 2353
www.datelineresources.com.au

Follow Dateline on Twitter: https://twitter.com/Dateline_DTR

About Dateline Resources Limited

Dateline Resources Limited (ASX: DTR) is an Australian publicly listed company focused on gold mining and exploration in North America. The Company owns 100% of the Gold Links and Green Mountain Projects in Colorado, USA and 100% of the Colosseum Gold Mine in California.

The Gold Links Gold Mine is a historic high-grade gold mining project where over 150,000 ounces of gold was mined from high-grade veins. Mineralisation can be traced on surface and underground for almost 6km from the Northern to the Southern sections of the project. The Company aims to delineate sufficient Mineral Resources to commence a small high-grade, low-cost operation by the end of 2021.

The Company owns the Lucky Strike gold mill, located 50km from the Gold Links mine, within the Green Mountain Project. Mining has commenced with ore transported to Lucky Strike for processing.

The Colosseum Gold Mine is located in the Walker Lane Trend in East San Bernardino County, California and produced approximately 344,000 ounces of gold (see ASX release 15 March 2021). Significant potential remains for extension to mineralization at depth.

Competent Person Statement

Sample preparation and any exploration information in this announcement is based upon work reviewed by Mr Greg Hall who is a Chartered Professional of the Australasian Institute of Mining and Metallurgy (CP-IMM). Mr Hall has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to quality as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Hall is a Non-Executive Director of Dateline Resources Limited and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 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.*	• All samples followed a strict Chain of Custody. • Sampling practice is appropriate to the geology and mineralization of the deposit and complies with industrybest practice.
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).*	
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.*	

Criteria	JORC Code explanation	Commentary
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.*	
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.*	• Rock samples sent to Activation Laboratories were dried and weighed. Sample size assessment was not conducted.
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.*	• Samples were assayed by industry standard methods byActivation Laboratories, Ancaster, Ontario.
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.*	• Sampling, documentation and sample submittal were underthe guidance and care of Anthony Mariano and Anthony N. Mariano, PhD.

Criteria	JORC Code explanation	Commentary
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 sample locations were located using GPS equipment.
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.*	• No 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.*	
Sample security	• *The measures taken to ensure sample security.*	• All samples were taken and maintained under the constant care of Anthony Mariano and Anthony N. Mariano, PhD. Samples were delivered to the laboratory via US Postal Service.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	

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.*	• All tenements are 100% owned by Dateline ResourcesLimited or a wholly owned subsidiary and there exist production-based royalties as previously disclosed to ASX.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Colosseum gold mine is a breccia pipe related gold mineral system within the Walker Lane mineral district. The breccia is developed as Jurassic felsic magmas were being emplaced into Proterozoic granite gneiss beneath Palaeozoic sedimentary rocks. • The breccia includes clasts of Palaeozoic sedimentary rocks and Jurassic rhyolite porphyry as well as Proterozoic gneiss. Gold mineralisation is associated with pyrite and minor base metal sulphides occupying the matrix of the breccia and in ring fractures surrounding the breccia pipe
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.*	
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.*	
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*	

Criteria	JORC Code explanation	Commentary
	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').*	
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.*	• Supporting figures have been included within the body ofthis 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.*	
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.*	.
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.*	• Petrographic examination of the altered linear zone will be combined with further field mapping of the claim area to identify any other zones of fenitisation.