18 October 2021

ASX Announcement ASX Codes: SRN and SRNOC

## **KOOLINE PROJECT (100%)**

#### STRONG BEDROCK CONDUCTORS IDENTIFIED IN UNEXPLORED AREA

- Three high priority bedrock conductors have been identified from modelling airborne electromagnetic (AEM) data
- Conductors are linked to historic mines that extracted high grade lead-silver
- Four additional moderate priority conductors also identified
- The conductors have not had any previous drilling
- Follow up will be by ground EM surveying and drilling
- EIS co-funding has been secured from the WA Government for the drilling campaign

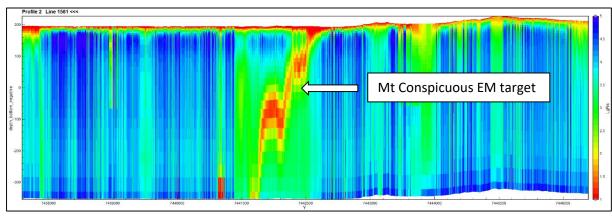


Figure 1 Mt Conspicuous EM target, one of three high priority targets identified at the Kooline Lead-Silver Field. Depth scale is a x10 exaggeration of horizontal scale. Red represent high conductivity

Surefire Resources NL (ASX: SRN, "the Company" or "SRN") is pleased to announce exciting exploration results at the Kooline silver-lead-copper-gold project in the Ashburton Basin.

The Kooline Project tenements cover an almost 50km strike length of mineralised Ashburton Formation and are located 55 kilometres south of the 1 Moz Paulsen's gold mine and 190 kilometres WNW of Paraburdoo in the Ashburton province of Western Australia (Figure 2).

The tenements include the previously mined high-grade lead (Pb) – silver (Ag) +/- Copper (Cu) lodes of the Kooline Mineral Field (Figure 2) where previous rock chip sampling of the exposed lode structures produced grades of up to 55.3% Pb and 249 g/t Ag from the Bilrose workings and copper grades of up to 2.62% Cu (including 12% Pb) from the Phar Lap workings (ASX:SRN release 22 May 2018).

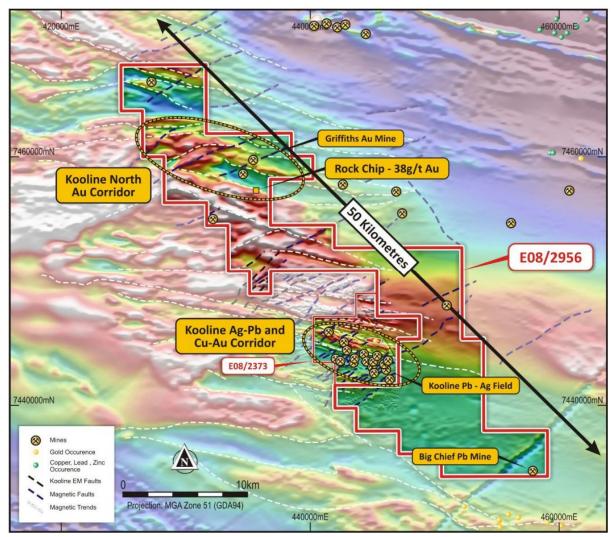


Figure 2 Location of the Kooline Silver-Lead-Copper-Gold Project, Ashburton Basin, WA.

#### **VTEM Modelling**

As announced to the ASX on 25 May 2021, qualitative interpretation of VTEM data over E08/2373 identified a conductive complex that was inferred to be caused by a large intrusive body. This intrusive may represent a heat and potential mineralised magmatic fluid source for an intrusive related "intracratonic magmatic copper-gold" or IMCG system (ASX:SRN release 14 December 2018) and is seen as particularly significant. Work conducted by CSA Global on behalf of the Company highlighted the potential for IMCG-style mineralisation in this belt.

To gain a better understanding of the identified conductors' geometry and quality, the VTEM data were modelled using Geoscience Australia's 1D Layered Earth Inversion software (program GALEI). This creates flight line by flight line geo-electric model sections or Conductivity-Depth-Inversion sections (CDI) which show the variation of conductivity of the earth with depth that can explain the signal recorded. All CDI data is then amalgamated and depth slices constructed to give a plan view of the resultant conductors modelled.

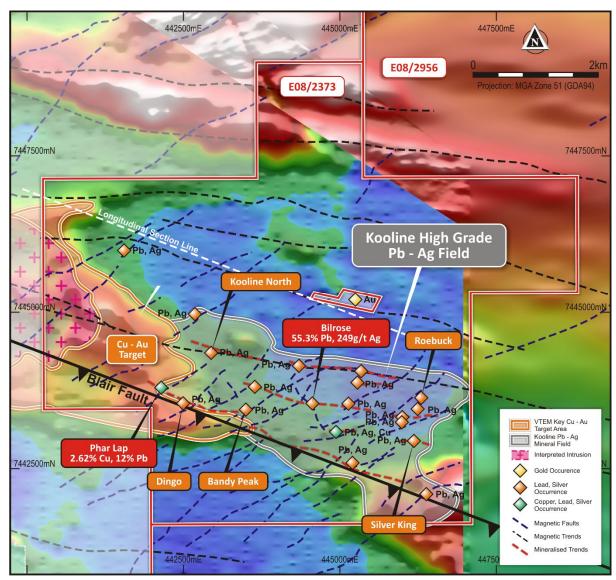


Figure 3 VTEM time slice over the Kooline silver-lead field showing historic mines and mineralised trends, E08/2373.

### **Three High Priority Conductors Identified**

Inspection of the CDIs and recorded response profiles identified three high priority targets (Figure 4).

Mt Conspicuous: Associated with the historic Mt Conspicuous Mine, this strengthens to the east, having in excess of a 600m strike length. The conductor appears to dip moderately to the south. It is modelled as shallow as 10m from

surface and persists to 400m depth. In cross-sectional view it appears to have two major conductive masses associated with it that may represent a structural thickening of the conductor (Figure 1).

#### Northerly:

Identified from 13 to 400m depth, but developing well at about 100m depth this conductor has an apparent strike length of 400m. It appears to be an *en echelon* repeat of the Phar Lap North anomaly, itself appearing to be an *en echelon* repetition of the conductor associated with the Phar Lap Mine (Figure 4). While the mine produced only 10 tons Pb, it stands out as having a strong copper association with grades up to 2.62% Cu in the mine and 3.74% Cu in selective rock chips from the mine area.

#### **Phar Lap NW:**

Having an apparent strike length of about 800m, this conductor is also modelled from shallow depths to in excess of 400m. It appears to plunge to the southeast; the EM anomaly migrating in that direction with time.

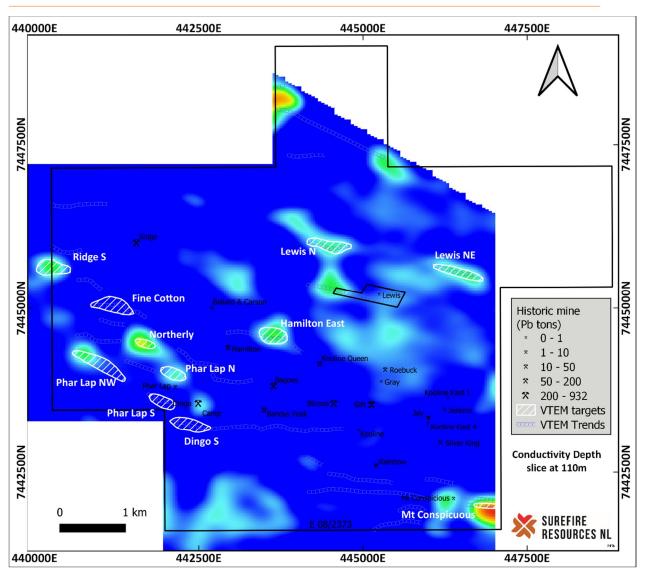


Figure 4 VTEM CDI at 110m depth slice. E08/2373. Bright areas signify modelled bedrock conductors at 110m. GDA94 MGA Zone 50.

#### **Conductors Related with Historic Mines**

In addition to the high priority conductors identified above, a large proportion of the historic mines have associated with them significant EM responses:

**Dingo**: 220 tons Pb and 2,439 oz Ag were mined at this site. A strong conductor has

been identified coincident with the mine, extending to depths beyond that

mined (Figure 4). No drilling has occurred on this site.

**Phar Lap:** A strong conductor occurs to the north of the historic Phar Lap Mine (10t Pb,

137oz Ag). While the site was drilled in 2009, with anomalous but low grades of Pb, and Cu intersected, the conductor is developed further to the north and

remains untested.

#### **Proposed testing of identified conductors**

Surefire intends to test the identified conductors with a mix of ground EM surveying and RC drilling. As announced on 25 May 2021, Surefire has attracted a \$150,000 co-funding grant for exploration drilling from the WA Government.

#### Surefire Managing Director Vladimir Nikolaenko commented:

"The results obtained from quantitative modelling of the VTEM data is a substantial advance in the targeting efforts of the Company. The strong bedrock conductors identified give us strong encouragement to pursue a discovery in this grossly under-explored mineral field. Surefire will pursue these targets rigorously to realise the potential of this area."

#### Authorised for ASX release by:

Vladimir Nikolaenko Managing Director

**Competent Person Statement:** 

The information in this report that relates to exploration results has been reviewed, compiled and fairly represented by Mr Marcus Flis, a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM') and an independent consultant. Mr Flis has sufficient experience relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Flis consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

#### Forward Looking Statements:

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

#### New Information or Data:

SRN confirms that it is not aware of any new information or data that materially affects the information included in previous market announcements and, in the case of estimates of Mineral Resources, which all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.

# JORC Code, 2012 Edition: Section 1: Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	Random rock-chip samples were taken at surface which represented favourable geology and alteration to known mineralisation at the project. Samples were variably weathered The entire sample was crushed to -2mm then either riffle-split then pulverised to 95% passing 75 micron to produce a 50g charge for Fire Assay gold (Au) analysis.
	Representative samples at each sample site weighed between 1 and 3 kilograms. Sample sites were chosen due to historic workings where previous explorers had also recorded significant rock-chip assays.
	Rock samples were bagged and sent to SGS Perth where they were crushed, dried, pulverised (total prep) to produce a 30 gram charge. This was subject to a four acid digest with ICPMS finish ore grade base metal samples, and lead collection fire assay finish for gold.
	Samples were typically visually assessed to contain galena, malachite, cerussite, and barite.
Drilling techniques	Historic RC drilling has been carried out by previous explorer Athena Resources Ltd. No new drilling has been carried out by SRN.
Drill sample recovery	Sample details from previous drilling are not known.
	Sample recovery details from historic drilling are not known.
	No new drill samples have been collected.
Logging	Summary drilling logs of RC drilling are available via WAMEX database at the DMIRS.
	Representative samples are sieved and in fresh rock, washed, and placed in chip trays for each hole.
	Historic logging was qualitative.
Sub-sampling techniques and sample preparation	Historic holes were RC.
	Industry standard sampling procedures were followed.
	QA/QC procedures are unknown.
Quality of assay data and laboratory tests	Samples were taken in the field and analysed in the laboratory in accordance with best practise. Industry standard for the medium sampled in the particular environment and is considered appropriate geochemical test work.
	No XRF, spectrometers or similar instruments were used.
	No standards or blanks were used in this program.
	Location and sampling data were collected by experienced field geologist and entered into Excel spread sheets. Location and analysis data are then collated into a single Excel spread sheet. Data is stored on servers in the Company's head office and consultants' server, with regular backups and archival copies.

Criteria	Commentary
	of the database made.
	No adjustments are made to the data.
Verification of sampling and assaying	<ul> <li>There has been no external check assaying undertaken on the soil samples.</li> <li>No twinned holes were drilled.</li> </ul>
Location of data points	<ul> <li>Location data for drill collar points was recorded by handheld GPS (+3m accuracy). Location data is downloaded from hand-held GPS using appropriate software.</li> </ul>
	Co-ordinate system is UTM Zone 50 and datum is GDA94.
	Topographic data was obtained from public download of the Wyloo and Edmund 1:250,000 scale GSWA geologic and topographic map sheets.
Data spacing and	Samples were not systematically or uniformly spaced.
distribution	<ul> <li>Sample spacing was sufficient for a first pass test at identifying mineralisation visually and comparing geological and mineralogical features to assayed grades.</li> <li>No ore reserves were estimated.</li> </ul>
Orientation of data in relation to geological structure	Historic drilling is typically oriented perpendicular to structures hosting mineralisation. From costeans, channel samples were taken across the face perpendicular to the targeted vein and/or structure.
	The mineralisation is typically oriented to the west-north-west (280- 300) with mineralised cross cutting faults oriented at 340 to 020. Further work is required to understand the specific controls on mineralisation.
Sample security	Samples were collected and prepared in the field by an experienced geological consultant. Sample security was maintained at all stages of preparation until delivery to SGS laboratory.
Audits or reviews	A full review of QAQC data will be completed once all results received.
	To date there has not been an audit of sampling techniques and data.

## **Section 2: Reporting of Exploration Results**

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

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The project is comprised of the three Exploration Licences. Licences E08/2372, E08/2373 and E08/2956. Two are operated by Surefire Resources NL and held by Ilmenite Resources Pty Ltd. Exploration Licences 08/2372 and 08/2373 were granted on August 20th 2013 for a period of five years. During late 2016 Surefire Resources NL negotiated a 90% acquisition of the project from the holder.</li> <li>The tenements are all in good standing with no known impediments.</li> </ul>

Exploration done by other parties	1966 — 1967 Alcoa, Anaconda explored for copper, lead and zinc. They conducted geological mapping, rock sampling, drainage sampling and petrography.
	<b>1992 – 1996</b> Stockdale Prospecting explored the area for diamonds by conducting an aeromagnetic survey, soil sampling and drainage sampling.
	1992 — 1996 Pasminco Exploration explored for diamonds and zinc within the project area and completed geological mapping, aeromagnetic surveying, EM survey, soil sampling, rock sampling, drainage sampling and RC drilling.
	1993 – 1994 Western Mining Corporation explored for copper in the area and conducted geological mapping and rock sampling.
	1995 – 1999 CRAE explored for base metals, gold, silver and zinc. They conducted geological mapping, air photography, gravity surveying, IP surveying, rock sampling, soil sampling, drainage sampling and RC drilling (WAMEX A54282).
	1996 to 1997 RGC assessed the basal carbonate units of the Bangemall Group (Irregully and Cheyne Springs Formations) as potential hosts for MVT mineralisation. Initial investigations of the Joy Helen Pb-Cu deposit helped to confirm this assertion, whereby mineralisation which is hosted by Irregully Formation carbonates on the western Pingandy Shelf was interpreted to have MVT affinities. During the course of exploration it was also recognised that there is potential for Cu-Au styles of mineralisation within the Ashburton Group rocks. The results of their exploration and rock chip sampling program was not encouraging and they surrendered the tenements.
	<b>2005 to 2006</b> Capricorn Resources Pty Ltd completed processing and imaging of the available magnetic, gravity and satellite imagery (WAMEX A73667).
	2007 - 2012 Athena Resources NL conducted gold and base metal exploration within the tenement area. Detailed airborne magnetic and radiometric surveys were carried out by UTS Geophysics over part of the project that includes the historic lead mines / prospects. Ground electrical geophysical surveys including GAIP (5 arrays) and DDIP (two sections) were commissioned by Athena, acquired by GPX Surveys, under supervision of consultant geophysicist Graham Elliott. A soil and auger geochemistry survey was completed (WAMEX A82689). A total of 11 RC drill holes were drilled by Athena Resources NL at the project. This totalled 1,150m and targeted the Kooline Lead workings Best results obtained were: 6 m @ 1.85% lead and 4.92g/t silver from 63 metres in drill-hole AKO9RCO1, and 2 m @ 1.19% lead from 31 metres in drill hole AKO9RCO4. A one metre intersection from 25 metres in hole AKOSRCO04 assaying 3.87g/t gold was unexpected as previous rock chip sampling around the lead workings had not returned any significant gold assays (WAMEX A93876).
Geology	The mineralisation at Kooline is typical of a vein hosted hydrothermal base metal deposit. Host rocks are metapelites and arkosic sandstones of the Ashburton Fm.
Drill hole Information	<ul> <li>Historic drill hole information is not tabulated in this announcement.</li> <li>No material information has been excluded.</li> </ul>

Data aggregation methods	<ul> <li>no averaging was applied as samples are discrete from each other.</li> <li>Aggregation has not been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>Historic drill holes to date have been sub-perpendicular to known mineralisation.</li> <li>All mineralised lengths are down hole lengths.</li> </ul>
Diagrams	See main body of announcement.
Balanced reporting	All results reported are representative.
Other substantive exploration data	Assessment of other substantive exploration data is not yet complete however is considered immaterial at this stage.
Further work	<ul> <li>A work program is currently in the planning stage for the next several rounds of exploration. It is likely to include surface geophysical surveys and drill testing of anomalies.</li> <li>Future drilling areas are identified within the body of the announcement.</li> </ul>