SUREFIRE RESOURCES NL

**ASX Announcement**
**ASX Codes: SRN and SRNOC**

**6 September 2021**

# LARGE 1000m x 250m AU MMI SOIL ANOMALY DEFINED AT YIDBY GOLD PROJECT

## *3 New Gold Targets generated & untested by Historical Drilling*

- **MMI Soil Geochemical results have been finalised and returned from SGS laboratories in Perth comprising a total of 520 samples with a peak value of 29.1 ppb Au**
- **Structural interpretation using 1VD Aeromagnetic data extended to include the new geochemical targets**
- **MMI Au in soil anomalism coincident with cross faulting of the interpreted sheared BIF/Ultramafic contact**
- **T1-T3 exploration targets set the basis for a new Program of Works (POW) submission to the DMP**

Surefire Resources NL (**ASX: SRN**, "the **Company**" or "**SRN**") is pleased to announce the results of its soil geochemical survey that was undertaken in an area southeast and along strike from the Yidby Gold Deposit (**refer to 27th July and 30th August ASX Announcements**). 520 samples were collected over a 100m x 25m grid and analysed at SGS Perth using the mobile metal ion (MMI) protocol – an advanced geochemical technique used in finding undercover mineral deposits (Figure 1).

The geochemical results were plotted on a heat map which has led to the definition of three discrete and significant soil anomalies for addition to the company's exploration portfolio (Figure 1). The newly defined 'Money Anomaly' is a large NW trending 1000m x 250m area of MMI Au in soil anomalism (T1). The peak value of 29.1 ppb Au (YS0304) within T1 is approximately 58 times the background reading of ~0.5 ppb Au (Table 1). Two other smaller geochemical targets were also defined lying adjacent to T1 and are approximately 200m x 100m wide (T2-T3). A POW submission is now being designed to test these targets in future exploration drill programs at the Yidby Gold Project.

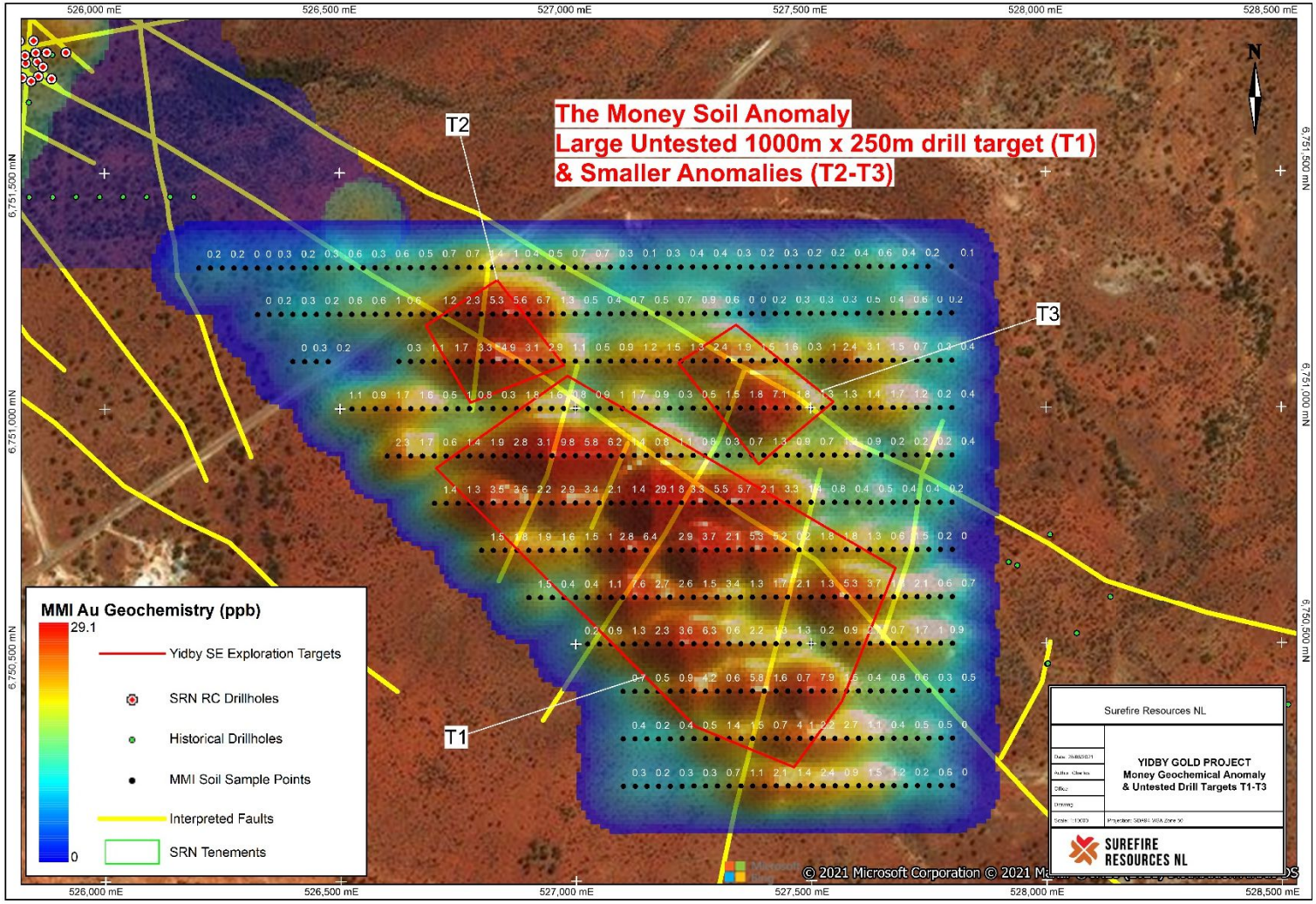


**Figure 1 Plan view of the newly defined MMI Soil Anomalism along strike from the Yidby Gold Deposit. The green historical drill collars that are located to the East are 700 m away from the centre of the peak soil anomalism of T1 and were ineffective at testing gold mineralisation. Drillholes in this SE area were historically drilled to explore for BIF hosted magnetite not gold mineralisation.**

The T1-T3 targets have never been drill tested by previous explorers and provide potential for new gold discoveries to be made directly across the road and along strike from the Yidby Gold Deposit (Figure 2).

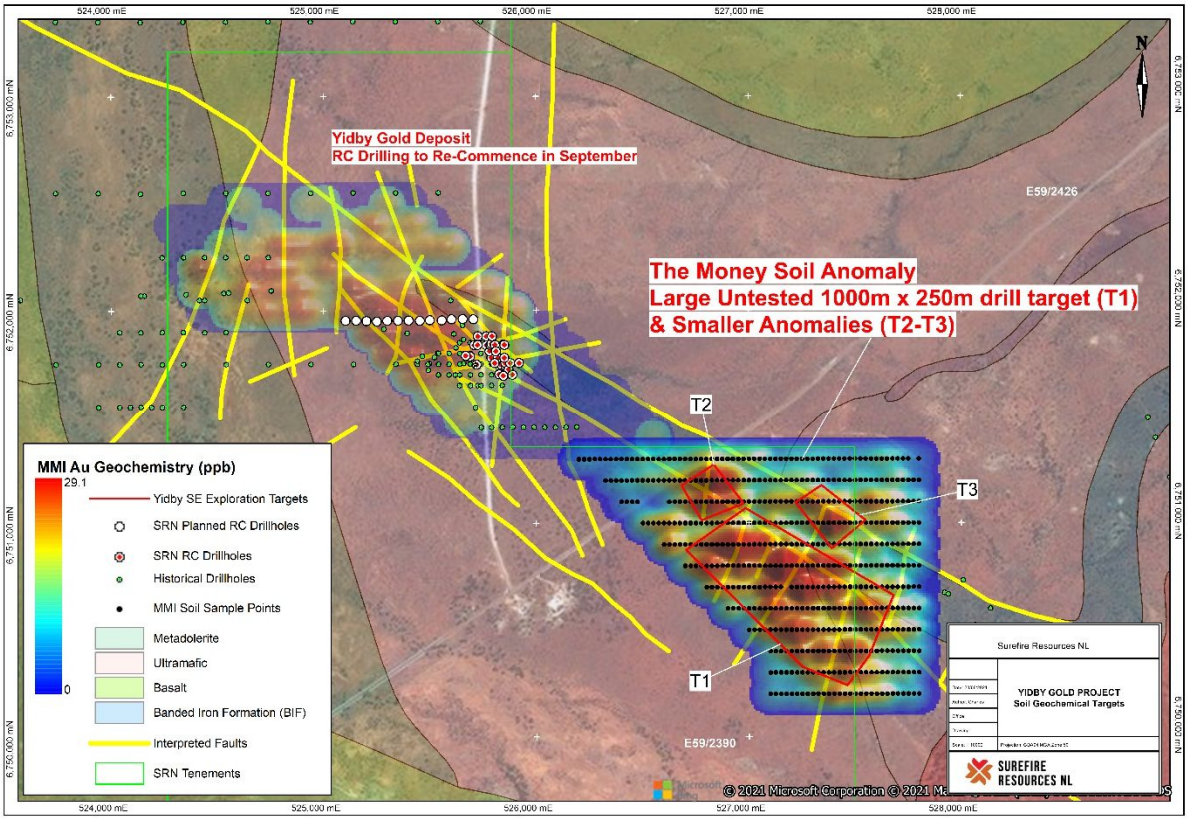


**Figure 2 Plan view location of the Soil Geochemical Survey results along strike from the Yidby Gold Deposit.**

**Surefire Managing Director Vladimir Nikolaenko commented**:

*"We are very excited to define such a large Au geochemical anomaly directly along strike and across the road from the Yidby Gold Deposit."*

*"We can now add these additional exploration targets to the portfolio and drill test these alongside development of the Yidby Ore body"*

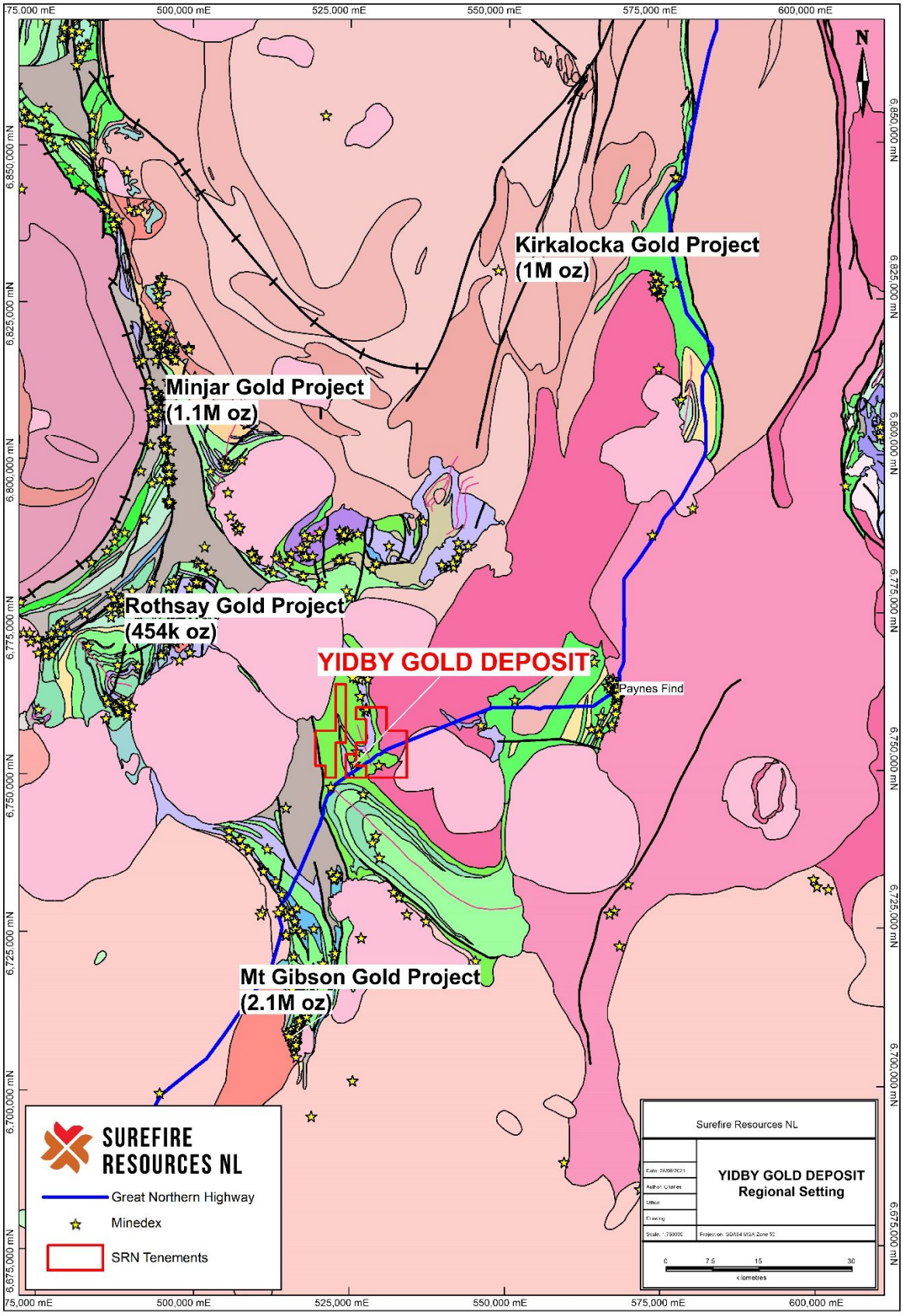


**Figure 3 Yidby Gold Deposit & Exploration Targets T1-T3 Regional Setting.**
**The Yidby Gold Deposit is surrounded by four operating gold mines.**

**About Yidby Gold Project**

The Yidby Gold Project is situated within the southern portion of the Yalgoo-Singleton Greenstone Belt near Ninghan Station Homestead. To the south of the project is the Extension Hill iron ore mine, Mount Gibson Gold Mine. The three exploration licences cover 113.77km² with three gold prospects hosting significant gold mineralisation. Historic workings occur at Ninghan Mining Centre, Delaney Well, and Cashens Find, while historic drilling which reported significant gold intercepts has occurred at Yidby Road, Delaney Well, and Cashens Find Prospects.

The project is centred in a highly attractive location being within 1km of the Great Northern Highway, a major arterial road which services the various mining centres, and is the state's main link to the north west. The project is 400km along this route from Perth.

The project is also surrounded by several significant gold projects. The Mount Gibson Gold Project is 30km to the south, the Rothsay Gold Project is 30km to the west. 65km to the north-east along the Singleton-Yalgoo Greenstone Belt is the +1.1 million-ounce Minjar Gold Project, while the million-ounce Kirkalocka Gold Project is approximately 70km to the north-east. 40km along the Great Northern Highway is the Paynes Find Mining Centre.

**Authorised for ASX release by:**

**Vladimir Nikolaenko**
**Managing Director**

***Competent Person's Statement***

*The information in this announcement that relates to geology and exploration activities has been compiled by Mr Charles Armstrong, a member of the Australian Institute of Mining and Metallurgy (AusIMM) and a member of the Society of Economic Geologists (SEG) and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Armstrong has sufficient experience which is 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 Armstrong 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.*

# JORC Code, 2012 Edition:
# 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 (e.g., 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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *In cases where 'industry standard' work has been done this would be relatively simple (e.g., '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 (e.g., submarine nodules) may warrant disclosure of detailed information.* | • 520 soil samples were collected and processed using the mobile metal ion (MMI) protocol at SGS Perth. Samples were collected from the A soil horizon at depths of approximately 10-25 cm below the surface. The upper 5-10 cm of soil layer was scraped away eliminating possible contamination and loose organic material. Samples were obtained by sieving the material using 1.6mm aluminium sieve, 330mm diameter. Approximately 300g of material was collected for each sample.<br>• In order to ensure quality and representativeness of the MMI samples, the sampling procedures were executed by an experienced MMI-geochemist (Andrew Hawker). Depth of sampling was maintained within the interval of 10-25 cm ensuring consistency of results.<br>• Industry Standard procedures for sampling and processing of the MMI samples was used and all samples were delivered to SGS laboratories in Perth which has an exclusive licence to use the MMI technique. |
| *Drilling techniques* | • *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., 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).* | • NA to this announcement. |
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and* | • NA to this announcement. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | • NA to this announcement. |
| *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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • Documentation of the samples included taking GPS coordinates of each sample in GDA94 MGA Zone 50 using a handheld GPS. Soil type, colour, hardness, moisture and depth of sampling, presence of outcrops and sub-cropping quartz veins were all recorded at each sample site.<br>• Logging was qualitative. No photos of the samples were taken.<br>• All samples were logged to the level of detail sufficient for the reporting of Soil Geochemical Results. |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise samples representivity*<br>• *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.* | • NA to this announcement.<br>• Geochemical samples were collected from A-horizon of soil by digging a small hole, 10-30 cm deep and sieving the dug material through a 1.6 mm sieve. Approximately 300 grams of sieved material was collected, placed into a sealable plastic sample bag and delivered to SGS laboratory. All samples were dry.<br>• Drill MMI method used multicomponent solution for weak partial extraction of the mobile ions which are released into the solution. The concentration of the released metals is assayed using high-sensitivity ICP-MS technique. The procedure for extraction of the mobile metals and their assaying was developed by SGS laboratory.<br>• NA as preparation of MMI samples does not include sub-sampling.<br>• Laboratory QAQC procedures included repeat assays, blanks and standard samples. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • 250-350g is the standard size of geochemical samples that are processed using the MMI technique. |
| *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.*<br>• *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.*<br>• *Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.* | • MMI is a high-sensitivity ICP-MS technique that has a limit of detection (LOD) in the parts-per billion (ppb) range<br>• NA to this announcement.<br>• Internal QAQC procedures were implemented at the laboratory stage which included the industry standard use of repeats, blanks and standards (MMI-MAMIS0169). |
| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • No verification of significant results has been undertaken by independent personnel.<br>• NA to this announcement.<br>• Assay results were obtained from the lab in raw data form and imported into the companies database.<br>• In order to generate the Soil Anomaly heat map in Mapinfo Discover, any results that were too low for detection were changed to 0 values so that the algorithm could generate the raster file. |
| *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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • Eastings & Northings of the sample sites were recorded in the field using a hand-held GPS.<br>• Grid system GDA 94 MGA Zone 50 was used for recording the GPS data.<br>• NA to this announcement. |
| *Data spacing and distribution* | • *Data spacing for reporting of* | • Sample Soil samples were collected on a 100m x 20m grid. EW sampling traverses |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *Exploration Results.*<br>• *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.* | were 100m apart and the distance between samples on a traverse line was 20m.<br>• Samples were collected for identification of geochemical gold anomalies and are considered sufficient for a 1st phase of area reduction. The chosen sample grid is sufficient to identify gold anomalies that can be reported as exploration results. The anomalies obtained by 100m x 20n sampling is considered sufficient for planning of exploration drilling however in some cases they could be infilled to 50m x 20m if more accurate definition of the drill targets is required. |
| | • *Whether sample compositing has been applied.* | • NA to this announcement. |
| *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.*<br>• *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.* | • Drilling Sampling traverses are distributed at 100m apart and oriented across the strike of the main controlling structures. Distance between samples along the traverses is 20m. This spacing is optimal for detecting gold anomalies and assessing their spatial distribution that may reflect the shape and size of the any buried mineralisation generating the anomaly.<br>• NA to this announcement. |
| *Sample security* | • *The measures taken to ensure sample security.* | • Samples were transported by company personnel direct to the Laboratory as soon as possible after sampling. |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • No audits or reviews of the MMI geochemical data was undertaken. The validation of the identified soil anomalies will be carried out by AC or RC drilling to test the underlying bedrock for primary gold mineralisation. |

## Section 2: Reporting of Exploration Results

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

| 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.*<br>• *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.* | • Located 320km northeast of Perth in the mid-west region of Western Australia.<br>• E 52/2390 and E52 /2426 are granted tenements with a 100% interest acquired by Surefire Resources NL under a sale agreement from the tenement holder Beau Resources Pty Ltd.<br>• A 2% Royalty on Gold production is payable to Beau Resources Pty Ltd. |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | • Previous exploration work has been completed by Normandy and Monarch Gold. Normandy work included aircore drilling and limited RC drilling, including at the Yidby Road Prospect. Drilling intersections in easterly oriented drilling were followed up by Surefire using westerly oriented holes and the Normandy drilling was shown to be drilled in the wrong orientation for the easterly dipping mineralised structures. |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | • Gold mineralisation at the project is orogenic, hosted within quartz veining with minor sulphides in ultramafic/mafic lithologies and felsic porphyry intrusions. |
| *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:*<br>▪ *easting and northing of the drill hole collar*<br>▪ *elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole*<br>▪ *down hole length and interception depth*<br>▪ *hole length.*<br>• *If the exclusion of this information* | • NA to this announcement.<br>• All MMI sample data has been included in this report while anomalous zones have been identified using target area polygons. |

| | | |
|---|---|---|
| | *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*<br>*minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>• *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.* | • NA to this announcement. The objective of the survey was to identify soil gold anomalies which have been reported in this announcement. |
| *Relationship between mineralisation widths and intercept lengths* | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').* | • NA to this announcement. |
| *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.* | • Drillhole locations and interpreted mineralisation outline is shown on Figure 3.<br>• Appropriate representative cross section is shown on Figure 1 (6,751,750mN).<br>• Figure 2 is a longitudinal Projection of all pierce points to date.<br>• See Table 1, summary of drilling intersections and Table 2, drillhole locations and planned orientation. |

| | | |
|---|---|---|
| *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.* | • This announcement reports results on geochemical exploration and is made in a form of balanced reporting. The purpose was to present new geochemical anomalies that were identified using the MMI protocol. The anomalies T1-T3 represent follow up drill targets. |
| *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.* | • NA to this announcement. |
| *Further work* | • *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • T1-T3 will be drill tested using AC or RC drilling in an EW fence line<br>• Plan view maps were included in this announcement for reference to the location and size of the soil anomalies. |

**---ENDS---**