



## Strong IP anomalies confirmed at Pamwa Pb-Zn-Ag Prospect.

### Kitgum-Pader Project, Uganda

#### Highlights

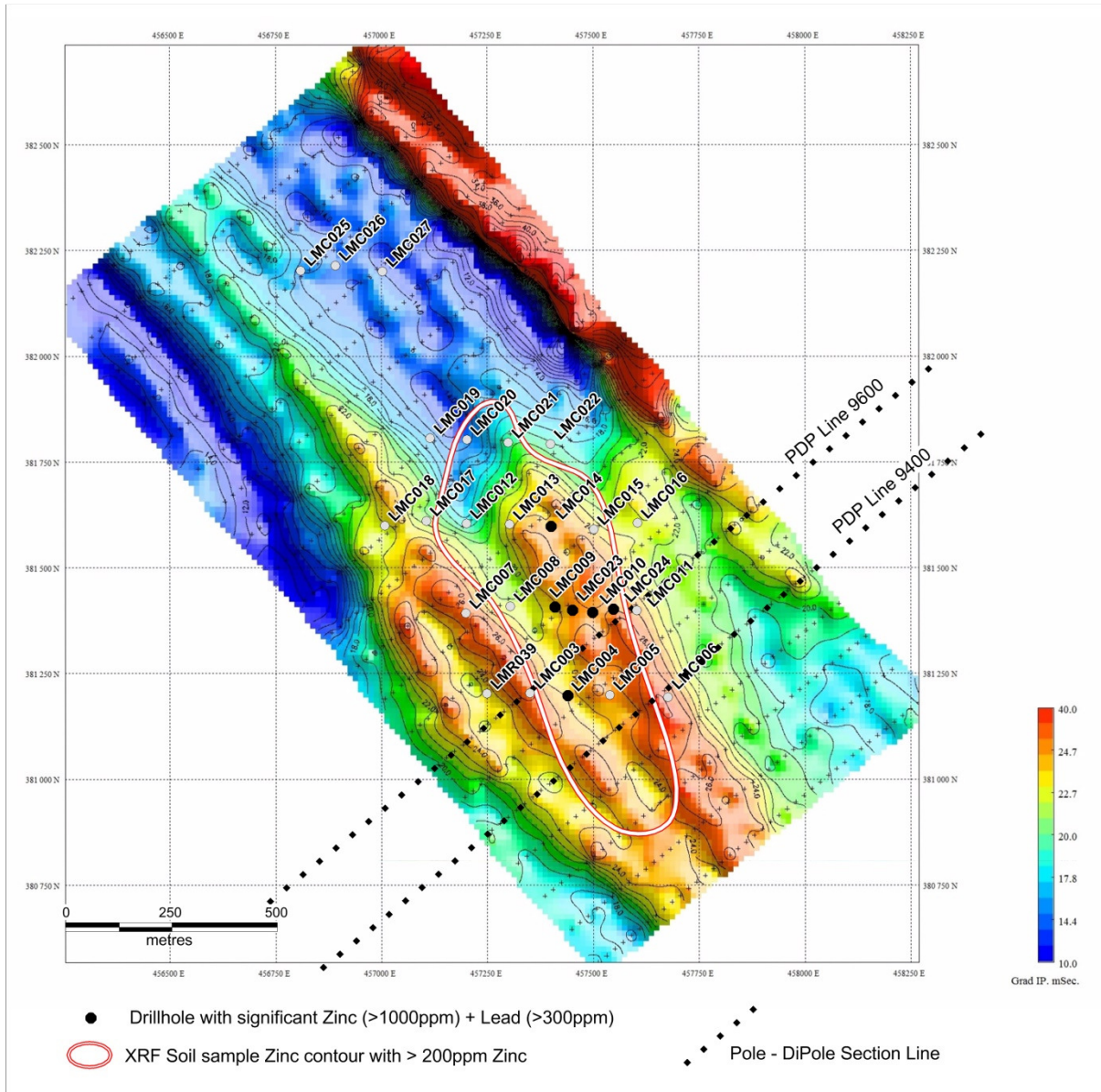
- Gradient Array IP surveys have defined a zone of strong chargeability and coincident high resistivity spatially related to the **Pamwa** Zinc (Zn) Lead (Pb) Silver (Ag) mineralised zone.
- Two lines of pole dipole IP survey spaced 200m apart have crossed the gradient chargeability anomaly. Modelling of the pole-dipole data show there are strong chargeability anomalies that correlate to the mineralised zone.
- The IP anomalies derived from these surveys give the company confidence that the system intersected by shallow RAB drilling in July this year (refer ASX 26 August 2014) has substantial depth and strike potential which has not been tested by the existing drilling.
- Diamond drill testing of the **Pamwa** Zn, Pb, Ag mineralised system and Akelikongo Nickel sulphide mineralised system will commence in late January.

Sipa Resources Limited is pleased to announce it has identified strong chargeability (IP) anomalies from its gradient array IP chargeability/resistivity survey and follow-up pole dipole surveys at the **Pamwa** Zn,Pb,Ag mineralised system located within the 100%-held Kitgum-Pader Project in Uganda.

A total of two strike km were surveyed by gradient array IP over the known **Pamwa** system area as defined by soil geochemistry and also shallow RAB drilling. (Figures 1 and 2). In addition two pole dipole lines 9600N and 9400N (local grid) were surveyed over the strongest gradient array anomalies. Figures 3 and 4 show the modelled pole-dipole depth sections.

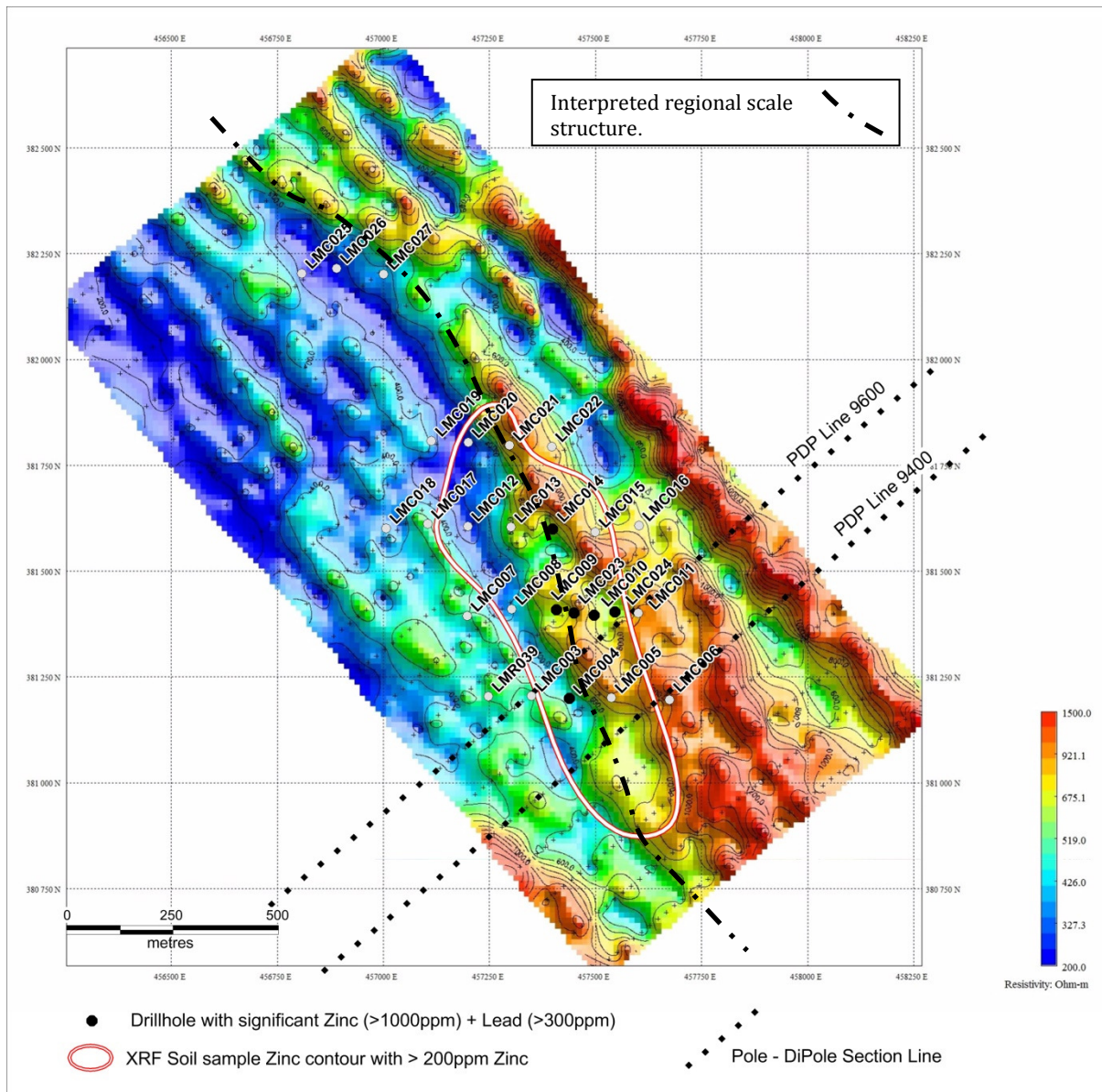
Induced Polarisation (IP) is an electrical geophysical method which measures the chargeability or IP effect within the subsurface due to the presence of metallic lustre sulphides. Modelling of the resistivity and IP data produces chargeability anomaly depth sections which can be interpreted as potential sulphide accumulations and therefore used to target drilling.

IP and resistivity surveys can be used to detect and map economic mineral deposits, in particular those associated with both disseminated and massive sulphide mineralisation. One of the major strengths of IP is that the method has been used to map disseminated sulphides in Broken Hill type systems which are often not measurable with electromagnetic technologies and methods.



**Figure 1 Plan of Gradient Array IP chargeability.**

Figure 1 shows the location of centrally located strong gradient array chargeability anomalies which are spatially related to Zn, Pb, Ag mineralisation identified through previous drilling and soil geochemistry. The high chargeability anomalies in the centre correspond to the drilled zone of mineralisation. The significance or otherwise of a second trend of high chargeability anomalies to the southwest is not yet understood.



**Figure 2 Plan of Gradient Array IP Resistivity, showing the locations of the XRF soil anomaly, the drilling and the pole-dipole survey lines.**

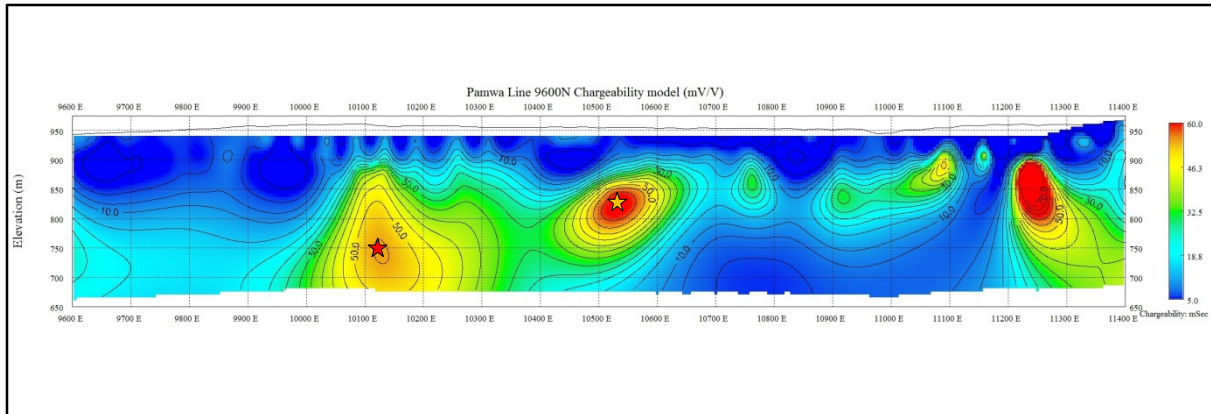
The known Zn mineralisation in drilling and the Zn soil anomaly are associated with an interpreted regional scale structural zone which separates more resistive rocks to the northeast from less resistive rocks to the southwest.

The Pole Dipole model sections 9600N and 9400N confirm the chargeability anomalies in the third dimension (Figures 3 and 4)

The modelled IP depth section for line 9600N (Figure 3) has a centrally located very strong IP anomaly of 60mSec. This anomaly is located at depth which is 100m below the existing drilling (LMC024) and is also 100m to the south along strike from LMC010 (5m@2%Zn, 0.23%Pb). To the south west, a second very strong IP anomaly of 50mSec. has no nearby drilling. It is associated with the second gradient array IP anomaly trend.

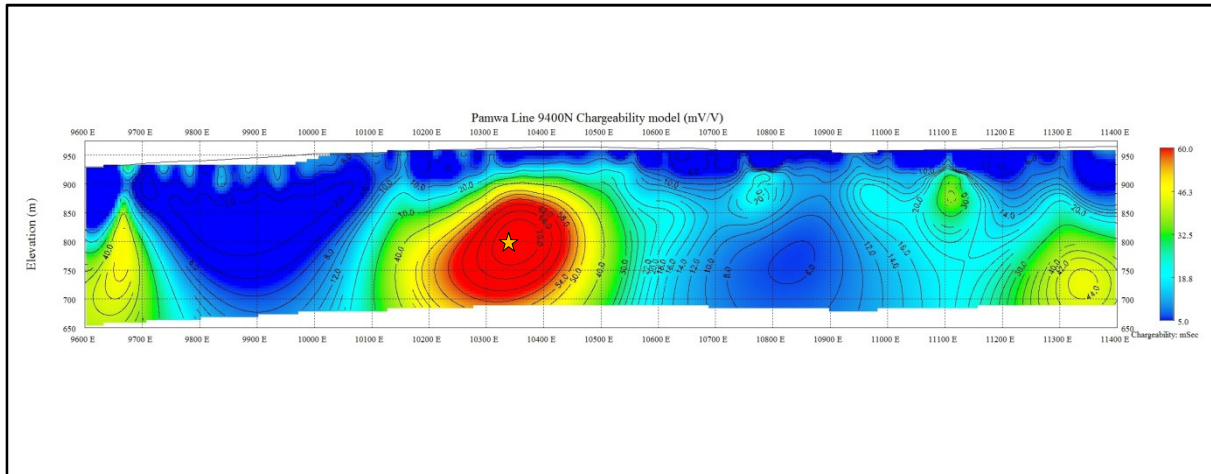


The modelled IP depth section for line 9400N (Figure 4) also has a centrally located very strong IP anomaly of 60mSec. This anomaly is located below the peak soil Zn anomaly for this line.



**Figure 3 Line 9600 Pole Dipole survey, modelled IP depth section.**

The centre of the strong IP anomaly (★=60mSec) is located at depth 100m below the existing drilling (LMC024) and 100m to the south along strike from LMC010 (5m@2%Zn,0.23%Pb). A second very strong IP anomaly (★= 50mSec) has no nearby drilling.



**Figure 4 Line 9400 Pole Dipole survey, modelled IP depth section.**

The centre of the very strong IP anomaly (★=60mSec) has no nearby drilling, but it is located below the peak value of the soil anomaly.

## Forward Program

Now that the Geophysical surveys at both Pamwa and Akelikongo are complete planning for diamond drill targets can be finalised. The EM conductors at Akelikongo and IP conductors at Pamwa will assist drill targeting to test for massive nickel sulphides at Akelikongo and extensions to the Zn, Pb Ag mineralisation at Pamwa. A limited diamond drill program of around 1500m is planned to test both these targets commencing in late January.

Ongoing infill soil sampling is continuing to define further drilling targets for first pass RAB drilling, also planned for early 2015.

## Background

The Kitgum-Pader Base metals & Gold Project comprises 15 exploration licences and one application, covering 6,490 square kilometres in central northern Uganda, East Africa. The Project was generated following the acquisition in 2011 of relatively new airborne magnetic/radiometric data sets over East Africa, and the subsequent geological/metallogenic interpretation of the data sets by Sipa and Geocrust Pty Ltd (Geocrust). Geocrust is a private company established by the late Dr Nick Archibald.

During field reconnaissance in December 2011, Sipa and Geocrust recognised rocks strikingly similar to the host 'Mine Series' sequence at the giant Broken Hill Lead-Zinc-Silver Deposit in NSW, Australia, to the northwest of Kitgum, Uganda. Upon application and subsequent granting of mineral tenements, fieldwork commenced in early 2013. By the end November 2014, some 44,000 soil samples had been collected, along with geological mapping by Nick Archibald. The results of the field work and subsequent drilling of soil targets have led to the discovery of 2 potentially economic mineral systems.

- The Broken Hill-style Lead-Zinc-Silver, at Pamwa; and
- the Intrusive hosted Nickel-Copper sulphide mineralisation at Akelikongo.

**Akelikongo** is one of the standout Ni-Cu-PGE soil anomalies identified to date. The element association and shape of the anomaly led Dr Jon Hronsky to interpret this as a possible "chonolith" being a fertile host for nickel sulphides within a mafic-ultramafic intrusive complex.

The **Pamwa** Zn, Pb, Ag & Cd soil anomaly was drilled during July and resulted in the discovery of a Broken Hill Type Zn Pb, Cd, Ag mineralised system.

Results included

**LMC010 5m\* @ 2.00% Zn, 0.23% Pb, 97 ppm Cd and 2.4 ppm Ag** from 20m

**LMC004 38m\* @ 0.12% Zn, 0.04% Pb, 1.9 ppm Cd** from 5m

**LMC014 15m\* @ 0.11% Zn, 0.03% Pb, 2.6 ppm Cd** from 10m

\* These shallow holes all ended in Zn mineralisation (refer ASX 26 August 2014)



These intercepts are located within a wider Zn, Pb, Ag, Cd anomalous zone defined by a 1000ppm Zn contour and an even larger 1000ppm Manganese (Mn) anomalous zone defined as the “geological host sequence”.

The host sequence to the mineralisation has a north-northwesterly trend and extends for over a kilometre. The mineralisation occurs in both weathered and fresh quartz-biotite schist extending over 600m with garnet characterised in both footwall and hanging wall sediments. The regional tectonostratigraphy dips moderately to the north east (striking northwest) oblique to the mineralisation indicating the mineralisation is structurally controlled. The IP data confirms this interpretation.

The laboratory data shows a strong association between Zn-Pb-Cd-Mn a characteristic element suite of Broken Hill style of mineralisation. The sulphides present in LMC010 also show the association with Ag. The drilling conducted so far is very shallow and hence there are limitations with our understanding of the complex geology and element interaction. However, the drilling has clearly indicated that **Pamwa** is a Broken Hill Type Zn-Pb mineralised system.

Major mining houses have scoured the world for decades in an attempt to discover the next Broken Hill Type Deposit. Sipa has demonstrated that such world class deposits could be discovered at **Pamwa** and within the extensive Zn rich **Ayuu Alali** soil horizons defined by soil sampling during 2013. These horizons contain many of the characteristics described as being typically associated with Broken Hill type SEDEX deposits, via local geochemical associations, geological observations, and the broader interpreted tectonostratigraphic setting of a rifted reactivated mobile belt of probable lower to mid Proterozoic age.

*The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation compiled by Ms Lynda Daley, a who is a Member of The Australasian Institute of Mining and Metallurgy. Ms Daley is a full-time employee of Sipa Resources Limited. Ms Daley 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’. Ms Daley consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

For more information:  
Lynda Daley,  
Managing Director  
Sipa Resources Limited  
+61 (0) 8 9481 6259  
[info@sipa.com.au](mailto:info@sipa.com.au)

## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No sample results are reported.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling is reported.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling is reported.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling is reported.</li> </ul>
<i>Sub-sampling techniques</i>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of</li> </ul>	<ul style="list-style-type: none"> <li>No drilling is reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>and sample preparation</i>	<p><i>samples.</i></p> <ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No assay data are reported.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No assay data are reported.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>No assay data are reported.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling is reported.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling is reported.</li> </ul>
<i>Sample</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>No sample results are reported.</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>security</i>		
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No sample results are reported.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The results reported in this Announcement are on granted Exploration Licences held by Sipa Exploration Uganda Limited, a 100% beneficially owned subsidiary of Sipa Resources Limited.</li> <li>.At this time the tenements are believed to be in good standing. There are no known impediments to obtain a license to operate, other than those set out by statutory requirements which have not yet been applied for.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Extensive searches for previous exploration have not identified any previous mineral exploration activity.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Kitgum-Pader Project covers reworked, high grade metamorphic, Archaean and Proterozoic supracrustal rocks heavily overprinted by the Panafrican Neoproterozoic event of between 600 and 700Ma. The tectonostratigraphy includes felsic ortho- and para-gneisses and mafic and ultramafic amphibolites and granulites and is situated on the northeastern margin of the Congo Craton. The geology and tectonic setting is prospective for magmatic Ni, Broken Hill type base metal and orogenic Au deposits</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No drilling results are reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> <li>• 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.</li> </ul>	
Data aggregation methods	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling results are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• 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').</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling results are reported.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling results are reported.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling results are reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>.As Reported within the text of the announcement</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>.As reported in the text of the announcement the results will be used to design a limited diamond drilling program</li> </ul>