

# Paterson North Project – Update on Second Diamond Hole at Obelisk

Thick 229m bedrock zone of strong silicification and alteration with multiple sulphide mineralised quartz veins intersected 200m along strike from first hole

#### **HIGHLIGHTS**

#### Paterson North Copper-Gold Project, Western Australia (Sipa 51%, earning 80%)

- Second diamond hole targeting the coincident geochemical and IP chargeability anomaly at the Obelisk prospect, PND002, has been successfully completed to a depth of 517.4m.
- Initial logging of the core from PND002 indicates that the hole has intersected a 229 metre
  thick bedrock zone of variable but strong silicification and alteration with multiple
  generations of guartz and sulphide mineralised veining from 214m down-hole.
- As with the first hole (PND001), the quality and quantity of the veining and alteration
  encountered in the drilling to date indicates the presence of a significant mineralised
  system at Obelisk, as expected from the robust geochemistry and geophysical data.
- The intercept in PND002 continues to correlate very well with the interpreted position of the IP chargeability anomaly and has encountered more intense silicification and alteration and a higher quartz sulphide vein density than PND001 with pyrrhotite being the dominant sulphide (compared to pyrite in PND001) and more chalcopyrite observed than in PND001.
- The core is currently being cut and will be dispatched to the assay laboratory next week. Initial assays are expected within 3-4 weeks. Core from PND001 has now arrived at the lab.
- The third 500m deep diamond hole, PND003, has been collared 300m to the south of PND002 to further test the interpreted strike extent of the mineralised system.



Figure 1: Core from PND002 showing strong quartz-biotite-chlorite-pyrrhotite-chalcopyrite veining and alteration



Sipa Resources Limited (ASX: **SRI**) is pleased to advise that it has completed the second of three deep diamond holes targeting the Obelisk copper-gold geochemical and geophysical target, part of its **Paterson North Copper-Gold Project** in Western Australia.

The drill hole is part of a 3-hole program totalling 1,500m with PND001 (see Figure 3) already completed to a depth of 511.3m.

PND002 intersected a wide zone totaling 229 metres of strongly silicified altered and veined dolerite and sediments from 214m to 444m down-hole. The hole ended in weakly altered dolerite at 517.4m.

Hole	Easting (GDA94/zone 51)	Northing (GDA94/zone 51)	RL (m)	Dip (deg.)	Azimuth (deg.)	Length (m)
PND0001	392,449.00	7,718,972.00	222	-60	55	511.3
PND0002	392,630.00	7,718,868.00	229	-60	55	517.4

As reported in ASX release of 15 September 2017, the first hole, PND001, also intersected strong silicification and alteration with multiple generations of quartz and sulphide mineralised veining over broad intervals over a total down-hole width of 98 metres from 283.4m down-hole (Figure 4).

By comparison, PND002 has intersected a wider but more variable zone of silicification alteration and veining. The dominant sulphide in the mineralised zone in PND002 is pyrrhotite and the chalcopyrite observed in the core is stronger in both the disseminated zones and in the vein zones.

Visual observations of the core from PND002, which was collared 200m along strike from PND001, suggests that the hole has encountered stronger mineralization than PND001. However, it must be noted this conclusion is based on visual observations and is made in the absence of assays, which will not be available for another three to four weeks.

The quality and quantity of the veining and alteration encountered in all of the drilling to date indicates the presence of a significant mineralized system at Obelisk, as expected from the robust geochemistry and geophysical data.

As with PND001, the predominant host lithology is dolerite with detailed logging of the core in progress. Several zones containing multiple quartz +/- sulphide veins with quartz, biotite and chlorite alteration have been intersected over a total width of up to 229 metres from 214m down-hole. In contrast to PND001, PND002 contains significant zones of altered sediments which are strongly folded and show a moderate to intense mineral fabric.

In PND002, the veins are variable in width from 5cm to 4m and are quartz-dominated with pyrrhotite chalcopyrite and minor pyrite. Within the mineralised zone the dolerite exhibits strong quartz, biotite, a white titanium mineral (probably titanite) and pyrrhotite alteration.

The close correlation of the intense veining and alteration in drilling, with the IP anomaly, and coincidence with the bedrock geochemical anomaly is significant. The IP survey shows that the anomaly is open to the north-west, south-east and at depth.

The identification of this intense veined zone in drilling demonstrates the effectiveness of the techniques which the Company has deployed to date to vector towards better developed mineralisation. These techniques have included a combination of ground gradient array IP, Audio Magneto Tellurics (AMT), multi-element geochemistry from fresh bottom-of-hole drilling, and detailed mineralogical interpretation from CSIRO's TIMA studies.

The Obelisk discovery is part of Sipa's Paterson North Project in Western Australia and lies within EL 45/3599, the Great Sandy Tenement where Sipa holds a 51% interest and is now earning up to 80% for expenditure of \$3 million (see Figure 2).

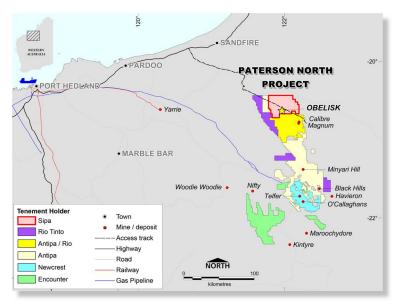


Figure 2. Location of Paterson North Tenements, Western Australia

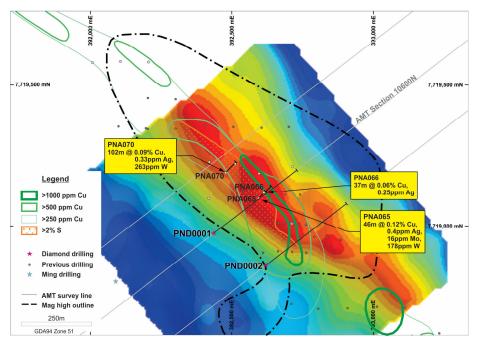


Figure 3. Obelisk drill plan, average copper in drill holes contour, and magnetic high with IP chargeability and AMT lines, showing strong correlation with anomalous copper intersected at surface.

Location of diamond holes shown.



#### **Plan Forward**

The drilling to date has demonstrated the presence of a complex and strongly altered and mineralized system at the Obelisk prospect. A third hole, which has been collared around 300m to the south-east of PND002, is currently underway.

The overall drilling program remains on schedule to be completed by the end of September with initial assay results expected to be available by mid-October.

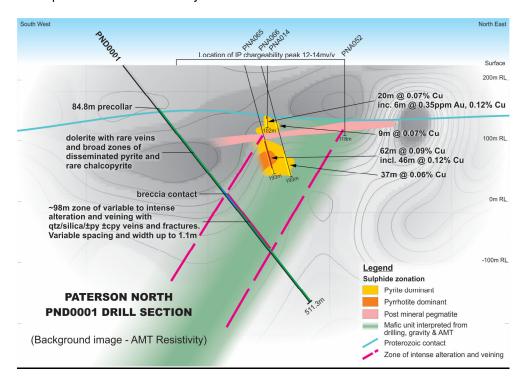


Figure 4. Drill section with PND001 showing wide mineralised zone (98m) down-dip of RC holes PNA065 and 066.

#### **About Sipa**

Sipa Resources Limited (ASX: SRI) is an Australian-based exploration company which is targeting the discovery of significant new gold-copper and base metal deposits in established and emerging mineral provinces with world-class potential.

In Australia, Sipa has a Farm-in and Joint Venture Agreement with Ming Gold at the Paterson North Copper Gold Project in the Paterson Province of North West Western Australia, where extensive primary copper gold silver molybdenum and tungsten mineralisation was intersected at the Obelisk prospect in primary bedrock. The project is in an intrusion related geological setting similar to other deposits in the Paterson and those in the Tintina and Tombstone Provinces of Alaska and the Yukon.

The Company's maiden drill program in August 2016 successfully delineated a major copper plus gold, silver, molybdenum and tungsten mineral system over a 4km strike length at the Obelisk prospect, within the Great Sandy Tenement. The drilling confirmed that the anomaly is continuously developed over the entire strike length, including an 800 by 200m long zone where highly anomalous copper (greater than 500ppm Cu) and gold results up to 1.26g/t Au were returned. This represents an outstanding target for follow-up exploration.

The Paterson Province is a globally recognized, strongly endowed and highly prospective mineral belt for gold and copper including the plus 25Moz world-class Telfer gold and copper deposits, the Magnum and



Calibre gold and copper deposits, the Nifty copper and Kintyre uranium deposits and the O'Callaghans skarn hosted tungsten deposit.

In Northern Uganda, the 100%-owned Kitgum-Pader Base Metals Project contains two new mineral discoveries, Akelikongo nickel-copper and Pamwa lead-zinc-silver, both made by Sipa during 2014 and 2015.

The intrusive-hosted nickel-copper sulphide mineralisation at Akelikongo is one of the most significant recent nickel sulphide discoveries globally, exhibiting strong similarities to major intrusive hosted nickel orebodies such as Nova, Raglan and Voisey's Bay.

At Akelikongo, Sipa has delineated intrusive-hosted chonolith style nickel-copper sulphide mineralisation which is outcropping and plunges shallowly to the north-west for a distance of at least 500m and open to the northwest. More recently, in December 2016 strong zones of up to 7m of semi-massive sulphide interpreted to dip shallowly to the northwest were intersected with strong off-hole conductors associated with them. These intercepts occur beneath large thicknesses over 100m of disseminated nickel and copper sulphide.

The information in this report that relates to Exploration Results was previously reported in the ASX announcement dated 18 September 2017, 6 September 2017, 11 July 2017, 19 June, 2017, 24 May 2017, 22 February 2017, 1 December 2016, 5 September 2016 and 2 June 2016. The Company is not aware of any new information or data that materially affects the information included in that relevant market announcement.

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## **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
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or</li> </ul>	<ul> <li>Drilling pre-collared with 6 1/4 inch tricone reducing to 4 7/8ths until hard rock was encountered.</li> </ul>
	standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>The diamond rig entered the pre-collar drilling around 5m of HQ core to provide hole stability and then reducing to NQ2 for the remainder of the drilling.</li> </ul>
		<ul> <li>Core was oriented using Reflex ActII RD Rapid Descent Orientation</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul> <li>Precollar samples of dune material and Permian cover were not sampled.</li> </ul>
·	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul> <li>Drill core length is measured against the drillers blocks and recovery ascertained</li> </ul>
	<ul> <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>	
Logging	<ul> <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> </ul>	<ul> <li>Logging was conducted on all holes using a digital quantitative and qualitative logging system to a level of detail which would support a mineral resource estimation</li> </ul>
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	detail Willon Would Support a milloral resource estimation
	The total length and percentage of the relevant intersections logged.	
Sub- sampling techniques and sample preparation	<ul> <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</li> </ul>	Drillcore samples were cut in half using a core saw with
	<ul> <li>sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample propagation technique.</li> </ul>	one half going to the laboratory. The entire sample is crushed and split at the laboratory
p. opaiation	<ul> <li>sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	
	Measures taken to ensure that the sampling is representative of the in	



Criteria	JORC Code explanation	Commentary
	<ul> <li>situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Multielement assaying is done via a commercial laboratory using a four Acid digest as a total technique with and ICP-AES finish and 30g Fire Assay for Au with ICP finish</li> <li>Lab Standards were analysed every 30 samples</li> <li>For onsite analysis an Olympus Innov-X Delta Premium portable XRF analyzer is used with a Rhenium anode in soil and mines mode at a tube voltage of 40kV and a tube power of 200μA. The resolution is around 156eV @ 40000cps. The detector area is 30mm2 SDD2. A power source of Lithium ion batteries is used. The element range is from P (Z15 to U (Z92). A cycle time of 45 seconds Soil Mode was used and beam times were 15 seconds.</li> <li>Selected high samples are analysed in Mineplus Mode. A propylene3 window was used. Standards are used at the beginning and end of each day to calibrate the instrument.</li> <li>For RC drilling and soils, raw pXRF data are stored separately to Lab data in the relational database.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>This is an early drill test into a newly identified prospect. No verification has been completed yet.</li> <li>Twinned holes are not undertaken</li> <li>Data entry is checked by Perth Based Data Management Consultant</li> <li>Assays have not been adjusted</li> <li>The data is audited and verified and then stored in a SQL relational data base.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used</li> </ul>	<ul><li>Drill holes have been located via hand held GPS.</li><li>The grid system used is MGA Zone 51 (GDA94)</li></ul>



Criteria	JORC Code explanation	Commentary
	<ul><li>in Mineral Resource estimation.</li><li>Specification of the grid system used.</li></ul>	
	Quality and adequacy of topographic control.	
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	No Mineral Resource or Ore Reserve Estimation has been calculated
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Too early to comment on. This is an initial drilling program
Sample security	The measures taken to ensure sample security.	<ul> <li>Drill samples are accompanied by a Sipa employee to a commercial freight company who transports the samples to the laboratory in Perth on consignment.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	no reviews have been undertaken as yet.

### **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	<ul> <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> <li>The results reported in this Announcement are on granted Exploration Licence E45/3599 held by Ming Gold Ltd. Sipa is earning equity in this tenement by exploration expenditure up to \$3million over 4 years after which a joint venture with Sipa holding 80% and Ming holding 20% will be formed.</li> </ul>

Criteria	IODC Code avalenation	Commentant
Criteria	JORC Code explanation	<ul> <li>At this time the tenement is 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>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The only previous mineral exploration activity conducted was 31 reconnaissance Aircore holes by Ming Gold Ltd in 2015.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The geology is interpreted using magnetic and gravity geophysical data as the entire area is covered by around 6m of dune sand and then up to 100m of Permian Paterson Formation sands and siltstones. Below this the geology interpreted from geophysics is considered similar to that along strike to the south east where folded sediments of the Yeneena Group are intruded by a series of basic to felsic intrusions. Some of these intrusions are considered to be directly responsible for mineralisation in the district.</li> <li>Many of the deposits are polymetallic with Mo,W Au Cu Ag being a common metal association an association which is also understood to represent intrusion related mineralisation. Telfer, O' Callaghans Magnum, Calibre are analogues for the mineralisation encountered in this drill program</li> </ul>
Drill hole Information	<ul> <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> <li>easting and northing of the drill hole collar</li> <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> </ul> </li> <li>If the exclusion of this information is justified on the basis that the</li> </ul>	See table in Text

Criteria	JORC Code explanation	Commentary
	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	<ul> <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>	Assay results are pending
Relationship between mineralisatio n widths and intercept lengths	<ul> <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>	Assay results are pending
Diagrams	<ul> <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>	Reported in Text.
Balanced reporting	<ul> <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>	All drill assay results are pending
Other substantive exploration data	<ul> <li>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.</li> </ul>	Not applicable





Criteria	JORC Code explanation	Commentary
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	As reported in the text