



## VMS STYLE MINERALISATION IN FIRST DRILLING OF FIRST VTEM CONDUCTOR IN SWEDEN

### Highlights

- S2's first two holes drilled at its first VTEM conductor to be tested have intersected volcanogenic massive sulphide (VMS) style mineralisation
- The mineralisation comprises disseminations and veinlets of sulphide with small zones of semi-massive sulphide within a broader alteration zone
- The sulphides are mainly iron (pyrite and pyrrhotite) but include zones with some sphalerite (zinc sulphide) and minor chalcopyrite (copper sulphide)
- The grade of zinc, copper and other metals is unknown pending laboratory assays
- This provides "proof of concept" for S2's exploration strategy and confirms the effectiveness of VTEM as a tool for finding VMS deposits in this area
- Drilling is continuing but will halt soon due to the northern Spring thaw
- Prioritisation of the other VTEM conductors using ground EM and base of till geochemical sampling will continue
- Systematic drill testing of this and other high priority VTEM conductors will recommence later in the year as soon as weather permits access

S2 Resources Ltd ("S2" or the "Company") advises that two holes drilled to test an electromagnetic (EM) conductor originally defined by a versatile time domain electromagnetic (VTEM) survey on its 100% owned Skellefte project in Sweden have intersected volcanogenic massive sulphide (VMS) style mineralization. These are the Company's first ever diamond core holes drilled at its Skellefte project to test the first of a number of EM conductors identified in its 2015 VTEM survey, which is the only such survey to have ever been undertaken in this highly endowed mining district. This prospect has been named Svan Vit.

The primary purpose of these drillholes was to test the effectiveness of the VTEM technique itself and the validity of the Company's strategy of using it as a means of identifying base metal sulphide mineralization in this terrain. The results appear to confirm both.

VTEM conductor Svansel 403-C1, which is one of many EM conductors identified in the Company's 2015 VTEM survey (see Figure 1), was verified with ground EM and the resultant anomaly was modelled as a conductive body nominally measuring 150 metres along strike and 200m down dip (see Figure 2). This anomaly is south of a historic prospect originally discovered in the late 1890's and drilled in the 1980's by SGU (the Swedish Geological Survey).

The two holes drilled to test this conductor have both intersected sulphide mineralization at predicted target depths. The first hole (SSVA160001) clipped the uppermost edge of the target zone and intersected a narrow zone of breccia and disseminated sulphide mineralization. The second hole (SSVA160002) hit the conductor approximately 90 metres down dip from the first hole, and intersected a broad hydrothermal alteration zone containing several sub-zones with variable amounts of sphalerite (zinc sulphide) and minor chalcopyrite (copper sulphide) (see Figure 3) mixed with gangue (silicate minerals). The visual intercepts are described below:

- A 4 metre wide alteration zone from 85.75 metres in hole SSVA160001, with:
  - 0.55 metres of variable sulphide mineralisation from 85.75 metres
  - 1.65 metres of variable sulphide mineralisation from 88.1 metres
- A 30 metre wide alteration zone from 164.4 metres in hole SSVA160002, with:
  - 1.6 metres of variable sulphide mineralisation from 167.7 metres
  - 2.9 metres of variable sulphide mineralisation from 170.5 metres
  - 8.1 metres of variable sulphide mineralisation from 183.3 metres

The two intercepts at the Svan Vit prospect are interpreted to be close to true width and together define a zone of alteration with variable sulphide mineralization dipping to the SW, extending to at least 150 metres below surface, and remaining open down dip and along strike (see Figures 2 and 3).

The sulphides comprise a mixture of pyrrhotite and pyrite (iron sulphide) with variable amounts of sphalerite (zinc sulphide) and localized zones with minor chalcopyrite (copper sulphide) (see Figure 4) but it must be stressed that it is not possible to anticipate the grade of zinc, copper or any other metals in these intercepts and receipt of definitive laboratory assays may take several weeks.

The identification of VMS mineralization in the first drilling program on the first of numerous VTEM conductors identified in the first ever VTEM survey in this district is considered to be highly encouraging, and it is hoped another one or two holes will be completed at Svan Vit before the northern Spring thaw prevents rig movement.

Drilling will resume at Svan Vit as soon as possible once the ground re-freezes later in the year. In the meantime, ground EM and base of till sampling will continue in order to verify and prioritise the numerous other conductors identified in the VTEM survey, some of which may be accessible when the ground is dry in late summer/autumn.

S2's Managing Director, Mark Bennett, who is on site in Sweden, commented "we have said from the start that the Skellefte project represents a significant opportunity for S2, which is why we moved to 100% ownership of Sakumpu Exploration Oy last December. Having identified so many strong conductors in our district scale VTEM survey it was important for us to test the validity of these, so when our team had an opportunity to do just that before the Spring thaw we took it."

"Our main objective was to identify a conductive body to prove that the VTEM works, so to not only prove this but to also confirm mineralization with our first drillholes into our first conductor is a pleasing bonus. It bodes well for the project as a whole" he said.

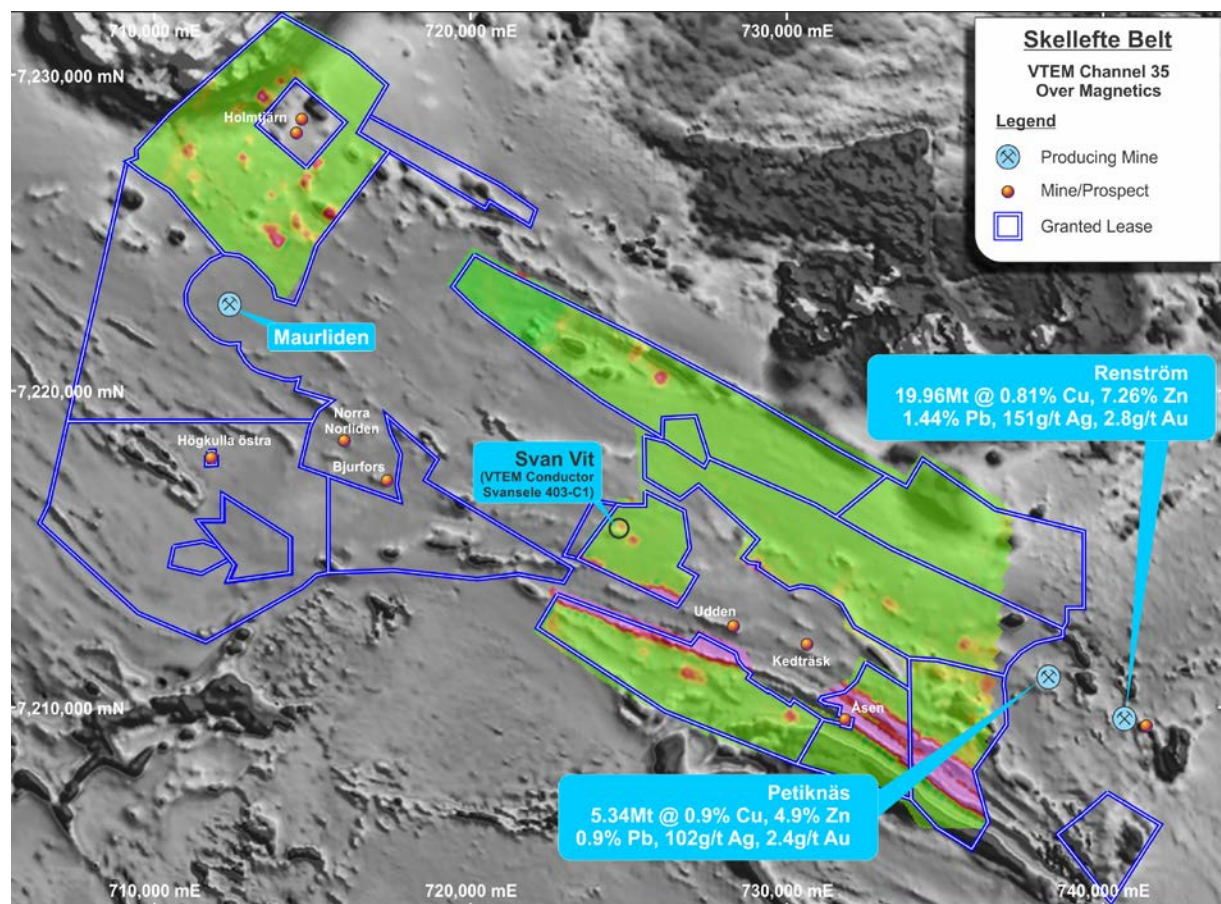


Figure 1. Location of VTEM conductor Svansale 403-C1 and other VTEM conductors in the Skellefte belt, showing S2's tenure, and Boliden's VMS mines and deposits.



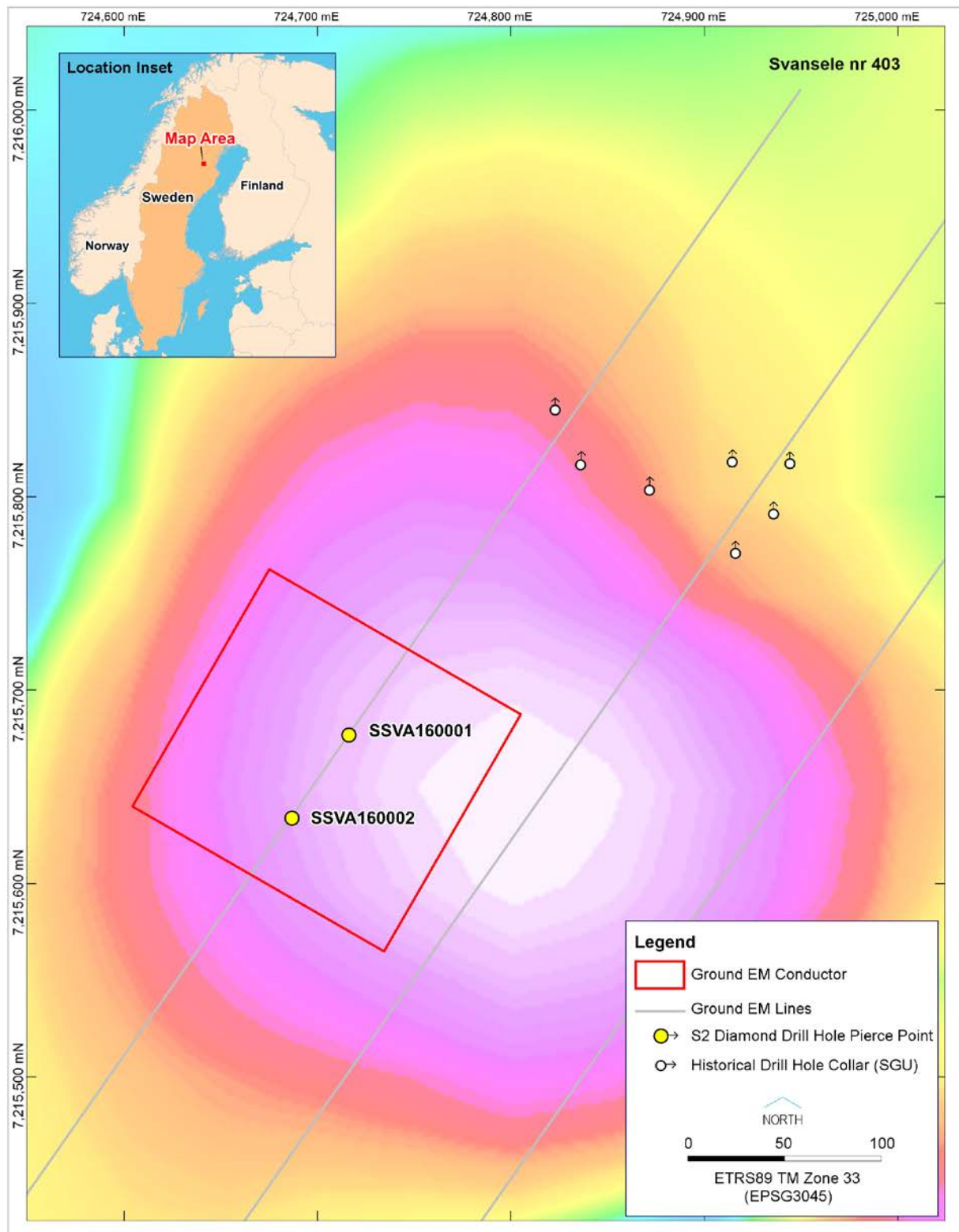


Figure 2. Prospect scale plan showing location of the Svan Vit conductor as modelled from the ground EM survey, in relation to original VTEM conductor Svanselse 403-C1 (in colour) and nearby historic SGU (Geological Survey) drilling.

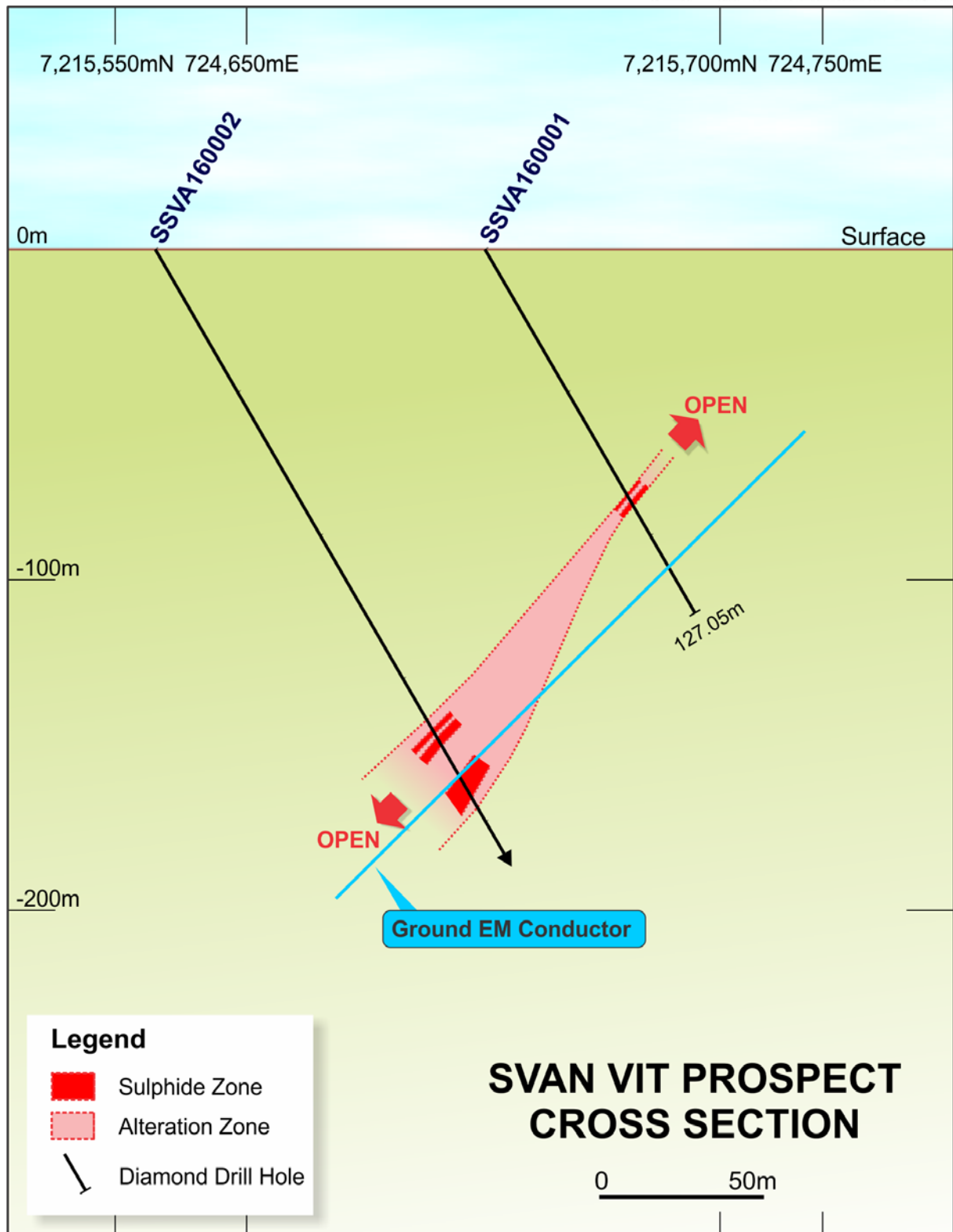


Figure 3. Cross section showing the sulphide intersections in drillholes SSVA160001 and SSVA160002 at Svan Vit in relation to the EM conductor as modelled from the ground EM survey undertaken to verify VTEM conductor Svansle 403-C1.



Figure 4. Photograph of massive sulphide intercept in hole SSVA160001, Svan Vit prospect, containing pyrrhotite (pale bronze brown), pyrite (brassy yellow) and sphalerite (reddish brown) with clasts of wallrock (dark grey).





Figure 5. Photograph of core from 171 metres in hole SSVA160002, Svan Vit prospect, showing laminated sphalerite (pale pink, pale brown, reddish brown), coarse pyrrhotite (brassy yellow) and silica alteration (glassy grey to milky white).

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**Competent Persons statement**

The information in this report that relates to Exploration Results is based on information compiled by James Coppard who is a consultant to the company. Mr Coppard is a Chartered Geologist and Fellow of the Geological Society of London. Mr Coppard has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Coppard consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

**Annexure 1**

The following Table is provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

Hole No.	Prospect	Total Depth	North	East	RL	Dip	Azim	Comment
SSVA160001	Svan Vit	127.05	7215642	724691	429	-60	35	Assays Pending
SSVA160002	Svan Vit	In progress	7215560	724634	429	-60	35	Assays Pending

**Table 1:**

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

**SECTION 1 SAMPLING TECHNIQUES AND DATA**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>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.</i>	The EM geophysical target at Svan Vit was tested by diamond drilling with a planned two DDH program. Drilling has been undertaken by Protek Norr of Norsjö Sweden drilling NQ2 rod size with a DDH size of 75.7mm and core size of 50.7mm. NQ2 core samples were logged, marked by Sakumpu Exploration ("Sakumpu") staff. Unbiased core sample intervals were cut in half by diamond saw. Half core has been sent for analyses by ALS Laboratories.  *Sakumpu is a wholly owned subsidiary of S2
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i>	Sampling and QAQC procedures are carried out using Sakumpu Exploration/ S2 protocols as per industry best practice.



Criteria	JORC Code explanation	Commentary
	<i>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 (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</i>	<p>Diamond drilling was used to obtain core samples that have been cut and sampled to intervals that are determined by lithology and mineralisation.</p> <p>The drill core samples from SSVA16001 have been sent to ALS Laboratories for analyses for gold and base metals. SSVA160002 drill core is presently being logged at Sakumpu Exploration Oy's facilities.</p>
<b>Drilling techniques</b>	<i>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).</i>	Diamond drilling with NQ2 wireline bit producing a 50.7mm diameter core. Drill core has not been orientated.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed</i>	Diamond Drill core recoveries are visually estimated qualitatively on a metre basis and are recorded in the database.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	Sample quality is qualitatively logged on a metre basis, recording sample condition.
	<i>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.</i>	NA
<b>Logging</b>	<i>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.</i>	<p>The initial sampling is considered a qualitative sampling technique and not appropriate for mineral resource estimation</p> <p>Lithology, alteration and veining is recorded directly to a digital format and imported into S2 Resources central database.</p>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	All core has been photographed both dry and wet. Geological logging of the diamond drill holes is onto physical log sheets
	<i>The total length and percentage of the relevant intersections logged</i>	All drill holes were logged in full.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Core sawn in half and half core taken.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	NA
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples yet to be prepared
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Full QA:QC system in place for when samples prepared
	<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>	NA

Criteria	JORC Code explanation	Commentary
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	NA
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Samples forwarded to ALS Laboratories.
	<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>	No geophysical tools were used to determine any element concentrations.
	<i>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.</i>	NA at present
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	The Managing Director of Sakumpu Exploration has visually verified significant intersections.
	<i>The use of twinned holes.</i>	No twin holes have been drilled on the project to date.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary sampling data was collected in Sakumpu Exploration Oy sample books using project prefix SSVA and unique numbers. The data is then transferred to a set of standard Excel templates. The information will be forwarded to an external database consultant for validation and compilation into a Perth based SQL database.
	<i>Discuss any adjustment to assay data.</i>	NA
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Drill hole collars were located with a differential GPS with an accuracy of less 1m.
	<i>Specification of the grid system used.</i>	The grid system used is the Standard Swedish National Grid – SWEREF 99 TM.
	<i>Quality and adequacy of topographic control.</i>	Excellent quality topographic maps produced by the Swedish Authorities - Landmateriat
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	NA
	<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>	NA
	<i>Whether sample compositing has been applied.</i>	NA
<b>Orientation of data in relation to geological structure</b>	<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>	The diamond drilling orientation was designed to test the geophysical target and is not necessarily drilled perpendicular to the orientation of the intersected mineralisation.
	<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>	NA

Criteria	JORC Code explanation	Commentary
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Chain of custody is managed by Sakumpu Exploration Oy. Drill cores were visually checked at the drill rig and adjacent track (less than 200m from drill rig). Cores were then transported to Sakumpu Exploration Oy's logging and cutting facilities by Sakumpu Exploration personnel. Core cutting on site and samples transferred to ALS Laboratories in Malå, Sweden by Sakumpu Exploration personnel
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews have been conducted at this stage.

## **SECTION 2 REPORTING OF EXPLORATION RESULTS**

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	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 Svan Vit (White Swan) prospect is located within the Svanselse nr 403 Exploration Licence (Diary number 2015:39), which is 100% owned by Sakumpu Exploration filial, a wholly owned branch of Sakumpu Exploration Oy, which is in turn a wholly owned subsidiary of S2 Resources Ltd.
	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.	The Svanselse nr 403 Exploration Licence is in good standing and no known impediments exist on tenement actively explored.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	North of the VTEM anomaly Svanselse 403 C1 the historical prospect of Snattermyran. Snattermyran was found from a mineralised boulder in 1902. During 1903-1905 trenching occurred. In 1926 3 DDH's were drilled for a total of 152.17m with a best result of: borrhäl 2 3.46m @ 2.45% Zn, 32g/t Ag. In 1980 the Swedish Geological Survey (SGU) drilled 4 DDH's for a total of 375.00m with a best result from DDH 80004 of 2.50m @ 1.65% Zn, 20 g/t Ag. All DDH's were drilled with an approximate azimuth between 345° and 030°. The above information is the only public domain data pertaining to the prospect.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	The Svan Vit project is situated within the central portion of the Skellefte Belt, a volcanogenic massive sulphide camp dominated by bimodal volcanics, primarily felsic in composition.  The mineralisation style appears from the two drill holes typical volcanogenic massive sulphide style mineralisation with greenschist metamorphism
<b>Drill hole Information</b>	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> <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>	DDH SSVA160001 724691E 7215642N 035°Azi -60° EOH127.05m VMS style mineralisation between 85.75m – 89.75m as in text.  DDH SSVA160002 724634E 7215560N 035°Azi -60° DDH ongoing at time of writing VMS style mineralisation in varying between 164.40m – 195.05m including a number of barren intervals as in text



Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	NA
	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.	NA
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	NA
<b>Relationship between mineralisation widths and intercept lengths</b>	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 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 (e.g. 'down hole length, true width not known').	The trend of mineralisation at Svan Vit is not known at present but core angles indicate that mineralisation is approximately true width..  Refer to Annexure 1 and Figures in body of text.
<b>Diagram</b>	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.	Refer to Figures in body of text.
<b>Balanced reporting</b>	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.	Mineralisation is determined visually
<b>Other substantive exploration data</b>	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.	The Svan Vit target was a priority VTEM target (Svansele 403 C1) generated during Sakumpu Exploration's 2015 survey that returned a multi-channel response at the target. This target was ground checked by ground TEM which gave an anomaly that when modelled showed a SW dipping plate that increases in conductance at depth. Base of Till sampling returned a peak geochemical response on top of the geophysical anomaly.
<b>Further work</b>	The nature and scale of planned further work (e.g. 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	Additional drilling of the target is presently ongoing testing the VMS style mineralisation possible down dip extension. Borehole pulse EM survey will be undertaken in the next 48 hours. The weather conditions (northern hemisphere spring thaw) will prevent additional diamond drilling of the target until the ground conditions are appropriate (frozen ground) Analytical results and geophysical responses will determine the extent of additional drilling.