

# AUSTRALIAN SILICA QUARTZ GROUP LIMITED

DRILLING RESULTS CONFIRM PROSPECTIVE INTRUSION AT SOVEREIGN



*Third diamond hole intersects thick sequence of mafic-ultramafic intrusion 3.5km north of previous drilling, highlighting scale of the prospective rocks*

## HIGHLIGHTS

- Assay results from initial stratigraphic diamond drilling completed in November confirm low-grade nickel and copper sulphide mineralisation in Hole 2, in line with visual observations.
- A third stratigraphic diamond hole (Hole 3) completed recently has intersected a thick sequence of mafic-ultramafic intrusive rocks 3.5km north of previous drilling.
- A close association between the disseminated nickel and copper sulphide mineralization and evidence of sediment assimilation by the intrusion in Holes 2 and 3 demonstrates a key genetic indicator in the formation of Nickel Copper Platinum Group Elements Deposits.
- This adds further impetus to the ongoing ground EM program, which is expected to pick up pace following completion of the delayed grain harvest in December.

ASX Listed DevEx Resources Limited ("DevEx", ASX: DEV) has today lodged an announcement providing further update on the exploration programs at the Sovereign Project in the highly prospective Julimar Region, WA.

DevEx are conducting exploration on the Sovereign Project under the 50/50 Joint Venture on ASQ's E70/3405 located along strike from the Chalice Gold Mines Ltd (ASX: CHN) nickel-copper-platinum group elements (Ni-Cu-PGE) Julimar discovery in WA.

A full copy of the DevEx announcement is attached.

DevEx is earning into the non-bauxite rights of E70/3405 by an initial spend of \$3m to earn a 50% interest. Following the initial spend, ASQ may elect to contribute to further exploration to maintain its 50% interest, or may have DevEx spend an additional \$3m to earn a further 20% interest with ASQ diluting.

This announcement has been authorised for release by the Board.

23 December 2021

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## Further diamond drilling and initial assays confirm extensive, thick, and prospective intrusive sequence at Sovereign

*Third diamond hole intersects thick sequence of mafic-ultramafic intrusion 3.5km north of previous drilling, highlighting scale of the prospective rocks*

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- This adds further impetus to the ongoing ground EM program, which is expected to pick up pace following completion of the delayed grain harvest in December.

DevEx Resources (ASX: DEV, “DevEx” or “the Company”) is pleased to provide a further update on ongoing exploration programs at the **Sovereign Nickel-Copper-PGE Project** in Western Australia’s Julimar Province. The Company has received assay results from the first two diamond holes completed in November and has also completed a third stratigraphic diamond hole some 3.5km to the north of the initial drilling (Figure 1, Table 1).

The assays have confirmed several zones of low-grade disseminated nickel (Ni) and copper (Cu) sulphide mineralisation within the gabbro-norite and pyroxenite rocks (see Figure 2 and Table 2), in line with expectations from visual observations of the diamond drill core (see ASX announcement, 10 November 2021). Both palladium and platinum (PGE) values are low in grade.

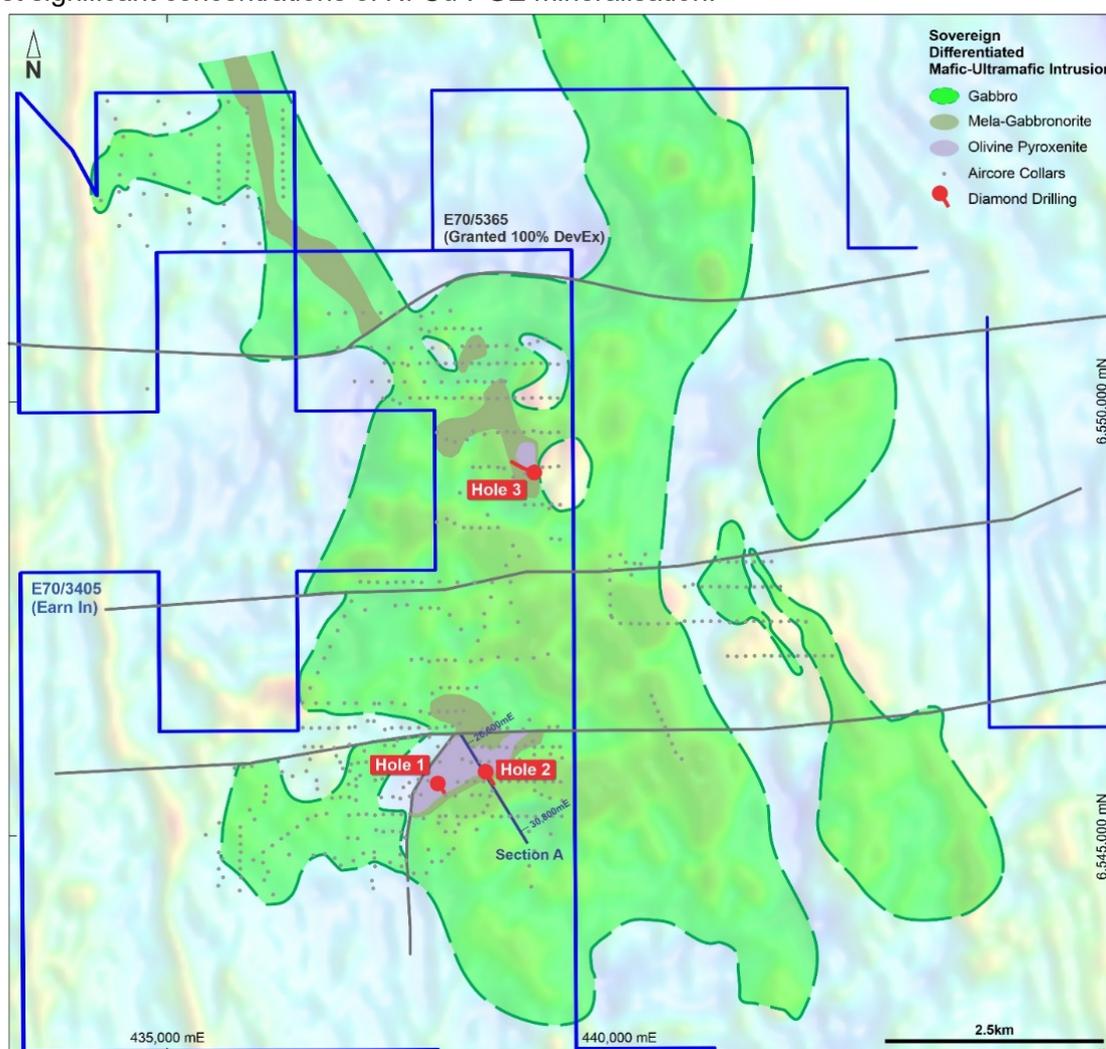
Sulphide mineralisation assemblages in Hole 2 vary from pentlandite-chalcopyrite-pyrite (with relic pyrrhotite) to millerite-chalcopyrite-pyrite. Similar to the processes described at Gonneville by Chalice Mining Limited (ASX: CHN), both the geology and mineralisation at Sovereign have been modified by pervasive regional metamorphism. Importantly, the zones of disseminated iron (Fe)-Ni-Cu sulphides are spatially associated with magmatic blue quartz and ilmenite – both strongly suggestive of the role of sediment assimilation in the genesis of the mineralization. Sediment assimilation is a critical element in the genesis of magmatic Ni-Cu-PGE deposits such as Nova-Bollinger and Noril’sk.

The third stratigraphic diamond hole, 21SVDD03 (Hole 3), was completed earlier this month with co-funding assistance by the WA Exploration Incentive Scheme.

Hole 3 was drilled 3.5 kilometres to the north of Hole 2 and has also intersected a thick sequence of moderate westly dipping mafic-ultramafic intrusive rocks to the bottom of the hole (586m). Preliminary observations of the core identify a narrow (one metre) zone of minor disseminated Fe-Ni-Cu sulphides within a pyroxenite.

Importantly, the mafic-ultramafic rocks hosting the disseminated Fe-Ni-Cu sulphide mineralisation in both Holes 2 and 3 show similar signs of assimilation of country rock into the intrusion. The presence of these distinctive features over broadly spaced holes several kilometres apart continues to enhance the prospectivity of the intrusion and the importance of ground-based electromagnetic surveys (EM) to assist in vectoring into potential accumulations of massive sulphide mineralisation.

These early-stage diamond holes demonstrate a thick and extensive sequence of differentiated mafic-ultramafic intrusive rocks (see ASX Announcement 10<sup>th</sup> November 2021) which, together with confirmation of Fe-Ni-Cu sulphide mineralisation, supports the potential for the 12-kilometre intrusion to host significant concentrations of Ni-Cu-PGE mineralisation.



**Figure 1.** Sovereign Project: Location of three diamond drill holes 21SVDD01 (Hole 1) - 21SVDD03 (Hole 3), drilled to understand the local geology and framework of the mafic ultramafic intrusion. Local grid provided for context to Figure 2.

With the delayed harvesting season complete, ground electromagnetics (EM) can now pick up pace in early January. Although the Fe-Ni-Cu sulphides seen in Hole 2 are only weakly conductive with no immediate off-hole response, the potential for a massive sulphide accumulation along strike from these disseminated sulphide zones provides a focus for the ground EM next month.

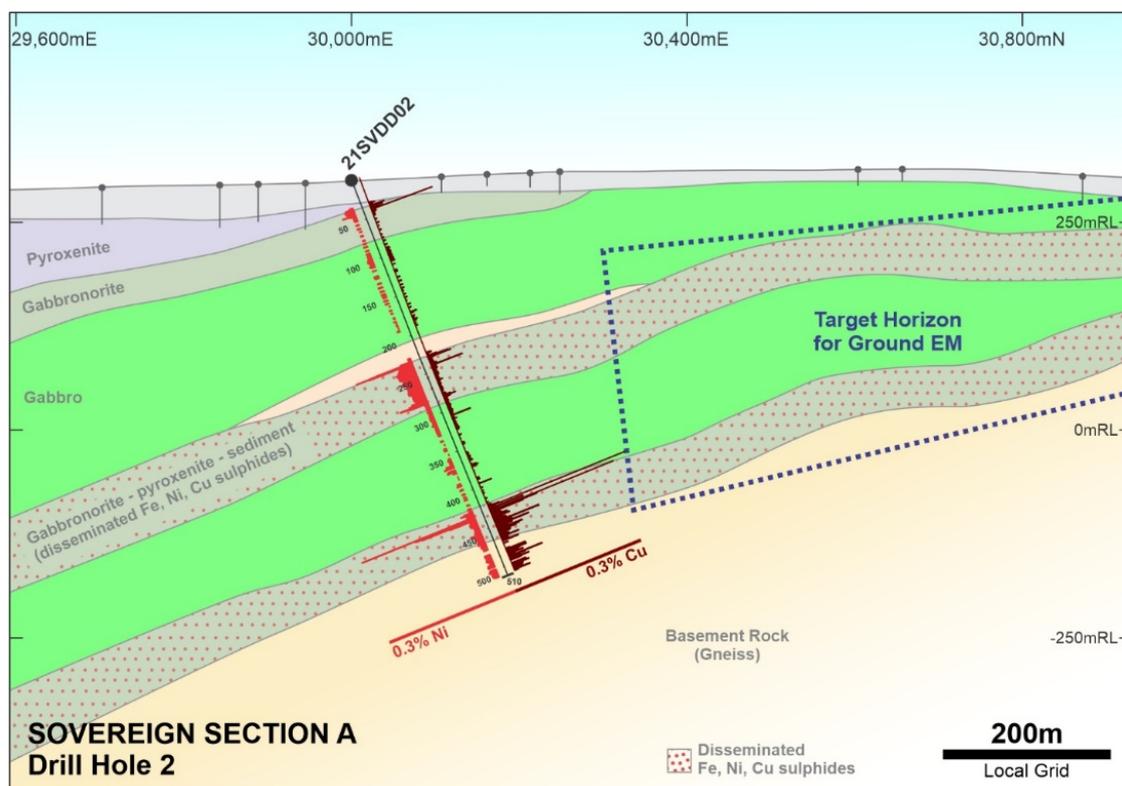
In total, the ground EM is expected to take several months to complete. Any prospective EM conductors identified as this survey progresses will be fast tracked to drilling.

DevEx is currently exploring the western half of the Sovereign mafic-ultramafic Intrusion (E70/3405) under an Earn-In Agreement with Australian Silica Quartz Group Ltd (ASQ) (see the Company Announcement on 1st June 2020). The eastern half of the intrusion is located within a granted tenement held by DevEx (E70/5365) – see Figure 3.

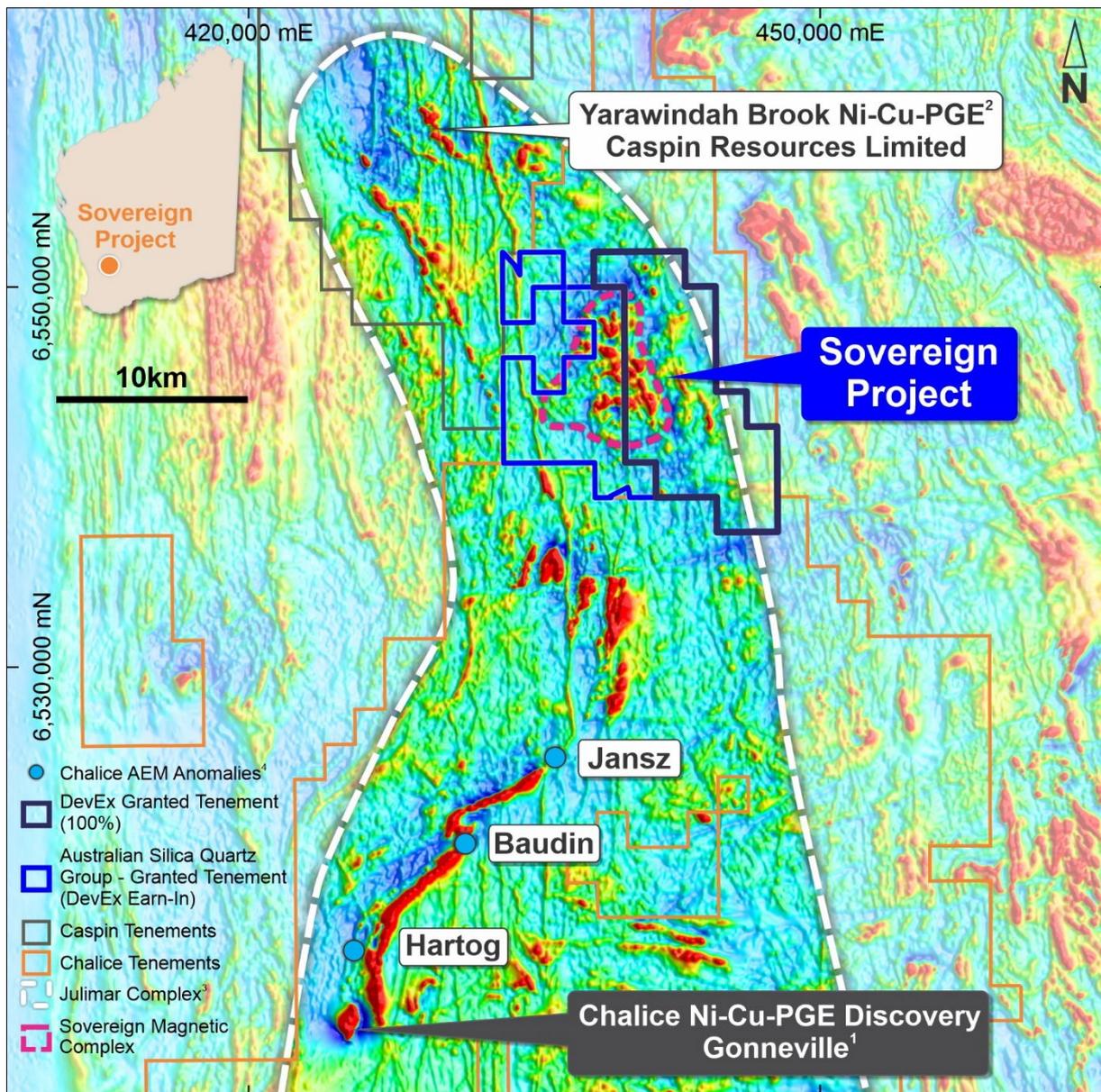
DevEx Managing Director, Brendan Bradley, said: *“The observations and early conclusions from our first three stratigraphic diamond holes at Sovereign have provided a strong framework for our ongoing exploration program. Importantly, we have confirmed an extensive sequence of highly prospective ultramafic-mafic rocks over a considerable strike length with geological, geochemical and petrological characteristics which indicate the potential for a large nickel-copper-PGE system.*

*“The presence of low-grade nickel-copper mineralisation in the initial assays is consistent with our expectations based on geological logging of the core. The next step is to find accumulations of massive sulphides, and ground EM is the right exploration tool to do this.*

*“With the completion of the cropping season, our ongoing ground EM program will pick up pace early in the New Year, and we are looking forward to seeing what it can deliver.”*



**Figure 2.** Generalised geological cross section and interpretation with nickel and copper assays represented as histograms (Oblique to GDA Grid – temporary local grid provided – see Figure 1) showing distribution of low grade disseminated nickel-copper sulphide mineralisation within and at the base of the mafic-ultramafic intrusion. Shallowing position of these zones provides a focus for Ground EM in January 2022.



**Figure 3.** DevEx Tenement together with the Australian Silica Quartz Group Ltd (ASQ) Tenement overlying airborne magnetics (RTP) in relation to Chalice Mining Limited's high-grade palladium-nickel discovery (ASX: CHN) at the Julimar Project. The outline of the Julimar Complex was interpreted by the Company from information in Harrison (1984)<sup>3</sup>.

**Table 1 – Collar details of diamond drilling at Sovereign Project.**

Hole ID	East (mE)	North (mN)	RL (m)	Depth (m)	Az	Dip
21SVDD01 (Hole 1)	438096	6545605	310	412	145	-70
21SVDD02 (Hole 2)	438644	6545739	301	510	145	-70
21SVDD03 (Hole 3)	439207	6549175	306	586	290	-60

**Table 2 – Table of intercept for > 0.2% Nickel and >0.2% Copper.**

Hole ID	From (m)	To (m)	Ni %	Cu %	Pd ppb	Pt ppb
Hole 2	431.4	431.7	0.3	0.3	17	5

This announcement has been authorised for release by the Board.

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**REFERENCES**

1. Chalice Mining Limited (ASX: CHN) ASX announcement “Tier-1 scale maiden Mineral Resource for Gonneville – 10Moz Pd+Pt+Au (3E), 530kt Ni, 330kt Cu and 53kt Co” on 9<sup>th</sup> November 2021”.
2. Caspin Resources Limited (ASX: CPN) ASX announcement “Primary Sulphide PGE Mineralisation Confirmed at Yarabrook Hill” on 5<sup>th</sup> July 2021.
3. Harrison P. H., 1984. The mineral potential of layered igneous complexes within the Western Gneiss Terrain. In: Professional papers for 1984 of the Geol Surv of W. A. 19. Gov Printing Office, Perth, pp 37–54.
4. Chalice Gold Mines Limited (ASX: CHN) ASX announcement “Major new 6.5km-long EM anomaly identified at Julimar” on 22<sup>nd</sup> September 2020.

**COMPETENT PERSON STATEMENT**

The information in this report that relates to Exploration Results is based on information compiled by DevEx Resources Limited and reviewed by Mr Brendan Bradley who is the Managing Director of the Company and a member of the Australian Institute of Geoscientists. Mr Bradley has sufficient experience that is relevant to the styles of mineralisation, the types of deposits under consideration and to the activities undertaken 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”. Mr Bradley consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The Information in this report that relates to Exploration Results for the Sovereign Project is extracted from the ASX announcements titled “Initial diamond drilling at Sovereign intersects thick intrusive sequence with disseminated nickel-copper sulphides” released on 10<sup>th</sup> November 2021 and “Large-scale, 12km long mafic-ultramafic intrusion at Sovereign Project, paving way for ground EM and initial diamond drilling” released on 17<sup>th</sup> August 2021 which are available at [www.devexresources.com.au](http://www.devexresources.com.au).

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

## FORWARD LOOKING STATEMENT

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

### Appendix 1. Sovereign Prospect - JORC 2012 Table

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<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>Diamond drill core samples are taken over selective intervals through zones of observed geological domains considered to be of interest and sulphide mineralisation with a minimum width of 0.3m and a maximum width of 1.5m.</li> <li>Mineralisation was visual and recorded by the geologist who logged the hole. A handheld Olympus Vanta XRF was used to help diagnose the spot nature of sulphide mineralisation and lithology. Where noticeable mineralisation intervals were observed the sample selection was adjusted accordingly. Key mineralisation of note included copper sulphides and nickel sulphides with associated pyrrhotite and pyrite.</li> <li>Spot pXRF measurements were taken to confirm the copper and nickel content of the sulphides observed in the drill core. Grades recorded from these measurements are not representative of any of the sampled intervals and are not used as such.</li> <li>Regular spot pXRF analysis of the diamond core were used to estimate magnesium, chromium and other elements to assist with rock type determination.</li> <li>Down hole magnetic susceptibility reading were also taken of the drill core throughout the hole.</li> <li>Laboratory sample preparation comprised drying, jaw crushing and pulverising to -75 microns (85% passing) to produce sufficient sample for fire assay and multi-element analyses.</li> <li>No relationship has been observed between sample recovery and grade. Sample bias is unlikely due to the good general recovery of core and sample.</li> <li>Drill samples were submitted to ALS Laboratories in Perth.</li> </ul>
<b>Drilling techniques</b>	<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>Drilling type is by Diamond drilling technique.</li> <li>Diamond core is HQ3 (61.1mm) size from surface and changes to standard NQ2 (50.6mm) size when the downhole geology shows competency.</li> <li>All drill core was orientated (unless where broken ground was encountered) using a ACT Mk2 core orientation tool and marks on core were then lined up for full core run with red line marker.</li> <li>Downhole surveys were carried out using an Axis Gyro tool.</li> </ul>
<b>Drill sample recovery</b>	<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>Recovery of samples is recorded as a matter of routine.</li> <li>Diamond holes are drilled in shorter lengths when in broken ground to maximise sample recovery. Overall &gt;95% drill core/sample recovery is estimated from the fresh rock.</li> <li>No relationship has been observed between sample recovery and grade. Sample bias is unlikely due to the good general recovery of sample.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<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>Preliminary logging of the two diamond holes are complete. Detailed geotechnical, structural, and geological logs have been compiled for all drill holes. No Mineral Resource Estimation, mining studies and metallurgy is being considered for these holes. Downhole orientation measurements were taken on core and magnetic susceptibility was measured for all holes through the entire hole.</li> <li>All holes are qualitatively logged and for particular observations such as vein and mineral content a quantitative recording is made. Wet and dry photos of diamond core are taken before cutting.</li> <li>All drill holes were logged in full.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<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 samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>All core is cut with a diamond saw with half core submitted for analysis.</li> <li>No field duplicates or second half core has been used yet for any of the diamond drill holes. Known value standards were inserted approximately every 20 samples.</li> <li>The size of the sample is considered to have been appropriate to the grain size for all holes.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drill samples were submitted to ALS Laboratories in Perth, WA. Entire samples were crushed and pulverised to 85% passing &lt;75um. Samples were analysed for Cu and Ni with four acid digest ME-MS62 and with Au, Pt and Pd analysed by PGM-ICP23 fire assay 30g charge and ICP-AES finish. Bottom of hole samples were analysed for Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr, Dy, Er, Eu, Gd, Ho, Lu, Nd, Pr, Sm, Tb, Tm, Yb by ME-MS61. Results are considered to be near total.</li> <li>A standard was inserted approximately every 40 samples for drilling and a standard or a duplicate inserted every 40 samples. Laboratory checks were also carried out. All QAQC was checked for accuracy.</li> <li>An Olympus Vanta M Series Handheld XRF machine is used routinely on core to help determine nature of observed sulphide mineralisation and lithology. The reading times used are 15 seconds each for the first and second beams. The calibration of the pXRF was checked daily against a known standard. These pXRF reading are used to assist geologist with mineral and rock identification including the presence of copper and nickel sulphides but are not representative of grade intervals and are not reported.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Verification has been undertaken by Company personnel.</li> <li>The use of twinned holes is not appropriate at this early stage of assessment.</li> <li>Data had been recorded in a drill hole database with QAQC analysis of samples undertaken to validate data prior to it being inserted into the database.</li> <li>No assay adjustment to assay data has taken place.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No Mineral Resource is being considered in this report.</li> <li>Collar positions determined using handheld GPS (+/- 5 metre accuracy) considered appropriate for early stage exploration.</li> <li>The grid system is GDA94 Zone 50.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• Topographic control used is Shuttle Radar Topography Mission (SRTM) data.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• Analytical data points downhole are sufficient to characterise the nature of the rock and its mineralisation. The drill hole was designed to test a modelled magnetic anomaly relative to ease of access. All are appropriate for exploration results reporting.</li> <li>• No Mineral Resource is being calculated in this report. No sample compositing has occurred.</li> <li>• No sample compositing has been applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• Drill hole orientation was based on interpretation of geology from air-core drilling and modelled magnetic data.</li> <li>• The orientation of geological contacts is variable depending on location of holes. Holes 1 and 2 appear to be moderately dipping to the south-east where as geology observed in Hole 3 is moderately dipping to the north-west, and broadly supporting the overall flat lying interpretation.</li> <li>• Orientation of drilling and mineralisation intersected is not considered to have introduced a material sample bias.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill core was cut, labelled and bagged and held in a company store facility until it was despatched to the laboratory by company employees.</li> </ul>
<b>Audits or reviews</b>	<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 audits have been completed.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<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>	<p>The Company has an Earn-In Agreement with Australian Silica Quartz Group Ltd (ASQ) for granted tenement E70/3405.</p> <ul style="list-style-type: none"> <li>• Under the Earn-In Agreement with ASQ, DevEx has the right to earn a 50% interest in all mineral and metal rights, excluding bauxite, within the ASQ Tenement by spending up to \$3 million within 3 years from commencement of the Earn-In Agreement. This includes a minimum expenditure requirement of \$250,000 in the first 12 months which has been met.</li> <li>• DevEx can earn an additional 20%, taking its interest to 70%, by spending an additional \$3 million within two years if ASQ elect to not contribute to exploration expenditure after DevEx earning the 50% interest.</li> <li>• Within E70/3405, the majority of the prospective ground holding is classed as freehold and exploration land access agreements with land owners are in place and cover the main targets that lie within this tenement.</li> <li>• Tenement E70/5365 lies adjacent to the ASQ Tenement E70/3405 and is 100% held by the Company. Access agreements are now in place over the majority of the prospective intrusion and the Company is in the process of negotiating for further access elsewhere within the tenement.</li> <li>• Some properties on E70/5365 are classified as "Minerals to Owner" under a prior pre-1899 provision where gold, silver and precious metals are reserved for the Crown, with all other metals assigned to the property. On both property types, where exploration is taking place, the Company has land access agreements with the landholder giving the Company the exclusive right to explore the Tenement over that land.</li> <li>• Both tenements lie on broad acre farm land which follow the WA crop and harvesting cycle.</li> <li>• The Company has signed a Noongar Standard Heritage Agreement (NSHA) with the Yued People for E70/5365, this sets a notification framework for exploration activities to the Yued People and methodology for a heritage survey if required.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Apart from bauxite exploration carried out by ASQ (see the Company announcement on 19<sup>th</sup> August 2020) no other material exploration has previously taken place at the Sovereign Project.</li> <li>A published paper by Harrison (1984) documents the mineral potential of layered igneous complexes within the Western Gneiss Terrain – The paper identified a sequence of magnetic features prospective for Ni-Cu-PGE deposits on the western side of its Figure which it terms the Julimar Complex – The Sovereign Project forms one of these magnetic features</li> </ul>
<b>Geology</b>	<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 Sovereign Project is located within the Western Gneiss Terrain of the Archaean Yilgarn Craton of southwest Australia.</li> <li>The prospective areas are described in Harrison (1984) as within the “Julimar Complex”, a series north-trending magnetic anomalies in the western part of the Jimperding Metamorphic Belt that contains mineralised prospects. The Company has interpreted the outline shape of “Julimar Complex” based on this description. The Complex comprises layered basic/ultramafic intrusions prospective for nickel sulphide related mineralisation. The Chalice discovery within the Complex adds significant support for the overall prospectivity of the Complex.</li> <li>Within the Sovereign Project, local geology is masked by extensive laterite cover, predominately bauxite or lateritic duricrust.</li> <li>Previous petrographic and geochemical analysis of samples had shown there to be strong evidence of a fractionated sequence of mafic gabbro-gabbro-norite rocks through to peridotite-olivine websterite ultramafics. Recent petrology identified nickel and copper sulphide mineralisation occurring as clusters within gabbro norite and pyroxenite in Hole 2. Ilmenite and magmatic blue quartz show a spatial association with these zones of Fe-Ni-Cu sulphide mineralisation indicating the potential for sedimentary assimilation by the intrusion.</li> <li>Regional metamorphism has strongly modified geology and mineralisation within the intrusion, similar to processes described at Gonneville by Chalice Mining Limited.</li> </ul>
<b>Drill hole Information</b>	<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> <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 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>	<ul style="list-style-type: none"> <li>Results from the Company drilling is presented in the Figures of this report with a drill hole summary previously provided in Company ASX Announcement on the 10<sup>th</sup> of November 2021. Hole 3 has received preliminary logging with further logging and sampling to take place. The holes are broadly space apart.</li> </ul>
<b>Data aggregation methods</b>	<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</li> </ul>	<ul style="list-style-type: none"> <li>All Assay Results represent disseminated nickel and copper sulphide mineralisation and are subsequently low grade. For context the Assay Results are diagrammatically represented as scaled histograms in Hole 2 and assay results that are greater than 0.2% copper and 0.2% nickel are reported in Table 2.</li> <li>No significant palladium or platinum was received.</li> <li>No high-grade intercepts are discussed within this report.</li> <li>No metal equivalents are reported in this report.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>equivalent values should be clearly stated.</i>	
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• The relationship between the disseminated Ni-Cu sulphide mineralisation are generally perpendicular, and are reported as down hole lengths. These zones of mineralisation are diagrammatically shown for Hole 2 to provide context into areas of mineralisation for future targeting. Only down hole lengths are reported, true widths are unknown.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to figures in the body of text.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• This report discusses geological observations of rocks types and nickel and copper sulphide mineralisation observed in the three diamond holes drilled thus far at Sovereign Project. Holes were designed to test the framework of the mafic-ultramafic intrusion at depth, not mineralisation. The report discussed the presence of disseminated iron-nickel-copper sulphides within diamond hole 21SVDD02 (Hole 2) and 21SVDD03 (Hole 3) and its significance to the prospectivity of the Sovereign Mafic Ultramafic Intrusion. The report emphasises that the disseminated copper and nickel sulphide observed is likely to be low grade.</li> </ul>
<b>Other substantive exploration data</b>	<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>• All relevant exploration data is shown on the figures and in the body of the report.</li> </ul>
<b>Further work</b>	<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>• For Hole 3, detailed logging is continuing in conjunction with sampling of the diamond core for analysis.</li> <li>• Ground Moving Loop EM to test the up-dip projection of prospective geology away from Hole 2.</li> <li>• In parallel with this work, an extensive ground EM survey commenced last month. The survey is designed to test for conductors associated with Ni-Cu-PGE mineralisation within the 12km-long Sovereign Mafic-Ultramafic Intrusion over the coming 3 to 4 months. Any significant conductors identified from this work will be fast tracked for drilling over the coming months.</li> </ul>

## About Australian Silica Quartz Group Limited

### *ASQ DEVEX 50/50 JV (non-dilutable at ASQ's election)*

ASQ has entered into a joint venture with DevEx Resources ("DevEx" ASX:DEV) on its 100% owned E70/3405 tenement located along strike from Chalice Gold Mines ("Chalice" ASX:CHN) nickel copper platinum group elements Julimar discovery in WA. The first \$3M expenditure on the JV area is to be fully funded by DevEx to earn 50%. ASQ has the option to jointly fund future expenditure to maintain 50% share or opt to allow DevEx to fund the next \$3M to earn a further 20% share in non-bauxite minerals. Initial geochemical and geophysical exploration work returned positive results. Recently completed aircore drilling has defined a layered, differentiated mafic-ultramafic intrusion, extending over 12 kilometres in length. (refer full detail in the 1 June 2020 announcement *ASQ reaches agreement for funding of exploration on its tenement in Julimar Region, WA*, 8 October 2020 announcement *Update on Geophysics Targets at ASQ/DevEx JV in Julimar Region, WA*, 19 August 2020 announcement *Update on ASQ/DevEx 50/50 JV in Julimar Region, WA*, 4 December 2020 announcement *DevEx Exploration Update*, 27 April 2021 announcement *Drilling confirms Mafic-Ultramafic Intrusion at Sovereign* and 17 August 2021 announcement *12km Long Mafic-Ultramafic Intrusion at Sovereign, Large Scale Ground EM and Diamond Drilling set to Commence*)

### **SILICA**

ASQ has established a range of silica sand and hardrock projects held via exploration licence applications 100% owned by ASQ's subsidiary Australian Silica Quartz Pty Ltd. These projects now consist of 10 granted exploration licences and 6 applications covering approximately 1,500 km<sup>2</sup> within Western Australia and Queensland.

High grade silica (99.5-99.9% SiO<sub>2</sub>) and high purity silica (>99.95% SiO<sub>2</sub>) currently have a wide range of applications. All indications suggest the high grade and high purity silica market is currently growing strongly due to greater demand from the PV Solar, TFT glass, Electronics, Flat Glass and Speciality Glass industries. This is reinforced by the level of enquiries received from qualified end user customers the Company has received primarily from China and South East Asia.

### **SILICA SAND**

ASQ's high grade silica sand projects are located in the regions of Albany, Gingin and Esperance in the southwest of Western Australia.

In the shorter term these projects potentially present the opportunity for the Company to produce a washed DSO silica sand product with longer term potential to enter the higher value higher grade silica sand market with a niche processed product.

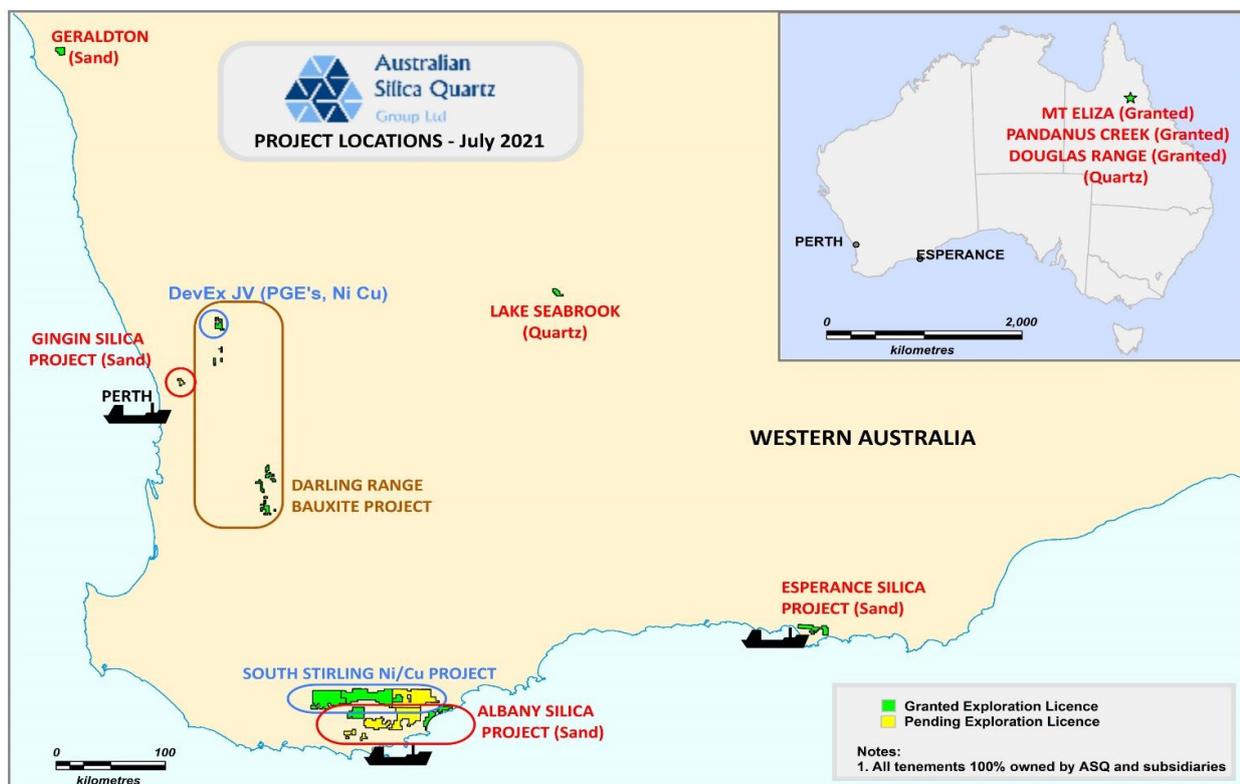
ASQ is currently working on a Scoping Study for the 11.6Mt Albany White Hill high grade, low iron Silica Sand Project (refer full detail in the 28 January 2021 announcement *High Grade, Low Iron Silica Sand Resource*). The Albany White Hill Project is located on farmland cleared of native vegetation 70 km east northeast of the port of Albany.

In addition to its wholly owned silica exploration projects ASQ has reached an agreement with an existing local sand producer. In 2019 the Company executed a binding terms sheet with Urban Resources Pty Ltd (Urban) to jointly exploit Urban's Silica Sand deposit located in Bullsbrook, Western Australia. Urban has operated the mine for the last six years and produced over 1Mt from the deposit in last two years. The ASQ/Urban Resources agreement presents the Company with the opportunity to potentially fast track its entry into the DSO silica sand export market. ASQ have completed a JORC 2012 Inferred Mineral Resource on the raw sand at Urban's Maralla Road tenement M70/326 (refer full detail in the 7 May 2019 announcement *Update on Maralla Road Silica Sand Deposit Maiden Resource* and 29 January 2020 announcement *Spiral and Classifier Testwork Results for the M70/326 Silica Sand Products*).

### **HARDROCK QUARTZ R&D**

The Company is undertaking an R&D program aiming to develop a high purity, high value silica quartz product. To this end the Company has secured a number of hardrock quartz tenements and is progressing

with a research and development project in this area. Assays from rock chip sampling of ASQ's hard rock tenements reported grades of up to 99.993% SiO<sub>2</sub> with processed hard rock samples demonstrating further grade improvement (refer full detail in the 15 December 2021 announcement *Exploration and Research Update Hardrock High Purity Quartz and Silica*).



### ***SOUTH STIRLING Ni/Cu PROJECT***

ASQ has established the South Stirling Ni/Cu Project by way of four exploration lease applications lodged covering 1,603 km<sup>2</sup> over the Albany Fraser Mobile Belt, South Western WA where the Company has identified a historic end of hole aircore drilling assay of 1.5m at 0.79% Ni, 934 ppm Cu, 832 ppm Co from 28.5m that was never followed up. ASQ considers the application area has potential for Nickel-Copper magmatic sulphide mineralisation associated with mafic-ultramafic intrusions emplaced into granulite facies country rocks. (refer full detail in the 23 September 2020 announcement *Exploration Update*).

### ***BAUXITE JV***

ASQ has a joint venture with HD Mining & Investments Pty Ltd (HDM). HDM is currently working towards obtaining a 40% interest in the bauxite rights of several tenements under the joint venture which are wholly owned by ASQ. Exploration activities are fully funded by HDM. Should HDM and ASQ make a subsequent decision to mine, then HDM will earn an additional 20% interest in bauxite rights on the tenements. ASQ maintains 100% interest in all other minerals. A ninety-five million tonne Bauxite JORC resource has been identified under this JV (refer Company Annual Financial Report for 2020 - Mineral Resources and Ore Reserves section).

### ***BAUXITE ROYALTY***

Following the sale of the Bauxite Resources Joint Venture Bauxite Project to Yankuang Group a royalty on future bauxite sales from the project of 0.9% of FOB price payable to ASQ was negotiated. The Yankuang Group bauxite project contains in excess of 300 million tonnes in the world class bauxite region in the Darling Range, Western Australia. ASQ is entitled to a royalty of 0.9% of the FOB price on the first 100 million tonnes mined (under current prices of Bauxite this royalty would equate to approx. A\$0.50/tonne)(refer full detail in 30 November 2015 announcement *Final Agreements signed with Yankuang for sale of Joint Venture Interest and Buy Back of Shares*).