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King Island Scheelite Limited

November 2018

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Note: This report is based on information provided by the Company as of November 5, 2018.

Investment Profile

| | |
|--|--------------------|
| Share Price Nov 4, 2018 | A\$0.09 |
| 12 Month L/H | A\$0.031/ A\$0.135 |
| Issued Capital: | |
| Ordinary Shares | 244.5 m |
| Listed Options | 13.6 m |
| Unlisted Options | 18.0 m |
| Fully Diluted | 276.0 m |
| In-Money Options | 6.0 m |
| Market Capitalisation - UD | A\$22.0 m |
| Market Capitalisation - Diluted for In-Money options | A\$22.5 m |
| Cash - September 30, 2018 | A\$1.24 m |
| Cash on Option Conversion | A\$0.42 m |

Board and Management

| |
|---|
| Mr Johann Jacobs: Executive Chairman |
| Mr Chris Ellis: Executive Director |
| Mr Allan Davies: Non-Executive Director |
| Mr Alvin Johns: Project Manager |
| Ms Sue Jolliffe: Financial Controller |
| Mr Ian Morgan: Company Secretary |

Major Shareholders

| | |
|---------------------------------------|-------|
| Mr Chris Ellis (Chyialis Investments) | 24.0% |
| Mr and Mrs Chadwick | 23.9% |
| Mrs Catherine Morritt | 6.5% |
| Mr Anthony Haggarty and HFTT P/L | 6.1% |
| Board and Management | 27.2% |
| Top 20 | 82.4% |

Share Price Performance



Mark Gordon - Senior Analyst

The investment opinion in this report is current as at the date of publication. Investors and advisers should be aware that over time the circumstances of the issuer and/or product may change which may affect our investment opinion.

THE KING OF TUNGSTEN

King Island Scheelite Limited ("KIS" or "the Company") is close to development ready on the 100% owned high grade Dolphin Tungsten Project ("Dolphin", or "the Project"), located on King Island, in Bass Strait between Tasmania and mainland Australia.

The Project is targeting the redevelopment of the historically operated Dolphin Mine, which produced some 9.7 Mt @ 0.64% WO₃ from both open cut and underground operations in a number of phases from 1917 until its closure in 1990. KIS is looking at an initial eight year, 400,000 tpa open cut operation to produce an average of 195,095 mtu per annum of WO₃, with Reserves of 3.16 Mt @ 0.73% WO₃, the highest grade of any tungsten development project globally. These are included in the open cut Indicated Resources of 4.12 Mt at 0.74% WO₃, and in addition there are underground Indicated Resources of 4.16 Mt @ 1.20% WO₃, providing significant upside to any future operation.

The proposed mine, which is fully permitted, presents a low capex, robust operation, with the current Feasibility Study ("FS") expected to be completed in October, and with offtake and financing planned to be completed in the December 2018 or March 2019 Quarter. Successful financing should allow construction to proceed through 2019, with first production in 2020.

Given the quality and status of the Project, the Company is in an ideal position to take advantage of the current, and forecast continuing upturn in tungsten markets.

KEY POINTS

Permitted, near shovel ready: With the FS expected to be completed in early October, the Project, dependent upon offtake and financing, is near development ready, with all required permits in place; the only permitting activities that may be required will relate to any changes to approved operations.

High grade: The high grade of the Resources and Reserves results in an economically viable and robust project at current metal prices, and one which can absorb reasonable adverse movements in key inputs.

Well understood mineralogy and metallurgy: By virtue of the historic production, the scheelite mineralisation of The Dolphin Project is well understood, and will be able to be processed to a concentrate using a tried and tested flow-sheet; in the initial three years of operation the project also benefits from a relatively low strip ratio of 6.1:1.

Well recognised, stable jurisdiction: Tasmania has a long history of mining, and a well established mining regime and law.

Regular transport: King Island is served by regular air and sea services, with the main seaport being at Grassy, within 1.0 km of the processing plant.

Experienced personnel: Company personnel have extensive and successful experience in the junior resources industry, and have significant shareholdings in the Company, thus aligning their interests with other shareholders.

Active work programme: The next few months should see major milestones being met, thus leading to material news flow.

PROJECT VALUATION

As part of our research we have completed a high level Project valuation for Dolphin, with a pre-tax, unfunded and unrisks NPV₈ of ~A\$121 million, with upside for any extension of operations, including underground. The Project is reasonably robust, and is most sensitive, as expected, to changes in revenue inputs, including metal prices. The base case valuation has been calculated using an AUD:USD exchange rate of 0.72.

Our view is that initial capital requirements are expected to be in the order of A\$60 million (including 90 days working capital), with a further A\$10 million during the life of mine with the latter being funded out of cash flow. Our estimated AISC is A\$176/mtu, which provides for a good margin over forecast revenue of A\$353/mtu, based on an APT price going forward of US\$335/mtu and metallurgical recoveries of 67.5% to a 60% concentrate.

We note however, given that this is unfunded, it should not be used to calculate a per share valuation for the Project or the Company - any such valuation would need to take into account any funding structure (including dilution) and risk multipliers amongst others.

SWOT ANALYSIS

Strengths

- ◆ **High grade, well understood mineralisation:** The mineralisation at Dolphin (and Bold Head) is the highest grade of any tungsten development project globally, and, with being well understood, significantly technically de-risks the Project.
- ◆ **Permitted:** One of the main delays to resources projects is permitting; having permitting in place again significantly de-risks the Project and also results in a shorter time frame to production once funding is in place.
- ◆ **Forecast strong tungsten outlook:** Most commentators are seeing a strong outlook for tungsten for the foreseeable future.
- ◆ **Attractive project economics:** Our modelling indicates robust economics for the planned project; the expected low capital costs should somewhat help ease funding.
- ◆ **Experienced board with skin in the game:** A board and management with the relevant experience is vital to the success of any project; KIS has this, and also Company personnel have major holdings in the Company thus aligning their interests with other shareholders.

Weaknesses

- ◆ **Tungsten:** Although enjoying a resurgence at the moment, and with this forecast by a number analysts to continue, tungsten prices have historically been very volatile. This is compounded by the market being largely controlled by China.
- ◆ **Low market capitalisation:** The current market capitalisation is ~40% of the expected up-front capital costs, which, unless increased, may result in dilution issues with the equity portion of project financing. That being said, when compared with peers KIS is well undervalued, and hence there is significant short term upside potential in the share price.
- ◆ **Power supply:** The initial operation is based on high cost diesel generation for power, although the Company will be looking at alternatives once operations commence. There may also be the opportunity for Government grants to help finance renewable power options.

Opportunities

- ◆ **Underground expansion:** With a Resource of 4.16 Mt @ 1.20% WO₃, there is significant upside potential in the underground at Dolphin; this is reinforced by underground infrastructure being in place (although the condition of this is not known).
- ◆ **Bold Head:** There may be the potential to incorporate remnant mineralisation from the historic Bold Head satellite deposit into the production schedule.
- ◆ **Exploration success:** Further drilling at Dolphin, Bold Head and on the 9km of granite margins could well result in the delineation of additional resources that could potentially extend mine life.
- ◆ **Other acquisitions:** Should the Project go into production, it should generate significant cash that could then be used for further acquisitions to grow the Company.

Threats

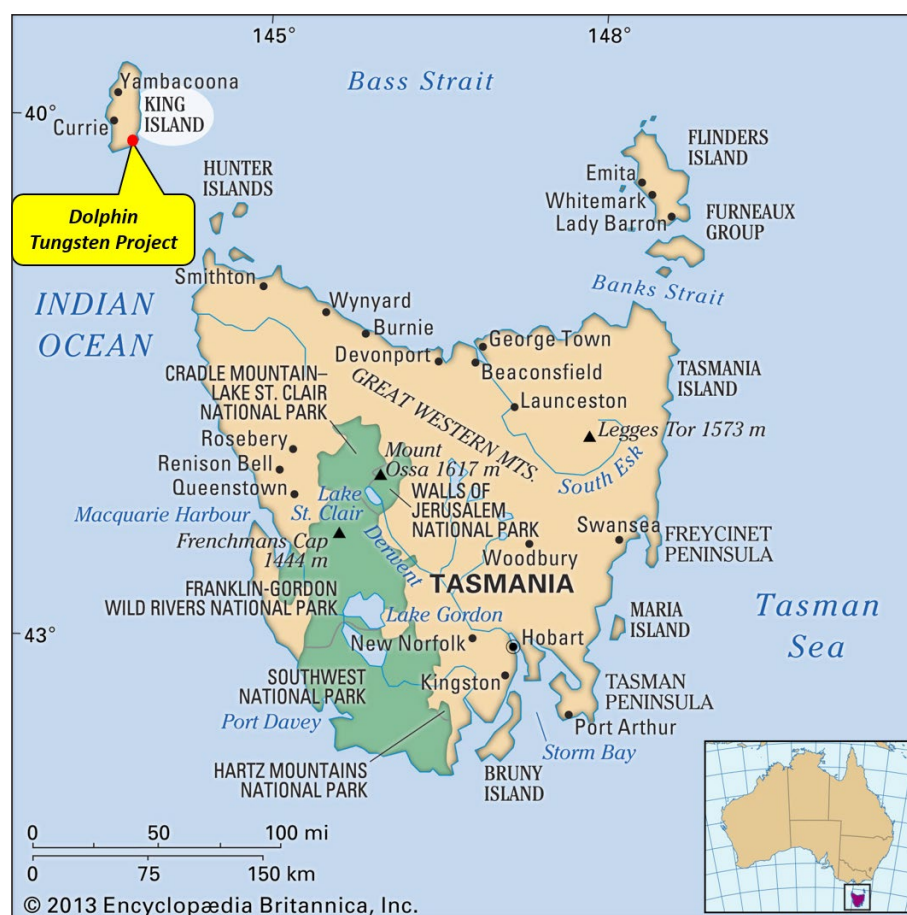
- ◆ **Commodity prices:** These have a major effect on junior resource companies, both on the economics of any project and on the ability to raise funding. Given the grade however KIS is relatively well insulated against reasonable changes in tungsten prices during the life of any operation.
- ◆ **Commissioning and operations:** New start-ups commonly experience issues during the commissioning phase; this is however somewhat mitigated at Dolphin with this being the redevelopment of a well understood historic operation, and with mining and processing using standard, off the shelf systems and techniques.

OVERVIEW

STRATEGY AND PROJECT OVERVIEW

- ◆ KIS is currently finalising the FS for the 100% owned Dolphin Tungsten Project on King Island, located in Bass Strait, between Tasmania and the mainland of Australia (Figure 1) - the Project, which is a planned redevelopment of the historically operated high grade Dolphin Scheelite Mine is expected to be technically shovel ready by late September/early October 2018, with offtake and finance negotiations expected to be wrapped up in the December, 2018 or March, 2019 Quarter.
- ◆ The Company is looking at an initial eight year, 400,000 tpa operation from a 0.73% WO₃, high grade open pit (the highest grade near development project globally), with the potential to go underground after that - the initial planned operation will produce an average of 3,235 tpa of scheelite concentrate, containing some 194,095 mtu/annum of WO₃.
- ◆ Recent demand/supply restructuring has seen the tungsten price increase markedly since the early 2016 nadir, with interest now flowing back into the market, and a number of operations now nearing development or under construction.
- ◆ The supply/demand imbalance is expected to continue for some time, thus supporting prices, with KIS being in an ideal situation to take advantage of this.

Figure 1: Dolphin Tungsten Project location map



Source: Alamy Stock Photo

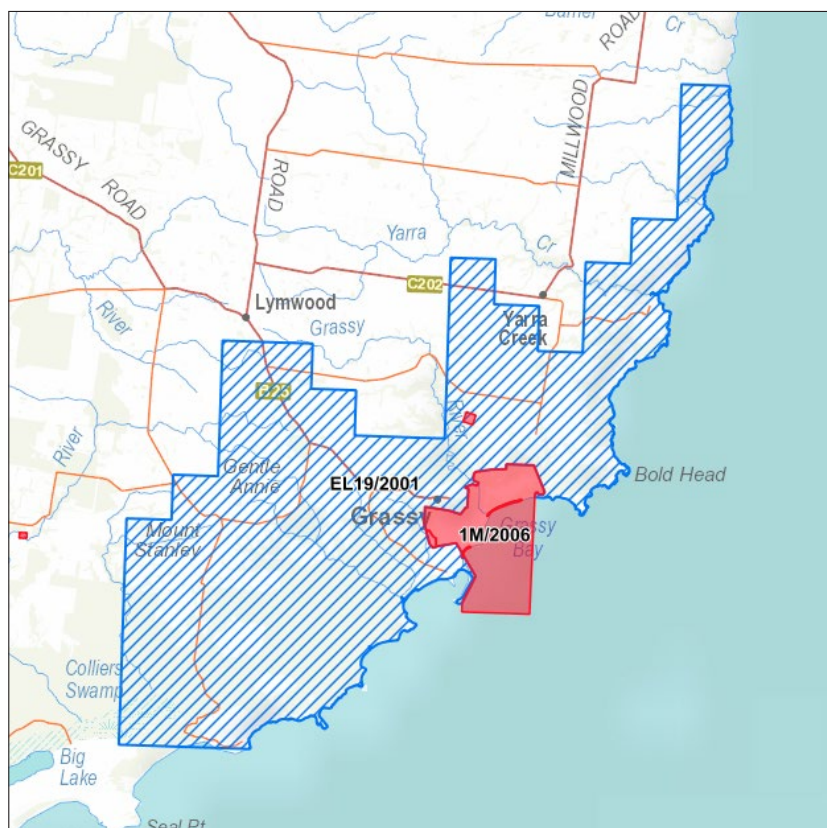
DOLPHIN TUNGSTEN PROJECT

LOCATION, TENURE AND PERMITTING

- ◆ The Project comprises one granted Mining Lease (1ML/2006, 533ha) and one Exploration Licence (EL19/2001, 67km², Figure 2), both located at Grassy, on King Island, which is part of the state of Tasmania.
- ◆ Both tenements are in good standing (with the EL to be renewed in full this year), and in addition the Company holds the freehold title for mining and planned processing/ancillary operations.

- ◆ The proposed operation is fully permitted, with the only work required being modification of the relevant permits due to any changes to the planned operation - the most recent environmental permit was issued in the September 2017 Quarter, with this based on the current 8 year, 400,000 tpa production scenario.

Figure 2: KIS tenement map - ML in red, EL in blue - EL NS graticule length is 1.85km

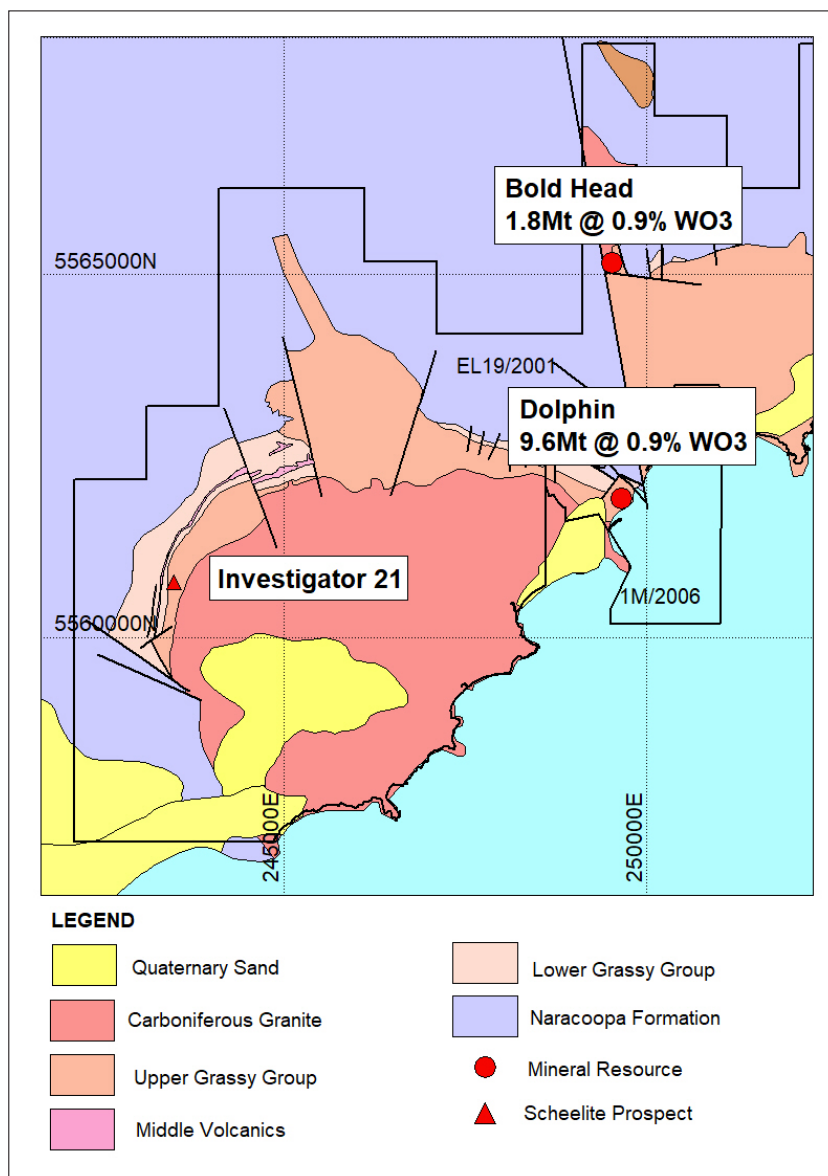


Source: MRT website, extracted August 10, 2018

GEOLOGY AND MINERALISATION

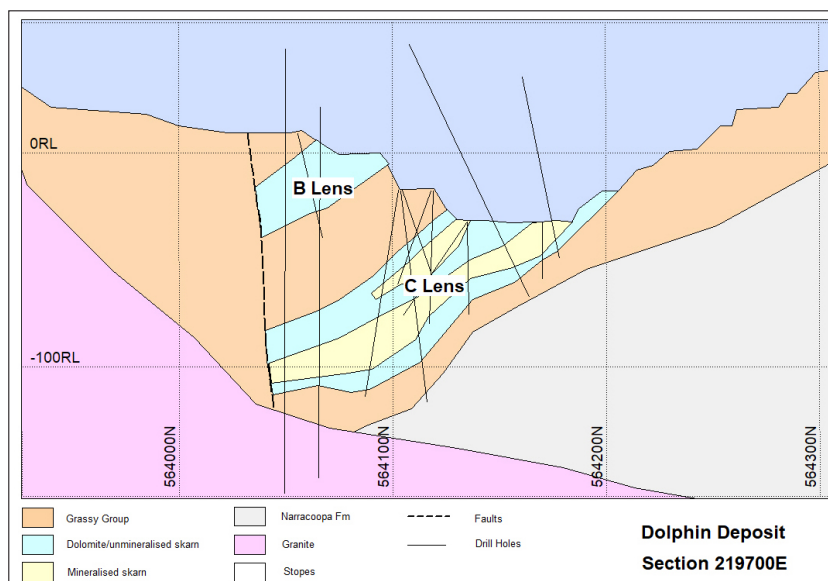
- ◆ Skarn mineralisation is hosted within hornfelsed Late Neoproterozoic to Lower Cambrian carbonates of the Grassy Group (Figure 3), which forms a ~200m thick sequence, including a basal tilloid (or breccia/conglomerate) with intercalated basic tuff beds.
- ◆ This thin basal unit is overlain by dolomite and dolomitic siltstones (which are the main mineralised units), with the dolomitic units overlain by siltstone and shale - the mineralised intervals are in what is termed the Lower Grassy Group.
- ◆ The overlying Upper Grassy Group consists of a thick (~2,500m) Cambrian volcanic sequence including picritic and spilitic lavas, tuffs and agglomerates.
- ◆ Underlying the Grassy Group is a thick sequence of Neoproterozoic sediments (Naracoopa Formation), ranging in type from mudstones to quartz sandstones.
- ◆ Two deposits have been historically mined - Dolphin (Figure 3, and which is the focus of current activities) and Bold Head, both of which contain significant remnant resources; in addition some drilling has recently been completed at the Investigator 21 prospect, which is located on the 9km of prospective granite margin within the Company's tenements.
- ◆ The host sequence dips shallowly to the south east (Figures 4 and 5), and has been intruded by a series of Devonian to Carboniferous granites, the Grassy and Bold Head Granodiorites, which are the source for the skarn mineralisation.
- ◆ The mineralisation is developed in two main calcareous lenses, B Lens and C Lens where they are in close proximity to granodiorite intrusions - mineralisation is best developed in C Lens where it is proximal to faults (Figure 6).
- ◆ The Dolphin deposit consists of a number of fault blocks (Figure 6), extends for an E-W strike length of 1,150m, is up to 750m in width (projected to surface) and extends from 80m above sea level in the west plunging to -380m below sea level in the east.

Figure 3: Dolphin Geology



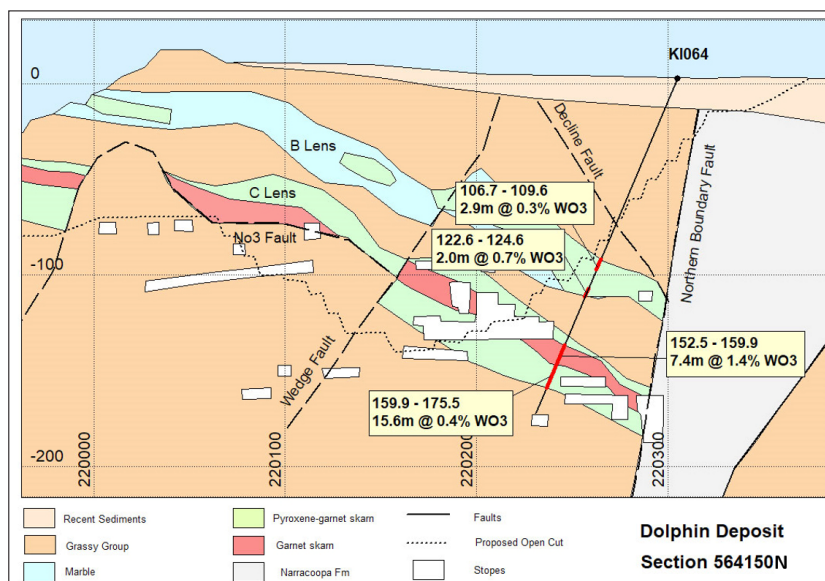
Source: KIS

Figure 4: Dolphin section 219700E looking west



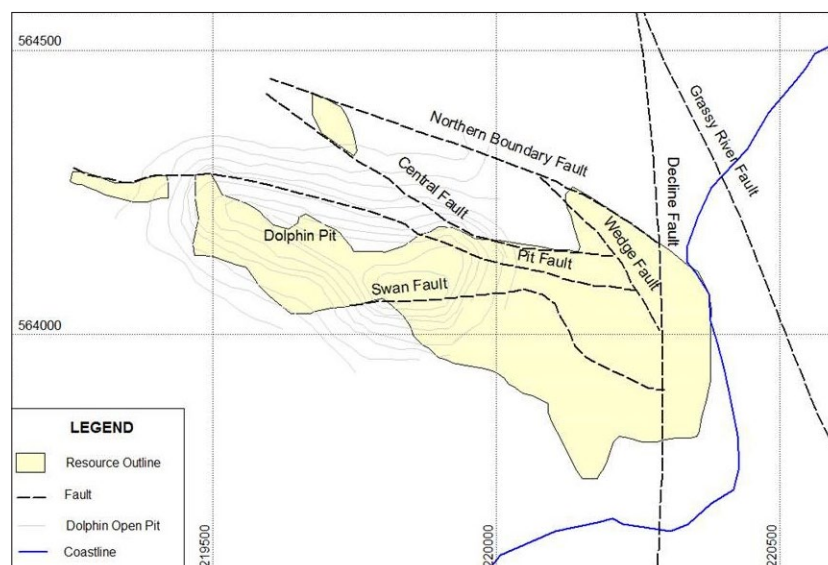
Source: KIS

Figure 5: Dolphin section 564150N looking west, showing geotechnical drilling assays



Source: KIS

Figure 6: Dolphin structural map and resource projection



Source: KIS

- ◆ The skarns are zoned, with the mineralisation, which is up to 20m to 25m thick, largely hosted within a massive andradite garnet skarn; the ore lenses are commonly located at the gradational contacts between pure marble and pure pelitic sediments within a mixed carbonate-sediment facies host.
- ◆ The main tungsten mineral is disseminated scheelite (CaWO_4), however there is some powellite (CaMoWO_4), which forms a solid solution series with scheelite - the presence of molybdenum, albeit minor, can attract a penalty on concentrate sales prices.
- ◆ There is the potential for extensions to the mineralisation to the south and east of the current Resource, however since any eastern extension will be under the sea drilling would have to be completed from underground.

RESOURCES AND RESERVES

- ◆ A Mineral Resource Estimate ("MRE") for Dolphin was completed according to the guidelines of the 2012 edition of the JORC Code in early 2015 (this upgraded an earlier JORC 2004 MRE), with open cut Reserves declared later that year; in addition there are JORC-2004 compliant Resources for Bold Head and historic tailings.
- ◆ Resources are shown in Tables 2 to 5, and Reserves in Table 6, with the resource outline shown in Figure 5: Table 5 shows the combined Dolphin and Bold Head MREs - we have used the 0.20% WO_3 cut off Dolphin MRE in this due to the lower grade cut MRE being the basis for Reserves.

- ◆ It needs to be noted that work completed by King Island has shown that processing of the tailings is not likely to be economically viable at current tungsten prices.
- ◆ The upgrading of the Dolphin MRE followed on from the drilling of a 42 hole, 1,660m diamond drilling infill and verification programme, with the open cut Reserves estimated as part of the current FS that was underway at that time.

Table 2: Dolphin JORC-2012 complaint MRE

| Dolphin JORC-2012 complaint MRE | | | | | | |
|---|-------------------------------|-------------------|------------------------|-------------------------------|-------------------|------------------------|
| Resource Class | 0.20% WO ₃ cut off | | | 0.50% WO ₃ cut off | | |
| | Mt | WO ₃ % | Tonnes WO ₃ | Mt | WO ₃ % | Tonnes WO ₃ |
| Indicated | 9.6 | 0.90 | 86,400 | 6.62 | 1.14 | 75,470 |
| Total | 9.6 | 0.90 | 86,400 | 6.62 | 1.14 | 75,470 |
| Open Cut 0.20% WO ₃ cut off Underground 0.50% WO ₃ cut off | | | | | | |
| Total | 4.12 | 0.74 | 30,490 | 4.16 | 1.20 | 49,920 |

Source: KIS

Table 3: Bold Head JORC-2004 complaint MRE

| Bold Head JORC-2004 complaint MRE | | | |
|-----------------------------------|-------------------------------|-------------------|------------------------|
| Resource Class | 0.50% WO ₃ cut off | | |
| | Mt | WO ₃ % | Tonnes WO ₃ |
| Indicated | 1.5 | 0.93 | 13,950 |
| Inferred | 0.15 | 1.22 | 1,830 |
| Total | 1.65 | 0.96 | 15,780 |

Source: KIS

Table 4: Total hard rock MRE, mixed JORC compliance

| Total hard rock MRE, mixed JORC compliance | | | |
|--|---|-------------------|------------------------|
| Resource Class | 0.20% (Dolphin) and 0.50% (Bold Head) WO ₃ cut off | | |
| | Mt | WO ₃ % | Tonnes WO ₃ |
| Indicated | 11.1 | 0.90% | 100,350 |
| Inferred | 0.15 | 1.22% | 1830 |
| Total | 11.25 | 0.91% | 102,180 |

Source: KIS

Table 5: Tailings JORC-2004 complaint MRE

| Tailings JORC-2004 complaint MRE | | | |
|----------------------------------|-------------------------------|-------------------|------------------------|
| Resource Class | 0.08% WO ₃ cut off | | |
| | Mt | WO ₃ % | Tonnes WO ₃ |
| Measured | 2.7 | 0.17 | 4,590 |
| Total | 2.7 | 0.17 | 4,590 |

Source: KIS

Table 6: Dolphin open cut JORC 2012-compliant Ore Reserves

| Dolphin open cut JORC 2012-compliant Ore Reserves | | | |
|---|-------------------------------|-------------------|------------------------|
| Reserve Class | 0.20% WO ₃ cut off | | |
| | Mt | WO ₃ % | Tonnes WO ₃ |
| Probable | 3.14 | 0.73 | 22,900 |
| Total | 3.14 | 0.73 | 22,900 |

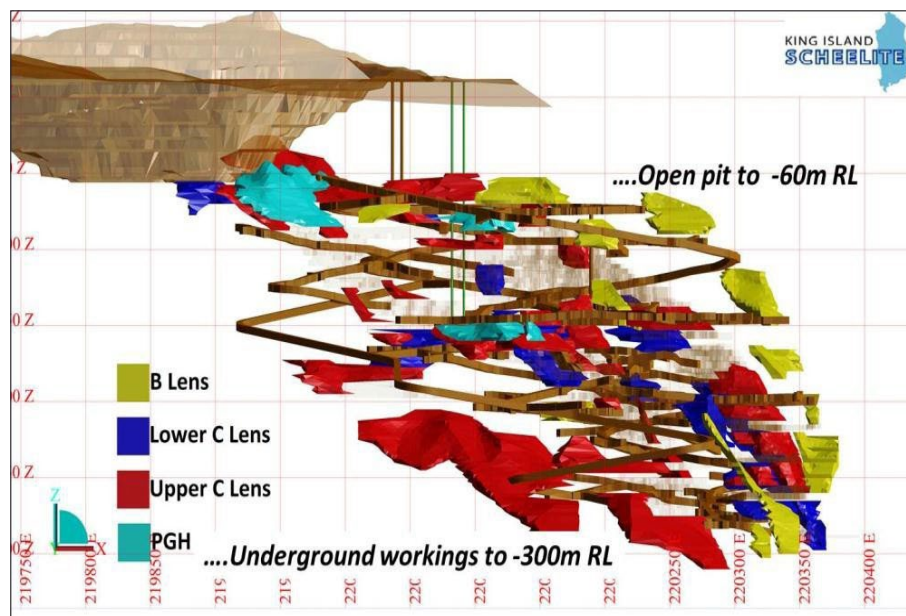
Source: KIS

HISTORIC ACTIVITIES

- ◆ King Island has a history of scheelite mining dating back to 1917, when a 200 tonne per week plant was erected by the King Island Scheelite Development Company - this followed on from the original discovery of scheelite in 1911.
- ◆ The plant was forced to close in 1920 due to depressed prices, however was revived, due to rising prices, in 1937, with King Island Scheelite NL being established; a 500tpw plant was commissioned in 1938 and further mechanised in 1943, with a new mill allowing quadrupling of production in 1946.

- ◆ Following a voluntary wind-up, the company was reconstructed as King Island Scheelite in 1947, and continued to operate until 1958, with this period including boom years due to the Korean War.
- ◆ Again, due to falling prices, the mine was put on care and maintenance, however was again opened in 1960 with production increasing in the 1960s, leading to the installation of a 300,000 tpa plant by the Peko-Wallsend Group following a 1969 takeover, with the plant capacity subsequently being increased to 400,000 tpa, at which rate production continued until the mine's closure in 1990 due to very depressed tungsten prices.
- ◆ Mining was solely by open cut at Dolphin until 1972, when an underground operation at Bold Head commenced; underground mining commenced at Dolphin in 1973 with the open cut ceasing production in 1974.
- ◆ In all it is estimated that a total of 9.7 Mt @ 0.64% WO₃ was produced historically.
- ◆ The extents of previous mining are shown in Figure 7, with Figure 8 showing an aerial view of the historic operations.

Figure 7: Historic mining areas, Dolphin



Source: KIS

Figure 8: Aerial view, Dolphin during previous operations



Source: KIS

WORK BY KIS

- ◆ Since acquiring the Project in 2005 (through the acquisition of Australian Tungsten Pty Ltd), the current Company has carried out significant work, largely concentrated on development studies for Dolphin, with activities including drilling, metallurgy, engineering and other activities associated with the relevant studies.
- ◆ Studies completed in 2005, 2012 and 2013 will be outlined briefly, with the current FS (which initially commenced in 2014) then being discussed more fully.

Previous Development Studies

2006 Feasibility Study

- ◆ This was based on a 13.4 Mt @ 0.64% WO₃ open pit resource, to a depth of 308m below sea level. The study envisaged an initial 10 year, +600,000 tpa operation, mining a 180m deep pit, and extracting up to 6.8 Mt @ 0.55% WO₃. The strip ratio was 8 to 1 on a bank cubic metre ("bcm") to tonne of ore basis. Depending upon information gained during the initial stage, and gaining the necessary approvals for an expanded pit, there would then be the potential to extend the pit to a depth of 248m.
- ◆ This plan required the building of a seawall to stop water ingress into the pit, and an anticipated start-up capital of \$85 million - the capex was subsequently revised upwards to \$95 million.
- ◆ This planned operation was fully approved, with these approvals still in place, albeit with changes due to the subsequent changes in development options.

2012 Feasibility Study

- ◆ In 2007, KIS entered into a joint venture with Hunan Non-Ferrous Metals Corporation ("Hunan") to develop the Project, with this terminated in 2010 due to re-prioritising of projects by MinMetals, following their takeover of Hunan.
- ◆ As part of the JV, Hunan took a share placement (4.45 million shares at \$1.00/share) and later provided a loan of \$3.9m to KIS, to fund a revised feasibility study. On termination of the JV the loan was converted to a 2% NSR, capped at \$3.9 million, with this still in place.
- ◆ The revised study, instigated under the JV with Hunan, was completed in 2012 and envisaged a 10 year, 350,000 tpa operation, including underground mining at Dolphin and Bold Head, and retreatment of some of the tailings.
- ◆ Again all approvals were obtained for the proposed operations, with only revisions to the original documents being required.
- ◆ The estimated start-up capital was in the order of \$140 million, with a project IRR of 21-29%.

2013 Value Engineering Study ("VES")

- ◆ Given the economics of the 2012 study, KIS then undertook further studies looking at lower cost operations; the preferred option was in effect a hybrid of the previous two studies, and was released to the market on April 9, 2014.
- ◆ This scenario included an initial 4 year open cut operation, mining remnants from the Dolphin pit and mining a small pit at Bold Head:
 - Mining rate of 400,000 tpa @ 0.60% WO₃ at a 2.5:1 strip ratio,
 - Grade was the 2013 VES resource grade (0.67% WO₃) less 10% mining dilution,
 - Annual production of 204,000 mtu of WO₃,
 - There was the potential to stockpile low grade material for later retreatment; and,
 - Start-up capital of \$41 million.
- ◆ This was to be followed by a second phase 9 year underground operation at Dolphin and Bold Head:
 - Underground mining rate of 350,000 tpa @ 1% WO₃, with this augmented by tailings retreatment at 42,000 tpa @ 0.35% WO₃,
 - This resulted in an average of 392,000 tpa @ 0.93% WO₃ being milled, recovering 310,000 mtu/annum of WO₃ at a mill recovery of 85%.
 - Capital required was estimated to be in the order of \$30 million to be funded out of open cut cash flow, with dewatering of the underground workings and construction to be carried out in the final year of open cut mining; and,
 - Underground grades were reserve grades from the 2012 FS, tailings grades were selective higher grade areas as in the April 9, 2014 release.

Current FS

- ◆ Following on from the results of the previous studies, the current studies are looking at a longer life open pit, with an initial eight year, 400,000 tpa open cut operation being the currently preferred scenario, with the option then to go underground.
- ◆ The FS commenced in 2014, however, given very low tungsten prices, was suspended in 2015, only to be revived again recently given the resurgent tungsten markets.
- ◆ Key technical activities initially completed as part of the Study include:
 - Pit dewatering to allow access to the base of the pit for Resource infill/upgrade drilling,
 - A 42 hole, 1,660m diamond drilling programme, completed in the December. 2014 Quarter; and,
 - A resource upgrade and an open cut Ore Reserve estimation (as discussed earlier), with the former completed in April 2015 and the latter in September 2015 as part of the ongoing study.
- ◆ The drilling supported the historic results, and returned a number of significant intercepts, including amongst others:
 - KIS017 - 8m @ 0.7% WO₃ from 5m,
 - KIS024 - 26.5m @ 0.7% WO₃ from 2.5m,
 - KIS026 - 12m @ 0.8% WO₃ from 3m; and,
 - KIS044 - 15m @ 0.6% WO₃ from 17m
- ◆ Work completed, or underway, subsequent to the recent revival of the FS includes amongst others:
 - Metallurgical test work (including a four hole metallurgical sample drilling programme),
 - Limited exploration drilling,
 - A recently completed two hole geotechnical drilling programme; and,
 - Ongoing mining studies.
- ◆ The metallurgical drilling returned some very good results, confirming the tenor of the resource, including:
 - KIS056 - 17.3m @ 0.82% WO₃ from 8.7m and 8.5m @ 0.53% WO₃ from 51.5m; and,
 - KIS057 - 14.6m @ 0.71% WO₃ from 17.5m including, 6.0m @ 1.13% WO₃ from 17.5m.
- ◆ Likewise results from the first hole of the geotechnical programme, KI064, were positive and included (Figure 5):
 - 2.0m @ 0.70% WO₃ from 122.6m (B Lens),
 - 7.4m @ 1.4% WO₃ from 152.5m (C Lens); and,
 - 15.6m @ 0.4% WO₃ from 159.9m (C Lens)
- ◆ Results from the second hole are yet to be received.
- ◆ The exploration drilling, which included four diamond drill holes at the Investigator 21 prospect confirmed the exploration potential of the 9km strike length of the margin of the Grassy Pluton away from the current Resources.

Site Layout

- ◆ The proposed site layout is shown in Figure 9 - this incorporates the open cut, a processing plant at the northeastern end of the pit, with waste being used as reclaim off shore, as well as being used to construct a bund at the eastern end of the proposed pit.

Mining Methods

- ◆ The current FS is predicated on an initial eight year, 400,000 tpa conventional drill and blast open cut operation, with this including a major cut back to the south and east of the existing Dolphin open pit; ground conditions are very good, as highlighted by the condition of the existing pit, which dates back to the early 1970s.
- ◆ The mine design is based on the Ore Reserves of 3.16 Mt @ 0.73% WO₃, with a strip ratio (T:T) of 9.7:1 - waste will be disposed of into the sea to the east of the pit, to be incorporated in the construction of a bund wall which will incorporate a membrane.
- ◆ The original mining plans called for the use of Caterpillar 777 rigid mining trucks, however the use of articulated dump trucks ("ADT") is now being considered, given a tighter turning circle, the ability to negotiate steeper ramps and hence the potential to take out more ore for less waste.
- ◆ The final mine planning is still underway, and expected to be completed in early October.

Figure 9: Proposed site layout



Source: KIS

Metallurgy and Processing

- ◆ A focus of recent work has been on metallurgy, with the promise of significant cost improvements; base case expectations are to recover 67.5% of the tungsten to a ~65% WO₃ concentrate, however the Company is looking to increase recoveries.
- ◆ Original work was based on the flotation of 100% of the RoM ore, however more recent work has highlighted the potential of using gravity (predominantly spirals) processing up front, with a significantly smaller flotation plant down the back end, resulting in expected appreciable savings in operating and capital costs.
- ◆ In addition, the Company has assessed the use of vertical shaft impact (“VSI”) crushers, with this highlighting the suitability of these for use at Dolphin.
- ◆ Various ore sorting techniques were investigated, however the majority of the Dolphin mineralisation is not amenable to this, with too much mineralised material reporting to the rejects.
- ◆ Again, as for the mining studies, optimisation of the metallurgy is continuing, and is expected to be completed in early October.

Tailings

- ◆ It is planned to utilise existing spare capacity and expand the existing tailings dam by raising the embankment, which will provide the capacity to accept tails from the project; it is also planned to use tailings for cemented fill should underground operations commence.

Concentrate Transport

- ◆ It is expected that tungsten concentrate will be bagged and containerised into 25t tare containers to be shipped from the island, using the existing port at Grassy.
- ◆ Given the expected average 3,235 tpa concentrate production transport is not a major consideration.

Infrastructure

- ◆ Current plans are to use diesel power on site, however the Company is currently assessing the options to augment this through renewable power generation.
- ◆ There is sufficient excess capacity in the Lower Grassy dam and other sources to meet process water requirements.

Workforce

- ◆ It is planned to use local labour wherever possible, however there will be the need for some fly-in fly-out personnel for specialised jobs

UPCOMING ACTIVITIES AND FINANCING

- ◆ On the technical front, current activities are concentrated on finalising the mine plan and metallurgical flow sheet to allow completion of the final FS document.
- ◆ There is also an ongoing drilling programme to further test the geometry at the eastern end of the proposed pit - this may allow the bund to be brought closer to the shore, thus cutting costs.
- ◆ In parallel the Company is looking at offtake and financing options.
- ◆ The structure of any financing will depend upon the share price at the time; alternatives may include attracting a JV partner, with the cash consideration being used to fund the Company's share of the up-front capex and vendor financing for some of the mobile and/or fixed equipment.
- ◆ Another funding option may be a limited BOOT arrangement for the plant.
- ◆ KIS has been having ongoing negotiations with potential offtake partners, with these, including US and European parties, showing interest.

FINANCIAL POSITION

- ◆ As of September 30, 2018, the Company had A\$1.240 million in cash and no debt.
- ◆ In August 2018 KIS raised A\$1.49 million (at A\$0.055/share) through a fully-underwritten rights issue.
- ◆ Over the 12 months to September 30, 2018, the Company spent A\$0.836 million on exploration and evaluation, and A\$0.577 million on administration and overheads.

CAPITAL STRUCTURE

- ◆ The Company has 244.45 million ordinary shares on issue, with this including 27.16 million issued at A\$0.055/share as part of the recent rights issue.
- ◆ Each rights issue share had a 1 for 2 free attaching listed option (for 13.58 million options), with an exercise price of A\$0.10/option, and an expiry date of August 1, 2021.
- ◆ There are also 18 million unlisted options on issue (of which six million are in the money), as detailed in Table 1.

Table 1: Unlisted options

| Unlisted options | | | |
|------------------|-------------------|----------------|---------------------|
| Expiry Date | Number | Exercise Price | Cash on Exercise |
| 31/12/2018 | 2,000,000 | A\$0.15 | A\$300,000 |
| 31/12/2019 | 3,000,000 | A\$0.22 | A\$660,000 |
| 31/12/2020 | 4,000,000 | A\$0.28 | A\$1,120,000 |
| 31/12/2022 | 3,000,000 | A\$0.06 | A\$180,000 |
| 31/12/2022 | 3,000,000 | A\$0.08 | A\$240,000 |
| 31/12/2022 | 3,000,000 | A\$0.10 | A\$300,000 |
| Total | 18,000,000 | N/A | A\$2,800,000 |

Source: KIS

PROJECT ECONOMICS

- ◆ We have undertaken an indicative high level ungeared DCF analysis of the project using the FS scenario as presented above - parameters and outcomes are shown in Table 7.
- ◆ This is not intended to be used to calculate a direct per share valuation or to set a price target – this will depend on the structure of funding for the proposed development, more rigorous DCF modelling and applying risk factors to the unrisks NPV.
- ◆ We have largely used costs as publicly released by the Company as well as industry standard costs; supplied costs have verified these against standard cost curves, with our view being that the costs are reasonable.
- ◆ We have used a metallurgical recovery of 67.5% to a 60% concentrate; this recovery is a base case, with the Company looking to increase this.
- ◆ Also, we have used an AUD:USD exchange rate of 0.72.

Table 7: Dolphin Project indicative economics

| Dolphin Project indicative economics | | |
|---|----------------------|--|
| Item | Amount | Notes |
| Financial Outcomes | | |
| LoM Pre-tax FCF | A\$219 million | Ungeared |
| LoM Post-tax FCF | A\$151 million | Ungeared |
| Discount Rate | 8% | |
| Pre-tax NPV | A\$121 million | Ungeared |
| Post-Tax NPV | A\$82 million | Ungeared |
| Pre-tax IRR | 49% | |
| Post-tax IRR | 40% | |
| Inputs | | |
| Up-front funding requirements | A\$60 million | Includes project capex, 90 days working capital, owners costs |
| NPV/Upfront Funding Ratio | 2 : 1 | Significantly higher than the rule of thumb acceptable minimum of 1:1 |
| LoM Capex | A\$70 million | Up-front (A\$60 m) plus sustaining (A\$10 m) |
| Reserve | 3.16Mt @ 0.73% WO3 | 2015 open cut reserve |
| Mine Life | 8 years @ 400,000tpa | |
| LoM Strip Ratio | 9.7 : 1 | |
| Metallurgical Recovery | 67.5% | Base case, Company is looking to increase this |
| LoM WO ₃ Production | 1,552,757 mtu | |
| Average Annual WO ₃ Production | 194,095 mtu | |
| Concentrate Grade | 60% | |
| LoM Concentrate Production | 25,879 t | |
| Average Annual Con Production | 3,235 t | |
| Average APT Price - USD | \$330/mtu | |
| AUD USD Exchange Rate | 0.72 | Forecast - current rate is 0.71 |
| Average APT Price - AUD | \$458/mtu | |
| Concentrate Discount | 23% | 20% + 3% Mo penalty |
| Gross Revenue/mtu - AUD | \$353/mtu | |
| Net Revenue/mtu - AUD | \$323/mtu | After royalties (~5% MRT, 2% HNC capped at A\$3.9 million, 1.5% Osisko - ex Rio Tinto) and transport costs |
| Site Operating Costs/mtu - AUD | \$139/mtu | A\$2.50/t waste mining, A\$3.00/t ore mining, A\$37/tonne crushing and processing, A\$4.50/tonne G&A |
| EBITDA/mtu - AUD | \$184/mtu | |

Source: IIR analysis

- ◆ As part of the valuation we have completed a sensitivity analysis of the Project; Table 8 presents the individual sensitivities to a number of factors, with Table 9 showing the paired sensitivity to changes in APT prices and operating costs.
- ◆ These figures highlight a reasonably robust project, however being most sensitive to revenue side factors, including the APT price, resource grade and metallurgical recoveries.

Table 8: Dolphin pre-tax sensitivity

| Dolphin pre-tax sensitivity | | | | |
|-----------------------------|----------|-----------------------|----------|----------|
| Change | Price | Grade / Met. Recovery | Opex | Capex |
| 20% | A\$189 m | A\$188 m | A\$92 m | A\$109 m |
| 10% | A\$155 m | A\$155 m | A\$107 m | A\$115 m |
| 0% | A\$121 m | A\$121 m | A\$121 m | A\$121 m |
| -10% | A\$88 m | A\$88 m | A\$136 m | A\$127 m |
| -20% | A\$54 m | A\$55 m | A\$151 m | A\$133 m |

Source: IIR analysis

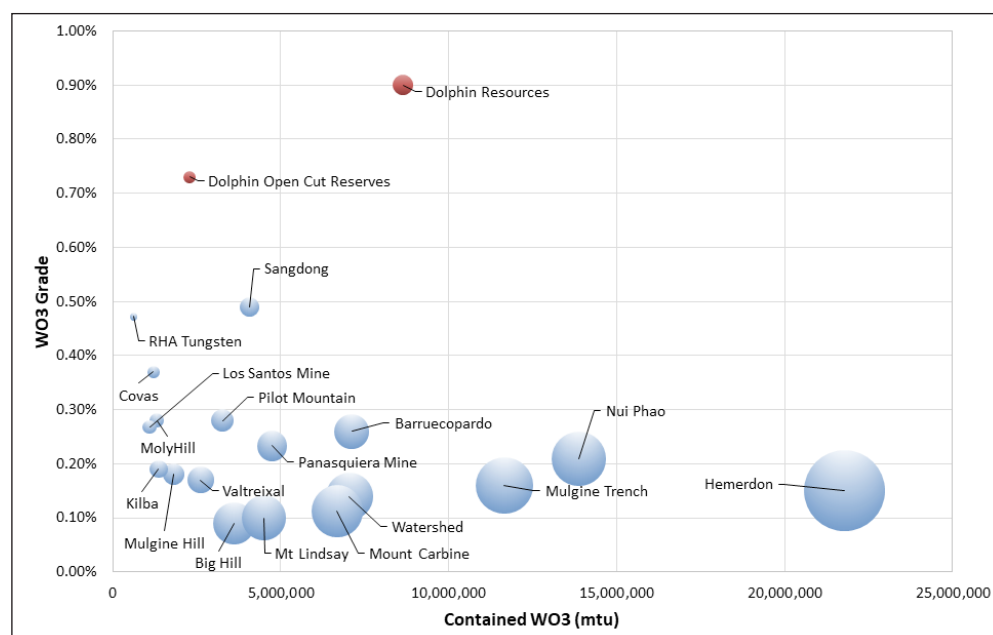
Table 9: Dolphin pre-tax price/costs sensitivity

| Dolphin pre-tax price/costs sensitivity | | | | | | |
|---|----------|----------|----------|----------|----------|----------|
| Change in Site Operating Costs | | | | | | |
| | \$606.70 | -20% | -10% | 0% | 10% | 20% |
| APT price US\$/mtu | US\$275 | A\$95 m | A\$80 m | A\$65 m | A\$50 m | A\$36 m |
| | US\$300 | A\$120 m | A\$105 m | A\$91 m | A\$76 m | A\$61 m |
| | US\$325 | A\$146 m | A\$131 m | A\$116 m | A\$101 m | A\$87 m |
| | US\$350 | A\$171 m | A\$156 m | A\$142 m | A\$127 m | A\$112 m |
| | US\$375 | A\$197 m | A\$182 m | A\$167 m | A\$152 m | A\$138 m |

Source: IIR analysis

PEER GROUP ANALYSIS

- ◆ Table 10 and Figure 9 present a comparison of tungsten focussed companies and individual deposits.
- ◆ In Table 10, we have sorted the companies on the basis of enterprise value ("EV") per mtu of contained WO₃ in Resources (not Reserves); this does not take account of by product credits (e.g. tin in some deposits) or the value of other projects held by the companies - it also does not take account of other factors that may affect value and as such should be used with caution.
- ◆ That being said, this shows the relative undervaluation of KIS when compared with other companies.
- ◆ Likewise Figure 9 highlights the relative high grade and contained metal of Dolphin when compared with other deposits; here again we have compared global Resources and not Reserves, except in the case where we have included the Dolphin Ore Reserve - these are the highest grade Resources/Reserves in our galaxy of peers.

Figure 9: Tungsten resource comparison - relative deposit tonnage is shown by bubble size

Source: Company reports, IIR analysis

Table 10: Tungsten company comparison

| Tungsten company comparison | | | | | | | | |
|-----------------------------|----------|----------|---------------------------------|----------------------|------------------------|-----------------------|-------------------------------|-------------|
| Company | Code | EV | Deposits | Status | Global Resource Tonnes | WO ₃ Grade | Contained WO ₃ mtu | EV/mtu |
| Premier African | PREM.LSE | £14.7 m | RHA Tungsten, Zimbabwe | Operations suspended | 1,325,000 | 0.47% | 625,400 | £23.50/mtu |
| Almonty Industries | AIL.TSX | \$185 m | Spain, Portugal, Sth Korea | Operating | 48,188,000 | 0.26% | 12,548,490 | \$14.77/mtu |
| Tungsten Mining | TGN.ASX | \$224 m | Various Australian | Development Studies | 176,900,000 | 0.14% | 25,500,000 | \$8.79/mtu |
| Wolf Minerals ¹ | WLF.ASX | \$131 m | Hemerdon, UK | In Admin. | 145,200,000 | 0.15% | 21,780,000 | \$6.03/mtu |
| Ormonde Mining | ORM.LSE | £21.7 m | Barruecopardo, Spain | Construction | 27,390,000 | 0.26% | 7,120,000 | £3.05/mtu |
| Venture Minerals | VMS.ASX | \$10.1 m | Mt Lindsay, Tas | Development Studies | 45,000,000 | 0.10% | 4,500,000 | \$2.25/mtu |
| King Island | KIS.ASX | \$20.6 m | Dolphin, Bold Head, King Island | Development Studies | 11,250,000 | 0.91% | 10,218,000 | \$2.02/mtu |
| Specialty Metals | SEI.ASX | \$7.0 m | Mount Carbine, Qld | Development Studies | 59,300,000 | 0.11% | 6,676,000 | \$1.05/mtu |
| Thor Mining | THR.ASX | \$3.0 m | Molyhill, NT, Pilot Mtn, Nevada | Development Studies | 16,440,000 | 0.28% | 4,582,000 | \$0.65/mtu |
| Blackheath Resources | BHR.TSXV | \$0.4 m | Covas and others, Portugal | Previous Producer | 3,292,000 | 0.37% | 1,216,900 | \$0.35/mtu |
| Masan Resources | Private | N/A | Nui Phao | Operating | 66,000,000 | 0.21% | 13,860,000 | N/A |

Source: IRESS, Company reports

1: Wolf Minerals is currently in administration, with the UK subsidiary now being ordered to be wound up. The EV is based on the last trades on October 9, 2018.

RISKS

- ◆ **Commodity prices and exchange rates** – These are key for the success (and a decision to go ahead) of any potential resource project, and a factor in which the operators have no control. After seeing a nadir in early 2016 more recent times have seen a strong recovery in tungsten prices, pointing towards a possible stronger longer term future in the metal. However, Dolphin is relatively financially robust, and will be able to withstand moderate falls in tungsten prices.
- ◆ **Equities markets:** Although reasonably strong at the moment, the resources sector can turn on a dime, with the riskier junior end being the first to feel any downturn.
- ◆ **Development funding and offtake:** With the Project being largely technically shovel ready, the future of Dolphin largely relies on obtaining financing and offtake agreements. The Company is somewhat hamstrung at the moment by virtue of a low market capitalisation when compared with the expected funding requirements, and thus the funding structure will have to be carefully managed so as not to overly dilute existing shareholders. This however would be mitigated with rises in the share price, which, in our view, is significantly undervalued when compared to peers.
- ◆ **Start-up:** There are commonly issues with project start-ups, however this is largely mitigated at Dolphin by virtue of being well understood, and using standard operational methods.

BOARD AND MANAGEMENT

- ◆ **Mr Johann Jacobs B.Acc., MBL., FCA, FAICD – Executive Chairman:** Johann has over 35 years' experience in the resources industry in Australia, South Africa and Indonesia. He is also Non-Executive director of ASX listed Magnis Resources Ltd (ASX: MNS) (formerly Uranex Limited). Johann is a Fellow member of the Institute of Chartered Accountants Australia and New Zealand and the Australian Institute of Company Directors.
- ◆ **Mr Chris Ellis BSc Hons - Executive Director:** Chris has over 35 years' experience in the exploration and mining industry in Australia and overseas. He was a founding member and Executive Director of coal mining company Excel Coal Limited, which became Australia's largest independent coal mining company before being acquired by Peabody Energy Inc. in October 2006.

Chris commenced his career in the UK coal industry, followed by positions within Shell's exploration group in Southern Africa and CRAE in Western Australia. He has also held senior positions for BP Coal (London and USA), Agipcoal Australia and for the Stratford Joint Venture. Chris has core skills in geology, mining engineering and minerals processing, mainly in the coal industry with some experience in tungsten, gold, base metals and diamonds. He has had overall responsibility for the design and engineering of four new mines during his career with Excel. Chris is a Non-Executive Director of Ausquest Limited (ASX: AQD).
- ◆ **Mr Allan Davies BE (Mining), GAICD – Non-Executive Director:** Allan is a mining engineer and has over 40 years' experience in the Australian and international coal and metalliferous mining industries. He is a registered mine manager in Australia and South Africa. Allan was a founding Director of Excel Coal Limited and as Executive Director – Operations for Excel Coal Limited, Allan had direct responsibility for operations and construction projects. From 2000 until early 2006, Allan worked for Patrick Corporation as Director, Operations. In addition, he was an Executive Director of Whitehaven Coal from February 2009 until November 2012 and a Non-Executive Director of QR Limited and QR National Limited (now called Aurizon Ltd) from October 2008 until December 2011. Previously a Non-Executive Director of Qube Holdings, he was appointed Chairman in June 2017 (ASX: QUB).
- ◆ **Mr Alvin Johns B. App Sci (Metallurgy) - Project Manager:** Alvin is an accomplished mining professional, with over 30 years' experience and has been involved in designing, building, commissioning and operating a number of processing facilities around the world as well as in Tasmania. Alvin has worked in operating mines, engineering offices and construction sites in various roles including operations, research, projects, design, construction, commissioning and training.
- ◆ **Ms Sue Jolliffe BCom, CPA, Registered BAS Agent - Financial Controller:** Sue has been a CPA qualified and practising accounting since 1994, mainly in the area of management accounting but also across financial accounting and business analysis. After a traineeship with an aluminium smelter and junior accounting positions at Hunter Valley coal mines, she was employed in management positions at Liddell Coal Joint Venture, Western Mining Fertilizers, University of Adelaide and KONE Elevators before commencing with King Island Scheelite in 2009. She also holds a Public Practice Certificate through CPA Australia and is a registered BAS Agent.

Sue is also a 2nd dan black belt in karate, a keen snowboarder and has an interest in personal development and personal coaching.
- ◆ **Mr Ian Morgan B Bus (UTS), MComLaw (Macquarie University), Grad Dip App Fin (FINSIA), CA, ACIS, ACSA, MAICD, F Fin - Company Secretary:** Ian is a qualified Company Secretary and Chartered Accountant with over 30 years of experience in businesses operating in Australia and overseas. Mr Morgan's experience includes many years in the resource sector. He provides secretarial and advisory services to a range of companies and is company secretary of other public listed companies.

Ian was appointed as Company Secretary on 3 August 2005.

TUNGSTEN AND MARKETS

Introduction

- ◆ Tungsten is unique, having the highest melting point and lowest coefficient of expansion of any metal; it is also environmentally benign, being corrosion resistant and thus neither breaking down nor decomposing. In the form of tungsten carbide, it is extremely hard, being 2nd only in hardness to diamond amongst the more common materials.
- ◆ The major use for tungsten is in the form of tungsten carbide, where it is used for applications that require extreme abrasion resistance; these include mining drilling bits and cutting tips, and make up approximately 55% of tungsten demand. It is also an important alloying component for making hardened steels, which comprise around 20% of demand.
- ◆ There are also a number of other uses, including in lighting, electronic components, armaments and sporting goods, and with specialist applications in areas such as aerospace now growing.
- ◆ Tungsten is primarily found in the minerals scheelite and wolframite, and first stage processing involves beneficiation to a concentrate – either a premium +60% WO₃ or a lesser value +50% WO₃ product, however offtakers will accept concentrate grades of down to 45%.
- ◆ The concentrates are generally then converted to an intermediate ammonium paratungstate ("APT") product, before being converted to elemental powder and tungsten carbide.

Markets

- ◆ Given the specialty industrial uses for tungsten, demand is tied closely to global economic conditions, and as well the tungsten market is opaque – different sources have different estimates of production and consumption figures, and US production figures are generally confidential.
- ◆ According to the USGS, world mine production in 2016 (excluding the US) was in the order of 88,052 tonnes of contained tungsten metal, with 68,000 tonnes (82%) of this being produced by China; recycling of scrap is also an important source of supply, which is estimated to comprise 20-30% of total supply.
- ◆ Chinese production did slow down during the GFC, due to depressed foreign demand, however domestic demand continued to grow during this period.
- ◆ World mine production as collated by the USGS over recent years is shown in Table 11; this may differ slightly from figures from other sources, but highlights the dominant position China has in mine production.

Table 11: Global tungsten mine production - tpa contained metal

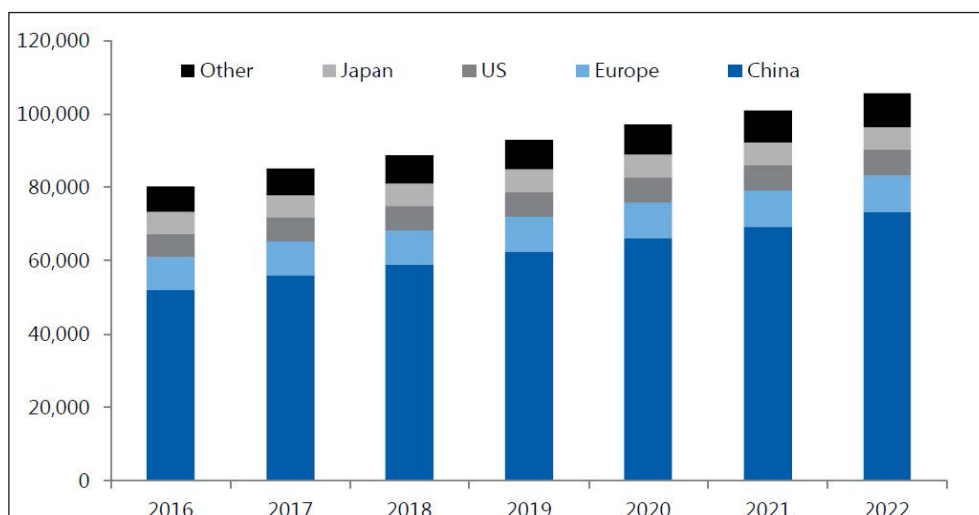
| Global tungsten mine production - tpa contained metal | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|
| Country | 2013 | 2014 | 2015 | 2016 | 2017f |
| Australia | 320 | - | - | - | - |
| Austria | 850 | 870 | 861 | 954 | 950 |
| Bolivia | 1,250 | 1,250 | 1,460 | 1,110 | 1,100 |
| Canada | 2,130 | 2,340 | 1,680 | - | - |
| China | 68,000 | 71,000 | 73,000 | 72,000 | 79,000 |
| DRC | 830 | - | - | - | - |
| Mongolia | - | - | - | 753 | 150 |
| Portugal | 692 | 671 | 474 | 549 | 680 |
| Russia | 3,600 | 2,800 | 2,600 | 3,100 | 3,100 |
| Rwanda | 730 | 1,000 | 850 | 820 | 650 |
| Spain | - | 800 | 835 | 650 | 570 |
| UK | - | - | 150 | 736 | 1,100 |
| Vietnam | 1,660 | 4,000 | 5,600 | 6,500 | 7,200 |
| Others | 1,290 | 2,060 | 1,700 | 880 | 860 |
| Totals (exc USA) | 81,352 | 86,791 | 89,210 | 88,052 | 95,360 |

Source: USGS

- ◆ China is also the world's largest consumer, with the US, Europe and Japan being the other consumers of note (Figure 11); this figure also highlights the forecast increase in demand over coming years.

- ◆ A key factor in demand forecasting is that cemented tungsten carbide demand is strongly linked to GDP per capita – increasing living standards will lead to an increase in demand for these products, with this highlighting the potential in China.

Figure 11: Forecast demand by region 2016 to 2022



Source: Argus Media, in Tungsten Mining NL August 2018 presentation.

- ◆ China controls the global tungsten market, and has put a number of measures in place to control domestic supply and restrict production and exports of tungsten - given growing domestic demand in the near future, it is likely China may further restrict exports, thus leading to opportunities for non-Chinese producers.
- ◆ There has also recently been a concerted effort by China to clean up environmentally dirty operations, with this taking some supply out of the market.
- ◆ Falling domestic demand in China will lead to the reverse position, with the potential to flood the external market with cheap product and thus making non-Chinese production uneconomical.

Pricing

- ◆ Demand/supply fundamentals have historically been very volatile, as reflected in pricing as shown in Figure 12, reflecting the correlation between demand and global economic conditions.
- ◆ Published prices are generally for APT in US\$/mtu (an mtu, or “metric tonne unit” is equal to 10kg of WO_3 , which contains 7.93kg of tungsten metal) as shown in the graph below.
- ◆ 65% concentrate prices have historically traded at around a 20-25% discount to the APT price, reflecting the cost of processing the concentrate to produce APT; in addition there can be further penalties for deleterious elements, including molybdenum.
- ◆ Given the forecast tightening of supply and growing demand, a number of forecasters expect prices to remain steady at ~US\$320-US\$350/mtu over coming years.

Figure 12: APT prices



Source: KIS

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