KASBAH DELIVERS POSITIVE ACHMMACH TIN PROJECT DEFINITIVE FEASIBILITY STUDY

The Company to proceed with development and funding activities

Kasbah Resources (ASX: KAS) is pleased to announce very positive results from its 2018 Definitive Feasibility Study (DFS) of the Achmmach Tin Project (The Project) in Morocco.

The DFS confirms Achmmach’s robust project economics and enhances the Project’s outstanding development potential as a new, large scale tin mining operation.

Based on the positive outcomes of the Achmmach 2018 DFS, the Kasbah Board and the Company’s Joint Venture partners in the Project, Toyota Tsusho and Nittetsu Mining, have requested management proceed with securing funding of the Project, offtakers for the tin product, identifying a suitable EPC engineering contractor and a capable underground mining contractor with the aim of commencing construction in 2019 and production in 2020.

The Project includes a proposed underground mine with an initial 10-year life, producing 750,000 tonnes of ore per annum at an average head grade of 0.82% tin (Sn). The associated processing plant will incorporate ore sorting and High Pressure Grinding Rolls (HPGR) technology, to produce approximately 4,500 tonnes of tin per annum in a 60% tin concentrate.

Highlights from the 2018 DFS (on a 100% ungeared project) include:

- Post tax NPV of US$98.1 million, with a 23% IRR using a tin price of US$21,000 per tonne and an 8% real discount rate
- Every additional US$1,000 increase in tin price increases Project NPV and ungeared returns by approximately US$20 million and 3% respectively
- Capital cost of US$96.4 million
- C1 cash cost of US$9,176/tonne of tin, and a payback period of 4 years
- All In Sustaining Cost (AISC²) of US$11,435/tonne of tin
- 7% increase in Ore Reserve Estimate to 7 million tonnes at a grade of 0.82% tin and a 4% increase in contained tin
- Initial 10-year mine life via underground mining operation - orebody open along strike and at depth providing excellent near mine exploration potential
- Ore Sorting and HPGR technology increases tin recovery, lowers environmental footprint and results in better investor returns
- Overall tin recovery of 77%, with annual tin production of approximately 4,500 tonnes of tin in concentrate, averaging 60% tin
The 2018 DFS follows on from extensive drilling and test work completed on the Project since 2008, and incorporates elements of previous studies conducted in 2014, 2015 and 2016 to deliver an outcome which confirms Achmmach as a world class development-ready tin project.

Commenting on the Achmmach 2018 DFS, Kasbah Chief Executive, Russell Clark commented:

“We are delighted with the results of the 2018 DFS for the Achmmach Tin Project. The 2018 DFS follows on from a number of previous studies and whilst it incorporates elements of those studies, our ability to successfully utilise ore sorting and HPGR technology in a new processing flow sheet has delivered a significant positive impact on Project capital and operating costs as well as tin recovery. This, in conjunction with a strong prevailing tin price which is predicted by the International Tin Association to be sustained or improve in the future, has resulted in this very positive DFS outcome.

There is a growing need for tin in many industries and in the technology sector in particular and there are limited opportunities in the world for new global scale tin production from safe and non-conflict locations. Along with strong local support, the Achmmach Project has the main permits required for operation and now has a DFS which supports its development, positioning the Project being able to satisfy increasing global tin demand.”

¹C1 Cash costs are operating costs including mining processing, G&A and concentrate transport and treatment
²AISC includes C1 costs, royalties, corporate overheads and sustaining capex

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DEFINITIVE FEASIBILITY STUDY OUTCOMES

- Post tax NPV of US$98.1 million, with a 23% IRR using a tin price of US$21,000 (Real) per tonne and an 8% discount rate (Real)
- Every US$1,000 increase in tin price increases Project NPV and ungeared returns by approximately US$20 million and 3% respectively
- Capital cost of US$96.4 million
- C1 cash cost of US$9,176/tonne of tin, and a payback period of 4 years
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Refer cautionary statement on last page

16 July 2018

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1. **2018 DFS SUMMARY**

1.1 **Introduction**

The Achmmach Tin Project (Achmmach or the Project) is located approximately 40 km south west of the city of Meknès in central northern Morocco (Figure 1-1). The project is owned by Atlas Tin SAS, a joint venture company comprising Kasbah Resources Ltd (75%), Toyota Tsusho Corporation (20%) and Nittetsu Mining Co Limited (5%).

![Figure 1-1 Location of the Achmmach Tin Project](image)

This study uses elements of previous studies (2014 DFS (ASX Announcement: 31 March 2014), 2015 EDFS (ASX Announcement: 18 March 2015) and the 2016 SSO (ASX Announcement: 10 August 2016)) and introduces cost and technical enhancements.

1.2 **Accessibility, Climate, Local Resources and Physiography**

Morocco has well developed national infrastructure including rail, road, sea ports and airports. Access from the capital Rabat to the Project is 150 km east along the A2 expressway to Meknès and then 31 km south along a sealed road to Agourai, and a further 20 km south east along an unsealed rural road to the Project site.

The region has a warm and temperate Mediterranean climate. The temperature varies from 5°C/15°C in winter to 18°C/34°C in summer. The winter months are generally much wetter than the summer months and the average annual rainfall is approximately 700 mm.

The Project is located within rugged terrain of the north-eastern part of the central plateau of the Atlas Mountains. The altitude is 1,085 m above mean sea level (amsl) and the nearby Sidi Addi peak has an altitude 1,230 m amsl. The area is characterised by mountain ranges, valleys and plateaus containing pine forests and oak woodland as well as cleared areas used for agriculture.
1.3 Exploration, Geology and Mineralisation

The Achmmach tin deposit is located on the western edge of the El Hajeb province in Northern Morocco. It was discovered by the Moroccan government agency, the Bureau des Recherches et de Participations Minières (BRPM) in 1985. The BRPM explored Achmmach until 1992, completing 14,000 m of diamond core drilling and excavating an exploration shaft to a depth of 80 m. Kasbah commenced exploration at Achmmach in 2007 and has completed a further 105,000 m of diamond core drilling.

The Achmmach tin deposit is hosted within the turbiditic sediments of the Namurian aged Fourhal Formation. The Fourhal Formation consists of deformed, interbedded pelites and psammites of lower carboniferous age. These meta sandstones and shales comprise a tightly-folded sequence of turbidite beds, overprinted by tourmaline alteration within sheared regions and intruded by magmatic sills.

Mineralisation is localised in two subparallel ENE striking lodes named the Meknès and Sidi Addi Trends, separated by a distance of approximately 500 m (Figure 1-2). The largest part of the resource comprises the Meknès Trend. The mineralisation to be mined within the Sidi Addi Trend is referred to as the Western Zone. It is developed within the tourmaline-silica altered metasediments. Tin mineralisation occurs primarily as cassiterite with minor stannite.

Figure 1-2 Mineralised zones of the Achmmach deposit

1.4 Mineral Resource

Two separate resource estimates have been compiled, for the Meknès Trend and for the Western Zone of the Sidi Addi Trend. The reportable cut-off grade is 0.5% Sn for both the Meknès Trend and Sidi Addi Trend. The Mineral Resource for the Meknès Trend is shown in Table 1.1. The Mineral Resource for the Sidi Addi Trend is shown in Table 1.2. The combined Mineral Resource for the Achmmach Tin Project is shown in Table 1.3.
1.5 Ore Reserve Estimate

The Ore Reserve determined as a result of this study is presented below in Table 1.4. The reserve is based on a 0.55% Sn cut-off grade for design. (Calculations have been rounded to the nearest 100,000 t of ore, 0.01% Sn grade and 1,000 t tin metal. Rounding errors may be present.)

Table 1-1 Mineral Resource for the Meknès Trend

<table>
<thead>
<tr>
<th>Classification</th>
<th>Mtonnes</th>
<th>% Sn</th>
<th>kt Sn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured</td>
<td>1.6</td>
<td>1.0</td>
<td>16.1</td>
</tr>
<tr>
<td>Indicated</td>
<td>13.0</td>
<td>0.8</td>
<td>107.0</td>
</tr>
<tr>
<td>Inferred</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>14.6</td>
<td>0.85</td>
<td>123.1</td>
</tr>
</tbody>
</table>

Table 1-2 Mineral Resource for the Sidi Addi Trend

<table>
<thead>
<tr>
<th>Classification</th>
<th>ktonnes</th>
<th>% Sn</th>
<th>kt Sn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Indicated</td>
<td>340</td>
<td>1.25</td>
<td>4.2</td>
</tr>
<tr>
<td>Inferred</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>340</td>
<td>1.25</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Table 1-3 Total Mineral Resource for the Achmmach Tin Project

<table>
<thead>
<tr>
<th>Classification</th>
<th>Mtonnes</th>
<th>% Sn</th>
<th>kt Sn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured</td>
<td>1.6</td>
<td>1.0</td>
<td>16.1</td>
</tr>
<tr>
<td>Indicated</td>
<td>13.3</td>
<td>0.8</td>
<td>111.2</td>
</tr>
<tr>
<td>Inferred</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>14.9</td>
<td>0.85</td>
<td>127.3</td>
</tr>
</tbody>
</table>

Table 1-4 Achmmach Ore Reserve

<table>
<thead>
<tr>
<th>Zone</th>
<th>Proved</th>
<th>Probable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ore (kt)</td>
<td>% Sn</td>
<td>Tin Metal (t)</td>
</tr>
<tr>
<td>Meknès Trend</td>
<td>1,100</td>
<td>0.99</td>
<td>11,000</td>
</tr>
<tr>
<td>Sidi Addi Trend</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1,100</td>
<td>0.99</td>
<td>11,000</td>
</tr>
</tbody>
</table>
1.6 Development Design

The Achmmach mine will be accessed via two locations from the surface:

- Central portal boxcut @ 1,015 mRL
- Eastern portal boxcut @ 1,085 mRL.

Key features of the design are:

- Each boxcut location has twin portals and declines providing ventilation and escapeway drives parallel to the decline. This eliminates the requirement for raisebored ventilation raises to surface in the Central and Eastern Zones early in the mine plan.
- Three internal declines service the western lodes, eastern lodes and central lodes.
- Independent escapeway drives are developed laterally as a part of each level development and vertically through 1.1 m raises to provide a second means of egress from the production levels once stoping commences.
- The stand-off distance from the decline to the stopes is greater than 25 m, based on geotechnical analysis.
- Diamond drill drives are designed to provide appropriate drilling platforms for grade control drilling programs.

The final mine layout is shown in Figure 1-3.

![Figure 1-3 Isometric view of development and stope design](image)

1.7 Mining Methods and Mine Layout

The primary mining method to be used for the Achmmach deposit is conventional mechanized longhole stoping. As the geometry and thickness of the mining shapes vary throughout the different lodes, a combination of bottom-up cemented rock fill (CRF) and top-down open stoping methods is planned.

CRF is a simple method of backfilling which involves placement of waste rock mixed with cement slurry into the stope void by a loader from a drive at the top of the stope. Stoping will be carried out by retreating from the extremities to a central access.
The mine design employs CRF in areas of higher grade and greater ore width to minimise metal loss to pillars, with the lower cost open stoping method used in the lower value areas which are developed later in the mine life. There are three zones defined by deposit geometry and proposed mining method; the Central Zone, Eastern Zone and Western Zone (Figure 1-4). For scheduling purposes, the Western Zone has both mining methods applied, with bottom-up CRF above 1015 mRL and top-down open stoping below this point.

1.7.1 Central Zone Mining Method

For the generally thick Central Zone (in places up to 20 m in width), a bottom-up mining sequence utilizing CRF will be implemented. A top-down method with no fill, leaving pillars behind for stability was also analysed but this significantly reduced the recovered tonnes due to the required widths of the pillars.

1.7.2 Eastern Zone Mining Method

The Eastern Zone area will be mined using a top-down no-fill method, leaving behind in-situ pillars for stability. The pillar size factors have been extrapolated across the entire Eastern Zone area based on detailed geotechnical design for the Eastern Zone upper which has the lowest strength rock mass.

1.7.3 Western Zone Mining Method

The Western Zone is mined with both the CRF bottom-up method (for levels above the access) and the longhole top-down method (for levels below the access) as described for the Eastern Zone.

1.7.4 Mine Schedule

The mine schedule was created using Datamine enhanced production scheduler. This software integrates detailed data from the resource block model and the mine design directly to the schedule creating a robust output. The process also creates a schedule animation which demonstrates a logical and technically feasible sequence.
The mine production schedule is presented in Table 1-5 and Figure 1-5.

<table>
<thead>
<tr>
<th>Physicals</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
<th>FY 2028</th>
<th>FY 2029</th>
<th>FY 2030</th>
<th>FY 2031</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Devt (m)</td>
<td>-</td>
<td>1,863</td>
<td>6,097</td>
<td>4,086</td>
<td>3,528</td>
<td>1,793</td>
<td>1,823</td>
<td>1,724</td>
<td>1,658</td>
<td>1,407</td>
<td>114</td>
<td>-</td>
<td>24,093</td>
</tr>
<tr>
<td>Capital Devt (m)</td>
<td>255</td>
<td>3,821</td>
<td>3,002</td>
<td>3,916</td>
<td>2,415</td>
<td>1,755</td>
<td>1,890</td>
<td>2,024</td>
<td>1,094</td>
<td>47</td>
<td>-</td>
<td>-</td>
<td>20,219</td>
</tr>
<tr>
<td>Total Devt (m)</td>
<td>255</td>
<td>5,684</td>
<td>9,099</td>
<td>8,002</td>
<td>5,943</td>
<td>3,548</td>
<td>3,713</td>
<td>3,748</td>
<td>2,752</td>
<td>1,454</td>
<td>114</td>
<td>-</td>
<td>44,312</td>
</tr>
<tr>
<td>Total Ore (kt)</td>
<td>-</td>
<td>213</td>
<td>692</td>
<td>750</td>
<td>726</td>
<td>749</td>
<td>749</td>
<td>752</td>
<td>747</td>
<td>749</td>
<td>670</td>
<td>216</td>
<td>7,013</td>
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<tr>
<td>Sn Grade (%)</td>
<td>-</td>
<td>0.85</td>
<td>0.83</td>
<td>0.89</td>
<td>0.86</td>
<td>0.88</td>
<td>0.97</td>
<td>0.73</td>
<td>0.75</td>
<td>0.76</td>
<td>0.74</td>
<td>0.72</td>
<td>0.82</td>
</tr>
<tr>
<td>Sn Metal (t)</td>
<td>-</td>
<td>1,810</td>
<td>5,749</td>
<td>6,699</td>
<td>6,242</td>
<td>6,559</td>
<td>7,236</td>
<td>5,512</td>
<td>5,634</td>
<td>5,659</td>
<td>4,992</td>
<td>1,551</td>
<td>57,645</td>
</tr>
</tbody>
</table>

Table 1-5 Summary mine schedule

![Figure 1-5 Mine plan ore delivery schedule](image)
1.7.5 Mining Sequence

The mining sequence by zone within the overall mine is illustrated in Figure 1-6.

![Figure 1-6 Mining sequence (long section looking north)](image)

Development of the central and eastern declines commences simultaneously in the first month. The short decline development into the Eastern Zone will provide early delivery of ore to the Run of Mine (ROM) pad, allowing mill commissioning to take place while the Central Zone is still under development. The Eastern Zone will provide approximately 40,000 t of ROM ore for 4 to 6 months prior to the delivery of first ore from the larger, more productive Central Zone.

1.8 Metallurgy

The metallurgical behaviour of the Achmmach ore using conventional gravity and flotation processes has been well established by several years of test work by Atlas Tin on representative composite ore samples. The challenge addressed in the test work for this study was to reduce the capital and operating costs of the plant, to provide data on the influence of ore variability in critical design areas, and to seek means to enhance grade/recovery performance.

A pivotal process design change in this study was the introduction of ore sorting. The test work program evaluated ore sorting as a pre-concentration option for the early elimination of gangue and sub-economic material, thereby potentially:

- upgrading the head grade of tin to the downstream processing plant
- reducing the size (and capital expenditure) of the downstream processing plant
- reducing total consumables, power and water requirements in downstream processing
- increasing the recovery of tin in the gravity and flotation circuit due to the higher grade feed to the downstream processing plant as a result of ore sorting
- improving concentrate grades and thus reducing concentrate shipping and treatment charges
- reducing tailings tonnage, tailings cost and environmental footprint
- using ore sorter rejects for mine backfill and road base applications.

Table 1-6 summarises the predicted metallurgical behaviour based on previous test work and test work conducted on a representative 2018 sample. This shows that the final concentrate grade is 60% Sn at 77% Sn recovery.
Table 1-6 Metallurgical performance predictions from 2018 representative sample

<table>
<thead>
<tr>
<th></th>
<th>tph</th>
<th>Ore mass (%)</th>
<th>Grade (%Sn)</th>
<th>Total Sn Rec (%)</th>
<th>OS mass%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ore feed</td>
<td>94.9</td>
<td>100.0</td>
<td>0.8</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Fines</td>
<td>22.8</td>
<td>24.0</td>
<td>0.8</td>
<td>24.0</td>
<td></td>
</tr>
<tr>
<td>Ore Sorter feed</td>
<td>72.1</td>
<td>76.0</td>
<td>0.8</td>
<td>76.0</td>
<td></td>
</tr>
<tr>
<td>Accepts product</td>
<td>43.3</td>
<td>45.6</td>
<td>1.4</td>
<td>69.6</td>
<td>60.0</td>
</tr>
<tr>
<td>Accepts + fines</td>
<td>66.0</td>
<td>69.6</td>
<td>1.1</td>
<td>93.6</td>
<td></td>
</tr>
<tr>
<td>Rejects</td>
<td>28.8</td>
<td>30.4</td>
<td>0.2</td>
<td>6.4</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Table 1-7 Metallurgical performance predictions from 2018 representative sample

<table>
<thead>
<tr>
<th></th>
<th>tph</th>
<th>Ore mass (%)</th>
<th>Grade (%Sn)</th>
<th>Total Sn Rec (%)</th>
<th>Stage Rec (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Feed</td>
<td>66.0</td>
<td>69.6</td>
<td>1.1</td>
<td>93.6</td>
<td></td>
</tr>
<tr>
<td>Gravity Concentrate</td>
<td>1.5</td>
<td>1.5</td>
<td>35.0</td>
<td>65.5</td>
<td>70.0</td>
</tr>
<tr>
<td>Dressed Gravity conc</td>
<td>0.8</td>
<td>0.8</td>
<td>65.0</td>
<td>62.3</td>
<td>95.0</td>
</tr>
<tr>
<td>Coarse Gravity tail</td>
<td>18.5</td>
<td>19.5</td>
<td>0.2</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Fine Gravity Tail</td>
<td>5.2</td>
<td>5.5</td>
<td>0.5</td>
<td>3.0</td>
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</tr>
<tr>
<td>Deslime tail</td>
<td>11.7</td>
<td>12.3</td>
<td>0.6</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>Flotation feed</td>
<td>35.1</td>
<td>37.0</td>
<td>0.4</td>
<td>17.4</td>
<td></td>
</tr>
<tr>
<td>Flotation conc</td>
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<td>0.4</td>
<td>29.0</td>
<td>15.6</td>
<td>90.0</td>
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<td>Flotation tail</td>
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<td>36.6</td>
<td>0.0</td>
<td>1.7</td>
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</tr>
<tr>
<td>UF Falcon tail</td>
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<td>0.2</td>
<td>3.3</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>UF Falcon concentrate</td>
<td>0.3</td>
<td>0.3</td>
<td>46.0</td>
<td>14.9</td>
<td>95.5</td>
</tr>
<tr>
<td>Final Combined</td>
<td>1.0</td>
<td>1.1</td>
<td>60.2</td>
<td>77.2</td>
<td>82.4</td>
</tr>
<tr>
<td>Concentrate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final tail</td>
<td>65.0</td>
<td>68.6</td>
<td>0.2</td>
<td>16.4</td>
<td>17.6</td>
</tr>
<tr>
<td>Total recovery from</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>77.2</td>
</tr>
<tr>
<td>ROM ore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

High pressure grinding rolls (HPGR) test work also proved to be successful and resulted in the removal of the third crushing stage and the rod mill from previously developed flowsheets in favour of an HPGR.

1.9 Mineral Processing

The process flowsheet is shown in Figure 1-7. Ore delivered by haul truck from underground will be dumped on the ROM pad at a rate of 750 ktpa. The ore will be segregated in grade ranges on the ROM pad to enable blending by the front-end loader into the ROM bin.
Figure 1-7 Process flowsheet
The two-stage conventional crushing plant will be operated to maintain a full fine ore stockpile (FOS). The secondary crusher will be protected by a metal detector on the feed to the secondary crusher feed bin. The FOS will maintain a nominal feed rate to the fines screen regulated to a weighometer on the screen feed conveyor. The fines screen feed will be diverted to the fines screen undersize conveyor when the ore sorter is stopped. The ore sorter reject rate will be kept nominally to 40% of new feed. This will mean that the positively sorted ore from the ore sorter, termed the accepts, will report to the downstream processing circuits. The ore sorter can be adjusted to compensate for any changes in separation caused by changes in ore grade distribution.

The HPGR is fed with a combination of the ore sorter accepts, the underflow from the fine screen prior to the ore sorter (<8 mm), and a 15% recycle of ball mill scats. The HPGR product is nominally 6 mm P80 at the higher pressure settings. It will be operated as close to a constant tonnage rate as possible to sustain choke feeding and will feed directly into the ball mill.

The ball mill is a short axis grate discharge mill in closed circuit with cyclones and screens. Scats generated by the ball mill at +8 mm size will be conveyed back to the HPGR feed bin. Screen undersize and cyclone overflow, at approximately P80 150 µm, will gravity flow to the coarse gravity cyclone feed pump.

The coarse gravity cyclone will operate at a cut-point of 75 µm, with the cyclone overflow pumped to the regrind (fine gravity) cyclone. The coarse gravity cyclone underflow will feed the coarse spiral and table circuit. The spiral table circuit will operate such that:

- rougher lights are discarded to tails
- rougher middlings feed the scavenger spiral
- rougher and scavenger concentrate feed the cleaner spiral
- scavenger and cleaner middlings plus table tails are directed to regrind
- cleaner tail recycles to the scavenger feed
- cleaner spiral concentrate is directed to tables
- table concentrate will advance to gravity dressing.

The regrind mill grinds to a nominal P80 45 µm and feeds the fine gravity cyclone, which cuts at a nominal 38 µm, and the cyclone underflow feeds the fines gravity spirals and table circuits. The cyclone overflow advances to the first deslime cyclone, and the underflow to the fine spiral and table circuit.

Concentrates from the gravity circuits are further upgraded using magnetic separation to remove steel scrap, then sulphide minerals are removed by flotation and the tail is upgraded to +60% Sn by tabling. A small regrind mill is used to liberate composite cassiterite from table tails.

The first deslime cyclone underflow feeds a magnetic separator to capture steel scats and then flows to a sulphide scavenging circuit. The sulphide concentrate is cleaned to make a sulphide concentrate tail and the (un-floated) tails streams from the rougher and cleaner advance to the second stage deslime cyclone. This cyclone removes any residual slimes and creates the high density slurry required for the high intensity attritioning step ahead of cassiterite flotation. Both cyclone overflows from desliming are sent to the tailings thickener.

The cassiterite flotation has rougher and scavenger stages, with provision for the scavenger concentrate to recycle to the second deslime cyclone. The concentrate from the first stage of cleaning is re-cleaned, the re-cleaner tail recycling to the first cleaner. The first cleaner tail recycles to the second deslime cyclone, and both cleaners have froth washing to minimise gangue entrainment.

The re-cleaner concentrate is passed through a three stage Falcon circuit to remove iron and further upgrade the concentrate.

The final concentrate is filtered in a small plate and frame pressure filter directly filled from an agitated concentrate storage tank. The filter cake is bagged and weighed for shipment.
The concentrate specification based on test work is listed in Table 1-8.

<table>
<thead>
<tr>
<th>Element/Compound</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sn</td>
<td>60.00%</td>
</tr>
<tr>
<td>Fe</td>
<td>4.01%</td>
</tr>
<tr>
<td>Mn</td>
<td>0.02%</td>
</tr>
<tr>
<td>WO₃</td>
<td>0.05%</td>
</tr>
<tr>
<td>Pb</td>
<td>0.03%</td>
</tr>
<tr>
<td>Zn</td>
<td>0.02%</td>
</tr>
<tr>
<td>Ni</td>
<td>0.00%</td>
</tr>
<tr>
<td>Co</td>
<td>0.00%</td>
</tr>
<tr>
<td>Ag</td>
<td>1.92 ppm</td>
</tr>
<tr>
<td>Cu</td>
<td>0.00%</td>
</tr>
<tr>
<td>As</td>
<td>0.08%</td>
</tr>
<tr>
<td>Bi</td>
<td>0.00%</td>
</tr>
<tr>
<td>Sb</td>
<td>0.04%</td>
</tr>
<tr>
<td>S</td>
<td>1.73%</td>
</tr>
<tr>
<td>ThO₂+U₃O₈</td>
<td>0.00%</td>
</tr>
<tr>
<td>F</td>
<td>0.09%</td>
</tr>
</tbody>
</table>

Table 1-8 Concentrate specification

1.10 Environmental Studies

1.10.1 Baseline Studies

The physical, social, economic, and cultural baseline has been characterized for the Project using primary information gathered in the field, and secondary information gathered from official sources, such as Government records. Field studies and data gathering for the baseline studies were undertaken between 2007 and 2013.

The general environmental context is that of a sparsely populated mountainous area with valleys and plateau features characterised by forest areas of pine and oak and open land which is used for agricultural purposes. The local population is limited to small villages and individual farms, where the main activity is grazing livestock (sheep, goats and cows) and growing cereal crops.

There are no protected areas in the vicinity of the concession. The nearest environmentally protected area is the Ifrane Park, which is approximately 40 km upstream (to southeast) of the project area and beyond the Project’s area of influence.

1.10.2 Tailings Storage Facility

Tailings will be produced by the process plant at a rate of approximately 500,000 tonnes per year. The tailings will be pumped to the tailings storage facility (TSF) located close to the processing plant.
The TSF design is an engineered above-ground valley impoundment, which comprises a basin located in an existing valley floor and a downstream earthen embankment that provides for a maximum depth of tailings of 52 metres at the centre of the embankment after ten years of mine operation. The TSF will be equipped with underdrainage collection to maximize water recovery. The main embankment will be constructed of in-situ mudstone and run of mine waste to form the body of the embankment. The starter embankment will be 27.5 m high (measured from the outer toe of the wall to its crest), with a maximum final height of 52 m at closure of the facility.

A contour drain cut above the upstream extremities of the basin will provide for run-off diversion during rainfall events and snow-melt.

Tailings will normally be deposited at a slurry density of 72% w/w. Initial tailings deposition will be carried out via spigots from the starter wall in an easterly direction to create a beach with a 1% fall towards the rear of the facility. This approach will push the supernatant pool from its initial position against the starter wall up-valley and towards the rear of the facility, until it reaches the toe of the water storage facility. During later years, tailings deposition will be carried out from the western wall raises, as well as from the southern and eastern sides of the facility, the latter to reposition the pool closer to the front of the TSF for closure purposes.

1.10.3 Water Storage Facility

The water storage facility (WSF) will provide the bulk of the Project water requirements. It will be constructed directly upstream of the proposed TSF using a cross valley, earthen embankment. Based on the water balance, this embankment will be constructed in a single phase, to a final elevation of approximately 970 mRL. This embankment will form a facility which will have the capacity to store approximately 330,000 m³ of surface water runoff for use in the mine operations. The facility is an integral part of the TSF water management strategy and will be constructed from surface cut and fill as it is required to be constructed prior to underground development.

1.10.4 Waste Rock Management

Excavated waste rock will be generated during mine development. The rock which does not contain tin will be transported to a compacted stockpile at the entrance to the mine decline. It is predicted that the rock will be mildly acidic. This potential will be mitigated by blending finely crushed limestone into the waste as it is placed on the stockpile. Mine waste generated during the operational period will be used as fill for the building of the tailings storage facility embankment or as backfill in the underground workings. Backfilling of mine workings will be prioritized. Including ore sorter rejects, the mine waste balance indicates there will be approximately 1.8 Mt of waste on surface at the completion of mining. This includes the use of waste rock for construction of the tailings storage facility.

1.10.5 Closure Plan

Closure planning has been undertaken to a conceptual level for key infrastructure such as the TSF and will be continually updated throughout the project life. Prior to the start of production activities, a conceptual mine rehabilitation and closure plan (MRCP) will be prepared. The preparation of the detailed MRCP will be an iterative process that will evolve over the life of the Project taking into consideration views and concerns of the local communities and monitoring information. The MRCP will be finalised at least three years prior to the end of the mine’s operating life. Once the mine has finished producing, the detailed closure plan will be implemented.

1.10.6 Permitting

The Project Environment and Social Impact Assessment (ESIA) was prepared in compliance with Morocco’s environmental regulations, and in particular law 12-03 relative to environmental impact assessment and Decree n° 2-04-564 regarding public involvement.
An ESIA scoping report was prepared in 2011 and presented to the National Committee for Environmental Impact Assessments (CNEIE) on 15 June 2011. The committee accepted the report and issued terms of reference for the environmental impact assessment.

The ESIA was carried out during the period May 2011 to June 2013. A draft Final ESIA was prepared as part of the 2012 PFS and submitted to the CNEIE in September 2012. An updated version of the ESIA was prepared as part of the 2014 DFS. This included the findings of the social baseline survey that was carried out in April 2013. The document integrates the answers to comments raised by the CNEIE after its initial review in October 2013. The ESIA and environmental and social management and monitoring plan (ESMMP) for the project were accepted by the Moroccan Ministry of Environment in December 2014 and will expire in December 2019 if there has been no commencement of the project.

The ESIA was prepared to comply with the International Finance Corporation (IFC) Performance Standards on Environmental and Social sustainability (1st January 2012). The project is a greenfield mining project and therefore is considered as a Category A project under these standards. The key performance standards that formed the basis of the ESIA are summarized as follows:

- performance standards
- social and environmental assessment and management system
- labour and working conditions
- resource efficiency and pollution prevention
- community health, safety and security
- land acquisition and involuntary resettlement
- biodiversity conservation and sustainable natural resource management
- indigenous peoples
- cultural heritage.

The majority of permits required to support construction and operations have been secured. Remaining permits require detailed design which will commence following the owners approval to continue work following the completion of the feasibility study.

1.11 Social Considerations

The Project is located within the administrative region of Meknès-Tafilalet, in the Caidad of Jahjouh, Cercle of Agourai, El Hajeb Province. The Project area is situated in three districts, namely: Ait Ouikhalfen, Jahjouh and Ras Ijerri, which are located inside the Agourai circle. There are 50 households representing an estimated 300 people located within the concession area, of which seven households will need to be resettled prior to the Project commencement. Resettlement will be undertaken jointly between the company and the Ministry of the Interior and will align with Moroccan law and IFC Performance Standard 5.

There are no archaeological or formal cultural sites known in the Project area or in the vicinity. There are some spiritual sites within the concession area, such as Mount Sidi Addi. These sites will not be impacted by the project.

Local stakeholder consultation has indicated a positive perception of the Project. The Project is seen as an opportunity for local development through job creation and poverty reduction.

To maintain its social licence, Atlas Tin management will develop and implement a social management plan and resettlement action plan. These documents will align with local law and practice and IFC performance standards.

Atlas Tin management has commenced discussions with the local governor’s office regarding establishment of a committee to manage key community, social management and resettlement matters. The local governor’s office will coordinate the committee.
1.12 Market Studies and Contracts

1.12.1 Market Studies

The Project will produce a high-quality 60% Sn (tin) concentrate. Its quality combined with forecast reductions in global tin production is expected to see the Achmmach tin concentrate highly sought after in international markets. Three forecast price scenarios are provided as shown in Figure 1-8.

![Figure 1-8 Forecast prices for tin (Source: ITA)](image)

Atlas Tin has not entered into any offtake agreement for the sale of its tin concentrate. Toyota Tsusho Corporation and Nittetsu Mining Co are entitled to market 25% of the tin concentrate at market competitive terms. The ability to negotiate offtake and sales agreements for tin concentrate through a positive commodity price cycle provides greater flexibility in negotiations. Atlas Tin has obtained indicative smelter terms from several leading international tin smelting and trading groups as a part of the feasibility study. The tin market has been in deficit in recent years and is expected to remain so in the near term. Ongoing market deficits will not be sustainable going forward and as a result prices are forecast to increase to correct the market imbalance.

1.12.2 Contracts

To underpin cost estimates Atlas Tin has secured pricings for all key commodities and services both domestically within Morocco and internationally where local supply could not be confirmed. These prices were used to support the detailed cost estimates contained within this feasibility study.

To reduce schedule and cost risk, the underground mine will initially be developed and operated by an experienced mining contractor. Atlas Tin sought tenders from several contractors which were evaluated and formed the basis of mining rates and cost model inputs. These rates were updated in May 2018 as a part of this feasibility study. The final selection of a mining contractor will be based on pricing, capability and capacity criteria.

An Engineering, Procurement and Construction (EPC) Contractor will be engaged to design and construct the processing plant and associated infrastructure on a turnkey basis. This will include contractual obligations relating to technical performance, time and cost, thus managing project risk.

Atlas Tin will secure offtake contracts with credit worthy counterparts to reduce funding risk and secure a revenue stream.
Atlas Tin is currently negotiating a power supply agreement with the Moroccan government agency for energy, the Office National d’Energie et Eau Potable (ONEE). While initial costs have been received for the project Atlas Tin has yet to enter into any supply contracts for power supply.

1.13 Risk

A project risk workshop facilitated by MYR Consulting was undertaken in May 2018 to identify, analyse and propose control measures to ensure achievement of project objectives. This process considered key risks in relation to the project phases of development, approvals, execution, commissioning/ramp-up, steady state operations and closure.

Corporate and uncontrollable risks were specifically excluded.

Controls to manage key risks will be incorporated into the project management plan.

A total of 40 material risks were identified and categorised according to likelihood and consequence (in accordance with Kasbah Resources Limited’s risk categorisation methodology).

Taking into consideration the existence of current and planned controls, the 5 biggest risks identified in order of decreasing severity were as follows:

- higher than expected ROM variability
- lower than forecast metal tonnes
- delay/poor performance of the mining contractor
- serious security, safety or health incident
- loss of support from key stakeholders

Atlas Tin will develop a risk management plan for construction and operations. The risk management process will be the responsibility of the Environmental Health & Safety (EHS) manager who will report monthly to the General Manager on all aspects of the risk management process.

1.14 Capital and Operating Costs

1.14.1 Project Capital Costs

The initial project capital costs have been estimated as US$96.4M (real 2018 $) as summarised in Table 1-9.

Table 1-9 Project capital costs

<table>
<thead>
<tr>
<th>2018 DFS Project Capital Costs</th>
<th>US$M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining development</td>
<td>12.1</td>
</tr>
<tr>
<td>TMF, Water Storage Dam (WSD), ROM pad</td>
<td>3.5</td>
</tr>
<tr>
<td>Process plant</td>
<td>44.5</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>12.0</td>
</tr>
<tr>
<td>Engineering, Procurement and Construction (EPC)</td>
<td>7.2</td>
</tr>
<tr>
<td>Construction indirect costs</td>
<td>5.4</td>
</tr>
<tr>
<td><strong>Sub-total Project Construction Capital</strong></td>
<td><strong>84.7</strong></td>
</tr>
<tr>
<td>First fill &amp; spares</td>
<td><strong>1.2</strong></td>
</tr>
<tr>
<td>Contingency</td>
<td><strong>10.5</strong></td>
</tr>
<tr>
<td><strong>Total Project Capital Costs</strong></td>
<td><strong>96.4</strong></td>
</tr>
</tbody>
</table>
1.14.2 Sustaining and Mine Closure Capital

Sustaining and replacement capital costs for mining and processing have been estimated at US$69.2M over the life of mine. These costs largely relate to the ongoing underground mine development which is timed to be completed on an as required basis to optimise project cashflow. Approximately three quarters of the capital mine development is categorised as sustaining.

The mine closure cost has been estimated to be US$3.1 million. Salvage values from dismantling and selling of the process plant has been estimated at US$2.7 million which will offset the majority of the estimated closure costs.

1.14.3 Operating Costs

The total operating costs are summarised in Table 1-10 below.

Table 1-10 Project operating costs

<table>
<thead>
<tr>
<th>Category</th>
<th>US$ Millions</th>
<th>US$/t Sn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>216.6</td>
<td>4,866</td>
</tr>
<tr>
<td>Processing</td>
<td>109.8</td>
<td>2,466</td>
</tr>
<tr>
<td>Administration</td>
<td>36.7</td>
<td>823</td>
</tr>
<tr>
<td>Concentrate transport &amp; treatment</td>
<td>45.4</td>
<td>1,021</td>
</tr>
<tr>
<td><strong>C1 cash costs</strong></td>
<td><strong>408.5</strong></td>
<td><strong>9,176</strong></td>
</tr>
<tr>
<td>Depreciation &amp; amortisation</td>
<td>165.4</td>
<td>3,815</td>
</tr>
<tr>
<td><strong>C2 costs</strong></td>
<td><strong>573.9</strong></td>
<td><strong>12,991</strong></td>
</tr>
<tr>
<td>Royalties</td>
<td>25.2</td>
<td>566</td>
</tr>
<tr>
<td>Corporate costs</td>
<td>6.1</td>
<td>138</td>
</tr>
<tr>
<td><strong>C3 costs</strong></td>
<td><strong>605.2</strong></td>
<td><strong>13,695</strong></td>
</tr>
<tr>
<td>Sustaining capital</td>
<td>69.2</td>
<td>1,554</td>
</tr>
<tr>
<td><strong>All in sustaining cash costs (AISC)</strong></td>
<td><strong>509.0</strong></td>
<td><strong>11,435</strong></td>
</tr>
</tbody>
</table>

C1 cash costs consist of mining, processing, administration and concentrate transport & treatment. AISC consist of C1 cash costs, royalties, corporate costs and sustaining capital.
The cost curve shown in Figure 1-9 is based on tin producer information published by the International Tin Association (ITA) and reflects the estimated cash costs of tin producers in 2021. ITA has defined cash costs as the cost of mining, processing, smelting, marketing, transport and any royalties or taxes, net of any by-product revenue.

As shown in the cost curve, the Achmmach Tin Project will be an upper first quartile/lower second quartile tin cost producer of tin.

1.15 Economic Analysis

The Achmmach Tin Project is a joint venture. All the numbers presented in this financial evaluation section of the report are based upon 100% ownership.

Furthermore, the Project is evaluated on a 100% equity basis only and excludes any financial leveraging effects (i.e. ungeared), as well as any interest expense items that could impact taxable income and/or provide interest deduction tax shields.

The analysis is based on a processing throughput of 750 ktpa using the Ore Reserves defined by this feasibility study.

The objective of the economic analysis is to demonstrate the economic viability of the Project, provide support for Project financing activities, and enable the shareholders to reach formal decisions to proceed with the detail design and construction phases of the Project.

1.15.1 Evaluation Methodology

The financial evaluation has been performed using real cash flows. No escalation of cash inflows or outflows has been applied in determining the project NPV and IRR.

The evaluation is based on after-tax unleveraged, real internal rate of return (IRR) using monthly cashflows using mid period convention.

Exchange rates used in the Project cost analysis and evaluation are detailed below in Table 1-11. These exchange rates have been determined based on spot prices dated 2 July 2018.
Table 1-11 Project exchange rates

<table>
<thead>
<tr>
<th>Currency</th>
<th>Rate of exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 USD: AUD</td>
<td>0.745</td>
</tr>
<tr>
<td>1 USD: ZAR</td>
<td>0.075</td>
</tr>
<tr>
<td>1 USD: EUR</td>
<td>1.157</td>
</tr>
<tr>
<td>1 USD: MAD</td>
<td>0.105</td>
</tr>
</tbody>
</table>

1.15.2 Base Date
The valuation date for the financial model is 1 April 2019, reflecting when the decision to construct the Project is anticipated to be made.

1.15.3 Revenue
On-mine revenue is derived from the sale of tin concentrates into the international market place. Revenues are based on the value of tin content of the concentrate less unit deductions, smelting and refining and impurity penalty charges. No marketing fees have been reflected in the model as Atlas Tin expects to enter into long term offtake agreements with one or more traders/smelters with FOB shipping terms, where ownership and control ceases once loaded at the port of Casablanca.

1.15.4 Tin Price Forecast
For purposes of financial modelling, a price of US$21,000/t (real 2018$) has been used. This price reflects the recent spot price and has also been determined based on the 105-month historical average plus 15-month LME futures contract.

1.15.5 Marketing and Treatment Charges
Through a market soft-sounding, Atlas Tin gained indicative non-binding offtake terms for its tin concentrate from a number of traders and smelters to established indicative net smelter returns (NSR) and average metal payability primarily for financial model purposes. Concentrate treatment charges have been applied which include penalties and unit deductions for impurities.

1.15.6 Production and Revenue Summary
Construction of the project is scheduled to take 20 months, before first production in the second half of 2020. A six-month production ramp-up has been scheduled for commissioning of the plant before achieving full design capacity.

1.16 Revenue Inputs and Assumptions
Revenues are calculated in United States dollars based on a metal price of US$21,000/t (real 2018$). Penalties and unit deduction charges are deducted in calculating the on-mine revenue.

The financial model assumes that 90% of the revenues are received in the month following production, with the balance received 3-months later.
1.17 Financial Summary

Table 1-12 is a summary of the financial analysis of the project.

Table 1-12 Financial summary (US$)

<table>
<thead>
<tr>
<th>Parameters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sn Price</td>
<td>US$21,000/t</td>
</tr>
<tr>
<td>Discount rate (real)</td>
<td>8%</td>
</tr>
<tr>
<td>NPV, post tax¹</td>
<td>$98.1M</td>
</tr>
<tr>
<td>IRR, post tax¹</td>
<td>23%</td>
</tr>
<tr>
<td>Capital costs</td>
<td>$96.4M</td>
</tr>
<tr>
<td>C1 cash costs</td>
<td>$9,176/t</td>
</tr>
<tr>
<td>C3 costs</td>
<td>$13,695/t</td>
</tr>
<tr>
<td>Average AISC</td>
<td>$11,435/t</td>
</tr>
<tr>
<td>Operating cash flow</td>
<td>$403M</td>
</tr>
<tr>
<td>Free cash flow</td>
<td>$267M</td>
</tr>
<tr>
<td>Turnover</td>
<td>$815M</td>
</tr>
<tr>
<td>EBITDA</td>
<td>$444M</td>
</tr>
</tbody>
</table>

¹ Project NPV and IRR based on a post-tax real discount rate of 8% and Moroccan Corporate Income Tax of 17.5%

1.18 Sensitivity

The Project economics are most sensitive to changes in the tin price, grade and recovery. The sensitivity of the NPV to changes in major cost and revenue drivers is shown in Figure 1-10 below.

![Figure 1-10 Project NPV sensitivity](image-url)
Detailed NPV sensitivity analysis was performed on the major cost and revenue drivers and is presented for the individual factors in Figure 1-11.
Detailed sensitivity analysis

1.19 Mine Life

The operating mine life of the Achmmach Project, based on the assumptions in the definitive feasibility study, is 10 years. This includes the initial production ramp-up but excludes project construction, pre-production and mine closure activities.

Extending the life of the mine would rely on the conversion of measured and indicated resources to reserves and the discovery of additional resources within the current mining permit area. The existing orebodies are open along strike and at depth, providing excellent exploration potential.

1.20 Recommendation

The feasibility study demonstrates that the project can produce a robust positive economic result and it is recommended that the project is progressed to enable a final investment decision which will include, *inter-alia*, gaining committed funding and concluding major commercial contracts such as EPC, mining contractor and offtake arrangements.
2. Work in Progress

Kasbah is continuing to develop the project. Current activities encompass:

- Licence application for the water storage dam construction
- Working with the local power provider to establish a power line to the site
- EPC contract tendering
- Mine contractor tendering
- Project finance
- Finalising offtake arrangements
- Negotiating an Investment Agreement with the Moroccan government.

3. Company Information

Kasbah Resources Limited listed on the Australian Stock Exchange (ASX) in April 2007. Kasbah’s business strategy is simple, clear and focussed on tin (Sn).

The company's objective is to:

- grow Kasbah into a new generation producer of high quality tin concentrates
- leverage its exploration and development expertise into new tin production opportunities
- target high margin tin assets with growth potential.

The Achmmach Project has been the focus of the company’s attention over the last 10 years. The company has a strong shareholder base. Cash at the end of the March 2018 quarter was AUD$2.3 million.

**Market Capitalisation**

- Issued Shares: 1,045M
- Issued Options: 6M
- Share Price: AUD$0.012
- Market Capitalisation: AUD$12.5M

**Significant Shareholders**

- Pala Investments: 21.5%
- African Lion Group: 13.1%
- Top 20 shareholders: 62.3%
Overview of Achmmach Project site
## 4. Data Sources

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Consultants</th>
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<tr>
<td>Geological – Geology and Mineral Resources</td>
<td>QG Consulting Perth</td>
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<td>Ore Reserves and Mining Plan</td>
<td>Entech – International Mining Consultants (Perth)</td>
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<tr>
<td>Mining Cost Estimates</td>
<td>International Mining Contractor bids</td>
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<td>Entech – International Mining Consultants (Perth)</td>
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<td>Minero – Mining Consultant</td>
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<td>Hydrogeology</td>
<td>Golder Associates (UK)</td>
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<td>Client Metallurgical Representative</td>
<td>Ore sorting – Tony Parry &amp; Associates</td>
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<td>Metallurgical – Mike Gunn</td>
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<td>Metallurgical Testwork</td>
<td>ALS Global (Perth &amp; Burnie Tasmania)</td>
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<td>Nagrom (The Mineral Processor)</td>
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<td></td>
<td>Ore Sorting - Steinert Magnetic &amp; Sensor Sorting</td>
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<td>High Pressure Grinding - Koeppern Machinery Australia Pty Ltd</td>
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<td>Process Plant Design</td>
<td>Lycopodium ADP</td>
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<tr>
<td>Plant Capital</td>
<td>Lycopodium-ADP</td>
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<td>Plant Operating Costs</td>
<td>Lycopodium-ADP</td>
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<td>Treatment and Refining</td>
<td>Treatment &amp; Refining has been sourced from International Metals traders and Tin Refineries</td>
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<td>Infrastructure and Services</td>
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<td>Artelia Eau &amp; Environment in association with Artelia Maroc</td>
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<td>Planning and Permitting</td>
<td>Atlas Tin (Morocco)</td>
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**Competent Person Statement**

The information in this announcement that relates to Kasbah Resources Limited’s Mineral Resource estimates for the Achmmach Tin Project is based on information compiled by Michael Job, who is a full time employee of Quantitative Group Pty Ltd and a Fellow of the Australasian Institute of Mining and Metallurgy. Michael Job has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a ‘Competent Person’ as defined in the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral resources and Ore Reserves” (JORC Code). Michael Job consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Refer to Kasbah Announcements on 10 September 2013 (Meknes Trend) and 25 November 2014 (Western Zone) for detailed information relating to the Mineral Resource Estimates. No further drilling on these areas has taken place post these announcements.

The July 2018 Ore Reserve estimate is based on work completed by Matt Keenan, who is a Member of the Australasian Institute of Mining and Metallurgy. Matt Keenan is a full-time employee of Entech Pty Ltd and has sufficient experience which is relevant to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Matt Keenan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Ore Reserve estimate is based on JORC-compliant Mineral Resource estimates which are unchanged from the most recent previous Ore Reserve estimate announced in July 2016. These Mineral Resources were estimated by independent geological consultants Quantitative Group Pty Ltd (QG) (Job, 2013 and Job, 2014). This Ore Reserve estimate represents the unmined Mineral Resources, with modifying cost and mining factors applied. Geotechnical input was provided by independent geotechnical consultants Mining One Pty Ltd to a DFS level of detail.
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