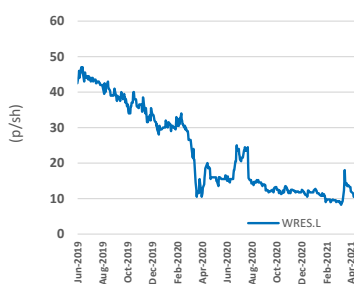


16<sup>th</sup> April 2021

## Mining & Metals

### Market data

Ticker	WRES
Price (p/sh)	9.25
12m High (p/sh)	25.0
12m Low (p/sh)	8.2
Shares (m)	80.8
Mkt Cap (£m)	7.5
Market	AIM



Source: LSE

### Description

W Resources is a European mining company with tungsten, tin and gold assets in Spain and Portugal. The main focus is the La Parrilla tungsten and tin mine in Spain which is currently ramping up production. WRES aims to be one of the lowest cost tungsten producers globally.  
www.wresources.com

### Board & key management

Chairman	Michael Masterman
Exec Director	Pablo Neira
Non-Exec	David Garland
Non-Exec	James Argalas
LP Ops Manager	Juan Garcia Valledor
CFO	Paul Hailes

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## W Resources\*

### Thrilla at La Parrilla - Q1 production

**WRES reported quarterly production numbers for Q1-2021. Whilst the numbers reflect high levels of disruption during another challenging quarter, the accompanying narrative highlights significant progress in knocking the La Parrilla plant into shape. The plant was shut for 3 weeks to carry out planned optimisation work, along with unplanned mine closure due to high water levels. Nevertheless, the tweaks to the plant mean that La Parrilla can now embark on a second attempt to ramp up to target production levels. Critically, Tungsten recovery looks to be back on track and WRES must now knuckle down to hit targets, unlock the value in La Parrilla and rebuild investor confidence.**

- ▶ **Q1 production.** Figures and comparison to Q4-2020 (in brackets): ROM tonnes 196kt (↓25% vs 261.8kt), WO<sub>3</sub> concentrate 63.5t (↓36%, 100t), WO<sub>3</sub> contained metal 3,916mtu (↓42%, 6,698mtu), WO<sub>3</sub> recovery 32% (↑3%, 31%), Sn concentrate 28.9t (↓13%, 33.4t), Sn contained metal 16.3dmt (↓13%, 18.8dmt), Sn recovery 44% (↑69%, 26%). WO<sub>3</sub> concentrate shipped 59.2t (↓41%, 100.2t), Sn concentrate shipped 20t (↓23%, 26.1t).
- ▶ **Not the quarter hoped for.** At face value, the numbers are likely to disappoint being considerably lower than Q4-20 production levels for most metrics. However, La Parrilla was not operational for the full quarter. The plant improvement works originally scheduled to take 4 weeks, actually only took 2 weeks but the unplanned water management issues negated that time saving and added back another week to the shut down. The water issue also hampered access to the higher-grade ore and a permanent solution is being put in place. Additionally, the plant when operational was still operating on a 5-day week.
- ▶ **But some reasons to be optimistic.** Despite the disruption and stop/start nature of Q1 it appears as though the previous issues with the plant have been rectified. WRES reports that tungsten recovery during February was >60% and tin recoveries continue to increase. So, what's the route to getting back on track? Clearly, La Parrilla needs a solid quarter without production disruption to bring the rejuvenated plant to account. Maintaining throughput at target grades with high plant utilisation will hopefully allow recoveries to build. The high recovery rates achieved in February highlight that the plant is now technically capable but now we need to see the ramp up. The final component will be the company's planned move from 5 to 7-day working in Q4-2021.
- ▶ **Inaugural market guidance.** Rectifying the plant issues has given WRES the confidence to provide production guidance for the first time: the company expects total concentrate production of between 880t and 1,000t for 2021.
- ▶ **Tungsten recovering, tin strong.** The European APT price continues to stage a recovery from Covid lows has recently been trading in the \$270-\$278/mtu range on the back of tightening supplies of both tungsten concentrate and ammonium paratungstate (APT) material. Tin is up 82% over the last year with an ongoing supply squeeze, currently at \$28,060/t and has been the best performing LME metal.
- ▶ **Discussion.** We see fair value at 23p/sh based on a blend of NAV and forward EBITDA, indicating that WRES is trading at 0.48x to our risked NAV. This reflects our cautious view of ramp up as W Resources still has a challenging year ahead to bed down the newly optimised La Parrilla plant and take the project to full T2 production. We model a conservative flat forward tungsten price of \$260/mtu. Note that a mere 10% increase in our price assumption would increase our target price to 35p/sh, details in the note. Whilst WRES has had a very challenging time since project start up, it finally looks as though all the cogs are falling into place. The major recovery issues with the plant appear to be rectified and once the water issue is resolved the higher-grade ore should be accessible. All that remains then is to ramp up ROM throughput and maintain stable operations at a high plant utilisation rate. Concentrate grades and spec have always been good, it's just that La Parrilla needed to produce more of it. With a firming in tungsten prices, a blistering run for tin and capex sunk, WRES now has a last opportunity to drive cash flow. Once La Parrilla is firing on all cylinders this could also provide an opportunity to restructure debt to ease the burden of the high financing cost of the Blackrock facility. Ultimately, we still see potential for WRES to become a low-cost tungsten producer but ramp up risk remains until proven otherwise. Despite a challenging year, La Parrilla finally looks to be on the right path.

**We believe that WRES has passed its nadir. The major plant improvements are now producing tangible increases in metallurgical recovery and for the first time there is visibility on the ramp up towards target production levels, all coinciding with strong W and Sn fundamentals.**

## La Parrilla – quarterly production results

The table below sets out production results from La Parrilla for Q1 2021 (January to March). As we have mentioned, the results are likely to disappoint those hoping for a solid ramp up quarter. However, the results need to be viewed in context and there are mitigating factors that explain the lower overall production performance. By all accounts, January started well but a number of factors subsequently impacted production and there was only 45 days of production in Q1, compared to 52 days in Q4-2020.

- ▶ **Working week.** During the quarter, the plant was only operated on a 5-day per week basis. WRES has plans to move to 7-day a week working in Q4 2021.
- ▶ **Plant improvements.** The plant was closed for a scheduled 4 week shut down to implement a plant improvement programme. In actual fact, this scheduled maintenance time was reduced by 50% and only took 2 weeks.
- ▶ **Water issue.** The time saving on the plant maintenance was offset by a decision to halt production for an additional week. This was a result of unseasonal weather conditions in early February which further increased high water levels in the mine. Due to the health and safety implications, the decision was taken to pause production. This hampered access to higher grade ore and explains the lower ROM tonnage and tungsten feed grade with the company forced to mine and process ore with grades lower than plan. Work is underway to introduce a permanent solution to resolve the issue going forward.
- ▶ **Ultra-fines.** During much of March, without access to higher grade ore, the ore feed to the plant was lower grade ore that contained a very high level of ultrafine material. This adversely impacted production performance.
- ▶ **Strip ratio.** The strip ratio for Q1 was higher than normal as a result of the works carried out to catch up on the delay in mine waste extraction accumulated in 2020. This work was necessary to allow access to new ore areas in the year ahead.

Figure 1 - La Parrilla - Q1 2021 production results

Quarterly Production	Q4-20	Q1-21	Q-on-Q variance
			Q4-20 vs Q1-21
ROM tonnes (kt)	262	196	-25%
Strip ratio	1.19	5.13	331%
Jig plant Processed (kt)	237	164	-31%
WO <sub>3</sub> feed grade (ppm)	943	744	-21%
WO <sub>3</sub> recovery (%)	31%	32%	3%
WO <sub>3</sub> Concentrate (dmt)	100.0	63.5	-37%
WO <sub>3</sub> concentrate grade (%)	67%	62%	-8%
Tungsten (mtu)	6,698	3,916	-42%
Sn feed grade (ppm)	321	228	-29%
Sn Recovery (%)	26%	44%	69%
Sn concentrate (dmt)	33.4	28.9	-13%
Sn concentrate grade (%)	56%	57%	1%
Sn contained metal (dmt)	18.8	16.3	-13%
Total concentrate (dmt)	133.4	92.4	-31%
Total contained metal (dmt)	85.8	55.5	-35%
Shipments	Q4-20	Q1-21	Q4-20 vs Q1-21
Tungsten concentrate (dmt)	100.2	59.2	-41%
Tin concentrate (dmt)	26.1	20.0	-23%

Source: W Resources, Shard Capital

**Discussion and some positives.** It's not all bad news and the Q1 results highlight a number of areas that give us reason to be hopeful for the remainder of the year.

- ▶ **Move to 7-day.** WRES plans to increase the number of working days at the operation from 5 days to 7 days by Q4 2021.
- ▶ **Recoveries.** WRES reported that concentrator plant recovery for tungsten in February was greater than 60%. This is a huge step forward from the historical sub 30% recovery range. It suggests that plant improvement works have been immediately effective at increasing metallurgical recovery and that the 72% recovery rate as per the Final Investment Decision Report (Aug 2017) looks to be within sight for the first time.
- ▶ **Grades.** Access to higher grade ore towards the end of the quarter resulted in an uptick in production. Assuming that the water continues to recede as warmer weather returns and a permanent solution is introduced, WRES should no longer have restraints on ore access. The company estimates that high-grade portions of the orebody will be fully accessible as the year progresses. This is particularly important given that recovery rates appear to be back on track.
- ▶ **Concentrate spec.** The grade and specification of both tungsten and tin concentrate continue to meet target requirements demonstrating that even during a period of lower recovery and head grades the plant still produces saleable concentrates.

*Figure 2 - La Parrilla – historical quarterly production summary*

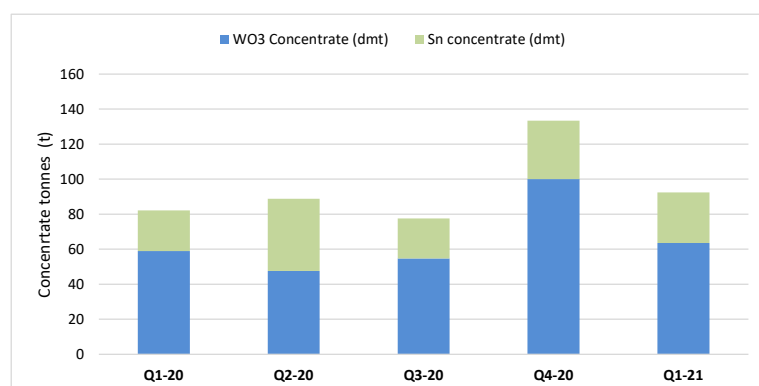
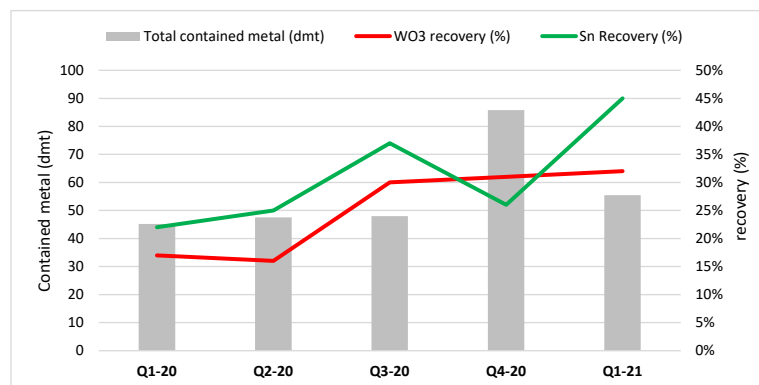
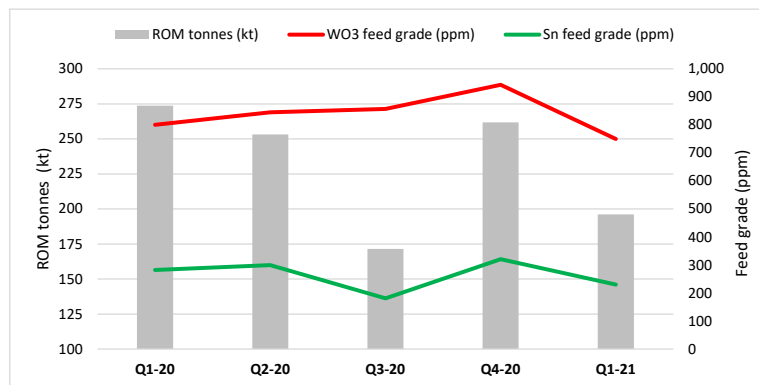
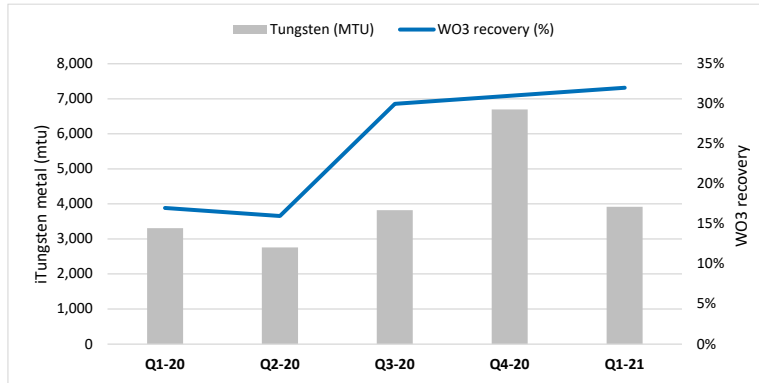
Quarterly Production	Q1-20	Q2-20	Q3-20	Q4-20	Q1-21
ROM tonnes (kt)	274	253	171	262	196
Strip ratio	1.07	0.58	1.38	1.19	5.13
Jig plant Processed (kt)	241	228	148	237	164
WO <sub>3</sub> feed grade (ppm)	800	845	857	943	744
WO <sub>3</sub> recovery (%)	17.0%	16.0%	30.0%	31.0%	32.0%
WO <sub>3</sub> Concentrate (dmt)	58.9	47.6	54.7	100.0	63.5
WO <sub>3</sub> concentrate grade (%)	56%	57%	70%	67%	62%
Tungsten (MTU)	3,306	2,756	3,820	6,698	3,916
Sn feed grade (ppm)	282	307	181	321	228
Sn Recovery (%)	22%	25%	37%	26%	44%
Sn concentrate (dmt)	23.3	41.2	22.9	33.4	28.9
Sn concentrate grade (%)	52%	49%	43%	56%	57%
Sn contained metal (dmt)	12.1	20.0	9.8	18.8	16.3
Total concentrate (dmt)	82.2	88.8	77.6	133.4	92.4
Total contained metal (dmt)	45.2	47.6	48.0	85.8	55.5

Source: W Resources, Shard Capital

**Inaugural market guidance.** For the first time, WRES has issued production guidance. This covers the remainder of 2021 and focuses on total concentrate production which we take to mean tungsten concentrate plus tin concentrate. WRES believes that the plant improvements along with higher grades and recoveries will see production increase. The company expects total concentrate production of between 880t and 1,000t for 2021.

### Quarterly production charts

Figure 3 - La Parrilla, quarterly production actuals



Source: Shard Capital, using WRES data

## Discussion and valuation update

We have updated our model for La Parrilla based on quarterly performance to date and our view on the remaining La Parrilla ramp up based on a combination of the new production guidance by WRES and our own assumptions. We have also taken the opportunity to update our model, including commodity prices and rolling over our DCF valuation to a 2021 basis.

**Current fair value target price**

**23p/sh.**

**This is conservative but reflects remaining ramp up risk.**

**A 10% increase in our commodity price deck would increase this to 35p/sh (+52%)**

Our indicative estimate of fair value / target price for WRES is 23p/sh fully-diluted, based on a blend of 1.0x Net Asset Value (NAV) and 3x three-year-average forward EBITDA. Our underlying NAV is driven by the DCF derived NPV of La Parrilla and nominal valuation for other assets. We currently calculate La Parrilla's NPV<sup>8%</sup> to be US\$84m (£62m) or unrisksed 68p/sh fully diluted (90m shares, including our view of exercisable instruments).

Our all-in NAV after corporate adjustments is £23m (25p/sh) largely as a result of adjusting for outstanding short and long-term debt of the which the Blackrock facility has a significant impact on overall NAV. Nevertheless, it still implies that WRES is trading at a P/NAV of 0.35x to our unrisksed all-in NAV. These numbers are of course highly contingent on WRES meeting forward production targets. The company does need to focus on cash flow now and restructuring the outstanding debt in order to make progress in our view.

To generate our target price, we have moved to a blended approach of NAV and a forward EBITDA multiple given that WRES is moving towards commercial production. We feel this is appropriate to capture forward value, growth and market dynamics. We use a conservative multiple of 3x EBITDA at the lower range of sector valuations (2-6x EV/EBITDA) to reflect the remaining hurdles before La Parrilla is running at steady-state production. The underlying EBITDA metric is the mean of 2021-2023. As the company ramps up operations and post 2021, the multiples would provide a considerable valuation uplift. Our valuation and target are purposely cautious, but we will review our assumptions in response to improved production performance.

Figure 4 - W Resources, sum of parts NAV and valuation – Shard estimates

NAV Valuation						
	Disc Rate	US\$m	Unrisksed		Multiple	Risksed
			£m	p/sh		p/sh
La Parrilla	8%	84	62	68.0	0.90x	61.2
<b>Other projects:</b>						
Régua	nominal	11	8	8.6		8.6
Gold & non-core	nominal	2.4	1.8	1.9		1.9
<b>Sub-total</b>		<b>97</b>	<b>71</b>	<b>78.6</b>		<b>71.8</b>
<b>Corp Adjustments</b>			<b>£m</b>	<b>p/sh</b>		<b>p/sh</b>
Cash			0.6	0.7	-	0.7
Cash in from options/warrants			0.7	0.8	-	0.8
Debt			(46)	(50.8)	-	(50.8)
Forward Corporate G&A / Other			(3.4)	(3.8)	-	(3.8)
<b>NAV</b>			<b>£23m</b>	<b>25.4</b>		<b>18.6</b>
Shares on issue (basic)		80.8m				
Shares (diluted)		90.5m				
Unrisksed P/NAV		0.35				
Risksed P/NAV		0.48				
<b>Target Price</b>						
<b>NAV value</b>						<b>p/sh</b>
Base risksed NAV						18.6
Current NAV multiple (implied)						0.48x
<b>Earnings value</b>			<b>£m</b>	<b>p/sh</b>		
EBITDA (3-yr fwd avg)			8.0	8.8		8.8
<b>Blended valuation</b>	<b>Target multiple</b>	<b>Weighting</b>				<b>p/sh</b>
NAV	1.0x	50%				9.3
Forward EBITDA	3.0x	50%				13.2
<b>Target price</b>						<b>23</b>

Source: Shard Capital estimates

## W Resources\*

**Both concentrate and APT supply is currently constrained, and we think it's reasonable to see a return to sustained higher prices as the manufacturing and procurement cycle returns on the back of renewed industrial growth.**

We have updated our model to reflect the inaugural production guidance from WRES along with general updates to our modelling.

- **Prices.** We have adjusted our tungsten and tin price expectation to reflect current market fundamentals and outlook. The European APT price has recently been trading in the \$250-275/mtu range, a significant improvement from the \$200-\$215/mtu range around the time of the auction of APT material from the defunct Fanya Exchange (Sep 2019) and during peak Covid disruption. The recent positive price action in tungsten is reflective of a broad recovery in the sector. There are reports that current price increases are being driven by higher demand from Europe and the US with a lack of shipments of APT material from China and general tightness in the tungsten concentrate market.

Our model now assumes flat \$260/mtu going forwards. Although this is conservative, we will review our price assumptions if the improvement in tungsten fundamentals is sustained. \$260/mtu was in any case, close to the 5-year average pre- Fanya/Covid. The LME tin price is currently at multi-year highs (\$27,833/t) having increased from c. \$15,000/t a year ago. Our model now assumes an average price of \$23,000/t for 2021 before descending to \$20,000/t long-term. Although this may seem conservative, our assumption takes into the account the fact that tin is notoriously volatile.

- **Model update.** We refer to the company's production guidance although we model a more cautious ramp-up given La Parrilla's mixed fortunes so far. Thus, we forecast total concentrate of 910t for 2021 (guidance 880t-1,000t). Our modelling thus assumes that Q4 2021 exits at an annualised rate moving towards the full T2 (2mtpa ROM) run rate, with 2022 the first full year of T2 production (2,167t of tungsten concentrate on our numbers for 2022). For 2021, we assume total ROM of 1.1Mt.

We push back any expansion to T3.5 by two years to 2025 as our view is that T3.5 only makes sense once T2 is running without a hitch and pending clarity on funding for the T3.5 \$20m capex. In reality, we believe that there could be other lower capex options to marginally expand throughput, especially in terms of ore sorting and bringing Régua into the picture. We assume head grades in line with plan.

For the critical issue of metallurgical recoveries, we assume a gradual improvement in both tungsten and tin recoveries over the remainder of 2021. For tungsten we assume, 40%, 50%, 65% for Q2, Q3, Q4 and then reaching target 72% by 2023. We believe this is reasonable given that the plant has already proven that it can run at 60% recovery (in February) but only time will tell whether this is too aggressive. For tin recovery we take a similar approach, assuming 50%, 55%, 60% for Q2, Q3 and Q4. Opex remains difficult to peg given the stop/start operation of the plant and lack of published guidance. However, we assume high costs currently, and an average of \$172/mtu inc tin credits for 2021, slowly descending to \$102/mtu long-term (\$130/mtu before credits). This is purely an assumption, and we may have to revise this when WRES starts providing operating cost details. On the corporate side, our model assumes Blackrock interest is paid as PIK for 2021, and then cash interest thereafter (roughly €6m p.a). We assume the €5.3m Extremadura grant is paid in H1-2021 as per the 15/1/2021 RNS.

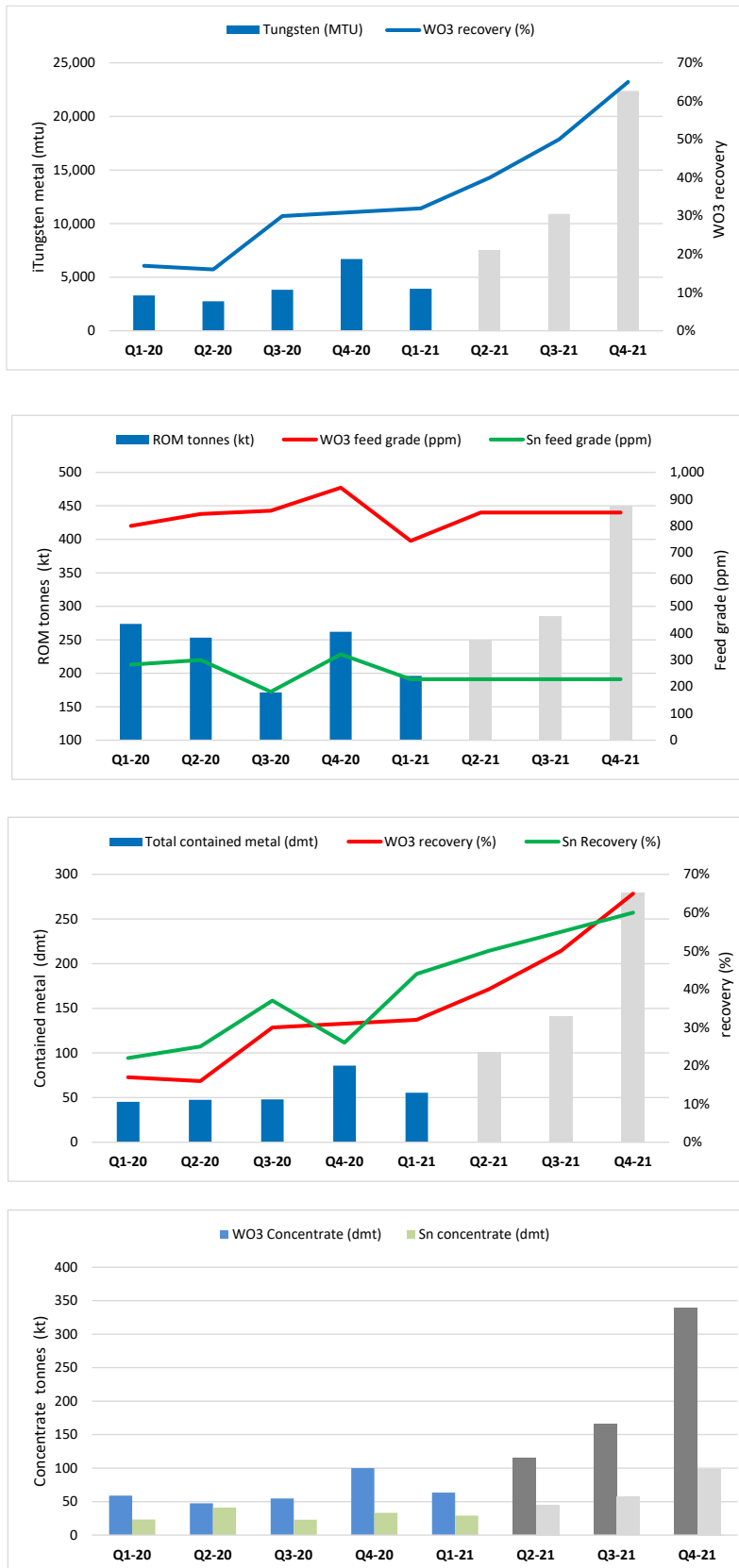
Figure 5 - DCF, project-level metrics

Production	2020 A	2021	2022	2023	2024	2025	2026	2027	2028	2029
ROM tonnes (kt)	960	1,181	2,000	2,000	2,000	3,500	3,500	3,500	3,500	3,500
WO3 Concentrate (dmt)	276	682	2,167	2,376	2,236	3,818	3,818	3,818	3,818	3,818
Tungsten (MTU)	16,580	44,759	143,000	156,816	147,600	252,000	252,000	252,000	252,000	252,000
Sn concentrate (dmt)	121	228	505	505	505	884	884	884	884	884
Sn contained metal (dmt)	61	129	283	283	283	495	495	495	495	495
Total concentrate	397	910	2,672	2,881	2,741	4,702	4,702	4,702	4,702	4,702
Financials (US\$m)	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Total Revenue (US\$m)	11.5	34.3	37.1	35.2	60.3	60.3	60.3	60.3	60.3	
EBITDA (US\$m)	0.3	15.1	17.9	16.0	26.7	26.7	26.7	26.7	26.7	
Total opex (US\$m)	-11.2	-19.2	-19.3	-19.2	-33.6	-33.6	-33.6	-33.6	-33.6	
Opex (\$/mtu)	248	131	120	127	130	130	130	130	130	
Opex inc by-products (\$/mtu)	199	103	94	100	102	102	102	102	102	
Capex (Expand+ Sus) US\$m	-3.7	-1.1	-1.1	-11.1	-12.0	-2.0	-2.0	-2.0	-2.0	
FCF (US\$m)	-3.3	12.9	12.8	1.6	8.1	19.2	19.2	19.2	19.2	

Source: Shard Capital estimates

W Resources\*

Figure 6 – Our view of quarterly ramp up for the remainder of 2021



Source: Shard Capital estimates

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