KEFI Minerals

Project funding secured

83% of the way there

Metals & mining

This week, KEFI Minerals announced that it had signed an agreement with Oryx for US$135m of lease funding for Tulu Kapi. As a result, Oryx will assume c 70% of the project's on-site capex requirements in a form of build, own, operate and transfer (BOOT) arrangement. Following full repayment of the lease, ownership will revert to KEFI.

Year end	Revenue (£m)	PBT* (£m)	EPS* (p)	DPS (p)	P/E (x)	Yield (%)
12/15	0.0	(2.0)	(3.0)	0.0	N/A	N/A
12/16	0.0	(2.5)	(1.6)	0.0	N/A	N/A
12/17e	0.0	(2.2)	(0.8)	0.0	N/A	N/A
12/18e	0.0	(10.4)	(1.7)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

2017 KEFI mine plan

As a consequence of its funding announcement, KEFI has also updated its schedule of required capital investment, which has been increased by the extra financing costs required for the Oryx project funding structure (see Exhibit 3). It has also placed emphasis on its previously reported plan (outlined at the time of the release of its DFS update in May) to process mined ore at rates 10% higher than nameplate. In summary, aggregate production, throughput, etc are the same over the 10-year mine life, but we now recognise that production has been brought forward by c one year, such that mining starts six months ahead of processing in late FY19. Operating costs are selectively lower than those previously published (Exhibit 2).

Reduced equity funding component of financing

In the wake of the Oryx deal, we are now assuming a future equity raise of US$13m (£9.9m at current forex rates), compared to £15.85m previously. However, further engineering and procurement work may lead to some savings in the US$13m contingency, while the Development Bank of Ethiopia is reported to have offered to advance KEFI a revolving working capital facility in the sum of US$15m, potentially lowering any future parent company equity issue to as low as US$4m.

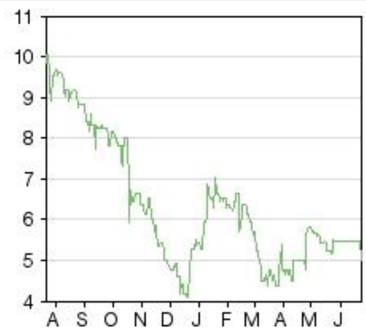
Valuation: Up 0.76p

Once it is fully developed, Tulu Kapi should be capable of generating average cash flows from operations of c £44.4m pa, which we value at £67.2m at a 10% discount rate, or 15.2p per existing KEFI share (attributable). Fully diluted on this basis at an assumed share price of 5.4p (18 July), we estimate that investors in KEFI's shares may expect EPS in the order of 6.23p/share and average maximum potential dividends (cash flow after investments and funding) of 4.11p/share for six years, from FY23 to FY28. When discounted at 10% pa, these potential dividends have a net present value of 10.4p (an 8% increase compared to the valuation at the time of our last note in May). This valuation increases to 18.83p in 2024. It rises further, to 25p, in the event that KEFI is able to successfully leverage its cash flow from Tulu Kapi into other development assets in the region. In the meantime, the company is trading on a resource multiple of just US$11.12/oz compared to an estimated global average cost of discovery of US$10.16/oz.

20 July 2017

Price	**5.00p**
Market cap	**£17m**
	US$1.3067/£
Net cash (£m) at 31 December 2016	0.4
Shares in issue	332.7m
Free float	89.5%
Code	KEFI
Primary exchange	AIM
Secondary exchange	N/A

Share price performance



%	1m	3m	12m
Abs	(4.4)	8.1	(38.1)
Rel (local)	(3.6)	6.3	(47.0)
52-week high/low		10.9p	4.1p

Business description

KEFI Minerals is an exploration and development company focused on gold and copper deposits in the highly prospective Arabian-Nubian Shield, principally the 95%-owned Tulu Kapi project in Ethiopia and, to a lesser extent, the 40%-owned Jibal Qutman project in Saudi Arabia.

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KEFI Minerals is a research client of Edison Investment Research Limited

Investment summary

On 17 July, KEFI announced that it had signed conditional, detailed heads of terms with Oryx (an infrastructure specialist) for US$135m of project funding to finance and operate the on-site infrastructure at its Tulu Kapi mine in Ethiopia. Under the terms of the agreement, Oryx intends to fund all of the required on-site infrastructure in a form similar to a build, own, operate and transfer (BOOT) arrangement. The on-site infrastructure will be built by Lycopodium, including the processing plant, provided under a fixed price engineering, procurement & construction (EPC) contract, and the accommodation village, earthworks, water dams and tailings storage facility under a “cost plus” engineering, procurement, construction & management (EPCM) arrangement. In essence a lease, the salient features of the project funding are as follows:

Exhibit 1: Oryx funding of Tulu Kapi – salient features

Feature	Detail
Amount	US$135m
Tenor	Nine years from drawdown
Security	Tulu Kapi Gold Project
Interest rate	8% plus supplement of zero at US$1,100/oz Au rising to 8% at US$1,700/oz Au.
Lease payments	US$7.2m per quarter plus fees (US$250k plus performance incentive)
Repayment schedule	From month 30 to end of year nine
Financial covenants	None
Structure	Similar to a build, own, operate, transfer (BOOT) infrastructure lease coupled with plant operating contract
Ownership	Ownership of on-site infrastructure reverts to project company (TKM) following full repayment
Hedging	No stipulation, but agreement to allow modest level of gold hedging

Source: KEFI Minerals

2017 KEFI mine plan

In addition to its funding announcement, since publishing the results of the DFS update in May, KEFI has also updated its schedule of required capital investment, which has been increased by the extra financing costs required for the Oryx project funding structure. It has also placed emphasis on its previously reported plan (outlined at the time of the release of its DFS update in May) to process mined ore at rates 10% higher than the annual guaranteed ore processing rate warranted by the plant construction contractor.

In preparing for contract execution and estimating contracted costs, KEFI has updated detailed mine engineering and planning for the bulk mining (>90%) and also for the selective mining (<10%) of its ore and waste, which it has now built into contractually detailed schedules. This is an area on which KEFI has focused intensely, in order to reliably measure average grade and also manage grade variability during operations. This process began with significantly expanded resources, based on extra drilling and trenching results, and then more tightly defined reserves within the wireframing of the entire ore system, which had never previously been performed.

In general, the 2017 KEFI mine plan is, in fact, identical to our prior expectations with the exception of the fact that production has been brought forward by approximately one year to late FY19. Otherwise, aggregate ore mined, plant throughput, waste mined and average head grade are unchanged over the life of the mine. However, operating costs (opex) are selectively lower than those previously published:

Exhibit 2: 2017 KEFI mine plan major cost assumption changes

Item	Current unit cost estimate	Previous unit cost estimate	Unit cost estimate change
Mining (ore and waste)	US$3.40/t (waste + ore)	US$3.58/t (waste + ore)	(0.18)
Oxide ore milling	US$7.31/t milled	US$8.11/t milled	(0.80)
Fresh ore milling	US$6.86/t milled	US$5.76/t milled	+1.10
Hard fresh ore milling	US$7.80/t milled	US$7.74/t milled	+0.06
On-site G&A	US$6.3m pa	US$7.7m pa	(1.5)
On-site G&A (stockpile reprocessing)	US$3.1m pa	US$3.9m pa	(0.7)

Source: Edison Investment Research, KEFI Minerals

In part, the cost reductions achieved by KEFI may be attributed to:

- The modification of the processing plant comminution circuit from a primary SAG mill and secondary ball mill to a larger SAG mill-only circuit, and
- The increase in the grind size from P80=75μm to P80=150μm.

Both act to restrain costs as well as simplifying the operation of the plant.

Otherwise, the Tulu Kapi development plan remains based on a conventional open-pit mining operation and carbon-in-leach (CIL) processing plant. As per KEFI's draft mine services contract with Ausdrill, a bulk mining approach will be applied to 70-80% of the ore and 90-95% of all material mined and a selective mining approach to 20-30% of the ore and 5-10% of all material mined.

In addition to its opex estimates, KEFI has also updated its capex estimates to include the extra funds required by the Oryx funding structure (especially during the first 30 months – the so-called "grace period", during which lease payments will not be made).

Exhibit 3: Refined Tulu Kapi capex estimates vs historic (US$m unless otherwise stated)

Item (US$m, unless otherwise indicated)	2017 KEFI plan	2017 DFS update*	Second revision*	Initial contract mining estimates**	Original 2015 DFS***
Date	**July 2017**	**May 2017**	**Q315**	**August 2015**	**July 2015**
Mining		15.8	17.4	10.6	39.7
Processing		75.2	76.3	72.3	79.9
Infrastructure		15.5	16.6	17.8	21.7
Tailings		18.8	13.5	8.2	7.1
Owner's costs, working capital etc		18.1	16.2	24.5	14.6
Community relocation etc		17.8	13.6	7.8	20.8
Non-Tulu Kapi cost contingency		14.6			
Sub-total		**175.7**	**153.4**	**141.2**	**183.9**
Contract deferrals		(15.7)	(15.2)	0.0	0.0
Sub-total	**160.0**	**160.0**	**138.2**	**141.2**	**183.9**
Additional funds required for project funding	33.0				
Total	**193.0**				
Assumed throughput rate (Mtpa)	1.7	1.5-1.7	1.5-1.7	1.2	1.2
Capital intensity (US$ per annual tonne)	**113.53**	**100.00**	**86.98**	**117.67**	**153.25**

Source: KEFI Minerals, Edison Investment Research. Note: *Estimated including contingencies. **As used in our August 2015 initiation note. ***Presented on an owner-manager basis. Totals may not add up owing to rounding.

Within the context of the initial capex estimate of US$193m however, 69.9% of this will now become the immediate responsibility of Oryx (although, for accounting purposes, it will be treated as a finance lease and still be capitalised onto KEFI's balance sheet as will the present value of the liability to Oryx). The apportionment of initial on-site capex between KEFI and Oryx is as follows:

Exhibit 4: Tulu Kapi estimated apportionment of capex between KEFI and Oryx						
(US$000s, unless otherwise indicated)	**KEFI**	**KEFI share of total (%)**	**Oryx**	**Oryx share of total (%)**	**Total**	**Percent of total (%)**
Mining	15,823	100.0	0	0.0	15,823	10.2
Processing	1,938	2.6	73,932	97.4	75,870	48.7
Infrastructure	15,671	100.0	0	0.0	15,671	10.1
Tailings	3,111	16.7	15,553	83.3	18,664	12.0
Indirect	0	0.0	1,756	100.0	1,756	1.1
Owner's costs*	8,801	64.2	4,901	35.8	13,702	8.8
Community relocation etc	10,000	100.0	0	0.0	10,000	6.4
Environmental Management	1,051	100.0	0	0.0	1,051	0.7
Contract deferrals	-8,698	55.6	-6,959	44.4	-15,657	-10.1
Additional funding-related costs	0	0.0	15,626	100.0	15,626	10.0
Further 10% contingency	3,254	100.0		0.0	3,254	2.1
Totals	**50,951**	**32.7**	**104,809**	**67.3**	**155,760**	**100.0**

Source: Edison Investment Research, KEFI Minerals. Note: *Excludes c US$4.0m of working capital.

Funding mix

KEFI's funding approach has been consistent in seeking to share risk with contractors responsible for parts of the operation and to minimise dilution. During 2014 and 2015, it revised its inherited DFS as a precursor to opening the project construction and mining to international tender, with the specific intent of reducing upfront capex by introducing contract mining. Since then, it has introduced project-level equity (eg the government of Ethiopia has confirmed that it is subscribing equity of US$20m at the project level) as well as pursuing the Oryx lease agreement. Only then will the balance of funding needs be met at parent company level, typically in mezzanine (eg streaming) or equity form. KEFI's updated estimate of its proposed sources and application of funds is now as follows:

Exhibit 5: KEFI proposed sources and applications of Tulu Kapi project development funding (US$m)		
	US$m	**Percent (%)**
Total funding needs before project financing structure	160	82.9
Extra funds required for project funding structure	33	17.1
Total funding requirement	**193**	**100.0**
Proposed sources		
Oryx	135	69.9
Ethiopian government	20	10.4
Equity funds already committed (Lanstead, Lycopodium*)	6	3.1
Residual funding requirement (includes US$13m contingency)	32	16.6
Total sources	**193**	**100.0**

Source: KEFI Minerals. Note: *Lycopodium has confirmed its intention to subscribe for US$2.5m of KEFI shares upon execution of its EPC contract.

The government's recent policy directive requiring a maximum 50% debt gearing (ie debt/[debt+equity]) policy for new projects does not apply to KEFI's Tulu Kapi project, which has prior approval to expand the debt portion of its funding requirement to 70% of the total. In addition, clarification received from the regulator (the National Bank of Ethiopia) indicates that historical exploration spend on the project of c US$60m is considered to contribute towards equity for these purposes.

Otherwise, the company is continuing to refine its funding requirement and further engineering and procurement work may lead to some savings in the US$13m contingency in the funding requirement. Moreover, KEFI has a close working relationship with the Development Bank of Ethiopia, with which it was in detailed negotiations to provide senior secured debt for the project prior to the Oryx deal. Within this context, the bank is reported to have offered to advance a revolving working capital facility to the Tulu Kapi project in the sum of US$15m – potentially lowering any future parent company equity issue to as low as US$4m.

For the purposes of Edison's financial forecasts however, we assume a 50:50 split between mezzanine funding and parent company level equity (including equity already committed). Mezzanine finance is assumed to be in the form of a US$19m streaming agreement to sell gold at US$450/oz (escalating) and yielding an internal rate of return to the counterparty of 16%. As a result, we anticipate a future (un-committed) raise of US$13m (£9.9m at current forex rates), compared to £15.85m previously:

Exhibit 6: Estimated financing of Tulu Kapi funding requirement (US$ and £)

Item	Current		Previous	
	US dollars (US$m)	Pounds sterling (£m)	US dollars (US$m)	Pounds sterling (£m)
Oryx	135	103.3	0	0.0
Senior secured debt	0	0.0	86	66.5
Ethiopian government participation at project level	20	15.3	20	15.5
Cost overrun debt	0	0.0	13	10.0
Committed equity	6	4.6	6	4.6
Mezzanine (eg streaming) and parent company level equity	32	24.5	35	27.1
Total	**193**	**147.7**	**160**	**123.7**

Source: Edison Investment Research. Note: US$1.3067/£ (previously US$1.2938/£); totals may not add up owing to rounding.

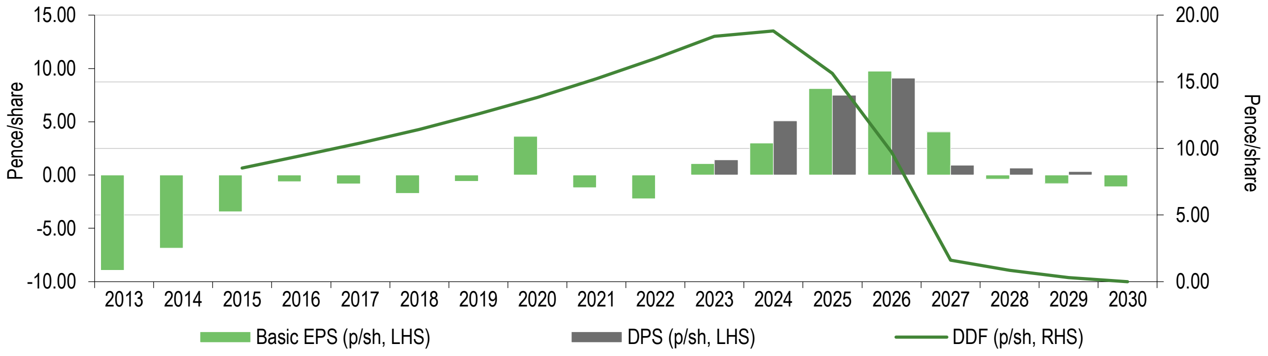
Note that we have built the extra dilution resulting from this additional equity into our valuation model below.

Valuation

KEFI has agreed a development start date with the government of H217 and both KEFI and the local community are reported to be preparing for community resettlement to occur in late 2017, such that construction can occur from 2017 to 2018 with first processing in 2019 (part year). KEFI's production plans focus on the rapid build-up of surplus cash within the operation along with the build-up of large ore stockpiles in order to provide flexibility to cope with unanticipated start-up risks, the development of the underground mine and also the de-leveraging of the balance sheet as soon as the operation has settled down.

For the purposes of our valuation, we have assumed that KEFI will repay the lease over the course of the life of operations according to its terms (see Exhibit 1), although the option does exist to repay the lease early, with no early repayment penalty from year three. As such, our model implicitly assumes that ownership of the on-site infrastructure reverts to KEFI in FY28. On the basis of these assumptions and converted at the appropriate foreign exchange rate of US$1.3067/£ (vs US$1. 2938/£ previously), we calculate that KEFI is capable of generating average cash flows from operations of c £44.4m pa for the seven years from 2020 to 2026 (inclusive). A simple discounted cash-flow (DCF) valuation of this stream yields a value of £67.2m at a 10% discount rate, equivalent to 15.2p per existing KEFI share (attributable). After dilution, lease repayments, debt repayments and capex, these cash flows translate into average (maximum potential) dividends of 4.11p/share for the six years from 2023 to 2028 inclusive, which have a net present value of 10.4p/share (discounted back to FY17 at a rate of 10% per year), rising steadily to 18.83p in 2024:

Exhibit 7: Edison estimate of life of mine KEFI fully diluted EPS and maximum potential DPS (pence/share)



Source: Edison Investment Research. Note: DDF = discounted dividend flow.

Note that this analysis is based on projected dividend flows only and ignores the exploration and development of the pipeline of targets in the KEFI portfolio.

Financials

KEFI had net cash of £0.41m on its balance sheet as at 31 December 2016. In February 2017, it raised an additional £5.62m (gross) via the issue of 1.7bn shares at a price of 0.33p (pre a 17:1 consolidation), including £4.62m from Lanstead. In common with its working practices, the Lanstead agreement involves the issuance of a fixed number of shares up-front and is governed according to a 'sharing agreement' and structured relative to a benchmark price, which has been set at 0.44p/share (pre-consolidation), such that KEFI may receive more than £4.62m if the share price exceeds this level and vice versa if it does not. To this end, £0.693m was contributed immediately by Lanstead, with the balance being paid in equal instalments of £0.218m per month (subject to upward or downward adjustments) for 18 months from shareholder authorisation of the deal. As a result, Lanstead is now KEFI's largest single shareholder, with approximately 26% of its issued capital, ahead of Odey with a c 16% interest.

Further, on 27 April 2017, KEFI announced that it had received ETB30m (c US$1.3m at ETB23.00/US$, or c £1m) of the ETB73m VAT refund owed to it by the Ethiopian Revenues & Customs Authority, and that it had come to an agreement to receive the remainder of the funds over the course of the subsequent two months. The VAT refund was agreed following KEFI's repayment of an inherited "Reverse VAT Liability" within an agreed three-year schedule ending in December 2016.

In the meantime, KEFI's cash burn rate reduced to £5.3m in FY16, including capex. This compares to historical cash burn rates of £2.0m in H116, £3.6m in H115, £6.6m in FY15 and £6.3m in FY14.

Exhibit 8: Financial summary

£000s	2013	2014	2015	2016	2017e	2018e
Year end 31 December	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS						
Revenue	0	0	0	0	0	0
Cost of Sales	(927)	(2,071)	(1,634)	(2,260)	(2,135)	(2,135)
Gross Profit	(927)	(2,071)	(1,634)	(2,260)	(2,135)	(2,135)
EBITDA	(927)	(2,071)	(1,634)	(2,260)	(2,135)	(2,135)
Operating Profit (before amort. and except.)	(927)	(2,189)	(1,724)	(2,315)	(2,190)	(2,190)
Intangible Amortisation	0	0	0	0	0	0
Exceptionals	(442)	(379)	(428)	1,944	0	0
Other	0	0	0	0	0	0
Operating Profit	(1,369)	(2,568)	(2,152)	(371)	(2,190)	(2,190)
Net Interest	4	(413)	(319)	(136)	6	(8,192)
Profit Before Tax (norm)	(923)	(2,602)	(2,043)	(2,451)	(2,184)	(10,382)
Profit Before Tax (FRS 3)	(1,365)	(2,981)	(2,471)	(507)	(2,184)	(10,382)
Tax	0	0	0	0	0	0
Profit After Tax (norm)	(923)	(2,602)	(2,043)	(2,451)	(2,184)	(10,381)
Profit After Tax (FRS 3)	(1,365)	(2,981)	(2,471)	(507)	(2,184)	(10,382)
Average Number of Shares Outstanding (m)	29.0	56.0	92.8	194.9	349.9	487.6
EPS - normalised (p)	(7.4)	(6.2)	(3.0)	(1.6)	(0.8)	(1.7)
EPS - normalised and fully diluted (p)	(7.4)	(6.2)	(3.0)	(1.5)	(0.8)	(1.6)
EPS - (IFRS) (p)	(4.7)	(5.1)	(2.7)	(0.3)	(0.6)	(1.6)
Dividend per share (p)	0.0	0.0	0.0	0.0	0.0	0.0
Gross Margin (%)	-	-	-	-	-	-
EBITDA Margin (%)	-	-	-	-	-	-
Operating Margin (before GW and except.) (%)	-	-	-	-	-	-
BALANCE SHEET						
Fixed Assets	7,152	9,299	11,926	14,053	31,307	91,210
Intangible Assets	6,900	9,139	11,845	13,992	13,266	12,540
Tangible Assets	252	160	81	61	18,041	78,670
Investments	0	0	0	0	0	0
Current Assets	4,014	1,061	1,012	3,561	128,630	46,206
Stocks	0	0	0	0	0	0
Debtors	655	335	358	3,056	247	247
Cash	3,279	640	562	410	128,288	45,864
Other	80	86	92	95	95	95
Current Liabilities	(3,363)	(3,202)	(1,995)	(2,067)	(2,067)	(2,067)
Creditors	(3,363)	(3,202)	(1,995)	(2,067)	(2,067)	(2,067)
Short term borrowings	0	0	0	0	0	0
Long Term Liabilities	0	0	0	0	(117,854)	(105,137)
Long term borrowings	0	0	0	0	(103,314)	(91,091)
Other long term liabilities	0	0	0	0	(14,540)	(14,045)
Net Assets	7,803	7,158	10,943	15,547	40,016	30,212
CASH FLOW						
Operating Cash Flow	(1,424)	(2,006)	(2,729)	(2,211)	674	(2,135)
Net Interest	4	(413)	(319)	(136)	6	(8,192)
Tax	0	0	0	0	0	0
Capex	(877)	(3,133)	(3,507)	(3,014)	(18,035)	(60,683)
Acquisitions/disposals	(1,083)	(750)	0	16	0	0
Financing	4,735	3,663	6,480	5,192	27,379	1,304
Dividends	0	0	0	0	0	0
Net Cash Flow	1,355	(2,639)	(75)	(153)	10,024	(69,706)
Opening net debt/(cash)	(1,924)	(3,279)	(640)	(562)	(410)	(10,434)
HP finance leases initiated	0	0	0	0	0	0
Other	0	0	(3)	1	0	0
Closing net debt/(cash)	(3,279)	(640)	(562)	(410)	(10,434)	59,272

Source: KEFI Minerals sources, Edison Investment Research

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