

**First modern mine  
planned for Ethiopia:  
Tulu Kapi Gold Mine**



AIM listed KEFI Minerals plc (KEFI) is focussed on gold and copper deposits, primarily in the highly prospective Arabian-Nubian Shield (ANS) area.

KEFI's vision is to be a dividend-paying high-growth mining leader in the ANS.

Shares on issue	553M
Market Capitalisation at 2.5p	£14M
NPV of 54% of Tulu Kapi Open Pit only, at start construction	£44M
NPV of 54% of Tulu Kapi Open Pit only, at start production	£74M

A 10% increase in tpa throughput at Tulu Kapi increases NPV by c. 50%

A 10% increase in gold price above base case \$1,300/oz also increases NPV by c. 50%

Underground extensions, satellite deposits and Saudi targets provide further upside

KEFI has established a powerful platform, with pole position in the two largest countries of the ANS, both of which have recently installed pro-development Government leadership.



Location of KEFI's portfolio within Ethiopia and Saudi Arabia, in the Arabian-Nubian Shield (ANS)

- **Feb 18: resignation of Prime Minister Hailemariam**
  - **April 18: appointment of new Prime Minister Dr Abiy Ahmed**
  - **April-June: new Ministry, new Governor of central bank and new V.P. of Oromia Regional Govt**
  - **July:**
    - **New Govt leadership responds positively to all KEFI requests as regards project finance plans**
    - **Local institutional investors re-affirm intention to invest \$30M in Tulu Kapi**
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- **2018 is a year of transformative change in Ethiopia on many fronts. The installation of vigorous and progressive new Government leadership in April 2018 appears to be propitious for mining and KEFI**
  - **Ethiopian gold export revenues have shrivelled during 2017 and Tulu Kapi is a welcome initiative**
  - **KEFI's Tulu Kapi gold project shaping up to be the first internationally financed mine development**
  - **Ethiopian Government and a range of institutional investors are ready to invest \$50M equity**

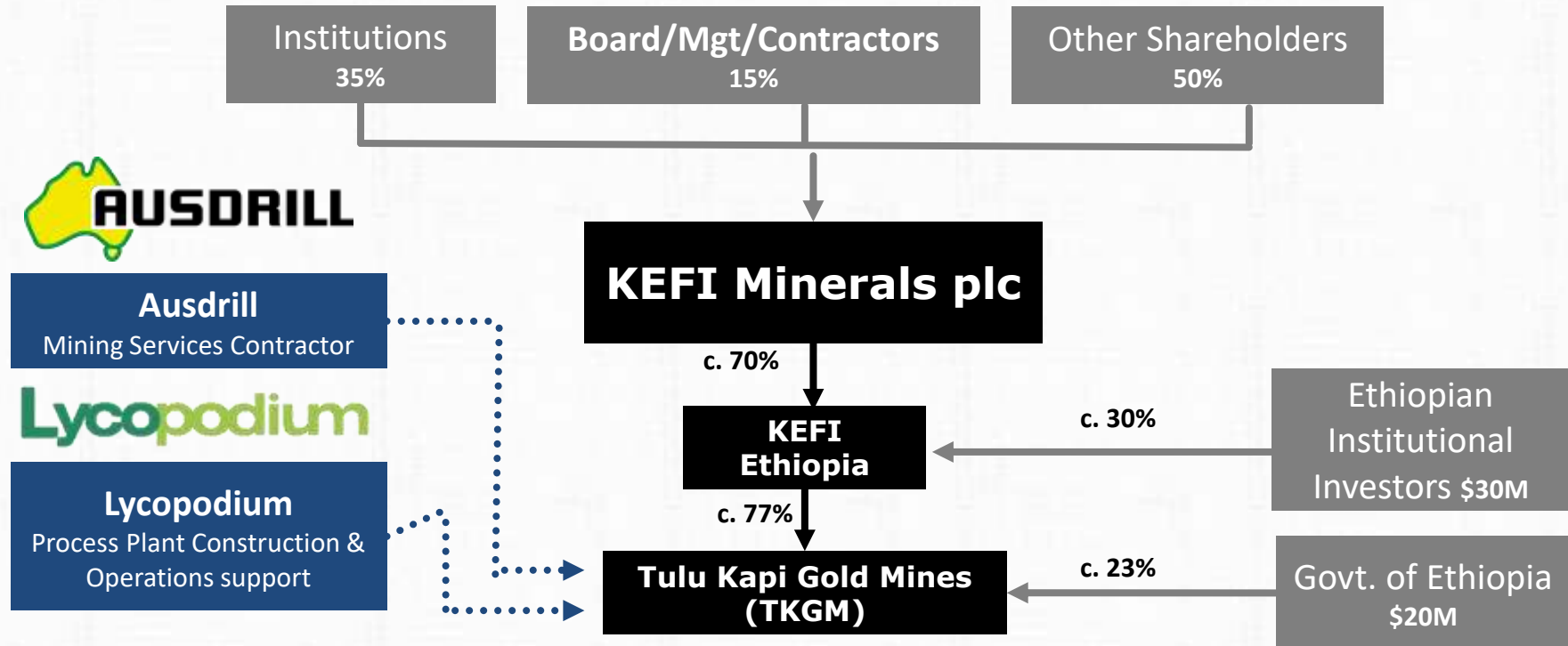
# KEFI's History in Ethiopia



- 10 years up to 2014, when KEFI took control: exploration and engineering designs at a cost of c. \$50M
  - 2015: KEFI Development Plans approved by Council of Ministers and central bank approved financing plan
  - 2016: KEFI appointed specialist contractors for development of mine and on-site infrastructure
  - 2017: TKGM formed with Govt. Power and Roads Authority commit to install off-site infrastructure by 2019
  - 2018: KEFI replaced banks which withdrew in 1<sup>st</sup> State of Emergency and withstood 2<sup>nd</sup> State of Emergency
  - 2018: KEFI has successfully aligned with local community, Govt and local investors
  - 2018: plan to close finance, start community resettlement and trigger project development
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# TKGM – Corporate Structure



All consortium parties are either listed companies or government entities (thereby providing transparency, suitable regulation and accountability at all levels). All parties will undertake both a project responsibility role and a project investment role:

- **TKGM** – to provide \$110M of equity funding and assume overall control of the project (past equity is \$60M and additional planned is \$50M)
- **Government of Ethiopia** – to provide \$20M funding and operate all off-site infrastructure
- **Ausdrill** – to supply and operate the mining fleet (on a cost per tonne basis)
- **Lycopodium** – performance guarantee on process plant designed and supplied for fixed price. Cost-based assembly with incentivised targets.
- **Additional Project Equity Investors** – Ethiopian institutional investors plan to invest \$30M in KEFI Ethiopia

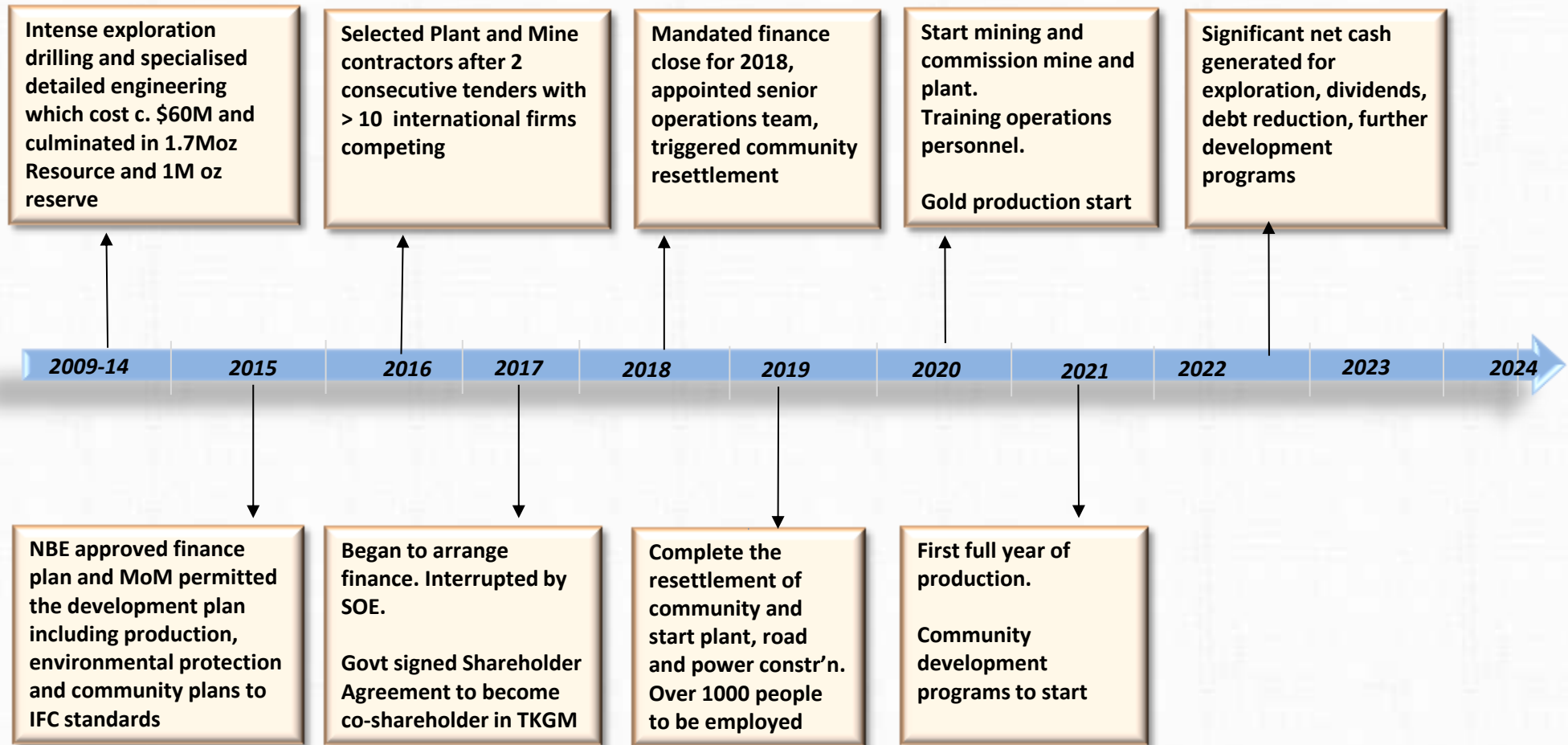


Lycopodium is mainly African-based, having built 57 gold plants and worked in over 20 African countries over a period of over 20 years. It has also worked in Australia, Asia and Europe.

Ausdrill / African Mining Services has developed a mainly African based business over a 27 year period where 97% of employees are nationals. It currently conducts mining operations for clients in Ghana, Mali, Bukino Faso, Senegal and drilling services in other countries also.

These contractors will be co-ordinated by TKGM and will train the local workforce with TKGM.

# TULU KAPI'S TIMETABLE



- KME/TKGM has already provided a local school and water wells
- Majority local employment of current site teams
- Extensive consultation, as co-ordinated by Woreda, for resettlement compensation and actual move
- Facilitated selection of new host lands from 17 alternative sites offered by the authorities
- Committed to supporting development of new host lands
- Committed to Livelihood Restoration Programs
- Committed to Community Development Programs
- Committed to maximisation of local procurement and employment, with support for training
- We plan over 1000 local jobs by the end of 2019





## Sources and Uses Excluding Tulu Kapi Project Capital Expenditure

<b>SOURCE AND USE OF FUNDS STATEMENT - June 2018 to Dec 2018</b>	
	<b><u>£000's</u></b>
<b>Cash and Working Capital Facilities at May 2018</b>	<b>574</b>
June-July 2018 Placing	5,500
Project Equity	22,500
Project Debt (1)	120,000
<b>Total Sources</b>	<b>148,574</b>
Costs Paid in Shares	(2,728)
Creditor Payment in Cash	(807)
KEFI costs only of implementing Full Project Closing for Construction, Mining and Finance (Contractors, Govt, Debt, Equity incl legals in Ethiopia, Perth, London)	(2,396)
Luxembourg Legals and other Bond Formation Costs	(577)
Addis and Tulu Kapi Costs re Govt and Community	(913)
<b>Total Uses</b>	<b>(7,421)</b>
Working Capital Facility (2)	1,500
<b>Cash at 31 Dec 2018, excluding triggering of development expenditure</b>	<b>142,653</b>

(1) Project Debt shows gross proceeds of proposed Bond Drawdown, assuming 100% drawdown at closing.

(2) Working Capital Facility for £1.5M over 4 months





**Harry Anagnostaras-Adams – Executive Chairman – B. Comm, MBA, Fellow of Australian Institute of Company Directors**

Harry was founder or co-founder of Citicorp Capital Investors Australia, investment company Pilatus Capital, Australian Gold Council, EMED Mining, KEFI Minerals and Cyprus-based Semarang Enterprises. He has overseen a number of start-ups in those and their related organisations principally through the roles of Chairman, Deputy Chairman or Managing Director. He qualified as a Chartered Accountant early in his career while working with PricewaterhouseCoopers.

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**Mark Wellesley-Wood, Non-Executive Deputy Chair, Chair Technical Review Committee – BEng (Mining)**

Mark is a mining engineer, with over 40 years' experience in both the mining industry and investment banking. He has been closely involved in mining activities in Africa, having started his career on the Zambian copper-belt. Mark is a former Executive Chairman and CEO of South African gold miner, DRDGold Limited, and a former director of Investec Investment Banking and Securities in London. He is currently Chairman of AIM quoted Tri-Star Resources plc.

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**Norman Ling, Non-Executive, Chair Nominations Review Committee – BA German and Economic History [Hons]**

Norman was a member of the British diplomatic service for more than 30 years, for the last ten with the rank of ambassador. He has served in a wide range of countries in the Middle East and Africa. His last post, before retirement, was as Ambassador to Ethiopia, Djibouti and the African Union. For the last two years he has been actively involved with development of the mining industry in Ethiopia.

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**John Leach – Finance Director – BA Economics, MBA, MICA (Aust & Canada)**

John has over 25 years' experience in senior executive positions in the mining industry internationally and is currently also a non-executive director of Australian-listed Pancontinental Oil and Gas NL. He is a Member of the Institute of Chartered Accountants (Australia), a Member of the Canadian Institute of Chartered Accountants, and is a Fellow of the Australian Institute of Directors.

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**Harry Anagnostaras-Adams - Executive Chairman** see description under Directors

**John Leach - Finance** see description under Directors

**Below are Senior Executives appointed Feb 2018 to assume line responsibilities in March 2018, in the lead-up to planned development**

### **David Munro - Operations**

David began his career as a mining engineer in underground mining and progressed to manage all parts of the minerals value chain. He has been responsible for mining and smelting operations on five continents and every major commodity.

Managing Director of Billiton BV. Under his leadership this business grew into one of the world's largest and lowest cost integrated producers of primary aluminium. He led the acquisition of control of Worsley Alumina and he brought on the world class Mozal aluminium smelter project.

After the merger of Billiton and BHP to form the world's largest mining company, he was appointed President of Strategy and Development.

As Chief Executive of the then ailing RMC Group plc, once a constituent of the FTSE 100 Index, he overhauled the company's strategy and management. By 2005 the company's prospects had improved and it was sold.

He was also one of the original UK based directors of Kazakhmys plc, the first former Soviet mining company to list on the LSE main board in 2005. As Strategy Director he was instrumental in the establishment of their two major open pit copper projects in Kazakhstan, both of which are now in production.

### **Eddy Solbrandt - Systems**

Eddy began his career in the mining industry in 1986 and has since worked in open cut and underground metalliferous mines, as well as in coal, gold and mineral sands in Australia, New Zealand, USA, Canada, Mexico, UK, Ukraine, Russia, Kazakhstan, Indonesia, Thailand, South Africa, Mozambique and Namibia.

Eddy is founder of GPR Dehler, an independent, international management consultancy which specialises productivity improvement for mining companies worldwide, especially in the areas of human resources development and performance improvement.

He is adept at providing swift assessment, analysis and development of solutions and strategies for achieving strategic, operational and financial objectives integrating process, people and technology. He is a seasoned facilitator experienced in designing and conducting interactive strategy workshops.

### **Brian Hosking - Human Resources & Technical Planning**

Brian began his career as a geologist and had a successful technical career working in a variety of gold, coal and diamond exploration and mining operations with a focus on geology, long term mine planning and ultimately the management of all the geological services of five large operating mines. He is a Fellow of the IOMMM and has an in depth knowledge of the industry having overseen a number of different exploration and mining projects.

In 1990 set up his own human resource consulting firm. Over the next ten years he led the growth and development of this business and oversaw its integration into Transearch International a large global search firm with 45 offices around the world. In this process Hosking was appointed onto the firm's regional executive and in 1999 he was elected to serve on Transearch Board. In this capacity, he relocated to London in 2001 as the COO and Executive Director.

In 2003 Brian set up Meyer Hosking and since then has focused his efforts exclusively on the mining sector developing this niche in London providing strategic services including remuneration advice, management assessment and executive search to a wide range of clients including major FTSE listed entities and smaller start-ups.

Brian has established a strong international reputation as a consultant with an in depth knowledge of the industry. In this capacity he is regularly retained as a strategic advisor to executive management teams and boards across the mining industry.



The Tulu Kapi project lies 360 km due west of Ethiopian capital, Addis Ababa. Access is via a sealed road and the site benefits from main electricity grid access within 50km of the project. Tulu Kapi has a probable ore reserve of 1.05Moz and mineral resources totalling 1.72Moz.

**The project is fully permitted** – the mining agreement formalised in Apr-15, with terms including a 20-year mining licence, 5% Government free carried interest and full permitting for development and operation. Minor ancillary licences are being processed for issuance once community resettled.

Planned gold production is 144koz p.a. for the first 3 years, with net operating cash flow c.\$78M p.a. (at assumed gold price \$1,300/oz) and life of mine open-pit gold production of 980koz at an AISC of c. \$800/oz.

### Project Timeline

- **1930s** Discovered and mined on a small scale by an Italian consortium
- **2009** Nyota Minerals Limited acquired the licences and undertook extensive exploration and drilling
- **2012** Nyota Minerals publish an initial DFS based on a 2.0 Mtpa processing plant, capex \$290M for ~100 Koz pa gold over 10 years
- **Dec-13** KEFI acquires 100% of the project for ~\$10M, equating to a cost of  
**Jun-14** ~\$10/oz reserves for a project with ~\$50M historical expenditure
- **2015** **Mining Licence Granted**
- **2015** DFS completed, evaluated conventional open-pit mining operation and carbon-in leach (CIL) processing
- **2016** International tenders to select project contractors
- **May-17** DFS update, incorporates due diligence and refinements on the 2015 DFS. Process plant capacity of 1.7-1.9Mtpa
- **Oct-17** KEFI announced increased process plant capacity to 1.9-2.1Mtpa, capex c. \$160M for ~140Koz pa gold over 7 years
- **2018** **Financing to start development**



Project development- 1930's to present day

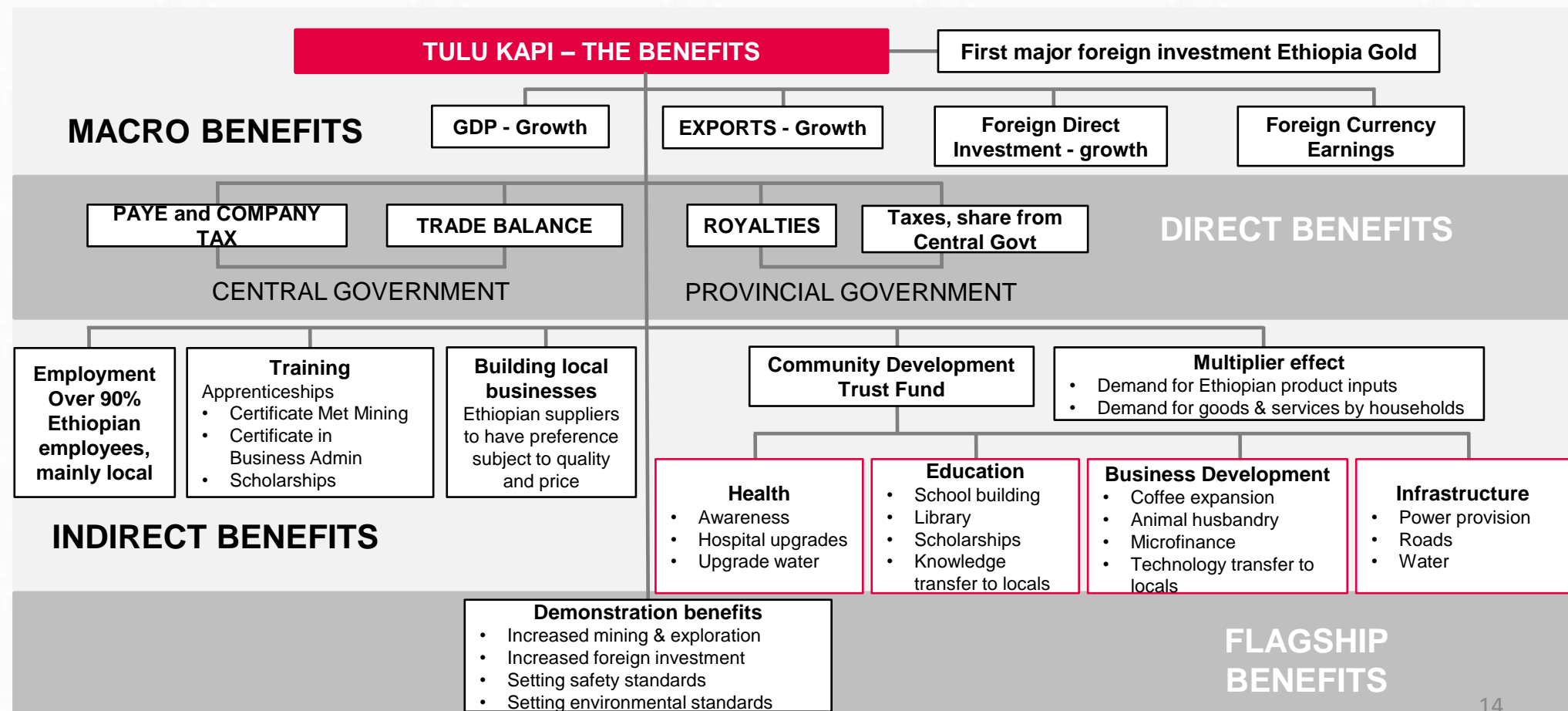
# TULU KAPI

## GOLD MINES S.C.

### CASE STUDY: BENEFITS OF TULU KAPI MINING PROJECT TO ETHIOPIA

**Mining is a long-term activity and has high social impact**

Mining represents c.20% of Africa's economic activity and minerals are the continent's second-largest export category



## Geological Overview

- The Tulu Kapi region comprises typical greenstone characterised by prominent hills of intrusive rocks and deeply incised valleys hosting both metasediments and metavolcanic material
- Gold is hosted in quartz-albite alteration zones as stacked sub-horizontal lenses in a syenite pluton into which a swarm of dolerite dykes and sills have intruded
- Gold mineralisation extends over a 1,500m by 400m zone and is open at a depth of over 400m
- Relatively simple mineralogy comprises gold, silver, pyrite and minor sphalerite and galena – metallurgical recoveries of gold average ~ 93%



Examples of Mineralised Tulu Kapi Drill Core

## Reserves

	Cut-off (g/t)	Tonnage (millions)	Gold Grade (g/t)	Cont. Gold (Moz)
High grade	0.90	12.0	2.52	1.0
Low grade	0.50 - 0.90	3.3	0.73	0.1
		<b>15.4</b>	<b>2.12</b>	<b>1.05</b>

## Resource

		Tonnage (millions)	Gold Grade (g/t)	Cont. Gold (Moz)
Indicated	Below 1,400m	17.7	2.49	1.4
Inferred	Below 1,400m	1.3	2.05	0.1
		<b>19.0</b>	<b>2.46</b>	<b>1.5</b>
Indicated	Above 1,400m	1.1	5.63	0.2
Inferred	Above 1,400m	0.1	6.25	0.0
		<b>1.2</b>	<b>5.69</b>	<b>0.2</b>
Indicated	Total	18.8	2.67	1.6
Inferred	Total	1.4	2.40	0.1
		<b>20.2</b>	<b>2.65</b>	<b>1.7</b>

### Note:

Resources were reported above and below 1,400m RL to reasonably reflect the portion of the resource that would likely be exploited via either open-pit or underground methods.

As part of the due diligence for financing, KEFI has agreed the 2018 Plan with the preferred financier and contractors.

Whilst resources and reserves and the mine plan remain essentially unchanged, the planned process plant has been expanded to a nameplate of 1.9-2.1Mtpa, to reduce stockpiles and expand cash flows.

The 2018 Plan is supported by the:

- draft mining services agreement with Ausdrill/African Mining Services
- draft plant design, supply and construction contracts with Lycopodium
- confirmations of commitment and schedule from Ethiopian Roads Authority and Ethiopian Electricity & Power Corp'n for roads and power
- draft operational arrangements with the explosives, fuel, laboratory services and other ancillary support services
- the draft report by the independent technical experts for the lenders

The implementation plans have been agreed on a base schedule of 24 months from drawdown of project finance to 1<sup>st</sup> gold pour. Incentivised arrangements are proposed for faster start-up.

### 2018 Plan compared with most recent DFS

Key mining and financial parameters from these studies are summarised in the table below.

	2018 Plan	2017 DFS Update	2015 DFS
Stripping Ratio	7.4	7.4	7.4
Total Ore Processed	15,400 kt	15,400 kt	15,400 kt
LOM Head Grade	2.1 g/t	2.1 g/t	2.1 g/t
Gold Recovery	93.3%	93.3%	91.5%
Total Gold Production	980 koz	980 koz	961 koz
Process Plant Throughput	1.9-2.1 Mtpa	1.5-1.7 Mtpa	1.2 Mtpa
Avg. Gold Production (first 8 years)	135koz p.a.	115 koz p.a.	95 koz p.a.
Cash Operating Costs	\$701/oz	\$684/oz	
All-in Sustaining Costs	\$793/oz	\$801/oz	
All-in Costs (incl. initial capex)	\$973/oz	\$937/oz	
NPV at start of construction (8% real discount rate) (after debt)	\$115M/£82M	\$69M	
NPV at start of production (8% real discount rate) (after debt)	\$192M/£137M	\$159M	
NPV at start of production (8% real discount rate) (before debt)	\$337M	\$289M	
Payback Period	3 years	3 years	
Net Operating Cash Flow (average for first 8 years)	\$73M p.a.	\$60M p.a.	

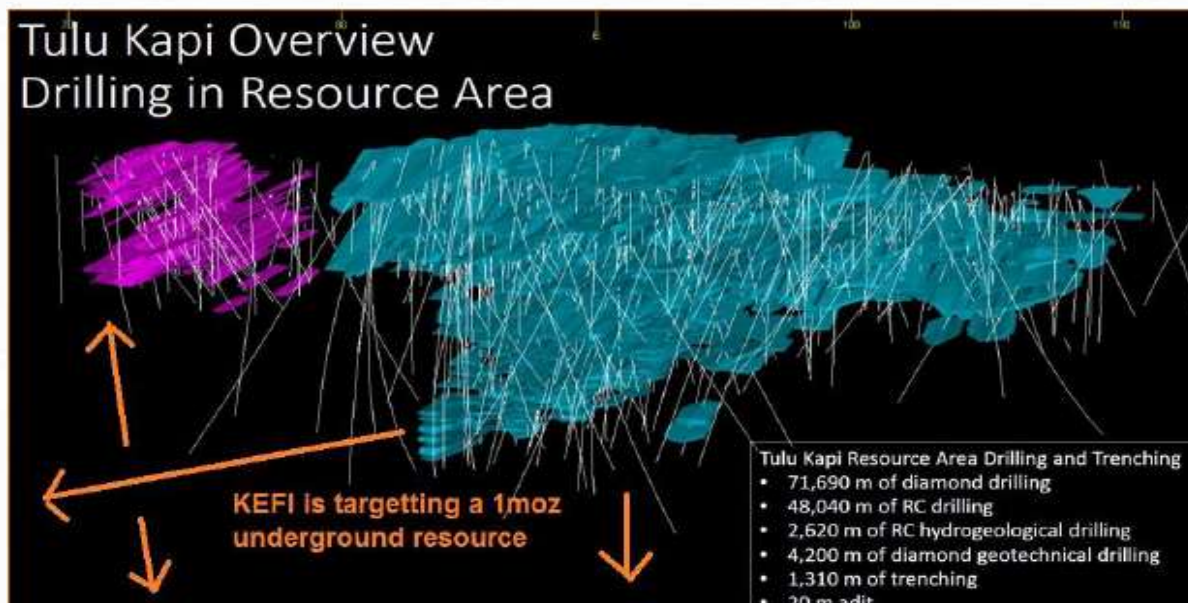
*Note: Both cases at a gold price of \$1,300/oz.*



## Tulu Kapi – Underground Potential

Gold mineralisation may extend both beneath the current drilling, and 600m to 800m further to the north – potential for 1 Moz below current open pit.

- Base Case Internal PEA on the August 2014 resource of 1.45Mt at 6.3g/t (333koz contained gold) extends beyond current open pit both laterally and horizontally
- Applied mining dilution of 15% at 0.75g/t gold and 10% ore losses
- Converted (76% conversion rate) to a mineable resource of 1.3Mt at 5.2g/t, (217koz gold)



View looking East

### EXISTING UNDERGROUND RESOURCE

Ore mined	320,000 tpa at 5.2g/t
Life of Mine	4 years
Gold production	47,600 oz p.a.
CapEx	\$36.5M (initial)
Operating costs	\$85/t
All-in Cost (including capex)	\$765/oz
Cash flow A/Tax at \$1,300/oz	\$19M p.a.
After-Tax NPV (8%) at \$1,300/oz*	\$33M

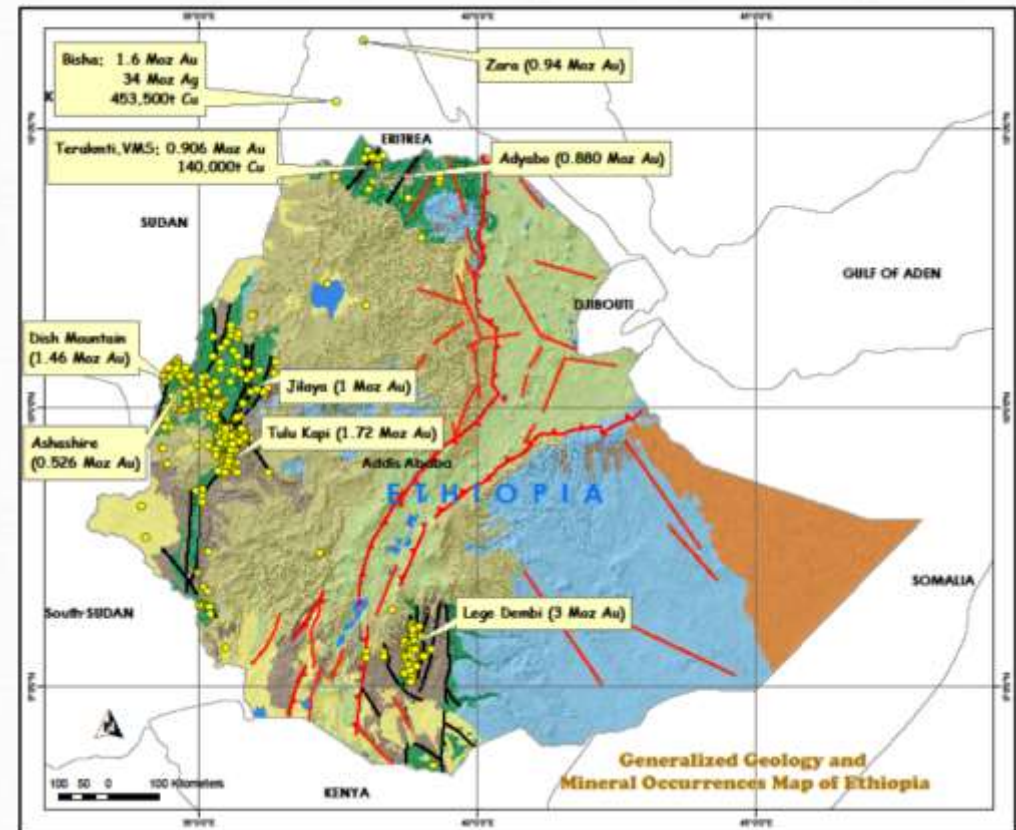
KEFI is well positioned to capitalize through to 2020 on its excellent portfolio of Ethiopian exploration projects whilst the Tulu Kapi Project undergoes concurrent development. KEFI has an area set aside in principle by Government, for exploration of prospects within trucking distance of Tulu Kapi, for grant upon commencement of development.

### Ethiopia – an Emerging Gold Province

- Early days for the modern mining industry in Ethiopia
- Highly prospective with limited modern exploration undertaken
- Lege Dembi is the only operating gold mine
- Dish Mountain and Ashashire represent an undeveloped gold district of more than two million ounces
- East African's high-grade copper gold projects at Terakimti and Adyabo are now at the feasibility stage
- KEFI is targeting gold, base-metals and strategic metals throughout Ethiopia and has strong relationship with, as well as significant investment from, Ethiopian Government

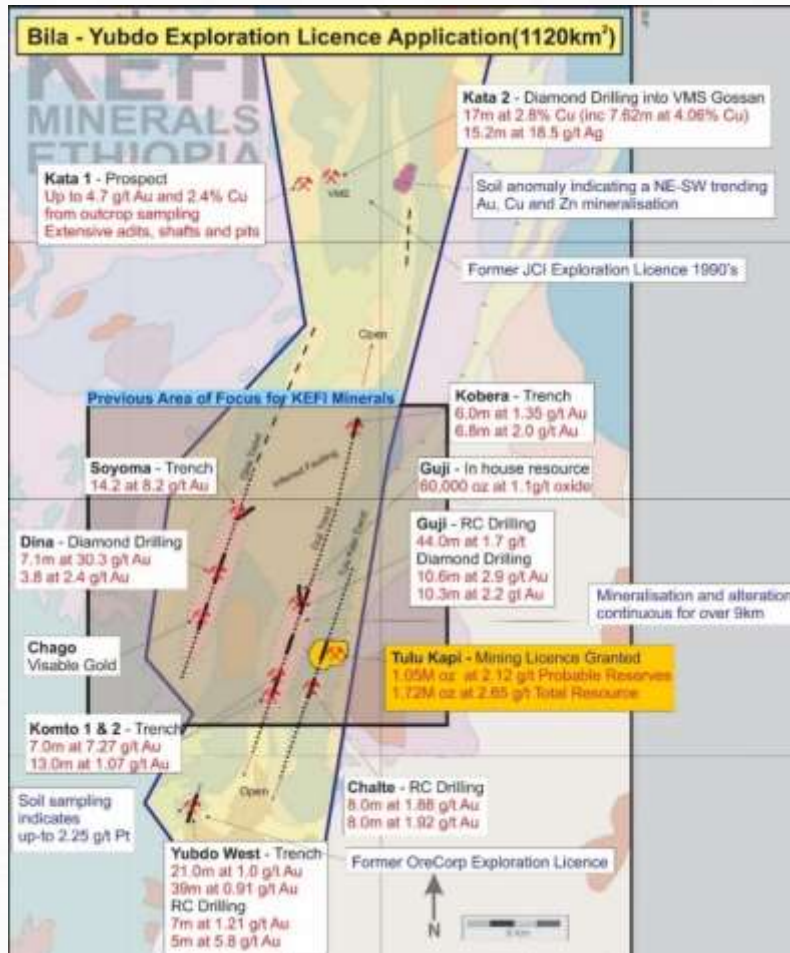
### Current Exploration Potential

- High-grade underground indicated resource at Tulu Kapi has potential to expand to over a million ounces
- Low cost, open-pit satellite mines within 10km of Tulu Kapi have the potential to add 30-40koz per annum capacity relatively rapidly
- A new VMS copper district 50 km north of Tulu Kapi has been identified, historic drilling from the 1970s intersected high-grade copper (14.3m at 3.2% copper)



Artisanal mines, prospects and major Au and Cu deposits in Ethiopia

# Opportunities for Satellite Deposits



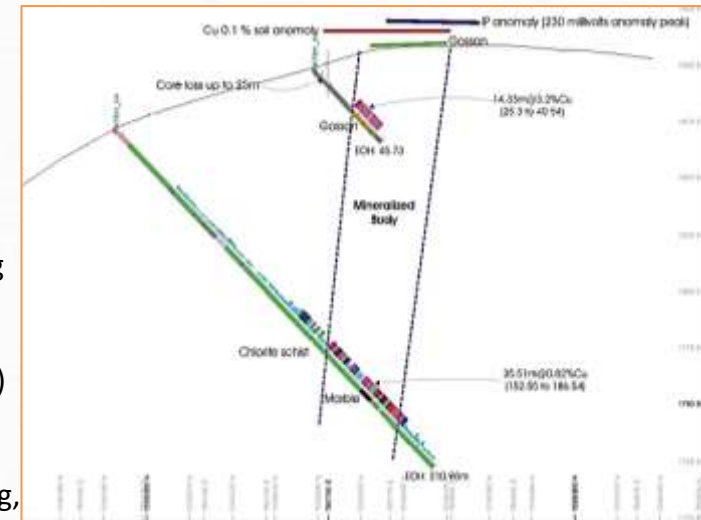
## District Exploration Opportunities

KEFI can quickly add to Tulu Kapi open-pit gold production by developing:

- Potential for oxide ore in a series of shallow open-pits (40m depth) along the more than 9km of Komto-Guji Belt, all within trucking distance of planned TK plant
- Tulu Kapi plant has potential for elevated throughput rates on soft oxidised ore
- Preliminary metallurgical testing also indicates amenability for heap leach if TK plant capacity becomes restrictive

## VMS Prospect

- High-grade copper in new VMS prospect within 50km of Tulu Kapi Mining Licence
- United Nations drilled six diamond holes in the 1970's along a 600m strike, mineralisation is open along strike and at depth, and soil geochemistry defines a >2km copper anomaly (gold not assayed)
- KEFI would twin some previous holes and extend the strike of the known 600m defined by UN drilling, mapping and IP





# **Saudi Arabian Projects**

**A 40/60 joint venture with Saudi conglomerate ARTAR**





# THE ARABIAN-NUBIAN SHIELD

The Arabian-Nubian Shield (ANS) is an exposure of Precambrian crystalline rocks on the flanks of the Red Sea.

Geographically the ANS includes Israel, Jordan, Egypt, Saudi Arabia, Sudan, Eritrea, Ethiopia, Yemen, and Somalia.

The ANS is believed to be the next major exploration frontier in Africa, with some likening its potential to that of the recent West African mineral exploration boom.

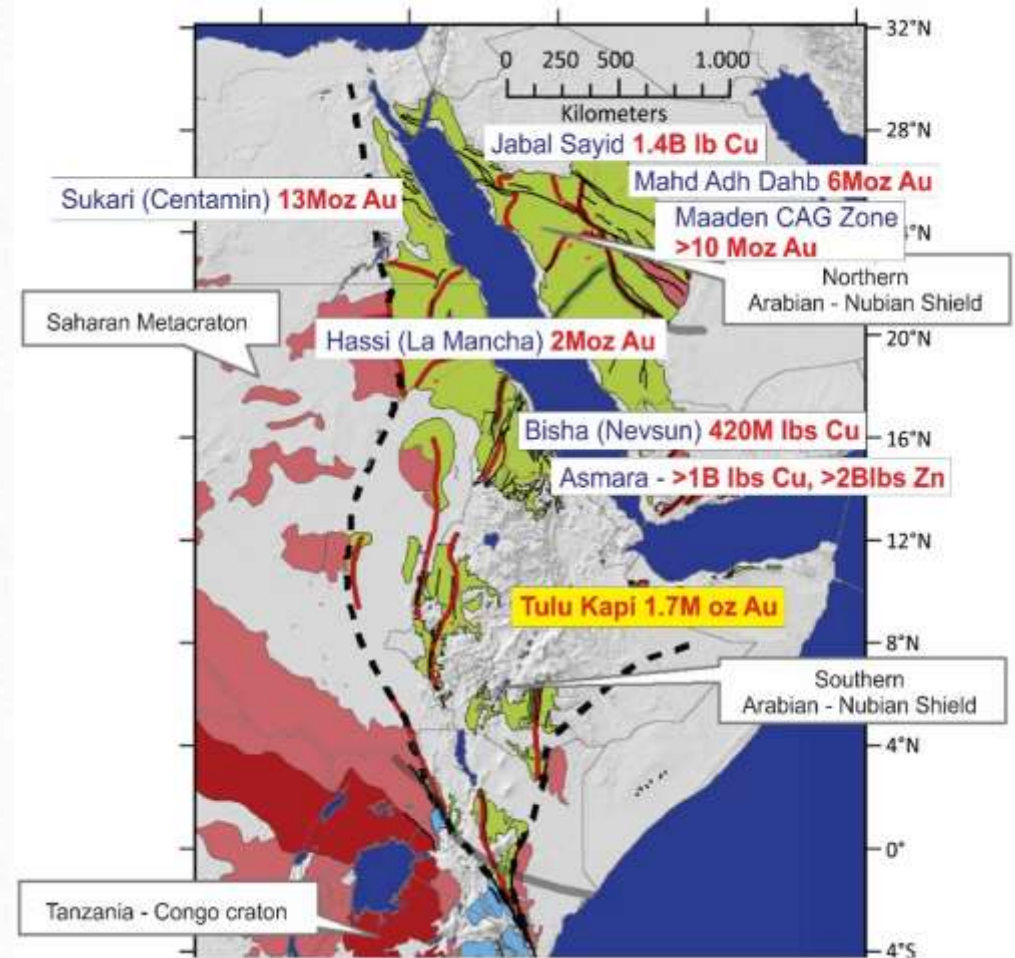
Much of the mineral potential has yet to be explored by modern techniques, but to date discoveries have included a variety of deposit types, including mesothermal gold or polymetallic, quartz vein gold and volcanogenic massive sulphide (VMS) ore deposits.

Some significant deposits in the Arabian-Nubian shield:

- **Sukari deposit in Egypt** – Centamin
- **Bisha deposit in Eritrea** – Nevsun Resources
- **Hassai deposit in Northern Sudan** – La Mancha Resources
- **Jabal Sayid in Saudi Arabia** – Barrick Gold

Regional explorers include Newmont and Menagem.

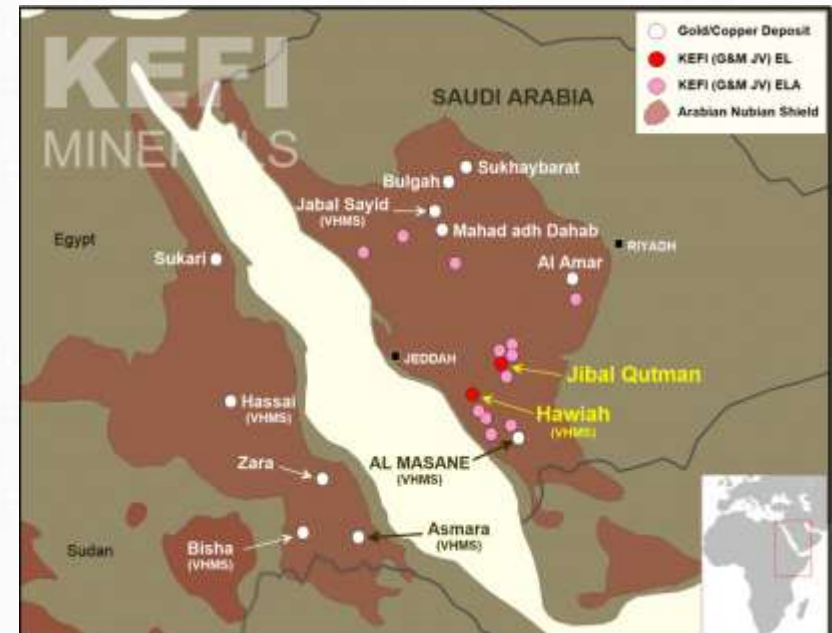
An example of growth potential is that Sudan's gold production has increased 20-fold in 10 years.



### ARTAR Partnership – Gold and Minerals Ltd (G&M) Joint Venture

- KEFI has been active in Saudi Arabia since 2008 and is partnered with ARTAR, a leading locally owned industrial group
- Saudi Arabia is instituting policies to encourage minerals exploration and development, resulting in a resurgence of the Kingdom's minerals sector
- KEFI, as 40% shareholder and technical partner in G&M, is well placed to advance and develop projects in line with the new regulations
- G&M's primary goal is the discovery and development of a one million ounce plus gold equivalent deposits. Currently the company is focused on two projects:
  - **Jibal Qutman** – Exploration Licence granted in Jul-12, since then KEFI has rapidly identified mineral resources totalling more than 700koz and is now evaluating gold production via an open-pit, heap leach operation
  - **Hawiah** – Exploration Licence granted in Dec-14, KEFI commenced exploration of an unusually large gossan for gold at the surface and a VMS copper-gold-zinc sulphide ore body at depth, the geological setting is analogous with the large VMS deposits in the Arabian-Nubian Shield that are known for well-preserved, mature oxidised zones enriched with near surface gold

**Further exploration potential** – G&M currently has Exploration Licences and pending applications covering more than 1,000km<sup>2</sup> and further exploration will target both gold and copper-gold mineralisation.





## Tenement Locations in the Arabian Shield







Local community consultation before development starts at Tulu Kapi

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