

Uranium

Established 1835

Minjng Journal

A supplement to Mining Journal

**A-Cap Resources • Aura Energy
Continental Precious Minerals
European Uranium Resources • Geiger Counter
Government of Newfoundland and Labrador
Macusani Yellowcake • SRK • Toro Energy
Uranium Resources • U3O8 Corp**



The global picture

Prospects for the nuclear industry through 2012 and beyond

Fears that the nuclear renaissance is dead seem to be unfounded. Prices of uranium have stabilised over the past few months and, while dominant feeling is that it is still too early to say what the real consequences of Fukushima will be, most of the countries that had a nuclear programme pre-Fukushima have re-affirmed their commitment to nuclear energy.

Ian Emsley, of the World Nuclear Association, says: "Most, if not all, countries reviewed the safety of their reactors and generally those countries that were pro-nuclear are still pro-nuclear and only those countries that were already bit dubious pulled their policies."

Two operating uranium mines exist in northern Saskatchewan: McArthur River (shown) and Rabbit Lake



"We obviously know more than we did nine months ago, but the full story on Fukushima will only be clear when we see the response of regulators. However, we can be fairly confident that nuclear will continue to be a significant part of the world's energy portfolio." Mr Emsley's confidence seems justified as companies operating in the sector are now fairly bullish and the International Energy Agency's low nuclear case suggests that were nuclear output to be halved, although this would be welcomed by the renewables sector, such a slowdown would increase import bills, heighten energy security concerns and make it harder and more expensive to combat climate change.

The Organisation for Economic Co-operation and Development (OECD) says that it is expecting much of the future growth in nuclear capacity to be in non-OECD countries. China, in particular, has begun a rapid expansion of nuclear capacity and, as it is cited as likely to be one of the most energy-hungry countries in the world, it has an urgent need to ensure that it can meet its energy needs in an affordable way.

China called a halt to all planned reactors while it conducted its post-Fukushima safety review. They have now announced that all the requirements stipulated in the safety review have been met. In December 2011, the National Energy Administration said that China will make nuclear energy the foundation of its power-generation system in the next "10-20 years", adding as much as 300GWe of nuclear capacity over that period.

Two weeks earlier, the NDRC vice-director said China would not swerve from its goal of greater reliance on nuclear power. The former head of the NEA said that full-scale construction of nuclear plants would resume in March 2012.

Tokyo Electric Power Co's Fukushima Dai-Ichi nuclear power station in Okuma

Photo: Bloomberg News



In September 2010, the *China Daily* reported that China National Nuclear Corporation (CNNC) alone planned to invest Yu800 billion (US\$120 billion) into nuclear energy projects by 2020. Total investment in nuclear power plants, in which CNNC will hold

controlling stakes, will reach Yu500 billion by 2015, resulting in 40GWe on line, according to CNNC.

To fund the company's expansion target, CNNC planned to list its subsidiary, CNNC Nuclear Power Co Ltd in 2011, to attract strategic investors. Robert Vance, of the OECD, says: "China is a key growth area in the longer term. Their need for power that reduces atmospheric emissions is critical. Here I am not

"The OECD says that it is expecting much of the future growth in nuclear capacity to be in non-OECD countries"

just thinking about reducing greenhouse gas emissions but combating serious air-quality issues in general. China sees nuclear as a viable way of addressing that problem and have pretty solid plans for pretty significant growth."

He adds: "Even if the rest of the world stood still, growth in China would be enough to keep the industry growing for quite some time."

India's vision

India is another country that is very pro-nuclear and has a vision of becoming a world leader in nuclear technology due to its expertise in fast reactors and thorium fuel cycle.

It has a flourishing and largely indigenous nuclear power programme and expects to have 20,000MWe nuclear capacity by 2020 and 63,000MWe by 2032 as

CONTENTS

The global picture	2
A unique metal	9
Uranium usage	11
Uranium: a good bet for investors in 2012?	13
Can uranium production keep pace with global energy demand?	19
Technology meets the needs of the industry	22
Advertisements	
Continental Precious Minerals	24
Geiger Counter	12
SRK	3
Company profiles	
A-Cap Resources	4
Aura Energy	6-7
Continental Precious Minerals	8
European Uranium Resources	10
Government of Newfoundland and Labrador	14
Macusani Yellowcake	16-17
Toro Energy	18
Uranium Resources Ltd	20
U3O8 Corp	22

Cover design: Tim Peters

Editorial

Louisa Seymour E louisa.seymour@btinternet.com

Production editor / designer Tim Peters

Sub editors Vickie Johnstone / Woody Phillips

Editorial enquiries T +44 (0)20 7216 6060 F +44 (0)20 7216 6050 www.mining-journal.com

Advertising production Sharon Evans E sharon.evans@aspermontuk.com

Advertising

Advertisement, subscriptions and circulation director

Contact: Gareth Hector

Aspermont UK, Albert House, 1 Singer Street, London EC2A 4BQ, UK

T +44 (0)20 7216 6060 F +44 (0)20 7216 6050

E gareth.hector@aspermontuk.com

Sales manager - supplements

Richard Verth

T +44 (0)20 7216 6068

E richard.verth@mining-journal.com

Subscriptions and circulation Stuart Balk T +44 (0)20 7216 6064 E stuart.balk@aspermontuk.com

Subscription enquiries T +44 (0)20 8955 7050 F +44 (0)20 8421 8244 E subscriptions@aspermontuk.com

PO Box 1045, Bournehall House, Bournehall Road, Bushey WD23 3ZQ, UK

Chief executive officer David Nizol

Chairman Andrew Kent

This supplement is published with *Mining Journal*, published weekly, which is available only as part of a subscription with *Mining Magazine* and *Mining, People and the Environment*, plus online access.

Annual subscription -
UK and Europe £360 (\$580 euros)
Rest of the world US\$650

Published by Aspermont UK, Albert House, 1 Singer Street, London EC2A 4BQ, UK. Printed by Stephens & George Magazines, Merthyr Tydfil, UK.

Registered as a newspaper at the Post Office.

Subscription records are maintained at Aspermont UK, PO Box 1045, Bournehall House, Bournehall Road, Bushey WD23 3ZQ

Aspermont UK publisher and owner of Mining Journal (the publisher) and each of its directors, officers, employees, advisers and agents and related entities do not make any warranty whatsoever as to the accuracy or reliability of any information, estimates, opinions, conclusions or recommendations contained in this publication and, to the maximum extent permitted by law, the publisher disclaims all liability and responsibility for any direct or indirect loss or damage which may be suffered by any person or entity through relying on anything contained in, or omitted from, this publication whether as a result of negligence on the part of the publisher or not. Reliance should not be placed on the contents of this magazine in making a commercial or other decision and all persons are advised to seek independent professional advice in this regard.

Aspermont
UK
 Information for Industry

© Aspermont UK 2012 ISSN 0026-5225

was announced by Indian Power Minister Sushilkumar Shinde last month. Since India is outside the Nuclear Non-Proliferation Treaty due to its weapons programme, it was for 34 years largely excluded from trade in nuclear plant or materials. However, the country is now part of the international trading network for their nuclear programme, which sets the stage for them to go after really aggressive growth.

These trade bans and lack of indigenous uranium mean that India has uniquely been developing a nuclear fuel cycle to exploit its reserves of thorium. Now, foreign technology and fuel are expected to boost India's nuclear power plans considerably. All plants will have high indigenous engineering content.

In March 2012, the go-ahead was given for the controversial Kudankulam plant to proceed and, in a statement, Tamil Nadu Chief Minister J Jayalittaa said: "Immediate steps will be taken for the speedy commissioning of the nuclear power plant at Kudankulam; I hope everybody will co-operate with the state's decision to open the plant."

The objections from some local public to the Kudankulam plant demonstrate that, in some ways, public confidence is an issue in India and even in China. And this is mirrored in the rest of the world. Mr Vance says: "A key issue for most countries is how is the public confidence issue going to be addressed. Governments want to meet their country's energy demand and, with nationally-based utilities and economies, finding the money is not too much of an issue. The challenge is to build public confidence in a nuclear programme and the jury is still

Manmohan Singh, India's prime minister, arrives for the first plenary session at the 2012 Seoul Nuclear Security Summit in Seoul, South Korea, on March 27. India has a vision of becoming a world leader in nuclear technology

Photo: Bloomberg News



out on how effectively that will be done."

Russia is moving steadily forward with plans for a much expanded role of nuclear energy, nearly doubling output by 2020. Russia is a world leader in fast-neutron reactor technology, and exports of nuclear goods and services are a major Russian policy and economic objective. However, this may well be the driver in the rapid nuclear development of a number of former USSR countries that are keen to shake off their dependency on Russia and become energy self-sufficient.

The prospects for nuclear are very country-specific and the reality is that Fukushima has not radically altered the global position on nuclear development.

European players

Within Europe, there are no real surprises. The UK is leading the field with significant planned investment in new nuclear while Germany cancelled its programme completely and the Italian people have voted firmly against a nuclear programme. Switzerland has no



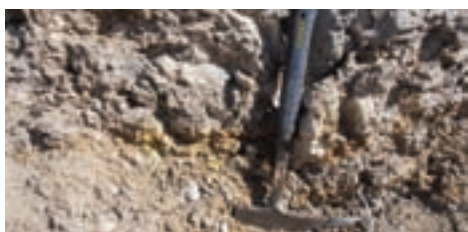
An Indian open-pit uranium mine

plans to renew the current generation of reactors and Sweden is actively debating its programme. However, nations that were positive are still positive.

The Germans have a strong commitment to renewables but it is going to be quite expensive for them to phase out their domestic nuclear programme. In the short term, this policy reversal has already cost German utility companies a lot and it is certain that, as time goes on, utility P&L will be hit harder. German utility companies are suing the federal government for the financial loss they suffered when they had to shut down very profitable assets once Germany's nuclear policy changed.

France, which has a very vigorous nuclear programme, already has cheaper per-capita costs for energy than Germany. What will be interesting is to see how much Germany will be required to pay for energy once it is importing all its nuclear share of power.

Clearly, countries that export nuclear power will want to charge whatever the market will bear and, in



Global Expert Independent Advice

 **srk** consulting

>1,000 professionals • >40 offices • 21 countries • 6 continents

www.srk.co.uk • www.srkexploration.com • www.srk.se.com • www.turkiye.com • www.srk.ru.com • www.srk.kz

- Exploration
- Geological and Resource/Reserve Modelling
- Mining Engineering
- Geotechnical & Hydrogeological Engineering
- Metallurgy & Mineral Processing
- Tailings & Waste Engineering
- Hydrology & Water Management
- Environmental & Social Management
- Infrastructure
- Scoping, Pre & Full Feasibility Studies
- Business Strategy Consulting
- Due Diligence & Mineral Asset Valuations

A-Cap: committed to delivering Botswana's first uranium mine

A-Cap Resources Ltd (A-Cap) (ASX:ACB) is a resource company listed on the Australian Securities Exchange and the Botswana Stock Exchange. Its primary asset is the 100%-owned Lethakane Uranium Project, one of the world's largest undeveloped uranium deposits, in northeastern Botswana.

The Lethakane Uranium Project has a JORC-compliant global resource of 261Mlb of uranium oxide. The defined resource is still open along strike to the west, indicating that additional resource growth is highly likely. A-Cap's exploration team is confident that the resource inventory will continue to grow with further exploration and is targeting, a global resource of 300Mlb of contained U₃O₈.

A-Cap holds 12 prospecting licences (PLs) across Botswana that encompasses 6,000km². Recent activities have largely focused on the Lethakane and the Southern Pans projects.

Lethakane Project

The Lethakane Project continues to be A-Cap's main focus. During the past year, A-Cap has continued expanding and improving confidence in the mineral resource at Lethakane, as well as continuing with metallurgical testwork and feasibility studies for the planned development of the resource into Botswana's first uranium mine.

The geology of the Lethakane Project is relatively simple. Uranium mineralisation occurs within the flat-lying sedimentary rocks of the Karroo Supergroup and the entire resource is within 70m of the surface.

Drilling at the Lethakane Project



Importantly, some of the highest-grade mineralisation occurs in the secondary zone close to surface, ensuring early access to high grades and low-cost mining from the start of production.

Project development is aided by the excellent local infrastructure: the project lies adjacent to the Botswana's main growth corridor, which includes the key highway between Francistown and Gaborone. A north-south railway line runs parallel to this highway, along with the 220,000V high-tension power line. The presence of this infrastructure and its locality will have a major effect on keeping capital costs for the mine development low.

Bankable Feasibility Study

A-Cap has contracted a highly experienced and skilled team of engineers, metallurgists and geologists to complete a bankable feasibility study on the Lethakane Project.

Metallurgy/mining

A-Cap has been conducting an extensive series of metallurgical tests over the past year, supervised by consultants from Lycopodium and Orway Mineral Consultants. The tests were completed at SGS Orestest in Perth.

A-Cap continues to advance and optimise the processing route for treating uranium ore. At the same time, cutting-edge mining and ore-handling technology is being



applied to improve mining and grade control methods substantially and reduce mining costs.

All this work is aimed at optimising processing and handling of uranium and to maximise uranium recovery and production for the lowest possible cost.

In conjunction with the metallurgical and mining studies, A-Cap is finalising Environmental and Social Impact Assessment studies and reports together with water abstraction and power supply studies.

Exploration

The Lethakane Project area

While targeting development and production at Lethakane remains A-Cap's key focus, the company continues an aggressive exploration programme over

BOTSWANA THE COUNTRY

Botswana is an excellent country for mining investment with stable government, sound legal and taxation regulations and well-developed infrastructure to support the growing economy.

its 6,000km² tenement package with a strong focus on the areas in and around Lethakane as well as the Southern Pans Project to the north west.

During the year, diamond drilling confirmed the existence of higher-grade zones within the Lethakane deposit at Gorgon, Kraken and Serule West. These higher-grade zones will be the focus of initial mining programmes.

Exploration efforts for the rest of 2012 will see further drilling along high-grade extensions of mineralisation west of the existing resource areas at Lethakane.

Exploration programmes in the northern part of the project area within PL138/2005 discovered a zone of significant uranium accumulation some 4km x 3km. This significant accumulation of uranium is open in all directions and has the potential to represent an additional uranium resource adjacent to that defined on PL45/2004.

The company aims to follow up these results with a focused drilling programme designed to outline the full extent of uranium mineralisation at Bolau in the 2012 exploration field season.

The Southern Pans Project

Regional exploration drilling undertaken on the Mea (PL134/2005) and Sua (PL135/2005) prospects returned significantly anomalous uranium values and provided valuable stratigraphic information across the largely unexplored region of the Southern Pans Project. Interpretation of the holes and results is ongoing with a view to generating further exploration targets for geophysical and drill testing.

Summary

The Lethakane Uranium Project has now grown to be one of the largest undeveloped uranium deposits in the world located in one of the best and most stable countries in Africa for mining investment. The shallow, flat-lying geometry of the deposit will make it easy and cost-effective to mine and, together with all necessary infrastructure in the project area, is a major economic benefit. A-Cap is totally committed to concluding the Feasibility Study, delivering the first uranium mine in Botswana.

CONTACT

A-Cap Resources Ltd

Level 36, Exchange Plaza,
2 The Esplanade, Perth WA 6000, Australia

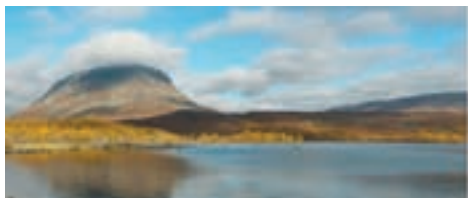
Tel: +618 9220 9850

Fax: +618 9220 9820

E-mail: info@acap.com.au



a-cap
RESOURCES LTD



Continental Precious Minerals' Viken project has economic potential as an open-pit mine for uranium, vanadium and molybdenum

an economy with a strong manufacturing base, industrial users may question their rising operating costs in the long term. Germany intends half of its power to come from renewable sources. It is a fact that, at the moment, renewable power is more expensive than nuclear, coal and gas though possibly not very much more expensive. Mr Emsley, of the World Nuclear Association, says that "industrial users may well be unhappy with the higher cost of doing business and it will be interesting to see how much German consumers are prepared to pay for the country's plans for renewable energy."

He adds that, in his view, "the concern for Germany is that it is a real leap of faith that the cost of alternative sources will fall. I would question how far industrial users will be happy when there is a total lack of clarity on what the true cost of energy will be in 20 years and how sustainable is a strong manufacturing base on that basis."

The Netherlands is planning new capacity and the Spanish are keeping the capacity they already have. Pro or anti is highly politicised and it is highly politicised whether to create a domestic nuclear capacity or import power. Countries in the former Eastern bloc seem to be keener on nuclear than some of their Western neighbours. Mr Emsley says: "Lithuania and Poland in particular don't want to be too dependent on Russian energy."

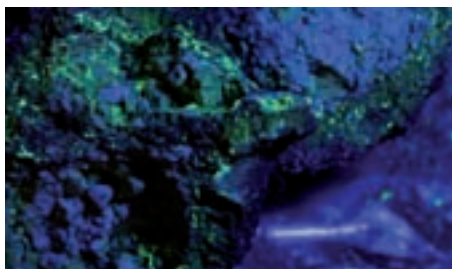
Middle East and Africa's promising future

In the Middle East and Africa, nuclear power is considered a promising future source of energy. Countries that already have nuclear power are looking to expand their nuclear capacity and the countries with no nuclear reactors are considering construction.

Until fairly recently, the region was heavily dependent on its oil and gas reserves to meet its energy needs. However, nuclear is becoming very attractive as the high prices of oil and gas create a strong economic argument to build nuclear capacity which, although has a significant up-front cost, can give a country a stable and economic energy supply for 60 years and sell oil and gas to other nations.

Mr Emsley says: "They currently have no nuclear capacity – creating that capacity enables them to export more of their oil."

He agrees with the OECD that the trend for the future will show a shift to the east. He says: "The prospects for nuclear are good in countries that combine rapid growth in energy demand with rapid



Mantra Resources' Mkuju River project in Tanzania: uranium mineralisation under UV light

economic growth," adding that "Korea is heavily committed to nuclear and they are leading the way in keeping the build costs of nuclear plants under control". Mr Vance, of the OECD, says: "Korea has had success in building plants on time and on budget as has China. Both countries have aspirations to build reactors internationally but it is still a case of 'watch this space'."

The World Nuclear Association feels that the biggest problem with nuclear energy is economics. Mr Emsley says: "The Koreans build at a very competitive cost, which is difficult to match in Europe." The reality is that a new nuclear reactor needs fairly significant up-front funding and, commercially, there is a strong imperative to reduce the capital costs of the build. Mr Emsley believes that the outlook for nuclear depends on keeping costs under control and, at the moment, it looks as if the Chinese and the Koreans have succeeded in doing so.

Mr Emsley says: "The UAE last year signed contracts with the Koreans to build six nuclear reactors and beat both the French and the US when they won the contract. According to cost data compiled by the International Energy Agency and Nuclear Energy Agency, the Koreans can build reactors cheaper in their own country. The test is whether they can they build them cheaper in the UAE while convincing regulators that they are safe at all times."

Mr Vance says: "Future success depends on how well this venture goes. The key issue for the US and the French is that the enhanced safety requirement of dealing with very rare but very challenging natural events like the severe earthquake and tsunami that precipitated the Fukushima accident is driving up the cost of reactors. The re-assessment of safety around the world leads to more stringent requirements around design and construction increasing the build cost and this has the potential to impact the development of nuclear capacity."

Conclusion

It is clear that new nuclear is not only here to stay but it is likely to be a rapidly growing sector in a number of countries without current capacity. Predictions for growth in nuclear capacity by the 2030's range from 50 to over 300% and, while the high growth scenarios depend on significant demonstrable success in new builds, it is a fact that a low-cost and stable energy supply was a factor in Japan's success as a manufacturing nation. If the advent of nuclear in the developing world creates similar rapid industrialisation and economic growth, it is possible that the high growth scenario might be reached even earlier.

Mr Vance feels that "the fundamentals for a new nuclear age are certainly there" and analysts are predicting a hike in uranium spot prices by 2013. Fukushima caused a slowdown but now that the stress tests have been completed and a number of new technologies to make nuclear safer, cheaper, better are coming online, it is plausible that the question will be not 'do you want nuclear capacity?' but 'please could you form an orderly queue'.

URANIUM NEWS: IN BRIEF

• Finland grants licence for uranium extraction at Talvivaara

Cameco announced in March that the Finnish government has granted a licence for extracting uranium as a by-product from the Sotkamo nickel mine operated by Talvivaara Mining Co (below) in eastern Finland. The operation is expected to produce up to 900,000lb of uranium concentrate (U₃O₈ equivalent) at full production. The licence is valid until the end of 2054.



• Uranium Energy reports 5.5Mlb resource of Workman Creek

Uranium Energy Corp operates North America's newest uranium mine and is pleased to announce an inferred mineral resource of 3.22Mt containing 5.54Mlb of U₃O₈ with an average grade of 0.086% U₃O₈ at a cut-off grade of 0.05%. The Workman Creek project consists of 183 unpatented lode mining claims covering 3,620 acres and is about 30 miles north of Miami.

• Uranium One announces record revenue of US\$530m

Uranium One Inc reported record revenue of US\$530 million for 2011 based on record sales and production of 9.9Mlb and 10.7Mlb. Chris Sattler, CEO of Uranium One, said: "Uranium One delivered excellent operational results during 2011 and I am looking forward to continuing strong results in 2012. Despite the challenges that the nuclear power industry faced during 2011, our company's strategy has not changed and we will continue to focus on increasing production from our assets and remaining the world's lowest cost supplier of uranium. We expect demand for uranium to continue to grow through this decade and Uranium One, as one of the world's largest producers, is well-positioned to capitalise on this growth."

• Next-gen nuclear plant industry Alliance selects Areva concept

AREVA's HTGR Generation IV reactor was selected as the reactor design concept to provide high-temperature process steam for industrial applications and electricity production. "We are very pleased that the Alliance has selected the AREVA prismatic core, modular HTGR for the co-generation of process heat and electricity", said Mike Rencheck, chief operating officer at AREVA Inc. "The industrial end-user requirements have been the primary consideration for making this advanced technology selection over other small modular reactors. The co-generation aspects offer long-term, predictable energy supply." The NGNP Industry Alliance is an important part of AREVA's commitment to expanding the use of CO₂-free energy around the world.

Aura Energy study defines major,

Australia-based uranium exploration and development company Aura Energy (ASX: AEE) is facing an exciting and busy year, coming off the back of excellent scoping study results on its giant Häggån uranium deposit in Sweden and the rapidly progressing Reguibat project in West Africa.

The larger of its two projects, Häggån in Sweden, is wholly owned by Aura and covers 110km² of commercial forestry area in the Storsjön district of Sweden. What may be lesser known is that Sweden has a very long culture of mining and offers exceptional infrastructure to support developing projects and mines, often rating among the top mining destinations in the Fraser Institute Report.

In February 2012, the results of the scoping study on Häggån were released and clearly demonstrated attractive returns. This was the impetus needed for Aura to move towards pre-feasibility.

The scoping study, completed by independent experts RMDSTEM Ltd, validated the economic viability of a potential billion-dollar project and indicated a value for Aura Energy of over \$6.00 per share.

Managing director of Aura, Dr Bob Beeson, commented: "We are extremely pleased with the scoping study results. They verify the company's view of Häggån and its potential to become a global top-10 uranium producing operation."

The extensive study examined a range of mining options including conventional agitation leach, bacterial agitation leach and bacterial heap leach. Results demonstrated the bacterial heap leach option showed a robust project with low capital costs.

"Bioleaching is routinely used in the copper and gold mining businesses, but is relatively new for uranium," said Dr Beeson.

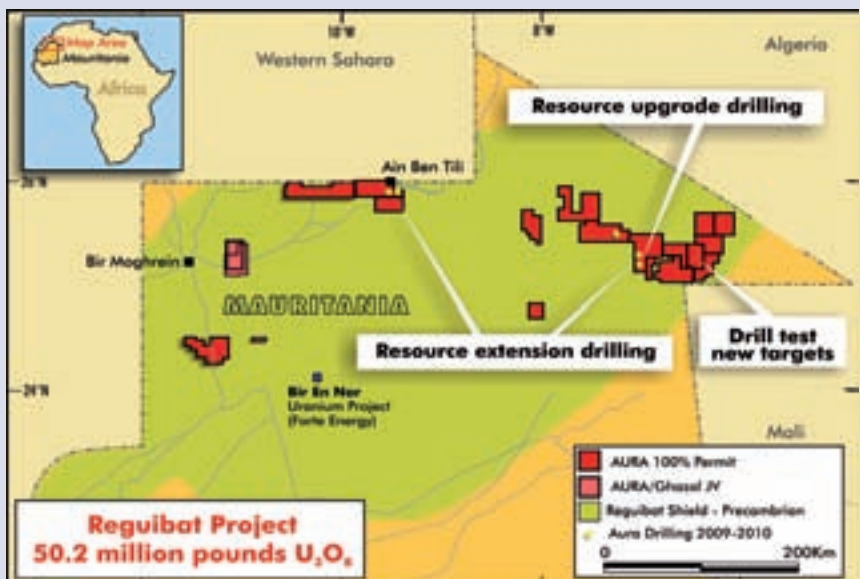
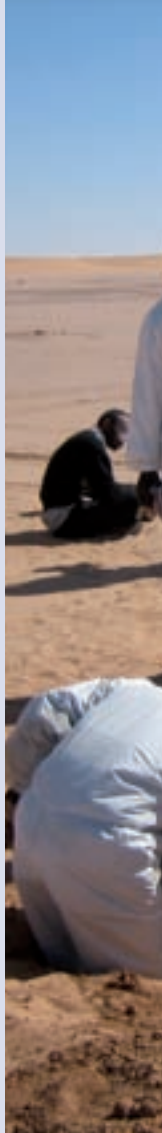
"We are very fortunate to have the Talvivaara nickel-copper mine in neighbouring Finland as an analogue. They have adopted bioleaching for the extraction of nickel and are successfully recovering a number of metals, including uranium, as a by-product. It has also been used extensively for decades in the copper industry in Chile and elsewhere."

Häggån mineralisation

The mineralisation at Häggån possesses characteristics for low cost, bioleach metal extraction due to the abundance of sulphur. Aura has received favourable results from its metallurgical test work programmes in 2011, confirming good metal extractions for four of the main metals of the mineralisation.

Results include extractions of up to 85 per cent uranium, 65 per cent nickel, 60 per cent zinc and 25 per cent molybdenum with column leaching, and higher percentages for agitation leaching.

Mining engineering group Exoro Mine Planning Services developed pit shells around the resource for the scoping study. From the 1,790Mt Joint Ore Reserves Committee (JORC) inferred resource (100ppm cut-off), the initial conceptual optimisation results provided 741Mt of mineable material. The strip ratio is an attractive 0.75 to 1, with mineralisation forming a continuous thick sheet ranging between 20m to more than 250m. As part of the study, a mine producing 30Mt/y was set, giving the mine a life of at least 25 years, with much of the prospective area yet to be drilled.



economically feasible project



The bacterial heap leach option gave a strong, positive net present value (NPV) with a most likely value of \$1.1 billion at a 10 per cent discount rate. This was undertaken with a conservative uranium price range of US\$35-95/lb, with a most likely price of US\$65/lb.

The scoping study indicated that the operating costs for the project would be a relatively low US\$36/lb of uranium net of by-products. Payback was estimated to be in 5 years, or 17 per cent of the project life. A target initial production of 6.6Mlb uranium (2,995t), 14.8Mlb nickel and 3.6Mlb molybdenum was determined.

"As a result of the significant amount of additional mineralisation already identified, there is also considerable potential to increase the throughput for the project, thereby increasing the metal output and cash margin," said Dr Beeson.

Considerable opportunities also exist to increase the project value. These opportunities include optimising the mining rate, lowering the cost of mining options, reducing crushing, and improving metal extraction. These will be assessed during the next phase of the project.

A Joint Ore Reserves Committee (JORC) inferred resource at the Haggån Project was established in 2010. It was then upgraded last year from 291Mlb to 631Mlb uranium with 1,790Mt at 100ppm cut-off, placing Haggån in the top-three largest undeveloped uranium resources in the world.

The timeline for Aura to move into pre-feasibility in 2012 is currently being developed, with the next stage bio-heap leaching tests already underway and a resource upgrade being planned.

This is not all. Aura also has a strong presence in West Africa, where the company is focusing on the Reguibat project in Northern Mauritania, with permits covering approximately 8,400km², making Aura one of the largest landowners. It was initially attracted to the previously unexplored Reguibat region by the exceptionally strong uranium radiometric anomalies found in World Bank sponsored airborne geophysical data. The company aggressively took ownership of the area and it now has eight wholly owned permits and two permits in joint venture.

After drilling confirmed the presence of widespread, almost at surface calcrete uranium mineralisation, an initial inferred JORC resource of 50.2Mlb at 330ppm uranium based on a cut-off of 100ppm was established in 2011.

Aura's activities in the region to date have focused on uranium in the substantial calcrete mineralisation. However, the area also has excellent potential for vein style uranium mineralisation in the bedrock, yet to be tested on Aura's tenements.

Further drilling is planned for the Reguibat project in 2012, with the aim of expanding the resource, and a metallurgical testwork programme has already started.

Uranium growth

The uranium industry is starting to experience increased levels of activity, and share prices of some of the biggest producers are beginning to show signs of a strong rebound. Demand for uranium is increasing as the global need for clean energy continues to soar. There is ongoing support for nuclear energy from countries including the United States, China, India, Russia, South Korea and South Africa.

Working consistently and methodically, Aura has amassed the largest uranium resources of all ASX-listed uranium companies with the exception of BHP Billiton and Rio Tinto, and has the lowest discovery cost per pound.

The company's two major projects are also greenfields discoveries, a real rarity among global uranium projects.

Aura Energy is supported by a strong board and management team, with extensive experience in mining and metallurgy. The company is on track to deliver on its strategy by having a consistent focus on uranium including major projects to provide vast upside in development and production.

As the uranium sector continues to heat up, Aura is in an excellent position to become an invaluable future global provider of this increasingly important commodity.



CONTACT

Aura Energy

Level 1, 19-23 Prospect Street
Box Hill, VIC 3128, Australia

Tel: +61 3 9890 1744

Fax: +61 3 9890 3411

Email: info@auraenergy.com.au

Aura Energy Corporate Office

Level 4, 66 Kings Park Road
West Perth, WA 6005, Australia

Tel: +61 8 6141 3570

Fax: +61 8 6141 3599



Continental Precious Minerals

Sweden home to possibly one of the largest polymetallic resources in the world

Ed Godin, president and chief executive officer of Continental, says: "Our resource estimates at our flagship property demonstrates that we have potentially one of the largest polymetallic resources in the world.

"Since discovery we have identified a massive NI 43-101 compliant resource of over 2,800Mt and filed a scoping study. We are currently continuing our research with a view of advancing to a pre-feasibility study."

When asked what he thought characterised Continental Precious Metals' success, he added "careful exploration based on solid data has been our winning formula and this has really paid off in Sweden where we've found what we think is certainly the largest deposit in Europe."

Continental Precious Minerals Inc has about 72 mineral exploration licences throughout Sweden. These include conventional hard-rock uranium deposits and prospects, as well as multi-mineral sediment deposits and prospects hosted in alum shale formations. Since March 2005, its focus has been on its licence at Viken, near the town of Östersund in central Sweden. The Viken licence covers 677ha and consists of high carbon content alum shales.

Continental's discovery at Viken

Continental began drilling at the Viken licence in August 2006 and, by the end of 2008, completed 133 diamond drill holes for a total of 26,293m. The spacing of the drill holes ranged from 30 to 380m and averaged about 300m.

The drill results indicated that the maximum thickness of the mineralised zone was about 200m and that it underlies the entire 3.2km length of the Viken licence. The width of the zone is approximately 1,000m, and the deposit is open to the north-northwest, the south-southeast and to depth in an easterly direction.

In June 2007, Continental published an NI 43-101 compliant technical report, which it updated on August 2007, April 2008 and December 2008. The most recent report, filed on March 19, 2009, determined that Viken has an inferred resource of about 1,000Mlb of uranium at a grade of 0.31lb/t, 17,000Mlb of vanadium, grading at 5lb/t and 1,500Mlb of molybdenum at a grade of 0.49lb/t.

Preliminary economic assessment

Having completed metallurgical studies that showed results of 91% recovery of uranium, 99% recovery of molybdenum and 90% recovery for vanadium, Continental published a preliminary economic assessment.

The highlights of the assessment, filed in October 2010, include a pre-tax net present value of US\$1.039 billion (at a 6.5% discount rate), an internal rate of return of 10.3%, using the prevailing base-case metal prices at the time of publication, and a 16-year life of conventional open-pit mine producing 40,000t/d.

"This is a significant milestone for our company," says Mr Godin, "we have been very selective in how we have spent our capital over the last five years. With an expenditure of about C\$15 million and minimal dilution to our shareholders, we have delineated a significant mineral resource."



Continuing research

To advance the project to a pre-feasibility study, Continental has continued preparatory engineering work including:

- Continuing metallurgical work on a larger scale to determine and improve viable process flow sheets including work to determine power generation from alum shale roasting;
- Continuing technical and engineering work to determine key parameters for mine design and processing;
- Investigating and studying the socio-political situation in the project area and securing land access for critical development; and,
- Investigating and negotiating commercial parameters of key project components such as power generation and supply agreements of electricity, supply agreements and sourcing for key mill reagents.

Recently Hatch – one of the world's leading engineering, procurement and construction management companies – has been engaged to advance the metallurgical work at Viken. It will do further testwork to verify and refine various flowsheet options. The objective of the work is to identify the process options, including bio-leaching and hydrocarbon extraction that will enable Continental to recover as much economic value as possible from the shale. The company believes, based on developments in the industry, that bio-leaching technology could improve the project's economics.

"We are moving forward with our exploration licence at Viken," said Mr Godin. "This very large resource, hosted in non-conventional geology, requires time and careful preparation to develop. Based on our progress to date, we are confident that our current strategies will create shareholder value."

All company reports are available at the Canadian System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com.



CONTACT

Continental Precious Minerals Inc

50 Richmond Street East, Suite 101
Toronto, Ontario, Canada M5C 1N7

Contact: Ed Godin, President and CEO

Tel: +1 416 805 3036

Email: godine@rogers.com

TMX | Equicom

Contact: Craig MacPhail

Tel: 416 815 0700 ext 290

Email: cmacphail@equicomgroup.com



**CONTINENTAL
PRECIOUS
MINERALS INC.**

URANIUM NEWS: IN BRIEF

- **Nunatsiavut assembly lifts moratorium on mining Labrador Inuit lands**

The moratorium was imposed in 2008 by the Nunatsiavut Government to provide it with time to strengthen its ability to regulate a potential uranium mining development on its territory. During the intervening period, the government of Nunatsiavut adopted an Environmental Protection Act, while elected representatives and community members became informed about uranium mining and the high standards of safety and environmental protection that the industry applies.

- **AREVA's new alliance to help industry address external risk events**

AREVA Inc and ETRANCO Inc, an international probabilistic risk assessment consulting firm, signed a co-operative alliance agreement to help utility customers comply with new US orders and recommendations as a result of post-Fukushima reviews. Mike Rencheck, AREVA chief operating officer, said: "As the industry responds to Fukushima lessons learned, enhanced mitigation against major hazards such as seismic and flooding are necessary to further ensure the safety and integrity of nuclear plants. We look forward to partnering with ETRANCO in delivering solutions to our customers to provide them with the kind of expertise and service they need to ensure continued safe and reliable operation of their reactors."



- **UK nuclear programme to create 35,000 new jobs**

Speaking at the Nuclear Skills Academy's UK Nuclear Skills Awards on March 22, Energy Minister Charles Hendry said: "I'd like to congratulate all the winners of the UK Nuclear Skills Awards. They are the future of the UK nuclear industry and show the depth of talent we have in this country. The UK's nuclear new-build programme is expected to create 30,000 construction and 4,800 operational jobs over the next decade. Many of these jobs will be highly skilled and the apprentices and trainees celebrated by the UK Nuclear Skills Awards will be the ones filling these roles in a career that could last a lifetime. "I wish the winners the very best for their future careers."

A unique metal



Uraninite, also known as pitchblende. Top right: Marie Curie, who used pitchblende ore from Jáchymov to isolate the element radium. Right: William Herschel, who discovered the planet after which uranium was named. Below: Martin Heinrich Klaproth, who identified the metal more than 220 years ago

The uranium mineral pitchblende, also known as uraninite, was reported from Erzgebirge, Saxony, in 1565, with other reports dating from 1727 in Joachimsthal and 1763 in Schwarzwald.

The metal itself was identified in 1789 by Martin Heinrich Klaproth. He named the new element after the planet Uranus (which had been discovered eight years earlier by William Herschel, and was itself named after the Greek god of the sky). The metal's radioactive properties were uncovered in 1896 by Antoine Becquerel.

In the early 19th century, uranium ore was recovered as a byproduct of mining in Saxony, Bohemia and Cornwall. The first deliberate mining of radioactive ores took place in Jáchymov, in what is now the Czech Republic. Marie Curie used pitchblende ore from Jáchymov to isolate the element radium, a decay product of uranium (her death, from

aplastic anemia, was almost certainly due to exposure to radioactivity).

Until the Second World War, uranium mining was undertaken mainly for the radium content. Sources for radium, contained in the uranium ore, were

sought for use as luminous paint for watch dials and other instruments, as well as for health-related applications (some of which, in retrospect, might have been harmful). The byproduct uranium was used mostly as a yellow pigment.

In the US, the first radium/uranium ore was discovered in 1871 in gold mines near Central City, Colorado. However, most uranium ore in the US before the Second World War came from vanadium deposits on the Colorado plateau of Utah and Colorado.

In Cornwall, the South Terras mine opened for uranium production in 1873.

Other early uranium mining occurred in Autunois in France's Massif Central, Oberpfalz in Bavaria, and



Rio Tinto's Ranger mine Photo: Rio Tinto/Bloomberg News; Energy Resources of Australia

European Uranium Resources and Areva form strategic alliance

Aim to boost uranium production in Europe

European Uranium Resources Ltd (EUU; formerly Tournigan Energy Ltd) is a dedicated European uranium exploration and development company that has built a portfolio of outstanding projects in Slovakia, Sweden and Finland at all stages of the exploration/development pipeline.

In December 2011 the company formed a strategic alliance with AREVA, the French nuclear energy and uranium mining conglomerate. AREVA's Andreas Mittler, vice president, expertise and projects, joined European Uranium's board of directors and European Uranium entered into a technical services agreement with its new partner to conduct metallurgical and environmental test work as part of the Kuriskova feasibility study.

EUU's president and chief executive officer, Dorian L 'Dusty' Nicol, says: "Europe has 186 power plants in operation and 19 new plants under construction, and there is only one operating uranium mine in the region." Nicol adds: "2012 is going to be very busy now that we have finalised our strategic alliance with AREVA."

"Europe has the highest consumption per capita of uranium in the world, and the preliminary feasibility study of the Kuriskova deposit in Slovakia indicates it could be one of the world's lowest-cost uranium producers."

EUU has outlined a number of strategic objectives for 2012, as well as drill testing exploration targets in Slovakia, Sweden and Finland. Key to its plans is to continue advancing on the Kuriskova deposit, first by starting feasibility and environmental impact studies, and then by working closely with Slovakia to define a structure that allows uranium production from the mine to be developed for the benefit of Slovakia's energy future.

Mr Nicol says: "We hope to define the structure which allows uranium production from Kuriskova to be developed for the benefit of Slovakia's energy future. This could be a production off-take arrangement with Slovakia or a partnership with a Slovak entity."

The Kuriskova deposit is approximately 10km northwest of Košice, Slovakia. Highlights of the

preliminary feasibility study prepared by Tetra Tech Inc of Golden, Colorado, are listed below:

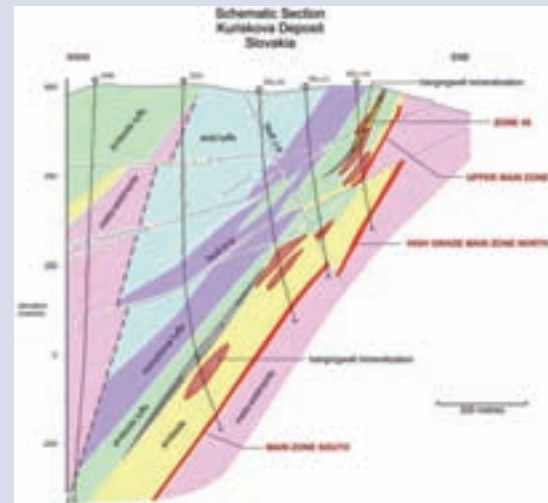
- Internal rate of return 30.8%; 1.9 year payback; \$276 million net present value (NPV) at an 8% discount rate (pre-tax, base case US\$68/lb uranium oxide (U_3O_8), US\$15/lb Mo);
- Indicated resource of 28.5Mlb of U_3O_8 (2.3Mt @ 0.555% U_3O_8) and an additional inferred resource of 12.7Mlb of U_3O_8 (3.1Mt @ 0.185% U_3O_8), using a cut-off of 0.05% U;
- Life of mine operating costs of US\$22.98/lb U_3O_8 and US\$16.68/lb U_3O_8 during the first 4 years of production (net of a molybdenum credit of about US\$1.27/lb of U_3O_8);
- The project can be developed as an underground mine/processing facility with a very small surface footprint; and,
- Kuriskova would utilize best available technologies in the mining and processing operations. The uranium can be extracted using conventional alkaline (non-acid) processing.

There are multiple exploration targets within the Kuriskova licence area that have the potential to expand the resource. In addition to Kuriskova, European Uranium also has the Novoveska Huta deposit, on which a resource has been defined, plus several exciting exploration targets on other licences in Slovakia.

Slovakia is not its only exploration focus though, as the company recently acquired seven uranium properties located in Sweden and Finland from Mawson Resources Ltd. These are: the Hotagen, Duobblon, Kapell and Aronsjö projects in Sweden; and the Riutta, Asento and Nuottijärvi projects in Finland.

The potential of this portfolio of projects is demonstrated in the results at the Riutta project announced by Mawson in September 2011. The results from a 10-hole diamond drill programme at the Riutta project totalling 1,065m where drill hole AREVA DH 1 intersected 11.3m at 0.68% U_3O_8 including 3.7m at 1.53% U_3O_8 from 28.3m.

This is the best uranium drill result in Finland's history and demonstrates the potential for high-grade and near-surface uranium at the Riutta project.



High-grade uranium mineralisation has now been drilled over 450m of strike within a larger 3.6km trend.

The Riutta project is fully permitted for exploration, mineralisation remains open along strike and down dip, and European Uranium looks forward to further testing the project's potential utilising geophysical-survey results.

It is an exciting time for European Uranium Resources and as Mr Nicol says: "With our strategic alliance with AREVA, with our prefeasibility study demonstrating that Kuriskova could be one of the world's lowest-cost uranium producers and with the exciting portfolio of exploration properties in Slovakia, Sweden and Finland, we think that EUU is going to be the key uranium exploration and development company in Europe."

CONTACT

European Uranium Resources

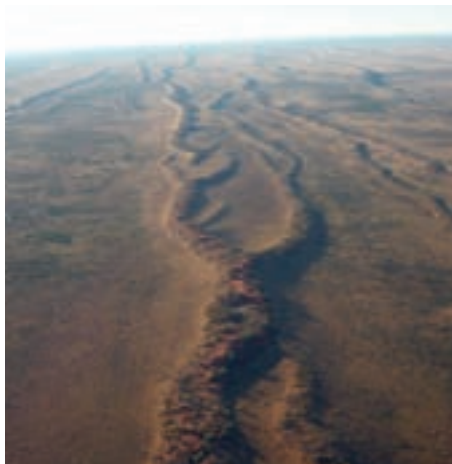
Corporate and Investor Relations Office
Unit 1 - 15782 Marine Drive
White Rock, BC
Canada V4B 1E6

Tel: +1 604 536 2711

Fax: +1 604 536 2788



EUROPEAN URANIUM
RESOURCES LTD.



Left: parallel dunes near Lake Mackay project, WA. Below: Sample of high-grade uranium mineralisation. Black veinlets are pitchblende, sulphides are pyrite and pyrrhotite, the red matrix is haematite alteration

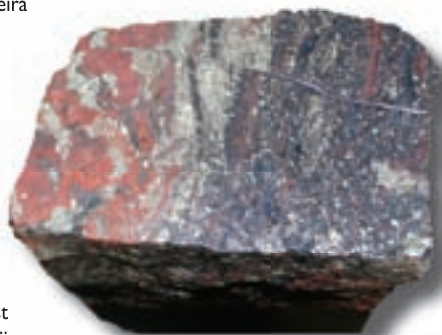
Billigen in Sweden. The Shinkolobwe deposit in Katanga, now the Democratic Republic of the Congo, was discovered in 1913. Other important early deposits include Port Radium in Canada (discovered in 1931), and Beira Province in Portugal, Tyuya Muyun in Uzbekistan, and Radium Hill in Australia.

Chemistry

Uranium (U) is a silvery-white metal in the actinide series of the periodic table (atomic number 92). The metal has the second highest atomic weight of the naturally-occurring elements (plutonium-244 is heavier).

The uranium nucleus binds between 141 and 146 neutrons, establishing six isotopes (all of which are unstable and weakly radioactive), the most common of which are uranium-238 (146 neutrons) and uranium-235 (143 neutrons).

Uranium-235 was the first isotope that was found to be fissile. Other naturally occurring isotopes are fissionable, but not fissile. Upon bombardment with slow neutrons, its uranium-235 isotope will most of



the time divide into two smaller nuclei, releasing nuclear binding energy and more neutrons. If these neutrons are absorbed by other uranium-235 nuclei, a nuclear chain reaction occurs that may be explosive (as little as 7kg of uranium-235 can be used to make an atomic bomb).

Uranium decays slowly (emitting alpha particles) such that uranium-238 has a half-life of about 4.47 billion years (uranium-235's half-life is 704 million years).

Uranium-235 has the distinction of being the only naturally-occurring fissile isotope. Uranium-238 is fissionable by fast neutrons, and can be transmuted to fissile plutonium-239 in a nuclear reactor. Another fissile isotope, uranium-233, can be produced from natural thorium and is also important in nuclear technology.

While uranium-238 has a small probability for spontaneous fission or even induced fission with fast neutrons, uranium-235 (and, to a lesser degree, uranium-233) can (in sufficient concentration) maintain a sustained nuclear chain reaction. This generates the heat in nuclear power reactors, and produces the fissile material for nuclear weapons. Depleted uranium (U-238) is used in kinetic energy penetrators and armour plating.

Occurrence

The metal occurs naturally, and is found normally as uranium-238 (99.3% of the total), uranium-235 (0.7%) and a very small amount of uranium-234.

The decay of uranium, thorium and potassium-40 in the earth's mantle is thought to be the main source of heat that keeps the outer core liquid and drives

Langer Heinrich valley

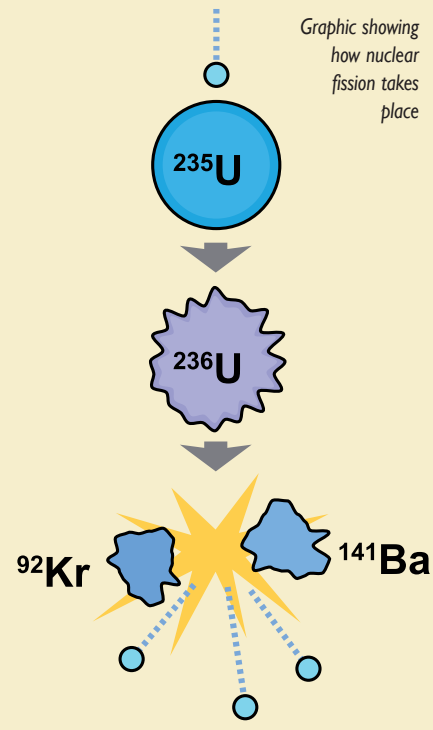


Usage

Since the later stages of the Second World War, uranium has been used as the fissile explosive material to produce nuclear weapons. Two major types of fission bombs were built: a relatively simple device that uses uranium-235, and a more complicated mechanism that uses plutonium-239 (derived from uranium-238). A much more complicated, and far more powerful, fusion bomb was subsequently designed that uses a plutonium-based device in a uranium casing to cause a mixture of tritium and deuterium to undergo nuclear fusion.

The main use of uranium in the civilian sector is to fuel nuclear power plants. A unit of 1kg of uranium-235 can theoretically produce about 80 terajoules of energy (8×10^{13} joules), assuming complete fission; as much energy as 3,000t of coal.

Commercial nuclear power plants use fuel that is typically enriched to around 3% uranium-235. In a breeder reactor, uranium-238 can also be converted into plutonium.



NEW CITY INVESTMENT MANAGERS

A specialist investment company
focusing on the uranium sector
providing an excellent way for investors
to access the nuclear power industry



Geiger Counter Limited

NAV returns of +62.0%* • Share-price performance of +37.0%*

*"We see nuclear energy as being an important
part of the long-term worldwide energy supply"*

Investment objective: to provide investors with the potential for capital growth through investment primarily in the securities of companies involved in the exploration, development and production of energy, predominantly within the uranium industry.

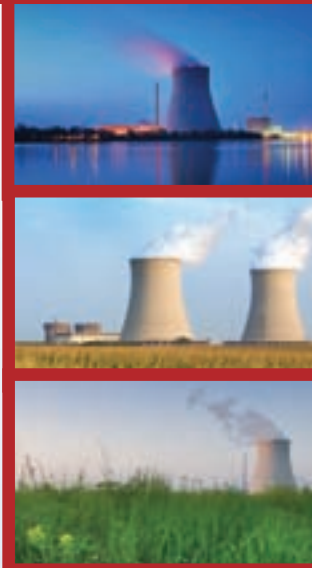
Geiger Counter shares are listed on the Channel Islands Stock Exchange, a recognised Stock Exchange for the purposes of ISAs and trade on the London Stock Exchange with the code GCL.

Geiger Counter Limited, P.O. Box 83, Ordnance House, 31 Pier Road, St Helier, Jersey, JE4 8PW

Investment Adviser: New City Investment Managers, 33 Chester Street, London SW1X 7BL

www.nicm.co.uk

*Total return performance based on mid prices / Source: R&H/Bloomberg.
Figures stated are since fund inception (10 July, 2006) and correct as at 29 February, 2012



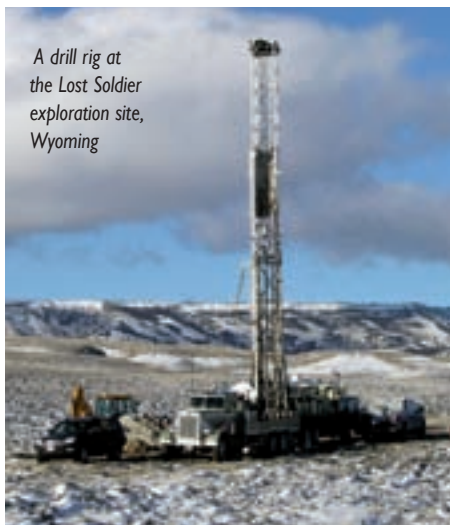
IMPORTANT INFORMATION

In common with most investment companies, Geiger Counter may borrow to finance further investment (gearing). The use of gearing is likely to lead to volatility in the Net Asset Value (NAV) meaning that a relatively small movement, down or up, in the value of the Company's assets will result in a magnified movement, in the same direction, of that NAV

Some of the assets selected for the underlying portfolio may be liable to diminish in capital value over time. The value of shares and the income from them can go down as well as up and you may get back less than the amount invested. Past performance is not a guide to the future. Exposure to a single country market increases potential volatility. There is no guarantee that the market price of shares in the Company will fully reflect their underlying Net Asset Value. As with all stock exchange investments, the value of an investment company's shares purchased will immediately fall by the difference between the buying and selling prices, the bid-offer spread.

An investment company should be considered only as part of a balanced portfolio. Under no circumstances should this information be considered as an offer or solicitation to deal in investments. New City Investment Managers is a trading name for CQS Asset Management Limited who are authorised and regulated by the Financial Services Authority.

Company registered office: New City Investment Managers, 33 Chester Street, London SW1X 7BL



A drill rig at the Lost Soldier exploration site, Wyoming

mantle convection currents, which in turn drives plate tectonics.

Uranium's average concentration in the crust is 2-4 parts per million (ie 40 times as abundant as silver). The metal is found in many minerals, including uraninite (the most common uranium ore), carnotite, autunite, uranophane, torbernite and coffinite. Significant concentrations of uranium also occur in other commodities, such as phosphate rock, lignite and monazite sands.

Uranium deposits in sedimentary rocks include sandstones (for example in Canada and the western US), Precambrian unconformities and quartz-pebble conglomerate, breccia pipes (in Arizona) and calcrete.

Sandstone uranium deposits are generally of two types. Roll-front type deposits occur at the boundary between the up dip and oxidised part of a sandstone body and the deeper, down dip, reduced part of a sandstone body. Colorado Plateau-type deposits most often occur within generally oxidised sandstone bodies.

Precambrian quartz-pebble conglomerate-type uranium deposits occur only in rocks older than two billion years old. These conglomerates, which also contain pyrite, have been mined in the Blind River-Elliott Lake district of Ontario, Canada, and from the gold-bearing Witwatersrand conglomerates of South Africa.

Hydrothermal uranium deposits encompass the vein-type uranium ores. Igneous deposits include nepheline syenite intrusives at Ilmaussaq, Greenland; the disseminated uranium deposit at Rössing, Namibia; and uranium-bearing pegmatites. Disseminated deposits are also found in the states of Washington and Alaska in the US.

Recovery

Uranium ore is crushed and leached with either an acid or alkali. The leachate is subjected to one of several sequences of precipitation, solvent extraction and ion exchange. The resulting mixture, called yellowcake, contains at least 75% uranium oxides. Yellowcake is then calcined to remove impurities from the milling process before refining and conversion.

Commercial-grade uranium can be produced through the reduction of uranium halides with alkali or alkaline earth metals. Very pure uranium is produced through the thermal decomposition of uranium halides on a hot filament.

Uranium: a good bet for investors in 2012?

Mining Journal talked to John Wong of Geiger Counter

The sector went through a very tough time immediately after the disaster at Fukushima but the price of uranium seems to have stabilised and deal flow in the sector is buoyant.

The spot price range now is actually higher than it was just before Fukushima and analysts are confident that the price will go up and indeed say it needs to go up to stimulate the industry. The key driver for the expected rise is increasing urbanisation, particularly in developing economies. Global energy needs cannot be met by green energy, so nuclear will continue to be a big part of most countries energy portfolio driving a strong demand for uranium. John Wong, of Geiger Counter, says that "prices have been stable for the last five or six months but, to meet future demand, you have to incentivise new production – if the price is not high enough, you start to have problems and realistically, for a lot of the marginal projects the price needs to be US\$70-80/lb to get things off the ground."

Mining Journal asked him whether he thought that the price would go up and he said "eventually it will have to and if the price exceeds US\$80/lb, that will certainly stimulate the industry. Because the supply and demand is so finely balanced, it will only take one surprise catalyst for the uranium price to move."

Mr Wong also warned that, unless prices go up fast, there could be a shortfall in supply. Certainly, institutional investors are likely to wait until prices are around US\$80 before we see them coming into the market in any significant numbers. At that point, there will be a delay before production meets demand particularly if overall energy appetite grows in line with current expectations.

Growth in global energy requirement is one thing, but *Mining Journal* wanted to know how dominant he thought nuclear energy would be on a global scale and how that might impact on uranium's potential as crucial part of a robust investment portfolio. Mr Wong said that "nuclear is one source of power generation among a quite complex portfolio. You have coal, gas and oil as well as the renewable solutions. All of these different inputs compete with uranium and what happens to fossil fuels has a big impact on what happens to uranium. The base-case view is that fossil fuels like oil and coal will drift up and that means that uranium will also drift up. The reality is that, over



Cameco's Cigar Lake uranium operation

the past 100 years, demand for energy has continued to grow and has never had much of a drop even in the Great Depression at the beginning of the 20th century. Energy demand grows year-on-year in line with GDP and is primarily a function of population growth."

He added: "The only way you'd get a reverse would be if there was severe population decline and a move backwards into a dependence on agriculture. Growth in demand is a function of urbanisation and, in an urban society, power consumption never drops. The likelihood is that more and more countries are going to build more and more power stations in a drive to deliver affordable power and lots of it. Among the countries with aggressive nuclear programmes are China, India, Russia and other high-growth economies."

This is all well and good but the question that investors will be asking is why uranium and why now. In any portfolio, investors will be keen to spread their risk, so how safe an investment is uranium in 2012 and what sort of returns are investors likely to see. Mr Wong thinks that now is a good time.

"Nobody ever buys at the bottom and nobody sells at the top. The best thing to do is to pick a period when you think you are getting in at a good level over the medium term. Last year was a very bad year so uranium stocks have all been pretty much completely hammered. Given that scenario, there is very little speculation in the sector and nobody is paying over-inflated prices." *Mining Journal* asked if that meant it is a good time to invest. Mr Wong said: "Now is not a bad time at all as



John Wong of Geiger Counter

Labrador: An emerging uranium district in Canada

It is a well known fact that Canada is a leading uranium producer with huge resources and a stable political and business environment. Less well known is that Labrador's Central Mineral Belt is one of Canada's most prolific areas for uranium mineralisation. This 150km-long belt, which extends to tidewater on the Labrador Sea (North Atlantic), is one of the few remaining under-explored uranium-rich metallogenic terranes in the world.

Early exploration for uranium between 1951 and 1978 led to the discovery of several large deposits, including Michelin, and many smaller uranium prospects. This early round of exploration, much of which was undertaken prior to the era of competitive staking, ended with the collapse of uranium prices.

“Labrador contains one of the world’s largest undeveloped uranium resources”

The recovery of the uranium market in 2004 led to district-wide staking and renewed exploration. This resulted in new discoveries including Anna Lake, Two Time and Jacques Lake, recognition of new mineralising environments and a dramatic increase in the existing resource base.

The activity came to halt when a three-year moratorium on uranium mining was imposed in 2008 by the Nunatsiavut Government, an aboriginal body formed in 2005.

The moratorium was declared to provide ample time

to establish a lands administration system, develop environmental protection legislation and to allow for the completion of a land use plan for the Labrador Inuit Settlement Area. In March this year the moratorium was lifted.

This decision is good news for Newfoundland and Labrador's mining sector since it means that programs such as Paladin Energy's Michelin project can again move forward. Paladin has announced plans to resume drilling in 2012, focusing on infill and extension drilling. At Michelin, drilling has identified 84Mlb of U_3O_8 (measured and indicated) and 53Mlb of U_3O_8 (inferred) making it one of the world's largest undeveloped uranium resources.

Other exploration companies have also welcomed the lifting of the moratorium and are reviewing their plans for exploration in the area. In particular, Crosshair Energy Corp (whose uranium project includes a substantial vanadium resource), Silver Spruce Resources Inc., Mega Uranium Ltd. and Bayswater Uranium Corp. all have large land holdings in the region, with uranium deposits and/or prospects.

There are a variety of geological environments in Labrador that host uranium mineralisation. These include syn-magmatic, epigenetic-hydrothermal and metamorphic-metasomatic styles. Multiple mineralising events have been identified throughout the Central Mineral Belt and much of the mineralisation is hosted within rhyolite dominated metavolcanic sequences and spatially associated intrusive rocks ranging in age from Archean to Proterozoic (2.7 - 1.2 Ga).

This is an exciting time to be involved in uranium exploration in Labrador's Central Mineral Belt. The concentration of uranium showings and the variety of settings is certain to attract significant new investment, increasing the potential for new discoveries and the expansion of existing deposits.

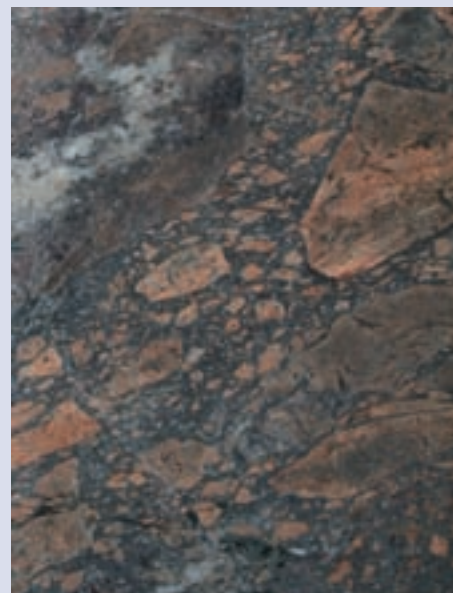
URANIUM MORATORIUM LIFTED

In March, 2012, the Nunatsiavut Government enacted its Environmental Protection Act as well as an amendment to the Labrador Inuit Lands Act, lifting the 3-year moratorium on the working, production, mining and development of uranium on Labrador Inuit Lands.

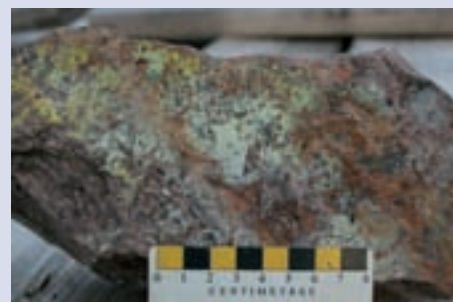


Supplying an exploration camp, Labrador

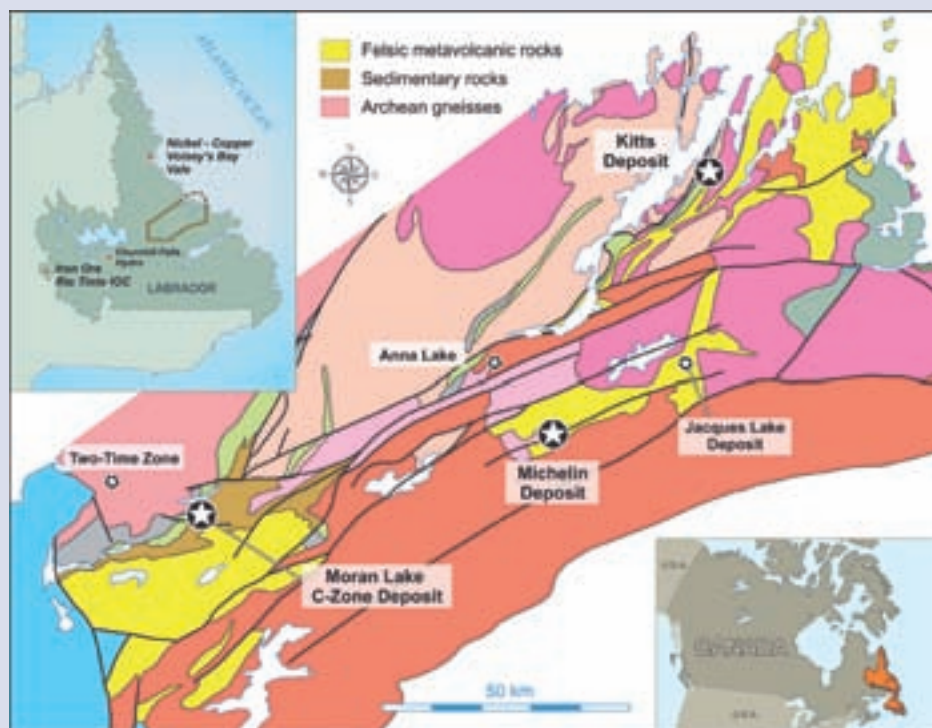
Photo: Crosshair Energy



Moran Lake deposit: C-Zone mineralisation, hematite breccia



Michelin deposit: Ore from the tailings pile



Simplified geology map of the Central Mineral Belt with selected uranium deposits

anyone coming into the sector is not really competing with others and is able to buy in at a very very low level in a market where just the simple economics of power supply will sooner or later force up the price. The potential returns if you buy now are quite significant. Two of the leading uranium shares, Denison and Uranium One, have gone down 60% and 40%, respectively, over the last year. Some of the smaller uranium equities have fallen even further, so it's a pretty good time to get into the sector."

Positive prospects

Generally, Mr Wong feels positive about the prospects for uranium. He believes the excessive bearishness towards uranium companies has now passed and is encouraged by the renewed strength in uranium equities since the start of the year, citing this as the first investment flows into the sector for a while. The market has been dominated by corporate activity in early 2012 with China's Guangdong Power bidding over US\$2.5 billion for Kalahari Minerals and Extract Resources and AREVA reporting strong Asian interest in its shares.

According to the World Nuclear Association, there is a definite shift from West to East

in terms of where there is likely to be most activity. *Mining Journal* asked Mr Wong what impact that might have on investment prospects.

He said: "It doesn't matter who buys the uranium. I would say that more than West to East it is a shift to the emerging market countries – and I include Russia in that – which are really starting to play more in the nuclear space. Europe and the US are not actually playing as aggressively, which is obviously a reflection on the fact that increased demand for energy is a function of urbanisation. Europe is stagnating in terms of population growth as the region is pretty much at saturation point, so it's not really a surprise that the investment is going on in countries

where rapid population growth and economic change is driving the demand for power forward at a faster rate."

So what is the profile of a typical uranium investor and is that profile likely to change in the future? Mr Wong said: "It's difficult to say. At the moment, major institutions are not playing big in the space but I suspect that will change as, over time, a lot of the institutional players will start to come in. There are some private clients who are playing in the space – people like Vestra Wealth, Brewin Dolphin and Rathbones – as well as experienced private investors like Malcolm Burne. I think we could see more of these types of investors coming into the space fairly soon."

Many who read *Mining Journal* are private investors. *Mining Journal* asked if one wants to invest in uranium

"According to the World Nuclear Association, there is a definite shift from West to East in terms of where there is likely to be most activity"

what is the process and how do you go about? Mr Wong said: "There is a hard way and an easy way. The hard way is to do it yourself and it's difficult because you will obviously have less access to information than if you use a fund that will do the work for you. If you are going to do it yourself, you need to put in a lot of time in really understanding the sector.

Look at websites, make a

shortlist of companies and try to meet the management team if you can. It's a fairly niche market and most companies tend to be listed in Australia or Canada.

"There are disadvantages to going it alone if you don't already know the market so while using a fund is not the only way, it is certainly the easiest way. Because uranium is so niche, there are only a fairly small pool of funds to use. I personally have not come up against another fund like Geiger Counter in Europe, although I understand there are some other players in the US and Canada. So again, a private investor will need to dig around a bit to find the fund that works."

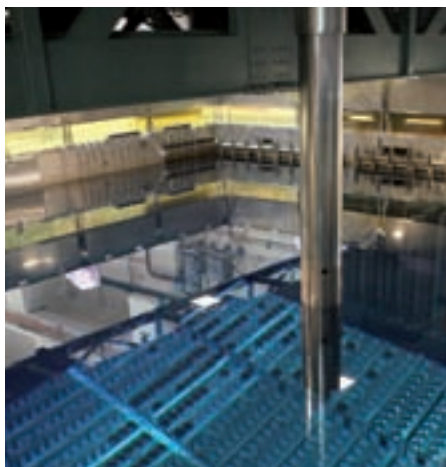


File photo of an employee making a GPS measurement at AREVA SA's Somair open-pit uranium mine in Arlit, Niger

Photo: AREVA SA via Bloomberg News

Smoke is seen rising from the building housing No 3 reactor at the Fukushima Dai-ichi nuclear power plant in March last year

Photo: Bloomberg News



Channel boxes containing fuel rods of plutonium-uranium mixed oxide (MOX) in a pool inside the building which houses the No 3 reactor at the Fukushima Dai-ichi nuclear power station

Photo: Bloomberg News

The major players

Mining Journal asked Mr Wong who are the major players in the market at the moment and who are the ones to watch. He said: "The biggest players who have quite a lot of influence in this sector are Cameco, which as a company produces most of the uranium in the world, and AREVA, which is also quite a decent-sized player with quite a lot of influence. Cameco probably produces around 17-18% of total global production, so they are pretty influential and well worth watching. Also, they are an integrated company so cover the whole production cycle."

John Wong believes that the surprises that the sector holds are going to be on the supply side. Demand is much easier to predict as fairly straightforward modelling gives an accurate forecast of best- and worst-case scenarios.

He says: "We are probably looking at supply shocks as although there is an awful lot of uranium in the ground, energy demand may well outstrip supply. Particularly if you look at places like Australia, where they are still struggling with the politics of approving new licensing."

However, it is clear that canny investors should be looking closely at uranium as Mr Wong predicts that prices could rise significantly by 2014. He points out: "The spot price is very steady at US\$51/lb. Given the strong demand, it is well underpinned and could rise substantially over the next two years. Everywhere, there is supply disappointment and you need to remember that we saw uranium reaching US\$135/lb in 2007. There's absolutely no reason that we won't see uranium going up strongly." So, despite the disaster at Fukushima, uranium shares are looking like a very good investment in 2012.

Consolidation on the Macusani Plateau

Macusani Yellowcake Inc has announced a major consolidation of holdings on the Macusani Plateau uranium district in southeastern Peru by merging with Southern Andes Energy Inc

Under the deal, announced at the beginning of February, Macusani Yellowcake ('YEL' on the TSX Venture Exchange, and 'QG1' on the Frankfurt Exchange) will acquire all of the outstanding common shares of Southern Andes Energy Inc ('SUR' on TSX Venture). The amalgamating company will control approximately 900km² of uranium exploration ground in what is a highly prospective uranium district.

Peter Hooper, Macusani Yellowcake's President and Chief Executive Officer, said that the business combination, valued at US\$30 million, was "extremely attractive". The two company's uranium-exploration properties are adjoining, and recent exploration suggests that mineralisation extends across the shared borders.

Based on previous assays from Southern Andes surface sampling in channels and trenches, there are at least eight drilling targets in close proximity to existing Macusani Yellowcake projects with defined resources.

To this end, Macusani Yellowcake is lifting its exploration expenditure from the current C\$350,000/mth to C\$450 000/mth shortly. The combined post-merger firm will have approximately C\$13 million in cash which is sufficient to carry out exploration plans to the end of 2013.

Existing properties

Even ahead of the merger announcement, Macusani Yellowcake has been advancing strongly towards its original 55-65Mlbs U₃O₈ resource target by the end of this year.

The company is focused entirely on the eponymous district, and has three rigs drilling on its key Kihitian property (with a fourth due to start shortly). Recent assay results from the Chilcuno Chico anomaly at Kihitian have extended both the 'A' and, deeper, Manto 'B' zones, and delineated an area of roughly 700m x 400 m.

The best result in the latest batch of results was a 9m intersection at a depth of 210m that returned a weighted average of 1,238ppm U₃O₈ (2.48lb/ton). This intersection included a higher-grade zone of 2.0m that

averaged 5,296ppm U₃O₈ (10.59lb/ton). Another notable high-grade result was a 7m intersection at a depth of 150m that returned a weighted average 1,800ppm U₃O₈ (36.00lb/ton)

An initial resource estimate at Kihitian is expected by the end of March 2012, and Mr Hooper described the company as being "very pleased with the assay results as they continue to add to the resource base across the zones identified in our current model".

Macusani Yellowcake's resource base already comprises a combined 0.3Mlbs measured, 10.1Mlbs indicated and 17.0Mlbs inferred at the company's other main properties (Corachapi and Colibri 2 & 3). These are large, near surface, open pittable deposits, with low estimated cash costs (under US\$22/lb according to a preliminary economic assessment completed in April 2010).

Metallurgical testing done for the Colibri 2 & 3 project demonstrated recoveries of 84% - 99% after 31 days with low acid consumption. The lack of elements such as thorium, manganese, and vanadium are believed to be a big reason behind these high recoveries.

Peruvian assets

Peru offers a resource-friendly jurisdiction, with what Mr Hooper describes as "superb infrastructure", with roads, power, water and labour all conveniently located for Macusani Yellowcake's properties in the Puno District.

Mining is crucial for Peru, with the sector accounting for about 60% of the country's total exports. The industry also generates more than 128,000 direct and 400,000 indirect jobs.

BHP Billiton, Rio Tinto, Vale and Barrick Gold all have investments in Peru, and spending on the country's mining and energy sectors has totalled over US\$18 billion in the past 15 years.

These foreign investors are insured against non-commercial risks, such as expropriation and abrogation of contracts. The government of Peru has signed agreements with the Multinational Investment Guarantee Agency (MIGA; a World Bank agency) and the US Overseas Private Investment Corp (OPIC). The government is also a signatory on the World Bank Convention on the Settlement of Investment Disputes.

The country's mining law is based on international standards, with the main legislation being the General Mining Law of Peru (1991). Investment promotion laws,

MANAGEMENT

The board of directors and senior management team of Macusani Yellowcake have a wealth of experience with uranium and working in South America.

Peter Hooper, President and CEO

A mining engineer with broad-based experience, Mr Hooper has an extensive track record in the mining industry in South Africa, Canada, Australia and Ghana. He has provided consulting engineering to projects in Australia, Canada, Chile, Colombia, Cuba, France, Kazakhstan, Kyrgyzstan, Mexico, Russia, Saudi Arabia, South Africa, the US, Uzbekistan, Venezuela and Zimbabwe.

Mr Hooper was the mine manager of the Beaver Lodge uranium mine (1978-1981), an operation that produced 4M lbs of uranium. During his tenure the mine was modernised and mechanised.

Laurence Stefan, Managing Director, Peru

A geologist, with MSc and PhD, Mr Stefan was

the Peruvian tax regime and environmental framework are other components of the Peruvian mining landscape. Concessions are granted for exploration, exploitation, beneficiation, auxiliary services and transportation.

A mining concession grants its holder the right to explore and exploit minerals within its area. Concessions are exclusive, freely transferable and based on a grid system (from 100ha to 1,000ha; granted on a first-come, first served basis).

Concessions have an indefinite term but contain restrictions and an objective-based criteria. There is a single annual fee payable, with the fee structure being based on the scale of operation and the duration of ownership. Access to the property must be negotiated with surface land owners.

Macusani's targets

Mr Hooper said that Macusani Yellowcake is "committed to balancing profitability with sustainable development practices". He noted that by working closely with the local community, and with Peru government officials, "the company is helping realise the potential of Peru's vast mineral wealth in a sustainable way".

In Macusani Yellowcake's case this wealth centres on a series of 99.5%-owned concessions* which cover over 50,000ha (500km²) of the Macusani Plateau. The main properties are Kihitian, Corachapi and Colibri 2 & 3.

[*Under military laws, any assets within 100km of Peru's historic Mita regions (where the Spanish rulers practiced forced labour from 1573 to 1812) must be at least partially owned by a local entity.]

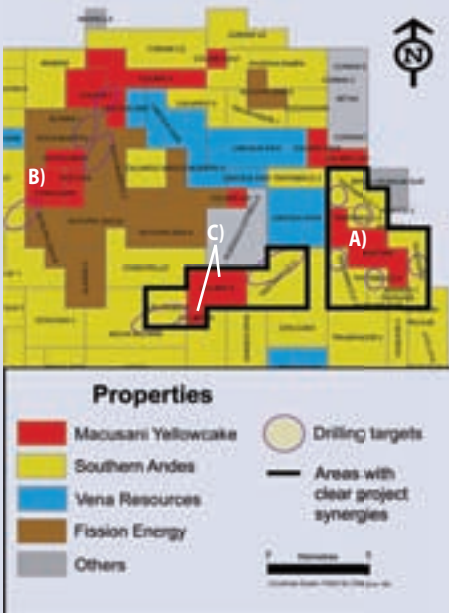
A) Kihitian: The company's key project, Kihitian represents a high-grade opportunity and is the focus of Macusani Yellowcake's exploration programme.

Recent drilling carried out by the company continues to demonstrate high-grade uranium intersections at Kihitian, and a resource estimate is due by the end of March 2012 to encompass multiple deposits.

To date the company has completed 44 drill holes, with drilling having resulted in an increased strike length of 400m on the A zone, and 700m on the B zone.

Assays have high-grade uranium with average values of almost 0.63% U₃O₈ (12.52lb/ton), with assays ranging from trace to a high of 11.24% U₃O₈ (224lb/ton).

The shallow 'A' zone (3.0-5.0m) has grades ranging from 0.08% U₃O₈ (1.16lb/ton) up to 0.26% U₃O₈ (5.19lb/



URANIUM MARKET

The primary commercial use for uranium is to fuel nuclear reactors for the generation of electricity. There are 434 reactors operating worldwide, and a total of 560 new reactors that are under construction, planned, or proposed for completion within the next ten years.

With increased demand for electricity and a movement towards clean energy generation, the number of proposed and planned nuclear reactors has seen a two-fold increase over the past four years.



ateau

MENT TEAM

founder of the Colibri Group in Peru, and remains the Managing Director of Minera Colibri. He has conducted the metallurgical and mineralogical evaluation of over 200 mining and exploration projects throughout Central and South America, Europe, Africa and Asia.

Mr Stefan has deep operational experience in the fields of exploration, mining, processing, legal evaluation and labour, and on social interaction in South America. He has also been involved in research in uranium recovery and enrichment programmes at various gold-uranium mines along the Witwatersrand Basin in South Africa.

Philip Gibbs, Chief Financial Officer

A chartered management accountant, with extensive financial management experience in large corporate environments in the manufacturing and retail sectors, Mr Gibbs has a multi-disciplinary exposure.

ton). The deeper 'B' zone has returned 7.0m at 1.80% U_3O_8 (36.0lb/ton) over a 65m wide mineralised zone.

Exploration is being expanded to the Quebrada Blanca anomaly, and a recently completed ground radiometric survey for this anomaly shows encouraging results.

This year's drilling programme will focus on the on shallow 'A' and deeper high-grade 'B' zones.

B) Corachapi: Macusani Yellowcake gained technical data on this property from RAM Resources Ltd (formerly Contact Uranium Ltd) in June 2009. RAM had completed over 10,000m of drilling in 193 diamond drill holes.

Macusani Yellowcake subsequently drilled 50 confirmation holes, with assays that included 0.06% of U_3O_8 over 36m, and 0.05% of U_3O_8 over 49 m, from some of the 87 previously unassayed RAM holes.

Although less than one-third of the property's strike length has been drilled, the resource is already 0.3Mlbs measured, 4.7Mlbs indicated and 1.9Mlbs U_3O_8 .

C) Colibri 2 & 3: A preliminary economic assessment (PEA) was completed in April 2010. This study indicated a cash production cost of less than US\$22/lb.

The deposit also benefits from excellent metallurgy, with recoveries of almost 99% and over 84% on high and low-grade samples, respectively (after 31 days with low acid consumption).

Previous drilling (127 holes over 8,255m) has indicated a strike length of 3km, with a width of 0.5km, average hole depth of 60m and grade of 0.4lb/t U_3O_8 .

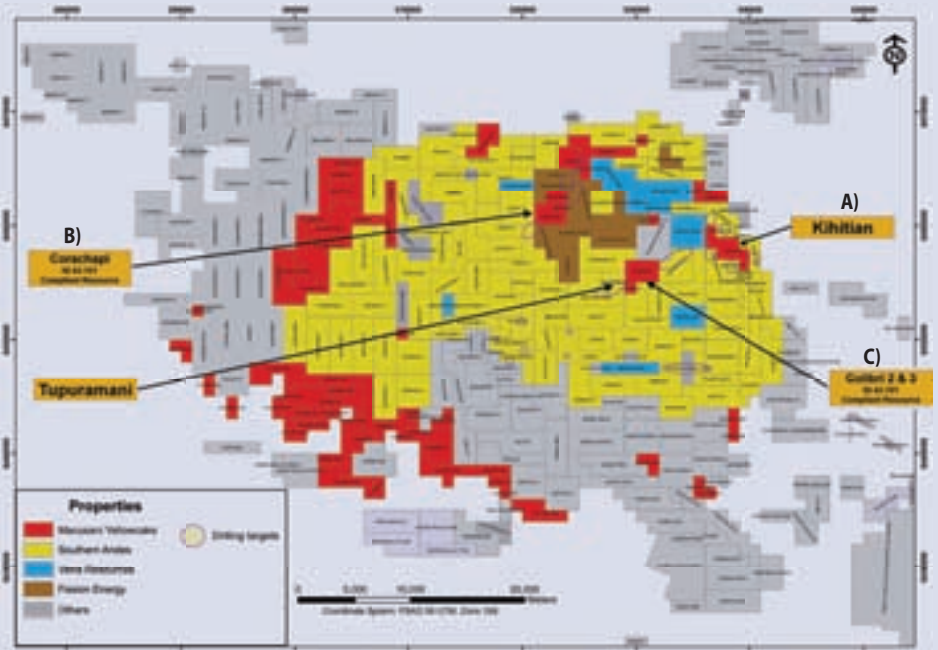
Some 82% of the property's strike length has now been drilled, and the resource is given as 5.4Mlbs indicated and 15.1Mlbs U_3O_8 .

Merger benefits

Under the merger agreement, the shareholders of Southern Andes will receive 0.8 of a common share of Macusani in respect of each common share of Southern Andes held.

Prior to the completion of the merger, Southern Andes will distribute all of its common shares of Caracara Silver Inc to the shareholders of Southern Andes. Each Southern Andes shareholder will receive approximately 0.45 shares of Caracara for each common share of Southern Andes held.

Based on the current share capitalisation of each of the respective companies, upon completion of the merger transaction, Macusani shareholders will own



approximately 65% of the outstanding Macusani shares and Southern Andes shareholders will own approximately 35%. The board of directors of both Macusani and Southern Andes have unanimously approved the terms of the transaction, and recommend that shareholders vote in favour.

A combination of these adjacent mineral property claims will position Macusani Yellowcake as the dominant landholder in the region. The company will increase its total land package almost four-fold, including several areas directly adjacent and surrounding Macusani's current resource properties.

Mr Hooper said that the deal provides Macusani with "the flexibility to evaluate various development scenarios, including a significantly larger production facility than previously contemplated". For example, Southern Andes' recent discovery at Tupuramani is located immediately adjacent to, and on strike with, Macusani's Colibri 2 & 3 property.

On completion of the transaction, the 7.57 million shares of Macusani Yellowcake owned by Southern Andes will be cancelled. The combined board of directors will draw from the expertise of both companies, and consist of six members from Macusani Yellowcake, and two from Southern Andes.

The directors and senior officers of Macusani Yellowcake and Southern Andes, holding 6.0% and 3.6%, respectively, have entered into voting-support agreements pursuant to which, among other things, they have agreed to vote their common shares in favour of the proposed transaction.

In addition, certain other shareholders of Macusani Yellowcake and Southern Andes (holding approximately 21% and 26% of the outstanding common shares of Macusani and Southern Andes, respectively) have also agreed to vote their common shares in favour of the proposed transaction.

Toronto-based Sheldon Inwentash, a private investor, is the beneficial owner of 16.7% and 15.7%, respectively (directly or indirectly), of the outstanding common shares of Macusani and Southern Andes. A long-standing investor in both companies, Mr Inwentash is described by Mr Hooper as a "big supporter" of the merger initiative.

A shareholders meeting is planned for March 30, 2012 and, if approved, it is anticipated that the proposed transaction will be completed in April 2012.

Future plans

The amalgamated firms will have a strong pro forma balance sheet, with a combined cash position of over US\$13 million. The group also has an experienced management team and enjoys substantial in-country synergies. Mr Hooper says that the assets offer "an attractive South American growth platform that will continue to evaluate accretive merger and acquisition opportunities in the uranium sector". He looks forward to an "enhanced market presence and trading liquidity".

Nick Tintor, the President and CEO of Southern Andes, said the transaction "will create a significant uranium exploration company with the management team and balance sheet to realise the full potential of the newly combined project portfolio".



CONTACT

Macusani Yellowcake Inc

Head office
141 Adelaide Street West
Suite 1200
Toronto, Ontario M5H 3L5
Canada
Tel: +1-416-628-9600



Toro's Wiluna ready to meet supply shortfall



Toro's Wiluna uranium project, with a regional resource base of 54Mlbs U₃O₈, is 30km south of Wiluna in Western Australia (WA). Wiluna is the most advanced of the new generation of uranium mines in Australia with WA and federal government assessment well advanced and a decision anticipated by mid 2012.

Subject to this Toro anticipates project development commitment by end 2012, construction through 2013 and first uranium sales in 2014. A definitive feasibility study is underway and recently revised project economics on an upgraded resource indicate a robust project under forecast prices.

The advanced approvals process and development stage of the Wiluna project mean that it is one of only a handful of projects worldwide that will be in a position to take advantage of looming uranium shortages and the increase in uranium prices, which are likely from 2014.

Toro is in discussions with potential joint-venture partners and parties interested in future uranium offtake or cornerstone equity investment.

Wiluna highlights

- Substantial resource base with 55.1Mt at 440ppm on regional basis (using 200ppm cut-off) for 54Mlbs U₃O₈;
- Minimum 14-year production life with additional resources in the region to be evaluated; and,
- ERMP (EIS) under review with the Western Australian and Federal Government decisions anticipated in mid-2012.

Achievements by Toro include the completion of a trial mine, in 2010, where a bulk-ore sample was obtained and processed through a pilot plant in 2011. During this period the selective mining process was proven and the alkaline tank leach with direct precipitation method demonstrated with overall recovery at 85%.

Toro has a target commissioning date of late 2013 with commercial sales in 2014. This is expected to coincide with a recovery in uranium prices going into 2015-16.

Toro has released a cash operating cost of US\$33/lb U₃O₈ during the first 10 years of operation with a target production rate of 1.8Mlb/y of product available for sale. Critically, Toro has flagged a process head grade into the plant of 720ppm during this period.

Theseus Uranium Discovery

Early exploration on the Theseus uranium project in WA has produced exceptional results, and further work is planned in order to assess Theseus as potentially Toro's second development project.

Theseus was discovered during a grassroots drilling programme in 2009 when initial results highlighted the potential for sandstone hosted uranium mineralisation. Drilling in 2011 has confirmed the presence of significant uranium mineralisation which is potentially amenable to "ISR" (in situ recovery) method.

Theseus now boasts a significant exploration target range of 20 to 40Mt at approximately 400 to 500ppm for 22Mlbs to 44Mlbs U₃O₈.

The uranium is sandstone hosted uranium mineralisation at around 100m depth with obvious similarities with the Beverley and 4 Mile deposits (potential ISR) evident.

Covering a massive area, the Theseus project provides Toro with significant blue sky and a pipeline project that may follow in Wiluna's footsteps in due course.



CONTACT

Toro Energy Limited

3 Boskenna Avenue
Norwood

South Australia 5067
ABN 48 117 127 590

Tel: +61 (8) 8132 5600

Fax: +61 (8) 8362 6655

Email: info@toroenergy.com.au



Can uranium production keep pace with global energy demand?

Production figures for the top three uranium-producing countries for 2011 show Kazakhstan continuing its rapid growth, Australia maintaining 2010 levels but Canada falling by 6%. This is because the McClean Lake mine in Canada was put on standby in August 2010.

Data from the World Nuclear Association suggests that by 2030 demand for nuclear energy could go up by more than 50% in countries that already have nuclear capacity. This figure is for their reference scenario; the high-growth scenario suggests growth of around 100% by 2030.

In its Nuclear Century Outlook, The World Nuclear Association has also published data for countries that have current plans to invest in nuclear energy and those countries that they believe are likely to become players in the sector.

The World Nuclear Association is expecting demand from countries that have not yet entered the sector to at least equal, and possibly exceed, current demand from those countries that have existing or planned nuclear capacity. These forecasts are in line with predictions from the International Energy Agency who are expecting nuclear output to rise by over 70% by 2035.

Mining Journal spoke to Robert Vance of the OECD and asked him whether he believed that there could be a scenario where uranium shortages materially reduce nuclear capacity. His answer was an

“To get to WNA’s high-growth scenario, you need to deal with public confidence in nuclear”

overwhelming no. Mr Vance said: “There are two issues here: one is constructing additional nuclear capacity and the other is getting the uranium to fuel new and existing reactors. To get to WNA’s high-growth scenario, you need to deal with public confidence in nuclear. Creating a nuclear capacity does require fairly significant up-front funding and, although you do get decades of pretty predictable costs, getting over the first 10 years is a challenge. To get to these high-growth scenarios, there has to be some success in reactors that are being built now. They need to be delivered on time with few problems with construction or investment and importantly no Fukushima-esque disasters.”

He was clear that the industry was poised to meet the supply gap and added: “The uranium industry is very interested in what the demand will be and is looking at where the key areas are going to be in terms of reactors and capacity. Although the Fukushima curved ball has kept the spot price fairly low, there are a number of projects poised to go, so I am not at all concerned about supply failing to meet demand.”

	2010 (t U)	2011 (t U)	Change (%)
Kazakhstan	17,803	19,450	9.25
Canada	9,783	9,152	-6.44
Australia	5,900	5,977	1.30

Table showing 2011 results of the top three uranium producers

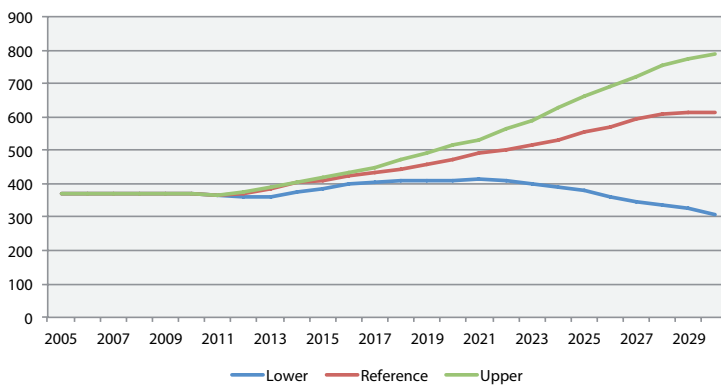


BHP Billiton is mining the world’s largest uranium deposit at their Olympic Dam mine in Australia

One such project is the exploration by Uranium Resources plc in Tanzania where it is exploring for deposits amenable to the in-situ recovery technology for uranium extraction. Alex Gostevskikh, managing director of Uranium Resources, says: “From what we have observed so far, the geological setting, mineralogy and rock composition are strikingly similar to Kazakhstan and, although we are not expecting Tanzania to be of the same exact scale, it could well be another Wyoming.”

At Cigar Lake in Canada, Cameco Corp has a mine under development. Cigar lake is the world’s largest undeveloped high-grade uranium deposit with proven and probable reserves of more than 216.7Mlb U₃O₈. Cameco is likely to begin commissioning the jet boring mining process in ore by mid-2013 with the initial uranium to be packaged at McClean Lake mill by the end of 2013 with a ramp-up to full production by the end of 2017.

BHP Billiton is mining the world’s largest uranium deposit at their Olympic Dam mine in Australia. In

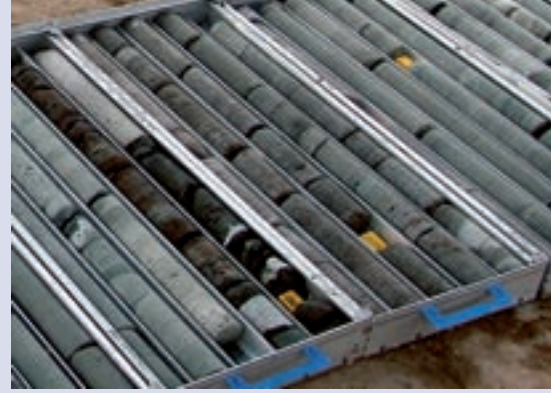


Nuclear generating capacity to 2030 (MWe) showing capacity for the three scenarios: lower, reference and upper
Source: World Nuclear Association



Uranium production at Kazatomprom

A new era in uranium exploration in Africa?



Uranium Resources plc has developed a pioneering exploration concept that dramatically improves the uranium prospectivity of the entire basin.

The company is testing this concept by employing proprietary targeting methods at its Mtonya project, which is being advanced to resource stage. As a result their cornerstone investor Estes Ltd has committed major resources to the exploration programme developed using this innovative model.

Government support for uranium exploration has also played a crucial role. President Jakaya Kikwete of Tanzania said last year that the country was eyeing the world's biggest uranium slot and the government-backed alteration of the Selous Game Reserve has opened the door to serious development of the Nyota deposit.

Uranium Resources plc owns the Mtonya property, which is around 60 km south of the Nyota deposit and is being developed by Uranium One. Nyota was the first one in the Luwegu basin to reach resource stage and indicate commercial viability.

The company's methodology includes compiling a comprehensive database of geological and geophysical data for southwest Tanzania and adjacent regions, and analysing the data – which included geological maps, regional and local magnetic and radiometric surveys, satellite image and structural interpretations. This analysis enabled Uranium Resources to fully understand the architecture of East African Karoo basins and their uranium metallogeny, and model accurately the prospectivity of deep sandstone-hosted uranium deposits.

The company's model rests on identifying a number of crucial similarities between the Tanzanian sedimentary basins and such significant uranium provinces as Chu-Sarysu, Kazakhstan, and Wyoming, US.

Once the lithostructural framework of the Luwegu basin was decoded, Uranium Resources reconstructed the evolution of the basin whereby the near-surface uranium mineralisation was interpreted to be erosion remnants of roll-fronts exposed on surface.

One such example is Uranium One's Nyota deposit, which is located some 60 km to the north of Mtonya and estimated to contain an indicated and measured resource of 93 Mlb U₃O₈.

Uranium Resources' section of the basin is thought to host the primary mineralized roll-fronts at depths over 150m, which makes the mineralization amenable to in-situ recovery but also characteristically difficult to find. The new concept specified the company's strategic objectives at Mtonya as discovering a roll-front uranium deposit with significant scale potential, amenable to in-situ recovery, the most economically efficient and environmentally benign of uranium extraction methods.

Completed in November 2010, the 4,170m scouting diamond-drilling programme, which included holes up to 512m deep, validated the company's model and provided the essential lithological and geochemical data for taking the Mtonya project to the next level.

With the refined exploration model, the company's first hole of the 2011 programme intercepted uranium mineralization at a depth of 262.9m. The 2011 drilling campaign comprised 27 diamond drillholes to a total of



7,950m. The holes were set in an irregular pattern about 300m apart with only a few infill holes with 50-150m between them.

The 38 diamond drillholes drilled at Mtonya to date have defined three 100-150m-thick redox tiers and produced a number of mineralised intercepts, providing evidence for multiple stacked roll-fronts within the established tiers.

The internal studies of lithology and mineralogy carried out on samples of mineralised drill core suggest persuasive similarities with the uranium deposits of Kazakhstan, namely arkosic composition of the sandstone, low content and composition of carbonate minerals (<5%), ore mineralogy (uraninite, coffinite), and similar trace element geochemical signature (selenium, molybdenum, vanadium, and scandium).

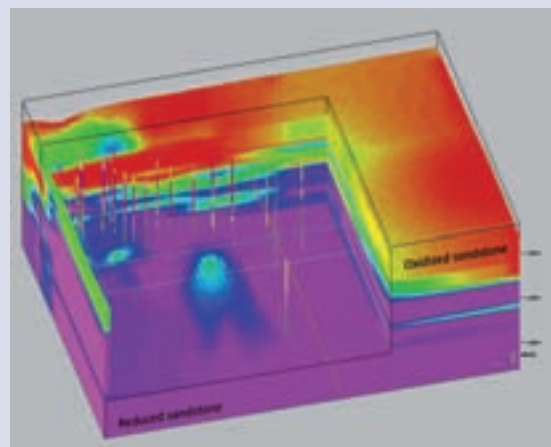
Exploration drilling currently unevenly covers an area of <70km² out the company's 625km² Mtonya group of tenements and applications, which also host Lukimwa, a second priority roll-front uranium target some 27km southwest of Mtonya. The company's model suggests that both Mtonya and Lukimwa might be parts of the same continuous roll-front feature.

The near-surface uranium mineralisation at Mtonya remains a valid exploration target but its significance is viewed as subordinate in comparison to the deep mineralisation that could yield substantially larger deposits amenable to in-situ recovery.

Using proprietary methods for redox and roll-front modeling, the company has developed a 20,000m Mtonya drilling programme for 2012, which is expected will generate enough data to produce a maiden resource in Q1 2013.

Uranium Resources plc used the same methodology for the Eland project area where it was able to generate a rare-earth elements Gundua target, which warrants follow-up work in 2012.

And there is much more to explore. The company continues advancing its sizeable portfolio of land holdings in Tanzania by compiling data, generating



models and verifying them in the field. The successful validation of Uranium Resources' exploration model opens up tremendous new opportunities, not only in Tanzania but also in adjacent jurisdictions heralding a new era for uranium exploration in Africa.

CONTACT

Uranium Resources

Registered Office: One America Square, Crosswall
London, EC3N 2SG

Ross Warner

Tel: +44 (0)7760 487 769

Email: rosswarner@uraniumresources.co.uk



late 2011, it secured US\$1.2 billion in pre-commitment capital for the first phase of the Olympic Dam Project to develop an open-pit mine.

A number of other companies are investing heavily in scoping work so that they are ready to go if shortages push up the price of uranium. Dr Richard Spencer, U3O8 Corp's president and CEO, says: "We're advancing metallurgical test work to prove efficient metal recoveries and beginning scoping studies to provide the first indication of the economics on two of our lead projects."

Mr Vance says: "With the right signals, these projects will materialise fairly quickly." He also cited secondary supplies of previously mined uranium as a potential source of fuel in a scenario where demand starts to look as if it might exceed supply. He said: "You have to bear in mind that quite a lot of uranium sits in enrichment tails. If it was to eventuate that the mines were not coming on stream, the market would respond in terms of price and that would make secondary supplies available to the market and push mining development."

Some analysts have predicted that the price of uranium could double by 2013, which would certainly stimulate the industry. The question is where are the deposits that are most likely to be exploited and could there be a serious increase in uranium production levels globally. Dr Bob Beeson, managing director of Aura Energy, says, "In both Europe and Africa, there



A Vermeer surface miner at Toro Energy's Wiluna operation

are several new large deposits that were unknown during the last uranium boom and these will attract both the major miners and potential large customers."

Northern Canada contains high-grade deposits and others in the region are going through feasibility studies that could increase fairly soon.

The Olympic Dam project in Australia has a lot of potential for growing production quite dramatically and there are more areas in Australia that are becoming favourable to uranium exploration.

Clearly, there is a lot of exploration in Namibia and significant mine development along the Niger River.

With a price increase, Botswana will become very interesting and Kazakhstan is driving forward its growth of uranium with another 9.25% boost in production in the last year.

Mr Vance says: "If the price was right, unconventional sources in phosphate deposits could quickly contribute to stocks of uranium. In Sweden, there are very, very large deposits of black shale which possess uranium as well as a mix of other minerals. Although the uranium is a low-grade, bio-heap leaching methods can extract it and, if the price was high enough, black shale could be very attractive to the market."

There are also deposits in Finland and, at the Sotkamo nickel mine, Cameco and Talvivaara Mining Co plc expect to produce up to 900,000lb of uranium concentrate at full production from what would otherwise have been a waste product.

Alex Gostevskikh agrees that the spot price

could double by 2013 but he thinks that the large, low-grade deposits in black shale and phosphates in Sweden, Morocco, Central African Republic, or alkaline complexes such as in Greenland or Brazil would require significantly higher prices before they become unequivocally viable.

Mr Gostevskikh says: "Uranium is one of the most

"Uranium is one of the most politicised commodities, so that makes a big difference to where production is likely to grow"

politicised and regulated commodities so that makes a big difference to where production is likely to grow." He believes that Canada has a lot of potential for growth. "In terms of countries that produce uranium, we've got one of the most stable jurisdictions in the world. Our close proximity to the US makes us a natural

exporter of uranium to our neighbour, the world's largest consumer of nuclear fuel. It is difficult to envision the US Department of Energy approving reliance for their nuclear fuel from any single country less politically stable than Canada."

Mr Gostevskikh makes a point for political risk being in some ways a stronger influencer on exploration than geology. He gives a telling example: "There are a number of geologically perfect projects in countries that observers refer to as rogue. And you have to think very carefully whether a publicly listed company should go to one of those rogue countries or failed states. When I am thinking about corporate strategy I am thinking about what country I want to expand in, what is the political and regulatory system like, where is the right infrastructure, and after that we ask ourselves how we can generate a world-class



Aerial view of Talvivaara



The Khiagda uranium ISL facility in Russia Photo: ARMZ



The Ranger mine in Western Australia

exploration opportunity. World-class opportunities have long mine lives and long mine lives don't work well with excessive risk exposure. Companies don't make decisions based only on geology."

Craig MacPhail, of Continental Precious Minerals Inc, agrees: "A good jurisdiction is key, if you have a good deposit in a bad jurisdiction, no matter what you do, you won't be able to monetise it."

Mr Vance adds: "Another point to remember is that it is not a linear relationship. 200% growth in nuclear capacity doesn't necessarily mean that 200% more uranium is needed. There's a lot of technology coming on stream that will make the whole process more efficient."

The world is growing and energy demand is growing with it. There will be more nuclear capacity coming on stream as we go through this century and that can only be good news for uranium producers and also for the countries where uranium is extracted.

Technology meets the needs of the industry

Exploration companies are using more and more geoscience to ensure commercial viability of exploration sites. Uranium Resources has used what Alex Gostevskikh, managing director of the company calls "a very revolutionary application of geoscience to find deposits of uranium in southwest Tanzania".

In its project, the company developed a way to model the redox interface at depth so that it could dramatically improve their drill targeting. The method establishes an oxidation-reduction 'corridor' where the mineralisation is most likely to occur and Mr Gostevskikh says: "Cameco's Inkai deposit in Kazakhstan took a total of 4,898 drill-holes to drill out, and Nyota required 4,418. We found uranium in our 12th hole."

Using geoscience in this way makes absolute commercial sense and in-situ leaching technology means that extracting the uranium is not only environmentally benign but also cost-effective. As of 2010, 40% of uranium extraction used in-situ leaching as in-situ recovery can be done at cash costs of US\$20-25 – half the price of conventional open-pit mining. Mr Gostevskikh says: "If we are successful,



Tanzania will become the fourth-largest uranium-producing nation, even at today's prices."

Bio-heap leaching is also being seriously considered by a number of companies. Craig MacPhail of Continental Precious Minerals says: "bio-heap leaching has been proven to be successful with nickel. Right now, we are researching whether its commercially viable with other commodities."

Bio-heap leaching involves the extraction of metals from their ores using living organisms. The advantages are that it is much cleaner than heap leaching and therefore a much greener technology. Continental Precious Minerals does not yet know if it will be able to monetise the process but it has commissioned Hatch Engineering to evaluate it. Dr Bob Beeson,

Company profile

U3O8 Corp's South American resource grows

With properties in Colombia, Argentina and Guyana, U3O8 Corp. (TSXV:UWE) is exploring solely in South America, where its NI 43-101-compliant uranium resources increased fivefold to nearly 40Mlb in 2011. At the same time, the company defined resources of 160Mlb vanadium and almost 9Mt of phosphate. This year should be another high-growth year targeting resource expansion to 70-80Mlb U.

Dr Richard Spencer, U3O8 Corp's president and CEO, sees South America as akin to Africa 10 years ago – offering good geological potential for uranium, favourable regulatory jurisdictions and growth opportunities obtained at reasonable values.

"We want to establish a dominant position in what we see as a new frontier for uranium. To that end, we are delivering on our objectives of dramatically increasing our uranium resources, adding resources in other 'green commodities' such as vanadium, phosphate and rare earths, as well as positive metal recoveries across our projects in Colombia, Argentina and Guyana. 2012 should see further significant resource expansion as we execute on an advanced portfolio of uranium projects in South America. And our projects in Colombia and Argentina are now ready for scoping study," he said.



The Berlin Project: the aerial transport system minimises environmental footprint during drilling; a community garden promotes healthy diets near local village



BERLIN PROJECT, COMPANY MAKER

With its high rock value and considerable size potential, the Berlin Project is the real company maker for U3O8 Corp. Berlin contains a basket of 'green' elements including uranium for nuclear power, phosphate for fertiliser, vanadium for energy storage batteries as well as rare earths for renewable energy. Excellent recoveries have been achieved on this suite of commodities. And only 3km of a 10km mineralised trend has been drilled for an initial 21Mlb uranium resource plus other metals. U3O8 Corp. is funded with about \$14 million to pursue its resource

build-up plans this year, which would take it from a junior explorer to among a handful of mid-sized uranium companies in the short term.

CONTACT

U3O8 Corp.
8 King Street East, Suite 710
Toronto, ON M5C 1B5,
Canada
Tel: +1 416 868 1491
E-mail: info@u3o8corp.com



www.u3o8corp.com

managing director of Aura Energy Ltd, says: "While bio-heap leach technology is not new in the sense that it has been applied to a number of minerals during the last few decades; its use for uranium is new and not well appreciated. It can significantly lower both capital and operating costs for the industry."

Cost control is a key driver for innovations in exploration and extraction, which is unsurprising in a hardening economic climate. Older gas diffusion technology is being replaced by much more efficient centrifuge technology.

Robert Vance, of the OECD, says: "Centrifuge technology cuts down significantly on electricity needed to enrich uranium. I am talking 5% of the electricity needed for gas diffusion which is a commercial no-brainer." URENCO has taken this technology a step further improving the gas centrifuge technology by using heat more efficiently in Zippe centrifuge.

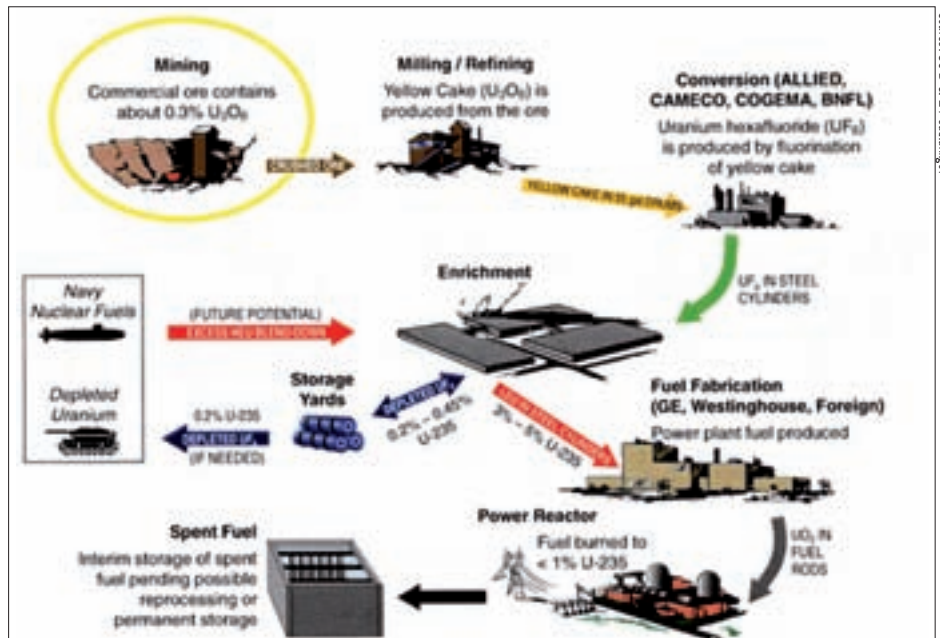
The newest development in uranium enrichment is laser technology. Global Laser Enrichment, a venture launched by GE-Hitachi and in which Cameco has taken a stake, is applying for a licence to construct a uranium-enrichment facility in Wilmington, North Carolina, in the US. GE-Hitachi acquired the exclusive rights to develop and commercialise this laser-based isotope separation technology from Australian company SILEX in 2006. Laser processes promise significant commercial advantages with lower energy inputs, capital costs and lower tails assays. If the licence is approved, the plant will be the only one in the world to use laser excitation to separate U-235 from U-238.

Technology is also key to increasing the safety of reactors. Ian Emsley, of the World Nuclear Association, says: "What we are seeing now is more back-up systems in case of all sorts of accidents. The EU didn't limit their stress tests to earthquakes and tsunamis and increased safety will be costing at least US\$1 million per plant. Mainly what has been put in place is additional diesel generators to ensure back-up cooling. The key is that you need to remove heat to avoid a meltdown of the fuel. If the fuel overheats, the cladding oxidises exothermally to create a build-up of hydrogen which poses a risk of explosion and escape of radioactive gases."

Mr Emsley adds that safety does not require radical change but more minor modifications as current reactors (Gen III) are designed with a lot of passive safety cooling systems which are sufficiently robust. These reactors are able to operate without human intervention or even computer control and therefore in the event of a disaster they keep the core cold for a number of days, giving the emergency services time to get their disaster plans up and running. He says: "It is extremely unlikely that the accident would have taken place in a more modern reactor."

A new generation of reactors are being developed which are suggested to be safer, greener and cheaper. While most of these are still on the drawing board, there are a couple worth mentioning.

The pebble bed reactor (PBR) is a reactor where the fuel comes in 360,000 pebbles which cycle



through the core 15 times. They have been touted as in every way safer than the present nuclear reactors, not least because they come fully stocked with fuel. PBRs when they come into operation may well be very useful in less industrially developed countries as they make economic sense on a much smaller scale.

To date, the South African/Dutch-proposed prototype is not proceeding but the HTR-10 has been licensed to China. A number of organisations are exploring the technology including MIT, University of California at Berkeley, General Atomics, Romawa BV, Adams Atomic Engines and Idaho National Laboratory.

Mr Emsley says: "There is hope for fast reactors that can use the plutonium that is produced by normal reactors. However, this has never been commercialised in a big way. The French are committed to the deployment of new fast reactors in the coming decades."

He also points to the merit of some highly prospective nuclear fuel technologies that offer higher safety margins and better fuel utilisation. These include beryllia-doped fuel ceramic and silicon carbide composite cladding. The US is very keen on small modular reactors but they need to be made cheap enough to become attractive commercially."

Dr Richard Spencer, U308 Corp's president and CEO, believes that small reactors are going to be particularly attractive in remote areas. He says: "A key development is the permitting and construction of mini-nuclear reactors that can be built at a central facility and shipped to where the electricity is required, which reduces the footprint for infrastructure and is deployable in remote areas. These units are compact similar to an 8ft x 5ft-size shed and secured in an underground vault like a 'nuclear battery'. They are scaleable and refuelled every 8-10 years. Small reactors are also lower-cost – in the tens of millions of dollars – and can be built in a few years compared with conventional reactors that cost billions and take five to seven

years to construct. The IAEA estimates that there could be 40 small reactors in operation by 2030."

Dr Bob Beeson, managing director of Aura Energy, agrees that small reactors will be an increasing trend. He says: "It looks increasingly likely that some countries are going to trial these small 100MW-type nuclear units that can be expanded in modules. This is thought to lower construction costs and regulatory risks, making nuclear energy more economic."

Clearly, once the uranium has been used, there is then a task of disposing of the waste product. In the Eurobarometer published in 2008, the survey showed that if those against nuclear felt the issue of radioactive waste management were solved, four out of ten would change their mind.

John Birchall, a nuclear engineer with over 35 years' experience in the industry, says: "It's a big problem because, in its liquid form, the waste product is highly radioactive and is currently kept in liquid form in big drums on site at the nuclear plant."

He adds: "There is a lot of work going on here in the UK to address the problem. At Sellafield, they are working on an encapsulation methodology to convert the liquid waste to solid disks that could be stored more safely. There is also some blue-sky thinking around irradiating the waste to convert long-lived radioactive isotopes to short-lived radioactive isotopes so that they would be safe in say 100 rather than 1,000 plus years."

This is clearly a critical issue for the nuclear industry. Robert Vance says: "The problem is that the waste is currently stored either on site or in a secure facility above ground. At the moment, the only planned underground repository is set to open in Finland and, until that happens, you can't really close the fuel cycle." Posiva, a specialist in the disposal of nuclear fuel, is hoping to have an operational facility up and running by 2025. Mr Vance says: "Once these things get into operation, we will be in quite a comfortable situation. Uranium comes out of the ground and uranium goes back into the ground."

So technology is ramping up to meet both the commercial needs of companies operating in the sector and the public's need to have a reliable energy source to drive economic regeneration but is, above all, safe.

"Cost control is a key driver for innovations in exploration and extraction, which is unsurprising in a hardening economic climate"

CONTINENTAL PRECIOUS MINERALS INC.

Defining a significant
multi-mineral resource in Sweden

www.czqminerals.com

Listed on the Toronto Stock Exchange: CZQ

A large, abstract white graphic element consisting of several curved, overlapping shapes that resemble stylized mineral veins or a flame, set against the orange background.