A plea for jobs and a concern that the government will “approve the project on the basis of economic benefits and ignore environmental and social impacts”, were among the issues raised during three open days that were arranged for Swakop Uranium’s proposed Husab Mine.

The open days were held in Windhoek (1 November), Arandis (2 November) and Swakopmund (3 November) to assist interested and affected parties (I&APs) with their review of the environmental impact assessment (EIA) for the proposed Husab project.

The open day format allowed I&APs to interact with representatives of Swakop Uranium, the EIA consultants, Metago Environmental Engineers, as well as some of the specialists involved with the EIA.

While only 19 people attended the open day in Windhoek, 245 attended the one in Arandis and 73 the one in Swakopmund. According to Metago’s Brandon Stobart, the relatively small turnout in Windhoek did not come as a surprise, since the project is not really “in their backyard” and many key stakeholders are already well acquainted with the project.

Most of the attendees in Arandis were enquiring about job opportunities during the construction phase. They were disappointed to learn that no job applications can be entertained at this stage since the project has not yet been given the go-ahead.

While several attendees in Swakopmund also enquired about jobs, most were interested in matters environmental. Among the issues raised and comments made, were:

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Sole mates. Over 19 000 Welwitschia plants have so far been surveyed in a pioneering census of these remarkable plants. Immanuel Kalomho gets close to his “sole mates”, a pair of reliable boots that has carried him over hundreds of kilometres in the desert.

Full story on page 4

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CONTINUED ON PAGE 2
The project should not be located in the park; waste rock dumps should be stopped; seepage of water from the tailings and ground and surface water. The proposed project on our roads, the increase in traffic and an increase in accidents; disturbance of wildlife and scenic aspects; a concern about blasting activities; a concern about the impact of the proposed mine, plant and associated infrastructure on the environment, both physical and socio-economic. The proposed Husab Mine requires a Mining Licence before mining can commence, and the findings of the EIA will add impetus to the Namibian Government’s decision on the issue of a mining licence. An environmental management plan was developed in which Swakop Uranium commits to do its utmost to mitigate the potential negative impacts of the project and to enhance the positive. ‘What is important,’ says Brandon, ‘is that there will be people who oppose the project on the grounds of potential negative impacts on environmental and social grounds, while others would support the project on the grounds of potential positive economic impacts.’

No applications unless advertised, please! This is the plea of Swakop Uranium’s CEO, Norman Green. He says the company’s office in Swakopmund is inundated with people wanting to submit their CVs for permanent jobs with the company, or construction jobs on the proposed Husab Uranium Project. He stresses that no applications or CVs will be accepted unless they are in response to advertisements and submitted through the appropriate channels.

The open days conveyed information on everything from water to Welwitschias. The public, in turn, raised concerns ranging from foreign labour to traffic. The project activities need to stay outside of the West Coast Recreational Area (WICRA); hazardous signs such as “danger” and “do not enter” give an anti-tourism feeling, especially along the Welwitschia road; the lifespan of the mine is too short. The lifespan can be increased by lowering annual production of uranium; the project should not be located in the park; concern about blasting activities; seepage of water from the tailings and waste rock dumps should be stopped; a concern about the impact of the proposed project on our roads, the increase in traffic and an increase in accidents; there are too many people who are not Namibians, coming to Arandis; we would appreciate it if Swakop Uranium would establish an employment office in Arandis; Dr Hu Berry, a well-known Namibian conservationist, submitted a comprehensive list of issues, predominantly based on a concern that exploration and mining in a national park are completely contradictory to its goals. Says Dr Berry: ‘The extraction of natural minerals from the earth is recognised internationally as non-sustainable in the long term. History will judge whether exploration and mining was in the best interest of the national park and the associated benefits it offers for tourism.’

According to Brandon Stobart, the issues raised at the open days will be included in the final EIA report that will be submitted to the Ministry of Environment and Tourism for decision-making.

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become firm friends. Here they are every day in each other's company, Ignatius (right) and Immanuel have been doing the Welwitschia census and spending recording a plant's GPS reading. HOW from firsthand experience that they do not know Ignatius Katopao, they'd be able to tell you how many Welwitschias? They have been doing the census since November 2009, when they took over from their predecessor, geologist Hosen Nampala. "We start at 07:00 every day and walk between 12 and 15km in the desert sand until we finish at around 17:00," says Immanuel. "This allows us to note the details of between 100 and 110 plants each day." Noting the details of each plant, involves scaling its size, taking a GPS reading of the plant's position, determining whether it is male or female and noting its general condition. How do they distinguish male from female? "The male cones are salmon-coloured, while the female cones are blue-green, larger and more tapering," explains Immanuel. The information they gather is written onto a whiteboard, which, along with a measured scale, is photographed with the plant. All this information is then uploaded to a palmtop computer. A white lime marker indicates that the plant has been measured. After every 500 plants, the data is downloaded onto a compact disk for statistical analyses. "Despite the long walk and repetitive nature of the task, the job has been very interesting and we feel we've learnt a lot," Ignatius adds. "Learning to use new technologies like GPS and palmtops has opened our eyes to the world. In addition, we have the privilege of working in the wild where we almost daily come into contact with oribis, foxes, rabbits, chameleons and the odd snake." The pair starts each day dressed for the morning desert chill, but as the day wears on, they shed their warm clothes. Food and water are carried in backpacks and they have found that one of the most practical ways to keep their drinking water cool, is to place it in the shade of Welwitschia plants’ leaves. They have surveyed more than 19,000 plants to date, a large body of Zon 1 and 2 where Swakop Uranium intends to mine. By their own admission, however, they have not reached the halfway mark. Are you ready boots? Start walking!
1. Mining
It is an open pit mining operation, where the rock face is drilled and blasted and diesel and electric powered shovels load the blasted rock onto 250-tonne haul trucks. The haul trucks will use a tram-like system (trolley assist) to save on fuel and truck the rock out of the mining pit.

2. Crushing
The haul trucks tip their load into a bin above the crusher where the rock is crushed into smaller rocks. The crushed rocks go to conveyer belts.

Interestingly, for every eight trucks of rock that are hauled out of the mining pit, only one truck of mineralised rock goes to the crusher and subsequent uranium recovery process. The other seven trucks are waste rock.

3. Milling
The mill takes the all-in ore and processes it in a series of processing stages that progressively grind the rock finer and finer until it can be leached (milled).

4. Leaching
Sulphuric acid and manganese dioxide result in a chemical reaction that dissolves the uranium out of the rock. This results in a solution containing the uranium and the solids, in a mixture like mud.

5. Belt filter
The solid and liquid phases from the leaching have to be separated on a horizontal belt filter where a vacuum sucks the liquid out to continue upgrading and refining the uranium content.

6. Ion exchange
The liquid part is now the feed stream for the uranium refinery.

In the ion exchange, a resin is used to selectively adsorb the uranium where it sticks onto the resin. This "loaded resin" is sent to an elution column, where acid is added to remove the uranium from the resin.

7. Solvent extraction
Three stages of refining happen here:

- **Extraction** – an organic reagent, specifically selected to attract uranium, forms an organic complex (the uranium sticks to it)
- **Scrubbing** – the organic complex is washed with sulphuric acid
- **Stripping** – a strip liquor is added to strip the uranium from the organic complex and return it to the aqueous phase. This process further increases the concentration of uranium and gets rid of impurities.

8. Precipitation
A precipitation process is applied to the concentrated liquid so that solids form again (remember the experiment you did at school with salt water? The water evaporated, leaving behind salt crystals). The result of this precipitation is the uranium oxide product.

9. Washing, thickening and product drying
The final product is washed and thickened. Finally, it is dried and can be sold as uranium oxide.

Almost all the uranium mined today is used to produce electricity. Of the 1100 nuclear reactors operating throughout the world, more than 430 are used to generate electricity. About 280 reactors are used for medical and industrial needs and research, and more than 400 for powering ships and submarines.
Eureka, we’ve hit uranium!

And the man from Down Under is on top of the world

In March 2006, Australian geologist Barry Parker arrived in the Namib desert “on a rock and a prayer”. He had abandoned a secure job Down Under because the spirit of adventure beckoned him to come to Africa.

His friend and colleague Martin Spivey, head of Geology for Extract Resources, had persuaded him to join him in the Husab area, which Martin targeted as an exploration area of interest. Their mission: to set up camp on Swakop Uranium’s exclusive prospecting licensing (EPL) area and find uranium, preferably lots of it.

Barry’s dreams and expectations soon made way for the harsh reality. “The cultural shock and isolation during the first few months almost drove me into a nervous breakdown,” he admits. “Everybody spoke Afrikaans and didn’t seem to understand me. That, coupled with massive dust storms and the floods two summers ago, made me wonder why I had ever left Australia. To top it all, I got arrested because my visa had expired.” Fortunately, the visa problem was quickly sorted out and Barry was allowed to return to his job in the desert. During that time, he was joined by a dozen or so geologists, among whom a young Namibian geologist, Trianus Nghipangelwa.

Barry and Trianus still have vivid memories of the struggle in the harsh desert. “We often went on field trips during our studies, so I knew what to expect and what the setup was going to be like. The snakes, scorpions and baboons, however, were quite a nuisance. They regularly went into the drills’ camp, where they chewed up the water pipes and caused us a lot of headaches.”

On the exploration front, things were somewhat more frustrating. Isla Dome Central, where the drilling programme started, did not yield the desired results. They decided to move the drill rig to the Garnet Valley area, and the camp to the canyon. The drill results were good, but still not world-class. The global financial crisis happened during that time, and they were worried that Extract Resources would stop the project. Luckily, that did not happen and exploration continued.

The big day came at the end of 2007. “We had moved in a drilling rig to what is now the northern half of Husab Zone 1 and I had just received my first spectrometer reading. Exploration continued to the south and uranium mineralisation was discovered in what became Husab Zone 2. The many days in the desert sun had at last paid off.”

Has Barry come to terms with Africa and the desert life? “Definitely. My Namibian colleagues have come to grips with my Aussie accent and I can say ‘hallo’ in Afrikaans. Besides, to see a sunrise in the desert offsets any negative feelings I may harbour at that moment.”

They’re having a rocking good time.

Both are “rock scientists” and both like rock music. Meet Lourença Mungundu and Sevelia Namushinga, the two rock-solid female geologists on the Swakop Uranium exploration team. Not a lot of people fancy the idea of spending every working day in the harsh desert sun or sleeping in a desert camp, but Lourença and Sevelia just love it. When the generator is started up at 05:30 in the Ida camp where most of Swakop Uranium’s geologists stay, they take a cold shower and have a quick breakfast before going to the core yard next to the camp where they work shoulder to shoulder with their male colleagues.

Lourença logs drill cores and supervises the geological assistants’ work, while Sevelia is responsible for geotechnical core logging and data processing. In between, they regularly visit the Husab Uranium Project site where Sevelia assigns drill holes to the rigs and Lourença supervises the core handling. She describes the progress of the diamond drilling activities. Lourença is also a safety representative at the camp and was recently appointed as a radiation safety officer.

Both are well qualified for their jobs. Sevelia obtained a BSc Degree in Geology and Environmental Biology at the University of Namibia, while Lourença obtained a National Certificate in Land Measuring at the Polytechnic of Namibia. Lourença later enrolled at the University of Namibia where she obtained a Bachelors of Science degree majoring in geology. She is currently completing an honours degree at the University of South Africa in 2008, majoring in Environmental Monitoring and Modelling. She is currently studying towards a Master’s degree in geology.

“Isn’t it awkward to stay among the males in the camp?” “Not at all,” says Sevelia. Lourença agrees: “I grew up in a household surrounded by male relatives and have learnt to live in harmony with members of the opposite sex from an early age.”

Both are married, and get to see their husbands when they get their one-week break each month. Sevelia can’t wait for the construction and opening of the Husab Mine, as “I would love to be part of a multi-billion dollar company”.

The highlight of Lourença’s career was joining Swakop Uranium in 2008. “I have worked at other mining and exploration companies and none of them can match the work environment at Swakop Uranium.”

Her dream is “to grow with the company through the different stages of exploration, mine development and the eventual mining stage. I would like to contribute meaningfully to the company’s growth during all these stages.”

Rock scientists. Sevelia Namishinga (left) and Lourença Mungundu love their jobs, despite being the only female geologists among their male colleagues.
New people behind the vision

He “looked” like a mining engineer – now he is one!

JORDAN

Dangeringe has been appointed as Process Engineer on the Husab Uranium Project from a bursar with Skorpion Zinc, where Norman Green was the Project Manager, to a mining engineer at Swakop Uranium. When Norman Green is the Chief Executive Officer of Swakop Uranium, Jordan – who completed his schooling at the Elia du Plessis High School in Windhoek in 1999 – applied for a bursary with Skorpion Zinc in 2000. At the time, he was a first-year student at the University of Namibia.

“I was very excited when Martin Wills, then Human Resources Manager at Skorpion,” invited me to come for an interview,” he recalls. “During the interview, Martin said to me: ‘you look like a mining engineer’.

Skorpion subsequently awarded him the bursary on condition that I had to study mining engineering.”

Jordan never looked back. He obtained his BSc Mining Engineering degree at the University of the Witwatersrand in 2005 and started his career as Graduate Mining Engineer at Skorpion Zinc. After a four-year stint at Skorpion, he joined Rössing Uranium as Mine Planning Engineer, where he was soon promoted to Mining Projects Engineer and acting Superintendent Production Planning. Then came another twist in the tale of his career.

“In February 2010, Swakop Uranium hosted a group of investment analysts in Swakopmund. A visit to Rössing mine on the itinerary and I was asked to do a presentation. After the presentation, Norman came to me and said: ‘you look familiar. Where do I know you from?’ He was pleasantly surprised when I told him that I was a Skorpion Zinc bursar during his time as Project Manager.”

One thing led to another and in September 2010, Jordan joined Swakop Uranium, where he is responsible for developing the set of mining standard operating procedures and will drive the mining operational readiness process.

Jordan is very excited about the new challenge. “To be part of a team tasked to build the largest mine in Namibia is a once-in-a-lifetime opportunity. Knowing that many of my colleagues had worked on the successful Skorpion Zinc and numerous other projects, made me really want to be part of this project team.”

Although he will spend some time in the Johannesburg project office, Jordan will spend most of his time at his hometown Windhoek. He shares his life with a special lady named Renate, who works in occupational health administration.

Michael Matthew Valenta

Process Manager for the Husab Uranium Project

BSc Eng (Metallurgy), Pr.Eng, Pr.Eng Int.

As a Wits University graduate, Michael joined Mintek where he was responsible for pilot plant operations. After four years at Mintek, he was Plant Superintendent at Lonmin Kaovers Concentrator and later Production Manager at the Western Platinum Refinery.

Michael then worked as Consulting Metallurgist at Hatch and spent much of his time consulting in South America and South Africa on concentrator projects. He left Hatch in 2005 to establish Metalion Process Consulting to focus on providing process engineering services to the industry. Metalion has a large client base and projects range from test work campaigns, studies, plant optimisation and operations.

Commodities include precious group and base metals, industrial minerals, gold and uranium, chrome and coal.

He is a founding member of the Metalion Group of Companies that is developing various opportunities in the industry including the recovery and beneficiation of Platinum Group Metals and chrome from tailings and low-grade secondary streams.

Michael is a past president of the Mine Water Association, where he has served on the MMMA council for the past 12 years. In that period he has represented the MMMA on the SAIMM council.

Thumbs up for this handful!

If ever there was a group of employees who deserve a high five for their efficiency and service, it is the handful of females in Swakop Uranium’s office in Schutzen Street, Windhoek.

“Service delivery is the name of our game,” says Ninette Krohnert, Swakop Uranium’s Human Resources Manager. “We regard everyone we deal with as a client and we strive to deliver, fast, efficient and professional service to all of them.”

And boy, can these girls knock down! In addition to the myriad of human resources tasks and the support she gives to the Johannesburg-based Owner’s Team, Ninette until recently was also in charge of Finance and Administration. Her current tasks include Compensation and Benefits, Recruitment, Training and Development, Employment Equity and Industrial Relations and, of course, support to Swakop Uranium’s 116 employees with the assistance of HR Consultant Marcello Arendse.

Glynnis Bezuidenhout, Finance and Administration Officer, processes an average of 450 invoices per month, and also handles petty cash, procurement, creditor reconciliations, creditor enquiries and all payments.

Genette Shitalangaho, Accountant, also has a whole host of responsibilities, including VAT reconciliation and management of the asset register, which contains about 300 items. Despite becoming a mum earlier this year, she is busy with her Chartered Institute of Management Accountant qualification.

Mathilda Katembo, Receptionist and Administration Clerk, handles about 1600 incoming calls per month. She is also responsible for some administration tasks and travel arrangements.

Last, but not least, there is Anelene Robberts, Personal Assistant and right hand to the CEO, Norman Green. “To give but one example of what this task entails: Over the past year, Norman has not spent more than ten consecutive days in the same country. He has also undertaken more than 40 return flights from Windhoek to Johannesburg, Perth and other destinations since January 2010.

You’ve got to hand it to this team: they get to grips with anything that comes their way.”

Thumbs up for this handful!
Arandis welcomes new Husab Mine

I think we have found gold! Manfred Murangi, personal assistant to the mayor of Arandis (left), Ivondia Kangueehi, liaison officer, and Patrick Haushona, community liaison officer, study a piece of rock during a visit to the Husab Uranium Project site.

Swakopmund Uranium geologist Trianus Nghipangelwa (right), conveys some core facts to the mayor of Arandis, Mr Daniel Muhuura (middle), and councillor Gerson Gurirab.

The municipal council of Arandis is looking forward to the establishment of Swakop Uranium’s Husab Mine, because new mines coming to the Erongo region are seen as a blessing to the council’s vision of making Arandis a sustainable town, says the Mayor of Arandis, His Worship Daniel Muhuura.

Mr Muhuura and members of the Arandis municipal council, including the CEO, Ms Florida Husselmann, recently visited the proposed Swakop Uranium exclusive prospecting licence site where the proposed Husab Mine is going to be built.

The mayor and his team have ambitious plans for their town. Says Mr Muhuura: “Arandis is a town with a vision. We know where we came from and we know where we are heading to. We have a 10-year strategic plan with the vision for the town to become self-sustaining and economically independent by 2020.”

He says new mines and new businesses that are established in the area, are thus regarded as a springboard to realising this vision. “We don’t want to promote dependency on any mining company, but it is a fact that they have played – and will in future play – an instrumental role within our jurisdiction. We therefore invite them to join us on the journey to 2020.”

He regards the sharing and exchanging of ideas as an important part of this partnership. “All of us have learned valuable lessons during the past 30 years, specifically with regard to providing for the accommodation and other social needs of mine workers. So, we are in an ideal position to share those experiences with the new mines in our area. Similarly, Swakop Uranium might come up with new and fresh ideas that we haven’t thought of.”

He says the council has identified education as one of the priorities. “We want to make Arandis a centre of excellence and education. To this end, we would like to go into partnerships with mining companies and businesses, such as building a mathematics and science centre where our children can learn.”

He says the council values the positive relationship that has been forged with Swakop Uranium’s management in a fairly short time. “We appreciate the proactive way in which you have established contact with us. The way we started to plan together is unique and a step in the right direction. We would hope that this will continue and will create a permanent and conducive platform for dialogue between our two institutions.”

There’s a YEARN to LEARN

Christmas will come early for some Namibian students when Swakop Uranium announces in December which of them will be benefitting from its bursary scheme.

Swakop Uranium received 183 applications for bursaries in the fields of engineering, chemistry and accounting following an advertisement in the media.

According to Ninette Kröhnert, Swakop Uranium’s Human Resources Manager, there were some excellent applications, especially in the fields of engineering and accounting. “The applications were narrowed down to 16 and those on the shortlist were interviewed and underwent psychometric testing,” she says. “The successful candidates will soon be notified.”

The requirements were Namibian citizenship and a 70% pass mark in subjects required for the field of study (Grade 12 students) or major subjects for current tertiary students. Suitably qualified students from designated Affirmative Action groups were encouraged to apply.

Says Ninette: “Swakop Uranium realises the importance of upskilling Namibians to alleviate the skills shortages, especially in the mining industry, hence the bursary scheme.”