

ROBUST

MARCH 2018

MURRAY & ROBERTS GROUP MAGAZINE

OPPORTUNITY ON THE HORIZON

INNOVATION

Murray & Roberts Water puts new water treatment technology to the test

PEOPLE

Get to know Kerusha Reddy and Robyn Fourie

BUSINESS PLATFORMS

Tailored solutions for clients across the project life cycle



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A MESSAGE FROM HENRY

OPPORTUNITY ON THE HORIZON

In the previous issue of Robust, I explained how Murray & Roberts transformed itself from being predominantly a South African civil and building contractor, to a multinational engineering and construction group, providing services to its chosen primary market sectors of metals & minerals, oil & gas, and power & water.

The Group's *New Strategic Future* plan defines the strategic direction of the Group. This plan was the outcome of a strategic planning process undertaken with the support of the Boston Consulting Group ("BCG") during the second half of FY2014. Today, BCG is again assisting the Group with a strategic review, but this time to assess the strategy implementation progress and to test the plan against latest market dynamics, as the world is a very different place when compared to five years ago.

We are pleased to note the stabilisation in the crude oil price around US\$70 per barrel and the general improvement in market outlook for LNG demand, which could bode well for the **Oil & Gas** platform in the medium to long term, whilst in the short term it will also focus on complementary growth markets in Australia, such as metals & minerals and infrastructure.

The **Underground Mining** (metals & minerals) platform continues to deliver strong results across all three main geographic regions – Australasia, Africa and the Americas. Tendering departments are currently experiencing high levels of activity and we are excited about the growth potential in this sector.

The **Power & Water** platform's efforts are focused on replenishing its order book, both in South Africa and the rest of sub-Saharan Africa, as the Medupi and Kusile projects are nearing completion. Given the delay of new investment in the local power sector, there is a particular focus on prospects in complementary markets such as mining, pulp and paper, chemicals and energy. There is also large opportunity for our water business to explore, considering the severe drought conditions and water crisis not only in the Western Cape, but also many other parts of South Africa.

The Group's strategy and business model is clearly defined and is currently being reviewed in the context of ever changing market dynamics, whilst the focus remains on optimising business performance and growing shareholder value. The Group's relatively strong financial position, after several years of difficult trading conditions, is evidence that the *New Strategic Future* plan served us well over the past few years, and this financial position provides good support for our organic and acquisitive growth plans.

In this edition, we share some insights into the projects the Group is currently working on and from an innovation point of view, provide an update on food chain reactor technology in wastewater treatment being demonstrated by our water business. The Group's responsibility towards the communities in which we work is also highlighted by the number of organisations benefiting from our corporate citizenship programmes.

I hope you enjoy this edition of Robust Magazine.

HENRY



HENRY LAAS
GROUP CHIEF EXECUTIVE

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BUSINESS PLATFORMS



OIL & GAS

“The project has been instrumental in allowing our client to realise their vision for Western Australia’s water supply.”

PETER BENNETT, MURRAY & ROBERTS OIL & GAS CEO

CLOUGH’S MUNDARING WEIR UPGRADE PROJECT

The Mundaring Weir dam was completed in 1903, along with eight steam-driven pumping stations and a 557 kilometre pipeline to Kalgoorlie to address water scarcity in the goldfields.

At the time of completion, the weir was believed to be the highest overflow dam in the world, with additional works to raise the walls taking place in the late 1940s.

In order to ensure a stable future supply of drinking water amidst Western Australia’s increasingly arid climate, it was decided by Water Corporation that a further upgrade to the weir was necessary and Clough was awarded the Engineering, Procurement and Construction contract to upgrade and refurbish the weir.

To facilitate the purpose of optimising the storage of water within the weir, the upgrade required several distinct works:

- The construction of new downstream pipework, valve pits and control systems
- Relining of cast iron pipes throughout the base of the dam wall
- Removal and replacement of the architectural external platform
- Refurbishment of the intake tower roofing
- Demolition and removal of internal pipework and platforms from the intake tower

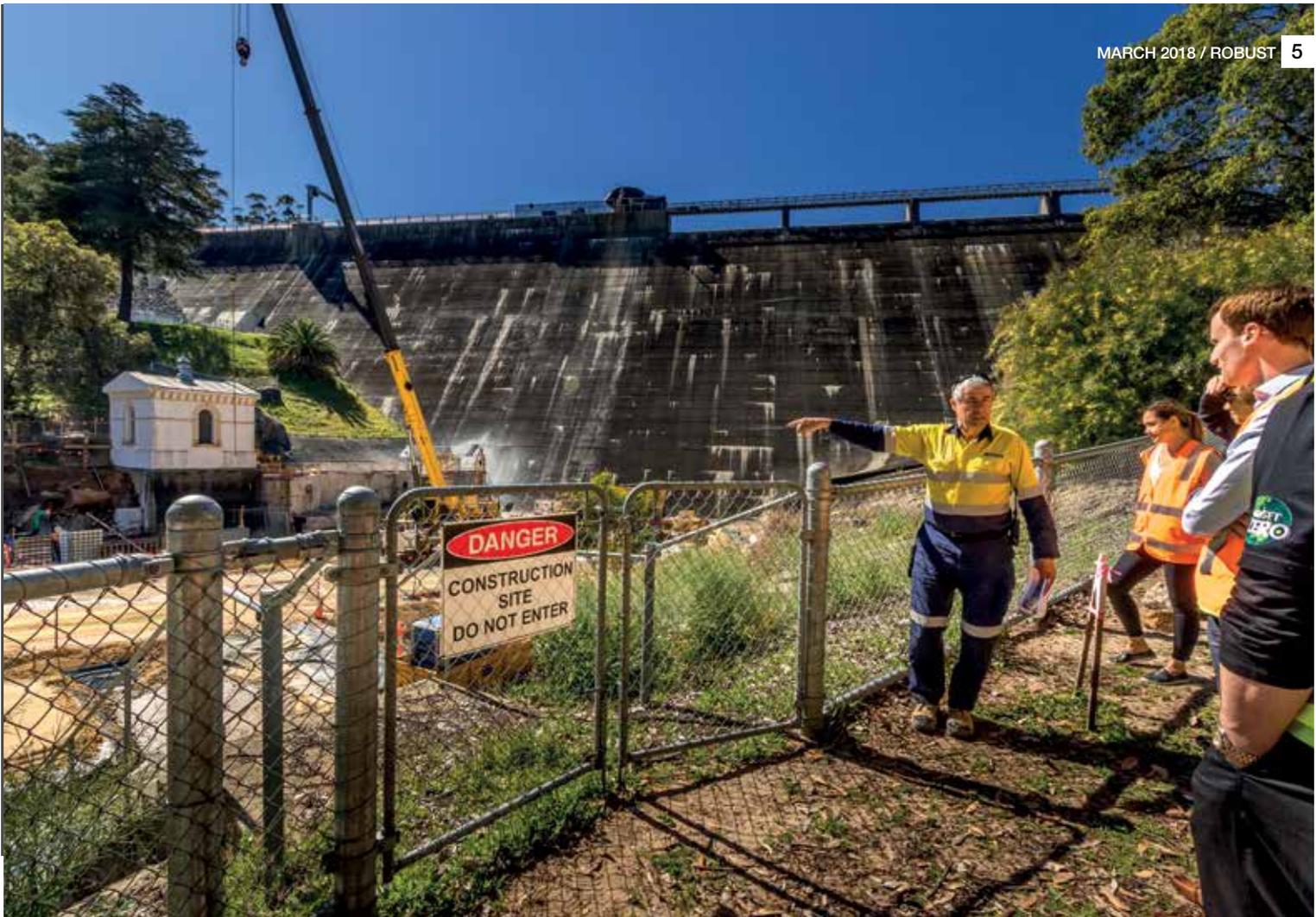
- Removal and replacement of existing intake structures and coring of a new inlet through the dam wall
- Design, fabrication and installation of an internal structural liner for the intake tower.

In addition to the inherent challenges present on a project of this scope, the importance of the weir as a source of drinking water and its status as a heritage site with daily tours presented additional risks. Heritage components such as the pump house roof and sandstone rock retaining wall were required to be salvaged, restored and reinstated.

From a safety management perspective, high risk activities on the project included critical risks, complex concrete cutting and demolition works conducted at heights, above and underwater, and within confined spaces.

A key milestone on the project was the successful installation of a new stainless-steel liner into the weir’s intake tower, after a six-month planning period.

The stainless-steel liner is essentially a 42 tonne, 2.7 metre internal diameter, 36.75 metres long, stiffened tube and was fabricated locally in Western Australia. To install the stainless-steel liner to the intake tower, a 400 tonne crawler crane was mobilised.



The lifting operation was highlighted by four distinct events:

- Horizontal lifting and relocation of the fully assembled liner from the site welding location to the temporary crane access ramp within radius of both 280 tonne and 400 tonne cranes
- Upending of the stainless steel liner using the 400 tonne and 280 tonne crawlers to ‘top’ and ‘tail’ the liner respectively
- Vertical lifting, slewing and positioning of the liner above the round house
- Lowering of the liner into the intake tower and onto its final resting position atop three preinstalled concrete pedestal blocks.

“The project has been instrumental in allowing our client to realise their vision for Western Australia’s water supply” says Peter Bennet, Murray & Roberts Oil & Gas CEO.

* Scan the QR codes with your mobile phone camera to watch videos on Clough’s YouTube channel from the project. **R**

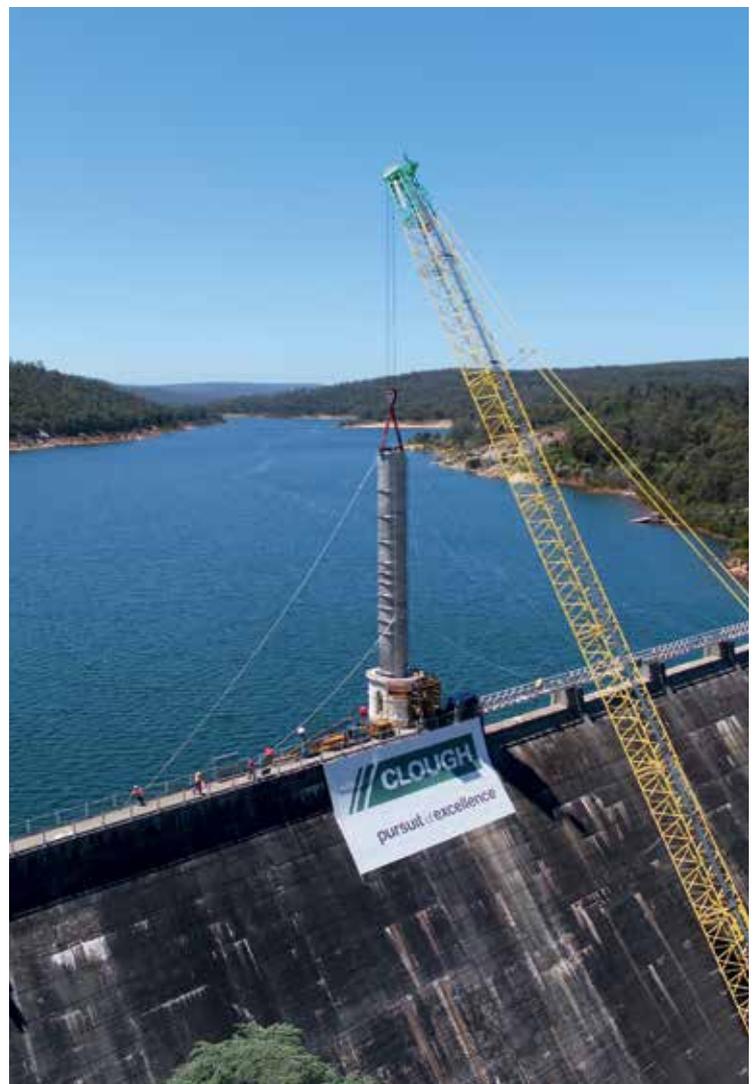
* Download a QR reader from your app store.



Scan to watch the installation of the new stainless-steel liner.



Scan to watch a time lapse of the event.





UNDERGROUND MINING

“The Costerfield Mine has showcased RUC Cementation’s commitment to safety, innovation and tailored solutions that result in successful outcomes for clients across the Asia-Pacific region.”

BARRY UPTON, RUC CEMENTATION MINING MANAGING DIRECTOR



RUC CEMENTATION MINING RAMPS UP ON THE EAST COAST

On 4 December 2017 RUC Cementation Mining commenced its first underground development contract on the east coast of Australia, near the Victorian town of Heathcote. The client, Canadian mining company Mandalay Resources, awarded RUC Mining a 12-month contract to implement 2 600 metres of capital development, enabling access to the Brunswick orebody at their Costerfield Mine.

Being the first mechanised mining contract on the east coast, and commencing just before Christmas, added to the complexity of the project start-up. Mobilisation to site involved transporting equipment 2 700 kilometres across the country from Kalgoorlie, Western Australia and bringing in equipment over a distance of 800 kilometres from New South Wales to the site in Heathcote, Victoria.

Heathcote is in prime agricultural country, an area renowned for producing quality Shiraz wines. With local farmers being less than 100 metres away from the mine, noise management and community engagement has been an important part of the project. This has been managed by installing noise attenuation equipment on machinery, recruiting local employees and engaging with regional suppliers.

The Costerfield Mine has a different set of challenges when compared to standard mechanised Australian mines. It has a decline ramp with a very low height that necessitated innovative thinking around equipment selection and how standard work practices were undertaken. Being only three metres high in some

areas, it is not possible to use Integrated Tool Carriers underground to carry out service work and charge headings, which is standard procedure across other underground projects. The RUC Maintenance and Safety Department has been busy devising new methods with alternative equipment to be employed on the site.

The contract is currently in a ramp-up phase and in December, 99.10 metres of development was completed with work in January on track against construction programme targets.

Says Barry Upton, RUC Cementation Mining Managing Director, “The Costerfield Mine has showcased RUC Cementation’s commitment to safety, innovation and tailored solutions that result in successful outcomes for clients across the Asia-Pacific region.” **R**

CEMENTATION CANADA RECEIVES GOLD AT CANADA’S SAFEST EMPLOYERS AWARDS

Cementation Canada has been recognised as one of Canada’s Safest Employers for 2017. The gold award in the Mining and Natural Resources category was presented to Cementation during the Canada’s Safest Employers Awards Gala, hosted by Canadian Occupational Safety and Thomson Reuters on October 24 in Toronto.

The Canada’s Safest Employers Awards were launched in 2011 and acknowledge companies from across Canada with outstanding accomplishments in promoting the health and safety of their employees. Companies are evaluated on a broad range of initiatives including employee training, OHS management systems, incident investigation, emergency preparedness and innovative health and safety initiatives.



"We are thrilled to be recognised as one of Canada's Safest Employers," says Roy Slack, President of Cementation Canada. "Our company, management and our supervisors all care about the well-being of our employees and one of the ways we demonstrate that care is through our commitment to safety."

"This recognition is a true reflection of the sincere commitment to ensuring a safe and healthy workplace by Cementation and all our employees. We continue to work hard at improving our safety culture and structure as we never want to settle for the status quo," states Steve Wrixon, General Manager Health and Safety, Cementation Canada.

The awards covers 10 industry-specific categories, ranging from Hospitality to Mining and Natural Resources. **R**

MURRAY & ROBERTS CEMENTATION 25 YEAR CLUB

The Murray & Roberts Cementation 25 Year Club held its inaugural meeting in 1961, inviting employees across all occupational groups with 25 years of service to join. The 25 Year Club keeps contact with members and spouses through newsletters, networking, personal recognition and emotional support in times of bereavement. What the members value most though, is the annual members meeting and family function.

The 57th meeting, in the centenary year of Murray & Roberts Cementation, convened in November at the company's world-class training facility at Bentley Park, Carletonville. The meeting was attended by 34 members, including current and past employees, together with their spouses and partners and Murray & Roberts' executives and directors.

The club's chairman, Tim Wakefield, Engineering Services Executive, delivered a speech reflecting on what the future of the industry would look like in 25 years, when today's new recruits would be eligible to join the club.

Said Tim, "We are already seeing dramatic changes around mechanisation. Concepts we will see in the future include robotic mining controlled from the surface, fewer people underground and minimal blasting."

The formalities included speeches of recognition and the presentation of service certificates and valued club blazers. The club also welcomed nine new members taking the current membership to 182.

"The annual meeting is a unique and humbling experience."

TIM WAKEFIELD, ENGINEERING SERVICES EXECUTIVE

Sadly, the club lost seven members who passed away during the year. Andrew Collings, Lionel MacDonald, Anna Masango, Willys Mayisane, Joseph Mokoto, Koos Oosthuizen and Rooi Pieters were honoured for their service.

After the formalities, the club members were introduced to the latest digital training simulators utilising gaming technology and had the opportunity to see how unskilled mechanised mining equipment operators start their career journeys. A very different experience to when some of the club members started their mining careers 70 years ago and there weren't too many volunteers to take the simulator controls!

Concludes Tim, "The annual meeting is a unique and humbling experience. Many members have devoted their working lives to Murray & Roberts and have a wealth of memories, stories and experiences to share. Dedication and loyalty are values to be treasured in today's job hopping culture." **R**

CEMENTATION CANADA OPENS NEW NORTH AMERICAN MAINTENANCE FACILITY

Community leaders, guests and company employees participated in a ribbon cutting ceremony and tour to officially open the newest addition to Cementation Canada's North Bay operations in October. The new facility will significantly increase work and warehouse space, as well as provide enhanced lifting, electrical and compressed air capacity to support Cementation's underground fleets, raise boring plants and shaft sinking equipment utilised on mining projects around the world.

The facility has a dedicated and environmentally isolated electrical shop and is capable of operating and testing electrical motors up to 600 horsepower. It also has a compressed air system for the operation and testing of pneumatic equipment.

New overhead cranes and embedded floor anchors have been installed to secure hoists and winches for testing. This increased capacity offers potential employment opportunities as Cementation Canada expands its services.

Roy Slack, President of Cementation Canada said, "This new facility expands our capabilities to better service our projects and reinforces our commitment to further support our clients."

Cementation Canada will continue to utilise its existing 10 000 square foot shop, built in 2006, as heated warehousing space and for shipping and receiving. **R**





POWER & WATER

“Our priority is to re-establish the platform as a contractor of choice in the broader power, energy, water and industrial sectors.”

STEVE HARRISON, MURRAY & ROBERTS POWER & WATER CEO

PLATFORM OPPORTUNITIES POST THE POWER PROGRAMME

The power programme is a project of massive magnitude and complexity and is an impressive feat of engineering.

“As the main boiler erection subcontractor for Mitsubishi Hitachi Power Systems Africa, the Power & Water platform had 11 of the 12 boilers under construction and commissioning and employed approximately 7 000 people on site at the height of construction” says Steve Harrison, Murray & Roberts Power & Water platform CEO.

As the end of the megaproject approaches, a focused marketing and business development drive has been pursuing project opportunities across sub-Saharan Africa.

“Given that the platform’s capacity over the last decade has been dedicated to the power programme, a key priority is to re-establish itself as a contractor of choice to new and existing clients in the broader power, energy, water and industrial sectors” says Steve.

The platform has established itself at Sasol, Secunda to provide civil, structural, mechanical, electrical, instrumentation, piping and platework services and has secured contracts on Sasol’s Volatile Organic Compounds project and the Coal Tar Filtration East project, in addition to smaller shutdown projects.

“We are also actively pursuing a number of mining-related contracts in the domestic and African markets as well as the paper and pulp sectors” continues Steve.

Significant opportunities exist in transmission and renewable energy markets, and the platform has concluded memoranda of



STEVE HARRISON
MURRAY & ROBERTS
POWER & WATER CEO



VUSI TSALE
BUSINESS
DEVELOPMENT DIRECTOR

understandings with power engineering and technology companies including Black & Veatch, Worley Parsons and Shanghai Electric Corporation.

Says Vusi Tsale, Business Development Director, “We have an appetite to secure projects in the oil and gas sector, which we will pursue in partnership with Clough.”

Along with Clough, part of the Oil & Gas platform, Murray & Roberts Power & Energy has service capabilities across the gas-to-power value chain of jetties, LNG storage, regasification and power plants and is currently tracking several bulk refined products storage facilities projects.

Murray & Roberts Water provides turnkey water and wastewater treatment services and is focused on opportunities in mine-water and industrial-effluent treatment, municipal water and wastewater treatment and re-use, and seawater desalination.



Technology partnerships are producing a number of innovative solutions for clients. "We are currently commissioning a pilot plant at the Verulam Wastewater Treatment Plant using the Organica technology and will be operating it for 12 months" says Steve.

Across the power, energy, water and industrial sectors, the platform has the capability to participate in the different stages of a project's life cycle, from project preparation to operations, maintenance and repair.

"As we conclude the power programme, we have structured our resources and capabilities to deliver on small to medium sized projects for new and existing clients across sub-Saharan Africa" concludes Steve. **R**

MURRAY & ROBERTS MOZAMBIQUE AWARDED SASOL TANK REPAIR CONTRACT

Murray & Roberts Mozambique has been awarded a contract by Sasol Petroleum for tank repair work at their natural gas project in Temane, Mozambique.

Sasol's natural gas project involves cleaning and processing natural gas from the Temane and Pande gas fields in a 183 million gigajoules per annum central processing facility, and then sending the gas across a 865 kilometre pipeline to Sasol's gas distribution network in Secunda, South Africa. The gas from the central processing facility is being used as feedstock for gas-to-power plants in Sasolburg, South African and Ressa Garcia, Mozambique. These power plants produce approximately 40% less carbon emissions when compared to coal-fired electricity.

The contract awarded to Murray & Roberts Mozambique involves replacing the tank floor and repairing the floating roof of the Condensate Stock Tank TK9201 A, at the central processing facility plant. The tank floor plates have reduced to less than half of the original thickness. The slope is also uneven and not centred, which prevents heavy products from freely migrating to the sump. The slope will be corrected and the tank floor replaced with new

plates. The sump and drain pipe will be also be replaced and an assessment of the floating roof seal completed. Maintenance on the immediate tank facilities will also be done.

The project duration is five months and employees were mobilised to site during December. Local subcontractors were appointed for the mechanical and civil works and a total of 32 employees will be working on the project.

The contract is an important opportunity for Murray & Roberts Mozambique to demonstrate their capabilities for a major client on a strategic project. **R**

MURRAY & ROBERTS WATER AWARDED CONTRACTS BY LIFE HEALTHCARE IN CAPE TOWN

Murray & Roberts Water have been awarded a contract by Life Healthcare to design, supply, fabricate and install a water treatment plant to produce safe, clean drinking water from borehole water.

The water treatment plant will service the Life Vincent Pallotti and Life Kingsbury hospitals in Cape Town, ensuring that the hospitals remain operational during the severe water shortage.

Says Gugu Phakathi, Murray & Roberts Water project engineer, "We are currently on site installing and commissioning the plant and expect it to be fully operational by the end of February."

Life Vincent Pallotti requires 186 kilolitres per day and Life Kingsbury 86 kilolitres per day.

The water treatment plants were designed by Murray & Roberts Water and fabricated in-house by Aquamarine and can supply potable water complying with SANS 241:2015 using iron oxidation, pre-filtration and ultra-filtration to achieve an 80% recovery from the borehole.

The City of Cape Town has recommended the plant as the first plant inspected during the current drought period that fully complies with the City's Regulations and Bylaws. **R**

PEOPLE

Robust Magazine gets to know Kerusha Reddy and Robyn Fourie



WHAT CAREER MILESTONES ARE YOU MOST PROUD OF HAVING ACHIEVED?

It was a great opportunity to be appointed as Group Reporting Financial Manager at Murray & Roberts. This has allowed me to work with driven, talented people across the business as well as to grow and challenge myself.

It also afforded me the opportunity to work with an incredible team who are always willing to pull together in achieving our goals. I feel very privileged to be in the role I find myself in and am very excited for the future!

WHAT ARE SOME OF THE CHALLENGES YOU FACE IN YOUR CURRENT ROLE?

In an environment where financial standards are continuously changing, we have to learn to rapidly adapt to these changes as they occur. My role is also deadline driven with a responsibility to provide quality and accurate information. Thankfully, I am part of a team who make this responsibility a reality.

WHAT EXCITES YOU ABOUT THE FUTURE IN YOUR INDUSTRY?

The finance industry is always evolving which presents opportunity to be part of and contribute to its improvement.

It is interesting to observe companies that are differentiating themselves and making strategic decisions. Being part of the finance team at Murray & Roberts allows me to gain insight into our strategy and drive towards Engineered Excellence.

WHAT ARE SOME OF YOUR INTERESTS OUTSIDE OF THE OFFICE?

Would being a junk food addict be an interest? Just kidding... I love taking part in Indian classical dance and reading a good novel during my spare time. I enjoy socialising with my friends and incredible family.

WHAT IS THE BEST PIECE OF CAREER ADVICE YOU'VE RECEIVED?

Opportunities don't happen, you create them.

WHAT WOULD PEOPLE BE SURPRISED TO KNOW ABOUT YOU?

I have an extreme fear of heights! It can actually bring me to tears.

WHAT WAS YOUR FIRST JOB?

My first job was tutoring Kumon, which is a Math and English study programme developed by the Japanese.

WHAT WAS YOUR CAREER JOURNEY TO WHERE YOU ARE NOW AT MURRAY & ROBERTS?

I completed my studies at the University of the Witwatersrand, and thereafter began my articles at PwC, specialising in private company audits. After my articles I went on secondment to Michigan in the United States for three months. It was an eye-opening experience which really enriched me as a person.

On my return to South Africa, I stayed on at PwC in a managerial role in the energy, utilities and resources division, until I joined Murray & Roberts in Group Reporting.

WHERE DID YOU GROW UP?

I grew up in a small town called Stanger in KwaZulu-Natal. **R**



**Opportunities don't happen,
you create them.**

KERUSHA REDDY, FINANCIAL MANAGER, GROUP REPORTING

**Just because you don't know how,
doesn't mean you can't do it.
Growth comes from moving out of
your comfort zone.**

ROBYN FOURIE, GROUP RISK EXECUTIVE

WHAT CAREER MILESTONES ARE YOU MOST PROUD OF HAVING ACHIEVED?

Being appointed as the Group Risk Executive. I look forward to playing my part in realising the strategic plan for Murray & Roberts by working with role-players across the Group in identifying, highlighting and addressing the threats and opportunities we face.

WHAT ARE SOME OF THE CHALLENGES YOU FACE IN YOUR CURRENT ROLE?

The world is facing a time of heightened global uncertainty and rising popular discontent with the existing political and economic order. Risk management cannot be complacent or a tick-box exercise as we need to continuously analyse and evaluate the risks to achieving our plans, be they at a project, platform or Group level.

WHAT EXCITES YOU ABOUT THE FUTURE IN YOUR INDUSTRY?

The risk landscape is changing at a rapid pace and risk management needs to evolve to be able to respond to these changes and become a performance enabler.

WHAT ARE SOME OF YOUR INTERESTS OUTSIDE OF THE OFFICE?

I believe in building memories, especially with the ones we love – I travel, try out new restaurants and activities, hike, read and attend theatre.

WHAT IS THE BEST PIECE OF CAREER ADVICE YOU'VE RECEIVED?

Just because you don't know how, doesn't mean you can't do it. Growth comes from moving out of your comfort zone.

WHAT WOULD PEOPLE BE SURPRISED TO KNOW ABOUT YOU?

I enjoy watching Marvel movies.

WHAT WAS YOUR FIRST JOB?

Quality assurance at Liberty Life.

WHAT WAS YOUR CAREER JOURNEY TO WHERE YOU ARE NOW AT MURRAY & ROBERTS?

I have made a number of career changes in my life, working part time in telesales while in university, in quality assurance at an insurance company and teaching. I joined Murray & Roberts in 2005 to train the financial modules during the JD Edwards ERP implementation and moved into the risk department in 2011. Since then I have been given more responsibility as I gained experience and learnt more about the Group and the function.

WHERE DID YOU GROW UP?

Durban, KwaZulu-Natal. **R**

CORPORATE CITIZENSHIP



MURRAY & ROBERTS CHILD WELFARE BENEFICIARY SITE VISITS

The Murray & Roberts Child Welfare Fund committee hosts annual site visits to ensure that the funds donors generously give are used constructively and fully accounted for. The committee embarked on its annual beneficiary site visit on Thursday, 23 November 2017 and visited the following organisations:

- **The Salvation Army Ethembeni Children's Home** – A home for up to 60 children aged from birth to three years, all of whom have suffered emotional, physical or medical abuse or have been abandoned. Many are HIV positive.
- **Boys & Girls Town SA (Randfontein)** – The organisation focuses on children 'at-risk' and families in difficulty by providing aid to youth, families and communities.
- **Forever Friends** – Through the Life Line Kit Project, the organisation aims to ease the removal of abused and abandoned babies and children from their homes by providing a Life Line Kit, which consists of clothes and shoes, toiletries, a towel and face cloth, a book, eats/sweets and a soft toy.
- **Berea-Hillbrow Home of Hope** – An autonomous, self-started initiative to provide real care for exploited, trafficked and abused children in the city of Johannesburg. A loving home where dignity is restored, the past is healed and the girls are given the tools to take control of their futures.
- **Strathyre Girls Home** – A home providing a secure, caring and loving environment within which the girls' past hurts are addressed, focusing on providing academic support, facilitating life skills, providing career orientation and work experience.

The Murray & Roberts Child Welfare Fund, via support from donors, makes an enormous difference. In the first six months of the new financial year (July to December 2017), the fund donated just under R240 000 to organisations supporting vulnerable and orphaned children. The target is to donate R500 000 by the end of the financial year in June 2018. The fund is able to meaningfully support about 20 beneficiaries each year. **R**

ANNUAL CHILD WELFARE FUND GOLF DAY AT GLENDOWER GOLF COURSE

A reminder that the annual Murray & Roberts Child Welfare Fund golf day is booked for Friday, 18 May 2018 at the Glendower Country Club. It's a great day out on the course and we hope to have a full field again.

All communications related to player registrations, sponsorships and prizes should be directed to Lisa van der Linde at Murray & Roberts on 011 456 1336 and lisa.vanderlinde@murrob.com. **R**



SHOEBOX OF LOVE AT THE GERALD FITZPATRICK HOUSE AND NURSING HOME

The Gerald Fitzpatrick House and Nursing Home provides self-sustaining, independent and secure accommodation to elderly ladies of limited means. Residents are welcomed from diverse backgrounds and cultures and receive meals, therapy and stimulation and when the need arises, 24 hour nursing care when they become frail.

The home receives very limited funds from the government and relies on the community and the residents families for support.

It is a sad reality that many of our elderly are neglected by their families and live out their years alone and often in poverty.

In recognition of the worldwide *16 Days of Activism against Gender Violence Campaign*, Murray & Roberts' employees pledged a Christmas Shoebox of Love for each resident of the home and hosted a Christmas tea party to spend time with the residents.

"The afternoon that we spent with the ladies was rewarding for us, yet meant even more to the residents. They were appreciative of such a simple act of kindness as they so seldom have visitors" says Helen Steynvaardt, Information Manager at Murray & Roberts Power & Energy.

Hilton Curry, Murray & Roberts Corporate IT Manager and Simone Soares, daughter of Zelia Soares, Murray & Roberts Leadership Executive shared their renditions of timeless classics including Frank Sinatra and a selection of Christmas carols, much to the delight of the residents.

Thank you to everyone who contributed to making this initiative a success. Every resident was deeply grateful to receive something special over the festive season and their joy at having visitors was immeasurable.

For more information on Gerald Fitzpatrick House and Nursing Home visit www.gffhome.co.za. **R**

NEWS



HENRY AND DANIËL HOST BREAKFAST SERIES AND TOWN HALL TALK

Henry and Daniël recently spent time with employees as part of their quarterly breakfast events.

The breakfast meetings encourage employees to think about topics that currently affect the Group and then to discuss these with the leadership team. It is also an opportunity for Henry, Daniël and employees to get to know each other better.

The question for October 2017 was “Why did Murray & Roberts decide to strategically focus its business platforms on servicing the global natural resources markets of Oil & Gas, Metals & Minerals (Underground Mining) and Power & Water?” The following entries were selected:

- Jerry Behrens – Corporate
- Alicia Hattingh – Power & Energy
- Thulane Ndlovu – Cementation
- Thando Khumalo – Cementation
- Witness Lushaba – Power & Energy

In January the question was, “What are the OTHER four segments (apart from construction) of the project life cycle that the Group is diversifying its services across?” The following entries were selected:

- Samantha Botha – Corporate Office
- Letlhogonolo Maloka – Power & Energy
 - Stacey Noakes – Water
- David Pullen – Cementation
- Nokuthula Nkabinde – Power & Energy

The correct answer was: Development, Engineering, Operations, Services.

“Daniël and I look forward to reading each entry submitted and enjoy getting to know our colleagues better” says Henry.

Thank you to all the participants and congratulations to the employees whose entries were selected. **R**

Henry also hosted his second Town Hall Talk in November to a packed venue in the Baobab Learning Centre. Henry spoke about



the Group’s *New Strategic Future* as a multinational specialised engineering and construction group, and the services we offer across the project life cycle and touched on the potential risks, as well as opportunities for the business platforms. Questions from employees covered a variety of topics including future pipeline work for the business platforms, transformation within the Group and Murray & Roberts as an employer of choice.

“The Town Hall Talk is a platform for employees to engage with the leadership team on any number of issues, whether in person at the talk or anonymously through the various channels we have available” says Henry. “We covered a wide selection of topics and enjoyed a robust discussion and I encourage all employees to continue their participation to make these events meaningful” concludes Henry. **R**

“These market sectors should yield higher margins and carry lower risk in line with the Group’s long-term strategy to focus its business on the global natural resources markets.”

JERRY BEHRENS

“The focus on these sectors is because of a positive long-term demand trend for natural resources including global population growth, urbanisation and wealth creation.”

THULANE NDLOVU

“In order to achieve and maintain sustainable growth, clear direction and strategy allows the Group to be more responsive and relevant to our clients.”

WITNESS LUSHABA

NEWS



OLYMPIANS WRESTLING CLUB AND JUDO INSTITUTE FOR PEOPLE WITH SPECIAL NEEDS TOOK TOP HONOURS AT THE 2017 JACK CHEETHAM AND LETSEMA AWARDS

Olympians Wrestling Club and Judo Institute for People with Special Needs, were each awarded first place at the 36th Jack Cheetham and Letsema Sports Development Awards, hosted by Murray & Roberts in association with SASCO.

Olympians Wrestling Club were the winners of the Jack Cheetham Award, which recognises sports development projects that transform the lives of able-bodied young South Africans. The club has a school and community outreach programme that promotes Olympic sports to disadvantaged youth in an effort to counter the effects of gang violence, substance abuse and crime.

The Letsema Award went to the Judo Institute for People with Special Needs. The institute uses judo to instil confidence, self-esteem and discipline into players with disabilities, amongst disadvantaged communities in the Eastern Cape. The Letsema Award is in recognition of sports development projects for people with disabilities and was inspired by Hilton Langenhoven and his performance at the 2008 Paralympics.

Golden Lions Gymnastics Club was the first runner up in the Jack Cheetham Award. The club is a community upliftment project for children in the Westbury community in Johannesburg and is consistently among the top performers in international competition,



despite their lack of funding. The second runner up was the Rock the Boat Canoeing Programme, part of the Grootbos Foundation. The development programme provides canoeing skills and basic water safety to youngsters from the rural Overberg region in the Western Cape.

The Letsema Award first runner up was Mustang Wheelchair Rugby. The club aims to develop wheelchair rugby as a sport in South Africa to improve the well-being of people living with disabilities. Beneficiaries include children with physical disabilities from rural areas in the Free State and Northern Cape. The second runner up was South African Transplant Sports Association. The association's vision is to optimise the quality of life of organ transplant recipients through sport.

"These awards recognise excellence in sports development and are a highlight in the year for Murray & Roberts. Every year we are impressed by the determination and commitment shown by these organisations and their athletes" says Henry Laas, Murray & Roberts Group Chief Executive.

The adjudication committee had a challenge before them in settling on the six finalists and choosing a winner in each category. Says Thokozani Mdluli, Health, Safety and Environment Executive and chairman of the adjudication committee, "The finalist presentations are always inspirational and it is a rewarding and humbling experience to see the impact that these organisations have on their communities. We look forward to supporting the world champions that develop from these projects." **R**

JACK CHEETHAM AWARD FINALISTS



OLYMPIANS WRESTLING CLUB

The schools and community outreach programme, a project of the Olympians Wrestling Club, was established in 2006. The club is based in the Western Cape and promotes Olympic sports to disadvantaged youth to counter gangsterism, substance abuse and crime.

There are five clubs operating, some headed by coaches who began as beneficiaries of the club, and they reach approximately 200 high-risk youth twice a week.

Twenty wrestlers have been identified for training at the High Performance Centre, all of whom have provincial colours and have represented South Africa at National and International level.

Olympians Wrestling Club was a runner-up in the 2014 Jack Cheetham Award.



GOLDEN LIONS GYMNASTICS CLUB

Established in 1988, Golden Lions Gymnastics is a community upliftment project for children from Westbury, Newclare, Claremont and Newlands in Johannesburg, with the aim to produce South African and World Acro Gymnastics champions. The club takes children off the streets of rough neighbourhoods and gives them an opportunity to excel and perform, while also educating them of the dangers of drug use, HIV and teenage pregnancy.

Over the past five years the club has produced 149 gold medals, 10 silver and bronze medals at the South African National Championships. In 2004, the club caused an upset at the World Acro Gymnastics Age Group Games, by beating the Russian favourites to win the gold medal in their age group category. They are consistently amongst the top performers in international competition, despite their humble beginnings and lack of funding.



GROOTBOS FOUNDATION – ROCK THE BOAT CANOEING PROGRAMME

Rock the Boat Canoeing Programme was established in 2016 by the Stanford Canoe Club, part of the Grootbos Foundation, as a development programme to attract youngsters from the local communities in the rural Overberg region in the Western Cape to the sport of canoeing.

The programme offers recreational paddling, competitive sprint canoeing, marathon canoeing, ski paddling and canoe polo, as well as basic water safety. In addition to sports, the programme teaches valuable social skills and keeps vulnerable children away from potentially risky and anti-social behaviour.

While still in its development stages, the programme has already produced inspiring paddlers and recently sent a team to the South African Championships in Swellendam. **R**

LETSEMA AWARD FINALISTS



JUDO INSTITUTE FOR PEOPLE WITH SPECIAL NEEDS

Judo Institute for People with Special Needs was established in 2009 and aims to inspire blind, visually impaired, physically disabled, and deaf and intellectually impaired children from underprivileged communities in the Eastern Cape.

The institute uses judo to restore confidence and self-esteem, instil discipline, as well as provide mentorship and life skills.

At the Commonwealth Championships in 2016, 34 children participated and brought back 19 medals. Since 2010, the institute has won 108 medals from local, provincial and national levels and hopes to send 10 players to the 2020 Paralympics in Tokyo, Japan.



MUSTANG WHEELCHAIR RUGBY

Mustang Wheelchair Rugby was formed in June 2011 and aims to develop wheelchair rugby as a sport in South Africa and to demonstrate how it can impact on and improve the well-being of people living with disabilities.

NEWS

The club provides an environment where people with disabilities feel welcome and safe and motivates those who have suffered a traumatic event to participate in a sporting activity. Patients from rehabilitation centres, care centres and local hospitals are encouraged to visit the practice sessions.

Beneficiaries also include children with physical disabilities from schools and rural areas in the Free State and Northern Cape.

The Mustangs won the South African Wheelchair Rugby League in 2016 and represented South Africa at two international events.



SOUTH AFRICAN TRANSPLANT SPORTS ASSOCIATION

The South African Transplant Sports Association was established in 1994 as a centre for transplant athletes. Its vision is to optimise the quality of life of organ transplant recipients, and through sports and other physical activities, promote organ donation and transplantation.

Athletes with high potential are given the opportunity for additional coaching and South African transplant athletes currently hold six world records and the association is working to host the World Transplant Games in South Africa. At the 2015 games, South Africa finished third and took home 89 medals.

Visit www.jclawards.co.za for more information on the awards and how to nominate deserving projects. **R**



DIANE
RADLEY

ALEX
MADITSI

EMMA
MASHILWANE

NEW APPOINTMENTS TO THE MURRAY & ROBERTS HOLDINGS BOARD

The Murray & Roberts Board has ultimate responsibility for corporate governance and Group strategy. The Board is a well constituted mix of local, international and market sector experience as well as relevant professional acumen that will benefit from fresh thinking and new perspectives.

Diane Radley, Alex Maditsi and Emma Mashilwane were appointed to the Murray & Roberts Holdings Board in August 2017 following the retirement of Mahlape Sello and Dave Barber.

Diane is a Chartered Accountant and began her career at PwC. She has been the Chief Financial Officer at Altron and later Old Mutual South Africa. She became Chief Executive Officer of Old Mutual Investment Group in 2011, where she remained until October 2016. She was a finalist in the 2001 Businesswomen's Association, Business Woman of the Year awards and was voted Africa's Leading Woman in Business in 2015 by African Investor (New York).

Alex is a lawyer and is the Managing Director of Copper Moon Trading (Pty) Ltd. Previously, he was employed by Coca-Cola South Africa as a Franchise Director for South Africa. Prior to joining Coca-Cola, Alex was the Legal Director for Global Business Connections in Detroit, Michigan. He also spent time at Lewis, White and Clay, The Ford Motor Company and Schering-Plough in the USA, practising as an attorney. Alex was a Fulbright Scholar and is a member of the Harvard LLM Association.

Emma is a Chartered Accountant and is currently the Head of Risk Advisory Services at Nkonki Incorporated. She completed her articles and worked at KPMG, before taking up Chief Financial Officer positions at Carl Zeiss Optronics and subsequently at Masana Technologies. **R**

“These awards recognise excellence in sports development and are a highlight in the year for Murray & Roberts. Every year we are impressed by the determination and commitment shown by these organisations and their athletes.”

HENRY LAAS, MURRAY & ROBERTS GROUP CHIEF EXECUTIVE

“It was truly astonishing to see how grateful and appreciative the community was.

The unveiling of the lab was an event expressing appreciation and hope for the future with eager, young minds ready to embark on a journey of learning.”

ANTOINETTE NAINAR, HUMAN RESOURCES,
MURRAY & ROBERTS POWER & ENERGY

MURRAY & ROBERTS POWER & ENERGY HELPING LEARNERS SHINE IN BOTSWANA

Murray & Roberts, through its Community Development Programme, prioritises education and skills development, with a particular focus on supporting the socio-economic development of its host communities. Effective partnerships and continuing engagement with these communities and our employees has ensured that the programme responds directly to the needs and expectations of the beneficiaries.

Murray & Roberts Power & Energy was awarded a contract for the replacement and refurbishment of ageing equipment at the Morupule A Power Station near Palapye, Botswana.

The local primary school, located 40 kilometres from the project, was in need of a few items. What started as a small request to Steve Harrison, Murray & Roberts Power & Water CEO, transformed into a project of significant impact for the learners and surrounding community.

In a remarkable team effort from employees, a small computer lab was established at the school, using computer equipment from a discontinued training centre at the head office.

Donations included tables and chairs, desktop computers and screens, a projector and 55 school cases containing basic stationery items for the top performing learners.

Says Antoinette Nainar, Human Resources, Murray & Roberts Power & Energy, “It was truly astonishing to see how grateful and appreciative the community was. The unveiling of the lab was an event expressing appreciation and hope for the future with eager, young minds ready to embark on a journey of learning.” **R**



THE CLOUGH FOUNDATION - SUSTAINABLE BENEFITS FOR LOCAL COMMUNITIES

The Clough Foundation is a charitable trust overseen by a semi-independent board, that provides support to organisations and communities that provide sustainable benefits to society and the communities in which the business works.

All investment decisions align with Clough’s Corporate Social Responsibility strategy, which is underpinned by six pillars: Children & Youth, Arts, Indigenous, Empowering Women, Education and Healthy Communities.

The Clough Foundation is proud to be partnering with Starlight Children’s Foundation in their mission to “brighten the lives of seriously ill children and their families” through supporting Starlight’s Healthier Futures Initiative in collaboration with Earbus Foundation. This collaboration creates positive healthcare experiences for children across The Pilbara, Western Australia.

Says Peter Bennett, Murray & Roberts Oil & Gas CEO, “I’ve always been inspired by the work that Starlight Children’s Foundation does, and see them as innovators in their sphere. I look forward to supporting them in improving health clinic attendance and enhancing the community’s relationship with the healthcare system throughout Aboriginal communities in Western Australia.”

The Clough Foundation has also renewed its partnership with Youth Focus in Western Australia and international development organisation ChildFund Australia.

Youth Focus works with young people to help them overcome issues associated with depression, anxiety and self-harm. A key driver behind this programme is research which demonstrates that when people better understand mental health, they are more likely to seek help for themselves or encourage friends who are dealing with their own mental health issues.

ChildFund Australia works at grassroots level in Papua New Guinea and trains frontline village health workers to provide basic care to children and mothers, and provides referrals to district healthcare services for additional medical interventions. Despite its proximity to Australia, Papua New Guinea continues to record some of the world’s lowest human development indicators with high infant and maternal mortality rates.

Nigel Spence, CEO of ChildFund Australia says, “Working with the Clough Foundation means that more children and mothers benefit from life-saving health programmes and allows us to reach more underserved communities in PNG.” **R**



INNOVATION

“The demonstration plant has already gained interest from the market with potential clients eager to visit the plant at the official opening in April.”

HARRY SINGLETON, MURRAY & ROBERTS WATER OPERATIONS EXECUTIVE



ORGANICA FOOD CHAIN REACTOR TECHNOLOGY PUT TO THE TEST

Murray & Roberts Water is the licence holder for the Organica Food chain Reactor technology in South Africa.

This technology is a new and innovative approach to wastewater treatment for urban areas and metros. Wastewater treatment plants use an organic process i.e. bacteria in different life cycles, to treat water. By installing plants in the treatment facility, Organica utilises the natural symbiosis between the root structures and the bacteria to provide a far more effective treatment process. The treatment plant is also incorporated in an aesthetically pleasing greenhouse-like structure.

Compared to conventional treatment plants, this approach significantly reduces the footprint and life cycle cost of a treatment facility. It is also the only facility that addresses the social footprint associated with wastewater treatment plants. The treated effluent can be re-used in non-potable applications or treated further to produce potable water. This technology can be retrofitted to existing facilities to increase the throughput, or engineered to the clients' specifications as a complete turnkey solution.

“We have been marketing the technology to the municipal sectors, but although there are numerous international references of operational facilities outside of South Africa, the technology is largely perceived as unproven within South Africa” says Harry Singleton, Operations Executive at Murray & Roberts Water.

To change this perception, Murray & Roberts Water has signed a Memorandum of Understanding with eThekweni Municipality and is in the process of erecting a 0.12 million litres per day containerised Organica demonstration plant at the Verulam Wastewater Treatment Plant. The demonstration plant will treat a side stream of sewage from the larger Verulam site.

The demonstration plant aims to prove the technology in South African conditions and will be done by operating both the main plant and demonstration plant in parallel, using the same sewage source as feed and comparing both plant's performance against each other, as well as against expected performance, based on process simulations.

Concludes Harry, “The demonstration plant has already gained interest from the market with potential clients eager to visit the plant at the official opening in April.” **R**

COMPETITION

ENTER NOW AND STAND A CHANCE TO WIN an iPad PRO



- Advanced retina display
- Powered by the A9 chip
- 64-bit desktop-class architecture
- Apple Pencil and Smart keyboard
- Screen size: 9.7 inch
- Capacity: 32GB

Gary Malherbe, Murray & Roberts Cementation was the lucky winner of the R10 000 Makro vouchers in the August 2017 competition. Congratulations!



TO STAND A CHANCE TO WIN, COMPLETE THE ENTRY FORM BELOW AND ANSWER THE EASY QUESTION. POST OR EMAIL YOUR ENTRY FORM TO REACH US BEFORE 31 JULY 2018 TO:

Email: competitions@bastiongroup.co.za

Murray & Roberts Competition – MARCH 2018
PO Box 652464, Benmore, 2010
Sandton, Gauteng, South Africa

Remember to include:

“Murray & Roberts Competition – MARCH 2018” in the subject line.

RULES:

1. The prize will be awarded to the first correct entry drawn.
2. The judges' decision is final and no correspondence will be entered into.
3. The prize is not transferable and cannot be exchanged for cash.

ENTRY FORM: ROBUST MARCH 2018 COMPETITION

Name: _____

Phone number: _____

Address: _____

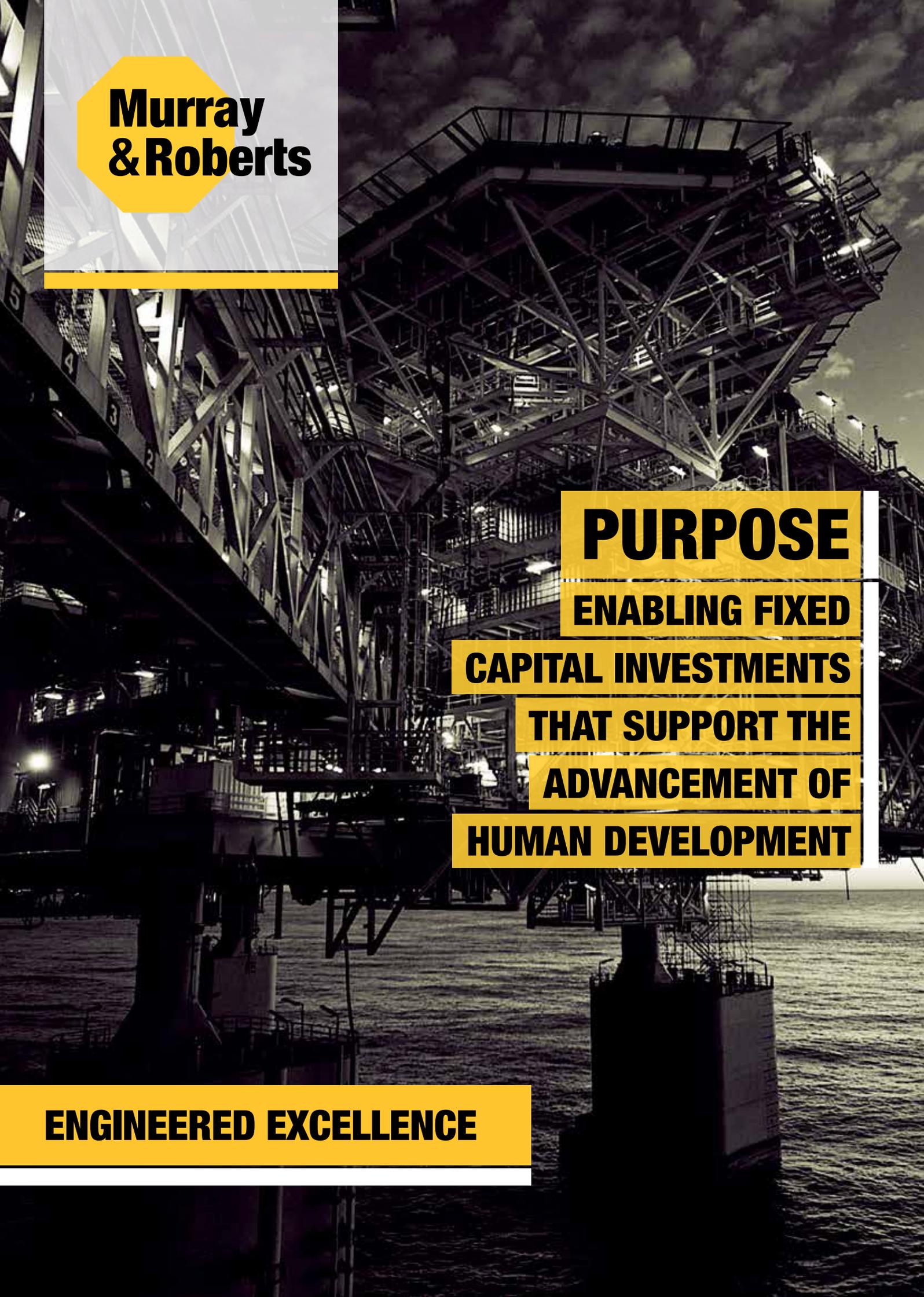
Question: In what sectors is the Power & Water platform pursuing opportunities?

* Strictly one entry per person

Terms and conditions apply



**Murray
& Roberts**



PURPOSE

ENABLING FIXED

CAPITAL INVESTMENTS

THAT SUPPORT THE

ADVANCEMENT OF

HUMAN DEVELOPMENT

ENGINEERED EXCELLENCE