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News for SAPREF employees, neighbours and stakeholders



JUNE 2019

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Turnaround 2019 has taken off

At the end of May the first units for the planned Turnaround 2019 were taken off line. This signalled the beginning of 48 days of maintenance and mechanical work to execute projects and equipment inspections at SAPREF. Managing Director Ton Wielers, highlights some of the activities.

What are the major projects being implemented?

Our shareholders, Shell and BP, have allowed us to make substantial investments in infrastructure so that we can produce better products. This includes the new HSD4 reactor which will be commissioned as part of the Turnaround.

The future of the refinery hinges on our successful execution of the Turnaround and project implementation. It is imperative that everyone working at SAPREF takes ownership of their deliverables and commitments. We aspire for an injury-free event, carried out within budget, on schedule, without quality issues and with no leaks. These objectives we will accomplish with everyone working together as One Team SAPREF.

How has SAPREF prepared for all the additional people coming to work for the Turnaround?

An event of this magnitude requires the engagement of skilled trained people to execute the work. Everyone understands the hazards of working in this manufacturing environment and adheres to our rules and regulations, which are there for the protection of our people, our equipment and our environment.

The Main Mechanical Contractors came on board as Subject Matter Experts to facilitate and assess the hundreds of people who sought employment during the Turnaround. They were supported by Team SAPREF staff who also carried out assessments both on and off site.

Concluding remarks

SAPREF has been diligently planning for this Turnaround since the 2017 Turnaround event. We will remain focused on executing our plans.

We extend our welcome to everyone who has joined us for the Turnaround, in whatever role this may be. We also extend our appreciation to your families for the many hours that you will need to spend on our site. We are committed to returning each of you safely to them every day.

Let us now work as One Team SAPREF together with our partners to deliver the 2019 event so that the refinery can continue as a safe, profitable business into the future.

Ton Wielers – SAPREF's Managing Director



Franco Forno and Pensilla Billat spearheaded the delivery of Umkhoma

Heavy lifting to get new reactor into place

Lots of heavy lifting was involved to get the new R50 million hydrogen desulphurisation reactor, affectionately known as Umkhoma (an isiZulu word for whale, in reference to its size) into place in the North Zone, Crude Distiller Unit 3. The new reactor is part of the D50 project to produce low sulphur diesel.

Manufactured in Brescia (Italy), the reactor was shipped on 21 March from Porta Marghera and arrived on 15 April at the Durban harbour. On 9 May the reactor started its overnight journey from the Durban harbour to SAPREF site on a 78-metre, 192 tyres, and three-horse powered trailer.

Project Manager Pensilla Billat detailed the planning and co-ordination involved to bring together multiple role-players to execute this significant project event. “With the reactor being classified as a super abnormal load, advanced route clearance and Department of Transport approval were required to undertake the journey. This included the propping of bridges and the removal of traffic lights. Municipal light poles, overhead road signage and bollards we also removed. Furthermore, a temporary bridge was constructed over the canal at SAPREF to complete the route into the refinery. Despite the best laid plans and the abnormal

DID YOU KNOW?
Some facts and figures about Umkhoma

- The new HDS4 (R4701-R1) reactor will be replacing the existing R4701 reactor.
- The new reactor will hold 4 times the volume of catalyst than the existing reactor
- The reactor weighs 242 tons (incl. saddles), is 30.7 metres in height, and 4.6 metres in diameter.
- It is made of vanadium-enriched chrome alloy material, which gives it its strength.
- Its internal is overlaid with 347 stainless steel.
- It is designed to operate at 4000 C and at a pressure of 60 bar.

load being escorted by the Durban Metro police, the journey took more than eight hours which resulted in early morning traffic congestion. We apologise for any inconvenience this may have caused to road users.”

On 17 May 2019, the reactor was successfully rigged into position using a 600-ton lattice-boom lifting crane and a 750-ton hydraulic tailing crane. The tandem lift was cheered on by spectators, who came to see the biggest reactor on site being lifted into place.



Gearing up to produce lower sulphur Marine Fuel Oil

SAPREF will be ready to meet the new International Maritime Organisation (IMO) regulations, due to take effect in January 2020, to produce lower sulphur Marine Fuel Oil. The regulation requires the reduction of the sulphur content from the current 3.5% (m/m) to 0.5 % sulphur (m/m).

Project Manager Livania Kasaven-Reddy shares the preparation being done at Island View site 3 and Bayhead to achieve this. “There’s a buzz of excitement as this is the first time that such a project is being executed at Island View. A portion of the work to improve operational capabilities was executed prior to the refinery Turnaround. This included the successful completion of planned shutdowns of Berth 7 and the Site 3 jump over line to allow product to be transferred from Bayhead to site 1 during the Turnaround. We are aligned with our stakeholders and service providers, and the project team is confident that this will be a challenging yet successful project.”

The 2019 Turnaround will present an opportunity to carry out mechanical and structural changes across sites.

“The project is being carried out in six work areas and the alignment of all disciplines involved is critical to the project’s success,” says Vee Moodley Island View Production Unit Manager. “This includes our Economics & Scheduling who will be working closely with our Berth Scheduler Thobeka Masondo to co-ordinate the import of refined project whilst the refinery is shut down for Turnaround 2019. To everyone coming onto our site lets work together to deliver a safe IMO project.”

Island View will produce the first batch of reduced sulphur from October this year.



Some of the IMO project team members.

“..the alignment of all disciplines involved is critical...” - Vee Moodley

Some of the service providers are:

- Goss & Balfe
- Budpol-Sisonke
- Avellini
- IZA Business Enterprise
- Kaefer Thermal
- Fluor Igoda (EPCM)

Some of the many people involved in the IMO project are:

- | | |
|--------------------------|-------------------------------------|
| • Livania Kasaven-Reddy: | IMO Project Manager |
| • Peter Luteijn: | IMO Event Manager |
| • Vee Moodley | Island View Production Unit Manager |
| • Rammy Goven: | Island View Operations IMO Lead |
| • Sihle Dlamini: | Bayhead Operations Lead |
| • Manny Goldstone: | IMO Construction supervisor |
| • Talent Khuzwayo: | Leading Operator |
| • Nombuso Ntusi: | Senior Operator |
| • Regan Jean Pierre: | Zone Trainer |
| • Pamela Moodley: | HSSE Lead |

Training – the gateway to Turnaround success



2019 Turnaround Training Team.

By the end of May, approximately 2000 additional people had been engaged in various capacities for Turnaround 2019. This, however, was only a small fraction of the people who had applied to the Main Mechanical Contractors (MMCs) for work, assessed on their skills level, underwent medicals and received on-boarding training for work on the Turnaround.

Co-ordinating the training and onboarding was Karthi Moodley, SAPREF's Head of HSE Competency and Development. He said, "There are always additional people needed to execute the Turnaround mechanical scope and we need assurance that the people engaged have the required competency and skills level to execute their work scope safely."

"We are proud of our world-class training facilities where theoretical and practical training and assessments were carried out. The training was facilitated by MMC Subject Matter Experts and covered a range of topics including working at heights, confined space entry based on the "What good looks like" concept. Members of Team SAPREF were also involved in conducting welding assessments offsite at the MMCs premises. We also established a Lifting and Hoisting training yard as there is a lot of heavy lifting done during the Turnaround," explains Karthi.

"As part of the onboarding, people were informed of SAPREF's zero tolerance towards gender harassment, racism and "no

swearing" premise. We also reminded people of the zero tolerance to drug and alcohol use. After being put through the paces to get employed, we want everyone working on our site to adhere to our rules and regulations. We take the view that if people choose to break the rules - which are there for their protection - they choose not to work at SAPREF," says Karthi.

"We extend our appreciation to everyone involved in getting people ready for Turnaround 2019. Let us now put into action all the training we have received to deliver a flawless Turnaround," concludes Karthi.



Hot work training.

Safety messages brought to life



Team Southey Contracting went the extra mile to ensure that its personnel working on the Turnaround clearly understand the need to adhere to safety rules and regulations. Their Secunda branch travelled from Mpumalanga to put on a play based on the Southey 'I AM' principles which are:

- *I - Identity risks.*
- *A - Assess risks.*
- *M -Mitigate risks.*

HSE Officer, Irhon Singh, said, "Demonstrating safety through such performances afford the audience visual scenarios on what desired behaviours are, and the consequences when

deviating from these. One of the items that the play touched on were the dangers of coming to work under the influence of drugs and alcohol."

"The consequences are not worth the risk. We, therefore, urge everyone working on Turnaround 2019 to come to work well rested and sober, so that you and everyone else can return home safely day," implores Irhon.

"It was fantastic to see the level of attentiveness as the safety messages were clearly communicated to our staff," adds Rob Ross, Divisional Managing Director.

Communication lines kept open during TA

When the refinery shuts down for a planned event, such as a Turnaround, communities surrounding the refinery will notice increased flaring, noise and odour as the units are systematically decontaminated in preparation for maintenance activities.

Melanie Francis, Environmental Manager, says, "In May we experienced a bit of noise whilst shutting down the refinery and we extend an apology to our neighbours for any inconvenience that they would have experienced."

"The Turnaround is planned for 48 days. When the mechanical work is completed, the operational units are brought back online in sequence. This process results in flaring, noise and odour. Both the shutting down and the starting up process are planned in a staggered fashion to minimise flaring and noise impact. Every effort is made to keep the duration of the flaring to a minimum." explains Melanie.

We will be keeping our neighbours informed of the Turnaround progress and how they can be impacted through the community flyers, bulk sms's and our Facebook Page.

If there any environmental concerns; the community is advised to contact our Toll Free Line 0800 33 00 90.

**Melanie Francis ,
Environmental Manager.**



CASME provides science coaching for teachers

Recognising that it is not enough to just establish 20 school science laboratories without providing support to the science teachers, SAPREF charged the Centre for the Advancement of Science and Mathematics Education (CASME) with the responsibility of supporting the teachers as they worked through the Department of Education curriculum.

CASME Project Manager Themba Ndaba shared, “Many of the teachers have been teaching theoretical Chemistry and Physical Science without the laboratory facilities to demonstrate the experiments. - which is a bit like teaching someone to bake without having an oven to bake the cake in.”

“On 5 April, we ran two workshops for Grade 9 and 12 teachers, from the Umlazi district, covering topics relevant to each grade

as prescribed by the Department of Education curriculum. Those who attended found the workshops very valuable and relevant.”

Grade 10 and 11 teachers have been invited to attend the next workshop, scheduled for 19 July.

“Some schools have requested school based experiments done with learners and we are considering this,” adds Themba.

“As a support structure for teachers, we envisage that the teachers will grow more confident in their abilities to teach science and this will in turn attract more learners who keep studying science up until Matric and into their tertiary courses,” confirms Themba.



High school teachers get “back to school” training to gain confidence in teaching science at school.



Grade 9 experiment of acid bases and neutralisation.

SAPREF extends helping hand to communities

On 17 May the sounds of adulation reverberated at the SAPREF Club House when numerous community projects received funding through the SAPREF Corporate Social Investment (CSI) programme.

It did not matter to recipient organisations whether they received a car to help with their outreach work for vulnerable children, a mobile home to extend the facilities of an early childhood development centre, the tarring of a playground to cover red sand or sewing machines - their jubilant songs showed their appreciation for all projects funded.

Expressing his inspiration for the work being done by organisations, Managing Director Ton Wielers said, "You make a great impact in your communities with limited resources, often with little recognition for the work that you do. Thank you for your tireless service, and we are proud to play a small part in your contribution to your communities."

The Masithandaneni Youth Organisation Founding Director Sithembale Mpofana knows that receiving the vehicle will help extend the organisation's outreach ability. He shared, "We offer psychosocial services, aimed at children from new borns to 18 years old. Having our own vehicle, instead of having to rely on public transport, will definitely enable us to extend our outreach services to help more people. Ngiyabonga SAPREF."



Sapref donated a Toyota Avanza to Masithandane Youth Organisation.



Young performer captures the crowd.



Norma Le Clous from Malibongwe Senior Citizens Centre received sewing machines.



Brenda Dunn, Boniswa Nduli, Badudu Ngidi and Leketseng Khomongo from the Community Liason Forum.



Below is the list SAPREF funded CSI programmes for 2019

Organisation	Area	Donation
Asiphile St. James	Lamontville	Air conditioners for previously donated park home
Austerville Municipal Clinic	Austerville	Wall mounted fans and filing cabinets
Bluff Municipal Clinic	Bluff	Office furniture
City Celebration	Wentworth	Speakers
Isipingo Municipal Clinic	Isipingo	Air conditioners for previously donated park home
Hands of the Givers	Merewent	Electrical cabling for bakery
Little Darling Edu-Care	Umlazi	Educare equioment
Malibongwe Senior Citizens Centre	Wentworth	Sewing machines
Masithandaneni Youth Organisation	Umlazi	Vehicle
Merebank Municipal Clinic	Merebank	Park home and chairs
ML Sultan St Mary's Primary School	Merebank	Library books
Nizam Road Primary School	Merebank	Library books
Platt Drive Primary School	Isipingo	Plumbing lines for jojo tanks
Settlers Primary School	Merebank	Tarring of drop off area
Sibonga Imizamo Community Care Centre	Umlazi	Mobile bakery
Siza Community Health Care Centre	Umlazi	Office furniture
Tholimfundo ECD	Umlazi	Park home and air conditioners, furniture, Jojo tank
Umlazi Christian Centre	Umlazi	Freezer
Windy Heights Primary School	Isipingo	Learning materials



Electrifying performance by the youth.



Ton Wielers and recipients from Tholimfundo Early Childhood Development.

Steady hand needed in replicating history

“You can call me a jigsaw puzzle maker who makes the pieces and then puts them all together,” says Process Technician Cornelius (aka Lofty) Van Der Bent, describing his model boat building hobby.

On 16 June 2016, Lofty got the building plans off the internet and started building a model USS Missouri BB63 affectionately known as ‘Mighty Mo’ or Big Mo. This battleship was launched on 29 January 1944 and is best remembered as the site of the surrender of the Empire of Japan that ended World War II. In October 2017, Lofty took the ship for its first outing at the Chris Saunders Park in Gateway.

“My BB63 model comes complete with 9 X 16” mains, 20 X 5” secondary and 40 x 40mm & 20 X 20mm anti-aircraft cannons, the same number that the real ship had. It is made of wood and plank and has a motorised engine. The model is 1:175 metres scale to the actual vessel, and is 1 and half metres in length,” informed Lofty.

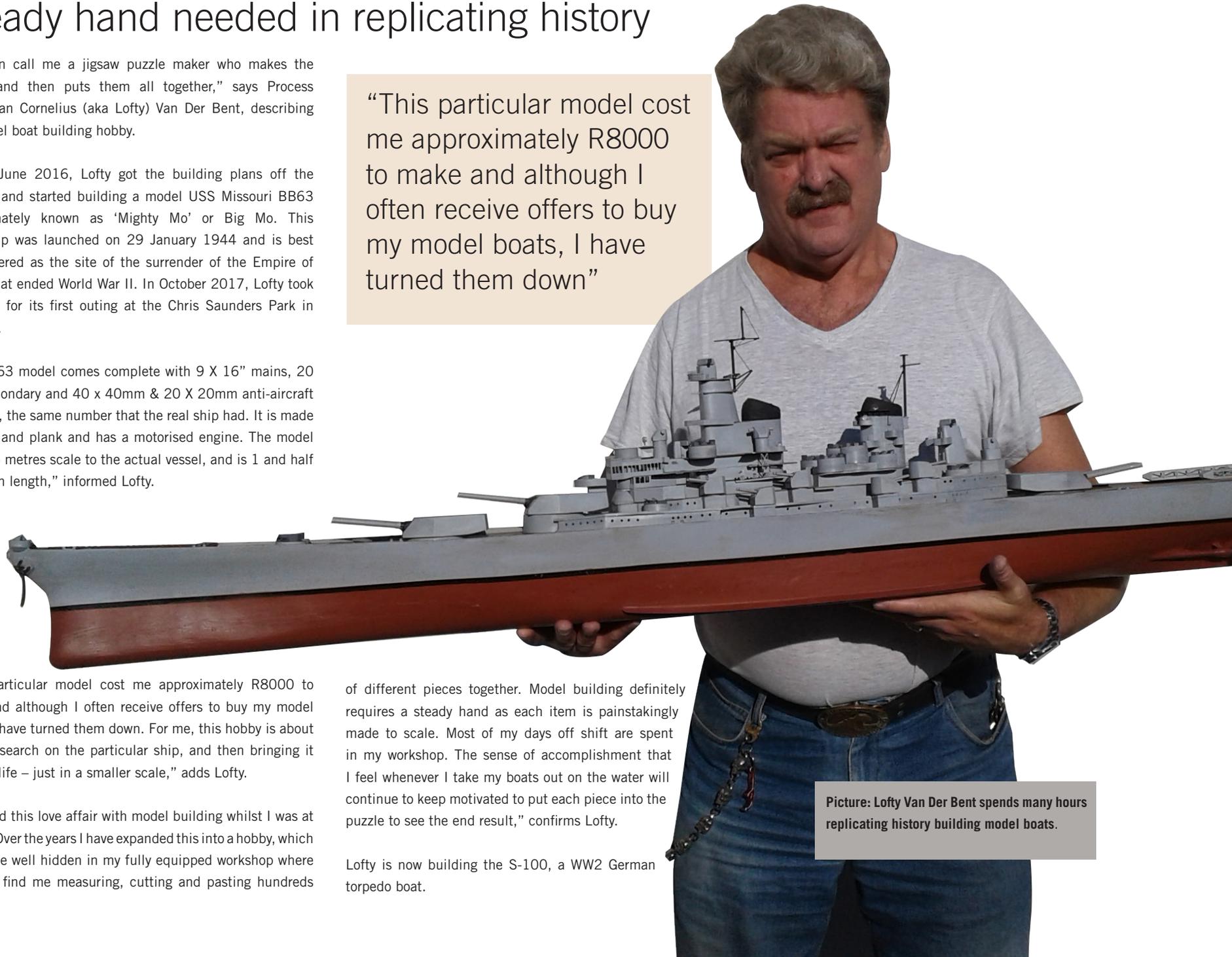
“This particular model cost me approximately R8000 to make and although I often receive offers to buy my model boats, I have turned them down. For me, this hobby is about doing research on the particular ship, and then bringing it back to life – just in a smaller scale,” adds Lofty.

“I started this love affair with model building whilst I was at school. Over the years I have expanded this into a hobby, which keeps me well hidden in my fully equipped workshop where you will find me measuring, cutting and pasting hundreds

“This particular model cost me approximately R8000 to make and although I often receive offers to buy my model boats, I have turned them down”

of different pieces together. Model building definitely requires a steady hand as each item is painstakingly made to scale. Most of my days off shift are spent in my workshop. The sense of accomplishment that I feel whenever I take my boats out on the water will continue to keep motivated to put each piece into the puzzle to see the end result,” confirms Lofty.

Lofty is now building the S-100, a WW2 German torpedo boat.



Picture: Lofty Van Der Bent spends many hours replicating history building model boats.

No back to school blues when participating in Career Days

Ernest Molotsi is not your normal alumnus!

Instead, he is an alumnus who goes back to his old school, St Francis College in Marianhill, to pay back the benefits he received, together with other well known South Africans including the late Bantu Stephen Biko, the late Dr. Matsepe-Cassaburi and Judge and first Public Protector Selby Baqwa to name but a few.

On 11 April, Ernest together with SAPREF ICT colleagues, Zinhle Mthimkhulu and Yanele Fica, and Pensioner Thulani Majola participated in the school's annual Careers Day.

St Francis College is a Catholic independent school, which has achieved 100% pass rates for over 30 years in a row. This year 2019, St. Francis College will commemorate 110 years Celebrations.

Ernest said, "This is the second year that we have been involved in this youth development programme, and our engagement will help the Grade 11 and 12 Learners to make more informed decisions about their careers."

Zinhle, who comes from a rural area, shared, "I was not exposed to career guidance or counselling and had no clue about what I wanted to do after Matric. Participating in such events gives me the opportunity to give learners a better understanding of their career prospects and learning needs, thereby augmenting the information they have to make informed decisions about their careers."

Yanela was impressed by how the learners asked detailed questions about the various career paths and opportunities. Ernest also joined the members of the SAPREF SERVE IKusaselihle Project, led by Londiwe Myeza. On 13 April



Picture: Learners at St Francis College are enthusiastic about gaining information about possible careers

they visited rural high schools of Sakhiseni and Ndabankulu in the Tugela Ferry, Msinga area of Northern KwaZulu Natal, where they found children from disadvantaged background were faced with very limited facilities and support structures.

"It is a truly humbling experience to see the appreciation given by learners at these Career Days, and I feel honoured to play a small part in sharing the information I have to widen the learners' horizons about possible career paths," adds Ernest.

Long Service Awards

Thank you to the following staff members for their many years of dedication and commitment to the goals of Team SAPREF. These milestones were achieved in April, May and June 2019.

Long Service Feature



Pauline Bowes: 35 Years and going strong

Congratulations to Pauline on her exciting milestone of being with SAPREF for 35 years!

Pauline started as a Data Capturer. She then worked in different departments between the years 1987 and 2015. She now works at the clinic as an Administrator. She is passionate about sports and travelling. Her passion, family and work keeps her motivated “I am a people person and I enjoy the work that I do”, she says. When asked how she keeps fit, she laughed and said, “this body knows nothing else. I enjoy squash, running and going to the gym.” Congratulations Pauline!

Honouring Dedication

35 YEARS	
Pauline Bowes	Clinic Administrator
Brian Poonen	LP Model Technologist
Mike Axe	Turnaround Operations Lead

30 YEARS	
Cornelis Van Der Bent	Process Technician
Koogan Govender	Project/Alliance Manager

20 YEARS	
Grant Cohn	ICT Senior Database Administrator

15 YEARS	
Jason Moodley	Process Technician
Wayne Stepanik	ICT Business Analyst
Kumeran Pillay	Planner
Terrance Jean-Pierre	PCR Scoper
Tracy Pattison	Marine Accountant
Bheka Blose	Team Leader

10 YEARS	
Mandla Dlamini	Instrument Artisan
Nontokozi Moloji	Process Technician
Hlobisile Mpanza	Process Technician
Ryan Holmes	Process Technician
Babalwa Nzuza	Process Technician
Thulani Mtambo	Area Specialist
Pranesh Raghubir	Process Technician
Wiseman Mntambo	Area Specialist
Rajan Pather	Competency Development Specialist – Mechanical
Thokozani Malwane	Clinic Sister
Keith Lawrence	Warehouse Administrator
Denzil Nair	ESP Coach
Dharmesh Patel	LPG Scheduler
Ugan Naicker	Data Management Project Lead
Bongiwe Nyoka	Contract Lead
Vanan Chetty	Instrument Supervisor
Nqobile Mhlongo	Mechanical Artisan
Roscoe Swartz	Mechanical Artisan
Nhlanhla Maphumulo	Process Technician