





### SUSTAINABILITY REPORT 2015

#### A REPORT FOR OUR STAKEHOLDERS





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## **ABOUT** THIS REPORT

As a responsible and caring company, we know that good neighbourliness depends on good environmental and social performance. We therefore constantly strive to ensure harmonious relationships with key stakeholders and to invest in environmental improvements at the refinery. This report provides an overview of our approach to the sustainability aspects of SAPREF coupled with a review of our 2015 economic and operational performance.

#### Scope of the Report

The report covers the operating period 01 January to 31 December 2015 and focuses predominantly on SAPREF's operations at Prospecton and storage facilities at the harbour, including the single buoy mooring. The report does not cover the entire supply chain or outsourced operations.

#### Independent Assurance Report

We believe that external assurance plays an important part in the way that we work and that it provides stakeholders with assurance regarding our performance. To this end the information in this report has been verified by auditing firm Ngubane & Co.

This is indicated by the symbol ✓ after certain data and statements demonstrating that the information has been verified by the auditors. A statement of the auditors' factual findings is contained on page 3 of the report.

#### Global Reporting Indicators (GRI)√

This is the 15<sup>th</sup> report produced for our stakeholders and we once again report in accordance with selected Global Reporting Indicators (GRI).

#### **Request for feedback**

We value feedback and welcome questions and comments on our reporting. To provide feedback, please contact our Sustainable Development department through public@sapref. com.





### AUDITOR'S STATEMENT



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#### AUDITOR'S STATEMENT OF FACTUAL FINDINGS

#### Scope

In accordance with your request to verify certain statements and performance related data in SAPREF's 2015 Sustainability Report, we have performed the following agreed-upon procedures. The responsibility for determining the adequacy or otherwise of the procedures agreed to be performed is that of the management of SAPREF. Our procedures are summarized as follows:

- Obtain an understanding of the system producing the information;
- Review available documentation and records;
- · Re-perform calculations where considered necessary; and
- · Conduct interviews with SAPREF personnel and/or stakeholders, and inspect premises.

#### Findings

The preparation and the content of the 2015 Sustainability Report, the statement and data contained therein are the responsibility of the management of SAPREF. Our responsibility is to issue a statement on the reliability of such statements and data.

The information contained in this report has been prepared from information supplied to us by external sources, as well as information and explanations received from the management and staff of SAPREF. We have relied on the documentation, information and explanations made available to us without independent verification. Our work constitutes the performance of agreed-upon procedures and not an audit and is substantially different in scope from an audit. Whilst we have gained an understanding of the procedures around the systems that produce the information, we have not tested the reliability, accuracy and completeness of the systems that generate the information. Accordingly, we do not express an opinion on the information contained in the report.

The statements and performance related data selected for verification, marked with symbol [ "] are supported by appropriate underlying evidence. In performing the procedures as set out above, nothing has come to our attention or caused us to believe that such statements and data are inaccurate in any material respect.

Our report is solely for the purpose set forth in the first paragraph of this report and for your information and is not to be used for any other purpose.

Entane a lo. Ngubane & Co.

Registered Auditors Per: Desmond Msomi (Partner) Date: 26 September 2016 Durban

Partners: SD Msomi, HGS Mpungose Group Chief Executive: BW Ngubane WE HAVE TALENTED AND COMMITTED PEOPLE OPERATING OUR REFINERY AND WE STRIVE TO PROVIDE AN ATTRACTIVE WORK ENVIRONMENT WHERE PEOPLE CAN GROW AND DEVELOP.

### MANAGING DIRECTOR'S MESSAGE

On the sustainability front, SAPREF continues to ensure a balance between responsible environmental performance and meaningful social impact through the refinery's corporate social investment programme.

When I reflect on 2015 in terms of the refinery, I am reminded of a challenging and emotionally charged year for Team SAPREF where the refinery faced many challenges but stood together united. The tragic events of April 17<sup>th</sup> where we lost two colleagues and where a third person was injured in a fire incident will forever remain engraved in the hearts and minds of all at SAPREF. Through this painful period, Team SAPREF remained resilient and supportive in whatever way was required. I thank you for this.

In the second phase of the year, we successfully completed the execution of the 2015 statutory Turnaround, a very intense period with numerous maintenance activities that were carried out flawlessly by over 5000 people on-site. During the Turnaround we saw pockets of excellence with a notable safety performance. Through the Turnaround we were also able to provide local employment and provide three NGOs with income through the packing of bread for the daily meals being served on site.✓

Safety is our overriding priority. We work safely for our colleagues and for ourselves and to be able to return home everyday safely to our families and we celebrated this during our annual Safety Day. At two points in the year, we also celebrated three million hours of injury free working which was a great achievement thanks to Team SAPREF and especially our BBS observers and coaches.

As part of our drive towards operational excellence, we focused on our Vision 2018 must win initiatives as well as our journey to the new SAPREF. This saw the introduction of some key initiatives such as the LOPC reduction plan, intensified field presence, a refocus on the Maintenance Execution(ME) and Ensuring Safe Production(ESP) initiative and refreshing the foundations of safety to name a few.✓

Running a refinery is more than pumps, pipes and compressors. For me it is about the people. On the people agenda, I am very proud about the significant number of learners that we take onto our various learnership programmmes annually. I see this as an essential part of our business's sustainability as our skills development programmes provides a talent pipeline for SAPREF as well as industry at large. When we talk about skills development, it is not only about technical skills but also about leadership skills. Therefore I am very pleased that this year we have continued our leadership development programme for the second cohort of extended leadership members. As we go forward we will extend this programme to our frontline leaders.✓

As a refinery we are part of a broader community and therefore constructive and constant engagement with the surrounding communities remains a priority for us. In 2015, we continued to have meetings with members of the community through the SAPREF Community Liaison Forum (CLF). A key project that emerged was a first aid and safety course for unemployed youth in the various Durban South communities. I thank the CLF members for being our barometer in the communities and for providing us with insights of the various community needs.√

In 2015,I particularly enjoyed the refinery tours that allowed our neighbours the opportunity to better understand our operations. Another highlight was the annual launch of two sponsored science laboratories. I am always amazed by the immense joy experienced by the learners receiving these laboratories.

On the transformation side, tremendous effort went into preparing for the new BBBEE codes with the final accreditation being a level three. This was a great achievement considering the more stringent targets. In addition, SAPREF was once again awarded the prestigious Alec Rogoff award for the best supplier development programme. Such recognition is gratifying and talks to the commitment of site towards the development of small businesses.✓

After a difficult year, we find ourselves getting back to the basics in our journey towards safe reliable operation. We have the support of our shareholders, employees, service providers and neighbouring communities and I see no reason why we can't achieve success. I am personally grateful to each of you for your tremendous efforts and support during 2015.

Thank You. Ton Wielers

### **COMPANY** PROFILE

#### Who We Are

The SAPREF refinery, which is jointly owned by Shell Refining SA and BP Southern Africa, is the largest crude oil refinery in Sub -Saharan Africa. It is situated in Prospecton and is home to some of South Africa's top petrochemical professionals. With a refining capacity of 8.5 million tons a year, the refinery has been in operation for 52 years and has approximately 700 employees. As a producer of petroleum products, SAPREF's facilities are of national strategic importance and the site is therefore covered under the National Keypoint Act. SAPREF is proudly a level 3 BBBEE contributor and an empowering supplier as verified according to the new codes in terms of the Department of Trade and Industry's Codes of Good Practice. It is ISO 9001 and ISO 14001 certified.✓



### OVER 700 EMPLOYEES

#### **Our Vision**

To be the leading refinery in South Africa and be competitively placed in South East Asia groupings. We will do so by conducting our business in a safe and reliable manner and by being a partner of choice to our employees, shareholders and external stakeholders.

#### **Our Values**

*Safety:* To us, safety is paramount. We demonstrate this by owning, complying and intervening.

**Respect:** We protect and preserve the inherent dignity of every person and we have difficult conversations without crushing one another.

**Responsibility:** We fully own our work, but we also own the overall success of SAPREF. We also own our individual growth and development.

*Honesty and Integrity:* We adhere to SAPREF's rules and regulations and we conduct ourselves with the highest ethical standards.

*Teamwork:* We work as teams, we build strong teams and we assist one another to succeed.

#### What We Dov

SAPREF manufactures a variety of petroleum products in different grades, including petrol, diesel, paraffin, aviation fuel, liquid petroleum gas, base oil, solvents and marine fuel oil.



### **ORGANISATIONAL** STRUCTURE

SAPREF operates under the management of the leadership team, with each member also responsible for their own department.

A summary of each department is as follows:√



**Ton Wielers (MD)** Leads the SAPREF leadership team and is the primary SAPREF representative on the board.



**Maintenance - Albert Mabaso** Responsible for the safe and efficient execution of all maintenance activities to keep the refinery in excellent condition.



**Production - John van Belkum** Responsible for refining and processing crude oil into valuable products.



**Commercial - Rodney Youldon** Manages the assessment of the refinery's performance, the business improvement programme, management systems, margin growth, hydrocarbon accounting, short and long term production modeling and planning with shareholders.



Finance - Colin Muthusami Provides all treasury, controlling and accounting functions. Responsible for the procurement of products and services, warehouse management as well as legal services.



Human Resources - Lindiwe Khuzwayo Responsible for resourcing the business, managing performance, developing staff, enhancing employee relations,the administration of staff benefits and the Sustainable Development section which is responsible for all reputational matters.







Terinery's project portfolio and all maj Turnarounds.



Heath, Safety, Security and Environment(HSSE) - Mbulelo Yokwe Manages health, safety, security and

## **COMPANY STRUCTURE** AND GOVERNANCE

#### SAPREF Board and Committee Structure✓

The SAPREF board processes are organised to oversee the identification and management of economic, environmental, safety and social risks and opportunities.

A formal broad-based risk management process is reviewed regularly. Shareholders provide direction to the board through board sub-committees as indicated in the structure below.



These sub-committees report to the board quarterly and have the following responsibilities:

COMMITTEE	RESPONSIBILITY	
Business Committee	Assists with matters related to reliability, product quality, energy management, margin generation, cost management, Turnaround management and capital projects.	
Social and Ethics Committee	Monitors the company's activities with regards to relevant legislation relating to human capital, social and economic development, good corporate citizenship, the environment, health and public safety.	
Business Assurance Committee		
Safety and Integrity Committee	Supports the site with personal safety, process safety and integrity strategic programme implementation.	

## ECONOMIC CONTRIBUTION

SAPREF is a major role-player in the South African economy with its local contribution being recognized as per the figures below:✓

CONTRIBUTION	AMOUNT
Capital expenditure	R628m
Electricity	R197m
Water	R85m
Rates	R36m
Socio-economic development	R10.2m

#### Suppliers/Contractors Orders

The total amount approved and committed on goods and services for the year was R 2 billion.✓

#### Broad-based Black Economic Empowerment (BBBEE)

In 2016, we finalized the 2015 BBBEE verification according to the new codes and attained a level 3 BBBEE status. The table below highlights the scores achieved per element in this verification.

ELEMENT	WEIGHTING	ACHIEVED
Ownership Equity (OE)	25	25
Management Control (MC)	19	7.12
Skills Development (SD)	20	17.48
Enterprise and Supplier Development (ESD)	40	38.93
Socio Economic Development (SED)	5	5
TOTAL	109	93.53

#### Some of the significant milestones in achieving this rating were as follows:

- A sound BBBEE plan and investment in a tracking tool that ensured that element owners completed deliverables as per assigned deadlines.
- Regular committee meetings to allow alignment between element owners.
- An internal audit to ensure SAPREF's readiness for the new codes.
- Consistent support from the SAPREF board in terms of input and guidance.
- Vigorous drive to procure from EMEs, QSEs, Black Owned and Black Women Owned suppliers resulting in the ESD element contributing largely to the points achieved.
- An impressive number of learners recruited which contributed toward full points under learnerships.
- Improvement in the ownership scores of SAPREF's shareholders which influenced the SAPREF ownership score.

A further accolade was receiving the prestigious Alec Rogoff BBBEE award for a second consecutive year in recognition of the sustainability of SAPREF's enterprise and supplier development programme.

We acknowledge that BBBEE is not only about the scorecard. The real value of BBBEE is on the impact on sustainable economic growth and development. This is where we will continue to focus our efforts whilst ensuring compliance.

### **STAKEHOLDER** ENGAGEMENT

Effective stakeholder engagement is key to the sustainability of our business as it is through input and feedback from our stakeholders that we are able to assess, sustain or improve our operations.



At SAPREF we pride ourselves on being approachable, respectful and proactive in our engagement with various stakeholders.

Our key stakeholders include our shareholders, employees, neighboring communities, government, the media, academic institutions and business organisations.

Over the years, SAPREF has interacted with key stakeholders in the following ways:

#### The SAPREF Community Liaison Forum (CLF):√

This forum is independently facilitated and comprises of organisations and entities from the surrounding communities. Meetings are held bi-monthly and focus on discussions around SAPREF's social, environmental and operational performance. Feedback is also provided by the forum members on key happenings and community projects in their respective areas.

The CLF provides a medium for SAPREF to obtain insights of the social ills that are common to all communities. This provides the framework for CLF projects during the year. Examples of such projects over the years include a youth seminar on career opportunities, a drug awareness campaign at schools and for the last two years the establishment of community resource centres in Wentworth, Lamontville and Umlazi.

#### The Island View Community Liaison Forum:✓

This is an industry forum in which SAPREF participates. Meetings are held quarterly and are independently facilitated. Discussions cover environmental and other issues affecting residents closest to the harbour.

#### Meetings with authorities:

Being a national key point, regular meetings are held with various authorities. These include meetings with the South African Police Service (SAPS), eThekwini Health and the State Security Agency to name a few. Such engagements are critical for networking and alignment purposes.

#### **Neighbouring Communities:**

Keeping the neighbouring communities informed is an important part of our communications strategy. We achieve this through the following mediums:

- Advertising opportunities as listed below in the various media and on the SAPREF website (www.sapref.com):
  - 0 Call for funding proposals for corporate social investment projects.
  - Notification of learnership opportunities . 0
  - General recruitment opportunities✓ 0
- Distribution of 8000 flyers to our closest neighbours in the event of a plant upset or scheduled maintenance.
- SMS and email communication to CLF members regarding plant upsets, learnerships, bursary and tender opportunities.



### **REFINERY** PERFORMANCE

It was a difficult year for SAPREF in many respects. We started the year with a strong first quarter performance in operations. The refinery shutdown resulting from the petrol line fire in April closely preceded the maintenance shutdown that was planned for May/June. This shutdown took longer than originally anticipated and resulted in the refinery under-performing against the plan in quarter two .



The Back to Basics programme contributed to a more stable fourth quarter performance as evidenced by our improved operational performance. We ended the year with visible signs of recovery with respect to operations and were on budget with costs. With the help of a good margin environment we managed to exceed our promised margin delivery to our shareholders for the year.

SAPREF has a design capacity to process up to 180 000 barrels of crude oil per day (or 24 500 to 26 000 tonnes per day) depending on the type of crude oil processed.✓

In 2015, 5.56 million tonnes of crude were processed, producing approximately 26% marine fuel oil and specialties, 25% petrol and 43% diesel and jet fuel. The decrease in crude throughput versus 2014 (6.88 million tonnes) is mostly due to the planned maintenance shutdown executed in May and June 2015.√

SAPREF processed approximately 59% African origin crudes in 2015.  $\checkmark$ 

#### Single Buoy Mooring (SBM)

The SBM underwent a planned maintenance shutdown during May with the work being completed within schedule.

#### **Planned Shutdowns**

The following planned shutdowns were executed in the year:

- A statutory maintenance shutdown of the Sulphur Recovery Unit 3 (SRU3) in January.
- A planned maintenance shutdown in May and June focusing on the Platfomer.
- Shutdown of the visbreaker unit in August for a planned decoking cleanout.

#### Unplanned Shutdowns√

The following unplanned shutdowns were executed in the year:

- The Fluidised Catalytic Cracking Unit (FCCU) compressor tripped early in January and negatively impacted refinery operations for about a week.
- There was a refinery outage late in January due to steam shortage, lasting for about 3 days.
- We suffered an external power failure in April, stopping refinery production for about 4 days.
- A petrol line fire occurred towards the end of April, resulting in a total shutdown of the refinery.

#### **Business Improvement**

The year started off with a high focus on the 2015 major Turnaround. In addition, the Behaviour Based Safety (BBS) and the contractor management process were well delivered. The timely implementation of the contractor management lean initiative generated a potential savings of R14.1million to support the Turnaround at an appropriate time. The April fire incident brought the refinery to a premature shutdown and propelled SAPREF into adopting new initiatives to execute high risk activities during the Turnaround in a safe reliable manner. In light of the April 17th incident, the focus on the vision 2018 must wins changed slightly. The initiatives that supported the derisking process were incorporated into the mission critical initiatives. This was the new journey that SAPREF undertook to derisk and declutter and focus on getting "Back to the Basics."

#### Island View

Progress by Transnet Capital Projects on the New Multi Product Pipeline (NMPP) Accumulator terminal was halted due to various constraints. To counter the NMPP project delay, Transnet decided on a tight-lining operating solution which involved bypassing the accumulator tanks to get to the Terminal. The tight-lining required modifications to SAPREF's existing infrastructure. In this regard, SAPREF's tight-lining scope will be completed in 2016. The construction of two replacement tanks for SAPREF on Bayhead A site were not completed and operations have remained somewhat compromised during this period when tanks on Bayhead B site have only been partially available for use.

### HUMAN CAPITAL

Our multimillion rand investment in skills development is our way of securing our future. Without competent employees we cannot operate our refinery safely and reliably. Therefore in 2015 we continued to make significant investments in the development of our employees in the following ways:



#### Investing in Technical Development

Internally, we maintained our focus on HSE competence development and operator progression. Five modules of the fifteen critical competencies for FLBM (front line barrier managers) were completed as part of the HSE competence assurance programme.

We also started the process of developing career paths for Maintenance and Engineering through a job family model framework with the objective of completing the process in 2016. This will enable meaningful career development for the employees in these two key technical departments.

As a learning organisation we continually review our processes and initiatives and as such for the first time we also saw electrical and mechanical artisans completing their trade tests through CHIETA. This is a further step towards enhancing the skills level of our artisans produced through the refinery school.✓

#### Education and Career Development√

Through the staff educational assistance programme, R215 000 was invested in 15 of our staff members to further their studies. In addition, three employees where afforded the opportunity to gain international exposure through overseas training.

#### Investing in our Leaders

A key component of our People Agenda is the development of our leaders. In 2015 we continued the EVOLVE leadership programme where the first group of 21 members from the Extended Leadership Team (ELT) completed the programme and the second group of 30 ELT members started the programme in September. Feedback from the participants indicated that the programme propelled them to hone in on their proficiencies to better manage their day- to- day activities and also guided them to better manage their teams. The intention is to continue this programme until all ELT members as well as front line leaders have undergone leadership training.

#### Investing in Learnerships√

In the beginning of the year we welcomed 64 unemployed youngsters onto our fully accredited on-site refinery learnership programme. These youngsters were trained in chemical operations, electrical, instrumentation and mechanical fitting disciplines. Our investment of R10 million aims at addressing skills shortage by providing trained individuals for industry and also providing job creation opportunities when the learners qualify through the SAPREF refinery programme.

A further R8.3 million was invested in providing 50 unemployed learners who had successfully completed the SAPREF learnerships and other qualifications with workplace experience.

#### Investing in School Programmes√

We awarded 17 bursaries to grade 10 learners that were recruited onto the schools talent pipeline programme bringing the total number of high school bursary holders to 47. Each learner received R5000 towards school fees, stationery and tuition as well as exposure to the refinery through a holiday programme.

This programme aims at introducing high school learners to the world of refining at an early age when they are able to make decisions about their careers. More importantly, through this initiative we are able to grow our own pipeline of future engineers to resource the refinery and industry at large. Learners join the programme at grade 10 until grade 12 at which time they compete for university bursaries depending on their final results.



THE AMOUNT THAT WAS INVESTED IN PROVIDING 50 UNEMPLOYED LEARNERS WHO HAD SUCCESSFULLY COMPLETED THE SAPREF LEARNERSHIPS AND OTHER QUALIFICATIONS WITH WORKPLACE EXPERIENCE.



#### **University Bursaries**

In 2015, five learners were awarded bursaries to study various disciplines of Engineering at UKZN with two of these learners being talent pipeline recipients. Each SAPREF bursary covers tuition, residence fees, books, meals, a monthly allowance as well as exposure to refinery operations during school vacation.

#### Investing in our Communities

Through the Isipingo – based, Durban South Training Trust (DSTT), we provided artisan training to 138 youngsters from the Durban South community. This amounted to a total investment of R2.8 million in 2015.

In addition, SAPREF ran a week-long accredited skills development training course on health, safety and first aid for 26 unemployed youngsters from the Durban South community. This was an initiative driven by the SAPREF CLF members to equip unemployed youngsters with additional skills to increase their chances of gaining employment.

#### **Turnaround Training**

With 2015 being a Turnaround year, SAPREF implemented a comprehensive pre-shutdown HSE on-boarding training programme for the service providers that were employed to execute various maintenance activities during the shutdown.

To this end, a total of 4800 direct field labour employees were trained through various training programmes in order to provide assurance that the Turnaround would be executed in a safe manner.

#### Partnership with CHIETA✓

SAPREF also partnered with the Chemical Industries Education and Training Accreditation (CHIETA) Seta and the Coastal TVET colleges on a chemical operations and welding learnership. SAPREF's role in this partnership included the following:

- Contribution to the overall design of the programme ensuring that content is relevant to industry needs.
- Inducting of 70 learners on chemical industry specific outcomes and management of expectations through plant tours and workshops.
- Advice to the colleges on relevant training material and equipment that is used in industry.
- Leading the development of a mini plant to be used for training of learners.
- Advising the college on the relevant PPE required by learners when working in this industry.
- Providing the learners with experiential learning to allow them to gain work experience.
- Guest lectures at the colleges by SAPREF subject matter experts.
  - OUR INVESTMENT OF R10
    MILLION AIMS AT ADDRESSING
    SKILLS SHORTAGE BY PROVIDING
    TRAINED INDIVIDUALS FOR
    INDUSTRY AND ALSO PROVIDING
    JOB CREATION OPPORTUNITIES.

### **SAFETY** PERFORMANCE

Our primary focus is to consistently ensure the safe and reliable operation of the refinery. To achieve this we are guided by our HSSE specifications and twelve mandatory life-saving rules. Violation of any of these rules could result in disciplinary action.



To report safety non-conformances for appropriate learning and action, we continue to use the Continuous Improvement System (CIS).

#### Safety Performance√

Despite our goal to achieve no work-related fatalities, tragically we lost two of our colleagues in a fire incident on site in 2015. SAPREF regrets this incident and has since the incident introduced additional safety measures and initiatives.

#### Total Recordable Case Frequency Rate

A total recordable injury case is a measure of injuries that require medical treatment other than first aid. The accepted method of measuring safety at SAPREF is the Total Recordable Case Frequency Rate (TRCFR) per million hours worked.



As indicated in the graph above, in 2015 we achieved a TRCFR of 0.86 as compared to the 2014 TRCFR of 0.24. The slight increase in TRCFR was attributed to the fire incident on 17 April 2015, a Lost Time Injury (LTI) in our Central Stores and two Medical Treatment Cases (MTCs) during the Turnaround where we had large numbers of people on site.

#### Personal Safety Leadership Culture

We ensured visible leadership in the field by continuing with:

- Safety walks with Service Provider site leads 16(2). •
- Quarterly safety meetings with Service Provider • management 16(1).
- Leadership and extended leadership safety walks. .

#### Behavioural Based Safety (BBS)√

In 2015 we conducted 21300 BBS observations which focused on the four BBS streams, namely Front Line Leadership, Operations, Maintenance/Service Providers and Engineering.

#### In addition the following were achieved:

- Sixty one BBS alignment sessions were held which • covered 1035 people in the organisation during the 2015 Turnaround year.✓
- Weekly Asikhulume nge-BBS (Let's talk BBS) sessions which focused on BBS critical behaviours.✓
- BBS week was held in March 2015 focusing on the key • principles of BBS.✓
- The BBS steering committee away days and sustainability • reviews were held in the latter part of 2015.
- The BBS Turnaround safety plan was successfully executed.

### IN 2016, WE WILL FOCUS ON THE FOLLOWING:

- Supporting the delivery of the site goal of Safe **Reliable Operation through safety interventions**
- Annual safety day
- The entrenchment of BBS in non-process areas
- **Constant BBS observer training**
- Permit to work training
  - Plan and prep for the 2017 TA



## **OCCUPATIONAL** HEALTH

Our occupational health programme seeks to prevent and mitigate occupational health risks that may impact the health and wellbeing of our employees.



- Primary health care for staff and service providers.
- Implementation of an assurance system for SAPREF employees and service providers for medical surveillance compliance.
- Compilation of occupational risk exposure profiles for various job positions.
- Management of injuries on duty.✓
- Health screening and health education.
- Vaccinations for staff.
- Employee Wellness Programme (EWP).✔
- HIV management.✓

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- Assurance system on legionella and food safety management.
- Occupational exposure monitoring and controls (based on hierarchy of controls).
  - Education and training on hazardous chemical substances, noise and legionella.
- Selection and evaluation of Personal Protective Equipment (PPE).

#### HIV Disease Management for staff✓

Lifeworks is SAPREF's partner in effective HIV disease management, support and care to infected employees and their dependents as well as SAPREF retirees. The service includes anti-retroviral medication and supplements. The SAPREF HIV/Aids programme commenced in August 2003 and the response thus far has been excellent for HIV Testing and Counseling (HCT). Of the 99% of employees tested, the actual patient enrollment was 84% of the actual number of HIV+ employees that have registered for medical management. Compliance rates of treatment for employees is at 95% with the overall compliance rate for all patients (employees and spouses) on the Highly Active Antiretroviral Therapy (HAART) being 91%.

#### Employee Wellbeing Programme (EWP)√

The primary goal of the Employee Wellbeing Programme (EWP) is to inform, empower and provide SAPREF's employees with the means to take ownership of their wellbeing so that they can achieve a healthy work-life balance. We achieve this by supporting SAPREF employees with the necessary interventions and self-management tools to maintain optimum bottom-line performance and to improve their morale and overall wellbeing.

The following services are available to employees and their families through specialist service providers:

- Telephonic counseling services 24/7/365.
- HIV/AIDS counseling, education and support services.
- Life management services including legal, financial and family support.
- Trauma support and stress debriefing.
- EWP orientation sessions.
- Managerial EWP orientation sessions.
- Comprehensive online wellbeing services.





A REPORT TO OUR STAKEHOLDER

The individual utilisation rate of the above mentioned services increased significantly from 13.4% in 2014 to 29.1% in 2015. This is more than double the sector average and suggests that every 1 in 4 employees used the EWP during this period. The major contributor to this increase was a critical intervention through safety behavioural risk assessments that were done in April and August 2015 where individual utilization rates increased to 429% and 97.3% respectively as indicated in the graph below. The ICAS safety behaviour risk screening tool is designed to pinpoint areas of psychosocial risk that may impact on the performance of those involved in safety critical or safety-sensitive work.



Table 1: Monthly Engagement Period Rate % for 2015



## **ENVIRONMENTAL** PERFORMANCE

At SAPREF, we acknowledge that the nature of our operations can have environmental impacts and we therefore constantly work to avoid, minimize and mitigate such impacts of our operations through ensuring and exceeding compliance of environmental regulations.



Our environmental team manages any impacts by ensuring that SAPREF's policies and procedures are aligned with all legal and regulatory requirements. We frequently review our environmental risks and opportunities and ensure that management plans are in place for all our significant environmental risks.

SAPREF's environmental achievements between 2012 and 2015 include:

- Being the first South African refinery to obtain an Air Emissions License (AEL) in compliance to NEMA: AQ.✓
- Obtaining an Air Emissions License (AEL) in compliance to NEMA: AQA for all Island View sites.
- Securing the 5-year Scheduled Trade Permit (STP) for the refinery.✓
- Securing for the first time a 5-year Trade Effluent Permit (TEP)for the refinery.✓
- Maintaining consistent ambient performance as measured by the eThekwini Multi-Point Plan.

#### **Ambient Air Monitoring**

SAPREF consistently operates well within the requirements set by the city. No WHO (World Health Organization) 10 minute mean of 191 ppb (parts per billion) for sulphur dioxide nonconformances were recorded against SAPREF in 2015.✓

#### Flaring√



Whilst flaring is primarily a safety device, we acknowledge that from an environmental and economic perspective, it is important to manage flaring. Flaring at SAPREF occurs during planned and unplanned shutdowns of the units. In 2015 we saw an increase in HSR flaring due to unit shutdowns related to the April 17th fire incident as well as the planned maintenance shutdown in May and June.

#### **Emissions Management**

SAPREF monitors its emissions of priority pollutants, namely sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NOx) and particulate matter (PM<sub>10</sub>). In 2015 the refinery sustained its performance within the set permit limits of 20t/d SO<sub>2</sub>, 4t/d NOx and 1t/d PM<sub>10</sub>.





In recent years, SAPREF has driven a 78% reduction in sulphur dioxide emissions through the installation of best practice sulphur recovery technology. Since 2003, SAPREF has consistently performed better than the monthly permit limit of 20 tons per day. The graph above also indicates, on the secondary axis, the current performance in "kg SO<sub>2</sub> /tonne of crude throughput" versus the Minimum Emission Standard limit of 1.2kg SO<sub>2</sub> /ton crude.

#### Particulate Matter (PM<sub>10</sub>)√



Since 2007, SAPREF has achieved more than 84% reduction in  $PM_{10}$  emissions through utilising cleaner burning fuels, capital investment and operational improvements. SAPREF consistently performs well within the target particulate matter annual average of one tonne per day.

#### Nitrogen Oxide (NOx)√



SAPREF maintains nitrogen oxide emissions within the limit of 4 tonnes/day per annum. NOx is impacted by crude throughput and the blend of fuels used in the refinery operations. In 2015, the NOx emissions were at the lowest over the last 8 year period due to the reduced use of fuel oil and the plant being shutdown during the planned maintenance Turnaround .



SUSTAINABILITY REPORT 2015

#### Volatile Organic Compounds (VOC)√



The main contributor to VOC emissions are fugitive emissions from tanks and equipment. SAPREF has a well established Leak Detection and Repair (LDAR) Programme which was implemented in 2005 and assists us through the use of an infra red camera with identifying sources of fugitive VOC emissions within the refinery. Annual surveys are followed by a repair programme. The installation of double seals on floating roof tanks has also contributed to the reduction in VOC emissions. In 2015, there was a decrease in VOC emissions due to the plant being shut down during the major Turnaround.

#### Green House Gases√



The reported green house gases comprise of the direct  $CO_2$ and equivalent methane emissions. Our 2014 emissions increased to 1218kt mainly due to the use of new emission factors to align our calculations to the National Air Emission Inventory System. Reduced emissions in 2015 are due to the maintenance Turnaround. We anticipate that with SAPREF's current focus on energy efficiency initiatives, we will see further reductions in green house gas emissions going forward.

#### Fence Line Monitoring

SAPREF runs an independent external fence-line air monitoring programme for benzene, toluene, ethylbenzene and Xylene (BTEX).The 2015 results show that the annual average for total benzene at the fenceline is 1.37 micrograms per meter cubic, which is well below the national ambient air standard of 10 micrograms per meter cubic.

#### Management of Waste✓



Increased focus on recycling has had a positive impact on the overall volumes sent to the landfill. Current waste types recycled include non-hazardous waste (paper, cardboard, cans, glass, plastic, scrap metal and uncontaminated pallets) and hazardous waste (empty drums, isotainers, oil and catalyst).

During 2015, which was a Turnaround year we had an increase in waste volumes due to maintenance activities and the increased number of people on-site. We were able to increase the amount of general waste recycled by using dedicated waste segregators at the eating areas. By improving the segregation of recyclable waste from non-recyclable waste we are reducing the volume of waste going to landfill site.

In response to new waste legislation promulgated over the last three years, SAPREF has identified several projects to reduce or eliminate the disposal of liquids and sludges to landfill. These projects will be implemented over the next three to four years.

#### **Biodiversity activities:**

SAPREF is committed to reducing the negative environmental impacts of its operations and to promoting an appreciation of the need to conserve biodiversity.

Snakes found on-site are captured and released back into the wild by a group of SAPREF employees who have received specialist training on snake handling. We also work very closely with CROW to ensure that any injured wild animals found on-site or in the surrounding areas are rescued and rehabilitated.

In 2015 an alien invasive species and vegetation audit of the site was completed and a management plan has been drafted for implementation in 2016.

Oil in Effluent√



The average oil concentration in effluent has been below 20 mg/l since 2009 compared to the specified limit of 50 mg/l. SAPREF's Corrugated Plate Interceptor (CPI) and Parallel Plate Interceptor (PPI) are routinely cleaned to ensure that they perform efficiently in separating oil from water. This is to ensure that oil is recovered for re-use and that the effluent leaving site meets our permit specifications for oil content. The higher concentration in 2015 versus 2014 is due to decontamination of the units in preparation for the planned maintenance Turnaround. Due to the improvement focus on effluent management during the 2015 Turnaround, there was a decrease in oil in effluent compared to 2013 which was also a Turnaround year.



 Increased operational focus on HSR flaring with support from the Technology Department

## WATER AND ENERGY CONSUMPTION

### WATER

Steam is critical in keeping the refinery in operation as it provides energy for steam turbine driven pumps and compressors. It is also used in the physical separation process as a stripping and a heat transfer medium. The SAPREF steam system is classified into three grades, high, medium and low pressure steam.



The refinery High Pressure Steam (HPS) is produced from two sources of water, namely potable and reclaimed water. In 2015, 33% of the total HPS boiler feed water was made up from reclaimed water while 66% was potable water. SAPREF also maximised on the use of reclaimed water versus potable as cooling water makeup.

Maintenance activities were executed on the Utilities plant during the 2015 Turnaround year. Resin change outs and casting of new sinert beds were done on all the demineralization plant streams. A membrane change out was also done on the reverse osmosis plant in order to maintain the continuous supply of boiler feed water for HPS production.

### **ENERGY**

Energy reduction for both cost efficiency in global terms as well as the resultant environmental benefits has been a focus within SAPREF since 2010.



In 2015, efforts were focussed on utilisation of the new CO boiler for energy recovery from CO, monitoring and improvement of key operational energy drivers, daily monitoring of energy efficiency, changed emphasis on optimisation of boiler usage and types of fuels burnt in furnaces as well as continued focus on repairs of steam leaks. This dedicated focus has yielded benefits as indicated by the index normalised for utilisation. The energy index normalised for throughput in 2015 was better than in 2014. The actual energy index, not normalised, in 2015 was only marginally higher than in 2014, despite a much lower utilisation due to a Turnaround, which included shutdown, start-up and continuation of steam production despite no throughput while the units were down.

The energy index in February 2015 was the second lowest recorded in the history of the refinery, with the energy index of December 2014 being the lowest in the recorded history.



## SOCIO-ECONOMIC DEVELOPMENT

For SAPREF, investing in the surrounding Durban South communities through sustainable social investment initiatives is an important part of being a good neighbour. These programmes mainly benefit communities closest to the refinery namely Austerville, Wentworth, Isipingo, Umlazi, Lamontville, Bluff, Athlone Park and Fynland.



#### EDUCATION

We have for many years invested heavily in education related activities as we believe that as industry this is where we can make the greatest impact. Our flagship education project is the annual establishment of two science laboratories in neighbouring schools and in 2015 Ekwazini and Qhilika High School benefited from this project.

To date SAPREF has established sixteen science laboratories and we continue with this investment as we believe that the love for maths and science which are core for engineering related careers are enhanced when learners are given practical exposure. This million rand project involved converting a classroom at each school into a fully equipped science laboratory, complete with work benches, cupboards, Bunsen burners, science kits and chemicals. In addition, eight computers, a data projector and a screen for each school were part of the package to aid teaching and learning. The equipment and technology was selected in consultation with the Department of Education to meet the curriculum objectives.

#### Funding Window Period Applications

In the South Durban area, we have a large number of community based organisations (CBOs) that selflessly do community work to uplift the living conditions and standards of their respective communities. We have great admiration for the work done by these organisations and annually allocate a certain portion of SAPREF's social investment funding towards supporting CBOs as well as school initiatives.

To facilitate the selection of projects to fund, SAPREF annually advertises funding opportunities in the local newspapers. The applications received are screened, implemented and launched. In 2015 SAPREF partnered with some of its core contractors namely Budpol, Bright Spark and Patcon to increase the number of sustainable community projects delivered to the community.









#### SAPREF Employee Community Involvement programme (SERVE)

In 2015, SAPREF continued its employee community involvement programme, called SERVE to support employee driven community initiatives. All funds raised either through financial or physical contribution were matched by SAPREF up to the maximum value of R20 000.00.

During the year the following projects were undertaken by the various SAPREF teams:

PROJECT NAME	DESCRIPTION	PROJECT LEAD
Maths Made Easy (MME)	Provision of extra maths lessons throughout the year at Umlazi Comtech.	Thulani Majola
Career guidance	Career Day at Ntuzuma.	Lethu Magasela
Kick-start to life	University registration fees for a first year student.	Khuthala Dladla
Helping Hands	Funds for the upkeep of the animals at Kloof SPCA.	Simone De Bruyn
Bluff Clinic	Renovation of the children's waiting area.	Nonhlanhla Simamani
Mzamo Training and Guidance	Donation of items towards children living with disabilities.	Thobeka Masondo
Maskey Health Services	Provision of blankets and meals to orphans in uMlazi R section.	Londiwe Myeza
Siza Community	Provision of lunch and toys to orphans.	Shalisia Govender
Food For Life	Distribution of meals to various Durban South based organisations.	Rakesh Sookraj
Project Nikki	Provision of daily necessities for children living with disabilities at Cheshire home.	Mark Augustine

# **SOCIAL** INVESTMENT

#### Total Spend on Socio-Economic Development

	ORGANISATION	DETAIL
	Bahle Help the Aged Care Centre	Sustainability project
	BBBEE and Enterprise Development	BBBEE related matters
~	Bluff Clinic	Parkhome and renovations
	Bursaries	Skills Development
	Centre for Rehabilitation of Wildlife - CROW	School Environmental workshop
	Community Liaison Forum Projects	CLF activities and projects
	Durban Business Fair	Stands for SMMEs
~	Ekwazini and Qhilika High School	Science Laboratories
~	Inqubeko Projects	Building renovations
	Isaiah 54	Vehicle Donation
~	Jullo Foundation	Computers
	Keep a child alive	Vehicle donation
~	KZN Children's Hospital	Province wide project
	Lamontville HIV/Aids Centre	Vehicle Donation
	Learners Salaries	Skills Development
	Malibongwe	Furniture
	Masithandaneni Youth Organisation	School uniform vouchers
~	Merewent Cheshire Homes	Fire detactors /photocopier
	Muthande Society for the aged	Wheelchairs and walking sticks
	Philiswa Community Health Care	Kitchen Utensils
	Resource Centres	Equipment
	Road and Rail Campaign	Industry Contribution
✓	Sandakahle School	Upgrade of school kitchen
	SERVE	SAPREF Staff CSI projects
	Siza Community Care Centre	Printer
	St Monicas Child and Youth Centre	Vehicle Donation & Bunk Beds
	Student vacation work	Skills Development
	Talent Pipeline Programme	Skills Development
	WESSA	Environmental Awareness workshop

Total Socio-Economic Spend for 2016 is R10 239 552.86

SKILLS DEVELOPMEN	EDUCATION	OTHER	HEALTH	EMPLOYMENT OPPORTUNITY
			R49 544,00	
R288 074,00				
			R65 914,00	
				1 870 744,55
	R36 500,00			
		R239 906,00		
R131 745,00				
	R1 401 986,00			
			R9 100,00	
		R110 900,00		
		R15 000,00		
		R110 900,00		
			R1 000 000,00	
		R110 900,00		
				3 818 023,79
		R25 980,00		
		R10 000,00		
		R53 079,00		
			R99 463,00	
			R42 888,00	
R57 751,00				
	R13 620,00			
	R34 636,00			
R146 798,00				
		R7 500,00		
		R185 420,00		
	82 724,52			
	235 000,00			
		R35 000,00		
R624 368,00	R1 804 466,52	R904 585,00	R1 217 365,00	R5 688 768,34



### CODE OF CONDUCT

SAPREF is committed to conducting all its business undertakings in accordance with the highest standards of personal and professional integrity and to abiding by all applicable laws. SAPREF's Statement of General Business Principles and Code of Conduct outlines the behaviours and core values that all its employees, service providers and suppliers are expected to adhere to.



In 2015, the SAPREF Business Ethics Committee was revived with the main focus being on creating awareness and promoting ethical business conduct. One of the major campaigns undertaken was around Conflict of Interest where all employees completed forms declaring any outside interests.

SAPREF is committed to a zero-tolerance approach towards unethical behaviour. In this regard, SAPREF maintains an anonymous ethics reporting facility to enable the company to identify and correct practices that are contrary to our values. This service is administered independently of SAPREF by Deloitte Tip-offs Anonymous<sup>™</sup> thus ensuring that the identity of any person reporting unethical behavior remains confidential.√ In 2015, all reasonable steps were taken to respond appropriately to the reports received based on the information provided, and where applicable, business controls were reviewed and improved to prevent the recurrence of incidents. A summary of the reports received as well as the status of the investigations were reported quarterly to SAPREF's Business Assurance Committee.

#### Tip-offs Anonymous contact details:✓

Toll Free Number	0800 20 44 09
Free Fax	0800 00 77 88
Free Post	KZN 138
	Umhlanga Rocks
	4320
Email	sapref@tip-offs.com
Website	www.tip-offs.com
SMS	32840

<image>

## **FEEDBACK ON** THIS REPORT

We welcome your comments or suggestions on how we can improve this report. Should you have any questions you can contact us in writing by logging onto our website: http://www.sapref.com/contactus

Alternatively, you may contact our sustainable development department on (031) 480 1911 or send through a fax on (031) 468 1111.

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