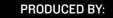
## **SPECIAL REPORT**

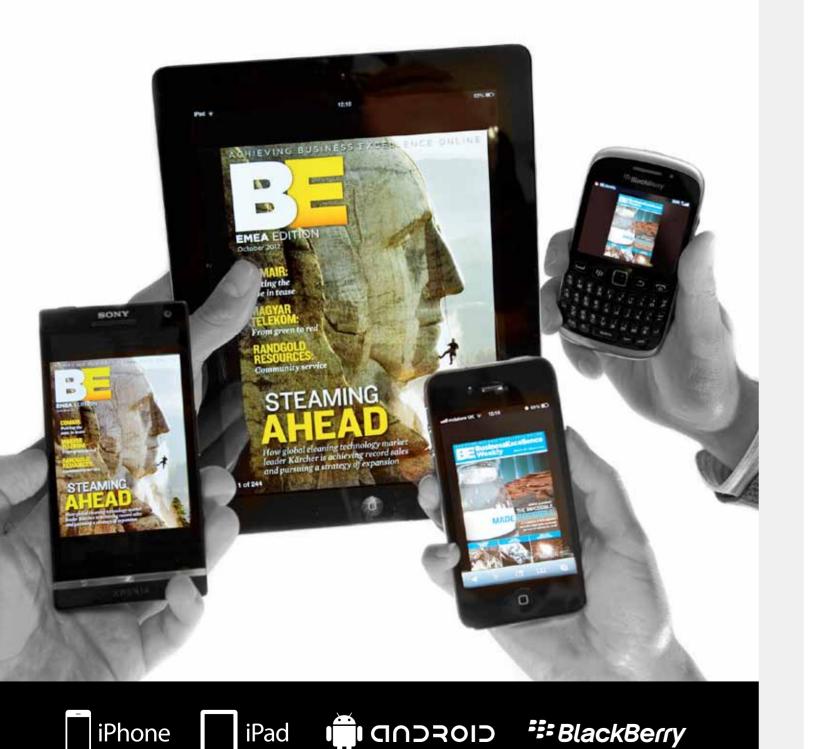
## PETROLEUM COMPANY OF TRINIDAD AND TOBAGO





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## **SPECIAL REPORT: PETROTRIN**







### 4 THE BUSINESS ENERGY BASED - PEOPLE POWERED

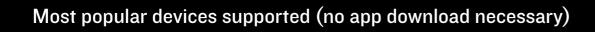
As Trinidad's national oil and gas company approaches its 20th birthday it is reassessing its position in the regional and global O&G market – and investing in its future.

#### **26 THE PEOPLE PEOPLE FIRST AT PETROTRIN**

It's too easy for a small country with good resources to lose its best people as the industry develops: good training needs to go hand in hand with incentives for talent to remain – or at least return.

### 44 SUSTAINABILITY ENERGY ON THE SIDE OF LIFE

It is hard for a business based on hydrocarbon extraction and beneficiation to claim green credentials – or is it? Petrotrin does so much for the people and wildlife of the Caribbean that the stereotype should be rethought.



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# ENERGY BASED – **PEOPLE POWERED**

As Trinidad's national oil and gas company approaches its 20th birthday it is reassessing its position in the regional and global O&G market – and investing in its future

WRITTEN BY: JOHN O'HANLON **RESEARCH BY: ROBERT HODGSON** 



These figures indicate a mismatch between the quantities produced locally and the refinery demand from the market Petrotrin serves in Trinidad itself and regionally. This has to be filled by imports and that is costly. "One of our mandates is to increase production considerably from the present day figure. Currently we produce about 40 percent

any people probably still base their knowledge of Trinidad on the novels of VS Naipaul but do please lay those aside, begs Hemraj Ramdath.

Trinidad has changed out of recognition and in any case Naipaul lived abroad for too long to really understand the country of his birth! Hemraj is VP of Strategy and Business Development at Petrotrin, one of the island's largest employers and the largest oil and gas producer in the island, operating its only refinery. He too spent a number of years abroad working in the oil industry in the Caribbean, USA and Canada before returning to Trinidad in 2012, but now he's back and keen to improve life for all the stakeholders. Petrotrin is a state-owned enterprise active both in the upstream and downstream markets. It directly employs 5,500 people, and engages with at least 700 smaller local companies, supporting in all perhaps 20,000 individuals out of a population of just 1.3 million. The company produces a little over 45,000 barrels per day (bpd) of crude oil and 180 million cubic feet of gas, while its refinery has the capacity to process around 170,000 bpd, making products for a variety of local, regional and international markets from fuel oil to Aviation fuels.

ND CONSTRUCTION ENGINEERING TECHNOLOGY MARINE AND LAND OPERATIONS )

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While these services represents the day to day operations of K.G.C. Company Limited they are by no means the extent of our services offered. We are continually expanding into new markets and areas of operations.

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## **K.G.C. COMPANY LIMITED**



K.G.C. Company Limited was incorporated in the year 1995 in the Republic of Trinidad and Tobago. From inception our company has been servicing the needs of our dynamic National Oil and Gas Production and refining companies in the areas of civil, mechanical and marine construction projects. Our main client is The Petroleum Company of Trinidad and Tobago (PETROTRIN, TRINMAR **OPERATIONS**). K.G.C. Company Limited is often referred to as the preferred contractor in our area of expertise because of our resourcefulness and timely execution.

K.G.C. Company Limited has executed major projects for both local and international companies such as:

 Petroleum Company of Trinidad and Tobago (PETROTRIN)

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- SOOGL Antillies (Trinidad) Limited,
- a branch of the National Oil company of China (SINOPEC)
- Pihl, Besix, E. Pihl and Sons
- World Wide Equipment Caribbean Limited, a member of the Van Es Group
- Tiger Tanks Trinidad Unlimited
- Bayfield Energy (Galeota) Limited
- Niko Resources Limited

The Company provides support services both locally, as well as, regionally. To date, the Company has completed international projects in St. Vincent, Grenada, Suriname and Venezuela. Those projects spanned activities in the areas of:

Marine Civil Works and Offshore



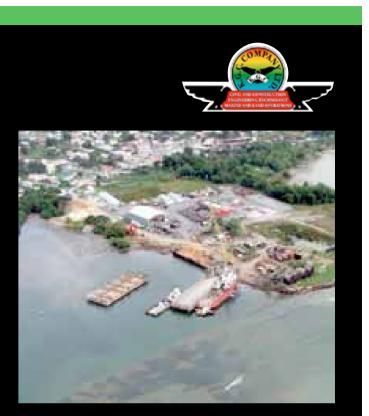
**Construction (platform construction** and installation, port development, fabrication and installation of conductors. strengthening of unstable wells, platform legs, sheet piling along with other construction projects.

- Heavy Lifts -Work over / **Drilling Rigs and Platforms**
- Sub Sea pipe laying

K.G.C. Company Limited was successfully awarded several projects within the oil and gas sector of Trinidad and Tobago with

Petrotrin, Trinmar Operations in 2012-2013 in the areas of fabrication and installation of conductors and decks and the strengthening of unstable wells in 2012. KGC was awarded eight (8) single well conductors and deck. one (I) double well conductor and deck, two (2) triple well conductors and deck and six (6) strengthening of unstable wells jobs all of which relates to Petrotrin, Trinmar Operation's forward drilling program and heavily involved the utilization of various marine vessels and facilities we have available.

K.G.C. Company is also involved in ship building and repairs in Trinidad and Tobago. To date, our company has been involved in the construction of several Aluminum Hull Passenger / Multi-purpose vessels of which



some units were sold to companies operating in the offshore Oil and Gas in the Gulf of Mexico and Trinidad and Tobago and we have also performed repairs on various tugs boats and barges.

Being a "turn key" company has made K.G.C. Company Limited exceptional in the execution of all our projects both locally and regionally as our operations are governed by safety, quality and efficiency of which our esteemed clients continuously realize the cost effectiveness of their projects.

## **PETROTRIN: THE BUSINESS**

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of our own requirements in Trinidad. The gap between our production and our needs is in the region of 100,000 bpd – and that we have to source globally."

Though he doesn't think that the gap can be entirely eliminated, every effort is going to be made over the next decade to reduce it, and that means increased exploration activity. The company is



carrying out an intensive programme of 3D seismological surveying and interpretation that Ramdath hopes will produce good results and help achieve a modest though significant

#### ILLUMINAT

We are in the Business of Information. Communications and Technology (ICT), by providing products, services and solutions that help to effectively manage, develop and troubleshoot businesses. As a member of the **Neal and Massy Group of Companies, one of** the largest conglomerates in the Caribbean, Illuminat (Trinidad & Tobago) Limited (ILLUMINAT) and its founding companies have pioneered the field of Information **Technology and Communications in the** region, for almost five decades. We design, implement and maintain systems that allow our customers to exploit technology and achieve quantifiable improvement in business efficiency.

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## **PETROTRIN: THE BUSINESS**

Port facilities at Pointe-à-Pierre

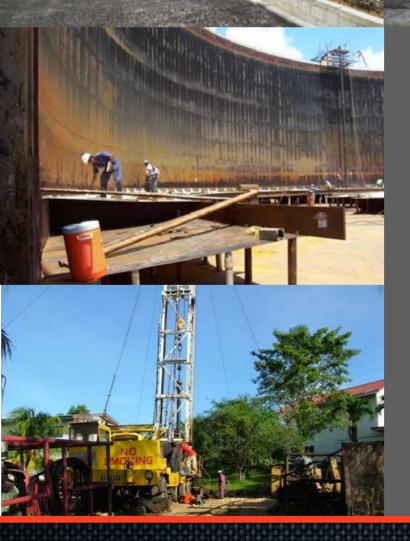
increase in the medium term: "We are hoping we can move from 40,000 bpd to 50,000 or maybe 65,000 bpd in, say five to ten years from now. That would be good for us because the



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more local crude we get the better our margins." Rising costs, the impact of shale oil discoveries and the 'crack spread' (the relation between crude and ex-refinery prices) differentials are among the factors putting pressure on Petrotrin's margins, another reason for increasing the proportion of local production.



Fire drill being conducted

So the strategic goal for

Petrotrin starts at the wellhead – and it is already, he explains: of around 4,000 onshore wells in Trinidad Petrotrin handles some a goal shared by the government, which is 3,000 but going forward it would prefer to currently engaged in bid rounds for both invite other companies to share the capital onshore and offshore exploration licences and these should close by the end of the expenditure, expertise and equipment.

#### **T N RAMNAUTH**

T.N. RAMNAUTH & COMPANY LIMITED is a private limited liability company founded in 1980. The company was born out of the heartland of petroleum drilling, production and refining activities in Trinidad and Tobago. T. N. Ramnauth has offerings to the major oil, gas, petrochemical and utilities sectors by providing technical and construction services in a broad spectrum of Civil, Mechanical, Electrical and Engineering.

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## **PETROTRIN: THE BUSINESS**

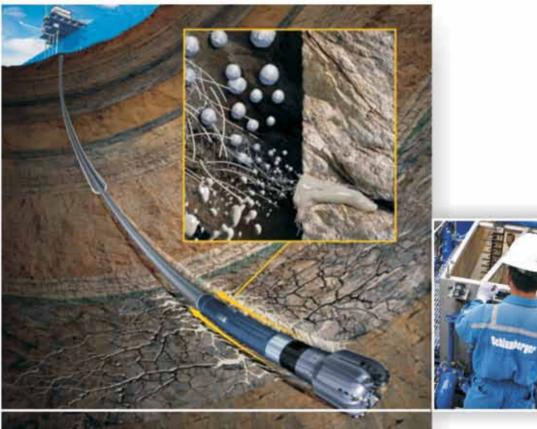
vear. Three onshore blocks each in the region of 50,000 to 70,000 acres are involved. The oil resources here are concentrated in the south of the island and extend in all directions offshore. In this way Petrotrin is hoping to attract partners to invest in exploration with a view to oil and gas production in the near future. Petrotrin operates many partnerships



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That's the most effective way to reach the goal of greater local production, he thinks. The main objective is to increase the supply the Pointeà-Pierre refinery with crude from local sources. "Our joint ventures are mainly in the gas sector but we also have other types of partnership including farm-outs, leaseholds and subcontractors who are also



undertaking exciting work here with us operating small wells - there's no way we can deal with all these resources ourselves so it is a

#### SCHLUMBERGER IN TRINIDAD

The story of Schlumberger in Trinidad & Tobago is a long one. In fact it is 80 years old this year.

Trinidad's characteristic geological complexity played a significant role in the establishment of well-logging operations in Trinidad, the official debut of which was made on 19th July 1932 in the Palo Seco No. 126 well for British Controlled Oilfields. After several years of deliberation and negotiation, the Schlumberger brothers were permitted to try their 'Boîte Magique' to help ease the task of finding and quantifying potential hydrocarbon reservoirs. In the following year, Schlumberger set up permanently and during the Nazi occupation of France, the T&T government invited Schlumberger to move its overseas headquarters to offices in San Fernando in 1940, which it did, albeit on a temporary basis. Since those early pioneering days,

## **PETROTRIN: THE BUSINESS**

The Pointe-à-Pierre refinerv

good way of engaging others, bringing in their expertise and of course leading to our ultimate goal to increase production."

## Schlumberger

Schlumberger has enjoyed a long and successful relationship with all of the many predecessor companies that currently comprise the Petrotrin we know today. Presently, Schlumberger through its own growth over the years provides a full range of services and solutions delivered by a skilled and predominately local workforce of some 350 persons to help Petrotrin meet their goals. As part of this symbiotic relationship, Petrotrin has provided a fertile training ground allowing "Trinbagonian" employees to gain valuable experience which many have taken abroad working as expatriates in other countries. As we proudly celebrate 80 years here in country, we remain committed to further fostering our relationship with Petrotrin and indeed to the people of Trinidad and Tobago for many decades to come.

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Petrotrin has become our main client through the years beginning with my deceased father Stephen Richards who was a Sole Trader and at his passing; I had decided to register a limited Liability company in 1998 in the name of Theo **Richards General Contractors Limited.** Working at Petrotrin and providing the satisfactory Services, that they required has given us a competitive advantage in the energy service sector and we have been extending our services to other Oil and Gas companies in Trinidad and Tobago. We continue to foster a working relationship with Petrotrin for their company success and for our company's advancement.



I want to thank Petrotrin for the opportunity to tender for jobs as a registered company, for the moral support given by persons through lectures and other meetings. May God continue to Bless Petrotrin and Theo Richards General Contractors Limited.

E. itorl@yahoo.com



#### **Theo Richards General Contractor Limited**

Theo Richards General Contractors Limited is a Service type company providing Services to our main client Petrotrin for over 35 years.

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If Petrotrin has a physical hub it is the Pointe-à-Pierre refinery, or rather complex because the refinery is just one part of it. Pointe-à-Pierre is Petrotrin city, built for and populated by the company's employees and incorporating a hospital, extensive staff facilities and even a wildlife sanctuary. It is close to the island's second city San Fernando.

The refinery itself was brought to a high standard in 2000 following a \$355 million investment programme, has been continuously upgraded since then, and is currently the source of downstream products, 20 percent of

which Petrotrin sells in Trinidad, a further 30 percent to the Caribbean market and the remaining half internationally. However the market is constantly changing and Petrotrin is now in the final stages of a further massive upgrade costing \$1.2 billion. The Clean Fuel Upgrade is designed to meet the stringent specifications now in



## **PETROTRIN: THE BUSINESS**

Tank farm in harmony with the landscape

place internationally, says Ramdath: "We had to change our production processes to get better, cleaner fuels that meet new environmental targets." A key component of the Clean Fuels Upgrade, the Gasoline Optimization



#### **Our construction services**

performs many projects in the energy area but our skill and experience does not limit us there for we also cater to the commercial market as well. Trinidad is seeing a lot of construction activity in both the private and public sector and we are well poised to be a major player in the many large projects that are available.

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Program (GOP) is one of several strategic initiatives being implemented to ensure Petrotrin's survival in the face of changing market demands. The project was embarked upon in response to challenges facing the refinery and to improve overall profitability and competitiveness through the replacement of ageing equipment, improved plant reliability and integrity.

It's important, he says, for the company to shift its

emphasis from lower value, high volume products such as fuel oil to higher margin products like aviation fuel and low-sulphur diesel. "Our ultra low sulphur diesel (ULSD) plant, will come on stream at the end of this year, and it will give us nice clean low sulphur diesel that meets the stringent new diesel quality specifications covering sulphur and aromatics content. By the end of this year we will be well prepared for getting into any market."

The object of the exercise is to get a better

**"BY THE END OF** THIS YEAR WE WILL **BE WELL PREPARED** FOR GETTING INTO **ANY MARKET**"

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With headquarters in Barrackpore and a 24 year history, SMCSL is an active participant and contributor to the local energy sector. We have partnered with major oil and gas leaders including Petrotrin and our goal is to exceed the customer expectations of every client. Our employees are distinguished by their functional and technical expertise combined with their hands-on experience. Our core activities include New Pipeline Construction, Welding, Fabricating, Horizontal Directional Drilling, Sandblasting, Painting and Tank Foundation Construction.

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## **PETROTRIN: THE BUSINESS**

The Continuous Catalytic Regeneration (CCR) unit

#### SPECIAL REPORT | 19

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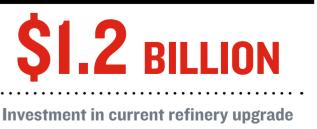
Onshore well drilling in Fyzabad

## **PETROTRIN: THE BUSINESS**

	return on the products, a
	1 ,
es	higher margin and a chance
ses S	to be competitive in high spec
an	markets, he stresses. The
iction	refinery upgrade addresses
	what he calls the top-of-the-
- E&I,	barrel processes, however
,	that's only half the story,
d	Hemraj Ramdath continues.
quality	The company sells a great
	deal of fuel oil, some 50,000
ed	bpd, and to get that amount
ards	out into the market means
	that some of the time it is
	realising less than the crude

price. That is clearly unsustainable, he emphasises: "We are now also looking at a bottom-of-the-barrel solution - the heavy end if you like - to see how we can better utilise that fuel oil and convert it into higher value product. This will mean further investment of up to \$2 billion over five to six years but once we have finished that the entire plant will be a world class facility and tailor made to meet our goals."

The demand for fuel oil will still have to be met, but it will form a smaller proportion of Petrotrin's output, he predicts. Another opportunity that excites him is the Trinidad government's \$2.5 billion highway







Cudjoe Construction and Industrial Services Limited, a 41 vear old industrial maintenance firm, launched its International Turnaround Engineering Group (ITEG) in 2012 with a cadre of professionals from all the disciplines required for successful turnaround planning and management from both client and contractor perspectives.

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Let us help you plan and execute your next major project.

## **"WE MUST KEEP ASKING, WHERE ARE** THE OPPORTUNITIES FOR US TO INCREASE **OUR BUSINESS?**"

project, which provides the opportunity to upgrade the bitumen plant at Pointe-à-Pierre, not just to supply this project but to sell to the rest of the islands.

Beyond its own shores, Petrotrin is looking to expand its bunkering business, supplying fuel oil to the shipping industry. "We do about 25 percent of the bunker of all the ships passing through Trinidad but we believe we could do far better. We are limited right now

#### **CUDJOE CONSTRUCTION AND INDUSTRIAL SERVICES LIMITED (CCISL)**

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## **PETROTRIN: THE BUSINESS**



Overlooking the water treatment plant

because we have just the one vessel so we are looking at acquiring another tanker or a larger vessel to do some bunkering outside of

Trinidad." Active discussions are taking place, he reveals, with companies based in Panama to set up facilities there and take advantage of the Panama Canal expansion that is taking place.

This makes sense despite what he said about reducing the overall proportion of fuel oil sold. "The bottom line is that we are now open for business. We must keep asking, where are the opportunities for us to go out and increase our business? Traditionally we have kept to the role of a manufacturer,



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exploring, refining and selling to brokers in the market. I think we are ready to take a step further down the value chain. Panama is one opportunity because the market is huge, not only for bunkering but also for other products as well. Bunkers allow us to enter the market and provide a base to expand into the other opportunities that may exist, and there are plenty of these including gasoline and aviation fuel, which we already produce."

All of this activity represents a large-scale rationalisation, he says finally: it is not a bid to actually increase the size of the organisation or the throughput. It is unlikely the capacity of the refinery will be much increased, he suggests. Upgrading of its two crude distillation units (CDUs) might result in an extra ten percent being squeezed out but the primary goal is to produce, as far as possible from local crude, a consistent 168,000 bpd of high end product – product that meets international standards, can be taken into any market, at margins that contribute more strongly to Petrotrin's bottom line.

**"BUNKERS ALLOW US TO ENTER THE MARKET AND PROVIDE A BASE TO EXPAND** INTO THE OTHER OPPORTUNITIES THAT MAY EXIST"

#### **INLAND & OFFSHORE CONTRACTORS LTD**

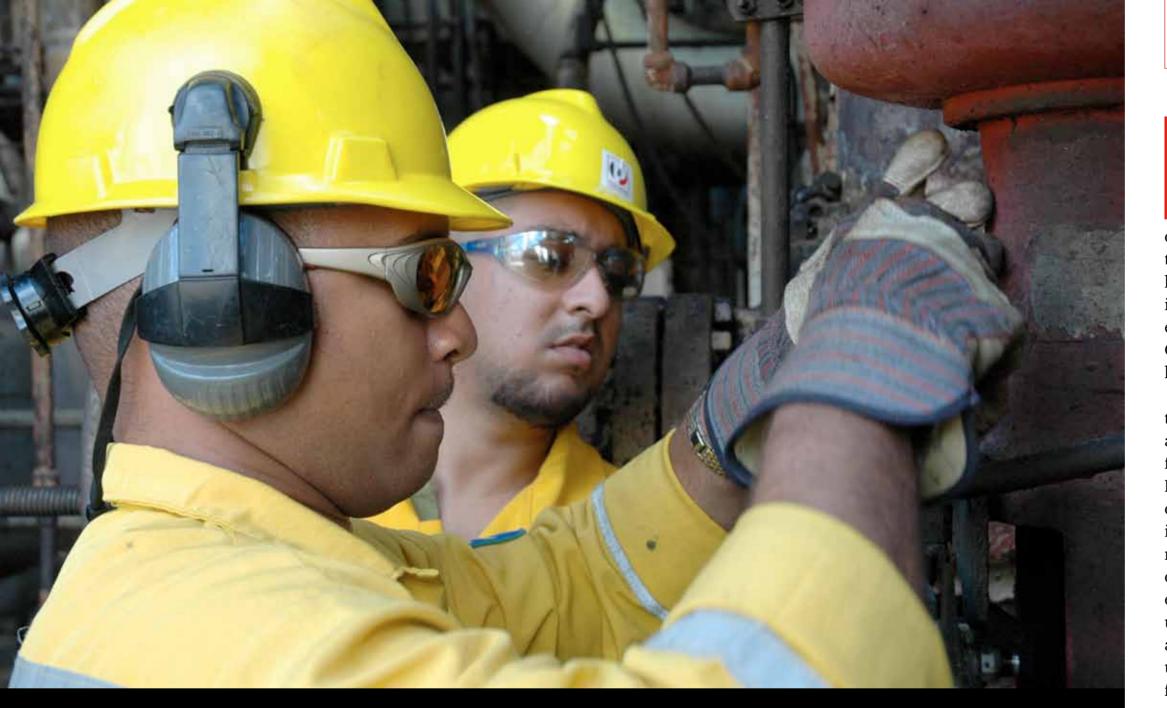
Inland & Offshore Contractors Ltd have been supporting Petrotrin's operations for the past twelve years supplying Offshore and Land Transportation, Hydro-blasting and Tubular Maintenance services. Currently we supply twenty marine vessels ranging from 50 to 150 feet providing transport, emergency response services and drilling support. We have also provided tubular maintenance using our water-blasting units. In addition we supply articulated boom cranes ranging from six to twenty ton lifting capacity, tractor trucks, forty and fortyfive foot trailers and mobile cranes. Our company stands committed to providing an exemplary service as described in our motto, 'A cut above the rest'. www.iocltt.com

## **PETROTRIN: THE BUSINESS**



Workers in action

#### SPECIAL REPORT | 25



# **PEOPLE FIRST AT PETROTR**

It's too easy for a small country with good resources to lose its best people as the industry develops

WRITTEN BY: JOHN O'HANLON RESEARCH BY: ROBERT HODGSON

Caribbean producer of oil and gas, and is heavily dependent upon these resources. However Petrotrin has another mandate: to develop the nation's skills and its culture, and this secondary goal is as close as the first to the heart of its VP of Strategy and Business Development Hemraj Ramdath. The company's first responsibility, he believes, is to the people of Trinidad and Tobago, many of whom are employees of Petrotrin or otherwise dependent on it. All in all, he estimates, 20,000 Trinbagonians may fall under this umbrella, and in addition there are many fenceline communities that fall under the company's influence. The term fenceline communities is normally associated with negative impacts in the proximity of industrial operations such as exposure to hazardous emissions, but Petrotrin sets a much more positive example, and Ramdath is determined that will continue. One thing that concerns him is the brain drain out of Trinidad. "We have

ecause Petrotrin is government owned it has to do what is set down in its mandate. At the top of its agenda is to maximise Trinidad & Tobago's resources of gas and oil, and as far as possible reduce the country's dependence on imported hydrocarbons. Petrotrin is after all an important part of the Trinidad and Tobago economy. The country is the leading

been a good training ground for many of the multinationals," he points out ruefully. Trinidad has plenty of oil industry heritage to draw on, having been formed from a process of nationalisation culminating in 1993 with

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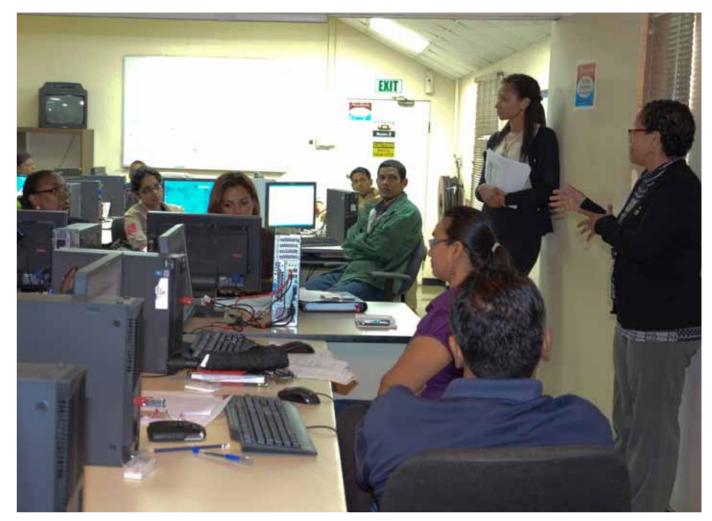
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the merger of the state owned downstream and upstream oil companies Trintoc and Trinopec, themselves created from assets of companies like Shell, Texaco and BP.

These companies ran apprenticeship

schemes that worked like an in-house pipeline of expertise to the refining and operational sections of the business. But those schemes were discontinued, leaving the company to fill its junior management posts with university graduates who,

though they may have excellent theoretical knowledge, lack the practical skills and experience they need. To fill the gap and try to retain some of the best talent Petrotrin intends to restart apprenticeships and



employees

## **PETROTRIN: THE PEOPLE**

**ICT** training room

increase on-the-job training, which is already available to all employees

It's an assault on multiple fronts to address not only the problems of people gaining experience in Trinidad only to move abroad to take up posts in an industry that is

**"WE HAVE TO RECOGNISE THAT SOME PEOPLE ARE BETTER AT ONE THING,** SOME ANOTHER, AND CREATE A CAREER PATH FOR EACH INDIVIDUAL"



A fire drill during HSE week

hungry for talent but also the loss of experience caused by the company's seniorityheavy workforce. "We have so many people retiring with 25 up to 40 years' service behind them. That makes it a priority to do better forward planning to prepare the company for the next ten to 15 years."

Petrotrin is seen as a preferred place of employment, with excellent benefits for employees, a chance to learn and job security. However the culture of the company and the ethos of a workforce that is strongly unionised have perhaps

applied a brake to modernisation, Ramdath fears. It is good to be fair and even handed, but a way needs to be found, he believes, to identify people who are particularly gifted, enthusiastic or experienced, incentivise them and offer them a fast track to promotion. The traditional route to the top has been through a sequential process of promotion. This is a luxury the country and the company can no longer afford if the brightest and best are to be retained in the industry and given a reason to stay in Trinidad and Tobago - and if they have already left, to return. "If we want to move to the future we have to recognise that some people are better at one thing, some another. Create a career path for each individual. In that way we will be better able to serve our people as well as the business



## **PETROTRIN: THE PEOPLE**

The Petrotrin Learning Centre

- and ultimately the country and its future. That is our goal after all!"

And though it's a long time since the legacy companies that were united well before Petrotrin came into being the legacy of their different cultures continues to be felt within the company. Take the Trinmar division, incorporated into Petrotrin in 2000. Trinmar is necessarily separate, covering all the offshore operations. Petrotin's offshore licences have just been renewed on the back of a commitment to increase production from the Soldado fields to the south of Trinidad by more than a third, from 21,000 bpd to 35,000. There had been a decline in production in the Trinmar fields during the period 2005 to 2010, but the recent discovery at Cluster 6 together with investment in an aggressive



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drilling programme at Trinmar has helped to renew the Government's confidence in the Company's operations. In 2012, Petrotrin engaged in a \$109 million drilling programme to drill 21 wells in the Trinmar acreage. "We are planning a lot of new wells and the reactivation of old ones and looking at

reactivating up to 60 wells within the next common vision, common IT platforms and financial year."

Petrotrin's offshore production is twice as much as that realised from land wells. Because of this and because it is operating at some distance from the Refinery Operations at Pointe-à-Pierre, Trinmar has been able

\$109 MILLION **Invested in a drilling** programme at the **Trinmar acreage** 

## **PETROTRIN: THE PEOPLE**

Training room at the Learning Centre

to retain a somewhat insular culture, not free of the consciousness that it contributes the lion's share of crude. Its payroll system is even located on a separate platform - but that is changing. "We have been making great efforts to integrate Trinmar more closely, with common logos,

common branding," comments Ramdath. However this is more than just a matter of changing the systems within Petrotrin. The influence of the majors is still felt in the fenceline communities that the company touches – up to 70 of them across the



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LMCS Limited provides project management, engineering design, procurement and construction services (inclusive of diving-related underwater services and marine logistics support) to the Trinidad and Tobago State Oil Company, Petrotrin, and other oil and gas, petrochemical, government and private sector industries in Trinidad and Tobago as well as in the wider Caribbean region. LMCS Ltd owns a wide range of marine/heavy equipment inclusive of crane barges, offshore supply vessel, crew boats, excavators, tractors, piling hammers and crawler cranes.

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## **PETROTRIN: THE PEOPLE**





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TESCO sincerely thanks and congratulates PETROTRIN as we move forward together to an exciting future.

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Brown Company Engineering Limited (Brown Co.) is an engineering/consultancy firm located in Trinidad West Indies (W.I). We are strategically located in one of the most thriving Caribbean economies in terms of oil and gas, and other energy industries. Our team possesses vast experience in design and project management of medium to large scale marine/offshore projects. Our expertise covers both greenfield and brown-field offshore structural projects. Our services include Civil/Structural Design and Consultancy, Project Management, Process Engineering/Piping Design and General Construction Management Services. www.browncoengineering.com





Staff at Agustus Long Hospital

## **PETROTRIN: THE PEOPLE**

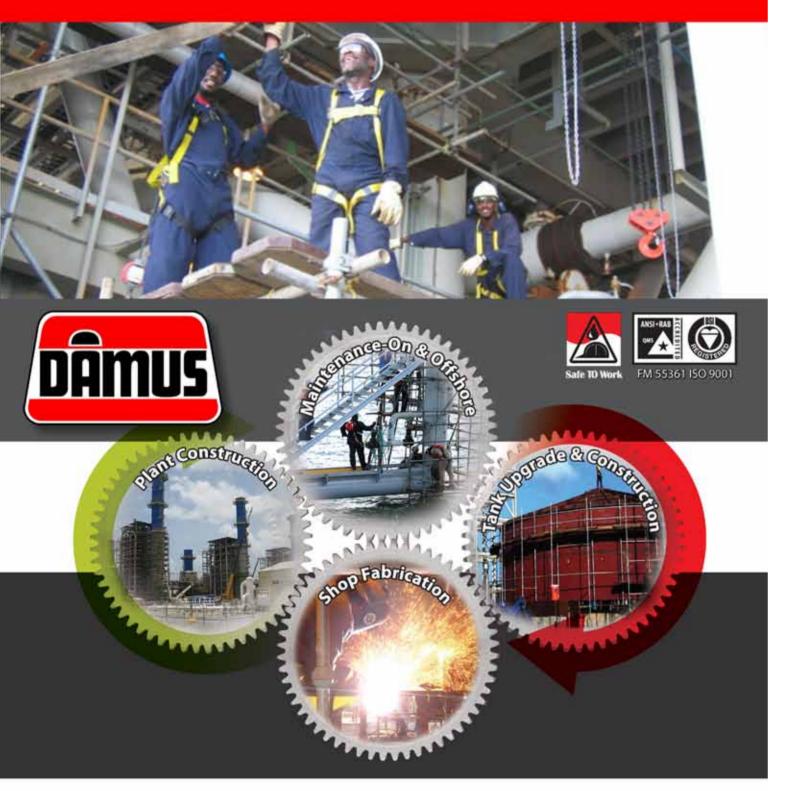
southern part of the island. "We have to be sensitive because we established these facilities maybe 60 years ago. People have encroached on the facilities with housing, recreational facilities and even schools. So we have to be more careful now in how we engage our stakeholders."

One benefit that is a model of good practice is seen in Petrotrin's medical facilities.

It may seem odd for a company to have a parallel medical system to the national health service, however Trinidad and Tobago operates under a two-tier health care system, in which private and public health care facilities work alongside one another. "40 or 50 years ago when Texaco was operating here, the hospital system was not as improved as it is today," explains Ramdath. "It could not respond to major emergencies like burns that might happen in the refinery and other industry-specific hazards. So a 46-bed hospital was set up on our site. Additionally we have seven other medical centres around the country. The refinery is located at Pointe-à-Pierre but all the outside

## 30,000 **People under Petrotrin's**

healthcare umbrella



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development work is in the southern part of the country about 200 km away from the hospital. So, Petrotrin has set up these small medical centres or clinics that can treat most casualties and stabilise them before moving to the Augustus Long hospital at Pointe-à-Pierre, close to our headquarters."

The healthcare covers Petrotrin's 5,000 employees and their dependents, making a total of up to 15,000 in all, to which must be added upward of a further 15,000 retirees and their families also covered by the scheme as well as employees of

companies on the growing industrial estate at Pointe-à-Pierre. These people's needs are similar because they are mainly working in related industries such as chemicals, methanol production or fertilisers. "Providing this level of healthcare at subsidised costs to the employee is a major ongoing cost to the

**"PROVIDING HEALTHCARE IS ONE REASON FOR PETROTRIN'S STATUS AS A PREFERRED EMPLOYER**"

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## **PETROTRIN: THE PEOPLE**

Damus' involvement with Petrotrin goes back to the early days of our company history, in the 1970s when we rendered our services on and off-shore to the region's major oil companies like Amoco, Texaco, Trintoc, Trinidad Tesoro and Trinmar what is today called Petrotrin.

In 1977 Damus designed, fabricated and erected two of the

Today we continue to pride ourselves in partnering with Petrotrin as a major mechanical contractor on some of the largest projects of the Gasoline Optimization Program

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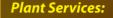
 Brownfield EPC services; replacement of Tank I8I (300kbbl) bottom and foundation using the jackup system



The new operating theatre

#### SPECIAL REPORT | 39

## **Engineering Excellence** in Trinidad and Tobago



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**TOSL Engineering** Limited (TOSL) has been serving the Trinidad and Tobago energy sector



successfully for over 30 years in the areas of Engineering, Specialized Equipment Supply and Industrial Services. TOSL comprises of ten (10) operating divisions providing services including but not limited to Project Management, Mechanical Construction & Maintenance, Electrical Instrumentation and Automation, Scaffolding, Refractory, Insulation, Blasting and Coating, Reliability Services, Inspection, AutoCAD and Design Engineering. Our unique value is thereby derived from our diversity and leveraged in part by the wealth of knowledge and experience of our management and workforce working in the Upstream. Midstream and Downstream Sectors of the Energy Industry in Trinidad & Tobago. Our vision is to continue providing exceptional services to our clients with the objective

of being a best in class high-quality and cost-effective alternative ensuring environmentally sustainable development. In 2012, TOSL embarked upon an initiative to expand its operational capabilities to better serve the needs of the industrial sector both at the local and regional levels. To this end we assessed and enhanced our operational model, invested in capital infrastructure, expanded our team to include highly accomplished and experienced project professionals, and pursued strategic partnerships with international principals for the purpose of positioning ourselves to support major brownfield maintenance and capital projects within an EPC type model. TOSL registered the country's first ever successful Clean Development Mechanism (CDM) project with the United Nations Framework Convention on Climate Change (UNFCCC) for its client, The Petroleum Company of Trinidad & Tobago (Petrotrin). The CDM project involves the capture and sale of fugitive gas emissions vented from on-shore oilfields in Southern Trinidad. The project's capital improvement installs new gas gathering and pre-processing infrastructure. The CDM project is eligible for carbon credit funding as a result of its validated UNFCCC registration. The CDM program has a 28 year life for oil and gas producers both locally and internationally and positions both Petrotrin and TOSL to take advantage of this opportunity.

## **PETROTRIN: THE PEOPLE**



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## **"TRINIDAD AND TOBAGO, IT TRANSPIRES, IS A COUNTRY CRAMMED WITH TALENT, BUT WITH** A HUGE DIASPORA THAT GIVES ITS PEOPLE **INTERNATIONAL CONNECTIONS**"

company, but worth it because I think it is one reason for Petrotrin's status as a preferred employer," he adds. Other reasons might be the incentives to staff in terms of insurance, pensions, housing subsidies, mortgage subsidies and the like.

Trinidad and Tobago, it transpires, is a country crammed with talent, but with a huge diaspora that gives its people international

## **PETROTRIN: THE PEOPLE**

**Agustus Long Hospital** 

connections. For historic and geographic reasons these connections developed strongly with USA and the UK: the O&G industry has been another channel for people to move away. But from now if Hemraj Ramdath has his way career development in the home industry will be a realistic option while senior and experienced people will have a better reason for coming back. **B** 



# **ENERGY ON THE SIDE OF LIFE**

It is hard for a business based on hydrocarbon extraction and beneficiation to claim green credentials – or is it? Petrotrin does so much for the people and wildlife of the Caribbean that the stereotype should be rethought

WRITTEN BY: JOHN O'HANLON **RESEARCH BY: ROBERT HODGSON** 

etrotrin's VP of Strategy and Business Development Hemraj Ramdath is keen on advancing the company's sustainability policy and proud of the company's achievements so far. The Trinidad government has a policy to replace gasoline and diesel with compressed natural gas (GNG) and supporting that with tax incentives. Petrotrin is right behind that policy, and currently converting on a trial basis around 55 of its vehicles, with plans to convert its entire fleet, and encouraging its employees to do the same with their private vehicles. It was





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not easy: "We have had some challenges in getting vehicles that are OEM approved for CNG conversion, and another limiting factor is the lack of CNG filling points.

The CNG programme is just one of a number of projects that excite him. "Another major programme we have just done is a UN clean development mechanisms (CDM) project linked to the Kyoto Protocol on climate change. The company is spending around \$25 million

on capturing, scrubbing and selling to the grid all the gas currently being released or flared from the company's wells. "The CDM project is the first in the Caribbean, and we have a target of reducing CO2 emissions by 400,000 tonnes per annum in the first instance - more when we roll it out to our partners." There will be only a modest income from the sale of the gas, but it will cut Petrotrin's carbon footprint dramatically, and even more importantly, he says, earn for the company carbon credits that can be traded

'I THINK WE CAN DO **MORE TO LEVERAGE** THE INVOLVEMENT WE HAVE WITH THE WILDFOWL TRUST"

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## **PETROTRIN: SUSTAINABILITY**



Petrotrin is heavily involved in many activities targeting environmental sustainability

#### SPECIAL REPORT | 47

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Petrotrin is committed to co-existing with nature

internationally. CO2 injection could later mop up surplus gas, at the same time extending the output of some of the older wells.

Furthermore, Petrotrin is turning to solar power for its external lighting, its car parks, bus shelters and other facilities to improve its green credentials. It is also conducting studies on water use and water recycling. "We use

about eight million gallons a day of water, for things like cooling and steam generation and we recycle about 25 percent of that now: we aim to increase that to 50 percent, which I think we can reach in about five years." In the past, he says, the company has been focused on getting

## **PETROTRIN: SUSTAINABILITY**

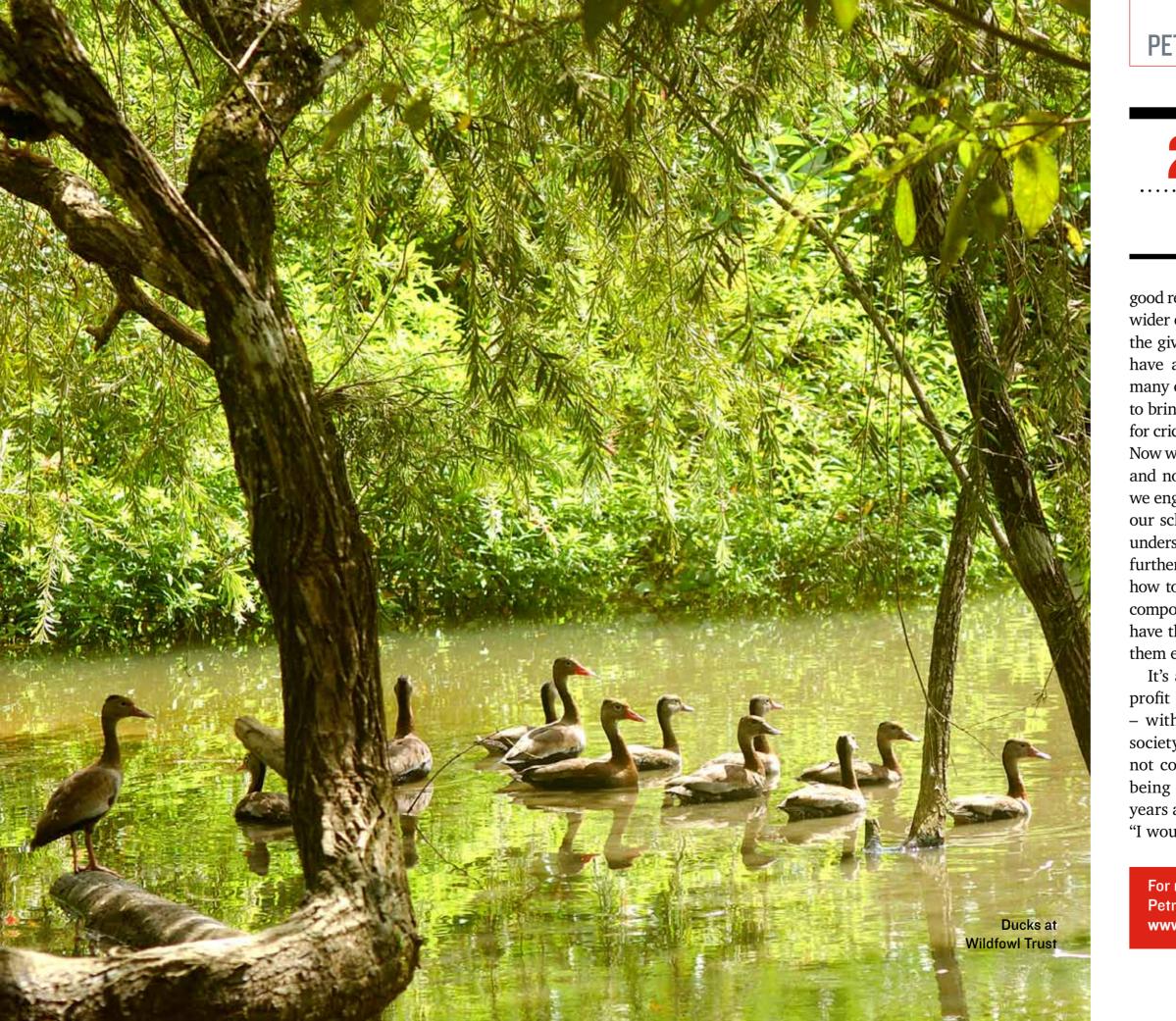
oil out of the ground, and getting it refined and shipped. "Our predecessor companies had a great record in the 'H' and 'S' parts of HSE: The 'E' was left to chance, but not any more! Environment and social responsibility are hardly separable he believes. Perhaps the most exciting example is the Pointe-à-Pierre Wildfowl trust, established in 1966 on 25

400,000 TONNES

> Annual CO2 reduction target

hectares of Petrotrin's land beside the refinery. It's now an internationally known bird sanctuary with a great record on breeding declining species - and a much-used resource for schools.

Corporate social responsibility is a nettle he is keen to grasp. Petrotrin has a



## **PETROTRIN: SUSTAINABILITY**

**25 HECTARES** Size of Pointe-à-Pierre Wildfowl Trust site

good record of giving to its stakeholders and the wider community but he wants that to include the giving of expertise as well as money. "We have a golf course, a swimming pool, and many other facilities. The opportunity is there to bring kids in and have camps, with coaches for cricket, soccer or tennis, golf or swimming. Now we want to really engage the communities, and not just hand out subsidies! For example we engage the services of a petting zoo during our school awareness efforts, to help kids to understand animals. We have taken that a step further – not just looking at them but learning how to take care of them too. If we can give compost and fertiliser to the schools so they have their own gardens that will help engage them even further!"

It's all about balancing the need to make profit – corporate sustainability if you like – with the need to do the right thing for society and the environment. The two need not conflict. Hemraj Ramdath clearly loves being back in Trinidad and Tobago but his years abroad have made him more objective. "I would like to see a little more action.

For more information about Petrotrin visit: www.petrotrin.com

## **SPECIAL REPORT**

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