



Trinidad and Tobago  
Section

# TOP DRIVE

SPETT NEWSLETTER

APRIL 2019 ISSUE

**BHP DEEPWATER  
INVICTUS DRILL SHIP**



**TRINIDAD AND TOBAGO PETROLEUM  
FISCAL REGIME**

**DEVELOPING THE NEXT GENERATION OF  
COMPLETION ENGINEERS**





## Against All Odds

This month I would like to highlight the example of two English teams who made it to the Champions League Finals. Both Liverpool and Tottenham made a miraculous comeback from a deficit that many thought they would not achieve. Liverpool in particular overcame a 3-0 deficit against the likes of Messi. Against all odds, they overturned the tie and are now on their way to the Finals in Madrid.

Some members may or may not be a Liverpool or Tottenham fan but regardless of what team we support, in life and especially in our career, there would be several occasions where we may face defeat. Losing and finding jobs, lack of promotion, frustration with studies just to name a few are some career challenges. As with SPETT, we too face challenges of membership retention, active support and volunteerism. Just like Liverpool, we can both defy the odds. Join or renew your membership and utilize SPE's range of resources, such as training, certifications, access to publications to help you defy your odds. Stay active, stay connected, volunteer and nominate a colleague at our upcoming AGM!

Happy reading and stay tuned for our upcoming events!

**Ayasha Nickie**  
**Section Chair**  
**SPETT 2017-2019**

### INSIDE THIS ISSUE:

- 3 TRINIDAD AND TOBAGO'S PETROLEUM FISCAL REGIME**
- 4 DEVELOPING THE NEXT GENERATION OF COMPLETION ENGINEERS**
- 5 NOTICE OF ANNUAL GENERAL MEETING AND POSITIONS FOR ELECTIONS**
- 7 ANNOUNCEMENTS**
- 11 UPSTREAM HIGHLIGHTS**
- 13 PRODUCTION STATISTICS**
- 14 DID YOU KNOW?**

# Trinidad and Tobago's Petroleum Fiscal Regime

*by Vashesh Bhagoo*

On Wednesday 10th April 2019, the SPETT held a technical lecture on Trinidad and Tobago's Petroleum Fiscal Regime. This lecture was presented by Mrs. Greta Jackman and was well attended by over thirty persons at the Areef Ali and Associates Success Centre in Charlieville. Mrs. Jackman has a wealth of experience in the petroleum taxation field, being a retired Commissioner of Inland Revenue and member of several committees, including the Petroleum Tax Review Committee.



Mrs. Jackman's two hour presentation began with a historical look at the oil price shocks of the 1970's and how they triggered governments to develop special taxation for oil companies in order to share in the excess profits. She then explained and compared the different fiscal arrangements that were developed such as the Concession/Licence and Contractual Systems with Service Contracts or Production Sharing Contracts.

The rest of the presentation focused on explaining the legislative arrangements which exist in Trinidad and Tobago. Given the several different acts that apply to oil companies, Mrs. Jackman had the arduous task of condensing that depth of information into the limits of the presentation. Nonetheless she was still able to give an insightful look into the reasoning behind some of the legislation, highlighting what existed before and the motivations and problems faced by the government in implementing them.

She provided details on the different taxation in T&T, notably the Petroleum Profits Tax and the Supplemental Petroleum Tax. The basic structure, deductions and special allowances were explained for each. Mrs. Jackman then gave an explanation of the structure and differences between the types of Production Sharing Contracts that have existed in T&T over the years.

The presentation proved to be quite interactive, with pertinent questions being asked by participants throughout the lecture. With an audience of experienced professionals from industry and academia the discussion was thought provoking and added value to an already information packed presentation. The SPETT would like to express our gratitude to Mrs. Greta Jackman for stepping out of retirement to provide such an informative presentation to our members.



# Developing the Next Generation of Completion Engineers

by Clayton Bunraj

The SPE Trinidad and Tobago Section hosted its second distinguished lecture for the 2018-2019 term on Tuesday 16th April 2019 at the Marriott Courtyard at 5:30 p.m. The lecture titled 'Developing the Next Generation of Completion Engineers' was presented by Mark Van Domelen and was attended by approximately 20 persons. Mark Van Domelen is an industry recognized expert in hydraulic fracturing and well completion methods and is currently the Vice President of Technology for Downhole Chemical Solutions.



The presentation focused on technical training options and available resources for developing high performing engineers within an organization for not only completions engineers but for all other professionals in the O&G sector. Mr. Van Domelen's presentation gave an assuring view of what O&G professionals have recently experienced with industry downturns, global expansion of unconventional reservoir plays, cost constraint and the complex nature of reservoirs. Professionals doing more with less, in this case, training.



Companies handle economic situations in various ways however, usually training budgets are the high on the cutting list. Mr. Van Domelen shared a personal experience where training outside of core functions were used to improve communications and reduce attrition rates in the completions division of the company. This was found to be especially useful where projects required cross functional teams.

He highlighted that SPE itself has a wide range of resources that can be used to replace the conventional trip to Houston for a week in a classroom. Mr. Van Domelen outlined a course plan on the SPE's tool "SPE Online Education" that can be used as introductory courses for different functions. The average price per course on SPE's site can be accessed for \$200 USD. For those in the industry, this is well below the common price but for those who may find the price high such as students, he proposed another course strategy with more basic but free content.

The presentation was well worth the time and effort members too to attend. The SPETT section expresses its gratitude to Mr. Mark Van Domelen for sharing his time and expertise with its membership.



# NOTICE TO ALL MEMBERS



Trinidad and Tobago  
Section

## ***NOTICE OF ANNUAL MEETING***

Notice is hereby given of the Annual Meeting of the Society of Petroleum Engineers Ltd. to be held as follows:

**DATE:** Thursday 23<sup>rd</sup> May, 2019

**TIME:** 6.00 pm

**VENUE:** Hilton Hotel, POS

### **AGENDA**

1. Chairman's Remarks
2. Review and approval of 2018 AGM Minutes
3. Presentation of Section's Achievements for 2018-2019 Term
4. Presentation of Section's Financial Report 2018-2019 Term
5. To appoint auditors and authorize the directors to fix their remuneration
6. Election of Directors for the 2019-2020  
(6 Executive positions)

# BOARD POSITIONS FOR ELECTION

## Chairman

Responsibilities:

- Management & Motivation
- Communication with membership, Officers, Regional Director, SPEI staff
- Set up sub-committee
- Budget

## Secretary

Responsibilities:

- Minutes
- General Correspondence
- Section Officer Roster
- Set up sub-committee
- Budget

## Program Chairman

Responsibilities:

- Technical Meetings
- Arrange monthly Technical meetings
- Solicit sponsorship for Technical meetings
- Set up sub-committee
- Submit comments to the Secretary within one week after first issue of monthly Board meeting minutes
- Budget

## Director – New Opportunities

- Responsibilities:
- Policy
- Alliances
- Inter-Society Collaboration
- Regional and International Liaison
- Set up sub-committee
- Submit comments to the Secretary within one week after first issue of monthly Board meeting minutes
- Budget

## Director – Continuing Education

Responsibilities:

- Continuing Education
- Short Courses
- University/Industry Liaison
- Career Guidance
- High School Interactions
- Set up sub-committee
- Submit comments to the Secretary within one week after first issue of monthly Board meeting minutes
- Public Education and Community Outreach
- Budget

## Director – Technology Transfer

Responsibilities:

- Website Development and Administration
- Archives
- Electronic SPE
- Technology Dissemination
- Set up sub-committee
- Submit comments to the Secretary within one week after first issue of monthly Board meeting minute
- Social Media Management
- Budget

# ANNOUNCEMENTS



The SPETT, GSTT and AAPG YPTT presents

## “INCREASED PRODUCTION AND LONGER PUMP RUN TIMES FROM THE PARRYLANDS E JV BLOCK OPERATIONS BY INVENTING SMART LIFTING TECHNOLOGY”

📅 Wednesday 15<sup>th</sup> May, 2019

🕒 5:30pm-7:30pm

🏠 Petroleum Geoscience Lab, U.W.I.

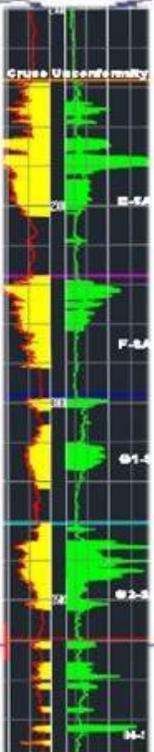
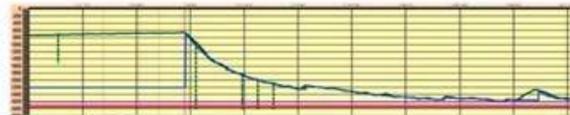
Featured speaker: Greg Boyles

Talk Highlights:

- Overview of Parrylands E Block
- Heavy Oil
- Production Challenges Within the Parrylands Block
- Smart Pumper
- Unintended Consequences and Benefits



PARRYLANDS



**Refreshments will be provided!**

**Limited spots available!**

Please book your spot using the available Google Form.  
Contact [tt.vpchapter@gmail.com](mailto:tt.vpchapter@gmail.com) or [thegstt@gmail.com](mailto:thegstt@gmail.com) or any further details.

# ANNOUNCEMENTS



## Technical Talk

### What it takes to be an effective leader in the fast paced and dynamic energy industry

Speaker: Colette Hirstius

Date: Tuesday 21<sup>st</sup> May 2019

Time: 5:00pm – 6:30pm

Location: Shell's Oval Box,  
Queen's Park Oval  
St. Clair, Port-of-Spain

[Click to RSVP](#)

Colette Hirstius is currently the General Manager of Developments at Shell Trinidad and Tobago. Prior to her role in Trinidad, Colette worked in the Deepwater Gulf of Mexico and most recently she was a Senior Strategy Advisor supporting the Executive Committee and the Board in defining the Royal Dutch Shell's strategy and implementation plan.

Colette will talk about her career trajectory, learnings and successes along her journey in the energy industry and how she was successful in breaking the glass ceiling.



# ANNOUNCEMENTS



**SUBMISSION DEAD-  
LINE EXTENDED TO  
JUNE 30TH 2019**

## **SPETT BURSARIES 2019**

**SPETT is offering for petroleum related studies:**

2 undergraduate bursaries

4 post-graduate bursaries

### **Applicants must:**

Be a paid student member

Have involvement with SPE

# ANNOUNCEMENTS



## Petroleum Engineering Certification

Enhance Your Career  
Get Certified

SPE's Petroleum Engineering Certification program provides you with an opportunity to obtain an international credential recognizing your petroleum engineering knowledge.

Demonstrate to employers your continuing commitment to the profession and individual professional growth.

Find out more at <https://www.spe.org/training/certification.php>

Requirements:

- ▶ An undergraduate engineering degree in petroleum engineering or related science.
- ▶ At least 4 years of experience and training in engineering.
- ▶ Professional member in good standing with the Society of Petroleum Engineers

*If you are interested in taking the SPE Petroleum Engineering Certification Exam and would like a study course to prepare, send us an email at [spettsection@gmail.com](mailto:spettsection@gmail.com). If there is enough interest a review course can be scheduled for potential candidates.*



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The Industry's premier magazine, complementary with professional membership - delivered monthly by print, along with exclusive web-version articles covering the full breadth of Oilfield news and developments



Trinidad and Tobago  
Section

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\*10 USD entrance fee applies for new members  
Recently graduated students receive discounted professional membership at 10 & 25 USD for Year 1 & 2 after graduation  
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# UPSTREAM HIGHLIGHTS

## Local and Regional

**BHP** has announced its findings of hydrocarbons in its latest deepwater well in Trinidad and Tobago's deepwater block 23(a). The Bélé-1 well is the first of a three well programme which tests prospects around the Bongos discovery, made in 2018. The Deepwater Invictus rig is currently drilling the well and was spud on March 2nd, 2019 in 2,012 metres water depth. The total planned well depth is 3,693 metres. The 31st March BHP operational review noted that drilling was in progress

**STAATSOLIE** begins near-shore drill campaign in Suriname with the West Castor drilling platform. This campaign involved drilling where Marai is the first well of the Surinamese cost. Later this year, it is expected that a test drilling of the American Apache will follow in the deep-sea area after which Kosmos and Tullow Oil will follow next year. Marai, one of the shallower wells of the Surinamese coast, lies about 20km off the coast with a water depth of 19m. A total of 9 wells are being targeted from east to west. The entire operation will cost the company an average of US\$100 million. If commercially viable reserves are found, it will take approximately 3-5 years to be

**EXXON MOBIL** hits milestone at Starbroek Block as first pipe for Liza Phase 1 touches seabed, offshore Guyana. The Saipem FDS 2 vessel lowered the first pipe to the sea bed in preparation for first oil in 2020. Installation of the subsea pipes and equipment will continue over the next several months. The vessel will install more than 6,000 pipes at the Liza field for the phase 1 development. The ultra deepwater construction DP3 vessel, Saipem Constellation, will arrive in Guyana later this year to connect the Liza Destiny FPSO to subsea equipment.

**EXXON MOBIL** does it again, marking the 13th discovery on the Stabroek Block, offshore Guyana at Yellowtail-1 well. This adds to the previously announced estimated recoverable reserve of approximately 5.5 billion oil-equivalent barrels found so far in the country. Yellowtail-1 marks the fifth discover in the Turbot area, which ExxonMobil expects to become a major development hub.

**TULLOW OIL** will drill its first exploration well, Jethro-1, in Guyana during Q2, 2019 followed by a second well named, Joe. In collaboration with Total and Eco Atlantic, Tullow operates the Orinduik Block, offshore Guyana. Ramps Logistics has already secured a fully integrated cross-border logistics contract inclusive of shore base provision management, marine agency, personnel logistics and customs brokerage with

**VENEZUELA** Rolling blackouts across much of the country that started on March 7 paralyzed most of the country's oil wells and rigs, which have slowly come back online. Oil output averaged less than 600,000 bpd during the blackouts, the people said, who asked not to be identified because the information isn't public. For the full month, daily production was 890,000 bbl, according to a Bloomberg survey of officials, analysts and ship-tracking data. Near the Orinoco basin in the East, where four out of every five barrels is pumped, heavy tar-like oil has begun to clog pipelines and tanks after the heating system lost power, according to Wills Rangel, a former PDVSA board director and president of the United Workers Federation of Oil, Gas and Related Derivatives of Venezuela. Cleaning or removing the pipes could take months, he said.

# UPSTREAM HIGHLIGHTS

## International

### SHELL OFFSHORE INC.

(a subsidiary of Royal Dutch Shell plc), announced a significant discovery at the Blacktip prospect in the deepwater US Gulf of Mexico. The discovery is located approximately 400km south of Houston in an average 1900m of water. Drilling at the first Blacktip well is still underway and has to date encountered 400ft net oil pay with good reservoir and fluid characteristics. Evaluation is ongoing and appraisal planning is underway to further delineate the discovery and define development options.

### GULF DRILLING INTERNAT'L

has secured a three year contract with North Oil Company (NOC) to provide drilling services through the drilling rig, Dukhan, for NOC'S extensive development programmes in the Al Shaheen oil field, offshore Qatar. The facilities in the oil field consists of 33 platform, 300 wells and is currently at a production rate of 300,000 bopd, making this field Qatar's largest offshore oil field and one of the largest offshore oil fields in the world.

### MC DERMOTT

has secured a significant contract between US\$50 million to US\$250 million with QatarGas to work on 8 offshore EPCI Jackets. McDermott will provide a full suite of engineering, procurement, construction and installation (EPCI) services for facilities expansion. This expansion will facilitate the expansion of the North Field offshore facilities in the State of Qatar. McDermott plans to use its project management and engineering teams in Doha, Qatar with fabrication primarily occurring at McDermott's facilities in Batam, Indonesia.

### EXXON MOBIL

has made the world's third-biggest natural gas discovery off the coast of Cyprus in the Eastern Mediterranean at the Glaucus-1 well. Based on the preliminary interpretation of the well data, the discovery could represent a natural gas resource of approximately 5 trillion to 8 trillion cu.ft. The resource potential would be better determined in the upcoming month after further analysis. Glaucus-1 well was the second of a two-well drilling program and was safely drilled to 13,780 ft depth. ExxonMobil holds a 60% stake in the block, while Qatar Petroleum holds the remaining 40%.

### BP

has dishd out \$500 million contract for operation in Caspian Sea. Turan Drilling and Engineering Company has been awarded its first contract. The contract has a value of approximately 500 million for the firm period or 700 million including all options. This is for the operations and maintenance of 7 platform drilling rigs operated by BP in the Caspian Sea.

### BOLIVA

is looking at exporting natural gas globally through liquefaction terminals to be built in Argentina, and to buy crude from its southern neighbour, a move that would compensate for dwindling sales of its main export to Argentina and Brazil. This is key for Bolivia to sustain exports of gas, a main driver of economic activity and source of dollar inflows and tax revenue. Bolivia has seen a decline in sales.

### BRAZIL

will hold an offshore oil deposit auction in October featuring blocks that were the object of a long-running dispute with state energy giant Petrobras. Reuters reports, citing Economy Minister Paulo Guedes, that participants in the auction will need to cough up a signing bonus of a total US\$26.9 billion for the four blocks. The blocks, located in the pre-salt zone off the Brazilian coast, are part of an area the government awarded for exploration and development to Petrobras a decade ago.

# PRODUCTION STATISTICS

JANUARY 2019

COMPANY	Production (bopd)
BHP Trinidad & Tobago	5,721
BPTT	6,456
EOG Resources	1,302
PERENCO	10,173
SHELL Trinidad	689
DeNovo	141
Heritage	23,312
Heritage Lease Ops	6,895
Heritage Farmouts	531
Heritage IPSCs	926
Trinity E & P	1,371
<b>TOTAL</b>	<b>57,517</b>

Monthly Average Crude Oil  
Production

COMPANY	Production (mmscf/d)
BHP Trinidad & Tobago	449
BPTT	1,927
EOG Resources	448
PERENCO	30
DeNovo	69
Heritage	16
SHELL Trinidad	699
<b>TOTAL</b>	<b>3,640</b>

Monthly Average  
Nat Gas Production

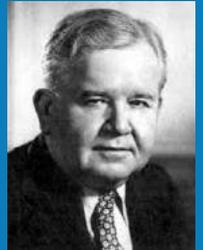
# DID YOU KNOW?

# A TRIP DOWN MEMORY LANE

by Kamlesh Ramcharitar



1. The **first modern oil war** was the 'Chaco War' during 1932 - 1935. This saw Paraguay (supported by Royal Dutch Shell) in conflict with Bolivia (Standard Oil). Ultimately, Paraguay prevailed and most of the Chaco region was annexed accordingly.



2. Considered the **"father of American Geophysics"** or the founder of applied Geophysics in the Petroleum Industry, Everette Lee DeGolyer started off working as a cook for the United States Geological Survey.



3. The **world's longest-producing oil well** is thought to be the McClintock Well #1 in Titusville, Pennsylvania. It has been producing since 1861 - well over 150 years!



4. The idea for **Vaseline** (petroleum jelly) was conceived in Titusville by Robert Chesebrough. Chesebrough was such a believer in his product that he ate a spoonful of it every day thereafter and lived to the ripe old age of 96.



5. Crude oil transportation **via pipeline was first proposed** by the Russian chemist - Dmitri Mendeleev. Known also for his crucial input to deriving the Periodic Table, Mendeleev argued that oil should be transported to the main centres of consumption instead of burning it closeby to the producing fields.

6. The Digboi refinery in Assam, India is the **oldest active refinery in the world**. With an annual capacity of just 0.65 million tonnes, it started operations in 1901 when digging for oil started in 1889, having inadvertently been discovered through seeps many years before while laying railroad tracks.



7. The **northernmost oilfield in the world** was discovered in 2014 at a latitude of N 74'44". The giant Pobeda field was discovered by Rosneft via the drilling of the Universitetskaya-1 well which cost \$700 million USD. The scale of the discovery of oil and gas is thought to dwarf all the resources within the Gulf of Mexico.



**Trinidad and Tobago  
Section**

**TOP DRIVE TEAM  
RACHEL JAGDIP  
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