

# TGS and Spectrum Merger Highlights Opportunities for Multiclient Companies

As the global energy sector gains momentum and companies enter licensing rounds, the need for quick access to data holds fundamental importance.

Increasingly, operators large and small are turning to multiclient companies who have the information and images that help them make decisions about entering a new area.

Gustavo Carstens, AAPG Member and chair of the council for the Society of Exploration Geophysicists, describes multiclient as a win-win business model for companies and providers.

"Multiclient contractors acquire seismic data at their own cost and risk in an open area and then sell the rights to use the data many times to different oil companies. The sale price is lower than a proprietary prospect, so the oil companies can see the data at early stages in their evaluation programs without spending a large amount of money. The multiclient company makes its profit by selling the same dataset several times," he said.

Carstens has spent 40 years working as a geophysicist in Latin America and the Middle East and has worked with two companies that provide multiclient data.

He said that obtaining high quality data at a lower price point is beneficial to companies looking to operate in new areas.

"The multiclient data is very useful when considering opportunities in new markets. It allows block analysis at the bidding time," he said.



## Staying Competitive

Choosing the right multiclient provider is essential for operators seeking information to drive their investment decisions. Carstens highlighted several factors to consider.

"It is important to see the way companies select the areas for the surveys, and of course the quality of the data acquired," he said. He added that

the companies' previous experience, knowledge of the business and contents of their data library is very important.

To stand out in a competitive market, multiclient providers work constantly to improve their service, expand their libraries and, when it makes sense, to join forces with competitors.

A high-profile alliance made waves through the geophysical community headlines earlier this year when multiclient



JOHANSEN



CARSTENS

powerhouse TGS-NOPEC Geophysical Company announced plans to acquire Spectrum Geo ASA.

The move created the world's largest multiclient geophysical data provider with a 2-D and 3-D seismic data library covering all major mature and frontier basins worldwide.

## The Acquisition

TGS CEO Kristian Johansen likened the merger to a successful personal relationship.

"We've known Spectrum for many years and been attracted to each other. A few years ago, we did our first joint ventures together and got to know each other even better. Late fall 2018 we had the first discussions about formalizing the relationship and in May 2019 we made the proposal official," he said.

On May 20, the TGS and Spectrum

See TGS page 25 ►

## NAPE 2019 37<sup>th</sup> ANNUAL INTERNATIONAL CONFERENCE & EXHIBITION

EKO HOTELS & SUITES, LAGOS | 17-21 NOVEMBER, 2019

### EXPANDING NIGERIA'S PETROLEUM LANDSCAPE

DIGITALIZATION, INNOVATION & EMERGING NEW TECHNOLOGIES

**Special Guest of Honour**  
**Mallam Mele K. Kyari**  
Group Managing Director, Nigerian National Petroleum Corporation

**PRE-CONFERENCE WORKSHOP**  
Theme: Emerging technologies and the Nigerian Oil and Gas Sector: Global Trends and Regional Peculiarities  
Date: Monday, 18th Nov, 2019  
Venue: Grand Ballroom, Eko Hotel  
Time: 9:30am  
Keynote Speaker: Herman Nieuwoudt, Director, Global Services, Sub-Saharan Africa, Baker Hughes (BHS)

**ALL CONVENTION LUNCHEON**  
Theme: Disrupters, Innovators and Influencers: Changing the International business landscape  
Date: Tuesday, 19th Nov, 2019  
Venue: Grand Ballroom, Eko Hotel  
Time: 12:30pm  
Keynote Speaker: Professor Ndubuisi Ekanke, Chairman, FASMECRO Group

**MANAGEMENT SESSION**  
Theme: Gas Monetization in Nigeria – Need for Concise Strategy  
Date: Wednesday 20th Nov, 2019  
Venue: Grand Ballroom, Eko Hotel  
Time: 10:00am

**REGISTRATION**

Registration fees and other charges are payable online: [payments.nape.org.ng/confpayments.php](https://payments.nape.org.ng/confpayments.php)

or via NAPE Bank account:  
Acc Name: Nigerian Association of Petroleum Explorationists  
Acc No: 0009381477  
Sort/Swift Code: 058152162  
Bank Name: Guaranty Trust Bank Plc, Lagos

Registration after 27 Sep, 2019 and at the conference venue:  
NAPE members (registered and financially up-to-date): N60,000 [\$196]  
Non-members: N70,000 [\$229]  
Research Institutions: N35,000 [\$114]  
Students: N15,000 [\$49]

For bulk and individual registration, kindly send list of all participants, payment confirmation with the following details:  
Full names, Gender, Email, Phone, Company/Institution to: [micheal.o@nape.org.ng](mailto:micheal.o@nape.org.ng)

**EXHIBITION**

See Exhibition Plan ONLINE. Visit NAPE website for details. Minimum booth size is 9sq.m  
Subscription Deadline: 14 October, 2019  
[napeexhibitions@nape.org.ng](mailto:napeexhibitions@nape.org.ng)

**Ajibola Oyebamiji, FNAPE**  
President & Host

**Alex Nachi Tarka, CPG, FNAPE**  
President-Elect & Chairman  
Conference Planning Committee

**Abdulateef Amodu**  
Publicity Secretary

**TITANIUM SPONSORS**

**PLATINUM SPONSORS**

**GOLD**

**SILVER**

**BRONZE**

**PATRON**

**SPONSORSHIP & ENQUIRIES:**

Lawrence Ogunwole  
[ovogunwo@nape.org.ng](mailto:ovogunwo@nape.org.ng)  
+234 909 214 3198

NAPE: our ideas find Oil and Gas

## 5<sup>TH</sup> MYANMAR OIL & GAS CONFERENCE

# SUBMIT YOUR ABSTRACTS BY 30 NOVEMBER 2020

### 12-14 MAY 2020 • YANGON, MYANMAR

SUPPORTED BY MYANMAR GEOSCIENCES SOCIETY

<https://aapg.to/5thmyanmar>



## TGS from page 22

boards of directors unanimously approved combining the companies and developed a final merger agreement. In the merger plan posted online, board members from both organizations expressed their opinion that the companies' combined business would lead to greater value creation compared to the companies operating as separate entities.

TGS provides multiclient geoscience data and processing to oil and gas companies worldwide, with primary revenue-generating hubs in North America and Northwest Europe. The company boasts an extensive data library, an asset-light business model and strong financial stability.

Spectrum held the world's largest library of multiclient 2-D marine seismic data, a significant amount of 3-D seismic and a presence in the South Atlantic and in frontier regions in Africa and the Mediterranean.

Johansen said Spectrum was a natural choice for TGS.

"Spectrum had a very similar business model and company culture to ours. Further, the company had successfully built up a strong business presence in growing markets such as Brazil and Argentina. The data library was therefore very complementary to TGS with significant opportunities to grow further," he said.

TGS and Spectrum, both based in Norway, completed the statutory merger under Norwegian law between May and August 2019. During the process, TGS acquired all assets, rights and obligations of Spectrum, and Spectrum ceased to exist on the Oslo stock Exchange.

The agreement was approved by Spectrum shareholders, who received 0.28 TGS shares for each Spectrum share held.

### The Transition

TGS announced a new organizational structure and executive team in late August and selected senior leaders shortly afterward. These teams included a diverse mix of both TGS and former Spectrum employees, ensuring that the new, combined company was able to take advantage of its enhanced talent pool.

"We are now in the middle of the integration process and the ambition is to operate as one company by January 1," Johansen said. He noted that the overall mood at the company has been positive throughout the transition.

"Some people are very excited by the transaction and looking forward to becoming part of an even larger organization," he said. "Of course, there are also some people who are a bit apprehensive as is also the case when there is organizational change. However, I believe it is important to communicate openly and make sure employees feel respected and engaged during such a process."

Johansen said that the new organization provides benefits both to veteran TGS and new employees coming from Spectrum.

"Together we will become the world's leading multiclient company and employees will have great opportunities to advance their career by working on more complex projects, exposure to additional clients and further growth opportunities," he said, hinting at an ambitious growth strategy for the company in the coming years.

### Better Together

The merger's benefits also extend to companies who contract TGS services, Johansen said.

"The transaction will lead to a more competitive TGS with a database covering all major mature and frontier basins in the world. Being able to serve our clients with top-notch quality 2-D and 3-D data wherever they do exploration is what I find most intriguing," he said.

He shared the company's commitment to continue working to maintain customer loyalty in a competitive market.

"We will continue to grow our investments in core markets where clients are exploring. We will increase our investments in R&D to make sure the technical quality of our products is satisfactory. Finally, we will continue to highlight the importance of quality and service to make sure we remain clients' preferred provider of multiclient data," he said.

Carstens said he was pleased to learn of the TGS-Spectrum merger.

"For me, it is a very positive move. TGS

should be able to offer better opportunities now," he said, noting that the South Atlantic provides significant opportunity.

"There is still a lot to be done in the waters of Argentina," he said. "The region is under-explored."

Carstens said he has heard positive comments from colleagues, though he admits that it will take time for industry to feel the full weight of the transition.

Johansen reported positive client feedback and positive earnings following the merger's completion in August.

"The combination of TGS and Spectrum has been well received by our clients who will benefit from our comprehensive data library, quality and service," he said in an August 2019 statement. "Our strong performance is mainly due to higher license round activity in regions where TGS and Spectrum have strong data coverage and revenues related to acreage turnover."

TGS management projects net segment

revenues of approximately \$277 million for the third quarter of 2019, an increase of more than 95 percent from the same quarter in both 2018 and 2017.

### Future Plans

Johansen hopes to build on this momentum in the next four to six months.

"We look to deliver on our strategic priorities that combine profitable growth with data and analytics initiatives as well as strong seismic imaging reputation," he said.

Goals for 2020 include a successful integration of Spectrum, continued profitable growth and strong employee engagement.

Johansen also hopes to maintain what he has appreciated most about the company during his 10-year tenure – TGS'

See TSG page27 ►

**appex**  
AAPG PROSPECT AND PROPERTY EXPO

**Connecting You with  
Global Business  
and Exploration  
Opportunities**

**18th Great Year**  
APPEX brings together upstream decision-makers and investors in an interactive conference and exhibition packed with lively networking events, informative seminars, and an unparalleled global marketplace for buying, selling and trading prospects and producing properties.

**Attend APPEX 2020 to learn about:**

- **Farm Outs**
- **Joint Ventures**
- **License Rounds**
- **Open Acreage**
- **New Exploration**
- **New Data Availability**

**"I get in-depth information on prospects, see the science that's behind them and connect with the people bringing the opportunities forward."** D. Cox, Storm Energy

**APPEX.aapg.org | 3-5 March 2020 | Business Design Centre | London, UK**



Foundation Contributions for September 2019

General Fund

Saad Abutheraa  
 Rafael Acevedo  
 Mercy Achang  
 Monday Aidelojie Agbuza  
 Abdullah Al Kandari  
 Syed Sarfaraz Alam  
 Abiodun Amao  
 Joachim Amthor  
 Tyler Lee Ashley  
 Kathryn Ball  
 Jose Antonio Barbosa  
 William Bater, IV  
 Eric Christopher Beam  
 Keri Belcher  
 Bruce A. Bennett  
 Arthur E. Berman  
 Niki Berry  
 Robert Best  
 Stephen Blavier  
 Roger B. Bloch  
 Jelle F. Boels  
 George Robert Bole  
 Lindsey Thomas Brady  
 Christina J. Brown  
 Bjorn Kare Bryn  
 Christian M.E. Buck  
 Glen Buick  
 Stephen Wilbur Burnie, Sr., PhD  
 Jody Lynn Camacho  
 Luis Carlos Carvajal Arenas  
 Cheryl Renee Caswell  
 Alejandro Antonio Chalco  
 Logan Chatterton  
 Alexandra Cheek  
 Jayashree D. Chitale  
 Shawna Christensen  
 Lee Chung Chung Shen  
 John M. Cockrane Foundation of  
 Columbus Foundation  
*In memory of John M. and Anne  
 H. Cochrane; given through the  
 John M. Cochrane Foundation of  
 the Columbus Foundation*  
 Philip Collins  
 Kenton Crabtree  
 Frederick James Crockett  
 Carolyn Frances Currie  
 Chris Charles Curry  
 Christopher Robert Cuyler  
 Esmeralda Dalsuco  
 James Byron Davis  
 Sudirman Dawing  
 Henry G. DeWitt  
 Obren Djordjevic  
 Nicholas John Drinkwater  
 Gordon Earle Duffy  
 Rebecca D. Emerson  
 Solomon Evro  
 Clay A Fernandez  
 Gregory Thomas Fletcher  
 Luis Fernando Fonseca  
 Matthew Fox  
 Dirk Frei  
 Terra Jane George  
 David Hendrix Glenn  
 Rebecca Good  
 Rodney William Graham  
 Sara Grannis  
 Yves Henri Grosjean  
 Leopoldo Gutierrez Caminero  
 Melody R. Hacker  
 Dexter Lee Harmon  
 Cheryl Hartbauer  
 Theresa Hartman  
 John Benjamin Helms  
 Juan Ignacio Hernandez  
 Stephen Hicks  
 Eilard Hoogerduijn Strating

Kerry F. Inman  
 Nick Jackson  
 Elizabeth Johnson  
 John Francis Karlo  
 Dag Arild Karlsen  
 Karlien Karr  
 Patrick F. Kelly  
 Tom J. King  
 Melanie Iris Klucker  
 Heather L. LaReau  
 Scott Michael Larson  
 Stephen Robert Lawrence  
 Hermann D. Lebit  
 Ross Ledoux  
 Oeivind Loenne  
 Ian Murray Longley  
 Ke Lovan  
 Xiaorong Luo  
 Stephen T. Luthy  
 David Francis MacConnell  
 Gordon R. MacMahon  
 Gianni Mallarino  
 Wichanee Maneelok  
 Robert H. Marshall  
 Robert Anthony Martin, P.G.  
 Ann and John Mason  
 Joyel John Mazarello  
 Richard Earl McArthur  
 Brenton Joseph McCullough  
 Jesse John Melick  
 Robert John Mellors  
 Peter Nolan  
 Robert Ellis O'Dell  
 Antonio Olaiz  
 Karyn Sue Olschesky  
 Mark A. Olson  
 Prentice Ray Owen  
 Robert Thomas Owen  
 Richard Evan Paige  
 Scott Pantaleone  
 Robert Party  
 Jingsong Peng  
 Chesney Petkovsek  
 Donald Zac Phillips  
 Kostas Poursanides  
 George Flory Pritchard  
 Stefan W. Punnette  
 Gilberto Raitz Junior  
 Nagarajan Ramasamy  
 Natasha Marie Rigg  
 Javier Hernan Rojas Vasquez  
 Paola Ronchi  
 Edward Carl Roy III  
 Lee R. Russell  
 Lauren M. Sakai  
 Kenneth Michael Sands  
 William Jay Schmidt  
 John David Seale  
 John W. Serbeck  
 John Lynn Shepard  
 Cody Michelle Simmang  
 Isaac John Smith  
 Pedro Son  
 George C. Soronen  
 Daniel Stockli  
 Sara Stotter  
 Grace Oluwakemisola Taiwo  
 Kathy S. Timmons  
 Ross Tipton  
 Christopher Tiratsoo  
 Jean-Marc Ugolini  
 David F. Underwood  
 Homerson Sy Uy  
 Pieter Samuel van Heiningen  
 David Bryant Vance  
 Karen Lillian Stoner Wagner  
 Dale Albin Walker  
 Faye Walsh  
 William G. & Patricia Watson

Wayne A. Wheeler  
 Krzysztof Mikolaj Wojcik  
 Liang Xiao

Distinguished Lecture Fund

Christian M.E. Buck  
 James A. Gibbs  
*In memory of James E. Brooks*  
 Isaac John Smith  
 Shaun Thomas Stoner

EF Reid Scouting Fund

Laura L. Faulkenberry  
 Elsa K. Kapitan-White

Grants-in-Aid

**Donald A. ONesky Named Grant**  
 Laura L. Faulkenberry

**Duncan A. McNaughton  
 Memorial Grant**  
 Laura L. Faulkenberry

**Eastern Section Named Grant**  
 AAPG Eastern Section

**Edward B. Picou, Jr. Named Grant**  
 Gregory Stuart Gordon

**Gretchen Nakayama  
 Memorial Grant**  
 Eric Christopher Beam

**L Austin Weeks Memorial Fund**  
 Shaun Thomas Stoner

**Richard W. Beardsley Named Grant**  
 AAPG Eastern Section

**Roger W. Stoneburner Grant**  
 Richard William Ball

**Suzanne Takken Memorial Grant**  
 Andrew Cullen

**Weimer Family Named Grant**  
 Laura Stager Foulk

**William Dow Hamm  
 Memorial Grant**  
 Aysen Ozkan

**Imperial Barrel Award Fund**  
 Jennifer Smith Enos  
 Janice L. Gregory-Sloan  
 Robert John Mellors  
 Isaac John Smith  
 John Arthur Weissenberger

**Military Veterans' Scholarship**  
 John Arthur Weissenberger

**Teacher of the Year Award**  
 Huyen Thi Thanh Bui  
*In memory of my father*

**Visiting Geoscientist Fund**  
 James A. Gibbs  
*In memory of T. Boone Pickens*  
 Bill & Audrey Maloney

*The monthly list above of AAPG  
 Foundation contributions is based on  
 information provided by the AAPG  
 Foundation office.*

Long-term Sustainability

Johansen said that multiclient providers have an even greater responsibility, preparing for the energy transition.

“While the world is growing by approximately seven million people every month and billions of people strive for better living conditions, the world’s need for energy will continue to grow. The energy transition will therefore take time and require significant technology breakthroughs. We can all play a major role in making this transition happen in a secure manner,” he said.

“TGS is actively looking for opportunities to reduce suppliers’ clients’ or its own carbon footprint by designing efficient seismic surveys that have the benefit of reducing unproductive drilling and reduce emissions from data centers. Further, we are constantly looking for innovative ways to apply subsurface knowledge for other purposes such as carbon storage, wind farm siting and land earthquake prevention. This is key in our long-term sustainability plan,” said Johansen. [E](#)

Call for Abstracts

Pacific Section AAPG/SEPM/SEG Convention  
 2020 Vision: Producing Our Future

April 4-8, 2020

Join us in Oxnard, California, just an hour north of Los Angeles, at the Embassy Suites Beach Resort, an oceanfront hotel and excellent convention venue. We are currently seeking abstracts for a high quality technical program that covers the broad interests of our members and the geoscience community. Convention information and instructions for abstracts at <http://psaapgconvention.org/2020>. Technical presentations will be scheduled for Monday and Tuesday, April 6-7.

Abstract Deadline is Friday, January 10, 2020.

Suggested Topics Include:

- Case Studies in Exploration and Development, California and the Pacific Rim
- The Monterey Formation and Similar Strata Across Space and Time
- Source to Sink Studies
- Integrated Studies in Stratigraphy and Sedimentology
- Applied Sedimentology and Paleontology
- Unconventionals and Alternative Resources
- Petrophysics: Applications, Innovations, Images
- Geoscience, Climate, and the Environment
- Aquifers, Underground Injection and Environmental Regulations
- Seismic: Acquisition, 3D Applications, AVO/Inversion, Induced Seismicity
- Structural Geology: Tectonics, HC applications, Earthquakes, Hazards
- Maximizing Recovery: Reservoir Characterization, Models, EOR
- Digital Tools and Big Data Applications



Sponsored by Coast Geological Society.  
 Address questions about the program to:  
[eric.white@numericolutions.com](mailto:eric.white@numericolutions.com) or  
[jonschwalbach@yahoo.com](mailto:jonschwalbach@yahoo.com)



**AAPG**  
 Latin America & Caribbean Region

**COLOMBIA 2020**  
 GEOSCIENCES TECHNOLOGY WORKSHOP

Co-organized by  
**ACGGP**  
ASOCIACIÓN COLOMBIANA DE GEÓLOGOS Y GEOTECNICOS PETROLEROS

Exploration and Development  
 in Southern Caribbean  
 Frontier Basins



Hosted by Colombia's Energy Capital



**ALCALDÍA DE  
 BARRANQUILLA**

1–3 April 2020 • Barranquilla

Session Themes

- Tectonic Setting and Petroleum Systems
- Recent Discoveries and New Plays
- Enhanced Imaging and AVO/DHI
- Risk Reduction and Drilling Optimization

Special Sessions

- Potential for Development of Unconventional Resources in Colombia
- Government Strategies to Support Colombia's Energy Sector

For information and sponsorship opportunities contact [lacevents@aapg.org](mailto:lacevents@aapg.org).

TGS  
 from page 24

people and culture.

“Although the company has grown, the culture remains very strong with a focus on people being our greatest asset. Our employees are highly educated people with a passion for data and business,” he said.

Johansen said that TGS remains open to future acquisitions.

“We are always looking for investment opportunities, both organically and non-organically to ensure continued profitable growth,” he said.

For Carstens, if present trends continue, TGS and other multiclient providers will continue to have a healthy business throughout the world.

“In the current environment of low oil prices, the multiclient model is a very powerful tool for new business at a lower initial cost,” he said. “There is a lot of room yet for this model. The offshore part is still very attractive, the onshore is more challenging, and I think that some companies will focus there.”

SAVE THE DATE