2024 | 6 – 9 October

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SPWLA Asia Pacific Regional Conference 2024

Centara Grand Ladprao - Bangkok Thailand

"Traditional and Transitional Petrophysics"

"Enhancing and Integrating Petrophysics into the challenges of Today and Tomorrow"

Registration is now open!!

Register online here

Early Bird Fee (by 31st Aug 2024)		USD 200
Registration Fee (1st Sept 2024 onwards)		USD 300
Ayutthaya Field trip (optional, details below)		USD 75 (max 30 pax)
Learning	Machine Learning (AM)	USD 75
	Petrophysics Uncertainty (PM)	USD 75
Golf Day (optional, details below)		Payment at venue / course

Registration includes: 3-day Conference Sessions, Tea/Coffee, Lunch and Conference Banquet (18:00 to 22:00 Monday 7th October)

Hotel Accommodation

Book direct through email below for special rates at the venue:
Nattakarnth@chr.co.th or Pinnapaso@chr.co.th

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For more information, please email: ap2024@spwla.org

SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS

2024

Conference Overview

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Sunday 6th October 2024

Ayutthaya Field Trip (optional) – *Maximum of 30 participants:*

The exciting field trip will take you to view historic Ayutthaya and Geological outcrops; with stops at Chai Wattanaram Temple (a recent fluvial system), and Chedi Hoi Temple where evidence of paleo shoreline will be introduced.

Monday 7th October 2024

New Technology Forum & Conference Dinner

Delegates will gain a broad overview of new technologies in the formation evaluation and petrophysical arena to help improve sub-surface understanding. The NT forum is dedicated to service companies who will present their latest technology together with giving you an opportunity to discuss potential applications at their booth.
In the evening our social event is a buffet dinner with beer, wine and soft drinks.

Tuesday 8th & Wednesday 9th October 2024

Technical Conference

Two days of technical presentations from around the region. There will be 23 presentations on a diverse range of subjects which are all relevant to Petrophysicists and other sub-surface technical professionals working in the Asia-Pacific region. There will be case studies from *India, Thailand, Malaysia, Indonesia, China, Japan and Australia* with a mix of operating and service companies, academic institutions and consultants.

Thursday 10th October 2024 – A choice of 2 optional activities:

1. Learning: Morning - Machine Learning Workshop $75
Afternoon - Petrophysics Uncertainty Workshop $75 **or**

2. Networking Golf Day

Bring your clubs and play at Floraville Golf and Country Club in Bangkok. Cost is 3000 THB. – Includes round trip to the course, green fees, caddy, cart, and a goodie bag.

Organising Committee

Conference Chairman	: Andrew Cox
Vice- Chairman	: Marvin Rourke
Technical Chairman	: Rick Aldred
Technology Forum Chairman	: Alex Beviss
Treasurer	: Irina Baca Espinoza
Sponsorship Chairman	: Matthew Josh
Delegate Coordinator	: Damrongsak Chantipna
Field Trip Leader	: Dr. Thasinee, Chulalongkorn University.

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2024

Field Trip to Ayutthaya

Sunday 6th October 2024

Field Trip

AYUTTAYA | FULL DAY | BY Bus | MAX 30 PAX

A Field Trip is arranged to see historic Ayutthaya, with additional stops for a (Recent fluvial system) at Chai Wattanaram Temple, and a Paleo Shoreline at Chedi Hoi Temple.

The Field trip will depart from the Centara Hotel at 08:00 and return by 18:30 pm. All snacks and lunch are included in the price.

Schedule

8:00 Depart for Ayuthaya from Centara Ladprao
9:30 Visit main ruins in Ayuthaya

12:00 – 13:30 Lunch in Ayuthaya

13:40 Chai Wattanaram Temple Recent Fluvial System
16:00 Chedi Hoi Temple Paleo Shoreline

17:00 Leave for Bangkok
18:30 Arrive at Centara Ladprao

Price per person: $75

Included in the trip - Transportation, Breaks, Lunch
Sightseeing trip in the Historic City of Ayutthaya!

What to bring:
Hat, Sunglasses, Hiking/comfortable closed-in shoes
Note: The sign says no shorts, but we observed many people wearing shorts at the ruins.

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ธรณีวิทยา
GEOLOGY

Special Thanks to Department of Geology, Chulalongkorn University

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2024 New Technology Forum

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Monday 7th October 2024

Time	Title and Author
08:30 – 09:00	**Introduction by Chairman**
09:00 – 9:30	**Aspen Technology** **Diego Vasquez Perez** Empower Your Geoscience and Engineering workflows with AspenTech's Comprehensive Token Licensing.
09:30 – 10:00	**EXLOG, Excellence Logging** **Francesco Vella** LithoSmart: Your AI-Powered Gateway to Faster, Sharper Lithology.
10:00 – 10:30	Coffee Break
10:30 – 11:00	**Geoactive Limited** **Frans Mulders** TBC but it will cover the updates to our C/O Sw analysis module in IP 2024, including the new Gas workflow.
11:00 – 11:30	**Weatherford** **Numan Phettongkam** Advance Geomechanical Automation Application as a Core Answer to Drilling and Managed Pressure Risks, Offshore Thailand.
11:30 – 12:00	**Geolog International B.V.** **Dr. Guy Oliver** Passionate about cuttings, the digital transformation of rock data into Digital Cuttings
12:00 – 13:00	Lunch Break
13:00 – 13:30	**Petromac** **Jee Kwan Ng** A unique method to enhance Wireline operations through reduced operational risk, better quality data and sample recovery.
13:30 – 14:00	**slb** **Andrea Di Daniel** Topic: Automated Lithology: Digitized, AI-Enhanced Cuttings Analysis for Superior Drilling Decisions.
14:00 – 14:30	**Core Laboratories** **Blair A. Rogers, P.Eng., PMP** Peeking Behind the Curtain – A New Application of Density Logging Tools for Gravel Pack and Natural Fill Evaluation Run on Washpipe.
14:30 – 15:00	Coffee Break
15:00 – 15:30	**GeoSoftware** **Joseph Lim** Integrated and Iterative Rock Physics Modelling Workflow.
15:30 – 16:00	**Ikon Science** **Jacky Jani** Innovations in Petrophysics: Enhancing Multi-Scale Modelling and AI-Enhanced Data Access
16:00 – 16:30	**Available**
16:30 – 17:00	Available

2024 Technical Conference

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Tuesday 8th October 2024

Time	Title and Author
08:30 - 09:00	**Welcoming address by Chairman and Keynote Address**
09:00 – 09:30	Pre-drill 1-D Geomechanics Earth Model in Phitsanulok Basin Thailand achieve to Optimizing drilling program. -- ***Sita Kuakool***, *Awae Hasan, Omar S. Al-Ismaeeli. Weatherford*.
09:30 – 10:00	Minimization of geological risks of drilling wells by integrated analysis of borehole and seismic data using Machine Learning methods on the example of a gas condensate field. -- *A. I. Gadoev1, U. A. Muminova[1], A. O. Rahmatov[1], S. T. Shomurodov[2],* ***E. S. Kolbikova****[3], R. K. Valiev, 1 JSC "Uzbekneftegaz", 2 JSC "Uzbekneftegaz"(until March 2024), 3 Aspen Technology, Inc.*
10:00 – 10:30	Coffee Break
10:30 – 11:00	Acoustic Logging and Digital Advances for Petrophysics. -- *Samira Ahmad[1], Chiara Cavalleri[2],* ***Hugo Espinosa****[2]. 1 Independent, 2 slb.*
11:00 – 11:30	Speed correcting borehole images: a new information-theoretic approach. -- ***Tegwyn Perkins****, Gary Lowson, Frans Mulders. Geoactive Ltd.*
11:30 – 12:00	Exploration and Production Optimization of Residual oil Through a Comprehensive LWD Methodology enabled by Novel Nuclear-Magnetic-Resonance Technology. -- ***Xin Zhou****, Xioaning Yu. slb.*
12:00 – 13:00	Lunch Break
13:00 – 13:30	New Developments in Downhole Sand Detection Logging for Better Informed Sand Management Strategies and Improved Well Performance. -- ***Widyanto Andono****[1], Alan Muhadjir[1], Marvin Rourke[1], Rassamee Puttanarakul[2]. 1 GOWell, 2 Halliburton Reservoir & Production Surveillance.*
13:30 – 14:00	Three Phase Holdup Derived By Advanced Pulsed Neutron Enables Rapid Optimization Of Reservoir Monitoring And Water Management In Complex Environment, Case Study In Malaysia. -- ***William Amelio Tolioe****[1], Chiara Cavalleri[1], Chee Kin Khong[1], Nora Yusuf[1], Elijah How Lip Heng[1], A Ghafar A Halim[2], Kamaruddin B. Salleh[2], Dzulfadly B. Johare[2]. 1 slb, 2 Petronas.*
14:00 – 14:30	Getting Through a Tight Regulations for Plug and Abandonment Using High Precision Well Integrity and Low-Frequency Leak Detection Technologies. -- ***Sheau Huey Loo****, Catalin Maric, Nur Diyana Yahya, Fatin Syazwani Abu Sukor. Weatherford.*
14:30 – 15:00	Coffee Break
15:00 – 15:30	Characterizing buried basement Metamorphic oil reservoir By element logs, image logs, core data and test data, an integrated case study from Chad. -- *Wenzhan Wang[1],* ***Huanling Bian****[2], 1 CNLC Ltd., 2 Baker Hughes.*
15:30 – 16:00	Chasing The New And Complex Additional Hydrocarbon Barrel In A Matured Field Through Unwavering and Expanding Reservoir Characterization Horizon. -- ***Siti Najmi Farhan Zulkipli****, M Akmal Mustaffa Kamal, Bineet Kumar Mund. Petronas.*
16:00 – 16:30	Petrophysical Challenges and Impact of Bitumen Quantification in Reservoir Rocks. -- ***Manu Singhal****, Shell Oman.*

Tuesday 8th October 2024

Time	Title and Author
16:30 – 17:00	CCS in Depleted Gas Reservoirs: Differentiating Between CO_2 and CH_4 Using Pulsed Neutron Logging. -- *Yonghwee Kim*, ***Eng Chuan Lim***. *Baker Hughes*.
	Deciphering the Enigma: Advanced Techniques for Characterizing and Addressing Water Cut Variability in the Heterogeneous Carbonate Reservoirs of the Gulf of Suez using 3D Far Field Sonic. -- *K**haled Saleh**[1], Mahmoud Galal[1], Mrinal Sinha[1], Amr Ismail[2], Emad Refaat[2]. 1 slb, 2 General Petroleum Company*.
	Advanced Logging Interpretation Methodology Helped to Improve the Formation Evaluation Across the Challenging Unconventional Environment in Asia: A Collaborative Study. -- ***Irina Baca Espinoza***. *Weatherford.*
	How the Wireline Advanced Logging Analysis Helped to Enhance the Reservoir Characterization Across the Central Sumatra Basin, Indonesia. -- ***Lika Olytia***. *Weatherford*.
	Application of machine learning in Downhole CO_2 measurement using Wireline Formation Tester. -- ***Nishant Kumar***, *Anis Turk. Halliburton*.
	A deep fully convolutional neural networks based micropore characterization method for shale reservoir. -- ***Shixiang Jiao[1,2]***, *Jun Zhao[1,2]. 1 Southwest Petroleum University, Chengdu 610500, China, 2 State Key Laboratory of Oil and Gas Reservoir Geology and Exploitation, Chengdu 610500, China.*
	Improving Natural Gas Hydrate Saturation Calculation Models through Digital Core Analysis Technology. -- ***Zongpeng Lin[1,2]***, *Jun Zhao[1,2]. 1 Southwest Petroleum University, Chengdu 610500, China, 2 State Key Laboratory of Oil and Gas Reservoir Geology and Exploitation, Chengdu 610500, China*
	Innovative Fluid Characterization Methodology for Ultradeep Tight Reservoirs in Different Formation Types: Tarim Basin Case Studies. -- ***Liang Cai***. *slb*

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Wednesday 9th October 2024

Time	Title and Author
08:30 - 09:00	Identification of different types of clastic reservoirs using rock-physics models. -- ***Sergey Vorobiev***[1], *Timur Zharnikov*[2], *Vladimir Vorobyev*[1], *Wisam Al Kawai*[3]. *1 ITOIL-SV, 2 Aramco Innovations, 3 Saudi Aramco.*
09:00 – 09:30	Improved Porosity Estimation in Gas Reservoirs of SOBM Well: A Novel Neutron-Density Method with a New Neutron Response Function. -- ***Hideo Komatsu***. *INPEX Corporation*.
09:30 – 10:00	A geoscience-based synthesis of the ternary petrophysical model. -- ***Grant Heavysege***. *Consultant*.
10:00 – 10:30	Coffee Break
10:30 – 11:00	An approach to integrate multiple data source into effective permeability modeling to achieve the dynamic model history matched in the fractured reservoir. -- ***Huijuan Yu***[1], *Wei Zhang*[2]. *1 Baker Hughes, 2 China Oilfield Services Ltd.*
11:00 – 11:30	Advanced Integration of Petrophysics and Well Deliverability Evaluation in Horizontal Wells – A Case Study on Unique Globigerina Limestone in DA Gas Field. -- ***Hendra Himawan***, *Barne Rusli, Sherly Suwardi, Anton Hilman Saputra. Husky - CNOOC Madura Limited (HCML).*
	An Applied Approach to Predicting Petrophysical Log Data with ML.Net Regressors. -- ***R. Banas***, *A. Pumsirirat. PetroRes Consulting.*
12:00 – 13:00	Lunch Break
13:00 – 13:30	Effect of Thermal Metamorphism on the Electrical Properties of Organic Rich Shales. -- ***Matthew Josh***[1], *Claudio Delle Piane*[1], *Julien Bourdet*[2], *Mohinudeen Faiz*[3], *David Dewhurst*[1]. *1 CSIRO Energy, Western Australia, 2 Rocks and Bubbles Pty Ltd, 3 CSIRO Energy, Queensland Australia.*
13:30 – 14:00	Enhancing Characterization of Tight Gas Reservoir by Integration of Advanced Petrophysical Measurements, A Case Study in Ordos Basin. -- *Wancai Nie*[1], ***Dai Guo Yu***[2]. *1 PetroChina Changqing, 2 slb.*
14:00 – 14:30	Characterization of Pore Fluid Presence Mechanisms and Flow Patterns in Low-Porosity and Low-Permeability Reservoirs. -- ***Chao Zheng***[1,2], *Jun Zhao*[1,2]. *1 State Key Laboratory of Oil and Gas Reservoir Geology and Exploitation, Southwest Petroleum University, Chengdu 610500, China, 2 School of Geoscience and Technology, Southwest Petroleum University, Chengdu 610500, China.*
14:30 – 15:00	Coffee Break
15:00 – 15:30	Energy Recovery from Geothermal Reservoirs in the Baram Basin, Sarawak: A Numerical Reservoir Simulation Approach with CO_2 Utilization. -- *M. Bataee*[1], *M. Soh*[2], ***Jazael Ballina***[3], *Z. Hamdi*[4], *R. Carter*[5], *and K. V. Rajandran*[1]. *1 Curtin University Malaysia, 2 Reservoir Minds, Australia, 3 Baker Hughes, Malaysia, 4 Aarhus University, Aarhus, Denmark, 5 Renewables Consulting Sarawak, Malaysia.*
15:30 – 16:00	Geophysical logging in groundwater exploration in Southern Thailand. -- ***Helmut Dürrast***, *Phongpiyah Klinmanee, Prince of Songkla University, Thailand.*
16:00 – 16:30	Importance of Logging in the Scientific Ocean Drilling's 60 years History. -- ***Moe Kyaw***. *Japan Agency for Marine-Earth Science & Technology, Japan.*
16:30 – 17:00	**Closing Remarks and Best Paper Presentation - Chairman**

Thursday 10th October 2024 – Morning Session

Machine Learning Workshop - Price per person: $75

Applied Machine Learning Workshop with Microsoft ML.Net

Machine Learning has become a hot topic in the petrophysics community with recent advances and libraries made available to end-users through easy-to-use platforms such as Python. It is often a challenge, however, to get data in and out of the machine learning platforms from petrophysics interpretation software.

This workshop will provide an applied workflow to using Microsoft's ML.Net library with Interactive Petrophysics and on a standalone basis. Topics will include: an introduction to machine learning algorithms and basic theory, data conditioning and preparation, comparison of new to older well known prediction algorithms, and how to utilize regression, classification, and time series implementations from ML.Net on petrophysics data.

Emphasis will be placed on creating applications in Visual Studio with CLR (C#) using Interactive Petrophysics' API for input/output. The attendees should get an understanding of how to use the newer ML algorithms, performance, and gain a tangible workflow and the necessary skills to create computer software to perform advanced curve prediction or classification on their own data sets.

Ryan Banas holds a BSc in Electrical/Computer engineering and an MSc in Geophysics. He has over 20 years of experience in oil and gas and software development. During his time, he has worked in roles as a field engineer, petrophysicist, reservoir engineer, and software engineer. He has worked on assets globally with a focus in the Permian Basin on developing software and workflows to improve the process of unconventional reservoir evaluation and modeling.

He is currently working as a consultant providing petrophysics, geomechanics, reservoir/hydraulic fracture modeling, training, and custom geoscience/engineering software solutions for operators.

.

Figure 4 - *Uncertainty results for one model, showing input logs with their ranges and computed results with their distributions*

2024

Petrophysics Uncertainty Workshop

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Thursday 10th October 2024 – Afternoon Session

Petrophysics Uncertainty Workshop - Price per person: $75

Quantifying Petrophysical Uncertainty. Why is it important and how should we do it?

Rick Aldred, Consultant Petrophysicist.

Asset value is generally based on 'proven' estimates of hydrocarbons in place, and it is uncertainty that separates the 'proven estimate' from the 'best technical estimate'. Therefore, quantifying petrophysical uncertainty is the key to demonstrating the value of data and the value that petrophysics brings to an asset.

There are various different methods commonly used for modelling petrophysical uncertainty and it is essential that they are applied correctly. To illustrate this a comparison of different methods is presented, highlighting the strengths and weaknesses of each and demonstrating how inappropriate techniques generally overestimate uncertainty and reduce asset value.

Uncertainty modelling also provides a method for understanding the value of information which helps in determining priorities, designing 'fit for purpose' logging and coring programs and justifying the costs of each aspect of data acquisition and interpretation.

The workshop will also discuss how petrophysical uncertainty is addressed in the Petroleum Resource Management System (PRMS) and consider opportunities for reviewing this reference, now that the SPWLA is involved.

Rick Aldred is a consultant petrophysicist based in Brisbane with 44 years' industry experience, 41 of those in Petrophysics. These include
15 years with operating oil companies,
10 years with logging companies providing consulting services,
10 years in petrophysical software development (including researching and writing the uncertainty modules in Geolog software) and
9 years as an independent consultant.
During this time he has worked in Western Europe, North Africa, The Middle East, The Indian Subcontinent, East and South-East Asia, North and South America, and Australia.

He is currently working as a consultant, specializing in building software solutions to solve complex petrophysical problems, training in advanced petrophysical applications and general petrophysical interpretation work.

Figure ... uncertainty results for one model, showing input logs with their ranges and computed results with their distributions

2024

10th October

Floraville Golf And Country Club

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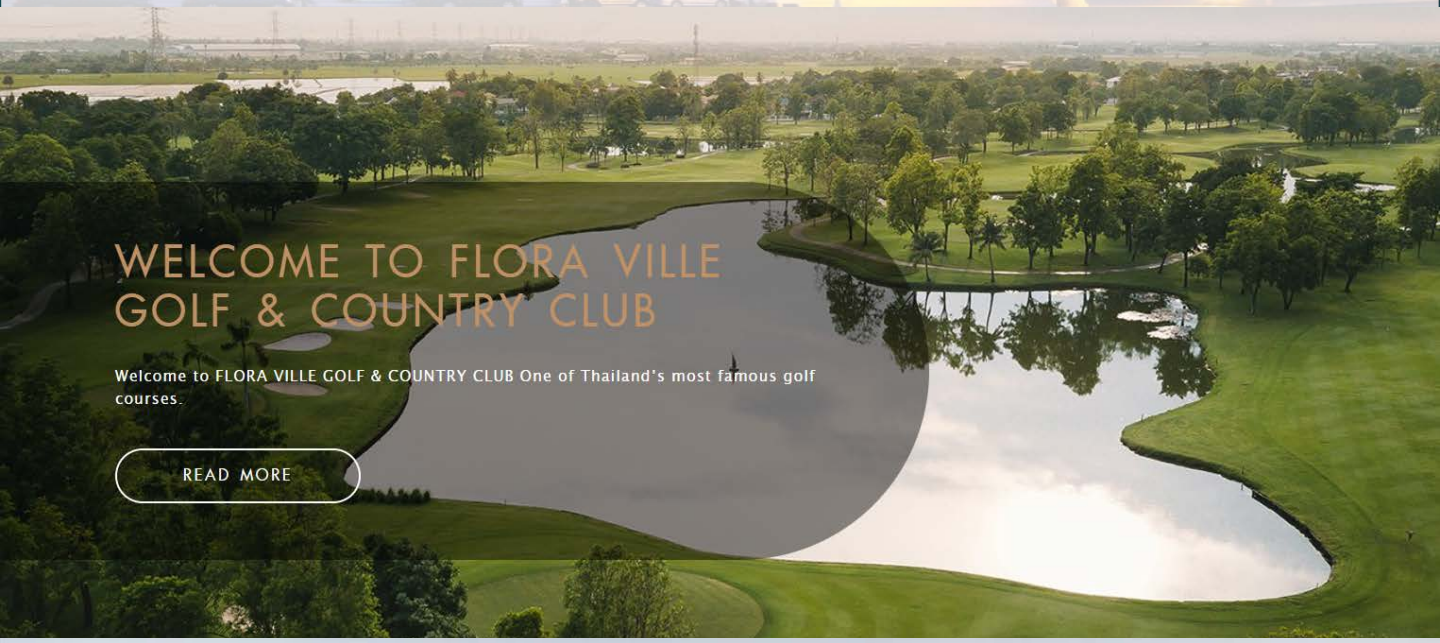

Golf day – 3000 THB – Click Here for Virtual Tour

Includes round trip to the course from the Centara Hotel, green fees, cart, caddie, drinking water, expert advice.

Complimentary golf umbrella and goodie bag, (towel, cap, arm sleeve).

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For more information, please email: ap2024@spwla.org

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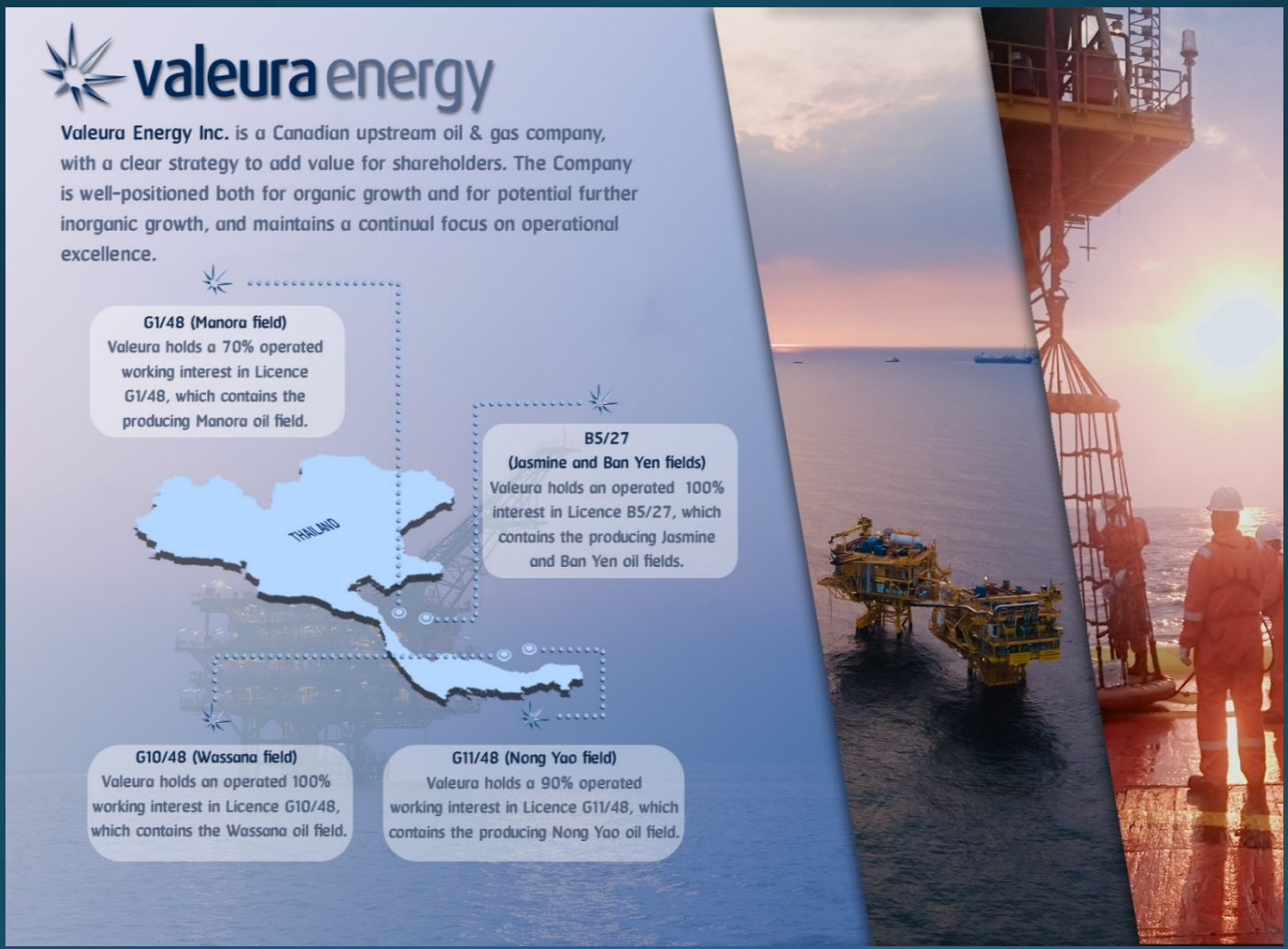

Technical Committee

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SPWLA Regional Conference 2024

SPWLA Asia-Pacific Regional Conference, 2024 - Technical Committee.			
Rick Aldred	Consultant	Brisbane	Australia
Irina Baca	Weatherford	Bangkok	Thailand
Ryan Banas	PetroRes	Bangkok	Thailand
Andrew Cox	Consultant	Bangkok	Thailand
Matthew Josh	CSIRO	Perth	Australia
Moe Kyaw	JAMSTEC	Yokohama	Japan
Ryan Lafferty	Consultant	Phuket	Thailand
Yuki Maehara	slb	Tokyo	Japan
Graham Melvin	Geoactive	Kuala Lumpur	Malaysia
Marvin Rourke	GoWell	Bangkok	Thailand
Yenny Shim	slb	Kuala Lumpur	Malaysia
Manu Singhal	Shell	Muscat	Oman
Willy Tan	Petronas	Kuala Lumpur	Malaysia
Tetsuya Yamamoto	Japex	Tokyo	Japan

The organizing committee would like to thank the SPWLA members across Thailand , Australia, Malaysia, Japan and Oman for their participation in the technical committee and invites all members from the SPWLA chapters in Asia to contribute to future Asia Pacific events.