

# IPRC Integrated Petrophysics for Reservoir Characterisation

Improved techniques in effective petrophysics input & integration to maximize oil recovery

Course Level : Intermediate

06<sup>th</sup> - 10<sup>th</sup> April 2026 at Kuala Lumpur, Malaysia | 13<sup>th</sup> - 17<sup>th</sup> April 2026 at Bangkok, Thailand  
03<sup>rd</sup> - 07<sup>th</sup> August 2026 at Yogyakarta, Indonesia | 23<sup>rd</sup> - 27<sup>th</sup> November 2026 at Kuala Lumpur, Malaysia



## Petrosync Distinguished Instructor Mark Deakin, PhD

A lot of  
Practical Things,  
Case Studies  
and Exercises !

- ▶ Petrophysics Course Instructor & Technical Consultant
- ▶ BSc (Honours) Geology, University of Reading, UK
- ▶ PhD "The Integrated Petrophysical Analysis of Brae Conglomerates", Imperial College, London.

- ▶ He is PhD in Integrated Petrophysics and 30 years global experience
- ▶ He has Over 60 detailed reservoir studies worldwide; primarily in Southeast Asia's low-contrast pay and carbonate & fractured reservoir
- ▶ Operations Petrophysicist for over 50 wells worldwide
- ▶ Reputable Advisor/Mentor on: Mud properties & Carbonate drilling; OBM coring; Selecting hi-tech logs; SCAL program design and log integration
- ▶ Robust geo-modelling via innovative integration of Reservoir Rock Types; Capillary pressure; NMR Sw height; 3D resistivity; ADTs; MDTs; Well tests with conventional & special logs

## PROGRAM SCHEDULE

08:00	Registration (Day1)
08:10 - 10:00	Session I
10:00 - 10:15	1 <sup>st</sup> Tea Break
10:15 - 12:00	Session II
12:00 - 13:00	Lunch Break
13:00 - 14:45	Session III
14:45 - 15:00	2 <sup>nd</sup> Tea Break
15:00 - 16:00	Session IV
16:00	End of Day

\*Schedule may vary for each training

Supported by



WorldOils OilVoice



## IPRC Integrated Petrophysics for Reservoir Characterisation

06<sup>th</sup> - 10<sup>th</sup> April 2026 at Kuala Lumpur, Malaysia | 13<sup>th</sup> - 17<sup>th</sup> November 2026 at Bangkok, Thailand  
03<sup>rd</sup> - 07<sup>th</sup> August 2026 at Yogyakarta, Indonesia | 23<sup>rd</sup> - 27<sup>th</sup> November 2026 at Kuala Lumpur, Malaysia

### Course Overview

This course will teach you how to evaluate reservoirs and quickly identify flawed results. Robust reserves and simulation are achieved by the logical, systematic integration of **all** relevant data. A quality interpretation is extremely cost-effective compared with development mistakes and essential with today's complex data sets. Proper core-log-test integration replaces the need to run expensive, irrelevant logs, explains data conflicts and provides the correct answer faster, strengthening your position as an operator and petrophysicist. By contrast, stand-alone log analysis results in wrong decisions and weakens your position as a competent petrophysicist.

This course, evolved over 25 years of technical petrophysical consulting and training, demonstrates how robust answers are achieved by the logical integration of core, special core, pressures, well-tests and other diverse data. Pay and reserves are addressed first by Quick Look Log Analysis and then by a disciplined, logical process to optimize the interpretation of lithology, porosity, saturation, permeability and fluid contacts – the basis of Reserves. Low Contrast Pay, clastics and carbonates are evaluated by straight forward integration techniques which outperform log analysis with direct, plain to see results.

The integration of mudlogs, LWD, wireline, facies/rock types, core, SCAL, NMR, dielectric, MDTs and well tests are explained via the author's 30,000 core plug PetroDB and Interactive Petrophysics (IP) software. Finally, the critical Petro-physics to Geomodel Essential Checks are clearly set out.

*This course is a condensed package of powerful integration techniques.*

### Course Objectives

- To understand the essential nature of petrophysics: its objectives, data and uncertainties
- To get the best possible answers from any given data set
- To review petrophysical studies effectively & quickly identify flawed results using a clear sequence of logical checks
- To identify and extract the key data channels from modern hi-tech logs which, when integrated with core, logs and well tests will answer the questions your team is asking (author specialty, see also IPSCAL)
- To identify and properly use what really matters in the increasingly complex barrage of modern petrophysical data
- To drill, core, log and test for clear formation evaluation results
- To avoid the 10 most common errors which ruin petrophysical results
- To use interactive software to reveal how your data can work together and impact results

### Who Should Attend?

Petrophysicists, geologists, operations geologists, geo-modellers, reservoir engineers, geophysicists, core analysts or anyone with a year's experience with logs or formation evaluation. **Bring your laptop with MS Excel.**

# IPRC Integrated Petrophysics for Reservoir Characterisation

06<sup>th</sup> - 10<sup>th</sup> April 2026 at Kuala Lumpur, Malaysia | 13<sup>th</sup> - 17<sup>th</sup> November 2026 at Bangkok, Thailand  
 03<sup>rd</sup> - 07<sup>th</sup> August 2026 at Yogyakarta, Indonesia | 23<sup>rd</sup> - 27<sup>th</sup> November 2026 at Kuala Lumpur, Malaysia

## Course Agenda

### Day 1

#### Introduction & Principles

- ▶ A Comprehensive Course Manual!
- ▶ Objective of Formation Evaluation
- ▶ Four log calibrations ensure correct HPV's
- ▶ Reservoir schematic
- ▶ The Concept of Data Hierarchy
- ▶ Calibration projects high value data into larger reservoir volumes using more continuous data
- ▶ MICROPRACTICAL Logs, Core, Salinity & Rw
- ▶ Major Petrophysical Difficulties
- ▶ Heterogeneous reservoirs require measurements at the required answer scale, or multiple finer scale measurements to describe them
- ▶ Improper core sampling for core-log calibration
- ▶ A Basic Problem for Petrophysics
- ▶ Deterministic vs. Probabilistic Petrophysics

#### Introduction & Principles

- ▶ Conventional Logs: Caliper; Gamma Ray, Spontaneous
- ▶ Potential, MicroResistivity, Multi-depth Resistivity,
- ▶ Compressional Sonic, Density, Neutron
- ▶ Conventional Logs: Porosity, Sw, Perm, Pay
- ▶ Quick Look: Invasion profiles indicate mobile fluids & permeability – oil base mud
- ▶ Quick Look: Why porosity logs are plotted backwards
- ▶ Quick Look: Mudlog, rate shows and apply chromatograph ratios
- ▶ Quick Look: Compute Vsh; Ø; Sw; k
- ▶ Quick Look: Aquifer, Transition Zone and Hydrocarbon Zone
- ▶ Quick Look: Default Equation Sequence

#### RECOMMENDED EVALUATION SEQUENCE: A-Z

##### Data Preparation

- ▶ Data Prep: Log Data Preparation
- ▶ Data Prep: Merge LWD and Wireline
- ▶ Data Prep: Log Normalisation
- ▶ Data Prep: Core Data Preparation & Vetting

##### Vshale And Lithology

- ▶ Vsh: Common Uses of Vclay, Vshale
- ▶ Vsh: Common Problems
- ▶ Vsh: Magnetic Resonance and other inputs
- ▶ Look Log Analysis Practical
- ▶ Vsh: Density-neutron
- ▶ Vsh: Some more equations. See Notes
- ▶ Vsh: Thomas-Stieber clay distribution. Assumes sand Ø is reduced by dispersed clay in pores, Tertiary clastics
- ▶ Lith: Litho scanner and spectral GR tools
- ▶ As a Reviewer of Petrophysics: Check Vshale

#### Porosity

- ▶ Ø: Objective of Log Derived Porosity
- ▶ Ø: Common Porosity Problems
- ▶ Ø: Pre-emptive action for Badhole
- ▶ Ø: Importance and Problems of Core Porosity
- ▶ Ø: Significance of grain density, rhog

### Day 2

#### Day 1 Recap, Questions, Debate

- ▶ Ø: RCA, typical laboratory process
- ▶ Ø: Recommended RCA procedure
- ▶ Ø: Gas expansion porosity Boyle's Law Porosimeter
- ▶ Ø: Core Overburden Porosities
- ▶ Ø: MICROPRACTICAL: Which quicklook porosity?
- ▶ Ø: The Ideal Model. Full core-log integration. Uses Øt & Øe linked via Qv, salinity (Juhasz 1988)
- ▶ Ø: What is Effective Porosity? Øe
- ▶ Ø: Porosity measurements compared
- ▶ Ø: Carbonates: Density-Sonic porosity can indicate vugs, Øv
- ▶ Ø: Log Integration. rhog variations cause error in Density Porosity
- ▶ Ø: Log Integration. Core-log plot determines apparent fluid density, rhoф
- ▶ Ø: Magnetic Resonance Porosities, Ømrt, Ømre
- ▶ Ø: Neutron Porosity, Øn
- ▶ Ø: Advantages of Ødn and recap
- ▶ Ø: Gas Zone Porosities
- ▶ Reviewers of Petrophysics: Check Ø

#### Rw, Formation Water Resistivity

- ▶ Rw: Formation Water Resistivity
- ▶ Rw: The Rw we Want and The Rw we Get
- ▶ Rw: Sources of Rw \*=@Swi
- ▶ Rw: Use WFT water samples to calibrate log Rws
- ▶ Rw: Archie Rws from clean 100% water zones
- ▶ MICROPRACTICAL Compute Rws, Rwr
- ▶ Rw: NaCl apparent (NaCla), a useful curve during exploration
- ▶ Rw: Identify & Flag "Sw100" zones for Rws, NaCla, ma, BQwa etc
- ▶ Rw: Rwp, Rwspp, Rwgad
- ▶ Reviewers of Petrophysical Results: Check Rw
- ▶ Day 2 1100h BEGIN Practical Ques2 Core-Log
- ▶ Workshop: Reconciliation

# IPRC Integrated Petrophysics for Reservoir Characterisation

06<sup>th</sup> - 10<sup>th</sup> April 2026 at Kuala Lumpur, Malaysia | 13<sup>th</sup> - 17<sup>th</sup> November 2026 at Bangkok, Thailand  
03<sup>rd</sup> - 07<sup>th</sup> August 2026 at Yogyakarta, Indonesia | 23<sup>rd</sup> - 27<sup>th</sup> November 2026 at Kuala Lumpur, Malaysia

## Course Agenda - Continue

### **Ro, Water Saturated Formation Resistivity & m**

- ▶ Ro: Water Saturated Resistivity, Objective and Problems
- ▶ Ro: Function of 'm'
- ▶ Ro:  $\emptyset^m = Ro/Rw$ . Core-log common format 'm' definition plot
- ▶ Ro: Pickett Plot: determines m, a\*Rw and Sw from logs
- ▶ Ro: How to pick SCAL plugs
- ▶ Ro: Sw100 Zone Log Analysis 'm'
- ▶ Ro: Determining m and m\* from Sw100zone log data
- ▶ Ro: Carbonates: Is Water Zone 'm' related to Øvugs?
- ▶ Ro: 'm' Log Integration
- ▶ Reviewers of Petrophysical Results: Check Ro
- ▶ Resume Practicals with Water Zone "m"

### **Sw Water Saturation**

- ▶ Ro: Water Saturated Resistivity, Objective and Problems
- ▶ Ro: Function of 'm'
- ▶ Ro:  $\emptyset^m = Ro/Rw$ . Core-log common format 'm' definition plot
- ▶ Ro: Pickett Plot: determines m, a\*Rw and Sw from logs
- ▶ Ro: How to pick SCAL plugs
- ▶ Ro: Sw100 Zone Log Analysis 'm'
- ▶ Ro: Determining m and m\* from Sw100zone log data
- ▶ Ro: Carbonates: Is Water Zone 'm' related to Øvugs?
- ▶ Ro: 'm' Log Integration
- ▶ Reviewers of Petrophysical Results: Check Ro
- ▶ Resume Practicals with Water Zone "m"

### **Day 3:**

#### **Day 2 Recap, Questions, Debate**

- ▶ n: Function of 'n'
- ▶ n:  $Sw^n = Rt/Ro$  Core-log common format 'n' definition plot

### **Wettability**

- ▶ Wettability: Wetting preferences dictate the distribution of oil and water within the pore network
- ▶ Wettability: The link between resistivity & w becomes problematic with mixed wettability  $n^* 3.4 \pm 1.8$ ; EHC+48%
- ▶ Wettability: Is your reservoir non-strongly water wet?
- ▶ MICROPRACTICAL Sw equations predict Ro first. - Then compare with Rt

### **Shaly Sand Evaluation**

- ▶ Shaly sands: Ro is suppressed in Shaly Sands for a given Ø
- ▶ Shaly sands: Rt is suppressed in Shaly Sands for a given Sw
- ▶ Shaly sands: Multiple Salinity Core Tests for Excess Conductivity, B\*Qv and Waxman Smits Fws
- ▶ Shaly sands: Waxman & Smits, Swt
- ▶ Shaly sands: Core Cation Exchange Capacity for Qv
- ▶ Shaly sands: NMR logs provide Qv estimate
- ▶ Shaly sands: Archie m = f(Ø, Vsh) for apparent Qv. no core (Qvm)

- ▶ Shaly sands: Equivalent Conductivity of Exchange Cations, B plot
- ▶ Shaly sands: Is 'm' a Function of Vshale? Sw100zone diagnostic plot
- ▶ Shaly sands: Are 'clean' sands really clean? Does it matter ?
- ▶ Popular Sw Equations
- ▶ Shaly sands: Selecting parameters for the Juhasz Qvn Eqn, 1 No core
- ▶ Shaly sands: Getting the right answer, cross calibration
- ▶ Day 3: 1100h BEGIN Practical: EVALUATION: Ø, Rw, 'm', 'n', Sw
- ▶ n: 'n' as a core-log matching parameter

### **Sw Oil Base Mud Core**

- ▶ Swobm: Oil and Water mud core Sw compared to reservoir true Sw
- ▶ Swobm: Dean Stark apparatus used in the determination of oil mud Swcore
- ▶ Swobm: How to get Sw OBM core

### **Sw Capillary Pressure**

- ▶ Swpc: What is Capillary Pressure?
- ▶ Swpc: WFTs Provide FWL, Mobile Fluid Type and Actual Reservoir Capillary Pressure
- ▶ Swpc: Porous plate apparatus used for air-brine capillary pressure data, Sw – Pc
- ▶ Swpc: Capillary Pressure Measurement techniques
- ▶ Capillary Pressure Saturations – 4 controls on Sh
- ▶ Have Anomalous plugs been identified?
- ▶ BEGIN PM Practical DAY 3 EVALUATION: Ø, Rw, 'm', 'n', Sw
- ▶ Swpc: Converting Laboratory Pc to Height
- ▶ Swpc: Use RCA to project cap.press data into the reservoir
- ▶ Swpc: Summary of J Function Sw from Pc data, Swj
- ▶ Swpc: The Reservoir Master Equation J predicts Sw (carbonate, poor fit)
- ▶ Swpc: Equation check: Plot Swj vs Sw measured
- ▶ Swpc: Capillary Pressure Sw and 'n'
- ▶ Swpc: n from logged Rt and Cap. Pressure Data

### **Day 4**

#### **Day 3 Recap, Questions, Debate**

- ▶ Sw NMR, Sw Dielectric & Sw Other
- ▶ Swnmr: Magnetic Resonance Swi
- ▶ Swik4: Sw from log evaluation matches Swik4 from core Ø & k
- ▶ Dielectric movie

# IPRC Integrated Petrophysics for Reservoir Characterisation

06<sup>th</sup> - 10<sup>th</sup> April 2026 at Kuala Lumpur, Malaysia | 13<sup>th</sup> - 17<sup>th</sup> November 2026 at Bangkok, Thailand  
03<sup>rd</sup> - 07<sup>th</sup> August 2026 at Yogyakarta, Indonesia | 23<sup>rd</sup> - 27<sup>th</sup> November 2026 at Kuala Lumpur, Malaysia

## Course Agenda - Continue

### Sw Wrap Up

- Swrt: Do we use the Log Integrated 'n' value for Swrt or not?
- Sw: Consider cutting rotary side-wall cores for Ø, k & Sw in OBM wells
- Sw: One Common Use Equation Set – Log and Geo-model HPVs, kabs, koil Core = Log = Geomodel (black)
- Swrt: Other Sw checks
- Sw: Base case: The Sw Decision Tree
- Sw: Alternative Methods for Sw Equation Parameters
- Sw: Base case – Logical Constraints (reviewers)
- Sw: Logical constraint: At a given porosity, Swrt increases with increasing clays: the shaly sand equation (W&S) is not over compensating
- Sw: Logical constraint
- Sw: Swrt agrees with Swpc
- Recap. Calibrate Swrt with
- Four log calibrations ensure correct HPV's.
- Moved Hydrocarbon Saturation, Shm
- Resistivity Ratio Sw, Swrr
- Reviewers of Petrophysical Results: Check Sw
- MICROPRACTICAL Core analysis indicates Swi
- What Rt = the maximum economic water cut?

### Mobile Fluid Zones

- Mobile Fluid Zones
- Contacts, Fluid Zones & Capillary Pressure
- FZ: Fluid zone determination can be complex
- FZ: Common Fluid Zone Problems
- FZ: WFTs Provide Mobile Fluid Type, FWL and Capillary Pressure
- FZ: WFT Problems
- FZ: Supercharging: WFT measured pressures may be above formation if permeability is low
- FZ: Excess Pressure plots clarify FWLs and show actual reservoir capillary pressure
- FZ: Saturn Probe <2mD formation
- FZ: Mis-identified gradients from pressure barriers
- FZ: Movie
- FZ: Think of kicks as unplanned well tests
- FZ: Find gas, qualitative
- FZ: Bulk Volume Water, BVW = Ø\*Swi (Buckles Number)
- FZ: Ø\*Swi > Buckles Number indicates Fluid Zone = Transition Zone, Residual or Water
- FZ: Use Multiple Hydrocarbon Indicators!
- FZ: In Transition Zones Pc is low and Sw>Swi. Water and oil both mobile
- FZ: Different Reservoir Qualities yield Different TZ thickness
- Reviewers of Petrophysical Results: Check Fluid Zones
- DAY 4: 1100h BEGIN Practical. WFT Data Acquisition

### k Permeability & Derivatives

- k: Permeability Objectives
- Compare your wells' h or EHC like this
- k: Problem: Flow from Static Properties
- k: Other Permeability Prediction Problems
- k: Why core data rules (permeameter)
- k: Klinkenberg Permeability correction (gas slippage)
- k: The Effect of Oven Drying and Critical Point Drying on Illite Morphology
- k: RCA kair > k\_in-situ
- k: Typical Relative Values for Various Measures of Permeability
- k: Well Test Permeability, kh
- k: The effective h may not be that at the well bore
- k: Reservoir Rock Typing (RRT) for klog: Facies, Image-log facies zonation
- k: Reservoir Rock Typing for klog
- k: Two Rocktypes: Same field, same well, same reservoir
- k: Rocktypes: J value vs. Sw trends help reveal separate rocktypes
- k: Rocktypes: Log linear J Function plot, two trends. Air/mercury data
- k: Rocktypes: Porosity-perm trend disturbed by diagenetic leaching
- k: Are Geo.Facies Useful for klog?
- K movie
- k: Permeability indicators, ranked
- k: Quick Look Permeability from cheap logs
- k: The ability of Sw to predict k exceeds Ø Same core plugs. (N.Sea cap.pres.data)
- k: kair from log derived Ø & Sw irreducible, Chart K4
- k: MICROPRACTICAL Hydrocarbon Pore Volume indicates permeability Chart K-4
- k: Advantages of HPV & Sw for klog

### Day 5

- k: Magnetic Resonance, kmr
- k: Timur Coates permeability equation
- k: Understanding Bound Fluid Volume BFV and logs
- k: Timur Coates adds what's missing in Ø-k transforms
- k: Does your RE need stressed kbrine or kair? Ask
- kw ko kg: Swrt & SCAL rel.perm predicts kw, kg, pay, kh
- kw ko kg: inputs used to match summed log data kh to summed DST kh
- kw ko kg: Effective kg vs. kw, P10 and P90 versions and Linear kg-kw
- Reviewers of Petrophysical Results: Check Permeability

# IOPC Integrated Petrophysics for Reservoir Characterisation

06<sup>th</sup> - 10<sup>th</sup> April 2026 at Kuala Lumpur, Malaysia | 13<sup>th</sup> - 17<sup>th</sup> November 2026 at Bangkok, Thailand  
 03<sup>rd</sup> - 07<sup>th</sup> August 2026 at Yogyakarta, Indonesia | 23<sup>rd</sup> - 27<sup>th</sup> November 2026 at Kuala Lumpur, Malaysia

## Course Agenda - Continue

### Net & Netpay

- ▶ Net: What is Netpay?
- ▶ Net: Accurately determining the Net cutoff can be crucial
- ▶ Net: Gross Ratio Problems
- ▶ Net: Rt imported from Twin-well (200ft away) shows Water-flood Above and Below 1mD
- ▶ Misleading Data: How not to acquire SCAL data.
- ▶ Net: MICROPRACTICAL
- ▶ Relative Perm data demonstrates the Netpay permeability cutoff
- ▶ Net: Logs = non-pay or marginal, core = pay: Tested 11mmscfd. This facies 35% Bulk Rock Vol.
- ▶ Net: NMR locates movable fluids and delineates netpay in laminated shaly sands (low contrast pay)
- ▶ Net: Log and Non-log Netpay, Netrock Indicators, ranked
- ▶ Net: Why Permeability as Cut-off criteria?
- ▶ Net: PASS FLUIDS measured by k – YES
- ▶ Net: Summary of Suggested Netpay / Netrock Method
- ▶ Reviewers of Petrophysical Results: Check Netpay

### Geo-Model Input

- ▶ Geo-Model Input
- ▶ Sensitivity Studies indicate what data to acquire and where to focus effort
- ▶ Geo-model: Input Uncertainties – strictly petrophysical
- ▶ Geo-model: Field Petrophysical Reference – The Results Table
- ▶ How much oil does each well have and how permeable?
- ▶ Geo-model: A Consistent Geo model
- ▶ Geo-model: Checksums
- ▶ Ensure EHC & kh are equal at all scales
- ▶ Reviewers of Petrophysical Results
- ▶ 10 Systematic errors which ruin your geo models

### Day 5 Recap, Questions, Debate

#### Resistivity Case History (PhD)

- ▶ Well A Formation Fluid Pressures from FITs and DSTs
- ▶ Why does this plot miss the point?
- ▶ Well A: Key Findings1
- ▶ Well A: Key Findings2

END



#### WHY YOU SHOULD ATTEND PETROSYNC'S EVENTS

- To ensure that all objectives of the course matches yours, all PetroSync programs are developed after intensive and extensive research within the industry
- PetroSync programs focus on your immediate working issues to ensure that you are able to apply and deliver immediate results in real work situations
- Application and implementation of industry knowledge and experience are the drivers for our course design, not theoretical academic lectures
- PetroSync training focuses on practical interactive learning tools and techniques including case studies, group discussions, scenarios, simulations, practical exercises and knowledge assessments during the course. Invest a small amount of your time to prepare before attending the course to ensure maximum learning
- PetroSync follows a rigorous selection process to ensure that all expert trainers have first-hand, up-to-date and practical knowledge and are leaders of their respective industrial discipline

## IPRC Integrated Petrophysics for Reservoir Characterisation

06<sup>th</sup> - 10<sup>th</sup> April 2026 at Kuala Lumpur, Malaysia | 13<sup>th</sup> - 17<sup>th</sup> November 2026 at Bangkok, Thailand  
 03<sup>rd</sup> - 07<sup>th</sup> August 2026 at Yogyakarta, Indonesia | 23<sup>rd</sup> - 27<sup>th</sup> November 2026 at Kuala Lumpur, Malaysia

### Instructor Profile



## Petrosync Distinguished Instructor Mark Deakin, PhD

- ▶ Petrophysics Course Instructor & Technical Consultant
- ▶ BSc (Honours) Geology, University of Reading, UK
- ▶ PhD "The Integrated Petrophysical Analysis of Brae Conglomerates", Imperial College, London

Mark Deakin is a consultant, author, course instructor in Petrophysical Data Integration & 5 years wellsite geologist. He holds a Ph.D. in 'Integrated Petrophysics' from London's Imperial College. He is an ex Amoco petrophysicist and has over 30 years global experience. He has performed over 60 detailed reservoir studies worldwide; primarily in Southeast Asia's low-contrast pay and carbonate & fractured reservoirs. Deakin's approach is to identify and rank reserves uncertainties then guide companies towards defensible reserves and optimal development via the application of new technology, targeted data acquisition and the systematic, logical integration of all related data.

After his PhD Deakin authored the first public Integrated Petrophysics course in 1989 which evolved into the industry's benchmark petrophysics training course. This was followed by courses in Carbonate & Fracture petrophysics and three day focused modules on Quick Look Integration Techniques; How to use Modern Logs with SCAL; Low Resistivity Low Contrast Pay; Laminates & Thin Beds; How to use PetroDB effectively and a Renewable Energy. Deakin's special interest has been using PetroDB (a generic, rock typed petrophysical database) and SCAL Digital Rock Physics with logs to identify Missed Pay and EOR. Since 2010 he has been drawn to the inevitability of Renewable Energy, writing the course Renewable Energy Primer in 2015. He is an active member of SPWLA and occasional lecturer at Curtin University. His consulting company PETROPHYSICS Pty Ltd has offices in Perth, Australia.

### Sample of Project List

- ▶ PETROPHYSICS TECHNICAL CONSULTANT, December 1989 – Present (Part List)
- ▶ Dallas & Perth Oct 2016 – Current: The detailed asset evaluation and marketing of an unconventional, fracture stimulation light, tight oil (LTO) reservoir for Private Equity client
- ▶ Alaska Jan - Apr 2016: Unconventional light tight oil (LTO) reservoirs. Setup operations for integrated formation evaluation embracing drilling, mud, LWD, mudlogging, wellsite geologists, core, wireline and testing programs
- ▶ South Sudan Dec 2015: Review and Recommendations for the improved petrophysical, reservoir engineering management and geo-model setup of a clastic oil development
- ▶ Dallas Jun 2015 - Aug 16: Unconventional, review and recommendations of fracture stimulation tight oil developments
- ▶ Vietnam Jan 2015: Idemitsu, Discovery well A-Z petrophysical integration of logs, NMR, core, SCAL, MDTs & well tests for standard petrophysical output plus oil, gas & water effective permeability.
- ▶ And over 60 detailed integrated reservoir studies completed.

### Partial Client List

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>▶ Aramco</li> <li>▶ BP</li> <li>▶ BHP</li> <li>▶ BritishGas</li> <li>▶ CarigaliTriton</li> <li>▶ Chevron</li> <li>▶ Conoco</li> <li>▶ Petronas</li> <li>▶ DiscoveryGeo</li> </ul> | <ul style="list-style-type: none"> <li>▶ Schlumberger</li> <li>▶ Staroil</li> <li>▶ Woodside</li> <li>▶ KNOC</li> <li>▶ NorskHydro</li> <li>▶ Perenco</li> <li>▶ Petroklas</li> <li>▶ PetroSA</li> <li>▶ Over 40 clients worldwide, large and small operating companies and partners.</li> </ul> |
|--|--|

## INVESTMENT PACKAGES

Please checklist the package that you are attending!

IPRC Integrated Petrophysics for Reservoir Characterisation TRAINING SCHEDULES	LOCATION	PRICE
<input type="checkbox"/> 06 <sup>th</sup> - 10 <sup>th</sup> April 2026	Kuala Lumpur, Malaysia	USD 5,050
<input type="checkbox"/> 13 <sup>th</sup> - 17 <sup>th</sup> April 2026	Bangkok, Thailand	USD 5,050
<input type="checkbox"/> 03 <sup>rd</sup> - 07 <sup>th</sup> August 2026	Yogyakarta, Indonesia	USD 5,050
<input type="checkbox"/> 23 <sup>rd</sup> - 27 <sup>th</sup> November 2026	Kuala Lumpur, Malaysia	USD 5,050

\* All prices are subject to change without notice and are not guaranteed, except that prices for an order that have been accepted by PetroSync is not subject to change after acceptance

\* Price is nett excluding Withholding Tax if any and will be quoted separately. Please send us the withholding tax payment receipt.

## DELEGATE DETAILS

1st Delegate Name \_\_\_\_\_ Mr  Mrs  Ms  Dr  Others

Direct Line Number: \_\_\_\_\_ Email: \_\_\_\_\_

Mobile Number: \_\_\_\_\_ Job Title: \_\_\_\_\_

Department: \_\_\_\_\_ Head of Department: \_\_\_\_\_

2nd Delegate Name \_\_\_\_\_ Mr  Mrs  Ms  Dr  Others

Direct Line Number: \_\_\_\_\_ Email: \_\_\_\_\_

Mobile Number: \_\_\_\_\_ Job Title: \_\_\_\_\_

Department: \_\_\_\_\_ Head of Department: \_\_\_\_\_

3rd Delegate Name \_\_\_\_\_ Mr  Mrs  Ms  Dr  Others

Direct Line Number: \_\_\_\_\_ Email: \_\_\_\_\_

Mobile Number: \_\_\_\_\_ Job Title: \_\_\_\_\_

Department: \_\_\_\_\_ Head of Department: \_\_\_\_\_

\*Please fill all the details including mobile number. This help us to contact participant if they are late in class or if there is any urgent update (through whatsapp/call)

## INVOICE DETAILS

Attention Invoice to: \_\_\_\_\_

Direct Line Number: \_\_\_\_\_ Fax: \_\_\_\_\_

Company: \_\_\_\_\_ Industry: \_\_\_\_\_

Address: \_\_\_\_\_ Postcode: \_\_\_\_\_

Country: \_\_\_\_\_ Email: \_\_\_\_\_

Please note:

- Indicate if you have already registered by Phone  Fax  Email  Web

- If you have not received an acknowledgement before the training, please call us to confirm your booking.

## PAYMENT METHODS

By Credit Card

By Direct Transfer : Please quote invoice number(s) on remittance advice

PetroSync Global Pte Ltd Bank details:

Account Name : PetroSync Global Pte Ltd

Bank Name : DBS Bank Ltd

Bank Code : 7171 • Bank Swift Code : DBSSSGSGXXX • Branch code : 288

Account No : 0288-002682-01-6-022 (USD)

Bank Address : 12 Marina Boulevard, Level 3. Marina Bay Financial Centre Tower 3. Singapore 018982

All bank charges to be borne by payer. Please ensure that PetroSync Global Pte Ltd receives the full invoiced amount.

## COURSE CONFIRMATION

I agree to PetroSync's payment terms and cancellation policy.

## PROGRAMME CONSULTANT

Contact : Cay Aagen

Email : registration@petrosync.com

Phone : +65 3159 0800

## TERMS AND CONDITIONS

### DISCLAIMER

Please note that trainers and topics were confirmed at the time of publishing; however, PetroSync may necessitate substitutions, alterations or cancellations of the trainers or topics or location (classroom / Virtual). As such, PetroSync reserves the right to change or cancel any part of its published programme due to unforeseen circumstances. Any substitutions or alterations will be updated on our web page as soon as possible.

### DATA PROTECTION

The information you provide will be safeguarded by PetroSync that may be used to keep you informed of relevant products and services. As an international group we may transfer your data on a global basis for the purpose indicated above. If you do not want us to share your information with other reputable companies, please tick this box

### CANCELLATION POLICY

Delegates who cancel after the training is officially confirmed run by email, are liable to pay the full course fee and no refunds will be granted. You may substitute delegates at any time as long as reasonable advance notice is given to PetroSync.

In the event that PetroSync cancels or postpones or change the trainer or change the training location (classroom / virtual) of an event for any reason and that the delegate is unable or unwilling to attend in on the rescheduled date, you will receive a credit voucher for 100% of the contract fee paid. You may use this credit voucher for another PetroSync to be mutually agreed with PetroSync, which must occur within a year from the date of postponement.

PetroSync is not responsible for any loss or damage as a result of the cancellation policy. PetroSync will assume no liability whatsoever in the event this event is cancelled, rescheduled or postponed due to any Act of God, fire, act of government or state, war, civil commotion, insurrection, embargo, industrial action, or any other reason beyond management control.

### CERTIFICATE OF ATTENDANCE

80% attendance is required for PetroSync's Certificate of Attendance.

## DETAILS

Please accept our apologies for mail or email that is incorrectly addressed.

Please email us at registration@petrosync.com and inform us of any incorrect details. We will amend them accordingly.

### Find us on Social Media:

 PetroSync Global Pte Ltd

 PetroSync

 PetroSync

## CHARGES & FEE(s)

- For Payment by Direct TelegraphicTransfer, client has to bear both local and oversea bank charges.

- For credit card payment, there is additional 4% credit card processing fee.

Signature : \_\_\_\_\_

Date : \_\_\_\_\_

PAYMENT TERMS : Payment is due in full at the time of registration. Full payment is mandatory for event attendance.