

GeoNeurale

announces

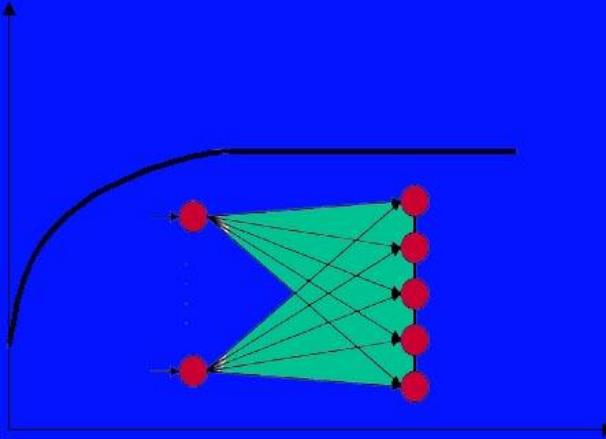
UNCONVENTIONAL PETROLEUM EXPLOITATION

Roberto Aguilera, Ph.D, P.Eng.



GATE – Garchinger Technologie und Gründerzentrum

18-20 February 2014
Munich



GeoNeurale

UNCONVENTIONAL PETROLEUM EXPLOITATION

MUNICH

at the

GATE – Garchinger Technologie und Gründerzentrum

18-20 Februray 2014

3 DAYS COURSE

INSTRUCTOR: **Instructor: Roberto Aguilera, Ph.D, P.Eng.**

LEVEL: Advanced / Specialized

AUDIENCE: Petrophysicists, Reservoir Engineers, Geologists, Geophysicists, Team Leaders, Managers.

COURSE FEES: 3750 Euro plus 19% VAT (Private companies outside Germany are also allowed to avoid VAT TAX)

ONLINE REGISTRATION: www.GeoNeurale.com

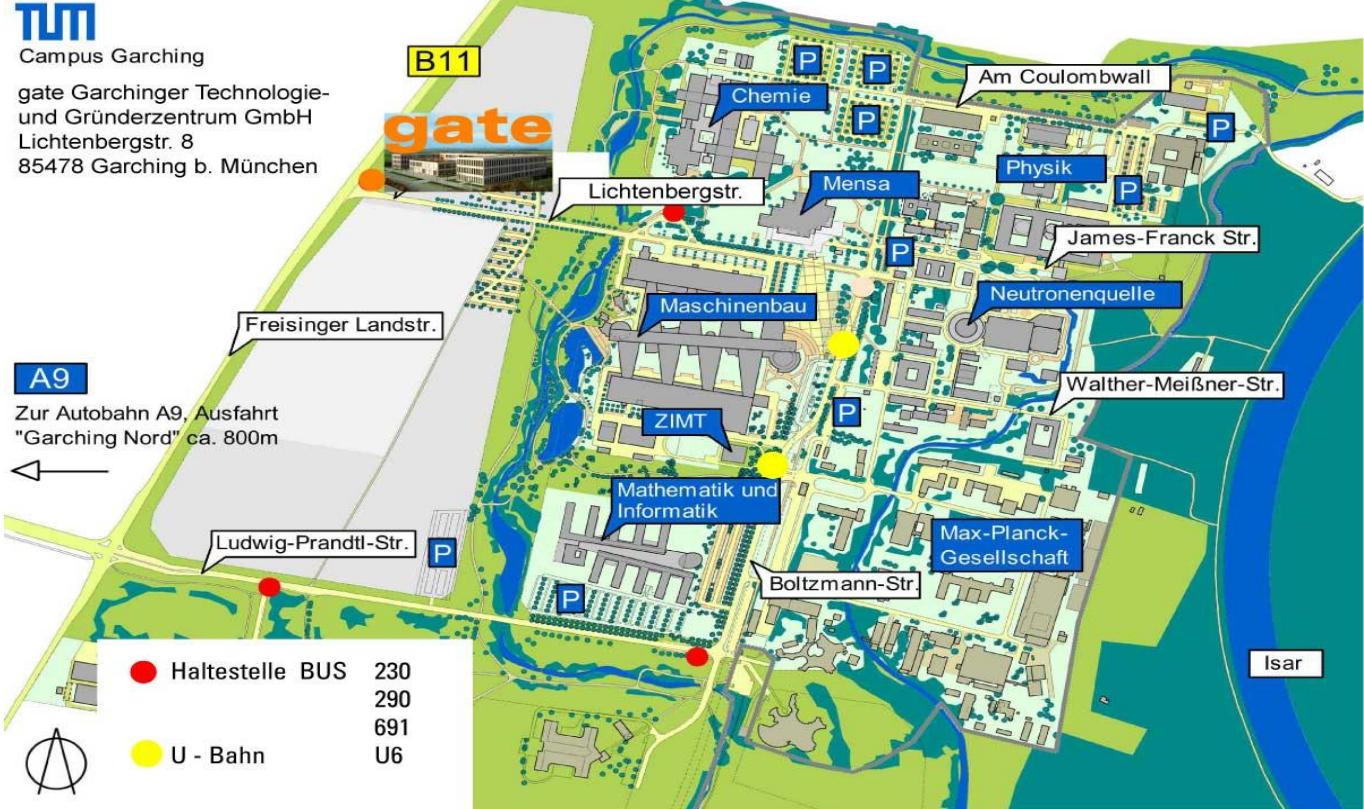
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Campus Garching

gate Garchinger Technologie-
und Gründerzentrum GmbH
Lichtenbergstr. 8
85478 Garching b. München

GeoNeurale Training Location



ADVANCED COURSE PREPARATION

Due to the advanced character of this course an online preparation program will start at least two weeks before the course to assist those delegates who would like to review the background theory necessary to face the course with solid concepts of Petrophysics, and Reservoir Engineering

COURSE OUTLINE

The word 'petroleum' as used in this course refers to natural gas and liquids found in a "Total Petroleum System". The course concentrates particularly on tight gas, shale gas, tight oil and shale oil reservoirs. The course presents practical non-conventional methods, which have been used by the instructor in real life with good results. The instructor is independent and does not champion methods or tool of any service company. Approximately 90% of the course concentrates on the relationship between geologic aspects, petrophysics, well testing, production decline analysis, material balance, and recovery estimates. The remaining 10% of the course summarizes coalbed methane, and drilling and completion aspects in unconventional reservoirs. The methods, many of them developed by the instructor, are presented in such a way that they can be reproduced easily in a spread sheet without the need of commercial software. Participants are requested to bring their lap tops to facilitate solution of some of the problems presented in class.

The course is designed for production geologists working on quantitative aspects of unconventional petroleum, petrophysicists, production engineers and reservoir engineers.

DETAILED PROGRAM

1. Introduction. Integration of tight gas, tight oil, shale gas and shale oil reservoirs under the umbrella of a 'Total Petroleum System'. Common thread between unconventional petroleum reservoirs and naturally fractured reservoirs. United States and Canadian experiences. Concepts for generating giant shale petroleum and tight petroleum reservoirs (sleeping giants). Conventional and unconventional global petroleum endowment.
2. Geologic aspects of shale petroleum and tight petroleum reservoirs. Determination of Flow Units in conventional and unconventional petroleum reservoirs. Comparison with naturally fractured and conventional reservoirs.
3. General aspects of drilling, completion and stimulation of shale petroleum and tight petroleum reservoirs. Comparison with naturally fractured and conventional reservoirs.
4. Formation evaluation (petrophysics) of shale petroleum and tight petroleum reservoirs. Mineralogy effects. Use of single, dual, triple, quadruple porosity and quintuple porosity models. Use of Pickett plots for evaluation of porosity, water saturation, total organic carbon (TOC), level of organic metamorphism (LOM), diffusion and viscous flow, permeability, process speed, capillary pressure, height above free water table, pore throat aperture, grain size, and range of initial flow rates. Comparison with naturally fractured and conventional reservoirs.
5. Use of drill cuttings for complete quantitative formation evaluation and estimation of geomechanical properties in the absence of well logs.
6. Formation evaluation (well testing) of tight petroleum and shale petroleum reservoirs. Use of single, dual, triple, quadruple and quintuple porosity models. Evaluations under radial and linear flow conditions without the need of specialized software (a few columns in a spread sheet provide the same results as complicated equations in Laplace space). Comparison with naturally fractured and conventional reservoirs.
7. Material balance for shale petroleum (oil and gas) and tight petroleum (oil and gas) reservoirs. Use of single, dual, triple, quadruple and quintuple porosity models. Viscous flow effect. Adsorption effect. Diffusion effect. Stress dependent reservoirs. Comparison with naturally fractured and conventional reservoirs.
8. Performance forecast and recovery from shale petroleum and tight petroleum reservoirs. Evaluations under radial and linear flow conditions without the need of specialized software. Comparison with naturally fractured and conventional reservoirs. Use of single, dual, triple, quadruple and quintuple porosity models.
9. General aspects of coal bed methane (CBM) reservoirs. Formation evaluation (petrophysics and well testing), performance forecast and recovery from CBM reservoirs. Differences and similarities with other unconventional gas reservoirs.
10. Economics and externalities.

Roberto Aguilera Biography

Dr. Roberto Aguilera is Professor and ConocoPhillips-NSERC-AERI Chair in Tight Gas Engineering at the University of Calgary, Guest Professor at the China University of Petroleum (Eastern China), Principal Investigator of the GFREE Tight Gas Research Team, a principal of SERVIPETROL LTD., a director of Junex (Quebec) and past Executive Editor of the SPE Journal of Canadian Petroleum Technology. He is a petroleum engineering graduate from the Universidad de America at Bogota, Colombia, and holds M.Eng. and Ph.D. degrees in petroleum engineering from the Colorado School of Mines.*

He worked for Texaco in Colombia and the U.S., H.K. van Poollen and Associates in the U.S., Intercol (Exxon) in Colombia, Cities Service in Argentina, Soquip in Quebec, and Servipetrol Ltd. in Canada. Dr. Aguilera has been involved in petroleum engineering studies in the Middle East, North Africa, North, Central and South America, the North Sea, Italy, Indonesia, Pakistan, New Zealand, Australia, Philippines, China, Japan, Vietnam, Albania, Jordan, Norway, Russia and Thailand.

Registration Details

- Course fees: 3750 Euro + 19% VAT (Private companies outside Germany are also allowed to avoid VAT TAX)
- **Registration deadline : 15 January 2014**

Payment and Registration

Tuition fees are due and payable in Euro upon enrollment in the course by bank transfer to the bank account given below unless another payment form is agreed.

Unless otherwise agreed, the payment should be received before the date specified in the invoice as payment term to make the enrollment effective.

To register to the course please fill in the [registration form](#) and fax or email it along with the confirmation of your bank transfer to:

GeoNeurale

Am Nymphenbad 8

81245 Munich

T +49 89 8969 1118

F +49 89 8969 1117

ONLINE REGISTRATION: www.GeoNeurale.com

Bank Information: Genossenschaftsbank EG Muenchen

Bank Account N. 519618

BIC – Code : GENODEF 1M07

BLZ 701 694 64

IBAN : DE19 7016 9464 0000 5196 18

www.GeoNeurale.com

Please indicate your name and the purpose: " Unconventionals ".

Provisions

Tuition fees are due and payable in Euro upon enrollment in the course. Unless otherwise indicated, fees do not include student travel costs and living expenses.

Payments are also accepted via personal or company check, traveler's check, credit card, and Company Purchase Orders.

Cancellations by Participant:

All cancellation are subject to a 100 Euro non-refundable cancellation fee.

Cancellation have to be notified to our office, at least 30 days prior to the course start date to receive a refund (less the 100 Euro cancellation fee).

If the participants are unable to cancel prior to the 32 days notification date, they may substitute another person at their place in a course by notifying us prior to the course start date.

Course Cancellations:

GeoNeurale reserves the right to cancel the courses if necessary. The decision to cancel a course is made at least two weeks prior to the course start date. If a course is cancelled, the participant will receive a full reimbursement of the tuition fees (but not of the plane ticket or hotel expenses or any other costs), or will be enrolled in another course upon his decision (the cost of the original course will be applied to the cost of the replacement course).

GeoNeurale can not be responsible for any penalties incurred for cancellation or change of airline or hotel reservations .

Refunds:

GeoNeurale will promptly remit all refunds of tuition fees due to cancellations or annulment (less any appropriate non-refundable cancellation fee) within 30 days of the course cancellation.

Force Majeure:

GeoNeurale can not be responsible for cancellations due to "force majeure" events : airplane or airport strikes, emergency situations, natural catastrophes and all situations and incidents independent or outside the human control that can delay or cancel the course. In case of such events related cancellations the course tuition fees will be refunded to the client .

Geoneurale is not responsible for any delay or absence caused by the training instructor or training instructor company for reasons which are independent or out of the control of GeoNeurale's decisions.

AGREEMENT: Upon enrollment all parts accept the above mentioned provisions. The above specified provisions shall regulate the agreement between GeoNeurale and the participant and the participant company and will enter into force upon enrollment.

REGISTRATION FORM

Please fill out this form and Fax to +49 89 8969 1117
or Email to Courses@GeoNeurale.com

UNCONVENTIONAL PETROLEUM EXPLOITATION

Munich, February 2014

Course Fee: 3750 Euro plus 19% VAT (Private companies outside Germany are also allowed to avoid VAT)
TAX

Name:

Company:

Address:

Job Title:

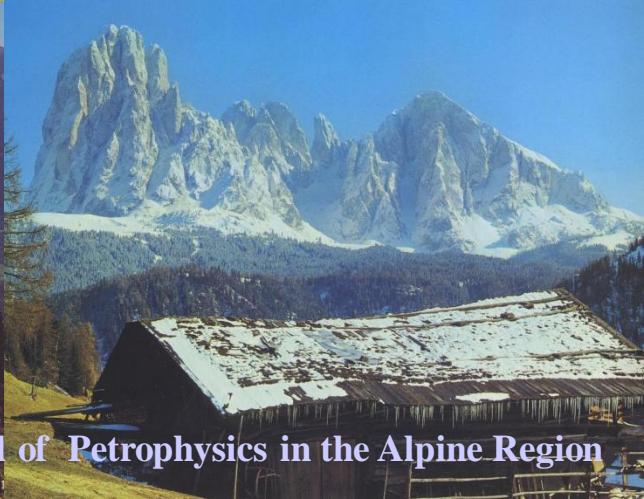
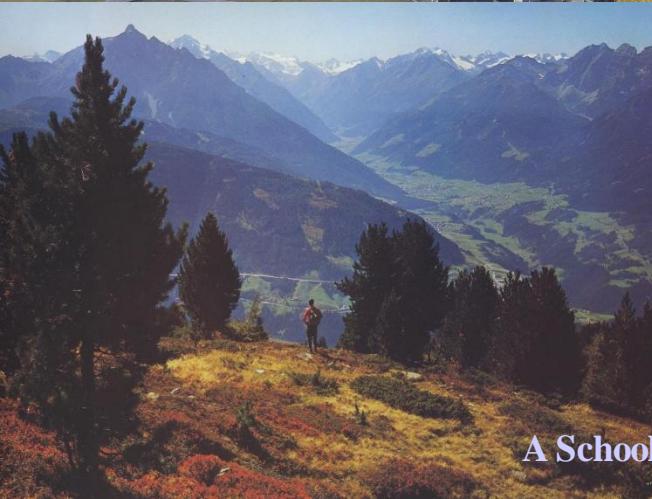
Phone:

Fax:

Email:

SIGNATURE: _____

www.GeoNeurale.com



A School of Petrophysics in the Alpine Region