

CRISTIAN VIRGIL ANCUȚA

PERSONAL DETAILS

DATE AND PLACE OF BIRTH: 25th June 1967
NATIONALITY: Romanian
Marital status: Married

ADDRESS: Str. Eruptiei, Nr. 3, Bl. E3, Sc. A, Apt. 1 ,Campina, cod 105600, Prahova, Romania.
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EDUCATIONAL BACKGROUND

- 2000 – 2005:** UNIVERSITY of PLOIESTI, ROMANIA (**part-time student**)
PhD Candidate in Reservoir Engineering - Oil and Gas Engineering Faculty.
Thesis: Research with regard to production optimization of overpressured reservoirs
- 1991 - 1998 :** UNIVERSITY of BUCHAREST, ROMANIA (**part-time student**)
B.S. degree in Mathematics.
Thesis: The Congruence - Law of Quadratic Reciprocity.
- 1986 - 1991 :** UNIVERSITY of PLOIESTI, ROMANIA
M.S. degree in Petroleum and Natural Gas Engineering
Thesis: Enhanced Oil Recovery Using the Combustion Processes: Case Study - Videle Oil Field, Romania.

PROFESSIONAL TRAINING

- 2004 ECLIPSE Training Course, held by *Schlumberger*.
- 2000 Information and training session in the domain of management and quality assurance of products and services according to the requirements of international standards in the series SR EN ISO 9000 and SR EN 45000, held by *FiaTest – Consulting and Management*
- 1999 Total Quality Management, Campina – Romania, held by *Canadian Executive Service Organization*.
- 1996 Field data acquisition using Metrolog Electronic Memory Gauges, Campina – Romania, Institute for Research and Technology, Campina, Romania
- 1996 Usage of SAFHIR software for Well test Interpretation, Campina – Romania, Institute for Research and Technology, Campina, Romania.
- 1994 Field data acquisition using LEUTERT -Electronic Memory Gauges, Adendorf, Germany, Leutert Co.
- 1994 Usage of KHS software for Well test Interpretation, Adendorf – Germany, Leutert Company.
- 1993 Well test interpretation, Campina – Romania, Institute for Research and Technology, Campina, Romania.

CAREER SUMMARY

- **1991 - present:** 14 years experience with the PETROM – Institute for Research and Technology;
 - **Present Position** - Head of Well Test Design and Interpretation Group - Reservoir Engineering Division;
 - **Previous Positions:**
 - **04/1999 – 03/2004:** Head of “Reservoir Physics” Lab, which includes: Well Test Design and Interpretation Group, Well Test Data and PVT Sampling Acquisition Group, P.V.T. Lab. and Core Lab.;
 - **1998 – 1999:** Head of Well Test Design and Interpretation Group and Well Test Data and P.V.T. Sampling Acquisition Group;
 - **05/1995 – 03/1996:** Well testing engineer (data acquisition) in Northern Africa (Libya);
 - **10/2001-03/2002:** 6 months experience in university environment - Associate Professor (part-time) at UNIVERSITY OF PLOIESTI, ROMANIA; Course - *Multiphase Fluid Flow through Pipelines*.

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- **Expertise: Reservoir Engineer** - Welltests design and interpretation (expert user of analytical and numerical test analysis software: Saphir - Kappa, WellTest - Fekete, PanSystem and PanMesh - EPS Ltd., Weltest 200 – Eclipse), onsite test supervision and interpretation – onshore and offshore, well performance, material balance analysis, advanced decline analysis and production optimization (wellbore optimization) using nodal analysis;
- **Training activities:** (course: Well test design and interpretation)

WORK EXPERIENCE

10/1991 - present: PETROM SA - Institute for Research and Technology, Campina.

Reservoir Engineer :

- training activities (courses: Well test design and interpretation, Field data acquisition using electronic downhole memory gauges (Leutert and Metrolog));
- wellsite supervision and interpretation of well tests – onshore and offshore;
- well tests design, analysis and interpretation for:
 - oil, gas, gas-condensate and water (mineral and thermal) wells;
 - different well, reservoir and boundary models;
 - gas-condensate reservoirs using compositional multiphase pseudopressure and pseudotime;
 - horizontal wells in homogeneous and naturally fractured reservoirs;
 - evaluation of horizontal well performance;
 - fractured wells with uniform flux, infinite or finite conductivity;
 - wells in layered reservoir using PLT data (production logging);
 - DST and interference test;
 - injection and falloff tests; reservoir limit tests (extended drawdown);
 - flow after flow, isochronal and isochronal modified tests;
 - oil, gas and gas/condensate well deliverability for different operation conditions;
 - well stimulation evaluation;
 - selecting tubing size; prediction of operating point (natural flow) of the wells;
 - evaluation of the resources using material balance analysis;
 - advanced decline analysis.

FIELD ENGINEER

- Well tests design and schedules for pressure, temperature, flow rate data and P.V.T. samples acquisition;
- Wellsite design, supervision and interpretation of well tests;
- Field Well Testing Engineer - field data acquisition and performed well test interpretation in Northern Africa (Lybia 1995-1996).
- Performed Measurements Pressure and Temperature Measurements using Electronic Downhole Memory Gauges and Downhole Mechanical Pressure Recorders.
- Performed Calibration of Electronic Memory Gauges (type LEUTERT and METROLOG).

10/2001 – 03/2002: University of Ploiesti, Romania.

Associate Professor (part-time) – 42 students;

- Course – *Multiphase Fluid Flow through Pipelines;*

05/1995 - 10/1995, 12/95 – 03/1996: PETROM SA - Institute for Research and Technology

Field Well Testing Engineer - field data acquisition of well tests in Northern Africa (Libya).

COMPUTER SKILLS

Operating Systems: MS-DOS, WINDOWS

Applications: MS Office (Word, Excel, PowerPoint).

Welltest Interpretation Software:

- SAPHIR by Kappa Engineering; WellTest by Fekete; PanSystem & PanMesh (Advanced 3D Reservoir Simulation for PanSystem) by Edinburgh Petroleum Services Ltd., WelTest 200 – Eclipse by Schlumberger;

Wellbore Optimization Software:

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- VirtuWell by Fekete;
- PVT Analysis Software:
- PVTi – Eclipse by Schlumberger;
- Reservoir Simulation Software:
- WINBOAST, ECLIPSE – beginner.
- Advanced Decline Analysis: RTA by Fekete.

AWARDS:

- **May 2003** - “**Ion Adamache**” Prize (SPE Romanian Annual Prize) for the paper “*Original Method for Determination the Stabilized Values of C&n from Rawlins & Schellhardt Equation Using Transient Gas-Well-Test Data – Variable Transient Flow Rate Case*”.
- **May 1998** – 2nd place at the National Contest of Special Mathematics – University of Bucharest.

TECHNICAL REPORTS / PAPERS:

Autor

- Over 500 studies of well test analysis - for SNP PETROM SA, RomPetrol Co, RomGaz Co, Mineral and Thermal Water Co (Romania), Ammoco, Hemco Romania Ltd. (USA), Petrom International (Kazakhstan), etc.
- *Methodology and software for resources evaluation using static and dynamic material balance equations*, Research Report, 2004.
- *Modern Methodology of Well Test Design and Analysis*, Research Report, 2003.
- *Wells Dewaxing Using Electrical Heaters in Oil Field Bradesti - Design*, Research Report, 2001.
- *Possibilities of Oil Fluidization and Well Dewaxing Using an Electrical Heating Cable*, Research Report, 2000.

Co-author

- Over 50 reservoir engineering studies – SNP Petrom and Petrom International.
- Over 300 studies of well test analysis.
- *Prediction of Gas-Condensate Reservoir Performances*, Research Report, 1999.
- *A Method for Gas-Condensate Well Test Analysis*, Research Report, 1998.
- *A Method for CO₂ Well Test Analysis*, Research Report, 1997.
- *Methodology for Data Acquisition from Well Testing*, Technical Report, 1996.

PUBLICATIONS & CONFERENCES PARTICIPATION

Autor

- 1) *Determination of the Gas Reservoir Pore Volume and Static Pressure Using Dynamic Material Balance Equations*, oral presentation at Annual SNP PETROM - ICPT Campina Symposium, 2004.
- 2) *Aspects on Pseudo-Steady State Flow of Hydrocarbons Located in Porous Deformable Media*, Romanian Oil Journal, Vol. 10, No. 4, 2003.
- 3) *Aspects on Pseudo-Steady State Flow of Hydrocarbons Located in Porous Deformable Media*, Romanian Oil Journal, Vol. 10, No. 4, 2003.
- 4) *Aspects on Transient Flow of Hydrocarbons Located in Porous Deformable Media*, Romanian Oil Journal, Vol. 10, No. 3, pp. 79-89, Paper Published in English, 2003.
- 5) *Determination of the Optimum Number of Development Wells to Achieve Maximum Economical Return Using a Two Variable Objective Function*, Romanian Oil Journal, Vol. 10, No. 2, pp. 24-40, 2003.
- 6) *Determination of the Oil Reservoir Pore Volume and Static Pressure Using Dynamic Material Balance Equations*, Romanian Oil Journal, Vol. 10, No. 1, pp. 24-41, 2003.
- 7) *On the Differential Equation of Compressible Fluids Flow through Reservoir with Pressure Dependent Rock and Fluid Properties*, oral presentation at the University of Ploiesti Symposium, University of Ploiesti Bulletin, Vol. LIV – No. 5, pp. 149-155, 2002.
- 8) *Original Method for Determination the Stabilized Values of C & n from Rawlins & Schellhardt Equation Using Transient Gas-Well-Test Data – Variable Transient Flow Rate Case*, Romanian Oil Journal, Vol. 9, No. 3, pp. 30-44, paper published in English, 2002.

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- 9) *A New Method for Determination the Stabilized Values of C&n from Rawlins & Schellhardt Equation Using Transient Gas-Well-Test Data – Constant Transient Flow Rate Case*, Romanian Oil Journal, Vol. 8, No. 3 , pp. 33-47, 2001.
- 10) *Oil fluidization using an electrical heating cable - Mathematical Model*, oral presentation at Annual SNP PETROM - ICPT Campina Symposium, 2001.
- 11) *The Reservoir Physics Laboratory from ICPT Campina. Evolution and Current Concerns*, oral presentation at at the 50th Anniversary of the Institute for Research and Technology Campina Symposium, Romanian Oil Journal, Vol. 7, No. 4, pp. 22-29, 2000.
- 12) *Interpretation of Derivative Curves from Well Testing*, oral presentation at the Annual SNP PETROM - ICPT Campina Symposium, Romanian Oil Journal, Vol. 6, No.4, pp. 46-55, 1999.

Co-author

- 13) *Determination of Water/Gas Coning and Channeling Using Derivative Curves of WOR/GOR*, oral presentation at the Annual SNP PETROM - ICPT Campina Symposium, 2003.
- 14) *Predicting Temperature Profiles in Two-Phase Flowing Wells*, Romanian Oil Journal, Vol. 8, No. 4, pp. 20-29, 2001.
- 15) *Use of Neural Networks in Petroleum Engineering*, oral presentation at Annual SNP PETROM - ICPT Campina Symposium and Romanian SPE Program, 1999.
- 16) *A Method for Gas-Condensate Well Test Analysis*, oral presentation at the 50th Anniversary of the Petroleum Engineering Faculty Symposium, University of Ploiesti, UP Bulletin, Vol. XLVII-L, pp. 5-18, 1998.
- 17) *Characterisation of upper cretaceous reservoir from a hydrodynamic test on the LO1 Lebada Est horizontal well*, Romanian Oil Journal, Vol. 4 , No. 6 , pp. 413-422, 1997.

PROFESSIONAL AFFILIATIONS: Member of SPE-ROM (Romanian SPE Section), SSMR.

LANGUAGES: English (written, spoken, read), Native Romanian.

ADDITIONAL SKILLS

Hobby: swimming, fishing, mathematics. I have a clean drive licence.