# **CURRICULM VITAE**

# ANDRZEJ (ANDREW) K. WOJTANOWICZ

Occupation	Texaco Endowed Environmental Chair
Employer	Petroleum Engineering Department
	Louisiana State University
	Baton Rouge, LA 70803
Contact	(225) 578-6049; awojtan@lsu.edu
Date of birth	March 31, 1943 Krakow, Poland
Nationality	Polish (Permanent US resident)
Marital status	Married - Leokadia (Loda) Glodek
	Children - Monika (1980), Anna and Robert (1985)
Residence	449 Daventry Drive
	Baton Rouge, LA 70808
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#### **EDUCATION**

AGH University of Science and Technology - Krakow, Poland

- D. Sc. Petroleum Engineering, 1996
- Ph.D. Petroleum Engineering, 1973
- M. Sc. Mining Specialization in Petroleum Engineering, 1967
- B.S. Mining Specialization in Petroleum Engineering, 1965
- B.S. Geology Specialization in Geophysics, 1968

## PROFESSIONAL QUALIFICATIONS

- Registered Professional Engineer in Petroleum Engineering in the State of Louisiana (since 1994);
- Registered Professional Engineer in Petroleum Engineering in the State of Oklahoma (1992-93);
- Registered Professional Engineer in Environmental Engineering in the State of Louisiana (since 1994);
- Drilling Engineer UN Roster of Experts United Nations Technical Assistance Service (since 1982)

#### PROFESSIONAL EXPERIENCE

# Texaco Endowed Environmental Chair and Professor

Louisiana State University, Department of Petroleum Engineering, Baton Rouge, LA 70803 (January 1998-present)

#### Visiting Distinguished Professor

The University of Chogqing (CQU), College of Resources and Environmental Science, Chongqing, China

(September 2018-December 2018)

Sabbatical leave of absence from LSU; Developed new graduate-level Course, "Unconventional Gas Development;" Initiated collaborative research program *Environmentally-safe* 

Extraction of
Mineral Resources, Coshale gas permeability.

Shale Gas between LSU, CQU, and Chongqing Institute of Geology and directed experimental research project on triaxial stress-dependent

## Visiting Distinguished Professor of Petroleum Engineering

The Petroleum Institute, Department of Petroleum Engineering, Abu Dhabi, UAE.

(July 2008-January 2009)

Sabbatical leave of absence from LSU; Developed new Senior Design Course, "Design of Reservoir Management Strategy with Bottom Water Coning Problem;" Submitted two proposals to the local oil industry; Well Integrity Consortium -not funded,

and Smart Water Sink Well Completions - funded.

#### Professor

research

Louisiana State University, Department of Petroleum Engineering , Baton Rouge, LA 70803 (August 1995-January 1998)

Developed graduate-level course, PETE 7201, "Mathematical Modeling of Reservoir Flow Systems." Provided technical support to DOE Petroleum Technology Transfer Council program.

#### Associate Professor

Louisiana State University, Department of Petroleum Engineering, Baton Rouge, LA 70803 (August 1992-August 1995)

Developed a new senior-level course, PETE 4087, "Environmental Control in Petroleum Engineering." Devised and researched a new technology for subsurface control of oilfield waters.

#### Conoco Environmental Fellow

Conoco Inc., Production Research and Development, 1000 S. Pine, Ponca City, OK 74603 (September 1991 - August 1992)

Developed technology and analytical testing procedures for dewatering water-base drilling fluids. Created a computer-aided method to design drilling fluid management process and economics.

#### Visiting Scholar

Heriot Watt University, Edinburgh, Scotland, June – August, 1988

Developed a methodology for experimental analysis of rock permeability damage by drilling fluids.

# Associate Professor (1989 - 91), and Assistant Professor (1984 - 89)

Louisiana State University, Department of Petroleum Engineering, Baton Rouge, LA 70803

Taught the undergraduate courses: PETE 4045 Drilling Engineering, PETE 4086 Advance Drilling Engineering, PETE 4059 Drilling Fluids; and the graduate courses: PETE 7202 Well Testing and PETE 7241 Environmental Control in Petroleum Engineering,

Contributed two new programs to the department's research agenda: "Environmental control technology for petroleum engineering" and "Borehole mechanics"

# Visiting Assistant Professor

New Mexico Institute of Mining and Technology, Petroleum Engineering Department Socorro, NM 87801

(January 1, 1983 - June 14, 1984)

Taught the undergraduate courses: PET 461 Computer Applications in Petroleum Engineering Analysis and Design, PET 444 Reservoir Engineering; and the graduate course: PET 564 Transient Well Test Analysis. Conducted research in numerical simulation of drilling operations and drilling optimization.

# Drilling Fluids Technologist

NL Baroid Petroleum Services, Inc., Eastern Hemisphere Operations Division, London, England (October 1980 - December 1982)

Provided technical service for offshore and land drilling locations in Europe and Africa such as: preparation of drilling mud and hydraulic programs, on-site trouble shooting of technical problems regarding drilling fluids, solids control equipment, and pressure control procedures, and on-site routine service in drilling mud engineering.

# Drilling Engineering Supervisor

General Water Authorities, Tripoli, Libya

(June 1978 - September 1980)

Worked with the team of experts from the United Nation's Food and Agriculture Organization, FAO. Supervised field operations of well drilling and completion countrywide in Libya (70% of the work time). Designed deep water wells (30% of the work time).

#### Assistant Professor

Technical University of Mining and Metallurgy, Department of Petroleum Engineering, Krakow, Poland

(October 1973 - June 1978)

Taught undergraduate courses in the oilwell drilling and completion engineering; and graduate courses in oilwell design, drilling optimization, and completion design. Was annually responsible for the two-month field training for undergraduate students; Assisted

Polish oil companies in several field projects on drilling, completion and evaluation of petroleum reservoirs. Performed research projects on well planning methodology, modelling of drilling mechanics, and optimization of drilling process.

#### Instructor

Technical University of Mining and Metallurgy, Petroleum Engineering Department, Krakow, Poland (April 1967 - October 1973)

Taught the undergraduate courses: Mud Engineering, Rock Mechanics, Drilling and Completion, and Reservoir Engineering. Supervised the field training sessions for undergraduate students. Conducted research on drill string mechanics and rock bit mechanics.

# Drilling Engineer-Trainee

Geological Exploration Company, Warsaw, Poland

(September 1971 - March 1972)

Received an on-the-job training in supervision of oilfield drilling and completion operations, well planning and design, equipment selection, and evaluation.

#### Coal Miner-Trainee

Coal Mine "Katowice," Katowice, Poland

(September 1961 - February 1962)

Worked as a worker in the underground coal mine.

#### SCHOLARLY ACTIVITY

- Invited lecturer of webinar, Environmental Control Technology in Petroleum Engineering," for the SPE student chapter of Universidad del Noreste (UNE) in Mexico, October 2021
- Invited lecturer of Schlumberger webinar "Development of Wellhead Intervention Techniques for Combating Gas Flow Behind Casing," August 30, 2019;
- Invited lecturer of seminar," Technology for Wellhead Control of Annular Well Integrity," at the DrillWell IRIS meeting in Stavanger, Norway, September 14, 2019
- Invited lecturer of graduate seminar, "Loss of Annular Well Integrity Mechanism, Diagnosis and Remediation," Petroleum Engineering Department of Colorado School of Mines, March 15, 2019
- Invited lecturer of graduate seminar, "Testing and Remediation of Sustained Casing Pressure," at Institute of Petroleum Technology, Faculty of Science & Technology University of Stavanger, Norway Sept. 24, 2019
- Member of Scientific Advisory Committee of DrillWell Drilling and Well Centre for Improved Recovery) in Stavanger, Norway (2015 2019)
- Guest Editor of Special Issue of J. Energy Resources Technology, *Recent Studies of Petroleum Wells and Reservoirs*, comprising best papers from OMAE 2012 and OMAE 2013 conferences December 2014, Vol.136, No.4
- External examiner for the School for Graduate Studies & Research of The University of the West Indies MS Thesis: "A Quantitative Numerical Simulation Study of the Effect of Reduced THP and the Use of Novel Technology to Optimize Production." by Mark Rattinsingh, March 2013.
- Expert Tele-interview by the Chevron's Heavy Hydrocarbon Soil Remediation Group (HHSRG) on technology for heavy oil production August 16, 2013
- Invited Speaker of a seminar, "Gas Migration at Wells," The AGH University of Science and Technology in Krakow, Poland, May 27, 2013.
- Invited Lecturer of three 20-hour courses for undergraduate, Master, and PhD students "Drilling Mechanics," "Drilling Hydraulics," and "Well Design," The AGH University of Science and Technology in Krakow, Poland, May, 2013.
- External examiner of MS Thesis, "Development of a Software Tool to Simulate the Use of Ejectors in Gas Production Boosting," submitted by Kofi Condrington to the School for Graduate Studies & Research of The University of the West Indies, June 2012
- Editor-in Chief of Journal of Energy Resources Technology Transaction of ASME (Jan. 1, 2001- Dec. 31, 2011) Invited lecturer of four lectures given at Xian Shiyou (Petroleum) University in Xi-an, China, November 21-25, 2011.
- External Examiner of MS Thesis, "Increasing the Fracture Strength of Permeable Formation via Mini-fracture Manipulation," submitted by Varune Maharaj to the School for Graduate Studies & Research of The University of the West Indies, August, 2011.
- Member of International Editorial Advisory Committee of the West Indian Journal of Engineering (ISSN 0511-5728), May 2011 April, 2014.
- Invited lecturer of a 7-day short course at Al-Farabi Kazakh National University, (KAZNU) in Almaty, Kazakhstan, June 1 9, 2010.
- Invited Speaker, "Use of DWS Technology in Tambaredjo Oilfield A Feasibility Study," Staatsolie, Saramaca, Suriname, November 7-10, 2010
- Reviewer for the Research Council of Norway of two proposals, "Well sealed well," and, "Diagnosing and handling magnetic contamination in drilling fluids to improve drilling efficiency,"—November 2010
- External Examiner for the University of The West Indies, School for Graduate Studies and Research of MS Thesis, "Evaluating the Performance of Horizontal Open-hole Gravel Packs in Gas Wells in Trinidad using Downhole Gauge Data," December, 2009.
- Member of Panel of Experts of Polish National Research and Development Center appointment effective July 15, 2009
- Reviewer for the Research Council of Norway of two proposals, "Diagnosing and handling magnetic contamination in drilling fluids to improve drilling efficiency," and, "Reduction of non-productive time by in-depth analysis of wellbore restrictions based on real-time drilling data,"—December 2009
- Invited Speaker, "Downhole Water Sink Technology and Applications for the National Oil Company of Suriname, Staatsolie, Paramaribo, Suriname, August 21-22, 2009
- Reviewer for the Research Council of Norway of proposal, "Filter Cake Behavior-Towards Designed Filter Cakes," November 2008

- Invited speaker at the U.S. Oil & Gas Technology Summit 2008, Stimulation of Bottom Water-Invaded Wells with Dual Completions, Natchez, MS April 7-8, 2008
- Global Selection Panelist for the King Abdullah University of Science and Technology (KAUST), Washington DC, Feb 20-21, 2008
- External Examiner for the University of The West Indies, School for Graduate Studies and Research of the final exam of PENG 6010 Enhanced Oil Recovery, April-May, 2008.
- Invited lecturer to Petroleum Institute (PI), and Abu Dhabi for Onshore Oil Operations (ADCO), Abu Dhabi, January 18-26, 2007;
- Reviewer for Well CAP accreditation program of IADC (2007);
- External Examiner of MS Thesis, "Analysis of Solid Expandable Tubulars in the Well Construction Process," for the University of The West Indies, School for Graduate Studies and Research November, 2007.
- Reviewer for the Research Council of Norway of proposal, "Well Integrity-Annular Pressure Buildup Mechanism," November 2007
- Invited lecturer of a short course, "Causes and Results of Excessive Water Production at Wells," at ENAEP 2007 Third Energy and Oil Meeting of Ecuador, Quito, Ecuador, August 23 24, 2007;
- Invited lecturer of a 5-day short course at the Kazakhstan National University, Almaty, Kazakhstan, Dec. 9 20, 2007
- Reviewer of research proposals for the Norwegian Research Council (2007 present)
- Panelist and Invited Speaker at the SPE ATW, "Water and Gas Shut-off in the Gulf States," Muscat, Oman, January 21-24, 2007
- External Examiner of MS Thesis, "New Perforating and Gravel Packing Technique for Optimized Well Completions in Trinidad," for the University of The West Indies, School for Graduate Studies and Research May, 2007.
- Invited lecturer of a Graduate Seminar, *Dual Completions for Well Conformance Contro*, The University of Tulsa, Department of Petroleum Engineering, April 20, 2007.
- Invited lecturer of a Graduate Seminar, *Modified Oil Well Completions for Conformance Control*, Texas A&M University Department of Petroleum Engineering, September 12, 2006.
- Invited speaker of a seminar, *Wells with Bottomhole Brine Drainage DWS Technology*, Baton Rouge, Louisiana Department of Conservation Capital Area Ground Water Conservation Commission, Baton Rouge, Louisiana, March 14, 2006
- Invited lecturer of four seminars, *Downhole Water Separation in Petroleum Wells, Downhole Water Sink Technology, LSU Department of Petroleum Engineering*, and , *Journal of Energy Resources Technology ASME Transactions*, China University of Geosciences Petroleum Engineering Departments in Beijing and Wuhan, PRC, April 14 -24, 2006.
- Member of Editorial Board for *Archives of Mining Sciences* a quarterly of Polish Academy of Sciences (March, 2006 present)
- Invited lecturer of a Graduate Seminar, *Petroleum Wells with Dual-Completion for Controlled Water Inflow Downhole Water Sink Technology*, University of Oklahoma Mewborn School of Petroleum and Geology Engineering, October 28, 2005.
- Instructor of a four-day course, "Sustained Casing Pressure (SCP) Mechanism, Regulations, Diagnosis, and Remedial Methods," Oil and Gas Institute, Krakow, Poland, June 27-29, 2005.
- Instructor of a one-day course, "Subsurface Separation of Produced Water in Wells," for National Engineering Laboratory in Glasgow, Aberdeen, U.K., April 20, 2004.
- Instructor of a five-day course, *Water Coning Control in Wells*, at Central University of Ecuador, Quito, Ecuador, November 24-28, 2003.
- Instructor of a five-day course, *Mechanical Control of Produced Water*, at Mexican Institute of Petroleum, Mexico City, Mexico, August 11-15, 2003.
- Instructor of a one-day course, *Environmental Control in Petroleum Drilling and Production*, at the University of Bologna, Italy, June 5, 2003
- Member of International Advisory Board for *Archives of Mining Sciences* a quarterly of Polish Academy of Sciences (2004 2006)
- Member of the Scientific Committee for 14<sup>th</sup> International Scientific and Technical Conference, "New Methods and technologies in Petroleum Geology, Drilling, Reservoir and Gas Engineering," in Zakopane, Poland, June 11-13, 2003
- Associate Technical Editor of Journal of Energy Resources Technology Transaction of ASME (1997 2000)

- Invited Speaker of Graduate Seminar, *Controlled Water Inflow to Oilwells for Recovery Enhancement,* University of Texas at Austin, November 19, 2001
- Instructor of SPE Continuing Education one-day course, *Sustained Casing Pressure (SCP) Diagnosis and Removal*, SPE Delta section, New Orleans, LA, November 28, 2001
- Instructor of SPE Continuing Education one-day course, *Dual Completions to Control Water Coning in Wells*, SPE Delta section, New Orleans, LA, May 24, 2001
- Editor of Special Series, *Advances in Well Control Technology*, for Turkish Journal of Oil and Gas, June September, 1997
- Member of Editorial Board of Turkish Journal of Oil and Gas (1995 2001)
- Member of Scientific Committee and Reviewer at 2<sup>nd</sup> Symposium on Petroleum Geology, Croatian Academy of Sciences, Zagreb, Croatia, January 2000
- Instructor of Professional Development Seminar, "Environmental Control in Petroleum Engineering," Professional Development Seminar Series of LSU, Baton Rouge, LA, May 1-2, 2000.
- Chairman of the Earth Sciences and Energy Review Panel, Texas Higher Education Coordinating Board, Texas Advanced Research & Technology Program, Austin, TX, August 15-17, 1997.
- Reviewer for SPE Advanced Technology Series: Health, Safety, and Environment Special Issue, 1996.
- Guest Editor of the special issue of Journal of Petroleum Science and Technology, (Elsevier), *Environmental Control Technology in Petroleum Engineering*, Vol. 11, No. 1, April 1994.
- Visiting Professor, The University of Tulsa, graduate course PE 7863, *Introduction to Oilfield Environmental Control Technology*, Summer 1993.
- Member of the Proposal Review Panel (1992 and 1993) of the Waste Management Education and Research Consortium of US DOE, Los Alamos National Laboratories, Sandia National Laboratories, and three universities in New Mexico.
- Instructor of five-day course, *Environmental Control Technology in Petroleum Engineering*, University of Zagreb, Croatia, June 8-12, 1998.
- Invited Speaker, *Subsea Blowout Bridgeover Potential*, at the MMS Gulf of Mexico Region, 19<sup>th</sup> Information Transfer Meeting, New Orleans, LA, November 30, 1999.
- Invited Speaker, *Cement Vibration/Pulsation in Wells*, at the MMS Gulf of Mexico Region, Regional Operations Technical Assessment Committee, New Orleans, LA, July 8, 1998.
- Invited lecturer graduate seminar, *Water Coning Control in Wells with Downhole Water Sink Completions*, University of Texas at Austin, Department of Petroleum Engineering, October 12, 1998.
- Invited speaker at the Petroleum Technology Transfer Council (PTTC), *Advanced Technologies for Managing Water Production in Welk*, Columbus, Ohio, March 10, 1998.
- Invited speaker at Water Management Technology Workshop, *Downhole Water Sink Technology for Water Control Recovers More Oil*, PDVSA/INTEVEP, Caracas, Venezuela, November 24-25, 1999.
- Invited speaker at Well Productivity Workshop, *Water Control with Downhole Water Sink Technology Overview and Case Histories*, PDVSA/INTEVEP, Caracas, Venezuela, March 11-12, 1999.
- Director of the Workshop: Environmental Protection in Petroleum Industry, Dubrovnik, Croatia, June 14-18, 1999.
- Invited speaker: SPE/AADE Forum, *Optimizing Solids Control Technology for Today's Environment*, Lafayette, LA, Feb. 25-26, 1991.
- Invited lecturer of one-day seminar, *Model and Software Applications of the Mud Management System Analysis*, Conoco Inc., Houston, TX, February 22, 1993.
- Panelist at the Panel Discussion, *Methods for Handling Drill Cuttings*, Annual Conference of American Association of Drilling Engineers," Houston, TX, April 22-23, 1993.
- Chairman of 1990 American Filtration Society Technical Conference, *Environmental and Productivity Merits of Separation in Petroleum Engineering*, Baton Rouge, LA, October 29-30, 1991.

## SERVICE TO COMMUNITY/UNIVERSITY

Chair of Promotion and Tenure Committee LSU Craft and Hawkins Dpt. Petroleum Engineering (2019-present)

Graduate Advisor of LSU Craft and Hawkins Dpt. Petroleum Engineering (1993 – 2019)

Chair of the PS-69 Academic Misconduct Inquiry Committee (2013-2014)

Member of COE Professorship Selection Committee 2010 - 2014

Member of LSU COE Research Advisory Council: 2003 - 2008

Member of LSU COE Graduate Council; 2000 – 2008

Member of LSU COE Promotion and Tenure Committee; 1999 – 2014

LSU Faculty Senator (2000 - 2003)

Invited speaker: "LSU Petroleum Engineering Capabilities for Developing State Economy," to the LA Dpt. of Economic Development – Petrochemical and Oil & Gas Clusters, Baton Rouge, La, December 10, 2001

Member of COE Committee for Concentration and Environmental Hazard Engineering program (2000-2001)

Member of LSU Advisory Team to LA Department of Natural Resources, Office of Conservation, regarding the Oilfield Waste Emergency Rule; Interagency Agreement #2250-98-02 (1998-99)

Member of Dean Search Committee, LSU College of Engineering (1999-2000)

Member of the College policy Committee of the LSU College of Engineering (1995 - 97).

Ad-hoc Advisor to Mississippi Department of Environmental Quality, Office of Geology (1997).

Served as a judge at the Louisiana Science and Engineering (State) Fair, April 11, 1997.

Served as a judge at the Louisiana Science and Engineering (State) Fair, April 12, 1996

Invited Speaker at the meeting of the Mississippi Section of SPE, September 21, 1995.

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#### SERVICE TO PROFESSION

#### ACTIVITY

- Chairman and Organizer of Petroleum Technology Symposium at ASME OMAE 2018 37th International Conference on Ocean, Offshore, and Arctic Engineering, Madrid, Spain, June 17 – 22, 2018
- Chairman and Organizer of Petroleum Technology Symposium at ASME OMAE 2017 36th
   International Conference on Ocean, Offshore, and Arctic Engineering, Trondheim, Norway, June 25 30, 2017
- Chairman and Organizer of Petroleum Technology Symposium at ASME OMAE 2016 35nd
   International Conference on Ocean, Offshore, and Arctic Engineering, Busan, South Korea, June 19 24, 2016
- Member of Organizing Committee (Student Challenge & Environmental Subcommittees) for 2017 SPE Health, Safety, Security, Environment & Social Responsibility Conference-North America, New Orleans, April 18-20, 2017
- Chairman and Organizer of Petroleum Technology Symposium at ASME OMAE 2015 34th
   International Conference on Ocean, Offshore, and Arctic Engineering, St. John's, NL, Canada, May 31 June 5, 2015
- Member of Student Challenge Subcommittee for the 2015 E&P Health, Safety, Security, and Environmental Conference – Americas, Denver, Colorado, March 16-18, 2015
- Chairman and Organizer of Petroleum Technology Symposium of ASME OMAE 2014 33rd
   International Conference on Ocean, Offshore, and Arctic Engineering, San Francisco, June 8-13, 2014
- Chairman and Organizer of Petroleum Technology Symposium of ASME OMAE 2013 32<sup>nd</sup>
   International Conference on Ocean, Offshore, and Arctic Engineering, Nantes, France, June 9-14, 2013
- Chairman and Organizer of International Panel Discussion, "Students vs. Young Professionals," at SPE Americas 2013, E&P Health/Safety/Security/Environmental (HSSE) conference in Galveston, TX, March 18-12, 2013.
- Chairman and Organizer of Student Poster Presentation Contests at SPE Americas 2013, E&P HSSE conference in Galveston, TX, March 18-12, 2013.
- Chairman and Organizer of Petroleum Technology Symposium at ASME OMAE 2012 31st International Conference on Ocean, Offshore, and Arctic Engineering, Rio de Janeiro, Brazil, July 1- 6, 2012
- Liaison of ASME Petroleum Division Executive Committee for OMAE conferences, 2011 present
- Chairman and Organizer of Environmental Student Paper Contest at 2011 SPE Americas Health Safety Security Environmental Conference, Houston, Texas, March 21-223, 2011
- Member of SPE HSE Advisory Committee 2008-present
- Member of SPE Award Committee for Distinguished Accomplishment of Petroleum Engineering Faculty

   2008-2013
- Member of SPE Health, Safety, and Environment Award Committee, and SPE HSE Advisory Committee, 2007 2010;
- Program Committee Member for the SPE/E&P Environmental & Safety Conference, San Antonio, TX, March 23-25, 2009;
- Program Committee Member and Session Chair at the SPE/EPA/DOE E&P Environmental and Safety Conference, Galveston, TX, March 5-7, 2007;
- Organizer and Chairman of Student Environmental Paper Contest Session at SPE/EPA/DOE E&P Environmental and Safety Conference, Galveston, TX, March 5-7, 2007;
- SPE Distinguished Lecturer for 2003-04 season delivered 31 lectures worldwide;
- Program Committee Member and Session Chair at the SPE/EPA/DOE E&P Environmental Conference, Galveston, TX, March 7-9, 2005;
- Organizer and Chairman of Student Environmental Paper Contest Session at SPE/EPA/DOE E&P Environmental Conference, Galveston, TX, March 7-9, 2005;
- Organizing Committee Member and Session Chair at SPE Advanced Technology Workshop (ATW),

- Improved Asset Value Through Better Water Management, Langkawi, Malaysia, September 19-22, 2004;
- Steering Committee Member and Session Chair at the SPE 2003 Environmental Forum, "Eliminating Wastes and Emissions from Exploration and production Operations and Services," Park City, UT, July 13-18, 2003;
- Session Chair and Speaker at the SPE Advanced Technology Workshop, "Oil and Gas Field Waste Disposal," Houston, TX, March 25-27, 2003;
- Program Committee Member and Session Chair at the SPE/EPA/DOE E&P Environmental Conference, San Antonio, TX, March 10-12, 2003;
- Organizer and Chairman of Student Environmental Paper Contest Session at SPE/EPA/DOE E&P Environmental Conference, San Antonio, TX, March 10-12, 2003;
- Chairman Operating Committee on Environmental Concerns; Petroleum Division of ASME (December, 1998 present);
- Director of Workshop 10, Gas Engineering, at the Petroleum Engineering Summer School, Dubrovnik, Croatia, June 3-7, 2002;
- Planning Committee Member and Environmental Symposium Chair for ETCE 2002 in Houston, TX, February 4-6, 2002;
- Editor in Chief of ASME Transactions Journal of Energy Resources Technology from 2001 to 2011
- Session Chairman at Petroleum Engineering Summer School Workshop 9: *Optimization of Oil and Gas Production*, Dubrovnik, Croatia, June 11-15, 2001;
- EHS Program Committee member and Session Chair at SPE Annual Technical Conference and Exhibition in New Orleans, LA, Sep. 30-Oct.3, 2001;
- Steering Committee Member for The 12<sup>th</sup> International Scientific and Technical Conference, "New Methods and Technologies in Petroleum Geology, Drilling, Reservoir and Gas Engineering," at University of Mining and Metallurgy, Krakow, Poland, June21-22, 2001;
- Steering Committee Member for International Oil &Gas Conference, "New Technologies for Enhancement of Oil and Gas Production and Final Recovery," Oil Council of Croatian Academy of Science, Zadar, Croatia, Oct. 2-5, 2001;
- Planning Committee Member and Symposium Chair for ETCE 2001 in Houston, TX, February 5-7, 2001;
- Organizer and Chairman of Student Environmental Paper Contest Session at SPE/EPA/DOE E&P Environmental Conference, San Antonio, TX, February 26-28, 2001;
- Program Committee Member and Session Chair at the SPE/EPA/DOE E&P Environmental Conference, San Antonio, TX, February 26-28, 2001;
- Session Chairman at Petroleum Engineering Summer School Workshop 7: *Lifecycle Oil and Gas Well Management*, Dubrovnik, Croatia, June 12-16, 2000;
- Symposium Chairman and Program Committee Member ASME-ETCE 2000 Conference, New Orleans, LA, February 14-17, 2000;
- Member of SPE Technical Committee on Environment, Health, & Safety (1999 three year appointment);
- Session Chairman and Steering Committee Member SPE /Forum IV: "Environmental Concerns for the New Millennium," Breckenridge, CO, July 18-23, 1999;
- Director of Petroleum Engineering Summer School Workshop 5: *Environmental Protection in the Petroleum Industry*, Dubrovnik, Croatia, June 14-18, 1999;
- Session Chairman and Programming Committee Member for SPE/EPA E&P Environmental Conference, Austin, TX, March 1-3, 1999;
- Steering Committee member and Session Chair ASME-ETCE 1999 conference, Houston, TX. February 1-3.1999:
- Member of SPE Education and Accreditation Committee (1998 2000);
- Chairman of two sessions at the ASME Energy Technology Conference and Exhibition, ETCE'98, Houston, TX, February 2-4, 1998;
- Chairman of the Session: "Pollution Prevention and Clean Technology," at 1997 SPE/EPA Exploration & Production Environmental Conference, Dallas, TX, March 3-5, 1997;
- Member of the Program Committee for 1999 SPE/EPA E&P Environmental Conference in Austin, TX, February 28 - March 3, 1999., Safety, and Environment in Oil and Gas E&P, New Orleans, LA, June 9-12, 1996;
- Chairman of the Session, "Evaluation and Risk Management: Drilling and Completion 11," at the Third International Conference on Health Committee on Engineering Workforce Supply and Demand (1995-1997);
- Member of the ASTM Orleans, LA, June 9-12, 1996;

- Member of the Program Committee D-34.18, Subsurface Deep Well Waste Injection (1996-97);
- Member of the Program Committee for the Third International Conference on Health, Safety and Environment in Oil and Gas E&P, New Committee for 1997 SPE/EPA E&P Environmental Conference in Dallas, TX, March 3-5, 1997;
- Moderator of Panel Discussion at the DOE Petroleum Technology Transfer Council Workshop: "Produced Water Management Workshop," Baton Rouge, LA, September 28, 1995;
- Chairman of the Plenary Session at the International Conference on Application of Mathematical Methods in Science and Technique, Krakow, Poland, June 20-21, 1995;
- Chairman of a Session, "Innovative Technologies," at the SPE/EPA Exploration and Production Environmental Conference, Houston, TX, March 27-29, 1995;
- Member of Program Committee for 1995 SPE/EPA Exploration and Production Environmental Conference, Houston, TX, March 27-29, 1995;
- Member of Program Committee for 1995 SPE Environmental Forum of the Evangeline Section of SPE, Lafayette, LA, February 9-10, 1995;
- Member of the APE Work Group on Dewatering, API Committee 13, January, 1995;
- Chairman of a session, "Environmental-Control Technology," at SPE Environmental Forum, "Pollution Prevention in E&P Operations," Snowmass Village, CO, July 17-22, 1994;
- Member of Steering Committee of SPE Forum Series in North America for 1994;
- Chairman of a technical session at the Ninth SPE Symposium on Formation Damage Control. Lafayette, LA, Feb.22-23, 1990;
- Chairman of American Filtration Society conference, "Environmental and Productivity Merits of Separation in Petroleum Engineering," at the AFS Fall Meeting in Baton Rouge, LA, Oct. 29-30, 1991;
- Chairman of a technical session at 1989 Fall Meeting of American Filtration Society, "Filtration and Separation on Oil and Gas Drilling and Production Operations," Houston, TX, Oct.29-30 1989.

#### **SOCIETY MEMBERSHIP**

Society of Petroleum Engineers - Senior Member No. 73458-2 (1980 - present)

American Society of Mechanical Engineers (1997 - present)

ASTM - Member of the ASTM Committee D-34.18, Subsurface Deep Well Waste Injection (1996-97).

Pi Epsilon Tau - Honorary Member since 1985

#### TECHNICAL SUPPORT

Staatsolie – National Oil Company of Suriname (2016-2017)

Redman Management Company, LLC, Houston, TX (2015 – 2016)

High Plains Operating Company L.L.C. (2010 – 2014)

Staatsolie – National Oil Company of Suriname (2008-2009)

Three Forks Energy, LLC, Houston, Texas (2008)

Pluspetrol Norte S.A., Lima, Peru (2007-08)

Hailey, McNamara, Hall, Larmann & Papale, LL.L.P, Matairie, Lousiana (2006)

Mako Rentals, Inc., Bourg, Lousiana, (2006)

Noble E&D Ltd., Houston, TX (2001-2002)

Petro Canada, Mississauga Ontario, Canada, (2002)

Nexen Petroleum International, Ltd., Calgary, Canada (2001-2004)

PanCanadian Petroleum, Ltd., Calgary, Canada (2000-2003)

The William G. Helis Company, L.L.C., New Orleans, LA (1999-2000)

Navratil et al. L.L.P. - Attorneys and Counselors at Law (1998-2000)

Soiltech Environmental Systems, Inc. (1999-2000)

Harrington Oil, Inc., Jackson, MS (1999)

PDVSA/ENTEVEP, Caracas, Vanezuela (1998)

Sonat Exploration Co., Houston, TX (1998)

Penzoil E&P Co., Houston, TX (1998)

Spirit Energy76 - Unocal, Sugarland, TX (1998)

Shell E&P Technology Co., Houston, TX (1998)

Chevron Petroleum Technology Co., La Habra, CA (1998)

Centrilift / Baker-Hughes, Houston, TX (1998)

Mobil E&P Technical Center, Dallas, TX (1998)

C-FER, Edmonton, Alberta, Canada (1997)

Hollimon Oil Corporation, San Antonio, TX (1997)

Maxus Energy Corporation, (1996)

Texaco EPTD, Houston, TX (1995-96)

Unocal Corporation, Anchorage, AK (1995)

Energy Management Corporation, Jackson, MS (1995-96)

Gulf Canada Resources, Calgary, Canada (1995)

Tellus Energy Group, LLC, Jackson MS (1996)

Fite Oil and Gas, Inc., Shreveport, LA (1995)

Technical Advisory Service for Attorneys (TASA)

Louisiana Dept. of Environmental Quality (1990)

Nippon Steel Corporation, Japan (1989-92)

L.S. & A. Environmental Inc., New York, NY (1992-94)

Conoco, Inc., Houston, TX (1991-93)

#### **COURSE INSTRUCTION**

- "Gas Migration at Wells Flow after Cementing and Sustained Casing Pressure," ETC instructor of short course for Consol Energy Inc., Canonsburg, PA, December 12, 2012
- "Unconventional Containment of Deepwater Well's Blowout", and, "Unconventional Production of Heavy Oil with Bottom Water," short courses taught at Workshop 34: "Unconventional Oil and Gas Exploration & Production and Processing" of the Petroleum Engineering Summer School of Inter-University Center, Dubrovnik, Croatia, June 11-15, 2012.
- "Gas Migration at Wells Flow after Cementing and Sustained Casing Pressure," Instructor of SPE Continuing Education half-day course for SPE Delta Section, Covington, LA, April 19, 2012.
- "Well's Productivity Impairment in Heavy Oil with Bottom Water," a short course at Workshop 34: "Unconventional Oil and Gas Exploration & Production and Processing," of the Petroleum Engineering Summer School at Inter-University Center, Dubrovnik, Croatia, June 11 - 15, 2012
- "Heavy Oil Resources and Methods Cold Production and Water Problems," a short course at Workshop 29/30: "Exploration and Production of Hydrocarbon Reserves from Unconventional Deposits," at the Petroleum Engineering Summer School of Inter-University Center, Dubrovnik, Croatia, June 14-18, 2010.
- "Oil By-passing and Mechanical Control of Produced Water at Wells," Instructor of SPE Continuing Education half-day course for SPE Delta Section, New Orleans, LA, April 29, 2010.
- "Surface Facilities for Water Handling and Discharge," a short course at Workshop 27/28: "Surface Facilities for Transport, Water Handling and Discharge," at the Petroleum Engineering Summer School of Inter-University Center, Dubrovnik, Croatia, June 15-19, 2009.
- "Oil Bypassing and Mechanical Control of Produced Water in Wells," a short course at Workshop 23/24: "New Aspects of Formation Damage and Water Control," at the Petroleum Engineering Summer School of Inter-University Center, Dubrovnik, Croatia, June 11-15, 2007.
- "Stimulation of Watered-out, Inactive/Marginal Wells with Dual Completions," a half-day Workshop, Petroleum Technology Transfer Council (PTTC), Shreveport, Louisiana, May 23, 2006.
- "Peak Oil Controversy and Mitigation Concepts on World Energy Supply," a short course at Workshop 19: "The Big Future Picture of Petroleum Engineering," at the Petroleum Engineering Summer School of Inter-University Center, Dubrovnik, Croatia, June 5-9, 2006.
- "Stimulation of Watered-out, Inactive/Marginal Wells with Dual Completions," a half-day Workshop, Petroleum Technology Transfer Council (PTTC), Lafayette, Louisiana, May 24, 2005.
- "Sustained Casing Pressure (SCP) Mechanism, Regulations, Diagnosis, and Remedial Methods," three-day short course, Oil and Gas Institute, Krakow, Poland, June 27-29, 2005.
- "External Integrity of Well Completions Gas Migration and Sustained Casing Pressure," a short course at Workshop 18: "Contemporary Oil and Gas Well Completion and Workover Jobs" at the Petroleum Engineering Summer School of Inter-University Center, Dubrovnik, Croatia, June 13-17, 2005.
- "Productivity and Economic Potential of Inactive/Marginal Wells in Louisiana," a half-day Workshop, Petroleum Technology Transfer Council (PTTC) New Orleans, Louisiana, December 7, 2004.
- "Subsurface Separation of Produced Water in Wells," one day short course organized by National Engineering

- Laboratory, Aberdeen, U.K., April 20, 2004.
- "Water Coning Control in Wels Downhole Water Sink Technology," five-day course at the Central University of Ecuador, Quito, Ecuador, November 24-28, 2003.
- "Mechanical Control of Produced Water Downhole Separation Technology," five day course at the Mexican Petroleum Institute, Mexico City, FD, August 11-15, 2003.
- "Environmental Control in Petroleum Drilling and Production Operations," a one day course at the University of Bologna, Italy, June 5, 2003.
- "Effects of Modified Completions on Productivity of Gas Wells in Reservoirs with Water Support," a short course at Workshop 10: Gas Engineering, Petroleum Engineering Summer School of the Inter-University Center, Dubrovnik, Croatia, June 3-8, 2002.
- Instructor of SPE Continuing Education one-day course, *Sustained Casing Pressure (SCP) Diagnosis and Removal*, SPE Delta Section, New Orleans, LA, November 28, 2001.
- Instructor of SPE Continuing Education one-day course, *Dual Completions to Control Water Coning in Wells*, SPE Delta section, New Orleans, LA, May 24, 2001.
- "Productivity Testing and Optimization in Oilwells with Water Coning Control," a short course at Workshop 9: Optimization of Oil and Gas Production, Petroleum Engineering Summer School of the Inter-University Center, Dubrovnik, Croatia, June 11-15, 2001.
- "Downhole Water Separation Technology," a one-day Workshop, Petroleum Technology Transfer Council (PTTC) Central Gulf Region, Baton Rouge, Louisiana, March 2, 2000.
- "Environmental Control Technology in Petroleum Engineering," a five day course at the University of Zagreb, Croatia, June 8-12, 1998.
- Instructor of one-day course at LSU Petroleum Engineering Research and Technology Transfer Laboratory, "Hydraulic Fracturing," (1998)
- Instructor (annualy) of two five-day courses, "*Drilling Engineering*," and "*Drilling Fluids*," for Rike Services International, New Orleans, Louisiana, 1987 1991.
- Worldwide instructor of the five-day courses, "*Environmental Control in Drilling Engineering*," for the Oil and Gas Consultants International, Tulsa, OK, 1991-1997.
- Instructor of a five-day course, "*Environmental Control in Drilling Engineering*," for Petrobras, Salvador, Brazil, 1990, and to seven oil companies, in Quito, Ecuador, 1990.

Instructor of a five-day course, "Well Testing," for INA-Naftaplin in Dubrovnik, Yugoslavia, June, 1990.

### **AWARDS**

- ASME Fellow, 2021
- ASME OOAE Division Special Achievement / Service Award June, 2021
- 35-year Service Award, Louisiana State University January, 2019
- OMAE Conference Appreciation Award June, 2016
- ASME Dedicated Service Award June, 2015
- 30-year Service Award, Louisiana State University May, 2014
- 2013 OMAE Appreciation Award for Petroleum Technology Symposium Chair
- LSU Tiger Athletic Foundation 2013 Undergraduate Teaching Award
- ASME Certificate of Appreciation for Service as Editor of J. Energy Resources Technology 2000-2011
- Distinguished Professor of Xian Shiyou (Petroleum) University in Xi-an, China November, 2011
- 25-year Service Award, Louisiana State University -May 2009
- SPE Distinguished Achievement Award for Petroleum Engineering Faculty for 2008
- Honorable Annual Recognition by The Petroleum Institute Abu Dhabi, UAE, November 25, 2008
- Honorary Professorship in Technical Sciences President of Poland, December, 2005
- SPE Health Environment and Safety Award 2003
- 20-year Service Award, Louisiana State University May 2004
- SPE Distinguished Lecturer for the 2003 2004 Season
- 2002 Frank Walk Service Award from ASME International Petroleum Division February 2002
- 2002 Eckard Service Award from ASME International Petroleum Division February 2002

- 2001 Frank Walk Service Award from ASME International Petroleum Division February 2001
- 2001 Samuel L. Collier Award from ASME International Petroleum Division February 2001
- 2000 Eckard Service Award from ASME International Petroleum Division February 2000
- 1999 Frank Walk Service Award from ASME International Petroleum Division February 2000
- 15-year Service Award, Louisiana State University May 1999
- 75-Anniversary Medallion Award from ASME International Petroleum Division 1999
- 1996 Special Meritorious Award for Engineering Innovation, Petroleum Engineer International May 6, 1996
- 1995-96 Faculty Appreciation Award, Engineering Council of LSU April 17, 1996
- 1995-96 Distinguished Faculty Award, LSU Alumni Association May 7, 1996
- 1994-95 Faculty Appreciation Award, The Engineering Council of LSU April 22, 1995
- 10-year Service Award, Louisiana State University May 1994
- 1987 Summer Faculty Research Stipend (\$4000), LSU Council on Research
- Annual Award of the Applied Research Council, Technical University of Mining and Metallurgy 1969, 1973, 1974, 1975, and 1976.

#### FUNDED RESEARCH

#### **PROJECTS**

The Petroleum Institute in Abu Dhabi, UAE - \$417,000

Smart Water Sink Well Technology for Naturally Fractured Reservoirs with Water Problems - three year project for 2014 – 2019 (collaboration with PI – Dr. A. Alsumanti)

Albemarle Corporation - \$60,000

Sustained Casing Pressure (SCP) Remediation with Annular Intervention Method," – continuing funding for the SCP Program consortium's project in 2015

Albemarle Corporation - \$120,000

Sustained Casing Pressure (SCP) Remediation with Annular Intervention Method," - a consortium project funded in 2013 for two (2012-2014)

National Natural Science of China - \$8,000

Mechanistic Study of Bilateral Water Sink (BWS) Effect on Enhancing Oil Recovery in Heavy Oil with Bottom Water," – one year project for 2014 (collaboration with Chinese University of Petroleum, Beijing – Dr. W. Qin)

Pluspetrol Angola Corporation - \$40,000

Heavy Oil Development in Massambala Field – one year project for 2013

DWSTI Consortium - \$45,000

Downhole Water Loop (DWL) Well System Limitations due Injectivity Damage – Theory and Application – annual project for 2013

Shell Oil Company – \$265,000

Sustained Casing Pressure Program – a consortium project funded in 2011 for three years (2011-2014)

China National Offshore Oil Corporation - \$14,000

Feasibility of Downhole Water Sink Well Completions in LF 13-1 Oilfield in China – pilot project for a potential member of DWSTI consortium in 2009

DWSTI Consortium - \$40,000

Modification of DWS Technique for Horizontal and Multi-functional Wells in Heavy Oil with Bottom Water - annual project for year 2008

DWSTI Consortium - \$60,000

Design and Assessment Method for DWS Intervention Projects – annual project for year 2007

DWSTI Consortium - \$65,000

Principles and Methods for Assessment of DWS in Watered-out Oil Wells - annual project for year 2006

DWSTI Consortium - \$65,000

Stimulation of Marginal Well Productivity with Dual Re-completions and Water Drainage – an annual project for year 2005

DWSTI Consortium - \$65,000

Development of Applied DWS Technology – an annual project for year 2004

DWSTI Consortium - \$65,000

Development of Methods and Procedures for Field Deployment of DWS Well Designs – an annual project for year 2003;

Louisiana Board of Regents (Louisiana Education Quality Trust Fund, LEQTF) Program; Industrial Ties Research Subprogram, ITRS – \$276,534 (for 3 years:)

Technology for Inactive Wells Valuation and Recovery of By-passed Reserves in Louisiana – a three-year project: 2003-2006;

DWSTI Consortium - \$75,000

Principles and Design method for Integration of Dual Completion Design with Reservoir and Well Performance - an annual project for year 2002;

Gas Research Institute - \$240,000 for the LSU team; (1999-2001)

*Improving Gas Well Cementing Through Cement Vibration* - a joint two-year research project of three companies (CTES, Inc., Westport, and LSU - total funding: \$1,300,000;

DWSTI Consortium - \$90,000

Principles and design methods for DWS Completions of Gas and Horizontal Wells with Water Coning Problems - an annual project for year 2001;

DWSTI Consortium - \$75,000

DWS Well Selection and Production Optimization Method for Maximum Performance - an annual project for year 2000;

DWSTI Consortium - \$90,000

Principles and Design Method for DWS Well Completions with Commingled Inflow of Oil and Water - an annual research project for year 1999;

DWSTI Consortium - \$135,000

Principles and Design Method for DWS Well with Segregated Inflow of Oil and Water- an annual research project for year 1998;

Downhole Water Sink Technology Initiative (DWSTI), (1998 - present)

An industry-funded LSU consortium of member-companies contributing \$15,000/member-

year.

Principal investigator and project director

(1998 funding - \$135,000; 1999 funding - \$90,000; 2000 funding - \$75,000);

Minerals Management Service - \$1,700,000 (1994 -2000)

Development of Improved Procedures for Detecting and Handling Underground Blowouts in a Marine Environment - A 6-year contract No. 14-35-0001-30749; Co-Principal Investigator with A.T. Bourgoyne, Jr. and O. Allen Kelly

Conoco Inc. - \$80,000

*Dewatering Technology of Water-Base Drilling Fluids* - Conoco Environmental Fellowship1991-92 - a one-year project with 100% time involvement at the Conoco Research Center in Ponca City, OK;

US Environmental Protection Agency - \$118,754

LSU Hazardous Research Center

Contract No. CR 813 888, FY 1988/91

Co-PI with S.D. Field, LSU Civil Engineering

Burlington Resources Foundation - \$60,000

Development of Laboratory Research in Borehole Mechanics - development project, 1989-94; Louisiana Board of Regents - \$83,213

LA Education Quality Support Fund

Contract No. LEQSF (1988-90)-RD-B-4 FY 89/90

US Department of Energy, \$75,000

Sandia Laboratories

Contract No. 63-4797 FY 88/90

Co-PI with A.T. Bourgoyne, Jr.

15

US-Yugoslav Joint Board on Scientific and Technological Cooperation, \$17,000

Contract No. YU/US 778, FY 1989/91

Faculty Pass-Through Grant, \$20,000

LSU Center for Energy Studies

FY 87/88 No. 87-02-17

Faculty Pass-Through Grant, \$20,000

LSU Center for Energy Studies

FY 86/87 No. 86-01-04

Faculty Pass-Through Grant, \$20,000

LSU Center for Energy Studies

FY 85/86 No. 85-01-01

Louisiana Department of Conservation, \$218,000

Contract No. 21400-85-12, FY 1985/86

## **EQUIPMENT**

Renovation of undergraduate Drilling Fluids Laboratory (\$100,000)

Baker- Hughes Company, September 2010.

Microtox System (\$14,000)

Microbics Research Grant (\$7,500) for Petroleum Engineering Environmental Control Laboratory from Microbics Corporation, Carlsbad, CA

Field-size, drilling mud processing equipment, \$1,000,000

For Petroleum Engineering Environmental Control Laboratory

from petroleum-related industry (free loan from 1985-89)

Instrumentation for Particle-Size Measurements in Drilling Fluids, \$48,000

For Petroleum Engineering Environmental Control Laboratory

From Louisiana Department of Conservation (1985)

HP-HT Microbit Drilling Machine, \$400,000

For Research in Borehole Mechanics

From NL Baroid (1989)

Magnetic Susceptibility Balance, \$3,000

For Petroleum Engineering Environmental Control Laboratory

From Amoco Production Company (1990)

#### RESEARCH FOCUS

Well Design Methodology - Drilling/ Completion/Production

- \* drilling optimization
- \* casing programs
- dual completion performance

Environmental-Control Technology for Petroleum Engineering

- \* in-situ control of produced water
- \* drilling fluid volume/toxicity control
- \* prevention of migration outside wells
- \* well injection for disposal
- environmental risk

#### **Borehole Mechanics**

- \* near-well zone effects and their diagnosis
- \* borehole friction
- \* drilling mechanics and hydraulics

# **PUBLICATIONS**

#### **BOOKS:**

- 1. New chapters: *Chapter 3.7*, "Sustained Casing Pressure," pp. 72-95, *Chapter 4.3*, "Control of produced Water Volume," pp. 117-148; A.K. Wojtanowicz, in 3-rd edition of "Environmental Technology in the Oil Industry," editor: S. Orszulik, Springer Science Springer International Publishing, Switzerland, 2016
- 2. *Chapter 13*, "Drilling Waste Control Mud Dewatering, "A. K. Wojtanowicz, in "Advancement in Environmental Engineering," editor: N. Gaurina Medjimurec, OGI Global, 2015, 17 pp.
- 3. *Chapter 8*, "Risk and Remediation of Irreducible Casing Pressure at Petroleum Wells," A. K. Wojtanowicz, in "Risk Analysis for Prevention of Hazardous Situations in Petroleum and natural Gas Engineering," editors: D. Matanovic, N. Gaurina Medjimurec, and K. Simon, OGI Global, 2014.
- 4. "Cold Production of Heavy Oil with Bottom Water," W. Qin, A.K. Wojtanowicz, and C.D. White, Lambert Academic Publishing, GmbH & Co, Saarbrucken, Germany, 2012.
- 5. "Oil Bypassing by Water Invasion Mechanisms and Remediation," J.C. Hernandez, and A.K. Wojtanowicz, VDM Publishing House Ltd., 2011.
- 6. "Integrity of Petroleum Wells Offshore in Shallow Sediments Subsea," D. Zhou, and A.K. Wojtanowicz, Verlag Lambert Academic Publishing AG & Co. KG, 2009, 241 pp.
- 7. Chapter 2, "Environmental Control Technology for Oilfield Processes"; Chapter 3, "Environmental Control of Well Integrity"; Chapter 4, "Environmental Control of Drilling Fluids and Produced Water"; Chapter 5, "Oilfield Waste Disposal Control"; A.K. Wojtanowicz, in "Environmental Technology in the Oil Industry," editor: S. Orszulik, Springer Science, 2008.
- 8. *Chapter 8*, "Oilfield Pit Management, Closure, and Remediation," A.K. Wojtanowicz, in "Environmental Engineering for Exploration and Production Activities," SPE Monograph Series, 1999.
- 9. *Chapter 3*, "Environmental-Control Technology in Petroleum Drilling and Production," A.K. Wojtanowicz, in "Environmental Technology in the Oil Industry," editor: S. Orszulik, Chapman and Hall, 1997. 110 pp.
- 10. *Chapters.* "Drilling Muds and Completion Fluids," "Mud Pumps," "Rotary Equipment," "Drilling Bits and Downhole Tools," A.K. Wojtanowicz, in "Practical Petroleum Engineer's Handbook," editor W. Lyons, Gulf Publishing Company, 1996.
- 11. *Chapter 5*, "Computer-Aided Casing Optimization," A.K. Wojtanowicz, and E.E. Maidla, in "Casing Design: Theory and Practice," editors: S.S. Rahman and G.V. Chilingarian, Elsevier, 1995.
- 12. "Optimization of Drilling Process," University Press of Technical University of Mining and Metallurgy, Krakow, 1975, 275 pp. (in Polish).

#### REFEREED JOURNALS

1. "Determination of the Optimal Rotating Time for a Rock Bit," A.K. Wojtanowicz, S. Miska, *Mining Archives, Polish Academy of Science*, Bull. 3, Vol. 17, 1972. (in Polish).

- 2. "Theoretical Study on the Dynamical Process of Plunging the Rock Bit Tooth," S. Miska, A. Wojtanowicz, *Mining Archives, Polish Academy of Science*, Bull. 1, Vol. 17, 1972. (in Polish).
- 3. "Optimal Bit Program for Definite Drilling Conditions," S. Miska, A.K. Wojtanowicz, *Mining Archives, Polish Academy of Science,* Bull. 2, Vol. 18, 1973. (in Polish).
- 4. "Identification of Drilling Process," A. K. Wojtanowicz, *Polish Academy of Science, Mining Committee*, Mining Bull. 13, 1974. (in Polish).
- 5. "Optimal Bit Programs for the Domestic Rock Bits," A. K. Wojtanowicz, *Zeszyty Problemowe Gornictwa, Polish Academy of Science*, Bull. 1, Vol. 12, 1974. (in Polish).
- 6. "Comparison Study of Solid-Liquid Separation Prior to Oilfield Pit Closure," A.K. Wojtanowicz, S.D. Field, M.C. Osterman, *Journal of Petroleum Technology*, July 1987.
- 7. "Oilwell Completion Fluid Solids Interaction with an Unconsolidated Oil Reservoir," A.K. Wojtanowicz, Z. Krilov, J. P. Langlinais, *Particulate Science and Technology, an International Journal*, Vol. 5, No. 2, 1987.
- 8. "Minimum-Cost Casing Design for Vertical and Directional Wells," A.K. Wojtanowicz, E.E. Maidla, *Journal of Petroleum Technology*, October 1987; also *Transactions of AIME*, 1988.
- 9. "The Development Study of a Centrifuging Technique for Oilfield Production Pit Closure," M. C. Osterman, A. K. Wojtanowicz, S. D. Field, *Transactions of the ASME, Journal of the Energy Resources Technology*, December 1987.
- "Experimental Determination of Formation Damage Pore Blocking Mechanisms," A.K. Wojtanowicz,
   Z. Krilov, J. P. Langlinais, *Transactions of the ASME Journal of the Energy Resources Technology*,
   March 1988.
- 11. "Author's Reply to Discussion of Minimum-Cost Casing Design for Vertical and Directional Wells," A.K. Wojtanowicz, *Journal of Petroleum Technology*, April 1988.
- 12. "A Field Method for Assessing Borehole Friction for Directional Well Casing," E.E. Maidla, A.K. Wojtanowicz, *Journal of Petroleum Science and Engineering*, Vol. 1 (4), October 1988.
- 13. "Modern Solids Control: Centrifuge Dewatering-Process Study," A.K. Wojtanowicz, *SPE Drilling Engineering*, September 1988; also *Transactions of AIME*, 1988.
- 14. "Biodegradation of Oilbased Drilling Muds and Production Pit Sludges," R. E. Marks, S. D. Field, A. K. Wojtanowicz, *Transactions of ASME, Journal of Energy Resources Technology*, Vol. 110, No. 3, September 1988.
- 15. "Formulation and Assessment of a Completion Fluid for the Unconsolidated Gas Bearing Formations Offshore Adriatic Sea," Z. Krilov, A.K. Wojtanowicz, J. P. Langlinais, *Oil and Gas European Magazine*, January 1989.
- 16. "Statistical Assessment and Sampling of Drilling Fluid Reserve Pits," A. K. Wojtanowicz, S. D. Field, Z. Krilov, and F. L. Spencer, Jr., *SPE Drilling Engineering*, June 1989.

- 17. "Laboratory Study of Borehole Sliding Friction Using Dynamic Filtration Apparatus," E. E. Maidla, and A. K. Wojtanowicz, *SPE Drilling Engineering*, September 1990.
- 18. "Chemical Conditioning of Drilling Fluids Prior to Dewatering," A. K. Wojtanowicz and Yawen Ye, *Fluid/Particle Separation Journal*, Vol. 3, No. 3, Sept. 1990.
- 19. "Minimum-Cost Well Drilling Strategy Using Dynamic Programming," A. K. Wojtanowicz, E. Kuru, *Transactions of ASME Journal of Energy Resources Technology*, Vol. 115, December 1993.
- 20. "Mathematical Modelling of PDC Bit Drilling Process Based on a Single-Cutter Mechanics," A. K. Wojtanowicz, and E. Kuru, *Transactions of ASME Journal of Energy Resources Technology*, Vol. 115, December 1993.
- 21. "A Theoretical Method for Detecting In-Situ PDC Bit Dull and Lithology Change," E. Kuru, and A.K. Wojtanowicz, *Journal of Canadian Petroleum Technology*, Vol. 31, No. 7, Sept. 1992.
- 22. "Cumulative Bioluminescence-A Potential Rapid Test of Drilling Fluid Toxicity: Development Study," A. K. Wojtanowicz, B.S. Shane and A. V. Stiffey, *SPE Drilling Engineering*, March 1992.
- 23. "Advanced Biological Treatment and Separation of Hazardous Constituents from Petroleum Sludges," Field, S. D., Marks, R. E., and A. K. Wojtanowicz, *Journal of Hazardous Materials*, 1991, 0304-3894/91.
- 24. "Biological Treatment of Petrochemical Wastes for Removal of Hazardous Polynuclear Aromatic Hydrocarbon Constituents," Marks, R.E., Field, S.D., Wojtanowicz, A.K. and Britenbeck, G.A., *Journal of Water Science & Technology*, Vol. 25, No. 3, 1992, 0273-1223/92.
- 25. "Oilfield Environmental Control Technology: A Synopsis," A.K. Wojtanowicz, *Journal of Petroleum Technology*, February, 1993.
- 26. "A Compound Effect of Cutting Depth and Bit Dull on Cutter's Temperature for Polycrystalline Diamond Compact Bits," E. Kuru, and A.K. Wojtanowicz, *Transactions of ASME Journal of Energy Resources Technology*, Vol. 115, June 1993.
- 27. "Friction Under PDC Cutter and Its Implication in Bit Life Prediction," E. Kuru and A.K. Wojtanowicz, *Oil and Gas European Magazine*, Vol. 18, 4/1992.
- 28. "Segregated Production Method for Oil Wells with Active Water Coning," A.K. Wojtanowicz, Hui Xu, and Z. Bassiouni, *Journal of Petroleum Science and Engineering, Special Issue, "Environmental Control Technology in Petroleum Engineering,*" Vol. 11, No. 1, April 1994.
- 29. "An Experimental Study of Friction Induced by PDC Cutters During Rock Cutting," E. Kuru and A.K. Wojtanowicz, *International Journal of Rock Mechanics and Mineral Sciences*, Vol. 32, No. 3, 1995.
- 30. "Downhole Water Loop A New Completion Method to Minimize Oil Well Production Watercut in Bottom-water-drive Reservoirs," A.K. Wojtanowicz and H. Xu, *The Journal of Canadian Petroleum Technology*, Vol. 34, No. 8, October 1995.
- 31. "A Drilling Mud Management Strategy Using Computer-Aided Life-Cycle Analysis," Ohara, S., and Wojtanowicz, A.K., Oil Gas-European Magazine, No. 4, December, 1995, 30-35.

- 32. "An In-Situ Method for Downhole Drainage-Injection of Formation Brine in a Single Oil-Producing Well," A.K. Wojtanowicz, and E. Shirman, in "Deep Injection Disposal of Hazardous and Industrial Wastes," J.A. Apps, and Chin-Fu Tsnag, editors, Academic Press, 1996, 403-420.
- 33. "In-Situ Segregated Production of Oil and Water A Production Method with Environmental Merit: Field Application," M. Swisher, and A.K. Wojtanowicz, SPE Advanced Technology Series: Health, Safety, Environment, Vol.4, No.2, August 1996
- 34. "Testing Protocol and Economic Analysis of Mud Dewatering for Closed-Loop Drilling Systems," A.K. Wojtanowicz, *Journal of Canadian Petroleum Technology*, Vol.36, No. 3, March 1997, 51-62.
- 35. Evaluation of Corrosion Inhibitor for Low-pH Ammonium Nitrate-Methanol Completion Fluid, Z. Krilov, T.Soric, M.Tomic, and A. K. Wojtanowicz, SPE Production and Facilities, February 1997, 4-9.
- 36. "Environmental Control of Drilling Mud Discharge Through Dewatering in Cold Weather Climates: Effect of Ambient Temperature," A.K. Wojtanowicz, and Yawen Ye, *J. Canadian Petroleum Technology*, Vol. 37, No. 5, May 1998, 35-40.
- 37. "Optimization of Drilling Mud Conditioning for Chemically-Enhanced Centrifuging," A.K. Wojtanowicz, and Y. Ye, *Journal of Canadian Petroleum Technology*, Vol. 37, No. 5, May 1998, 41-46.
- 38. "Oilwell Cement Pulsing to Maintain Hydrostatic Pressure A Search for Design Model," W. M. Manowski, and A.K. Wojtanowicz, *Transactions of ASME Journal Energy Resources Technology*, Vol. 120, No 3, 1998.
- 39. "Borehole Failure Resulting from Formation Integrity (Leak-Off) Testing in Upper Marine Sediments Offshore," A. K. Wojtanowicz, and Desheng Zhou, *Transactions of ASME Journal Energy Resources Technology*, Vol. 120, No. 2, June 1998, 111-117.
- 40. "Leak Detection in Liquid Subsea Flowlines with no Recorded Feed Rate," J.M. Dinis, A.K. Wojtanowicz, and S.L. Scott, *Transactions of ASME Journal Energy Resources Technology*, Vol. 121, No. 3, September 1999, 161-166.
- 41. "Leak-off Pressure Estimation from Cementing and Casing Data," D. Zhou, and A.K.Wojtanowicz, SPE J. Petroleum Technology, August 2000, 26-28
- 42. "More Oil Using Downhole Water Sink Technology: A Feasibility Study," A.K. Wojtanowicz, and Ephim I. Shirman, *SPE Production and Facilities*, 15 (4), November 2000, 234-240
- 43. "Life Cycle Management of Drilling Mud Systems," A. K. Wojtanowicz, *Nafta*, 52 (4), April 2001, 125-134
- 44. Inflow Performance and Pressure Interference in Dual-Completed Wells with Water Coning Control," A.K Wojtanowicz, and E.I.Shirman, J. Energy Resources Technology-Transactions ASME, Vol. 124, December 2002.
- 45. "Analysis of Leak-off Tests in Shallow Marine Sediments," D. Zhou, and A.K. Wojtanowicz, J. Energy Resources Technology-Transactions ASME, Vol. 124, December 2002.

- 46. "Improving Primary Cementing through Annual Cement Pulsation A Qualitative Analysis," V.S. Chimmalgi, and A.K. Wojtanowicz, *Oil Asia Journal*, 2003, 21-16
- 47. "Sustained Casing Pressure Occurrence and Removal," A.K. Wojtanowicz, *Nafta i Gaz*, Vol.20/1, 2003, 247-264.
- 48. "Reversal of Water Coning in Wells with Downhole Water Sink Completion Experimental Analysis," E. I. Shirman, and A. K. Wojtanowicz, *Mining Archives* Transactions of Polish Academy of Sciences, Vol. 49, Issue 4, 2004, 437-452.
- 49. "Assessment of Downhole Water Sink Technology for Controlling Water Inflow at Petroleum Wells" A. K. Wojtanowicz, and M. Armenta, J. Energy Resources Technology-Transactions ASME, Vol. 126, December 2004, 334 341.
- 50. "Water Cone Reversal in Oil Wells An Analytical and Experimental Study," A. K. Wojtanowicz, and E. I. Shirman, *Mining Archives* Transactions of Polish Academy of Sciences, Vol. 50, Issue 1, 2005, 3-16.
- 51. "Incremental Recovery Using Dual-Completed Wells in Gas Reservoirs with Bottom Water Drive; A Feasibility Study," M. Armenta, and A. K. Wojtanowicz, J. Canadian Petroleum Technology, Vol. 44, No. 6, June 2005, 53-61.
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- 80. "Environmental Control Technology Research Program," presented to faculty of Chongqing Institute of Geology and Natural Resources, November 22, 2018
- 81. "Well Integrity Loss due Gas Flow behind Casing Mechanism, Diagnosis, and Remediation," graduate seminar presented at Colorado School of Mines, Petroleum Engineering Department, March 15, 2019
- 82. "Testing and Remediation of Sustained Casing Pressure," graduate seminar presented at Institute of Petroleum Technology, Faculty of Science & Technology University of Stavanger, Norway, Sept. 24, 2019

- 83. "Development of Wellhead Intervention Techniques for Combating Gas Flow Behind Casing," webinar presented to Schlumberger on August 30, 2019
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