Boni Swadesi

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Area Of expertise :

Enhanced oil recovery (EOR), Reservoir Mechanics, Reservoir Engineering, Reservoir Fluid Physics Chemistry, Reservoir Behavior

Education

- **Agustus 2023 - 30 Januari 2024 Insinyur (4,00 / 4,00)**
  Petroleum Engineering at Institut Teknologi Bandung, Indonesia
- **2011 - 2016 Doctoral (3,75 / 4,00)**
  Petroleum Engineering at Institut Teknologi Bandung, Indonesia
  Study Of Integrated Surfactant Injection Mechanism For Light Oil In Sandstone Reservoirs
- **2002 - 2005 Master (3,49 / 4,00)**
  Petroleum Engineering at Institut Teknologi Bandung, Indonesia
  Polymer Injection Study With 1d And 2 D Models On The Evaluation Of Squeezing And Sweeping Mechanism
- **1991 - 1997 Bachelor (3,02 / 4,00)**
  Petroleum Engineering at UPN "Veteran" Yogyakarta, Indonesia
  Study Of Yvonne "B" Taf Field Absorptive Point Against Reservoir Depletion And Estimate Of An Additional Absorptive Point Area

Teaching experience

- **Time : 1999 - now at Petroleum Engineering Department, UPNVY**
  Position : Lecturer and Head of Department at Petroleum Engineering Department, UPNVY

Organization Experience

1. Expert at OGRINDO ITB (2004 – now)
2. Indonesian Engineers Association (PII) (2021 – now)
3. Indonesian Petroleum Engineering Association (IATMI) (2016 – now)
4. Oil Alumnae Association UPN "Veteran" Yogyakarta (IAMI) (1997 – now)
5. Society of Petroleum Engineers (SPE) (2016 – now)

Working experience

- **Time : January 2012 - January 2015**
  Title : Surfactant Injection Technology Development Study in Kenali Asam and Tempino Fields
  Job : Lab study for surfactant screening and determining the injection fluid formula to be implemented in Kenali Asam and Tempino fields.
- **Time : August 2015- May 2016**
  Title : EOR Lab ITB and LAPI ITB, Bandung, Polymer Screening for Tanjung Field Zone C Phase I
  Job : Lab study for surfactant screening and determining the injection fluid formula to be implemented in Tanjung Field Zone C Phase I.
- **Time : January 2018- June 2018**
  Title : EOR Lab ITB and LAPI ITB, Bandung, Polymer Screening for Sago Field, Pertamina EP
  Job : Lab study for surfactant screening and determining the injection fluid formula to be implemented in Sago Field, Pertamina EP.
- **Time : November 2019 - August 2023**
  Title : EOR Lab ITB, LAPI ITB and LPPM ITB, Bandung, Tanjung Polymer Field Trial, Pertamina EP
  Job : Implement, evaluate and monitor Tanjung Polymer Field Trial (TPFT).
- **Time : January 2021- July 2022**
  Title : EOR Lab ITB and LAPI ITB, Bandung, Polymer Screening for Kaji Semoga Field, PT MEDCO E&P
  Job : Lab study for surfactant screening and determining the injection fluid formula to be implemented in Kaji Semoga Field, PT MEDCO E&P.
- **Time : November 2021- January 2023**
  Title : EOR Lab ITB and LAPI ITB, Bandung, Chemical EOR Optimization Study of Tanjung Field Zone A
  Job : Lab study to optimize EOR chemicals, including alkaline, surfactant, and polymer.
- **Time : 2019 – 2023**
  Title : EOR Lab ITB and OGRINDO ITB, Formulation and Development of Micromodel for Chemical EOR Injection Application
  Job : Formulation and Development of Micromodel for Chemical EOR Injection Application

Working experience

- **Time : 2020 - 2023**
  Title : EOR Lab ITB and Mechanical Engineering ITB, "Design and Development of High Pressure Coreflood Tools"
  Job : Design and Development of High Pressure Coreflood Tools

- **Time : 2024 - 2025**
  Title : Pre-FS EOR Fullfield Cinta Field Study PHE OSES
  Job : Lab study for surfactant, polymer and surfaktan - polymer screening and determining the injection fluid formula to be implemented in Love Field.

Non-Formal Education

1. **Education and Certification of Certified Qualitative Researchers (CIQnR)#22** (January, 7th -10th 2022)
2. **Chemical Enhanced Oil Recovery (EOR): More Oil, Faster, With Less CO^2, SNF Floerger** (November 16th, 2022)
3. **Curriculum Workshop for Profession Engineer Programs at Faculty of Mineral Technology** (May 3rd, 2023)
4. **Chemical Enhanced Oil Recovery Workhsop, LEMIGAS** (February 1st, 2023)
5. **Workshop DNA Tracer with Diagnostic Stimulation Optimization oleh PT. Geoservices** (August, 5th-6th 2024)
6. **Annual Meeting 20th OGRINDO at Institut Teknologi Bandung** (September 19th - 20th 2024)

Publications

- Santoso, R. K., Fauzi, I., Hidayat, M., Swadesi, B., Aslam, B. M., & Marhaendrajana, T. (2017). Study of Non-Newtonian fluid flow in porous media at core scale using analytical approach. Geosystem Engineering, 21(1), 21–30. https://doi.org/10.1080/12269328.2017.1351404
- Boni Swadesi, Erdico Prasidya Saktika, Mahruri Sanmurjana, Septoratno Siregar, Dyah Rini; An experimental study of inaccessible pore volume on polymer flooding and its effect on oil recovery. AIP Conf. Proc. 8 July 2020; 2245 (1): 070006. https://doi.org/10.1063/5.0006957
- Swadesi, B., Suranto, S., Widiyaningsih, I., & Jani, M. (2020). Optimization study of integrated scenarios on cyclic steam stimulation (CSS) using CMG STARS simulator. Journal of Petroleum and Geothermal Technology, 1(1), 8-14.

Publications

- Swadesi, B., Suranto, I. W., Widyaningsih, R., & Murni, S. W. Simulasi Reservoir Heavy Oil dengan Multistaging DevelopmentModifikasi Inverted 5-SpotKombinasi Cyclic Steam Stimulation (CSS) dan Steamflooding. In Prosiding Seminar Nasional Teknik Kimia "Kejuangan" ISSN (Vol. 1693, p. 4393).
- Suranto, A. M., Swadesi, B., Widyaningsih, I., Widyaningsih, R., Murni, S. W., & Alannafi, L. A. (2020). Combination of Cyclic Steam Stimulation and Steam Flooding to Improve Oil Recovery in Unconsolidated Sand Heavy Oil Reservoir. Journal of Earth Energy Engineering, 9(2), 80-87.
- Bintarto, B., Swadesi, B., & Kaesti, E. Y. (2020, October). Core Sampling Procedure For Use As Artificial Core In EnhancedOil Recovery (EOR) Study. In Proceeding of LPPM UPN "Veteran" Yogyakarta Conference Series 2020–Engineering and Science Series (Vol. 1, No. 1, pp. 730-736).
- Kristanto, D., Swadesi, B., Widiyaningsih, I., Murni, S. W., Zumar, R., & Husenido, S. (2020, October). The Study of Flow Behavior and Performance of Polymer Injection at Pore Scale Using Micromodel. In Proceeding of LPPM UPN "Veteran" Yogyakarta Conference Series 2020–Engineering and Science Series (Vol. 1, No. 1, pp. 347-356).
- Ratnaningsih, D. R., Swadesi, B., Putradianto, R. R., & Risky, A. N. (2020, October). Research Culture and Productivity Improvement through Online Journal System Development and Optimization. In Proceeding of LPPM UPN "VETERAN" YOGYAKARTA CONFERENCE SERIES 2020–POLITICAL AND SOCIAL SCIENCE SERIES (Vol. 1, No. 1, pp. 66-76).
- Swadesi, B., Suranto, S., Widiyaningsih, I., Kurniawan, A., Widyaningsih, R., Budiarto, A., & Jani, M. (2020, October). Utilization of Reservoir Proxy Model for Development Strategy Optimization of Combined Steam Flooding & Cyclic Steam Stimulation for Enhanced Heavy Oil Recovery. In Proceeding of LPPM UPN "Veteran" Yogyakarta Conference Series 2020–Engineering and Science Series (Vol. 1, No. 1, pp. 784-791).
- Swadesi, B., Kristanto, D., Widiyaningsih, I., Murni, S. W., Zumar, R., & Husenido, S. (2021). The Study of Flow Behavior and Performance of Polymer Injection in Homogenous Porous Media Using Etched Micromodel.
- Winant, F. M., Suranto, S., & Swadesi, B. (2021). Oil reserves analysis in Batang field with material balance method for pressure maintenance. Journal Techno, 7(1).
- Swadesi, B., Kristanto, D., Widyaningsih, I., Murni, S. W., Husenido, S., Sanmurjana, M., ... & Siregar, S. (2021). Experimental Study of Polymer Injection Performance on Oil Recovery Factor Enhancement in Homogeneous and Heterogeneous Porous Media Using Acrylic Micromodel. SCIREA Journal of Energy, 6(5), 69-94.

Publications

- Swadesi, B., Zumar, R., Sanmurjana, M., Siregar, S., & Kristanto, D. (2021, November). The effect of inaccessible pore volume and adsorption on polymer flooding for field scale injection in RZ field. In AIP Conference Proceedings (Vol. 2363, No. 1). AIP Publishing.
- Swadesi, B., Ahmad Muraji, S., Kurniawan, A. et al. Optimizing the development strategy of combined steam flooding & cyclic steam stimulation for enhanced heavy oil recovery through reservoir proxy modeling. J Petrol Explor Prod Technol 11, 4415–4427 (2021). https://doi.org/10.1007/s13202-021-01301-3
- Swadesi, B., Zumar, R., Husenido, S., Kristanto, D., Widiyaningsih, I., & Murni, S. (2022). Experimental Study of Polymer Injection on Oil Recovery Factor Enhancement Using Homogenous and Heterogenous Micromodel Porous Media. Journal of Earth Energy Engineering, 11(1), 10-20.
- Kurniawan, D., Suhascaryo, K. N., & Swadesi, B. (2022). Evaluation of Water Channeling Problems and Planning for Its Improvement Using the Remedial Cementing Method and Its Economics in Well AB-30 Field AB PT. Pertamina EP. Journal of Petroleum and Geothermal Technology, 3(1), 24-32.
- Oktaviandi, F., Swadesi, B., & Ratnaningsih, D. R. (2022). Uncertainty Assessment for Field Development Study Using Monte Carlo Simulation on Salap Field Multilayer Gas Reservoir. Journal of Petroleum and Geothermal Technology, 3(1), 40-53.
- Pramesti, A. R., Suhascaryo, N., & Swadesi, B. (2022). Sand Problem Handling Strategy On Well Ar-02 With Hydraulic Pumping Unit. Journal of Petroleum and Geothermal Technology, 3(2), 12-18.
- Adiyanto, A., Swadesi, B., & Buntoro, A. (2023). Optimasi Design Rod Guide Untuk Meningkatkan Performance Sumur Sucker Rod Pump Di Pertamina EP Field Tanjung. Indonesian Journal of Energy and Mineral, 3(2).
- Zefanya, A. C., Swadesi, B., Prasetyo, G., & Sanmurjana, M. (2023). The Investigation of Paraffin Handling with Parasol and Xylene Chemical Treatment: A Case Study in Sangasanga Field, Indonesia. International Journal of Oil, Gas and Coal Engineering, 11(1), 1-8.
- FINOLA, T. R. (2022). PERHITUNGAN CADANGAN GAS SISA PADA LAPANGAN "TSY" DENGAN MENGGUNAKAN METODE MATERIAL BALANCE (Doctoral dissertation, UPN'Veteran" Yogyakarta).
- Alfarizi, A., Suhascaryo, N., & Swadesi, B. (2023). Technical and Economical Study on Increasing Oil Production in Old Wells (Traditional) by Performing Well Maintenance in the CP Field. Journal of Petroleum and Geothermal Technology, 4(1), 46-57.

Publications

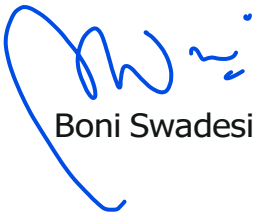
- Priyatno, E. Y., Buntoro, A., & Swadesi, B. (2023). Evaluation of Propellant/Stimgun Stimulation Works Using Geomechanical Analysis Based on Well Logging Data in an Effort to Increase Production at the EYP-211 YNK Structure Well in the Jambi Field. Journal of Petroleum and Geothermal Technology, 4(1), 30-39.
- Mahruri, S. T., Muhammad, R. S., Sembiring, I. P. A., Boni, S. T., Swadesi, M. T., & Marhaendrajana, T. (2022). A Laboratory Study of Surfactant Flooding Performance Using a Modified Micromodel for Chemical Enhanced Oil Recovery (cEOR) Application: Capillary Desaturation Curve (CDC). Journal IATMI.
- Irianto, H., Swadesi, B., & Suranto, S. (2022). Evaluation and Hydraulic Fracturing Design for Optimization of Effective Conductivity in Multilayer Reservoir. Journal IATMI.
- Swadesi, B., Kristanto, D., Widyaningsih, I., Murni, S. W., Husenido, S., Sanmurjana, M., ... & Siregar, S. (2023, June). The effect of polymer concentration and reservoir heterogeneity on oil recovery factor: An experimental study using homogeneous and heterogeneous micromodel, Yogyakarta, Indonesia. In AIP Conference Proceedings (Vol. 2598, No. 1). AIP Publishing.
- Helmy, M. F., Swadesi, B., & Payapo, M. I. (2023, June). Matrix acidizing stimulation evaluation of well I-25 field Jatibarang. In AIP Conference Proceedings (Vol. 2598, No. 1). AIP Publishing.
- Sany, S., & Swadesi, B. (2023, June). Improving the accuracy of mechanical downhole problem analysis through modification of visual camera downhole on Slickline units in oil and gas wells SSY field. In AIP Conference Proceedings (Vol. 2598, No. 1). AIP Publishing.
- Ulfah, B. M., Setiati, R., Fathaddin, M. F., Ratnaningsih, D. R., Swadesi, B., & Suprayitno, A. (2023, September). The Potential of Crab Chitosan Polymer as EOR Injection Fluid. In IOP Conference Series: Earth and Environmental Science (Vol. 1239, No. 1, p. 012038). IOP Publishing.
- Aslam, B., Yan, B., Hidayat, M., Husenido, S., Swadesi, B., Permadi, P., & Marhaendrajana, T. (2023). Data driven approach using capacitance resistance model to determine polymer in-situ retention level. Geoenergy Science and Engineering, 229, 212043.
- Swadesi, B., Ilyas, A. A., Kristiati, M. T., Asmorowati, D., Sobri, A., Bayu, S., & Azwar, M. L. (2023). Fracturing Fluid Optimization in Limestone Formation Using Guar Gum Crosslinked Fluid. Journal of Earth Energy Engineering, 12(2), 65-75.

Publications

- Amri, S., Setiati, R., & Swadesi, B. (2024). Terrafloc Polymer Application to Increase Oil Recovery: Study Literature. In E3S Web of Conferences (Vol. 500, p. 03013). EDP Sciences.
- Amri, S., Setiati, R., Fathaddin, M. T., Rakhmanto, P., Swadesi, B., & Ratnaningsih, D. R. (2024). Evaluation of the Viscosity of Terrafloc Polymer and Xanthan Gum Polymer. Journal of Earth Energy Science, Engineering, and Technology, 7(1).
- Swadesi, B., Ratnaningsih, D. R., Helmy, M. F., Wilih, L. T. W., & Iqbal, A. N. M. (2024, May). Integrated treatment of wax and scale removal in old wells of the Tanjung Field. In IOP Conference Series: Earth and Environmental Science (Vol. 1339, No. 1, p. 012022). IOP Publishing.
- Swadesi, B., Asmorowati, D., Widyaningsih, I., Sanmurjana, M., Husenido, S., & Kardin, A. P. (2024, July). Unlocking oil reserves: Optimizing polymer injection for enhanced recovery. In AIP Conference Proceedings (Vol. 3167, No. 1). AIP Publishing.
- Rini, D., Swadesi, B., Ferian, H. M., Hermawan, Y. D., Wilih, L. T. W., & Dewa, Y. R. (2024, July). Scaling down oil production: A chemical solution for optimal operations in Tanjung field. In AIP Conference Proceedings (Vol. 3167, No. 1). AIP Publishing.
- Swadesi, B., Telenkaho, C., Kristanto, D., Adham, A., & Saryana. (2024, September). Polymer injection optimization on Berea core and Native core using reservoir simulation on Layer C of the "CT" field. In AIP Conference Proceedings (Vol. 3019, No. 1, p. 090002). AIP Publishing LLC.
- Swadesi, B., Parawita, D. H., Widiyaningsih, I., & Ghassany, R. A. (2025, February). Well Patterns and Nutrient Injection Rates Optimization for Microbial Enhanced Oil Recovery (MEOR) in the "DHP" Field. In IOP Conference Series: Earth and Environmental Science (Vol. 1451, No. 1, p. 012035). IOP Publishing.

Yogyakarta, 05 Mei 2025

Sincerely,



Boni Swadesi