

Referências Bibliográficas

- [1] IEA. International energy agency. world energy outlook 2009. Disponível em <<http://www.worldenergyoutlook.org/>> Accesso em: Nov. 2009.
- [2] GUILLEN, V. R. N.. Deslocamento de óleo em um meio poroso através de injeção de emulsões óleo-em-água: análise de fluxo linear. Msc, Pontifícia Universidade Católica do Rio de Janeiro, RJ, Setembro 2007.
- [3] Schlumberger oilfield glossary. coning. Disponível em <<http://www.glossary.oilfield.slb.com/Display.cfm?Term=coning>> Accesso em: Ago. 2009.
- [4] KOKAL., S.. Crude-oil emulsions: A state-of-the-art review. SPE, 77497, 2005.
- [5] BECHER, P.. Emulsion: Theory and Practice. Wilmington, DE, 3º edition, May 2002.
- [6] Schlumberger oilfield glossary. steam assisted gravity drainage. Disponível em <<http://www.glossary.oilfield.slb.com/Display.cfm?Term=steamassistedgravitydrainage>> Accesso em: Ago. 2009.
- [7] GUILLEN, V. R. N.; ALVARADO, V. ; CARVALHO, M.. Visualization of oil displacement by water and oil-water emulsion injection. COBEM, 09:1192, 2009.
- [8] BP. Statistical review of world energy 2009. Disponível em <bp.com/statisticalreview> Accesso em: Ago. 2009.
- [9] IEA. International energy agency. oil and gas production prospects. Disponível em <<http://www.worldenergyoutlook.org/2008.asp>> Accesso em: Set. 2008.
- [10] HYNE, N. J.. Nontechnical Guide to Petroleum Geology, Exploration, Drilling, and Production. Pennwell Corp, 2º edition, 2001.
- [11] SOO, H.; RADKE, C. J.. The flow of dilute, stable emulsions in porous media. SPE-AIME, 23:342–347, 1984.

- [12] SALAGER, J. L.; MÁRQUEZ, L.; PEÑA, A.; RONDÓN, M.; SILVA, F. ; TYRODE, E.. Current phenomenological know-how and modeling of emulsions inversion. *Industrial Engineering Chemical Resumes*, 39:2665–2676, 2000.
- [13] SCHRAMM, L. L.. **Emulsions, Foams, and Suspensions, Fundamentals and applications.** Wiley VCH, 2005.
- [14] GRIFFIN, W. C.. Classification of surface-active agents by hlb. *Journal of the Society of Cosmetic Chemists*, 1:311, 1949.
- [15] GRIFFIN, W. C.. Calculation of hlb values of non-ionic surfactants. *Journal of the Society of Cosmetic Chemists*, 5:259, 1953.
- [16] THOMPSON, D.; TAYLOR, A. ; GRAHAM, D.. Emulsification and demulsification related to crude oil production. *Colloids and Surfaces*. Elsevier Science Publishers B.V., 15:175–189, 1985.
- [17] SJÖBLOM, J.; ASKE, N. ; AUFLEM, I. H.. Our current understanding of water-in-crude oil emulsions: Recent characterization techniques and high pressure performance. *Advances in Colloid and Interface Science*, 100, 2003.
- [18] VAN DER ZANDE, M.; VAN HEUVEN, K.; MUNTINGA, J. ; DEN BROEK, W.. The effects of productions rate and choke size on emulsion stability. *SPE*, 56640, 1999.
- [19] VEIL, J. A.; QUINN, J. J.. Argonne national laboratory. downhole separation technology performance: Relationship to geologic conditions. U.S. Department of Energy, 2004.
- [20] JANSSEN, P. H.. Characterization of Oil in Water Mixtures Produced in High-Watercut Oil Wells. Phd, Delft University of Technology, Delft, Nederlands, June 2000.
- [21] PASO, K.; SILSET, A.; SØRLAND, G.; DE A. L. GONÇALVES, M. ; SJÖBLOM, J.. Characterization of the formation, flowability, and resolution of brazilian crude oil emulsions. *Energy and Fuels*, 23:471–480, 2009.
- [22] MOHAMMADI, A. H.; HERIOT-WATT, U.; JI, H.; BURGASS, R.; BASHIR, A. ; TOHIDI, B.. Gas hydrates in oil systems. *SPE*, 99437, 2006.

- [23] AZOM, P. N.; SRINIVASAN, S. ; SPE. University of texas at austin. mechanistic modeling of emulsion formation and heat transfer during the steam-assisted gravity drainage (sagd) process. SPE, 124930, 2009.
- [24] CUTHIELL, D.; GREEN, K.; CHOW, R.; KISSEL, G. ; MCCARTHY, C.. The in situ formation of heavy oil emulsions. SPE, 30319, 1995.

A

Planos do reservatório

A continuação apresentam-se os planos das duas peças que compõem o reservatório utilizado em todos os experimentos. A Fig. (A.1) é o plano da peça de acrílico transparente com a cavidade que é preenchida com esferas de vidro. A Fig. (A.2) é o plano da peça em acrílico branco que fecha o reservatório e compacta as esferas.

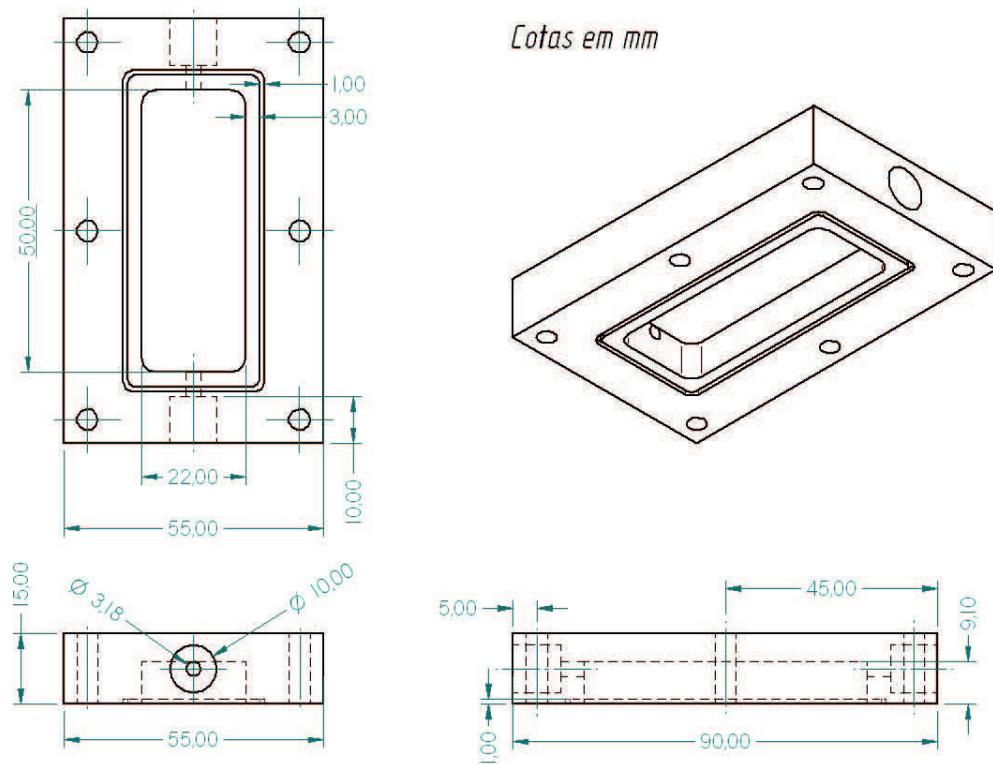


Figura A.1: Plano da peça com a cavidade

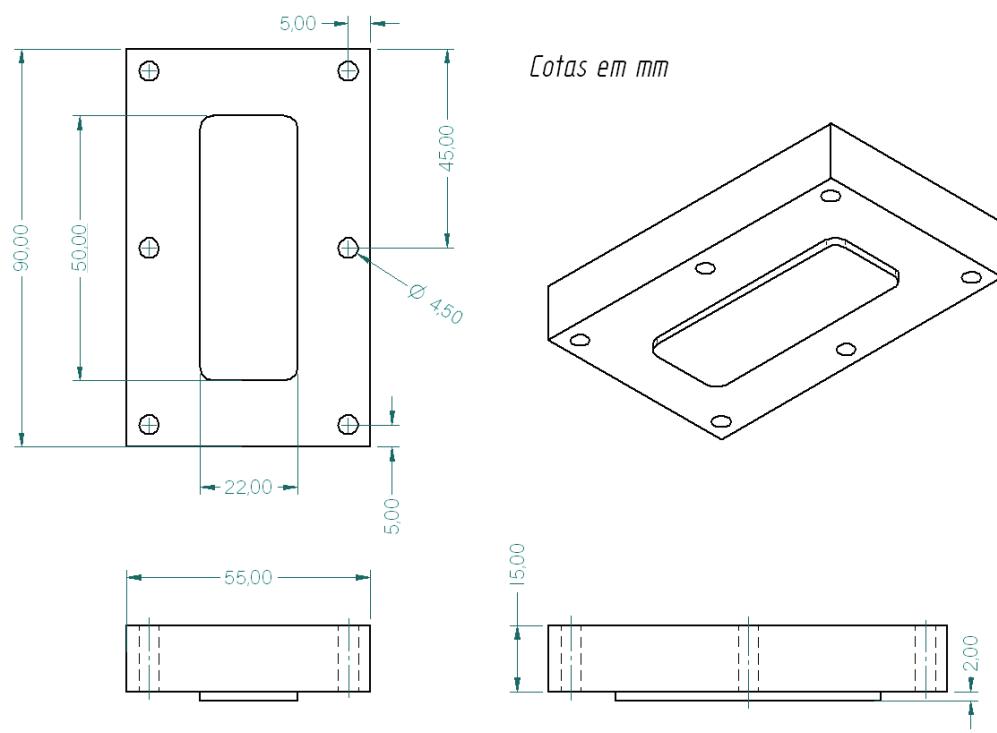


Figura A.2: Plano da peça com a protuberância que compacta as esferas