

**WORKSHOP**  
**EOR 2017**



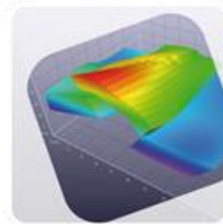
# Chemical EOR Workshop - Key Success Factors

## 3<sup>rd</sup> edition

10-12 May 2017

Novotel Hotel La Défense/Paris, France

***FINAL PROGRAM***



## Wednesday May 10<sup>th</sup>

**08:15 – 09:00**            **Registration**

**09:00 – 09:15**            **Welcome & Introduction (IFPEN)**

### ***SESSION 1: Heavy and extra-heavy oil reservoirs***

***Chairpersons: Danielle Morel (Total); Dag Chun Standnes (Statoil ASA); Morgane Pigeaux (IFPEN)***

**09:15 – 09:45**            **Challenges and learnings from a heavy oil polymer flood in Albania**  
Nestor Hernandez (Bankers Petroleum Ltd) and Nicholas Tumu (Bankers Petroleum Ltd)

**09:45 – 10:15**            **Results and interpretation of a Polymer Flood Pilot in the Tambaredjo Heavy Oil Field, Suriname**  
Eric Delamaide (IFP Technologies Canada), Kathleen Moe Soe Let (Staatsolie), Karuna Bhoendie (Staatsolie), Sue-Ann Jong-A-Pin (Staatsolie) and W. Ruiz Paidin (Staatsolie)

**10:15 – 10:45**            **Coffee Break**

**10:45 – 11:15**            **Results and interpretation of a high viscous polymer injection test**  
Daniel Rubalcava (PDO), Nasser Al-Azri (PDO)

**11:15 – 11:45**            **Designing surfactant-polymer processes for heavy oil reservoirs: case studies**  
David Rousseau (IFPEN), Sabrina Hocine (Solvay), Samir Bekri (IFPEN), Jalila Boujlel (IFPEN) and Guillaume Degré (Solvay)

**11:45 – 12:15**            **Colombia's First ASP Pilot at San Francisco**  
Danuil Dueñas (Ecopetrol S.A.), Jose Francisco Zapata (Ecopetrol S.A.), Jaime Jimenez (Ecopetrol S.A.) and Luis Carlos Perdomo (Ecopetrol S.A.)

**12:15 – 13:45**            **Lunch**

**14:00**                      **Bus to IFPEN**

**14:30 – 17:10**            **IFPEN lab visit**

**17:30**                      **Bus to Novotel hotel**

**Thursday May 11<sup>th</sup>**

**08:30 – 09:00**            **Registration**

***SESSION 2: Tight or low permeability reservoirs***

***Chairpersons: Abdullah Al-Kindi (PDO); Franco Masserano (ENI); Eric Delamaide (IFP Technologies Canada)***

**09:00 – 09:30**            **Improving well productivity of tight condensate gas reservoir by methanol injection**  
Ucan Sezai (YPF) and Juan Juri (YPF)

**09:30 – 10:00**            **Creation of In-Situ EOR Foams by the Injection of Dispersed Foamer in Gas, and its Application in a Piedemonte Oil Field (Colombia).**  
Alonso Ocampo (Equión Energia Ltd.), Sergio H. Lopera (Universidad National de Colombia) and Juan M. Mejia (Universidad National de Colombia)

**10:00 – 10:30**            **Coffee Break**

**10:30 – 11:00**            **A CO<sub>2</sub> foam conformance pilot in US Gulf coast region**  
Max Chabert (Solvay), David D'Souza (Denbury), James Cochran (Denbury), Eric Delamaide (IFP Technologies Canada), Patrick Dwyer (IFP Technologies Canada, Tayrona Field Services), Lahcen Nabzar (IFPEN) and Emie Lacombe (Solvay)

**11:00 – 11:30**            **The first successful chemical EOR pilot in the UAE: one spot pilot in high temperature, high salinity carbonate reservoir**  
Danielle Morel (TOTAL), Omar Al-Amrie (TOTAL ABK), Philippe Cordelier (TOTAL), David Levitt (ADMA), Romain Bursaux (TOTAL) and Sophie Peltier (TOTAL)

**11:30 – 12:00**            **Polymer Injection Pilot in Palogrande, A Low Permeability Sandstone**  
Juan Manuel Leon (Ecopetrol S.A.), Omar Huertas (Ecopetrol S.A.), Jose Francisco Zapata (Ecopetrol S.A.) and Jaime Jimenez (Ecopetrol S.A.)

**12:00 – 13:30**            **Lunch**

### ***SESSION 3: Heterogeneous and naturally fractured reservoirs***

***Chairpersons: Abdullah Al-Kindi (PDO); David Rousseau (IFPEN)***

- 13:30 – 14:00**            **Modified surfactant injection to enhance oil production and recovery, case study: Omani carbonate reservoir**  
Ahmed Al-Naabi (Daleel Petroleum LLC), Ibrahim Al-Sinani (Daleel Petroleum LLC), Saleh Al-Jabri (Daleel Petroleum LLC), Nasser Al-Rawahy (Daleel Petroleum LLC), Issa Al-Rawahy (Ta'azeez Alneft), Khaldoun Al-Hinai (Ta'azeez Alneft) and Leksono Mucharam (Bandung Institute of Technology)
- 14:00 – 14:30**            **Snorre in-depth water diversion pilot**  
Kjetil Skrettingland (Statoil ASA), Vegard Røine Stenerud (Statoil ASA) and Dag Chun Standnes (Statoil ASA)
- 14:30 – 15:00**            **Novel EOR Options for Heterogeneous Carbonate Reservoirs: Using Polymer for Gas Mobility Control**  
Shehadeh Masalmeh (ADNOC)
- 15:00 – 15:30**            **Coffee Break**

### ***SPECIAL SESSION***

***Chairpersons: Eric Delamaide (IFP Technologies Canada); David Rousseau (IFPEN)***

- 15:30 – 16:00**            **Experimental study on micro bubble CO<sub>2</sub> EOR**  
Hiroaki Koga (JOGMEC), Takashi Akai (JOGMEC), Yasutomo Takakuwa (JOGMEC), Ko Sato (JOGMEC), Yoshihiro Tsuchiya (JOGMEC), Seiji Shirai (JX Nippon Oil & Gas Exploration Corporation), Kei Kuuu (Waseda University) and Hiroko Hiramoto (Waseda University)
- 16:00 – 16:30**            **Modeling of polymer thermal and mechanical degradation in large-scale reservoir simulation**  
Vegard Kippe (Statoil ASA)
- 16:30 – 17:00**            **Application of cellulose nanofiber to enhanced oil recovery**  
Kazuya Kusanagi (JOGMEC), Sumihiko Murata (Kyoto University), Yosuke Goi, Mineo Sabi (Dai-ichi Kogyo Seiyaku Co., Ltd.), Yoshitake Kato and Norihiko Togashi (JOGMEC)
- 18:00**                      **Bus to Paris for the Workshop Dinner**
- 22:00**                      **Bus back to Novotel Hotel**

**Friday May 12<sup>th</sup>**

**08:30 – 09:00**                      **Registration**

***SESSION 4: Towards hybrid EOR: salinity modification and chemical flooding***

***Chairpersons: Harry Frampton (BP); Ali Al-Sumaiti (Petroleum Institute Abu Dhabi); David Rousseau (IFPEN)***

**09:00 – 09:15**                      **Introduction Session 4**

**09:15 – 09:45**                      **Results of an ASP pilot in a sandstone field in Oman**  
Abdullah Al-Kindi (PDO), Nasser Al-Azri (PDO), K. Shuaily (PDO), Suryanarayana Guntupalli (PDO), Moshin Amri (PDO), Maitham Shidi (PDO), Hatim Hadhrami (PDO) and Yi Svec (Shell)

**09:45 – 10:15**                      **Surfactant Polymer Flooding Study on the RALB Reservoir from Screening to Pilot Design**  
Mohammed Taha Al-Murayri (KOC), Abraham Abdelgadir Hassan (KOC), Naser Majeed Al-Tameemi (KOC), Sabrina Hocine (Solvay), David Lalanne (Solvay), Claire Marlière (IFPEN), René Tabary (IFPEN), Romain Barsalou (Beicip-Franlab) and Victor Alcobia (Beicip-Franlab).

**10:15 – 10:45**                      **Coffee break**

**10:45 – 11:15**                      **Low salinity water injection, ENI experience in sandstone reservoirs**  
Chiara Callegaro (Eni), Franco Masserano (Eni) and Sambiase Martina (Eni)

**11:15 – 11:45**                      **Progress on SPD's ASP pilot in West-Salym**  
Volodimir Karpan (SPD), Michael Shuster (SPD), Igor Koltsov (SPD), Egor Mikhaylenko (SPD), Diederik van Batenburg (Shell), Gerard Glasbergen (Shell), Jasper de Reus (Shell), Frank van der Heijden (Shell) and Diego Wever (Shell)

**11:45 – 12:15**                      **SmartWater Synergy with Polymer Flooding for a Slightly Viscous Arabian Heavy Reservoir**  
Abdulkareem M. AlSofi (Saudi Aramco), Jinxun Wang (Saudi Aramco), Abdullah M. AlBoqmi (Saudi Aramco), Mohammad B. AlOtaibi (Saudi Aramco), Subhash C. Ayirala (Saudi Aramco) and Ali A. AlYousef (Saudi Aramco)

**12:15 – 13:45**                      **Lunch**

## ***SESSION 5: Water management***

***Chairpersons: Harry Frampton (BP); Juan Juri (YPF); Morgane Pigeaux (IFPEN)***

- 13:45 – 14:15**            **Preparing water management for chemical EOR**  
**Jan Paul (OMV), Rainer Kadnar (OMV), Scherwan Suleiman (OMV)**  
**Verena Leitenmüller (Mining University Leoben) and Johannes Wenzina**  
**(TU Vienna)**
- 14:15 – 14:45**            **Evaluation at laboratory scale of EOR chemicals impact on topside**  
**operations**  
**Jean-François Argillier (IFPEN), Isabelle Henaut (IFPEN), Myriam**  
**Darbouret (IFPEN) and Guillaume Vinay (IFPEN)**
- 14:45 – 15:15**            **Coffee break**
- 15:15 – 15:45**            **Screening of oxidation and filtration techniques to treat back-produced**  
**polymer**  
**Emilie Sutton-Sharp (Suez)**
- 15:45 – 16:15**            **Water treatment and use in the Clair Ridge LoSal EOR deployment**  
**Harry Frampton (BP) and Dale D. J. Williams (BP)**
- 16:15 – 16:30**            **Conclusions – End of the Workshop**