

Training Title

OPTIMIZATION OF HEAVY OIL PRODUCTION USING ARTIFICIAL LIFT SYSTEMS

Training Duration

5 days

Training Venue and Dates

Optimization Of Heavy Oil Production Using Artificial Lift Systems	5	12-16 February, 2024	\$5, 500	Dubai. UAE.
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Trainings will be conducted in any of the 5 star hotels.

Training Fees

\$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch.

Training Certificate

Prolific Consultants FZE Certificate of Course Completion will be issued to all attendees.

TRAINING OVERVIEW

COURSE DESCRIPTION

This 5-day course emphasizes the role of engineers and field operators in planning and executing Artificial Lift Operations to optimize field production in heavy oil fields and thus add to the profitability and recoverable reserves. It also emphasizes the significance of the team concept as a factor in optimizing operations success. The course is highlighted with open discussions and problem solving shared by the instructor and participants.

By the end of this course, attendees will have a working knowledge of the industry's advanced technologies in the field of designing and installing artificial lift systems in their respective heavy oil operations. They will have knowledge of selecting the appropriate type of Artificial Lift for heavy oil production.

COURSE OBJECTIVE:

To provide an in-depth knowledge of the theoretical and practical aspects of Artificial Lift optimization in Heavy Oil Production. At the end of the this course delegates will learn about the different Artificial Lift systems used in heavy oil production, and how to design an Artificial Lift system, and how to install a system.

SUITABLE FOR:

- ✓ *Production Engineers and managers.*
- ✓ *Reservoir engineers.*
- ✓ *Completion and Workover Engineers*
- ✓ *Feld maintenance supervisors and operators.*
- ✓ *Service companies and equipment manufacturing engineers.*

- ✓ *Safety engineers and personnel selected by their companies for attending special training courses.*

TRAINING METHODOLOGY:

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivate everybody find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on a daily basis to examine the effectiveness of delivering the course.

COURSE OUTLINE:

DAY 1

Heavy Oil Production – Inflow and Outflow Relationships

- ***Heavy Oil Reservoir performance: wellbore and reservoir performance overview***
- ***Pressure loss in the wellbore***
- ***Well productivity***
- ***Concepts of productivity index***
- ***Inflow and outflow relationships***
- ***Overview of artificial lift technology: sucker rod pump design, hydraulic pump design, jet pump, gas lift, Electric Submersible Pump (ESP)***
- ***Application of artificial lift technology and its limitations***
- ***Artificial lift screening methods***

DAY 2

Sucker Rod Pumping

- ***Sucker rod pump concept***
- ***Limitations and advantages of the sucker rod pumping system***
- ***Components of the sucker rod pump***
- ***Design of the sucker rod pump***
- ***Troubleshooting of the sucker rod pump systems***

DAY 3

PCP systems

- ***Concept of the Progressing Cavity Pump (PCP) pumps***
- ***Limitation and advantages of the PCP pumps***
- ***Best practices for installation and maintenance***
- ***Troubleshooting of PCP pumps***
- ***New technology of PCP pumps***

DAY 4

ESP Systems

- *Concept of the Electric Submersible Pump (ESP) system*
- *Equipment and accessories of the ESP systems*
- *ESP design: pump performance curves, pump intake curves, typical problems, installation, troubleshooting; best practices for installation and maintenance;*
- *Steps to correctly size an ESP system. basic sizing principles for the pump, motor and cable*
- *Importance of correctly matching well productivity to pump performance*
- *Use of data to diagnose well/equipment problems*
- *Limitations and advantages of the ESP system*

DAY 5

Heavy Oil Production Optimization

- *Applications of Artificial Lift for heavy oil production.*
- *Case Studies*
- *Open discussion on client cases.*

Case Studies, Role Plays, Videos, Discussions, Last Day Review & Assessments will be carried out.

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