Nodal Analysis Workshop - NAW-3 - Virtual, Blended Delivery

COURSE

About the Course

This workshop will be delivered virtually through PetroAcademy. Each PetroAcademy offering integrates multiple learning activities, such as reading assignments, self-paced e-Learning, virtual instructor-led sessions, discussion forums, group exercises, case studies, quizzes, field trips, and experiential activities.

See detailed schedule and PetroAcademy details.

Activities include 16 hours of instructor-led, virtual training sessions, plus approximately 22 hours of self-paced work.

See demo of online learning and instructor-led modules.

Well Inflow/ Outflow NODAL Analysis is an integral part of a production or completion engineer's work scope, and is often applied throughout a well's life to maximize value - from the beginning of the completion design process through underperforming well diagnostics. This workshop provides a comprehensive overview of this analysis technique, emphasizing real world application through multiple problems from different perspectives.

Upon completion, participants will be able to approach a problem recognizing potential solution methods, prepare data for the analysis, identify sources of error, perform an analysis with industry software, and present a holistic recommendation. Topics related to perforating, components of skin, matching transient test data, outflow limitations, selecting artificial lift, liquid loading, and incorporating fluid PVT properties will be covered.

Target Audience

Operating Company and Service Company engineers and technical managers responsible for performing or reviewing well systems analysis from at least one perspective (perforating design, tubing sizing, post stimulation evaluation, etc.). Participants should be in a role that requires that they regularly perform or are required to technically review well inflow/outflow analysis.

You Will Learn

Participants will learn how to:

- Recognize the application and limitations of traditional well systems analysis

- Identify data requirements for a meaningful analysis
- Accurately model the various components of skin, including perforating
- Assess outflow performance, including liquid loading, tubing constraints, and artificial lift
- Confidently approach well systems analysis from multiple perspectives and select the correct diagnostic strategy for your well conditions

Course Content

BLENDED LEARNING WORKSHOP STRUCTURE

This program is comprised of the following activities:

ILT = Virtual Instructor-led Training

OL = Online Learning Activity/Reading

EX = Online Exercises through SNAP Sofrware (included with course)*

Week	Activity	Hours (Approx)	Subject	Virtual Sessions (Central US time) GMT-5:00
Week 1	**OL**	2.5	Introduction essay and assessment	
	ILT	3.0	Course Kick-off and Inflow/Outflow models in SNAP	Wednesday, 14 September, 08:00-11:00
	EX	2.0	Exercises	
	ILT	2.0	Components of Skin Perforating	Friday, 16 September, 08:00-11:00
	EX	2.0	Basic Gas and Basic Oil Exercises	
Week 2	**ILT**	3.0	Ouflow Basics, Advanced Outflow, HZ and Frac	Monday, 19 September, 08:00-11:00
	EX	2.5	Exercises	
	ILT	3.0	Artificial Lift and Transient Tests	Wednesday, 21 September, 08:00-

			11:00
EX	4.0	Delta 1 and Delta 2 Exercises	
ILT	2.0	Workshop Wrap-up	Friday, 23 September, 08:00-10:00

**SNAP is a petroleum engineering software tool designed to conduct well performance predictions using nodal analysis. With SNAP, participants can analyze relationships between the reservoir, wellbore, and surface equipment to determine a well's production capacity. SNAP has built in modules for the design and troubleshooting of gas-lift or jet pump installations.*

Product Details

Categories: Upstream

Disciplines: Production and Completions Engineering

Levels: Intermediate

Product Type: Course

Formats Available: Virtual

Instructors: Mason Gomez