

## Mapping the Future.

**Competency-based training is the foundation of PetroSkills.** In fact, the PetroSkills alliance, through its discipline-specific competency maps has become the industry benchmark.

These maps document the technical skills required at specific levels of expertise. This enables individuals and organizations to identify and manage the skills that both organizations and individuals require to be successful. The PetroSkills courses are designed to deliver these competencies as part of a coordinated training program. For more information, contact [training@petroskills.com](mailto:training@petroskills.com).

### Geophysics Competency Map (SELECTED SAMPLE)

Junior Reservoir Engineer - Required Status				
Reservoir Engineering Competency Map				
Geoscience				
Fluid Properties				
Skill	Awareness	Fundamental Application	Skilled Application	Mastery
<b>Oil, Gas and Water Fluid Properties (1)</b>	Describe the basic fluid properties of oil, gas and water.	Determine fluid properties from physical measurements and industry standard correlations and understand the	Identify inconsistencies in the fluid properties data and use and modify standard correlations to agree with field measured data.	Develop or enhance PVT correlations for distribution to others and use fluid property analysis to differentiate the origin of various hydrocarbons.
<b>Oil, Gas and Water Fluid Properties (2)</b>	Understand the concepts of flash and differential liberation	Describe various reservoir fluid separation processes, such as flash and differential liberation and specify the correct	Determine impact of the major parameters of hydrocarbon phase behavior on the production process.	Use compositional approach to verify and extend fluid property values obtained from laboratory tests.
<b>Oil, Gas and Water Fluid Properties (3)</b>	Understand the phase behavior of oil, gas, and water as it is produced to the well, up the well and through facilities.	Design fluid separation process to maximize product revenues.	Develop separation procedures designed to maximize liquid production or other desired production targets. Integrate	Use compositional approach to incorporate facility processing into values for oil and gas formation volume
<b>Fluid Sampling and Laboratory Testing of Fluids</b>	Describe various fluid sampling methods, tools, and techniques.	Specify methods and tool characteristics for sampling hydrocarbons; both downhole and recombined	Design sampling programs for various reservoir conditions and fluid types. Review	Design and carry out numerous fluid sampling programs. Critique data quality and advise others

**Awareness:** Can describe area's purpose(s) and key concepts; recognizes what can be routinely done.

**Fundamental Application:** Can recognize when to apply subject area skills in 'normal' situations; can apply subject area skills in normal situations with appropriate reference guides available; has actually done at least once.

**Skillful Application:** Is able to accomplish skill without help or reference to notes in normal situations; has done numerous times; recognizes abnormal situations/cases.

**Mastery:** Routinely handles difficult cases; analyzes abnormal cases; invents new techniques.

DELIVERING KNOWLEDGE.

DEVELOPING COMPETENCE.

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