2026 Pumpsim Training Program

Day 1: Understanding the Pipe Network Modelling in Pumpsim DESIGN

Day	Topic	Content
1	**Pumpsim Basics**	• Introduction to 3D pipe network simulation. • Using the mouse and toolbars. • Managing the display (colours, data, views). • Drawing, moving, copying and deleting airways. • Creating pipelines. • Specifying pipe attributes – sizes, type and strengths.
	Building a Model	• Import mine design, simplifying and filtering. • Constructing pipes, tanks, valves and fittings in 3D. • Using grouping, levels, layers and saved views. • Constructing parallel pipelines and channels. • Defining demand devices. • Steady State Simulation.
	Text Messages	• Creating data boxes • Creating simple text boxes • Configuring advanced text boxes.
	Dynamic Simulation	• Defining Simulation scenarios and dynamic scripts. • Specifying dynamic monitors. • Inspecting warnings during dynamic simulations.
	Optimisation of Pipe Sizes	• Calculating the most efficient pipe sizes and types. • Defining pumping power, pump and pipe costs. • Optimisation of models.
	Stages	• Recapitulation on building a model. • Advantages of using stages. • Utilisation of stages. • Applying specific changes in different stages.
	Pumps, Compressors and Turbines	• Utilise pumps, fixed flows, fixed pressures fixed power to produce desired flow. • Defining a characteristic curve into Pumpsim DESIGN. • Pumps configurations, parallel vs series. • Estimating pump efficiency.
	Practical Exercise	

Day 2: Practical Applications of Pumpsim DESIGN and Advanced Tools

Day	Topic	Content
2	**Importing Topography**	• Using the import topography tool. • Configuring offset parameters. • Moving references.
	Aquifers	• Defining new aquifers. • Defining pressure and volume tables.
	Compressed Air Model	• Constructing a compressed air network in a mine. • Defining and utilising a compressor. • Defining demand devices. • Configuring units.
	Gas Drainage Model	• Constructing a gas drainage model in a mine. • Defining pipe sizes and types and adding proper fittings. • Defining and utilising compressors. • Defining gas mixtures. • Configuring shock losses for fittings.
	Paste fill Model	• Constructing a paste fill model in a mine. • Configuring fluid types in the model. • Creating 3D containers and defining fluid levels. • Using the slurry calculator and viscosity calculator tools. • Inspecting pipelines wall friction losses.
	Surface Dewatering	• Defining new surface sumps or water containers. • Defining water inflow to mines pits. • Configuring dewatering pipelines and pumps. • Configuring water flow between adjutant pits. • Dynamis simulation of water levels.
	Underground Dewatering	• Defining underground 3D containers. • Configuring underground dewatering networks. • Dynamic simulation of water levels.
	Question Time	