Equipment Selection Guidelines

Selecting the best equipment for LNAPL and DNAPL source reduction depends on matching it to the site conditions and project goals. The major factors to consider are:

What are the project goals and

constraints? The starting point for equipment selection is the consideration of factors such as: the importance of pumping LNAPL or DNAPL only, and not water; the expected duration of the project and total volume of LNAPL or DNAPL to be removed; the availability of site labor for service; and the overall budget.

Does everything fit into the well?

Equipment selection depends on well diameter, well depth, depth to water and its fluctuation, and LNAPL or DNAPL layer thickness.

What's being removed? The type of fuel or solvent, its viscosity, density, temperature, age of spill, and the presence of biological growth or debris affect equipment performance.

What LNAPL or DNAPL removal rate is needed? The hydraulic conductivity of the formation, the LNAPL or DNAPL recovery rate in the wells, and the pumping strategy determine the maximum LNAPL or DNAPL flow rate that will be required.



Free Product Recovery Equipment Application Overview	SOS® AutoGenie™	SPG AutoGenie™	SOS® Programmable Genie®	SPG Programmable Genie®
Fresh gasoline	V	V	$\overline{\mathbf{V}}$	V
Weathered diesel or fouled fuel conditions		V		V
LNAPL target layer thickness <2 in.	V		V	
LNAPL target layer thickness >2 in.		V	V	
Water table fluctuation <12 in.	V	V	V	V
Water table fluctuation >12 in.	V	V	V	V
Below-grade vault well termination needed	V	V		
Water exclusion extremely important				
System off-time control important			V	V
Water column below floating layer <18 in.	V	V	V	V
No contact of drive air with pumped liquid	V	V	V	V