A local road machinery company had a portable crane which was contaminated with over 2500 ppm of water. This water was from rain that had leaked into the system through a leaky hydraulic access hatch.

Water ingestion problems had become so problematic that during the winter the hydraulic system on the crane sometimes froze up.

A PHoenix ™ 1 gpm prototype cart was installed on the crane’s hydraulic system to condition the oil and remove water. Suction and return to the hydraulic system was done by removing the access hatch cover and dropping wands into the oil reservoir.

After a few weeks of running water was reduced from above 2500 ppm down below 50 ppm.

Results of the trial can be seen in figure 1.

Because of its portability and set and forget design the PHoenix™ is an ideal way to handle water ingestion into road machineries hydraulic systems in the field. It is portable and easy to install and runs on single phase voltage.

**PHX-HEATER**

For faster water removal on stagnant cold oil an optional portable single phase 110/220 V oil heater can be used in series to the inlet of the PHoenix™ to add heat. For every 20°F increase in oil temperature over 80°F water removal rate through the PHoenix ™ doubles and so can speed up equipment recovery times.

The portable heater allows for modularity when dealing with water removal and thus maintains portability of two skids rather than one heavy skid with heater and purifier attached.