

## What happened?

Prior to inception of KAUSTs Environmental Stewardship Program in 2013, work practices that led to contamination of the environment were sometimes observed, particularly in construction areas at KAUST.

Contamination, in relation to land, water or a site, means having a substance present at above background concentrations that presents, or has the potential to present, a risk of harm to human health, the environment or any environmental value.

Health, Safety & Environment (HSE) Department began a KAUST-wide process of education and enforcement.



Generator fuel spillage and oil drum storage non-compliances

## What was the cause?

Prevention of contamination is enshrined in Saudi Arabian law, however enforcement of environmental regulations is not always strict in newly industrialized nations. It was not until the 1980's and even until the early 2000's that highly industrialized nations enacted specific contaminated sites legislation. As cutting-edge environmental practices take time to become adopted globally, Saudi Arabian contractor awareness to address this environmental risk was low.



'Polluter pays principle' remediation by those responsible for contamination

## How was it solved?

Environment Division of HSE implemented its ISO14001 Environmental Management System self-regulation model from 2013 onwards. Procedures to prevent and manage oil spillages were developed, communicated and continued to be strengthened and enforced to this day.

Furthermore, industry best practice has been implemented with environmental requirements extended to include:

1. Secondary containment and spill kits;
2. Fuel reconciliations and monthly inspections of oil containing equipment;
3. Underground leak detection and integrity testing of buried fuel lines; and
4. Groundwater monitoring bores at gas stations for early detection of contamination.



Compliant oil storage (top left) and groundwater well installation