

Incident Learning: What happened?

- Malicious damage of below ground crude supply pipe line located in an isolated area outside the Refinery boundary.
- The line was excavated by what seems to be manually digging a trench of approximately 15m long and 1m wide on top of the pipe. A hole approximately 15mm in diameter was made into the top of the line at about the 12 o'clock position.
- This damage resulted in crude oil leaking from the pipe into the trench and surrounding soil.
- The leak was reported by a community member to the City Disaster risk management center who subsequently reported it to the Refinery.
- A second incident occurred approximately 2 weeks after the first incident.
- The second incident was within 2 km of the first incident.

What are the learnings for implementation?

- Identify high risk areas where crude supply line is more likely to be vandalized
- Increase frequency of pipeline monitoring/surveillance in high risk areas
- Develop staffing and mobilization plan for security to escort routine surveillance and emergency response teams (taking into consideration isolated terrain with poor cell phone and radio reception and access concerns)
- Improve accessibility of pipeline for emergency response
- Build and strengthen relationships with City Disaster management, property owners and nearby communities to improve accessibility and reporting of incidents
- Consider the use of a drone for surveillance
- Consider installation of electronic monitoring equipment on high risk areas of the pipeline to alarm when tampering or leak occurs