



Engineering Memo

Date: 16 July 2018

Subject: Ultra-Containment Wall – Fluid Retention and Hydrostatic Pressure

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The Ultra-Containment Wall

In order to test the ability of the wall to hold fluids while maintaining its structural integrity, a field test was designed at an Oil & Gas Drilling location in Odessa, Texas. An Ultra-Containment Wall was built using 2-foot (0.61-m) walls in a 10-ft (3.05-m) x 36-ft (10.97-m) configuration, allowing for a maximum of more than 5,386-gal (20,388-L) of liquid to be contained.

On 7 March 2017, the Ultra-Containment Wall was filled to capacity with water and left for a period of two weeks, until 21 March 2017.



The Ultra-Containment Wall performed as designed, with no signs of disturbance or displacement of the liquid. There was also no displacement of the Ultra-Containment Wall structure. Based on this testing, the Ultra-Containment Wall is capable of being filled with fluid for extended periods of time before clean-out is required, although local regulations will determine the mandated clean-out timelines.