

## CUTTFLO COMMERCIAL-SCALE OPERATION SUCCESSFULLY DEMONSTRATED

C&E Reclamation, Inc., has conclusively demonstrated integrated function of its CuttFlo process unit operations at the commercial level.

Thermal desorption of surrogate emulsion (spent invert fluid) and recovery of products were demonstrated for the first time during hot testing of the first full-scale commercial CuttFlo unit. All major CuttFlo unit operations (thermal desorption, adsorbate condensation, organic/aqueous separation, and off-gas recuperation) were successfully and concurrently demonstrated during the run. Instrument and sample data conclusively prove the technical feasibility of commercial-scale CuttFlo processing.

The CuttFlo process uses thermal desorption and hot filtration to recover valuable organics, clean solids, and clean water from mixed wastes such as drill cuttings, emulsions, slop oil, tank bottoms, and rag layers.

Recovered organic exhibited an API gravity of 34.9 (0.85 sp. gr.) and was translucent amber in color as shown in the photograph below.

Processed solids were dry, hydrocarbon free, and exhibited low (0.793 g/cm<sup>3</sup>) bulk density. Product solids were comprised of friable agglomerates of the feed (barite, clay, and lime) fines, with sparing precipitated salt (halite) when viewed under the microscope.

Water recovered from the product aqueous surge tank and condenser loop exhibited EC values of 0.345 and 1.002 dS/m, respectively.

The commercial-scale CuttFlo alpha unit, shown in the photograph below, is slated to be moved to a site in Alberta for full-scale operation in the near future, with completion of a beta unit planned for the fourth quarter of 2014.

### ***Photograph of Recovered Aqueous, Organic and Solid Phases from Run 20140617***

