

## INTRODUCTION

At the request of the Canadian Oilfield Stimulation Services/Amtech Chemicals PAUL FREI & ASSOCIATES completed an evaluation test comparing the absorbency of Enviro-sorb, a peat based product by Amtech and Absorbent W by Devcon. The laboratory test results were recorded under Paul Frei & Associates Lab No. MU1-996.

We have reprinted their comparison chart and added CELL-U-SORB by Gator International to the chart. The absorbency ratios used for Cell-U-Sorb are the results of the testing done by Environment Canada as per the Canadian General Standards Board. (Method CGSB-183.2)

## EXPERIMENTAL METHODS

In order to evaluate the two products, peat based Enviro-sorb and Absorbent W, PAUL FREI & ASSOCIATES performed a test designed to evaluate how much oil could be absorbed by a known weight of each product. This test was performed simply by weighing out 2.5 grams of each product and placing each product into a beaker. Then, 25 mls of API oil was added to each beaker and allowed to soak for 30 minutes at 20°C. After the 30 minute soak, the unabsorbed oil was decanted off and its volume deducted from the initial test volume used.

Unfortunately, we do not know what type of oil Paul Frei & Associates used for this test. We do however know that Environment Canada tested Cell-U-Sorb with Diesel Oil, 30 wt Motor Oil and Crude Oil.

For comparison purposes, we simply added the Government of Canada absorbency tests as conducted by Environment Canada in November 1994 to the Paul Frei & Associates test results. (attached)

## RESULTS & DISCUSSION

Absorbent tests showed that Cell-U-Sorb performed considerably better than the other products. Cell-U-Sorb absorbed 137% to 270% of the oil that Absorbent W or Enviro-sorb absorbed.

## CONCLUSION

When the test results of Paul Frei & Associates are compared to the Environment of Canada test results it is apparent that Cell-U-Sorb is more efficient than either Absorbent W or the peat based Enviro-sorb.

	Absorbent W	Enviro-sorb	Cell-U-Sorb With Diesel Oil	Cell-U-Sorb With 30 wt Oil	Cell-U-Sorb With Crude Oil
Sample Wt (g)	2.5 grams	2.5 grams	2.5 grams	2.5 grams	2.5 grams
API Oil Absorbed	9.0 grams	17.6 grams	27.5 grams	47.3 grams	24.0 grams
Oil absorbed per kg of absorbent	3.6 litres/kg	7.0 litres/kg	11.0 litres/kg	18.9 litres/kg	9.6 litres/kg
Ranking	# 5	# 4	# 2	# 1	# 3