

NATIONAL OIL SPILL RESPONSE TEST FACILITY

Test Summary of SAK-J5 At Ohmsett (10/13/99)

Two tests were performed on the prototype SAK-J5 containment boom at Ohmsett. The current configuration of the SAK-J5 by design has a 6-foot draft and 6 feet of freeboard. It is equipped with outboard foam floatation, which provides stability to the freeboard material as well as buoyancy to the containment boom. Weights located at the skirt bottom provided the necessary ballast to maintain the skirt in a position perpendicular to the water surface. Boom sections were added and removed using the zipper type connection located on the end of each of the three 15-foot sections.

The first test was performed to determine the maximum speed at which the SAK-J5 could be towed. Three sections (45 feet) were configured in a straight line between the Main and Auxiliary Bridges. The bridges were accelerated up to 2 knots and maintained this speed without causing damage to the containment boom.

The second test performed, determined the containment capabilities in calm water as well as in harbor chop waves. The SAK-J5 was configured into a circular area 10 feet in diameter. While stationary, 1200 gallons of Calsol test oil (nominal viscosity 200 cPs @ 68 degrees F) was pumped into the containment boom. The boom was observed for losses. An unquantifiable amount escaped through the end connector (less than 1 gallon) over a fifteen-minute period. A harbor chop wave condition was then generated with a nominal H1/3 value of 12 inches. The containment boom demonstrated wave conformance (ability to follow waves) and maintained its freeboard and draft. The oil preload depth was 2 feet (calculated) from which no oil was observed being lost from above or below the boom. The oil was then recovered using a Ohmsett provided Desmi Terminator weir skimmer in which approximately 100% of the oil was recovered.

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cc: W. Schmidt







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