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July 7, 2005

GeoInsight Project 3871-000

Richard Packard
Massachusetts Department of Environmental Protection
Southeast Regional Office
Bureau of Waste Site Cleanup
20 Riverside Drive
Lakeville, Massachusetts

Re: Proposed Additional IRA Cleanup Activities

Leisure Shores Beach DEP RTN 4-17786 Barge B120 Spill

Buzzards Bay, Massachusetts

Dear Mr. Packard:

GeoInsight, Inc. (GeoInsight) prepared this letter to present proposed additional cleanup activities at Leisure Shores Beach in Mattapoisett, Massachusetts. Please refer to Figure 1 for the approximate location of Leisure Shores Beach. These cleanup activities will be conducted as part of response actions proposed in the September 15, 2003 Immediate Response Action (IRA) Plan (as modified) to remove residual oil from a limited area on the shoreline associated with the release from Bouchard Barge No. 120 (B120). GeoInsight prepared this letter on behalf of Bouchard Transportation Company, Inc.

## 1.0 INTRODUCTION

The Leisure Shores Beach is a portion of shoreline segment W1F-02 (Brandt Island West). As part of an ongoing IRA Plan, dated September 15, 2003, this segment has periodically been inspected for the presence of surficial and buried oil. Please refer to IRA Status Reports dated February 10, 2004, September 16, 2004, and March 23, 2005 for additional information regarding inspection and cleanup activities at this segment.

In September 2004, discontinuous oil sheens, and small (generally less than 0.5 centimeters in diameter) particles of oil (identified as "flecks") were encountered in a discrete, limited area of the intertidal zone at the Leisure Shores Beach bounded by a rock groin to the west (with a small stream crossing the groin), and a smaller groin to the east, near a grill in the shape of a torpedo. The flecks of oil observed were flattened particles ranging 1 millimeter to 3 centimeters in diameter. IRA cleanup activities were conducted in September 2004 to remove residual oil, as described in a letter to the Massachusetts Department of Environmental Protection (MADEP) dated September 21, 2004. The cleanup activities consisted of manually raking the lower

subtidal zone to expose the particulate residual oil and using oil absorbent material to remove the exposed oil.

Post-cleanup inspections were conducted in September and October 2004, and May and June 2005. The inspections consisted of digging trenches and turning over the beach sediment using shovels in the intertidal zone, and small amounts of residual oil particles were observed. On December 9, 2004, post-cleanup inspections and sediment sampling was conducted at Leisure Shores Beach after the September 2004 cleanup efforts. Sediment samples were collected from nine locations from the affected intertidal area of the beach during low tide. These samples were collected on the beach where the oil was initially encountered in September and at eight additional locations within a ten to 20-foot radius of that point. Samples were shipped to B&B Laboratory for PAH analysis, as well as Groundwater Analytical for analysis of Extractable Petroleum Hydrocarbons (EPH) fractions. Analytical results indicated that EPH fractions for all samples were below the laboratory detection limits, which were below the Massachusetts Contingency Plan (MCP) Method 1 Soil Standards. In addition, PAH concentrations in the samples were below NOAA's effects range-low (ERLs) for total PAH and individual PAH. Please refer to the April 2005 Updated Draft Conceptual Site Model (CSM) for further information.

The inspections conducted in 2005 found that the extent and magnitude of impacts had decreased since 2004; however, small flecks of oil, primarily ranging from "pinhead to "pepperflake" size (1 to 7 mm in diameter) were encountered in some of the test pits excavated in the cleanup area. A concentrated zone within the cleanup area was observed on the eastern portion of the beach (an approximate 30-foot by 10-foot zone) that had slightly larger oil particles up (some to 3 centimeters in diameter).

## 2.0 PROPOSED CLEANUP ACTIVITIES

Due to the observed improvement in extent and magnitude of residual oil impacts observed and the discontinuous nature of the oil distribution, we propose to continue cleanup activities by mechanically overturning the top 6 to 12 inches of sediment in the area of concern and using oil absorbent materials to remove the exposed residual oil. In addition, natural flushing with tide movement will further attenuate oil particles not removed with the absorbent materials.

Prior to cleanup activities, beach profile surveys will be performed in the area where the cleanup will be conducted. The cleanup activities will consist of mixing and turning over the beach sediment using two Roto Tiller machines to expose the residual oil. Oil absorbent pads, "sweep" (rolls of oil absorbent material), and/or absorbent boom will be placed in areas of observed oil to remove the small oil particles. Oil absorbent pads will also be placed on the water surface to remove observed floating oil particles. Rocks and shells with observed oil, if present, will also be wiped with absorbent material. The oiled absorbent material will be placed in polyethylene bags and removed from the beach for disposal. It is important to note that shoreline sediment will not be removed from the Leisure Shores Beach during this cleanup operation. The approximate area of proposed cleanup is shown in Figure 2.



Approximately two weeks after cleanup activities, a post-cleanup evaluation will be performed that includes test pits and visual observations for the presence and magnitude of oil particles. Beach profile surveys will also be conducted after cleanup activities are completed to document the absence of any changes in shoreline topography that may have been caused by the cleanup activities.

## 3.0 SCHEDULE

Because the oil observed is present primarily in the middle to lower portion of the intertidal zone, cleanup and post-cleanup inspection activities must be conducted during the low tide period. At this time, it is anticipated that the pre-cleanup beach profile survey will be conducted on Monday, July 18, 2005. Cleanup activities will be initiated on Tuesday, July 19, 2005 and will likely proceed for two to three consecutive days. Post-cleanup inspections and beach profile surveys will be conducted monthly starting two weeks following cleanup activities and will continue for 3 months to document changes in residual oil and shoreline topography.

Cleanup activities and result will be documented in an IRA Status Report that is due the Massachusetts Department of Environmental Protection (MADEP) in September 2005. Upon completion of beach profiles and post cleanup inspections, future response actions, if warranted, related to the area of concern will be evaluated in consultation with the MADEP.

Please feel free to call Kevin Trainer at (978) 692-1114 if you have any questions or if you would like to discuss this project.

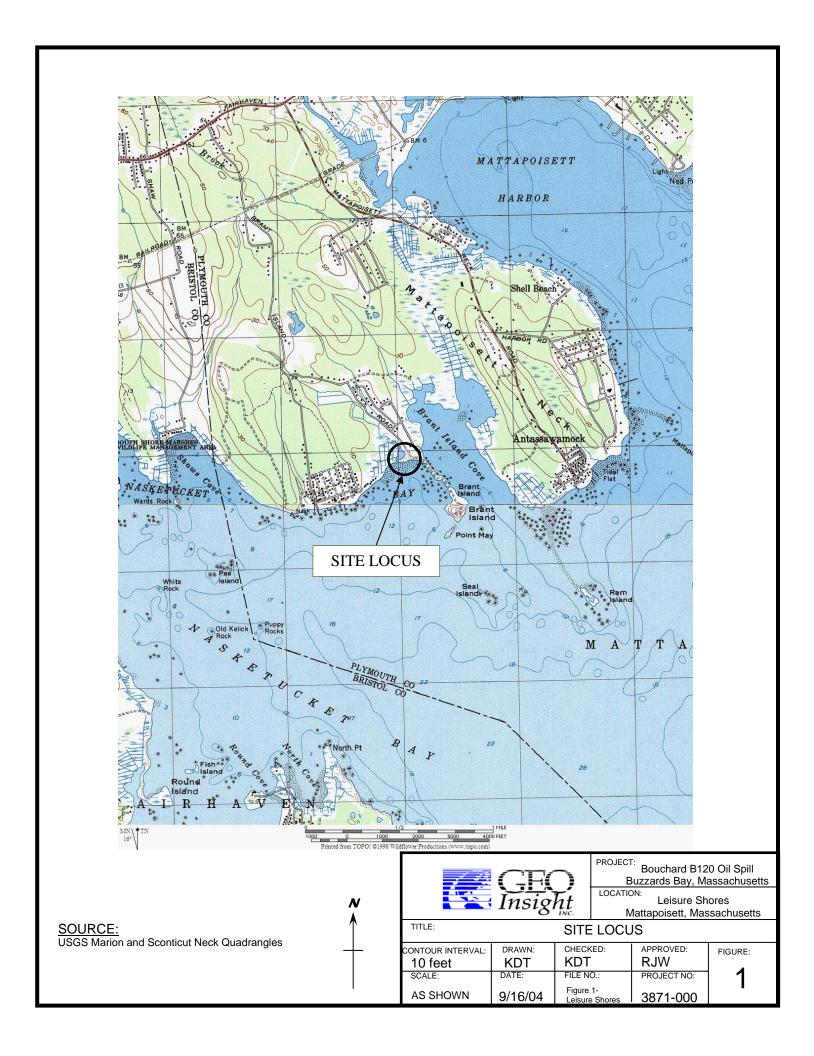
Sincerely, GEOINSIGHT, INC.

Loreen Chiumiento Environmental Scientist Kevin D. Trainer, P.G., C.P.G., L.S.P. Senior Project Geologist

Attachments: Figure 1 – Site Locus

Figure 2 – Proposed Cleanup Area

cc: Victor Corso, Bouchard Transportation Company, Inc. Andrew Davis, LeBoeuf, Lamb, Greene & MacRae LLP Richard J. Wozmak, P.E, P.H., L.S.P-of-Record









PROJECT:

B120 OIL SPILL

LOCATION:

Leisure Shores Beach Mattapoisett, Massachusetts

TITLE:

## PROPOSED CLEANUP AREA

DESIGNED:	DRAWN:	CHECKED:	APPROVED:	FIGURE #:
KDT	KDT/LAC	LAC	KDT	2
SCALE:	DATE:	FILE:	PROJECT #:	
As Shown	6/17/05	3871LS	3871-000	_