



**BOUCHARD B120 RELEASE  
SHORELINE SEGMENT SUMMARY**

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GeoInsight Project Number 3871-002

SEGMENT IDENTIFICATION: **W1C-04**

SEGMENT NAME: **Blankinship Cove**

SEGMENT LOCATION: **Marion, Massachusetts** (*Map attached*)

MAXIMUM DEGREE OF INITIAL OILING: Moderate (Oiling Score: 1.46)

SEGMENT INSPECTION STATUS: Passed IRAC inspection on 07/11/2003.

**SITE-SPECIFIC INFORMATION**

**PHYSICAL CHARACTERISTICS:**

Primary Shoreline Type/ Geology:

- 1F: Salt marshes.

Secondary Shoreline Type/ Geology:

- 1E: Rocky (bedrock) shorelines.

Hydrogeology:

- Sippican Harbor is located to the west and Planting Island Cove and Buzzards Bay to the southeast. The northwest portion of the segment is wetlands and saltwater wetlands.

Bedrock Geology:

- Bedrock underlying this segment is identified as undivided granite, gneiss, and schist (Zen, 1983).

**ENVIRONMENTAL SENSITIVE RECEPTORS (Identified within 500 feet of segment):**

Aquifer: None at segment.

Protected Open Space: None at segment.

Public Ground Water Supply Wells: None at segment.

Public Surface Water Supply Wells: None at segment.

Areas of Critical Environmental Concern (ACEC): None at segment.

Vernal Pools: None at segment.

Priority Habitats of Rare Species: At segment and adjacent to segment: Buzzards Bay aquatic environment.

Estimated Habitats of Rare Wildlife: At segment and adjacent to segment: Buzzards Bay aquatic environment.

Floodplains: At segment: 100-year floodplain.

**HUMAN SENSITIVE RECEPTORS (Identified within 500 feet of segment):**

Segment Use: Based upon inspections conducted under Unified Command, the segment appears to be a private and semi-public area. Residential dwellings are located within 500 feet of the segment. Portions of segment appear to be accessible via roadway.

Frequency of Use: Presumably seasonal and year round residential use.

## SUMMARY OF INSPECTION ACTIVITIES

### **WRF INSPECTIONS**

(Wildlife Field Reconnaissance- Shoreline or On-Water Observations; Bird Transect Study.)

WRF inspections pertaining to this segment were not conducted.

### **NRDA FIELD ACTIVITIES SUMMARY**

(Natural Resource Damage Assessment)

Note: Includes Shoreline Cleanup Assessment Team (SCAT) inspections and activities. SCAT forms were completed by field inspection teams working under the direction of Unified Command.

NRDA and SCAT inspections pertaining to this segment were not conducted.

### **IRAC INSPECTIONS**

(Unified Command Immediate Response Action Completion inspections and activities.)

DATE	SUMMARY OF INFORMATION RECORDED BY INSPECTION TEAM
07/11/2003	Segment met IRAC criteria endpoints.

### **MCP FIELD ACTIVITIES SUMMARY**

(Massachusetts Contingency Plan inspections and activities under the direction of the Licensed Site Professional-of-Record.)

MCP inspections pertaining to this segment were not conducted. GeoInsight did not receive IRA citizen calls pertaining to this segment.

**TABLE 1**  
**SAMPLE SUMMARY**  
**BUZZARDS BAY, MASSACHUSETTS**  
**SEGMENT: W1C-04**  
**Blankinship Cove, Marion**

Sample ID	Date Collected	Matrix	Analysis	Laboratory	Sampling Program	Sample Location Coordinates		Sample Location Description	Comments
						Latitude	Longitude		
AP-SED-UI-01	5/7/2003	Sediment	PAH, TPH, TOC EPH	B&B GAI	NRDA Pre- Assessment	N41°42.084'	W70°44.634'	Upper Intertidal Zone	Composite Sample
AP-SED-LI-01								Lower Intertidal Zone	

NOTES:

1. B&B: B&B Laboratories.
2. GAI: Groundwater Analytical, Inc.

**TABLE 2**  
**SUMMARY OF ANALYTICAL RESULTS**  
**BUZZARDS BAY, MASSACHUSETTS**  
**SEGMENT: W1C-04**  
**Blankinship Cove, Marion**

Analyte	AP-SED-UI-01	AP-SED-LI-01	MCP Method 1 Standards			Effects Range-Low Benchmarks Marine Sediments
	Intertidal Sediment	Intertidal Sediment	S-1 / GW-1	S-1 / GW-2	S-1 / GW-3	ER-L
	5/7/2003	5/7/2003				
<b>EPH</b>						
C <sub>9</sub> -C <sub>18</sub> Aliphatic Hydrocarbons	ND(39)	ND(39)	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	NA
C <sub>19</sub> -C <sub>36</sub> Aliphatic Hydrocarbons	ND(39)	ND(39)	<b>2,500</b>	<b>2,500</b>	<b>2,500</b>	NA
C <sub>11</sub> -C <sub>22</sub> Aromatic Hydrocarbons	ND(39)	ND(39)	<b>200</b>	<b>800</b>	<b>800</b>	NA
<b>PAH by GC/MS-SIM by method 8270C</b>						
Naphthalene	<b>0.0056</b>	<b>0.0015</b>	<b>4</b>	<b>40</b>	<b>500</b>	<b>0.160</b>
2-Methylnaphthalene	<b>0.0015</b>	<b>0.0007</b>	<b>4</b>	<b>500</b>	<b>500</b>	<b>0.070</b>
Acenaphthylene	<b>0.0022</b>	<b>0.0011</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>0.044</b>
Acenaphthene	<b>0.0007</b>	<b>0.0004</b>	<b>20</b>	<b>1,000</b>	<b>1,000</b>	<b>0.016</b>
Fluorene	<b>0.0015</b>	<b>0.0011</b>	<b>400</b>	<b>1,000</b>	<b>1,000</b>	<b>0.019</b>
Phenanthrene	<b>0.0215</b>	<b>0.0063</b>	<b>700</b>	<b>1,000</b>	<b>100</b>	<b>0.240</b>
Anthracene	<b>0.0038</b>	<b>0.0016</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>0.085</b>
Fluoranthene	<b>0.0225</b>	<b>0.0092</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>0.600</b>
Pyrene	<b>0.0352</b>	<b>0.0115</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>0.665</b>
Benzo(a)anthracene	<b>0.0132</b>	<b>0.0057</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>0.261</b>
Chrysene	<b>0.0273</b>	<b>0.0102</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>0.384</b>
Benzo(b)fluoranthene	<b>0.0153</b>	<b>0.0070</b>	<b>7</b>	<b>7</b>	<b>7</b>	NA
Benzo(k)fluoranthene	<b>0.0094</b>	<b>0.0044</b>	<b>70</b>	<b>70</b>	<b>70</b>	NA
Benzo(a)pyrene	<b>0.0150</b>	<b>0.0065</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>0.430</b>
Indeno(1,2,3-c,d)pyrene	<b>0.0150</b>	<b>0.007</b>	<b>7</b>	<b>7</b>	<b>7</b>	NA
Dibenzo(a,h)anthracene	<b>0.0027</b>	<b>0.0013</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.063</b>
Benzo(g,h,i)perylene	<b>0.0112</b>	<b>0.0054</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	NA
<b>Total Organic Carbon (%)</b>	<b>0.91</b>	<b>0.69</b>	NA	NA	NA	NA
<b>Total Petroleum Hydrocarbons</b>	<b>53</b>	NS	<b>200</b>	<b>800</b>	<b>800</b>	NA

NOTES:

1. Results in mg/Kg (milligrams per kilogram).
2. EPH: Extractable Petroleum Hydrocarbons.
3. ND(x): Constituent not detected at practical quantitation limits (PQL) noted in parentheses.
4. PAH by GC/MS-SIM: Polynuclear Aromatic Hydrocarbon analysis by Gas Chromatography/Mass Spectrometry with Selected Ion Monitoring.
5. j: Estimated concentration/ detected below standard laboratory reporting limits.
6. ER-L: Effects Range Low (Long and Morgan 1991).
7. Bold values exceed laboratory PQL.
8. NA: Not Applicable.
9. MCP: Massachusetts Contingency Plan.
10. NS: Not Sampled.



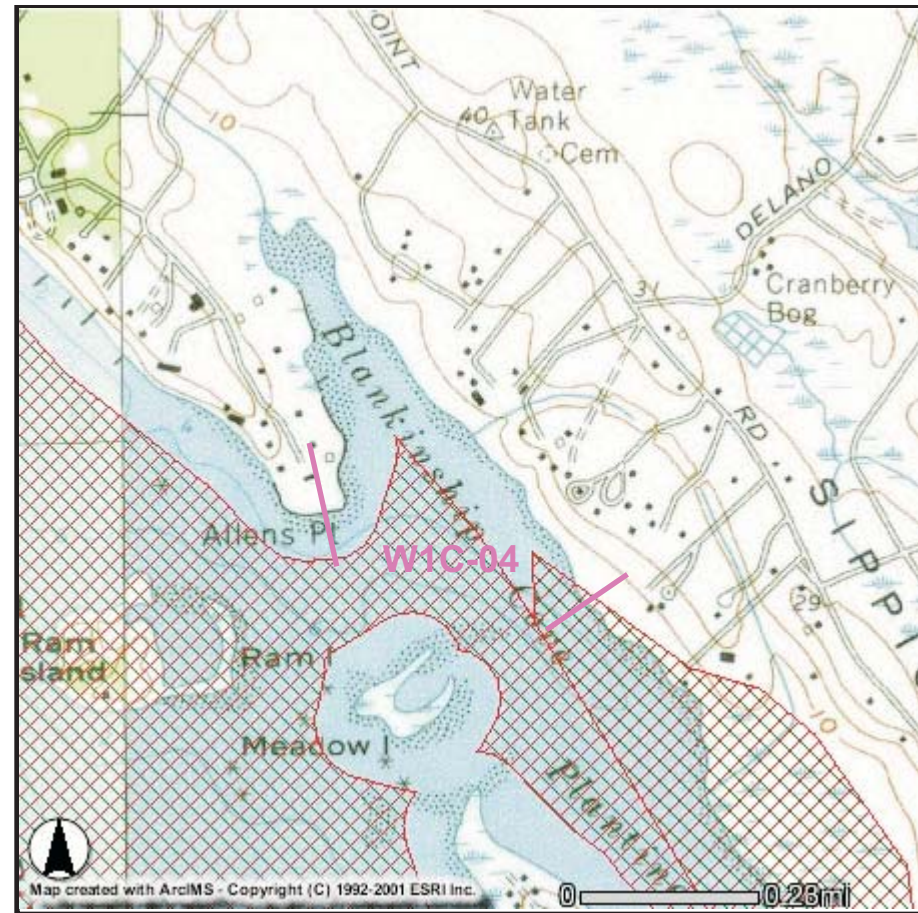
0 250 500 1,000 Feet



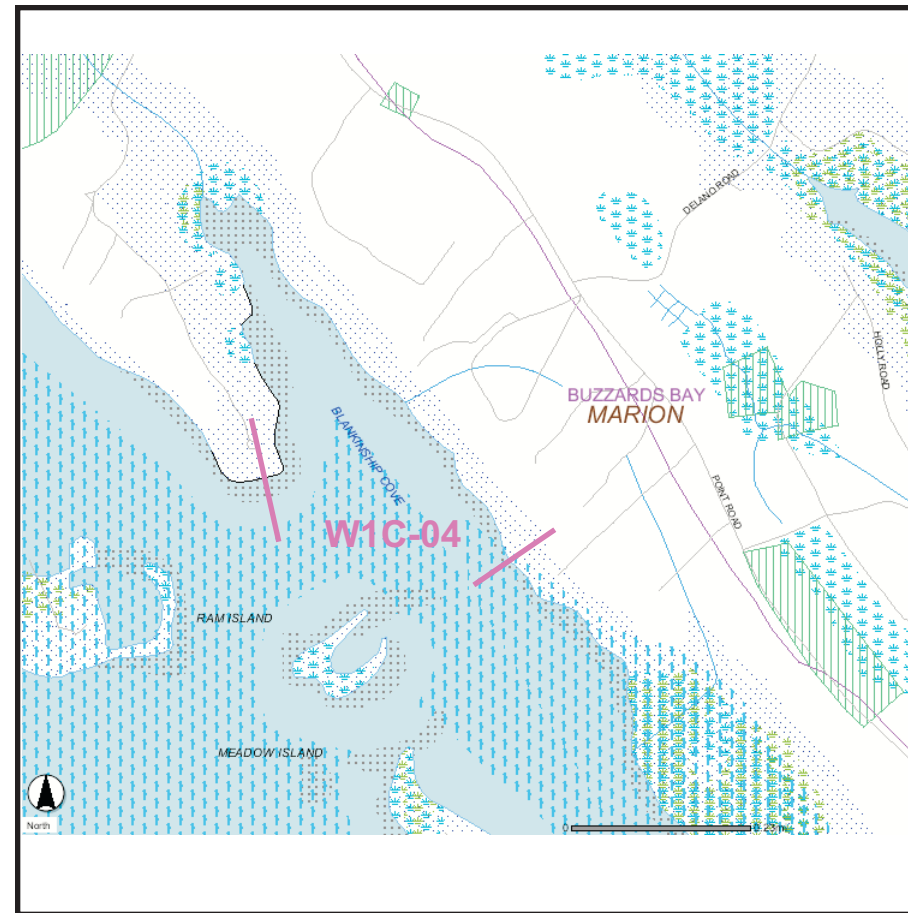
**E N T R I X**

**W1C-04**  
**Blankinship Cove**  
**Bouchard B No. 120 Oil Spill**  
**Buzzards Bay, MA**

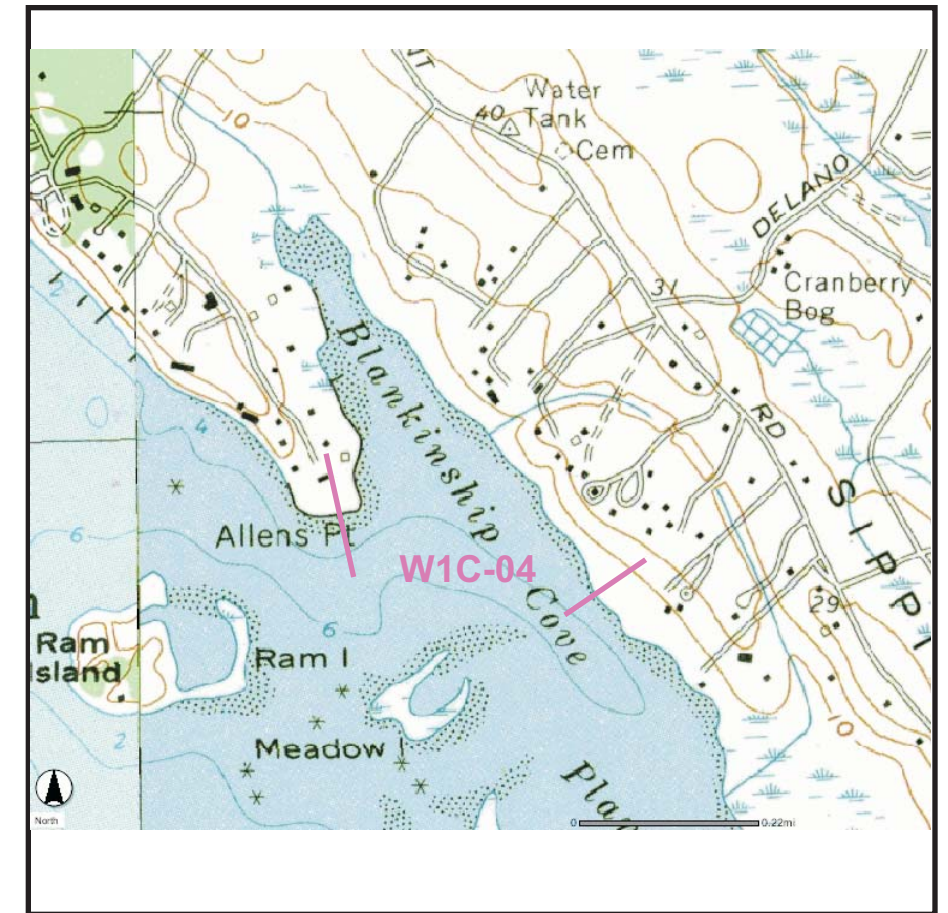
NATURAL HERITAGE AND ENDANGERED SPECIES MAP





2IE PRIORITY RESOURCE MAP










































TOPOGRAPHIC MAP




LEGEND

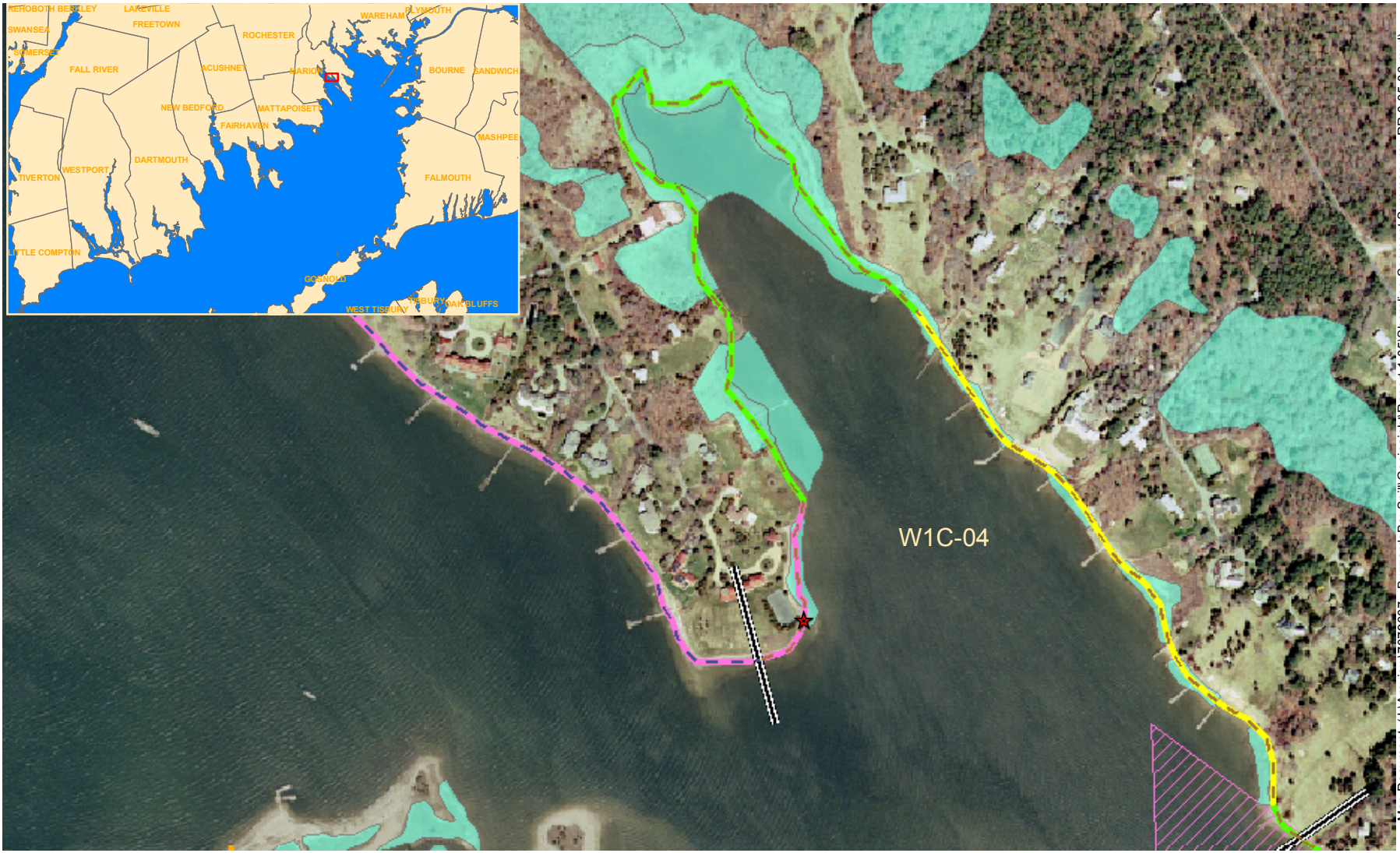
-  NHESP 2005 MA PRIORITY HABITATS FOR STATE-PROTECTED RARE SPECIES
-  NHESP 2005 MA ESTIMATED HABITATS OF RARE WILDLIFE

DEP MCP 21e Map Legend

- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> Zone Its</li> <li> IWPAs</li> <li> Zone A</li> <li> Sole Source Aquifers</li> <li> Solid Waste Sites</li> <li> Protected Openspace</li> <li> ACECs</li> <li> NHESP Estimated Habitat of Rare Wildlife in Wetland Areas</li> <li> Certified Vernal Pools 2003 NHESP</li> <li> Subbasins</li> <li> Mass Major Basins</li> <li> DEP Region</li> <li> Town Arcs</li> <li> County Boundaries</li> </ul> | <ul style="list-style-type: none"> <li><b>Aquifers, By Yield</b></li> <li> HIGH YIELD</li> <li> MEDIUM YIELD</li> <li><b>Non Potential Drinking Water Source Area</b></li> <li> HIGH YIELD</li> <li> MEDIUM YIELD</li> <li><b>FEMA Floodplains</b></li> <li> 100 YEAR FLOODPLAIN</li> </ul> | <ul style="list-style-type: none"> <li><b>Hydrography</b></li> <li> WATER</li> <li> RESERVOIR</li> <li> WETLANDS</li> <li> SALT WATER WETLANDS</li> <li> FLATS/SHOALS</li> <li><b>Rivers and Streams</b></li> <li> PERENNIAL</li> <li> INTERMITTENT</li> <li> SHORELINE</li> <li> MAN MADE SHORE</li> <li> DAM</li> <li> AQUEDUCT</li> </ul> | <ul style="list-style-type: none"> <li><b>EOT-OTP Roads</b></li> <li> LIMITED ACCESS HIGHWAY</li> <li> MULTILANE HWY. NOT LIMITED ACCESS</li> <li> OTHER NUMBERED HWY</li> <li> MAJOR ROAD - COLLECTOR</li> <li> MINOR STREET OR ROAD, RAMP</li> <li><b>Tracks and Trails MHD</b></li> <li> TRACK</li> <li> TRAIL</li> <li><b>Transmission Lines</b></li> <li> PIPELINE</li> <li> POWERLINE</li> <li> TRAIN</li> </ul> |
|--|--|---|--|



		PROJECT:		
		B120 OIL SPILL		
TITLE:		LOCATION:		
		BLANKINSHIP COVE BUZZARDS BAY, MA		
PHASE II SUPPORTING MAPS				
DESIGNED:	DRAWN:	CHECKED:	APPROVED:	FIGURE #:
LAC	JKB	KDT	MJW	
SCALE:	DATE:	FILE:	PROJECT #:	WIC-04
AS SHOWN	01/25/06	3871WIC-04	3871-002	



Map Document: (J:\Ar\view\7079607 - BuzzardsBay\Spill\Geoinsight\Report 1-05\Shoreline Segment Summary rev RR 6-06-06.mxd)

**Trench Location**

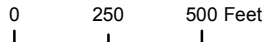
- 11/2004
- 10/2004
- 09/2004
- 08/2004
- 07/2004
- 06/2004
- 04/2004
- 03/2004
- 01/2004
- 12/2003
- 11/2003
- 10/2003
- 09/2003

- ✱ Nearshore Subtidal Sediment Sampling Location 2004
- ✱ Deep Subtidal Sediment Sampling Location 2004
- ✱ Subtidal Sediment Sampling Location 2003
- ▲ Qualitative Shellfish Surveys 2004
- ◆ Marsh Sampling Location 2004
- ◆ Marsh Core Sampling Location 2004
- Water Sampling Location 2004
- Water Sampling Location 2003
- ★ Intertidal Sediment Sampling Location 2003
- ★ Intertidal Sediment Sampling Location 2004

- ✱ Shellfish Sampling Location
- ▲ Chain Drag Location 2003
- ▲ Chain Drag Location 2004
- Lobster Pot Sampling Location 2003
- Absorbent Pad Sampling Location 2003
- Dive Sites
- Wetlands
- Nests
- Vernal Pool
- NHESP 2003 Priority Habitats for State-Protected Rare Species

**OILING**

- NO DATA
  - CLEAN
  - VERY LIGHT
  - LIGHT
  - MEDIUM
  - HEAVY
- IRAC ESI**
- Public-Private Sand Beach (1A/1B)
  - Mixed Sand and Gravel (1C)
  - Marsh (1F)
  - Rocky Shoreline (1E)
  - Riprap, Groin, Jetty (1D)
  - Visual Inspection of Marsh Area



**E N T R I X**

**W1C-04**

**Blankinship Cove, Marion**

**Comprehensive Activities**

**Bouchard B No. 120 Oil Spill**

**Buzzards Bay, MA**