

APPENDIX A

Summary of Buried Oil Evaluation at Leisure Shores
June 8, 2005




MAXIMUM DEGREE OF RESIDUAL OIL OBSERVED IN TRENCHES

- NO EVIDENCE OF OIL.
- SILVER SHEEN.
- RAINBOW SHEEN.
- PINHEAD-SIZE (LESS THAN 1 MILLIMETER) PARTICLES OF FLOATING OIL.
- LESS THAN 12 PARTICLES OF OIL (1 TO 7 MILLIMETERS IN DIAMETER).
- PARTICLE(S) OF FLOATING OIL (7 MM TO 3 CM IN DIAMETER) OR GREATER THAN 12 PARTICLES OF FLOATING OIL (1 TO 7 MM IN DIAMETER).
- OILED SEDIMENT (GREATER THAN 3 CM IN DIAMETER).

NOTE: TRENCH SIZE AND LOCATIONS ARE APPROXIMATE.



		PROJECT:		B120 OIL SPILL WIF-02 MATTAPOISETT, MA
		LOCATION:		
TITLE:				
JUNE 8, 2005 TRENCH LOCATIONS				
DESIGNED:	DRAWN:	CHECKED:	APPROVED:	FIGURE #
LAC	KDT/LAC	KDT	KDT	
SCALE:	DATE:	FILE:	PROJECT #:	A-1
AS SHOWN	3/22/06	JUNE2005	3871-002	

ROW A

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.714'	70°49.422'	3	3-4	Trace silver sheen
41°37.714'	70°49.423'	2	2-3	No evidence of oil in trench or spoils pile
41°37.714'	70°49.424'	2	3-4	Trace silver sheen
41°37.714'	70°49.426'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.715'	70°49.428'	3	5-6	18 particles of floating oil (1 to 7 mm in diameter), several pinheads, and silver sheen
41°37.713'	70°49.427'	2.5	5-6	Several pinheads with associated silver sheen
41°37.713'	70°49.429'	2.5	6	17 particles of floating oil (1 to 7 mm in diameter), several pinheads, and silver sheen
41°37.715'	70°49.429'	2.5	6	9 particles of floating oil (1 to 7 mm in diameter) and 1 globule (1 cm in diameter), several pinheads, and moderate silver sheen
41°37.714'	70°49.431'	2.5	4	Trace silver sheen
41°37.713'	70°49.436'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.713'	70°49.437'	2.5	3-4	No evidence of oil in trench or spoils pile
41°37.714'	70°49.444'	2	3-4	No evidence of oil in trench or spoils pile
41°37.713'	70°49.445'	2	3-4	No evidence of oil in trench or spoils pile
41°37.712'	70°49.447'	2	3-4	No evidence of oil in trench or spoils pile
41°37.711'	70°49.449'	2	3-4	No evidence of oil in trench or spoils pile
41°37.711'	70°49.451'	2	5-6	No evidence of oil in trench or spoils pile
41°37.710'	70°49.453'	1.5	3-4	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW B

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.713'	70°49.425'	2.5	2-3	No evidence of oil in trench or spoils pile
41°37.713'	70°49.427'	3	4-5	Trace silver sheen
41°37.712'	70°49.428'	2.5	5-6	7 particles of floating oil (1 to 5 mm in diameter) and trace silver sheen
41°37.713'	70°49.430'	2.5	5-6	20 particles of floating oil (1 to 5 mm in diameter) and 1 particle of floating oil (1 cm in diameter) and trace silver sheen
41°37.713'	70°49.431'	2	5-6	Several pinheads and trace sheen
41°37.714'	70°49.432'	3	5-6	1 particle of floating oil (1 cm in diameter) with a silver sheen streamer (2 cm in diameter) and 3 particles of floating oil (1 to
41°37.712'	70°49.433'	3	4	No evidence of oil in trench or spoils pile
41°37.713'	70°49.435'	2.5	4-5	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW C

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.714'	70°49.428'	3	2-3	No evidence of oil in trench or spoils pile
41°37.713'	70°49.427'	2.5	5-6	8 particles of floating oil (1cm in diameter), several particles of floating oil (1 to 7 mm in diameter), several pinheads, and silver sheen
41°37.712'	70°49.426'	2.5	5-6	24 particles of floating oil (1 to 7 mm in diameter), 1 particle of floating oil (3 cm in diameter), several pinheads, and trace silver sheen
41°37.711'	70°49.429'	2.5	4-5	20 particles of floating oil (3 cm in diameter), 24 particles of floating oil (1 to 7 mm in diameter) and several pinheads
41°37.711'	70°49.433'	2.5	6	No evidence of oil in trench or spoils pile
41°37.711'	70°49.433'	2.5	6	No evidence of oil in trench or spoils pile
41°37.711'	70°49.434'	2.5	2-3	No evidence of oil in trench or spoils pile
41°37.711'	70°49.435'	2	3-4	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW D

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.711'	70°49.424'	2	4-5	No evidence of oil in trench or spoils pile
41°37.713'	70°49.426'	2.5	5-6	No evidence of oil in trench or spoils pile
41°37.712'	70°49.427'	3	5-6	1 particle of floating oil (7 mm in diameter), 2 particles of floating oil (1 mm in diameter) and trace silver sheen
41°37.710'	70°49.429'	3	5-6	No evidence of oil in trench or spoils pile
41°37.711'	70°49.430'	3	4-5	No evidence of oil in trench or spoils pile
41°37.711'	70°49.433'	2.5	3-4	No evidence of oil in trench or spoils pile
41°37.710'	70°49.433'	2.5	3-4	No evidence of oil in trench or spoils pile
41°37.709'	70°49.435'	2.5	4-5	Few pinheads and trace silver sheen

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter),
or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW E

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.711'	70°49.427'	2.5	5-6	No evidence of oil in trench or spoils pile
41°37.709'	70°49.427'	3	5-6	No evidence of oil in trench or spoils pile
41°37.710'	70°49.429'	3	5-6	No evidence of oil in trench or spoils pile
41°37.710'	70°49.430'	2.5	5-6	1 pinhead and light silver sheen
41°37.709'	70°49.431'	2.5	5-6	1 pinhead and sheen
41°37.707'	70°49.433'	3	5-6	No evidence of oil in trench or spoils pile
41°37.707'	70°49.435'	2.5	5-6	No evidence of oil in trench or spoils pile
41°37.708'	70°49.436'	3	4-5	No evidence of oil in trench or spoils pile
41°37.707'	70°49.438'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.707'	70°49.439'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.706'	70°49.440'	2.5	4-5	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW F

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.708'	70°49.427'	2	4-5	No evidence of oil in trench or spoils pile
41°37.707'	70°49.429'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.707'	70°49.431'	2	4-5	No evidence of oil in trench or spoils pile
41°37.706'	70°49.432'	2	4-5	No evidence of oil in trench or spoils pile
41°37.706'	70°49.434'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.706'	70°49.434'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.703'	70°49.437'	2	4-5	Trace silver sheen
41°37.706'	70°49.438'	2.5	4-5	Trace silver sheen
41°37.705'	70°49.439'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.705'	70°49.440'	2.5	4-5	Trace silver sheen
41°37.705'	70°49.442'	2.5	5-6	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW G

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.708'	70°49.428'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.707'	70°49.429'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.706'	70°49.430'	2.5	5	No evidence of oil in trench or spoils pile
41°37.706'	70°49.432'	2.5	5	No evidence of oil in trench or spoils pile
41°37.705'	70°49.433'	2.5	3-4	No evidence of oil in trench or spoils pile
NR	NR	NO	3	3 particles of floating oil (1 to 5mm in diameter) and silver sheen
41°37.704'	70°49.436'	2.5	3-4	No evidence of oil in trench or spoils pile
41°37.704'	70°49.437'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.703'	70°49.439'	2	4-5	2 pinheads and trace silver sheen
41°37.703'	70°49.440'	2	5	No evidence of oil in trench or spoils pile
41°37.703'	70°49.441'	2	5	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW H

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.706'	70°49.422'	2	3	No evidence of oil in trench or spoils pile
41°37.706'	70°49.423'	2.5	3-4	No evidence of oil in trench or spoils pile
41°37.706'	70°49.427'	2	5-6	No evidence of oil in trench or spoils pile
41°37.706'	70°49.427'	2	3-4	No evidence of oil in trench or spoils pile
41°37.706'	70°49.428'	2	3-4	No evidence of oil in trench or spoils pile
41°37.706'	70°49.431'	2.5	3-4	No evidence of oil in trench or spoils pile
41°37.705'	70°49.436'	2.5	3-4	No evidence of oil in trench or spoils pile
41°37.704'	70°49.432'	2.5	4-5	1 pinhead with silver sheen
41°37.704'	70°49.433'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.703'	70°49.434'	2.5	5-6	No evidence of oil in trench or spoils pile
41°37.702'	70°49.434'	2	5-6	No evidence of oil in trench or spoils pile
41°37.706'	70°49.440'	2	5-6	No evidence of oil in trench or spoils pile
41°37.701'	70°49.441'	2.5	5-6	No evidence of oil in trench or spoils pile
41°37.702'	70°49.441'	2.5	5-6	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW I

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.703'	70°49.428'	2.5	2-3	No evidence of oil in trench or spoils pile
41°37.704'	70°49.431'	3	3-4	2 particles of floating oil 1 mm in diameter and very slight sheen
41°37.702'	70°49.432'	2.5	3-4	No evidence of oil in trench or spoils pile
41°37.702'	70°49.432'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.702'	70°49.435'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.701'	70°49.436'	2	4-5	No evidence of oil in trench or spoils pile
41°37.701'	70°49.438'	2	5-6	No evidence of oil in trench or spoils pile
41°37.699'	70°49.438'	2	5-6	No evidence of oil in trench or spoils pile
41°37.700'	70°49.440'	2	5-6	1 particle of floating oil (3 mm in diameter) and rainbow sheen
41°37.699'	70°49.440'	2.5	5-6	1 particle of floating oil (1 mm in diameter) and silver sheen
41°37.699'	70°49.443'	2	5-6	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW J

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.698'	70°49.437'	2.5	4-5	No evidence of oil in trench or spoils pile
41°37.697'	70°49.439'	2.5	5-6	4 pinheads and silver sheen
41°37.697'	70°49.440'	2	4-5	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter),
or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW K

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.716'	70°49.425'	2	4-5	No evidence of oil in trench or spoils pile
41°37.716'	70°49.427'	2	5-6	Several particles of floating oil (1 to 7 mm in diameter), several pinheads, and sheen
41°37.716'	70°49.429'	2	5-6	Few particles of floating oil (1 to 5 mm in diameter), few pinheads, and silver sheen
41°37.716'	70°49.430'	2	5-6	2 pinheads and sheen
41°37.718'	70°49.432'	2	5-6	Few pinheads and some sheen
41°37.716'	70°49.433'	2.5	5-6	Trace sheen
41°37.716'	70°49.435'	2.5	5-6	Trace sheen
41°37.713'	70°49.437'	2.5	5-6	1 pinhead
41°37.715'	70°49.438'	2.5	5-6	No evidence of oil in trench or spoils pile
41°37.714'	70°49.441'	2	5-6	No evidence of oil in trench or spoils pile
41°37.714'	70°49.443'	2	5-6	1 pinhead and trace silver sheen
41°37.713'	70°49.444'	2	5-6	No evidence of oil in trench or spoils pile
41°37.715'	70°49.446'	2	4-5	No evidence of oil in trench or spoils pile
41°37.713'	70°49.447'	2	4-5	No evidence of oil in trench or spoils pile
41°37.713'	70°49.449'	2	4-5	Trace silver sheen
41°37.713'	70°49.450'	2	4-5	No evidence of oil in trench or spoils pile
41°37.713'	70°49.451'	2	4-5	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.

ROW L

Coordinates North	Coordinates West	Length (feet)	Depth (inches)	Field Team Observation
41°37.704'	70°49.444'	2	5-6	2 pinheads
41°37.703'	70°49.444'	2	5-6	1 particle of floating oil (1 to 7 mm in diameter) and silver sheen
41°37.702'	70°49.445'	2	5-6	Few pinheads and trace silver sheen
41°37.702'	70°49.447'	2	5-6	No evidence of oil in trench or spoils pile

Notes:

1. NR: GPS coordinate not recorded if evidence of oil was not observed.
2. Length and depth are approximate values.
3. Trenches are spaced approximately 5 to 8 feet apart.
4. mm = millimeters.
5. cm = centimeters.
6. Observations:

- No evidence of oil.
- Silver sheen.
- Rainbow sheen.
- Pinhead-size (less than approximately 1 mm in diameter) particle(s) of oil.
- Less than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Particle(s) of floating oil (approximately 7 mm to 3 cm in diameter), or greater than 12 particles of floating oil (approximately 1 to 7 mm in diameter).
- Oiled sediment (greater than approximately 3 cm in diameter).

7. NO= Not observed.