

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 11/30/98

*Lots Renumbered
later to go in sequence*

Load # 1-5 Times: Start * End _____ Dump _____

Location In Channel: STATION -21+500 to -15+500

Beau. Sea State 0-3 Wind: Direction W Speed 0-8 K Cloud Cover (%) 0-10%

H₂O Surf. Temp 55° F (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

	* LOAD	START	STOP	DUMP	
General Observations:	1	0806	0840	0925	Excellent visibility -
	2	1004	1057	1136	Perfect conditions for
Loads	3	1208	1307	1400	sighting whales - No whales
Renumbered	4	1437	1525	1615	observed
later to	5	1651	17		
continue					
sequence					

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance, GA

Date: 1/31/98

Load # 444-448 Times: Start * End _____ Dump _____

Location In Channel: STATIONS - 21⁺⁵⁰⁰ to -15⁺⁵⁰⁰

Beau. Sea State 2-4 Wind: Direction N-NE Speed 5-15K Cloud Cover (%) 0-10%

H₂O Surf. Temp 55° F (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

	<u>*</u> LOAD	START	STOP	Dump	
General Observations:	<u>444</u>	<u>0640</u>	<u>0729</u>	<u>0808</u>	<u>Excellent visibility No whales sighted</u>
	<u>445</u>	<u>0842</u>	<u>0946</u>	<u>1027</u>	
	<u>446</u>	<u>1101</u>	<u>1153</u>	<u>1236</u>	
	<u>447</u>	<u>1310</u>	<u>1406</u>	<u>1506</u>	
	<u>448</u>	<u>1541</u>	<u>1635</u>	<u>1733</u>	

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/1/98

Load # 454-458 Times: Start * End _____ Dump _____

Location In Channel: STATIONS 21⁺⁵⁰⁰ to 15⁺⁵⁰⁰

Beau. Sea State 4-5 Wind: Direction NE-E Speed 15-20K Cloud Cover (%) 0-25%

H₂O Surf. Temp 55°F (Cel. or (F), circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

	<u>* LOAD</u>	<u>START</u>	<u>STOP</u>	<u>DUMP</u>	
General Observations:	<u>454</u>	<u>0617</u>	<u>0735</u>	<u>0825</u>	<u>Excellent visibility -</u>
	<u>455</u>	<u>0856</u>	<u>0955</u>	<u>1042</u>	<u>Choppy seas -</u>
	<u>456</u>	<u>1119</u>	<u>1211</u>	<u>1255</u>	<u>No whales sighted</u>
	<u>457</u>	<u>1327</u>	<u>1422</u>	<u>1507</u>	
	<u>458</u>	<u>1542</u>	<u>1638</u>	<u>17</u>	

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE 1

Project Brunswick Harbor Entrance

Date: 2/2/98

Load # 464-467 Times: Start * End _____ Dump _____

Location In Channel: STATION 21⁺⁵⁰⁰ to 15⁺⁵⁰⁰

Beau. Sea State 4-5 Wind: Direction E-NE Speed 15-20K Cloud Cover (%) 100%

H₂O Surf. Temp 54°F (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

	* LOAD	START	STOP	DUMP	
General Observations:	<u>464</u>	<u>0611</u>	<u>0730</u>	<u>0822</u>	<u>Good visibility -</u>
	<u>465</u>	<u>0858</u>	<u>1008</u>	<u>1101</u>	<u>choppy seas -</u>
	<u>466</u>	<u>1133</u>	<u>1304</u>	<u>1354</u>	<u>No whales sighted</u>
	<u>467</u>	<u>1429</u>	<u>1603</u>	<u>1654</u>	

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge Eagle 1

Project Brunswick Harbor Entrance

Date: 2/3/98

Load # 473-476 Times: Start * End _____ Dump _____

Location In Channel: STATION 21+500 +D 15+500

Beau. Sea State 4-8 Wind: Direction E-SE Speed 11-40K Cloud Cover (%) 100-50

H₂O Surf. Temp 56° F (Cel. or F, circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations:

* LOAD	START	STOP	DUMP	Visibility
473	0713	0840	0949	poor to fair-
474	1021	1142	1238	less than 1000' to 2 1/2
475	1310	1427	1533	miles - Seas rough near
476	1611	1721		8' at dump in AM subsiding
				to 5' in PM - No whales
				sighted

(see attachments for additional info)

Observer(s) On Duty: Cathy Sakas

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE 1

Project Brunswick Harbor Entrance

Happy Birthday to me!
Date: 2/4/98

Load # 479-484 Times: Start * End _____ Dump _____

Location In Channel: Lands 479-480 STATION 21⁺⁵⁰⁰ to 15⁺⁵⁰⁰ / Lands 481-484 STATION 31⁺⁵⁰⁰ to 21⁺⁵⁰⁰

Beau. Sea State 5-8 Wind: Direction W-NW Speed 20-40 Cloud Cover (%) 100

H₂O Surf. Temp 55° F (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: *

LOAD	START	STOP	DUMP	Visibility good -
479	0424	0621	0740	Rough seas - No
480	0814	1029	1154	whales sighted
481	1240	1304	1328	
482	1353	1435	1459	
483	1525	1613	1637	
484	1710	1725		

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2 15 198

Load # 489- Times: Start * End _____ Dump _____

Location In Channel: STATION 21+500 to 31+000

Beau. Sea State 4-5 Wind: Direction NW Speed 15-25 K Cloud Cover (%) 50-70

H₂O Surf. Temp 54°F (Cel. or (F), circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations:	* LOAD	START	STOP	DUMP	
	489	0641	0803	0842	Excellent visibility - choppy seas - No whales sighted
	490	0910	1028	1107	
	491	1133	1241	1320	
	492	1349	1456	1523	
	493	1548	1702	1726	

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/16/98

Load # 500-503 Times: Start * End _____ Dump _____
 Location In Channel: STATION 31⁺⁰⁰⁰ to 21⁺⁵⁰⁰ of LOAD 502 only 21⁺⁵⁰⁰ to 15⁺⁵⁰⁰
 Beau. Sea State 2-4 Wind: Direction N Speed 5-15 K Cloud Cover (%) 50-100% *
 H₂O Surf. Temp 54°F (Cel. or (Far.), circle one) Tide: H HE LE L LF HF (circle one)
 Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: *

LOAD	START	STOP	DUMP	Observations
<u>500</u>	<u>0722</u>	<u>0846</u>	<u>0928</u>	<u>Excellent visibility - calm seas *² Cirrostratus cloud coverage - prime conditions for spotting whales - No whales sighted</u>
<u>501</u>	<u>1007</u>	<u>1109</u>	<u>1215</u>	
<u>502</u>	<u>1254</u>	<u>1613</u>	<u>1656</u>	
<u>503</u>	<u>1720</u>			

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project BRUNSWICK HARBOR ENTRANCE

Date: 2 / 7 / 98

Load # 506-510 Times: Start * End _____ Dump _____

Location In Channel: STATION 31⁺⁰⁰⁰ to 20⁺⁰⁰⁰ (L.#506&507) - STATION 31⁺⁰⁰⁰ to 21⁺⁵⁰⁰ (L.#508-510)

Beau. Sea State 4-5 Wind: Direction N-NW Speed 10-20 Cloud Cover (%) 100% *

H₂O Surf. Temp 53.5°F (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: * LOAD START STOP DUMP Visibility excellent-

506 0646 0824 0907 Seas choppy

507 0934 1054 1139 *²Stratocumulus cloud coverage,

508 1207 1323 1350 No glare.

509 1418 1540 1608 No whales sighted

510 1637

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2 / 8 / 98

Load # 518-521 Times: Start * End _____ Dump _____

Location In Channel: STATION 21 +500 +0 31 +000

Beau. Sea State 3-4 Wind: Direction NE-NNW Speed 15-20 Cloud Cover (%) 50-100% *

H₂O Surf. Temp 53°F (Cel. or Far. circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations:

* LOAD	START	STOP	DUMP	Visibility good to excellent
518	0739	0918	0953	Seas choppy
519	1021	1127	1209	* ^o Altostratus clouds - very little
520	1236	1404	1442	glare on water
521	1509	1647		No whales sighted

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2, 9, 98

Load # 527-530 Times: Start * End _____ Dump _____

Location In Channel: STATION 21⁺⁵⁰⁰ + 31⁺⁰⁰⁰ LOAD# 530 = 15⁺⁰⁰⁰ + 17⁺⁵⁰⁰ (am) (pm)

Beau. Sea State 2-3 Wind: Direction NW-N-NE Speed 5-12 K Cloud Cover (%) 100-25% *

H₂O Surf. Temp 53°-54.5°F (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: * LOAD START STOP DUMP Visibility excellent

527 0654 0838 0913 Seas calm

528 0946 1100 1127 *² Alto cumulus clouds, no glare

529 1156 1349 1434 in AM - clouds changing

530 1708 to cumulo stratus in PM with glare at 25% coverage

Excellent conditions for spotting whales - None sighted (see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge Eagle I

Project Brunswick Harbor Entrance

Date: 2/10/98

Load # Ø Times: Start * End _____ Dump _____

Location In Channel: * ON Anchor

Beau. Sea State 3 Wind: Direction NW Speed ~10K Cloud Cover (%) 0-15%

H₂O Surf. Temp 54°F (Cel. or F, circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: * ON Anchor for refueling and maintenance from 0609 to after sunset.

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/11/98

Load # 543-548 Times: Start * End _____ Dump _____

Location In Channel: STATION 21+500 to 31+000

Beau. Sea State 2-5 Wind: Direction SE-S-SSW Speed 5-20K Cloud Cover (%) 75-100%*

H₂O Surf. Temp 53.5°-54.5° (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: *

LOAD	START	STOP	DUMP	Visibility
<u>543</u>	<u>0718</u>	<u>0814</u>	<u>0845</u>	<u>excellent</u>
<u>544</u>	<u>0910</u>	<u>0957</u>	<u>1029</u>	<u>Seas choppy to rough</u>
<u>545</u>	<u>1053</u>	<u>1206</u>	<u>1250</u>	<u>*² Altocumulus clouds high & thin,</u>
<u>546</u>	<u>1319</u>	<u>1346</u>	<u>1434</u>	<u>high glare in AM - total</u>
<u>547</u>	<u>1502</u>	<u>1621</u>	<u>1717</u>	<u>coverage in DM no glare -</u>
<u>548</u>	<u>1743</u>			<u>No whales sighted</u>

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/12/98

Load # 555- Times: Start * End _____ Dump _____
 Location In Channel: STATION 31+000 to 21+500 (L.#555-558) 31+000 to 39+000 (L.#559-
 Beau. Sea State 3-4 Wind: Direction NW Speed 10-20 K Cloud Cover (%) 0-10%
 H₂O Surf. Temp 54°-55.5° (Cel. or Far, circle one) Tide: H HE LE L LF HF (circle one)
 Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations:	LOAD	START	STOP	Dump	Visibility
	555	0619	0749	0823	excellent
	556	0849	0955	1029	Seas choppy
	557	1053	1145	1213	Few clouds, high glare
	558	1228	1330	1414	No whales sighted
	559	1437	1525	1608	
	560	1636	1708		
	561	1809			

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2 11 3 198
Yipes - Friday the 13th!

Load # 570-576 Times: Start * End _____ Dump _____

Location In Channel: STATION 31+000 to 39+000

Beau. Sea State 2-3 Wind: Direction E-N-NW-W Speed 5-15K Cloud Cover (%) 100% *

H₂O Surf. Temp 54°-54.5° (Cel. or (Far.) circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

	* LOAD	START	STOP	DUMP	
General Observations:	570	0734	0805	0830	Visibility good to fair
	571	0905	0933	1001	Seas calm to choppy
	572	1036	1108	1136 *	Alto cumulus clouds thick, no glare, occasional rain
	573	1217	1247	1318	
	574	1358	1429	1517	No whales sighted
	575	1600	1631	1715	
	576	1742			

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2 / 14 / 98
Happy Valentine's Day

Load # 585-588 Times: Start * End _____ Dump _____
 Location In Channel: STATION 31⁺⁰⁰⁰ to 31⁺⁵⁰⁰ (L.# 585/586) / 26⁺⁵⁰⁰ to 28⁺⁵⁰⁰ (L.# 587-588)
 Beau. Sea State 3-4 Wind: Direction NW-N Speed 10-15 Cloud Cover (%) 15-100% *
 H₂O Surf. Temp 53.5°-54.5° (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)
 Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

	LOAD	START	STOP	DUMP	
General Observations:	585	0731	0959	1031	Visibility excellent
	586	1059	1314	1359	Seas choppy
<u>26⁺⁵⁰⁰ to 28⁺⁵⁰⁰</u>	587	1429	1706	1747	* ² Cirrostratus clouds 15% coverage
	588	1818			in AM, high glare - 100% coverage
					in PM, still high glare
					No whales sighted

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/15/98

Load # 593-597 Times: Start * End _____ Dump _____

Location In Channel: STATIONS 31+000 to 39+000

Beau. Sea State 5-7 Wind: Direction NE Speed 20-30K Cloud Cover (%) 100% *

H₂O Surf. Temp 53°-54.5° (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations:

* LOAD	START	STOP	DUMP	Visibility
593	0623	0819	0851	good in AM, PM, port Sens rough 8-10'
594	0919	1042	1111	* Cirrostratus; 100% in AM & PM
595	1149	1244	1355	NO glare
596	1442	1554	1630	No whales sighted
597	1708	18		

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/16/98

Load # 601-605 Times: Start *¹ End _____ Dump _____
 Location In Channel: STATIONS *² 39+000 to 31+000 *³ 19+000 to 17+000
 Beau. Sea State 6-8 Wind: Direction SE Speed 15-35K Cloud Cover (%) 100%
 H₂O Surf. Temp 53°-55° (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)
 Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations:

LOAD	START	STOP	DUMP	AM=Visibility
* ¹ 601	0536	0744	0821	poor (< 600' in AM)
* ² 602	0941	1023	1145	heavy rain, high winds (~30K)
* ³ 603	1302	1325	1429	rough seas 6-8', 100% coverage
* ³ 604	1547	1617	1739	low stratus clouds -
* ² 605	1808			Pm= Visibility fair (> 1 mile) no rain, winds subsiding (~15-20K), seas choppy

(see attachments for additional info)
 4-6', 100% coverage, low stratus clouds
 no glare - NO whales sighted

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/17/98

Load # 1007-610 Times: Start * End _____ Dump _____
 Location In Channel: STATIONS 39+000 to 26+000
 Beau. Sea State 3-4-5 Wind: Direction SW-W Speed 10-20K Cloud Cover (%) 25-0%
 H₂O Surf. Temp 54.5°-56.75° (Cel. or Far., circle one) Tide: H HE LE L LF HF (circle one)
 Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations:

*LOAD	START	STOP	DUMP	AM=	PM=
607	0608	0740	0824	visibility excellent, winds abating to ~10K, seas abating after a very rough night of high winds (50-60K & waves at 12'), seas ~4', scattered clouds, high glare, brief period (30 min) of sea fog	visibility excellent
608	0850	1128	1213		
609	1233	1542	1633		
610	1653	1817			

(see attachments for additional info)
 1st clouds, high glare - no whales sighted by survey plane

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/18/98

Load # 1015- Times: Start *1 End _____ Dump _____
 Location In Channel: STATIONS *110⁺⁵⁰⁰ to 15⁺⁵⁰⁰ *39⁺⁰⁰⁰ to 31⁺⁰⁰⁰ *17⁺⁰⁰⁰ to 19⁺⁰⁰⁰
 Beau. Sea State 3-4 Wind: Direction W-NW Speed 15-20K Cloud Cover (%) 0%
 H₂O Surf. Temp 55°-57° (Cel. or Far, circle one) Tide: H HE LE L LF HF (circle one)
 Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: *¹ LOAD START STOP Dump AM= visibility excellent, seas choppy, winds out of the west
 *² 015 0615 0812 0906
 *³ 016 0923 1118 1146 15-20K, no clouds, high glare
 *⁴ 017 1232 1324 1436
 *⁴ 018 1550 1620 1743 PM= same as AM - no whales sighted by survey plane
 (see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2 11 1998

Load # 623-626 Times: Start * End _____ Dump _____

Location In Channel: STATIONS 17+000 to 19+000

Beau. Sea State 2-3 Wind: Direction W-NW-S Speed 8-15k Cloud Cover (%) 0-100% *

H₂O Surf. Temp 55.5°-58° (Cel. or Far, circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Rope/Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: *

LOAD	START	STOP	DUMP	AM=
623	0713	0757	0920	visibility fair - fog, seas
624	1024	1100	1202	calm / winds W ~ 8k, no clouds, high glare - visibility
625	1326	1354	1508	excellent but 10am with fog lifted
626	1628	1648	1808	PM = visibility excellent, seas calm

≤1', winds NW 5-10k, 50-100% stratus *

cloud coverage, moderate to no glare -

(see attachments for additional info)

no whales sighted by survey plane

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project BRUNSWICK HARBOR ENTRANCE

Date: 2/20/98

Load # 631-1036 Times: Start * End _____ Dump _____
 Location In Channel: STATIONS 31⁺³⁰⁰ to 33⁺²⁰⁰
 Beau. Sea State 3-4 Wind: Direction WNW-NW Speed 10-20K Cloud Cover (%) 0-10%
 H₂O Surf. Temp 56°-58° (Cel. or (Far.), circle one) Tide: H HE LE L LF HF (circle one)
 Port Draghead: Clear Deflector: _____ Stbd Draghead: Cable/Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____
 Magnetic Bearing to Sighting _____ Estimated Distance _____
 Species Observed _____ # of Animals _____
 Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: *

LOAD	START	STOP	DUMP	AM=
631	0630	0727	0803	Visibility excellent, winds WNW at 10-15K, 0-10% cloud coverage,
632	0827	0940	1018	scattered cumulus clouds,
633	1040	1131	1202	high glare
634	1226	1323	1352	PM= Visibility excellent, winds NW at 15-20K, 10% cloud coverage, scattered
635	1417	1531	1601	cumulus clouds, high glare
636	1625	1757	1827	(see attachments for additional info) no whales sighted by survey plane

Observer(s) On Duty: CATHY SAKAS

ENDANGERED SPECIES OBSERVER PROGRAM

WHALE OBSERVATION DATA

Dredge EAGLE I

Project Brunswick Harbor Entrance

Date: 2/21/98

Load # 640-1041 Times: Start * End _____ Dump _____

Location In Channel: STATIONS 33⁺²⁰⁰ to 31⁺³⁰⁰

Beau. Sea State 2-3 Wind: Direction N Speed 10-15k Cloud Cover (%) 10% *

H₂O Surf. Temp 56°-58° (Cel. or Far, circle one) Tide: H HE LE L LF HF (circle one)

Port Draghead: Clear Deflector: _____ Stbd Draghead: Clear Deflector: _____

Sighting # 1. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

Sighting # 2. Time _____ Vessel Location (lat/long) _____ X _____

Magnetic Bearing to Sighting _____ Estimated Distance _____

Species Observed _____ # of Animals _____

Direction of Travel: Vessel _____ Whales _____

Comments (Visual description-- length, color, flukes, etc.; behaviors observed, respiration rates, duration of observation): _____

General Observations: *

LOAD	START	STOP	DUMP	AM=
640	0233	0647		Visibility excellent, winds N 10-15k, seas choppy
641	0749	0828	0906	1-2', 10% cirrus* cloud coverage, high glare.

(see attachments for additional info)

Observer(s) On Duty: CATHY SAKAS