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A SURVEY OF THE CHIGNIK MANAGEMENT AREA SALMON FISHING GROUNDS FOR OIL SPILL CONTAMINANTS, 11 JUNE TO 22 SEPTEMBER 1989

By:

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INTRODUCTION

The Chignik Management Area (CMA) encompasses the State waters on the Pacific Ocean side of the Alaska Peninsula between Kilokak Rocks and Kupreanof Point and includes 490 miles of contiguous coastline (Figure 1) and about 90 known salmon streams which support one or more salmon species (Barrett 1989). Most of the area salmon fishing is directed on the early and late sockeye runs to the Chignik River system. Local chinook, pink, chum, and coho runs also contribute to the fishery. The commercial fishing is done with purse seines (ADF&G 1988). Typically the first fishing period occurs around 10 June, while the last period is usually in early October. In-season fishing time and within-area openings are regulated on the strength and timing of the local salmon runs through emergency orders issued by the Division of Commercial Fisheries at Chignik.

The CMA average annual salmon catch for the 10-years from 1979-1988 is 2,902,931 fish (Thompson and Fox 1989) which is about 60% higher than the 1989 preseason catch projection of 1,821,000 fish (Geiger and Savikko 1989). Most of the difference is due to annual fluctuations in pink salmon abundance. Typically the pink run is strong on even years and weak on odd years.

On 24 March 1989 the oil tanker Exxon Valdez struck a reef in Prince William Sound which resulted in the spillage of approximately 11 million gallons of North Slope crude. The first spill contaminants were reported in the CMA between late May and early June (L. Molten, MJM Research, Daimbridge Island, personal communication). On 11 June the ADF&G Division of Commercial Fisheries began surveying the CMA for oil spill contaminants. The monitoring continued through 22 September 1989. The information was primarily collected for area management staff to use in deciding where salmon fisheries could occur without an appreciable likelihood of adulterated product and or fishing gear from oil pollution as defined in Alaska Statute 46.03.900(19).

This document contains the results of the oil spill monitoring program conducted for the CMA salmon fisheries from 11 June through 22 September 1989. The full data set is presented without analysis or interpretation.

METHODS

Between 11 June and 30 August a total of six EXXON-chartered test fishing boats were involved in monitoring the CMA salmon fishing grounds for oil impact (Appendix A). Four of these were local Chignik boats, while two were Kodiak based. The latter were the FV Marci La Rae and the FV Suzanne. Initially only one test fish boat was assigned to the area, but as the season progressed the number of test fish boats was increased; in early August there were five boats monitoring the CMA.

The test fishing boats were standard purse seine vessels in the 42-54 ft. length class. Each had three or four crew members, a captain with one or more years of fishing experience, and an ADF&G observer. The ADF&G observers were pre-trained on: 1). the identification of intertidal invertebrates, marine

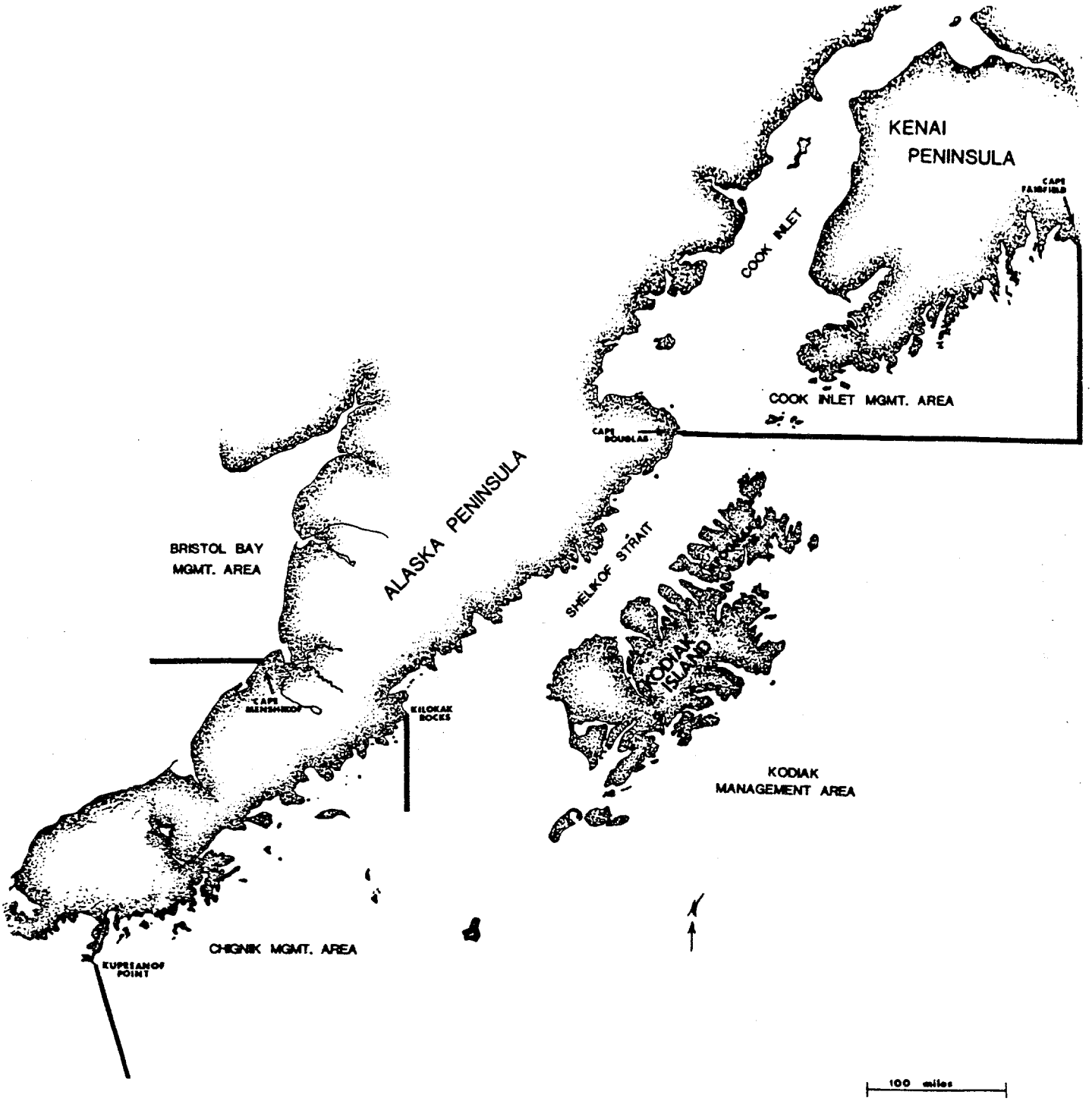

Figure 1. Map showing the location of the Chignik Management Area.

plants, and salmon; 2). organoleptic testing of fish for oil contamination; 3). survey procedures for determining oil impact and oil type; and 4). evidence collection procedures including recording standards for documenting visual observations (Appendix B).

Between 11 June and 4 September 1989, 22 pre-selected salmon fishing locations were routinely monitored for oil impact using the test fishing boats (Appendix C). The locations included many of the primary fishing sites and some seasonal or secondary sites fished by the CMA salmon fleet. The monitoring priority was in the Chignik Bay District which is where most of the salmon fleet traditionally operates. Generally the primary sites were surveyed on a three-day rotation depending on weather, assigned survey reach, and the number of test boats on charter. The secondary sites were surveyed time permitting.

Subject to weather and oil presence, each location was fished with a salmon purse seine for about 30 minutes. Generally a set was not made when oil other than very light or light sheen was observed within 1/4 mile. A log was kept of each inspection which included the date and time, wind direction and velocity, tide stage, survey conditions, survey method, length of time fished, oil impact, and oil type. The catch from each set but not more than 35 fish were organoleptically examined for oil contamination. Normally the first fish removed from the bunt end of the seine were tested. The catch from individual seine hauls was released if there was no visual evidence of non-naturally occurring oil on any fish and if there was no petroleum smell. Otherwise the entire catch was retained. A 5-fish sample was occasionally retained for ADEC laboratory testing. All seine catches were recorded in numbers of salmon per set. All seines were visually examined for oil contamination following each set. Test fishing operations and observations were routinely photographed with a video camera.

A chain of custody (COC) sample and a video were usually taken when any mousse, sheen, or tar balls were observed within 1/4 mile of a salmon test fishing location. The procedure used for COC samples is in Appendix B. Free-floating mousse and tar balls were collected using a pre-cleaned instrument such as a dip net or metal strainer. Sheen samples were taken using absorbent pads. A control was usually taken of a clean absorbent pad for every third or fourth sheen sample collected. All samples were secured in factory cleaned glass jars.

Nets which became oil contaminated in the test fisheries were COC sampled and photographed with a video camera. For each COC sample approximately 1/8 pound of oil was collected. When less than 1/8 pound of removable oil was on a contaminated net an oiled section of the web was taken for a sample and a clean section of web was taken for the control. Oiled seines which could not be cleaned or patched on the fishing grounds were considered grossly contaminated and were returned to the Port of Kodiak or Chignik for cleaning or replacement by EXXON. Fish caught in oil-fouled seines were released if the fish organoleptically tested oil free.

In the CMA, beaches (intertidal areas) were periodically surveyed for oil impact from 12 June through 22 September. The emphasis was on surveying the important seining areas during the time when fisheries would typically occur. Because of its fisheries importance most of the effort was in the Chignik Bay District. A Chignik-based ADF&G crew conducted most of the beach surveys, but the ADF&G test fish observers and some of the Chignik ADF&G weir crew also surveyed time

permitting. The beach surveys were all conducted on foot by observers pre-trained on survey methodology including documentation standards, and oil impact and type classifications. Transportation to the beaches was usually provided by an ADEC-chartered helicopter or by skiff. The variables recorded during each survey included the location, date, time, survey distance, conditions, and method, and oil impact and oil type if any. Generally when a beach was inspected the nearshore waters (marine waters within one mile of land) were also inspected for oil presence subject to weather conditions, accessibility, and time availability. The nearshore inspections were conducted from a boat or helicopter depending on the transportation method used for beach access.

A few beach and test-fish surveys for oil impact were conducted in the Alaska Peninsula Management Area (APMA), and all were performed following the same methodology applied in the CMA.

Generally twice-daily radio communication was made with each test fish observer using the single side band 3230 frequency. The observer data received via radio were entered daily into a data base. Each entry was checked for accuracy against the original observer records or data forms as they became available. Beach survey data from the shore-based crews were entered into the data base using the original observer records or data forms.

The abbreviations and the oil impact and type classifications used are in Appendix A.1. Also included in this appendix are the observer names. The test fish vessels and operators are listed in Appendix A.2. The CMA districts, sections, and statistical areas are shown in Figure 2 and Appendix C.

RESULTS

The CMA daily test fishing results are in Appendix D, while the beach and nearshore survey results are in Appendix F. A list of the test fishing observations with oil contaminated gear reported is in Appendix E. There were no test fishing observations which reference suspected oil contaminated catch.

A summary of the oil types observed in CMA district sections by week is in Tables 1-4. A district summary of the oil types observed by week is in Table 5.

The APMA beach and nearshore surveys and test fish observations are in Appendix G.

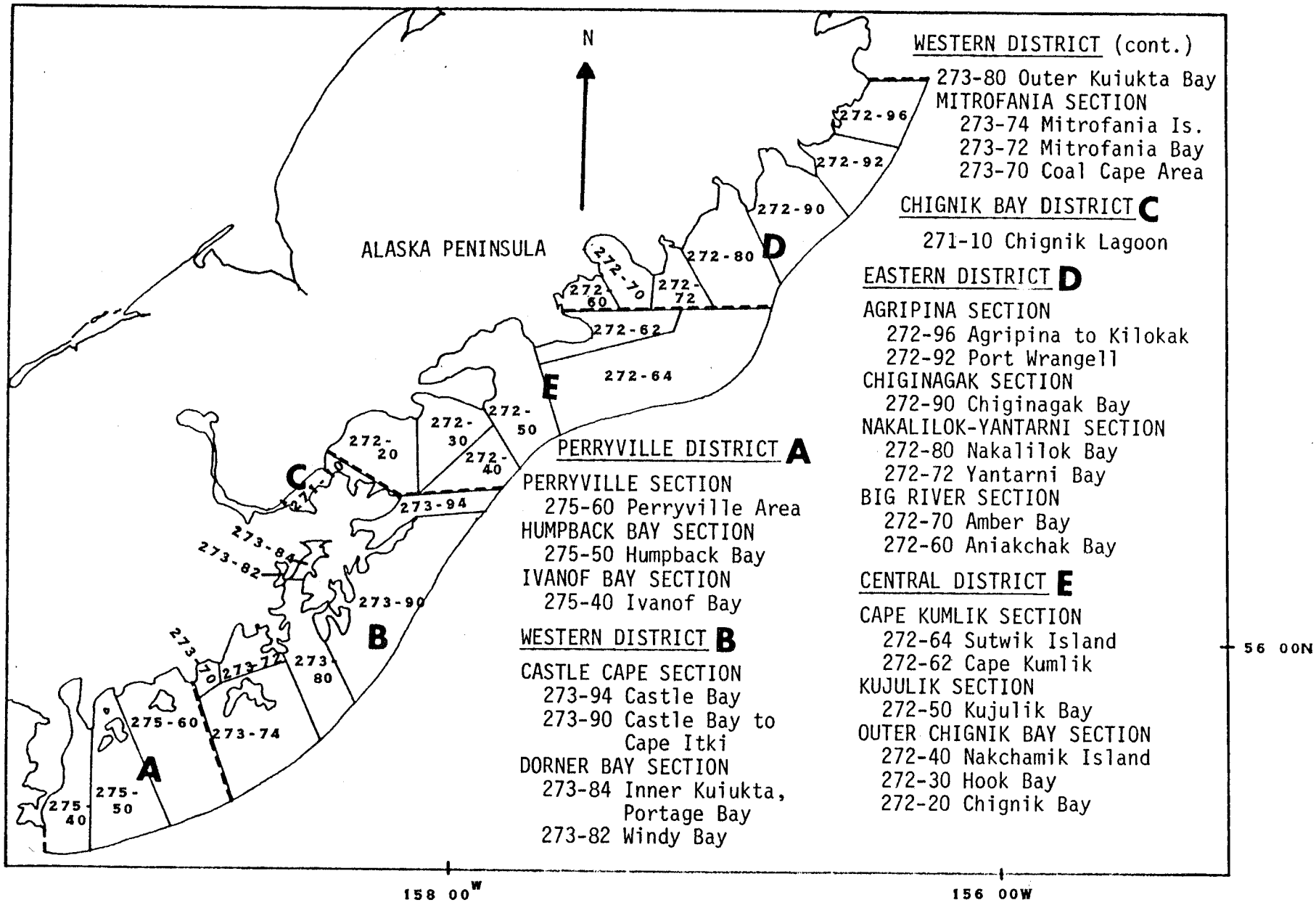

Figure 2. Map of the Chignik Management Area with the statistical areas defined.

Table 1. Oil spill contaminants observed in the waters and beaches of the Eastern District by section and week, 1989.

Week		Eastern District Sections							
		Agripina		Chiginagak		Nakalilok-Yantarni		Big River	
Stat.	Calendar	Water	Beach	Water	Beach	Water	Beach	Water	Beach
23	6/04 - 6/10								
24	6/11 - 6/17	MS	M	N	N				
25	6/18 - 6/24	MS		MS					MS
26	6/25 - 7/01	MS		MS		MS	MT	N	M
27	7/02 - 7/08	MS		MS		MS	N		
28	7/09 - 7/15	MS	M	S		S	M		
29	7/16 - 7/22	MS	MT	MS	M	S	M	N	
30	7/23 - 7/29	MS	M	S	M	S	M	N	M
31	7/30 - 8/05	MS	MT	MS	N	S	M	S	M
32	8/06 - 8/12	MS		MS	M	MS	N	S	MT
33	8/13 - 8/19	MS	MT	N	MT	S	MT	N	MT
34	8/20 - 8/26	S		MS	M	MS	N	S	M
35	8/27 - 9/02	S		N	N			S	M
36	9/03 - 9/09			N	N	N	M	N	N
37	9/10 - 9/16								
38	9/17 - 9/23								

Key: S = oil sheen including very light, light, silver and/or rainbow sheens; M = mousse; T = tar; and N = not detectable.

Table 2. Oil spill contaminants observed in the waters and beaches of the Central District by section and week, 1989.

Week		Central District Sections					
		Cape Kumlik		Kujulik		Outer Chignik Bay	
Stat.	Calendar	Water	Beach	Water	Beach	Water	Beach
23	6/04 - 6/10						
24	6/11 - 6/17						
25	6/18 - 6/24	MS		MS		MS	
26	6/25 - 7/01	MS	M	MS		MS	N
27	7/02 - 7/08	N		S		S	M
28	7/09 - 7/15	N		S	MS	MS	MT
29	7/16 - 7/22	S	MT	N	M	S	MT
30	7/23 - 7/29	N	MT	N	M	N	MT
31	7/30 - 8/05	S				N	MT
32	8/06 - 8/12	S	M	N	MT	N	MT
33	8/13 - 8/19			N	MT	S	MT
34	8/20 - 8/26			N	M	S	MT
35	8/27 - 9/02	N	M	S	M	MS	M
36	9/03 - 9/09						
37	9/10 - 9/16						
38	9/17 - 9/23						

Key: S = oil sheen including very light, light, silver and/or rainbow sheens; M = mousse; T = tar; and N = not detectable.

Table 3. Oil spill contaminants observed in the waters and beaches of the Western District by section and week, 1989.

Week		Western District Sections					
		Castle Cape		Dorner Bay		Mitrofania	
Stat.	Calendar	Water	Beach	Water	Beach	Water	Beach
23	6/04 - 6/10						
24	6/11 - 6/17						
25	6/18 - 6/24						
26	6/25 - 7/01	S					
27	7/02 - 7/08	S	MT	S	N	MS	MT
28	7/09 - 7/15	S	M	N		MS	M
29	7/16 - 7/22	S	MT	S	N	S	M
30	7/23 - 7/29	S	MT	N	MT	S	MT
31	7/30 - 8/05	S		S	T	S	MT
32	8/06 - 8/12	S	N	S	N	S	M
33	8/13 - 8/19	N	N			S	M
34	8/20 - 8/26	S	N	N	M	N	M
35	8/27 - 9/02	S	N	N		N	N
36	9/03 - 9/09						
37	9/10 - 9/16						
38	9/17 - 9/23						

Key: S = oil sheen including very light, light, silver and/or rainbow sheens; M = mousse; T = tar; and N = not detectable.

Table 4. Oil spill contaminants observed in the waters and beaches of the Perryville District by section and week, 1989.

Week		Perryville District Sections					
		Perryville		Humpback Bay		Ivanof	
Stat.	Calendar	Water	Beach	Water	Beach	Water	Beach
23	6/04 - 6/10						
24	6/11 - 6/17						
25	6/18 - 6/24						
26	6/25 - 7/01						
27	7/02 - 7/08					S	
28	7/09 - 7/15	N	MT	N	MT	N	MT
29	7/16 - 7/22	N	M	N	MT	S	M
30	7/23 - 7/29	S	MT	S	T	S	MT
31	7/30 - 8/05	N	MT	N	MT	S	MT
32	8/06 - 8/12	N	N	S		S	N
33	8/13 - 8/19	S	N	N		N	
34	8/20 - 8/26	S	M	S	M	S	N
35	8/27 - 9/02						
36	9/03 - 9/09						
37	9/10 - 9/16						
38	9/17 - 9/23						

Key: S = oil sheen including very light, light, silver and/or rainbow sheens; M = mousse; T = tar; and N = not detectable.

Table 5. Oil spill contaminants observed in the waters and beaches of the Chignik Management Area by district and week, 1989.

Week		Districts									
		Eastern		Central		Chignik Bay		Western		Perryville	
Stat.	Calendar	Water	Beach	Water	Beach	Water	Beach	Water	Beach	Water	Beach
23	6/04 - 6/10										
24	6/11 - 6/17	MS	M								
25	6/18 - 6/24	MS		MS		S		N			
26	6/25 - 7/01	MS	MT	MS	M	S	MT	S			
27	7/02 - 7/08	MS	N	S	M	S	MT	MS	MT	S	
28	7/09 - 7/15	MS	M	MS	MTS	S	MT	MS	M	N	MT
29	7/16 - 7/22	MS	MT	S	MT	S	MT	S	MT	S	MT
30	7/23 - 7/29	MS	M	N	MT	S	MTS	S	MT	S	MT
31	7/30 - 8/05	MS	MT	S	MT	MS	M	S	MT	S	MT
32	8/06 - 8/12	MS	MT	S	MT	S	MTS	S	M	S	N
33	8/13 - 8/19	MS	MT	S	MT	S	MTS	S	M	S	N
34	8/20 - 8/26	MS	M	S	MT	S	MT	S	M	S	M
35	8/27 - 9/02	S	M	MS	M	S	N	S	N		
36	9/03 - 9/09	N	M			S	M				
37	9/10 - 9/16					N	T				
38	9/17 - 9/23					N	N				

Key: S = oil sheen including very light, light, silver and/or rainbow sheens; M = mousse; T = tar; and N = not detectable.

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Geiger, H. J., and H. Savikko, 1989. Preliminary Forecasts and Projections for 1989 Salmon Fisheries. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 5&89-01, Juneau.

Thompson, F. M., and J. F. Fox. 1989. Chignik Management Area Annual Finfish Management Report 1988. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K89-5, Kodiak.

APPENDICES

Appendix A.1. Key to abbreviations, observer names, and definitions of oil types and impact classifications.

Agencies and Areas

ADF&G Alaska Department of Fish and Game
ADEC Alaska Department of Environmental Conservation
CMA Chignik Management Area
APMA Alaska Peninsula Management Area

Fish Contamination

Y Yes
N No
S Suspect

Gear Contamination

N Not detectable
HC Hand cleanable
P Easily patched
MP Major patching required
GC Grossly contaminated, cannot be patched or cleaned on grounds

Impact Classification (oil coverage of area)

H Heavy >50% or > 6 meter band
M Moderate 10-50% or 3-6 meter band
L Light 1-10% or 1-3 meter band
VL Very Light <1% or <1 meter
  VL+ The quantity of oil present is at the upper level of the VL classification
  VL- The quantity of oil present is limited to a trace amount located at or above mean high high water (MHHW) and does not pose a potential threat to commercial gear or fisheries
N None: not detectable

Observers, Chignik Management Area

Name	Initials		Affiliation
Avery, Ed	ETA	EA	ADF&G Commercial Fisheries Division
Bulla, Jeff	JAB	JB	ADF&G Commercial Fisheries Division
Dolezal, Wayne	CWD	WD	ADF&G Habitat Division
Ellefson, Jermond	JJE	JE	ADF&G Commercial Fisheries Division
Fox, Jeff	JRF	JF	ADF&G Commercial Fisheries Division
Heikes, Jeff	JGH	JH	ADF&G Commercial Fisheries Division
Hempke, Cheryl	CAH	CH	ADF&G Commercial Fisheries Division
Lambdin, Moe	MAL	ML	ADF&G Commercial Fisheries Division
Markinson, Mark	MAM	MM	ADEC

-Continued-

Appendix A.1. (page 2 of 2)

Observers, Chignik Management Area (continued)

Name	Initials		Affiliation
McKenna, Thomas	TPM	TM	ADF&G Commercial Fisheries Division
Mix, Kim	KSM	KM	ADF&G Commercial Fisheries Division
Pelz, Clark	CAP	CP	ADEC
Pillifant, Laura	LLP	LP	ADF&G Commercial Fisheries Division
Ranallo, Gregory	GDR	GR	ADF&G Commercial Fisheries Division
Schwenne, Max	M S	MS	ADEC
Soderberg, Aaron	AWS	AS	ADF&G Commercial Fisheries Division
Thompson, Steve	SET	ST	ADF&G Sport Fish Division
Vincent, Jay	JTV	JV	ADF&G Commercial Fisheries Division
Ward, Geoff	GDW	GW	ADF&G Commercial Fisheries Division

Oil Types

VL Very light sheen (patchy light sheen covering 5-10% of area
LS Light sheen (almost transparent/similar to windrows and sheen from natural processes)
SS Silver sheen (silvery/shimmery appearance)
RS Rainbow sheen (sheen reflects colors)
M Mousse (brown oil - 1 mm or thicker layer oil/water emulsion, 30-50% oil:50-70% water)
T Tar (generally black & semi-firm with obvious textured appearance)

Survey Conditions

P Poor
F Fair
G Good
E Excellent

Survey Method

VIS Visual observation
SPS Salmon purse seine
DN Dip net
F Foot
H Helicopter
B Boat

Tide Stage

E Ebb
F Flood
S Slack

Appendix A.2. Test fishing vessels used in the Chignik Management Area.

Vessels	Owners
Alaska Rose	Skonberg, Darryl
Heidi Linea	Olsen, Knud
Marci La Rae	Orth, Henry
Ms Aries	Pedersen, Doug
Suzanne	Johnson, David
Yantarni	Carlsen, Roderick

Appendix B.1. Chain of Custody Instructions.

A "chain of custody" (COC) is simply a documentation of the general rule that spill site samples should always be either under observation or locked up. Samples taken for documentation of a spill should be labeled according to accepted scientific procedures as they are collected in the field. In addition, the taking of each documentation sample should also be witnessed by a second person. Thereafter, every time that the sample changes hands a record of the transfer should be kept both on a custody label attached to the sample itself and in a comprehensive set of sample records maintained by the party coordinating the documentation efforts. The comprehensive record set should indicate who has custody of every sample at all times.

Oil Samples:

Factory pre-cleaned bottles are provided for taking samples of oil at test locations. The sample jars provided are in boxes sealed by the manufacturer with evidence tape. They are under COC so when a box is opened the box should be resealed with evidence tape to maintain the COC on the other jars in the box. All evidence tape should be signed and dated in ink. Accompanying each bottle is a label and a chain of custody form. If the forms and labels are filled in correctly they will satisfy the scientific and legal requirements for sample verification, and also the legal requirements for establishment of a chain of custody. All entries must be legible and filled out using waterproof, non-fading ink. A brief explanation of each of the entries on the form and label follows:

Sample No: Once a sample number is assigned all further references to that sample in field notebooks, laboratory notebooks, and elsewhere should be prefaced by its sample number. Sample numbers should consist of the three initials of the collector, plus a three digit number beginning with 001. For example, LKG001.

Time: The approximate time that the sample was taken.

Date: The date that the sample was taken.

Sample Description: The sample description should be brief and concise, such as "mousse in water", "silver sheen", etc.

Collected By: The signature of the person who actually collected the sample along with his or her address and affiliation, if different than that of the organization charged with collecting the samples.

Witnessed By: The signature of the person who witnesses the actual taking of the sample along with his address and affiliation.

Location Taken, lat/long: A brief description of the bay, district or general area, plus lat/long coordinates.

-Continued-

Received From: The initials of the person from whom the sample was received and his or her affiliation.

Received By: The initials of the person receiving the sample and his or her affiliation.

Date: The date of the sample transfer.

Disposition: A brief indication of the condition of the sample disposition, such as received intact and frozen or not intact, should be recorded by the person receiving the sample.

TAKING SAMPLES: The ideal sample size is 1/8 pound (2 ounces). If enough oil is present, wooden tongue depressors should be used to place oil in bottles. When this is not feasible, an absorbent pad should be utilized and the oiled absorbent pad placed in the bottle. For oiled fish a paper towel should be utilized and the oiled towel placed in the bottle. The label (printed on waterproof paper) should be filled out prior to affixing to the bottle, and should be filled in the same manner as the form.

Red evidence tape is provided and is to be placed around the rim of the closed bottle and dated and signed by the collector. The sample bottle should then be placed in a lockable freezer, and so no one can tamper with it. All test boats are supplied with a lockable freezer. All oil samples should be frozen.

Transfer of Custody and Shipment:

1. Samples must be accompanied by a Chain of Custody Log. When transferring the possession of samples, the individual relinquishing and receiving the samples will sign, date, and note the time. This record documents sample custody transfer from the sampler, often through another person, to the Evidence Custodian.

2. Samples should be properly packed in shipping containers (for example, ice chests) to avoid breakage. The shipping containers should be sealed for shipment to the Evidence Custodian.

3. If the package is sent by the US mail, ensure that it is sent with a return receipt. If the package is hand-delivered, note that it was hand carried in the disposition block in the Chain of Custody Log. Send field receipts from the post office and bills of lading to the Evidence Custodian.

-Continued-

Special Instructions:

Photographic evidence collection using a video camera:

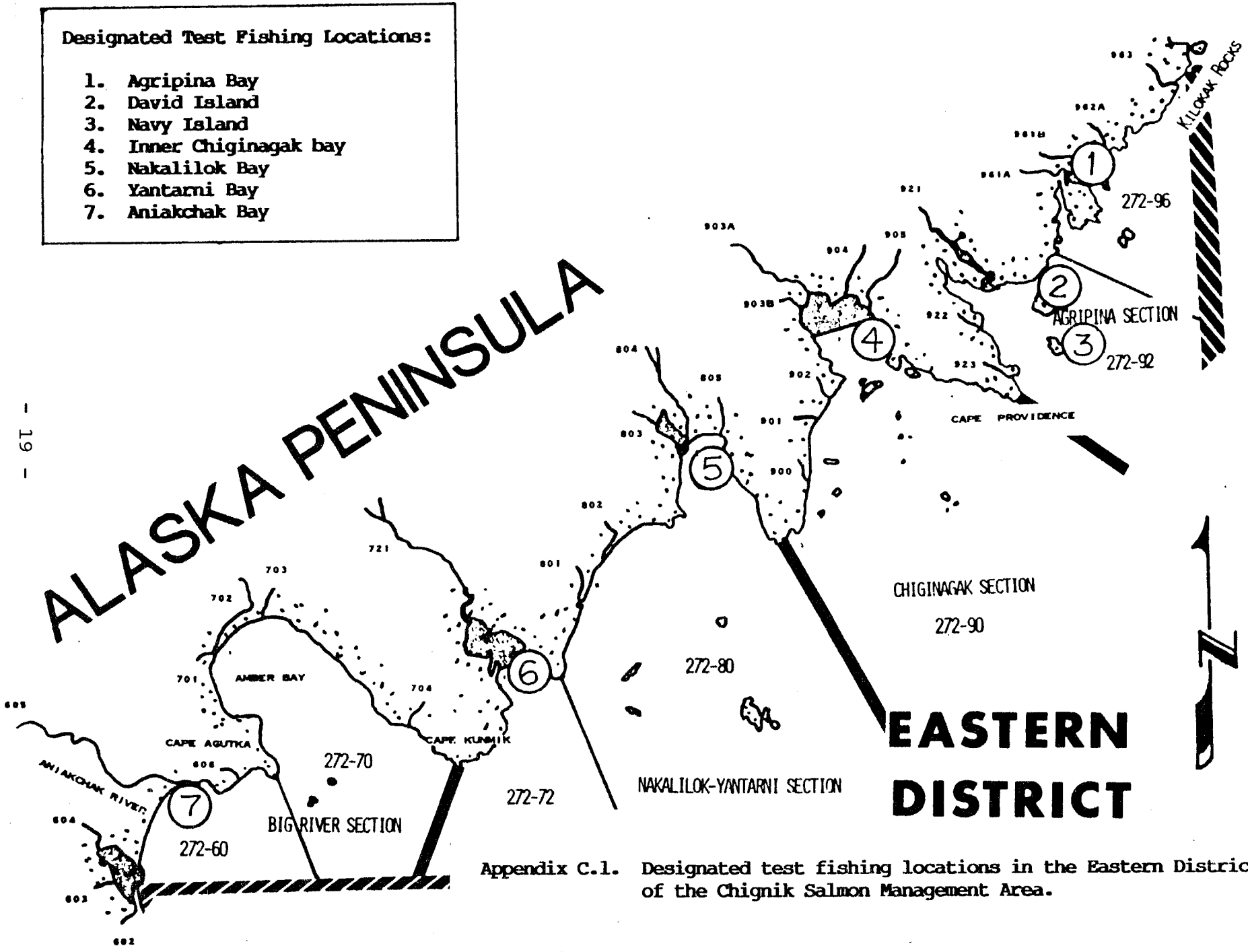
Sample Number: Each video tape cartridge must be individually numbered. The number should consist of the two initials of the test boat plus three digit numbers starting with 001. In addition to entering the tape number on the video cartridge and the corresponding Chain of Custody (COC) Log, the tape number should be recorded on corresponding test fishery reporting forms and any other logs or note books used to document the observation. If multiple observations are recorded on a single video tape, the tape cartridge number remains the same through the last observation recorded on the cartridge (i.e., multiple numbers should not be assigned to an individual video tape cartridge).

Time, Date, Location, Person Taking the Video Collector, Witnesses, and Observation Description: The sound track on the video camera should be used for identifying the time, date, location, and the subject being photographed, and to record the name of the observer and the names of any witnesses. This should be repeated at the start of each new observation since a single tape may be used for documenting several observations. The location on the COC Log should refer to the geographic reach, expressed in latitude and longitude, of the observations recorded on the tape.

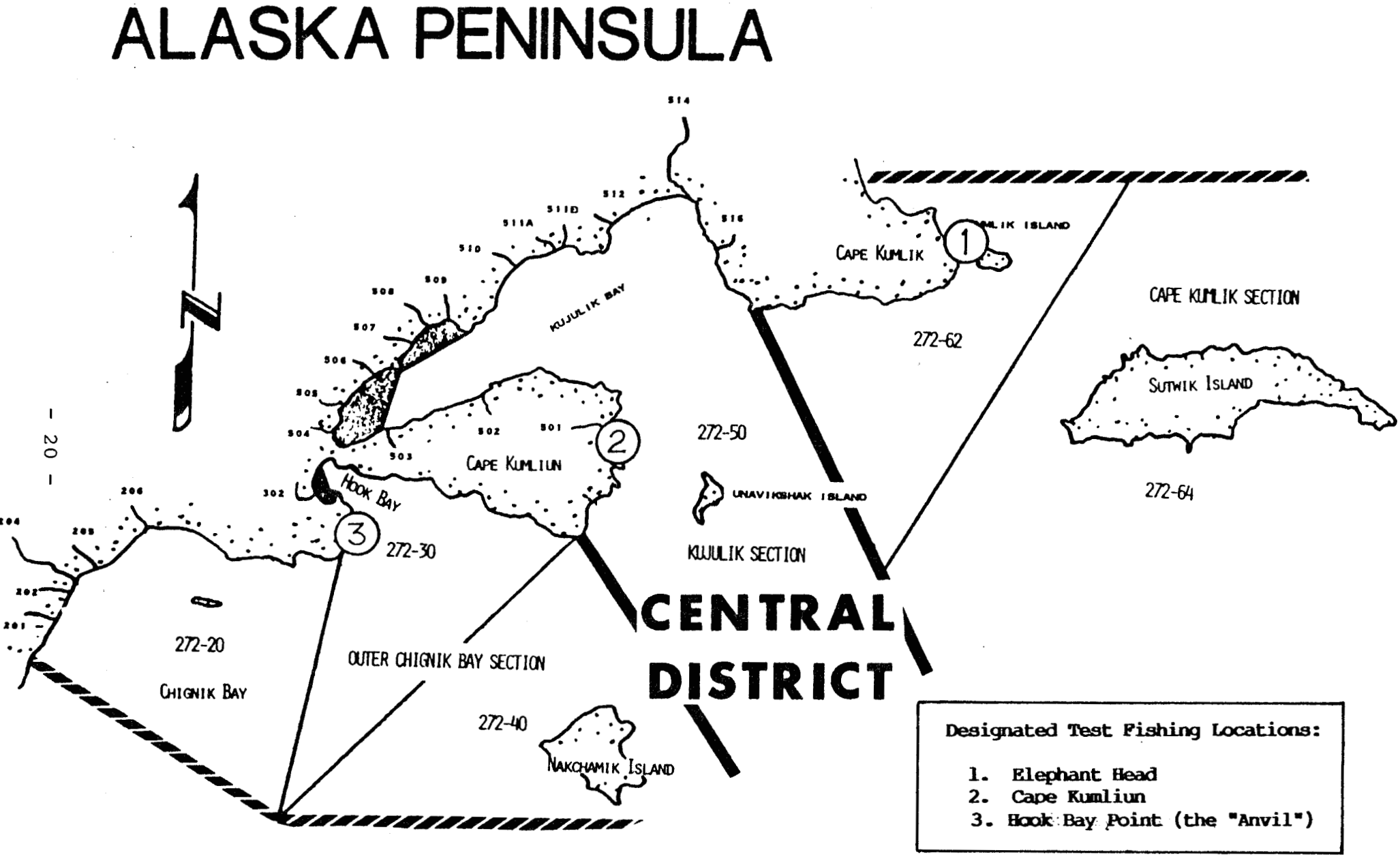
Storage of Video Tapes and Transfer of Custody: All video tapes should be secured and in the control of the observer at all times. Locking brief cases and storage boxes are provided for secure storage. Video tapes are evidence and each video tape must have an accompanying COC Log. After a video tape is completed the cartridge should be sealed with evidence tape that is signed and dated in ink by the person taking the video. The same procedures should be followed for transferring video tapes as outlined for oil COC samples.

Test Fish Observation, Beach Survey, and Other Data Forms and Field Log Books:

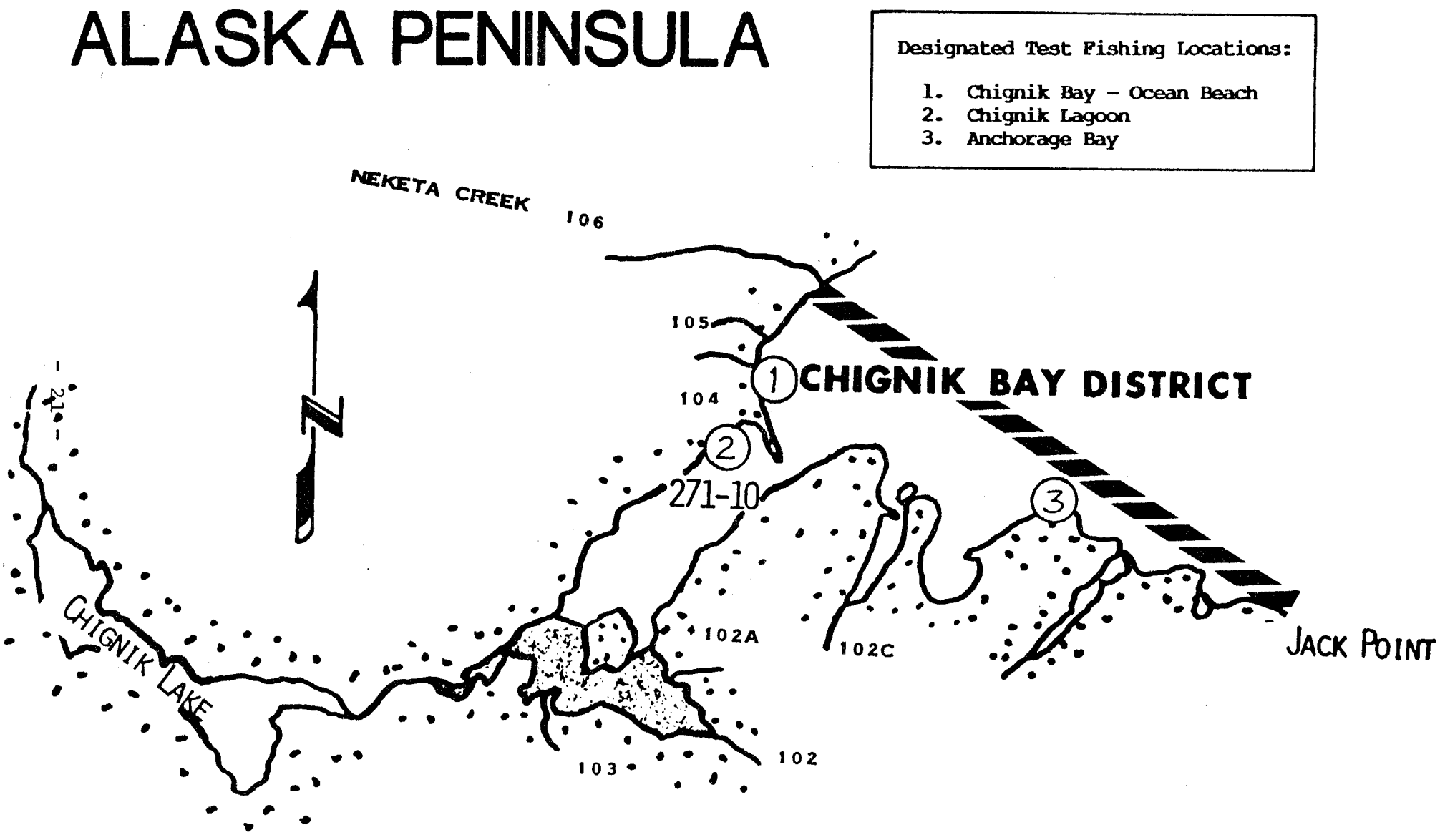
All forms and notebooks should be treated as evidence under COC. They must be kept secure at all times and given directly to the Evidence Custodian upon return to the Port of Kodiak. Locking brief cases are provided for secure storage of data forms and log books. Each data form should be signed and dated in ink by the observer. On field notebooks each page should be numbered and the end of each day's entry should be initialed and dated. The cover of the log book should have the observer's name, the boat name, and dates covered in the log; and each log book should be numbered using the initials of the observer's first, middle and last name plus a three digit number starting with 001.



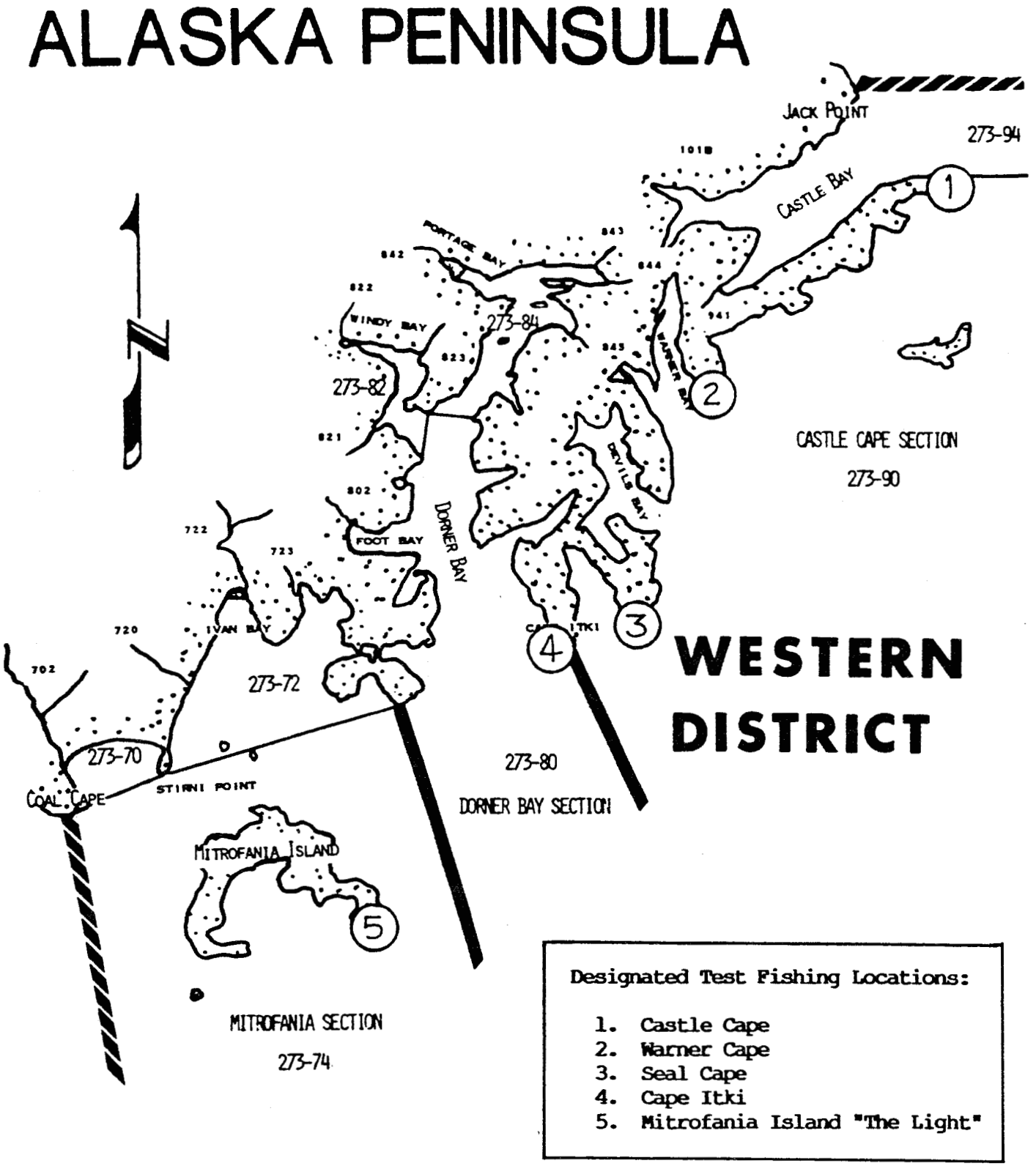
Appendix C.1. Designated test fishing locations in the Eastern District of the Chignik Salmon Management Area.



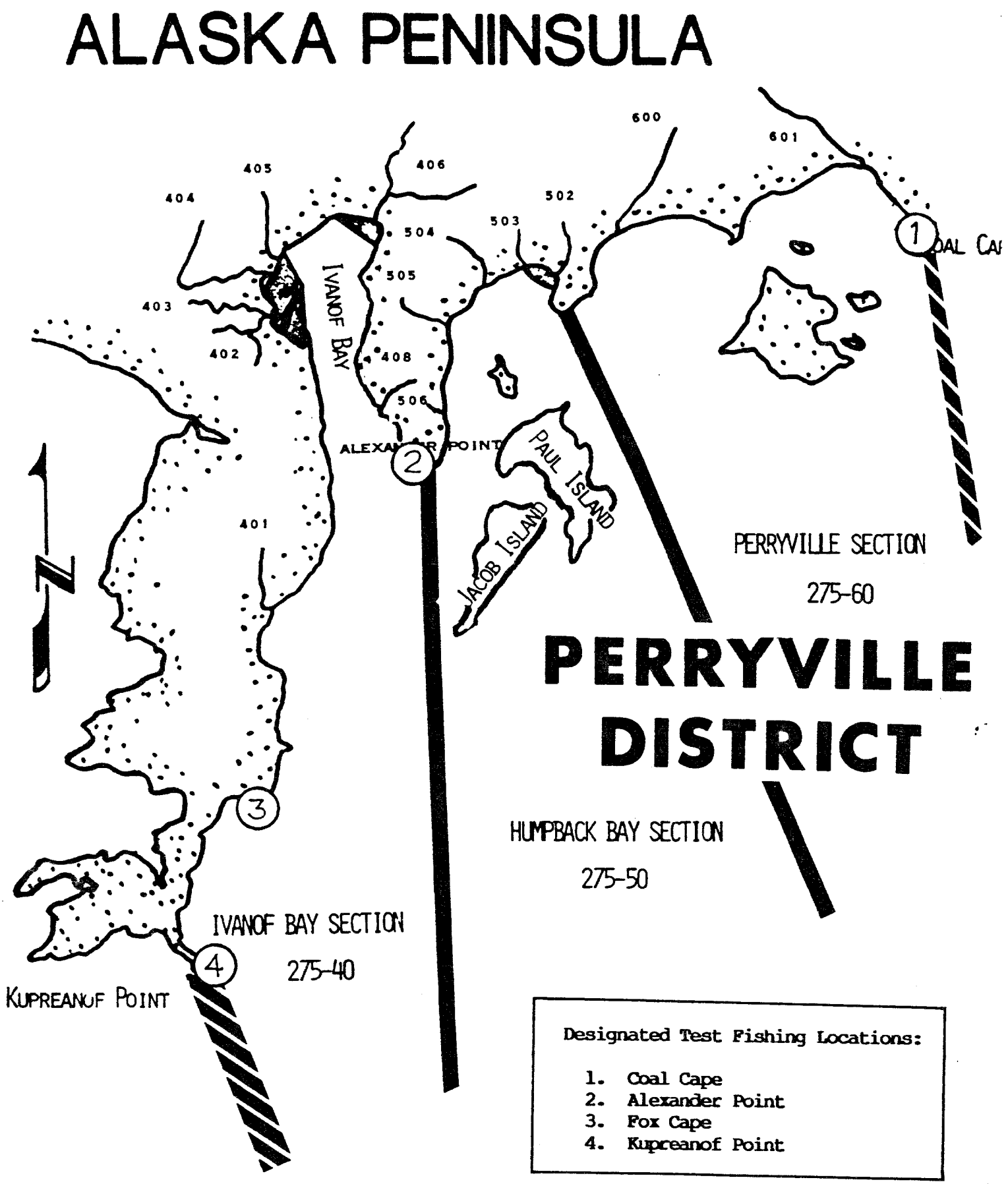
Appendix C.2. Designated test fishing locations in the Central District of the Chignik Salmon Management Area.



Appendix C.3. Designated test fishing locations in the Chignik Bay District of the Chignik Salmon Management Area.



Appendix C.4. Designated test fishing locations in the Western District of the Chignik Salmon Management Area.



Appendix C.5. Designated test fishing locations in the Perryville District of the Chignik Salmon Management Area.

Appendix D.1 Test fishing surveys for oil spill contaminants in the Chignik Management Area from 11 June to 4 September 1989.

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
EASTERN, CHIGNIK																			
Agripina																			
272 92																			
Cape Providence	ETA	Marci La Rae	06/18/89	950		0	0	F	G	L	VL/M	DN		ETA 31					Sheen was very light, up to 20 meters wide; mousse w/ organic materials in thinner bands of slightly heavier sheen
Cape Providence	ETA	Marci La Rae	07/14/89	800	SE	5	3	F	P	L	LS/M	DN		ETA 95	ML 4				Large streak LS 4-10 yd wide extends 1/2 mi long; sample with dip net; almost rainbow sheen; scattered mousse 1" to 3" in diameter
Cape Providence	GDR	Yantarni	07/24/89	1720		0	0	F	E	L	LS	VIS							Tide streak of light sheen contained vegetation, running from Cape Providence to Agripina Bay; 3 dead birds
Cape Providence	JGH	Suzanne	08/02/89	830		0	3	E	G	L	LS/SS	VIS			SU 7				N of cape at stream #923; large pool of LS with SS, 100' X 100'; more LS and SS extending to cape
Cape Providence	JGH	Suzanne	08/04/89	2000	W	15	3	F	G	L	LSMSS	DN		JGH117					Between Cape Kuyuyakak and Cape Providence several streaks of LS 10-60' wide and 1/2 to 1 mile long; more sheen with SS; 1 streak had small amount of mousse
Cape Providence	JGH	Suzanne	08/06/89	1000	SE	10	2	E	G	VL	LS/M	DN		JGH128					1/2 mile NE of cape; 1 ea 6' wide band of LS with small amounts mousse and organic matter; streak ran for at least 1 mi
Cape Providence	MAL	Suzanne	08/26/89	1100	VR	10	2	F	G	M	VLLS	VIS			SU 10				20% coverage of area 1 mi each side of boat L and LS
David Island	JJE	Marci La Rae	06/29/89	1600		0	0	E	E	M	LS	VIS							1 mi S of David Is.; LS patches covering 40% of area within 1/2 mi radius of boat
David Island	JJE	Marci La Rae	06/29/89	1630		0	0	E	E	M	LS/M	DN		JJE 9					Between David and Poltava Islands; LS patches over 30% of area, 1 mousse ball between islands, off Cape Providence
David Island	JJE	Marci La Rae	06/30/89	812	NE	15	4	F	F	L	M/LS	DN		JJE 10	ML 3				Site is between David Island and Port Wrangell; thin streak LS; picked up 10 mousse balls mixed with floating vegetation, sheen covered 10% of area
David Island	ETA	Marci La Rae	07/02/89	1900		0	0	E	G	H	LS/M	SPS	25	ETA 62		0		N	Very light to light sheen throughout set; mousse in organics in tide streaks; site is between David and Poltava Islands; net is sheening when it is raised up to boat
David Island	JGH	Suzanne	07/04/89	1150	SE	10	1	F	F	M	SS/M	DN		JGH 63	SU 4				Several large streaks SS 20' wide, many had some mousse, extending at least 4 mi; was foggy
David Island	JGH	Suzanne	07/07/89	1900	S	25	5	E	F	L	LS/VL	VIS			SU 4				Several small streaks sheen running between David and Navy Islands
David Island	ETA	Marci La Rae	07/11/89	830	S	15	1	F	P	L	LS	VIS							2 bands, 2-4 yds wide within 50' of shore, 100 yds long; several patched finger like sheen; weather made observations difficult

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
David Island	ETA	Marci La Rae	07/14/89	850		0	0	F	P	M	LS/M	DN		ETA 96	ML	4			Bands of sheen 2-5 yds wide running through the entire area; sheen near shore was 50' wide; mousse up to 8" in diameter; three dead birds, no apparant reason
David Island	JGH	Suzanne	07/16/89	800		0	3	S	E	VL	LS/M	DN		JGH 85	SU	5			Tide rip with small amount of mousse and LS with organics, 1/2 mi N of David Island
David Island	GDR	Yantarni	07/18/89	1710	SE	5	0	E	E	M	LSRSM	DN		GDR119	Y	1			1 mi offshore David Island; area covered with 2-15 meter wide bands of RS, LS and mousse, 10-200' apart; mousse is 4" diameter
David Island	JGH	Suzanne	07/19/89	1145	SE	15	2	F	G	M	SSLSM	DN		JGH 93	SU	5			20-30' by 3-4 mi long from Agripina to David Island; many mousse balls 5-10" diameter
David Island	JGH	Suzanne	07/23/89	1200	VR	5	1	F	E	L	LSMSS	DN		JGH101	SU	5			Several 10-20' wide streaks LS from Agripina to David Island; larger streaks closest to island had SS and mousse
David Island	JGH	Suzanne	08/01/89	1455	SE	25	3	F	F	VL	LS	VIS			SU	7			2-5 foot wide streaks of LS running through islands; sheen scattered due to winds
David Island	JGH	Suzanne	08/05/89	850	W	5	1	E	E	L	LS/SS	OTH		JGH119	SU	8			Several pools of LS with SS in area; covered approx 7% of set area
David Island	JGH	Suzanne	08/11/89	950	SE	25	5	F	P	VL	LS	VIS							Could not detect sheen in set area, but LS off N side of island, 1/2 mi W of the set site
David Island	MAL	Suzanne	08/19/89	1350	W	10	1	F	E	L	LS/M	DN		MAL 7					LS 2-10 yd wide stretching between islands 200 yds off test site; another band 7-15 yds wide going E for 1/2 mi; both bands mixed with organics; 1 dead bird
David Island	MAL	Suzanne	08/28/89	915	SE	20	4	F	F	VL	LS	VIS							3 yd wide sheen band running along tide line between David Island and Poltava Island for 300 yds
Navy Island	JJE	Marci La Rae	06/30/89	850	NE	15	4	F	F	VL	M	DN		JJE 11	ML	3			Between Poltava and Navy Is.; mousse balls found in vegetation; did not detect sheen, possibly due to wave action
Navy Island	JGH	Suzanne	07/04/89	1215	SE	10	0	F	F	M	LSSSM	DN		JGH 64	SU	4			A few streaks of sheen running towards the island, one was 10' wide; one large one 50' wide had lots of mousse
Navy Island	JGH	Suzanne	07/07/89	1930	S	20	2	E	G	L	LS/VL	VIS			SU	4			Found several small streaks of light sheen running between Navy and David Island
Navy Island	ETA	Marci La Rae	07/11/89	950	S	5	0	S	P	L	LS	VIS			ML	4			Sheen streaks 1-3 yds wide and pools sheen 10' X 50'; sheen scattered within 1/4 mi. of island; fog limited observations, no mousse or organics
Navy Island	ETA	Marci La Rae	07/13/89	1515	SE	15	4	E	P	M	LS/M	DN		ETA 93					Several bands 1-5 yds wide between David and Poltava Island; 2 pieces of mousse 1" in diameter; several larger pools of sheen near shore, 50'X100' with streaks extending out from them

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
Navy Island	JGH	Suzanne	07/16/89	845	NW	20	3	F	E	L	LS/M	VIS							Continuation of same tide rip with LS and mousse that is present off David Island
Navy Island	JGH	Suzanne	07/19/89	1250	SE	10	2	F	G	M	SS/M	VIS			SU 5				Lots of mousse ranging from 1-10" diameter; counted about 40 balls in a 20' section of water; rips ran from David Island into the mouth of Port Wrangell and S for 3-4 mi
Navy Island	JGH	Suzanne	07/23/89	1250	VR	5	1	F	E	L	LSSSM	VIS			SU 5				Streaks from David Island to set site; mostly LS with small amounts SS and mousse; random lengths and widths, approx 10-20' wide and 200 yds - 1 mi long
Navy Island	JGH	Suzanne	08/05/89	840	W	10	1	E	G	L	LS/SS	VIS			SU 8				1 ea 100 X 200' pool of LS with SS
Navy Island	JGH	Suzanne	08/06/89	919	SE	10	2	E	G	L	LS	VIS							3 ea 5-10' wide bands of LS 1/2 mile long; another streak nearshore
Navy Island	JGH	Suzanne	08/10/89	1639	SE	20	4	F	P	VL	LS	VIS							1-20' light sheen streak running N of off island; poor conditions made survey difficult
Navy Island	MAL	Suzanne	08/19/89	1420	W	10	3	F	E	VL	VL	SPS	20		SU 10	1-25	N	N	VL sheen in area; no sheen in set; 100% pinks
Navy Island	MAL	Suzanne	08/26/89	1005	SW	5	2	F	G	L	LS	VIS			SU 10				5 bands of sheen, largest 15 yds by 1/2 mi; others 10 yds by 1/4 mi
Poltava/David Is	ETA	Marci La Rae	06/18/89	830	W	5	0	E	G	L	LS	OTH		ETA 29	ML 2				Location is E of Poltava Island, (SE of David Island), near Cape Providence; long streaks of sheen 1-3 meters wide; sheen in entire area of David Island, Poltava Island, and Navy Island, almost continuous from Port Wrangell; no mousse; absorbent pad sample taken, control COC ETA 030
Port Wrangell	JGH	Suzanne	07/04/89	1300	SE	5	0	F	F	M	LS	VIS			SU 4				50' wide sheen strip near shore extending 1/2 mi or more; visibility restricted due to fog
Port Wrangell	JGH	Suzanne	07/07/89	2010	S	10	2	E	G	VL	VL	VIS							Few streaks VL sheen running with the wind
Port Wrangell	ETA	Marci La Rae	07/13/89	1600		0	1	E	P	L	LS/M	DN		ETA 94					Sheen in 2-4 yd wide bands running through set area up to 150 yd long, occasional mousse, 1-2" diameter
Port Wrangell	JGH	Suzanne	07/16/89	900	NW	10	1	F	E	VL	VL	VIS			SU 5				1 streak of VL sheen running out of bay
Port Wrangell	GDR	Yantarni	07/17/89	2009	NW	15	1	E	E	L	VL	SPS	15			0		N	Random patches VL sheen
Port Wrangell	JGH	Suzanne	07/19/89	1350	SE	10	1	F	G	M	LS/SS	VIS							Several bands of LS and SS running up the bay
Port Wrangell	JGH	Suzanne	07/23/89	1600	VR	5	0	F	E	L	LS/M	SPS	25		SU 5	0		HC	Made set in area with 5-15' wide 1/2 mi long streaks of LS; noticed small amount of SS coming off the lead line at 100 fathoms into the seine; sheen was coming off the lead line, purse line and purse straps; saw 1 moussed feather in set but it didn't hit net
Port Wrangell	JGH	Suzanne	07/23/89	2100		0	0	F	E	L	LS/SS	VIS			SU 6				Streaks LS with very little SS in spots, running clear into head og bay
Port Wrangell	JGH	Suzanne	08/01/89	1550	SE	25	4	F	F	L	LS	VIS			SU 7				Several 10' wide bands of LS running across the bay; two streaks ran into the head of the bay on the N side

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Port Wrangell	JGH	Suzanne	08/05/89	745	VR	5	1	E	G	L	VLLSMSS	DN		JGH118	SU 8				Few broken patches of VL, 1/2 mile E of set with SS and small mousse balls, 1-2" diameter; 1 mousse every 10' of tide strip
Port Wrangell	JGH	Suzanne	08/11/89	917	SE	25	5	F	P	VL	VL	VIS							Only sparse amount of VL observed; gusting winds made survey difficult
Port Wrangell	MAL	Suzanne	08/19/89	1600	W	15	2	F	E	VL	VL	VIS							VL sheen 1 yd X 50 yds
Port Wrangell	MAL	Suzanne	08/27/89	1250	SE	20	4	F	P	N		VIS							No oil detected, poor viewing conditions
272 96																			
Agripina	JGH	Suzanne	06/28/89	940	VR	5	1	F	E	M	VL	VIS			SU 3				Between Agripina and Kilokak; long streak LS by Agripina, ran 5 mi, 50-100 ft. wide
Agripina Bay	JGH	Suzanne	06/14/89	2010	SE	5	0	S	E	H	MLSSS	VIS							Large area of sheen with a few very small mousse balls, not enough mousse to sample; could not video due to lighting
Agripina Bay	JGH	Suzanne	07/03/89	1630	NE	5		S	G	L	VL	VIS			SU 4				20' wide bands of sheen extending 1/4 mi in length
Agripina Bay	JGH	Suzanne	07/07/89	1215	S	25	3	F	F	VL	VL	VIS							Thin streaks VL running across bay
Agripina Bay	ETA	Marci La Rae	07/11/89	715	S	10	0	F	G	VL	LS	VIS							Two 1-yd wide bands sheen running through test site;another area 50'X100' with many fingerlike bands ; no organic streaks and no mousse; no set due to terminal fish site
Agripina Bay	ETA	Marci La Rae	07/14/89	1020		0	0	F	P	N		VIS							No oil at site; poor conditions; no set because power block wasn't working
Agripina Bay	JGH	Suzanne	07/15/89	1630	NE	5	3	E	G	M	LSSSM	DN		JGH 84	SU 5				Several large 20-30' wide bands LS, SS and mousse extending more than 2 miles; many small mousse balls 1-5" diameter mixed in with kelp and sheen
Agripina Bay	GDR	Yantarni	07/18/89	1550	SE	5	0	F	E	L	VL	SPS	15			0		N	
Agripina Bay	JGH	Suzanne	07/19/89	950	NE	5	2	E	G	M	LSSSM	DN		JGH 92	SU 5				Many tide rips with mousse and SS, LS, 3 mi long and 50-60' wide
Agripina Bay	JGH	Suzanne	07/22/89	1843	VR	10	2	F	G	L	LS	VIS							Sheen extends well into Agripina Bay, bands 20-40' wide and only LS
Agripina Bay	JGH	Suzanne	07/24/89	840		0	0	E	E	N		SPS	30			200	N	HC	No sheen in area, but small amount of sheen coming off purse area again; net was too fouled with organics to get a good look at it; will scrub down with soap
Agripina Bay	GDR	Yantarni	07/24/89	1500		0	0	F	G	VL	VL	SPS	15			1-25	N	N	Outside Agripina Bay; very light sheen inside set; mostly pinks
Agripina Bay	JGH	Suzanne	08/01/89	1230	SE	15	1	F	G	VL	VL	VIS							Several 5 foot wide bands of VL sheen running across the bay
Agripina Bay	JGH	Suzanne	08/05/89	1315	VR	5	1	F	F	VL	VL/LS	VIS		JGH120					A few 10-20' wide streaks of VL and LS; lack of wind made observations difficult, but streaks were approx 2 miles

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil: Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Agripina Bay	JGH	Suzanne	08/11/89	1050	SE	25	1	F	P	L	LS/VL	VIS			SU 9				No streaks visible; some LS/VL sheen detectable with soap test
Agripina Bay	MAL	Suzanne	08/19/89	1200	W	10	0	F	G	N		SPS	10			>500	N	N	No visible oil; 100 % pinks
Agripina Bay	MAL	Suzanne	08/26/89	925	SW	5	1	F	G	N		VIS							No oil detected inside bay ; outside of bay at SW entrance sheen streak 5 yds by 1/4 mi
Agripina Bay	MAL	Suzanne	08/28/89	1015	SE	15	3	F	F	VL		VIS							4 sheen bands averaging 1 yd by 200-300 yds running E/W in bay
Agripina, north	JGH	Suzanne	07/04/89	1430	SE	10	3	F	F	L	SS/M	DN		JGH 65	SU 4				Streak of SS with some mousse extending at least 1/2 mi offshore
Agripina, north	JGH	Suzanne	07/07/89	1144	S	30	4	E	F	VL	VL/M	VIS							Several small bands VL sheen with splattering of small mousse balls; (Over radio said: no sample due to rough seas)
Agripina, north	JGH	Suzanne	07/15/89	1600	NE	5	3	E	G	M	LS/SS				SU 5				Several bands LS with SS where compacted; ran 2 miles and more; saw quite a few between here and Kilokak Rocks
Agripina, north	GDR	Yantarni	07/18/89	921		0	0	E	E	L	LS/M	DN		GDR116	Y 1				Agripina-Kilokak Rocks; streaks of sheen with mousse (size from quarter to grapefruit), dead birds; sheen is 3-6 meters wide and several miles long
Agripina, north	JGH	Suzanne	07/19/89	850	NE	5	2	E	G	M	LSSSM	DN		JGH 91					Tide rip with mousse, SS, LS and organics 3 mi by 50-60'; many small mousse bits which were giving off sheen
Agripina, north	JGH	Suzanne	07/22/89	1800	VR	10	2	F	G	L	LS/SS	VIS							Several bands of LS with some SS, 15-30' wide extending from Kilokak Rocks to N Agripina up to a mile offshore
Agripina, north	JGH	Suzanne	07/24/89	1120		0	0	E	E	L	LSSSM	DN		JGH102	SU 6				3/4 mi N Agripina Bay; streak of sheen running across the outside of the bay, has LS, mousse and SS; 1 dead bird in streak
Agripina, north	JGH	Suzanne	07/24/89	1230	NE	5	1	E	E	L	LS	VIS							30' wide, 1/2 mi long streak near shore; observed MV Yantarni make set
Agripina, north	JGH	Suzanne	08/01/89	1142	SE	30	8	F	P	N		VIS			SU 7				High wind precluded survey - there was possible LS but it was impossible to confirm
Agripina, north	JGH	Suzanne	08/05/89	1415	VR	10	1	F	G	L	LS	SPS	25	JGH121		51-75	N	GC	COC JGH 122, JGH 123, JGH 124, JGH 125, JGH 126; streak of LS approx 1/4 mi offshore and another in close to the rocks; made set with "new" net; (note: net had just been cleaned by Exxon (Norcon) - net had been one that was previously contaminated, cleaned and given to Suzanne). When hauling seine, noticed net giving off a LS at various points along the cork line; also observed traces of mousse on the chafing gear; the purse line had a few spots of mousse, and there were smears of mouse on the white section of corks; after loading the purse, observed patches of LS right next to the boat; took samples of fish, corks and web; (note: on radio observer said video had been broken, so did not obtain video sample)

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Agripina, north	JGH	Suzanne	08/05/89	1640	SE	5	1	F	E	L	LSMSSVL	DN		JGH127					Small amount of mousse in band of LS and VL between 2 set sites; some 10-30' wide and 3 mile long; some had thin streaks of SS; the streak with mousse ran from 1/2 mi S of N Agripina down and across Agripina Bay
Agripina, north	JGH	Suzanne	08/11/89	1130	SE	25	9	S	P	N		VIS							No sheen detected; poor weather conditions
Agripina, north	MAL	Suzanne	08/18/89	1830	S	10	7	E	G	L	LS/SS	VIS							Heavy sheen with SS compacted along tide line, 10 yds by 1/4 mi; lots of foam
Agripina, north	MAL	Suzanne	08/21/89	1220	NW	10	2	F	G	L	LS	VIS			SU 10				LS streaks visible from 2 miles south of point stretching 200 yds north of point
Agripina, north	MAL	Suzanne	08/25/89	2134	S	20	3	F	F	L	LSSS	VIS			SU 10				Band of sheen 10-20 yds wide by 1-1 1/2 mi long; pool of sheen 200 yds by 300 yds
Agripina, north	MAL	Suzanne	08/28/89	1100	SE	20	8	F	F	N		VIS							No oil detected
Ashiiak Island	ETA	Marci La Rae	06/17/89	1540	S	15	1	E	G	L	LS/M	DN		ETA 28					Sheen 1-4 yds wide, >1/2 mi long; mousse in organic tide streak, most pieces 2"-5" diameter
Kilokak Rocks, S	ETA	Marci La Rae	06/11/89	1500		0	0	F	G	L	LS	VIS							Radio summary; traveled 3 miles south of Kilokak, large coverage of LS, no mousse in it
Chiginagak																			
272 90																			
Cape Kuyuyukak	ETA	Marci La Rae	06/18/89	1430	E	5	1	F	G	L	LS	VIS			ML 2				Sheen in 1-3 yd bands, white particles in good quantity in sheen; followed streak off and on since Cape Providence; no mousse found
Cape Kuyuyukak	JJE	Marci La Rae	06/29/89	1240	W	5	0	E	G	VL	SS	OTH		JJE 5					2 mi E of Cape Kuyuyukak; wind died down at this cape, patches of sheen detectable with soap, and patch 30 yds X 2 yds of SS detectable without soap; also COC JJE 006
Cape Kuyuyukak	JJE	Marci La Rae	06/29/89	1300	E	10	1	E	G	M	LS/M	DN		JJE 7					7 mousse balls in LS - 3/4 mi long X 15 yds; more LS streaks 75 yds X 10 yds about 100 yds apart in area; both within 1/2 mi radius
Cape Kuyuyukak	JJE	Marci La Rae	06/30/89	1220	NE	5	0	F	E	M	M/LS	DN		JJE 14	ML 3				Patches of sheen covered 30% of area within 1/2 mi radius of boat; 4 mousse balls 2-4" diameter, widely spaced
Cape Kuyuyukak	ETA	Marci La Rae	07/02/89	1530		0	0	S	G	M	LS/M	SPS 25		ETA 61	ML 4	1-25	N	N	Sheen was long large streaks, 5-15 yds. wide X 1/4-1/2 mi. long, a few smaller streaks branching off; followed large amounts of sheen since Nakalilok Bay; catch 2 sockeye; mousse sample had a lot of organics
Cape Kuyuyukak	JGH	Suzanne	08/02/89	1540	S	25	5	F	F	VL	VL/LS	VIS							One 3' wide streak of light sheen extending 1/4 mile; VL sheen broken and hard to follow
Cape Kuyuyukak	JGH	Suzanne	08/06/89	1445		0	0	F	F	M	VLSSLS	VIS		JGH129					No wind and gray sky made survey difficult; Joy test found VL and LS 4 out of 5 tests; 1 mi S of set area there were some streaks 10-20' wide and a large 100 X 200' pool of LS with thin streaks of SS running through them

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil: Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Cape Kuyuyukak	JGH	Suzanne	08/09/89	2200	SE	15	3	E	F	M	LS/SS	VIS							Extension of same streak coming from Nakalilok Bay, running NE into the set site where it broke up into smaller 20' wide streaks. too dark to video
Cape Kuyuyukak	MAL	Suzanne	08/20/89	1400	SW	20	5	F	F	N		VIS							No oil detected
Cape Kuyuyukak	MAL	Suzanne	08/26/89	1205	VR	10	1	F	G	M	LSMSS	DN		MAL 10					Moderate impact of VL and LS with small patches of SS and 3 pieces of mousse
Cape Providence	JJE	Marci La Rae	06/29/89	1515	W	20	2	E	G	L	M/VL	DN		JJE 8	ML 3				6 mousse balls, 2-3" diameter floating in vegetation in VL streaks 150 yds X 5 yds; several streaks widely spaced, about 500 yds apart
Cape Providence	ETA	Marci La Rae	07/11/89	900	S	5	3	S	P	VL	LS	VIS							1-2 yd wide sheen streaks; only a few streaks at cape; fog impaired visibility; no organic tide streaks or mousse; (% coverage of sheen <1%)
Chiginagak Bay	ETA	Marci La Rae	06/18/89	1155	W	10	1	F	G	L	M/VL	DN		ETA 32					VL sheen covers a large area; found small amount of mousse in organics, not anything like further N
Chiginagak Bay	GDR	Yantarni	07/17/89	1412	SE	15	1	F	E	VL	VL	SPS	15			0		N	W side of bay; several dead fish in this set
Chiginagak Bay	GDR	Yantarni	07/25/89	1230	SE	5	0	E	E	L	LS	SPS	15		Y 1	0		N	Derikson Island; 10 meter wide by 2 mi long silvery sheen streak; may be biological
Chiginagak, inner	JJE	Marci La Rae	06/30/89	1030		0	0	F	E	M	LS/M/SS	DN		JJE 12	ML 3				Also COC JJE 013; 600 yds X 30 yds LS streak; small SS streaks within 9'X 1'; smaller sheen streak in close proximity; 3 tiny mousse balls dime to quarter size
Chiginagak, inner	JGH	Suzanne	08/02/89	1120	VR	5	0	F	E	VL	VL/LS	VIS			SU 7				Small patch of light sheen along shoreline near inner markers and test site
Chiginagak, inner	JGH	Suzanne	08/06/89	1155		0	0	F	E	M	LS/VL	VIS							Inside set area large pool of LS approx 100' X 100' with many small streaks running out of it; covered 10-15% of the area
Chiginagak, inner	JGH	Suzanne	08/10/89	1415	VR	5	1	E	G	L	LS	SPS	25			>500	N	N	Area had patches and streaks of LS; sheen areas were not well defined but covered approx 6% of set area; net had less sheen on it
Chiginagak, inner	MAL	Suzanne	08/20/89	1200	SW	5	0	S	G	N		SPS	35			26-50	N	N	No oil visible; VL observed from net; 99% pink
Chiginagak, inner	MAL	Suzanne	08/27/89	1115	SE	20	3	F	P	N		VIS							No oil detected under poor conditions
Chiginagak, outer	JGH	Suzanne	08/02/89	910		0	2	E	G	M	LSMSS	DN		JGH110	SU 7				100-200' band of light sheen with organic matter; mousse and SS extending almost to Cape Providence
Chiginagak, outer	JGH	Suzanne	08/06/89	1110	VR	5	0	E	F	VL	LS/VL	VIS							VL, LS scattered around set area
Chiginagak, outer	JGH	Suzanne	08/10/89	1600	SE	15	5	F	P	M	LS/M	DN		JGH140					1/2 mile W of set site observed many 30' wide streaks of LS with mousse and some organic matter; streaks ran parallel to shore for 2 mi; mousse was scattered amongst the organics
Chiginagak, outer	MAL	Suzanne	08/20/89	920	SW	30	3	F	G	N		VIS							Wind picking up; no oil detected
Chiginagak, outer	MAL	Suzanne	08/27/89	1210	SE	30	10	F	P	N		VIS							No oil detected under poor conditions

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Derickson Island	GDR	Yantarni	07/19/89	1235		0	0	F	E	M	LSRSM	DN		GDR124	Y 1				North side of Island; bands of LS, RS with occasional mousse ball
Nakalilok-Yantarni																			
272 72																			
Cape Kunmik	GDR	Yantarni	07/23/89	1800	NW	10	1	F	G	L	VL	VIS							Patch of VL sheen 50 yds X 30 yds in tide streaks
Cape Kunmik	GDR	Yantarni	08/24/89	1715	SE	10	2	F	G	L	LS	VIS							2 meter by 3 mi band of LS runs from Yantarni to Amber Bay
Yantarni Bay	ETA	Marci La Rae	07/02/89	1150		0	0	F	G	L	LS	SPS	20		ML 4	1-25	N	N	Streak of sheen across mouth of bay, 5 yds wide; several more streaks up toward head of bay 1-2 yds wide and 100-300' long; sheen inside net; 1 chum, 2 dollys
Yantarni Bay	GDR	Yantarni	07/15/89	1719	NW	10	0	E	G	N		SPS	15			26-50	N	N	Location is Red Bluff; 1 sockeye, rest chum
Yantarni Bay	GDR	Yantarni	07/15/89	1911	NW	10	1	E	G	N		SPS	15			1-25	N	N	West side; all chum
Yantarni Bay	JGH	Suzanne	08/04/89	1645	W	35	3	F	P	N		VIS							No sheen or mousse in area; high winds made observations difficult
Yantarni Bay	JGH	Suzanne	08/06/89	1930	SE	5	1	E	E	M	LSSSM	DN		JGH133					At cape between Yantarni and Ocean Beach; 100-200' wide by 1 mi long streak of LS with SS and some mousse
Yantarni Bay	JGH	Suzanne	08/06/89	2000	SE	5	1	E	F	M	VLSSLS	VIS							Several streaks of LS 50-100' wide by 1/4 mi long; at mouth of river 3 streaks of LS with SS covering 15-20% of area
Yantarni Bay	JGH	Suzanne	08/09/89	1450	SE	5	2	S	E	VL	LS	SPS	25		SU 9	1-25	N	N	Several 5-10' wide streaks of LS coming off the beach; detected small amount of sheen in the set but could detect no seine contamination
Yantarni Bay	GDR	Yantarni	08/14/89	1615		0	3	E	E	VL	VL	SPS	15			1-25	N	N	VL sheen test site; 1 king, 1 pink, 4 chum
Yantarni Bay	MAL	Suzanne	08/20/89	1620	SW	35	3	F	P	N		VIS							Impossible to survey due to wind
Yantarni Bay	GDR	Yantarni	08/24/89	1300	SE	5	1	E	G	VL	VL	SPS	18			1-25	N	N	2 chums, 1 sockeye, 5 coho; patches of VL observed in set area
Yantarni Bay	MAL	Suzanne	08/26/89	1330	SW	10	1	E	E	L	VLLS	VIS			SU 10				Sheen streaks running into head of bay, one band was 15 yds by 1 mi
272 80																			
Nakalilok	MAL	Suzanne	08/26/89	1630	NE	10	2	E	E	N		VIS							No oil detected
Nakalilok Bay	JJE	Marci La Rae	06/29/89	1200	W	25	2	S	P	N		VIS							Westerly winds probably blew oil out
Nakalilok Bay	JJE	Marci La Rae	06/30/89	1330	E	15	0	S	E	VL	VL	VIS							Extremely LS, barely detectable with soap, sheen streak covered 3% of area in 1/2 mi radius; no mousse found in vegetation
Nakalilok Bay	GDR	Yantarni	07/16/89	1040	NW	10	0	F	E	N		SPS	15			1-25	N	N	2 chinook, rest chum
Nakalilok Bay	GDR	Yantarni	07/24/89	1400	NW	5	0	F	G	L	VL	VIS							Patches of VL sheen in tide streak covering 10-15% of area
Nakalilok Bay	JGH	Suzanne	08/02/89	1630	NW	25	3	E	F	VL	VL	VIS							Saw a few thin bands of sheen in wind rows; light sheen patchy and hard to find

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Nakalilok Bay	JGH	Suzanne	08/02/89	2030	VR	5	2	F	E	M	LS	VIS							10-50' X approx 1/2 mi long bands; point between Nakalilok and Ocean Beach had moderate coverage of LS
Nakalilok Bay	JGH	Suzanne	08/06/89	1545	VR	5	0	F	G	L	VLSSLS	OTH		JGH130					LS streak 20-30' wide with SS ran into head of bay where it spread out covering 40-45% of the set area with VL and LS; the whole bay and its mouth had similar streaks of LS from 20-50' wide, some up to 2 mi wide
Nakalilok Bay	JGH	Suzanne	08/09/89	2030	SE	15	1	E	G	L	LS	SPS	25		SU 9	>500	N	N	1 streak, 50-100', from outside bay to E side marker in bay; we made set to observe the seine's sheen; got a good look at the sheen and determined that it was either hydraulic or fuel oil
Nakalilok Bay	JGH	Suzanne	08/09/89	2135	SE	15	3	E	G	M	LS/SS	OTH		JGH137	SU 9				Mouth of bay; LS and SS was 4 mi X 50-600' wide; 3 dead birds in sheen streak
Nakalilok Bay	MAL	Suzanne	08/20/89	1900	NW	50	4	E	P	N		VIS							Poor conditions due to wind and waves
Ocean Beach	JJE	Marci La Rae	06/30/89	1430	E	5	0	E	E	L	LS/M	DN		JJE 15	ML 3				Long sheen streak in tide rip; 1.5 mi long X 30 yd wide, on edge was build up of vegetation and scum; found 6 mousse balls 1-3"
Ocean Beach	ETA	Marci La Rae	07/02/89	1330	NW	10	0	F	G	L	M/LS	SPS	25		ML 4	0		N	Found streaks of sheen with white foam and a brown algae type substance that is common in sheen; found a few very small pieces ofmouse, not enough for a sample
Ocean Beach	JGH	Suzanne	08/02/89	2130	W	20	2	F	P	M	LS/SS	VIS							Few thin bands LS coming off beach; other pools of LS and SS from 50-100' wide and 2 mi long
Ocean Beach	JGH	Suzanne	08/06/89	1800	VR	5	0	S	E	M	LS/SS	VIS		JGH131					Several streaks and large pools of LS with small amount SS within sheen covered approx 15-20% of area
Ocean Beach	JGH	Suzanne	08/09/89	1545	SE	5	2	F	E	L	LS/SS	VIS							Cape S of beach; same streaks that were at Cape Kunmik ran across the mouth of Yantarni Bay; at the cape south of Ocean Beach there was a 50' wide streak of SS, we found two dead skuas (birds) in the streak
Ocean Beach	JGH	Suzanne	08/09/89	1620	VR	5	1	F	F	L	LS	SPS	25	JGH136	SU 9	200	N	HC	Set in area with a few streaks of LS, noticed some sheen coming off the cork and lead lines; took sample of sheen and got good video coverage; couldn't determine if sheen was crude or fuel.
Ocean Beach	MAL	Suzanne	08/26/89	1500	E	5	1	E	E	VL	VLM	SPS	20	MAL 11		1-25	N	N	VL sheen 5 yds by 300 yds running E; 3 mousse balls found 3 mi S of site; 100% coho in set
Ugaiushak Island	GDR	Yantarni	07/19/89	1730	SW	15	2	E	F	VL	VL	SPS	17			0		N	E side of; observed patches of VL sheen
Big River 272 60																			
Aniakchak	GDR	Yantarni	07/22/89	2028		0	0	E	G	N		SPS	15			26-50	N	N	Outside Elephants Head; mostly sockeye; clean set
Aniakchak 605	ETA	Marci La Rae	06/21/89	1330	E	20	3	F	P	L	LS	VIS							Poor weather made observations difficult; sheen up to 10 yds. with 1-2 yd. wide bands branching off from main pool; no mousse

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Aniakchak Bay	ETA	Marci La Rae	06/19/89	1115	NE	20	4	F	P	VL	LS	VIS							With careful observation could see thin streaks of sheen about 1/4 mi. from shore; wind and waves made detection of oil quite hard
Aniakchak Bay	GDR	Yantarni	08/09/89	1015	E	5	0	E	E	N		SPS	20			1-25	N	N	All pinks but for 2 chum
Aniakchak Bay	GDR	Yantarni	08/15/89	1300	NE	10	1	F	G	N		SPS	18			76-100	N	N	45% sockeye, 45% pink, 10% chum
Aniakchak Bay	GDR	Yantarni	08/22/89	1815		0	0	F	F	N		SPS	15			0	N	N	No oil observed
Aniakchak Bay	GDR	Yantarni	08/22/89	1845		0	0	S	E	VL	LS	SPS	15		Y 2	0	N	N	1.5 by 150 meter bands of LS at set site
Aniakchak Lagoon	GDR	Yantarni	08/29/89	1530	SW	0	0	E	E	L	LS	VIS			Y 2				Streaks of LS 2 meters by 200 meters and spots of LS in lagoon
Aniakchak River	JGH	Suzanne	08/03/89	1840	SW	25	1	E	F	L	VL/LS	VIS			SU 8				Near stream #605; many thin windrows of LS and VL sheen running offshore
Aniakchak, inner	ETA	Marci La Rae	06/21/89	1215	E	20	3	F	F	L	LS/M	DN		ETA 37					Large streaks of sheen with mousse; width 5-20 yds, mousse 2-5" in diameter; streak probable continuation from previous site
Aniakchak, inner	JGH	Suzanne	08/04/89	805	W	20	1	E	F	L	LS	OTH		JGH114	SU 8				COC sample JGH 115; many small 2' wide bands of LS running off the beach; the streaks ran at least 300 yds
Cape Agutka	JGH	Suzanne	08/04/89	1210	W	15	1	S	F	L	LS/VL	VIS							Thin streaks of VL and LS running off of the shore for 400 yds
272 70																			
Amber Bay	GDR	Yantarni	07/23/89	1710	NW	10	1	F	G	N		SPS	15			1-25	N	N	3 sockeye; clean set
Amber Bay	JGH	Suzanne	08/04/89	1400	W	30	2	F	P	L	VL	VIS							Many wind blown streaks of VL sheen running offshore
Amber Bay	GDR	Yantarni	08/10/89	1315	E	10	1	E	E	N		SPS	15			1-25	N	N	All pinks but for 2 chums
Amber Bay	GDR	Yantarni	08/24/89	1015	SE	5	1	E	E	VL	VL	SPS	18			1-25	N	N	1 chum, 5 coho; patches of VL were observed in set area
Cape Kunmik	JJE	Marci La Rae	06/29/89	900	W	25	2	F	P	N		VIS							1 mi S of Cape Kunmik; W winds probably blew oil out
Cape Kunmik	JGH	Suzanne	08/09/89	1400	SE	5	2	E	E	M	LS/SS	OTH		JGH135	SU 9				Several pools and streaks of LS with SS coverage was 40-45%
CENTRAL, CHIGNIK																			
Cape Kumlik																			
272 62																			
Aniakchak, middle	JGH	Suzanne	08/04/89	825	W	20	2	E	F	VL	VL	VIS							Few bands of VL sheen extending inside bay; sheen thinner than at inner set
Aniakchak, middle	JGH	Suzanne	08/09/89	1045	SE	5	1	E	E	L	LS	VIS			SU 9				Several bands of LS in set area covering 10% of area
Aniakchak, outer	ETA	Marci La Rae	06/21/89	930	E	10	3	E	F	L	LS/M	DN		ETA 36	ML 2				Several pieces of mousse every 3' in a large streak of organic material 3-5 yds wide; the sheen was near organics but not restricted to it; followed streak for 4 mi.
Cape Kumlik	ETA	Marci La Rae	06/24/89	1050	SW	10	1	E	F	M	LS/M	DN		ETA 44	ML 2				Middle of cape; almost 50% coverage of area; 150'x 300, was largest pool; mousse was in organic streaks along with foam; sheen within 1/4 mi. of shore but continued for up to 1 mi. out

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Cape Kumlik	JJE	Marci La Rae	06/28/89	1445	SE	15	0	F	E	VL	VL/M	DN		JJE 2					4 mi S of Cape Kumlik; 2 mousse balls floating in vegetation drift mostly eel grass and popweed; VL with 5" spots detectable without soap test
Cape Kumlik	JJE	Marci La Rae	06/28/89	1525	SE	15	0	S	E	M	VL/M	VIS							4 mi SSE of cape; 1 mousse ball 2" in size; check calm area 300 yds by 25 yds; sheen coverage 30% of 1/4 mi around the boat
Cape Kumlik	JJE	Marci La Rae	06/28/89	1815	SE	15	0	E	E	VL	M	DN		JJE 4					1 mi off SE Cape Kumlik, 1.5 mi SW of Kumlik Islands; 1 mousse ball in vegetation streak 75 yds long X 5 yds wide
Cape Kumlik	JJE	Marci La Rae	07/01/89	1250	S	30	2	F	P	N		SPS	30			1-25	N	N	Did use soap test while hauling but saw nothing; 1 pink
Cape Kumlik	JGH	Suzanne	08/09/89	900	VR	5	7	E	F	M	LS/SS	VIS							20-50' wide LS with 5' wide SS 2 miles from Elephants Head, length impossible to estimate due to fog
Elephants Head	JJE	Marci La Rae	07/01/89	850	W	25	3	F	P	N		SPS	30			1-25	N	N	Winds and waves make it hard to defect sheen
Elephants Head	ETA	Marci La Rae	07/02/89	900	W	15	2	E	P	N		SPS	25			51-75	N	N	Mostly sockeye; choppy seas made observations difficult
Elephants Head	GDR	Yantarni	07/15/89	952	NW	10	1	F	F	N		SPS	12			1-25	N	N	2 chum; set looked clean
Elephants Head	GDR	Yantarni	07/26/89	1130		0	0	E	E	N		SPS	15			76-100	N	N	Mostly sockeye
Elephants Head	JGH	Suzanne	08/04/89	850	W	20	2	E	F	VL	VL	VIS							Few windrows of VL sheen; sheen coming from inside of bay to Elephants Head
Elephants Head	JGH	Suzanne	08/06/89	2100	SE	5	2	E	G	L	VLLSSS	OTH		JGH134					From Cape Kunmik to Elephants Head; many streaks of LS, VL and SS running out of and parallel to Amber and Aniakchak Bays, 50-200' X 3 mi long; dense fog made distances hard to determine, impact ranged from VL to moderate in some places
Elephants Head	JGH	Suzanne	08/09/89	1000	VR	5	4	E	E	L	LS/SS	VIS			SU 9				2 ea 15-25' streaks of LS with SS extending 1/2+ mile; fog limited observations
272 64																			
Sutwik Island	JJE	Marci La Rae	06/28/89	1615	SE	15	0	E	E	M	VL/M	DN		JJE 3	ML 3				3 mi W of Sutwik Island; found 10 mousse balls along a sheen streak 1/4 mi long 20 yds wide; sheen detected by soap test; mousse balls collect in tide streaks
Kujulik																			
272 50																			
Cape Kumliun	ETA	Marci La Rae	06/23/89	1350	E	20	3	F	P	VL	LS/M	DN							Sheen in thin streaks 1-2 yds wide about 1/2 mi. from shore; found 4 penny size pieces of mousse
Cape Kumliun	ETA	Marci La Rae	06/24/89	1457		0	0	F	F	M	LS/M	DN		ETA 45	ML 2				N of Pinnacle; sheen was between the Cape and Unavikshak Island; about 30% coverage in 1-5 yd. streaks, 1/4 mi. and longer; mousse in organics
Cape Kumliun	ETA	Marci La Rae	06/27/89	1030	NW	20	2	E	P	VL	VL	VIS							Location the Pinnacles; few bands light sheen in area, finger like and only 1-3 yds. wide; site had rough conditions but confirmed sheen with Joy soap test

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
Cape Kumliun	ETA	Alaska Rose	06/30/89	1400		0	1	S	F	N		VIS							S. of Pinnacles; no sign of oil in the area; no organic tide streaks floating either; no sets due to salmon opening in chignik lagoon
Cape Kumliun	ETA	Marci La Rae	07/02/89	545		0	0	E	G	L	VL	SPS	25			0		N	Large pools sheen 20-50 yds outside test site; thin streaks 1-2 yds wide X 50 yds in test site; sheen visible inside the net as it was next to the boat and being brought back on deck
Cape Kumliun	GDR	Yantarni	08/07/89	1340	SE	5	1	F	F	N		SPS	15			26-50	N	N	50% pink; 40% chum; 10% sockeye
Cape Kumliun	GDR	Yantarni	08/14/89	1030		0	3	F	E	N		SPS	20			1-25	N	N	6 reds, 1 silver, 2 chum, 6 pinks
Cape Kumliun	GDR	Yantarni	08/30/89	1300		0	0	F	E	M	LS/VL	VIS							Large patch of LS and VL, the patch was about 1/2 mile by 3/4 mile
Kujulik Bay	ETA	Marci La Rae	06/23/89	1530	SE	20	3	F	P	L	LS/M	DN		ETA 42	ML 2				Sheen and mousse near 100' from the shore at the head of the bay; mousse 8" in diameter, few pieces every yd; streak went on for over 3 mi.
Kujulik Bay	ETA	Marci La Rae	06/24/89	845	W	5	1	E	F	L	LS/M	DN		ETA 43					Sheen was 1-3 yds. wide, up to 10 yds. in some spots, within a 100' of shore; mousse was 1-8" in diameter, a few pieces every yd; streak went on for over 3 mi.
Kujulik Bay	JAB	Alaska Rose	07/14/89	1900	NE	5	0	S	E	L	LS	SPS	15			0		N	Area is N Fork; patchy areas LS around boat during set, within 1 mi of beach
Kujulik Bay	GDW	Alaska Rose	07/25/89	1445	SW	10	2	E	E	N		SPS	16			1-25	N	N	Near mouth of stream 514; 4 sockeye, 2 pinks, 2 immature chinook, 1 shark
Pinnacles	JJE	Alaska Rose	07/10/89	1630	SW	25	3	F	P	N		SPS	15			1-25	N	HC	8 sockeye, 3 chum; light sheen given off portion of net
Pinnacles	GDW	Alaska Rose	07/25/89	1818	SW	2	2	F	E	N		SPS	23			1-25	N	N	20 yards SE of the Pinnacles; 30% coho, 30% sockeye, 40% pink; one coho for DEC, gills malformed, yellow brown mucous found on gills
Unavikshak Island	ETA	Marci La Rae	06/27/89	1100	NW	30	3	E	P	L	LS/M	DN		ETA 60					S off island; pools of sheen, 50 X 100' with thin streaks branching off; found 1 piece of mousse about 2" in diameter; wind made spotting difficult
Unavikshak Island	JJE	Marci La Rae	06/28/89	1325	SE	15	0	F	E	VL	M/VL	DN		JJE 1					West end of island, running vegetation accumulation and found 1 mousse ball floating; VL sheen detectable with soap test
Unavikshak Island	ETA	Alaska Rose	06/30/89	1530	W	15	3	E	P	N		VIS							No sheen in the area, the only signifigant amount of organic material found were some streaks of eel grass most likely from Chignik Lagoon; weather deteriorating

Outer Chignik Bay
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Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Anguvik Island	ETA	Marci La Rae	06/26/89	1610		0	0	F	G	M	LS/M/RS	DN		ETA 47	ML 2				Sheen in large pools, 100' wide X 1/4 mi long; 2 pieces mousse 1" size and several small pieces; rainbow sheen near most of the organics; also COC ETA 048
Chignik Bay	ETA	Marci La Rae	06/26/89	1530		0	0	F	G	M	VL/LS	VIS							Middle of bay; large pools of sheen 500' X 1/2 mi, running about 4 miles; 50% coverage of area
Chignik Bay	TPM	Alaska Rose	08/13/89	1606	VR	5	4	E	G	L	VL	VIS		TPM 33					Midpoint between McKinsey Valley and Copper Island; sample from SE extreme of impacted area on 08/13/89, 1506, Hook Pt
Chignik Bay	TPM	Alaska Rose	08/14/89	1005	VR	5	4	F	G	VL	VL	VIS		TPM 34	AR 4				2.5 mi E-SE of Thompson Valley Creek; COC sample TPM 035; narrow 1 meter band of VL sheen with a high concentration of organics in tide streak; slight dispersal with Joy soap; approx .75 mi long
Chignik Bay	JTV	Alaska Rose	08/21/89	1053	SW	2	1	E	E	VL	VL	VIS							Examined tide streak laden with organics; weak positive Joy test indicated by trace amounts of dispersal and is thought to be product of organic decomposition
Chignik Bay	JTV	Alaska Rose	08/21/89	1127	SW	2	1	E	E	N		VIS							Mid N; no oil observed
Chignik Bay	JTV	Alaska Rose	08/21/89	1857	E	20	3	S	F	N		VIS							Mid W; no oil observed
Chignik Bay	JTV	Alaska Rose	08/29/89	1038	W	5	1	F	E	H	LS	VIS			JV 5				Mid South; LS observed
Chignik Bay	JTV	Alaska Rose	08/29/89	1109	W	5	1	F	E	N		VIS							Mid North; no oil observed
Copper Island	JJE	Alaska Rose	07/11/89	1930	SE	25	3	F	P	N		SPS	15			1-25	N	N	6 sockeye, 2 pink, 1 chum; sloppy weather
Copper Island	JJE	Alaska Rose	07/11/89	2040	SE	25	3	S	P	VL	M	DN		JJE 37					Site is Copper Island/Thompson Valley; running a vegetation streak found 2 mousse balls
Copper Island	TPM	Alaska Rose	08/13/89	1028	NW	5	4	F	G	M	VL	VIS		TPM 29	AR 4				1.5 mi S of island; the VL sheen observed and sampled from their coordinates was part of a larger area of coverage; this included 30-50% of the 1-2 mile nearshore waters from about 1.5 mi S-SW of Copper Island along the NE Chignik Bay shore to Hook Bay Point; the extremely L nature of the sheen and the prescence of tidally concentrated organics leaves its origin, and impact, in question; although the area covered would warrant at least moderate impact rating the nature of the sheen suggests a less severe rating
Copper Island	JTV	Alaska Rose	08/21/89	1713	NE	10	2	F	G	M	LS	OTH		JTV113					2 mi NE of Copper Island; sampled 75 yds X 5 yds of sheen; Joy test positive
Copper Island	JTV	Alaska Rose	08/21/89	1730	E	5	3	F	G	M	LS/VL	VIS							1/4 mile W of; 1, 1/8 X 5 yd, and 2, 50 yd X 5 yd sheen bands sighted; Joy test positive
Neketa Creek	ETA	Alaska Rose	07/01/89	1445	W	20	2	F	F	N		SPS	25			1-25	N	N	No sheen visible in area; but weather bad for observations; 6 sockeye, 6 pinks

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
Neketa Creek	JJE	Alaska Rose	07/03/89	1630	E	15	1	S	G	N		SPS	20			1-25	N	N	Between Ocean Beach and Thompson Valley; 25 sockeye
Neketa Creek	JJE	Alaska Rose	07/09/89	1910	SW	5	0	F	E	VL	RS	SPS	15	JJE 35 AR	1	1-25	N	N	Also COC JJE 036; 15 sockeye, 5 pinks
Neketa Creek	JAB	Alaska Rose	07/14/89	1100	NE	10	1	F	G	L	VL	SPS	15			0		N	VL sheen 100' diameter around boat
Neketa Creek	GDW	Alaska Rose	07/19/89	1800	E	10	1	E	E	N		SPS	20			1-25	N	N	1 mi offshore; 100% pinks
Neketa Creek	TPM	Alaska Rose	08/12/89	1354	NE	10	4	S	F	N		SPS	11			1-25	N	N	No oil observed; 4 salmon; 1 sockeye, 1 coho, 1 chum, 1 pink
Neketa Creek	TPM	Alaska Rose	08/13/89	1617	VR	5	4	E	G	N		SPS	22			1-25	N	N	1.5 mi E-SE of creek; 4 pinks
Neketa Creek	TPM	Alaska Rose	08/14/89	1320	NE	5	6	F	E	N		SPS	16			0		N	1.75 mi E of creek; several square miles of glass calm water was observed in the same general as the sheen reported yesterday - showed no dispersal with Joy soap at the coordinates
Neketa Creek	JTV	Alaska Rose	08/21/89	1824	E	15	3	F	F	N		SPS	10			0		N	No oil observed; Joy test negative
Neketa Creek	JTV	Alaska Rose	08/29/89	1717	SW	5	1	E	G	M	LS	OTH		JTV136 JV	5				1/4 mi by 3-10 yds LS observed; COC JTV 137
Ocean Beach	GDW	Alaska Rose	07/24/89	1638	S	2	1	F	E	N		SPS	12			26-50	N	N	2 mi NW of lagoon mouth; 10% pinks, 90% sockeye
Reef Bay	TPM	Alaska Rose	08/13/89	1112	NW	5	6	F	G	M	VL	VIS		TPM 30 AR	4				2 mi SE of bay; same comments as on 8/13/89 - 1028, Copper Island
Reef Bay	JTV	Alaska Rose	08/21/89	1145	SW	1	1	E	E	H	LS/SS	OTH		JTV106					3/4 mi X 20 yds, light sheen with faint silver edges observed; Joy test positive; 4 small VL sheens (approx 30 yds X 20 yds) also observed; no video due to malfunctioning camera
Reef Bay	JTV	Alaska Rose	08/21/89	1655	NE	5	2	F	E	H	VL/LS	VIS							40 sheens 30 yds X 10 yds, to 100 yds X 10 yds, all between those measurements
Reef Bay	JTV	Alaska Rose	08/29/89	1149	SW	3	1	E	G	H	LS	OTH		JTV132 JV	5				100 yds by 20 yds LS observed
Thompson Valley	JTV	Alaska Rose	08/29/89	1702	SW	5	1	E	G	N		VIS							No oil observed
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Cape Kumliun	ETA	Marci La Rae	06/24/89	1610	SW	15	3	F	P	L	LS/M	DN		ETA 46					South of the Pinnacles; 1 large band sheen 3-5 yds wide 300+ yds long; mousse 1" or less in diameter, two 4" pieces found, not a lot of mousse found
Cape Kumliun	ETA	Marci La Rae	06/24/89	1750	W	10	3	F	G	L	LS/M	DN		ETA 46					Site was 4 mi E of Hook Bay; sheen was 1-3 yds wide, several streaks within 1/4 mi shore; small amount of mousse 1" in diameter, lots of bird feathers, some with mousse; found 4 dead unoiled birds
Cape Kumliun, S.	ETA	Marci La Rae	06/21/89	1630	E	15	4	F	P	VL	LS/M	DN		ETA 38					Sheen with mousse (larger quantity) in organic streaks, 1/2 mi from shore and for more that a 1/2 long
Hook Bay	ETA	Marci La Rae	06/23/89	1200	E	20	4	S	P	VL	LS	VIS							Several streaks of sheen 1-3 yds wide and several hundred yds long running out from bay, weather conditions made observations difficult
Hook Bay	ETA	Alaska Rose	06/30/89	1240	W	20	2	F	P	VL	VL	VIS							Just inside mouth of bay; few streaks of sheen 1-2 yds X 50'-100' long; no organics in water; west wind blowing offshore for 2 days straight

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Hook Bay	JJE	Alaska Rose	07/09/89	1640	SW	10	1	F	E	N		SPS	15			1-25	N	N	3 sockeye, 6 pink, 1 chum
Hook Bay	JJE	Alaska Rose	07/12/89	1120		0	0		G	N		SPS	15			26-50	N	N	50 fish, 10% pinks the rest sockeye
Hook Bay	JJE	Alaska Rose	07/12/89	1245		0	0		G	N		SPS	20			51-75	N	N	S point; 60 fish, 10% pinks
Hook Bay	GDW	Alaska Rose	07/18/89	1405		0	0	F	E	N		SPS	25			7	N	N	Head of bay; 3 sockeye, 4 pinks
Hook Bay	JTV	Alaska Rose	08/21/89	1259		0	1	F	E	N		VIS							No oil observed
Hook Bay	JTV	Alaska Rose	08/21/89	1310		0	1	F	E	VL	LS/SS	VIS							1/2 yd X 100 yds LS with patches of silver coloration observed; Joy test positive
Hook Bay	GDR	Yantarni	08/26/89	1100		0	0	F	E	VL	VL	SPS	15			51-75	N	N	85% sockeye, 10% coho, 2.5% chum, 2.5% pinks; patchy VL observed in bay area
Hook Bay	JTV	Alaska Rose	08/29/89	1241	SE	5	0	F	E	N		VIS							No oil observed
Hook Bay	GDW	Ms Aries	08/30/89	1516	SE	5	2	S	E	N		SPS	20			1-25	N	N	5 sockeye, 1 chum; no oil observed
Hook Bay Point	ETA	Alaska Rose	06/30/89	1220	W	5	1	F	F	L	VL	VIS							Several bands of sheen, 3 yds X 100' long; 2 larger pools 50' X 100'; all within 1/4 mi of shore; no mousse and very little organics in water, no tide streaks
Hook Bay Point	ETA	Alaska Rose	07/01/89	1730	N	5	1	E	G	L	VL/M	SPS	25			1-25	N	HC	Sheen streaks 2-5 yds wide X 1/4 mi long, most of sheen within 100' of shore; 1 sockeye, 1 dolly; no mousse found in the organics. (Mousse was found on the leadline in the next set which was made on 07/2/89 at Castle Cape; fouling of the leads was believed to have come from this Hook Bay set).
Hook Bay Point	JJE	Alaska Rose	07/04/89	1430	NE	10	1	F	G	VL	VL	SPS	15	JJE 27		26-50	N	N	Also COC JJE 028; location is Anvil; sheen streaks running through and around set; mostly sockeye and a couple of dogs
Hook Bay Point	JAB	Alaska Rose	07/14/89	1250	NE	10	2	F	G	L	VL	SPS	15			1-25	N	N	Location is at Anvil; 7 sockeye, 1 chum, 1 pink; 100' diameter of VL sheen around boat
Hook Bay Point	GDW	Alaska Rose	07/18/89	1154	N	1	1	F	E	N		SPS	21			1-25	N	N	At Anvil; 3 pink, 2 sockeye
Hook Bay Point	GDW	Alaska Rose	07/23/89	1331	NW	20	2	F	E	N		SPS	13			1-25	N	N	"The Anvil"; 6 immature sockeye, 1 sockeye, 3 pinks
Hook Bay Point	TPM	Alaska Rose	08/13/89	1144	VR	1	6	F	E	N		SPS	11			26-50	N	N	1/2 mi NE of point (at "the anvil"); caught 30 fish, evenly divided between sockeye, chum and pink
Hook Bay Point	TPM	Alaska Rose	08/13/89	1506	VR	5	4	E	E	L	VL	VIS		TPM 32	AR 4				400 yds E of point; VL sheen with organics, 30-40 meters X 400 yds; sheen in area is part of larger impacted area mentioned in 08/13/89 - 10:28; Copper Island; this whole large area appears to be discontinuous in bands perpendicular to shore; 2-20 meters wide and 100-200 yds long, appearing every 100-200 yds in track from Hook Pt to the coordinates for 08/13/89, 1606, Chignik Bay
Hook Bay Point	JTV	Alaska Rose	08/21/89	1210	SW	1	1	S	E	H	LS	OTH		JTV107					100 yd X 10 yd LS observed; Joy test positive; dispersal indicates silver coloration

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Hook Bay Point	JTV	Alaska Rose	08/21/89	1220	SW	1	1	S	E	H	LS	SPS	13	JTV 5		0		HC	Set at traditional fishing site; 1, 3/4 mi X 20 yd, and 1, 1/4 X 5 yd sheen by area of set; some corks oiled; Joy test positive; no mousse observed
Hook Bay Point	JTV	Alaska Rose	08/21/89	1530	NE	5	1	F	E	H	VL/LS	OTH		JTV110					Large LS 1 mi X 20 yds, several smaller sheens 100 X 10 yds; Joy soap test positive; no organics; also COC JTV 111
Hook Bay Point	JTV	Alaska Rose	08/29/89	1158	NE	3	1	F	E	VL	VL	SPS	14		JV 5	0		N	Weakly positive Joy soap test
Hook Bay Point	JTV	Alaska Rose	08/29/89	1608	SW	5	1	E	G	N		VIS							No oil observed
Weasel Rock	ETA	Marci La Rae	06/23/89	1100	E	20	4	E	P	VL	LS/M	DN			ML 2				Sheen hard to see due to wind and wave action; video of bird with mousse in spots on its back and wings, not enough mousse for a sample
Weasel Rock	ETA	Marci La Rae	06/25/89	620	W	10	1	F	G	L	LS	DN		ETA 48					W of Weasel Rock; also COC ETA 049; sheen 3-10 yds wide, 1/4 mi and longer, within 1/2 mi shore, several streaks closer to shore; no mousse; sample with absorbent pads
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Nakchamik Island	GDW	Alaska Rose	07/22/89	1205	N	1	1	F	E	H	VL	SPS	19			1-25	N	HC	Seine emanated VL sheen onto water as it was hauled aboard
Nakchamik Island	GDW	Ms Aries	08/05/89	1618	SW	2	2	F	E	N		SPS	34			0		N	SE tip of island; no oil observed
CHIGNIK BAY																			
Chignik Lagoon																			
271 10																			
Alfred Creek	JTV	Alaska Rose	08/23/89	1454	SW	3	1	F	G	N		SPS	12			300	N	N	95% sockeye, 5% pink; Joy test negative
Alfred Creek	JTV	Alaska Rose	08/29/89	1837	SW	2	1	E	G	N		SPS	10			1-25	N	N	No oil observed
Anchorage Bay	JJE	Alaska Rose	07/04/89	1940	SE	15	2	E	F	N		SPS	15			1-25	N	N	Site is at waterfall 5 mi NE of bay; 70% chum, 200 pollock
Anchorage Bay	JAB	Alaska Rose	07/15/89	1535	SW	10	1	E	F	VL	LS	SPS	15			1-25	N	N	Hole in the wall; scattered streaks LS, 2 by 4' around set; 3 sockeye
Anchorage Bay	JAB	Alaska Rose	07/15/89	1645	W	15	2	E	F	N		SPS	15			1-25	N	N	Cod Fish Point; 1 pink, 1 sockeye
Anchorage Bay	GDW	Alaska Rose	07/19/89	1914	W	15	1	E	E	N		SPS	14			26-50	N	N	Cod fish Point; 100% sockeye
Anchorage Bay	GDW	Alaska Rose	07/28/89	851	N	2	3	F	E	M	VL	SPS	16			0		N	Sheen in set, no sample taken due to close proximity of boats moored at cannery
Anchorage Bay	TPM	Alaska Rose	08/09/89	856	VR	1	1	E	G	N		SPS	16			0	N	N	Near Codfish Point; no oil observed
Anchorage Bay	TPM	Alaska Rose	08/09/89	940	VR	1	1	E	G	VL	VL	VIS		TPM 21	AR 3				Near Eagle Rock; COC sample TPM 022; VL sheen observed in a 1 meter band approx 1/3 mi long in tide streak with organic material; streak running W to E across Anchorage Bay
Anchorage Bay	TPM	Alaska Rose	08/10/89	1848	NE	5	1	F	F	L	VL	VIS		TPM 24	AR 3				From mouth to ADF dock; observed VL, patchy sheen in E-W bands at the entrance to Anchorage Bay; area affected was approximately 1/2 mi long by 1/8 mi wide; total area covered is estimated to by less than 10% of Anchorage Bay; additional LS was observed at the S end of the bay surrounding the ADF dock and is assumed to be related to boat traffic

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil: Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
Anchorage Bay	JTV	Alaska Rose	08/17/89	2055	NE	15	1	F	G	L	LS/SS	OTH		JTV104					Sheen dimension of 100 yd X 1-3 yds
Anchorage Bay	JTV	Alaska Rose	08/18/89	1005	W	5	1	E	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/18/89	1856	SW	5	1	E	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/19/89	952	SE	10	1	E	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/19/89	1943	SW	10	1	E	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/20/89	956	SW	25	2	E	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/21/89	1024	SW	3	1	E	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/21/89	1934	NE	15	2	E	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/22/89	1958	SW	5	1	S	G	N		VIS							Examined tide streak; Joy test negative; no oil observed
Anchorage Bay	JTV	Alaska Rose	08/23/89	1230	SE	5	1	E	E	VL	LS/SS	VIS		JTV115					Mostly LS with weakly positive Joy test; small amount of SS present
Anchorage Bay	JTV	Alaska Rose	08/23/89	1243	SE	5	1	E	E	N		SPS	10			0			Codfish Pt.; Joy test negative; no oil observed
Anchorage Bay	JTV	Alaska Rose	08/23/89	1707	SE	5	1	F	E	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/24/89	950	SE	5	1	S	E	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/24/89	1528	E	5	1	F	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/25/89	910		0	0	F	E	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/25/89	1136	S	5	1	F	E	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/26/89	1720	SE	15	1	S	G	VL	VL	SPS	10			0		N	Codfish Point; weakly positive with Joy test
Anchorage Bay	JTV	Alaska Rose	08/27/89	1033	NE	20	2	F	F	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/27/89	1527	E	15	1	E	G	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/28/89	927		0	0	F	E	N		VIS							No oil observed
Anchorage Bay	JTV	Alaska Rose	08/28/89	1850	NE	5	1	E	G	H	LS	OTH		JTV130	JV 5				300 yds by 60 yds LS observed with gurried appearance
Anchorage Bay	JTV	Alaska Rose	08/29/89	1003		0	0	F	E	L	VL	VIS			JV 5				Patchy sheen observed
Anchorage Bay	JTV	Alaska Rose	08/29/89	1022		0	0	F	E	H	LS	OTH		JTV131	JV 5				Mouth of Bay; examined tide streak with eel grass, LS observed
Anchorage Bay	JTV	Alaska Rose	08/29/89	2045	SW	3	1	E	G	L	LS	OTH		JTV139	JV 5				300 yds by 2 yds LS observed
Browns Point	TPM	Alaska Rose	08/05/89	1535	SW	15	2	F	P	N		VIS							No oil observed
Browns Point	JTV	Alaska Rose	08/28/89	1001		0	0	F	E	N		VIS							No oil observed
Chignik Bay	TPM	Alaska Rose	08/10/89	1005	SE	10	3	E	F	N		SPS	14			0	N	N	Ocean Beach, Monkey Rocks; no oil observed; snagged and ripped approx 8 fathoms of net
Chignik Bay	TPM	Alaska Rose	08/11/89	1218	VR	5	3	S	G	L	VL	VIS		TPM 25	AR 3				1 mi N of Negro Head; observed and sampled sheen in 2-3 meter wide band, affecting an area approx 40 meters and 3/4 mile long; sheen showed only slight dispersal with Joy soap; appeared heavier at its extreme NW end where it was mixed with very concentrated organics
Chignik Bay	TPM	Alaska Rose	08/11/89	1238	NW	5	2	S	G	N		SPS	12			0		N	Ocean Beach, E of Dago Frank Creek; caught approx 10 small halibut; no sign of any contamination
Chignik Lagoon	ETA	Marci La Rae	06/25/89	1100		0	0	E	G	VL	LS	DN		ETA 50					Site is 2 mi NE Chignik Lagoon; LS in several streaks, 1-4 yds wide, and 100 yds long; while boat was slowly drifting, sheen would build up against the hull to rainbow consistency; also COC ETA 051

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
Chignik Lagoon	ETA	Marci La Rae	06/25/89	1205		0	0	E	G	M	LS	DN		ETA 52	ML 2				Inside Chignik Lagoon; LS with up to 30% coverage for 1/4 mi radius; bands wide, up to 40' across, 100-300 yds long; no mousse; sample COC ETA 053 also
Chignik Lagoon	ETA	Marci La Rae	06/26/89	825	S	5	0	S	G	M	LS	DN		ETA 54	ML 2				Streaks of sheen 3-10 yds. wide and 50+ yds. long, over 25% coverage for a 1/4 mil radius around the boat; no mousse was found; COC ETA 055 also
Chignik Lagoon	ETA	Marci La Rae	06/28/89	1630	NE	10	1	E	G	VL	LS	VIS							Inside lagoon; thin bands sheen by shore and out in lagoon, 1-3 yds wide and 100-300 yds long; no mousse found
Chignik Lagoon	GDW	Alaska Rose	07/20/89	1547	W	10	1	F	E	N		SPS	17			2	N	N	1 mi NW; 1 sockeye, 1 coho
Chignik Lagoon	TPM	Alaska Rose	08/04/89	1730	SW	20	1	F	F	VL	M	VIS		TPM 9	AR 3				Red Bluff; took sample of mousse contaminant reported on 'pom-pom' containment boom in Chignik Lagoon by F/V Sea Breeze, a VECO charter vessel; contaminant was left intact ofter being found by crewman Ed Senna; it was found in small (approx 1") balls in organic debris a long approx 15' of the boom, and included a small carcass and feathers
Chignik Lagoon	TPM	Alaska Rose	08/04/89	1804	SW	20	1	F	F	L	LS	VIS		TPM 10	AR 3				1/2 mile W of Red Bluff; COC sample TPM 011; LS approx 3 meters wide X 1/2 mile long; dispersal with Joy soap; sampled with absorbent pad
Chignik Lagoon	TPM	Alaska Rose	08/05/89	1525	SW	20	3	F	P	N		VIS							Chignik Lagoon Island, "Horseshoe"; no oil observed
Chignik Lagoon	TPM	Alaska Rose	08/05/89	1530	SW	15	1	F	F	N		VIS							Chignik Lagoon Village; no oil observed
Chignik Lagoon	TPM	Alaska Rose	08/07/89	1812	NE	5	1	F	G	VL	LS	SPS	13			1-25	N	N	Near Tunaville Flats, approx 3/4 mi S of "bird house"; set in LS described in nearshore beach survey (Hume Pt) form (08/07/89); sample TPM 16 and 17 were taken during nearshore survey; LS was observed for a second or two, coming off grass in the lead line during seine retrieval; no other sign of gear or fish contamination was observed
Chignik Lagoon	TPM	Alaska Rose	08/08/89	1826	VR	5	1	F	G	N		SPS	9			0		HC	NW shore, Tunaville Flats; 0 salmon; although approx 1 fathom of net gave off LS-SS during retrieval, it is assumed to be residual from previous set made at 1734 hrs at Tunaville Flats
Chignik Lagoon	JTV	Alaska Rose	08/16/89	1635	SE	3	1	E	G	N		SPS	10			1-25	N	N	Chignik Lagoon Spit; no oil observed
Chignik Lagoon	JTV	Alaska Rose	08/17/89	1017	NE	5	1	F	F	N		SPS	10			1-25	N	N	Mouth of lagoon; no oil observed
Chignik Lagoon	JTV	Alaska Rose	08/26/89	1326	E	10	1	E	G	M	RS	VIS			JV 5				RS 250 yds by 3-15 yds wide, believed to be processed fuel
Chignik Lagoon	JRF	Skiff, ADFG	09/04/89	1023	SE	10	0	E	E	L	SS/RS	VIS		JRF 1					Also COC JRF 002; Andersonville; sheen approximately 400 meters by 1-3 meters with some wider areas with less tidal influence

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
Cod Fish Point	GDW	Alaska Rose	07/20/89	1931	NW	5	1	E	E	N		SPS	11			1-25	N	N	100% sockeye
Coffee Point	GDW	Alaska Rose	07/20/89	1837	SW	15	1	E	E	N		SPS	11			1-25	N	N	70% sockeye; dead whale and brown bear feeding on it
Coffee Point	JTV	Alaska Rose	08/21/89	1038	SW	2	1	E	E	N		VIS							No oil observed
Coffee Point	JTV	Alaska Rose	08/23/89	1319	SE	10	3	E	E	N		VIS							No oil observed
Coffee Point	JTV	Alaska Rose	08/24/89	1451	NE	5	1	F	G	VL	VL	SPS	10			1-25	N	N	2 sockeye, bilge sheen present, Joy test positive
Dago Frank Creek	TPM	Alaska Rose	08/12/89	1002	N	5	3	F	F	VL	VL	SPS	12	TPM 26 AR	4	26-50	N	N	1/4 mi E of creek, 1/3 mi SW of Monkey Rock; COC sample TPM 027; set was made with no oil presence visible; very light sheen was observed and sampled after the set was made, approx 1/8 mi N of the set coordinates; dimensions of the sheen was approx 1-3 meters wide and 200 yards long; catch approx 50 salmon, 90% sockeye, 10% pink
Dago Frank Creek	JTV	Alaska Rose	08/17/89	1055	E	10	3	F	F	N		SPS	10			1-25	N	N	No oil observed
Dago Frank Creek	JTV	Alaska Rose	08/18/89	1147	SW	5	1	F	G	N		SPS	10			1-25	N	N	2 sockeye; no oil observed
Dago Frank Creek	JTV	Alaska Rose	08/25/89	1259		0	1	E	E	N		SPS	11			0		N	No oil observed
Dago Frank Point	JTV	Alaska Rose	08/23/89	1807		0	2	F	E	N		SPS	12			1-25	N	N	3 sockeye, 4 pinks; Joy negative
Diamond Point	GDW	Alaska Rose	07/28/89	1557	N	10	1	E	E	VL	VL	VIS		GDW 23 AR	2				COC sample GDW 024; response to call from FV Corsair - very light sheen associated with eel grass, 1yd X 50 yards; very light and patchy
Eagle Rock	JTV	Alaska Rose	08/22/89	1042	SW	15	2	E	F	N		VIS							No oil observed
Eagle Rock	JTV	Alaska Rose	08/23/89	1356	SE	15	2	S	F	N		VIS							No oil observed
Eagle Rock	JTV	Alaska Rose	08/24/89	1918		0	1	F	G	M	LS	VIS							Aprox. 5 patchy LS observed
Eagle Rock	JTV	Alaska Rose	08/26/89	1042		0	0	F	E	L	VL/LS	OTH		JTV125 JV	5				Joy test positive
Eagle Rock	JTV	Alaska Rose	08/27/89	1519	NE	15	2	E	F	N		VIS							No oil observed; Eagle Rock is in Anchorage Bay
Eagle Rock	JTV	Alaska Rose	08/30/89	1517	E	2	1	S	E	N		VIS							No oil observed
Jack Bay	JTV	Alaska Rose	08/24/89	1112	E	5	1	E	E	H	LS	OTH		JTV118 JV	5				Joy test positive
Jack Point	JJE	Alaska Rose	07/07/89	1130	SE	15	2	E	F	N		SPS	15			26-50	N	N	32 fish, even distribution of species
Jack Point	JJE	Alaska Rose	07/12/89	1800	SE	15	1	F	G	N		SPS	15			51-75	N	N	50% chum, 15% sockeye, 20% chum, 15% pinks, total fish = 60
Jack Point	GDW	Alaska Rose	07/17/89	1328	SW	5	1	F	E	N		SPS	18			1-25	N	N	SW side of Jack Point; 12 pinks, 3 sockeye, 2 dollies
Jack Point	GDW	Alaska Rose	07/18/89	1756	SW	5	1	E	E	N		SPS	12			51-75	N	N	N shore of Jack Point; 40% sockeye, 10% immature sockeye, 25% chum, 10% coho, 15% pink
Jack Point	JTV	Alaska Rose	08/24/89	1036	E	5	1	E	G	N		SPS	10			0		N	No oil observed
Jacks Bay	ETA	Alaska Rose	06/29/89	1330	W	30	3	E	P	N		VIS							No sheen visible, nor any organic tide streaks; weather conditionsvery bad for observations
Jacks Bay	GDW	Ms Aries	08/05/89	1329	W	5	3	E	E	N		SPS	14			26-50	N	N	40% sockeye, 40% pink, 20% silver
Jacks Point	TPM	Alaska Rose	08/10/89	1421	SE	10	2	E	F	VL	VL	SPS	15	TPM 23 AR	3	76-100	N	N	Caught approx. 80 salmon, 80% pink, 15% sockeye, 5% coho; set in VL sheen, observed in a tide streak, 1-2 meters wide X 1/2 mi long; less than 1% of area
Jacks Point	TPM	Alaska Rose	08/12/89	1635	SE	5	3	E	G	N		SPS	15			200	N	N	1/4 mi NW of point; approx 200 salmon; 90% pink, 10% sockeye,chum and coho

Location: District / Section / Stat Area / Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
Lake Bay	TPM	Alaska Rose	08/10/89	1555	SE	15	2	S	F	N		VIS							Mouth of bay; no oil observed
Lake Bay	JTV	Alaska Rose	08/23/89	1328	SE	15	3	E	F	N		VIS							No oil observed
Lake Bay	JTV	Alaska Rose	08/24/89	1017	E	5	1	S	G	N		VIS							No oil observed
Lake Bay	JTV	Alaska Rose	08/24/89	1328	S	5	0	E	E	N		SPS	2			375-400	N	N	No oil observed; 75% pink, 25% chums
Lake Bay	JTV	Alaska Rose	08/25/89	1006	S	5	0	F	E	L	LS	SPS	3	JTV120	JV 5	500	N	N	LS observed 75 yds by 1-2 yds; Joy test positive
Lake Bay, mouth	JTV	Alaska Rose	08/25/89	933	S	5	0	F	E	M	LS	VIS							Light sheen observed 150 yds by 5 yds
Lumber Bay	ETA	Marci La Rae	06/29/89	1300	W	30	3	E	P	N		VIS							Poor conditions for observations; no sheen or organic streaks seen
Lumber Bay	TPM	Alaska Rose	08/10/89	1615	SE	15	2	F	F	N		VIS							No oil observed
Lumber Bay	JTV	Alaska Rose	08/24/89	1007	E	5	2	S	G	N		VIS							No oil observed
Mensis Point	TPM	Alaska Rose	08/05/89	1520	SW	20	2	F	F	N		VIS							Observations for this and the rest of the day were made by seine skiff in an attempt to generally assess Chignik Lagoon for sheen presence; wind and tide prevented more exhaustive observation; these locations represent way points from a track that started at Mensis Point proceeded along the S shore of Chignik Lagoon back to the entrance and into the Tunaville area on the N shore
Monkey Rock	ETA	Alaska Rose	07/01/89	1330	W	10	1	F	F	VL	LS	SPS	20			1-25	N	N	Sheen streaks 1-4 yards wide and 50 to 100' long; 3 pools sheen 10 X 25 yds; set was 1/4 mi offshore, sheen was in set
Monkey Rock	JJE	Alaska Rose	07/03/89	1450	E	15	0	F	E	VL	VL	SPS	15			1-25	N	N	Streaks of sheen through set, no apparent gear contamination; sockeye and a lot of cod
Monkey Rock	JJE	Alaska Rose	07/05/89	1235	NE	30	4	F	P	N		SPS	15			26-50	N	N	No oil observed; 30 sockeye; blowing too hard to see any sheen or get to the beach
Monkey Rock	JAB	Alaska Rose	07/14/89	945	NE	10	2	S	F	N		SPS	15			1-25	N	N	1 sockeye
Monkey Rock	JAB	Alaska Rose	07/16/89	1235	SW	15	1	F	G	VL	VL	SPS	15			0		N	100' by 40' streak sheen 200 yds from boat during set
Monkey Rock	GDW	Alaska Rose	07/24/89	1545	SW	2	1	F	E	N		SPS	22			1-25	N	N	Between Monkey Rock and Negro Head, 3 miles from the mouth of the lagoon; 3 sockeye
Monkey Rock	GDW	Alaska Rose	07/24/89	1717	S	2	1	F	E	N		SPS	25			1-25	N	N	1/2 mi SE of Monkey Rock; 1 sockeye
Monkey Rock	GDW	Alaska Rose	08/01/89	1019	N	5	2	F	E	L	VL	VIS							Very light sheen observed in tide streak associated with eel grass, 1 yd X 1 mile
Monkey Rock	TPM	Alaska Rose	08/15/89	959	NE	15	5	F	F	N		SPS	9			1-25	N	N	1/4 mile SE of rocks; 100% sockeye; no oil observed
Monkey Rock	JTV	Alaska Rose	08/16/89	1713	E	15	2	E	F	N		SPS	10			1-25	N	N	Ocean Beach, between Dago Frank Creek and Monkey Rock; no oil observed
Mud Bay	JTV	Alaska Rose	08/18/89	1020	W	5	1	E	G	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/18/89	1845	SW	5	2	E	G	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/19/89	1005	SE	10	2	E	G	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/19/89	1922	SW	20	2	E	G	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/20/89	1006	SW	30	3	E	F	N		VIS							No oil observed

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Mud Bay	JTV	Alaska Rose	08/20/89	1856	SW	40	3	E	P	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/22/89	1147	SW	15	2	E	F	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/22/89	1948	SW	10	1	S	G	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/23/89	1405	SE	15	2	S	F	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/23/89	1757	SW	5	2	F	E	H	VL/LS	VIS			JV 5				Several VL sheen observed in area
Mud Bay	JTV	Alaska Rose	08/24/89	1542	E	5	1	F	G	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/25/89	1152	S	5	0	S	E	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/26/89	1058		0	0	F	E	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/26/89	1706	SE	15	2	E	F	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/27/89	1512	NE	20	3	E	F	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/28/89	942		0	0	F	E	N		VIS							No oil observed
Mud Bay	JTV	Alaska Rose	08/29/89	2035	SW	3	1	E	G	N		VIS							No oil observed
Negro Head	ETA	Alaska Rose	06/28/89	1600	NE	5	1	E	G	L	LS	VIS							From Negro Head to Rabbit Point along shore was a streak of sheen, 50-100' wide; no mousse in the organics which were mostly eel grass
Negro Head	GDW	Alaska Rose	07/28/89	950	N	2	4	F	E	M	VL	VIS		GDW 21	AR 1				COC sample GDW 022; very light sheen observed in bands approx 5 yds in width and 30 yds in length
Negro Head	JTV	Alaska Rose	08/18/89	1035	W	5	1	E	G	N		VIS							No oil observed
Negro Head	JTV	Alaska Rose	08/18/89	1831	SW	5	3	E	F	N		VIS							No oil observed
Negro Head	JTV	Alaska Rose	08/19/89	1017	SW	10	2	E	G	N		VIS							Examined tide streak; used Joy soap, indicates no presence of oil
Negro Head	JTV	Alaska Rose	08/19/89	1910	SW	20	2	E	G	N		VIS							No oil observed
Negro Head	JTV	Alaska Rose	08/20/89	1015	SW	15	3	E	F	N		VIS							No oil observed
Negro Head	JTV	Alaska Rose	08/20/89	1851	W	30	2	E	F	N		VIS							No oil observed
Negro Head	JTV	Alaska Rose	08/23/89	1409	SE	15	2	S	F	N		VIS							No oil observed
Negro Head	JTV	Alaska Rose	08/23/89	1750	S	5	2	F	E	H	VL	VIS							Several VL sheens observed in area
Negro Head	JTV	Alaska Rose	08/24/89	1858	NE	5	0	F	E	H	LS/VL	OTH		JTV119	JV 5				4 LS observed ranging in size from 3/8 mi by 25 yds to 300 yds by 30 yds; Joy test positive
Negro Head	JTV	Alaska Rose	08/25/89	1203	SW	3	0	S	E	L	LS	OTH		JTV121	JV 5				LS observed 200 yds by 3 yds; Joy test positive; COC JTV 122
Negro Head	JTV	Alaska Rose	08/27/89	1505	NE	20	3	E	F	N		VIS							No oil observed
Negro Head	JTV	Alaska Rose	08/28/89	1823	NE	10	2	E	F	H	RS/SS	OTH		JTV129	JV 5				200 yds by 25 yds sheen with strong smell of diesel; ditto 175 yd by 5 yd sheen
Negro Head	JTV	Alaska Rose	08/30/89	1528	E	2	1	E	E	N		VIS							No oil observed
Ocean Beach	ETA	Marci La Rae	06/23/89	745	E	5	1	E	P	VL	LS/RS	DN		ETA 40	ML 2				Observation made outside Chignik Lagoon at Ocean Beach; sheen in 4-10 yds. wide bands; organic material in 1 yd wide bands giving off a RS; organics included eel grass which is common to the lagoon; also COC ETA 41
Ocean Beach	JJE	Alaska Rose	07/03/89	1320	E	15	0	F	E	VL	VL	SPS	15	JJE 22	AR 1	26-50	N	N	Also COC JJE 023; sheen streaks parallel to beach but outside set; all sockeye

Location: District / Section / Stat / Area / Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Ocean Beach	JJE	Alaska Rose	07/03/89	1630	E	15	1	S	G	N		SPS	20			1-25	N	N	25 sockeye; no contamination
Ocean Beach	JJE	Alaska Rose	07/09/89	2030	W	10	1	S	G	N		SPS	20			125-175	N	N	500 pollock and cod, 175 sockeye
Ocean Beach	JJE	Alaska Rose	07/11/89	2145	E	20	2	E	F	N		SPS	15			1-25	N	N	8 sockeye, 3 pinks
Ocean Beach	JAB	Alaska Rose	07/14/89	900	NE	5	1	S	G	N		SPS	15			1-25	N	N	9 sockeye
Ocean Beach	JAB	Alaska Rose	07/16/89	950	SW	15	1	S	G	N		SPS	15			1-25	N	N	Location is Crab Hole; 3 sockeye, 2 pink
Ocean Beach	GDW	Alaska Rose	07/19/89	1438	W	10	1	F	E	N		SPS	20			1	N	N	At terminus of Alfred Creek; 1 sockeye
Ocean Beach	GDW	Alaska Rose	07/19/89	1558	SW	5	1	F	E	N		SPS	17			1-25	N	N	Monkey Rock; 1 sockeye, 1 pink
Ocean Beach	GDW	Alaska Rose	07/26/89	1329	SW	1	2	E	E	N		SPS	16			126-150	N	N	90% sockeye, 10% pink
Ocean Beach	GDR	Yantarni	07/29/89	1115	NE	5	1	F	E	N		SPS	15			26-50	N	N	2 meter wide tide streak containing eel grass and white foam; no oil observed; 50% sockeye, 50% pink
Ocean Beach	GDW	Alaska Rose	07/29/89	1523	SE	20	3	E	E	N		SPS	15			26-50	N	N	100 yds E of lagoon mouth; 90% sockeye, 10% pink
Ocean Beach	GDW	Alaska Rose	07/29/89	1605	SE	20	3	E	E	N		SPS	17			1-25	N	N	800 yds E of lagoon mouth; 80% sockeye, 20% pink, 10 immature sockeye
Ocean Beach	GDW	Alaska Rose	08/01/89	1202	NE	5	2	F	E	N		SPS	18			1-25	N	N	80% sockeye, 20% pink
Ocean Beach	TPM	Alaska Rose	08/06/89	948	SW	10	1	E	F	N		SPS	12			1-25	N	N	Approx 1.5 mi SE of Monkey Rock; set approx. 200 yds offshore, at middle of Ocean Beach; catch: 7 coho, 1 sockeye, 1 chum, 1 pink; no oil observed
Ocean Beach	TPM	Alaska Rose	08/13/89	1727	NE	10	2	E	G	N		SPS	13			26-50	N	N	300 yards SE of Monkey Rock; caught approx 30 salmon: 25 sockeye, 5 pinks
Ocean Beach	TPM	Alaska Rose	08/14/89	1430	NE	5	2	F	E	VL	VL	SPS	14	TPM 37 AR	4	51-75	N	N	1 mi N of lagoon entrance; patches of very light sheen were observed covering approx 10% of Ocean Beach; 1 mi of nearshore area was characterized by a high concentration of organics - showed dispersal with Joy soap; caught approx 75 sockeye, 90% sockeye, 5% chum, 5% pink
Ocean Beach	TPM	Alaska Rose	08/14/89	1508	NE	5	2	S	E	VL	VL	SPS	13			1-25	N	N	200 yards SE of Monkey Rocks; set in very light sheen; caught 15 salmon, 75% sockeye, 25% pink
Ocean Beach	JTV	Alaska Rose	08/18/89	1052	W	5	1	S	G	N		SPS	10			1-25	N	N	17 sockeye; 1 chum; no oil observed
Ocean Beach	JTV	Alaska Rose	08/19/89	1551	SW	20	2	F	G	N		SPS	13			1-25	N	N	10 sockeye, 3 chum, 2 coho; examined 8 fish for oil contamination, no oil observed visually or evident with Joy soap test
Ocean Beach	JTV	Alaska Rose	08/19/89	1625	SW	25	2	F	F	N		SPS	12			1-25	N	N	9 sockeye were visually negative and Joy test negative; no oil observed
Ocean Beach	JTV	Alaska Rose	08/19/89	1655	W	30	3	F	F	N		SPS	17			1-25	N	N	5 sockeye were examined and Joy test negative; no oil observed; Puffin mortality, non-oiled appearance
Ocean Beach	JTV	Alaska Rose	08/19/89	1726	W	30	2	S	F	N		SPS	12			1-25	N	N	2 sockeye examined, no oil evident, Joy soap test - negative
Ocean Beach	JTV	Alaska Rose	08/20/89	1033	SW	5	1	E	F	N		SPS	10			0		N	Joy test negative; no oil observed
Ocean Beach	JTV	Alaska Rose	08/20/89	1100	W	25	1	S	F	N		SPS	11			1-25	N	N	1 sockeye, 2 cod; Joy soap test negative; no oil observed

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Ocean Beach	MAL	Suzanne	08/20/89	1800	NW	35	5	E	P	N		VIS							Poor visibility; LS visible but could not confirm
Ocean Beach	JTV	Alaska Rose	08/20/89	1842	W	25	3	E	F	N		VIS							No oil observed
Ocean Beach	JTV	Alaska Rose	08/22/89	1110	SW	20	1	E	G	VL	VL	SPS	12	JTV114		0		N	Joy test weakly positive; and indicates presence of VL sheen; video non-functioning
Ocean Beach	JTV	Alaska Rose	08/22/89	1140	SW	15	1	E	G	N		SPS	15			1-25	N	N	20 sockeye; no oil visible
Ocean Beach	JTV	Alaska Rose	08/22/89	1213	SW	25	1	S	F	N		SPS	10			1-25	N	N	Joy test negative; no oil observed; 8 sockeye
Ocean Beach	JTV	Alaska Rose	08/23/89	1424	SW	3	1	S	G	N		SPS	11			51-75	N	N	95% sockeye, 5% pinks; Joy test negative
Ocean Beach	JTV	Alaska Rose	08/23/89	1729		0	1	F	E	H	LS	OTH		JTV117	JV 5				1/2 mi X 25 yd LS observed; Joy test positive
Ocean Beach	JTV	Alaska Rose	08/23/89	1741		0		F	E	N		SPS	8			75-100	N	N	95% sockeye. 5% pink; Joy test negative
Ocean Beach	JTV	Alaska Rose	08/24/89	1623	NE	5	1	F	G	N		SPS	10			1-25	N	N	95% sockeye, 5% silver; no oil present
Ocean Beach	JTV	Alaska Rose	08/24/89	1656	NE	5	1	F	G	N		SPS	10			26-50	N	N	Joy test negative; 90% sockeye, 10% pinks
Ocean Beach	JTV	Alaska Rose	08/25/89	1223		0	1	S	E	H	LS	SPS	10		JV 5	26-50	N	N	LS 250 yds by 20 yds observed; Joy test positive; set not made in sheen
Ocean Beach	JTV	Alaska Rose	08/25/89	1251		0	1	E	E	L	LS	OTH		JTV123					LS observed 100 yds by 2 yds; Joy test positive
Ocean Beach	JTV	Alaska Rose	08/26/89	1117		0	0	F	E	H	LS	SPS	10	JTV126	JV 5	1-25	N	N	5 sockeye; Joy test positive; set made in general area of sheen; sheen 325 yds by 10-50 yds wide
Ocean Beach	JTV	Alaska Rose	08/29/89	1756	SW	5	1	E	G	H	LS	SPS	15	JTV138	JV 5	26-50	N	N	250 yds by 40 yds LS evident; set made in general area of sheen although not in sheen proper
Ocean Beach	JTV	Alaska Rose	08/30/89	1543	NE	5	1	E	E	M	LS	SPS	11	JTV140	JV 5	1-25	N	N	Set made in general area of LS
Ocean Beach	JTV	Alaska Rose	08/30/89	1613	E	5	1	E	E	N		SPS	15			26-50	N	N	No oil observed
Rabbit Point	TPM	Alaska Rose	08/08/89	1345	Ne	5	1	S	F	N		SPS	17			76-100	N	N	Entrance to Chignik Lagoon; caught approx 90 fish, 90% sockeye, 10% pink; VL was observed coming from the lead line for a period of less than ten seconds during retrieval; this has not been recorded as impact because it is less than any of the criteria provided and was mostly incurred during our last test set (08/09/89); if the gear is still "contaminated" it is definitely hand cleanable
Rabbit Point	TPM	Alaska Rose	08/09/89	1434	NE	5	2	F	F	N		SPS	23			51-75	N	N	Catch: approx 60 salmon; 95% sockeye, 5% chum
Rabbit Point	JTV	Alaska Rose	08/19/89	1027	SW	5	1	E	G	N		VIS							No oil observed
Rabbit Point	JTV	Alaska Rose	08/23/89	1659		0	1	F	E	H	LS	OTH		JTV116	JV 5				3/4 mi X 50 yd LS observed; Joy test positive
Rabbit Point	JTV	Alaska Rose	08/26/89	1340	NE	15	1	E	G	N		SPS	3		JV 5	1-25	N	N	No oil observed
Rabbit Point	JTV	Alaska Rose	08/26/89	1642	NE	10	2	E	G	VL	VL	VIS			JV 5				Patchy LS observed in eel grass laden tide streak; Joy test positive
Rabbit Point	JTV	Alaska Rose	08/27/89	1455	NE	20	3	E	F	N		VIS							No oil observed
Red Bluff	TPM	Alaska Rose	08/05/89	1830	SW	15	1	S	F	N		VIS							Tunaville; no oil observed; organic plankton material was concentrated in several bands, 1-3 meters wide X 3-20 yds long
Tunaville Flats	GDW	Alaska Rose	07/28/89	1337	N	10	1	E	E	N		VIS			AR 2				Response to call from FV Day Dreamer - foam similiar to GDW 018 found in corks; video taken

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Tunaville Flats	GDW	Alaska Rose	07/28/89	1352	N	10	1	E	E	N		VIS			AR 2				Response to call from FV Alexandria - took video of foam in set and a sockeye with a yellow belly
Tunaville Flats	TPM	Alaska Rose	08/08/89	1734	VR	5	1	F	E	L	SS	SPS	8	TPM 18	AR 3	1-25	N	HC	Also COC TPM 19; caught 1 sockeye; patchy SS was observed emanating from bottom grass along at least 5-10 fathoms of lead line; took sample of water and of grass; the net emitted sheen in the next set at Chignik Lagoon at 1826 hrs
Tunaville Flats	TPM	Alaska Rose	08/09/89	1818	NE	10	2	F	F	L	VL	SPS	12			1-25	N	N	Set in VL sheen covering approx 10% of Tunaville Flats; this sheen appeared at the same tide stage and in the same area as documented and sampled on 08/08/89; Catch: 8 sockeye, 2 pinks
WESTERN, CHIGNIK																			
Castle Cape																			
273 90																			
Castle Cape	GDW	Ms Aries	08/06/89	1535	NW	5	1	F	E	M	VL	VIS		GDW 27	MA 1				Between Cape and Chankliut Island; VL sheen approx 5 X 200 yards, 400 yds off Cape
Castle Cape	AWS	Heidi Linea	08/28/89	1110	SE	20	4	F	F	N		VIS							No oil observed
Castle Cape	AWS	Heidi Linea	08/30/89	1050	NW	10	3	F	G	L	LS	VIS			HL 2				Band of LS off the rocks of Castle Cape; band was 1-3 meters by 75 yds and came off a patch that was 50 yds by 30 yds
Chankliut Island	JJE	Heidi Linea	07/18/89	1305		0	0	F	F	VL	SS	DN		JJE 49	HL 1				1 mi N of island; also COC JJE 050; found SS streak 10 yds wide at least 1 mi long running E-W
Devils Bay	AWS	Heidi Linea	07/26/89	2150	SE	5	0	F	G	L	LS	VIS							3 patches of LS 20 yds by 30 yds; 3 bands LS 1-3 meters by 1/8 mile
Devils Bay	AWS	Heidi Linea	08/24/89	1620	SE	15	3	F	G	N		VIS							No oil observed
Devils Bay	AWS	Heidi Linea	08/24/89	1750	SE	15	1	F	G	H	SS/LS	VIS		AWS195	HL 2				Large patches of sheen covering W arm Devils Bay; 25% SS; also COC AWS 196
Devils Bay	AWS	Heidi Linea	08/25/89	950	SW	20	1	F	G	L	LS	VIS							W arm of bay; 1 band LS 1-3 meters by 75 yds located 25 yds offshore; 2 small patches of LS 5 yds by 10 yds
Devils Bay	AWS	Heidi Linea	08/30/89	910	NW	15	3	E	F	N		VIS							No oil observed
Devils Bay, W	AWS	Heidi Linea	08/11/89	1220	SE	25	2	E	P	L	LS	VIS							1 band of LS 1-3 meters by 200 yds; 1 patch of LS 20 yds by 50 yds
Devils Bay, W	AWS	Heidi Linea	08/11/89	1715	SE	25	2	F	P	M	LS/SS	DN		AWS184	HL 2				COC AWS 185; LS being pushed in by tide; 30-40% coverage in W bite of Devils Bay; bands and patches vary in size
Ross Cove	AWS	Heidi Linea	08/28/89	1455	SE	15	1	E	G	M	LS	VIS							Inside W spit of cove; large patch of LS 200 yds by 60 yds
Ross Cove	AWS	Heidi Linea	08/28/89	2115	SE	10	0	E	E	H	LS	VIS							75% coverage of area from W cove to the head of this W arm of Warner Bay

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Seal Bay	JJE	Heidi Linea	07/25/89	1845	SW	10	0	F	E	N		VIS							1.5 mile from Seal Bay; floating vegetation 10 yards X 500 yards; no oil observed
Seal Bay	AWS	Heidi Linea	07/31/89	915	SW	20	2	F	F	M	LS	VIS							Head of Seal Bay; light sheen 3-6 meter wide band 1/4 mil long
Seal Cape	JJE	Alaska Rose	07/02/89	1330	S	15	1	F	E	VL	VL	SPS	15		AR 1	76-100	N	N	No sheen in net during set; 50% pinks and a lot of Arctic Reds
Seal Cape	JJE	Alaska Rose	07/08/89	945		0	3	E	G	N		SPS	15			51-75	N	HC	60 fish, 70% artic reds; the net gave off sheen from the section of net that was in sheen during the previous set at Warner Cape
Seal Cape	JJE	Heidi Linea	07/14/89	1050		0	3	F	G	VL	VL/SS	SPS	15	JJE 39	HL 1	0		N	Also COC JJE 040; set in sheen as we pursed boat acted as boom and concentrated VL to SS; went to take video and purse line broke; lost fish and SS video
Seal Cape	JJE	Heidi Linea	07/19/89	1810	SW	10		E	G	VL	LS	SPS	10	JJE 51	HL 1	200	N	N	Also COC JJE 052; 60 % chum and pinks, 25% coho, 15% sockeye and a few immature fish; LS streak 150 yds from shore, 500 yds long, 30 yds wide
Seal Cape	JJE	Heidi Linea	07/23/89	1600				F	E	L	LS	DN		JJE 56	HL 1				Also COC JJE 157; sheen streaks 30 yd wide at widest, some 3/4 mi long
Seal Cape	JJE	Heidi Linea	07/23/89	1630				F	E	L	LS	SPS	15			>500	N	N	1000 fish; 60% pink, 20% coho, 20% sockeye and chum
Seal Cape	AWS	Heidi Linea	07/27/89	715	SE	15	5	E	F	M	LS	VIS							Numerous bands of LS 100 yds offshore; patch of LS 300 by 100 yds
Seal Cape	AWS	Heidi Linea	07/31/89	2045	SE	15	5	F	F	M	LS/SS	VIS							Large patch of sheen, LS & SS, 100 X 100 yards running towards and along shoreline
Seal Cape	AWS	Heidi Linea	08/04/89	1525	NW	25	5	F	F	M	SS	VIS							2 bands of SS 400 yards from shore; 1-3 meters wide and 1/2 mile long; patch if thick SS 1/4 mile by 1/8 mile right off cape; 40% coverage of immediate area
Seal Cape	GDW	Ms Aries	08/06/89	1715		0	2	F	E	VL	VL	SPS	19			300	N	N	VL sheen in tide streaks 30 yards off Seal Cape; 80% pink, 10% coho, 5% chum, 5% sockeye
Seal Cape	GDW	Ms Aries	08/09/89	1522	SE	5	3	F	G	N		SPS	27			26-50	N	N	70% pink, 10% sockeye, 10% chum, 10% coho
Seal Cape	GDW	Ms Aries	08/21/89	1011	NE	5	2	E	E	N		SPS	27			0		N	No oil observed
Seal Cape	AWS	Heidi Linea	08/24/89	1545	SE	15	3	F	G	M	LS	DN		AWS193					Wide band LS 1/4 mi E of Itki Point, 2-6 meters wide by 1 mi long; another band 6 meters by 400 yds located 1/2 mile W of Seal Cape; also COC AWS 194
Seal Cape	AWS	Heidi Linea	08/28/89	1325	SE	25	9	E	P	N		VIS							Poor conditions for observation; no oil observed
Seal Cape	AWS	Heidi Linea	08/29/89	1535	SW	15	4	E	F	N		VIS							No oil observed
Ship Mountain	AWS	Heidi Linea	07/26/89	1750	SE	15	3	S	G	L	LS	VIS							1 mile offshore; various bands of LS 1-3 meters by 3/4 mile
Ship Mountain	AWS	Heidi Linea	08/28/89	1200	SE	25	4	F	F	N		VIS							No oil observed
Warner Bay	JJE	Heidi Linea	07/23/89	1430	NW	10	1	F	E	VL	VL	SPS	15			200	N	N	Cape between Warner Bay and Necessity Cove; 50% pink, 40% coho 10% chum and sockeye; VL sometimes you could see it and sometime it was not visible

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Warner Bay	JJE	Heidi Linea	07/25/89	1930	SW	10	0	F	E	N		VIS							2 mi from Warner Cape; floating vegetation patch 20 yd; no oil observed; 2 dead birds
Warner Bay	AWS	Heidi Linea	08/19/89	1950	NW	30	2	E	G	N		VIS							No oil observed; very windy
Warner Cape	JJE	Alaska Rose	07/02/89	1150		0	0	F	E	VL	VL/RS	SPS	20	JJE 18	AR 1	26-50	N	N	Also COC JJE 019; set in sheen; when the net was being hauled in RS was seen by corks possibly from coraling the sheen into higher concentration
Warner Cape	JJE	Alaska Rose	07/07/89	1910	SW	20	4	S	F	M	RS/LS	SPS	15	JJE 29	AR 1	1-25	N	HC	Also COC JJE 031; saw band of sheen running through the set; 500 pollock, 20 salmon all species; RS 50 X 30 yds with smaller LS around; (note: during next set at Seal Cape, net gave off sheen from same section of net that was impacted by sheen streak in this set at Seal Cape)
Warner Cape	JJE	Heidi Linea	07/18/89	930	NE	5	0	S	E	VL	LS	SPS	15	JJE 47	HL 1	76-100	N	N	Also COC JJE 048; 40% pinks, 10% sockeye, 30% chum, 20% coho; small LS streaks around, none through set, 20 X 400 yds; largest one spaced out
Warner Cape	AWS	Heidi Linea	07/26/89	1835	SE	15	3	F	G	M	LS	DN		AWS172	HL 2				COC AWS 173; 3/4 mile offshore running close to cape, 4 bands LS 1-3 meters by 1/4 mile towards Warner Bay; 3 bands running S close to rocks; 1 patch 30 by 70 yds with bands branching off; 15% coverage of area
Warner Cape	AWS	Heidi Linea	07/26/89	1930	SE	15	3	F	G	M	LS	SPS	15			>500	N	N	1 band of LS; 60% pinks, 20% sockeye, 10% chum, 10% coho
Warner Cape	AWS	Heidi Linea	08/28/89	1245	SE	25	7	F	P	N		VIS							Poor conditions for observations; no oil observed
273 94																			
Castle Bay	ETA	Alaska Rose	06/29/89	1410	W	25	2	E	P	VL	VL	VIS							Several thin finger like bands LS 1 X 3 yds wide, 50 yards long extending out from shore; one 50' X 100' pool of sheen, weather made observations difficult
Castle Bay	GDW	Alaska Rose	07/17/89	1552	SE	10	0	F	E	N		SPS	2			200	N	N	NE arm, stream 941; 100% pinks
Castle Bay	GDW	Alaska Rose	07/17/89	1802	N	5	2	E	E	N		SPS	20			26-50	N	N	6 miles NW of NE arm; 85% sockeye, 15% pinks
Castle Bay	GDW	Ms Aries	08/06/89	1158		0	1	E	E	VL	VL	SPS	22			200	N	N	VL sheen observed in tide streak at test site; 45% pink, 20% sockeye, 20% chum, 15% coho
Castle Bay, S	GDW	Ms Aries	08/24/89	1355	SE	5	2	E	E	N		SPS	19			0		N	No oil observed
Castle Cape	JJE	Alaska Rose	07/02/89	830		0	0	S	E	VL	VL	SPS	25	JJE 17		76-100	N	HC	50% pinks, 20% chums, 20% sockeye, 10% coho; could not detect oil on net; there were sheen streaks in Castle Bay; small amount of mousse on leads, believe it came from last set in Hook Bay on 7/1/89
Castle Cape	JJE	Alaska Rose	07/07/89	1540	SW	20	1	F	F	N		SPS	15			51-60	N	N	40% chum, 35% sockeye, 20% pink, 5% coho
Castle Cape	JJE	Heidi Linea	07/18/89	1110	NE	5		F	E	VL	LS	SPS	15		HL 1	76-100	N	N	Area - Castle Cape/Warner Cape; 40% pinks, 10% sockeye, 30% chum, 20% coho; a few LS streaks less then previous site
Castle Cape	JJE	Heidi Linea	07/23/89	1230	NW	10	1	S	E	N		VIS							Ran a vegetation streak no mousse or sheen

Location: District / Section / Stat Area / Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil: Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Castle Cape	GDW	Ms Aries	08/06/89	1430	NW	5	1	F	G	VL	VL	VIS		GDW 26	MA 1				1/4 mi W of; VL sheen 150 yards offshore
Jacks Point	GDW	Ms Aries	08/12/89	1856	E	5	3	F	G	N		SPS	23			200	N	N	90% pink, 5% sockeye, 5% chum and coho
Jacks Point	AWS	Heidi Linea	08/28/89	1035	SE	15	3	F	F	N		VIS							Running W; no oil observed
Dorner Bay																			
273 80																			
Cape Itki	JJE	Heidi Linea	07/14/89	1230		0	2	F	G	N		SPS	15			26-50	N	N	50 fish, 10% chum, a couple of pinks, the rest sockeye
Cape Itki	JJE	Heidi Linea	07/20/89	930				E	G	VL	VL	SPS	15		HL 1	200	N	N	90% sockeye, no immature; VL around, hardly detectable with soap
Cape Itki	JJE	Heidi Linea	07/23/89	1810				F	P	N		SPS	15			26-50	N	N	80% pinks; too calm to see sheen if there was any
Cape Itki	GDW	Ms Aries	08/06/89	1830	W	10	3	F	E	N		SPS	15			0		N	No oil observed
Cape Itki	AWS	Heidi Linea	08/24/89	1525	SE	15	3	F	G	N		SPS	15			51-75	N	N	40% sockeye, 30% silvers, 15% chums, 15% pinks; no oil observed
Cape Itki	AWS	Heidi Linea	08/29/89	1610	NW	20	4	E	F	N		VIS							No oil observed
Cape Itki	AWS	Heidi Linea	08/30/89	830	NW	15	3	E	F	N		SPS	15			25-50	N	N	No oil observed; 40% sockeye, 40% coho, 20% pinks
Dog Bay	AWS	Heidi Linea	07/31/89	950	SW	15	2	F	G	VL	LS	VIS							Light sheen in narrow tide streaks with organics, 25 yds long by 1-2 meters wide
Dog Bay	AWS	Heidi Linea	07/31/89	1315	SW	15	3	F	F	L	LS	VIS							1 band LS 1-3 meters by 1/8 mile, pushed by wind and tide into head of bay near stream 845
Dorner Bay	AWS	Heidi Linea	07/29/89	1510	SE	25	2	F	P	N		VIS							Heading toward head of Dorner Bay; no oil observed
Dorner Bay	AWS	Heidi Linea	07/30/89	1630	SW	35	2	E	F	N		VIS							No oil observed
Dorner Bay	AWS	Heidi Linea	07/31/89	830	SW	35	2	S	F	N		VIS							No oil observed in water; high winds
Fishhook Bay	AWS	Heidi Linea	07/29/89	1150	SE	30	2	F	F	N		VIS							No oil observed; poor weather conditions
Foot Bay	GDW	Ms Aries	08/25/89	1014	S	1	1	F	E	N		SPS	19			0		N	N side of regulatory marker; no oil observed
Sweater Bay	JJE	Heidi Linea	07/20/89	1130		0	0	F	E	VL	VL	SPS	15		HL 1	51-75	N	N	At N cape; 90% sockeye; rainy, very slight wind made it easy to see sheen; small 10 yd wide spots to 100 yds long, occassional across Dorner Bay
273 84																			
Portage Bay	GDW	Ms Aries	08/07/89	830	NE	2	1	E	E	M	LS	VIS		GDW 28	MA 1				Light sheen almost a scum in test site, 1 mi SW of stream #842
Portage Bay	GDW	Ms Aries	08/21/89	1718	NE	5	1	F	E	N		SPS	20			1-25	N	N	No oil observed; 100% chum
Mitrofania																			
273 70																			
Coal Cape	AWS	Heidi Linea	08/13/89	1400	SW	15	4	E	F	N		VIS							1/8 mile offshore; very foggy; no oil observed
Coal Cape	AWS	Heidi Linea	08/20/89	1020	NW	25	6	E	F	N		VIS							No oil observed, conditions rough
273 72																			
Fish Cape	JJE	Alaska Rose	07/08/89	1050		0	0	E	G	M	LS	DN		JJE 31	AR 1				Also COC JJE 032; LS streaks at the mouth of the bay 1/2 mi by 30 yds with smaller streaks around in 1/2 mi radius from the boat
Ivan Bay	AWS	Heidi Linea	07/28/89	810		0	0	F	F	N		VIS							Working our way W; no sheen in bay

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
Ivan Bay	AWS	Heidi Linea	08/12/89	935	SE	15	3	F	F	N		VIS							No oil observed
Ivan Bay	AWS	Heidi Linea	08/13/89	1230	SW	15	4	F	F	VL	VL	VIS							VL in tide rip just E of salmon stream 722; very foggy, unable to determine sheen size
Mitrofania	AWS	Heidi Linea	08/22/89	1805	SE	10	1	F	G	N		VIS							No oil observed
Mitrofania	AWS	Heidi Linea	08/23/89	1005	SE	15	1	E	G	N		VIS							Lots of fog and rain; no oil observed
Mitrofania Bay	AWS	Heidi Linea	07/27/89	855	SE	15	1	E	F	N		VIS							NE arm of bay; no oil observed
Mitrofania Bay	AWS	Heidi Linea	07/27/89	2300	NE	15	2	F	F	L	LS	VIS							3 bands of light sheen coming into bay, 1-3 meters wide running along shoreline; patch of light sheen 20 yd X 20 yd, located 1/4 mile from head of bay
Mitrofania Bay	AWS	Heidi Linea	07/28/89	715		0	0	F	G	N		VIS							Outside stream #723; no oil observed
Mitrofania Bay	AWS	Heidi Linea	08/04/89	1720	NW	15	3	E	G	M	SS	DN		AWS179	HL 2				COC sample AWS 180; SS covering 40-50% of area; large patch 1/4 mile X 1/4 mile, disperses with Joy
Mitrofania Bay	AWS	Heidi Linea	08/12/89	1115	SE	15	2	F	F	N		VIS							No oil observed
Mitrofania Bay	AWS	Heidi Linea	08/24/89	1105	SE	15	2	E	G	N		VIS							No oil observed
Mitrofania Bay	AWS	Heidi Linea	08/29/89	1725	NW	20	4	E	F	N		VIS							No oil observed
273 74																			
Coal Cape	JJE	Heidi Linea	07/15/89	1210	SW	15	1	F	G	VL	VL	SPS	15			1-25	N	N	18 fish: 8 chums, 4 sockeye, 3 coho, 3 pinks; VL sheen around, hard to see
Coal Cape	AWS	Heidi Linea	08/05/89	1000	NW	5	1	E	G	N		VIS							No oil observed
Mitrofania Bay	AWS	Heidi Linea	08/12/89	2000	SW	15	3	F	G	M	LS	VIS			HL 2				3 bands LS 3-6 meter wide running up into the W arm of Mitrofania Island
Mitrofania Island	JJE	Alaska Rose	07/02/89	1630		0	0	E	E	N		SPS	15			200	N	N	70% arctic reds; 25% pinks; saw no oil impact
Mitrofania Island	JJE	Alaska Rose	07/08/89	1300	SE	10	2	S	G	M	LS/M	DN		JJE 33	AR 1				NE side; LS 10-50 yds wide and miles long, ran a floating vegetation line and found a mousse ball; sheen was from Seal Cape to Mitrofania
Mitrofania Island	JJE	Alaska Rose	07/08/89	1330	SE	10	2	F	G	L	LS	SPS	15			1-25	N	N	NE side of island; 5 sockeye, 4 pink, 1 dog, 1 jack
Mitrofania Island	JJE	Alaska Rose	07/08/89	1450	SE	10	1	F	E	L	LS/M	DN		JJE 34	AR 1				1/4 mi offshore, NW shore; sheen streaks and patches; mousse in floating vegetation area, 7 mousse balls in about 1/4 mi , 1-4" wide
Mitrofania Island	JJE	Heidi Linea	07/14/89	1450	NE	15	3	E	F	N		SPS	15			>500	N	N	By Mitrofania light house; 1/3 sockeye, 1/3 chum, 1/3 coho, a few pinks; plus 100 immature sockeye
Mitrofania Island	JJE	Heidi Linea	07/14/89	1845		0	2	F	G	N		SPS	15			1-25	N	N	SW arm; 2/3 sockeye, 1/3 pinks, 17 total fish
Mitrofania Island	JJE	Heidi Linea	07/14/89	2030		0	0	F	G	VL	M	DN		JJE 41					Ran vegetation streak and found 10 mousse balls, 1-2" in about 100 yds
Mitrofania Island	JJE	Heidi Linea	07/17/89	1900		0	0	E	E	N		SPS	15			>500	N	N	NE; 90% immature salmon
Mitrofania Island	JJE	Heidi Linea	07/22/89	1115	NW	15	1	E	G	VL	VL	SPS	15			1-25	N	N	Between Mitrofania and Brother Island; VL 5 yds wide at the widest, small spots of sheen very sparse; 90% coho, 1 chum, 1 sockeye
Mitrofania Island	JJE	Heidi Linea	07/25/89	1500	SW	10	0	F	E	N		VIS							Floating vegetation streaks on N-NE side of island, 500 yds long and 30 yds wide; no mousse or sheen observed

Location (District Section Stat Area Site)	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil Imp	Oil Type	Survey Meth	Survey Dur set (min)	Samp #	Video #	Catch Number Salmon	Catch Contam Fish	Catch Gear	Comments
Mitrofania Island	JJE	Heidi Linea	07/25/89	1545	SW	10	0	F	E	N		SPS	15			> 500	N	N	40% pink, 30% coho, 15% chum, 15% sockeye and many of immature sockeye
Mitrofania Island	AWS	Heidi Linea	08/04/89	1830	NW	5	2	E	G	M	LS	SPS	30			300	N	N	NW bite; band of sheen in area parallel to shore, 1-6 meters wide; 75% pink, 25% coho
Mitrofania Island	GDW	Ms Aries	08/09/89	1303	SE	15	4	E	G	N		SPS	19			1-25	N	N	70% pink, 20% sockeye, 10% coho
Mitrofania Island	AWS	Heidi Linea	08/09/89	1550	SW	15	5	F	F	N		SPS	30			>500	N	N	SE side, hook off spot; 70% pink, 20% coho, 10% chum
Mitrofania Island	AWS	Heidi Linea	08/14/89	1715	SW	15	2	E	G	N		VIS							W bite; no oil observed
Mitrofania Island	AWS	Heidi Linea	08/24/89	1320	SE	15	3	S	G	N		SPS	15			51-75	N	N	40% silver, 60% pinks; 1 sick sea lion; no oil observed
Spitz Island	JJE	Heidi Linea	07/20/89	1500	SW	15	2	F	G	N		SPS	15			51-75	N	N	70% pink/chum; some coho, not many sockeye
Stirni Point	AWS	Heidi Linea	08/20/89	945	NW	25	6	E	P	N		VIS							Enroute to Chiachi Island, poor observation conditions
PERRYVILLE																			
Perryville																			
275 60																			
Chiachi Island	AWS	Heidi Linea	08/13/89	1440	SW	10	2	E	F	M	LS	DN		AWS186					Between Chiachi Island and Shapka Island; COC AWS 187; band of LS 6 meters wide
Chiachi Island	AWS	Heidi Linea	08/20/89	1105	NW	25	2	S	G	N		VIS							Small band of what seemed to be oil was organic sheen
Chiachi Island	AWS	Heidi Linea	08/20/89	1505	NW	15	2	F	G	N		VIS							NW of E island; no oil observed; organics in tide rip; appeared clean
Chiachi Island	AWS	Heidi Linea	08/20/89	1540	NW	15	1	F	G	N		VIS							No oil observed; 20 yds off rocky spit on Chiachi Island
Chiachi Island	AWS	Heidi Linea	08/21/89	905	NW	5	0	E	E	M	LS	DN		AWS191	HL	2			Between Chiachi Island and Paul Island; COC AWS 192; patches of LS, 150 X 40 yd with bands LS that snake out 3-6 meters wide and run 200 meters
Chiachi Island	AWS	Heidi Linea	08/22/89	1405	NW	15	3	F	F	N		VIS							No oil observed
Coal Cape	AWS	Heidi Linea	07/28/89	910	NE	5	2	F	P	L	LS	VIS							1 mile N of Coal Cape, 2 bands of light sheen 1-3 meters wide
Coal Cape	AWS	Heidi Linea	08/16/89	1240	SE	15	3	F	F	N		VIS							1/4 mi out and running; no oil observed
Coal Cape	AWS	Heidi Linea	08/22/89	1450	SW	15	3	F	F	N		VIS							1/2 mile W of Cape; no oil observed
Perryville	AWS	Heidi Linea	08/05/89	1200	SW	10	2	F	G	N		VIS							No oil observed
Perryville	AWS	Heidi Linea	08/06/89	1215	SW	10	1	F	E	N		VIS							No oil observed
Perryville	AWS	Heidi Linea	08/14/89	935	SW	5	10	F	G	N		VIS							Three Star Point; No oil observed - running 100 yds out from shore
Perryville	AWS	Heidi Linea	08/16/89	1405	SE	5	3	F	S	N		VIS							25 yds off shore; no oil observed
Perryville	AWS	Heidi Linea	08/20/89	1630	NW	20	2	F	G	N		VIS							40 yds of Perryville village beach; no oil observed
Perryville	AWS	Heidi Linea	08/21/89	840	NW	5	0	E	E	N		VIS							No oil observed
Three Star Point	AWS	Heidi Linea	07/28/89	1030	SW	15	3	F	P	N		VIS							Heavy fog; no oil observed
Humpback Bay																			

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Contam Gear	Comments
275 50																			
Alexander Point	AWS	Heidi Linea	08/06/89	1705	SW	15	2	F	F	N		VIS							No oil observed; poor weather conditions, white caps
Coal Point	AWS	Heidi Linea	08/21/89	935	NW	5	1	E	E	N		VIS							50 yds off point; no oil observed
Humpback Bay	AWS	Heidi Linea	07/28/89	1130	SW	5	1	F	G	N		VIS							Near streams #502 and #503; no sheen observed
Humpback Bay	AWS	Heidi Linea	07/28/89	1200	SW	10	2	F	G	L	LS	VIS							Outside of salmon stream #504; 1-3 meter by 100 yds band of sheen streak close to shore
Jacob Island	JJE	Heidi Linea	07/16/89	1500	W	20	2	S	F	N		SPS	15			51-75	N	N	Noon Point; 90% immature
Jacob Island	AWS	Heidi Linea	08/14/89	1410	SW	15	4	E	F	N		VIS							1/2 mi outside Jacob Island, running toward Mitrofania; no oil observed
Jacob Island	AWS	Heidi Linea	08/21/89	1010	NW	5	0	E	E	M	LS	VIS							3 bands of LS 3-6 meters by 1/3 mile, coming from Jacob Island and heading towards mainland
Jacob Island	AWS	Heidi Linea	08/22/89	730	NW	25	3	E	F	N		VIS							No oil observed; wind is picking up
Noon Point	JJE	Heidi Linea	07/24/89	1100		0	0	E	F	N		VIS							Could see no sign of sheen in the area very calm out
Paul Island	AWS	Heidi Linea	07/28/89	1705	SW	10	2	F	G	N		SPS	15			1-26	N	N	No sheen observed; 100% pink
Paul Island	AWS	Heidi Linea	08/06/89	1120	SW	10	2	E	G	M	LS	VIS			HL 2				2 bands of LS 1-3 meters wide and 3-6 meters wide, approx 50 yds offshore; they snake around island for about 400 yds
Paul Island	AWS	Heidi Linea	08/09/89	1245	SW	15	5	F	F	L	LS	VIS							2 bands LS, 1-3 meter wide, running towards the island; 1/2 mile from island
Paul Island	AWS	Heidi Linea	08/14/89	1040	SW	5	3	F	G	N		VIS							No oil observed E of Paul Island about 1/8 mi off shore
Paul Island	AWS	Heidi Linea	08/22/89	1025	NW	25	2	E	F	N		VIS							Between Paul Island and Jacob Island; no oil observed
Paul Island	AWS	Heidi Linea	08/22/89	1335	NW	15	2	F	F	L	LS	VIS							75 yds off Paul Island and running E; band of LS 1-3 meters by 250 yds 100 yds offshore
Ivanof Bay																			
275 40																			
Alexander Point	JJE	Alaska Rose	07/02/89	2045	S	15	2	S	G	VL	VL/RS	SPS	15	JJE 20		26-50	N	N	70% pinks, 30% mixed silvers and sockeye; also COC JJE 021; saw RS again, it did not last long showed up in the middle of the set then was gone
Alexander Point	JJE	Alaska Rose	07/08/89	1855	S	15	2	S	F	N		SPS	15			1-25	N	N	2 pinks, 1 chum
Alexander Point	AWS	Heidi Linea	07/28/89	1230	W	10	2	F	G	N		VIS							Heading into Ivanof Bay, 150 yds offshore; no oil observed
Alexander Point	AWS	Heidi Linea	08/14/89	1120	SW	5	1	F	G	N		VIS							Organics in the water - 1/3 mi out from point; no oil observed
Alexander Point	AWS	Heidi Linea	08/21/89	1030	NW	5	0	E	E	N		VIS							150 yds off point; no oil observed
Fox Cape	JJE	Heidi Linea	07/21/89	1845	SW	15	1	E	G	N		SPS	15			26-50	N	N	50 fish, 50% pink, 20% sockeye 20% coho, 10% chum, no immature
Fox Cape	AWS	Heidi Linea	07/28/89	1500	SW	10	3	E	G	L	LS	SPS	15			200	N	HC	1 band of light sheen which came from Kupreanof Point and around Fox Cape, 1-3 meters wide and ran across set; 50% pink, 20% chum, 20% coho, 10% sockeye

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Fox Cape	AWS	Heidi Linea	08/05/89	2245	SW	5	0	E	G	M	LS/SS	DN		AWS182	HL 2				COC sample AWS 183; large patch of both SS and LS in Fox Bay, from Island to shore, 1/8 X 1/2 mile
Fox Cape	AWS	Heidi Linea	08/21/89	1135	NW	5	1	S	G	N		VIS							No oil observed
Ivanof Bay	AWS	Heidi Linea	07/28/89	1255	W	5	2	F	G	M	SS/LS	DN		AWS175					COC sample AWS 176; patch of SS 50 yds X 75 yds; 2 bands of light sheen 3-6 meters by 1 mile with shimmery appearance
Ivanof Bay	AWS	Heidi Linea	08/06/89	1800	SW	20	2	S	F	N		VIS							No oil observed
Kupreanof Point	JJE	Heidi Linea	07/16/89	1110	NW	25	2	F	P	N		SPS	25			26-50	N	N	50 fish; 50% pinks, 40% sockeye, 10% chum, and 300 immature salmon
Kupreanof Point	JJE	Heidi Linea	07/21/89	1630	SW	10		F	E	VL	VL	SPS	15	JJE 54	HL 1	200	N	N	Also COC JJE 55; 150 fish; 50% pink, 20% chum, 20% sockeye, 20% coho; VL sheen around point
Kupreanof Point	JJE	Heidi Linea	07/24/89	1330		0	0	S	E	N		SPS	15		HL 1	> 500	N	N	1000 fish: 50% pink, 20% sockeye, 20% coho, 10% chum; took video of what I thought was sheen around set but after soap test was negative
Kupreanof Point	AWS	Heidi Linea	08/05/89	1300	SW	10	2	F	E	VL	VL	VIS			HL 2				Bands of VL sheen 1-3 meters wide discharged from fishing vessels
Kupreanof Point	AWS	Heidi Linea	08/06/89	2010	SW	15	4	F	F	M	LS	VIS							Patch of LS right off the point, 50 X 70 yds; 3 bands of LS, 1-3 meter wide and 3-6 meter wide
Kupreanof Point	AWS	Heidi Linea	08/14/89	1250	SW	15	4	F	F	N		VIS							Northern Dawn and Sea King are fishing; we are 75 yards off point; saw small bands, turned out to be diesel
Kupreanof Point	AWS	Heidi Linea	08/21/89	1220	NW	5	1	F	G	M	LS	VIS			HL 2				8 bands of LS 3-6 meters wide and numerous small patches from 3/4 mile past Fox Cape all the way to Kupreanof Point; 30% coverage of area
Kupreanof Point	AWS	Heidi Linea	08/21/89	1335	NW	5	1	F	G	L	LS	SPS	30			1-25	N	N	We are on "the line"; bands of LS are E and W, 1-3 meters wide by 1/4 mile; 5-10% of area is sheen; 50% pinks, 50% coho

Appendix E.1 Test fishing observations which resulted in oil contaminated gear in the Chignik Management Area from 11 June to 4 September 1989.

Location: District / Section / Stat Area / Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
EASTERN, CHIGNIK																			
Agripina																			
272 92																			
Port Wrangell	JGH	Suzanne	07/23/89	1600	VR	5	0	F	E	L	LS/M	SPS	25		SU	5 0		HC	Made set in area with 5-15' wide 1/2 mi long streaks of LS; noticed small amount of SS coming off the lead line at 100 fathoms into the seine; sheen was coming off the lead line, purse line and purse straps; saw 1 moussed feather in set but it didn't hit net
272 96																			
Agripina Bay	JGH	Suzanne	07/24/89	840	0	0	E	E	N			SPS	30			200	N	HC	No sheen in area, but small amount of sheen coming off purse area again; net was too fouled with organics to get a good look at it; will scrub down with soap
Agripina, north	JGH	Suzanne	08/05/89	1415	VR	10	1	F	G	L	LS	SPS	25	JGH121		51-75	N	GC	COC JGH 122, JGH 123, JGH 124, JGH 125, JGH 126; streak of LS approx 1/4 mi offshore and another in close to the rocks; made set with "new" net; (note: net had just been cleaned by Exxon (Norcon) - net had been one that was previously contaminated, cleaned and given to Suzanne). When hauling seine, noticed net giving off a LS at various points along the cork line; also observed traces of mousse on the chafing gear; the purse line had a few spots of mousse, and there were smears of mouse on the white section of corks; after loading the purse, observed patches of LS right next to the boat; took samples of fish, corks and web; (note: on radio observer said video had been broken, so did not obtain video sample)
Nakalilok-Yantarni																			
272 80																			
Ocean Beach	JGH	Suzanne	08/09/89	1620	VR	5	1	F	F	L	LS	SPS	25	JGH136	SU	9 200	N	HC	Set in area with a few streaks of LS, noticed some sheen coming off the cork and lead lines; took sample of sheen and got good video coverage; couldn't determine if sheen was crude or fuel.
CENTRAL, CHIGNIK																			
Kujulik																			
272 50																			
Pinnacles	JJE	Alaska Rose	07/10/89	1630	SW	25	3	F	P	N		SPS	15			1-25	N	HC	8 sockeye, 3 chum; light sheen given off portion of net
Outer Chignik Bay																			

Location: District Section Stat Area Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
272 30																			
Hook Bay Point	ETA	Alaska Rose	07/01/89	1730	N	5	1	E	G	L	VL/M	SPS	25			1-25	N	HC	Sheen streaks 2-5 yds wide X 1/4 mi long, most of sheen within 100' of shore; 1 sockeye, 1 dolly; no mousse found in the organics. (Mousse was found on the leadline in the next set which was made on 07/2/89 at Castle Cape; fouling of the leads was believed to have come from this Hook Bay set).
Hook Bay Point	JTV	Alaska Rose	08/21/89	1220	SW	1	1	S	E	H	LS	SPS	13	JTV	5	0		HC	Set at traditional fishing site; 1, 3/4 mi X 20 yd, and 1, 1/4 X 5 yd sheen by area of set; some corks oiled; Joy test positive; no mousse observed
272 40																			
Nakchamik Island	GDW	Alaska Rose	07/22/89	1205	N	1	1	F	E	H	VL	SPS	19			1-25	N	HC	Seine emanated VL sheen onto water as it was hauled aboard
CHIGNIK BAY																			
Chignik Lagoon																			
271 10																			
Chignik Lagoon	TPM	Alaska Rose	08/08/89	1826	VR	5	1	F	G	N		SPS	9			0		HC	NW shore, Tunaville Flats; 0 salmon; although approx 1 fathom of net gave off LS-SS during retrieval, it is assumed to be residual from previous set made at 1734 hrs at Tunaville Flats
Tunaville Flats	TPM	Alaska Rose	08/08/89	1734	VR	5	1	F	E	L	SS	SPS	8	TPM 18	AR 3	1-25	N	HC	Also COC TPM 19; caught 1 sockeye; patchy SS was observed emanating from bottom grass along at least 5-10 fathoms of lead line; took sample of water and of grass; the net emitted sheen in the next set at Chignik Lagoon at 1826 hrs
WESTERN, CHIGNIK																			
Castle Cape																			
273 90																			
Seal Cape	JJE	Alaska Rose	07/08/89	945	0	3	E	G	N			SPS	15			51-75	N	HC	60 fish, 70% artic reds; the net gave off sheen from the section of net that was in sheen during the previous set at Warner Cape
Warner Cape	JJE	Alaska Rose	07/07/89	1910	SW	20	4	S	F	M	RS/LS	SPS	15	JJE 29	AR 1	1-25	N	HC	Also COC JJE 031; saw band of sheen running through the set; 500 pollock, 20 salmon all species; RS 50 X 30 yds with smaller LS around; (note: during next set at Seal Cape, net gave off sheen from same section of net that was impacted by sheen streak in this set at Seal Cape)
273 94																			

Appendix E.1 (Page 3 of 3)

Location: District / Section / Stat Area / Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
Castle Cape	JJE	Alaska Rose	07/02/89	830	0	0	S	E	VL	VL		SPS	25	JJE 17		76-100	N	HC	50% pinks, 20% chums, 20% sockeye, 10% coho; could not detect oil on net; there were sheen streaks in Castle Bay; small amount of mousse on leads, believe it came from last set in Hook Bay on 7/1/89
PERRYVILLE Ivanof Bay 275 40 Fox Cape	AWS	Heidi Linea	07/28/89	1500	SW 10	3	E	G	L	LS		SPS	15			200	N	HC	1 band of light sheen which came from Kupreanof Point and around Fox Cape, 1-3 meters wide and ran across set; 50% pink, 20% chum, 20% coho, 10% sockeye

Appendix F.1 Beach and nearshore surveys for oil spill contaminants in the Chignik Management Area from 12 June to 22 September 1989.

Location: District / Section / Statistical Area / Site	Observer	Date	Time	Intertidal Oil Imp	Intertidal Oil Type	Intertidal Survey Meth	Intertidal Survey Dist (yds)	Intertidal Survey Con	Nearshore Oil Imp	Nearshore Oil Type	Nearshore Survey Meth	Nearshore Survey Dist (%)	Nearshore Survey Con	Samp #	Video #	Comments
EASTERN, CHIGNIK																
Agripina																
272 92																
Cape Providence, 1 mi NW of	JV	08/13/89	1509	VL	M	F	200	E	N		H	1	G	JTV100		Sandy fine gravel collector; mousse interspersed with vegetation on most recent high tide line; weathered mousse interspersed with fine gravel in upper intertidal zone
Cape Providence, 1.5 mi NW of tip/cape	WD	06/12/89	1130	VL-	M	F	500	E	N		H	10	F	WD 1		Sand gravel cobble boulder collector; only one small mousse pattie approx 2" dia found; bear foraging is evident; COC sample WD6128901
Cape Providence, N beach	GR	07/18/89	1915	N		F	440	E	VL	VL	B	10	E			Beach was clean; a little sheen visible S of David and Navy Islands
Cape Providence, NE side of	JH	07/23/89	1500	VL	M	F	300	E							SU 6	Traces of mousse at high tide line; 200 yds of beach with very little old mousse; 2 ea 50 yd beaches with old mousse
David Island, 1st island S of	JH	07/19/89	1220	L	M	F	200	E						JGH 94	SU 5	Mousse on 3 tide marks; highest amount of mousse on upper tide line over 3 weeks old, upper tide line had bands 1' wide, 3-4" deep running approx 50 yds; this mousse was mixed with organics and melted into the rocks; fresh mousse on current tide line
David Island, 2.5 mi E-SE of	JV	08/13/89	2010	N		F	75	E	N		H	1	G			Cobble collector; no oil observed
David Island, N beach	GR	07/18/89	1830	L	M	F	440	E	M	LS/M	B	20	E	GDR121	Y 1	Also nearshore oil type RS; 3-4" mousse ball every foot on beach; light sheen and mousse 100' offshore
David Island, NE & SE side of	JV	08/13/89	1845	VL	M/T	F	200	E	N		H	20	G			Gravel cobble collector; occasional weathered mousse splotch of 1-3" diameter
Flat Island in Port Wrangell	JV	08/13/89	1950	VL-	M	F	100	E	N		H	5	G			Sandy collector; 1 ea 7" sand encrusted mousse pattie found
Navy Island, N beach	GR	07/18/89	1800	L	TB	F	440	E	M	LSMRS	B	20	E	GDR120	Y 1	Quarter to grapefruit size TB about every foot
Poltava Island, on south side	ML	08/19/89	1500	VL	M	F	100	E	N		B	25	E	MAL 8		4 small mousse balls, 1/2" to 1" diam in a 10 yd by 1 yd stretch of beach
Port Wrangell, head of bay	JH	07/16/89	1005	VL	M	F	880	E								A few MBs
Port Wrangell, mouth of lagoon on N side	JH	07/23/89	2000	N		F	880	E								Beach was very clean
Port Wrangell, N	GR	07/17/89	1930	N		F	880	E	VL	VL	B	10	E			Light sheen in water; clean beach
Port Wrangell, W side before harbor	ML	08/19/89	1900	N		F	1760	G	N		B	100	G			No oil detected
Port Wrangell; 1.5 mi E-NE of David Isle	JV	08/13/89	1936	VL	T	F	75	E	N		H	20	G			Cobble boulder collector; occasional crusted tar splotch of 3-8" diameter
272 96																
Agripina Bay	WD	06/12/89	1227						N		H	10	F			
Agripina Bay, (comments)	JH	07/24/89	1030	VL	M	F	400	E	VL	LS	B		E		SU 6	1st ocean beach on island side of Agripina; very little old mousse on beach; LS along shoreline
Agripina Bay, 1 mile N of	JH	07/24/89	1145	VL	M	F	200	E	VL	LS	B		E		SU 6	Several small pieces of old mousse; a little LS nearshore

Location (District / Section / Statistical Area / Site)	Observer	Date	Time	Intertidal Oil Imp	Intertidal Oil Type	Intertidal Survey Meth	Intertidal Survey Dist (yds)	Intertidal Survey Con	Nearshore Oil Imp	Nearshore Oil Type	Nearshore Survey Meth	Nearshore Survey Dist (%)	Nearshore Survey Con	Samp #	Video #	Comments
Agripina Bay, 2 sm bays at N mouth	WD	06/12/89	1310	N		F	500	E	N		H	10	F			Location is approx 2 mi E of Glacier Cr.; cobble beach with boulders in lower intertidal; rocks in lower intertidal blanketed with snails; numerous sand fleas in grounded vegetation; bear foraging is evident
Agripina Bay, beach S of stream 961B	JH	08/05/89	1715	N		F	880	E								No oil detected
Agripina Bay, NW side at head of bay	ML	08/19/89	800	N		F	440	G	N		B	25	G			No detectable oil
Agripina Bay, outside islands	JH	07/15/89	800	VL	M	F	100	G	VL	M/LS	B		G			Very little mousse found, some was close to shore
Agripina Bay, SE shoreline	JH	08/05/89	1100	VL	M/T	F	2640	E								Very few old hits of mousse on high tide line; spread across 5 small rocky beaches along the shoreline; mousse melted into rocks and some had dried on tar
Agripina River, 2 mi SE of	JV	08/13/89	1720	N		F	50	E	N		H	1	G			Cobble gravel boulder beach; no oil observed
Agripina, beach inside lagoon	JH	06/14/89	930	N		F	3520	E								First clean beach in all surveys
Agripina, N shore beach	GR	07/18/89	1530	N		F	440	E	L	LS	B	10	E			Clean beach; streaks of LS nearshore
Ashiiak Island, 2 mi NW of	JV	08/13/89	1734	VL	M/T	F	275	E	N		H	1	G	JTV101		Cobble gravel boulder collector; occasional fresh mousse patties of 2-6" diameter found on second most recent high tide line (this mornings); numerous weathered tar splotches found in mid-intertidal zone
Kilokak Rocks, bch S of; (comments)	JH	07/16/89	1500	VL	M	F	400	E								N Agripina Bay; few MBs from 1-3" diameter; COC sample JGH 086 was taken but sample jar broke destroying evidence
Chiginagak																
272 90																
Cape Kuyuyakak, 2 mi NE of	JV	08/13/89	1323	VL	M/T	F	175	E	N		H	5	G	JTV 96		Boulder sandy collector; occasional weathered tar splotch on boulders; 2 fresh mousse patties of approx 4" diameter found on sandy portion of beach
Cape Kuyuyakak, 3 mi N-NE of	JV	08/13/89	1343	VL	M	F	225	E	N		H	1	G	JTV 97		Sandy beach; 1 fresh mousse pattie of 3" diameter, found on most recent high tide line; occasional weathered mousse pattie found in extreme high tide line
Cape Kuyuyukak, 1/4 mi N	ML	08/26/89	1830	VL	M	F	880	E	N		B	50	E			2 areas of rocks with old mousse 20 yds by 2 yds and 40 yds by 2 yds; most patches of mousse about 3/4" diam, one blob 1 ft in diam
Cape Kuyuyukak, 2 mi NE of	JV	09/08/89	1255	N		F	440	G	N		H	10	P			Boulder, sand collector beach; no oil observed
Cape Kuyuyukak, 3 1/4 mi N-NE of	JV	09/08/89	1341	N		F	400	G	N		H	100	F			Sandy beach; no oil observed; 1 nonoiled bird carcass
Cape Providence, S side, appr 1 mi W	WD	06/12/89	1045	N		F	200	E	N		H	10	F			Boulder/cobble collector, grounded kelp/other algae covering approx 30% of mid intertidal zone; lower intertidal boulders covered with snails
Chiginagak Bay, head of	JV	08/13/89	1407	VL	M/T	F	400	E	N		H	1	G	JTV 98		Cobble gravel sandy collector; fresh mousse patties of 1-3.5" diameter observed on most recent high tide line; numerous weathered mousse and tar patties observed
Chiginagak Bay, island near stream 900	JH	08/02/89	1230	N		F	300	E								No oil observed
Chiginagak Bay, N beach of	GR	07/19/89	1115	VL	M	F	880	E	VL	VL	B	20	G	GDR122	Y 1	Occasional mousse ball mixed with sand and spruce needles from quarter to frisbee size

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Chiginagak Bay, SW side of; (comments)	JH	08/02/89	1300	N		F	2200	E								3 miles inside of Cape Kuyuyakak; no oil observed
Chiginagak Bay, W beach	GR	07/25/89	1100	N		F	586	E	N		B	10	E			Gravel beach
Chiginagak Bay, W side near #903A	JH	08/10/89	1000	VL	M	F	2640	G						JGH138		Very fresh mousse on the morning's high tide; a few older mousse on upper tide line
Chiginagak Beach, N end of	GR	07/24/89	1655	VL	M	F	440	E	L	LS	B	10	E	GDR128		Fine sand beach; quarter size mousse balls dotted upper tide line every 30 feet
Chiginagak Beach, S end of	GR	07/24/89	1930	VL	M	F	440	E	VL	VL	B	10	E	GDR129		COC sample GDR 130; occasional 5" old mousse balls; several hundred dead dungeness crab
Chiginagak, inner on Derikson Island	ML	08/20/89	1000	N		F	880	F	M	LS	B	50	F			LS offshore, 200 X 400 yd
Chiginagak, inner, S side of lagoon	ML	08/27/89	1030	N		F	440	P	N		B	100	P			Rain and fog; no oil detected
Chiginagak, Island SW of Derikson Island	ML	08/20/89	1030	N		F	440	F	M	LS	B	50	F			LS observed offshore of beach
Chiginagak, W side of	GR	07/17/89	1530	VL	M	F	3520	E	L	VL	B	10	G	GDR115	Y 1	Several mousse balls, quarter size every 6" for about 200' and then just a very occasional mousse ball
Chininagak Lagoon, W side; inside 903A	JH	08/10/89	1200	VL	M	F	880	G						JGH139		Inside of river on W side, new mousse balls 5-12" diameter 1 approx every 5-10'
Derickson Island, inlet 1 mi E-NE of	JV	08/13/89	1430	VL	M/T	F	350	E	N		H	1	G	JTV 99		Sandy collector; numerous fresh mousse patties of 2-12" diameter observed on most recent high tide line; numerous crusted and/or weathered mousse and tar patties observed in mid to upper intertidal zone
Derickson Island, N beach of	GR	07/19/89	1208	VL	M	F	220	E	L	VL	B	10	E	GDR123	Y 1	1 mousse ball; very light sheen nearshore
Nakalilok-Yantarni																
272 72																
Cape Kunmik, 4 mi NE of; Yantarni Bay	JV	06/27/89	1410	VL	M	F	800	E	N		H	10	F	JTV 19		Occasional splotches of mousse 1" diameter; boulder
Misery Creek, 1.5 mi SE of	JV	08/09/89	1852	N		F	200	E	N		H	1	P			Sandy collector; no oil observed
Yantarni Bay, beach on SW side of	JH	08/03/89	1000	VL	M	F	4400	G						JGH112	SU 8	Found a very few old traces of sand saturated mousse at high tide line; some fresher hits of mousse in a rocky stretch of beach to the SE of stream #721
Yantarni Bay, E side spit	JV	09/08/89	1435	N		F	1000	G	N		H	10	P			Sandy collector beach; no oil observed
Yantarni Bay, from lagoon to 1 mi S	GR	08/14/89	1730	VL	M	F	1760	E	VL	VL	B	10	E			Mousse balls every 20'; they were mixed with sand and not fresh
Yantarni Bay, head of; (comments)	JV	06/27/89	1500	N		F	2500	E	N		H	20	G			From Misery Creek to SE direction; sandy beach
Yantarni Bay, W side	GR	08/24/89	1600	N		F	2640	F	VL	VL	B	20	G			Patches of VL observed off shore
Yantarni Bay, W side of	GR	07/15/89	2030	L	M	F	1760	E	L	LS	B	10	E	GDR113	Y 1	1 mousse ball every 5' to 10'
272 80																
Nakalilok Bay	JV	06/27/89	1105	VL-	TB	F	300	E	N		H	20	G			Gravel sandy beach; 1 tarball
Nakalilok Bay, 1 3/4 mi W-SW of entrance	JV	09/08/89	1420	VL-	M	F	600	E	N		H	10	P			Sandy beach; 1 oiled plastic container observed
Nakalilok Bay, 3.5 mi SW of	JV	06/27/89	1320	VL	M	F	800	E	N		H	20	G	JTV 18		2-6" mousse patties; mousse along 2 different tide lines, approx every 3'
Nakalilok Bay, 3/4 mi SE from head of	JV	07/05/89	1135	N		F	250	G	N		H	20	F			Cobble boulder beach; no oil observed
Nakalilok Bay, beach near stream #803	JH	08/02/89	1830	VL	M	F	1320	E						JGH111		One piece of fresh mousse on high tide mark
Nakalilok Bay, E side of mouth	JV	06/27/89	1140	VL	M	F	250	E	N		H	10	G			Boulder beach

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Nakalilok Bay, entrance, W side inlet	JV	09/08/89	1405	N		F	200	G	N		H	10	F			Sand boulder cobble collector beach; no oil observed
Nakalilok Bay, head of	JV	06/29/89	1355	N		F	400	E	N		H	20	G			Gravel cobble collector
Nakalilok Bay, N side of	GR	07/16/89	1130	VL	M	F	880	E	N		B	10	G	GDR114		Occasional mousse ball covered with sand
Nakalilok Bay, W beach of	GR	07/25/89	1530	VL	M	F	3520	F	L	LS	B	10	E	GDR131		Gravel beach; 1/2 dollar to pancake size mousse balls every 50'
Nakalilok Bay, W side inlet of mouth	JV	06/27/89	1220	VL	M	F	350	E	N		H	20	G	JTV 17	JV 2	Boulder beach; 2-8" splotches
Ocean Beach, N of stream #802	JH	08/06/89	1700	N		F	5280	E								No oil on beach
Surf Beach	GR	07/25/89	1830	VL	M	F	440	E	N		B	10	E	GDR132		Gravel sand beach; occasional 1/2 dollar size mousse balls were found on beach
Ugaiushak Island, N side inlet on	JV	08/13/89	1205	VL	T	F	150	E	N		H	30	G			Boulder collector; few weathered speckles and splotches of approx 1/4-1" diameter were observed on debris in storm berm
Ugaiushak Island, S side inlet on	JV	08/13/89	1200	VL	M	F	125	E	N		H	30	G	JTV 95		Boulder collector; occasional mousse splotch 4-8" diameter on boulders
Ugaiushik Island, N & S side of spit	GR	07/19/89	1600	L	M	F	1760	E	VL	LS	B	10	E	GDR125	Y 1	MBs 1 every foot, 4-5" diameter
Big River																
272 60																
Aniakchak Bay	GR	07/15/89	1300	L	M	F	7040	E	L	LS	B	10	G	GDR112	Y 1	Found mousse along entire length of the beach varying in frequency with an average of 1 pattie every 10'; mousse balls were covered with sand; 7 dead birds
Aniakchak Bay, 3/4 mi W of North Fork R	JV	09/08/89	1054	N		F	125	G	N		H	10	F			Boulder, cobble, gravel, beach; no oil observed
Aniakchak Bay, from lagoon to 1 1/2 mi N	GR	08/29/89	1530	VL	M	F	2640	F	N		B	20	E	GDR146	Y 2	Found 1-3" fresh mousse balls on the mid tide line every 10-50 yds; also found some old mousse balls
Aniakchak Bay, S of lagoon mouth	GW	08/29/89	1936	VL	M	F	3000	E						GDW 37	Y 2	Sand collector beach; mousse with organics 1/2 -8" found every 10 yds on third high tide line, sometimes buried in sand; most patties appear to have a thick sand coating indicating that they have been here for awhile; the worst beach observed since mid July; 9 dead birds
Aniakchak Lagoon mouth to Aniak. River	GR	08/09/89	2000	L	M/TB	F	7920	G	N		B	10	G	GDR140		Sand and gravel beach; 2 meter band of quarter size mousse balls every 2.5'; a couple of fresh mousse balls on most recent tide line
Aniakchak Lagoon, mouth to stream 602	GR	08/09/89	1300	N		F	1760	G	N		B	10	G			Sand gravel beach; no oil observed
Aniakchak Lagoon, S entrance to	JV	08/09/89	1644	VL	M/T	F	3520	E	N		H	1	F	JTV 93		Gravel cobble sandy collector; several thousand weathered and encrusted mousse patties interspersed with sand and organics were observed in the upper intertidal zone; diameter from 1/2-10"; oiled debris - feathers, organics, plastics, drift, etc also in evidence
Aniakchak Lagoon, stream 602 to 604	GR	08/15/89	1530	VL	M/TB	F	5280	G	N		B	10	G	GDR144		1"-6" mousse balls every 20-50'
Aniakchak River area, from #605 to #606	JH	08/03/89	1530	VL	M	F	1760	G							SU 8	Very small amount of mousse on rocky section of beach; rest of beach clean

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Aniakchak River to 3/4 mi E	GR	08/09/89	1630	VL	M	F	1320	G	N		B	10	G	GDR139		One fresh mousse ball on this beach
Aniakchak, between streams 604-605	JH	08/03/89	2000	VL	M	F	3520	G						JGH113	SU 8	Small amounts of old mousse on highest tide line with a few fresh hits; coverage got heavier closer to stream # 604
Cape Agutka, near stream #606	JH	08/04/89	1000	VL	M	F	3520	G						JGH116		Few old hits of mousse at high tide line; mousse infrequent; largest concentration near river mouth
272 70																
Amber Bay	GR	07/23/89	1430	L	M	F	1760	F	N		B	10	G	GDR127		Mousse ball every 10-30', 1"-12" diameter; most MB buried in sand
Amber Bay	GR	08/24/89	1100	VL	M	F	880	G	VL	VL	B	10	G	GDR145		Occasional 3" mousse balls
Amber Bay, 3 mi N-NW Cape Ayutka	JV	09/08/89	1117	N		F	250	G	N		H	10	F			Cobble, gravel collector beach; no oil observed
Amber Bay, 3/4 mi W-SW Northeast Creek	JV	09/08/89	1140	N		F	1400	G	N		H	10	P			Sand collector beach; no oil observed
Amber Bay, E side of; (comments)	JV	06/27/89	1615	VL	M	F	350	E	N		H	20	G	JTV 20		5.5 mi NE Cape Agutka; mousse patties found on matted vegetation-bull kelp, wing kelp, fucus, porphyra, sea lettuce, green rope, etc; approx 8 patties sighted
Amber Bay, stream 702 to stream 703	GR	08/10/89	1700	VL	M	F	4400	F	N		B	10	F			Mostly sand beach; occasional fresh mousse ball
Amber Bay, stream 703 to 1 mi E of	GR	08/10/89	1530	VL	M	F	1760	F	N		B	10	F	GDR141		Cobble and stone beach; mousse baked on rocks about every 10' and a very occasional fresh mousse ball; mousse was hard to see due to rain
CENTRAL, CHIGNIK																
Cape Kumlik																
272 62																
Aniakchak Bay from lagoon to 1 1/4 mi S	GR	08/29/89	2000	VL	M	F	2200	G	N		B	20	E	GDR142	Y 2	Found 1-5" mousse balls on mid tide line and high tide line every 1-10 yds; mousse was fresh
Aniakchak Bay, comments	GW	08/30/89	900	VL	M	F	1000	E	N		B	10	E	GDW 38		Starting at statistical boundary 272-62 and proceeding S in 272-60; gravel sand collector beach; 3" mousse pattie with organics and heavy sand coating and 2, 1" splatters with organics found on third high tide line; mousse observed about every 50 yds; 4 dead birds
Aniakchak Bay, SW	GR	07/22/89	2230	N		F	440	E	VL	VL	B	10	G			Mixed sand gravel beach
Aniakchak Lagoon, mouth to 2 mi S	GR	08/09/89	1400	VL	M	F	3520	G	N		B	10	G	GDR138		1-2" mousse patties every 10-25' on highest high tide line; a few mousse balls on most recent high tide line
Cape Kumlik, 4 miles SW of	GW	08/30/89	1150	VL	M	F	500	E	N		B	10	E	GDW 39		Gravel sand collector beach; mousse splatters on rocks above high tide line; 1 tar ball 1/2" diam; 1 moussed feather clump; 1 moussed pine tree branch 1.5" long; mousse found approx every 60 yds; one dead whale
Cape Kumlik, small island 1 mi SE of	JE	07/01/89	1530	VL	M	F	200	E						JJE 16	ML 3	High energy boulder beach; 6 mousse balls 3" diameter
Cape Kumlik; 5 mi SE of NE Fork River	JV	08/09/89	1527	N		F	3000	E	N		H	1	P			Sandy collector; no oil observed; 1 scavenged decomposed kittiwake - no obvious oil contamination
Elephant Head	GR	07/22/89	2000	L	M	F	1320	E	VL	VL	B	10	G	GDR126		Sand gravel beach; mousse ball every 6" to 1' and silver-dollar in size; hundreds of dead fry in the water about 20 yds offshore

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Elephant Head Point	JV	07/22/89	1820	VL	M/T	F	200	E	N		H	10	G	SET 5		Cobble sandy beach; old weathered mousse/tar on vegetation mat and cobbles
Elephant Head Point, 3 mi W-NW of	JV	07/22/89	1841	VL	M/T	F	3000	E	N		H	1	G	JTV 39		Cobble sandy beach; old weathered mousse/tar
Elephants Head, W of; (comments)	GR	08/08/89	1700	N		F	1760	F	N		B	10	F			S side of Aniakchak Bay; gravel beach
Kumlik Island, 7.5 mi W-SW of	JV	07/22/89	1707	VL	M	F	1200	E	N		H	1	G	JTV 38		COC sample SET 004; sandy beach; numerous mousse splotches of 1-2.5" diameter and highly interspersed with sand or debris along most recent high tide line; also weathered mousse splotches of .5-10" diameter observed in extreme upper high tide line; some heavily oiled debris (logs, plastic bags, etc) observed in extreme high tide line
Kumlik Island, NW beach	GR	07/23/89	1100	N		F	586	E	N		B	10	G			Gravel beach
272 64																
Sutwik Island, 2 mi NW of Foggy Cape	JV	07/26/89	1904	VL	M/T	F	50	E	N		H	5	G	JTV 50		Cobble sand beach; occasional weathered and encrusted mousse pattie; light tar splotches on cobble
Sutwik Island, mid-south	JV	07/26/89	1758	VL	M	F	500	E	N		H	1	G			Sandy beach, numerous (approx 200) mousse patties with encrusted exteriors interspersed with sand above most recent tide line
Sutwik Island, mid-south	JV	07/26/89	1801	VL	M	F	900	E	N		H	1	G	JTV 49		Sandy beach; few encrusted mousse patties with encrusted exterior; observed above most recent high tide line
Sutwik Island; (comments)	JV	07/26/89	1897	VL	M	F	300	F	N		H	5	G			3.25 mi NW of Foggy Cape; sandy beach; occasional encrusted mousse patties; occasional mousse patties highly interspersed with sand; most above most recent tide line
Kujulik																
272 50																
Cape Kumliun	GR	08/07/89	1300	VL	M	F	880	F	N		B	10	F	GDR135		Cobble stone beach; occasional mousse patties, 1-2" diameter, found on second high tide line
Cape Kumliun beach	LP	08/26/89	1315	VL	M	F	7040	E	N			0				Found 1 mousse patty 3" by 5", 1 mousse mixed with spruce needles, 1 small mousse patty on boulder, very old; DEC has sample
Cape Kumliun Beach; E side of	GR	08/14/89	1230	VL	M/T	F	1760	E	N		B	10	E	GDR142		Occasional 1" mousse ball or tar ball, fresh, on top of the sand
Cape Kumliun; (comments)	JV	08/09/89	1503	VL	M/T	F	880	E	N		H	1	F			4 1/4 mile E-SE of Unavikshak Island; gravel cobble sandy beach; occasional mousse splotch on rocks; few heavily oiled feathers and one very old weathered tar ball; tar ball looks to be non-Exxon related
Kujulik Bay, 3 mi W-NW of S mouth	JV	07/16/89	1810	N		F	500	E	N		H	20	P			Gravel sandy beach; no oil observed
Kujulik Bay, 5 mi SE of N fork	JV	07/22/89	1650	N		F	775	E	N		H	1	G			Cobble gravel sandy beach; no oil observed
Kujulik Bay, between stream 512-514	GR	08/08/89	1200	VL	M/TB	F	7040	F	N		B	10	F	GDR136		COC sample GDR 137; sand beach; 36 dead birds, 1 sick bird; occasional mousse balls (quarter to frisbee size) on high tide line; 1 tar ball frisbee size; oiled feathers

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Kujulik Bay, between streams 512 & 514	GW	07/25/89	1320	VL	M	F	1500	E	N		B	10	E	GDW 14	AR 1	VECO spent 4 days cleaning this beach - still it is the most impact of any beach I have surveyed; in area 100 yd long found MB up to 5" diameter approx every 5 yds; this was my first survey of Kujulik area; George Tinkera of the MV Alaska Rose states the beach looks much better; most of fresh mousse found at current high tide line; dead bird, caribou observed and 3 bags of VECO debris
Kujulik Bay, E of stream #502	GR	08/07/89	1800	N		F	1760	E	N		B	10	G			Sandy beach with eel grass; no oil observed
Kujulik Bay, N fork	JV	07/22/89	1615	VL	M	F	400	E	N		H	5	G	JTV 37		Sandy beach; weathered mousse along most recent high tide line
Kujulik Bay, N shore, stream 514-512	GW	08/29/89	906	VL	M	F	4000	E	N		B	10	E	GDW 36		Sand collector beach; mousse collected on most recent high tide line mid way between stream 514-512; 5 mousse patties collected 2-4" in diam with very light sand coating; possibly recent occurance; 18 dead birds
Kujulik Bay, N side from stream 510	GR	08/25/89	1000	N		F	4400	G	N		B	10	G			2.5 mi W of stream; no oil observed
Kujulik Bay, S shore, 2 mi E stream 502	GW	08/28/89	1416	N		F	3000	E	N		B	10	E			Boulder sand gravel collector beach; huge accumulation of organics (mostly eel grass); no oil observed
Kujulik Bay, S shore, comments	GW	08/28/89	1807	N		F	1000	E	N		B	10	E			Stream 502 and continuing 1000 yds W; gravel sand collector beach; much accumulated eel grass; no oil observed
Kujulik Bay, S shore, comments	GW	08/28/89	1915	N		F	300	E	N		B	10	E			Salmon stream 503 continuing 300 yds E; gravel sand collector beach; lots of eel grass; no oil observed
Kujulik Bay, stream 502 to 503	GR	08/16/89	2030	N		F	5280	F	N		B	10	F			Sand and gravel beach covered with thick eel grass
Kujulik, Northfork Beach	JB	07/14/89	2000	L	M/RS	F	440	E	L	LS	B	20	E	JAB 2		Mousse patties 1-12" diameter every 3-4' on all tide lines; some mousse buried under sand on upper high tide line; mousse and RS in mouth of creek; mousse mixed with feathers; 2 dead birds; scattered patches of LS throughout nearshore area; observation by Jeff Bulla
Kumliun Creek, 1.25 mi S of	JV	07/16/89	1850	N		F	400	E	N		H	20	G			Cobble collector; no oil observed
Kumliun Creek, 3.5 mi S of	JV	07/16/89	1905	N		F	800	E	N		H	10	G			Cobble sandy collector; no oil observed
Kumliun Creek, proper	JV	07/16/89	1830	N		F	1300	E	N		H	10	G			Sandy beach; no oil observed
North Fork River, 3.75 mi SW of	JV	08/08/89	1805	VL	M/TB	F	2000	E	N		H	1	F	JTV 92		Gravel sandy collector; occasional mousse splotches on gravel; 1 tar ball of 12" diameter observed; 20 scavenged and decomposed bird carcasses (2 kittywakes, 8 petrils, 9 murres, 1 glaucous winged gull)
Rudy Creek, 1.5 mi SW of	JV	08/08/89	1707	N		F	1700	E	N		H	1	G			Gravel sandy beach; no oil observed
Rudy Creek, 2 mi E-NE of	JV	08/08/89	1744	N		F	325	E	N		H	1	F			Sandy collector; no oil observed; 2 scavenged decomposed murre carcasses
Rudy Creek, 3.75 mi NE of	JV	07/22/89	1500	VL	M	F	1850	E	N		H	10	G	SET 2		Sandy beach; mousse splotches of 1-4" diameter in and near most recent high tide line

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Rudy Creek, 7.5 mi NE of	JV	07/22/89	1610	VL	M	F	800	E	N		H	5	G	SET 3		COC sample MEM 020; sandy beach; 1 ea 4X8" weathered mousse splotch, approx 10 days old; weathered mousse splotches approx every 10' along extreme high tide line
Unavikshak Island, NW shore	GW	07/25/89	1657	N		F	500	E	N		B	10	E			Boulder cobble collector; no oil observed
Unavikshak Island, S end	JE	07/11/89	1830	N		F	100	E								High energy rock beach
Outer Chignik Bay																
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Copper Island	JE	07/04/89	1200	N		F	600	E								Walked around island at low tide
Dry Creek	JV	07/26/89	1440	N		F	800	E	N		H	5	G			Cobble gravel sandy beach; no oil observed
Dry Creek	JV	08/02/89	1100	VL-	M	F	880	E	N		H	10	G	TPM 3		Gravel sandy beach; 1 mousse splotch found in extreme upper tide line; 4 bird mortalities, 1 absorbent pad coated with oil
Dry Creek	JV	08/11/89	1635	VL	M	F	1000	E	N		H	5	G			Gravel sandy beach; occasional surface stained moussed rock which appeared to have been cleaned by absorbent pad method
Dry Creek	JV	08/21/89	1745	N		F	275	E	N		B	5	F			Gravel, cobble beach; no oil observed
Dry Creek, .75 mi SW of	JV	07/17/89	1147	VL	M/T	F	400	E	N		H	10	G			Gravel sandy beach; 1 fresh mousse pattie, 2" diameter; occasional specks of tar/mousse
Dry Creek, proper	JV	07/17/89	1145	VL-	T	F	400	E	N		H	20	G			Gravel sandy beach; small amount of old tar
Eagle Rock, 3 mi off of	GW	07/18/89	1000						L	VL	B	10	E	GDW 4	AR 1	COC sample GDW 005; VL sheen found in tide streak with eel grass 80 yd X 10 ft - possibly from boat in lagoon
McKinsey Valley Creek	JV	07/26/89	1410	VL-	M	F	400	E	N		H	5	G			Boulder sandy beach; 1 oiled plastic bag
McKinsey Valley Creek	JV	08/02/89	1024	N		F	1000	E	N		H	10	G			Gravel sandy beach; 5 bird mortalities
McKinsey Valley Creek	JV	08/11/89	1712	N		F	3400	E	N		H	1	G			Cobble sandy beach; no oil observed, 3 bird carcasses with no apparent oil contamination
McKinsey Valley Creek, 1/2 mi SW of	JV	08/10/89	1121	N		F	2000	G	N		H	5	F			Cobble gravel sandy beach; no oil observed; 5 bird mortalities, with no obvious signs of oil contamination, 3 murres and 2 gulls
McKinsey Valley, 1/4 mi SW of Dry Creek	TM	08/14/89	1126	VL	M/T	F	1320	G						TPM 36	AR 4	Gravel cobble collector; found a mousse saturated rag, two small mousse/feather conglomerations and a 1" tarball at 10 yd intervals, in most recent high tide line; approx 300 yards N of Dry Creek mouth; 9 shearwater and 4 kittiwake carcasses found
Neketa Creek	JV	08/10/89	1207	VL	T	F	1200	E	N		H	1	F			Cobble sandy beach; 1 scavenged decomposed and oiled bird
Neketa Creek, .5 mi S-SW of	JV	07/09/89	2010	VL-	M	F	275	E	N		H	20	G			Sandy beach; 2 mousse patties in sand approx 1 week+ old
Neketa Creek, 1 mi S of	JV	08/02/89	1015	N		F	880	E	N		H	10	G			Gravel sandy beach; no oil observed
Neketa Creek, 1 mi S-SW of	JV	07/09/89	2020	VL	M	F	100	E	N		H	10	G			Sandy beach; weathered mousse in upper high tide line
Neketa Creek, 1.25 mi SW of	JV	07/22/89	1405	VL	M	F	600	E	N		H	10	G	SET 1		Gravel sandy beach; 4 mousse splotches up to 4" diameter on rocks

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Neketa Creek, 2 mi S of	JV	08/02/89	1013	VL-	M	F	1300	F	N		H	10	G	TPM 2		Gravel sandy beach; 2 oiled feathers found
Neketa Creek, 3/4 mile S of	JV	08/05/89	1452	VL	M/T	F	2200	E	N		H	20	G	JTV 90		Sandy cobble gravel beach; occasional fresh mousse splotches and weathered mousse patties found along most recent high tide line; occasional mousse patties observed above most recent high tide line (4 day+ old); Old tar and mousse splotches also found; examined contents of VECO clean-up bag and observed mostly old oil with some fresh oil present
Neketa Creek, E of	JE	07/03/89	1700	VL	M	F	500	E						JJE 25	AR 1	Small mousse ball with feathers at high tide, 1" diameter
Reef Bay	JE	07/04/89	1330	L	M	F	300	E						JJE 26	AR 1	83 mousse balls soaked into gravel collector beach
Reef Bay	JE	07/12/89	1430	VL	M	F	200	E						JJE 38	HL 1	Collector rock beach; same area previously surveyed; old mousse
Reef Bay	GW	07/18/89	1546	VL	M	F	200	E	N		B	10	E	GDW 7		Sand gravel collector beach; mousse patties with organics on high tide - old and melted into substrate
Reef Bay	JV	08/21/89	1559	VL	M/T	F	1300	E	L	VL	B	10	G	JTV112		Gravel cobble collector, mousse on gravel, Joy test positive on sheen, sample taken of mousse on gravel
Reef Point	JV	08/02/89	1146	N		F	300	E	N		H	10	G			Gravel cobble boulder collector; 1 bird mortality - decomposed and scavenged
Reef Point	JV	08/05/89	1609	N		F	350	E	N		H	20	G			Boulder gravel cobble collector; no oil observed
Reef Point	JV	08/11/89	1610	VL-	M	F	800	E	N		H	20	G			Sandy gravel boulder collector; single mousse splotch evidenced on extreme high tide line
Reef Point, E side of	JV	07/17/89	1117	N		F	400	E	N		H	20	G			Gravel cobble boulder collector; no oil observed
Reef Point, W side of	JV	07/17/89	1120	N		F	300	E	N		H	20	G			Cobble gravel boulder beach; no oil observed
Thompson Valley Beach, NW end	TM	08/04/89	1426	L	M	F	800	E						TPM 6	AR 3	COC sample TPM 007; Cobble gravel collector; 20+ mousse patties, 1-2" diameter in a 400 yd X 3 meter band NW of Neketa Creek, at the extreme high tide line; mousse patties were black and sticky; 1 large mousse pattie, 7" diameter with properties of fresh oil (brown color and viscous texture); 3 dead birds on beach including head of a gull in close proximity to mousse
Thompson Valley Creek	JV	07/09/89	1930	VL	T	F	1500	E	N		H	20	G			Sandy cobble gravel beach; small amounts of old oil on debris
Thompson Valley Creek	JV	07/17/89	1210	N		F	500	E	N		H	10	G			Gravel sandy beach; no oil observed
Thompson Valley Creek	JV	07/22/89	1421	N		F	600	E	N		H	10	G			Sandy gravel beach; no oil observed
Thompson Valley Creek	JV	07/26/89	1346	VL	M/T	F	400	E	N		H	5	G	JTV 47		Cobble gravel sandy beach; mousse ball interspersed with organic matter; occasional weathered tar splotch on and near most recent tide line
Thompson Valley Creek, 2 mi S-SW of	JV	07/26/89	1337	N		F	2400	E	N		H	5	G			Gravel sandy beach; no oil observed
Weasel Mountain, inlet at base of	JV	07/17/89	1100	N		F	300	E	N		H	20	G			Sandy gravel collector; no oil observed
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Gull Island, 1.25 mi NE of	JV	07/16/89	1925	N		F	175	E	N		H	20	G			Boulder cobble beach; no oil observed; 1 sea otter carcass, approx 3 days old
Gull Island, 1.5 mi NE of	JV	06/27/89	1700	N		F	200	E	N		H	20	G			
Gull Island, 2.75 mi NW of	JV	07/16/89	1935	N		F	500	E	N		H	20	G			Sandy collector; no oil observed
Hook Bay	JE	07/04/89	1700	N		F	3520	E								Collector beach, found no oil
Hook Bay	JE	07/12/89	930	N		F	300	E								Collector rock beach
Hook Bay Beach	JB	07/14/89	1500	VL	M	F	3520	E	L	LS	B	10	E	JAB	1	Sand beach; 30 mousse patties, 1"-6"in diam on all tide lines, some with feathers; LS 3 ft by 3/4 mi in tide streak and fucus; observation by Jeff Bulla
Hook Bay Beach, mouth of stream #302	TM	08/13/89	1240	VL	M	F	1320	G						TPM 31	AR 4	Found relatively fresh mousse (medium to dark brown), in last nights high tide line; 1 piece was approx 2.5 X 1"; found 15 kittiwake carcasses and 7 shearwater carcasses
Hook Bay Spit	JV	07/17/89	1020	N		F	300	E	N		H	20	G			Cobble boulder beach; no oil observed
Hook Bay spit, N and S sides	JV	08/11/89	1505	N		F	1760	E	N		H	10	F			Cobble boulder collector; no oil observed
Hook Bay, creek 302 NE to end of beach	LP	08/26/89	1630	VL	M	F	5280		N			0				Found 1 very small mousse patty
Hook Bay, from stream 302 to 1 mi N	GR	08/26/89	1000	N		F	1760	G	VL	LS	B	10	E			15 dead birds, no oil apparent; no oil found on beach
Hook Bay, head of	JV	07/17/89	1023	N		F	850	F	N		H	20	G			Sandy beach; no oil observed
Hook Bay, head of	GW	07/18/89	1322	VL	M	F	1800	E	N		B	10	E	GDW	6	Mousse patties with organics; mousse covered with sand
Hook Bay, head of	JV	07/26/89	1659	VL	M	F	1500	E	N		H	10	G	JTV	48	Sandy collector; mousse mixed with what appears to be bird remains at most recent high tide line
Hook Bay, head of	JV	08/11/89	1508	N		F	3520	E	N		H	10	F			Sandy collector; no oil observed
Hook Bay, head of	JV	08/21/89	1330	VL	M/T	F	3000	E	N		B	5	G	JTV108		Occasional mousse pattie of 1/2" to 8" diameter (approx 25) fresh mousse, sand encrusted mousse, tar patties and tar balls evidenced along series of recent high tide lines, 24 decomposed and scavenged bird carcasses were observed, sandy collector, also COC JTV 109
Hook Bay, head of bay	GW	07/23/89	1433	N		F	1600	E	N		B	10	E		AR 1	Dead 4" dungeness crab, 1 every 20 feet, at high tide line
Hook Bay, middle of	JV	06/30/89	2125	N		F	250	E	N		H	5	P			Sandy collector; no oil observed
Hook Bay, N corner of	JV	08/05/89	1637	N		F	440	E	N		H	10	G			Sandy collector; no oil observed; 8 dead birds found with no apparent oil contamination (4 kittiwakes, 2 murres and 2 others)
Hook Bay, N end of	JV	06/30/89	2135	N		F	260	G	N		H	5	P			Sandy collector, no oil observed
Hook Bay, S end of	JV	06/30/89	2122	N		F	800	E	N		H	5	P			Sandy collector; no oil observed
Hook Bay, SE shore	GW	07/18/89	1236	N		F	200	E	L	VL	B	20	E			Boulder cobble collector; no oil observed on beach
Hook Bay, spit 1.5 mi NW	JV	08/29/89	1302	VL	M	F	225	E	L	LSMSS	B	5	G	JTV133	JV 5	Also COC JTV 134; boulder cobble sandy collector; single fresh mousse pattie observed on beach; LS/SS band of 1-3 meters and 100 yd; band observed with 2 mousse patties seen in the water column
Hook Bay, spit 2.5 mi NW	JV	08/29/89	1405	VL	M	F	275	E	H	LS	B	20	G	JTV135	JV 5	2 mousse patties approx 2" diameter found on most recent high tide line; mousse patties found along current tide line (incoming) of 1.5-3" diameter

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Hook Bay, W beach; S of stream #302	GR	08/13/89	1630	N		F	1760	E	VL	VL	B	10	E			Mostly sand beach; 1 meter X 20 meter band of sheen observed nearshore
Hook Creek, at head of Hook Bay	JV	08/05/89	1641	N		F	350	E	N		H	10	G			Sandy collector; no oil observed
Reef Bay	GW	07/23/89	1708	VL	M	F	200	E	N		B	10	E		AR 1	Sand gravel collector; melted 4" mousse splatters with organics 15' below high tide line found every 3 feet for a 50 yard stretch
Weasel Cove	JV	08/05/89	1623	N		F	75	E	N		H	20	G			Gravel collector; no oil observed; spoke with VECO clean-up crew who reported no oil in this area and also reported small amount of oil found in N corner of Hook Bay
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Nakchamik Island	GW	07/22/89	1424						H	VL	B	10	E	GDW 12	AR 1	COC sample GDW 013; sheen found in eel grass 50 X 20 yards
Nakchamik Island, E shore of	GW	08/05/89	1722	N		F	100	E	N		B	10	E			No oil observed
Nakchamik Island, E-NE side of	JV	07/19/89	2035	N		F	75	E	N		H	10	G			Boulder beach; young gray whale carcass observed in area; no oil observed
Nakchamik Island, mid-east	JV	08/05/89	1704	N		F	100	E	N		H	10	G			Boulder cobble collector; no oil observed
Nakchamik Island, NE side	GW	07/22/89	1140						H	VL	B	20	E	GDW 9	AR 1	COC sample GDW 010; sheen found mixed with eel grass
Nakchamik Island, SE shore	GW	07/22/89	1240	VL-	M/T	F	600	E	H	VL	B	10	E	GDW 11		Cobble collector beach; 1 tar ball, 1-2" diameter, 200 yards away from melted mousse ball with organics; both above high tide line
Nakchamik Island, W side of	JV	07/19/89	2015	N		F	300	E	N		H	10	G			Boulder cobble sandy beach; no oil observed
CHIGNIK BAY																
Chignik Lagoon																
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Alfred Creek	JV	08/17/89	1800	VL-	M/T	F	3960	G	N		B	5	G	JTV103		2 mousse-coated feathers; tar-like substance observed on cardboard
Alfred Creek	JV	08/24/89	1735	N		F	4400	E	N		B	20	G			Sandy collector; no oil observed
Alfred Creek	JV	09/02/89	1000	N		F	14520	E	N		FW	20	G			Gravel cobble boulder sand collector beach; no oil observed
Alfred Creek Beach, N side of	JB	07/16/89	1145	VL	M	F	600	E	N		B	10	F	JAB 4		2 fresh mousse patties in last night's tide line, 2-4" diameter; observation by Jeff Bulla
Alfred Creek, .25 mi N-NW of	JV	07/29/89	1615	VL	M	F	3500	E	N		B	10	G	JTV 68		Found fresh mousse patties of 4" diameter on 2nd most recent tide line
Alfred Creek, .5 mi N of; (comments)	JV	06/30/89	1210	N		F	500	E	N		H	20	G			Mouth of Chignik Bay; sandy collector; no oil observed
Alfred Creek, 1.25 mi NE of; (comments)	JV	06/30/89	1220	N		F	50	E	N		H	10	G			Near mouth of Chignik Bay; cobble gravel beach; no oil observed
Anchor Bay, E side of	GW	07/20/89	915	N		F	800	E	N		B	10	E			Sand boulder gravel collector; no oil observed
Anchorage Bay	JV	07/29/89	1735						N		B	10	F			
Anchorage Bay	JV	07/31/89	1800						N		B	10	F			

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Anchorage Bay	JV	07/31/89	2005						M	RS	B	10	F			Sheen spotted off Aleutian Dragon Fisheries dock near large ship, approx 4 meters X 75 yd
Anchorage Bay	GR	08/05/89	1600	N		F	3520	G	N		B	10	G			No oil observed; 3 gull carcasses - no obvious signs of oil
Anchorage Bay	GW	08/26/89	1100	VL	M	F	2000	E								Chignik Pride dock to air strip wind sock; feathers coated with mousse found 75 yds NW of Chignik Pride dock on second tide line; boulder, gravel, sand collector
Anchorage Bay	GW	08/26/89	1200	N		F	900	E								No oil observed; Boulder sand, gravel collector
Anchorage Bay (comments)	GW	08/19/89	1510	N		F	1500	E	N		B	10	E			Location is windsock NE to cliffs, 300 yds NE; cobble collector; no oil observed
Anchorage Bay (comments)	GW	08/23/89	1017	N		F	2000	G								Boulder cobble gravel sand beach; from Chignik Pride dock NE to landing strip wind sock; no oil observed
Anchorage Bay (comments)	GW	08/23/89	1345	N		F	500	G								Aleutian Dragon Fisheries dock to cliffs W of town; sand cobble gravel collector beach; no oil observed
Anchorage Bay (comments)	GW	08/23/89	1414	N		F	400	G								Aleutian Dragon Fisheries to Chignik Pride Fisheries; boulder gravel collector; no oil observed
Anchorage Bay Spit	JV	08/05/89	936	N		F	2200	E	N		H	20	G			Boulder beach; no oil observed
Anchorage Bay, .75 mi N from head of	JV	07/06/89	915						VL	RS	H	30	G			Bilge sheen sighted
Anchorage Bay, 200 yds past windsock	AS	08/18/89	1430	N		F	3520	G	N		F	15	G			No oil observed
Anchorage Bay, comments	GW	08/18/89	1036	N		F	3000	E								Chignik Pride cannery to airport; boulder cobble gravel collector beach; no oil observed
Anchorage Bay, comments	GW	08/18/89	1145	N		F	1000	E								Chignik Pride cannery to Aleutian Dragon cannery; boulder sand gravel collector beach; no oil observed
Anchorage Bay, comments	GW	08/18/89	1306	N		F	800	E								Aleutian Dragon cannery to stream at head of bay; cobble collector beach; no oil observed
Anchorage Bay, E side beach	TM	08/14/89	1800	N		F	880	G								Cobble boulder collector; no oil observed
Anchorage Bay, E side entrance to	JV	08/10/89	1448	N		F	6160	E	L	SS/RS	H	5	F			Boulder cobble gravel sandy collector; 1 small processed fuel sheen, 50 X 1-3 yds, sighted between Aleutian Dragon Fisheries and Chignik Pride Canneries
Anchorage Bay, E side mouth of	JV	06/30/89	930	N		F	1000	E	N		H	20	G			Cobble boulder collector; no oil observed
Anchorage Bay, head of	JV	08/05/89	937	N		F	2000	E	N		H	30	G			Gravel sandy collector; no oil observed
Anchorage Bay, head of	JV	08/11/89	1330	N		F	3960	E	N		H	10	G			Boulder cobble gravel sandy collector; no oil observed
Anchorage Bay, head of	JV	08/23/89	950	N		F	3080	E	N		B	10	G			Boulder, cobble, gravel, sand collector; no oil observed
Anchorage Bay, Head of bay	JV	08/26/89	1755	N		F	2640	E	N		B	5	G			Boulder, cobble, sandy collector; no oil observed
Anchorage Bay, N of Hole in Wall	JB	07/15/89	1615	N		F	100	E	N		B	10	F			Rock boulder beach; observation by Jeff Bulla
Anchorage Bay, NE entrance to	JV	08/11/89	1335	N		F	3520	E	N		H	10	G			Cobble boulder beach; no oil observed
Anchorage Bay, W shore; (comments)	TM	08/10/89	1812	N		F	880	F								Hole in the Wall; cobble boulder high energy beach; no oil observed; 2 dead gulls
Anchorage Bay; Chignik Pride dock	TM	08/11/89	945	N		F	1320	G								Boulder gravel; no oil observed

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Anchorage Bay; waterfall to airstrip	TM	08/10/89	1711	N		F	1320	F								Cobble boulder beach; no oil observed
Brown's Point	JV	07/01/89	1120	N		F	1000	E	N		H	20	G			Gravel beach; no oil observed
Brown's Point	JV	07/09/89	1800	N		F	250	E	N		H	20	G			Sandy beach; no oil observed
Brown's Point	JV	07/18/89	2045	N		F	400	E	N		H	10	G			Sandy gravel beach; no oil observed
Brown's Point	JV	07/23/89	1952	N		F	400	E	N		H	5	G			Gravel sandy collector; no oil observed
Brown's Point	JV	07/29/89	1940						N		B	10	G			
Brown's Point	JV	07/30/89	1537						N		B	10	G			
Brown's Point	JV	07/30/89	1932						N		B	10	G			
Brown's Point	JV	07/31/89	1600						N		B	10	F			
Brown's Point	JV	07/31/89	2020						N		B	10	F			
Brown's Point	JV	08/05/89	1123	N		F	880	E	N		H	20	G			Sandy collector; no oil observed
Brown's Point	JV	08/06/89	1629	VL	T	F	575	E	N		H	10	G	JTV	91	Gravel sandy beach; 1 weathered tar pattie of approx 5" diameter found on most recent high tide line
Brown's Point	JB	08/18/89	1700	N		F	1760	E								Observer: Jeff Bulla
Brown's Point	JB	08/22/89	1935	N		F	1760	G								Sand gravel collector; lots of grass on beach; no oil observed; observer: Jeff Bulla
Brown's Point	JB	09/03/89	1730	N		F	880	G								Gravel, sand collector; clean; found dead puffin on beach, no oil contamination; lots of sea grass; observer: Jeff Bulla
Brown's Point	JV	09/04/89	945	N		F	600	E	N		B	20	G			Boulder gravel collector; no oil observed
Brown's Point	JV	09/09/89	1534	N		F	400	E	N		H	10	G			Gravel, sandy, collector beach; no oil observed
Brown's Point beach	JB	08/17/89	1500	N		F	1760	G								Sand gravel collector beach; clean; observer: Jeff Bulla
Brown's Point to Rabbit Point	GW	07/24/89	1307	N		F	1500	E	N		B	10	E			Last opening a boat reported a haul with oily kelp; no oil observed
Brown's Point to Rabbit Point	TM	08/06/89	1645	N		F	1320	F								Gravel boulder cobble collector; large volumes of kelp and other seaweed piled several feet thick precluded survey at high tide
Brown's Point, .5 mi SW of	JV	06/30/89	1330	N		F	1200	E	N		H	30	G			Gravel beach; no oil observed
Brown's Point, 1/4 mile E of; (comments)	TM	08/15/89	1307	N		F	6160	F								To 1/4 mi W of Rocky Point; boulder cobble gravel sand collector; no oil observed
Browns Point	JB	09/19/89	900	N		F	1760	E	N		B	50	E			Sand, gravel collector; no oil; observer: Jeff Bulla
Browns Point	JB	09/20/89	930	N		F	1760	G	N		B	50	F			Sand, gravel, collector; clean; observer: Jeff Bulla
Browns Point	JB	09/21/89	1030	N		F	880	E	N		B	50	F			Sand, gravel, collector; no oil; observer: Jeff Bulla
Browns Point	JB	09/22/89	1000	N		F	680	E	N		B	50	G			Sand, gravel, collector; no oil; observer: Jeff Bulla
Browns Point beach	JB	08/19/89	1730	N		F	1760	E								Sand, gravel, collector; 1 dead bird with no oil on it; observer: Jeff Bulla
Chignik Bay to entrance to Chignik Lagn	TM	08/07/89	2105	N		F	590	P								Gravel boulder cobble heavy collector; walked towards Browns Point during tide ebb; heavy seaweed accumulation, 1-2' deep, limited effective survey observations

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Chignik Island	JV	07/09/89	1700	N		F	250	E	N		H	20	G			Boulder gravel cobble sandy beach; no oil observed
Chignik Island	JV	08/06/89	1433	N		F	7640	E	N		H	20	G			Sandy gravel cobble boulder beach; no oil observed
Chignik Island to Browns Point, waters	JV	07/27/89	1150						N		B	20	P			Rising winds made assessment difficult
Chignik Island, N shore of; (comments)	GW	07/24/89	1105	N		F	4000	E	N		B	10	E			To SE shore of Chignik Lagoon; sand gravel collector; no oil observed
Chignik Island, N tip of	JV	06/30/89	845	N		F	800	E	N		H	20	G			Cobble boulder beach; no oil observed
Chignik Island, N tip of	JV	07/28/89	1325						N		B	30	G			No sheen observed
Chignik Island, N tip of	JV	08/05/89	1213	N		F	500	E	N		H	10	G			Boulder gravel sandy beach; no oil observed
Chignik Island, W side of	JV	07/18/89	2125	N		F	150	E	N		H	20	G			Sandy beach; no oil observed; 1 newly beached gray whale mortality, approx 40'
Chignik Island, W side of	JV	09/09/89	1728	N		F	350	E	N		H	10	G			No oil observed
Chignik Island, W-NW side of	JV	07/01/89	1230	N		F	800	E	N		H	20	G			Boulder gravel sandy beach; no oil observed
Chignik Lagoon	JV	07/10/89	900						VL	RS	H	50	G			Several rainbow colored bilge sheens sighted
Chignik Lagoon	GW	07/20/89	1432						VL	VL	B	20	G			Very light sheen, looks and smells like diesel, 20 yds off N shore of Chignik Island
Chignik Lagoon	JB	09/19/89	730						N		B	100	E			Lagoon clean; no oil or sheen present; observer: Jeff Bulla
Chignik Lagoon	JB	09/20/89	800						N		B	100	F			Lagoon clean; no oil or sheen present; observer: Jeff Bulla
Chignik Lagoon	JB	09/21/89	1100						N		B	100	F			No sheen observed in lagoon; observer: Jeff Bulla
Chignik Lagoon	JB	09/22/89	1100						N		B	100	G			No sheen observed; observer: Jeff Bulla
Chignik Lagoon mouth, sand spit NW of	GW	07/26/89	1210	N		F	5000	E	N		B	30	E			Gravel sand collector; dungeness, carapace 2", found throughout entire survey area along current high tide line; no oil observed
Chignik Lagoon mouth, W side; (comments)	GW	07/29/89	1328						VL	VL	B	10	E		AR 2	40 yards off regulation marker; very light sheen; 1 yd X 30 yds
Chignik Lagoon sand spit, SW beach	TM	08/04/89	1245	N		F	400	G								Sand light collector; no oil observed
Chignik Lagoon Spit	JV	07/09/89	1835	N		F	1700	E	N		H	20	G			Gravel sandy collector; no oil observed
Chignik Lagoon Spit	JV	07/18/89	1355	VL-	M	F	5280	E	N		H	10	G	JTV 34		Gravel sandy collector; 1 weathered mousse splotch of approx 1.5' diameter; 1 mousse covered spruce needle bough evidenced along most recent tide line
Chignik Lagoon Spit	JV	07/22/89	1159	VL-	M	F	4850	E	N		H	10	G	JTV 36		COC sample MAM 018; sandy collector beach; 1 ea 3" mousse pattie mixed with sand on most recent high tide line; 2 mousse patties of approx .5" diameter found in extreme high tide line
Chignik Lagoon Spit	JV	07/23/89	2023	N		F	750	E	N		H	10	G			Gravel sandy collector; no oil observed
Chignik Lagoon Spit	JV	07/25/89	1742	N		F	500	E	N		H	10	G			No oil observed; gravel sandy collector
Chignik Lagoon Spit	JV	07/26/89	1211	N		F	2100	E	N		H	5	G			Gravel sandy collector; no oil observed
Chignik Lagoon Spit	JV	07/28/89	1610	VL	M/TB	F	2200	E	N		B	30	G	JTV 59		COC samples JTV 060, JTV 061; 1 fresh mousse pattie approx 3" diameter; 1 weathered pattie approx 3.5" diameter; 1 tar ball approx 2" diameter; all found along 2nd most recent high tide line, (last night's), approx 1600 yards from the lagoon mouth

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Chignik Lagoon Spit	JV	07/29/89	1110						N		B	10	F			
Chignik Lagoon Spit	JV	07/31/89	1605						N		B	10	F			
Chignik Lagoon Spit	JV	08/08/89	1125	N		F	2400	E	N		H	10	G			W side; sandy beach; no oil observed
Chignik Lagoon Spit	JV	08/18/89	1700	N		F	5280	E	N		B	10	G			Sandy collector; no oil observed
Chignik Lagoon Spit	JV	08/26/89	1425	VL	M/T	F	3960	E	N		B	10	G	JTV128	JV 5	Responded to report by VECO cleanup crew of mousse on Ocean Beach; approx. 30 mousse patties observed in upper intertidal zone and in extreme upper intertidal zone mousse and tar patties were 1+ weeks old; sandy collector beach
Chignik Lagoon Spit marker, 3 mi N-NW of	JV	07/31/89	1611	N		F	5280	E	N		B	10	G			No oil observed
Chignik Lagoon Spit, 3 mi N-NW of	JV	08/01/89	1156	N		F	5280	E	N		B	10	G			Gravel sandy collector; no oil observed
Chignik Lagoon Spit, 55 yds E of	JV	07/08/89	845						VL	LS	H	20	G			Organic sheen stemming from vegetation on water surface
Chignik Lagoon Spit, E side of	JV	07/01/89	1020	N		F	1300	E	N		H	10	G			Sandy gravel collector; no oil observed
Chignik Lagoon Spit, mouth of	JV	07/30/89	1135						N		B	15	G			
Chignik Lagoon Spit, N side	JV	08/22/89	1630	VL-	T	F	5280	E	N		B	20	G			Sandy collector; small amount of oiled debris
Chignik Lagoon Spit, N side of	JV	08/20/89	1715	N		F	5080	G	N		B	10	F			Sandy collector; no oil observed
Chignik Lagoon Spit, S side	JV	08/17/89	1349	N		F	5720	G	N		B	5	G			Boulder, gravel, sandy beach; no oil observed
Chignik Lagoon Spit, S side	JV	08/22/89	1330	N		F	12760	E	VL	VL	B	20	G			1, 30 yd X 5 yd sheen and 1, 50 yd X 5 yd VL sheen observed at mouth of lagoon; several boats in area; no oil observed on beach; boulder cobble gravel sandy beach
Chignik Lagoon Spit, W side of	JV	07/30/89	1130						N		B	15	G			
Chignik Lagoon to Dago Frank corner	TM	08/11/89	1334	N		F	5280	G								Sand collector; no oil observed; 7 dead birds, 2 dead seals - none had any external signs of oil contamination
Chignik Lagoon Village	JV	07/01/89	1145	N		F	1300	E	N		H	20	G			Gravel sand beach; no oil observed
Chignik Lagoon Village	JV	07/23/89	1949	N		F	500	E	N		H	1	G			Boulder sandy beach; no oil observed
Chignik Lagoon Village	JV	07/28/89	1730						N		B	20	F			No oil observed
Chignik Lagoon Village	JV	07/29/89	1030						VL	VL	B	10	F			Several boats in area
Chignik Lagoon Village	JV	07/29/89	1145						N		B	10	P			
Chignik Lagoon Village	JV	07/29/89	1550						N		B	10	F			
Chignik Lagoon Village	JV	07/29/89	2010						N		B	10	G			Picked up 2 bird mortalities from the FV Kyle-N-Sea; no apparent contamination
Chignik Lagoon Village	JV	07/30/89	1035						N		B	15	G			
Chignik Lagoon Village	JV	07/30/89	1140						N		B	15	G			
Chignik Lagoon Village	JV	07/30/89	1532						N		B	10	G			
Chignik Lagoon Village	JV	07/30/89	1955						N		B	5	F			
Chignik Lagoon Village	JV	07/31/89	1555						N		B	10	F			
Chignik Lagoon Village	JV	07/31/89	2023						N		B	10	F			
Chignik Lagoon Village	JV	08/05/89	1202	N		F	600	E	N		H	10	G			Gravel beach; no oil observed
Chignik Lagoon Village	JV	08/06/89	1622	N		F	1000	E	N		H	25	G			Gravel sandy beach; no oil observed

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Chignik Lagoon Village	JV	08/10/89	1333	N		F	2640	E	N		H	10	G			Gravel sandy beach; no oil observed
Chignik Lagoon Village, .25 mi NE of	JV	07/18/89	2105	N		F	350	E	N		H	10	G			Sandy gravel beach; no oil observed
Chignik Lagoon Village, 1.5 mi NE of	JV	07/01/89	1110	N		F	800	G	N		H	20	F			Gravel sandy beach; no oil observed
Chignik Lagoon Village, 1.5 mi NE of	JV	08/05/89	1126	N		F	2000	E	N		H	10	G			Sandy gravel beach; no oil observed
Chignik Lagoon Village, 1/2 mi E-NE of	JV	09/09/89	1601	N		F	1760	E	N		H	10	G			Cobble, gravel collector beach; no oil observed
Chignik Lagoon Village, 1/4 mi W of	JV	07/28/89	1545						N		B	30	G			No oil observed
Chignik Lagoon Village, 3/4 mi N of	JV	08/01/89	1428	N		F	7480	E	N		B	10	G			Boulder gravel sandy beach; no oil observed
Chignik Lagoon Village, N end of	JV	07/09/89	1755	N		F	175	E	N		H	20	G			Cobble gravel beach; no oil observed
Chignik Lagoon, (comments)	JB	08/18/89	1630	N		F	100	E								Observer: Jeff Bulla; Second beach E of village, flat side
Chignik Lagoon, (comments)	JB	08/18/89	1630	N		F	300	E								First beach E of village, flat side; observer: Jeff Bulla
Chignik Lagoon, 1 1/8 NE Parallel Creek	JV	08/25/89	1412	N		F	6160	E	N		B	10	G			Boulder, cobble, gravel, sandy, beach; no oil observed
Chignik Lagoon, 1/4 mi E of village	JB	08/19/89	1830	N		F	200	G								Sand gravel collector; observer: Jeff Bulla
Chignik Lagoon, 1/4 mi W of waterfall	JB	08/19/89	1810	N		F	200	G								Sand gravel collector, 2 dead birds, no apparent oil; observer: Jeff Bulla
Chignik Lagoon, 1st beach W of waterfall	JB	08/17/89	1600	N		F	30	G								Sand rock collector; clean; observer: Jeff Bulla
Chignik Lagoon, 2nd beach W of waterfall	JB	08/17/89	1615	N		F	30	G								Boulder rock beach; clean; observer: Jeff Bulla
Chignik Lagoon, 3rd beach W of waterfall	JB	08/17/89	1630	N		F	300	G								Sand rock beach; clean; observer: Jeff Bulla
Chignik Lagoon, aerial assessment	JV	07/27/89	835						L	SS	H	100	G		JV 3	Three SS streaks observed in nearshore waters between Rocky Point and Chignik Lagoon Village; 1 ea 250 yd X 1 yd sheen streak and 2 ea 75 yd X 2 yd sheen streak
Chignik Lagoon, Columbia Wards Fisheries	JV	09/13/89	855	N		F	11000	E	N		H	10	G			Gravel cobble boulder sandy beach; no oil observed
Chignik Lagoon, comments	JB	09/03/89	1800	N		F	200	G								Beach 1/4 mi E of Flat side village; gravel, sand, collector; clean with lots of sea grass; observer: Jeff Bulla
Chignik Lagoon, E of Flatside village	JB	08/17/89	1700	VL	RS	F	880	G						JAB101		Also COC JAB 101A; location is long beach with gray house; sand rock collector beach; rainbow sheen on water near shore, coming from 3' long clump of grass on beach; observer: Jeff Bulla
Chignik Lagoon, E side	GW	07/28/89	1432	N		F	300	E	N		B	10	E		AR 2	Boulder gravel collector; foam similiar to sample GDW 018 observed on beach; took video
Chignik Lagoon, E side; (comments)	GW	07/28/89	1406	N		F	100	E	N		B	10	E			1000 yds N of Columbia Ward Fisheries; sand cobble collector; no oil observed
Chignik Lagoon, flatside of village	CH	08/17/89	1600	N		F	5280	E								No oil observed
Chignik Lagoon, flatside village, W	JB	08/22/89	1855	N		F	200	E								Sand, gravel; no oil observed; observer: Jeff Bulla
Chignik Lagoon, Green Point	JV	08/25/89	1556	VL	TB	F	10560	E	N		B	10	G	JTV124		2 weathered tar ball evidenced; cobble, boulder, gravel, sandy beach
Chignik Lagoon, lagoon side of spit	GW	07/23/89	1942	N		F	300	E	N		B	10	E		AR 1	Gravel sand collector beach; dungeness crab bodies, 1-4" carpaces, found at high tide line; 3 crab per foot for first 100 yards, 1 crab per yard for second 100 yards; 55 gallon drum found 250 yards from lagoon mouth, no leakage apparent

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Chignik Lagoon, mouth of	JV	07/29/89	1605						N		B	10	F			
Chignik Lagoon, N side of spit	JV	08/30/89	1645	N		F	3520	E	N		B	20	G			Sandy collector; no oil observed
Chignik Lagoon, S side, lagoon spit	JV	08/19/89	1115	N		F	12180	E	N		B	5	G			Boulder cobble sandy beach, no oil observed
Chignik Lagoon, spit at entrance to	JV	07/06/89	1445	VL- T		F	2500	E	N		H	20	G			Gravel collector; small amount of tar on 4" piece of driftwood
Chignik Lagoon, W side	JV	08/20/89	1155	N		B	15840	G	N		B	10	F			Boulder cobble gravel sandy beach, no oil observed
Chignik Lagoon, W side	JV	08/28/89	1020	N		F	14520	E	N		B	5	G			Gravel boulder cobble sand collector beach; no oil observed
Chignik Lagoon, waterfall beach	JB	08/17/89	1545	N		F	30	G								Boulder rock collector; clean; observer: Jeff Bulla
Chignik Lagoon; (comments)	GW	07/26/89	1603	N		F	3000	E	N		B	10	E			From Andersonville to Diamond Point; no oil observed
Chignik Lagoon; (comments)	GW	07/27/89	1013						H	VL	B	20	G	GDW 16	AR 1	Across from Andersonville; COC sample GDW 017; very light sheen observed in bands 25 yds wide
Chignik Lagoon; (comments)	JB	08/22/89	1910	N		F	200	G								1/4 mi E of flatside village (beach with brown cabin); sand gravel collector, lots of grass on beach; no oil observed; observer: Jeff Bulla
Chignik Lagoon; NW of Chignik Island	JV	06/30/89	905						N		H	40	G			No sheen observed
Chignik Lagoon; Tubers Beach	JB	08/22/89	2010	N		F	1760	G								Gravel observed; lots of grass on beach; no oil observed; observer: Jeff Bulla
Chignik River, terminus	GW	07/27/89	1320	VL	VL	F	50	G	VL	VL	B	20	G	GDW 18		COC sample 019; returned to site after visiting weir, could not find tide streak scum - obtained foam sample of sheen about halfway to the weir from regulatory markers
Chignik River, terminus of	GW	07/27/89	1103						H	LS	B	20	G		AR 1	Combination of flood tide peak and 30 knot NE wind concentrated sheen into a scum which would hardly respond to Joy soap test; dungeness crab found floating just below the surface, was barely alive
Columbia Ward Cannery to sandspit end	TM	08/15/89	1611	N		F	7040	P								High tide left a small amount of beach exposed for the first half of survey; no oil observed
Columbia Ward Fisheries	JV	07/29/89	1420	N		F	300	E	N		B	10	G	JTV 66		COC sample JTV 067; boarded FV Victory to investigate report of diesel leak; obtained sample from storage area below fish hold; noted slippery fish hold and smell of diesel in storage compartment (possibly auxillary tank not in use); noted amber discoloration of water; took absorbent pad sample; silver sheen came off knee boots upon entering water
Columbia Ward Fisheries	JV	07/31/89	1537						N		B	10	F			
Columbia Ward Fisheries and Rocky Point	JV	07/29/89	1155						N		B	10	P			Mid channel between;
Columbia Ward Fisheries to Rocky Point	JV	07/30/89	1145						N		B	5	F			Mid channel between;
Columbia Ward Fisheries, 1/4 mi N of	JV	08/01/89	1557						M	RS/SS	B	20	G	TPM 1		Also nearshore oil type LS; RS with strong smell of diesel fuel observed; advisory issued by Mike Thompson; tracked sheen via skiff to prevent setting and monitored sheen dispersal

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Columbia Ward Fishery Cannery	JV	07/28/89	1340						N		B	20	F			Examined sample taken from FV Alexandria - appears to be organic decomposition
Dago Frank Beach	GW	07/28/89	1827	N		F	100	E	N		B	10	E			No oil observed
Dago Frank Beach	GW	07/29/89	1736	N		F	150	E	N		B	10	E			No oil observed
Dago Frank beach to lagoon mouth	GW	08/02/89	1229	VL	M	F	4000	E	N		B	10	E			Sand gravel collector; met Aaron halfway through survey; besides the 2" mousse pattie he found approximately 500 yds from the regulatory marker I observed no other oil occurance
Dago Frank Corner to SE entrance	TM	08/06/89	1753	VL	M	F	5280	G	L	LS	B	30	F	TPM 14	AR 3	Gravel sand collector; one small mousse-like substance 200 yds SE of Dago Frank Creek; the substance resembles axle grease but may be mousse; LS was sampled .25 mi offshore of Ocean Beach, visible in 2-3' waves and showed some dispersal with Joy although no other properties of petroleum sheens were observed
Dago Frank Creek	JV	07/22/89	1340	VL-	T	F	200	E	N		H	10	G			Boulder cobble gravel collector; 1 tar stain on boulder
Dago Frank Creek	JV	07/30/89	1545	VL-	M	F	5000	E	N		B	10	G	JTV 69		1 weathered mousse pattie on bird feather observed within 40 yds of Alfred Creek; 2" diameter
Dago Frank Creek	JV	08/08/89	1215	N		F	5280	E	N		H	1	G			Sandy collector; no oil observed
Dago Frank Creek	JV	08/16/89	1815	VL	M/T	F	5280	E	N		B	5	F	JTV102		Sandy collector; occasional fresh mousse pattie of 3/4-3" diameter found on most recent high tide line embedded in/on eelgrass; total mousse patties numbering approx 30, 2 weathered tar splotches also evidenced; 3 bird mortalities - one exhibited signs of oiling; mousse patties were found from Alfred Creek to approx 3/4 mile of Chignik Spit marker
Dago Frank Creek	JV	08/19/89	1755	VL-	T	F	5280	E	N		B	5	G	JTV105		Sand collector beach; oiled debris; 1 tar pattie of 2" diam; 7 externally nonoiled bird carcasses
Dago Frank Creek	JV	08/23/89	1530	N		F	5280	E	N		B	10	G			Sand collector beach; no oil observed
Dago Frank Creek	JV	08/26/89	1145	VL	M/T	F	5280	E	N		B	10	G	JTV127		Approx. 10 mousse patties observed in last weeks high tide series; sizes ranged from 1"-3"; sandy collector beach
Dago Frank Creek	JV	08/27/89	1142	N		F	5280	E	N		B	5	E			No oil observed; sandy collector beach
Dago Frank Creek	JV	08/29/89	1915	N		F	5280	E	N		B	5	G			Sandy collector; no oil observed
Dago Frank Creek	JV	09/03/89	1655	N		F	5280	E	N		B	20	G			Sandy collector, no oil observed; 1 non oiled appearing bird carcass evidence
Dago Frank Creek	JV	09/04/89	1015	N		F	15840	E	N		B	10	G			Gravel. boulder, cobble, sandy beach; no oil observed
Dago Frank Creek	JV	09/09/89	1421	VL-	M	F	5280	E	N		H	10	G			Sandy collector beach; 1 oiled feather and 1 oiled plastic container; 28 non oiled bird carcasses
Dago Frank Creek	JV	09/13/89	1340	VL-	T	F	5280	E	N		H	10	G			Sandy collector beach; approx 6 weathered tar balls and oiled feathers observed in mid to upper intertidal zone; size of tar balls = 1/2-3/4"; 7 nonoiled bird carcasses

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Dago Frank Creek, .25 mi NE of	JV	07/22/89	1344	N		F	250	E	N		H	10	G			Sandy beach; no oil observed
Dago Frank Creek, .25 mi S of	JV	07/06/89	1530	N		F	200	E	N		H	20	G			Gravel sandy beach
Dago Frank Creek, .25 mi SW	JV	07/25/89	1745	N		F	150	E	N		H	10	G			Sandy collector; no oil observed
Dago Frank Creek, 1/4 mi NW of	JV	07/26/89	1245	N		F	800	E	N		H	5	G			Gravel sandy collector; no oil observed
Dago Frank Creek, 1/8 mi S of	JV	07/06/89	1540	VL-	T	F	200	E	N		H	10	G			Sandy beach; 2 tar patties of approx 2" diameter; old weathered oil approx 1 week old in vegetation
Dago Frank Creek, 1/8 mile NE of	JV	07/05/89	1815	VL	T	F	300	E	N		H	20	G		JV 2	Gravel beach; tar mixed with vegetation at old tide line; tar patties approx. 3" diameter; 7 non oiled dead birds (murres)
Dago Frank Creek, sand bar past creek	AS	08/02/89	1830	VL	M	F	5280	F	N		F	10	F	AWS177		COC sample AWS 178; lots of organics; 1 feather with mousse; 2 mousse balls, 3" diameter on most recent high line; found 3 dead sea gulls, 2 dead ducks; conditions fair
Dago Frank Crk to SE entrance of Lagoon	TM	08/05/89	1609	N		F	5280	G								Gravel sand collector; no oil observed
Diamond Point, from marker to point	AS	08/02/89	1055	N		F	1200	F	N		B	30	F			Gravel boulder cobble sand beach; conditions fair due to tide stage; large clumps of organics (mostly eel grass) on high tide line
Eagle Rock, backside near Mud Bay	GW	07/20/89	1022	N		F	300	G	N		B	10	G			Boulder sand collector beach; no oil observed
Flat side village, Chignik Lagoon	JB	08/18/89	1600	N		F	880	E								Observer: Jeff Bulla
Green Point	JV	06/30/89	1420	N		F	300	E	N		H	20	G			Gravel beach; no oil observed
Green Point	JV	07/18/89	2110	N		F	250	E	N		H	10	G			Boulder sandy beach; no oil observed
Green Point	JV	07/23/89	1946	N		F	700	E	N		H	10	G			Gravel sandy beach
Green Point	JV	08/06/89	1527	N		F	5180	E	N		H	20	G			Gravel boulder sandy beach; no oil observed
Green Point	JV	08/10/89	1330	N		F	4400	E	N		H	10	G			Boulder sandy beach; no oil observed
Green Point, .5 mi due W of; (comments)	JV	07/01/89	1225	N		F	500	E	N		H	20	G			On Chignik Island; boulder cobble sandy beach; no oil observed
Green Point, nearshore waters	JV	07/27/89	1105						VL	VL/SS	B	30	G	JTV 53		COC sample JTV 054, JTV 055, JTV 056; return via skiff to previously identified sheen sight; indicates either dispersal or movement of sheen; 2 small patches of SS evidenced (<10 yds)
Green Point, nearshore waters of	JV	07/27/89	820						H	SS	H	30	G		JV 3	1 ea 75 yard X 50 yard SS observed
Horseshoe Beach	CH	08/17/89	1500	N		F	150	E								No oil observed
Horseshoe Beach	JB	08/18/89	1530	N		F	150	E								Observer: Jeff Bulla
Horseshoe Beach; Chignik Island	JB	08/22/89	1815	N		F	200	E								Sandy beach; no oil observed; observer: Jeff Bulla
Horseshoe Point	JV	07/29/89	1017						N		B	10	F			
Horseshoe Point	JV	07/29/89	2032						N		B	10	G			
Horseshoe Point	JV	07/30/89	1023						N		B	15	G			
Horseshoe Point	JV	07/30/89	1527						N		B	10	G			
Horseshoe Point	JV	07/31/89	1530						N		B	10	F			
Horseshoe Point	JV	07/31/89	2023						N		B	10	F			
Hume Point	JV	06/30/89	815	VL	TB	F	700	E	N		H	20	G	JTV 23		Gravel sandy mud collector; 5 very old, approx 1 yr+, tar balls; non Exxon Valdez related

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Hume Point	JV	07/18/89	2030	N		F	220	E	N		H	10	G			Sandy gravel beach; no oil observed
Hume Point	JV	07/23/89	1904	N		F	1000	E	N		H	1	G			Sandy gravel beach; no oil observed
Hume Point	JV	07/29/89	1415						N		B	10	F			
Hume Point	JV	07/30/89	1215						N		B	5	F			
Hume Point	JV	07/30/89	1530						N		B	10	G			
Hume Point	JV	07/30/89	2005						N		B	5	F			
Hume Point	JV	07/30/89	2220						N		B	10	G	JTV 70		COC samples JTV 071, JTV 072, JTV 073, JTV 074; boarded the FV Scorpion skippered by Sam Stepanoff to investigate report of possible gear and fish contamination from oil; found dark black material of unknown origin which initially felt oily; upon closer examination when rubbing between finger and thumb, it dries rather quickly and cakes up leaving a chalky feel; due to this, material is not believed to be Exxon related and is thought to be sludge; six fish were taken as samples; JTV 070 is a ball of the material in question; JTV 071 is absorbent pad sample taken from seine; JTV 073 is an absorbant pad taken from the fish; JTV 072 and JTV 074 are absorbant pad control samples
Hume Point	JV	08/08/89	1036	N		F	400	E	N		H	10	G			Gravel sandy collector; no oil observed
Hume Point	JV	08/11/89	1930	N		F	1000	E	N		H	1	G			Gravel sandy collector; no oil observed
Hume Point	JV	08/18/89	1300	N		F	8800	E	N		B	10	G			Boulder gravel sandy beach; no oil observed
Hume Point to sandspit at entrance	TM	08/07/89	1238	VL	RS	F	12320	F	L	LS	B	10	G	TPM 15	AR 3	COC sample TPM 016, TPM 017; boulder sand cobble gravel collector; RS in grass and on rocks in most recent high tide line in a narrow <1 yd band, 150 yds long; NE of Hume Point about 100 yds; LS approx 1/4 mile wide and 3/4 mi long, running N-S, observed 1/2 mile offshore, this streak started in the Tunaville Flats area; sheen clearly dispersed with Joy soap
Hume Point, .25 mi SW of	JV	07/09/89	1715	N		F	250	E	N		H	30	G			Cobble gravel beach; no oil observed
Hume Point, .5 mi NE of	JV	07/01/89	1245	N		F	300	E	N		H	20	G			Boulder cobble sandy gravel beach; no oil observed
Hume Point, .5 mi SW of	JV	07/01/89	1255	N		F	700	E	N		H	40	F			Cobble gravel beach; no oil observed
Hume Point, .75 mi NE of	JV	07/09/89	1720	N		F	800	E	N		H	20	G			Gravel beach; no oil observed
Hume Point, 1 mi E-NE of	JV	07/28/89	1825						H	SS/RS	B	60	F	JTV 62		COC samples JTV 063, JTV 064, JTV 065; patchy sheen approx 450 yds X 50' with silver/blue and gold/brown appearance; appears to be diesel fuel
Hume Point, 1 mile NE of	JV	08/08/89	1040	N		F	1000	E	N		H	10	G			Cobble gravel sand beach; no oil observed
Hume Point, 1/4 mi SW of	JV	09/09/89	1705	N		F	400	E	N		H	10	G			Sandy, gravel beach; no oil observed
Jack Bay	JB	07/15/89	1300	N		F	880	E	N		B	10	P			Gravel sand beach; observation by Jeff Bulla
Jack Bay, head of	JV	06/30/89	1140	N		F	1000	E	N		H	20	F			Sandy cobble gravel collector; no oil observed
Jack Bay, head of	JV	07/06/89	1615	N		F	100	F	N		H	10	P			Gravel beach; assessment aborted due to incoming fog

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Jack Bay, head of	JV	07/18/89	1214	N		F	600	E	N		H	20	G			Cobble boulder sandy collector; no oil observed
Jack Bay, head of	JV	08/05/89	1055	N		F	1500	E	N		H	30	G			Sandy gravel collector; no oil observed
Jack Bay, head of	JV	08/11/89	1130	N		F	500	E	N		H	1	P			Boulder cobble sandy collector; no oil observed; 1 murre, 1 seagull mortality
Jack Bay, Head of	JV	08/24/89	1135	N		F	1000	E	N		B	20	G			No oil observed; boulder, cobble, sandy, collector
Jack Point, .5 mi W of	JV	07/05/89	1618	N		F	150	G	N		H	10	P			Cobble boulder beach; no oil observed
Jacks Bay	GW	08/05/89	1400	N		F	300	E	N		B	10	E			No oil observed
Jacks Bay	TM	08/10/89	1500	N		F	880	F								Sand boulder gravel; no oil observed
Jacks Point	JE	07/07/89	1230	N		F	150	E								High energy boulder beach
Lake Bay	JE	07/07/89	1045	N		F	300	E								Collector beach with gravel
Lake Bay	JV	08/05/89	1035	N		F	3500	E	N		H	25	G			Boulder cobble sandy gravel beach; no oil observed
Lake Bay	JV	08/24/89	1205	N		F	1600	E	N		B	20	G			No oil observed; boulder gravel cobble sand collector beach; no oil observed
Lake Bay Beach, both sides of entrance	TM	08/12/89	1750	VL	M	F	880	G						TPM 28	AR 4	Boulder cobble sand gravel beach; found 1 mousse pattie approx 4" diameter in last nights high tide line, it was mostly weathered and black, some light brown color; traces of mousse were found within 2 yards
Lake Bay, head of	JV	07/18/89	1250	VL-	T	F	550	E	N		H	20	G			Gravel cobble boulder sandy collector; old tar on drift
Lake Bay, head of	JV	08/11/89	1152	N		F	440	E	N		H	1	F			Gravel cobble boulder sandy beach; no oil observed
Lake Bay, head of	GW	08/24/89	1104	N		F	300	E	N		B	10	E			Sand gravel collector beach; no oil observed
Lake Bay, mouth of	JV	06/30/89	1123	N		F	750	E	N		H	10	G			Gravel cobble collector; no oil observed
Lake Bay, NW side by marker	JB	07/15/89	1400	N		F	500	E	N		B	10	P			Gravel beach; walked from bay to F&G marker; observation by Jeff Bulla
Lumber Bay	JB	07/15/89	1500	N		F	880	E	N		B	10	P			Rock boulder beach; observation by Jeff Bulla
Lumber Bay	TM	08/10/89	1635	N		F	440	F								Gravel cobble beach; no oil observed
Lumber Bay, head of	JV	06/30/89	1100	N		F	400	E	N		H	10	G			No oil observed
Lumber Bay, head of	JV	07/18/89	1315	N		F	400	E	N		H	10	G			Gravel sandy boulder cobble collector; no oil observed
Lumber Bay, head of	JV	08/05/89	1029	N		F	1000	E	N		H	25	G			Bouder gravel cobble sandy collector; no oil observed
Lumber Bay, head of	JV	08/11/89	1147	N		F	250	E	N		H	1	F			Sandy cobble boulder beach; no oil observed
McKinsey Valley; SW of creek	JB	07/16/89	1530	VL	M	F	500	E	N		B	10	F	JAB 6		Rock beach; 2 mousse patties 2-4" in diam melting on rocks; observation by Jeff Bulla
Mensis Point	JV	07/23/89	1902	N		F	600	E	N		H	5	G			Gravel beach; no oil observed
Mensis Point	JV	07/28/89	1255						N		B	30	G			Investigated report of brown staining on corks of the FV Nicole Danielle - appeared to be green algae decay
Mensis Point	JV	07/28/89	1935						H	SS	B	50	F		JV 4	Mostly silver sheen evident with traces of gold coloration at highest concentrations
Mensis Point	JV	07/29/89	1015						N		B	10	F			
Mensis Point	JV	07/29/89	1410						N		B	10	F			
Mensis Point	JV	07/29/89	2035						N		B	10	G			
Mensis Point	JV	07/30/89	1020						N		B	15	G			
Mensis Point	JV	07/30/89	1300						N		B	5	F			

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Mensis Point	JV	07/30/89	1525						N		B	10	G			
Mensis Point	JV	07/30/89	2020						N		B	10	F			
Mensis Point	JV	07/30/89	2215						N		B	10	G			
Mensis Point	JV	07/31/89	1527						N		B	10	F			
Mensis Point	JV	07/31/89	2032						N		B	10	F			
Mensis Point	JV	08/06/89	1500	N		F	225	E	N		H	5	G			Sandy gravel beach; no oil observed
Mensis Point and along N shore to spit	TM	08/05/89	915	N		F	15840	G								No oil observed; boulder sand cobble gravel collector; low tide made it possible to check mid/lower intertidal zone including grassy bottom substrate
Mensis Point to Sand Spit; N shore	TM	08/06/89	1030	N		F	15840	G								Boulder sand cobble gravel collector; walked along recent high tide line and onto tidal flats
Mensis Point, nearshore waters at	JV	07/23/89	1935						L	RS	H	40	G		JV 3	225 yd X 25 yd rainbow sheen
Monkey Rock	JV	08/05/89	1408	N		F	1200	E	N		H	20	G			Sandy beach; no oil observed
Monkey Rock to lagoon entrance	TM	08/10/89	1054	N		F	5400	G								Gravel sand collector; walked most recent high tide line; no oil observed; 3 dead gulls
Monkey Rock, 1 mile NW of	GW	08/01/89	1019	VL-	M	F	1500	E	N		B	10	E			1 mousse pattie, 1" diameter, mixed with spruce needles and feathers; also approx 75 slightly oiled feathers on first high tide line
Monkey Rock, 1/4 mi NE of	JV	08/10/89	1242	VL	M/T	F	1500	E	N		H	1	P	JTV 94		Cobble gravel sandy beach; few mousse patties interspersed with sand and oiled bird feathers
Monkey Rock, 300 yds SW of to marker	TM	08/12/89	1055	N		F	5500	F								Gravel sand heavy collector; found 5 dead kittiwakes (previously reported as mew gulls) and 4 dead shearwaters (previously reported as murres)
Monkey Rock, N of	GW	07/26/89	1433	VL-	M	F	200	E	N		B	10	E	GDW 15		Sand gravel collector; oiled bird parts; 4" melted mousse pattie with organics found above most recent high tide line, melted into substrate, this occurance along with one on 07/18/89 are only occurances of oil on this beach
Monkey Rock, NE of	JB	07/16/89	1335	N		F	500	E	N		B	10	F			3 dead birds on beach; sand gravel beach; observation by Jeff Bulla
Monkey Rock; 200 yds SW of to marker	TM	08/15/89	1027	N		F	5280	F								Gravel sand collector; no oil observed; seal and bird carcasses still present from 08/11/89 report
Mud Bay	GW	08/02/89	1545	N		F	300	E	N		B	10	E			Gravel cobble sand collector; no oil observed
Mud Bay beach, spit to 300 yds E	GW	07/20/89	1140	N		F	300	G	N		B	10	G			Boulder cobble sand collector; no oil observed
Mud Bay Spit	JV	07/23/89	2019	N		F	400	E	N		H		G			Gravel sandy collector
Mud Bay Spit	JV	07/29/89	1905						N		B	10	G			
Mud Bay spit	JV	08/24/89	1545	N		F	375	E	N		B	10	G			Boulder sand collector beach; no oil observed
Mud Bay spit, N & S	JV	07/18/89	1336	N		F	600	E	N		H	10	G			Boulder cobble sandy collector; no oil observed
Mud Bay Spit, N side of	JV	08/05/89	905	N		F	800	E	N		H	10	G			Sandy collector; no oil observed
Mud Bay Spit, N side of	JV	08/10/89	1840	N		F	375	E	N		H	5	F			Boulder cobble gravel sandy collector; no oil observed
Mud Bay spit, N side of	JV	08/11/89	1425	N		F	440	E	N		H	10	G			Gravel sandy collector; no oil observed

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Mud Bay Spit, S side of	JV	08/05/89	908	N		F	500	E	N		H	10	G			Sandy collector; no oil observed
Mud Bay, mouth of	JV	07/29/89	1715						N		B	10	F			
Mud Bay, mouth of	JV	07/31/89	1753						N		B	10	F			
Mud Bay, mouth of	JV	07/31/89	2010						N		B	10	F			
Mud Bay, W side of lagoon	JV	08/05/89	909	N		F	400	E	N		H	20	G			Sandy gravel beach; no oil observed
Negro Head	JV	07/31/89	2013						N		B	10	F			
Neketa Creek; NE of	JB	07/16/89	1430	VL	M	F	500	E	N		B	10	F	JAB 5		3 mousse patties 2-5" diam on high tide line; 1 dead bird; observation by Jeff Bulla
Ocean Beach	JE	07/03/89	1600	VL	M	F	200	E						JJE 24	AR 1	Walked high tide line, found 1 mousse ball with feathers on today's tide, 3" diameter
Ocean Beach	GW	07/19/89	1336	N		F	800	E	N		B	20	E			No oil observed; 1 dead sea otter on lagoon side of spit, no obvious contamination; dead dungeness crabs with average body size of 2" - 10 crab every yard
Ocean Beach	JV	07/29/89	1610						N		B	10	G			
Ocean Beach sand spit; (comments)	TM	08/04/89	1005	VL	M	F	5280	G						TPM 5	AR 3	Dago Frank Creek to SE end of lagoon; gravel sand collector; 3 mousse patties, .5-1.5" diameter, within 2 yd radius at most recent high tide line, approx 200 yds from NW end of Ocean Beach, 4 dead birds
Ocean Beach sandspit	TM	08/07/89	1925	N		F	5280	F								Gravel sand collector; no oil observed; walked recent high tide line at beginning of ebb
Ocean Beach sandspit; (comments)	TM	08/08/89	1450	N		F	5280	G								Dago Frank Creek to Chignik Lagoon entrance; gravel sand collector; no oil observed; walked most recent high tide line at falling tide
Ocean Beach sandspit; (comments)	TM	08/09/89	1545	N		F	5280	G								Dago Frank corner to lagoon's SE entrance; gravel sand collector; no oil observed; dead seal 1/2 mi from marker - no external signs of oil contamination
Ocean Beach, Alfred to Dago Frank Creek	GW	07/19/89	1530	N		F	800	E	N		B	10	E			No oil observed; dead dungeness crabs observed with average body size of 2", 10 crab per yard
Ocean Beach, cliff to lagoon mouth	GW	07/29/89	1800	VL-	M	F	3000	E	N		B	10	E			One 1" mousse pattie with organics found 1 yd above previous high tide line, 100 yds E of Alfred Creek terminus; 8 dead birds - no obvious oil contamination
Ocean Beach, comments	AS	08/03/89	1430	N		F	7920	F	N		F	10	P			From sand bar past Dago Frank Creek 3/4 mi; high winds; high concentration of organics; no oil observed; 3 dead seagulls - no obvious signs of contamination
Ocean Beach, Crab Hole N	JB	07/16/89	1100	N		F	440	E	N		B	10	F			Sand gravel beach; clean beach; observation by Bulla
Ocean Beach, Dago Frank Creek terminus	GW	07/19/89	1630	N		F	150	E	N		B	10	E			No oil observed; 1 dead baby seal - no obvious sign of contamination
Ocean Beach, E cliff to lagoon mouth	GW	07/28/89	2020	VL	M	F	3000	E	N		B	10	E	GDW 25		3 occurances sampled were the only occurances observed; GDW025 = 3 X 1" mousse coated with feathers and sand found at second tide line from water, found approx 1000 yds from lagoon mouth; GDW 026 = 3.5" diameter MB with sand found at second high tide line, 800 yards E of lagoon mouth; GDW 027 = 3 X 1.5" mousse pattie found 800 yds from lagoon mouth and 4 yards below second high tide line, not sand coated suggesting a new hit

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Ocean Beach, Monkey Rock	GW	07/19/89	1650	VL	M	F	300	E	N		B	10	E	GDW 8		1 oiled dead bird - highly decomposed; 1 ea 6" mousse pattie with sand below high tide line, 300 yds N of Monkey Rock
Ocean Beach, spit	JB	09/19/89	800	N		F	1760	E	N		B	50	E			Sand, gravel collector; no oil; recent 10' tides and E winds; observer: Jeff Bulla
Ocean Beach, spit	JB	09/20/89	830	N		F	1760	E	N		B	50	E			Sand, gravel collector; clean; strong E wind; observer: Jeff Bulla
Ocean Beach, spit	JB	09/21/89	1000	N		F	1320	G	N		B	50	F			Sand, gravel collector; no oil; observer: Jeff Bulla
Ocean Beach, spit	JB	09/22/89	930	N		F	1320	E	N		B	50	G			Sand, gravel collector; clean, no oil; observer: Jeff Bulla
Ocean Beach; Dago Frank Creek to marker	TM	08/13/89	1800	N		F	5280	G								Carcasses of seals and birds reported in previous days survey remain on beach
Ocean Beach; lagoon mth to Alfred Creek	GW	07/27/89	1645	N		F	3000	F	N		B	20	G			No oil observed
Ole's Point	JV	07/26/89	2310						H	RS	B	15	G			175 X 75 yards RS evident; very thick with a strong odor of fuel; limited visibility
Parallel Creek	JV	07/28/89	1435						N		B	20	G	JTV 57		COC sample JTV 058; examined corks of FV Alexandria for green staining; appears to be organic in nature and not oil related
Parallel Creek	JV	08/08/89	1044	N		F	1500	E	N		H	20	G			Gravel sandy collector; no oil observed
Parallel Creek, .25 mi NE of	JV	07/23/89	1909	N		F	1500	E	N		H	1	G			Gravel beach; no oil observed
Parallel Creek, .5 mi NE of	JV	07/18/89	2050	N		F	300	E	N		H	10	G			Sandy gravel beach; no oil observed
Parallel Creek, .5 mi S of	JV	06/30/89	1405	N		F	600	E	N		H	10	G			Gravel beach; no oil observed
Parallel Creek, 1.75 mi NE of	JV	08/08/89	1111	N		F	800	E	N		H	10	G			Boulder cobble gravel beach; no oil observed
Parallel Creek, 1/2 mi NW of	JV	08/11/89	1928	N		F	400	E	N		H	1	G			Sandy collector; no oil observed
Parallel Creek, 1/4 mi E of	JV	09/09/89	1658	N		F	20	E	N		H	20	G			Gravel, sandy beach; no oil observed
Parallel Creek, 2 mi SW of	JV	07/18/89	2034	N		F	250	E	N		H	10	G			Sandy gravel beach; no oil observed
Parallel Creek, 3.2 miles NE of	JV	08/08/89	1123	N		F	1860	E	N		H	10	G			Cobble sandy beach; no oil observed
Parallel Creek, mouth of	JV	07/09/89	1750	N		F	500	E	N		H	20	G			Sandy gravel beach; no oil observed
Pilerack Point	JF	09/08/89	930						M	RSSS	B	100	E	JRF 3		COC JRF 004; large area of RS observed on N side of Chignik Lagoon; salmon seiners fishing; sheen visible from CWF Cannery as well as ADF&G skiff
Rabbit Point	JV	07/07/89	1040						VL	SS	H	20	G			
Rabbit Point	JV	07/22/89	1158	N		F	1760	E	N		H	10	G			Gravel sandy beach; no oil observed
Rabbit Point	JV	07/25/89	1741	N		F	225	E	N		H	5	G			Sandy gravel beach; no oil observed
Rabbit Point	JV	07/29/89	1935						N		B	10	G			
Rabbit Point	JV	07/30/89	1930						N		B	10	G			
Rabbit Point	JV	07/31/89	1748						N		B	10	G			
Rabbit Point	JV	07/31/89	2015						N		B	10	F			
Rabbit Point	JV	08/01/89	1207	N		F	5280	E	N		B	10	G			Boulder cobble gravel sandy beach; no oil observed
Rabbit Point	JV	08/05/89	1121	N		F	1760	E	N		H	20	G			Bouder gravel beach; no oil observed
Rabbit Point	JB	09/03/89	1700	N		F	440	G								Gravel, sand, rock, sea grass collector; clean; found pom pom from oil boom on beach, it was clean; observer: Jeff Bulla

Location: District / Section / Statistical Area / Site	Observer	Date	Time	Intertidal Oil Imp	Intertidal Oil Type	Intertidal Survey Meth	Intertidal Survey Dist (yds)	Intertidal Survey Con	Nearshore Oil Imp	Nearshore Oil Type	Nearshore Survey Meth	Nearshore Survey Dist (%)	Nearshore Survey Con	Samp #	Video #	Comments
Rabbit Point	JV	09/13/89	1250	N		F	2640	E	N		H	10	G			Boulder cobble gravel sandy collector beach; no oil observed
Rabbit Point to Brown Point	GW	07/20/89	1312	N		F	2000	G	N		B	10	G			Sand cobble collector; no oil observed
Rabbit Point to Browns Point	GW	07/28/89	1728	N		F	1500	E	N		B	10	E			No oil observed
Rabbit Point to Negro Head	GW	07/24/89	1420	N		F	1600	E	N		B	10	E			No oil observed; tar balls reported by Kyle and Sean have been cleaned up by VECO crew as they cleaned up high tide line
Rabbit Point, 2 mi W of	JV	07/01/89	1035	N		F	500	G	N		H	10	F			Boulder cobble gravel sandy beach; no oil observed
Rocky Point	JV	06/30/89	1420	N		F	400	E	N		H	20	G			Cobble gravel beach; no oil observed
Rocky Point	JV	07/09/89	1635	N		F	800	E	N		H	20	G			Gravel boulder beach; no oil observed
Rocky Point	GR	08/05/89	1300	N		F	6160	G	N		B	2	G			No oil observed
Rocky Point	CH	08/17/89	1530	N		F	500	E								No oil observed
Rocky Point	JB	08/18/89	1600	N		F	650	E								Observer: Jeff Bulla
Rocky Point	JB	08/22/89	1835	N		F	300	E								Sand, gravel collector; no oil observed; observer: Jeff Bulla
Rocky Point	JV	09/09/89	1630	N		F	300	E	N		H	20	G			Boulder, sandy beach; no oil observed
Rocky Point, 1-1/3 mi N of	JV	07/01/89	1205	N		F	1000	E	N		H	20	G			Boulder sandy gravel beach; no oil observed
Rocky Point, 1/2 mi SW of to Rabbit Pt	TM	08/09/89	1100	N		F	6200	G								Sand gravel cobble collector; no oil observed; 1 dead gull with no external signs of oil
Rocky Point, 1/2 mile SW of	TM	08/08/89	942	N		F	7040	G								Sand gravel cobble collector; gray whale carcass 1/4 mi SW of Rocky Point; no oil observed
Rocky Point, 1/4 mi SW of; (comments)	TM	08/11/89	1624	N		F	3520	F								To 1/4 mi SW of Rabbit Point; sand gravel cobble collector; no oil observed; 2 dead gulls; flooding tide and volume of vegetation in tide line limited effectiveness of survey
Schooner Bay	JV	07/09/89	1710	N		F	2000	E	N		H	20	G			Gravel sandy collector; no oil observed
Schooner Bay	JV	08/06/89	1437	N		F	7920	G	N		H	20	G			Gravel sandy beach; no oil observed
Schooner Bay and mouth of Chignik Lagoon	JV	07/01/89	1315						N		H	100	E			Response to report of sheen in area; no sheen observed
Schooner Bay, N mouth of	JV	06/30/89	1350	N		F	450	E	N		H	20	G			Gravel beach; no oil observed
Through Creek	JV	07/09/89	2050	VL-	T	F	225	E	N		H	10	G			Sandy gravel beach; 1 weathered tar splotch
Through Creek	JV	08/02/89	948	VL	M	F	800	G	N		H	10	G	JTV 75		Sandy beach; 1 mousse pattie interspersed with bird feathers and lightly oiled debris, on most recent high tide line
Through Creek	JV	08/05/89	1446	N		F	1200	E	N		H	20	G			Sandy beach; no oil observed
Through Creek	JV	08/10/89	1240	N		F	800	E	N		H	1	F			Cobble sandy beach; no oil observed
Through Creek	JV	08/11/89	1842	N		F	880	E	N		H	1	G			Gravel cobble sandy beach; no oil observed; 2 kittiwakes and 1 storm petril mortalities observed
Through Creek, .25 mi NE of	JV	06/30/89	2000	VL	M/T	F	350	E	N		H	5	F	JTV 26		Gravel sandy beach; approx 10 spoltches of mousse on vegetation mat, appx 1-3 days old; tar on driftwood
Through Creek, .25 mi S of	JV	06/30/89	1235	VL	M	F	250	E	N		H	10	G	JTV 24	JV 2	COC sample JTV 025; sandy gravel beach; mousse present in vegetation; 2 dead birds found by fishermen; mousse appears minimum of 1 day old - maximum of 3 days

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Through Creek, .25 mi S of	JV	07/09/89	2055	N		F	100	E	N		H	10	G			Sandy beach; no oil observed
Through Creek, 1.2 mi SW of	JV	08/11/89	1846	N		F	2200	E	N		H	1	G			Gravel sandy beach; no oil observed
Through Creek, 1.25 mi S of	JV	07/05/89	1820	VL-	T	F	300	E	N		H	20	G		JV 2	Gravel beach; tar mixed in with vegetation at old tide line; 5 non oiled dead birds (murres)
Through Creek, 1.5 mi S of	JV	08/02/89	944	N		F	1600	G	N		H	10	G			Boulder gravel sandy beach; no oil observed
Through Creek, 1.75 mi NE of	JV	08/11/89	1842	N		F	1760	E	N		H	1	G			Gravel sandy beach; no oil observed; 2 dead birds with no apparent oil contamination
Through Creek, 1/8 mi SW of	JV	08/05/89	1412	N		F	1600	E	N		H	10	G			Sandy beach; no oil observed
Through Creek, 2 mi N of	JV	07/09/89	2025	VL-	M/TB	F	1700	E	N		H	10	G			Gravel sandy beach; 1 tar ball, 1 mousse splotch approx 1 week+ old
Through Creek, 2 mi NE of	JV	06/30/89	2020	VL	M/T	F	750	E	N		H	10	F	JTV 27		Gravel sandy beach; 3 splotches of mousse appx 8-10" diameter; numerous small splotches of mousse on vegetation
Through Creek, 2 mi NE of	JV	07/26/89	1255	N		F	250	E	N		H	10	G			Sandy beach; no oil observed
Through Creek, 2.75 mi NE of	JV	08/11/89	1805	N		F	500	E	N		H	1	G			Gravel sandy beach; no oil observed; 1 sick/injured gull observed
Through Creek, 3/4 mi NE of	JV	07/22/89	1350	VL	T	F	350	E	N		H	10	G	MAM 19		Old tar on vegetation mat at extreme upper high tide line, approx 2" diameter; sandy beach
Through Creek, proper	JV	07/26/89	1240	VL	M/T	F	600	E	N		H	10	G	JTV 46		Sandy beach; occasional mousse pattie with sand coated exterior
Tubers cabin, inbound to lagoon	JB	09/19/89	815	N		F	880	E	N		B	50	E			Sand, gravel collector; no oil; observer: Jeff Bulla
Tubers Cabin, inbound to lagoon	JB	09/20/89	845	N		F	880	G	N		B	50	F			Gravel, rock collector; clean; observer: Jeff Bulla
WESTERN, CHIGNIK																
Castle Cape																
273 90																
Castle Cape	JE	07/07/89	1530	N		F	200	E								Collector beach with sand and gravel
Chankliut Island, E side of	JV	07/17/89	1930	N		F	600	E	N		H	10	G			Boulder cobble sandy beach; no oil observed
Chankliut Island, N and SW beaches	JE	07/18/89	1400	N		F	500	E								Rock and sand collector beach
Chankliut Island, N side of	JE	07/07/89	1730	N		F	300	E								Collector sand and gravel beach
Devils Bay, (comments)	JV	07/24/89	1139	N		F	220	E	N		H	10	G			2.25 mi NW from N side entrance to Devils Bay; boulder cobble beach; no oil observed
Devils Bay, 2 mi NW from S side entrance	JV	07/24/89	1130	N		F	300	E	N		H	10	G			Boulder beach; no oil observed
Devils Bay, head of S arm	JV	07/24/89	1109	N		F	300	E	N		H	20	G			Cobble boulder collector; no oil observed
Devils Bay, head of S arm	JV	08/06/89	1132	N		F	400	E	N		H	25	G			Cobble boulder collector; no oil observed
Devils Bay, N inlet in NW arm of	JV	08/06/89	1235	N		F	325	E	N		H	10	G			Boulder cobble collector; no oil observed
Devils Bay, S inlet in NW arm of	JV	08/06/89	1212	N		F	400	E	N		H	10	G			Sandy cobble boulder collector; no oil observed
Devils Bay, S shore mouth	GW	08/21/89	1056	N		F	150	E	N		B	10	E			Boulder cobble collector beach; no oil observed, 1 dead gull
Devils Bay, SW inlet	JV	07/24/89	1119	VL-	T	F	220	E	N		H	10	G		MM 6	Sandy boulder beach; 1 ea .5" tar splotch, 1 ea .25" tar splotch

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Devils Bay, W arm of	AS	08/25/89	1300	N		F	800	G	L	LS	B	80	G			Boulder cobble beach; 4 dead seagulls; no oil observed on beach; bands of LS nearshore; one large band 1-3 meters by 75 yds, 3 smaller bands
Devils Bay, W bight	AS	08/11/89	2120	N		F	250	F	M	LS/SS	B	75	F			Boulder cobble beach; bands of sheen nearshore emerging from a patch of sheen 30 yds by 75 yds
Necessity Cove, head of	JV	07/07/89	1240	VL-	M/T	F	250	E	N		H	20	G			Sandy cobble collector; small amount of mousse found on piece of driftwood and cobbles
Nikolai Cove	JV	07/07/89	1130	VL	M	F	325	E	N		H	20	G			Gravel cobble sandy collector; oil approx 1 week old, estimated according to the tide line
Nikolai Cove	JE	07/14/89	800	N		F	300	G								High energy collector sand beach
Nikolai Cove	JV	07/17/89	1725	N		F	225	E	N		H	10	G			Sandy beach; no oil observed
Nikolai Cove	JE	07/23/89	1310	N		F	300	E								Sand collector beach
Nikolai Cove	GW	08/21/89	745	N		F	300	E	N		B	10	E			Gravel sand collector beach; no oil observed, 5 dead birds
Nikolai Cove, .25 mi S of	JV	07/07/89	1140	N		F	100	E	N		H	20	G			Gravel cobble sandy collector; no oil observed
Nikolai Cove, .5 mi SE of	JV	07/17/89	1710	N		F	175	E	N		H	10	G			Cobble sandy beach; no oil observed
Nikolai Cove, 4 mi SW of	JV	07/07/89	1210	VL	T/M	F	300	E	N		H	20	G			Boulder cobble sandy collector; numerous mousse speckles of 1/4" diameter; old weathered tar
Ross Cove spit	JV	07/07/89	1330	N		F	400	E	N		H	20	G			Cobble collector; no oil observed
Ross Cove Spit	JV	07/17/89	1650	N		F	175	E	N		H	10	G			Cobble beach; no oil observed
Ross Cove spit	JV	07/24/89	1740	N		F	300	E	N		H	10	G			Boulder cobble collector; no oil observed
Ross Cove, head of	JV	07/07/89	1335	N		F	125	E	N		H	10	G			Boulder gravel cobble collector; no oil observed
Ross Cove, head of	JV	07/24/89	1742	N		F	300	E	N		H	10	G			Gravel boulder cobble collector; no oil observed
Seal Bay	JE	07/20/89	830	N		F	1320	E								Rock boulder low energy beach
Seal Bay, 1/8 mi SW from head of	JV	07/24/89	1104	N		F	220	E	N		H	1	G			Boulder beach; no oil observed
Seal Bay, NW corner of	JV	08/06/89	1128	N		F	225	E	N		H	20	G			Boulder cobble beach; no oil observed
Seal Cape, 2 mi N-NE of	JV	07/17/89	1620	VL-	M	F	150	E	N		H	10	G			Gravel cobble beach; 2 mousse splotches of approx 2.5" diameter
Seal Cape, 4.5 mi NW of; in Devils Bay	JV	08/06/89	1144	N		F	1000	E	N		H	25	G			Boulder shale collector; no oil observed
Seal Cape, cove NW of	JE	07/14/89	1030	N		F	200	G								High energy collector sand beach
Warner Bay spit	JV	07/07/89	1305	N		F	300	E	N		H	30	G			Boulder cobble beach; no oil observed
Warner Bay, beach on W, rocky spit	AS	08/19/89	2145	N		F	1500	G	N		B	60	F			Windy conditions, chop on water surface, boulder cobble beach, no oil observed
Warner Bay, E side of; 2 mi S of head of	JV	07/07/89	1300	N		F	150	E	N		H	20	G			Cobble beach; no oil observed
Warner Bay, W head of	AS	08/29/89	1440	N		F	6160	G	M	LS	B	75	F			Boulder cobble beach; no oil observed on beach; 1 dead seagull; patch of sheen nearshore 100 yds by 75 yds, 2 bands of sheen branching off patch 1-3 meters wide
Warner Bay, W side, 2 mi SW of head	GW	08/14/89	1840	N		F	300	E	N		B	10	E			Boulder, cobble collector, no oil observed
273 94																
Atkulik Island, E shore of	GW	07/22/89	1538	N		F	50	E	H	VL	B	10	E			Gravel boulder collector; 1 dead whale
Castle Bay, 300 yd E of Jack Pt; N shore	GW	07/17/89	1256	N		F	700	E	N		B	20	E			Boulder sand collector; no oil present

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Castle Bay, E arm of	JE	07/07/89	1413	N		F	200	E								Collector beach with sand and gravel
Castle Bay, head of S arm in	JV	07/17/89	2030	N		F	400	E	N		H	10	G			Sandy collector; no oil observed
Castle Bay, N shore	GW	07/17/89	1420	N		F	1500	E	N		B	10	E			Boulder sand collector; no oil present
Castle Bay, NE arm	GW	07/17/89	1236	N		F	100	E	N		B	20	E			Boulder sand collector; no oil present
Castle Bay, NE arm bay head	GW	08/20/89	1033	N		F	500	E	N		B	10	E			Cobble sand gravel collector; no oil observed
Castle Bay, NE arm, head of bay	GW	07/17/89	1628	N		F	200	E	N		B	10	E			Sand gravel collector beach; no oil observed
Castle Bay, NW arm bay head	GW	08/20/89	1156	N		F	400	E	N		B	10	E			Gravel boulder cobble collector beach; no oil observed
Castle Bay, NW Arm of; (comments)	JV	07/05/89	1730	N		F	275	G	N		H	10	G			Foot of Chignik Mountain; gravel beach; no oil observed
Castle Bay, NW end of	JB	07/15/89	1130	VL	M	F	100	E	N		B	10	P	JAB 3		Gravel beach, one mousse pattie, 4" diameter on most recent tide line; observation by Jeff Bulla
Castle Bay, NW end, .75 mi inside of	JB	07/15/89	1215	N		F	300	E	N		B	10	P			Gravel sand beach; observation by Jeff Bulla
Castle Bay, S shore	GW	07/17/89	1722						H	VL	B	10	E	GDW 2	AR 1	COC sample GGW 003; VL sheen dissipated with Joy; 500 X 70 yards in size
Castle Bay, S shore; 1.5 mi W of Cape	GW	08/06/89	1300	N		F	600	E	N		B	100	E			Gravel cobble collector; no oil observed
Castle Cape, NW shore of	JE	07/07/89	1500	N		F	200	E								Collector beach with sand and gravel
Jack Point, 1 mi SW of	JV	07/05/89	1637	VL-	T	F	75	G	N		H	10	P		JV 2	Boulder cobble gravel beach; trace amounts of oil in vegetation from most recent high tide line
Jack Point, 3 mi SW of	JV	07/05/89	1705	VL-	M	F	75	G	N		H	10	P		JV 2	Sandy gravel collector; trace amounts of oil in vegetation from most recent high tide line
Jack Point, 4.75 mi SW of; in Castle Bay	JV	07/17/89	2040	N		F	100	E	N		H	20	G			Boulder cobble sandy collector; no oil observed
Tuliumnit Point, 1.25 mi E-SE of	JV	07/17/89	2010	VL-	T	F	300	E	N		H	10	G			Gravel cobble boulder collector; 1 weathered tar splotch of approx 10" diameter melted in Japanese gill net
Dorner Bay																
273 80																
Cape Itki, 1.75 mi NW of	JV	08/06/89	1104	N		F	275	E	N		H	20	G			Cobble collector; no oil observed
Dorner Bay, W shore of; outermost bay	JE	07/23/89	2045	VL	M	F	300	E						JJE 58	HL 1	Rock high energy collector beach; 19 mousse balls .5-3" diameter
Fish Bay Spit, E side of	JV	08/06/89	958	N		F	600	E	N		H	30	G			Boulder cobble collector; no oil observed
Fish Bay Spit, W side	JV	08/06/89	958	N		F	700	E	N		H	10	G			Cobble gravel beach; no oil observed
Fishhook Bay spit	JV	07/23/89	1306	VL-	T	F	1200	E	N		H	30	G			Gravel boulder cobble collector; 1 very old tar splotch of 2" diameter; looks to be non-Exxon related
Fishhook Bay, outer beach	JE	07/17/89	830	N		F	500	E								Rock collector beach; high winds
Foot Bay, .25 mi NE from N side mouth of	JV	07/08/89	1005						VL	SS	H	20	G			Non-organic sheen
Foot Bay, 1 mi N of	JV	07/06/89	1230	N		F	400	E	N		H	20	G			Gravel sandy collector; no oil observed
Foot Bay, N beach of	JE	07/17/89	915	N		F	100	E								Sand collector beach
Foot Bay, S shore; 1 mi E of bay mouth	GW	08/07/89	1328	N		F	300	G	N		B	10	G			Gravel cobble collector; no oil observed
Foot Bay; W shore	GW	08/25/89	1050	N		F	300	E	N		B	10	E			200 yds, S of southern reg marker; veco boat Great Pacific anchored in bay, 8 workers on shoreline; they have found no oil in Foot Bay; cobble, gravel, sand collector; no oil observed

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Herring Lagoon	JV	08/02/89	1410	VL-	T	F	400	E	N		H	10	G			Boulder cobble beach; old tar on debris
Herring Lagoon, head of	JV	07/17/89	1450	N		F	300	E	N		H	20	G			Cobble beach; no oil observed
Herring Lagoon, head of	JV	07/23/89	1434	VL	M/T	F	500	E	N		H	10	G			Gravel boulder cobble collector; 2 week+ mousse splotches
Outer Dorner Bay, W side	GW	08/12/89	916	N		F	400	G	N		B	10	G			Opposite side of Mitrofania Harbor; sand gravel cobble collector beach; no oil observed
Sweater Bay Spit	JV	07/06/89	1117	N		F	200	G	N		H	10	P			Cobble boulder collector; no oil observed
Sweater Bay spit	JV	07/23/89	1245	N		F	300	E	N		H	20	G			Cobble boulder collector; no oil observed
Sweater Bay spit, E and W side	JV	08/06/89	1038	N		F	600	E	N		H	25	G			Cobble collector; no oil observed
Sweater Bay, (comments)	JV	07/06/89	1005	N		F	275	G	N		H	10	P			2.25 mi NE of Sweater survey marker; cobble boulder beach; no oil observed
Sweater Bay, .5 mi NE of spit	JV	07/23/89	1247	VL-	T	F	300	E	N		H	10	G			Cobble boulder beach; 1-1.5" very old tar splotch (1 month+)
Sweater Bay, head of	JV	07/06/89	1055	N		F	200	G	N		H	10	P			Cobble boulder sandy beach; no oil observed
Sweater Bay, N entrance to	JV	08/06/89	1041	N		F	325	E	N		H	10	G			Cobble boulder beach; no oil observed
Sweater Bay, S shore (comments)	GW	08/21/89	1225	N		F	800	E	N		B	10	E			Cobble spit at mouth of bay; boulder cobble sand collector beach; no oil observed, 1 dead gull
273 82																
Windy Bay, .5 mi NW from N side of mouth	JV	07/23/89	1148	VL-	T	F	175	E	N		H	5	G			Cobble boulder sandy collector; .5-1" splotches of tar on drift
Windy Bay, 2.5 mi NW from S side mouth	JV	07/23/89	1207	N		F	1760	E	N		H	10	G			Gravel cobble collector; no oil observed
Windy Bay, head of, N shore (comments)	GW	08/24/89	1847	N		F	400	G	N		B	10	E			700 yds E of stream # 822; gravel sand collector beach; no oil observed
Windy Bay, head of, S shore (comments)	GW	08/24/89	1908	N		F	600	G	N		B	10	E			100 yds E of stream #822; gravel cobble collector; no oil observed
Windy Bay, NE of stream #821	GW	08/07/89	1214	N		F	300	E	N		B	10	E			Sand cobble gravel collector; no oil observed
Windy Bay, NW beach, halfway in bay	JE	07/17/89	1030	N		F	300	E								Rock gravel low energy beach; no oil observed
273 84																
Dog Bay, whole beach, by marker #845	AS	07/31/89	1435	N		F	2000	G	L	LS	B	40	F			Small rock sand beach; organics on high intertidal region, no mousse observed; band of sheen at the head of Dog Bay, band being pushed into shore by wind and tide
Dog Salmon Bay head, stream #845	GW	08/21/89	1453	N		F	300	E	N		B	10	E			300 yds NE of stream; gravel shale collector beach; no oil observed
Dog Salmon Bay, 1/4 mile towards head	GW	08/06/89	2043	N		F	300	E	N		B	10	E			Sand gravel beach; no oil observed
Dog Salmon Bay, head of	GW	08/06/89	2132	N		F	300	E	N		B	10	E			N of stream 845; sand gravel beach; no oil observed
Dog Salmon Bay, mouth of	GW	08/24/89	2118	VL	M	F	50	G	N		B	10	G			Sand gravel collector beach; one mousse pattie 1" diam with organics on second high tide line
Dog Salmon Bay, outer	GW	08/06/89	2013	N		F	200	E	N		B	10	E			Sand gravel beach; no oil observed
Dog Salmon Bay, outer, towards head of	GW	08/06/89	2100	N		F	600	E	N		B	10	E			Sand gravel beach; no oil observed
Inner Dorner Bay by streams 843 & 844	GW	08/07/89	1102	N		F	400	E	N		B	10	E			Boulder gravel cobble collector; no oil observed

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Portage Bay, 3 mi S-SW from mouth	JV	07/23/89	1129	N		F	800	E	N		H	10	G			Gravel cobble boulder beach; no oil observed
Portage Bay, near salmon marker #842	AS	07/29/89	2115	N		F	1500	G	N		B	30	F			From salmon marker #842 to opening of Portage Bay; cobble boulder sand beach; organics on last 2 tide lines; 1 dead seagull; no oil observed
Portage Bay, S 2000 yds from stream 842	GW	08/25/89	820	N		F	400	E	N		B	10	E			Gravel, sand collector; no oil observed
Portage Bay, S shore, 1 mi SW stream 842	GW	08/07/89	908	N		F	600	E	N		B	10	E			Sand gravel collector; no oil observed
Seal Bay, head at stream #844-843	GW	08/21/89	1615	N		F	300	E	N		B	10	E			Sand cobble gravel collector beach; no oil observed
Seal Bay, mouth	GW	08/24/89	2043	N		F	400	G	N		B	10	G			Sand gravel collector beach; no oil observed
Seal Bay, mouth (comments)	GW	08/21/89	1638	VL	M	F	300	E	N		B	10	E	GDW 32		900 yds W of stream #843; gravle sand cobble collector beach; one mousse pattie 1" by 4" with organics found on second high tide line
Seal Bay, outer; on N shore	GW	08/07/89	1037	N		F	300	E	N		B	10	E			Boulder gravel cobble collector; no oil observed
Mitrofania																
273 70																
Anchor Bay	JE	07/15/89	1100	VL	M	F	500	E						JJE 43	HL 1	Sand collector beach; 5 mousse balls 1-7" in diameter
Anchor Bay beach	AS	08/05/89	945	N		F	1000	E	N		B	10	E			Boulder sandy beach; little organics; no oil observed
Anchor Bay, head of	JV	07/08/89	1145	VL	M	F	1700	E	N		H	20	G	JTV 31	JV 2	Sandy beach; mousse patties of 1-3" diameter skewed toward Stirni Point; mousse found in this mornings high tide line
Anchor Bay, head of	JV	08/02/89	1750	N		F	3500	E	N		H	10	G			Gravel and course sand collector; no oil observed
Anchor Bay, S of the creek	JE	07/20/89	1730	N		F	300	E								Sand collector beach; full of dead candle fish
Anchor Bay; Stirni Pt to Coal Cape	GW	08/07/89	1606	N		F	6000	G	N		B	10	G			Gravel sand collector; no oil observed
Red Bluff Creek, 1/8 mi NW; Anchor Bay	JV	07/23/89	1746	N		F	800	E	N		H	1	G			Sandy collector; no oil observed
Stirni Point, 1.25 mi N-NW; Anchor Bay	JV	07/23/89	1752	VL	M	F	600	E	N		H	1	G	JTV 41		Sandy collector; 2 splotches of fresh mousse interspersed with fine gravels along current tide line
273 72																
Dead Sea Inlet, head of	JV	07/17/89	1452	VL	M	F	175	E	N		H	20	G	JTV 33		Gravel cobble beach; occasional mousse splotches of 1-4" diameter every 10 ft
Deep Sea Inlet	JV	08/02/89	1411	N		F	400	E	N		H	10	G			Gravel beach; no oil observed
Deep Sea Inlet, head of	JV	07/23/89	1436	VL-	TB	F	500	E	N		H	10	G			Sandy gravel cobble collector; 1-1.5" tar ball, looks to be non-Exxon related
Dorner Bay, W side mouth of	JV	07/06/89	1145	VL	M	F	400	G	N		H	20	F	JTV 28		JTV sample 28 is 28B; sandy collector; mousse patties of approx 3" diameter found on surface of sand at most recent high tide line
Fishrack Bay	JE	07/15/89	815	N		F	200	E								Rock collector beach
Fishrack Bay, E side entrance to	JV	07/24/89	1516	N		F	400	E	N		H	10	G			Cobble gravel collector; no oil observed
Fishrack Bay, head of E arm	JV	08/04/89	1929	N		F	1000	E	N		H	10	G			Irregularly sorted shale beach; no oil observed
Fishrack Bay, head of E side inlet in	JV	07/24/89	1508	N		F	125	E	N		H	10	G			Boulder cobble sandy collector; no oil observed
Fishrack Bay, head of W arm	JV	08/04/89	1956	N		F	900	E	N		H	10	G			Boulder cobble collector; no oil observed
Fishrack Bay, head of W side inlet	JV	07/24/89	1535	VL-	M	F	800	E	N		H	10	G			Boulder cobble sandy collector; 1 ea mousse splotch interspersed with eel grass 1'above most recent high tide line

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Ivan Bay, .75 mi SW from head of	JV	07/08/89	1030	VL	M	F	800	E	N		H	20	G	JTV 30	JV 2	Sandy beach; numerous mousse patties of .5-3" diameter on most recent high tide line
Ivan Bay, 1 mi SW from head of	JV	07/24/89	1610	VL	M	F	600	E	N		H	10	G	JTV 42	JV 3	Sandy beach; several hundred mousse splotches highly interspersed with sand, ranging from .5" to 4" diameter
Ivan Bay, approx 2 mi NE of stream #720	GW	08/22/89	1238	VL	M	F	300	E	N		B	10	E	GDW 33		Sand collector beach; 1" mousse pattie found on third high tide line
Ivan Bay, at salmon stream #722	GW	08/22/89	1140	N		F	500	E	N		B	10	E			Gravel sand collector beach; no oil observed
Ivan Bay, head of	JV	07/08/89	1110	VL	M	F	300	E	N		H	20	G			Sandy beach; occasional mousse patties highly interspersed with sand in globules, 1 mousse covered plastic bag
Ivan Bay, head of	JV	07/24/89	1605	VL-	M	F	1700	E	N		H	10	G			Gravel sandy collector; 1-5" diameter mousse patties
Ivan Bay, head of	JV	08/04/89	1557	N		F	1700	E	N		H	20	G			Sandy collector; no oil observed
Ivan Bay, NW corner of	JV	08/04/89	1530	VL	M	F	400	E	N		H	30	G	JTV 87		Sandy collector; numerous mousse patties highly interspersed with sand, .5-3" diameter
Ivan Bay, W side of	JE	07/15/89	900	VL	M	F	3520	E						JJE 42	HL 1	Sand beach; 7 mousse balls, 1-4" diameter in a 75 yard area
Ivan Bay; stream #722 and W 2 mi	GW	08/16/89	1404	N		F	3000	G	N		B	10	G			Sand gravel collector; no oil observed
Ivan Beach, 2 mi NW of stream #720	GW	08/09/89	1049	VL	M	F	700	G	N		B	10	G	GDW 30		Sand gravel collector; mousse with organics, 1 every 10 yds at 3rd tide line from water, average size = 1"
Ivan Beach, 2 mi SW of stream #720	GW	08/09/89	928	VL	M	F	500	G	N		B	10	G	GDW 29		Gravel sand collector; feathers with thin mousse coating covered with sand in mid-intertidal zone
Long Beach	JV	07/24/89	1700	N		F	100	E	N		H	10	G			Sandy beach; no oil observed
Mitrofania Bay	AS	07/27/89	940	N		F	100	G	N		B	10	G			Sand gravel beach; lots of organics on most recent high tide line; cut survey short because ran into two bear
Mitrofania Bay	AS	08/12/89	1400	N		F	600	G	N		B	30	F			Sand gravel beach; lots of organics; no oil observed; 1 dead gull
Mitrofania Bay, E	AS	08/04/89	1720	N		F	250	G	M	SS	B	80	G			No oil on beach; footprints on beach and 3 dead ducks; SS nearshore
Mitrofania Bay, near salmon creek #723	AS	07/28/89	730	N		F	300	G	N		B	70	G			Fine sand beach; most of organics on previous tide lines; occasional bird feathers; section of beach in corner that was boulder cobble; no oil observed
Mitrofania Bay, S side inlet	JV	08/02/89	1413	VL	M	F	250	E	N		H	10	G	JTV 76		Sandy beach; numerous mousse patties of 1/2" to 2" diameter and highly interspersed with sand along most current high tide line; some patties fresh and liquid
Mitrofania Bay, smallest arm of	AS	08/23/89	1715	N		F	1200	G	N		B	50	G			Gravel boulder beach cobble beach; no oil observed
Mitrofania Harbor	GW	08/12/89	800	N		F	800	G	N		B	10	G			Sand cobble collector beach; no oil observed
Mitrofania, beach inside smallest arm	AS	08/29/89	1920	N		F	700	G	N		B	60	G			Gravel boulder cobble beach; organics on most recent tide line, no oil observed
Mitrofania, S side inlet of	JV	07/23/89	1517	VL	M	F	350	E	N		H	10	G	JTV 40	JV 3	Sandy collector; numerous mousse patties of .5-3" diameter and highly interspersed with sand found in today's highest tide line and extreme high tide line

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Stirni Point, 1 mi N-NE of	JV	08/04/89	1632	VL	M	F	1800	E	N		H	10	G	JTV 88		Sandy beach; numerous mousse patties of .5 to 3.5" in diameter
Stirni Point, 5 mi N-NE of	JV	08/04/89	1626	VL	M	F	1800	E	N		H	10	G			Gravel sandy beach; occasional mousse pattie highly interspersed with sand
273 74																
Mitrofania Island, N shore of	JE	07/14/89	1440	N		F	50	G								High energy rocky collector beach
Mitrofania Island, N shore, inner bight	GW	08/15/89	1006	VL	M	F	400	G	N		B	10	G	GDW 31		Sand gravel collector; mousse patties up to 3" diameter on 2nd high tide line observed approx every 10 yds for a 50 yd stretch; one fresh 2" mousse pattie found on most recent high tide line
Mitrofania Island, N spit of	JV	08/02/89	1453	VL-	TB	F	400	E	N		H	10	G	TPM 4		Boulder gravel cobble collector; 1 tarball of 1.5" diameter; 1 bird mortality - taken for lab analysis
Mitrofania Island, NW	AS	08/04/89	1815	N		F	50	E	M	LS	B	70	G		HL 2	Boulder cobble beach; no oil observed on beach; band of LS, 2-10 meters wide with organics, dispersed with Joy
Mitrofania Island, NW bight	AS	08/14/89	1915	L	M	F	300	G	N		B	40	G	AWS188		Found 5 mousse patties and 1 mousse pine ball; size varied; 3 mousse patties were mixed with organics, 2 patties were mixed with feathers; 2 dead oiled ducks, 1 dead nonoiled duck; 1 dead sea gull
Mitrofania Island, NW bight, rocky beach	AS	08/15/89	1500	VL	M	F	300	F	N		B	40	F			Same comments on this beach, we surveyed it yesterday; but fresh mousse on new tide in middle intertidal, 2" diameter, G. Ward took sample from higher intertidal
Mitrofania Island, NW rocky spit	AS	08/04/89	2345	N		F	300	G	VL	LS	B	50	G			Beach was all rocks; no sign of oil on beach; band of LS nearshore, 1-3 meters wide and 200 yds long
Mitrofania Island, W side	JV	08/02/89	1549	N		F	880	E	N		H	10	G			Cobble boulder beach; no oil observed; 4 bird mortalities
Mitrofania Isle, 3 mi S of Brother Isle	JV	08/02/89	1449	VL	M	F	400	E	N		H	10	G	GDR133		Gravel collector; 5 mousse splotches of .5" to 1.5" diameter
Mitrofania; SW arm of E side	JE	07/14/89	1800	N		F	100	G								Rock collector beach; 2 dead whales
Sosbee Bay, head of; Mitrofania Island	JV	07/23/89	1636	N		F	50	E	N		H	5	G			Boulder gravel cobble beach; no oil observed
Sosbee Bay, mid area; Mitrofania Island	JV	07/23/89	1619	N		F	100	E	N		H	10	G			Boulder cobble beach; no oil observed
Sosbee Bay, midbay; on Mitrofania Island	JV	07/07/89	1735	VL-	T	F	300	E	N		H	20	G	JTV 29		Gravel cobble collector; 1 tar ball and small amount of tar, smells like diesel - non Exxon related; 1 dead gray whale
Sosbee Bay, NE corner of	JV	07/23/89	1616	VL-	M	F	250	E	N		H	10	G			Boulder cobble collector; 1-4" mousse splotches; 1 oiled milk jug
Sosbee Bay, NE corner of	JV	08/02/89	1640	VL	M	F	225	E	N		H	10	G	JTV 77		COC sample JTV 078; cobble collector; few fresh mousse speckles and splotches found on most recent high tide line
Sosbee Bay, SE cove of	JV	08/02/89	1636	N		F	400	E	N		H	10	G			Cobble boulder collector; no oil observed
Sosbee Bay, W side mouth of; (comments)	JV	07/07/89	1715	N		F	250	E	N		H	20	G			Mitrofania Island; boulder gravel cobble collector; no oil observed; 1 dead gray whale

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Stirni Point, 4 mi S-SE of, (comments)	JV	07/07/89	1630	VL-	TB	F	400	E	N		H	20	G	CAP	1	On Mitrofania Island; cobble collector; 1 tar ball evident, smells like diesel
Stirni Point; 5.25 mi S-Se of; (comment)	JV	07/07/89	1650	VL-	T	F	300	E	N		H	20	G			NW side of Mitrofania Island; cobble beach; 2 small splotches of tar, approx .5" diameter
PERRYVILLE																
Perryville																
275 60																
Chiachi Bay, head of	JV	08/04/89	1721	VL	M	F	600	E	N		H	10	G	JTV 89		COC sample KSM 001; boulder cobble sandy collector; occasional mousse patties interspersed with sand of .5 to 1.5" diameter; oiled debris
Chiachi Island, 1.75 mi SE of Stirni Pt	JV	08/04/89	1811	N		F	220	E	N		H	10	G			Cobble boulder beach; no oil observed
Chiachi Island, beach on E bight	AS	08/20/89	1330	VL	M	F	1200	E	N		B	70	G	AWS190		35% boulder cobble, 50% sand, 3 pieces mousse; pine mousse ball 2"; 3 patties 1-2", only one mousse pattie on recent tide line, 8 dead ducks - 2 are heavily oiled; cleanup crew was there
Chiachi Island, beach on spit	AS	08/20/89	1610	N		F	300	G	N		B	60	G			Cobble collector, organics on 2 most recent tide lines, clean-up crew found plastic bag 1/4 full of organics and mousse, 1 dead seagull and 1 dead duck
Chiachi Island, E side of	JV	07/19/89	1207	VL-	M	F	300	E	N		H	20	G			Gravel boulder cobble sandy collector; 4 X 12' trawl net coated with oil and lightly buried in sand was evident along this mornings high tide line
Chiachi Island, E side of	JE	07/24/89	915	VL	M	F								JJE 59	HL 1	Sand rock collector beach; 6 mousse balls .5-3" diameter
Chiachi Island, head of Chiachi Bay on	JV	07/10/89	1730	VL	M/TB	F	750	E	N		H	20	G			Sandy beach; occasional splotch of weathered mousse; 1 tar ball; oil and sand interspersion in extreme high tide line; 1 sea lion carcass
Chiachi Island, N point of	JE	07/21/89	900	VL	M	F	400	E						JJE 52	HL 1	Rock low energy beach; 1 mousse ball 3" diameter mixed with decayed vegetation
Chiachi Island, NW of Eastern bight	AS	08/20/89	1305	N		F	300	E	N		B	60	G			Boulder cobble beach, no oil observed; 1 dead seagull, 1 dead puffin, no sign of clean-up crew
Chiachi Island, NW side of	JV	07/19/89	1233	N		F	200	E	N		H	10	G			Boulder cobble beach; 2 bird carcasses; no oil observed
Chiachi Island, NW side of	JV	08/04/89	1754	VL	M/T	F	550	E	N		H	10	G	KSM	2	Cobble collector; few weathered tar splotches evidenced; 1 fresh mousse covered spruce needle, approx 5" diameter; 2 dead murres with no obvious signs of oil contamination, 1 injured/sick eagle
Chiachi Island, W beach	AS	08/13/89	2015	N		F	150	G	L	LS	B	60	F			Rocky cobble beach; oil observed nearshore, band 2-4 meters wide and stretched westward around islands; no oil observed on beach, organics were on most recent tide line
Chiachi Island; (comments)	JV	08/04/89	1814	VL	M/T	F	220	E	N		H	10	G			1.25 mi SW of Shapka Island; cobble boulder beach; several mousse/tar splotches ranging in diameter from 1-12"

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Coal Cape, 4 mi NW of	JV	07/10/89	1755	VL-	M	F	2200	P	N		H	20	G			Sandy beach; 3 oiled feathers; beach heavily traveled by 4 wheelers thus making assessment difficult
Coal Point, 2 mi NE of	JV	07/10/89	1830	VL-	M	F	900	G	N		H	20	G			Sandy beach; few oiled feathers; 2 small very lightly oiled splotches in the sand
Coal Point, 2 mi NE of	JV	07/25/89	1647	VL	M/T	F	400	E	N		H	5	G	JTV 44		Sandy collector; 4 mousse/tar splotches interspersed with fine gravel and slightly melted - found in most recent high tide line, approx 1.5" diameter
Coal Point, 2.5 mi N-NE of	JV	08/03/89	1557	N		F	1200	E	N		H	10	E			Sandy collector; no oil observed; 2 glaucous winged gulls, 1 eagle and 1 sea duck mortalities evidenced
Coal Point, 4 mi NE of	JV	07/25/89	1649	VL-	TB	F	800	E	N		H	5	G	JTV 45		Sandy collector; 1 tar ball interspersed with fine gravel
Kametolook River, 1/8 mi W of	JV	07/23/89	1652	VL-	M	F	1600	E	N		H	5	G			Sandy collector; 1-2" mousse splotch mixed with feathers
Kametolook River, 2.5 mi S of	JV	07/19/89	1246	VL-	M	F	3000	E	N		H	20	G			Sandy collector; small amount of lightly oiled debris
Kametolook River, mouth of	JV	08/02/89	1712	N		F	2000	E	N		H	10	G			Sandy collector; no oil observed; 4 gull mortalities - no obvious oil contamination
Perryville	JE	07/15/89	1445	VL	M	F	500	E						JJE 44		Sand collector beach; 2 dead birds; 1 mousse ball, 3" diameter
Perryville	AS	07/28/89	1030	VL	M	F	700	G	N		B	15	F	AWS174		Beach around 3 Star Point; 3 mousse balls clustered with feathers, 2-3" diameter, found mousse on recent tide line; lots of organics on most recent high tide line; 1 dead duck and 9 dead seagulls - no obvious signs of oil contamination
Perryville Beach	GW	08/09/89	730	N		F	400	G	N		B	10	G			Sand collector; no oil observed; 1 dead seal, 2 dead gulls
Three Star Point, .5 mi NE of	JV	08/04/89	1843	VL	M/T	F	1200	E	N		H	10	G			Sandy beach; occasional tarred feathers and a few weathered mousse patties interspersed with sand
Three Star Point, .5 mi NW of	JV	08/03/89	1603	N		F	600	E	N		H	10	G			Sandy collector; no oil observed
Three Star Point, 1.5 mi NE of	JV	07/23/89	1659	VL	M	F	150	E	N		H	1	G			Sandy collector; trace amounts of oil in sand; 1/2" mousse splotches
Three Star Point, 1/8 mi NE of	JV	07/10/89	1000	N		F	1000	E	N		H	20	G			Gravel beach; no oil observed
Three Star Point, 2 mi NE of	JV	08/02/89	1715	N		F	1500	E	N		H	10	G			Sandy collector; no oil observed; 1 gull mortality
Three Star Point, 2 mi NW of	JV	07/25/89	1650	N		F	500	E	N		H	5	G			Sandy collector; no oil observed
Humpback Bay																
275 50																
Alexander Point, 6 mi N of; Humpback Bay	JV	07/10/89	1615	VL-	M	F	350	E	N		H	20	G			Sandy beach; lightly oiled feathers; weathered mousse speckles of 1/4" diameter
Coal Point, 1 mi N of; (comments)	JV	08/03/89	1638	N		F	1300	E	N		H	10	G			Head of Humpback Bay; cobble sandy collector; no oil observed
Coal Point, 2 mi NW of; (comments)	JV	08/03/89	1640	VL	M/T	F	1300	E	N		H	10	G	JTV 81		Head of Humpback Bay; COC sample JTV 082; sandy collector; occasional mousse pattie interspersed with sand; 11 tar balls found on 2nd & 3rd most recent high tide line; mousse pattie of .5-1.5" diameter

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Egg Island, 1 mi NW of	JV	07/25/89	1612	N		F	500	E	N		H	10	G			Boulder cobble sandy beach; no oil observed
Egg Island, 2 mi NW of	JV	07/19/89	1615	VL-	T	F	1100	E	N		H	10	G			Cobble sandy beach; approx 4 small splotches of old tar, 1" diameter, 2+ weeks old
Humpback Bay	JE	07/15/89	1710	VL	M	F	300	E						JJE 45	HL 1	Sand collector beach; 1 mousse ball 2" diameter
Humpback Bay, head of	JV	07/19/89	1546	VL-	M	F	1700	E	N		H	20	G			Gravel sandy beach; one 8' section of 2" rope saturated with oil
Humpback Bay, head of	JV	07/25/89	1614	VL-	T	F	2100	E	N		H	10	G			Boulder cobble sandy beach; 1 partially oiled bird feather
Humpback creek E to past Humpback River	LP	08/26/89	1050	VL	M	F	4400	E	N			0				DEC has sample; found 3 very small mousse patties on E end of beach within 20' of each other
Jacob Island, .75 mi NE of Noon Point	JV	07/10/89	1640	VL-	T	F	100	E	N		H	10	G			Gravel cobble boulder beach; 1 tar splotch of 1" diameter
Jacob Island, 1.5 mi NE of Noon Point	JV	07/10/89	1635	N		F	100	E	N		H	10	G			Boulder cobble beach; no oil observed
Jacob Island, E side of	AS	08/22/89	1300	N		F	600	G	N		B	65	F			Sand rock beach; no oil observed; 1 dead seagull
Kupreanof Harbor on Paul Island	JV	08/03/89	1506	N		F	400	E	N		H	20	G			Low energy gravel sandy collector; 3 bird carcasses found scavenged and decomposed
Noon Point, 1 mile N-NE of; (comments)	JV	08/03/89	1439	N		F	100	E	N		H	10	G			W side of Jacob Island; high energy well sorted cobble collector; no oil observed 1 scavenged bird carcass found
Noon Point, 2 mi N-NE of; (comments)	JV	08/03/89	1436	N		F	200	E	N		H	40	G			E side of Jacob Island; gravel collector; no oil observed; 2 decomposed and scavenged bird carcasses
Noon Point, 3/4 mi NE of; E side Jacob I	JV	08/03/89	1457	N		F	30	E	N		H	10	G			High energy boulder cobble beach; no oil observed
Paul Island, 1 mi SE of Egg Island	JV	08/03/89	1525	N		F	600	E	N		H	10	G			Sandy collector; no oil observed
Paul Island, E side	JE	07/16/89	1715	N		F	100	E								Sand collector beach
Paul Island, E side of; in middle	JV	07/10/89	1700	VL-	M	F	100	E	N		H	10	G			Sandy beach; 1 sea lion carcass; occasional mousse splotch highly interspersed with sand; few oiled feathers
Paul Island, mid-east	JV	08/03/89	1537	VL	M	F	125	E	N		H	10	G	JTV 80		Sandy collector; weathered mousse patties of .5" to 1" diameter and highly interspersed with sand found along most recent high tide line; oiled debris (drift and feathers) also evidenced
Paul Island, mid-east side of	JV	07/19/89	1639	VL	M	F	125	E	N		H	10	G	JTV 35		Sandy beach; weathered mousse, highly interspersed with sand, evident along the most recent high tide line; also oiled debris
Paul Island, NE side of	JV	07/10/89	1705	VL-	M	F	125	E	N		H	10	G			Sandy beach; occasional oiled debris - feathers, vegetation, etc
Paul Island, NE side of	JV	07/19/89	1635	N		F	100	E	N		H	10	G			Sandy beach; no oil observed
Paul Island, NE side of	JV	08/03/89	1528	N		F	100	E	N		H	10	G			Sandy collector; no oil observed

Ivanof Bay
275 40

Location: District / Section / Statistical Area / Site	Observer	Date	Time	Intertidal Oil Imp	Intertidal Oil Type	Intertidal Survey Meth	Intertidal Survey Dist (yds)	Intertidal Survey Con	Nearshore Oil Imp	Nearshore Oil Type	Nearshore Survey Meth	Nearshore Survey Dist (%)	Nearshore Survey Con	Samp #	Video #	Comments
Cape Kupreanof, 1 mi NW of	JV	08/03/89	1725	VL	T	F	175	E	N		H	10	G	JTV 83		COC sample JTV 084; gravel boulder cobble collector; occasional tar splotch in evidence
Fox Cape; 1/2 mi NW of	JV	07/25/89	1506	VL	M/TB	F	1200	E	N		H	1	G	JTV 43		Sandy beach; occasional mousse splotches highly interspersed with sand above most recent tide line
Fox Point, 500 yards W of	AS	08/06/89	1005	N		F	500	G	L	LS	B	70	G			85% boulder cobble beach, 15% black sand; no oil observed on beach; several bands of LS offshore, 1-3 meter X 100 yds; 2 dead ducks
Hag Peak, 3/4 mi NW of	JV	08/03/89	1821	VL	M	F	3500	E	N		H	10	G	JTV 86		COC sample GDR 134; Sandy collector; occasional mousse pattie interspersed with sand, 3/8-5" diameter; located in highest tide line
Hag Peak; 1 mi NW of	JV	07/10/89	1355	VL-	M	F	1500	E	N		H	20	G			Sandy beach; 2 mousse blobs; few oiled feathers; 1 grease ball
Ivanof Bay	LP	08/26/89	930	M			1320	F	N			0				Spit in front of creek 402,404, and 405, W side of Ivanof Bay; raining
Ivanof Bay, Beach front of village	LP	08/26/89	830	N		F	4400	F	N			0				Overcast
Ivanof Bay, head of	JV	07/10/89	1110	VL-	T	F	900	E	N		H	30	G			Gravel beach; 1 partially oiled bird feather
Ivanof Bay, head of	JV	07/19/89	1420	N		F	1760	E	N		H	20	G			Gravel sandy beach; no oil observed
Ivanof Bay, head of	JV	07/25/89	1605	N		F	850	E	N		H	10	G			Sandy beach; no oil observed
Ivanof Bay, head of	JV	08/03/89	1909	N		F	880	E	N		H	20	G			Gravel sandy beach; no oil observed
Kupreanof Point	JE	07/16/89	1000	VL	M	F	800	E						JJE 46	HL 1	Rock boulder high energy beach; 1 mousse ball 1.5" with feathers
Kupreanof Point, .25 mi NW of	JV	07/25/89	1430	VL	M/T	F	100	E	N		H	5	G			Cobble boulder beach; occasional splotch of mousse/tar in vegetation mat at extreme high tide line; 3 scavenged bird carcasses observed
Kupreanof Point, 1.25 mi NW of	JV	07/10/89	1250	N		F	200	E	N		H	20	G			Boulder sandy gravel beach
Kupreanof Point, 1/4 mi E of	AS	08/05/89	1735	VL	M	F	200	G	VL	LS	B	50	G	AWS181		Boulder cobble beach; 5 mousse patties all on 3rd to last tide line; 2-6" patties on W end of beach partially melted and 3-4" under the surface; oil sheen nearshore - could be discharge from boats; 2 dead ducks with feathers heavily moussed
Kupreanof Point, 1/4 mi inside	AS	08/21/89	1235	N		F	1500	G	M	LS	B	75	G			Organics on most recent tide line; boulder cobble beach; life vest with 2 small mousse patches found; nearshore had 2 bands 3-6 meters wide of LS with organics, also small patches 10 X 10 yds off shore 40 yds
Kupreanof Point, 3 mi N-NW of	JV	07/25/89	1449	N		F	440	E	N		H	5	G			Sandy beach; no oil observed
Kupreanof Point, 3.25 mi N-NW of	JV	07/10/89	1310	N		F	200	E	N		H	20	G			Boulder gravel sandy beach; no oil observed
Kupreanof Point, 5 mi N-NW of	JV	07/10/89	1320	VL	M	F	1000	E	N		H	20	G	JTV 32		COC - CAP 002; sandy collector; occasional old mousse splotches highly interspersed with sand, approx 1-2" diameter; 4 scavenger bird carcasses, 1 seal pup carcass; 2 grease balls

Location: District / Section / Statistical Area / Site	Observer	Date	Time	Intertidal Oil Imp	Intertidal Oil Type	Intertidal Survey Meth	Intertidal Survey Dist (yds)	Intertidal Survey Con	Nearshore Oil Imp	Nearshore Oil Type	Nearshore Survey Meth	Nearshore Survey Dist (%)	Nearshore Survey Con	Samp #	Video #	Comments
Kupreanof Point, inlet 5.5 mi N-NW of	JV	08/03/89	1801	VL	M	F	325	E	N		H	10	G	JTV 85		Sandy collector; occasional mousse patties, approx 3/4" diameter, interspersed with sand or feathers at inactive intertidal zone
Kupreanof/Fox Cape	JE	07/21/89	1330	VL	M	F	1760	E						JJE 53	HL 1	Rock sand high energy beach; small old mousse balls, 1-3" diameter
Road Island, .5 mi E-SE of	JV	07/25/89	1600	N		F	300	E	N		H	5	G			Boulder cobble collector; no oil observed
Road Island, 1 mi SW of	JV	07/10/89	1520	N		F	400	E	N		H	20	G			Cobble beach; no oil observed

Appendix G.1 Test fishing surveys for oil spill contaminants in the Alaska Peninsula Management Area, 1989.

Location: District / Section / Stat Area / Site	Observer	Boat	Date	Time	Weather: Wind Dir	Wind Vel (kt)	Wave Ht (ft)	Tide	Sur Con	Oil: Imp	Oil Type	Survey: Surv Meth	Dur set (min)	Samp #	Video #	Catch: Number Salmon	Contam Fish	Gear	Comments
SE PENINSULA																			
SE Mainland																			
281 35																			
Stepovak Bay	AWS	Heidi Linea	08/21/89	1445	NW	5	1	F	G	L	LS	VIS							1 mile inside Fox Bay; numerous bands 1-3 meters wide 100 yds offshore

Appendix G.2 Beach and nearshore surveys for oil spill contaminants in the Alaska Peninsula Management Area from 10 July to 14 August 1989.

Location (District / Section / Statistical Area / Site)	Observer	Date	Time	Intertidal Oil Imp	Intertidal Oil Type	Intertidal Survey Meth	Intertidal Survey Dist (yds)	Intertidal Survey Con	Nearshore Oil Imp	Nearshore Oil Type	Nearshore Survey Meth	Nearshore Survey Dist (%)	Nearshore Survey Con	Samp #	Video #	Comments
SE PENINSULA																
SE Mainland Area																
281 32																
Grub Gulch, head of	JV	07/25/89	1119	N		F	1760	E	N		H	10	G			Gravel sandy collector; no oil observed
281 33																
Gull Rocks, 2 mi W-NW of; Stepovak Bay	JV	07/25/89	1320	N		F	500	E	N		H	1	G			Sandy beach; no oil observed
Gull Rocks, Stepovak Bay	JV	07/25/89	1325	N		F	3500	E	N		H	1	G			Sandy beach; no oil observed
Rock Wall, Stepovack Bay	JV	07/25/89	1200	N		F	2000	E	N		H	10	G			Cobble boulder beach; no oil observed
Stepovak Bay, head of ; near Gull Rocks	JV	07/10/89	1155	VL-	M	F	1500	E	N		H	20	G			Sandy beach; 3 lightly oiled bird feathers
Stepovak Bay, NE head of	JV	07/25/89	1330	N		F	1200	E	N		H	1	G			Sandy beach; no oil observed
281 35																
Island Bay, head of	JV	07/10/89	1230	N		F	300	E	N		H	20	G			Sandy beach; no oil observed
Shumagin Island																
282 11																
Andronica Island, N tip of	JV	08/14/89	1735	N		F	400	E	N		H	10	G			Cobble gravel collector; no oil observed; 5 decomposed bird carcasses evidenced
Apollo Point in Ancheredin Bay	JV	08/14/89	1605	N		F	400	E	N		H	10	G			Gravel sandy collector
Korovin Bay, head of; Korovin Island	JV	08/14/89	1702	N		F	400	E	N		H	10	G			Sandy collector; no oil observed
Unga Cape, 2.5 mi N-NE of; Unga Island	JV	08/14/89	1532	N		F	300	E	N		H	10	G			Sandy gravel collector; no oil observed

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