OIL SPILL PUBLIC INFO. CENTER
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EVOS
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1552
.P75
S42
1989
v.27

[Shoreline evaluations, 1989].

Volume 27

Kodiak section 5

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Kodiak

SCAT

SECTION 5

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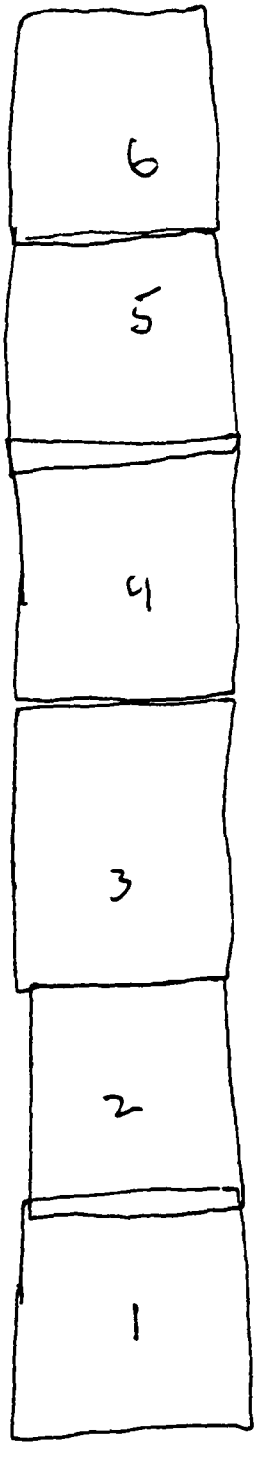
MAR 1 1 1992
Oil Spill Public Information Center
645 G Street
Anchorage, AK 99501

Segment Map Index



ACE 8708176

RECEIVED
OCT 1 1 1992
Oil Spill Public Information Center
645 G Street
Anchorage, AK 99501

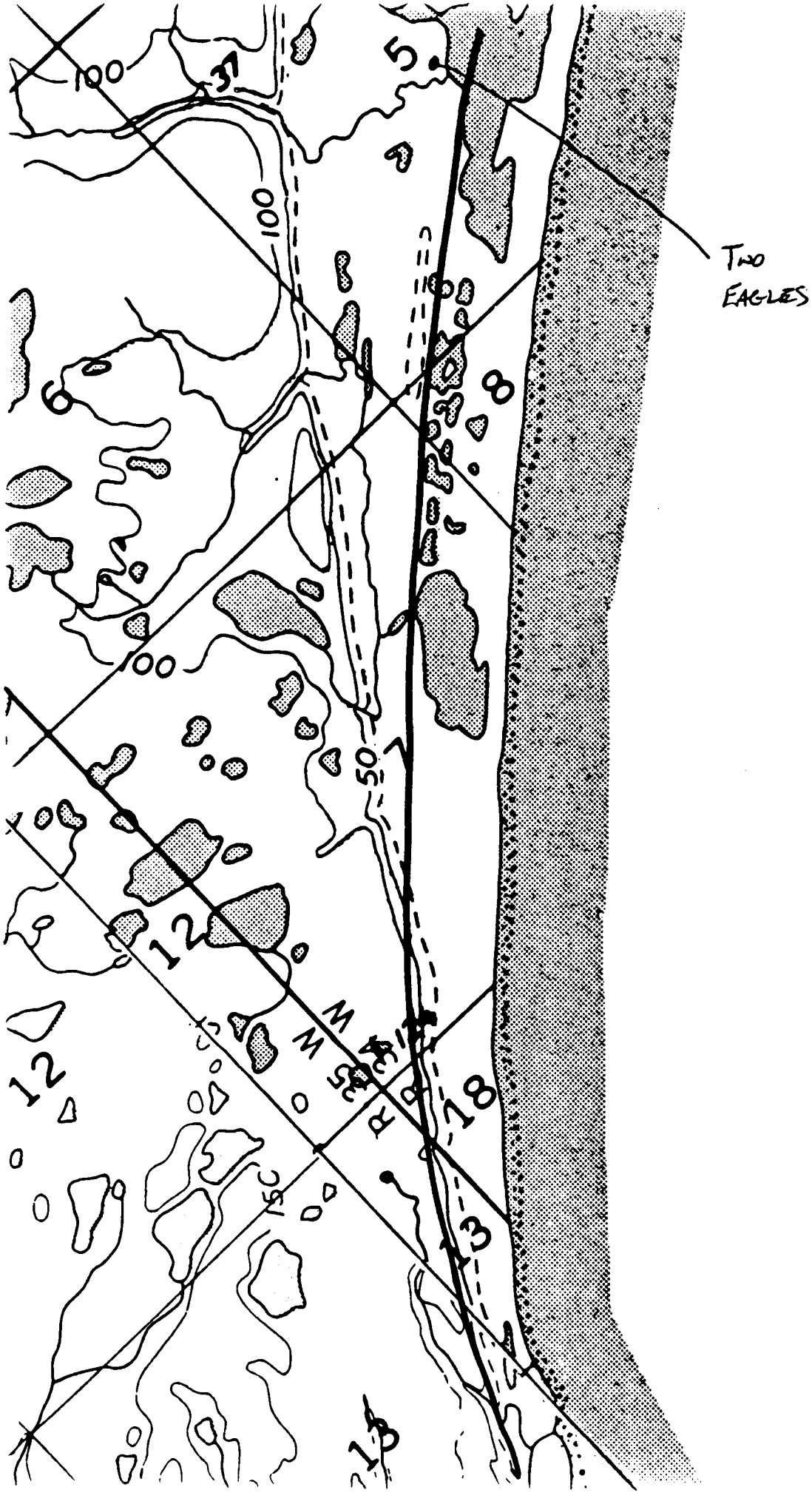
K7-15-TI-3

(1)

ACE 8708177

K7-15-TI-3

11
13
14
22
23
24
26
100
50
150
125
Two Eagles
Surveyed on foot
ACE 8708178



ACE 8708179

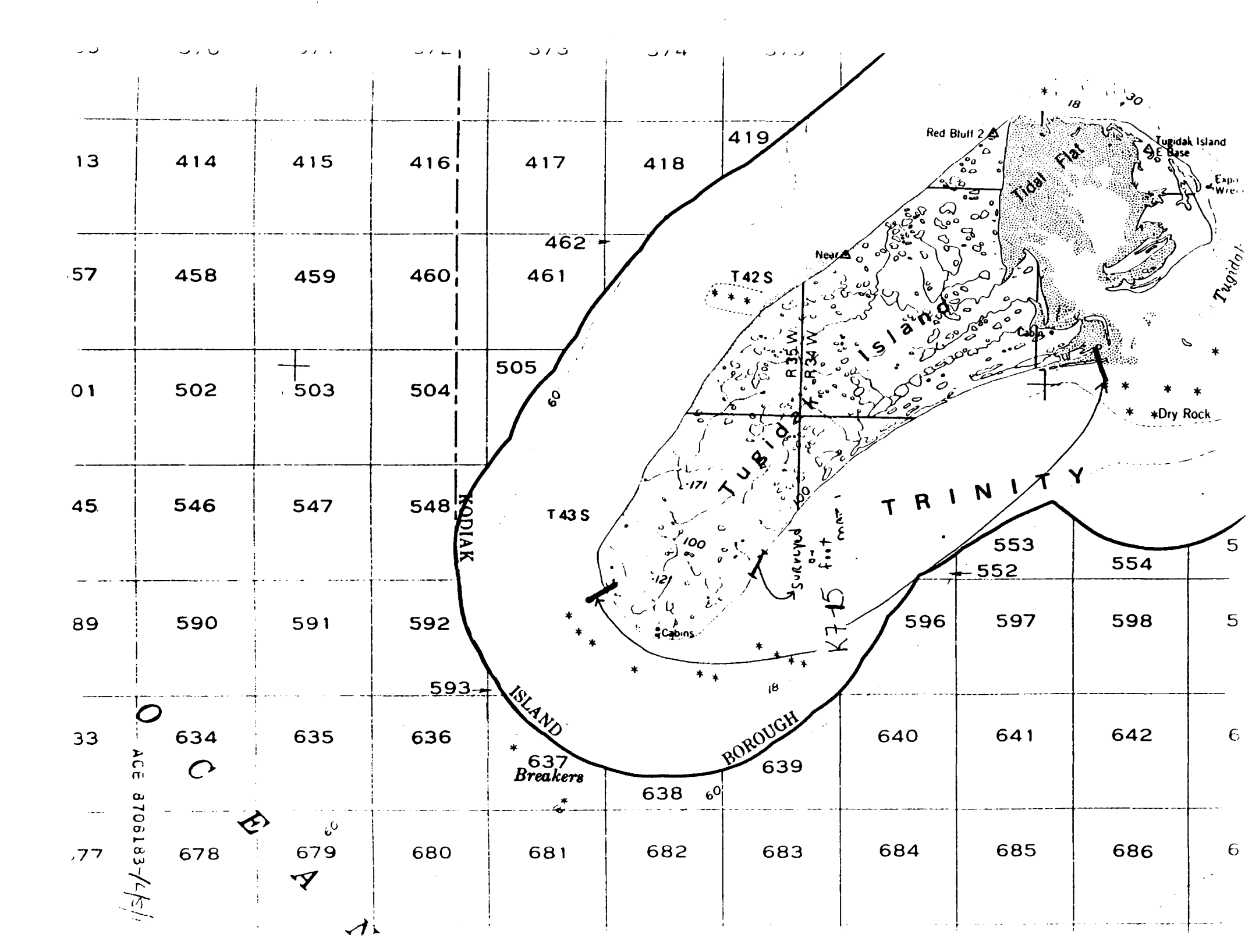
(3)

ACE 8708180

ACE 8708181

(5)

ACE 8708182


Red Blutt 2
Tugidak Island
Tidal Flat
Near
T42S
R35W
R34W
Island
Cabins
Dry Rock
TUGIDAK
T43S
TRINITY
KODIAK
ISLAND
BOROUGH
Surveyed
Breakers
Cabins
OCEA
ACE 870183-7/5/7

K7-16

file after 1 week

ACE 7963957

L 4

NOAA, KODIAK ICP
Alaska Airlines Bldg.
1200 Airport Way
Kodiak, AK. 99616

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/21/89 SHORELINE SEGMENT K7-16-TI-4

LOCATION: (see enclosed map) Tugidak Island- Interior Tidal flat area

ADEC NO. K7 SHORELINE ASSESSMENT DATE: 7/21/89

Recommended Cleanup Activity(ies):
- -Manual removal of mousse patties (see map #1-3 and location on segment map).

Priorities/Considerations: Class 5-A
- -Permit required by AK department of Fish & Game.
- -See attached memo from ADF&G for cleanup considerations.
- -Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
- -Remain below storm tide line. If seals present, use no mechanical equipment.
- -Avoid eagle nests.
- -Complete cleanup before 8/15/89.

Archaeological Constraints (from site survey):
- -Archaeological monitor required prior to and during clean-up. No access to forest/upland zone by beach crews during cleanup.

J. David McMahan Date: 7/25/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708184 - FISH

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 7/21/89 / Time: 1100 Observer: M. Acton
Surveyed From: Foot/Boat/Helo/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Tuxedni Island - Interior Tidal Flat Area Segment ID: K7-16-TI-4
Segment Length: 45 km m. Access: Vehicle/Boat/Barge/Helo/Float Plane
Access Restrictions: Tidal flat may restrict boat access.

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B____% / C 5 % / P 5 % / G&S 65 % / M 25 % / R____%

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment_____ SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 5 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)
Very light:	350	10
Light:		
Moderate:		
Heavy:		

Thickness >1cm:_____cm SU/SP/H/M/L
Penetration/Rework:_____cm SU/SP/H/M/L
Burial Depth:_____cm SU/SP/H/M/L

Mobilization Potential: High/Medium/Low
Drift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type:_____

OIL MORPHOLOGY

Pooled Oil:____%			SU/SP/H/M/L
"Free" Oil:____%			SU/SP/H/M/L
Splattered:____%		H/M/L/VL	SU/SP/H/M/L
Coated:____%		H/M/L/VL	SU/SP/H/M L
Pancakes/Balls: 100 %			SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 350 m
Total TYPE B:_____m
Total TYPE A/B:_____m

OIL WEATHERING

Fresh:____%		SU/SP/H/M/L
Mousse:____%		SU/SP/H/M/L
Feathered Mousse: 100 %		SU/SP/H/M/L
Asphalt Mousse:____%		SU/SP/H/M/L
Tar:____%		SU/SP/H/M/L

COMMENTS

See segment maps for locations of Note Maps.

ACE 8708185

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached Map

VTR: Y/N Tape Number(s) _____

Photography: (Y)/N Roll Number(s) MA3

Sample Numbers Collected: _____

Note Map #1 + #2

A-A' 100m

Sandy beach w/ cobbles

very light splat on driftwood

5m band of very light oil impact in SP zone consisting of oil/sand pads on surface, approx 100m long band

pad diameter 2-15 cm

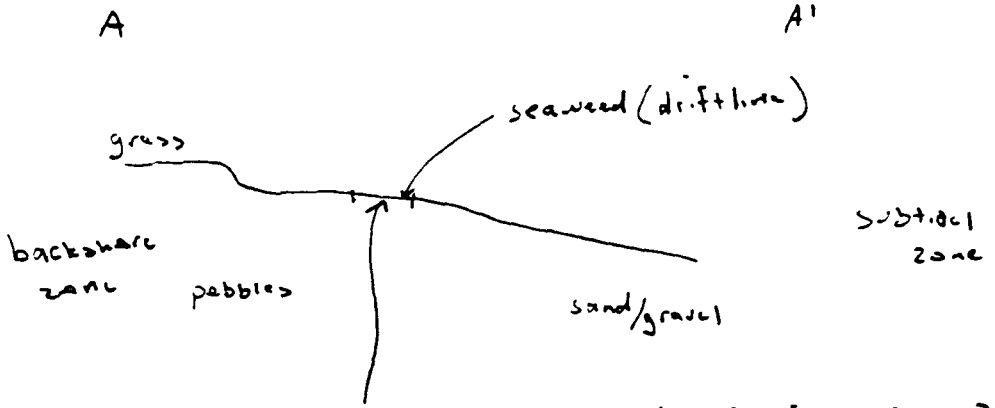
to approx 5 cm BGS

1130 hrs Tide approx +2'

photos MA3- 23 to W
24 to E

Note Map #3

A-A' 25m



3m band of very light oil impact in SP zone consisting of mousse pads on surface, approx 100m long band

pad diameter up to approx 10 cm

to approx 5cm BGS

1315 hrs Tide approx +3.5'

2 21

1115 Set down

0.1/sand pads L- 15cm in SP zone

5m band V lt oiling

Sandy beach w/ cobbles

A A' 100m A'

A

dune w/ grass

VL splat on driftwood

VL 0.1/sand pads

1150 set down Sand beaches

MAS-22 0.1/sand pad close up

At crest of spit VL 0.1/sand pads 150m x 10m

shore MAS-23 - on crest of spit

to W of set down MAS-23 W

24 E

At set down zone - 100m VL 0.1/sand

1320 lift off

1310, 1320 VL mousse at drift line - SP zone

3m band mousse up to 10cm thick on

grass sand

scrub 3m seaweed

mousse sand/gravel

pebbles

ACE 8708188

22

1325 - one mousse pad observed

1335 - no oil observed

1340 2 small pads in drift line

MAS-25 N

no S

1345 no oil

1350 no oil

1355 shut down MAS-27 close up of mousse pad + splat on dry

28 W

29 E

approx 3-4m band of 0.1/sand pad + mousse pad

in SP zone light impact in 3-4m band

VL splat on debris in SP zone

on surface around 1355

approx band widens to approx 6-7m as progress to E

surface to approx 5cm seaweed covered in drift line

debris zone

SW

band of light oil/sand mousse

HW

A A'

A-A' 50m

Hall 1435

MEMORANDUM State of Alaska

TO Distribution

DATE 7-24-89

FILE NO

TELEPHONE NO 486-5033

FROM

SUBJECT Requirements for Tugidik Island Oil spill shore clean-up

Edward W Weiss
Fisheries Technician III
Habitat Division
Alaska Department of Fish and Game

After discussing the matter with Wayne Dolezal our Habitat Biologist in Anchorage, the department has developed the following requirements for the oil spill treatment effort on Tugidik Island. We recommend that the Kodiak Intergency Shoreline Clean-up Commitee transmit the following information to Exxon so that Exxon may more completely prepare plans for shoreline treatment on Tugidak Island.

A. OPERATIONAL CONSTRAINTS/CONCERNS

1. Clean-up effort needs to be completed or terminated on most of the island by August 15, 1989, unless an extension is authorized by the Alaska Department of Fish and Game and the National Marine Fisheries Service.
2. The current 1500 foot minimum for aircraft operations is maintained in areas being used by seals. Recommended island approach traffic patterns are found on the attached map.
3. We suggest that clean-up efforts be maximized in the lagoon area, around the north of the island and down the west side, first (see enclosed map). In this way critical harbor seal use areas will be cleaned by the deadline. An extension, should it be needed, may be granted for the remainder of the island.
4. We prefer medium to large crew size so the clean-up will be completed quickly and disturbance to wildlife species will be short termed.
5. Clean-up crews will restrict activity to areas below storm tide lines. Crews are to avoid upland and marsh areas.
6. All oil and oil contaminated debris that is collected during the clean-up effort must be removed from Tugidak Island prior to September 30, 1989. We prefer that bags be removed daily if operationally possible.

B. PERMIT REQUIREMENTS: A Special Area Permit issued by ADF&G is required prior to shoreline treatment related activities on Tugidak Island. The Special Area Permit Application must be completed and forwarded to ADF&G at least five days prior to anticipated start date. As an advisory the

following conditions are included for your planning purposes.

1. ADF&G will authorize the use of ATVs for transport of oil contaminated debris and personell from work areas, provided:
   + Use of ATVs is restricted to areas below storm tide lines.
   + Only ATVs of the 3 and 4 wheeler size are used. No full sized vehicles.
2. Land based camps will be permitted provided:
   + Human waste and garbage that is created as a result of the clean-up activities must be removed from the island. Campsite areas are to be left as clean as they were prior to use.
   + We prefer that campsites are set up on the East or Gulf of Alaska side of the island, south of the lagoon area. If necessary other locations will be evaluated on a case by case basis.
   + Areas used are left as clean or cleaner than they were found.

C. Justifications:

The time period between August 15 and September 30 is a critical time for harbor seal haulouts. During this period harbor seals are hauled out on the beaches for molting into their winter coats. Undue exposures to the cold waters and stress from disturbances can cause abnormalties in coat formation resulting in mortalities.

The area of the island above the storm tide lines (the upland and marsh areas) and the lagoon area at the northeast end of the island are extremely important habitat areas. These areas are used extensively by nesting and migrating birds. Undue disturbances may cause increased mortality. The sand and gravel beaches in and around the lagoon are important haulout and use areas for harbor seals. This is the reasoning behind the restrictions on use above the storm tide zones and the lagoon area.

The necessary permits may be obtained through the ADF&G Anchorage office, Habitat Division. These can be FAX to Kodiak. If you have any further questions you can contact either myself at 486-5033, or Wayne Dolezal or Don McKay at 267-2285. Thank you.

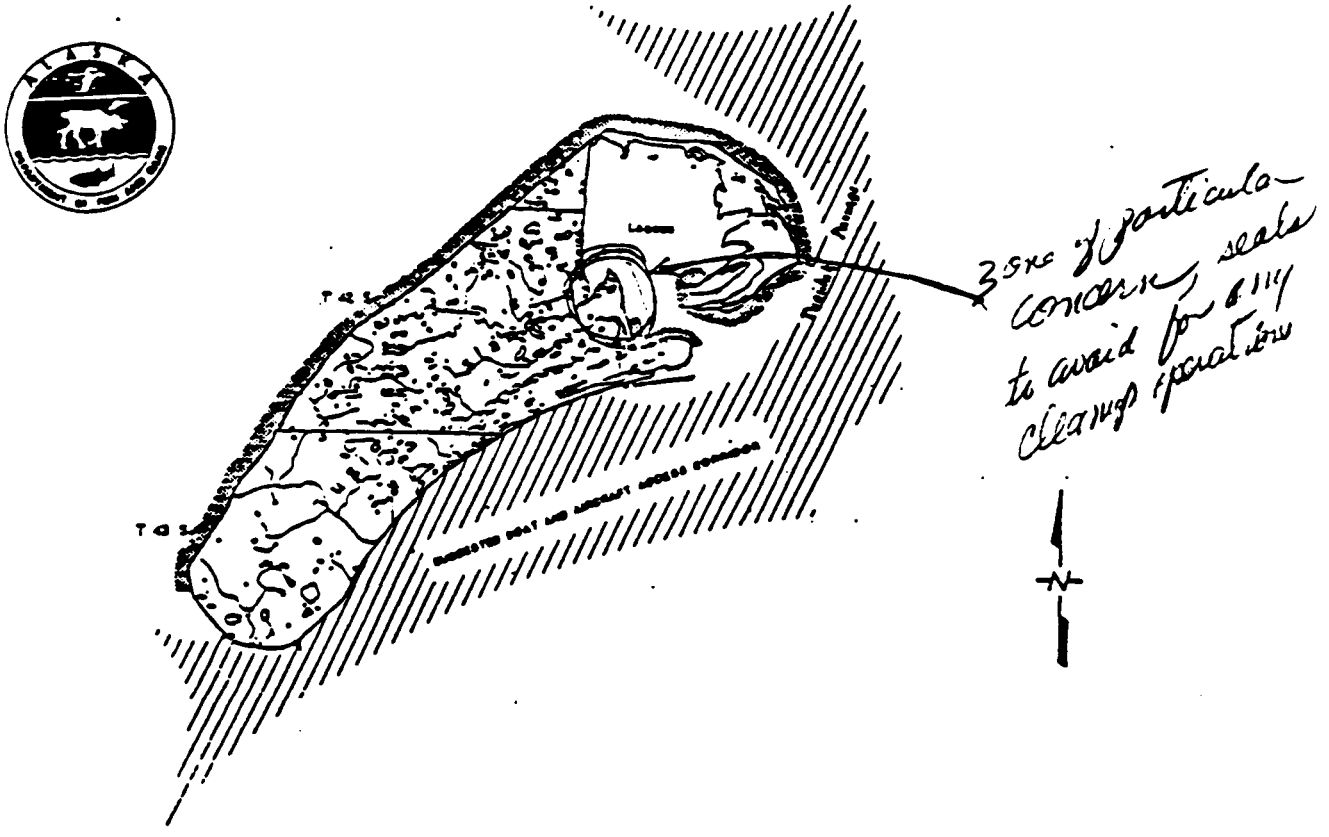
Enclosures.
Special Area Permit Application
Tugidik Island Critical Habitat Area advisory notice

Distribution.
Gary Penn Marine Ecologist SCAT
Mark Kuwanda ADF&G Habitat Division
Ken Middleton ADF&G Habitat Division
Kodiak Interagency Shoreline Clean-up Committee

TUGIDAK ISLAND CRITICAL HABITAT AREA

ADVISORY NOTICE
(July 1988)

Attention: To avoid disturbance of pupping and molting marine mammals, all beaches (shown with the [redacted] pattern) should be avoided during the period May 1 to October 1. In addition, aircraft overflights of these beaches from May 1 to October 1 should be made at a minimum altitude of 1,500 feet above ground level. Likewise, overflights of the lagoon from October 1 to April 30 should be made at a minimum altitude of 1,500 feet above ground level to avoid disturbing wintering waterfowl. Suggested boat and aircraft access corridors are depicted with a ////// pattern. Prior to operation of an off road vehicle within the Tugidak Island Critical Habitat Area a permit must first be obtained from the Alaska Department of Fish and Game.



Note: Tugidak Island Critical Habitat Area consists of all state land above the mean high tide line and the land and water below the mean high tide line in the lagoon at the northeast end of the island.

For further information and permits contact the Alaska Department of Fish and Game, Division of Habitat, 333 Raspberry Road, Anchorage, Alaska, 99518. Phone 907-267-2284.

ACE 8708192

Office Use Only

ALASKA DEPARTMENT OF FISH AND GAME
SPECIAL AREAS PERMIT APPLICATION

(For approval of a project or activity within a state game refuge, game sanctuary or critical habitat area)
Pursuant to 5 AAC 95

SAMPLE

s application must be completely filled out in order for the artment to consider approval of the proposed project or activity. ase type or print clearly in ink. If a question is not applicable your project, or you do not know the answer, please so indicate on appropriate line.

APPLICANT

Name: _____

Company: _____

Address: _____

_____ Phone (day): _____

Name of Responsible Party in the Field: [redacted]

LOCATION OF PROJECT SITE

Name of Special Area TUGIAIK ISLANDS CRITICAL HABITAT AREA

Specific project location ALL OIL IMPACTED BEACHES BELOW STORM TIDE LINE

Township 41, 42, 43 Range's 33, 34, 35 Meridian SEWARD Section —

Quarter Section — USGS Map TRINITY ISLANDS B2, B3, C2, C3

Is the project on: private land _____ state land X

federal land _____ municipal land _____ ownership unknown _____

Waterbodies crossed or otherwise affected: TUGIAIK ISLANDS LAGOON

E [redacted]

Is the project in the coastal zone?* Yes X No _____
If yes, attach a completed Coastal Project Questionnaire to this application. COASTAL PROJECT QUESTIONNAIRE WAIVED

[redacted]

On separate, attached sheets provide complete plans and specifications and all other details necessary to fully describe the scope of the proposed project or activity. Include, at a minimum, the following information:

The purpose of the project or activity.

ACE 8708193

*If you are uncertain as to whether your proposed project lies

Office Use Only

ALASKA DEPARTMENT OF FISH AND GAME
SPECIAL AREAS PERMIT APPLICATION

(For approval of a project or activity within
a state game refuge, game sanctuary or critical habitat area)
Pursuant to 5 AAC 95

s application must be completely filled out in order for the artment to consider approval of a proposed project or activity. ase type or print clearly in ink. If a question is not applicable your project, or you do not know the answer, please so indicate on appropriate line.

APPLICANT

Name: _____

Company: _____

Address: _____

_____ Phone (day): _____

Name of Responsible Party in the Field: _____

LOCATION OF PROJECT SITE

Name of Special Area _____

Specific project location _____

Township _____ Range _____ Meridian _____ Section _____

Quarter Section _____ USGS Map _____

Is the project on: private land _____ state land _____

federal land _____ municipal land _____ ownership unknown _____

Waterbodies crossed or otherwise affected: _____

_____

Is the project in the coastal zone?* Yes _____ No _____
If yes, attach a completed Coastal Project Questionnaire to this application.

DESCRIPTION OF THE PROJECT OR ACTIVITY

On separate, attached sheets provide complete plans and specifications and all other details necessary to fully describe the scope of the proposed project or activity. Include, at a minimum, the following information:

The purpose of the project or activity.

ACE 8708194

*If you are uncertain as to whether your proposed project lies [illegible] Division office.

The timeframe for the project or activity, including the specific time periods for any inwater work or other activities which may disturb fish or wildlife.

A description of construction methods, types and quantities of equipment and number of people involved.

A description of water use including methods of withdrawal, rate of withdrawal, and the total quantity of water required.

A list of fill and excavation quantities including the types of material and the source.

A map and description showing how access will be gained to the project area (use USGS 1:63,360 scale maps where available).

A detailed map or plan view, drawn to scale, and any cross-sectional views necessary to show project features and local topography including the location of all facilities and project dimensions.

A current aerial photograph of the project location (if available).

D. OTHER PERMITS

Identify other state or federal permits or authorizations obtained or applied for: _____

_____

MITIGATION: As a condition of project approval, applicants will be required to compensate fully for damage to fish and wildlife and their habitat by employing the most appropriate techniques. Where determined necessary by the department, a mitigation plan pursuant to 5 AAC 95 will be required.

I HEREBY CERTIFY THAT ALL INFORMATION PROVIDED ON OR IN CONNECTION WITH THIS APPLICATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

_____ _____

Signature of Applicant Date

_____

Name of Applicant (please print)

SUBMIT APPLICATION BY MAIL OR IN PERSON TO THE APPROPRIATE DEPARTMENT OF FISH AND GAME HABITAT DIVISION OFFICE.

Habitat Division Addresses:

JUNEAU (Southeast Alaska - Region I)
P.O. Box 20, Douglas, AK 99824-0020 (465-4290)
ANCHORAGE (Southcentral, Southwest and Western Alaska - Regions II and IV)
333 Raspberry Rd., Anchorage, AK 99518-1599 (344-0541)
FAIRBANKS (Interior and Arctic Alaska - Region III)
1565 University Avenue, Fairbanks, AK 99701 (479-3104)

ACE 8708195

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Kodiak SITE: Trinity Islands - Tugidak OBSERVER: G. Penn

LOCATION PREFIX: K7-16 SEG. NO.: T1-4 LENGTH: 45km ~~(M)~~

DATE: 07/21/89 TIME (HHMM): 11:30 TIDE HT.: 1.0 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks Boulder Cobble (Gravel Sand Mud)

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/(N)

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/(N)

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/(N)

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/(N)

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/(N)

OTHER OBSERVATIONS: Priapulid type worm (sympatric species) dense in tidal flats.

*CLEANUP PRECAUTIONS: Cleanup to be completed before Aug. 15 (start of seal molt season). Stay clear of Grassed areas + Eagle nesting sites (see maps). Do not use motorized vehicles if seals present in HAUL OUT areas.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Fur seals, Ground squirrels

BIRDS: Gulls, Eagles

GENERAL OBSERVATIONS: ___

* See Attached AF&G Summaries, maps, restrictions

ACE 8708196

October 21, 1987
(with 1986 resource update)

Tugidak Island Fish and Wildlife Resources

Tugidak Island is unique in the Gulf of Alaska not only because of its unusual number of extremely productive and diverse fish and wildlife habitats but also because those habitats have remained in a relatively natural, undisturbed state. To date very little human disturbance has occurred on the island to threaten the vulnerable groundnesting birds, harbor seal pupping areas, and rich lagoon environment.

Marine mammals: Tugidak is most renowned for its harbor seal population. Tugidak Island has historically supported one of the largest harbor seal populations in the world, estimated at 15,000 to 20,000 animals with peak concentrations of hauled out seals reaching 14,000 at a time. Tugidak Island is also a major pupping area for harbor seals in the Gulf of Alaska with annual production once estimated at a high of 5,500 pups. That population is now substantially depressed but remains one of the largest known. Seals haul, pup, and molt on beaches found along the west and northeast side of the island and in the vicinity of the mouth of the lagoon.

Sea otters are common in the nearshore waters around Tugidak Island. Approximately 400 to 700 sea otters are found in the vicinity of Tugidak Island, with medium to high densities along the south side of the island.

Birds: The interspersion of many different habitat types on Tugidak Island associated with cliff and bluff shores; sand and rocky beaches; spits, bars and tideflats; freshwater streams and lakes; saltwater marshes and lagoons; vast eelgrass beds; freshwater wetlands; and uplands attracts some of the greatest diversity of bird life known to nest on and visit any one island in the Gulf of Alaska.

The island serves as a valuable spring and fall resting and feeding area and as a production area for birds migrating from the Pacific coast of North America. Because Tugidak Island is low, treeless, and free of introduced predators, all birds nest on the ground and are particularly susceptible to habitat destruction, predation, and trampling.

- At least 56 species of birds occur on Tugidak Island. Thirty eight species are known to nest there, and 26 of these species are considered common or abundant.

- Wetland habitats throughout the island provide nesting habitat for waterfowl, shorebirds, tundra swans and loons, with wetlands habitats along the south shore supporting nesting concentrations of mallards, pintails, gadwalls, green-winged teal and wigeon.

- Snow geese concentrate on the island during spring migration to rest and feed.

- The lagoon supports spring and fall concentrations of ducks and shorebirds. Black brant and white-fronted geese also concentrate in the lagoon in the fall to rest and feed. The lagoon area provides winter habitat for emperor geese, a species that has recently experienced a serious population decline.

- The coastal waters surrounding Tugidak Island are a major overwintering area for waterbirds, primarily seaducks.

- Five seabird colonies are documented on Tugidak Island, totalling nearly 4,000 nesting birds. Glaucous-winged gulls are the most abundant seabird, followed by arctic terns, mew gulls, and cormorants.

- Of particular significance are records of ~~six~~ ten ground nesting bald eagles. These bald eagle nests are located on bluffs or slight rises in the terrain throughout the island.

- Peregrine falcons are also reported to nest on the island's bluffs.

- Several thousand ptarmigan nest in upland areas of the island.

Fish and Shellfish: The lagoon and nearshore waters of Tugidak provide a productive marine environment for several species of fish and shellfish. The island's stream systems provide habitat for anadromous fish.

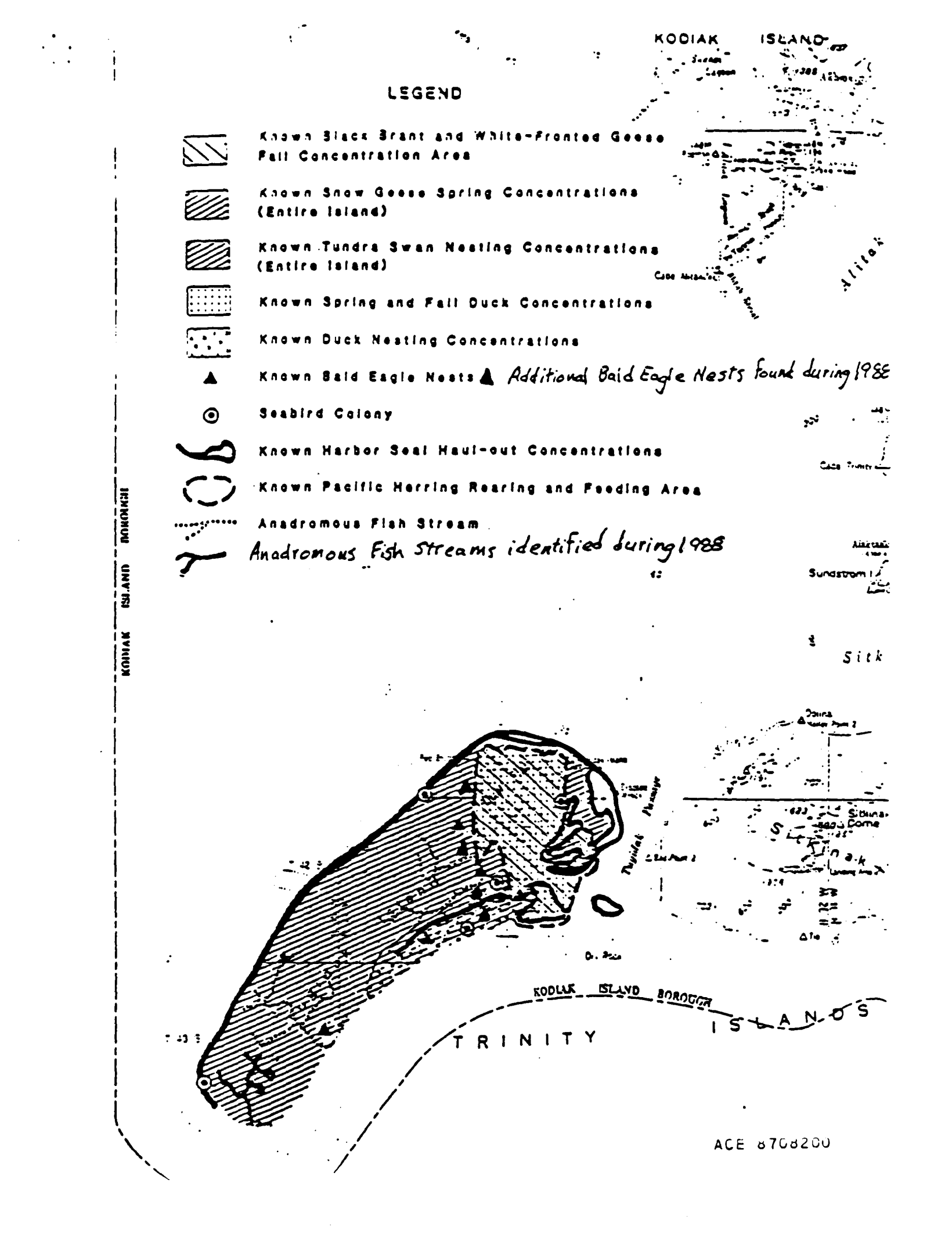
- There are ~~three~~ five documented salmon stream systems on the island supporting chum and/or coho salmon.

- The lagoon is a productive rearing and feeding area for large numbers of Pacific herring.

- Known razor clam concentrations occur along the bars at the mouth of the lagoon.

- Based upon frequent observations of small Dungeness crab carapaces and exoskeletons washed up along the lagoon's shores and large commercial catches of Dungeness crab directly offshore of the lagoon, the shallow waters and large eelgrass beds found in the lagoon are thought to provide an important nursery rearing area for Dungeness crab.

Archaeological Sites: Eight archaeological sites have been documented on the island. Although largely unexplored, they appear to indicate abundant prehistoric use of the island, with a majority of the sites located along the lagoon.


KODIAK ISLAND
LEGEND
Known Black Brant and White-Fronted Geese Fall Concentration Area
Known Snow Geese Spring Concentrations (Entire Island)
Known Tundra Swan Nesting Concentrations (Entire Island)
Known Spring and Fall Duck Concentrations
Known Duck Nesting Concentrations
Known Bald Eagle Nests
Additional Bald Eagle Nests found during 1988
Seabird Colony
Known Harbor Seal Haul-out Concentrations
Known Pacific Herring Rearing and Feeding Area
Anadromous Fish Stream
Anadromous Fish Streams identified during 1988
KODIAK ISLAND BOROUGH
Sitka
Sitkinak Dome
KODIAK ISLAND BOROUGH
TRINITY ISLANDS
ACE 8708200

TUGIDAK ISLAND CRITICAL HABITAT AREA

ADVISORY NOTICE
(July 1988)

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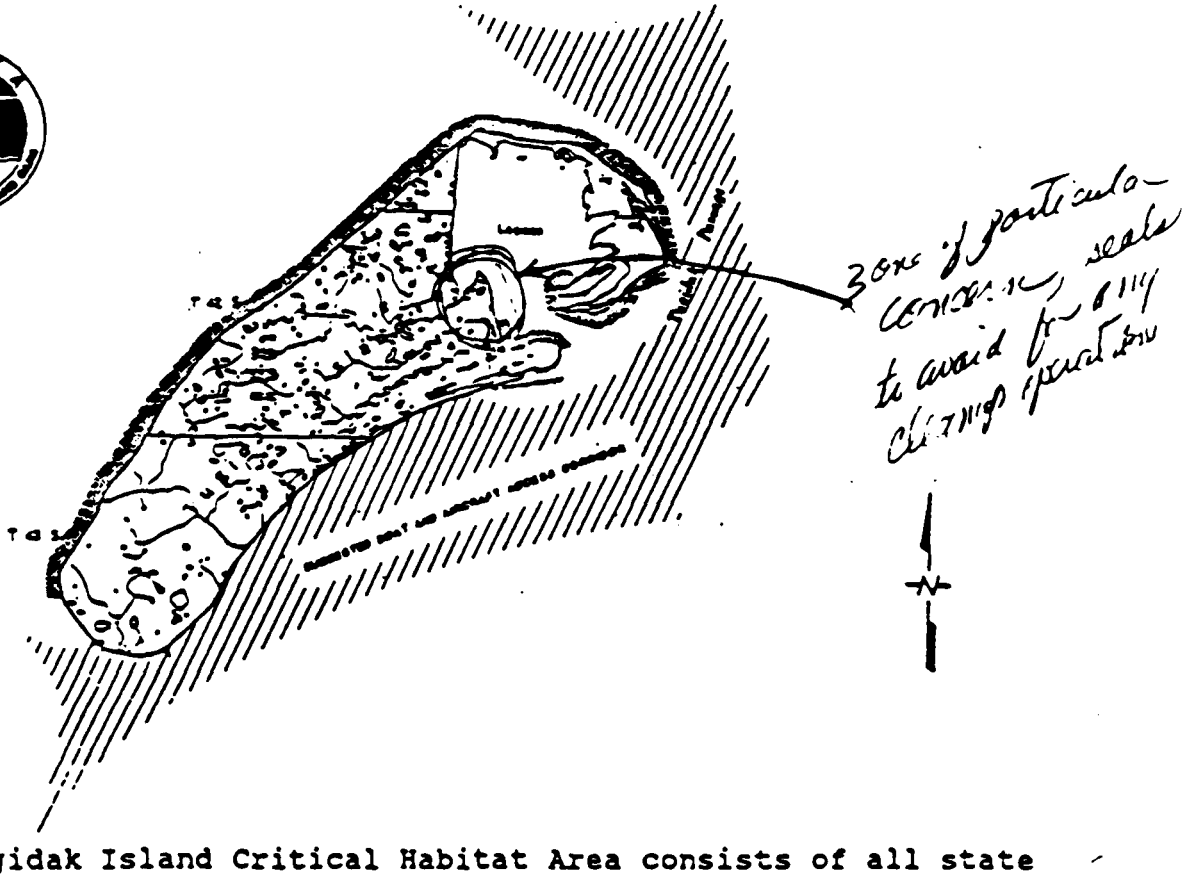
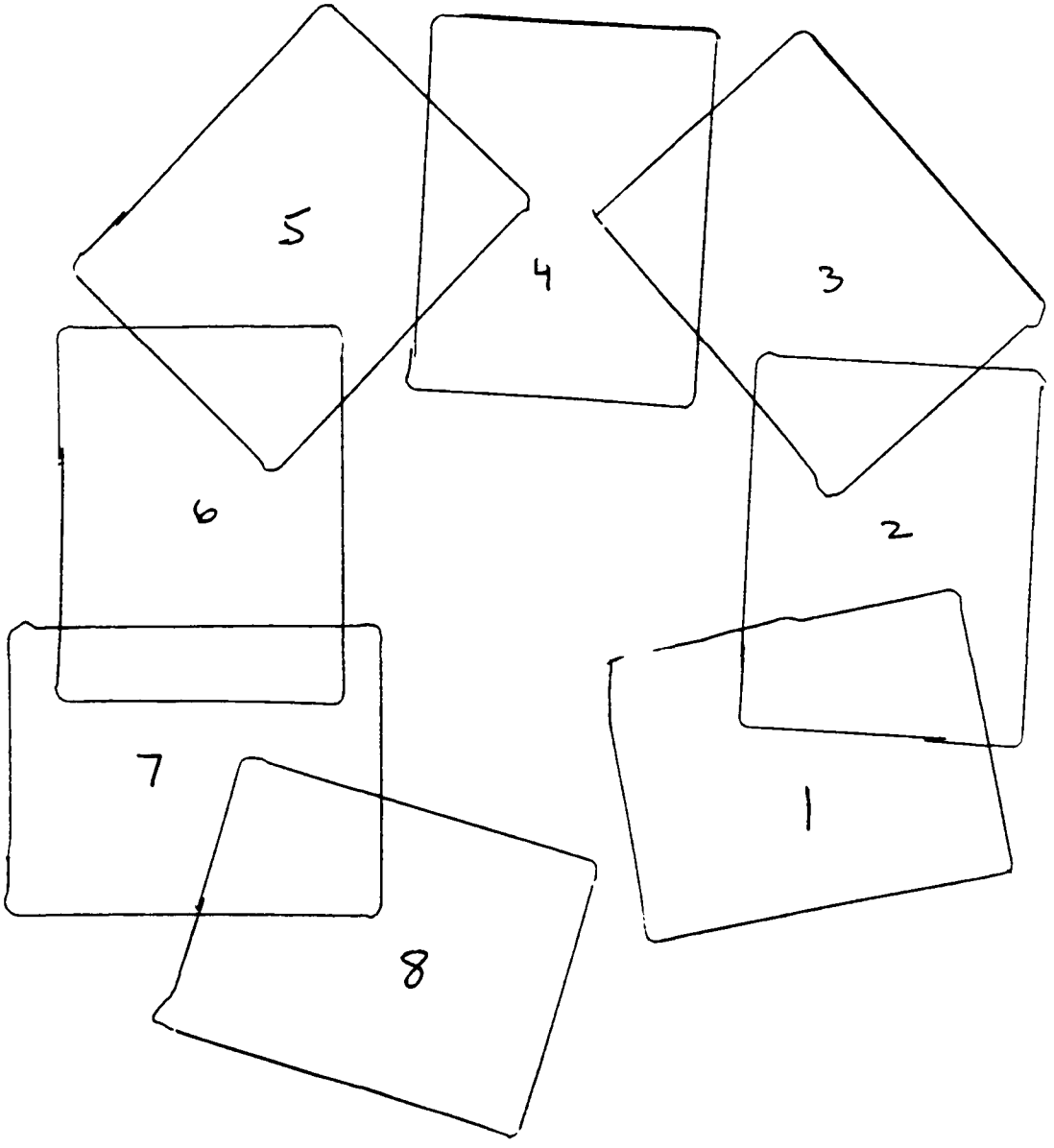


Note: Tugidak Island Critical Habitat Area consists of all state land above the mean high tide line and the land and water below the mean high tide line in the lagoon at the northeast end of the island.

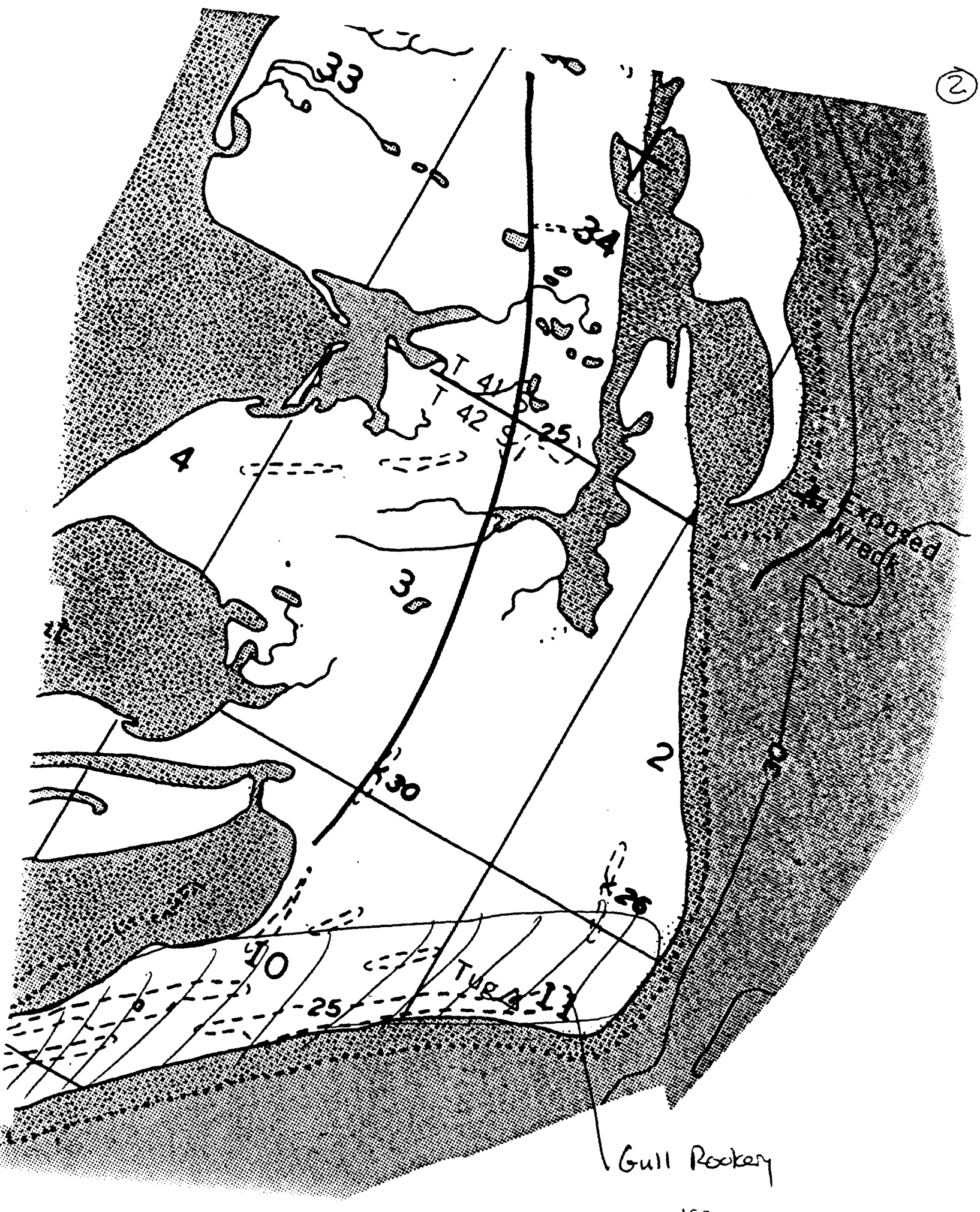
For further information and permits contact the Alaska Department of Fish and Game, Division of Habitat, 333 Raspberry Road, Anchorage, Alaska, 99518. Phone 907-267-2284.

ACE 8708201

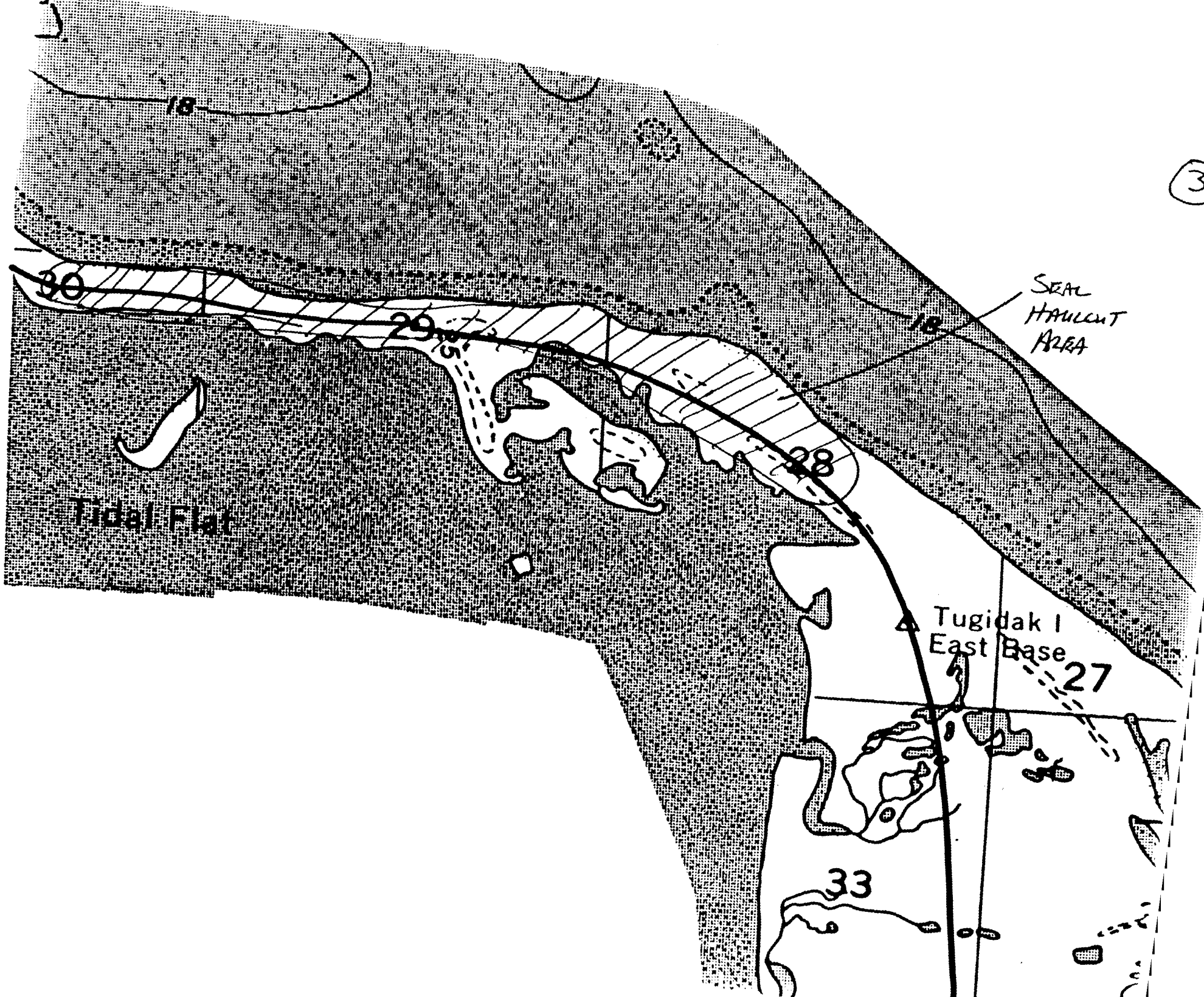
Segment Map Index



See Note Map #2
Very light oil impact
Tidal Flat
30
9
8
7
6
25
16
15
K7-16-II-4
Very light oil impact
See Note map #1
Areas surveyed on foot
Gull Rookery
K7-16-II-4
ACE 3708204

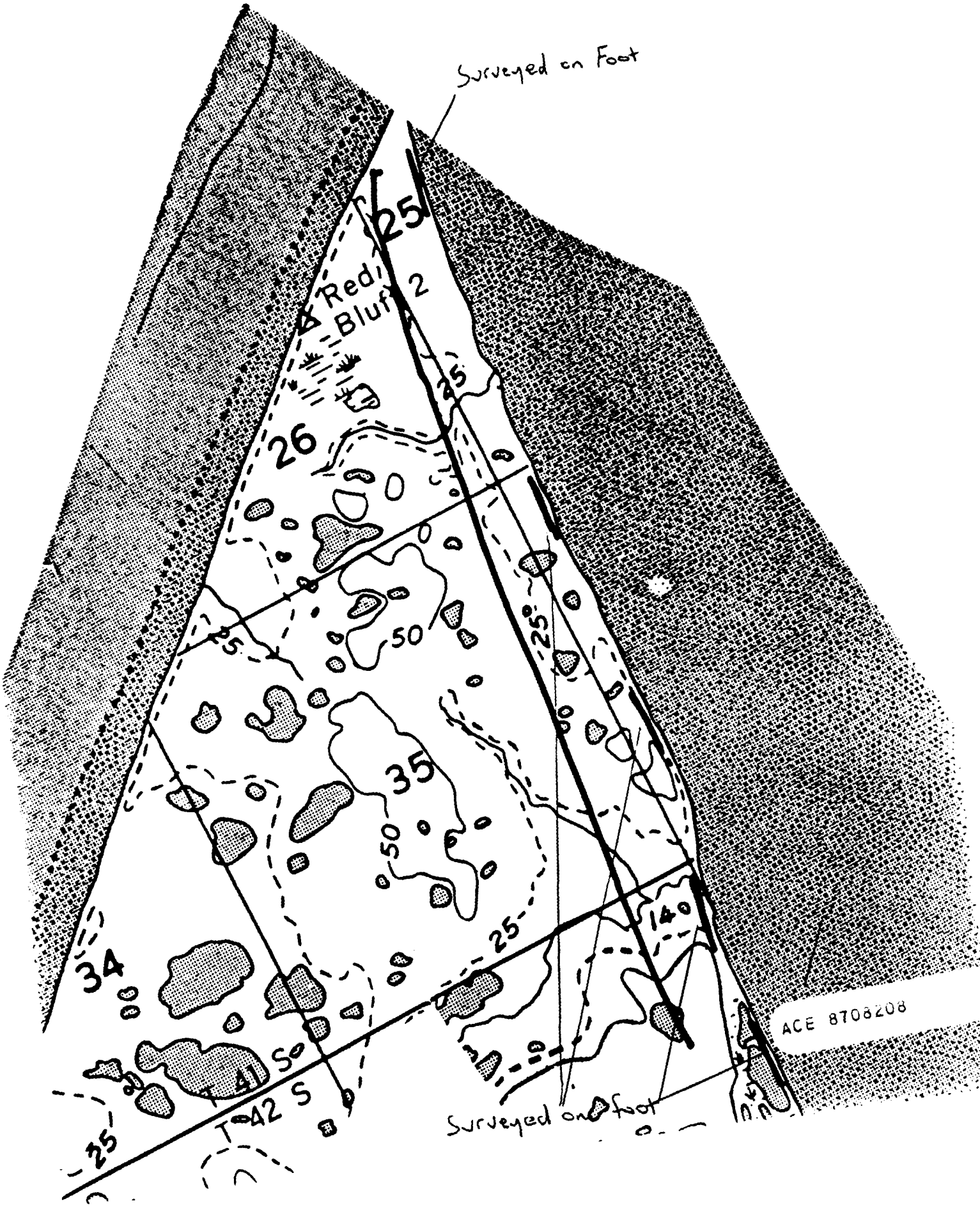

33
34
T 41
T 42
25
4
30
2
K30
K26
10
25
Tug 4-11
Exposed Wreck
Gull Rookery

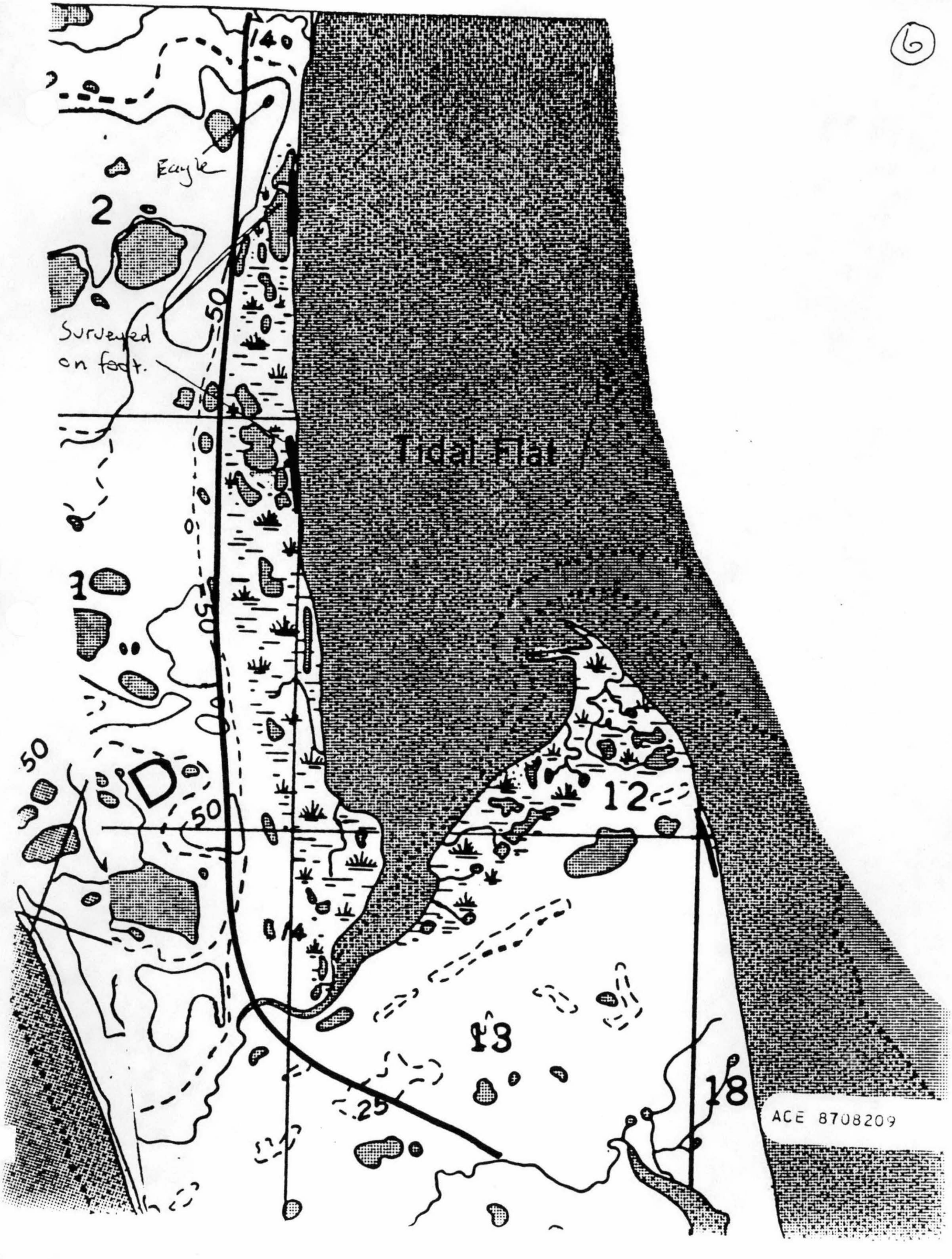
ACE 8708205


18
30
29
18
28
27
33
Tidal Flat
Tugidak I
East Base
SEAL
HAULOUT
AREA

ACE 8708206

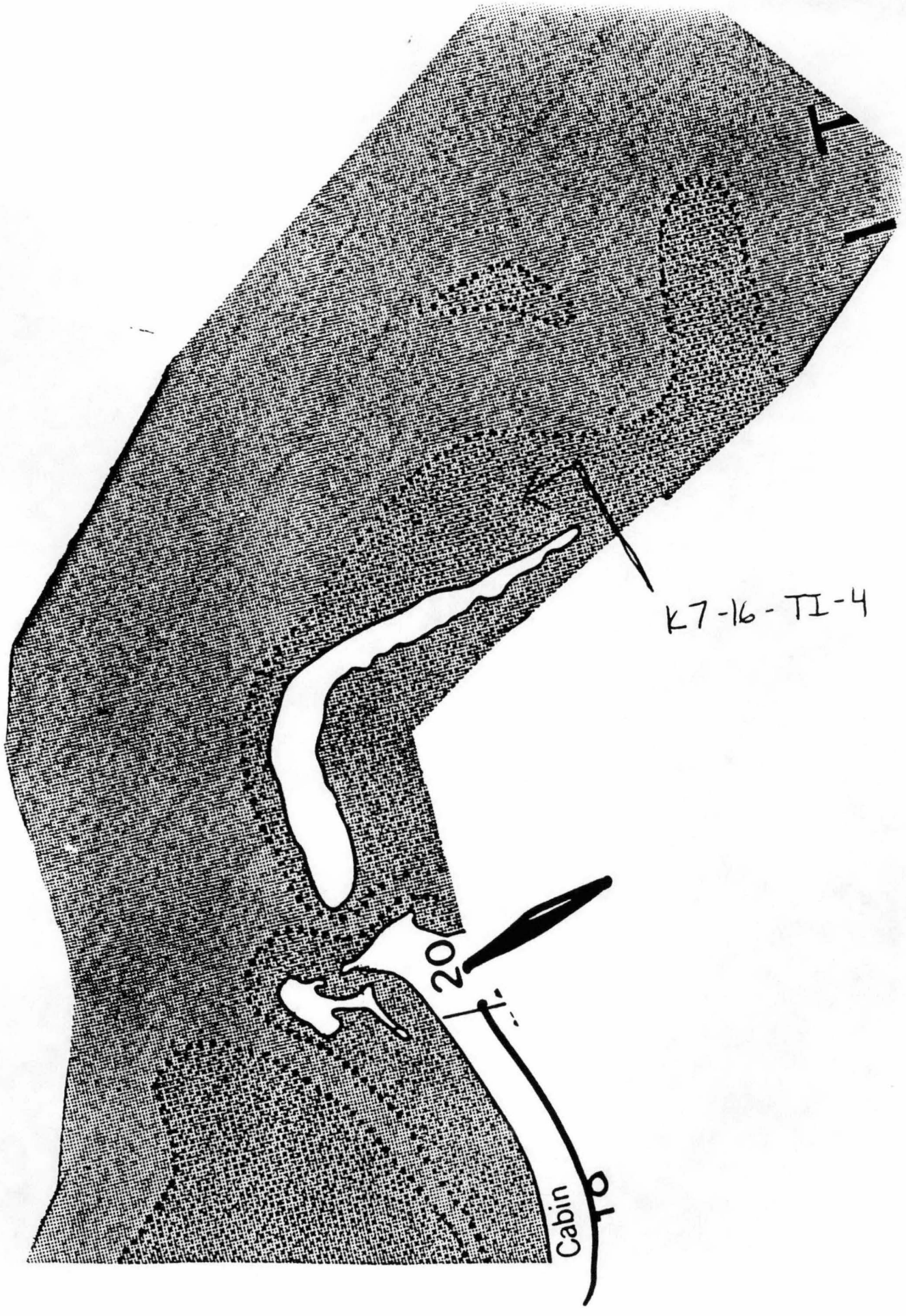
SEAL HAULOUT AREA
24
19
30
26
R 34 W
R 33 W
Tidal Flat
ACE 8708207


Surveyed on Foot
Red
Bluff
2
25
26
25
50
25
35
50
25
34
00
140
00
T 41 S
T 42 S
25
Surveyed on Foot
ACE 8708208

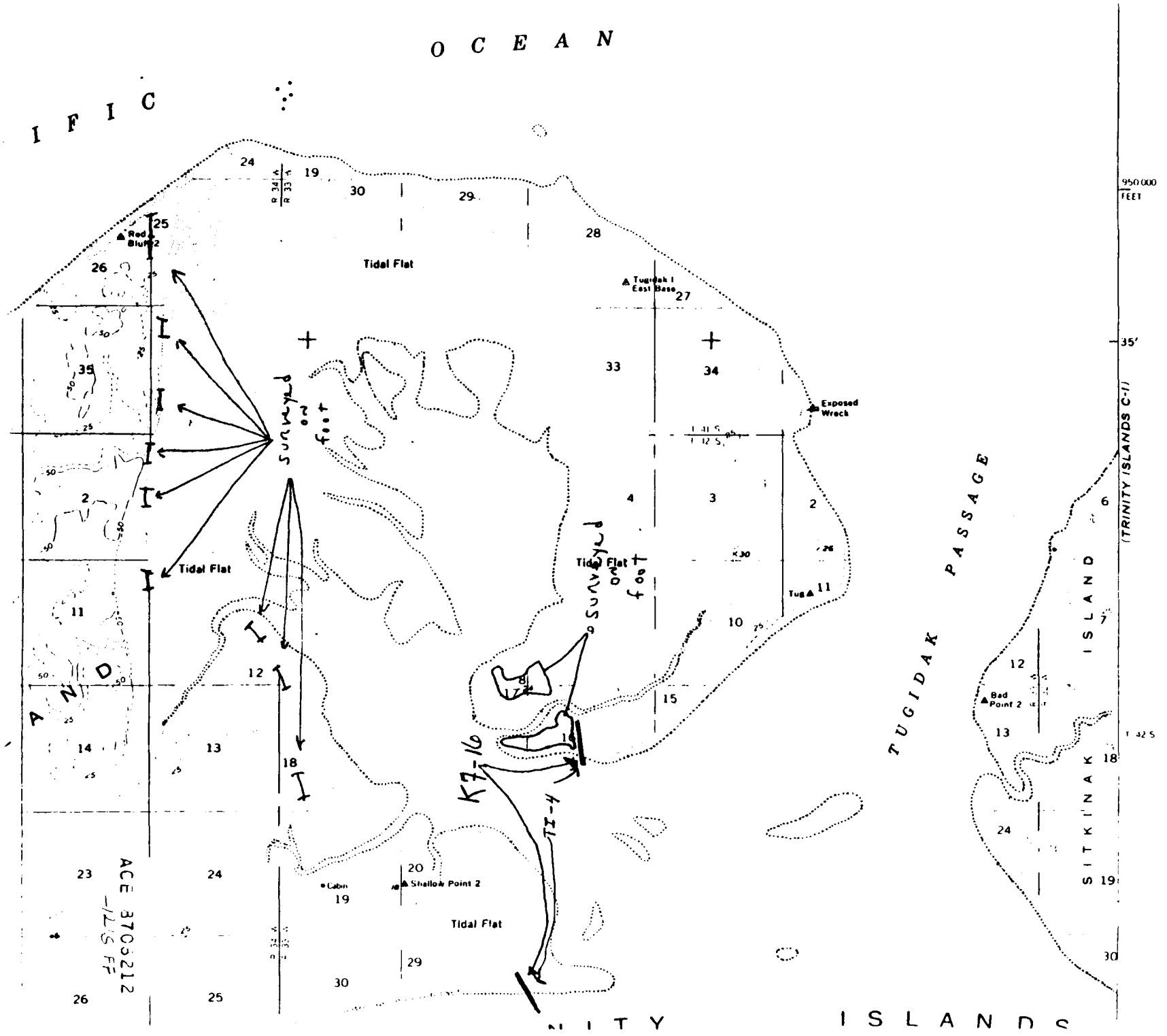

6
Eagle
2
Surveyed
on foot.
40
50
Tidal Flat
10
50
50
D
50
12
13
25
18
ACE 8708209

(7)

ACE 870621D



ACE 8708211


O C E A N
I F I C
Red Bluff 2
Tidal Flat
Tugidak I East Base
Exposed Wreck
Surveyed 1 foot
Surveyed 1 foot
Tidal Flat
Tidal Flat
Tug
K7-16
T2-4
Cabin
Shallow Point 2
Tidal Flat
A N D
ACE 370212
-17.5 FF
TUGIDAK PASSAGE
SITKINAK ISLAND
(TRINITY ISLANDS C-1)
Bad Point 2
950 000 FEET
35'
I S L A N D S

K8-1

ACE 7963958

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/02/89 SHORELINE SEGMENT K8-1-UB-10

LOCATION: (see enclosed map) Ugak Island, Ugak Bay, Kodiak Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/24/89

Recommended Cleanup Activity(ies):

-No cleanup recommended due to only one mousse splatter found in segment. Subject to FOSC reassessment at a later date.

Priorities/Considerations:

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):

-If cleanup is planned, inspection by an archaeological monitor is required in this segment.

_____ Date: 9/6/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708213-

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 24 JULY '89 / Time: 0915 Observer: BRYAN TRIMM
rveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

OCATION

ocation: BEAR ISLAND UGAK BAY, KODIAK ISLAND Segment ID: K8-1-UB-10
egment Length: 10850 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
ccess Restrictions: LIMITED ON EAST & NORTH SHORE DUE TO HIGH WAVE ENERGY

SHORELINE

horeline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
ave Exposure: High/Med/Low
ediment: B 25 % / C 25 % / P 25 % / G&S 5 % / M ___ % / R 20 %

OIL

vg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
rea of Impact: SU/SP/H/M/L

OIL DISTRIBUTION

ontinuous % of Segment 0 SU/SP/H/M/L H/M/L/VL
oradic % of Segment 0.00001 SU/SP/H/M/L H/M/L/VL

otal	Length(m)	Width(m)
ery light:	2.02	0.02
ight:		
oderate:		
eavy:		

Thickness >1cm: ____ cm SU/SP/H/M/L
Penetration/Rework: ____ cm SU/SP/H/M/L
Burial Depth: ____ cm SU/SP/H/M/L

-bilization Potential: High/Medium/Low
ft Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: ____

OIL MORPHOLOGY

ooled Oil:	%		SU/SP/H/M/L
Free" Oil:	%		SU/SP/H/M/L
plattered:	100 %	H/M/L/VL	SU/SP/H/M/L
oated:	%	H/M/L/VL	SU/SP/H/M L
ancakes/Balls:	%		SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 0.02 m
Total TYPE B: ____ m
Total TYPE A/B: ____ m

OIL WEATHERING

resh:	%	SU/SP/H/M/L
ousse:	100 %	SU/SP/H/M/L
eathered Mousse:	%	SU/SP/H/M/L
sphalt Mousse:	%	SU/SP/H/M/L
ar:	%	SU/SP/H/M/L

COMMENTS

U.S. ONLY ONE 1/QUARTER COIN SIZE (2 x 2 cm) FOUND ON THE NORTH SHORE BY THE "RIPS" BENCHMARK IN THE HIGH INTERTIDAL ZONE. ALL OTHER BEACHES - NO OIL OBSERVED. BEACH COMPOSITION VARIES FROM BOULDER BEACH TO PEBBLE/SAND/COBBLE. BEACHES ALSO FLAT ANGLE BEDROCK OUTCROPS IN THE BOULDER BEACH. BEACH IS USUALLY 20 M WIDE WITH 10 TO 40 M CLIFFS (BOTH ROCK & UNCONSOLIDATED MATERIAL)

ACE 8708214

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See attached

VTR: (Y)/N Tape Number(s) 505-13

Photography: (Y)/N Roll Number(s) DMC-21

Sample Numbers Collected: N/A

24 July — Monday

0820 Lv SCAT office for ADQ
0900 Lv ADQ → UGAK I.B. Eshamy Kodiak
35 BEN FAR: Dusc & McCormick - B.D
Jon Englehow - Arch
ME - Geol/OG
Lance Stevens - NPS
Dave - USCG

0915 K8-1-UB-10
Cloudy, Hazy
S/P/C → B/C/P/S Beaches
Visit to Hi & Lo's
Hi - Med Wave

1935 α Vlt splat Hitz 1 spot Hi Energy 2x2cm

1940 β 2 ft + deep C-WD drift - clean
B/P/C/S clean

0947 ϕ Clean S/P/C Hi Energy

0957 σ Clean

24 July — Monday

1002 ζ Clean S/P/C Beach
Med Wave

Recommend -
No Action - Only 1 2-2cm
Choc mousse ζ α. No observed
on landings or dep't.

1006 Lv for ADQ - Refuel
1023 Ar ADQ ⇓
1055 Lv ADQ → Cape Douglas

1146 K9-11-CD-20
Sunny
"Tapgravel"
Strandline Pebble/Sdg Beach
~ 50m wide Hi-Med Wave Energy
Lug drift SP/Supra/Hitz
Beautiful!!
V. Lt splat Hitz/SP Choc mousse patties
"melting" into beach to 10cm. Always
Sl. surface expression of oiling.

ACE 8708216

LEVEL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: UGAK ISLAND K-8-17 SITE: _____ OBSERVER: D McCormick

LOCATION PREFIX: UB SEG. NO.: 10 LENGTH: 10850 (M)

DATE: 7/24/89 TIME (HHMM): 0915 TIDE HT.: +1.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on cobbles

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense - provides in mid-ITZ

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed

OTHER OBSERVATIONS: kelp fibers on gravel beaches; eelgrass, Enteromorpha, Laminaria, Costaria

CLEANUP PRECAUTIONS: None since no cleanup is recommended.

MAMMALS: Otters ___ Harbor Seals ~50 Sea Lions approx. 30 Whales _____
Other _____

BIRDS: oystercatchers, cormorants, pigeon guillemots, bald eagles, gulls, pelagic cormorants

GENERAL OBSERVATIONS: One patch of juvenile mussels seen on the entire island.

ACE 87Jo217

25'

K8-1-UB-1.0

(HELIO)

ACE 8708219 -1-1

517-615 an
517-620

KODIAK SCAT
K8-2

COMPLETE JAN 1 0 1990

ACE 7963959

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-2

Includes Shoreline Segments: UB-1

Location: Northeast end of Ugak Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

ACE 8708220

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/22/89 SHORELINE SEGMENT K8-2-UB-1

LOCATION: (see enclosed map) Northeast end of Ugak Bay

ADEC NO._____ SHORELINE ASSESSMENT DATE: 7/23/89

Recommended Cleanup Activity(ies):
-No additional cleanup recommended due to present road crew cleanup activities and very light oiling conditions. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
-None.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

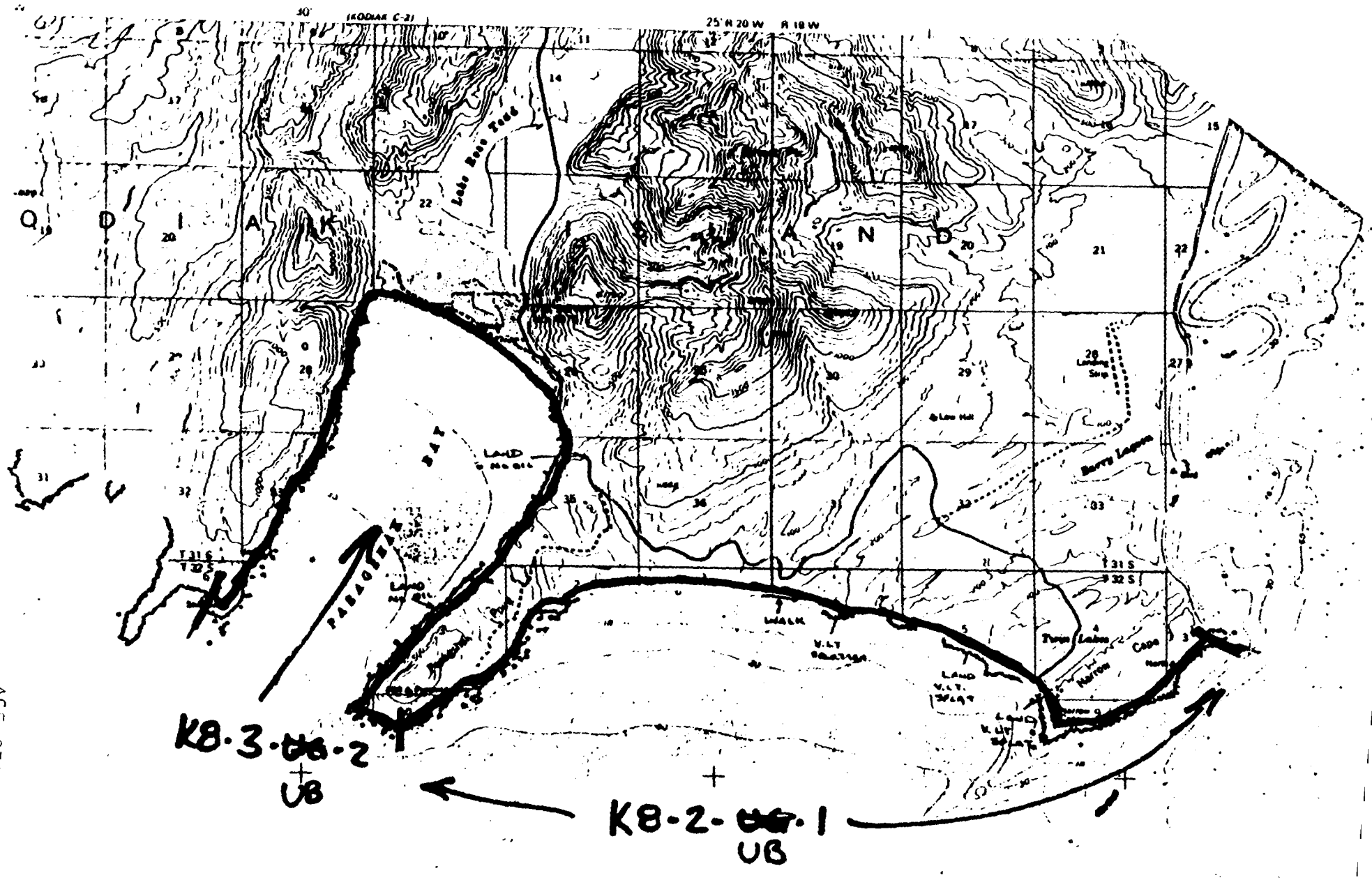
J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON:_____ Date:_____

FOSC:_____ Date:_____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708221 -


KODIAK C-2
25 S R 20 W R 19 W
Lake Rose Road
ALASKA
ISLAND
BAY
PASAGSHAK
WALK
Twin Lakes
Camp
K8-3-UB-2
UB
K8-2-UB-1
UB

ACE 8700222

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 23 JUL 89 / Time: 1432 Observer: BRYL TRIMM
Surveyed From: Foot/Boat/Helo/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: [illegible] Segment ID: K8-2-UB-1
Segment Length: 11250 m. Access: Vehicle/Boat/Barge/Helo/Float Plane
Access Restrictions: [illegible]

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 10 % / C — % / P 5 % / G&S 65 % / M ___ % / R 20 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment 0 SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 0.001 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)
Very light:	1/2	10
Light:		
Moderate:		
Heavy:		

Thickness >1cm: ___ cm SU/SP/H/M/L
Penetration/Rework: ___ cm SU/SP/H/M/L
Burial Depth: ___ cm SU/SP/H/M/L

Mobilization Potential: High/Medium/Low
Drift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Seaweed, Logs

OIL MORPHOLOGY

Pooled Oil: ___ %			SU/SP/H/M/L
"Free" Oil: ___ %			SU/SP/H/M/L
Splattered: 100 %	H/M/L/VL		SU/SP/H/M/L
Coated: ___ %	H/M/L/VL		SU/SP/H/M/L
Pancakes/Balls: ___ %			SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 5 m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

OIL WEATHERING

Fresh: ___ %		SU/SP/H/M/L
Mousse: ___ %		SU/SP/H/M/L
Weathered Mousse: 100 %		SU/SP/H/M/L
Asphalt Mousse: ___ %		SU/SP/H/M/L
Tar: ___ %		SU/SP/H/M/L

COMMENTS
WEATHERED MOUSSE IS VERY LIGHTLY SPLATTERED IN THE SPLASH ZONE. [illegible] CONCENTRATED ON BOULDERS, FAIRLY [illegible] MEET ROAD CREW, ONE MEMBER SAID THEY PICKED UP [illegible] OF OILED MATERIAL ON THIS SEGMENT IN THE LAST MONTH.
AT PRESENT, BEACH IS BEING PATROLLED BY ROAD CREW. OIL ON BOULDERS COVERS 0.001% OF BEACH

ACE 8708223

POOR QUALITY ORIGINAL

DOCUMENTATION:

Map/Aerial photo marking segment boundaries [illegible]

VTR: (Y)/N Tape Number(s) KOS-13

Photography: (Y)/N Roll Number(s) DMC-21

Sample Numbers Collected: NIA

23 JULY ——————— SUNDAY

1420 LV ADQ → UGAK BAY (KODIAK I.)
358EH (DEAN - PILOT)

PAX. BILL MARTIN - B.IO
DEBBIE McCORMICK - B.IO
JOHN ERLENSON - ARCH
ME - GEOL
DAVE - USCG

SCAT

1432 - KB-2-UG-1

α- LDING - 50% BEACH FRONT OF WASH
1 SM 2=1 CM OIL

β 1449 - V. LT SPLAT WEATHERED MOUSSE
ON B/C HIT 2/SP 30M CLIFFS
(TUFF)

1451 φ JUST W OF SMALL STREAM (4 ROAD)
5M UC CLIFFS KATMAI 1912 ASH ON TOP.
MED WAVE - PARTLY CLOUD - WIND
65% SOLG 5% P 20% R 10% B
B/C FOND IN FRONT OF 20-30M TUFF
CLIFFS (V. LT SPLAT ON BOULDERS
EAST OF φ) HIT 2 SP - WEATHERED MOUSSE
V. LT SPLAT HIT 2 @ φ

LEVEL

ACE 8708225

23 JULY 89 SUNDAY -

¢ CONT - FROM NARROW CAPE TO ∅ -
NO CLEANUP RECOMMENDED D/C
- N. LT. SP. AT
- WEATHERED TO PT. WHERE IT WOULD
BE SLOW CLEAN UP.

RAN INTO ROAD CREW - ONE MEMBER SAID
THEY PICKED UP 250 BAGS OF OILY DEBRIS,
¿ I QUESTION # OF BAGS & TRUE AMT OF
OILED MAT'L IN BAGS?

NO OIL OBSERVED WEST OF ∅ TO
PASAGSHAK PT. (END KB-2-UG-1)

1545 KB-3-UG-2
MOD-LO WAVE
WIDE ROAD AT HI & VERT CLIFF 50m B/C/P
RUBBLE - NO OIL OBSERVED
(E SHORE PASAGSHAK BAY)

α - 1549 C/P BEACH
CLEAN

β 1557 C/P BEACH
CLEAN

ACE 8708226

version: 4/24/89

ECOLOGICAL EVALUATION

North Shore and Eastside-Uganik Bay

LOCATION: Kodiak I. K-3-2 SITE: _____ OBSERVER: D. McCoen cc

LOCATION PREFIX: UB SEG. NO.: 1 LENGTH: 1,250 (M)

DATE: 7/23/89 TIME (HHMM): 1420 TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on bedrock/boulders only not on any beach

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on boulders only

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Continuous cover on boulders at splash zone.

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Some on rocky intertidal

OTHER OBSERVATIONS: Extremely limited use by mussels, quiet bay, surface oil on rocky areas and a few live drift jellies (cyanea) and a few clam & crab shells. One dead gray whale (~13m long) on beach.

CLEANUP PRECAUTIONS: None, since no cleanup recommended.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other Fox (1)

BIRDS: _____

GENERAL OBSERVATIONS: Beach cleanup crew knocked up approx 350 bags of oily material on this segment in the last month. SCAT team saw only very light splatter in the segment.

ACE 8708227

POOR QUALITY ORIGINAL

K8-3

ACE 7963960

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-3

Includes Shoreline Segments: UB-2

Location: Pasagshak Bay, Kodiak Island

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/22/89 SHORELINE SEGMENT K8-3-UB-2

LOCATION: (see enclosed map) Pasagshak Bay, Kodiak Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/23/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to apparent absence of oil. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class

Ecological Constraints (from site survey):
-None.

Archaeological Constraints (from site survey):
-If cleanup is planned, a full archaeological assessment must be conducted due to the culturally sensitive nature of this segment.

A. David McMahon Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708230

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 22 JULY 89 / Time: 1545 Observer: B. ALLEN & MAM
nveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

OCATION
ocation: PAGAGE [illegible] Segment ID: KG-I-UB-I
egment Length: 1650 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
ccess Restrictions: LIMITED ACCESS BY HOUSEHOLDS

HORELINE
horeline Type: SPI/SEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
ave Exposure: High/Med/Low
ediment: B 30 % / C 10 % / P 5 % / G&S 30 % / M ___ % / R 25 %

IL
vg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
rea of Impact: SU/SP/H/M/L

IL DISTRIBUTION
ontinuous % of Segment_____ SU/SP/H/M/L H/M/L/VL
poradic % of Segment_____ SU/SP/H/M/L H/M/L/VL

otal	Length(m)	Width(m)			
ery light:			Thickness >1cm:_____cm		SU/SP/H/M/L
ight:			Penetration/Rework:_____cm		SU/SP/H/M/L
oderate:			Burial Depth:_____cm		SU/SP/H/M/L
eavy:					

ilization Potential: High/Medium/Low
ft Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type:_____

IL MORPHOLOGY

ooled Oil:_____%			SU/SP/H/M/L
Free" Oil:_____%			SU/SP/H/M/L
plattered:_____%		H/M/L/VL	SU/SP/H/M/L
oated:_____%		H/M/L/VL	SU/SP/H/M L
ancakes/Balls:_____%			SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 0 m
Total TYPE B: 0 m
Total TYPE A/B: 0 m

IL WEATHERING

resh: _____%		SU/SP/H/M/L
ousse: _____%		SU/SP/H/M/L
eathered Mousse: _____%		SU/SP/H/M/L
sphalt Mousse: _____%		SU/SP/H/M/L
ar: _____%		SU/SP/H/M/L

OMMENTS

NO OBSERVED OILING VIA AIR & 1 LANDING RECONNAISSANCE. SAW ROAD CREW WALKING BEACH AT BACK OF BAY ALSO SEVERAL (2-3) PILES OF (OILED?) DEBRIS BY CONTAINMENT BOOMS

ACE 8708231

POOR QUALITY ORIGINAL

DOCUMENTATION:

Map/Aerial photo marking segment boundaries [illegible]

VTR: (Y)/N Tape Number(s) [illegible]

Photography: (Y)/N Roll Number(s) [illegible]

Sample Numbers Collected: N/A

23 July 89 — Sunday -

Ø CONT - FROM NARROW CAPE TO Ø -
NO CLEANUP RECOMMENDED D/C
- V. LT. SPLAT
- WEATHERED TO PT. WHERE IT WOULD BE SLOW CLEAN UP.

RAN INTO ROAD CREW - ONE MEMBER SAID THEY PICKED UP 250 BAGS OF OILY DEBRIS, ¿I QUESTION # OF BAGS & TRUE AMT OF OILED MAT'L IN BAGS?

NO OIL OBSERVED WEST OF Ø TO PASAGSHAK PT. (END KB-2-UG-1)

1545 KB-3-UG-2
MOD-LO WAVE
WIDE ROAD AT HI & VERT CLIFF 50m B/C/P
RUBBLE - NO OIL OBSERVED
(E SHORE PASAGSHAK BAY)

α - 1549 C/P BEACH
CLEAN

β 1557 C/P BEACH
CLEAN

ACE 8708233

23 JULY SUNDAY

AT STREAM MOUTH BY CONTAINMENT BOOM
SEVERAL BAGS ROAD CREW(?) 200 M. WEST

1610 - FINISH FLYING KB-3-UG-2
NO OIL OBSERVED ON W SHORE
PASAGSHAK BAY

- RECOMMEND NO CLEANUP. MONITOR
W RD CREW AS PRESENTLY DONE.

1610 - FLYING OVER UGAK BAY. LOOKING
FOR ARCH. SITES IN OTHER SEGMENTS
TIDE TOO HIGH FOR OG/GEOL WORK

1709 LV UGAK BAY TO ADQ
1728 AR ADQ
1900 DINNER
2030 WRITE UP UG-1 & 2
2200 GOOD NIGHT

LEVEL

ACE 8708234

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: PASAGSHAK BAY Kolak Is. SITE: _____ OBSERVER: D McCormick

LOCATION PREFIX: UB SEG. NO.: 2 LENGTH: 12550 (M)

DATE: 7/23/89 TIME (HHMM): 545 TIDE HT.: +1.5 (M)

OILED ZONE: Splash High Medium Low None

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense in sheltered sections of segment only

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense in sheltered sections of segment only.

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed

OTHER OBSERVATIONS: Bull Kelp, Laminaria; drift kelp on beaches; some barnacles on shells/rock ledges.

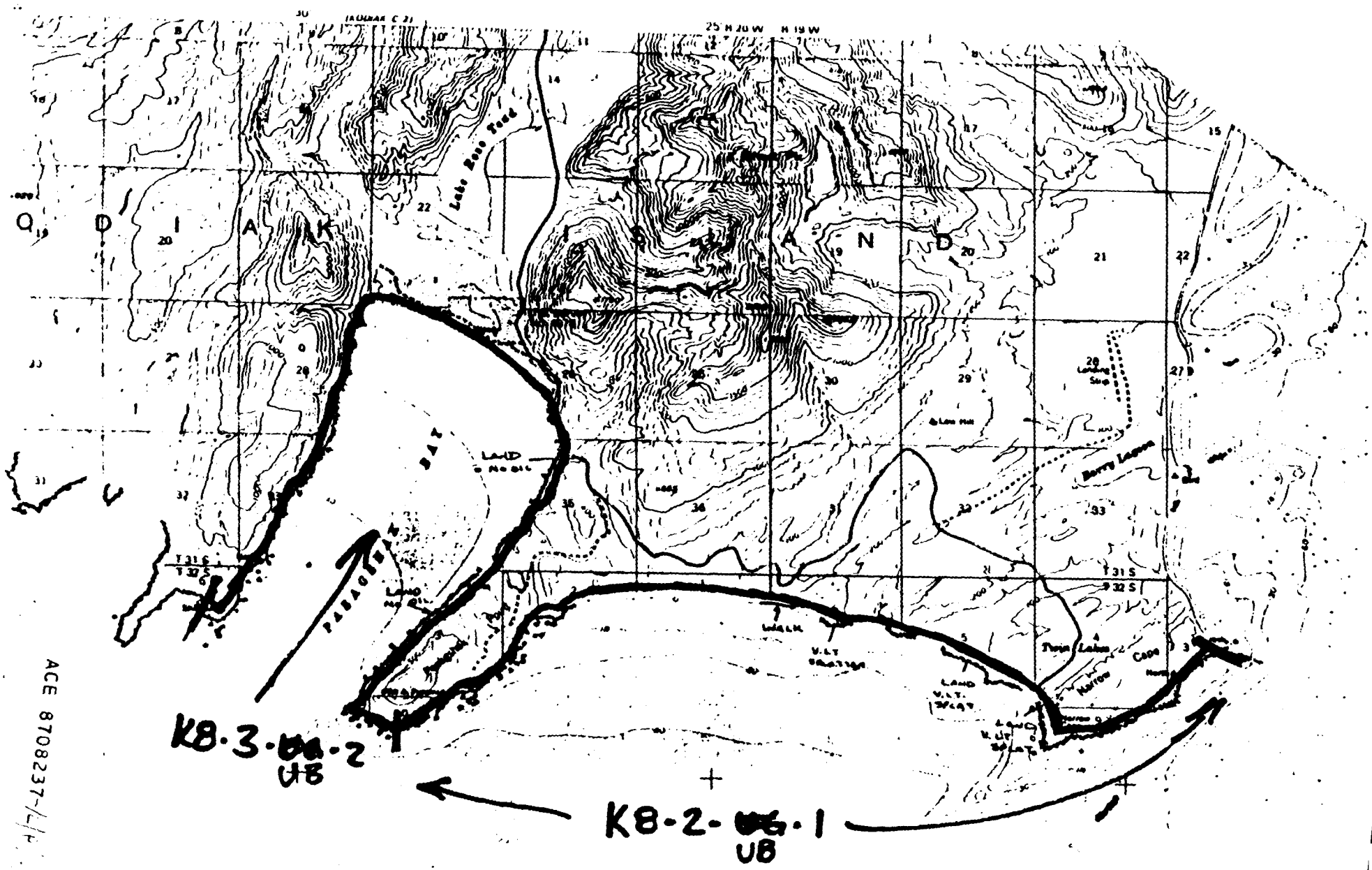
CLEANUP PRECAUTIONS: None since no oil was observed.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions 1 Whales ___
Other _____

BIRDS: Kittiwakes

GENERAL OBSERVATIONS: This segment surveyed by helicopter with several stops made to look for oil. None was seen in any part of segment. Tide was too high to see lower ITZ fauna.

ACE 8708235



ACE 8708237-1/1

D - K8-4

ACE 7963961

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-4

Includes Shoreline Segments: UB-3

Location: Northeast Ugak Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/23/89 SHORELINE SEGMENT K8-5-UB-4

LOCATION: (see enclosed map) North central Ugak Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/22/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to very light oiling conditions and high potential for natural cleaning. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
-None. Cleanup not recommended.

Archaeological Constraints (from site survey):
-If cleanup is planned, a full archaeological assessment must be conducted due to the culturally sensitive nature of this segment.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708239

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 22 July 1989 / Time: 0900 - 0930 Observer: Duncan A. FitzGerald
rveyed From: (Foot)/Boat/(Helio)/Plane Weather: Sun/(Cloud)/Rain/Snow/(Fog)

CATION
ocation: North-central Ugak Bay Segment ID: K-8-4-UB-3
gment Length: 16.4km m. Access: Vehicle/(Boat)/Barge/(Helio)/Float Plane
cess Restrictions: difficult at headlands

HORELINE
horeline Type: (SPI)/(BEA)/(COV)/(HLD)/STRT Slope: (Lo/Med/Hi)/Vert
ave Exposure: High/(Med)/Low
ediment: B 10 % / C 10 % / P 10 % / G&S 50 % / M ___ % / R 20 %

IL
/g. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT) / NONE OBSERVED
rea of Impact: SU/(SP)/H/M/L

IL DISTRIBUTION
ontinuous % of Segment 0 SU/SP/H/M/L H/M/L/VL
oradic % of Segment 5% SU/(SP)/H/M/L H/M/L/(VL)

	Length(m)	Width(m)		
otal				
ery light:	400m	1-2m	Thickness >1cm: <1 cm	SU/SP/H/M/L
ght:			Penetration/Rework: ____cm	SU/SP/H/M/L
oderate:			Burial Depth: ____cm	SU/SP/H/M/L
eavy:				

obilization Potential: High/Medium/(LOW)
ft Debris Oiled? Y/(N) Amount: H/M/L/VL SU/SP/H/M/L Type: ____

IL MORPHOLOGY

oled Oil: ____ %			SU/SP/H/M/L
ree" Oil: ____ %			SU/SP/H/M/L
lattered: ____ %	H/M/L/VL		SU/SP/H/M/L
ated: ____ %	H/M/L/VL		SU/SP/H/M L
ncakes/Balls: 100 %			SU/SP/H/M/L

Preliminary Cleanup Est.
None
Total TYPE A: ____m
Total TYPE B: ____m
Total TYPE A/B: ____m

IL WEATHERING

esh: ____ %	SU/SP/H/M/L
ousse: ____ %	SU/SP/H/M/L
athered Mousse: ____ %	SU/SP/H/M/L
phalt Mousse: ____ %	SU/SP/H/M/L
r: 100 %	SU/(SP)/H/M/L

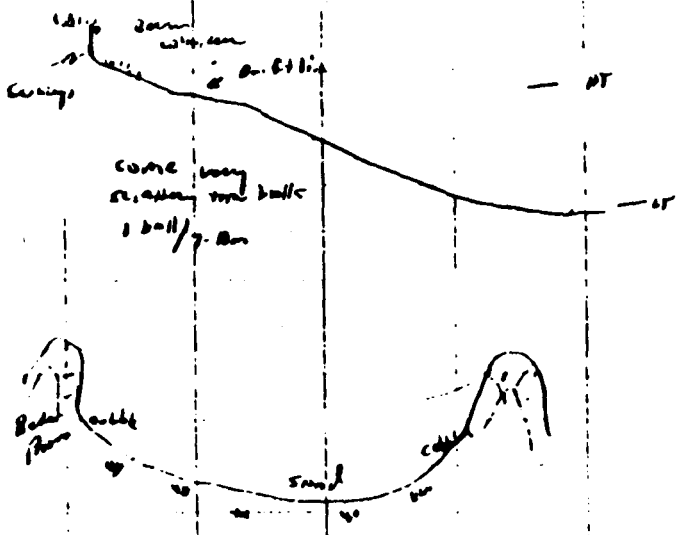
MMENTS

Very very light oil conditions. Tar balls found every 50m along the beaches of this segment

ACE 8708240

Ugak Bay 22 July 1989

Map #1



Map #2 same beach as #1
one tpk ball stuck to seaweed along high tide line

Site #3 Found one tpk ball attached to a shack on 350m of beach

Site #4 nothing

Site #5 2 tpk balls / 150m of beach
- oil soaked cloth
- no coated pieces of seaweed

Site #6 Salteny Cove
No oil

Site #7 Salteny Cove
No oil

Site #8 No oil

Site #9 No Oil Ugak

Site #10 Hidden Bay

Site #11 Near Cape T...
No oil

Site #12 No oil

Site #13 No oil

Site #14 No oil

Site #15 No oil

Site #16 No oil

Site #17 No oil

ACE 8708241
POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Ugak Bay SITE: North Central Shore OBSERVER: B. Martin

LOCATION PREFIX: UB SEG. NO.: 3 LENGTH: 16400 (M)

DATE: 7/22/89 TIME (HHMM): 0900 - 0930 TIDE HT.: +2.1 - +0.9 (M)

OILED ZONE: (Splash) High Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N (Locally) Dense (Y)/N Sparse Y/N None Y/N

Abundant algae throught rocky portions of this segment (Fucus, Ulva, Enteromorpha, Alaria, Laminaria, Odonthalia or Soranthera). Kelp beds subtidally

Mytilus (Mussels): Patchy Y/N Contin. (Y)/N (Generally) Dense (Y)/N (Locally) Sparse Y/(N) None Y/N

Generally continuous in rocky areas. Dense in some areas - Sparse to absent in sandy areas

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N (in Rocky areas) Dense (Y)/N Sparse Y/N None Y/N

Continuous in rocky areas and usually dense

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Very few observed although this area was flown and most observations were made from boat

Limpets: Patchy Y/N Contin. (Y)/N (Locally) Dense Y/N Sparse (Y)/N (in sandy areas) None (Y)/N

OTHER OBSERVATIONS: Sea Stars (Henricia), chiton (Katharina), Sponges (Halichondria). Sand/gravel area with bivalves (Hiatella, Saxidomus). Wetland areas at Portage Bay

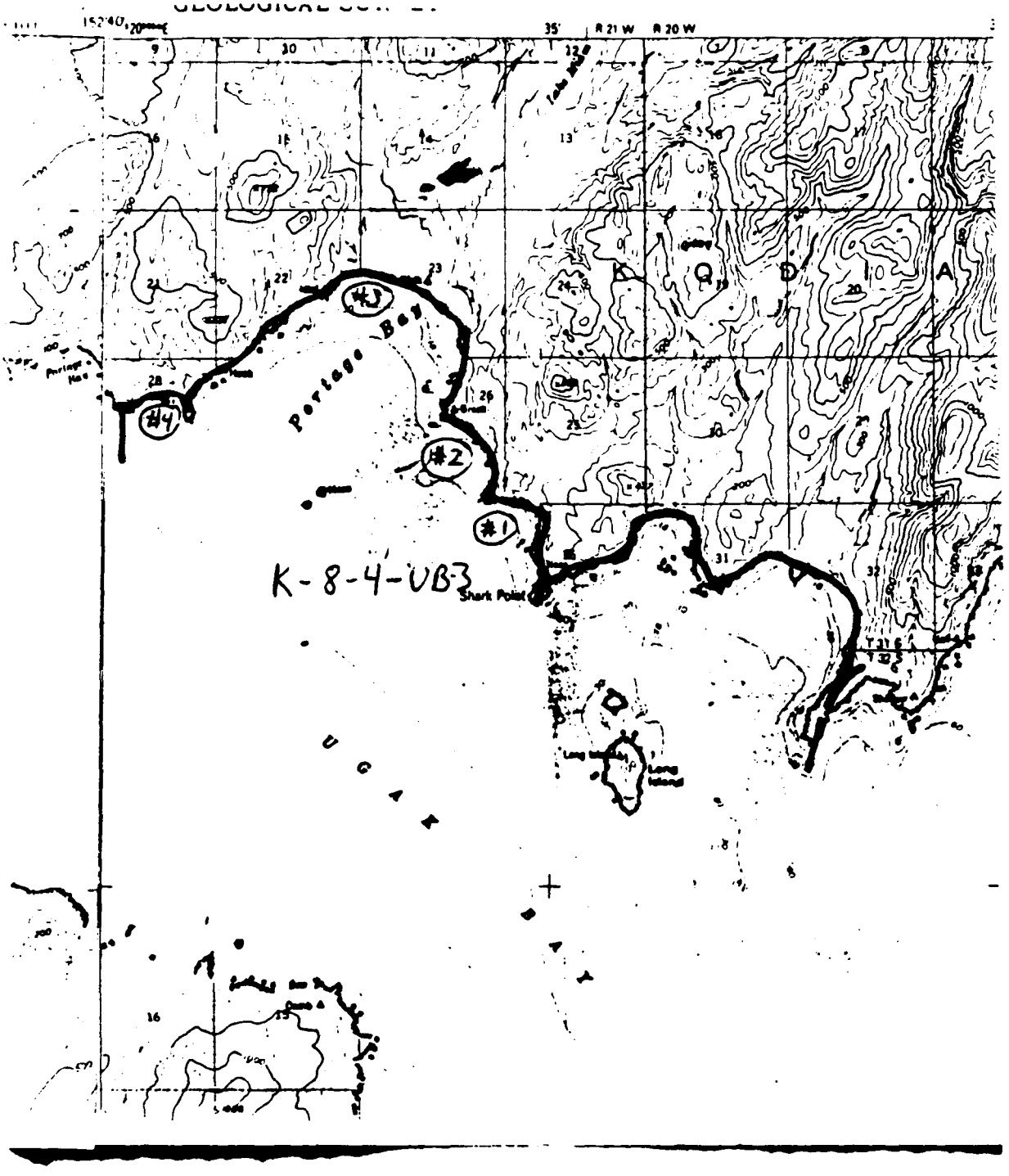
CLEANUP PRECAUTIONS: No cleanup recommended. Ecologically sensitive Low-mid-high ITZ - particularly in rocky areas.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: Eagles in area, Possible Puffin(?)

GENERAL OBSERVATIONS: Most of this area was flown at low altitude (observations mostly made from air)
Section consists of Rocky intertidal with dense and diverse biota and sand/gravel/cobble beaches. Anadromous fish streams.

ACE 8708242



K-8-4-UB-3

ACE 8708244

K8-5

ACE 7963962

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-5

Includes Shoreline Segments: UB-4

Location: North Central Ugak Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/23/89 SHORELINE SEGMENT K8-5-UB-4

LOCATION: (see enclosed map) North Central Ugak Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/22/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to very light oiling conditions and high potential for natural cleaning. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
-None. Cleanup not recommended.

Archaeological Constraints (from site survey):
-If cleanup is planned, a full archaeological assessment must be conducted due to the culturally sensitive nature of this segment.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708246

version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 22 July 1989 / Time: 0930-1015 Observer: Duncan M. Fitzgerald
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: North Central Ugak Bay Segment ID: K-8-5-UB4
Segment Length: _____m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: Difficult at bedrock headlands

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 10 % / C 10 % / P 10 % / G&S 50 % / M ____ % / R 20 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION

Continuous	% of Segment 0	SU/SP/H/M/L	H/M/L/VL
Sporadic	% of Segment 100	SU/SP/H/M/L	H/M/L/VL

Total	Length(m)	Width(m)			
Very light:	150	<1 m	Thickness >1cm: <1 cm		SU/SP/H/M/L
Light:			Penetration/Rework: ____cm		SU/SP/H/M/L
Moderate:			Burial Depth: ____cm		SU/SP/H/M/L
Heavy:					

Mobilization Potential: High/Medium/Low
Oft Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: _____

OIL MORPHOLOGY

Pooled Oil: ____%		SU/SP/H/M/L	Preliminary Cleanup Est. None
"Free" Oil: ____%		SU/SP/H/M/L	Total TYPE A: ____m
Splattered: ____%	H/M/L/VL	SU/SP/H/M/L	Total TYPE B: ____m
Coated: ____%	H/M/L/VL	SU/SP/H/M L	Total TYPE A/B: ____m
Pancakes/Balls: 100 %		SU/SP/H/M/L	

OIL WEATHERING

Fresh: ____%	SU/SP/H/M/L
Mousse: ____%	SU/SP/H/M/L
Weathered Mousse: ____%	SU/SP/H/M/L
Asphalt Mousse: ____%	SU/SP/H/M/L
Tar: 100 %	SU/SP/H/M/L

COMMENTS

Very light oiling conditions. Only 2 tar balls found in 150 m of beach.

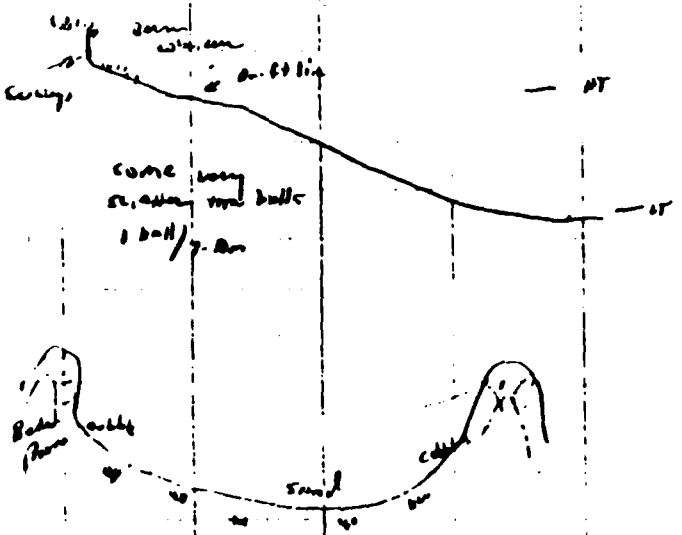
ACE 8708247

POOR QUALITY ORIGINAL

ACE 8708248

Ugak Bay 22 July 1984

Map #1



Map #2

same beach as #1

one tar ball stuck to seaweed along high tide line

S.t #3

Found one tar ball attached to a shell on 300m of beach

S.t #4

nothing

Site #s	2 tar balls / 150m of beach - oil soaked cloth - no coal pieces observed
Site #6	Salkey Cove No oil
Site #7	Salkey Cove No oil
Site #8	No oil
Site #9	No oil
Site #10	Low Hidden Bay
Site #11	Near Cat I. No oil
Site #12	No oil
Site #13	No oil
Site #14	No oil
Site #15	No oil
Site #16	No oil
Site #17	No oil

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Ugak B., Kodiak I. SITE: North Central shore OBSERVER: B. Martin

LOCATION PREFIX: UB SEG. NO.: 4 LENGTH: 12100 (M)

DATE: 7/22/89 TIME (HHMM): 0930-1015 TIDE HT.: +0.9 - 0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)N Dense (Y)N Sparse (in sandy areas) (Y)/N None Y/N

Abundant algae throught rocky portions of this segment. Kelp beds subtidally

Mytilus (Mussels): Patchy Y/N Contin. (generally) (Y)N Dense (Y)/N Sparse (in sandy areas) (Y)/N None Y/N

Continuous in rocky headland portions, dense in some areas - generally sparse in sand/gravel areas.

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

B. glandula and large B. cariosus very abundant throught section in rocky areas. Sparse but present in cobble areas also.

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Generally sparse to absent in segment.

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

Distributed throughout section in relatively low numbers.

OTHER OBSERVATIONS: Sponges (Halichondria), chiton (Katharina). Bivalves in sandy areas. Wetland areas.

CLEANUP PRECAUTIONS: No cleanup recommend. Ecologically sensitive low-mid-high IT2. Very light oil.

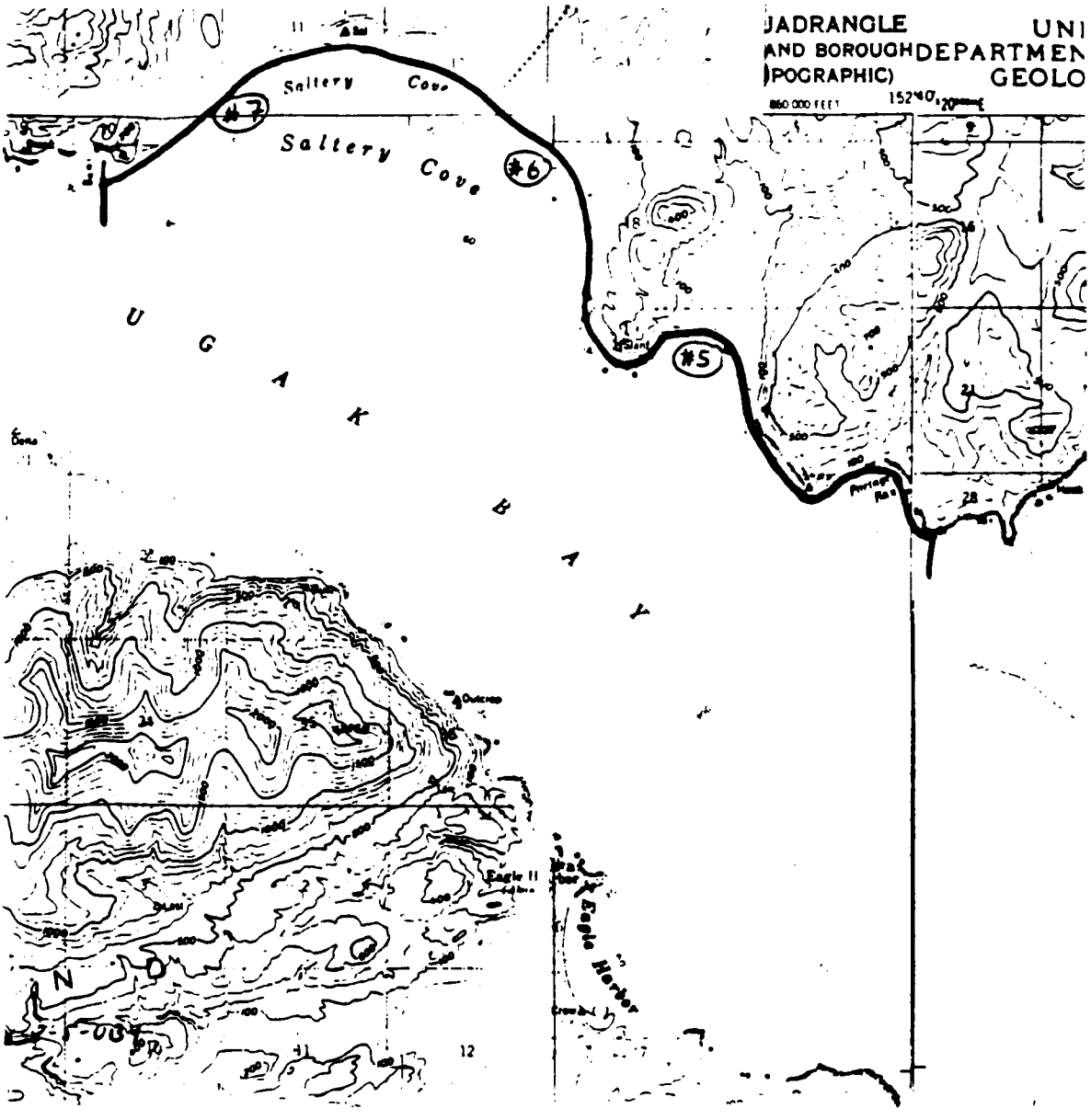
MAMMALS: Otters ~6 Harbor Seals ___ Sea Lions ___ Whales ___
Other deer - wetland areas, mink, fox, Red fox sited on cobble tidal flat

BIRDS: Eagles in area, gulls.

GENERAL OBSERVATIONS: Flew most of this section at low altitude. Section consists of rocky intertidal with dense and diverse biota and sand/gravel/cobble beaches. Anadromous fish streams.

ACE 8708249

POOR QUALITY ORIGINAL


JADRANGLE
AND BOROUGH
(POGRAPHIC)
DEPARTMEN
GEOLO
Saltery Cove
#7
#6
#5
U G A K B A Y
Eagle Harbor
N

K-8-5-UB-4

K8-6

ACE 7963963

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-6

Includes Shoreline Segments: UB-5

Location: Ugak Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/23/89 SHORELINE SEGMENT K8-6-UB-5

LOCATION: (see enclosed map) Ugak Bay, Kodiak Island, NW shore

ADEC NO. SHORELINE ASSESSMENT DATE: 7/22/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to apparent absence of oil. Subject to FOSC reassessment at a later date.

Priorities/Considerations:

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
-If cleanup is planned, a full archaeological assessment must be conducted due to the culturally sensitive nature of this segment.

J. David McMahan
State Historic Preservation Officer * Date: 7/31/89

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708253

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 22 July 1989 / Time: 11:00 - 12:00 Observer: Duncan M. Fitzgerald
urveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

ATION
ocation: Ugak Bay, Northwest shore Segment ID: K-8-G-005
egment Length: 2100 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
ccess Restrictions: difficult at rock, head lands

HORELINE
horeline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
ave Exposure: High/Med/Low
ediment: B 10 % / C 15 % / P 10 % / G&S 50 % / M ____ % / R 15 %

IL
vg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
rea of Impact: SU/SP/H/M/L

IL DISTRIBUTION
ontinuous % of Segment_____ SU/SP/H/M/L H/M/L/VL
oradic % of Segment_____ SU/SP/H/M/L H/M/L/VL

otal	Length(m)	Width(m)
ery light:		
ight:		
oderate:		
eavy:		

Thickness >1cm:_____cm SU/SP/H/M/L
Penetration/Rework:_____cm SU/SP/H/M/L
Burial Depth:_____cm SU/SP/H/M/L

obilization Potential: High/Medium/Low
t Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type:_____

IL MORPHOLOGY

oled Oil:_____%			SU/SP/H/M/L
ree" Oil:_____%			SU/SP/H/M/L
lattered:_____%	H/M/L/VL		SU/SP/H/M/L
ated:_____%	H/M/L/VL		SU/SP/H/M L
ncakes/Balls:_____%			SU/SP/H/M/L

Preliminary Cleanup Est.	
Total TYPE A:	m
Total TYPE B:	m
Total TYPE A/B:	m

IL WEATHERING

esh: _____%	SU/SP/H/M/L
ousse:_____%	SU/SP/H/M/L
eathered Mousse:_____%	SU/SP/H/M/L
phalt Mousse:_____%	SU/SP/H/M/L
r:_____%	SU/SP/H/M/L

MMENTS

ACE 8708254

Ugak Bay 22 July 1989

Map #1

Map #2 same beach as #1

one tar ball stuck to seaweed along high tide line

Site #3 Found one tar ball attached to a shell on 350m of beach

Site #4 nothing

Site #5 2 tar balls / 150m of beach
- oil soaked cloth
- no coated pieces of seaweed

Site #6 Sm/lg Cove
No oil

Site #7 Sm/lg Cove
No oil

Site #8 No oil

Site #9 No Oil Cove

Site #10 Middle Bay

Site #11 Near Cape T.
No oil

Site #12 No oil

Site #13 No oil

Site #14 No oil

Site #15 No oil

Site #16 No oil

Site #17 No oil

ACE 8708255

POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Ugak Bay, Kodiak I. SITE: Northwest shore OBSERVER: B. Martin

LOCATION PREFIX: UB SEG. NO.: 5 LENGTH: 21100 (M)

DATE: 7/22/89 TIME (HHMM): 11:00-12:00 TIDE HT.: -0.6 - -0.6 (M)

OILED ZONE: Splash High Medium Low No oil observed

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand Mud)

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Locally Dense (Y)/N Generally Sparse (Y)N None Y/N

Generally Sparse in this segment due to habitat type. Dense in rocky areas

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense (Y)N Sparse (Y)N None Y/N

Dense in rocky areas. Generally sparse in this segment.

Balanus (Barnacles): Patchy Y/N Generally Contin. (Y)/N Dense (Y)/N in rocky areas Sparse (Y)/N None Y/N

Continuous but generally sparse except for rocky headland areas.

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y)/N

None observed from air. Probably present.

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y)/N

None observed from air. Probably present

OTHER OBSERVATIONS: Wetland areas near hidden basin

CLEANUP PRECAUTIONS: No oil observed, therefore no precautions.

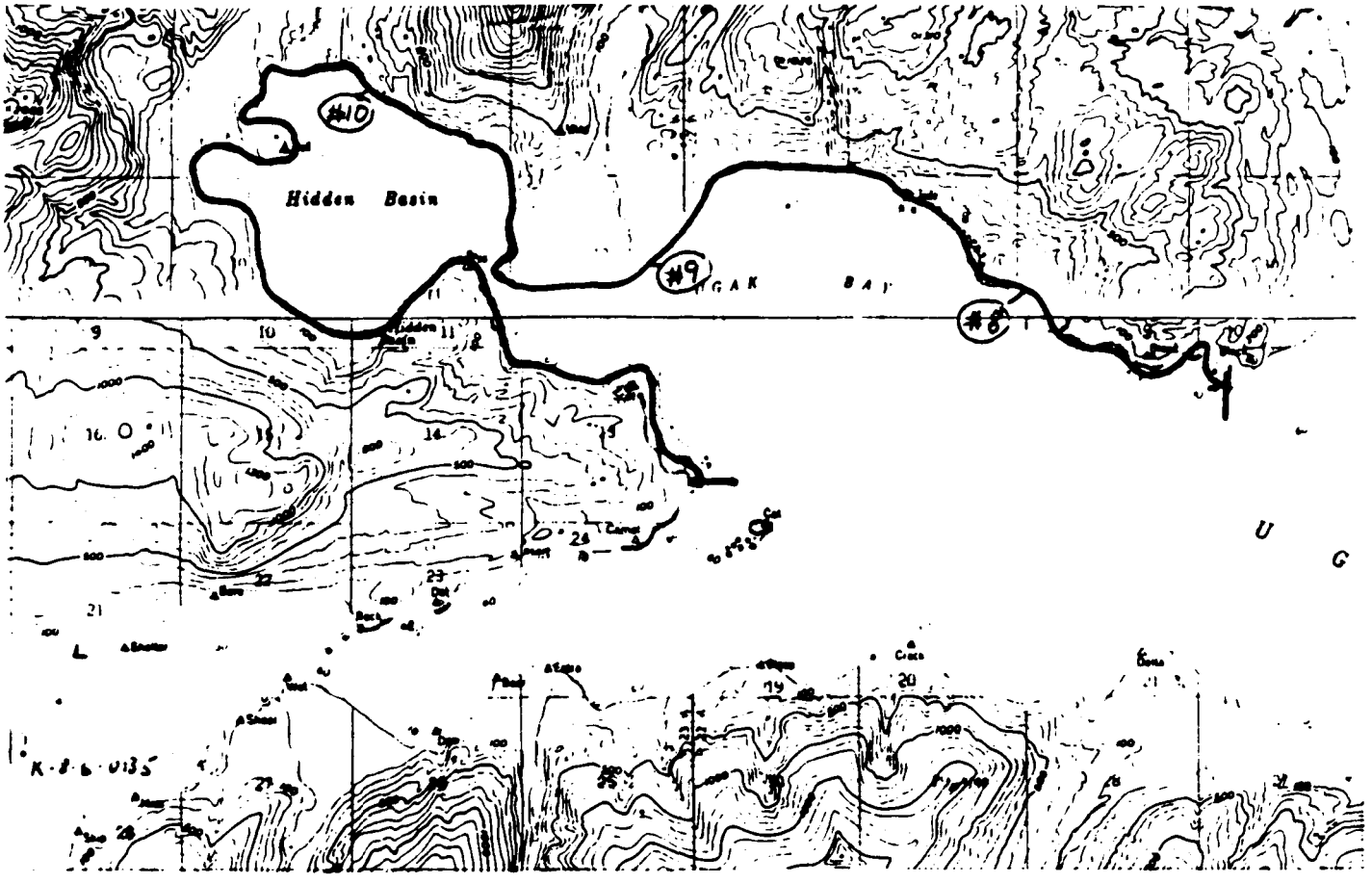
MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: eagles in area

GENERAL OBSERVATIONS: Flew almost entire section. Most observations made from air. Alternating sandy beach and rocky headland environment.

ACE 8708256

POOR QUALITY ORIGINAL



K-8-6-UB-5

K8-7

ACE 7963964

i1

Oxford

STOCK No. 152 1/3

MADE IN U. S. A.

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/28/89 SHORELINE SEGMENT K8-7-UB-6

LOCATION: (see enclosed map) Southern arm of the head of Ugak Bay, Kodiak

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/25/89

Recommended Cleanup Activity(ies):
-Manual removal of very light splatter found roughly every 1,000m (1100 yds.)

Priorities/Considerations: Class 5-B
-Boat access may be restricted at head of bay by shallow tidal flats.

Ecological Constraints (from site survey):
-None.

Archaeological Constraints (from site survey):
-No access to forest/upland zone by beach crews during cleanup.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708259 F

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 25 Jun 89 / Time: 0924 Observer: Brian Rimm

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: Southern Arm of the Head of Uganik Bay, Kodiak Is. Segment ID: KB-7-UB-6

Segment Length: 28950 m. Access: Vehicle/Boat/Barge/Helio/Float Plane

Access Restrictions: Tidal flats (shallow water at head of bay

SHORELINE

Shoreline Type: SPI/SEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert

Wave Exposure: High/Med/Low

Sediment: B 10 % / C 10 % / P 20 % / G&S 30 % / M 20 % / R 10 %

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED

Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION

Continuous % of Segment 0 SU/SP/H/M/L H/M/L/VL

Sporadic % of Segment [illegible] SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)
Very light:	1	1/4
Light:		
Moderate:		
Heavy:		

Thickness >1cm: cm SU/SP/H/M/L

Penetration/Rework: cm SU/SP/H/M/L

Burial Depth: cm SU/SP/H/M/L

Mobilization Potential: High/Medium/Low

Drift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type:

OIL MORPHOLOGY

Pooled Oil:	%		SU/SP/H/M/L
"Free" Oil:	%		SU/SP/H/M/L
Splattered:	100 %	H/M/L/VL	SU/SP/H/M/L
Coated:	%	H/M/L/VL	SU/SP/H/M L
Pancakes/Balls:	%		SU/SP/H/M/L

Preliminary Cleanup Est.

Total TYPE A: 1/4 m

Total TYPE B: m

Total TYPE A/B: m

OIL WEATHERING

Fresh:	%	SU/SP/H/M/L
Mousse:	%	SU/SP/H/M/L
Weathered Mousse:	100 %	SU/SP/H/M/L
Asphalt Mousse:	%	SU/SP/H/M/L
Tar:	%	SU/SP/H/M/L

COMMENTS

The low energy beaches vary from tidal flats at the head of the bay to cobble boulder gravel beaches at the mouth of the bay. The fine grained material is predominately sand size material. Only 3 small splatters were found in the entire segment. Grass is growing in the high intertidal zone near the head of the bay. No oil was observed in or near the grass. See location map for oil spots.

ACE 8708200

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) ?

Photography: (Y)/N Roll Number(s) DMC-21

Sample Numbers Collected: N/A

24 JULY 89 MONDAY

1720 AK ADQ
WRITE UP TODAY'S SEGMENTS & TOMS
FLT PLAN, & OBJECTIVES.
2100 GO EAT & GOOD NIGHT

25 JULY TUESDAY

0700 OFFICE WORK, GET MAPS FOR
TODAY, TURN IN MONDAY'S SEGMENTS
0830 LV FOR ADQ DEAN/EVAN
0910 LV ADQ → UGAK BAY 35BEH
PLK. DALE ROMAN USCG
: JEFF TURNIPSEED CEMVDED
JON ERLANDSON SCAT/ARCH
: DEBBIE MCCORMICK SCAT/BIO
: ME SCAT/OC

CLEAR SKIES FOR A.M.
K8-7-UB-6
0924 FLY OVER CAT I,
NO OBSERVED OIL. LG AMTS OF SEALS,
ROCKY ISLES.

ACE 8708262

OUR QUALITY ORIGINAL

25th JULY — TUES

ROCKY HD LD D/C RUBBLE W/ FLAT & BEDROCK OCCASIONAL TO GRASSY MUDFLATS.

0954 (A) - V.LT SPLAT HITZ
1005 (B) - & P/C NO OIL OBSERVED
1007 (Φ) " " " "
1008 (D) "
1013 (8) "
1022 WET BENCHMARK - NO OIL OBSERVED
SHUT DOWN CHOPTER " " "
P/S&G/C BEACH

1044 (P) P/S&G/B NO OIL OBSERVED

1046 (I) S&G/P/B/M NO OIL OBSERVED
GRASS & HITZ

1051 (X) SG/P BEACH NO OIL OBS.

53 (Y) SG/P/C " "
56 EXTRA BM " " "
S&G/P/C BEACH

29 JULY — TUESDAY

1057 (Z) HOVER
P/S&G/C
NO OBS OIL

1100 (W) C/P/S&G
NO OBS OIL

1103 (6) S&G/P/C
NO OBS OIL DROP JON OFF - ARCH SITE

END KB-7-UB-76

1107 START KB-8-UB-78

1107 (A) P/S&G/C
NO OIL OBSERVED

1110 (B) P/S&G/ROCK LG
NO OIL OBS

1112 CLOSE BM P/S&G
NO OIL OBS

LEVEL

ACE 8708263

ECOLOGICAL EVALUATION

LOCATION: Head of IGAK BAY KODIAK IS. K-8-7 SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: UB SEG. NO.: 6 LENGTH: 28950 (M)

DATE: 7/25/89 TIME (HHMM): 0920 TIDE HT.: +2.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Shells observed on beaches - beds near some stream channels

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

OTHER OBSERVATIONS: Kelpdebris at high ITZ; dead scavenged harbor seal; Saw Urchins, Mya, Saxidomus; Modiolus + Mytilus shells; Clinocardium green sea urchins, Enteromorpha

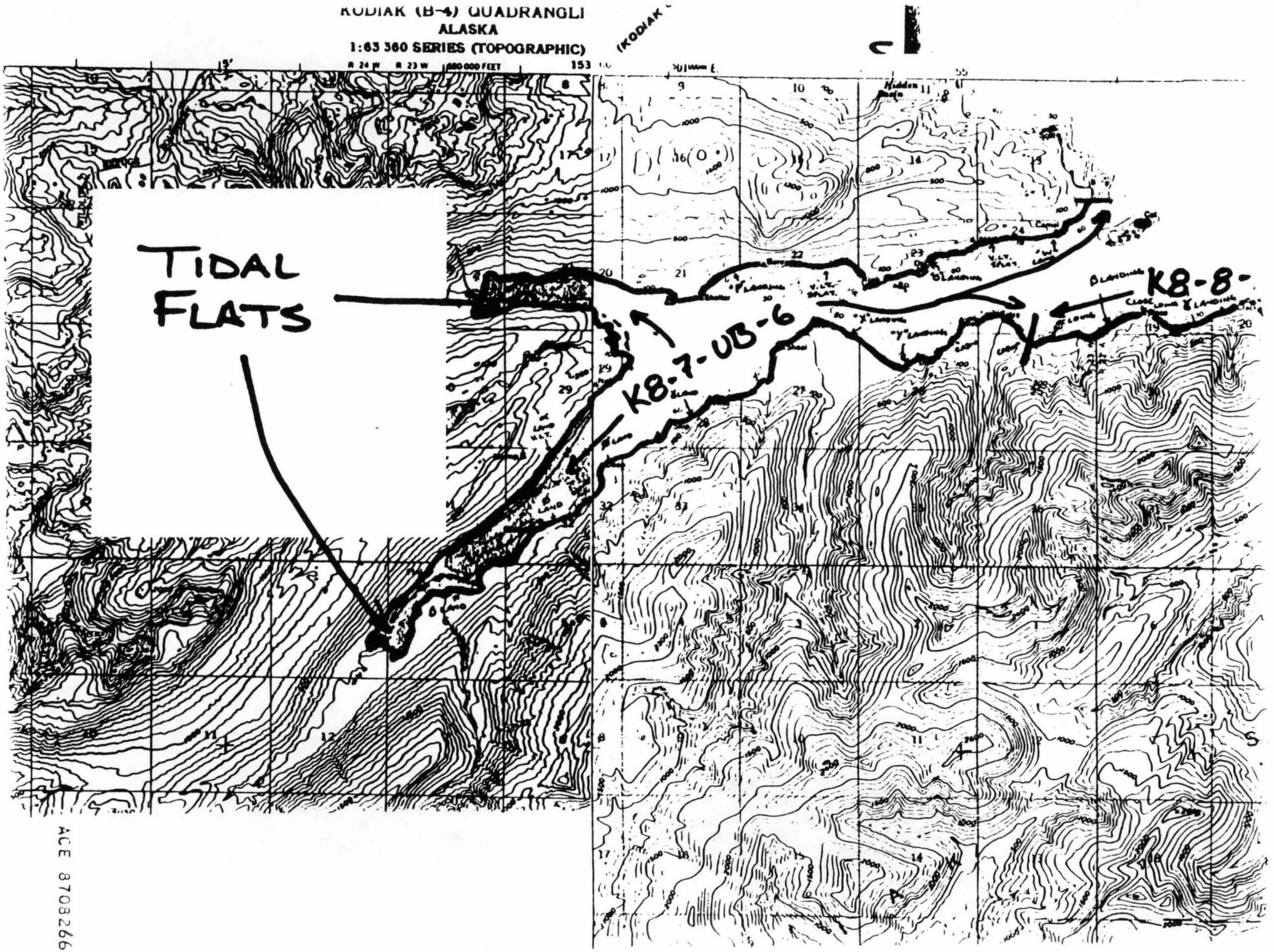
CLEANUP PRECAUTIONS: None, since no cleanup is recommended.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other 2 red fox, 2 deer

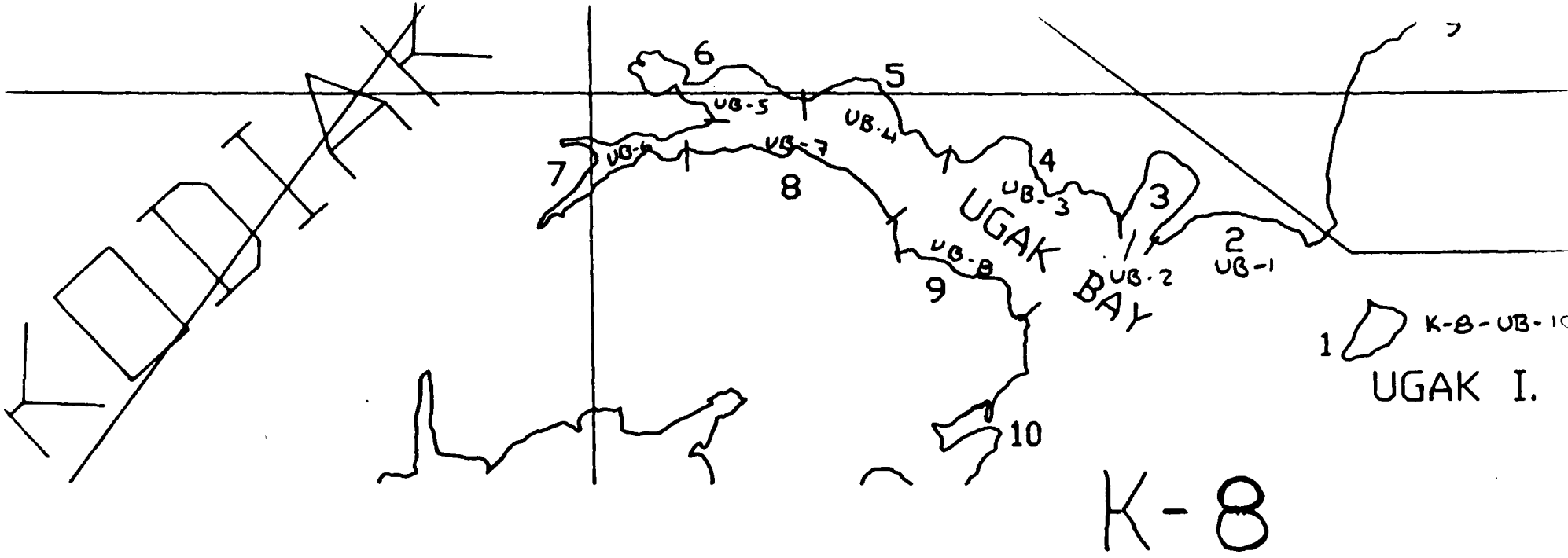
BIRDS: bald eagle

GENERAL OBSERVATIONS: Only 3 patches of oil were observed in this segment as light splatter. Clean-up crew would be unlikely to find them.

ACE 8708264


KODIAK (B-4) QUADRANGLE
ALASKA
1:63 360 SERIES (TOPOGRAPHIC)
TIDAL FLATS
K8-7-UB-6
K8-8-

ACE 8703266



K-8

ACE 8708267-

NE

K8-8

ACE 7963965

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/28/89 SHORELINE SEGMENT K8-8-UB-7

LOCATION: (see enclosed map) South shore Ugak Bay, Kodiak Island

ADEC NO. SHORELINE ASSESSMENT DATE: 7/25/89

Recommended Cleanup Activity(ies):
-Manual removal of the very light splatter found by the "outcrop" label on the segment.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
-None.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

[signature] Date: 7/31/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8703268

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 25 JULY 89 / Time: 1107 Observer: BRYAN TRIMM
rveyed From: ~~Foot~~/Boat/Helo/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

OCATION
ocation: SOUTH SHORE UGAK BAY KODIAK ISLAND, AK, USA Segment ID: KB-8-UB-7
egment Length: 12900 m. Access: Vehicle/Boat/Barge/~~Helo~~/Float Plane
ccess Restrictions: ——

HORELINE
horeline Type: SPI/(BEA)/COV/(HLD)/STRT Slope: (Lo)/Med/Hi/(Vert)
ave Exposure: High/(Med)/(Low)
ediment: B 10 % / C 10 % / P 25 % / G&S 30 % / M ___ % / R 25 %

IL
vg. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT / NONE OBSERVED)
rea of Impact: SU/SP/(H)/M/L

IL DISTRIBUTION
ontinuous % of Segment 2 SU/SP/H/M/L H/M/L/VL
poradic % of Segment 0.0001 SU/SP/(H)/M/L H/M/L/(VL)

otal	Length(m)	Width(m)			
ery light:	1	1/4	Thickness >1cm: ___	cm	SU/SP/H/M/L
ight:			Penetration/Rework: ___	cm	SU/SP/H/M/L
oderate:			Burial Depth: ___	cm	SU/SP/H/M/L
eavy:					

bilization Potential: High/Medium/(Low)
ift Debris Oiled? Y/(N) Amount: H/M/L/VL SU/SP/H/M/L Type: ___

IL MORPHOLOGY

ooled Oil: ___ %		SU/SP/H/M/L	
Free" Oil: ___ %		SU/SP/H/M/L	
plattered: 100 %	H/M/L/(VL)	SU/SP/(H)/M/L	
oated: ___ %	H/M/L/VL	SU/SP/H/M L	
ancakes/Balls: ___ %		SU/SP/H/M/L	

Preliminary Cleanup Est.
Total TYPE A: 1/4 m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

IL WEATHERING

resh: ___ %		SU/SP/H/M/L
ousse: ___ %		SU/SP/H/M/L
eathered Mousse: 100 %		SU/SP/(H)/M/L
sphalt Mousse: ___ %		SU/SP/H/M/L
ar: ___ %		SU/SP/H/M/L

OMMENTS

ONLY ONE SMALL SPLATTER OF WEATHER MOUSSE BY THE WORD "OUTCROP" ON THE 1:63000 SCALE TOPOGRAPHIC MAP (SEE LOCATION MAP) THUS - RECOMMEND NO CLEANUP AT PRESENT TIME.

ACE 8708269

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See attached

VTR: Y/N Tape Number(s) ?

Photography: (Y)/N Roll Number(s) DMC-21

Sample Numbers Collected: N/A

25th JULY TUES

ROCKY HOLD D/C RUBBLE W/ FLAT & BEDROCK OCCASIONAL TO GRASSY MUDFLATS.

0954 (A) - V.LT SPLAT HITZ
1005 (B) - & P/C NO OIL OBSERVED
1007 (C) " " " "
1008 (D) "
1013 (E) "
1022 WET BENCHMARK - NO OIL OBSERVED
SHUT DOWN CHOPTER " " "
P/S&G/C BEACH

1044 (F) P/S&G/B NO OIL OBSERVED

1046 (I) S&G/P/B/M NO OIL OBSERVED
GRASS & HITZ

1051 (K) SG/P BEACH NO OIL OBS.

53 (L) SG/P/C " "
56 EXTRA BM " " "
S&G/P/C BEACH

29 JULY TUESDAY

1057 (Z) Hover
P/S&G/C
NO OBS OIL

1100 (W) C/P/S&G
NO OBS OIL

1103 (O) S&G/P/C
NO OBS OIL DROP JOB OFF - ARCH SITE

END KB-7-UB-76

1107 START KB-8-UB-78

1107 (A) P/S&G/C
NO OIL OBSERVED

1110 (B) P/S&G/ROCK LG
NO OIL OBS

1112 CLOSE BM P/S&G
NO OIL OBS

LEVEL

ACE 8708271

25 JULY 89 — TUESDAY

1115 (8) C/B/P/S&G
NO OIL OBS

GO BACK & PICK JON UP.

1134 CRACK BM
P.BEGGLE NO OIL OBS.

1139 (Φ) P/C/B
NO OIL OBS

1141 DELTA BM
S&G/P NO OIL OBS

1149 (a) P/C/S&G
NO OIL OBS

1152 BUSH BM ROCKY HDLD/S&G/Rock/C
NO OIL OBS

1154 (b) B/C/P/S&G
NO OIL OBS

29 JULY 89 — TUESDAY

1200 (β) B/P/S&G
NO OIL OBS

VERY LIGHT SPLAT ON BOULDERS SEEN ON "OUTCROP" LABEL ON 1:63K TOPO MAP (SEE FLD MAP).

RECOMMEND –
NO CLEANUP AT THIS TIME

END KB-B-UB-87

1202 LV FOR ADQ. PICK RICK GILLIE UP & FIND OUT IF WE GO TO MALINA BAY OR WHAT!

1218 AR ADQ. CALL ISLAND A.F. JOHN OKLEY TO FIND 963, CAL T WAIT - GO TO MALINA BAY

1315 LV ADQ FOR MALINA BAY

PAX: BRYAN TRIMM OG
RICK GILLIE OG
DEBBIE MCCORMICK DOI
JON RELLENSON ARCH
DAVE ROMAN USCG

SCAT

LEVEL

ACE 8708272

ECOLOGICAL EVALUATION

LOCATION: UGAK BAY KODIAK IS. K-8-8- SITE: _____ OBSERVER: D. McCORMICK

LOCATION PREFIX: UB SEG. NO.: 7 LENGTH: 12900 (M)

DATE: 7/25/89 TIME (HHMM): 1105 TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N
None observed

OTHER OBSERVATIONS: Beach fauna: Saxidomus, Mya, green urchin shells, Endocladia, Enteromorpha, bull kelp, eelgrass.

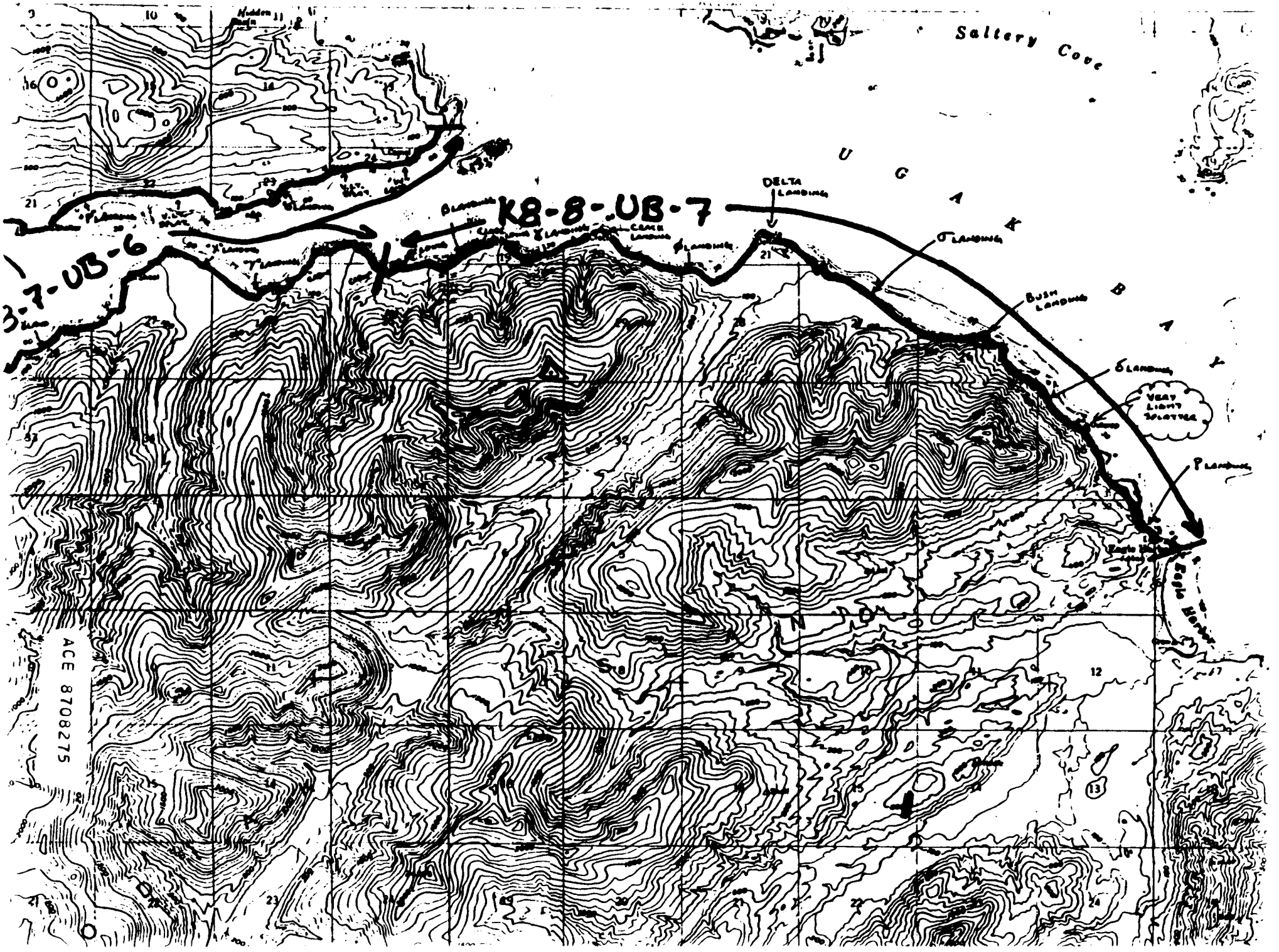
CLEANUP PRECAUTIONS: None, since no cleanup is recommended.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other 2 deer

BIRDS: eagle (1), arctic terns, grebes, gulls

GENERAL OBSERVATIONS: Only 1 oil patch observed in this entire segment. Clean-up crew would be unlikely to find it.

ACE 8708273


Saltery Cove
K8-8-UB-7
3-7-UB-6
DELTA
BUSH
ACE 8708275

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-8

Includes Shoreline Segments: UB-7

Location: Ugak Bay

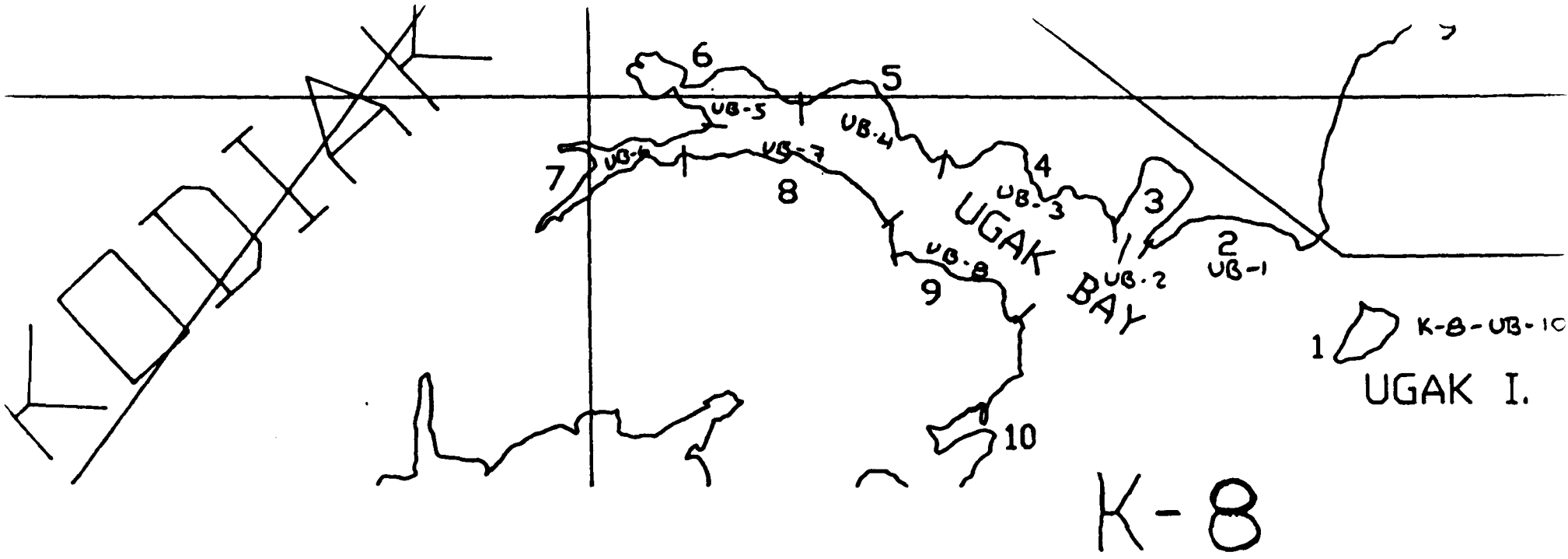
Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

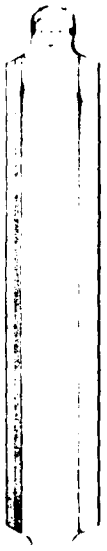
ACE 8708276



K-8

ACE 8708277-/-

ACE 7963966



(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-9

Includes Shoreline Segments: UB-8

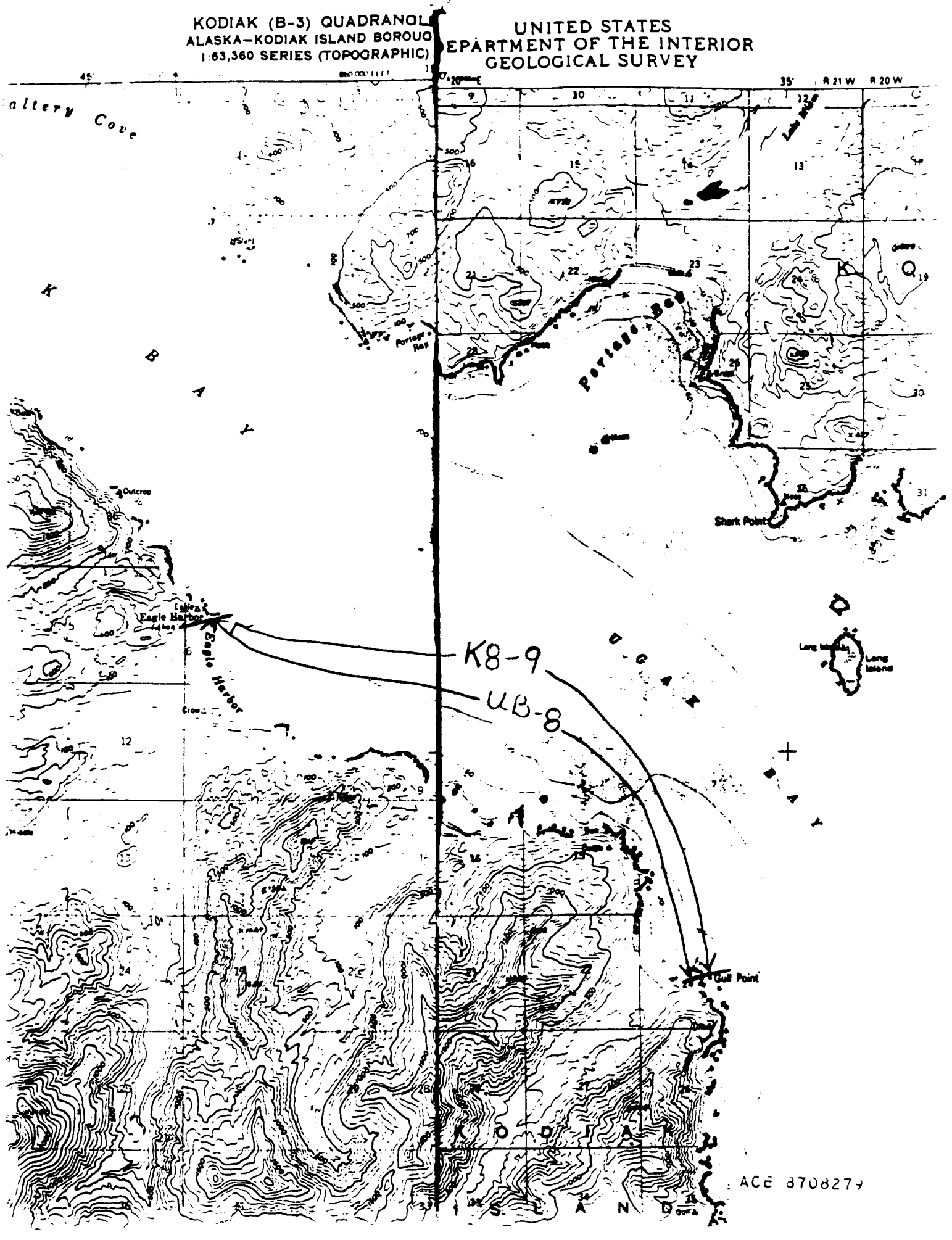
Location: Ugak Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC


KODIAK (B-3) QUADRANGLE
ALASKA—KODIAK ISLAND BOROUGH
1:63,360 SERIES (TOPOGRAPHIC)
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
R 21 W
R 20 W
Portage Bay
Eagle Harbor
Gull Point
Long Island
K8-9
UB-8
ACE 8708279

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/23/89 SHORELINE SEGMENT K8-9-UB-8

LOCATION: (see enclosed map) Ugak Bay, Eagle Harbor southeast to Gull Point

ADEC NO. K8 SHORELINE ASSESSMENT DATE: 7/23/89

Recommended Cleanup Activity(ies):
-Manual removal of mousse patties (see note maps #1-4 and segment map).

Priorities/Considerations: Class 5-A
-Boat access may be restricted to calm days only.

Ecological Constraints (from site survey):
-Avoid eagle nests.

Archaeological Constraints (from site survey):
-Inspection by an archaeological monitor is required while cleanup is conducted.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708280

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 7/22/89 / Time: 0930 1420 Observer: M. Acton

Surveyed From: (Foot) Boat (Helio) Plane Weather: Sun (Cloud) (Rain) Snow/Fog

LOCATION

Location: Vgak Bay, Eagle Harbor to Gull Point Segment ID: KB-9-UB-8

Segment Length: 10 km m. Access: Vehicle/(Boat)/Barge/(Helio)/Float Plane

Access Restrictions: Boat access during low wave energy periods only.

SHORELINE

Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT Slope: Lo/(Med)/Hi/(Vert)

Wave Exposure: (High)/Med/Low

Sediment: B 15 % / C 15 % / P 5 % / G&S 25 % / M ___ % / R 40 %

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT) / NONE OBSERVED

Area of Impact: SU/(SP)/H/M/L

OIL DISTRIBUTION

Continuous	% of Segment ___	SU/SP/H/M/L	H/M/L/VL
Sporadic	% of Segment 35	SU/(SP)/H/M/L	H/M/L/(VL)

Total	Length(m)	Width(m)			
Very light:	4.4 km	3-5	Thickness >1cm: ___ cm		SU/SP/H/M/L
Light:			Penetration/Rework: ___ cm		SU/SP/H/M/L
Moderate:			Burial Depth: ___ cm		SU/SP/H/M/L
Heavy:					

Mobilization Potential: High/Medium/(Low)

Drift Debris Oiled? (Y)/N Amount: H/M/L/(VL) SU/(SP)/H/M/L Type: Driftwood, Seaweed

OIL MORPHOLOGY

Pooled Oil: ___ %			SU/SP/H/M/L
"Free" Oil: ___ %			SU/SP/H/M/L
Splattered: 5 %		H/M/L/(VL)	SU/(SP)/H/M/L
Coated: ___ %		H/M/L/VL	SU/SP/H/M L
Pancakes/Balls: 95 %			SU/(SP)/H/M/L

Preliminary Cleanup Est.

Total TYPE A: 4.4 km m

Total TYPE B: ___ m

Total TYPE A/B: ___ m

OIL WEATHERING

Fresh: ___ %		SU/SP/H/M/L
Mousse: ___ %		SU/SP/H/M/L
Weathered Mousse: 95 %		SU/(SP)/H/M/L
Asphalt Mousse: ___ %		SU/SP/H/M/L
Tar: 5 %		SU/(SP)/H/M/L

COMMENTS

See segment maps for location of Note Maps

See maps for notes.

ACE 8708281

DOCUMENTATION:

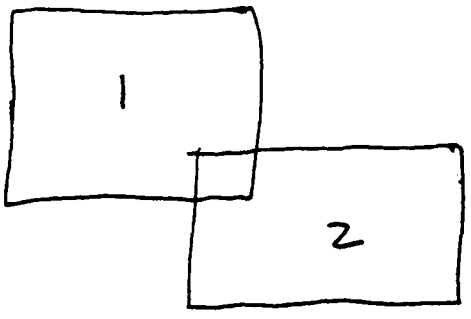
(Map)/Aerial photo marking segment boundaries See Attached Maps

VTR: Y/N Tape Number(s) _____

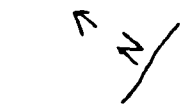
Photography: (Y)/N Roll Number(s) MA3,4

Sample Numbers Collected: _____

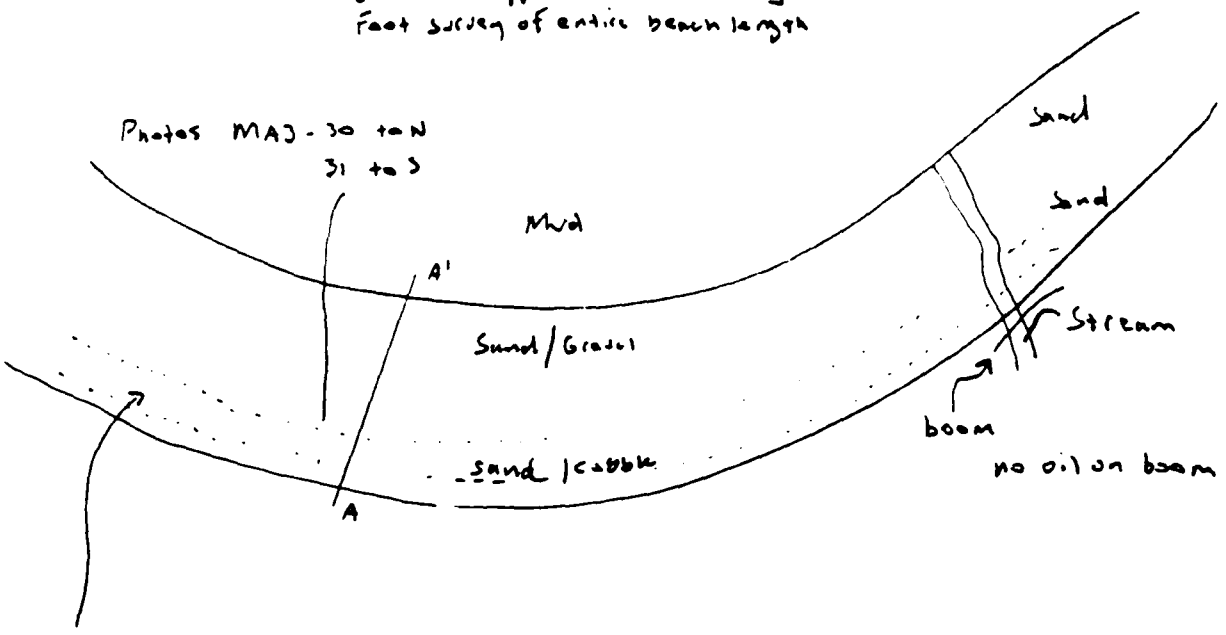
Segment Map Index



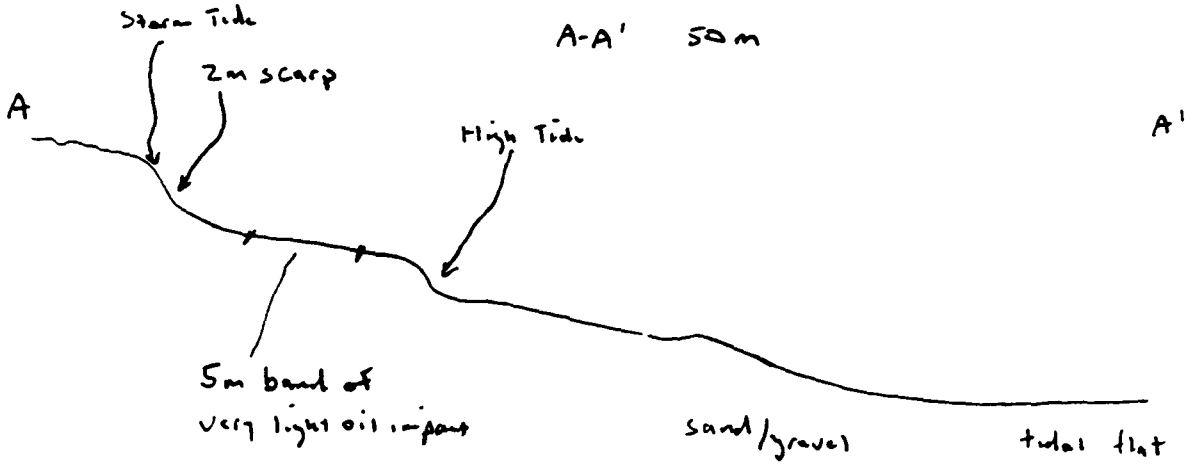
Map #1



Beach is approx 1000 m long
Foot survey of entire beach length



5m band in SP zone extending along entire beach - surface of band is approx 50% sand, 50% cobbles
on sand - very light oil impact - oil/sand pancakes up to 25cm diameter
on cobbles - very light oil impact - mousse pads
very light splat on driftwood, oil on feathers
Oil was observed on surface to approx 7cm BGS
Oil impact is less at the south end of beach

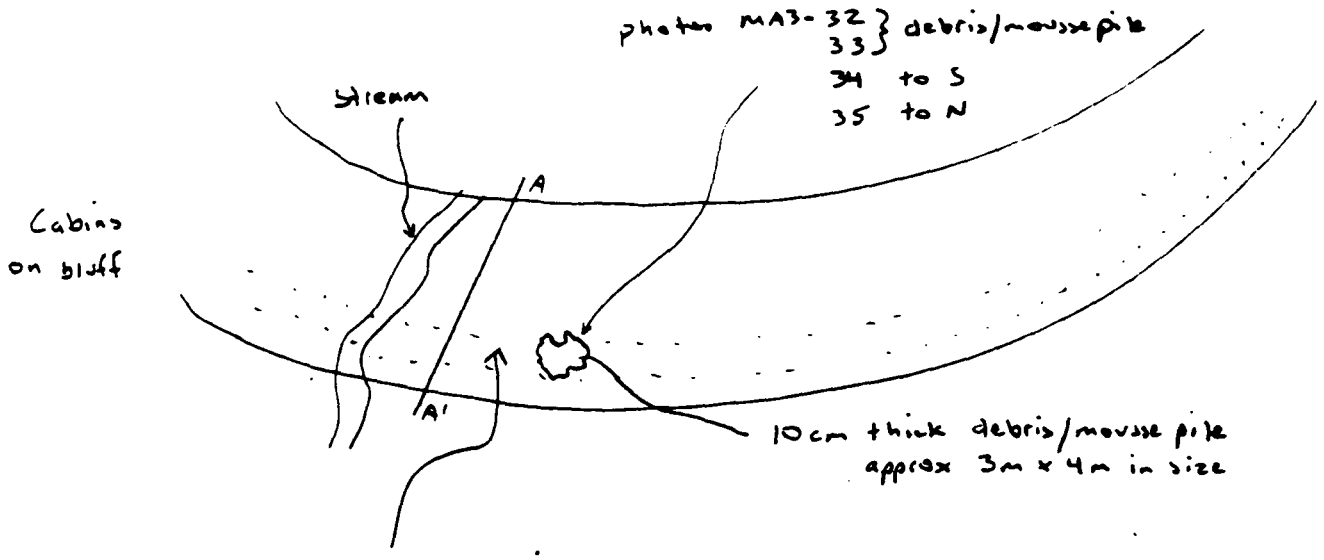


Manual removal of mousse pads recommended

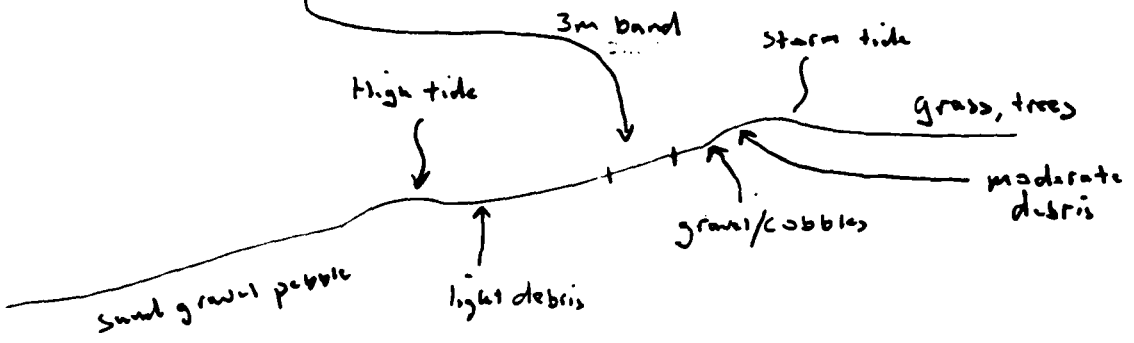
Map #2

N

Beach is approx 1000m long
Foot survey of entire beach length



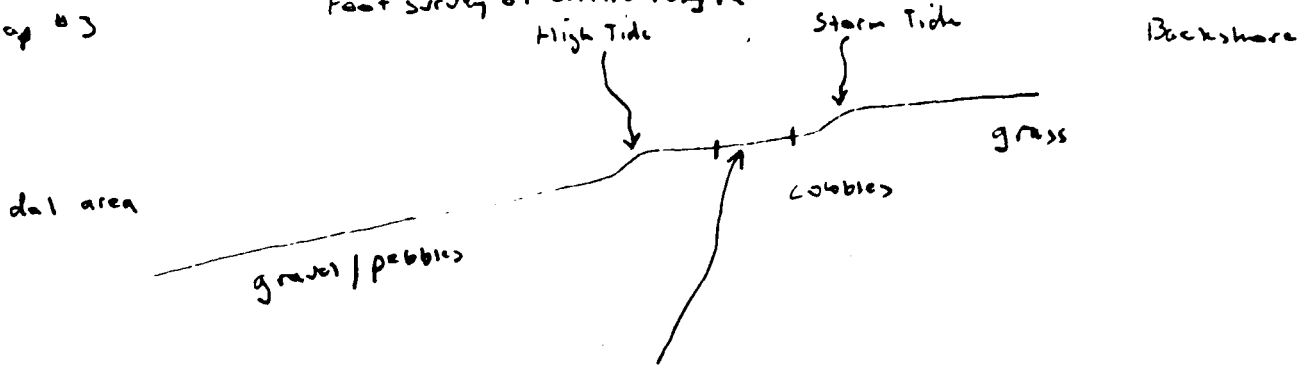
3m band, very light mousse pads on surface to 7cm BGS, max diameter 10cm approx, very light sheen on debris



A A-A' 45m A'

Manual removal of mousse pads recommended

Foot survey of entire length



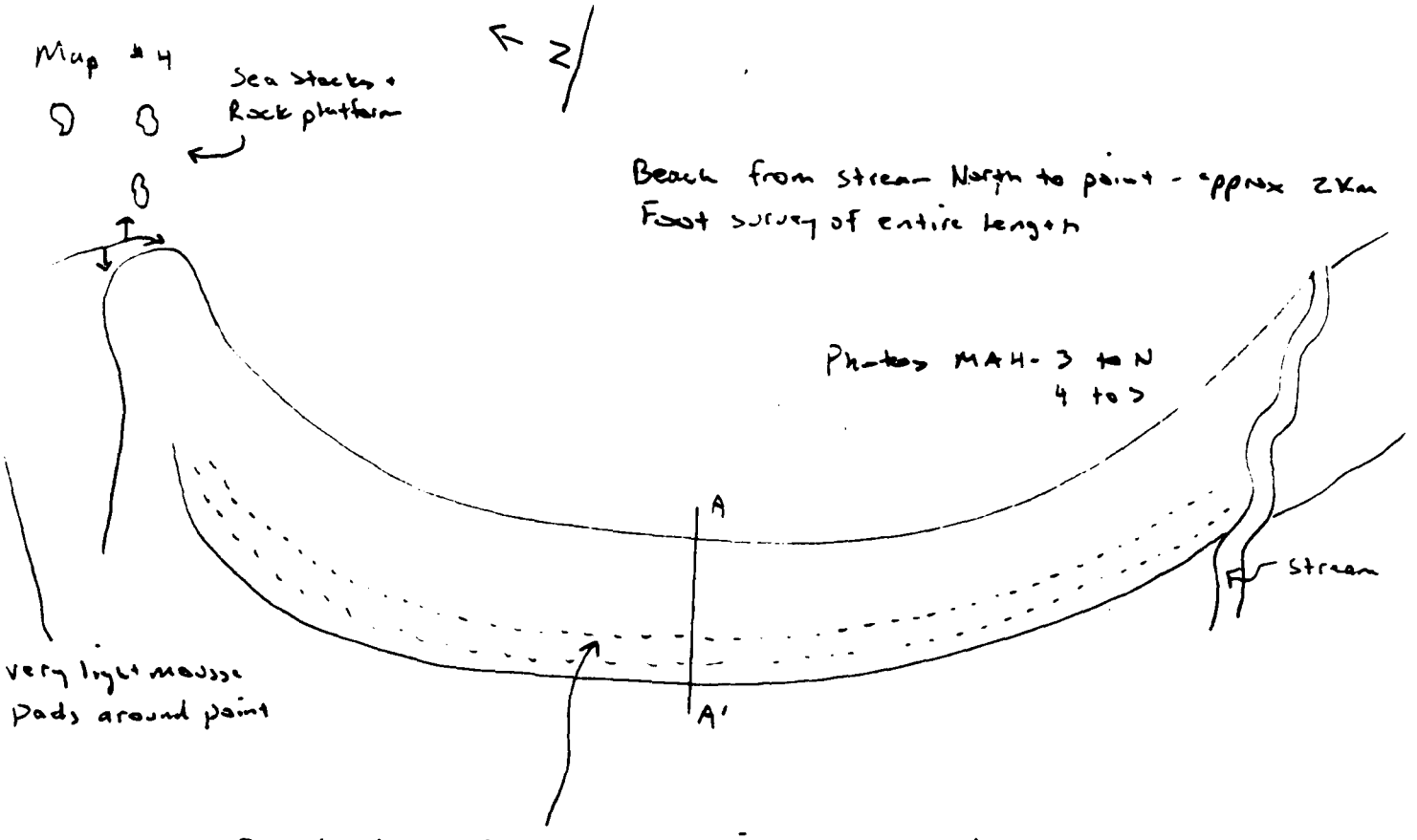
3m band of very light oil impact - mousse pads up to 6 cm diameter on surface to 2cm BGS

Very light splat on debris - driftwood + seaweed

MA3-36 to N

Manual removal of mousse pads recommended

Map #4



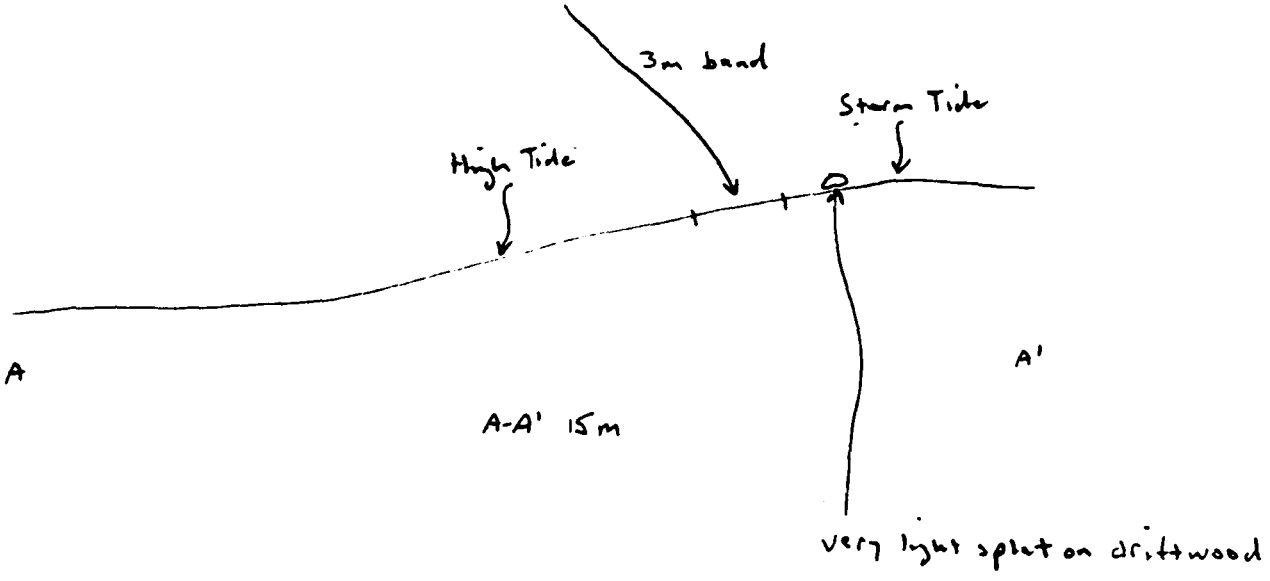
3m band in stream - very light mousse pads on surface to 2cm BGS

Less weathered pads - brown mousse

More weathered pads - tar skin w/ brown mousse core

Band extends along entire length of beach from stream North to point

Approx 100-150 pads, max diameter of 24cm, in band



Manual removal of mousse pads recommended.

1440 - 10m band v lt mousse near SW line

1455 7m band in Spreane

1505 V1 split

high energy - NW almost ^ cliff beach

1510 V1 split + marine balls in debris

2m band Spreane

1515 spoke w/ miners

1530 cruise along SW shore

natural sandy mousse band

Retrieve Akhiok

1715 Arrive Kodiak

7/22 Security Acton Jordan Gulpac Vixen

0810 departure Penn Wes-> ADF&G

To Tugidak Island

Tugidak - O/O weather

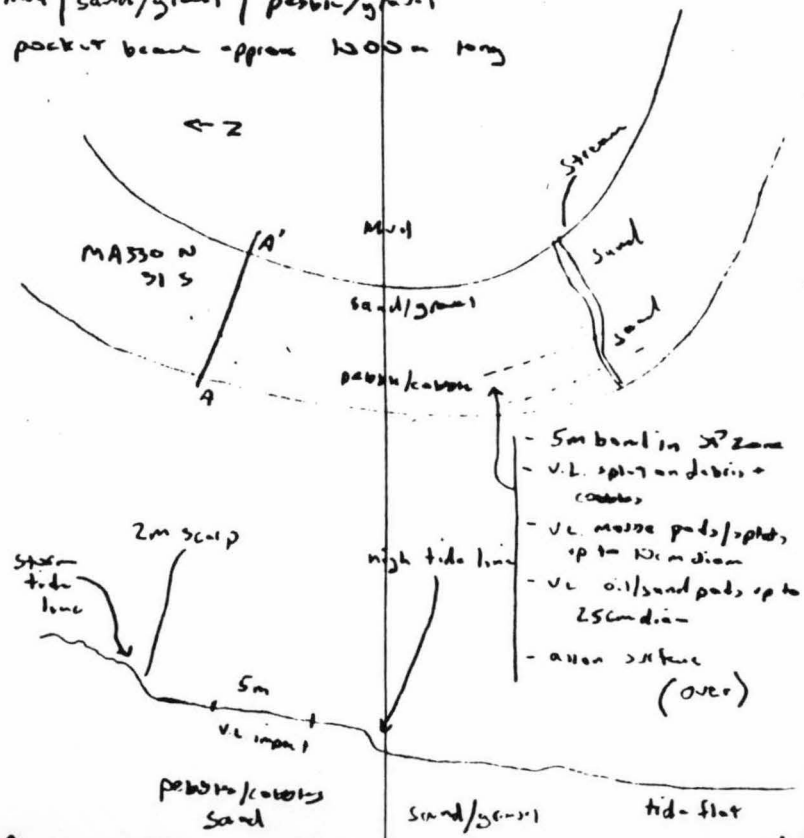
0900 start Ugak Bay K8-9-UB-8.

Start at Gull Pt.

① 1st packet beach N of Gull Pt 0905

mud | sand/gravel | pebble/gravel

packet beach - approx 1000m long



ACE 8708288

25

5m zone has approx 50% surface cobbles / 50% sand - Mixed cobbles w/ mousse underlayed by sand - mousse sitting to approx 7cm deep

- sand areas have oil/sand pads
- cobbles have mousse

| Manual Removal recommended |

5m band extends alongentire beach
oiled feathers present
no oil on stream banks
oil impact ↓ as move SE along beach
Walked entire beach
Lift off 1015

1020 no oil observed

1025 Very lt. splat on cobbles 4 splats observed
| no cleanup rec |

5m band - mostly sand - Sand

1040

② pocket beach
1000 m long
walked entire beach

MA3 - 32 | debris/mousse
33
34 NS
35 N

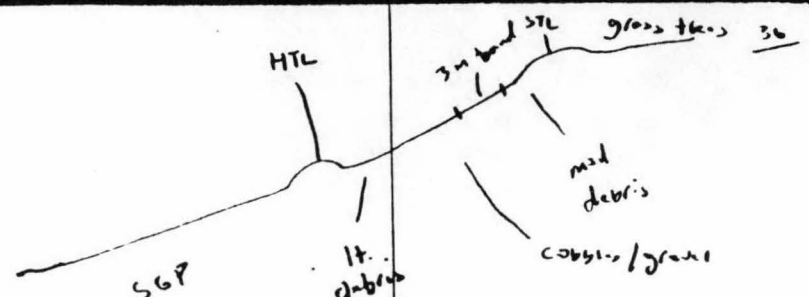
Cabins on bluff

A

A'

debris/mousse
3x4m
pole

3m band



3m band
VL splat on debris
VL mousse pads - surface to 7cm
max diam 10cm

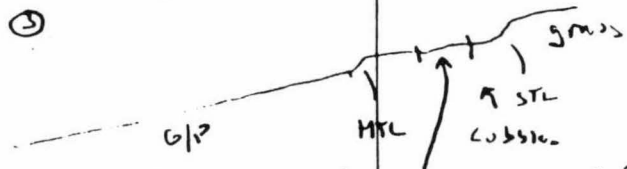
A A-A' 45m A'

| manual cleanup rec |

lt. oil off 1140

1050 small pocket beach

③



3m band VL mousse pads - up to 6cm diam on surface

MA3-36 N

VL splat on debris - DW + weed

Manual cleanup rec - rec quit - small area

ACE 8708289

37

1250 MA4-1 S
2 N

VL splat on debris
one moose spot
incomplete assessment - weather
1220 1.41 off
1240 Return Kodiak

7/23 1430 Acton Bluestone
Penn Gordon (USCG)

Destination Ugak Bay

④ continuation in Eagle Harbor | Start 1500

MA4-3 N
4 S ↖ N

○ VL moose pads at point

no pads in stream

A-A' 5m

38

A HTL STL A'

driftwood VL splat

3m band on SP cone - VL moose pads
some fresh (brown) some w/ black outer surfaces (weathered) and brown (this weathered) inside
pads on surface - some extend appx 2cm BGS
pads extend along whole band
approx 100-150 pads along entire band
max pad - 24cm diameter
point to stream mouth - appx 2km

Liftoff 1645 Manual cleanup recommended

ACE 8708290

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Kodiak SITE: UGAK Bay OBSERVER: G. Penn

LOCATION PREFIX: K8-9 SEG. NO.: UB-8 LENGTH: 10 km ~~(M)~~

DATE: 07/22/89 TIME (HHMM): 0900 TIDE HT.: 1.1 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)
on Boulders, Rock

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)
+ Tactile Response - covered w Balanus spat.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)
+ Tactile Response, good spat set

Littorina
Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)
+ Tactile Response

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)
+ Tactile Response

OTHER OBSERVATIONS: Chitons on Boulders, Anemones on Boulders
Laminaria, Ribbon kelp, Nereocystis dense in LIT2 + Subtidal

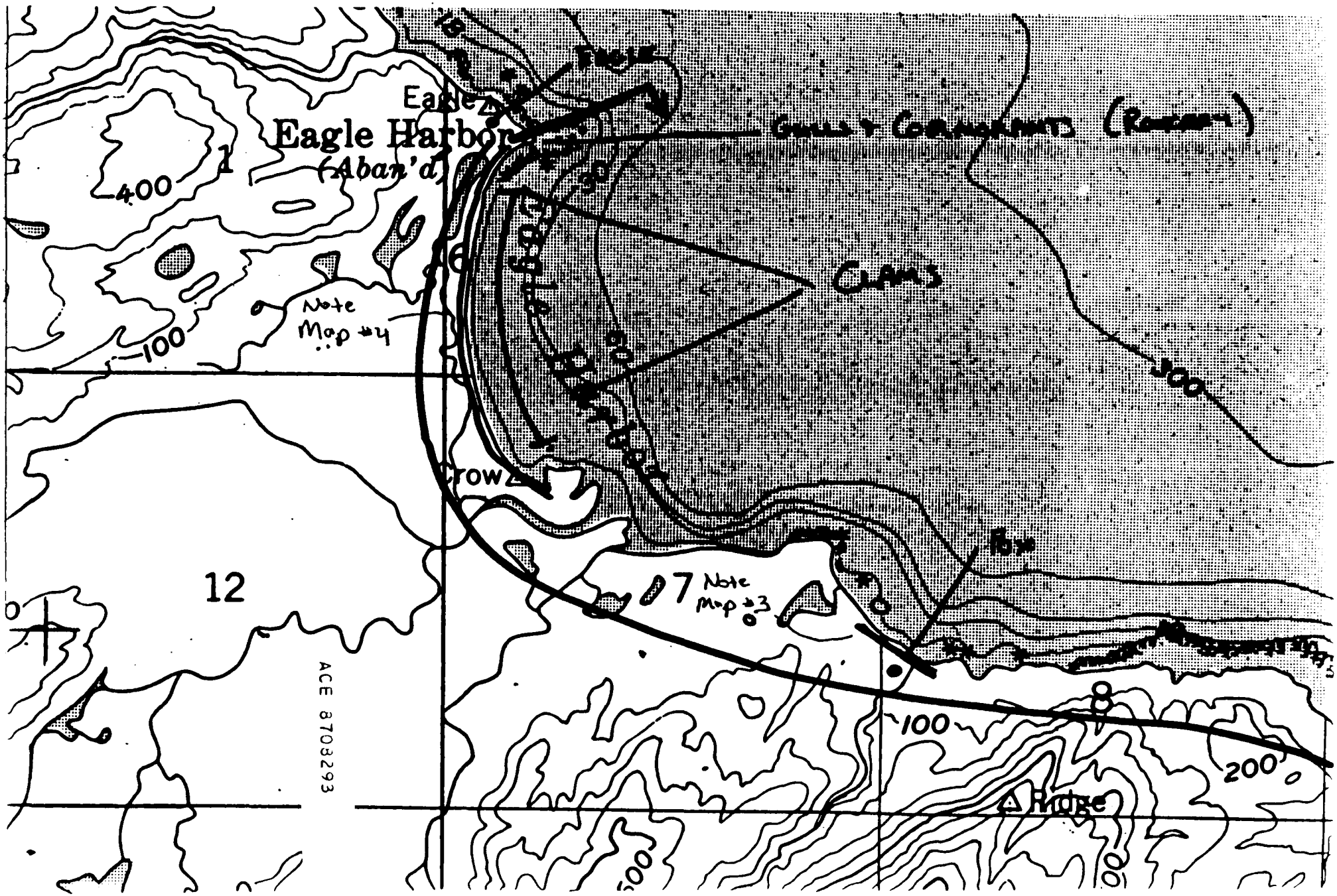
CLEANUP PRECAUTIONS: Type "A" cleanup will not
impact Intertidal biota. Keep clear of eagle's nest. (MAP)

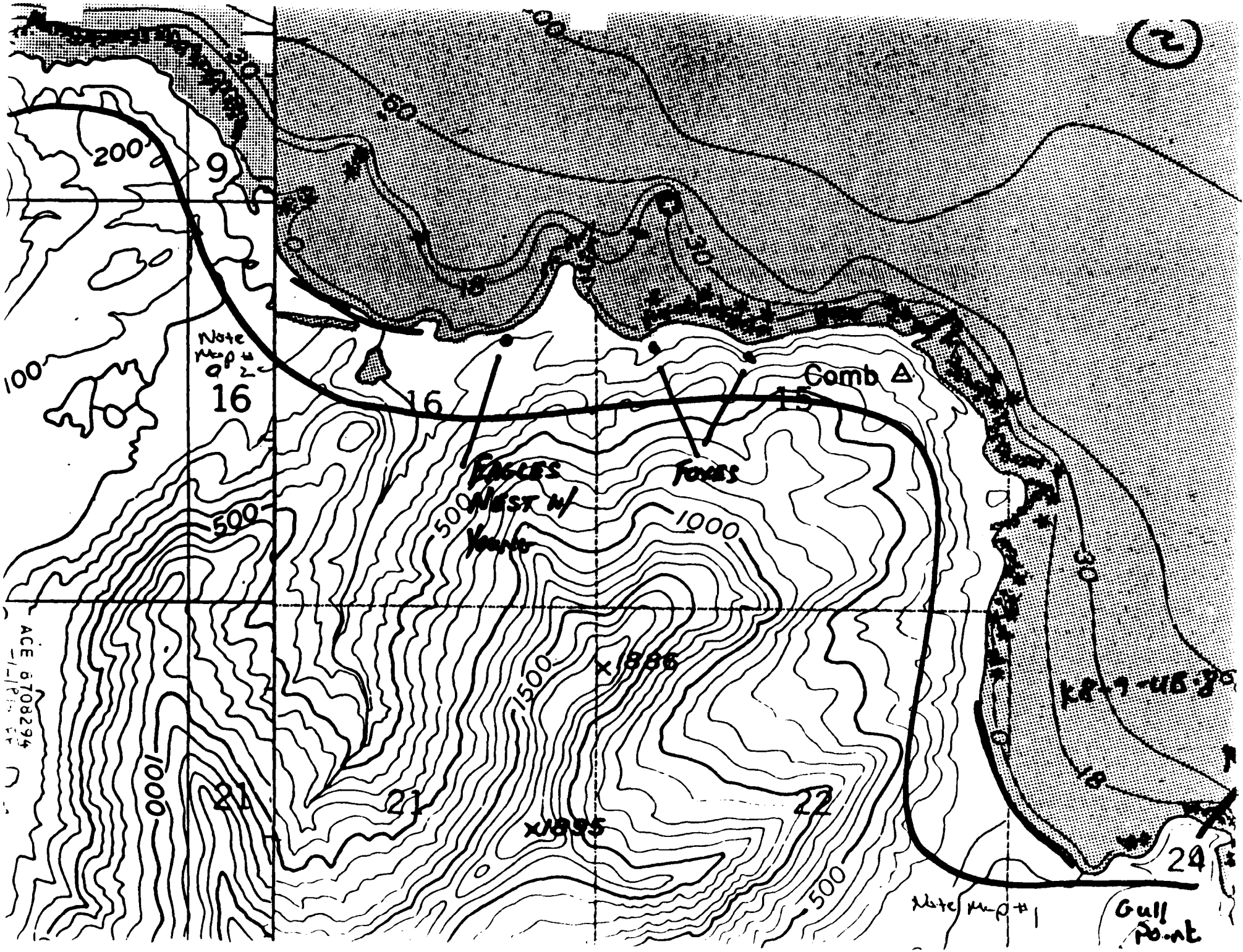
MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other Fox

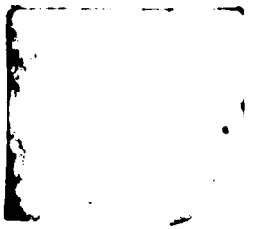
BIRDS: Eagles, Ravens, Crows

GENERAL OBSERVATIONS: ____

K8-9- UB-8


Eagle Harbor
(Aban'd)
400
100
Note
Map #4
Eagle
Gulls + Cormorants (Roosting)
Gulls
300
Crow
Fox
Note
Map #3
12
7
8
100
200
Ridge
ACE 8703293


200'
9
100'
Note Map # 2
16
16
15
Comb Δ
Forges
Forges West w/ Mounds
500
1000
1500
500
1000
500
X 866
X 895
21
22
24
30
30
30
30
Note Map # 1
Gull Point
ACE 6708294



K8-10

ACE 7963967

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-10

Includes Shoreline Segments: UB-9

Location: Ugak Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

ACE 8708295

SCAT BLOCK LIST

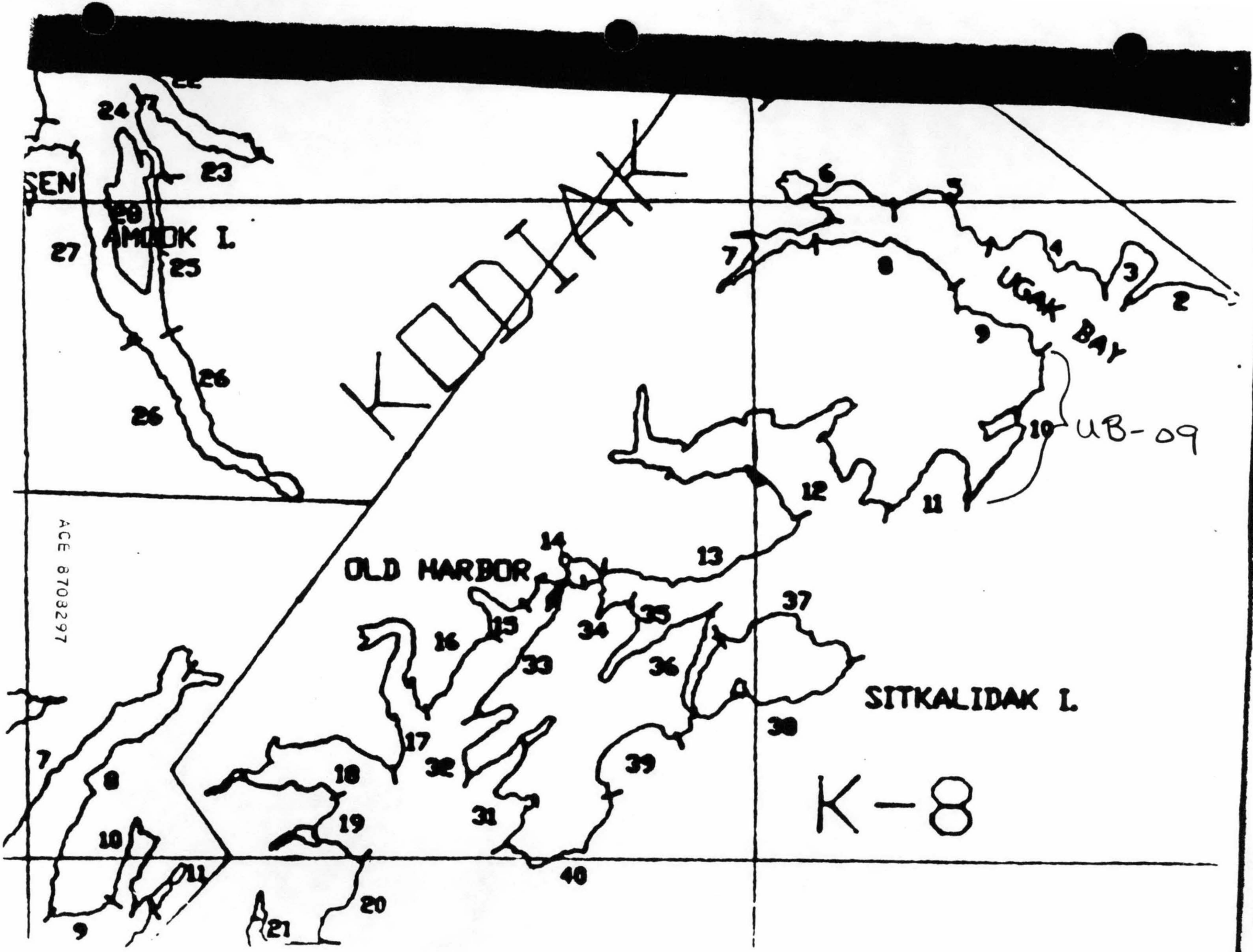
BLOCK NUMBER K8 - 10

SEGMENT I.D.	DATE
UB-09	07/26/89

(only 1 segment in block)

Missing completed b/w maps

☐ **K Map with segment boundaries included**


KODIAK
AMOOK I.
UGAK BAY
UB-09
OLD HARBOR
SITKALIDAK I.
K-8
ACE 8703297

SCAT SEGMENT CHECKLIST

BLOCK NUMBER K8-10

SEGMENT NUMBER UB-09

Report Material

☒	Shoreline Cleanup Program Sheet	OG/BIO
☒	Shoreline Oil Evaluation Page 1	OG
☒	Shoreline Oil Evaluation Page 2	OG
☒	OG Field Notes	OG
☒	Ecological Evaluation	BIO
☒	Cultural Resource Evaluation (copy from cultural data)	ARCH
☐	~~ADF&G / ADEC Maps (if applicable)~~ →	BIO
☐	~~Other Resource Maps (if applicable)~~	BIO
☒	Segment Map (usually 1:63000 topographic map)	OG/BIO
☐	Color Coded Oil Distribution Map (1:1500 topo map or 1:63000 enlargement)	OG
☒	Cultural Resource Evaluation Supporting Document Cover Sheet	ARCH
☒	Cultural Resource Evaluation	ARCH
☒	Archaeologist Field Notes	ARCH
☒	Archaeologist Segment Map (use original cultural resource segment map to indicate the plotted archaeology sites	ARCH

Miscellaneous

☒	Index Archaeology Photos ..... NONE	ARCH
☐	Index Shore/Oil Photos	BIO
☒	Mark segments on 1:250,000 topo maps (SCAT conference room)	BIO
☒	Log Segments on List	BIO
☐	Collect Field Maps for Next Assignment (5 Copies)	BIO
☐	Next Day's Flight Plan	BIO
☐	VHF Radio / Shotgun / etc.	BIO/ARCH
☒	AHRS SITE FORM: K-09-364	
☐		

ACE 870629 -/_

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/25/89 SHORELINE SEGMENT K8-10-UB-9

LOCATION: (see enclosed map) Ugak Bay, Kodiak Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/26/89

Recommended Cleanup Activity(ies):
-Manual removal of very light oil (small mousse patties and splattered pebbles) and oiled debris at beaches #1 and #2.

Priorities/Considerations: Class 5-A
-Boat access may be limited to calm days only.

Ecological Constraints (from site survey):
-None. Beaches that have very light oil on them have no biota that would be impacted by manual cleanup.

Archaeological Constraints (from site survey):
-No access to forest/upland zone by beach crews during cleanup.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708299

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 07/26/1989 Time: 09:30 Observer: Rick Gillie
urveyed From: (Foot) Boat (Helio) Plane Weather: (Sun) Cloud/Rain/Snow/Fog

OCATION
ocation: UKAK BAY (Gull Point) Segment ID: K08-10-UB-09
egment Length: 16,600 m. Access: Vehicle (Boat) Barge (Helio) Float Plane
ccess Restrictions: High Wave Beach, Surf

HORELINE
horeline Type: SRL (BEA) COV (HLD) STRT Slope: Lo (Med) Hi (Vert)
ave Exposure: (High) Med Low
ediment: B 20 % / C 5 % / P 5 % / G&S 10 % / M ___ % / R 60 %

IL
vg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
rea of Impact: SU/SP (H) M/L

IL DISTRIBUTION
ontinuous % of Segment ____ SU/SP/H/M/L H/M/L/VL
poradic % of Segment 15 SU/SP (H) M/L H/M/L (VL)

otal	Length(m)	Width(m)		
ery light:	2,000	10	Thickness >1cm: ___ cm	SU/SP/H/M/L
ight:			Penetration/Rework: ___ cm	SU/SP/H/M/L
oderate:			Burial Depth: ___ cm	SU/SP/H/M/L
eavy:				

-bilization Potential: High/Medium (Low)
ift Debris Oiled? (Y) N Amount: H/M/L (VL) SU/SP (H) M/L Type: Driftwood (Minor) Popweed (Minor)

IL MORPHOLOGY

ooled Oil: ___ %		SU/SP/H/M/L
Free" Oil: ___ %		SU/SP/H/M/L
plattered: 50 %	H/M/L (VL)	SU/SP/H/M/L
oated: ___ %	H/M/L/VL	SU/SP/H/M L
ancakes/Balls: 50 %		SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 2,000 m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

IL WEATHERING

resh: ___ %	SU/SP/H/M/L
ousse: ___ %	SU/SP/H/M/L
eathered Mousse: 100 %	SU/SP/H/M/L
sphalt Mousse: ___ %	SU/SP/H/M/L
ar: ___ %	SU/SP/H/M/L

OMMENTS
) CLEANUP BEACH STOPS (#1) AND (#2) See OG Field Notes for type and degree of oiling. (attached).

ACE 87U8300

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached K-8-10-UB-9

VTR: Y/N Tape Number(s) KOS-19/KOS-13

Photography: (Y)/N Roll Number(s) DMC-22

Sample Numbers Collected: N/A

July 26/1989

07:30 Arrive office total briefing
Prepare field materials, etc

08:30 Leave for airport "35BEH"
09:10 Aboard helo
Pilot - Dave Priddy
Co Pilot - Evan
OG (R. Gillie) CG (Dave Comeau)
No 2 (Debbie)
No 1 (Jim)

- KOB - 10, 11, 12 - UKAK BAY - KILLIUM BAY

- ETA - 17^{00}

KOB-10-UB-9

09:30 Stop ①

- rare mousse patches
- oil splatter
- mixed sed & beach

Rick Gillie

- mousse patches - 5 to 10 cm dia
- approx 1 / 20 to 30 m
- Recommend Clean-up

Stop #② 10:04

- 1 mile beach / mixed sed.
- ⓐ - v. light oil splatter small patches
ⓑ
- about mid-length of beach becomes 1 mousse patch per 50 yds.
- 2 people with garbage bags could recover all the mousse patches and oiled debris off this beach in 2 hours
ⓒ Mousse patches / splatter concentration increases at the south end to about 2-3 / 10 m of beach in the HTZ debris drift line.
- Wind blown sand also coating some oiled debris.

ACE 8708302

July 26/89

Rick Gillie

10.53 Back in Helo
Check out potential Arch sites
back of beach.

11:00
- rare woven pottery
- inaccessible

- 300m long gravel b. - No oil
- mostly shoreline b.

Stop #(3) at 11:11

- steep mixed sand / cobble beach
- 20- backshore backed by
steep debris slope
- NJ OIC present
- NJ OIC between (2)
and (3)

11:18 - Back aboard C. Dagan
- No oil

ACE 8708303

ECOLOGICAL EVALUATION

LOCATION: E. side Kodiak Is (Gull Pt. To Dangerous Cape) SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: UB (K-8-10) SEG. NO.: 9 LENGTH: 16600 (M)

DATE: 7/26/89 TIME (HHMM): 0930 TIDE HT.: +1.5 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

On rocky headlands, Fucus is dense & continuous. Non-existent on pocket beaches

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense patches on rocky headlands/boulders only

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on rock/boulder segments of beach.

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

OTHER OBSERVATIONS: Beach fauna: Kelp debris (Alaria, Laminaria, Fucus, Costlaria, Enteromorpha). No live biota on beaches. No evidence of clam beds. Zostera marina predominant in tide flat behind beach #2. Salmon/dolly varden seen jumping all along segment.

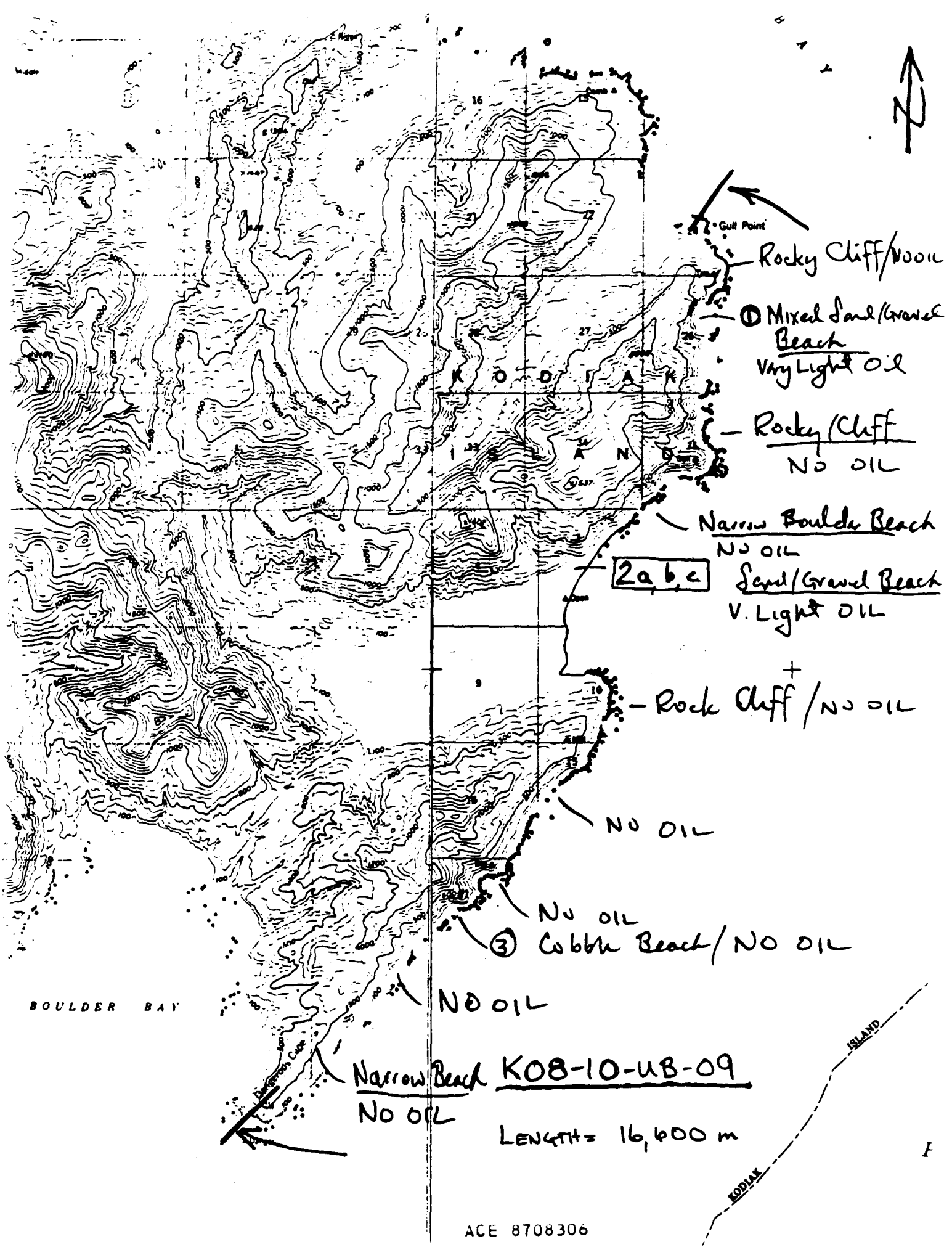
CLEANUP PRECAUTIONS: None.

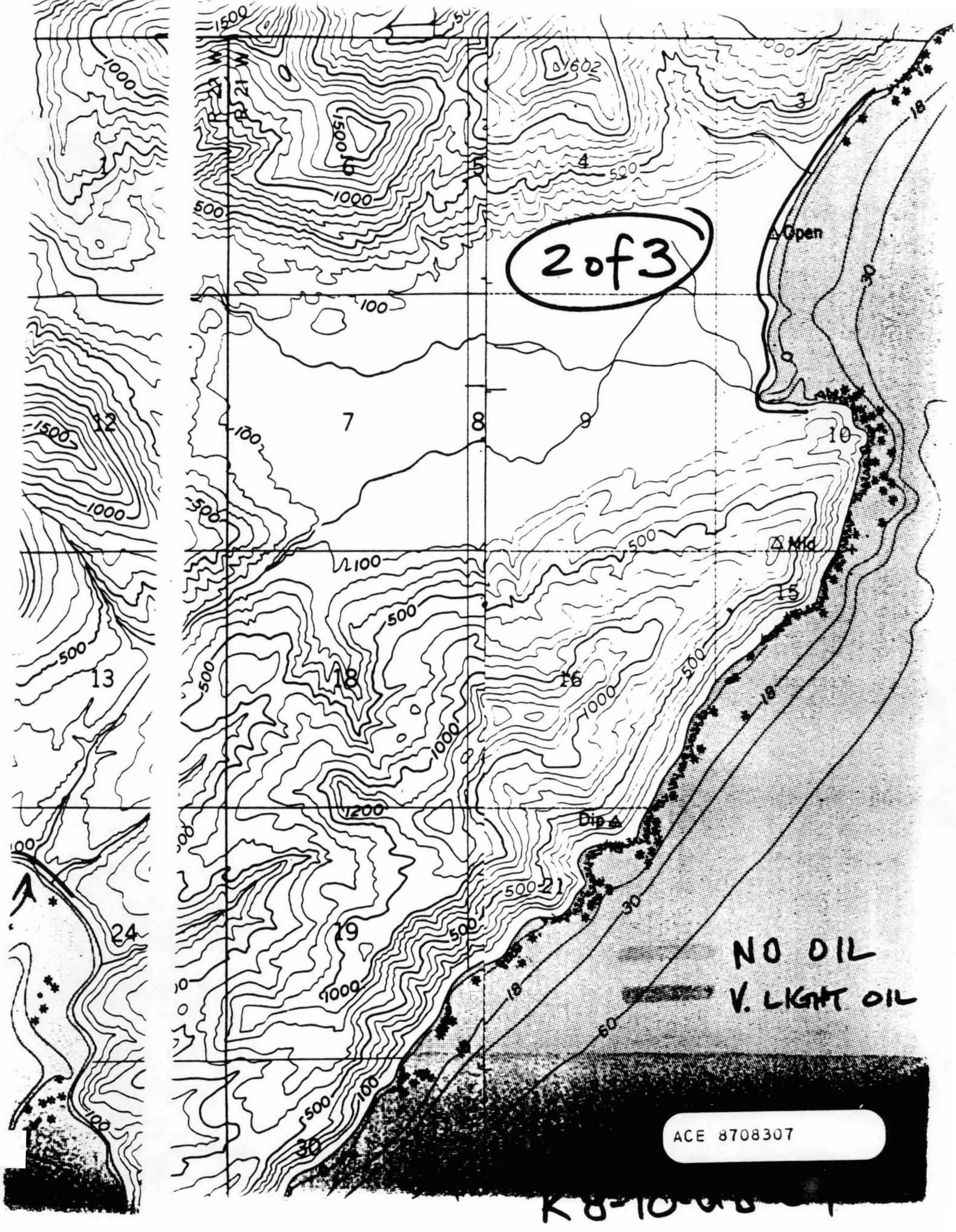
MAMMALS: Otters ___ Harbor Seals ___ Sea Lions 2 Whales ___
Other Fox tracks on beaches #2 & #3.

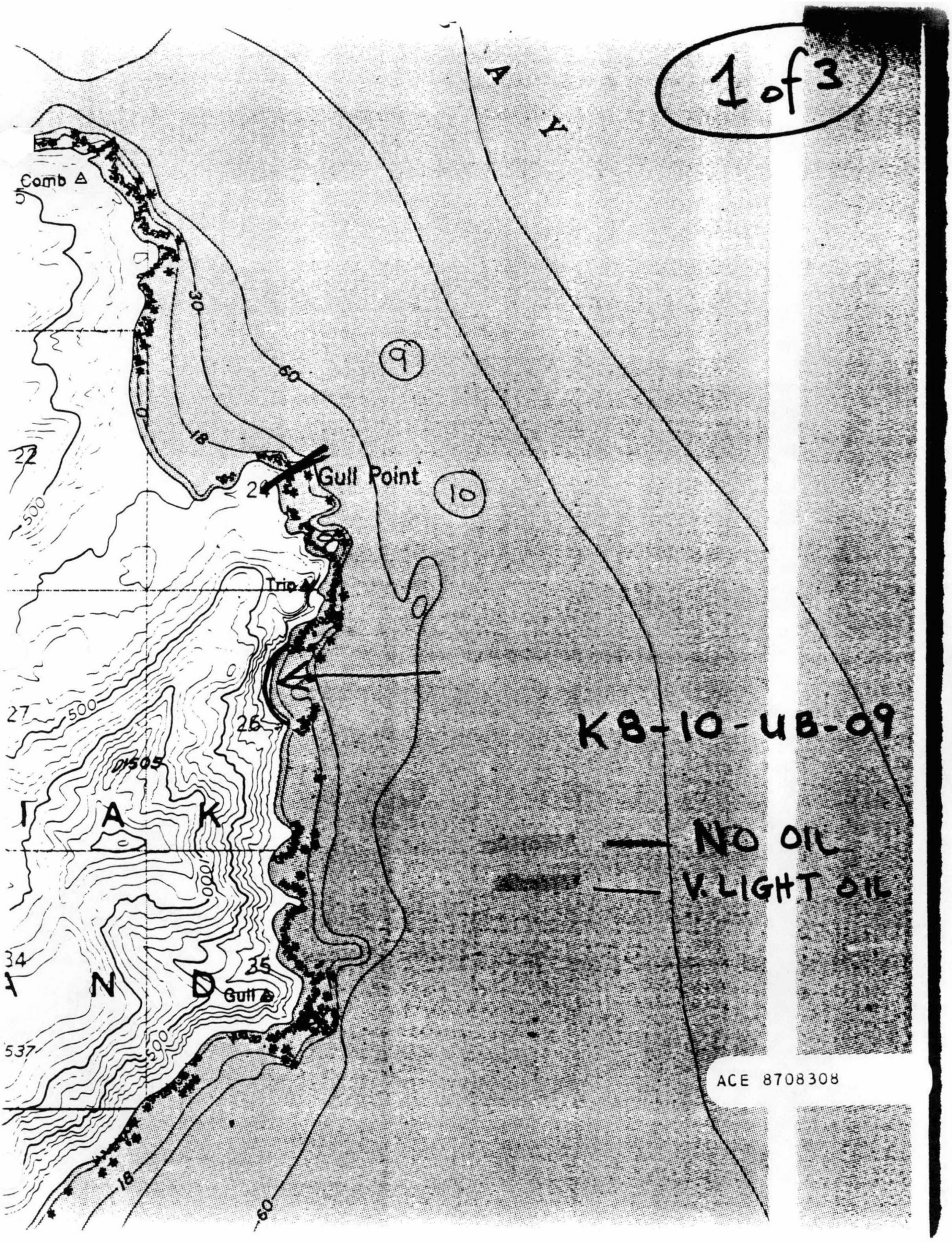
BIRDS: arctic terns, gulls

GENERAL OBSERVATIONS: This segment consists of a series of rocky headlands and pocket beaches. 3 stops were made on beaches to check for oil. Some mousse patches found on first beach; very light splatter on a few drift logs and mousse patties on 2nd beach; No oil observed on 3rd beach

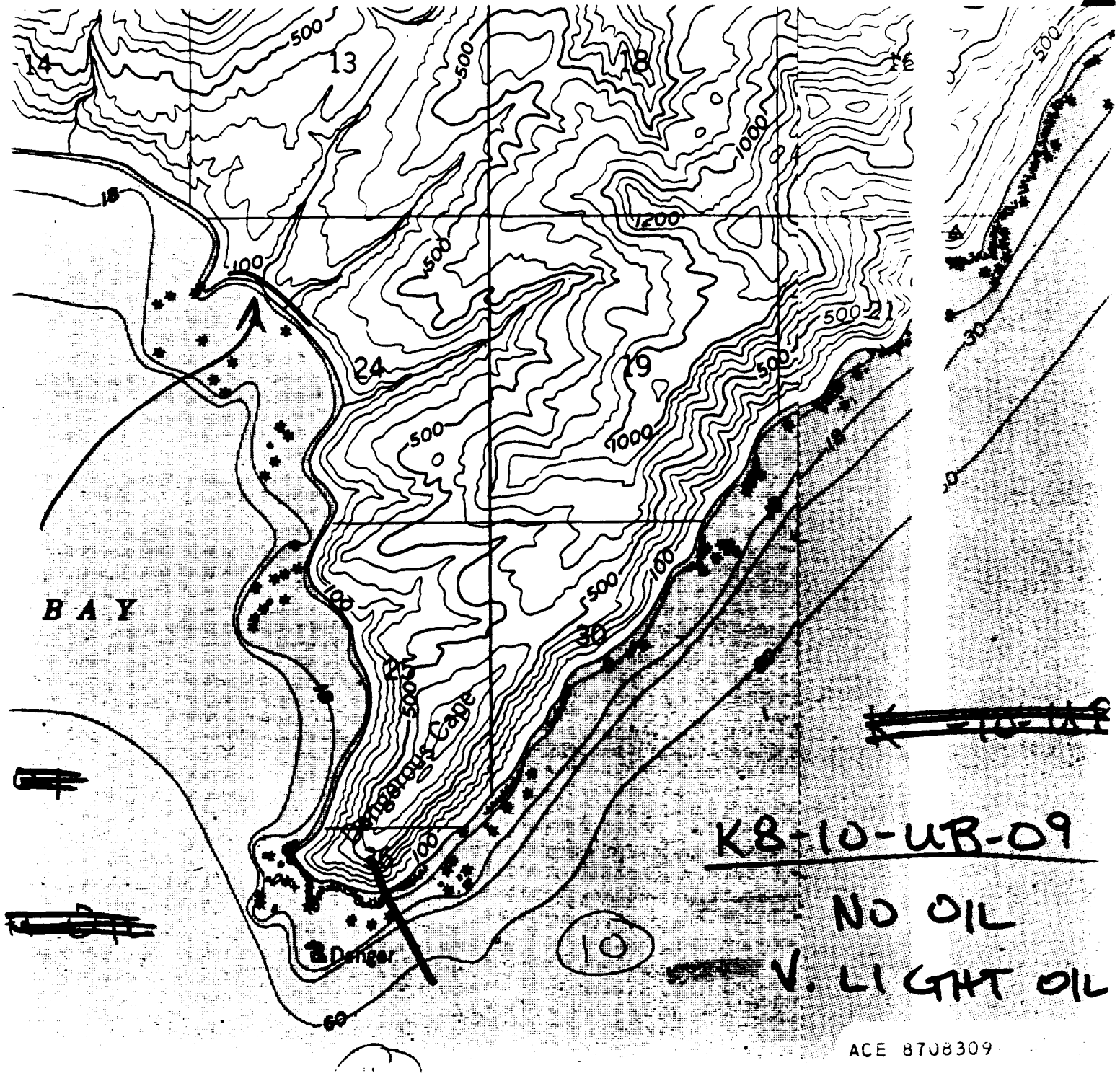
ACE 8706304


Gull Point
Rocky Cliff/NO OIL
1 Mixed Sand/Gravel Beach
Very Light Oil
Rocky Cliff
NO OIL
Narrow Boulder Beach
NO OIL
2a, b, c
Sand/Gravel Beach
V. Light OIL
Rock Cliff / NO OIL
NO OIL
NO OIL
3 Cobble Beach / NO OIL
NO OIL
BOULDER BAY
Narrow Beach KOB-10-UB-09
NO OIL
LENGTH = 16,600 m
KODIAK ISLAND
ACE 8708306


2 of 3
Open
Mid
Dip
NO OIL
V. LIGHT OIL
ACE 8708307


1 of 3
Comb Δ
Gull Point
9
10
Trio
K8-10-UB-09
NO OIL
V. LIGHT OIL
ACE 8708308
I A K
N D
Gull
30
60
18
500
1505
1000
537

3 of 3



K8-10-UB-09

NO OIL

V. LIGHT OIL

ACE 8708309

K8-11

ACE 7963968

Oxford

STOCK No. 152½

MADE IN U. S. A.

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-11

Includes Shoreline Segments: BO-1

Location: Boulder Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

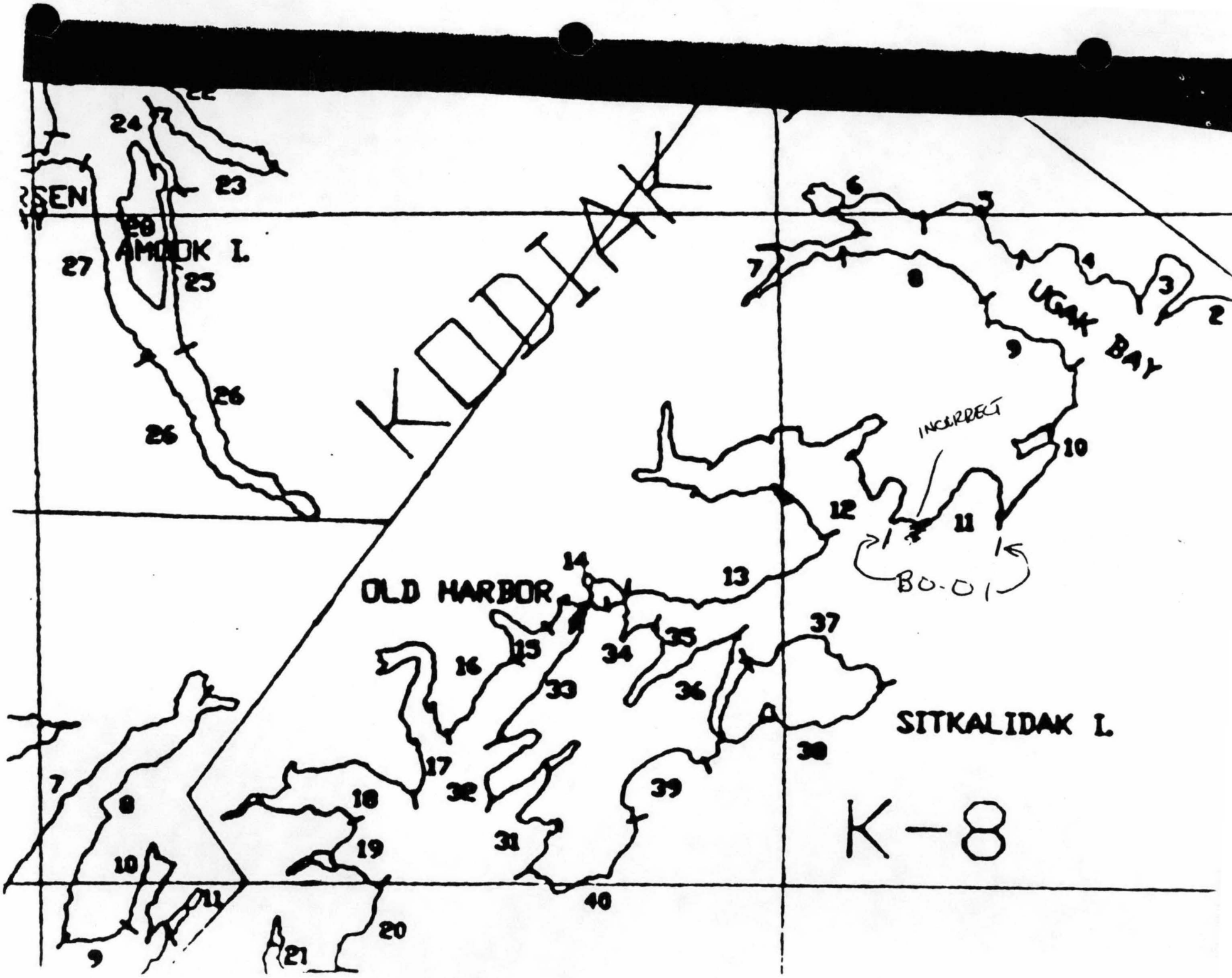
ACE 870310

SCAT BLOCK LIST

BLOCK NUMBER K8-11

SEGMENT I.D.	DATE
B0-01	07/26/89
(Only 1 segment in block)	

☐ **K Map with segment boundaries included**


KODIAK
UGAK BAY
INCORRECT
BO-01
OLD HARBOR
SITKALIDAK I.
AMOOK I.
K-8

ACE 8708312

SCAT SEGMENT CHECKLIST

BLOCK NUMBER K8-11

SEGMENT NUMBER B0-01

Report Material

☒	Shoreline Cleanup Program Sheet	OG/BIO
☒	Shoreline Oil Evaluation Page 1	OG
☒	Shoreline Oil Evaluation Page 2	OG
☒	OG Field Notes	OG
☒	Ecological Evaluation	BIO
☒	Cultural Resource Evaluation (copy from cultural data)	ARCH
☐	ADF&G / ADEC Maps (if applicable)	BIO
☐	Other Resource Maps (if applicable)	BIO
☒	Segment Map (usually 1:63000 topographic map)	OG/BIO
☐	Color Coded Oil Distribution Map (1:1500 topo map or 1:63000 enlargement)	OG
☒	Cultural Resource Evaluation Supporting Document Cover Sheet	ARCH
☒	Cultural Resource Evaluation	ARCH
☒	Archaeologist Field Notes	ARCH
☒	Archaeologist Segment Map (use original cultural resource segment map to indicate the plotted archaeology sites	ARCH

Miscellaneous

☐	Index Archaeology Photos	ARCH
☐	Index Shore/Oil Photos	BIO
☒	Mark segments on 1:250,000 topo maps (SCAT conference room)	BIO
☒	Log Segments on List	BIO
☐	Collect Field Maps for Next Assignment (5 Copies)	BIO
☐	Next Day's Flight Plan	BIO
☐	VHF Radio / Shotgun / etc.	BIO/ARCH
☒	AHRS SITE RECORDS (2)	
☐		

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/28/89 SHORELINE SEGMENT K8-11-BO-1

LOCATION: (see enclosed map) Kodiak Island - Boulder Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/26/89

Recommended Cleanup Activity(ies):
-Manual cleanup recommended for beach site #2 (see segment map).

Priorities/Considerations: Class 5-B

Ecological Constraints (from site survey):
-None. No biota will be affected by manual cleanup of mousse patties.

Archaeological Constraints (from site survey):
-Inspection by an archaeological monitor is required during cleanup in area of Beach #2.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708314

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 07/26/89 Time: 11:30 Observer: Rick Gillie
Surveyed From: (Foot) Boat (Helio) Plane Weather: (Sun) Cloud/Rain/Snow/Fog

CATION
Location: BOULDER BAY Segment ID: K08-11-BO-01
Segment Length: 16,900 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: NARROW BEACH, HT± SUBMERGED

SHORELINE
Shoreline Type: SPT (BEA) (COV) (HLD) STRT Slope: Lo (Med) (Hi) (Vert)
Wave Exposure: (High) Med Low
Sediment: B 30 % / C 10 % / P ___ % / G&S 30 % / M ___ % / R 30 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT) (NONE OBSERVED)
Area of Impact: SU/SP (H) M/L

OIL DISTRIBUTION
Continuous % of Segment ___ SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 5 SU/SP (H) M/L H/M/L (VL)

	Length(m)	Width(m)
Total		
Very light:	50	—
Light:		
Moderate:		
Heavy:		

Thickness >1cm: — cm SU/SP/H/M/L
Penetration/Rework: — cm SU/SP/H/M/L
Burial Depth: — cm SU/SP/H/M/L

Mobilization Potential: High/Medium (Low)
Left Debris Oiled? Y (N) Amount: H/M/L/VL SU/SP/H/M/L Type: N/A

OIL MORPHOLOGY

Pooled Oil: ___ %			SU/SP/H/M/L
"Free" Oil: ___ %			SU/SP/H/M/L
Splattered: ___ %		H/M/L/VL	SU/SP/H/M/L
Coated: ___ %		H/M/L/VL	SU/SP/H/M L
Pancakes/Balls: 100 %			SU/SP (H) M/L

Preliminary Cleanup Est.
Total TYPE A: 50 m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

OIL WEATHERING

Fresh: ___ %		SU/SP/H/M/L
Mousse: ___ %		SU/SP/H/M/L
Weathered Mousse: 100 %		SU/SP (H) M/L
Asphalt Mousse: ___ %		SU/SP/H/M/L
Tar: ___ %		SU/SP/H/M/L

COMMENTS
① Very light oil present only on Beach site (#2) (see map and OG Field Notes).

ACE 8706315

DOCUMENTATION:

(Map/Aerial photo marking segment boundaries See attached K-8-11-BO-1

VTR: (Y)/N Tape Number(s) KOS-19

Photography: (Y)/N Roll Number(s) DMC-22

Sample Numbers Collected: N/A

July 26/09

Rick Gillie

SEGMENT KOB-11-BO-01

- Boulder Bay, Stop ① 11:30
- 20-30 m wide boulder/gravel beach backed by steep cliff
- No access at HT or storms
- NO OIL?
- two beaches one on the other 300 m between cliffs
- 1 moose paths (2 tides)
- only 1 paths found
- Not cleanup

Stop # 2 @ 12:00

- cobble beach V. light
- approx 10 moose paths near point of stop.
- Cleanup
- Arches take picture

Stop # 3 (12:30)

- helo survey of bay head, east to west
- land cut west and for lunch
- long sandy beach
- no oil visible from the air
- 1 bear sighted
- BOAR signal in creek at west end
- 100 m wide beach, 20-30 m backshore

19:02 Back in the helo

Re: No oil

Stop # ④ 13:15

- gravel/cobble beach, 300 m long
- No oil
- Very few oiled debris - 1-2 pieces

ACE 3708317

July 26/89

18:27 - coast SW of stop ④
- stop, rocky, NO oil

Stop #5 @ 13:40

- 200 m gravel/sand beach
- NO oil
- beach probably submerged at HT
- backed by BR cliff

- Beyond ⑤ - mostly cliff coast with w/c platform
- NO oil ! to Inner Right Cape

ACE 070031a

ECOLOGICAL EVALUATION

LOCATION: Dangerous Cape to Inner Right CAPE BOULDER BAY K-8-11- SITE: _____ OBSERVER: D. McCORMICK

LOCATION PREFIX: 80 SEG. NO.: 1 LENGTH: 16300 (M)

DATE: 7/26/89 TIME (HHMM): 1130 TIDE HT.: +1.25 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense + Continuous on rocky portions of segments only

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense clumps on boulders

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on rocky areas of segment

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

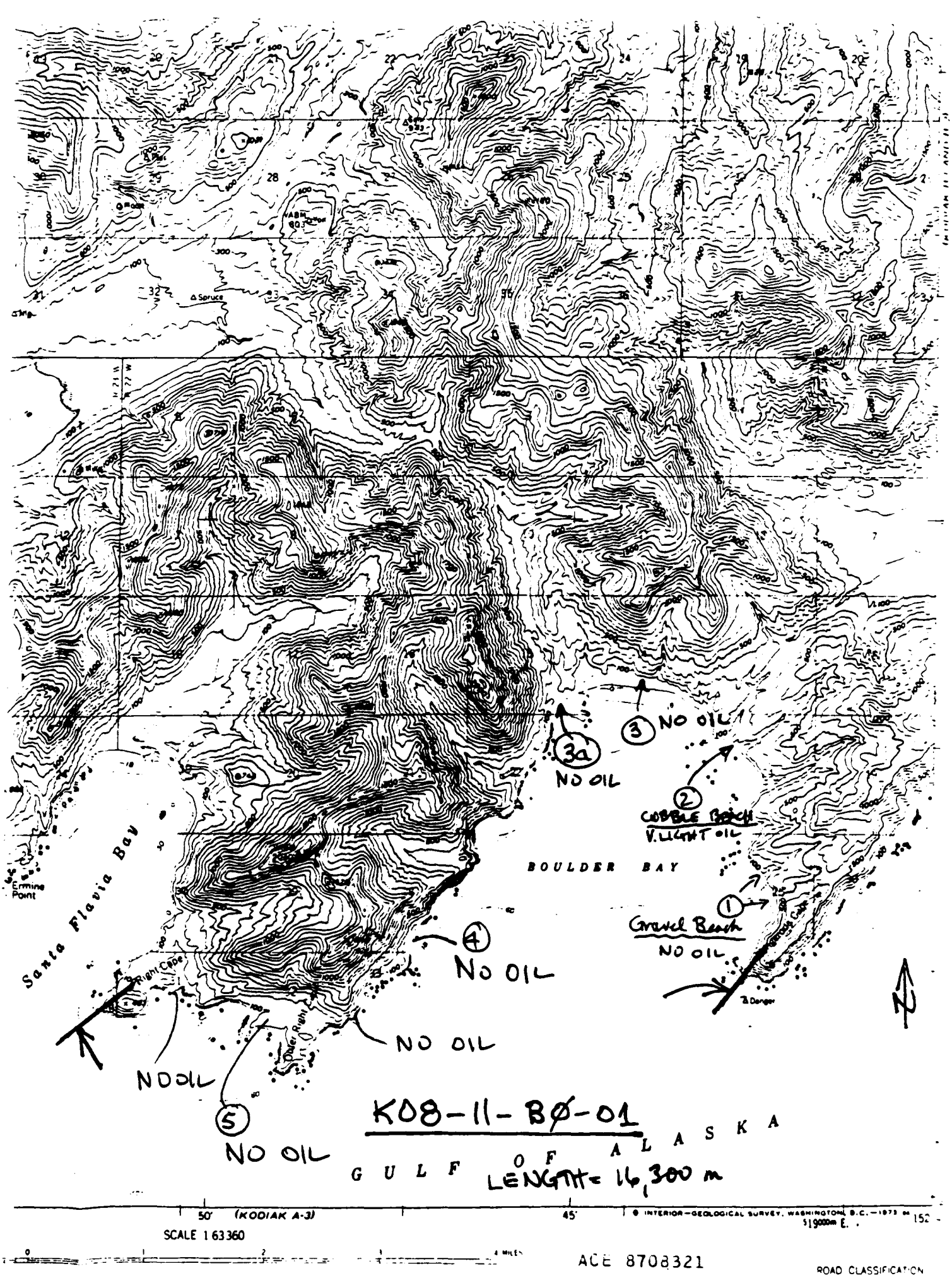
OTHER OBSERVATIONS: deer (1) and fox (1), bear tracks on beach #3; brown bear north of Outer Right Cape. Beach sections have no visible biota - only kelp debris and some algae on lower IT2 boulders. Rocky headlands dense with kelp. Laminaria, Alaria, Endocladia, Ulva, Constantinea, Nereocystis, Corallina.

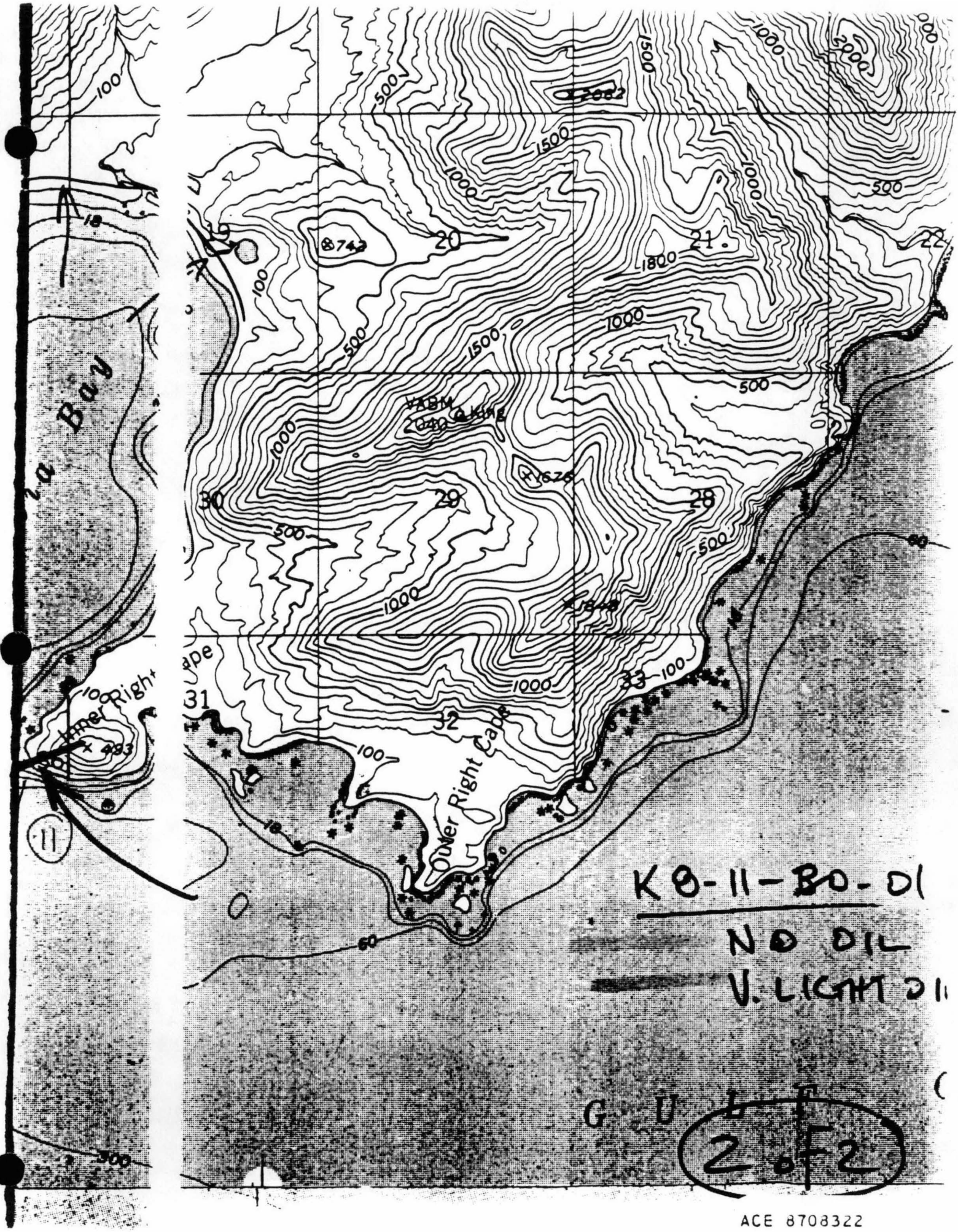
CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Brown bears (1) along rocky headland at Outer Right Cape

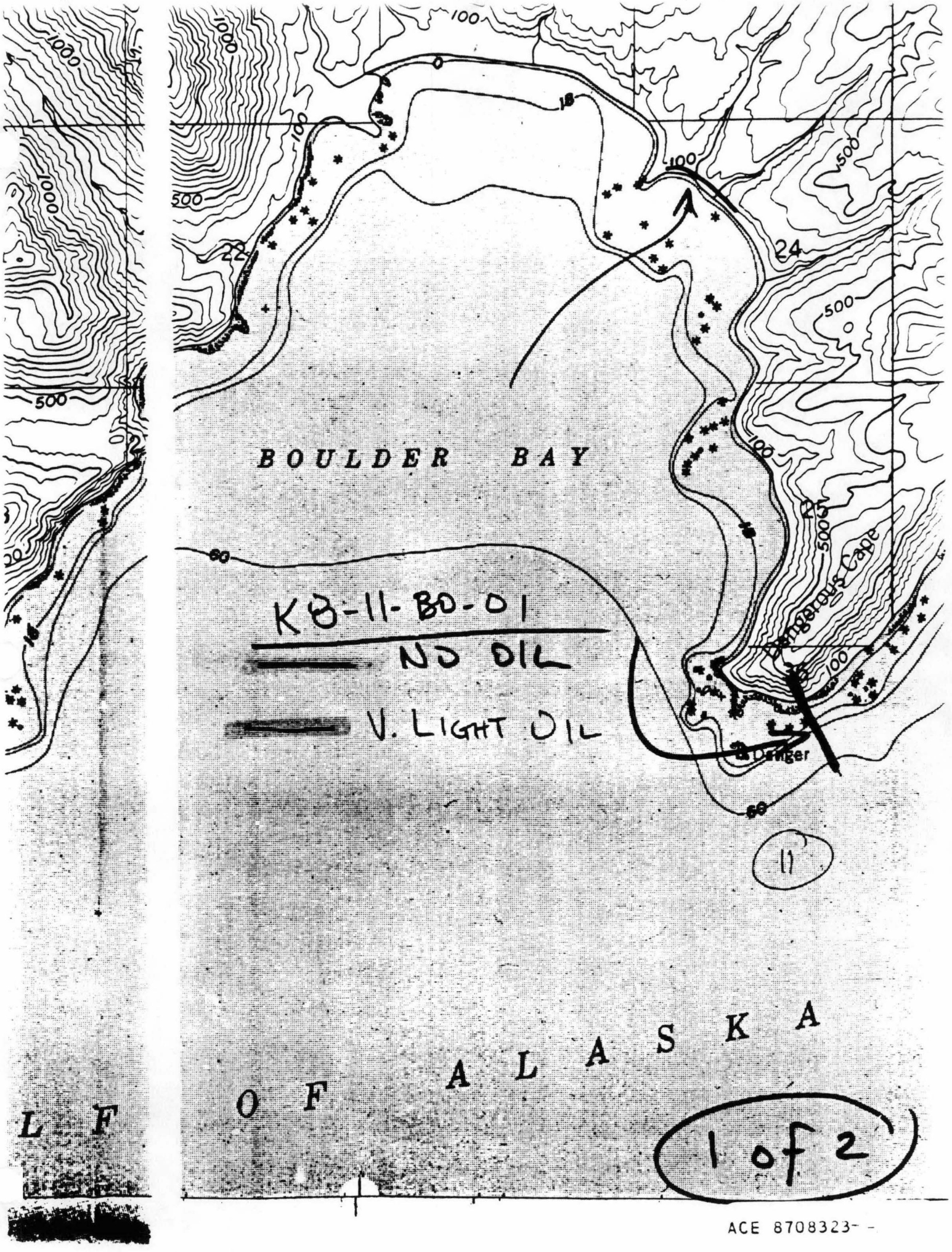
BIRDS: 3 eagles (see map for nest location); gulls + cormorants.

GENERAL OBSERVATIONS: This segment consists of rocky headlands and pocket and wide beaches. Five (5) stops were made to walk beach sections to look for oil. Oil found on beach #2 as a few patches of chocolate mousse in high IT2.


Santa Flavia Bay
Ermine Point
Right Cape
Outer Right
BOULDER BAY
Gravel Beach
NO OIL
COBBLE BEACH
V. LIGHT OIL
NO OIL
NO OIL
NO OIL
NO OIL
NO OIL
NO OIL
K08-11-BØ-01
GULF OF ALASKA
LENGTH = 16,300 m
50' (KODIAK A-3)
45'
SCALE 1 63360
ACE 8708321
ROAD CLASSIFICATION


Bay
Right
Cape
Right Cape
8743
VABM
1626
1544
K8-11-B0-01
NO OIL
V. LIGHT OIL
G U
2 of 2

ACE 8708322


BOULDER BAY
Dangerous Cape
Danger
KB-11-BO-01
NO OIL
V. LIGHT OIL
11
1 of 2
OF ALASKA
100
500
1000
18
22
24
60

ACE 8708323- -

K8-12

ACE 7963969

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT K8-12-KL-1

LOCATION: (see enclosed map) Kiliuda Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: _____

Recommended Cleanup Activity(ies):
- -Manual removal of oiled drift and mousse patties at beaches #2a and 2b (see map).

Priorities/ Considerations: Class 5-A
- -Avoid salmon stream.
- -Small crew (4 people) could complete cleanup in a few hours.

Ecological Constraints (from site survey):
- -None. No biota will be adversely affected by manual cleanup of mousse patches.

Archeological Constraints (from site survey):
- -An archaeological monitor is required during cleanup at the head of Santa Ilavia Bay.

Douglas Reger Date: 8/12/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

Pre-season briefing - EXXON Aug 14, 1989

ACE 8708324-F

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 07/26/89 Time: 14:01 Observer: RICK GILLIE
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: KILINDA BAY Segment ID: K08-12-KL-01
Segment Length: 6,800 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: NONE

SHORELINE
Shoreline Type: SPT/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20 % / C ___ % / P 10 % / G&S 20 % / M ___ % / R 50 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION

Continuous	% of Segment ___	SU/SP/H/M/L	H/M/L/VL
Sporadic	% of Segment 20	SU/SP/H/M/L	H/M/L/VL

	Length(m)	Width(m)		
Total				
Very light:	1,000	10	Thickness >1cm: ___ cm	SU/SP/H/M/L
Light:			Penetration/Rework: ___ cm	SU/SP/H/M/L
Moderate:			Burial Depth: ___ cm	SU/SP/H/M/L
Heavy:				

Mobilization Potential: High/Medium/Low
Drift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Driftwood Seaweed

OIL MORPHOLOGY

Pooled Oil: ___ %			SU/SP/H/M/L
"Free" Oil: ___ %			SU/SP/H/M/L
Splattered: 10 %	H/M/L/VL		SU/SP/H/M/L
Coated: ___ %	H/M/L/VL		SU/SP/H/M/L
Pancakes/Balls: 90 %			SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 1,000 m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

OIL WEATHERING

Fresh: ___ %		SU/SP/H/M/L
Mousse: 100 %		SU/SP/H/M/L
Weathered Mousse: ___ %		SU/SP/H/M/L
Asphalt Mousse: ___ %		SU/SP/H/M/L
Tar: ___ %		SU/SP/H/M/L

COMMENTS

① VERY LIGHT OILING OF BEACH (2a) - (2b).

② OTHERWISE, NO OIL.

ACE 8708325

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KOS-19

Photography: (Y)/N Roll Number(s) DMC-22

Sample Numbers Collected: N/A

KILIUDA B. Rick Gilliè

SEGMENT: KOB-12-KL-01

Santa Flavia Bay

Stop 01 14:01
- sheltered mixed sand/gravel beach,
- 200 m long
- NO OIL OBSERVED

Stop # 2 C 14:18
(2a)
- small mousse patches / tarballs
- 1"-2" diam's
- 1 every /2 m of beach in MA-HT2

- Collect isolated oiled stones
- mousse splatter on stones
- some oiled debris at HT2
- Clean-up at 2a
- ~~Lessail bay west mouth~~
- continues next week!

ACE 8708327

Rick Gillie

July 26/89

15:10

(25) - Mark Cove on W side of river
- 1" sheen splatter every 10-20 m of beach similar to 2a /
- individually oiled stones (gravel) in HTZ
- also oiled debris

- Needs 4 people to walk beach in 4 hours to pick up all oiled stones / debris!

- Beach becomes cobble / gravel at the west end

15:20
Fly coast - rocky to ERMINE PT
NO OIL

15:30 Complete survey
RETURN to KODIAK
16:30 Down at Kodiak

ACE 8708328

ECOLOGICAL EVALUATION

LOCATION: Inner Right Cape to Ermine Point, Santa Flavia Bay, Kiliuda Bay SITE: _____ OBSERVER: D. McCormick

K-8-13

LOCATION PREFIX: KL SEG. NO.: 1 LENGTH: 6800 (M)

DATE: 7/26/89 TIME (HHMM): 1400 TIDE HT.: + 0.75 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on rock/boulder sections of segment.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on rock/boulder sections of segment

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on rock/boulder sections of segment

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Shells only on beach # 2

OTHER OBSERVATIONS: Dolly varden/salmon jumpers; fox and deer tracks on beach.

Fauna of rocky areas: Phiospora, Alaria, Neoscrypta, Endocladia. Beach fauna: shells of green + purple sea urchins, Clinocardium, Saxidomus, Fusitriton, jingles, Protothaca, dungeness crabs, hyas crabs, notoacmea, Nucella. No live biota observed.

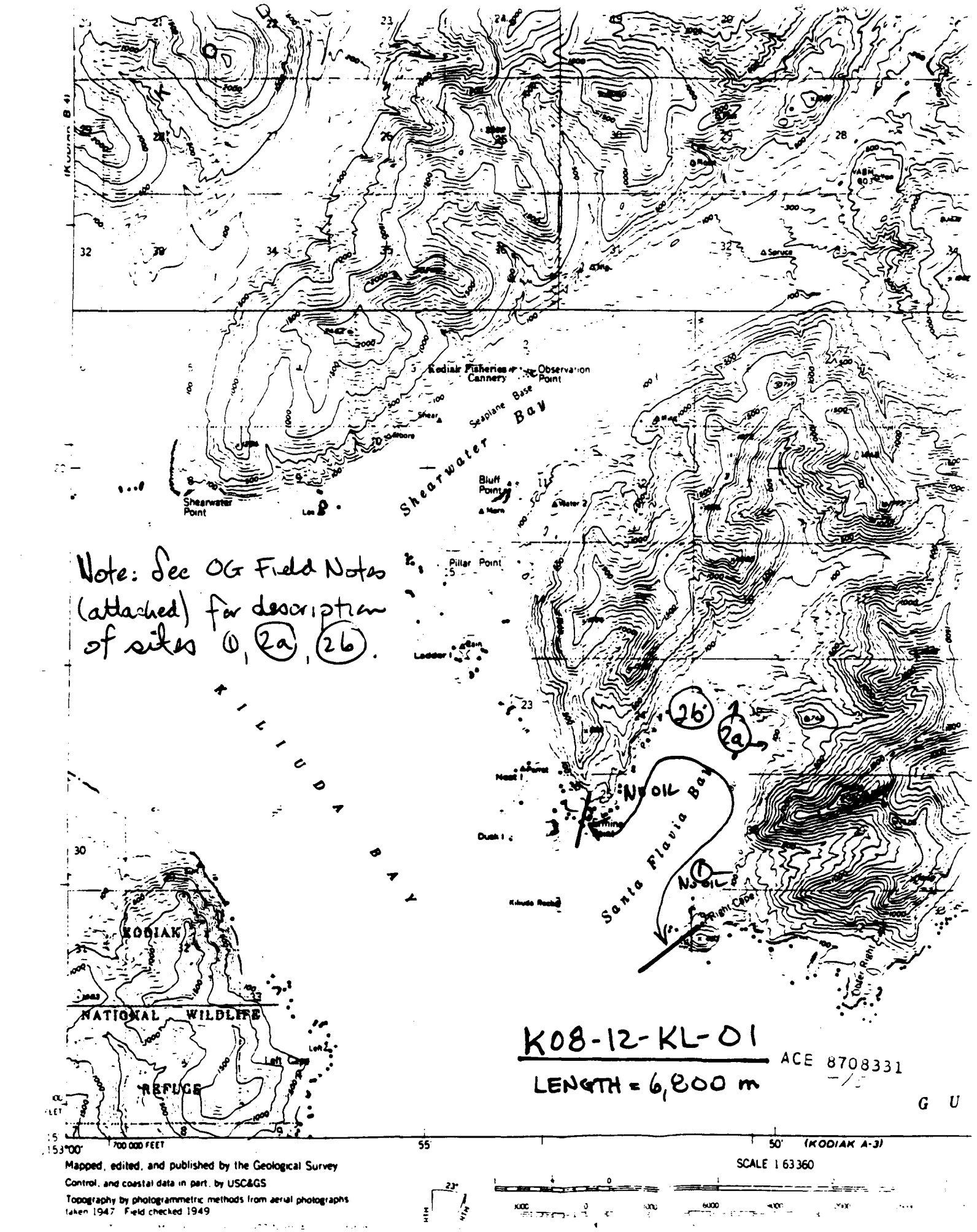
CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: Black-legged kittiwakes

GENERAL OBSERVATIONS: This segment composed of rock headlands with pocket and sandy beaches. Two stops were made to look for oil. None observed on first beach. 2nd beach had pancake and asphalt mousse in upper ITZ - light to very light oiling.

ACE 8708329



Note: See OG Field Notes (attached) for description of sites 0, (2a), (26).

K08-12-KL-01

ACE 8708331

LENGTH = 6,800 m

G U

Mapped, edited, and published by the Geological Survey

Control, and coastal data in part, by USC&GS

Topography by photogrammetric methods from aerial photographs taken 1947. Field checked 1949

SCALE 1:63360

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT K8-12-KL-2

LOCATION: (see enclosed map) Kiliuda Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/27/89

Recommended Cleanup Activity(ies):
-Manual removal of mousse patties and oil splattered pebbles.

Priorities/ Considerations: Class 5-A

Ecological Constraints (from site survey):
-None. Manual cleanup will not adversely affect biological resources.

Archeological Constraints (from site survey):
-An archaeological monitor is required prior to and during cleanup of this segment.

State Historic Preservation Officer * Date: 8/11/89

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708332

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 07/27/89 / Time: 09:32 - 12:30 Observer: RICK GILLIE
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: KILIUDA BAY Segment ID: KB-12-KL-02
Segment Length: 15,300 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: NONE / near CLIFF

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20 % / C 20 % / P 20 % / G&S 20 % / M ___ % / R 20 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment 100 SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment ____ SU/SP/H/M/L H/M/L/VL

	Length(m)	Width(m)
Total		
Very light:	15,300	____
Light:	____	____
Moderate:	____	____
Heavy:	____	____

Thickness >1cm: ____ cm SU/SP/H/M/L
Penetration/Rework: ____ cm SU/SP/H/M/L
Burial Depth: Variable cm SU/SP/H/M/L
to 20.

Mobilization Potential: High/Medium/Low
Rare driftwood
Lift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: ____

OIL MORPHOLOGY

Pooled Oil: ____ %		SU/SP/H/M/L
"Free" Oil: ____ %		SU/SP/H/M/L
Splattered: 10 %	H/M/L/VL	SU/SP/H/M/L
Coated: ____ %	H/M/L/VL	SU/SP/H/M/L
Pancakes/Balls: 90 %		SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 15300 m
Total TYPE B: ____ m
Total TYPE A/B: ____ m
ACCESSIBLE = 14,000 m

OIL WEATHERING

Fresh: ____ %	SU/SP/H/M/L
Mousse: 10 %	SU/SP/H/M/L
Weathered Mousse: 90 %	SU/SP/H/M/L
Asphalt Mousse: ____ %	SU/SP/H/M/L
Tar: ____ %	SU/SP/H/M/L

COMMENTS
① Mousse patties and oil splatter, generally 1 piece of mousse / splatter per 10-20' in of beach.

ACE 8708333

DOCUMENTATION:

(Map) Aerial photo marking segment boundaries See attached K-8-12-KL-2

VTR: (Y)/N Tape Number(s) KOS-19

Photography: (Y)N Roll Number(s) DMC-22 / DMC-23

Sample Numbers Collected: N/A

July 27 / 1989

Kicle Grillo

SEGMENT KOB-12-KL-02

09:32 Off Ennie Point
- No oil observed on rocky cliffy coast (also inaccessible)

Stop #1 @ 09:40
- on beach inside Nest Island
- did not scrape the slick because of nesting sea birds
- 500 m mixed sand/gravel beach
- rare mousse patches (1"-2" dia)
- common splatter (1-2" dia) on individual stones and groups of stones (cobble/gravel)
- some splatter 6" diameter

- Recommend cleanup
  1. mousse patches
  2. oil splatter stones

- Very Light Oil HTZ 5m
  - splatter every 2m of beach

- oil not penetrated as well as 10 cm!

* Where surface mousse/splatter is found check for penetration to substrate pebbles. *

10:20 Back in the heli
- Landed back - NO OIL

Stop #2 10:30
- oil splatter, on fr Stop 1

Stop #3 10:40
- steep cobble beach
- beach cusps (10 m ?)
- mousse patches and splatter (HTZ) as for stop #1 and 2
- Very Light Oil
- very little oiled debris, BUT
- 9% oiled gravel
- fresh mousse patches (3-4")

ACE 8708335

July 77

Rick Grilliot

Pillar Point 10:45

- oil splotches inside Pillar Point
- Stop

11:00 Stop #4
- Clean-up crew on the beach
- Have been here for a week
- they had already "cleaned" beach that we scatted that morning - but they are missing alot

Stop #5 @ 11:15
- gravel beach
- small (1"-2") and large (6")
- mousse patties
- Ln MTZ
- 1 x 6" mousse patties every 100-200 m of beach

11:40 Back in Helo fly the head of Sherwood Bay

Head of Sherwood Bay (11:46)
- narrow beach on southeast side of bay
- wide intertidal marsh flat on head of bay around the abandoned Fish Cannery at Observation Point
- No Oil OBSERVED

Stop #6 @ 12:00
- Stat at Cannery and walk northwest side of bay
- mod slope gravel beach
- mousse patties up to 6" dia
- one per / 50 metres of beach
- VERY LIGHT

12:30 Fly back beachwalk

ACE 8708336

ECOLOGICAL EVALUATION

LOCATION: KILIUDA BAY (ERMINE POINT to N side Shearwater Bay) SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: KL (K-8-12) SEG. NO.: 2 LENGTH: 15,300 (M)

DATE: 7/27/89 TIME (HHMM): 0930 TIDE HT.: +1.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Occur on rocky headland areas only

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Occur on rocky headland areas only.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Occur on rocky headlands and some cobble beaches

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Shells only.

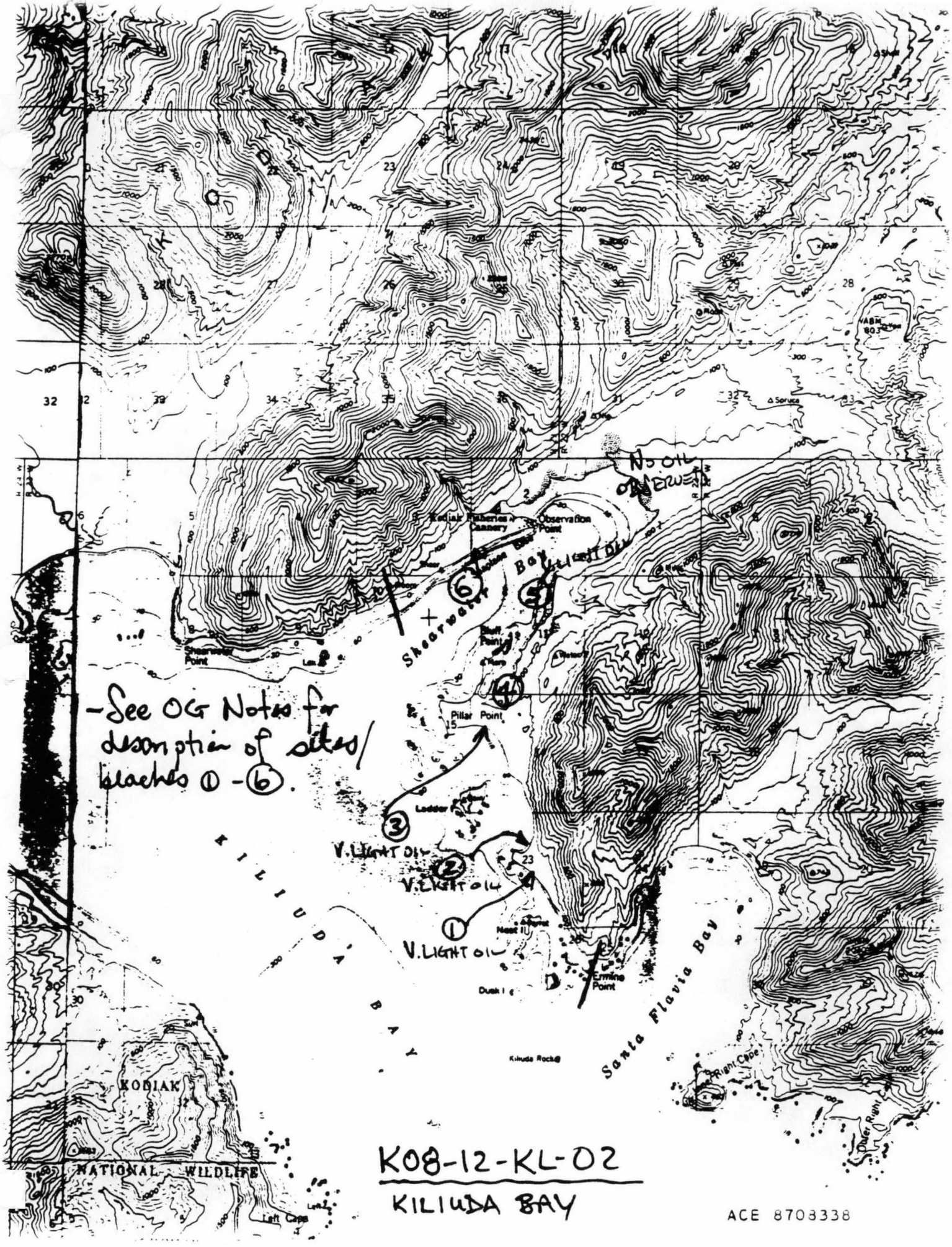
OTHER OBSERVATIONS: Beach fauna is sparse - debris consists of kelps, Fucus, Saxidomus, green + purple sea urchins, Serpulas, jingles, Helmet and dungeness crab shell, deer carcass, jellyfish, cockles, Prototheca. One bear sunk in front of old cannery. Log of salmon jumpers

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ___ Harbor Seals 1 Sea Lions ___ Whales ___
Other _____

BIRDS: gulls puffins 2 seabird colonies, kittiwakes, terns

GENERAL OBSERVATIONS: This segment consists of cliffs / rocky headland and pocket to mid beaches. Six (6) stops were made to look for oil. Very light oiling occurs throughout the segment on beaches as mousse splatter and possible mousse. Cleanup crew has been on beaches in this segment picking up mousse



-See OG Notes for description of sites/beaches ① - ⑥.

K08-12-KL-02

KILIUDA BAY

ACE 8703338

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT K8-12-KL-3

LOCATION: (see enclosed map) Kiliuda Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/27/89

Recommended Cleanup Activity(ies):
-Manual removal of occasional mousse patties. (only 1-2 patties/mile of beach).

Priorities/ Considerations: Class 5-A

Ecological Constraints (from site survey):
-None. Manual cleanup will not adversely affect biological resources.

Archeological Constraints (from site survey):
-An archaeological monitor is required prior to and during cleanup of this segment.

A. David McMahan Date: 8/11/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 07/27/89 Time: 1520 - 1523 Observer: RICK GILLIE
urveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

CATION
ocation: KILIUDA BAY Segment ID: K08-12-KL-03
egment Length: 16,900 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
ccess Restrictions: CLIFFED COAST, NARROW HTS

HORELINE
horeline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
ave Exposure: High/Med/Low
ediment: B 20 % / C 10 % / P 10 % / G&S 30 % / M ___ % / R 30 %

IL
vg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
rea of Impact: SU/SP/H/M/L

IL DISTRIBUTION
ontinuous % of Segment ____ SU/SP/H/M/L H/M/L/VL
radic % of Segment 20 SU/SP/H/M/L H/M/L/VL

	Length(m)	Width(m)		
ight:	5,000	—	Thickness >1cm: — cm	SU/SP/H/M/L
ght:			Penetration/Rework: — cm	SU/SP/H/M/L
derate:			Burial Depth: — cm	SU/SP/H/M/L
avy:				

ilization Potential: High/Medium/Low
ft Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: NONE

IL MORPHOLOGY

ooled Oil: ____ %			SU/SP/H/M/L
ree" Oil: ____ %			SU/SP/H/M/L
plattered: ____ %	H/M/L/VL		SU/SP/H/M/L
oated: ____ %	H/M/L/VL		SU/SP/H/M/L
ancakes/Balls: 100 %			SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 5,000 m
Total TYPE B: ____ m
Total TYPE A/B: ____ m

IL WEATHERING

resh: ____ %		SU/SP/H/M/L
ousse: 50 %		SU/SP/H/M/L
eathered Mousse: 50 %		SU/SP/H/M/L
sphalt Mousse: ____ %		SU/SP/H/M/L
ar: ____ %		SU/SP/H/M/L

OMMENTS
Note - Extremely very light oiling. Only 1-2 mousse patches per/mile!

ACE 8708341

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached K-8-12-KL-3

VTR: (Y)/N Tape Number(s) KOS-19

Photography: (Y)/N Roll Number(s) DMC-23

Sample Numbers Collected: N/A

July 27/09

Rick Gilliss

SEGMENT K-08-12-KL-03

13:15 In Heli

Stop #(7) @ 13:20
- 400m mixed sand / gravel beach
- steep slope behind
- no access at HT
- NO OIL observed

Stop #(8) @ 13:40
- Head of Bay
- Mixed sand / gravel beach
- beach escape
- 2 Moose pellets (fresh) in M-HTL
- essentially NO OIL - but technically yes!
- Talk to John Pilley on this!

14:13 Coxcomb Pt

Stop #(9) 14:21
- 400 m sand / gravel beach
- covered at HT
- very little HTL beach
- NO OIL

14:30 - w/c / boulder b.

Between stop (9) and (10)
- wave-cut platform
- narrow boulder beach
- NO OIL OBSERVED

Stop #(10) 14:41
- mixed sand / gravel beach
- long (1,600 m)
- walk the beach
- ~~NO OIL OBSERVED~~
- 2 piece mousse

15:04 Resume helisurvey

ACE d708343

Rick Collins

Stop # (11) 15:16

- narrow gravel beach
- no HTZ
- NJ OIL

15:23 Off from the beach at Kiliuda Bay - bound for Kodiak

15:51 Down at

ACE 8708344

ECOLOGICAL EVALUATION

LOCATION: N side Shearwater Bay to head of KILLISNOO BAY K-8-12 SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: KL SEG. NO.: 3 LENGTH: 16,900 (M)

DATE: 7/27/89 TIME (HHMM): 1310 TIDE HT.: +1.25 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Pebble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Occur on rock/boulder sections of segment

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Occur on rock/boulder sections of segment.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Occur on boulder sections of segment.

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

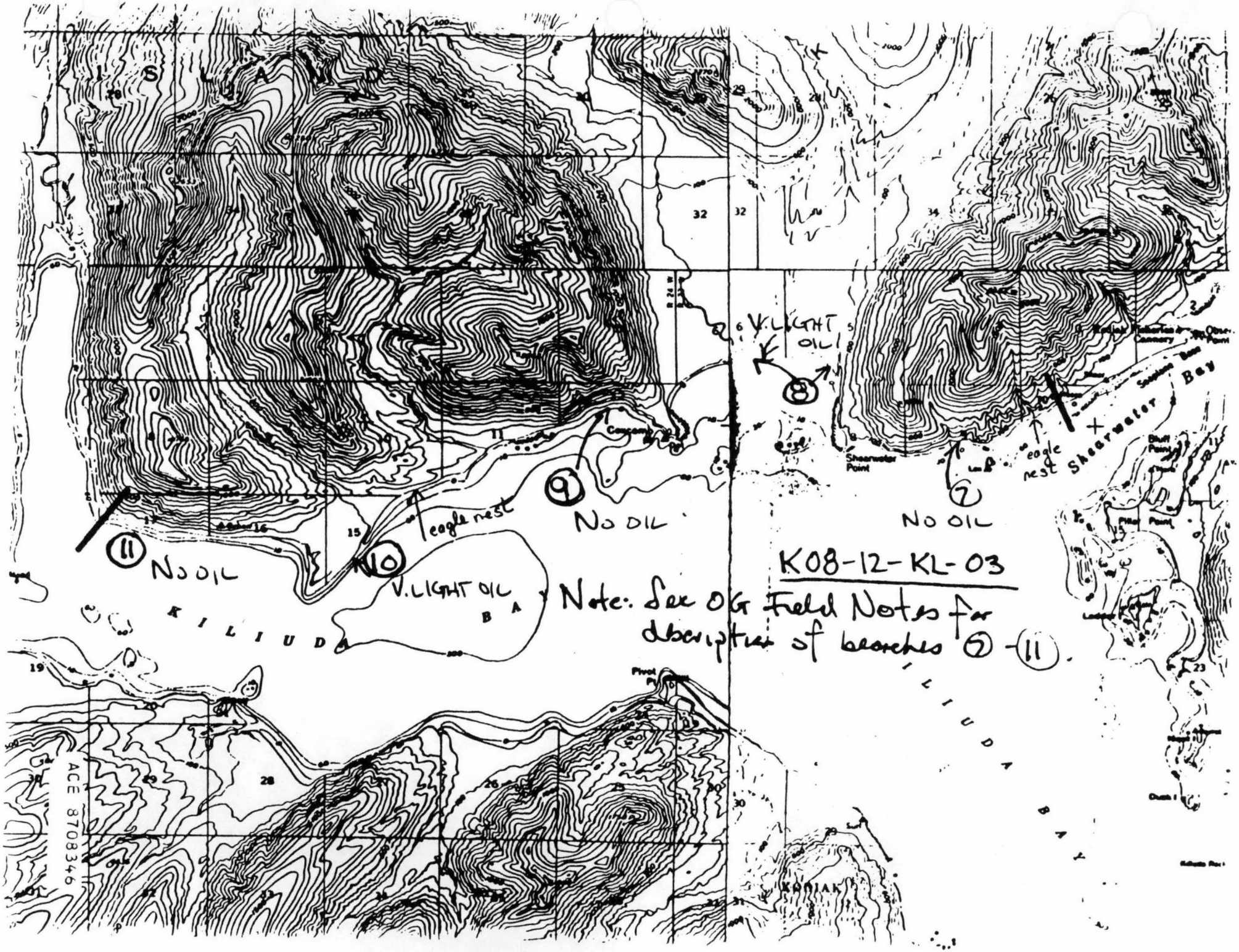
OTHER OBSERVATIONS: STOP #8: fox and deer tracks, bear tracks feeding E. STOP #9: bear tracks feeding N. Beach #11: approx. 100 lb. Halibut dead & submerged on beach (no signs of oiling). Beach debris: kelps, jellyfish, helmet & dungeness crab shells.

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other _____

BIRDS: 2 eagle nests (see map for locations); 3 seabird colonies; common eider, pintail duck

GENERAL OBSERVATIONS: Five stops were made along this segment to look for oil. Only a few patches of mousse were found over the entire length. It would be difficult for a clean-up crew to find these.


V. LIGHT OIL
8
NO OIL
7
eagle nest
Shearwater Bay
NO OIL
9
eagle nest
NO OIL
11
V. LIGHT OIL
10
K08-12-KL-03
Note: See OG Field Notes for
description of beaches 7 - 11.
KILIUDA
ACE 8708346
KODIAK

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT K8-12-KL-4

LOCATION: (see enclosed map) Kiliuda Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/29/89

Recommended Cleanup Activity(ies):
-Manual removal of occasional mousse patties. (one per/500 yds.).

Priorities/ Considerations: Class 5-A

Ecological Constraints (from site survey):
-None.

Archeological Constraints (from site survey):
-An archaeological monitor is required prior to and during cleanup of this segment.

J. David McMahan Date: 8/11/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708348

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 07/29/89 Time: 15:37 - 18:22 Observer: RICK GILLIE
Surveyed From: (Foot) Boat (Helio) Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

CATION
Location: KILIUDA BAY, SE. KODIAK ISLAND Segment ID: K08-12-KL-04
Segment Length: 29,000 m. Access: Vehicle (Boat) (Barge) (Helio) (Float Plane)
Access Restrictions: ~~NATIONAL WILDLIFE REFUGE~~ NONE

SHORELINE
Shoreline Type: (SPT) (BEA) (COV) (HLD) (STRT) Slope: (Lo) (Med) (Hi) (Vert)
Wave Exposure: (High) (Med) (Low)
Sediment: B 10 % / C 20 % / P 30 % / G&S 20 % / M ___ % / R 20 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT) / NONE OBSERVED
Area of Impact: SU/SP/(H)/(M)/L

OIL DISTRIBUTION
Continuous % of Segment ____ SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment < 1% SU/SP/(H)/(M)/L H/M/L/(VL)

	Length(m)	Width(m)
Total:		
Light:	16,000	—
:		
Moderate:		
Heavy:		

Thickness >1cm: — cm SU/SP/H/M/L
Penetration/Rework: — cm SU/SP/H/M/L
Burial Depth: — cm SU/SP/H/M/L

Mobilization Potential: High/Medium/(Low)
If Debris Oiled? Y/(N) Amount: H/M/L/VL SU/SP/H/M/L Type: NONE

OIL MORPHOLOGY

Pooled Oil:	— %		SU/SP/H/M/L
"Free" Oil:	— %		SU/SP/H/M/L
Splattered:	— %	H/M/L/VL	SU/SP/H/M/L
Coated:	— %	H/M/L/VL	SU/SP/H/M/L
Pancakes/Balls:	100 %		SU/SP/(H)/(M)/L

OIL WEATHERING

Fresh:	%	SU/SP/H/M/L
Mousse:	%	SU/SP/H/M/L
Weathered Mousse:	100 %	SU/SP/(H)/(M)/L
Asphalt Mousse:	%	SU/SP/H/M/L
Tar:	%	SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 16,000 m
Total TYPE B: ____ m
Total TYPE A/B: ____ m
100 % ACCESSABLE

COMMENTS
① VERY LIGHT OILING: ONLY 1 MOUSSE PATTY APPROX EVERY 500 M

ACE 8708349

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KOS-19

Photography: (Y)/N Roll Number(s) DMC-23/DMC-24

Sample Numbers Collected: N/A

July 29/89

Rick Gilliam

SEGMENT KO8-12-1-04

-15:37

Stop #1 15:46

- fine granule / shingle beach
- NO backshore
- very extensive Red Tide at mouth of bay
- no oil observed over 2 km of beach
- small cuspate foreland
- other way there was 1 mouse pathe found
  1 mouse pathe / 400 km

Stop #2 16:04

- head of arm
- low gradient mixed sand/gravel
- intertidal grass vegetation
- narrow berm on S side of bay
- coarse angular gravel

- small canyon feed into the head of the pathe of the delta head
- Walked 500 m of east side of bay near the head and NO OIL OBSERVED!
- Also, no oil observed by CG and Bio who walked the delta / mouth beach.

Stop #3 @ 16:45

- narrow granule / cobble / boulder beach backed by low cliff
- also fine shingle on bottom steep slope
- NO OIL OBSERVED!
  Except 1 mouse pathe (3" dia)

Stop #4 @ 16:56

- Collect sample of water with RED TIDE
- no oil observed in vicinity of landing

ACE 8708351

Rick Grillie

Stop # ⑤
- fine [redacted] sand
rock
- 200m
- NO OIL

Stop # ⑥ - 17:35

- granule / pebble beach
- moderate slope
- 1 small mousse patch

Stop ⑦ 18:58

- walk northwest & southeast along spit
- gravel spit (6" dia)
- 1 mousse patch on intertidal MTZ gravel - melded into the cobble substrate
- 1 in MTZ

- 2 mousse patches in approx 400m of beach / spit

18:20 Up in the air again. Weather closing in

Fly the remarks of the shoreline to left Cape

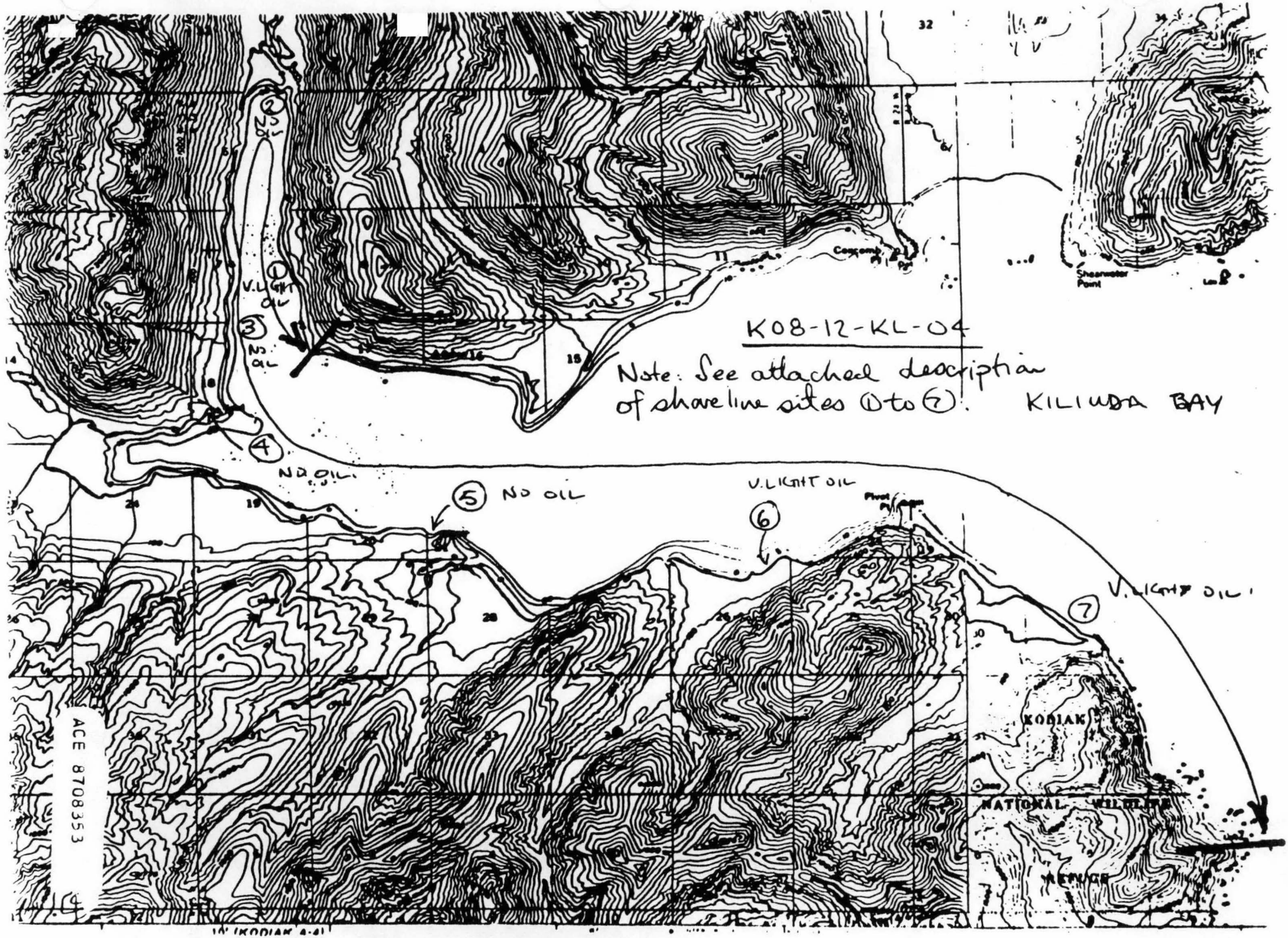
- Mostly rock cliff with narrow ITZ beach wave cut platform
- occasional pocket beach with cobble beach with minor sand
- NO OIL OBSERVED

18:27 Complete survey to Left Cape

Weather deteriorating

18:50 Land at Kodiak Airport

ACE 8708352


K08-12-KL-04
Note: See attached description of shoreline sites ① to ⑦.
KILIUDA BAY
① V. LIGHT OIL
② V. LIGHT OIL
③ NO OIL
④ NO OIL
⑤ NO OIL
⑥ V. LIGHT OIL
⑦ V. LIGHT OIL
Shearwater Point
KODIAK
NATIONAL WILDLIFE
REFUGE
ACE 8708353

K08-12-KL-04 - DESCRIPTION OF MAP SITES OIL/BEACH TYPE

SHORELINE SITE	DEGREE OF OILING	SHORELINE DESCRIPTION
(1)	V. LIGHT OIL - 1 mousse patty per 400 m	Pebble/Shingle Beach
(2)	NO OIL	Sand/Gravel Beach
(3)	NO OIL	Sand/Gravel Beach
(4)	NO OIL	FINE GRAVEL BEACH
(5)	NO OIL	GRAVEL BEACH
(6)	V. LIGHT OIL - 1 mousse patties in 500 m beach	GRANULE/PEBBLE BEACH
(7)	V. LIGHT OIL - 2 mousse patties in 500 m of shoreline	GRAVEL SPIT

version: [illegible]

ECOLOGICAL EVALUATION

LOCATION: Head of + south side of Kiliuda Bay, Kod Is SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K-8-13-KL- SEG. NO.: 4 LENGTH: 29,000 (M)

DATE: 7/29/89 TIME (HHMM): 1540 TIDE HT.: +1.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/(N) Sparse Y/(N) None Y/(N)

Dense in patches

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense in patches only

Littorina
Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None (Y)/N

OTHER OBSERVATIONS: Beach debris includes: Phyllospadix, Halosaccion, cockles, Aurelia, Ulva, Protothaca, Eudistadia, Saxidomus, jingle shells, hydrocorals Large # of salmon in this bay!

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ___ Harbor Seals 12 Sea Lions 1 Whales ___
Other Red Fox

BIRDS: surf scoter, pigeon guillemot, arctic terns, gulls, 2 eagles

GENERAL OBSERVATIONS: Seven (7) stops were made along segment to look for oil. Approximately < 1 mousse patty was found at each stop. Cleanup crew was have difficulty finding these. Orange substance seen in water over most of the bay - may have been red tide. Sample was collected to try to identify it. In sample container, all of the biomass (?) has collected at the surface.

K8-13

ACE 7963970

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT K08-13-SX-01

LOCATION: (see enclosed map) Sitkalidak Strait, SE Kodiak

ADEC NO._____ SHORELINE ASSESSMENT DATE: 7/30/89

Recommended Cleanup Activity(ies):

-No cleanup recommended due to the extremely light oiling and ecological constraints (see below). Subject to FOSC reassessment at a later date.

Priorities/ Considerations: Class 5-A

-Bags of collected oil and oiled debris have been stored at site #6, should be removed.

Ecological Constraints (from site survey):

-No cleanup should occur due to the biological sensitivity (seabird rookeries) of the area. Having a cleanup crew in this area would be more detrimental than leaving the few mousse patties on the beach.

-None

Archeological Constraints (from site survey):

-If cleanup is planned, a full archaeological assessment of this segment must be conducted.

J. David McMahan Date: 8/6/89

State Historic Preservation Officer *

EXXON:_____ Date:_____

FOSC:_____ Date:_____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708357

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 07/30/1989 Time: 08:13 - 12:01 Observer: RICK GILLIE
Surveyed From: (Foot) Boat (Helio) Plane Weather: Sun (Cloud) Rain/Snow/Fog

LOCATION
Location: SITKALIDAK STRAIT (KODIAK) Segment ID: K08-13-3X-01
Segment Length: 20,000 m. Access: Vehicle (Boat) (Barge) (Helio) Float Plane
Access Restrictions: NEARSHORE ROCKS

SHORELINE
Shoreline Type: (SPT) (BEA) (COV) (HLD) (STRT) Slope: (Lo) (Med) (Hi) (Vert)
Wave Exposure: High (Med) Low
Sediment: B 20 % / C 20 % / P 10 % / G&S 20 % / M ___ % / R 30 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT) / [NONE OBSERVED]
Area of Impact: SU/SP (H) M/L

OIL DISTRIBUTION

Continuous	% of Segment ___	SU/SP/H/M/L	H/M/L/VL
Sporadic	% of Segment < 1%	SU/SP (H) M/L	H/M/L/(VL) – V.V. LIGHT

Total	Length (m)	Width (m)			
Very light:	10	___	Thickness >1cm: ___ cm		SU/SP/H/M/L
Light:	___	___	Penetration/Rework: ___ cm		SU/SP/H/M/L
Moderate:	___	___	Burial Depth: ___ cm		SU/SP/H/M/L
Heavy:	___	___			

Mobilization Potential: High/Medium (Low)
Drift Debris Oiled? Y (N) Amount: H/M/L/VL SU/SP/H/M/L Type: NONE

OIL MORPHOLOGY

Cooled Oil: ___ %			SU/SP/H/M/L
"Free" Oil: ___ %			SU/SP/H/M/L
Splattered: ___ %		H/M/L/VL	SU/SP/H/M/L
Coated: ___ %		H/M/L/VL	SU/SP/H/M L
Pancakes/Balls: 100 %			SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 0 m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

OIL WEATHERING

Fresh: ___ %		SU/SP/H/M/L
Mousse: ___ %		SU/SP/H/M/L
Weathered Mousse: 70 %		SU/SP/H/M/L
Asphalt Mousse: 30 %		SU/SP/H/M/L
Tar: ___ %		SU/SP/H/M/L

COMMENTS
① EXTREME VERY LIGHT OILING
② AVERAGE OF 1 MOUSSE PATTIE / 500 M of SHORELINE

ACE 8708358

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KOS-35

Photography: (Y)/N Roll Number(s) DMC-24

Sample Numbers Collected: N/A

July 30/89

Rick Gaillie

SEGMENT K08-13-SX-01

08:15 Start at Lost Cape
Could not land at first beach because of low tide
No oil visible from helicopter

Stop #1 @ 08:23
- approx 1/4 mile long beach with granules / gravel / sand
- 100 m wide beach pebble
- vegetated (grass) backshore
- kelp debris (no oil)

- mousse patties - contain some granules (HT2) being broken up by surf
- in HT drift line
- total 5 small (1-2") mousse patties

08:41 Helo survey
- MT beaches, no MT beaches
- No oil
- rocky / Warrenet platform

Stop #2 08:52
- 1/4 mile gravel / pebble beach
- no apparent oil / buried to 10cm

- tar / mousse patties (2-3" dia)
- asphalt mousse / tar
- present in HT2 drift line
- about 10 pieces of mousse / asphalt

Stop #3 @ 09:33
- system of cobble / pebble beaches
- total 1/4 mile
- rocks and islands nearshore
- ~~NO OIL OBSERVED~~
* 1 Mousse patch *
- wall of to Gull Colony - no oil
- ~~No oil~~

ACE 8708360

July 30/89 — Rick Gillie

K08-13-SX-01

10:11 Back in heli

Stop # 4 @ 10:24
- pebble/cobble beach
- foot of low swampy ground
- coastal erosion
- 3 pieces of moose pattie with gravel 1/4 cm - 5 cm or less!
- 1 moose pattie up to 6"
- walk about 1,400 m of beach to the east past tall foreland.

11:09 Back in heli

Stop # 5 @ 11:20
- Walk from Bright Pt to east
- sand/gravel beach
- occasional tarball
- small tarballs (1x2") approx 1 every 1200 m
- beach is undergoing erosion along 1 km to the east

11:52 Land on beach to north of Gull Colony (3)

- Stop # 6 @ 11:53
- packed beach
- 5 bags of oiled stones laid on beach at HT
- white plastic bags

12:01 Complete segment

- head back into Killuda Bay
- tide now above 5 and Jon (Arch) does not have site info

12:14 Land at Pivot Point in Killuda Bay

12:25 Up from Pivot Point

ACE 8708361

ECOLOGICAL EVALUATION

LOCATION: Left Cape to Bush Pt, North Side of Sitkalidak Pt K-8-13- SITE: Kodiak IS OBSERVER: D. McCormick

LOCATION PREFIX: SX SEG. NO.: 1 LENGTH: 20,000 (M)

DATE: 7/30/89 TIME (HHMM): 0815 TIDE HT.: -0.3 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on rocky headland areas only.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense primarily on rocky headlands.

Littorina
Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Shells seen only Acmea + Notoacmea

OTHER OBSERVATIONS: Most beaches in segment are devoid of biota except for kelp holdfasts and shells from jingles Saxidomus + Protothaca, urchins, helmet + dungeness crabs, moon snails, rock hucella, Nucella, Katharina. Locally dense populations of Cyanea capillata.

CLEANUP PRECAUTIONS: No cleanup should take place due to extremely light oil conditions and sensitivity of seabird colonies in area. More harm than good would result from attempted cleanup.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other deer (3) and fox (2)

BIRDS: puffins, gulls, kittiwakes, 2 seabird colonies, surfscoters

GENERAL OBSERVATIONS: Fix (5) stops were made in this segment to look for oil. Only an occasional mousse patty was found.

ACE 8708362

[redacted]

CREW:
FRANCISCO - SETNETTERS 2OR3

ORIGIN:
MOUTH OF UYAK BAY, WEST SIDE

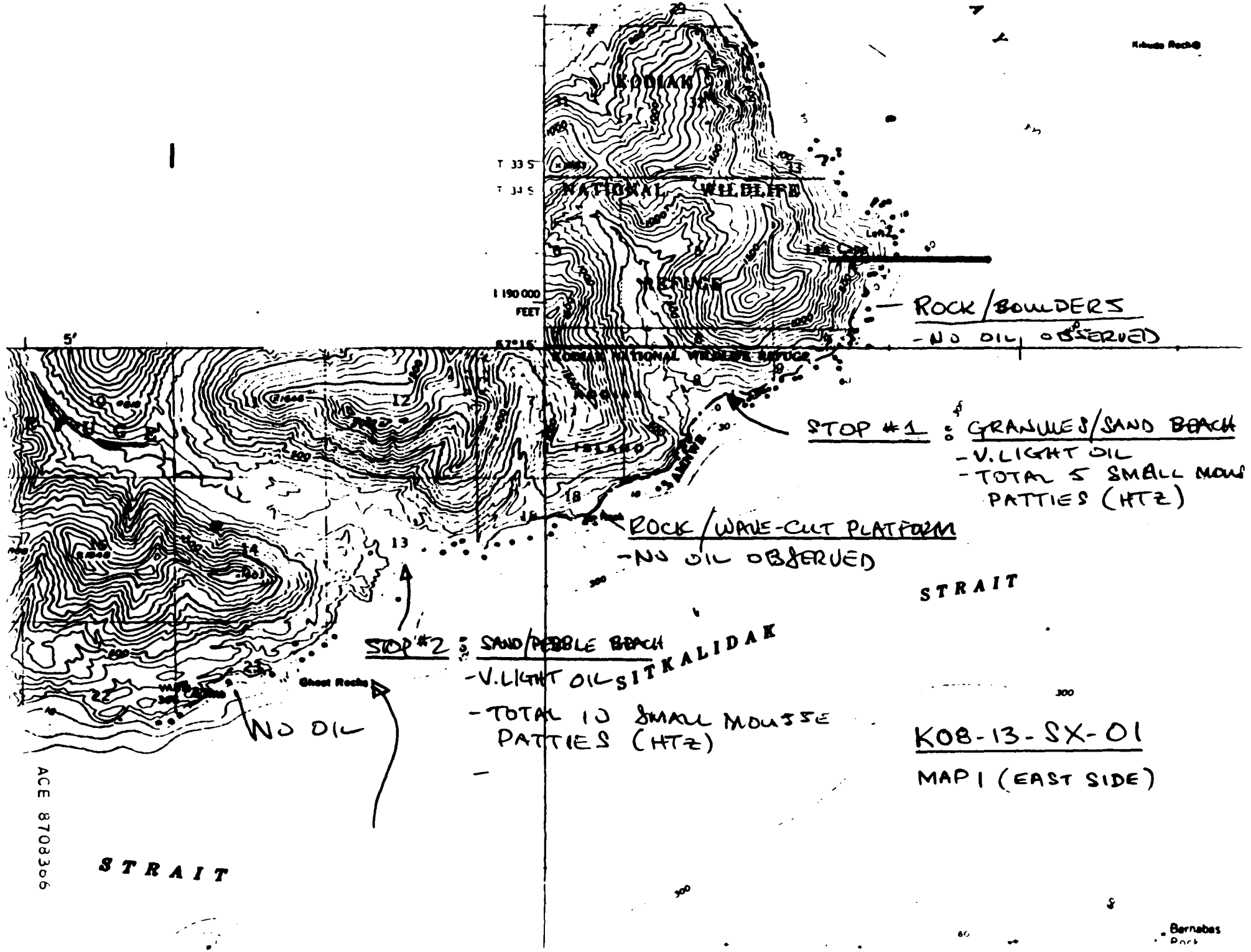
SITE:
PROM. MOUND AND SOUTH

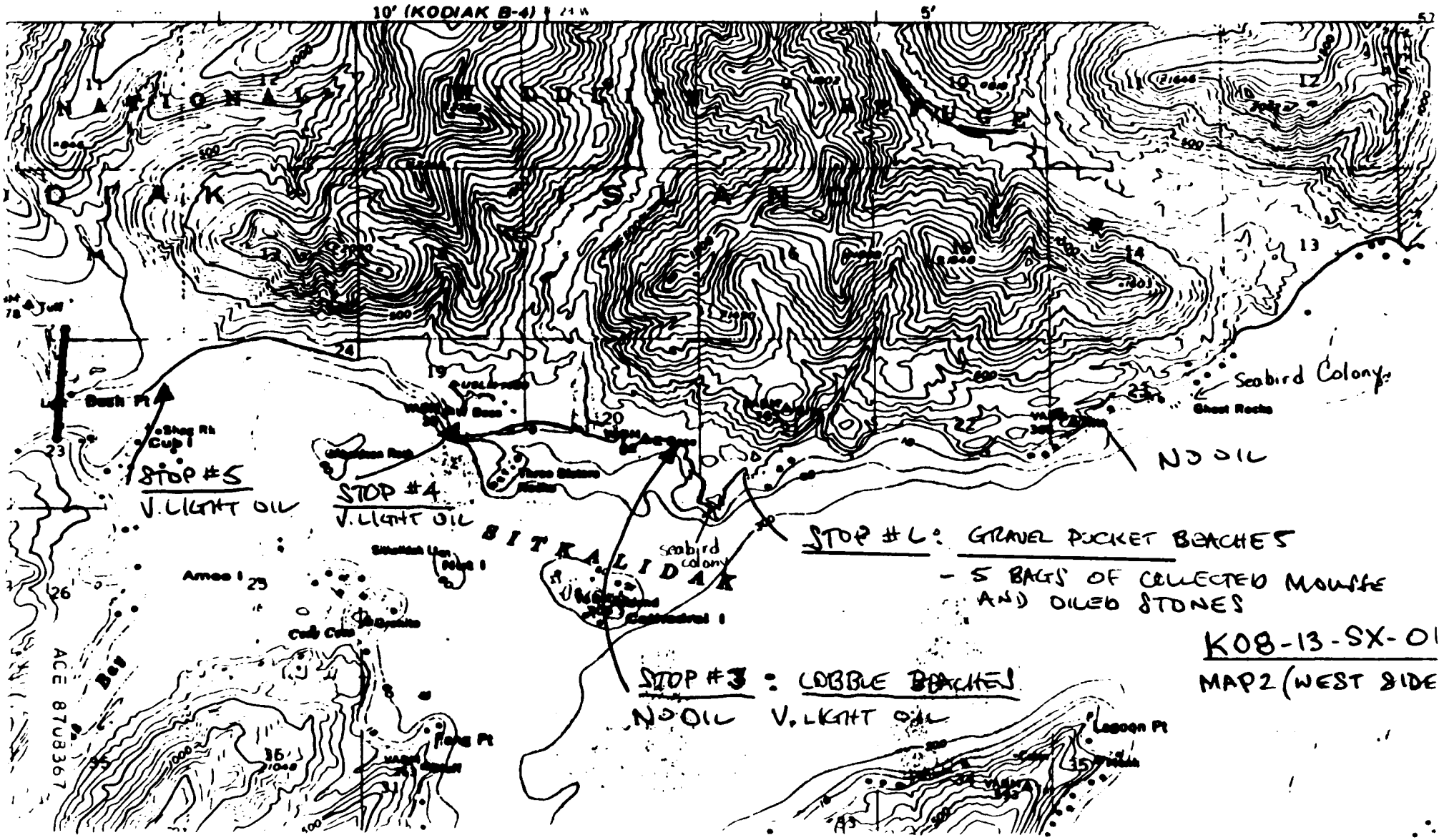
ACE 8708364

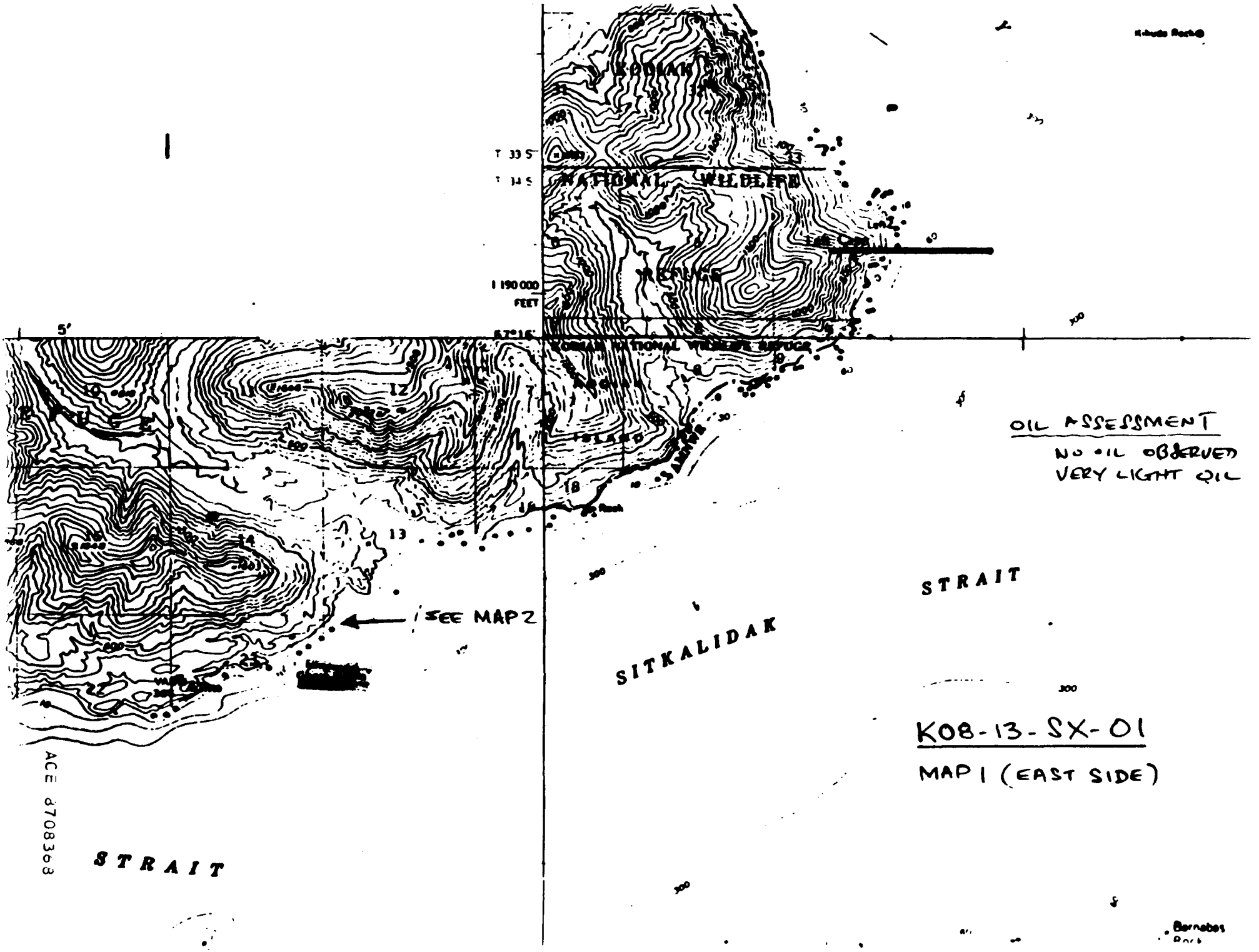
K08-13-9X-01

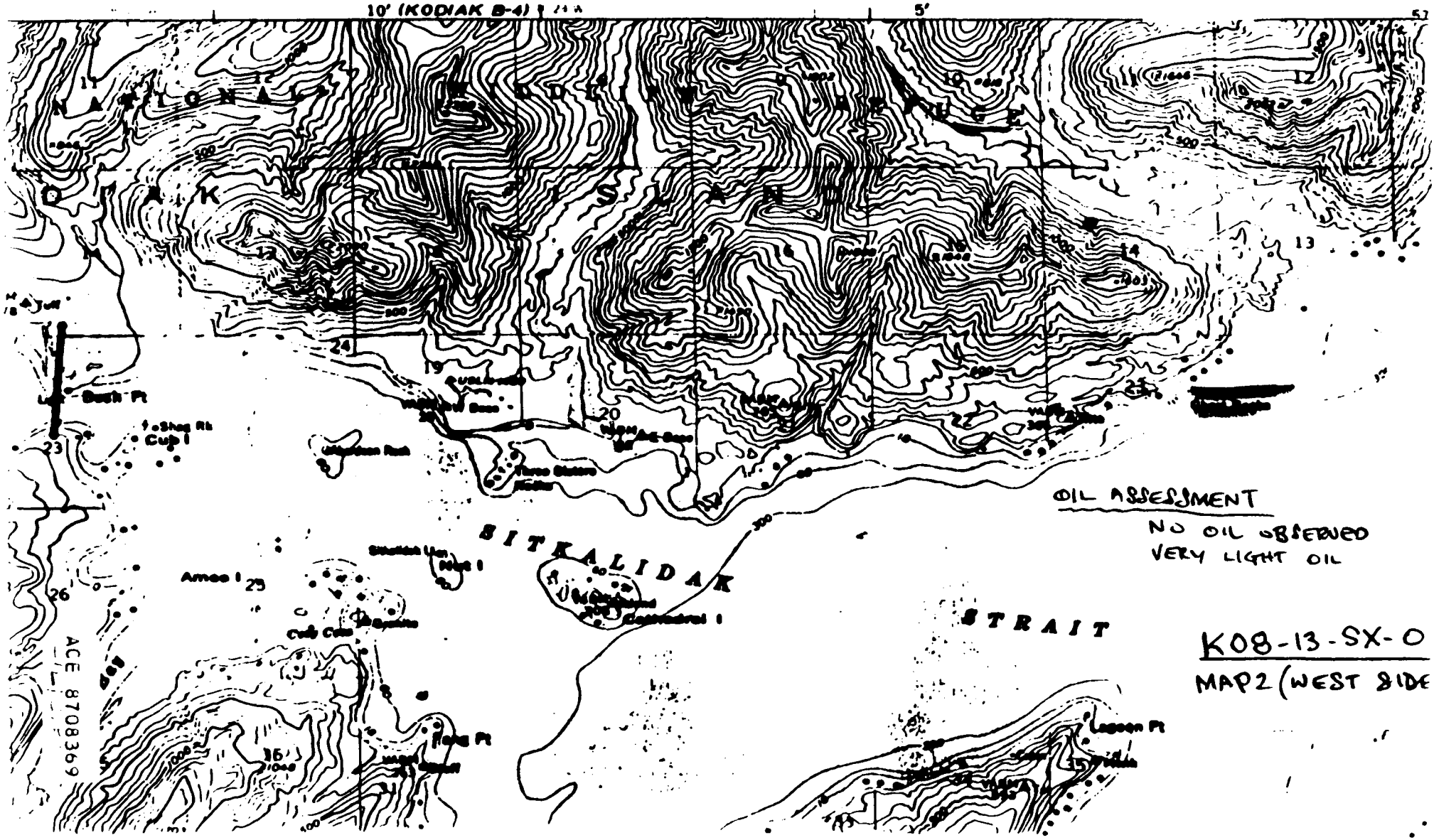
SEGMENT MAP

ACE 8708365


KODIAK
NATIONAL WILDLIFE
REFUGE
T 33 S
T 34 S
1 190 000 FEET
57°15'
ROCK/BOULDERS
-NO OIL OBSERVED
STOP #1 : GRANULES/SAND BEACH
-V. LIGHT OIL
-TOTAL 5 SMALL MOUSSE PATTIES (HTZ)
ROCK/WAVE-CUT PLATFORM
-NO OIL OBSERVED
STRAIT
STOP #2 : SAND/PEBBLE BEACH
-V. LIGHT OIL
-TOTAL 10 SMALL MOUSSE PATTIES (HTZ)
SITKALIDAK
NO OIL
Ghost Rocks
STRAIT
ACE 8708306
KOB-13-SX-01
MAP 1 (EAST SIDE)
Barnabas Rock


10' (KODIAK B-4)
5'
NATRONA
OLGA
BAY
SITKALIDAK
Seabird Colony
NO OIL
STOP #5
V. LIGHT OIL
STOP #4
V. LIGHT OIL
STOP #1: GRAVEL POCKET BEACHES
- 5 BAGS OF COLLECTED MOUSSE AND OILED STONES
STOP #3: COBBLE BEACHES
NO OIL
V. LIGHT OIL
K08-13-SX-01
MAP 2 (WEST SIDE
ACE 87U3367


KODIAK
NATIONAL WILDLIFE
REFUGE
KODIAK NATIONAL WILDLIFE REFUGE
T 33 S
T 34 S
1 190 000 FEET
57°15'
5'
SEE MAP 2
SITKALIDAK
STRAIT
STRAIT
OIL ASSESSMENT
NO OIL OBSERVED
VERY LIGHT OIL
K08-13-SX-01
MAP 1 (EAST SIDE)
ACE d708303


10' (KODIAK B-4)
5'
NATIONAL
PARK
KODIAK
ISLAND
BUSH PT
CUP I
AMOS I
CUB CUB
BITKALIDAK
STRAIT
ACE 8708369
OIL ASSESSMENT
NO OIL OBSERVED
VERY LIGHT OIL
K08-13-SX-0
MAP 2 (WEST SIDE

K-08-34

ACE 7963971

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-34

Includes Shoreline Segments: AE-1

Location: Amee Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/23/89 SHORELINE SEGMENT K8-34-AE-1

LOCATION: (see enclosed map) Amee Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 8/13/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to light oiling and ecological constraints. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
-Sensitive resources include pink salmon, eagles, clam and urchin beds, and seabird rookeries. The presence of the oil observed is of minimal impact to these resources. No cleanup required.

Archaeological Constraints (from site survey):
-If cleanup is conducted inspection by an archaeological monitor is required.
-If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

A. David McMahon Date: 8/24/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708371

SHORELINE OIL EVALUATION

A. General

1. Date: 8/13/89 2. Time: 15:25-16:30 3. Observer: K. DEBUSSCHERE

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather: (Sun)/Cloud/Rain/Snow/Fog

6. Location ANGEL BAY 7. Segment #: KS-34 AG-1

8. Length of shoreline segment: 12320 yds 9. Tidal Stage ± 4-5 ft.

10. Access: Foot/Vehicle/(Boat)/Barge/(Helio)/(Float Plane)

11. Total Percentage of Segment Accessible: 90 %

12. Access Restrictions: SHALLOW BAY & SOME STEEP CLIFF

B. Shoreline

13. Shoreline Type: (SPI)/(BEA)/(COV)/(HLD)/STRT/(CLF)/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/(Low)

16. Sediment: B 5 % / C 15 % / P 20 % / G 30 % S 5 % / M 5 % / R 10 %

17. Drift Debris on Beach: (Yes)/No Supra/(Upper)/(Mid)/(Lower) Type ALGAE & LOGS

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/(Light)/(Very Light)/(No Oil Observed)

19. Area of Beach Impact: Width of Band: 0.5 [redacted] yds
Continuous: Total % of Segment 0
Sporadic: Total % of Segment .04
No Oil: Total % of Segment 99.96

20. Est. Oil Thickness where >1in: — in 21. Est. Oil Penetration: — in

22. Pooled Oil: 0 % "Free" Oil: 0 % Coated: H — % / M — % / L 100 %

23. Fresh 0 % Mousse 0 % Tar Formation: 100 %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: ——— H/M/L

Comments:
MOST OF SEGMENT WAS OBSERVED BY AIR B/C OF LIMITED LANDING BY HELO. OILING WAS LIGHT & SPORADIC AND CONFINED TO WEATHERED MOUSSE PATTIES IN ABIE ZONE (CONTINUOS BAND OF ALGAE).

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh	0	%
Mousse	0	%
Weathered	100	%
Tar	0	%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:	5.0	0.5
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

pooled/continuous
coating/ splat
cracks / crevices
patties (>10cm diameter)
balls (< 10cm diameter)
asphalt pavement

SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth
X				–	5.0	0.5	–

28. Preliminary Cleanup Est.

Total TYPE A: 0 yds.
Total TYPE B: 0 yds.
Total TYPE A/B: 0 yds.

29. Remobilization Potential: High/(Medium)/Low

DOCUMENTATION:

Map/Aerial photo marking segment boundaries ATTACHED

VTR: Y/(N) Tape Number (s) _____

Photography: (Y)/N Roll Number (s) SMB-22

FIELD NOTES & MAP OF DEGREE OF OILING

Additional Comments:

ACE 8708374

POOR QUALITY ORIGINAL

ECOLOGICAL EVALUATION

LOCATION: Amee Bay SITE: Amee Bay OBSERVER: SM Bass

LOCATION PREFIX: K-8-34 SEG. NO.: AG-1 LENGTH: 1,260 (M)

DATE: 9/13/89 TIME (HHMM): 1540 TIDE HT.: 1⅓-1⅔ (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand Mud)

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense on boulder-rocky areas - also logs & dense on several ~~beaches~~ cobble/gravel beaches. Not apparently oiled.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Few clumps ~~seen~~ seen on rocks below water level. Not apparently oiled.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense spat in protected areas - gravel beaches. Dense adults on boulders and rocks. More oiled.

Littorina

Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense among Fucus clumps on gravel/cobble beaches. Also in boulder crevices. Not oiled.

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Few individuals observed in boulder crevices. Not oiled.

OTHER OBSERVATIONS: Dense Zostera beds, Salmon in Bay, clam shells and urchin tests on beach. Evidence of clean up (bags) in NE cove of bay. Ulva very dense in several coves.

CLEANUP PRECAUTIONS: No clean up recommended. Sensitive species include Eagles and seabird rookeries, dense clam beds, salmon.

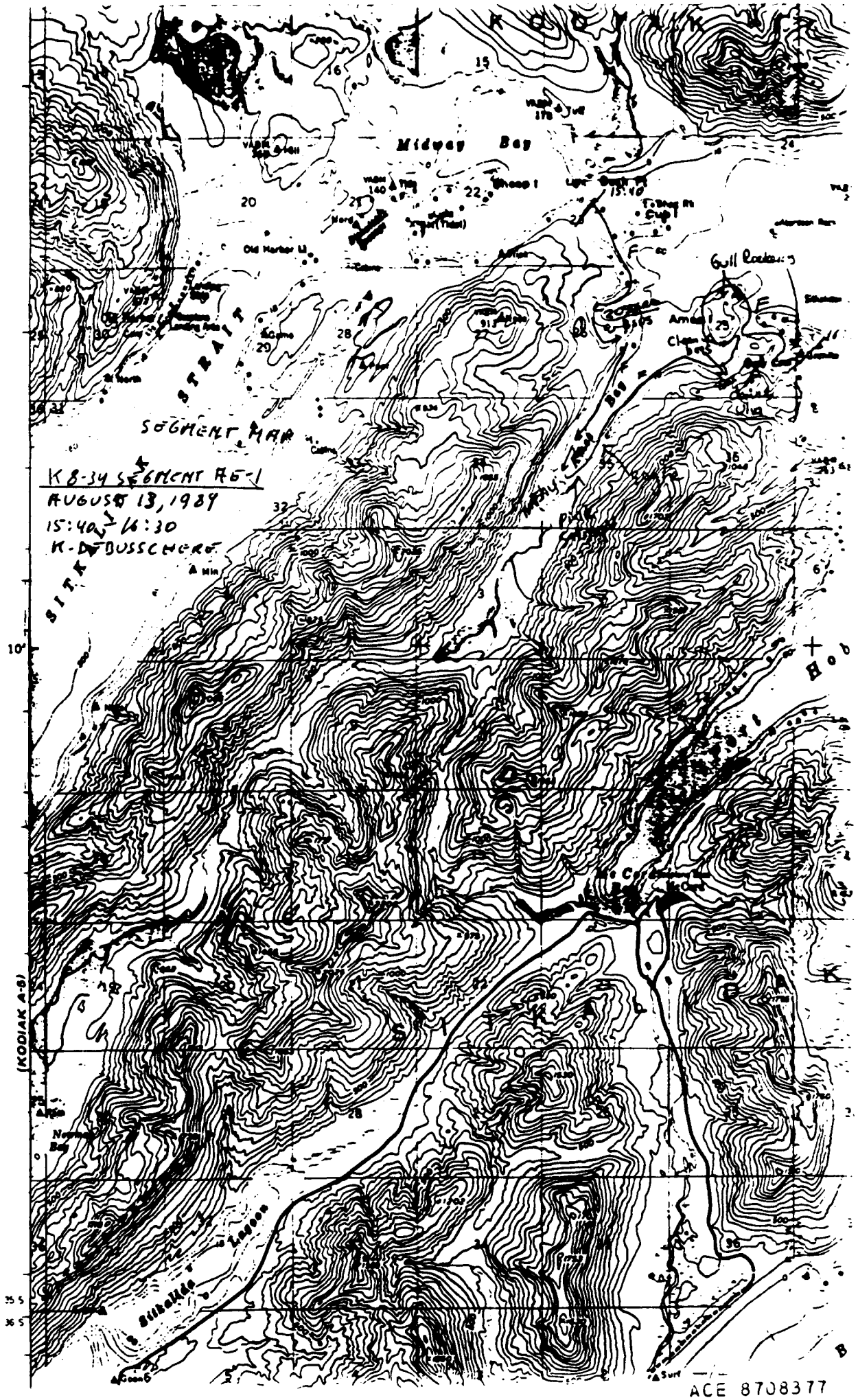
MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

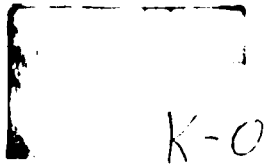
Other Red Fox

BIRDS: gulls, eagles,

GENERAL OBSERVATIONS: Very light oiling - No organisms observed were impacted by the oil.

K8-34


Midway Bay
Old Harbor
Gull Rocks
SITKA
SEGMENT MAP
K8-34 SEGMENT A6-1
AUGUST 13, 1984
15:40 → 16:30
K-DEBUSSCHERE
SITKA
(KODIAK A-6)
Nyman Bay
Sitkalidak Lagoon
ACE 8708377



ACE 7963972

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-35

Includes Shoreline Segments: PO-1, PO-2

Location: Port Hobron

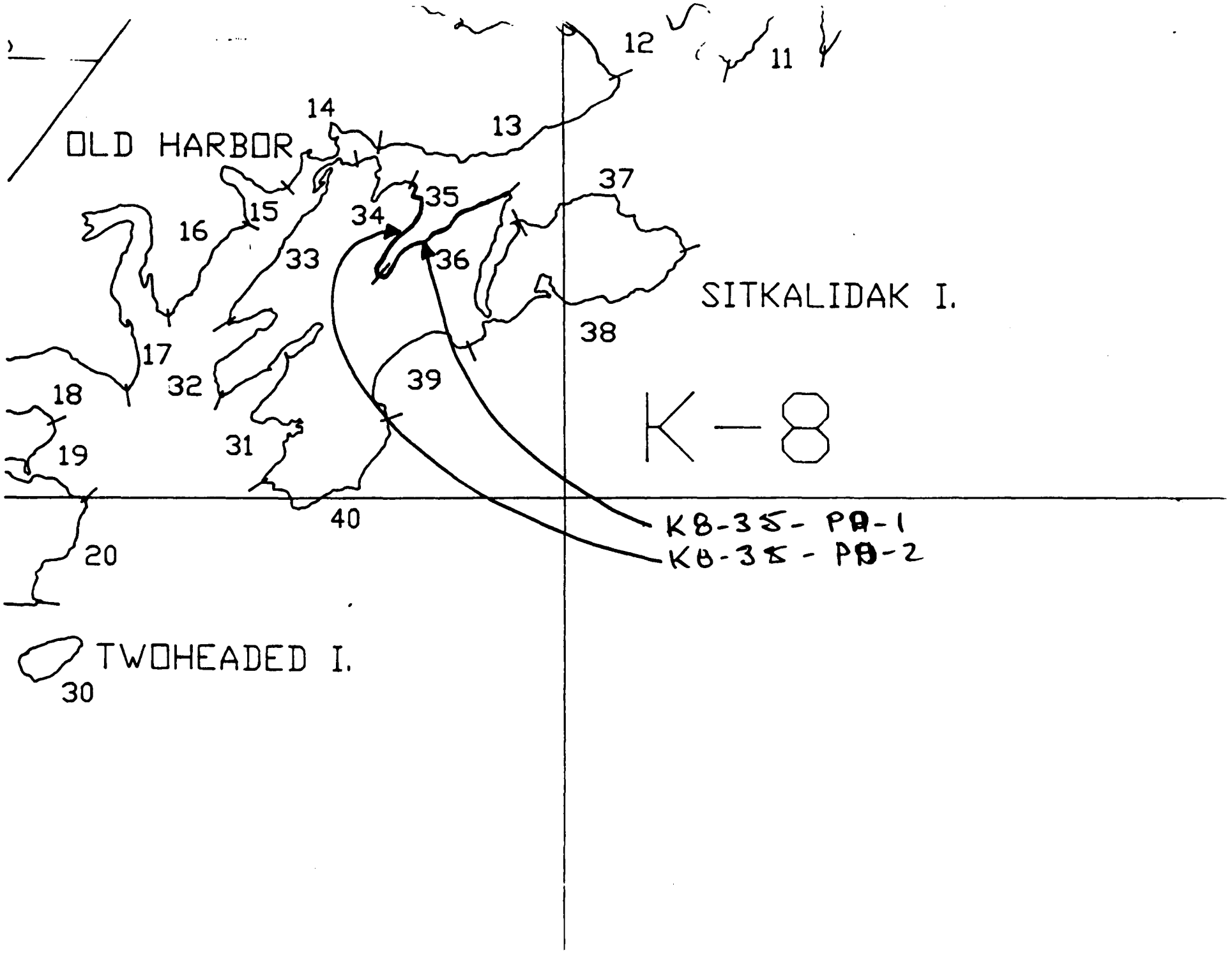
Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

ACE 8708378


OLD HARBOR
SITKALIDAK I.
K-8
TWOHEADED I.
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14
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K8-35-PB-1
K8-35-PB-2

ACE 8708379

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/20/89 SHORELINE SEGMENT K8-35-PO-1

LOCATION: (see enclosed map) Port Hobron

ADEC NO. SHORELINE ASSESSMENT DATE: 8/15/89

Recommended Cleanup Activity(ies):
-Manual removal of oil debris and oiled stones at head of bay. (Very light oiling).

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):
-Clean at +8 foot tide or higher if possible.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline dated 4/21/89 as amended.

A. David McMahon Date: 8/23/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8703380

SHORELINE OIL EVALUATION

A. General

1. Date: AUG 15/09 2. Time: 09:40 - 11:40 3. Observer: RICK GILLIE

4. Surveyed From: (Foot) (Boat) Helio/Plane 5. Weather: Sun (Cloud) (Rain) Snow (Fog)

6. Location PORT HOBRON 7. Segment #: K8-35-PB-1

8. Length of shoreline segment: 11,800 yds 9. Tidal Stage ± +3 ft.

10. Access: (Foot) Vehicle (Boat) (Barge) (Helio) (Float Plane)

11. Total Percentage of Segment Accessible: 95 %

12. Access Restrictions: MUDFLATS AT HEAD OF BAY

B. Shoreline

13. Shoreline Type: (SPI) (BEA) (COV) (HLD) STRT (CLF) (DAF)

14. Slope: (LANG) (HANG) (VERT)

15. Wave Exposure: (High) (Med) Low

16. Sediment: B__% / C__% / P__% / G__% S__% / M__% / R__%

17. Drift Debris on Beach: (Yes) No Supra (Upper) Mid/Lower Type Kelp Weed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/Very Light/(No Oil Observed)

19. Area of Beach Impact: Width of Band: ——— yds
Continuous: Total % of Segment ———
Sporadic: Total % of Segment 5
No Oil: Total % of Segment 95

20. Est. Oil Thickness where >1in: ✓ in 21. Est. Oil Penetration: ✓ in

22. Pooled Oil: ✓ % "Free" Oil: ✓ % Coated: H__% / M__% / L 5%

23. Fresh ✓ % Mousse 50 % Tar Formation: 50 %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: ——— H/M/L

Comments:

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

KO-SS-PB-1

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse	50	%
Weathered		%
Tar	50	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	600	
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

pooled/continuous
coating/ splat
cracks / crevices
patties (>10cm diameter)
balls (< 10cm diameter)
asphalt pavement

SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
	X			—	—	—	—
	X			—	—	—	—

28. Preliminary Cleanup Est.
Total TYPE A: 600 yds.
Total TYPE B: yds.
Total TYPE A/B: 600 yds.

29. Remobilization Potential: High/Medium/Low

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number (s)

Photography: Y/N Roll Number (s) JA-2

Additional Comments:

ECOLOGICAL EVALUATION

LOCATION: Kodiak Isl. SITE: Port Hobron OBSERVER: Andrew

LOCATION PREFIX: K8-35 SEG. NO.: PH-1 LENGTH: 11800 (M)

DATE: 8/15/89 TIME (HHMM): 0930 TIDE HT.: +1 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks Boulder (Cobble Gravel Sand Mud)

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Areas dense with fucus at head of bay, and near mouth. lots of Digitaria. lots of eelgrass Subtidal (Phyllospadix)

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense beds lining intertidal near head of bay.

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Some areas very heavy other areas less, but always present.

Littorina
Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Some area dense; found all along transect.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Small often found under rocks

OTHER OBSERVATIONS: Dungeness Crab larval habitat in eelgrass (head of bay)
lots of Pink Salmon, Thais common, Some Tube worms, Polynoedia & other Ascidian, Crustaceans

CLEANUP PRECAUTIONS: Keep crews to a minimum, 5 max. Remove Top 3 cm only work at +8' Tides

MAMMALS: Otters 0 Harbor Seals 0 Sea Lions 0 Whales 0
Other 2 Deer, 1 harbor porpoise

BIRDS: Pelagic Cormorants, Northwest Crows, puffins

GENERAL OBSERVATIONS: old whaling Station nearby.

Aug 15/89

Rick Gillis

SEGMENT K8-35.-PG-1

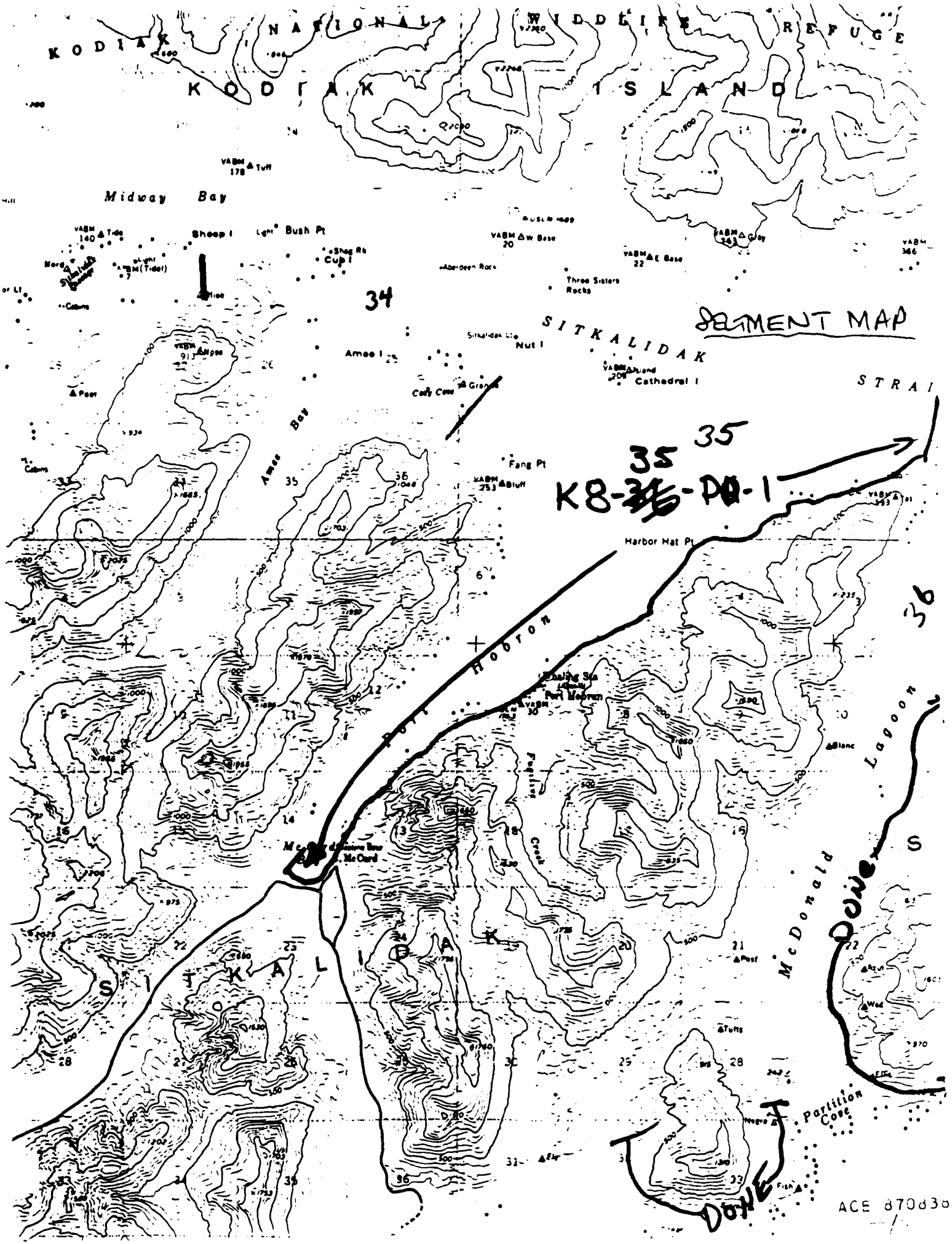
- PORT HOBRON (EAST SHORE)

Stop #(1) @ 09:40
- wide (300m) tidal flat at head of bay
- rare tarballs at head of the bay beach
- beach has been cleaned up previously by Native cleanup crews
- walk along southeast shore past McCaul to downdrift end of spit
- NO OIL OBSERVED
- only oil in form of tarballs at the head of the bay.

Stop #(2) @ 10:45
- the whaling station at Port Hobron (abandoned)
- pebble / cobble beaches
- NO OIL OBSERVED
- walked 300 yds of beach
- the shoreline between (1) and (2) is predominately steep rock cliff with a narrow intertidal gravel beach
- None or very narrow HTZ or beach below present

Stop #3 @ 11:35
- 200 m long beach at mouth of valley
- cobble / pebble substrate
- wide berm and backshore with large trees in the valley flats
- NO OIL OBSERVED

ACE 8704384


KODIAK NATIONAL WILDLIFE REFUGE
KODIAK ISLAND
Midway Bay
Sheep I
Bush Pt
Cub I
Aberdeen Rock
Three Sisters Rocks
34
SEDIMENT MAP
SITKALIDAK STRAI
Amee I
Nut I
Cathedral I
Amee Bay
35
K8-35-PA-1
Fang Pt
Harbor Hat Pt
Port Hobron
Hobron Lagoon
McDonald Lagoon
Partition Cove
Dove
ACE 8708300

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/20/89 SHORELINE SEGMENT K8-35-PO-2

LOCATION: (see enclosed map) Port Hobron

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/16/89

Recommended Cleanup Activity(ies):
-No cleanup recommended - no oil observed.

Priorities/Considerations:

Ecological Constraints (from site survey):
-No impact on environment.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline dated 4/21/89 as amended.

J. David McMahan Date: 8/23/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708387

SHORELINE OIL EVALUATION

A. General

1. Date: AUG 16/89 2. Time: 10:15 - 12:00 3. Observer: RICK GILLIE

4. Surveyed From: (Foot) (Boat) Helio/Plane 5. Weather: Sun/(Cloud)/(Rain)/Snow/Fog

6. Location PORT HUBRON 7. Segment #: K8-35-PM-2

8. Length of shoreline segment: 8,600 yds 9. Tidal Stage ± +2-3 ft.

10. Access: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

11. Total Percentage of Segment Accessible: 100 %

12. Access Restrictions: NONE

B. Shoreline

13. Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT/(CLF)/DAF

14. Slope: LANG/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/Low

16. Sediment: B 20 % / C 20 % / P 10 % / G 10 % S__ % / M__ % / R 40 %

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type Log Seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/Very Light/(No Oil Observed)

19. Area of Beach Impact: Width of Band: ____ yds
Continuous: Total % of Segment ____
Sporadic: Total % of Segment ____
No Oil: Total % of Segment ____

20. Est. Oil Thickness where >1in: ____ in 21. Est. Oil Penetration: ____ in

22. Pooled Oil: ____ % "Free" Oil: ____ % Coated: H__ % / M__ % / L__ %

23. Fresh ____ % Mousse ____ % Tar Formation: ____ %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: N/A H/M/L

Comments:

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

K8-35-PB-2

(Version July 18, 1989) Page 2

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse		%
Weathered		%
Tar		%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:		
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

pooled/continuous
coating/ splat
cracks / crevices
patties (>10cm diameter)
balls (< 10cm diameter)
asphalt pavement

SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth

28. Preliminary Cleanup Est.

Total TYPE A: _____ yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/Medium/Low N/A

DOCUMENTATION:

Map/Aerial photo marking segment boundaries SEE ATTACHED

VTR: Y/N Tape Number (s) ?

Photography: Y/N Roll Number (s) JA -

Additional Comments:

ACE 8708389

ECOLOGICAL EVALUATION

LOCATION: Kodiak Isl SITE: Port Hobron OBSERVER: Amdur

LOCATION PREFIX: KB-35 SEG. NO.: PH-2 LENGTH: 8600 (M)

DATE: 8/16/89 TIME (HHMM): 10:15 TIDE HT.: +1 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks (Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

Some areas heavy, lots of phylospadix

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Thais present/ ~~Pink~~ Pink Salmon

CLEANUP PRECAUTIONS: No Oil observed-

MAMMALS: Otters 0 Harbor Seals 1 Sea Lions 0 Whales 0
Other ferret, deer (Sitka w/ white tail)

BIRDS: Puffins, Cormorants, 2 eagles

GENERAL OBSERVATIONS:

ACE 8708390

Aug 16/89

Rick Gittins

SEGMENT KB-35 - PG-2

- PORT HOBRON (WEST SIDE)

Stop #1 @ 10:15
- cobble / gravel / sand beach
- mod. slope
- NO OIL OBSERVED
- evidence of clearing from gravel pockets & bands of material removed from HTZ and drift line

Stop #② @ 10:40
- boulder / pebble beach
- narrow
- none or < 2m wide HTZ / beach
- little driftwood
- NO OIL OBSERVED

Stop #③ @ 11:10
- boulder beach / minor cobble / sand
- narrow (< 2m) wide HTZ / beach
- NO OIL OBSERVED

- The "CECILIA" working in the tide rip at the entrance to Port Hobron removed moose patties up to 6" deep in their surface net tracks.

- Narrow boulder beach NORTH of Stop ③ steep & vertical rock cliff behind.

Stop #④ @ 11:30

- The FV CECELIA reported recovering 20-30 moose patties in the tide rip approx 3/4 mile off the beach at Stop ④

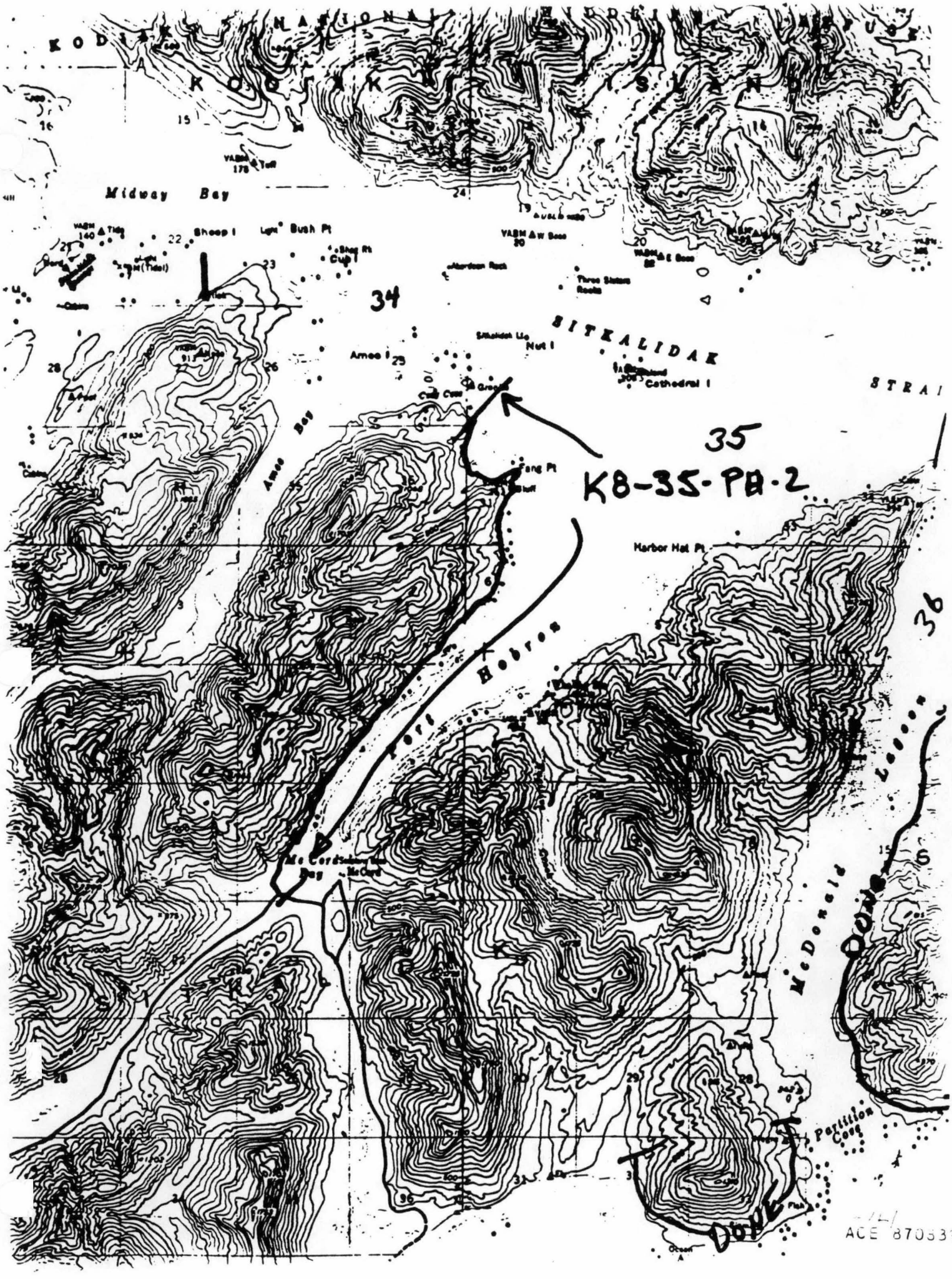
- beach approx 400m long with sand / cobble / boulders
- HTZ approx 15m wide with backshore to 10m wide
- NO OIL OBSERVED

ACE 3708391

Aug 16/89 — Rick Gathe

Stop # 8 @ 11:50
- 100m long pocket beach
- pebble / cobble / boulder
- NO OIL OBSERVED
- However, evidence of beach cleanup having taken place (shovel depressions in HT berm
- also stopped at 150m long pebble / cobble beach at west end of bay
- NO OIL OBSERVED
- 2 eagles

ACE 8708342


KODIAK NATIONAL WILDLIFE REFUGE
KODIAK
Midway Bay
Sheep I
Light
Bush Pt
Shag Pt
Cub I
Three Sisters Rocks
34
SITKALIDAK
Amee I
Nut I
Cathedral I
STRAI
35
K8-35-PB-2
Amee Bay
Harbor Hat Pt
36
Hobron
Lagoon
McDonald
Dome
Mc Cord Bay
Partition Coves
ACE 8705394

K-08-36

ACE 7963973

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K8-36

Includes Shoreline Segments: MD-1, MD-2, MD-3

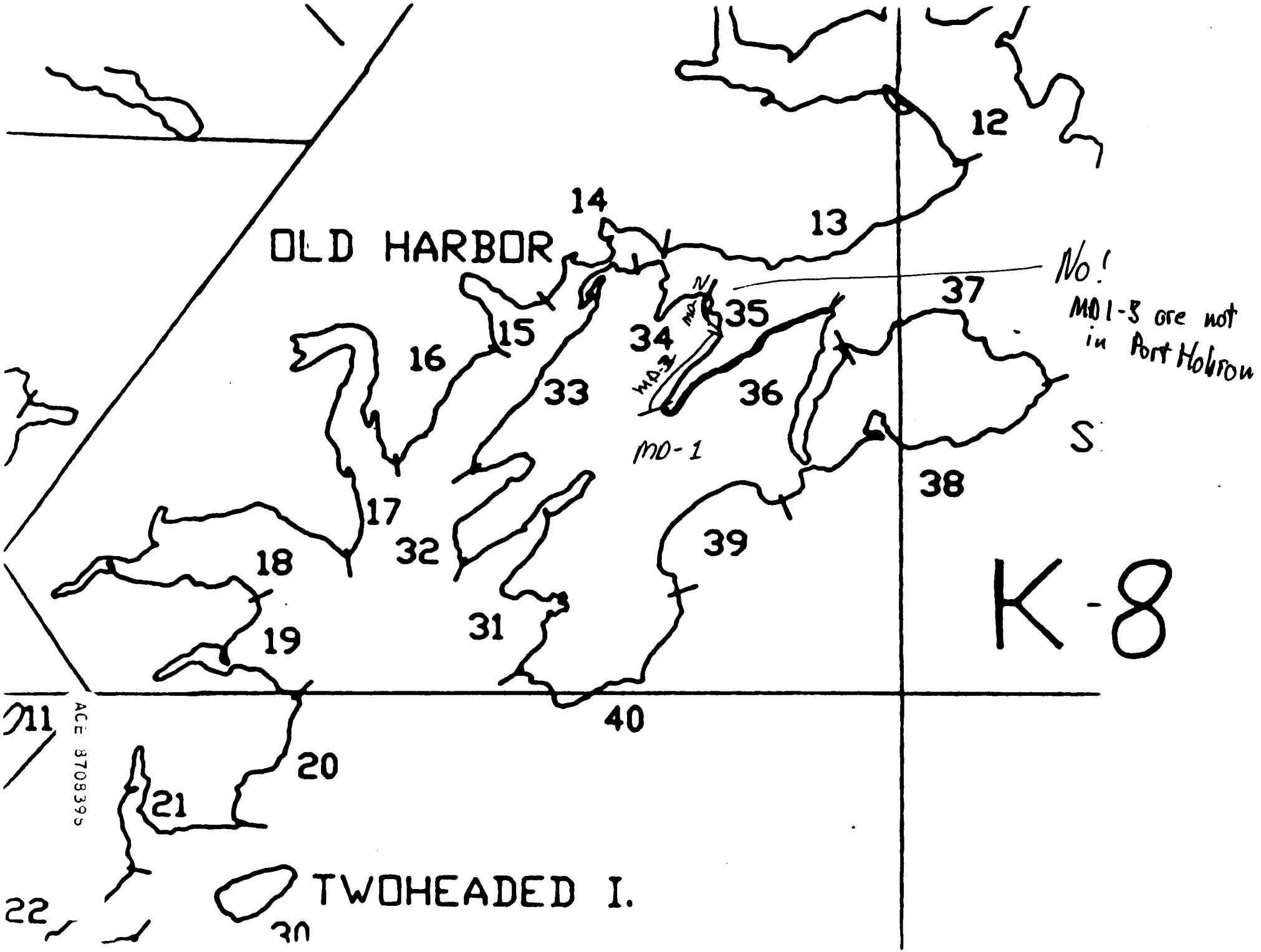
Location: McDonald Lagoon

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC


OLD HARBOR
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MO-2
MO-3
No!
MO 1-3 are not in Port Hobron
S
K-8
ACE 8708395

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/20/89 SHORELINE SEGMENT K8-36-MD-1

LOCATION: (see enclosed map) McDonald Lagoon

ADEC NO. K8 SHORELINE ASSESSMENT DATE: 8/06/89

Recommended Cleanup Activity(ies):

- -No cleanup recommended due to very light and highly sporadic oiling condition.
- -Cleanup could damage otherwise healthy environment, subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):

- -None, since cleanup is not recommended.

Archaeological Constraints (from site survey):

- -If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 8/23/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708397

SHORELINE OIL EVALUATION

A. General

1. Date: 6 Aug 1989 2. Time: 1400-1600 3. Observer: Duncan M. FitzGerald

4. Surveyed From: Foot/Boat/Helio/Plane 5. Weather: Sun/Cloud/Rain/Snow/Fog

6. Location Eastern shore of McDonald Lagoon. Segment #: K-8-36-MD-1

8. Length of shoreline segment: 11,000 yds 9. Tidal Stage ± _____ ft.

10. Access: (Foot)/Vehicle/(Boat)/(Barge)/(Helio)/(Float Plane)

11. Total Percentage of Segment Accessible: 100 %

12. Access Restrictions: NONE

B. Shoreline

13. Shoreline Type: (SPT)/(BEA)/(COV)/(HLD)/STRT/CLF/DAF

14. Slope: (LANG)/HANG/VERT

15. Wave Exposure: High/Med/Low

16. Sediment: B 5 % / C 30 % / P 40 % / G 5 % S 20 % / M __ % / R __ %

17. Drift Debris on Beach: (Yes)/No (Supra)/Upper/Mid/Lower Type seaweed and driftwood

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/(Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: 1 yds
Continuous: Total % of Segment _____
Sporadic: Total % of Segment 100
No Oil: Total % of Segment _____

20. Est. Oil Thickness where >1in: — in 21. Est. Oil Penetration: — in

22. Pooled Oil: _____ % "Free" Oil: _____ % Coated: H ___ % / M ___ % / L ___ %

23. Fresh _____ % Mousse _____ % Tar Formation: 100 %

24. Drift Debris Oiled? (Yes)/No (Sup)/Up/Mid/Low Amount: _____ H/M/(L)

Comments:
This shoreline is very lightly oiled consisting of tar balls and tar patties (up to 3 cm diam.) occurring every 30 to 100 yds along the beach. This very light oiling does not require cleaning. See map #2.

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh	_____	%
Mousse	_____	%
Weathered	_____	%
Tar	100	%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:	7000 yd	1 yd
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth
pooled/continuous								
coating/ splat								
cracks / crevices								
patties (>10cm diameter)	✓	✓				2000	1 yd	
balls (< 10cm diameter)	✓	✓				7000	1 yd	
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: _____ yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

NO cleanup recommended due to v. very light conditions

29. Remobilization Potential: High/Medium/(Low)

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries _____

VTR: (Y)/N Tape Number (s) KOS-31

Photography: (Y)/N Roll Number (s) DRC-27

Additional Comments:

_____

_____

_____

_____

_____

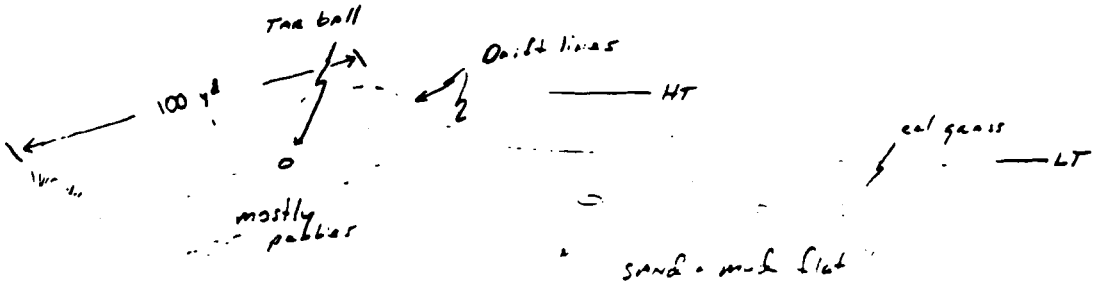
_____

_____

_____

Map #1

Typical Section of McDonald Lagoon



Version: 1 Jul 89

ECOLOGICAL EVALUATION

LOCATION: East Side of McDonald's Lagoon KOLIAK IS SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K-8-36mb SEG. NO.: 1 LENGTH: 11,000 (ft)

DATE: 8/6/89 TIME (HHMM): 1430 TIDE HT.: +7.0 Ft (ft)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Shelf only.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None Y/(N)

OTHER OBSERVATIONS: South end of Lagoon biota algal mat + Zostera. East side clam (cockle) bed. Remnants of tidepools + tunicates via urchins. Salmon jumps seen in the lagoon. Aurelia and Cyanea beached in lagoon.

CLEANUP PRECAUTIONS: None.

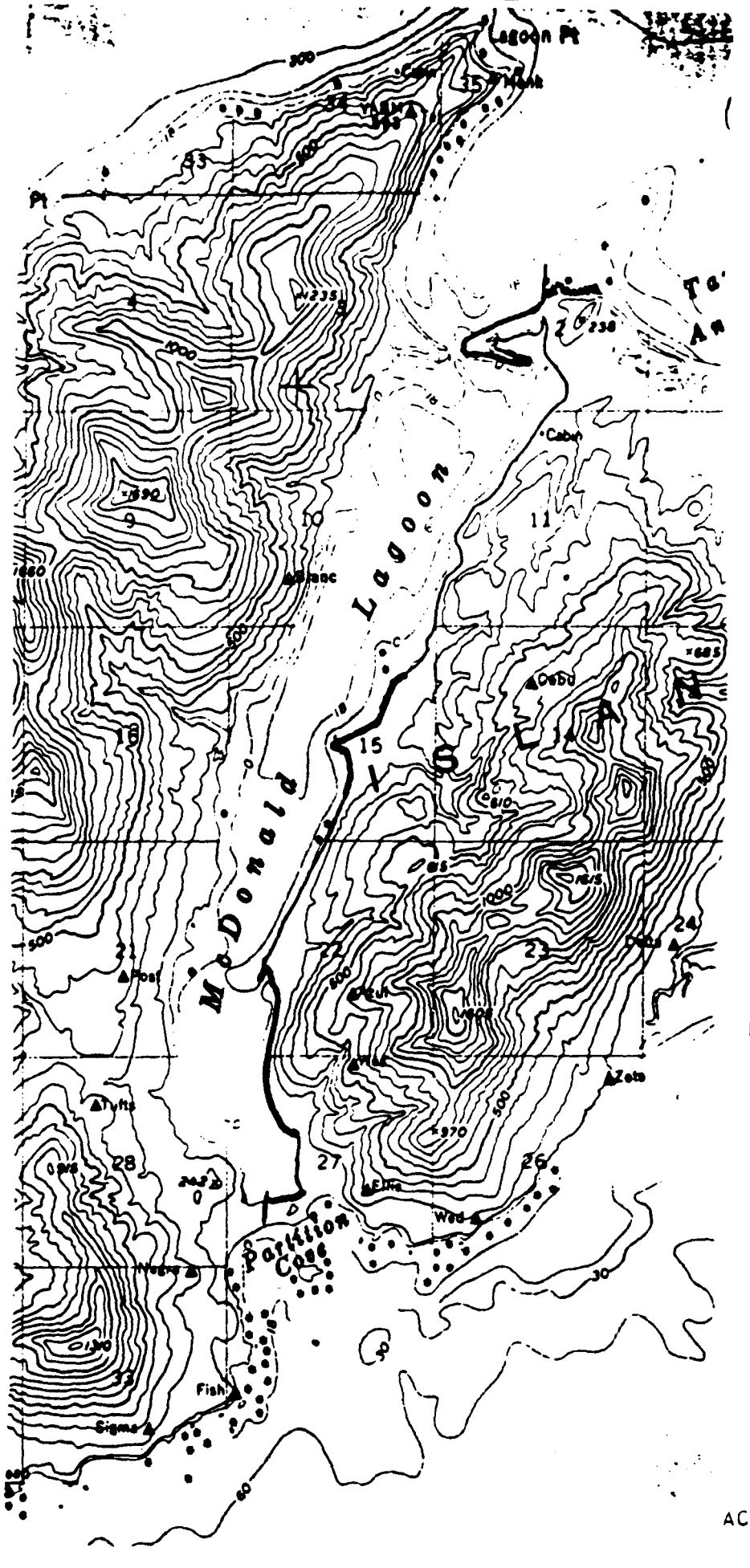
MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other deer tracks,

BIRDS: Eagles (2), gulls. Eagle nest (see map).

GENERAL OBSERVATIONS: All exposures in this segment are very light splatterings of mousse on cobbles in upper IT2. Cleanups not necessary

ACE 8708401

K-8-36-MO-1



ACE 8708403

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/20/89 SHORELINE SEGMENT K8-36-MD-2

LOCATION: (see enclosed map) McDonald Lagoon

ADEC NO. K8 SHORELINE ASSESSMENT DATE: 8/14/89

Recommended Cleanup Activity(ies):
-No cleanup recommended. Presently being cleaned by Native Corporation crews.

Priorities/Considerations: Class 5-B

Ecological Constraints (from site survey):
-Very little oil, no biological impact, no cleanup.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

A. David McMahan
State Historic Preservation Officer * Date: 8/23/89

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708404

SHORELINE OIL EVALUATION

A. General

1. Date: AUG 4/89 2. Time: 10:46 - 12:30 3. Observer: RICK GILLIE

4. Surveyed From: (Foot) (Boat) Helio/Plane 5. Weather: Sun (Cloud) Rain/Snow (Fog)

6. Location McDONALD LAGOON 7. Segment #: K8-36-MD-02

8. Length of shoreline segment: 3,200 yds 9. Tidal Stage ± 5.0 ft.

10. Access: Foot/Vehicle (Boat) (Barge) (Helio) (Float Plane)

11. Total Percentage of Segment Accessible: 100 %

12. Access Restrictions: NONE

B. Shoreline

13. Shoreline Type: (SPI) (BEA) (COV) (HLD) STRT (CLF) DAF

14. Slope: LANG (HANG) (VERT)

15. Wave Exposure: (High) Med/Low

16. Sediment: B 30% / C 15% / P 20% / G 5% S__% / M__% / R 30% Driftwood

17. Drift Debris on Beach: (Yes) No (Supra) (Upper) Mid/Lower Type____

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light (Very Light) No Oil Observed

19. Area of Beach Impact: Width of Band: N/A yds
    Continuous: Total % of Segment____
    Sporadic: Total % of Segment 15
    No Oil: Total % of Segment 85

20. Est. Oil Thickness where >1in: ✓ in 21. Est. Oil Penetration: ✓ in

22. Pooled Oil: ✓ % "Free" Oil: ✓ % Coated: H__% / M__% / L 100% VERY LIGHT

23. Fresh ✓ % Mousse 70 % Tar Formation: 30 %

24. Drift Debris Oiled? (Yes) No (Sup) (Up) Mid/Low Amount: V. LIGHT H/M/L

Comments:

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

ACE 8708405

KB-36-MD-02

(version July 18, 1989) Page 2

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse	70	%
Weathered		%
Tar	30	%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:	460	—
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

pooled/continuous
coating/ splat
cracks / crevices
patties (>10cm diameter)
balls (< 10cm diameter)
asphalt pavement

SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth
	X			—	100	—	—
	X			—	360	—	—

Preliminary Cleanup Est.

Total TYPE A: 460 yds.
Total TYPE B: yds.
Total TYPE A/B: 460 yds.

29. Remobilization Potential: High/Medium/Low

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See ATTACHED

VTR: Y/N Tape Number (s)

Photography: Y/N Roll Number (s) JA-2

Additional Comments:

ACE 8708406

Aug 14 / 1989 — Rick Gillie

SEGMENT KB-36-MD-02
- approx 2 mile long rocky coast northwest of McDonald Lagoon

- Stop #1 @ 10:46
- 200 m long boulder / cobble beach near Lagoon Point
- narrow high tide zone (HTZ)
- NO OIL OBSERVED

- talked to Native people cleaning up the beach
- they are from Old Harbour
- they have cleaned almost all the oil and oiled debris from the beach
- only a residue of oil remains
- very little oil
- there is a bucket of oil on the beach near the spit mouth
- no bags of oiled stones were found.

Stop #2 @ 11:05
- steep slope backshore
- narrow cobble / boulder / pebble beach
- narrow HTZ, sparse driftwood
- walk approx 400 m of beach
- NO OIL OBSERVED

- spit is pebble / granules
- little sand
- previous oiling was in HTZ, on the berm crest and behind.

Stop #3 @ 11:25
- start of oiled spit of lagoon
- walk SE to the mouth
- a native clean-up crew from Old Harbour is working the beach

ACE 870847

ECOLOGICAL EVALUATION

LOCATION: Kodiak Isl SITE: McDonald Lagoon OBSERVER: Amdur

LOCATION PREFIX: K8-36 SEG. NO.: MD-2 LENGTH: _____ (M)

DATE: 8/14/89 TIME (HHMM): 1040 TIDE HT.: _____ (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

fucus in bands at point, in bay sparse, only on large rocks
Some phylospadix subtidal

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Dense at point in band. patchy inside bay (usually subtidal)

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

Dense in some areas; always present otherwise sometimes sparse

Littorina
Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

often under Rocks near drift kelp

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Small under larger cobble

OTHER OBSERVATIONS: Mostly gammarides

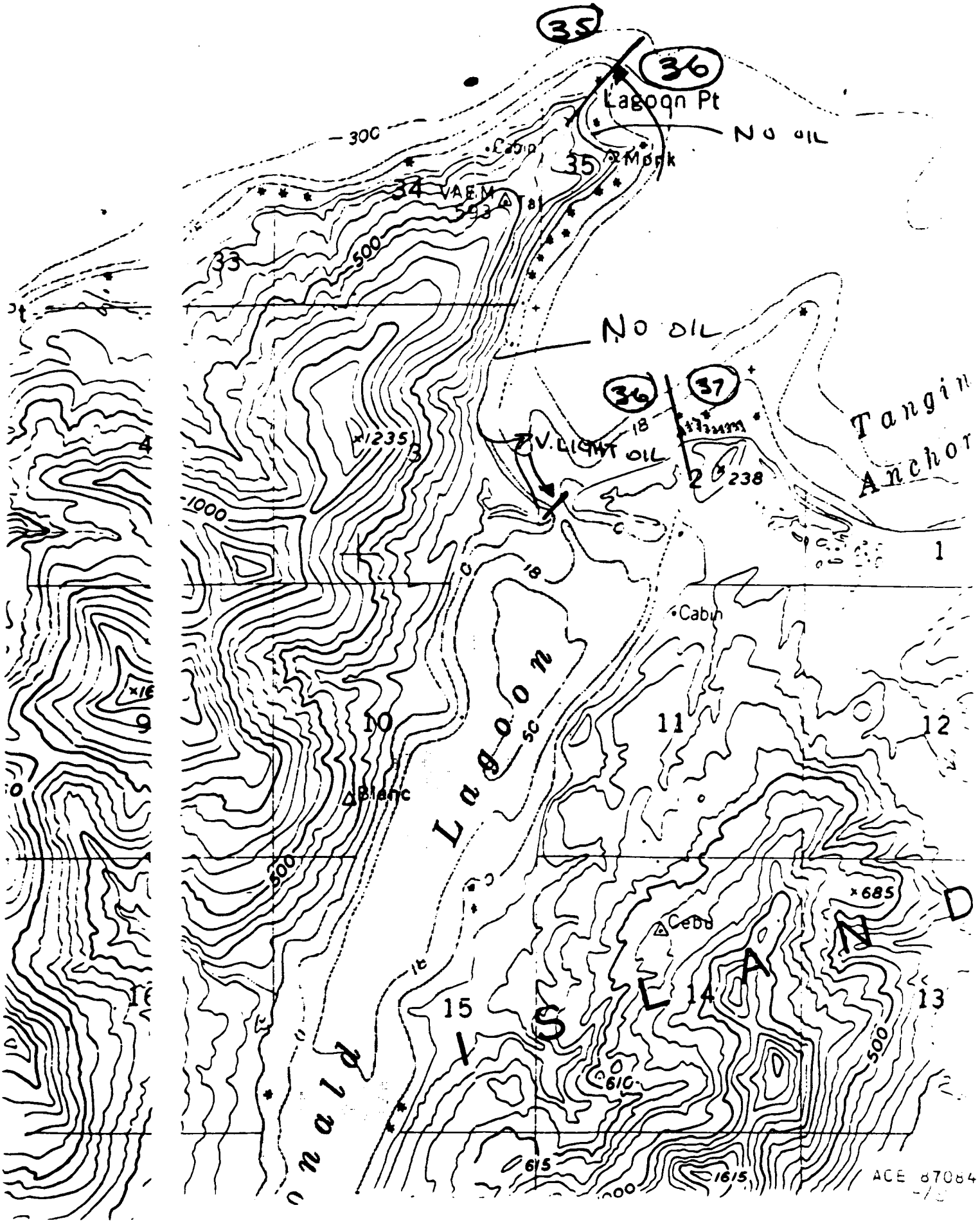
CLEANUP PRECAUTIONS: Small crews (3-4 people only). remove only
Top 3 cm

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Bears, Fox, Deer.

BIRDS: Pelagic Cormorants, Puffins (tufted) Kittiwakes

GENERAL OBSERVATIONS: _____

ACE 8708408


35
36
Lagoon Pt
No oil
300
Cabin
35
Mark
34
VAEM
33
500
No oil
36
37
V. Light oil
1235
238
Tangi
Anchor
1000
18
Cabin
Lagoon
10
11
12
Blanc
50
600
685
Cebu
15
14
13
610
615
1615
ACE 870841

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/20/89 SHORELINE SEGMENT K8-36-MD-3

LOCATION: (see enclosed map) McDonald Lagoon

ADEC NO. K8 SHORELINE ASSESSMENT DATE: 8/14/89

Recommended Cleanup Activity(ies):
-Manually remove oil and oil debris at south half of segment.

Priorities/Considerations: Class 5-B

Ecological Constraints (from site survey):
-Keep cleanup crews to a minimum, many bears observed.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: 8/23/89

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708411

SHORELINE OIL EVALUATION

A. General
1. Date: AUG 14/89 2. Time: 14:30 - 16:00 3. Observer: RICK GILLIE

4. Surveyed From: (Foot) (Boat) Helio/Plane 5. Weather: Sun/Cloud/Rain/Snow/Fog

6. Location MCDONALD LAGOON 7. Segment #: K8-36-MD-03

8. Length of shoreline segment: 7,800 yds 9. Tidal Stage ± 5 ft.

10. Access: Foot/Vehicle (Boat) (Barge) (Helio) (Float Plane)

11. Total Percentage of Segment Accessible: 100 %

12. Access Restrictions: NONE

B. Shoreline
13. Shoreline Type: (SPI) (BEA) (COV) HLD/STRT/CLF (DAF)

14. Slope: (LAN) (HANG) (VERT)

15. Wave Exposure: High/Med (Low)

16. Sediment: B 10 % / C 20 % / P 30 % / G 30 % S __ % / M __ % / R 10 %

17. Drift Debris on Beach: (Yes) No (Supra) (Upper) Mid/Lower Type Driftwood Leaves

C. Oil Summary
18. Degree of Oiling: Heavy/Moderate/Light/[Very Light]/No Oil Observed

19. Area of Beach Impact: Width of Band: _____ yds
Continuous: Total % of Segment _____
Sporadic: Total % of Segment 20
No Oil: Total % of Segment 80

20. Est. Oil Thickness where >1in: ✓ in 21. Est. Oil Penetration: ✓ in

22. Pooled Oil: ✓ % "Free" Oil: ✓ % Coated: H __ % / M __ % / L 100 % V. LIGHT

23. Fresh _____ % Mousse 70 % Tar Formation: 30 %

24. Drift Debris Oiled? (Yes) No Sup/Up/Mid/Low Amount: V. LIGHT H/M/L

Comments:

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

K8-36-MD-03

(Version July 18, 1989) Page 2

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh	—	%
Mousse	70	%
Weathered	—	%
Tar	30	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	1600	—
Light:	—	—
Moderate:	—	—
Heavy:	—	—

27. Oil Distribution

pooled/continuous
coating/ splat
cracks / crevices
patties (>10cm diameter)
balls (< 10cm diameter)
asphalt pavement

SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
	X			—	—	—	—
	X			—	—	—	—

8. Preliminary Cleanup Est.

Total TYPE A: 1600 yds.
Total TYPE B: — yds.
Total TYPE A/B: 1600 yds.

29. Remobilization Potential: High/Medium/(Low)

DOCUMENTATION:

Map/Aerial photo marking segment boundaries SEE ATTACHED

VTR: Y/(N) Tape Number (s) —

Photography: (Y)/N Roll Number (s) JA-2

Additional Comments:

ACE 8708413

Aug 14/89 — Rick Gillie

SEGMENT KB-36-MD-03

- 14:30
- begins inside McDonald Lagoon
- Stop #① @ 14:35
- pebble / granule beach along alluvial fan/delta (AFD)
- occasional tar ball
- already cleaned by Nature Conp. crews.
-

- 14:50 Beach, inside lagoon is intertidal with no backshore
- Vegetation (grass + trees) come down to the HTZ.

Stop #2 @ 15:00
- no oil
- lots of bear tracks + tracks
- NO OIL OBSERVED
- granule / pebble beach

Stop #③ @ 15:25
- narrow mixed sand / pebble beach
- small mousse patties (2") and mousse splatter on stones
- approx 3 pieces of mousse every 10 m of beach.

ACE 8708414

ECOLOGICAL EVALUATION

LOCATION: Kodiak Isl. SITE: McDonald Lagoon OBSERVER: Andrew

LOCATION PREFIX: KB-36 SEG. NO.: MD-3 LENGTH: 7800 (M)

DATE: 8/14/89 TIME (HHMM): 12:40 TIDE HT.: + 1.7 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks Boulder (Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Very little, mostly

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Very few between rocks (subtidal)

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

present in narrow band.

Littorina
Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None (Y)/N

Very few

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Very few under rocks

OTHER OBSERVATIONS: lots of Bears—

CLEANUP PRECAUTIONS: Keep crew to a minimum, remove top 3 cm only.

MAMMALS: Otters 0 Harbor Seals 0 Sea Lions 0 Whales 0
Other Bears—

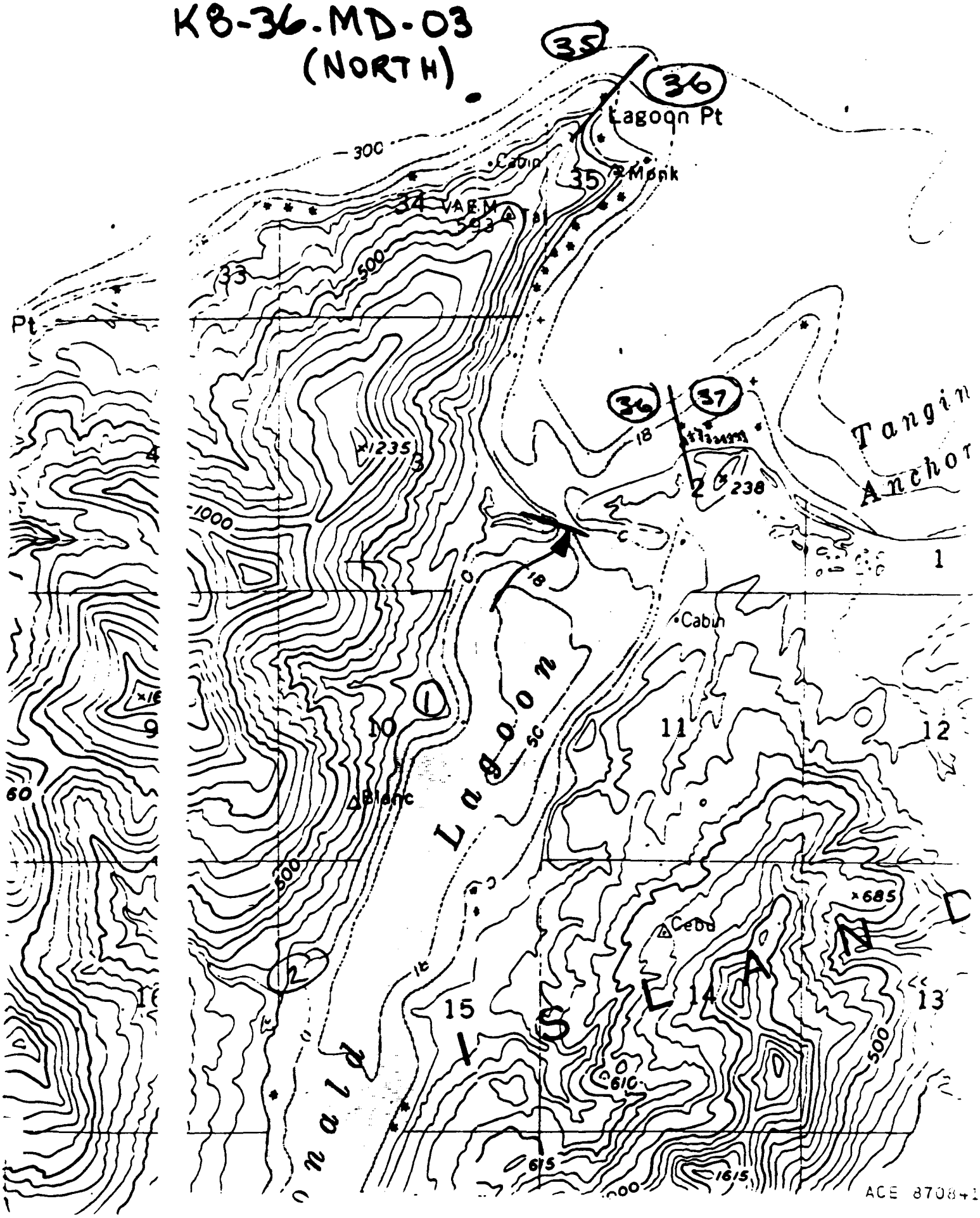
BIRDS: Comments

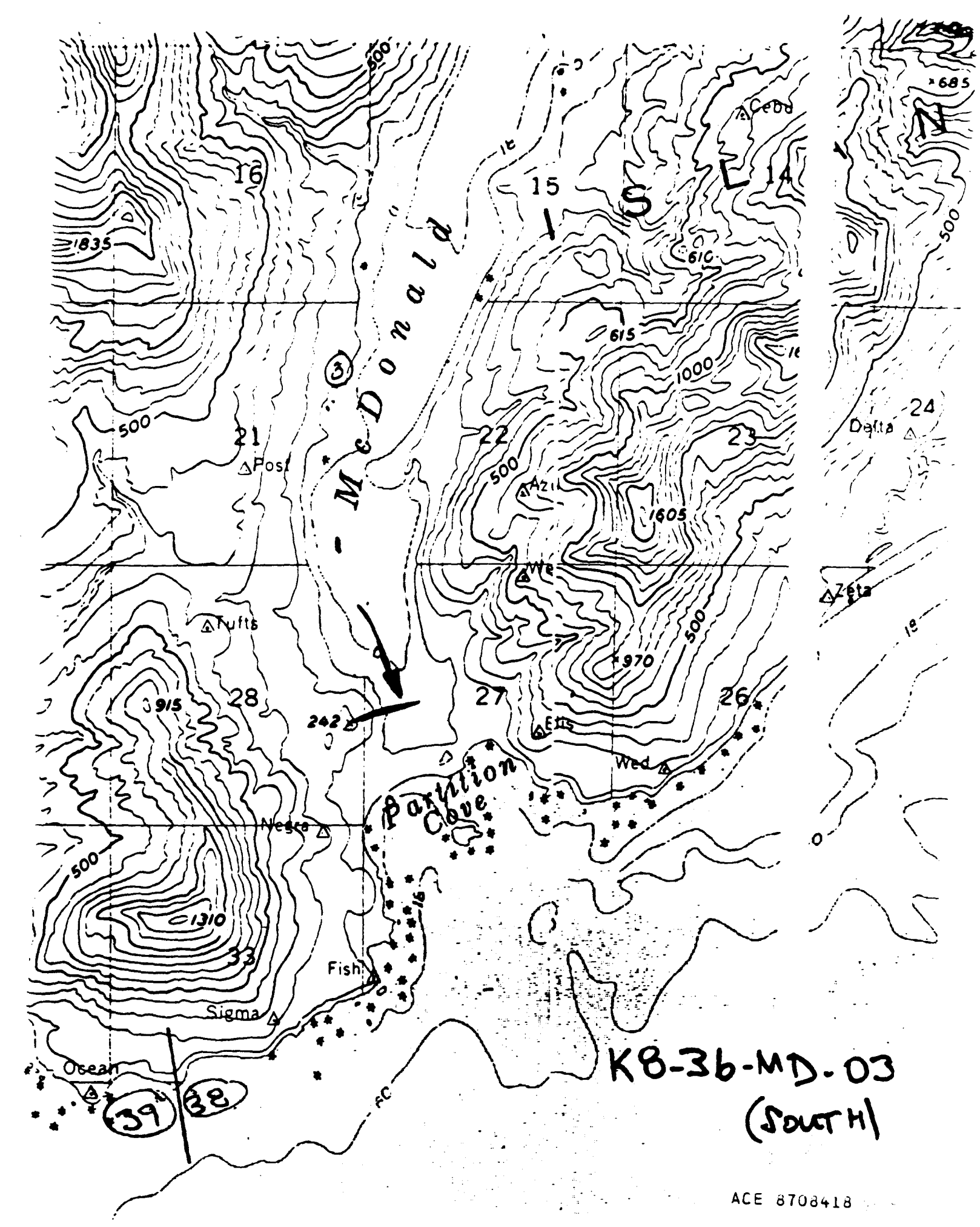
GENERAL OBSERVATIONS:

ACE 8708415

STRAIT

K8-36.MD-03
(NORTH)





K8-36-MD-03
(SOUTH)

ACE 8708418

K8-57

ACE 7963974

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT K08-37-SY-01

LOCATION: (see enclosed map) Sitkalidak Strait, SE Kodiak

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/31/89

Recommended Cleanup Activity(ies):
- -Manual removal of oiled debris (ellgrass, kelp) driftwood sticks and oiled pebbles at beach sites #2, 3, and 7 (see map).
- -Recover plastic bags of oiled debris at beach site #2.

Priorities/ Considerations: Class 4/5-A
- -Boat access may be restricted by surf and nearshore rocks.

Ecological Constraints (from site survey):
- -No constraints for continued manual cleanup.

Archeological Constraints (from site survey):
- -Inspection by an archaeological monitor is required due to the archaeologically sensitive nature of this segment.

J. David McMahan Date: 8/6/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708419

SHORELINE OIL EVALUATION

A. General

1. Date: 07/31/89 2. Time: 08:20 - 11:30 3. Observer: RICK GILLIE

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather: Sun/(Cloud)/Rain/Snow/Fog

6. Location SITKALIDAK ISLAND 7. Segment #: K8-37-SY-01

8. Length of shoreline segment: 17,600 yds 9. Tidal Stage ± 0.0 ft.

10. Access: Foot/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 25 %

12. Access Restrictions: SURF, SOME NEARSHORE ROCKS

B. Shoreline

13. Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT/(CLF)/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/Low

16. Sediment: B 20 % / C 10 % / P 10 % / G 10 % S 20 % / M __ % / R 30 % KELP, ELEGRASS, DRIFTWOOD

17. Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type LOGS

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/(Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: — yds
    Continuous: Total % of Segment 5
    Sporadic: Total % of Segment 45
    No Oil: Total % of Segment 50

20. Est. Oil Thickness where >1in: / in 21. Est. Oil Penetration: / in

22. Pooled Oil: / % "Free" Oil: / % Coated: H __ % / M __ % / L 100 %

23. Fresh / % Mousse 90 % Tar Formation: 10 %

24. Drift Debris Oiled? (Yes)/No Sup/(Up)/Mid/Low Amount: _____ H/M/(L)

Comments:

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse	90	%
Weathered		%
Tar	10	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	~~8100~~	— SPLATTER
Light:	900	— SPLATTER/mouse
Moderate:		
Heavy:		

27. Oil Distribution

pooled/continuous
coating/(splat)
cracks / crevices
patties (>10cm diameter)
(balls) (< 10cm diameter)
asphalt pavement

SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
				—			—
	X			—	3,000	—	
	X			—	~~1,000~~	—	—

28. Preliminary Cleanup Est.

Total TYPE A: 10,000 yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/Medium/(Low)

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries K8-37-SY-01

VTR: (Y)/N Tape Number (s) KOS-31

Photography: (Y)/N Roll Number (s) DMC-25

Additional Comments:

(1) Approx 2 bags of oiled debris stored at Beach Site #(2).

ACE 8708421

July 31/89

Rick Gillie

SEGMENT K8-37-SY-01

Start at west end of bay of TANGNAK ANCHORAGE

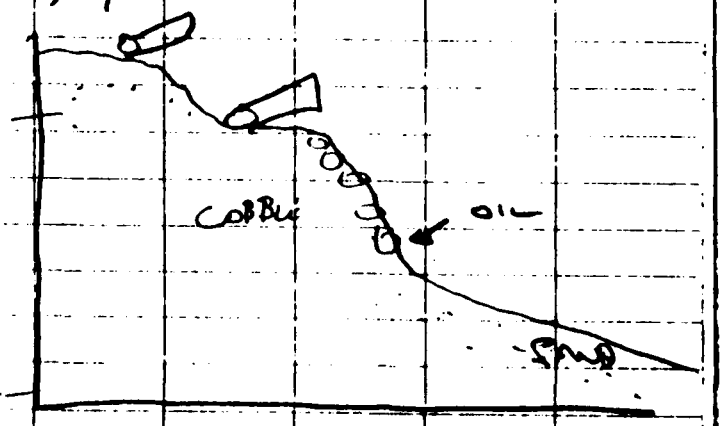
Stop # 1 at 08:20

- cobble / boulder packed beach over wave / cut platform
- ISOL kelp
- NO OIL OBSERVED
- wave-cut platform continues to either side
- no high tide beaches
- poor access - rocks / waves

Stop # 2 at 08:40

- HTZ cobble/boulder beach with large amount of driftwood
- moderate along HT drift line, about 2 m below storm tide line
- a discontinuous band of apathy moderate patches approx 1m wide
- 2-3 moderate patches per m^2
- 100% cobble beach
- sand at HTZ

- beach profile



- total beach 500-700m long
- 20 bags of oiled debris / stones stored at HT near creek

ACE 8708422

Rick Gilhe

Beach Profile (STOP #2)

ACE 8708423

Rick Grilla

Stop #3 (09:25)

- Approx 1,000 m. long beach
- LTZ - low angle sand
- HTZ - cobble / logs

(a) Occasional minor splatter on boulders at east end of beach (30 yds)
- Minor driftwood splatter

(b) - Small pocket of mousse on sand near stream (east) mouth in HTZ
- Oiled driftwood debris near creek mouth

(c) Minor/trace oil splatter on sand and driftwood in middle of beach.

- Less oil on beach (3) than (2).
- Clean-up required at east end of (3)

10:00 end of beach walk

10:04 helio survey

10:25
- Approx 2-3 miles of rocky coast with mostly no HTZ beach
- A couple of coves with less than 100 m of HTZ beach - mostly cobble / with driftwood
- Only observed some infrequent oil splatter on boulders

Stop #(4) @ 10:35

- Start at east end of beach in Tanquich Anchorage and walk west
- beach is narrow to the east
- gently sloping beach, plane slope, gravel / sand
- erosion of backshore (low soft cliff)
- Oil at west end

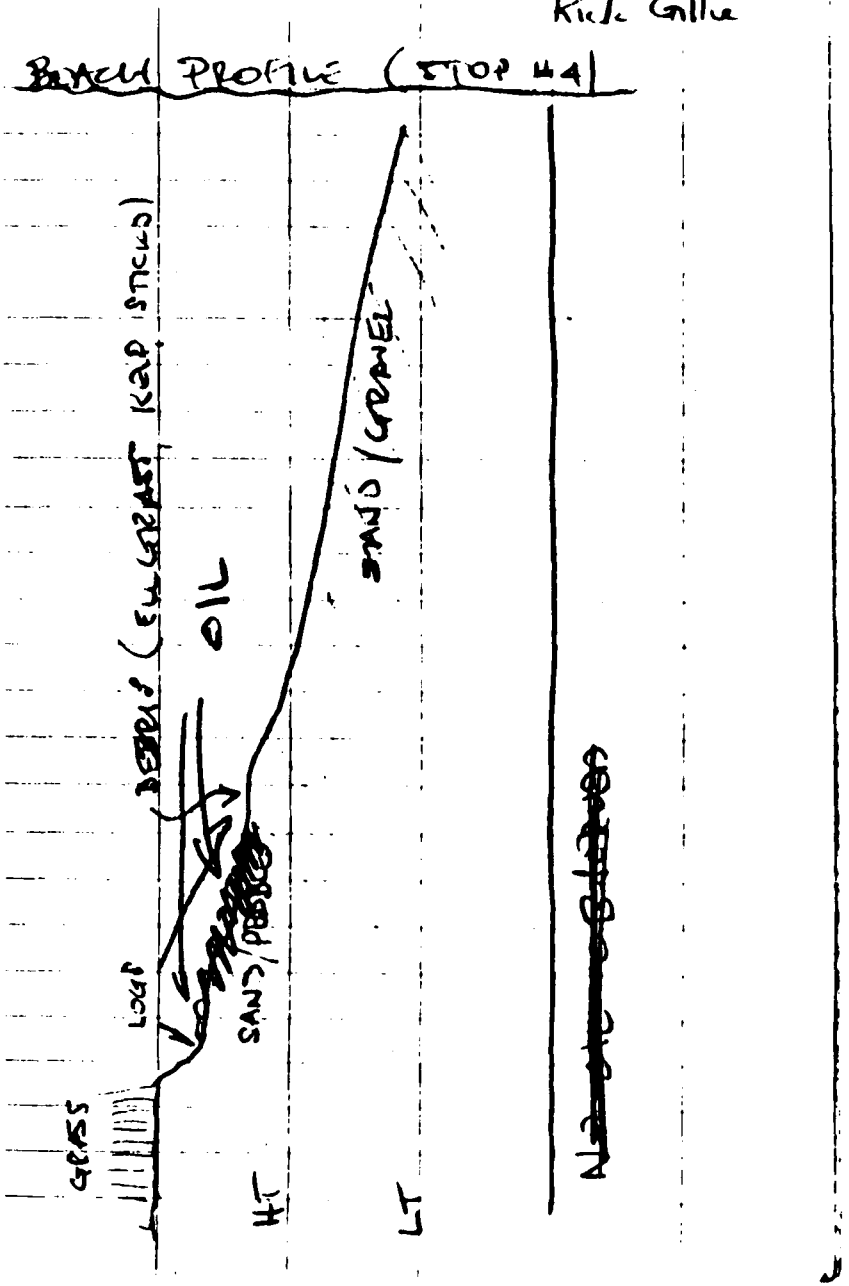
ACE 8708424

10:50 Met a Native Corporation clean-up crew walking the beach
- they have walked all beaches around SITKALIDAK area for 2 months (bags of oil started at Seal B.
- they work out of OLD HARBOR
- they left bags of oil on the beach where the surf is too high to take off the beach

West end of beach

- creek with large swash bars
- ~~[redacted]~~ - beach is cleaned regularly by Native Corporation Team
- oiled logs and large driftwood sticks, oiled cobble/pebbles at the west end of the beach in HTL / berm

Rick Gillie



ACE 8708425

ECOLOGICAL EVALUATION

LOCATION: Cape Barnabas to MacDonald Lagoon Kodiak Is. SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K-B-37-SY SEG. NO.: 1 LENGTH: 17,600 (M) Yards

DATE: 7/31/89 TIME (HHMM): 0820 TIDE HT.: -0.3 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N
None observed.

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

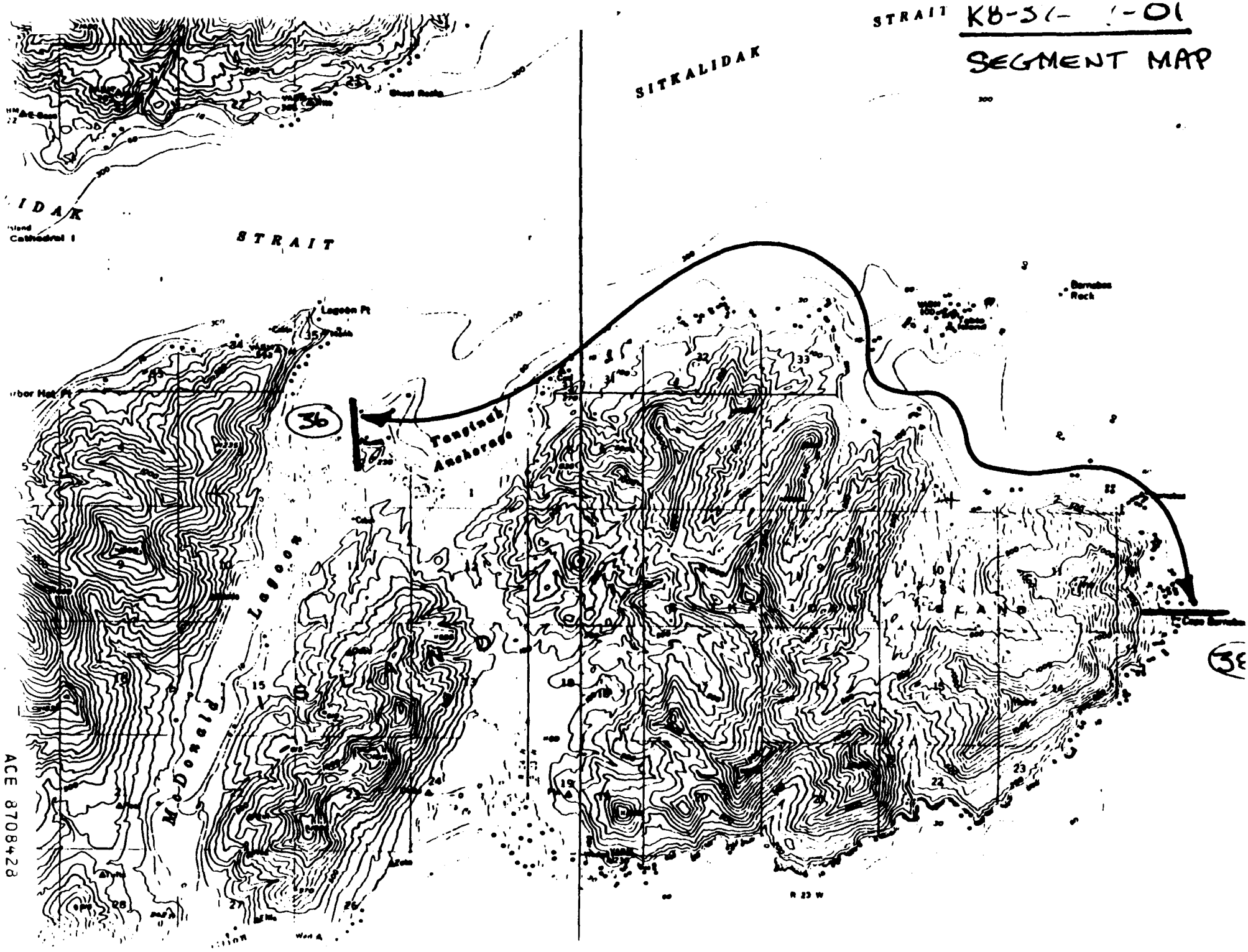
OTHER OBSERVATIONS: Enteromorpha, Pycnopodia, Aurelia, Cyanea. Beaches have debris consisting of: kelp debris, shells of Mya, Protothaca, Saxidomus, Acmea, rockfish, moon snails, jingles, tidepool fauna Anthopleura, Sculpins, Hydroids, coralline algae, Halosaccion, Spectio.

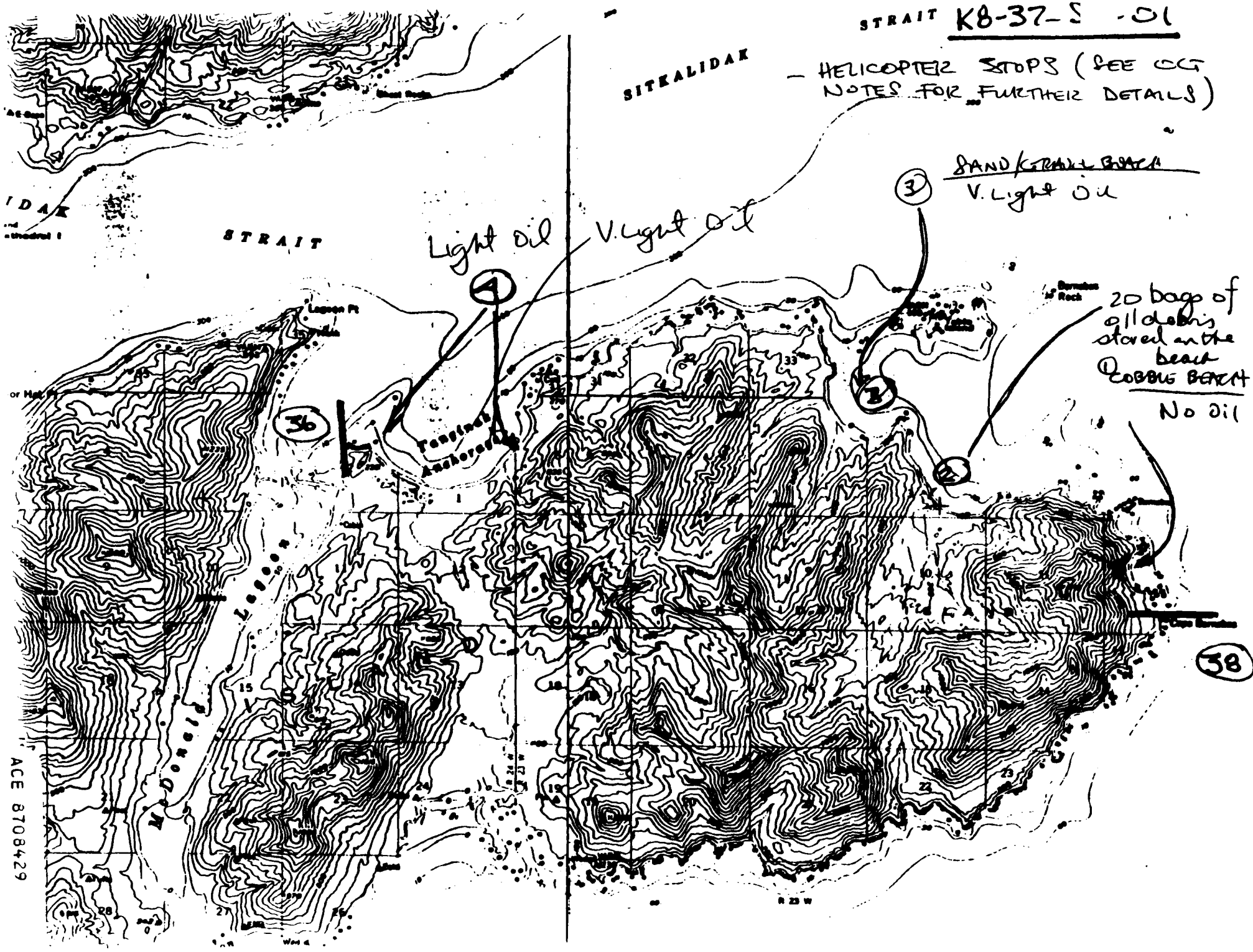
CLEANUP PRECAUTIONS: None. Cleanup crews presently working the beaches are not impacting fauna in this segment.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Fox (3), deer (1), brown bear (1)

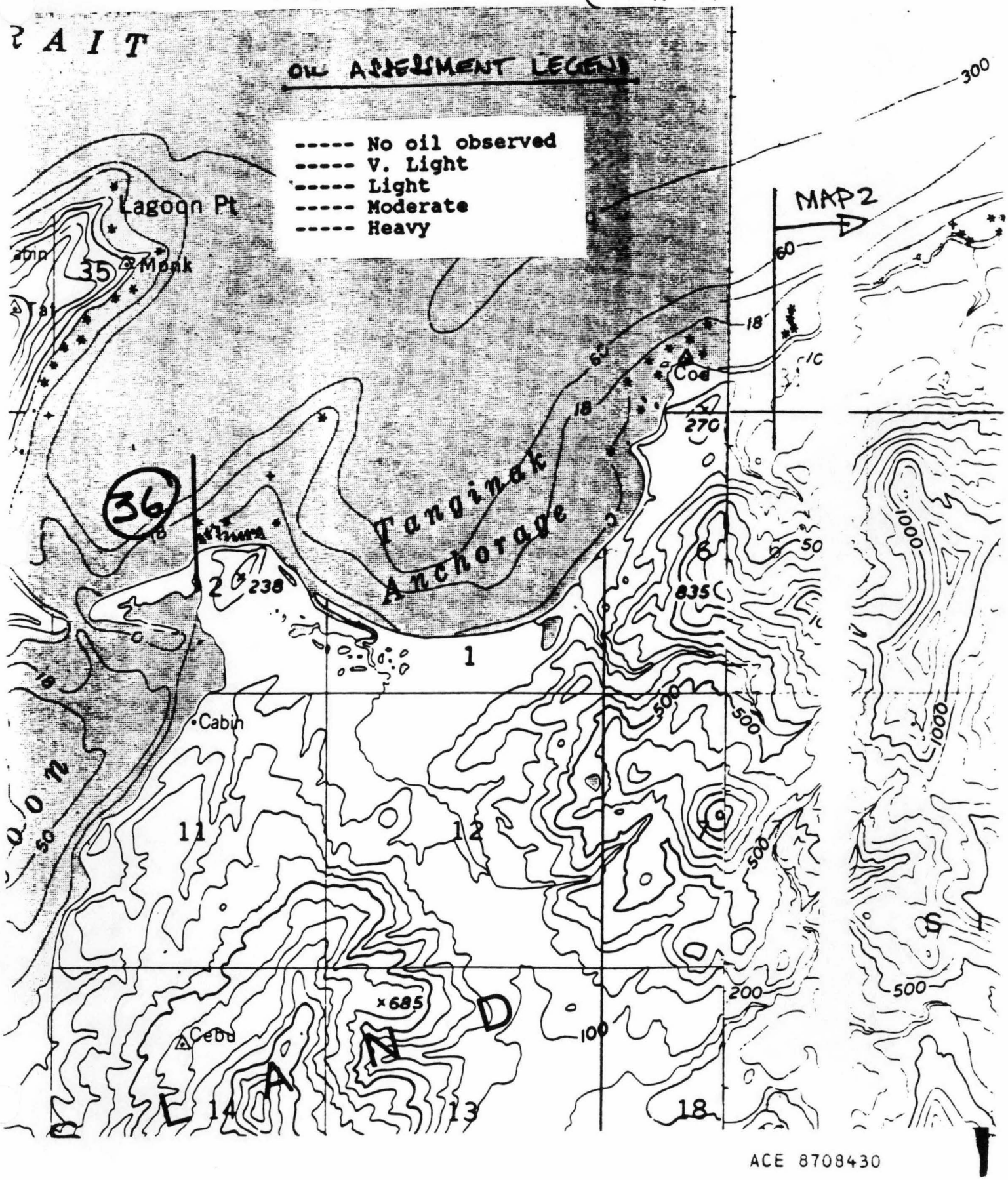
BIRDS: black-legged kittiwakes, pelagic cormorants, black oystercatchers, grebes, pigeon guillemots, 2 bald eagles

GENERAL OBSERVATIONS: Four (4) stops were made along the beach to look for oil. No oil observed at Stop #1. Stop #2 oil seen as splatters and a few patties in drift line and at west side of stream in cobbles in upper tidal zone. Approximately 20 bags of oily pebbles left on the beach by cleanup crew. 3rd stop oil present as light splatter. 4th Stop oil present as light mousse among pebbles/cobbles at upper ITZ. Some has been picked up by crews but a lot left in place.


STRAIT KB-31-1-01
SEGMENT MAP
SITKALIDAK
STRAIT
Cathedral I
Lagoon Pt
Harbor Hat Pt
36
Tenakee Anchorage
McDonald Lagoon
Barnabas Rock
R 23 W
ACE 8708428


STRAIT K8-37-S -01
SITKALIDAK
– HELICOPTER STOPS (SEE OG NOTES FOR FURTHER DETAILS)
STRAIT
SAND/GRAVEL BEACH
V. Light Oil
Light Oil
V. Light Oil
20 bags of oil debris stored on the beach
COBBLE BEACH
No Oil
Temporary Anchorage
MADORI LAGOON
ACE 8708429
36
38

K8-37-SY-01 (MAP 1)

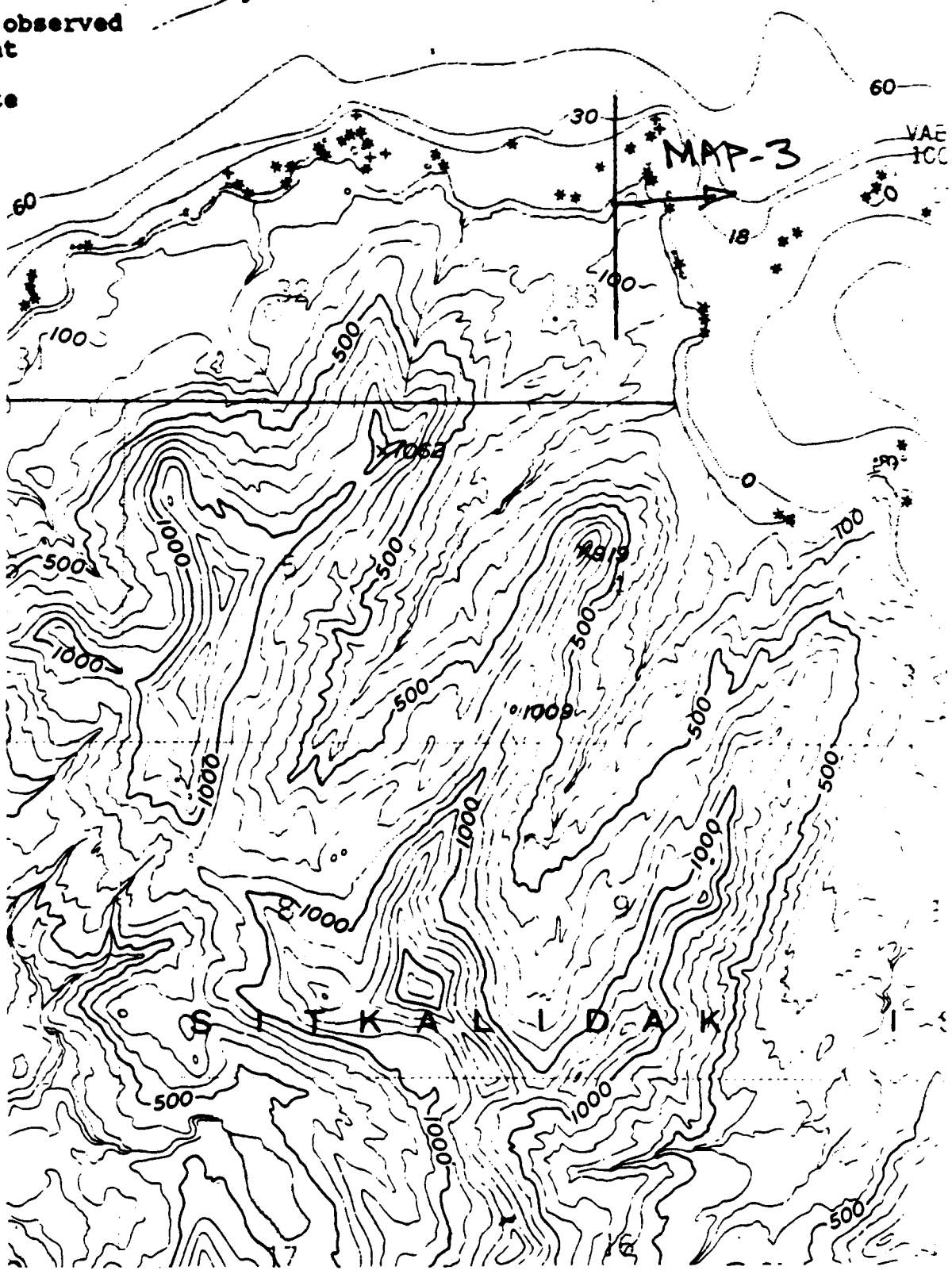


ACE 8708430

K8-37-SY-01 (MAP 2)

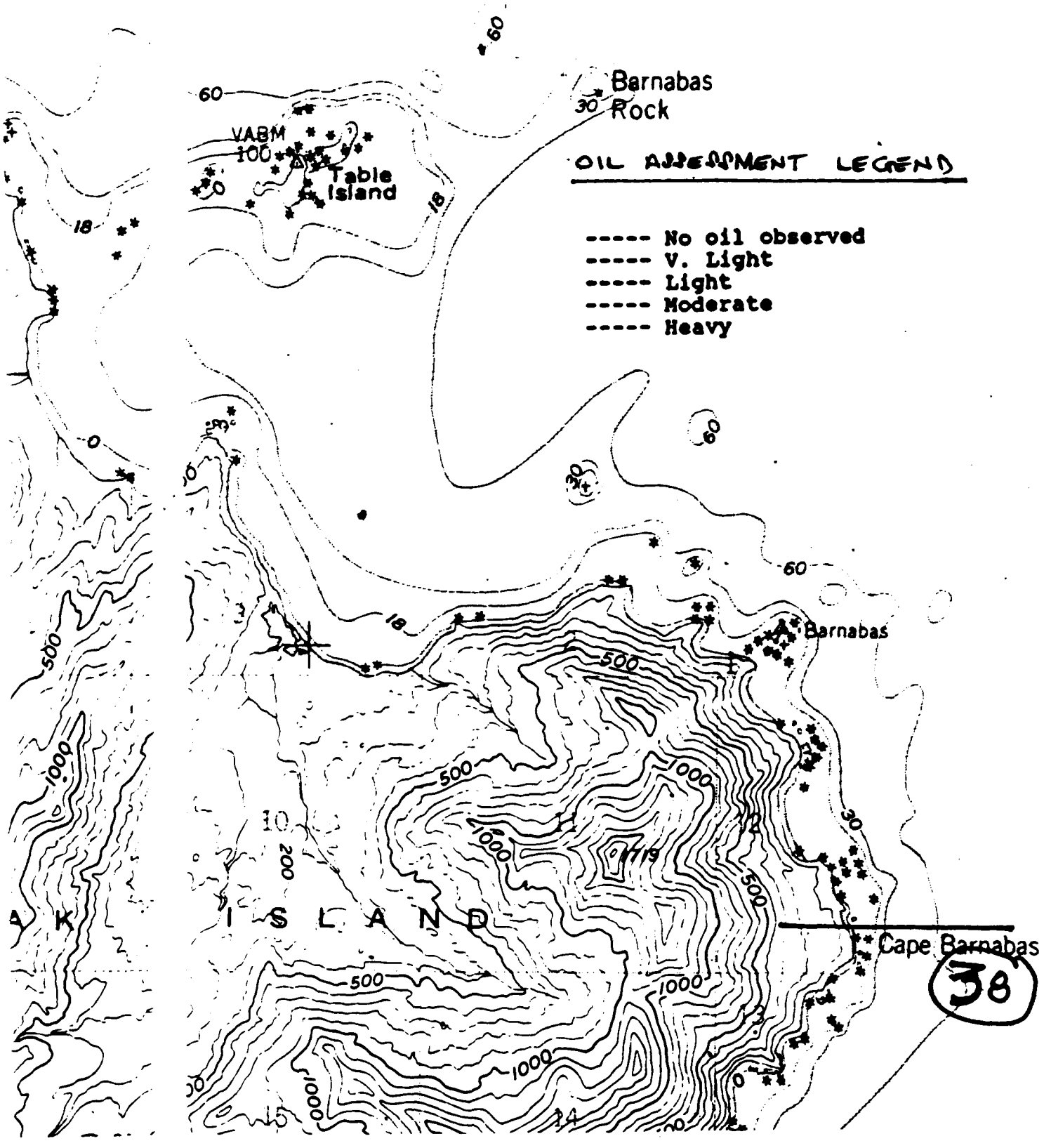
OIL ASSESSMENT LEGEND

----- No oil observed
----- V. Light
----- Light
----- Moderate
----- Heavy



ACE 8708431

K8-37-SY-01 (MAP3)



ACE 8708432

K8-58

ACE 7963975

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT K08-38-SZ-01

LOCATION: (see enclosed map) Sitkalidak Island, SE Kodiak Island

---

ADEC NO._____SHORELINE ASSESSMENT DATE: 7/31/89

Recommended Cleanup Activity(ies):

-No cleanup recommended due to apparent absence of oil. Subject to FOSC reassessment at a later date.

Priorities/ Considerations:

Ecological Constraints (from site survey):

Archeological Constraints (from site survey):

-If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Dir-ector and take actions prescribed in the Operational Guide-lines for Shoreline Cleanup dated 4/21/89 as amended.

A. Daniel W. McKeen Date: 8/11/89

State Historic Preservation Officer *

EXXON:_____ Date:_____

FOSC:_____ Date:_____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708433

SHORELINE OIL EVALUATION

A. General

1. Date: 07/31/1989 2. Time: 11:48 3. Observer: RICK GILLIE

4. Surveyed From: Foot/Boat/(Helio)/Plane 5. Weather: Sun/Cloud/(Rain)/Snow/(Fog)

6. Location SITKALIDAK ISLAND 7. Segment #: K8-38-SZ-01

8. Length of shoreline segment: 11,400 yds 9. Tidal Stage ± 4.0 ft.

10. Access: Foot/Vehicle/(Boat)/Barge/Helio/Float Plane

11. Total Percentage of Segment Accessible: < 10 %

12. Access Restrictions: ROCKS, STEEP CLIFF, NO HTZ BEACH, HIGH WAVE EXPOSURE

B. Shoreline

13. Shoreline Type: SPI/BEA/(COV)/(HLD)/STRT/CLF/DAF

14. Slope: LANG/(HANG)/(VERT)

15. Wave Exposure: (High)/Med/Low

16. Sediment: B 10 % / C 10 % / P__ % / G__ % S__ % / M__ % / R 80 %

17. Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type LOGS

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/Very Light/(No Oil Observed)

19. Area of Beach Impact: Width of Band: — yds
Continuous: Total % of Segment —
Sporadic: Total % of Segment —
No Oil: Total % of Segment 100 %

20. Est. Oil Thickness where >1in: — in 21. Est. Oil Penetration: — in

22. Pooled Oil: — % "Free" Oil: — % Coated: H__ % / M__ % / L__ %

23. Fresh — % Mousse — % Tar Formation: — %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: — H/M/L

Comments: CLIFFED HEADLAND WITH WAVE-CUT PLATFORMS AND NARROW BOULDER BEACHES

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse		%
Weathered		%
Tar		%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:		
Light:		
Moderate:		
Heavy:		

27. Oil Distribution N/A

	SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
pooled/continuous								
coating/ splat								
cracks / crevices								
patties (>10cm diameter)								
balls (< 10cm diameter)								
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: 0 yds.
Total TYPE B: 0 yds.
Total TYPE A/B: 0 yds.

29. Remobilization Potential: High/Medium/(Low) N/A

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number (s) KOS-31

Photography: Y/(N) Roll Number (s) No Photos ?

Additional Comments:

July 31/89

Rich Gilles

SEGMENT K8-38-SZ-01

@ 11:48 - start helo survey

- Start from BARNABAS Cape to the southwest.
- Rocky/cliff with wave-cut platform and narrow beaches
- Very little HT beach or drift material
- Minor cobble/boulder caves in beaches. Kelp debris accumulation on beaches
- Approx 12:02 encounter fog <100'. Cannot continue.

McDonald Lagoon

- boats "SONJA"
- Fly through McDonald Lagoon to Portlock Cove and Seal Bay
- Seal Bay - [redacted] bags of oiled sand on beaches in driftwood logs
- survey part of rocky coast to East of Seal Bay
- No oil observed on rocky coast.
- Cut short because of fog
- Decide to just segment the east side (rocky) of the block

ACE 8703430

ECOLOGICAL EVALUATION

LOCATION: Cape Barnabas to Send east of MacDonald Lagoon SITE: _____ OBSERVER: D. McCormick
KGA-NR 25

LOCATION PREFIX: K-8-38-SZ SEG. NO.: 1 LENGTH: 11,400 (M)

DATE: 7/31/89 TIME (HHMM): 1150 TIDE HT.: +0.75 (M)

OILED ZONE: Splash High Medium Low None

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)
Dense on offshore boulders

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)
Dense on some offshore boulders

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense Y/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N
None observed

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N
None observed

OTHER OBSERVATIONS: Bear+deer tracks on sand beach; Lower ITZ fauna observed: dense Alaria, bull kelp, fucus, pink encrusting algae.

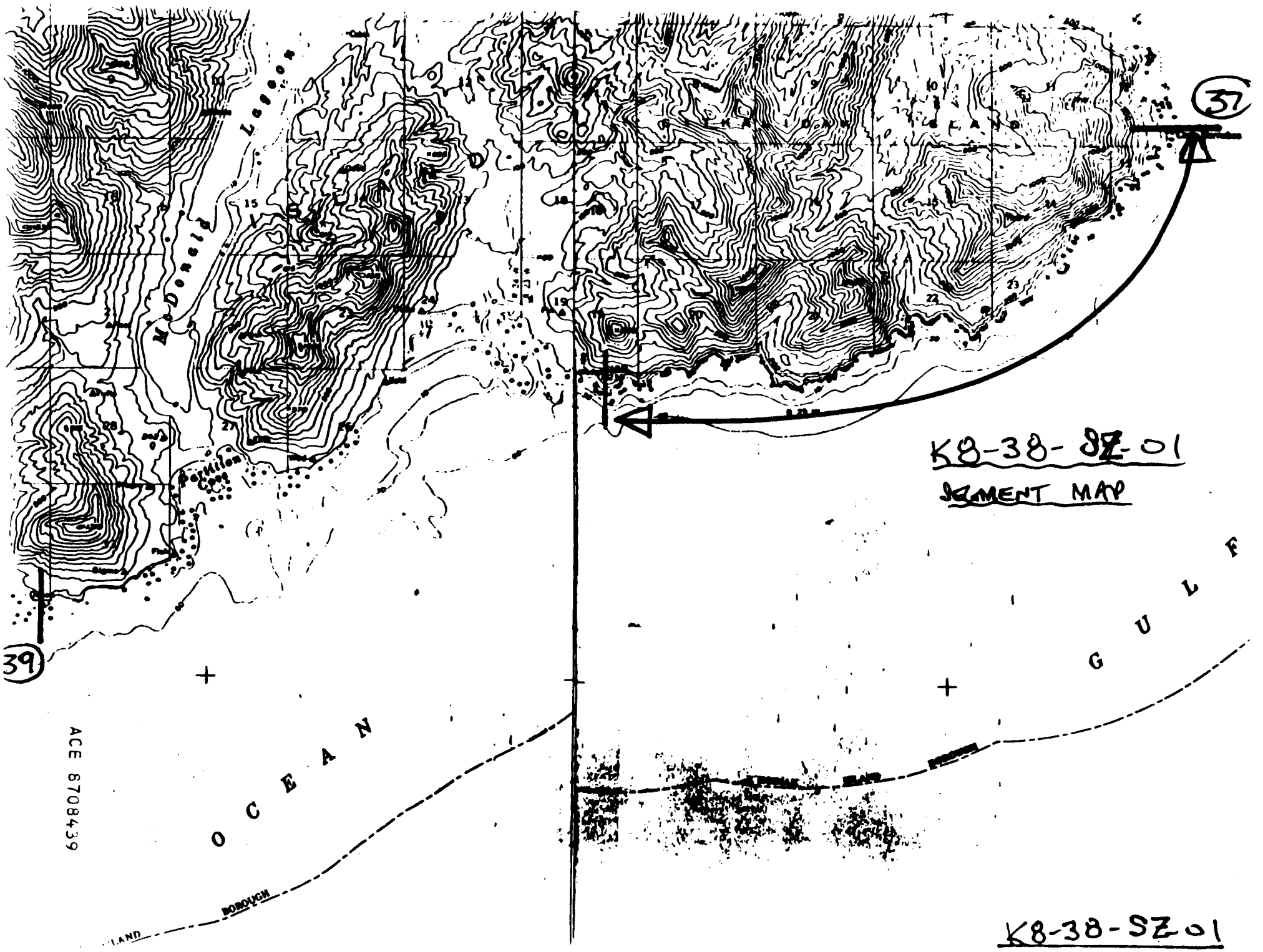
CLEANUP PRECAUTIONS: None - no oil observed.

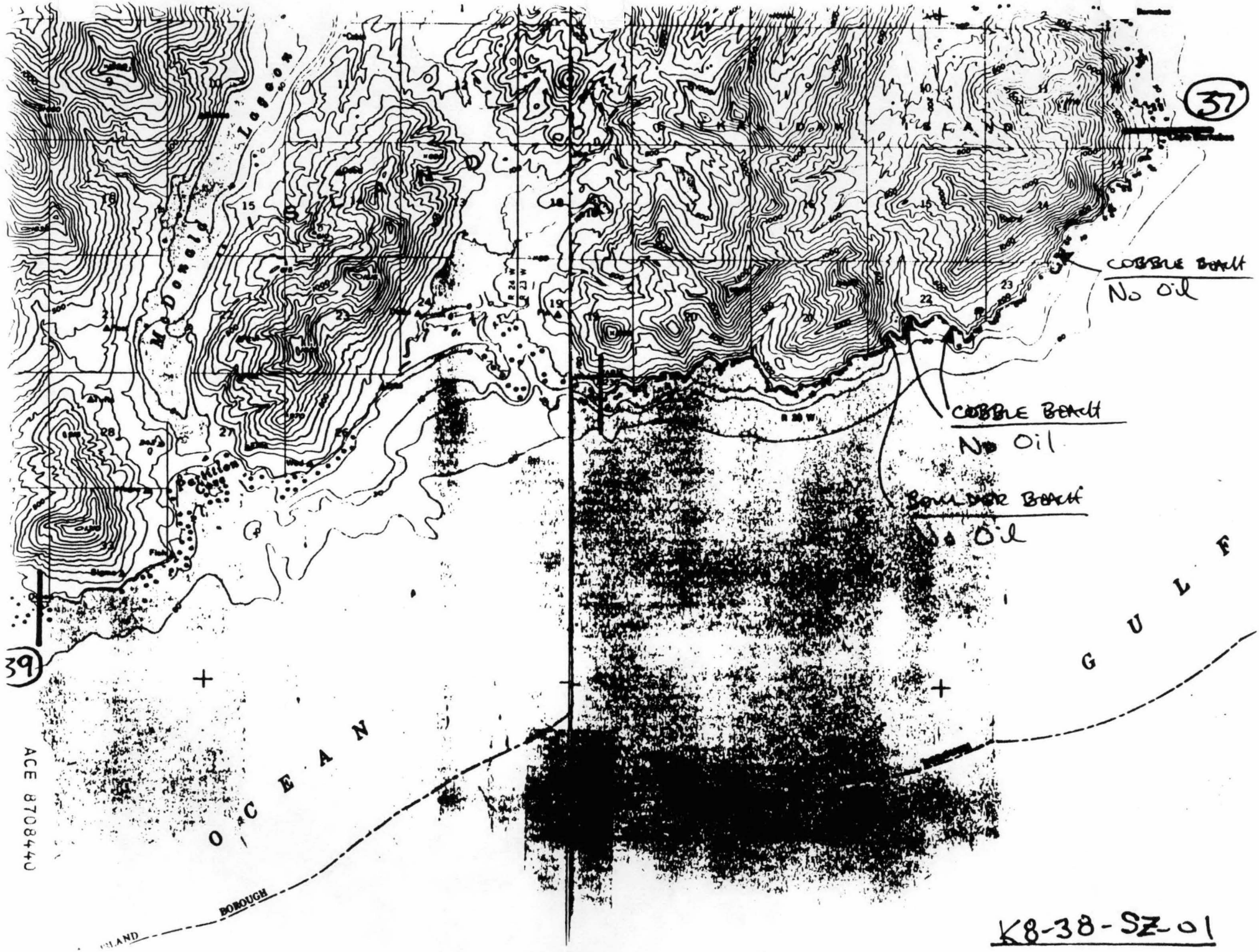
MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Brown bear

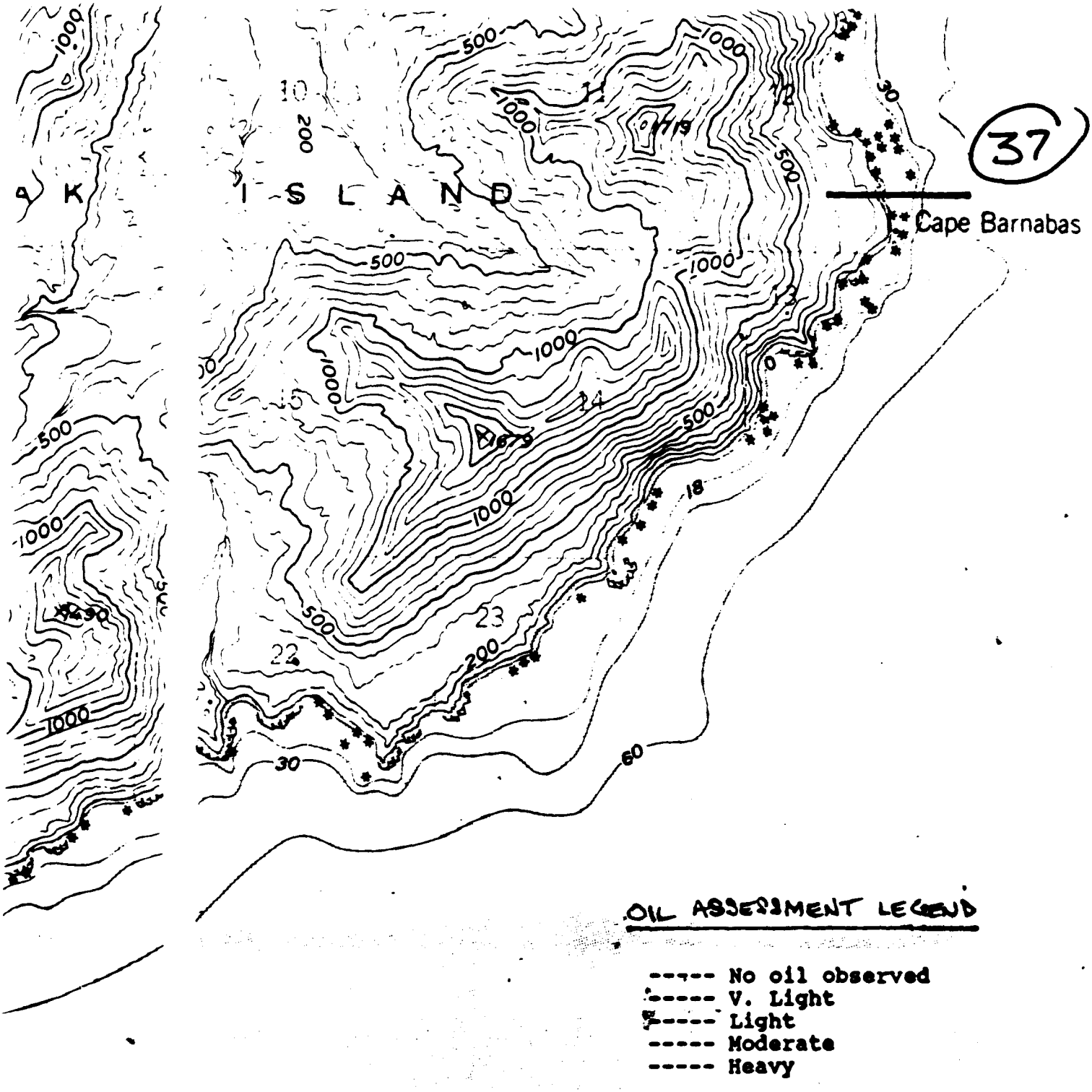
BIRDS: eagle, kittiwakes, pigeon guillemots.

GENERAL OBSERVATIONS: This segment is composed of steep rock cliffs and some small pocket beaches - all too small to land a helicopter

/


McDonald Lagoon
37
39
K8-38-SZ-01
SEGMENT MAP
OCEAN
GULF
ACE 8708439
K8-38-SZ-01


37
39
COBBLE BEACH
No Oil
COBBLE BEACH
No Oil
BOULDER BEACH
Oil
OCEAN
GULF
McDonald Lagoon
ACE 8708440
BOROUGH
K8-38-SZ-01

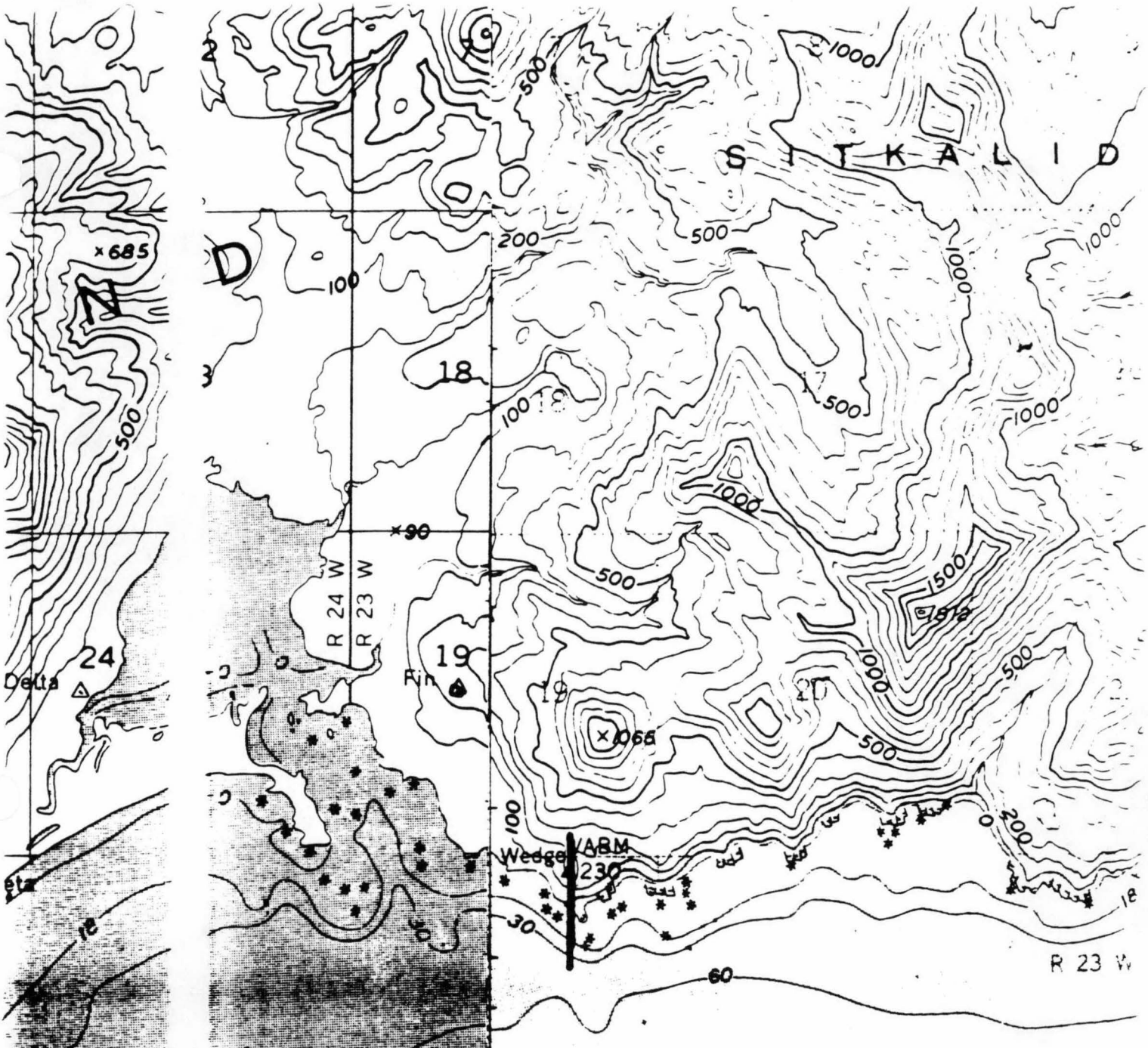


K8-38-92-01
(MAP #1)

ACE 8708441

F

-L



OIL ASSESSMENT LEVEL

----- No oil observed
----- V. Light
----- Light
----- Moderate
----- Heavy

ACE 8708442

K8-38-92-01
(MAP #2)

FOLLOWING ACE NUMBER(S) WAS (WERE) NOT USED

ACE NUMBER(S) 8708443

ACE 8708444/A

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/03/89 SHORELINE SEGMENT K08-38-SZ-02

LOCATION: (see enclosed map) Southeastern coast of Sitkalidak

---

ADEC NO._____ SHORELINE ASSESSMENT DATE: 8/03/89

Recommended Cleanup Activity(ies):
-Manual removal of oil deposit and oiled debris.

Priorities/ Considerations: Class 5-A

Ecological Constraints (from site survey):
-None. Manual cleanup is not affecting existing fauna.

Archeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

A. David McMahon Date: 8/11/89
State Historic Preservation Officer *

EXXON:_____ Date:_____

FOSC:_____ Date:_____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708444/B -/S

SHORELINE OIL EVALUATION

A. General

1. Date: 3 Aug 89 2. Time: 1315-1600 3. Observer: Fitzgerald

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather: (Sun)/Cloud/Rain/Snow/Fog

6. Location Southeastern coast of Sitkalidak 7. Segment #: K-8-38-SZ-2

8. Length of shoreline segment: 13,200 yds 9. Tidal Stage ± 4ft ft. above MLW

10. Access: (Foot)/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 40 %

12. Access Restrictions: High wave energy makes headland access difficult

B. Shoreline

13. Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT/(CLF)/DAF

14. Slope: LANG/(HANG)/(VERT)

15. Wave Exposure: (High)/Med/Low

16. Sediment: B 30 % / C 5 % / P 5 % / G 5 % S 25 % / M __ % / R 30 %

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower (OV) (SW) Type Driftwood + seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/(Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: 1-3 yds
Continuous: Total % of Segment 3%
Sporadic: Total % of Segment 7%
No Oil: Total % of Segment 90%

20. Est. Oil Thickness where >1in: 0 in 21. Est. Oil Penetration: 1 in

22. Pooled Oil: 0 % "Free" Oil: 0 % Coated: H __ % / M __ % / L __ %

23. Fresh 0 % Mousse 2 % Tar Formation: 98 %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: _____ H/M/L

Comments:
Oiling of this segment occurs along the eastern half of eastern most barrier beach and the western end of Partition Cove beach. In both areas the oiling consists of tar balls and patties with some oiled seaweed. Cleanup is already commencing at the eastern most beach but many bags have been left behind. Please see accompanying maps

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25.Oil Type

Fresh	_____	%
Mousse	_____	%
Weathered	3	%
Tar	97	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	200	1-2
Light:	300	1-2
Moderate:		
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
pooled/continuous								
coating/ splat								
cracks / crevices								
patties (>10cm diameter)		x	x			250	1-2	
balls (< 10cm diameter)		x	x			250	1-2	
asphalt pavement								

28.Preliminary Cleanup Est.

Total TYPE A: 500 yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/Medium/(Low)

DOCUMENTATION:

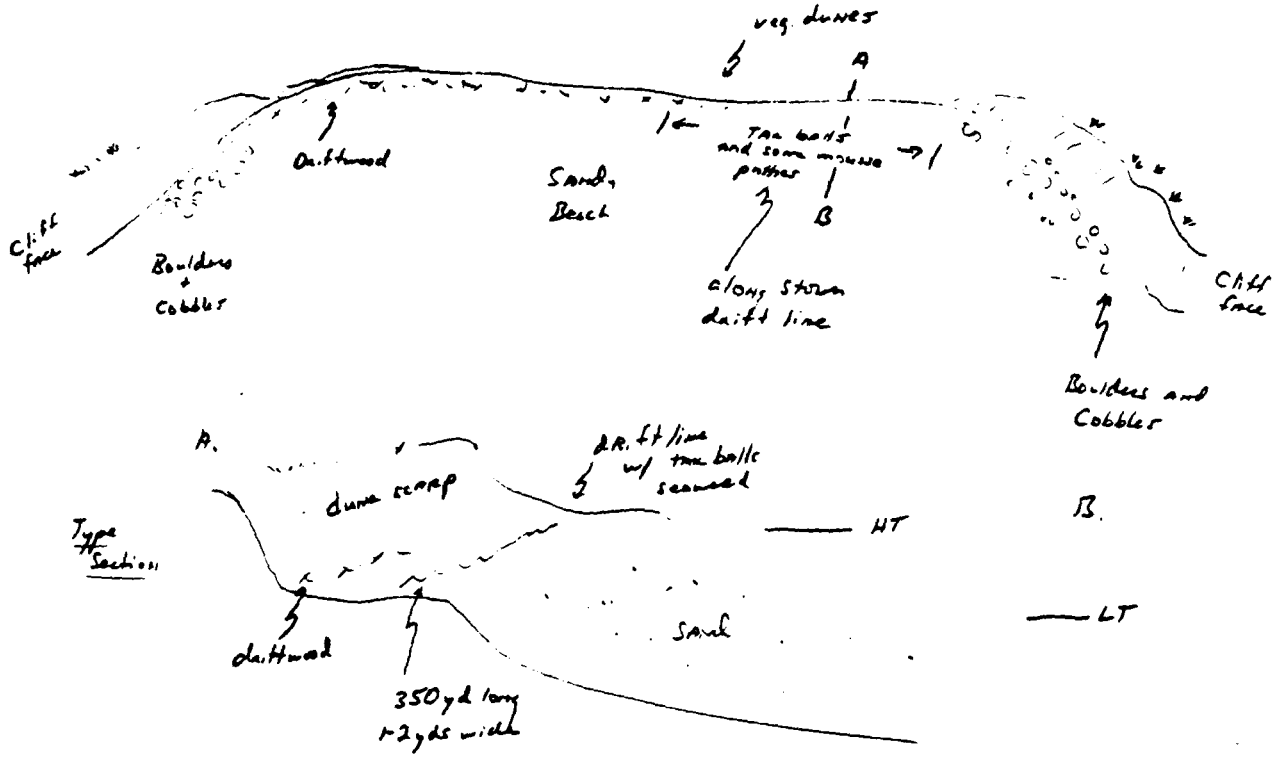
(Map)/Aerial photo marking segment boundaries See Attached

VTR: Y/(N) Tape Number (s) _____

Photography: (Y)/N Roll Number (s) DMC-26

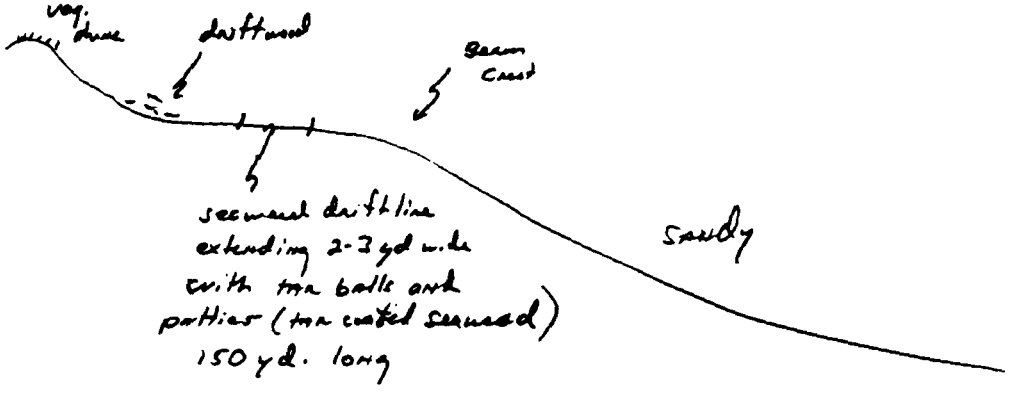
Additional Comments:

Map # 1 — Plan View



Map #2

Type Section



ACE 8708447

ECOLOGICAL EVALUATION

LOCATION: KODIAK South Side Sitkalidak Is SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K-8-38-SZ SEG. NO.: 2 LENGTH: 13,200 (M)

DATE: 8/3/89 TIME (HHMM): 1305 TIDE HT.: +3.0 Ft (MLLW)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse Y/(N) None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense clumps on cliffs & boulders

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

OTHER OBSERVATIONS: Beach fauna: kelp debris, shells of dungeness crabs, limpets, mussels, jingles, Saxidomus, helmet crabs. Deer tracks on beach. Fox seen at east end of segment with a plastic jug or equivalent stuck on its head. ADF&G will be notified and hopefully will be taken care of.

CLEANUP PRECAUTIONS: None.

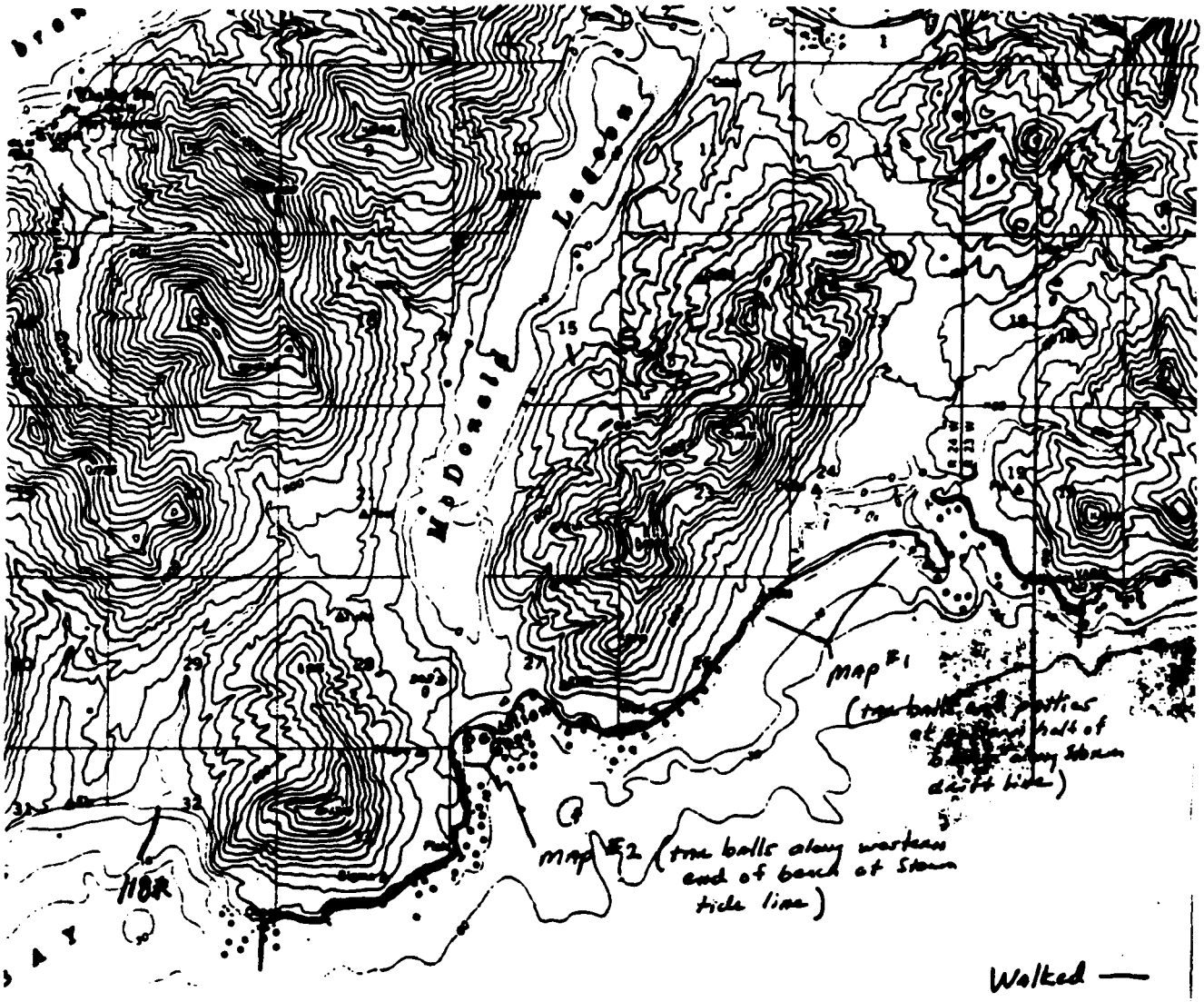
MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: bald eagle, Sandpipers, gulls

GENERAL OBSERVATIONS: Oil found in this segment consists of very light mousse patties on upper portions of boulders. 1st beach at east end of segment had bags of oily debris on them. Some very light splatter on cobbles seen during fly-by of cliff areas.

ACE 8708448

K-8-38-SZ-2



ACE 8708450

- K8-39

ACE 796397o

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/20/89 SHORELINE SEGMENT K8-39-OB-1

LOCATION: (see enclosed map) Sitkalidak Island, Ocean Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/20/89

Recommended Cleanup Activity(ies):
-Manual removal of mousse patties (see note map #1 and segment map).

Priorities/Considerations: Class 5-A
-Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
-Keep cleanup crews below storm tide line.
-Keep clear of eagle nests (see ecological map).

Archaeological Constraints (from site survey):
-Inspection by an archaeological monitor is required during cleanup of this segment.
-No access to beach ridge/upland zone by beach crews during cleanup.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 8-2-89
State Historic Preservation Officer *

EXXON: Jack A Rickman Date: 8-4-89

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708451

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/20/89 SHORELINE SEGMENT K8-39-OB-1

LOCATION: (see enclosed map) Sitkalidak Island, Ocean Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/20/89

Recommended Cleanup Activity(ies):
-Manual removal of mousse patties (see note map #1 and segment map).

Priorities/Considerations: Class 5-A
-Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
-Keep cleanup crews below storm tide line.
-Keep clear of eagle nests (see ecological map).

Archaeological Constraints (from site survey):
-No access to beach ridge/upland zone by beach crews during cleanup.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: _____
State Historic Preservation Officer *

EXXON: _____ Date: 7/30/89

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

KODIAK

DRAFT

ACE 8708452

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/20/89 SHORELINE SEGMENT K8-39-OB-1

LOCATION: (see enclosed map) Sitkalidak Island, Ocean Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 7/20/89

Recommended Cleanup Activity(ies):
-Manual removal of mousse patties (see note map #1 and segment map).

Priorities/Considerations: Class 5-A
-Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
-Keep cleanup crews below storm tide line.
-Keep clear of eagle nests (see ecological map).

Archaeological Constraints (from site survey):
-No access to beach ridge/upland zone by beach crews during cleanup.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.
~~On-call~~ Inspection by an archaeological monitor is required ~~during Cleanup~~ of this segment.

State Historic Preservation Officer * Date:

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708453

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE: 7/20/89 SHORELINE SEGMENT: K8-39-013-1

LOCATION: (see enclosed map) Sitkalidak Island - Ocean Bay

ADEC No. K8 SHORELINE ASSESSMENT DATE: 7/20/89

Recommended Cleanup Activity(ies):

- Manual removal of ~~oil/sand pads~~ mousse patties ~~observation~~ (see Note Map #1 and segment map)

Priorities/Considerations: Class 5-A

- Boat access may be restricted to calm days

Ecological Constraints (from site survey): •Keep cleanup crews below storm tide line. •Keep clear of eagle nests (see ecological map).

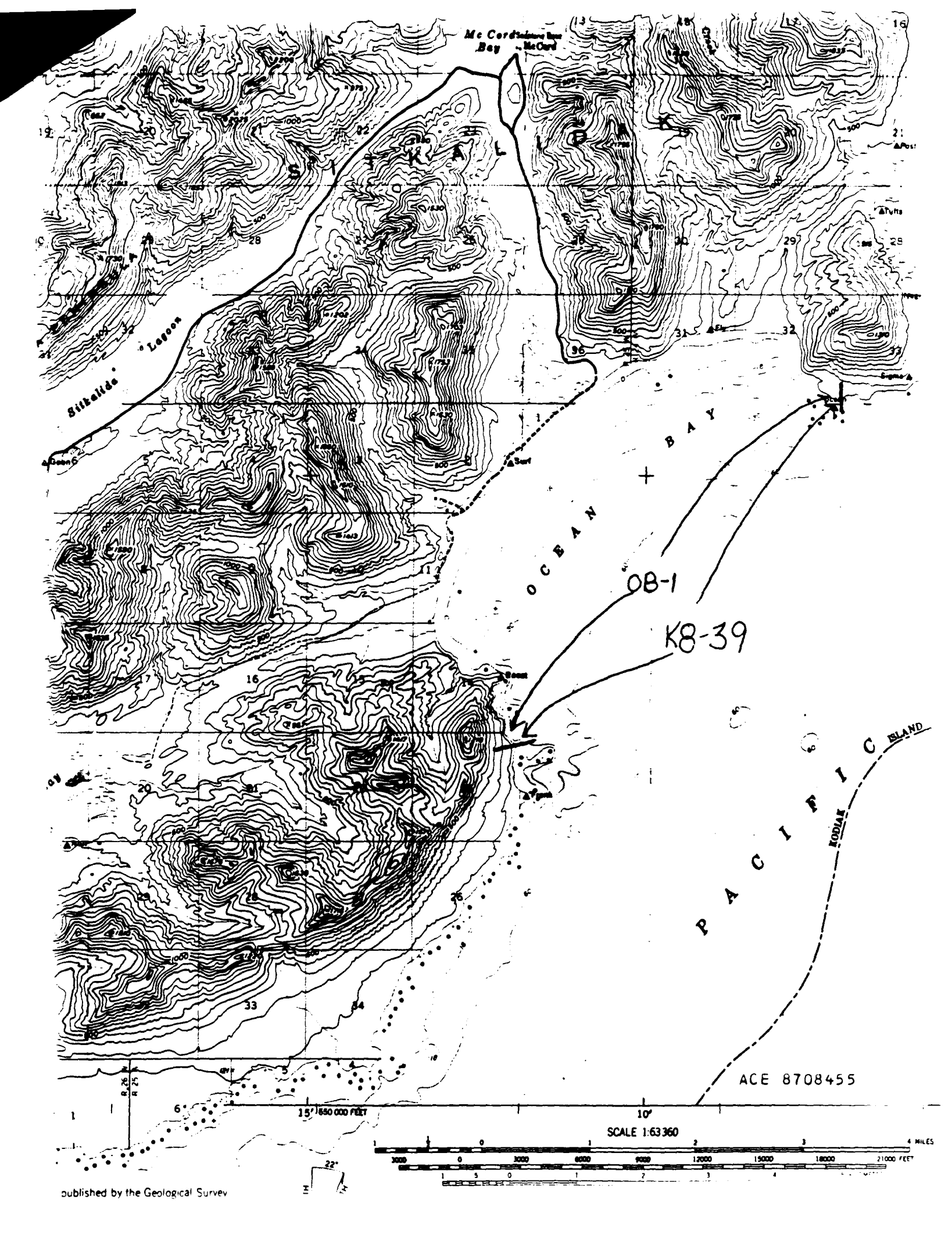
Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 21 April, 1989 as amended.
No access to beach ridge/upland zone by beach crews during cleanup.

_____ Date: _____
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____ ACE 8708454

* Signiture required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.


Mc Cord Inlet
Bay
McCord
SITKA
Lagoon
Silbalida
OCEAN BAY
OB-1
K8-39
PACIFIC
ISLAND
KODIAK
ACE 8708455
15' 650 000 FEET
10'
SCALE 1:63360
4 MILES
21000 FEET
published by the Geological Survey

ersion July 05, 1989)

SHORELINE OIL EVALUATION

Date: 7/20/89 / Time: 1135-1500 Observer: M. Acton
Surveyed From: Foot/Boat/Helio/Plane Weather: (Sun)/(Cloud)/Rain/Snow/Fog

LOCATION
Location: Ocean Bay Segment ID: K8-39-013-1
Segment Length: 10 k m. Access: Vehicle/(Boat)/Barge/(Helio)/Float Plane
Access Restrictions: Boat access during low energy periods

SHORELINE
Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT Slope: Lo/(Med)/Hi/(Vert)
Wave Exposure: (High)/Med/Low
Sediment: B 15 % / C ___ % / P ___ % / G&S 70 % / M ___ % / R 15 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT) / NONE OBSERVED
Area of Impact: SU/(SP)/(H)/M/L

OIL DISTRIBUTION
Continuous % of Segment ___ SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 35 SU/(SP)/(H)/M/L H/M/L/(VL)

	Length(m)	Width(m)
Total		
Very light:	3.5 km	15
Light:		
Moderate:		
Heavy:		

Thickness >1cm: ___ cm SU/SP/H/M/L
Penetration/Rework: ___ cm SU/SP/H/M/L
Burial Depth: ___ cm SU/SP/H/M/L

Mobilization Potential: High/Medium/(Low)
rift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: ___

OIL MORPHOLOGY

Pooled Oil:	%		SU/SP/H/M/L
"Free" Oil:	%		SU/SP/H/M/L
Splattered:	5 %	H/M/L/VL	SU/SP/H/M/L
Coated:	%	H/M/L/VL	SU/SP/H/M L
Pancakes/Balls:	95 %		SU/(SP)/(H)/M/L

Preliminary Cleanup Est.
Total TYPE A: 3.5 km m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

OIL WEATHERING

Fresh:	%	SU/SP/H/M/L
Mousse:	%	SU/SP/H/M/L
Weathered Mousse:	95 %	SU/(SP)/(H)/M/L
Asphalt Mousse:	%	SU/SP/H/M/L
Tar:	5 %	SU/(SP)/H/M/L

COMMENTS

Segment surveyed by helio. Approx 5 km surveyed on foot (see segment map). Very light oil impact observed along 3.5 km length of beach. Impact consisted of 15m band w/in SP zone of oil/sand pancakes on surface down to approx 4 cm. max depth.

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached Map

VTR: Y/N Tape Number(s) _____

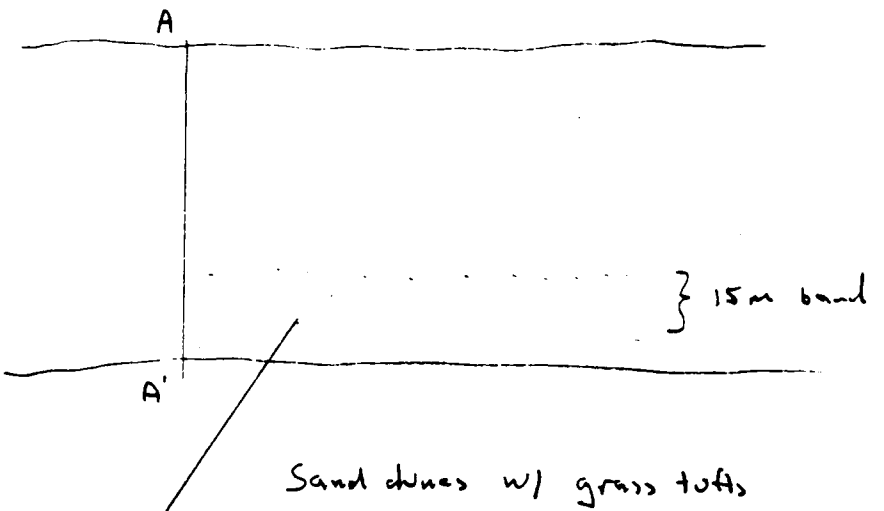
Photography: (Y)/N Roll Number(s) MA3

Sample Numbers Collected: _____

Map #1

N

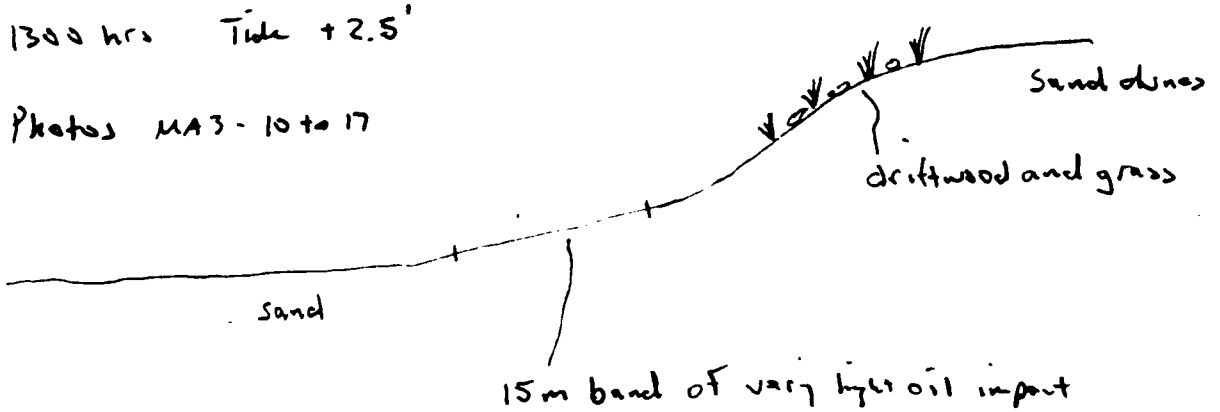
Ocean



Very light oil impact, oil/sand pancakes approx 2 - 20 cm in diameter 15m band in SP zone, approx 3.5 km long, surface to 4cm deep discontinuous coverage of oil/sand pancakes within this band in SP zone no sheet observed on driftwood.

1300 hrs Tide +2.5'

Photos MA3 - 10 to 17



A A'

A-A' 45m approx

ACE 8708458

27

		Acton	Jordan
7/20/89	Thurs	Penn	Grupe
To Tolstoi, Pt		K1-20 · TC-5	

0805 lift off Kodiak

0830 Tolstoi, Pt

0840 v/t spl-1 on log>
1 small Pol
boulder green coast mark
1 another beacon

0905 spt clown G-7 pools <5cm
walked 100m
v/t spl-1 on DW

0915 + 0920 no oil observed

0935 finish segment - off the Mercator
K1-

0940 SW corner of Mercator

~~0950~~ 0945 walked 100m
no oil observed

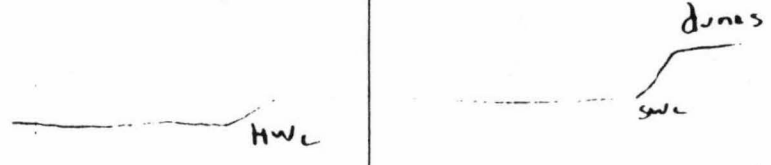
1020 arrive Kodiak for fuel

28

7/20/89 Thurs 1105
Depart Kodiak for Ocean Bay K8-39-

1135 N end of Bay - headland separating Ocean Bay +
Pinnacle cove
overflew Bay
overflew entire segment

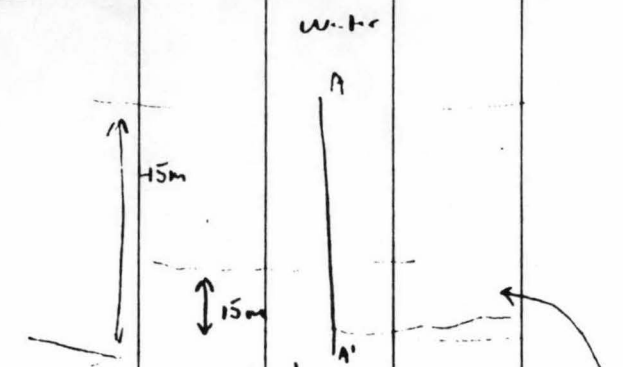
1200 shut off
large accumulation of debris, driftwood
large sandy beach
walked 400 m
MAS 10 W
11 W
12 E
13 E



1330

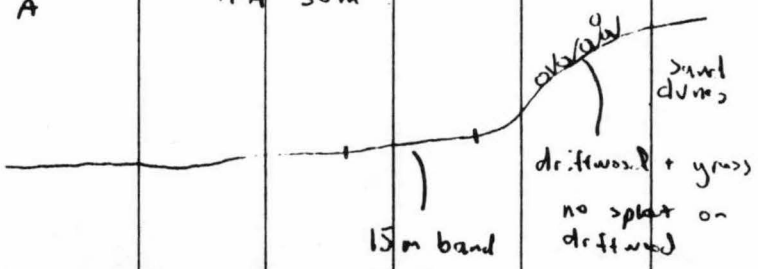
black balls - oil/sand mixture
rem band of oil/sand balls - SP zone
MAS 14 closeup of oil/sand
15 W
16 E
17 closeup of oil/sand

ACE 8708459



v lt to light oil coverage w/ oil/sand balls
15m band - 2-20cm diameter

Several buckets + bags full of oil/sand balls

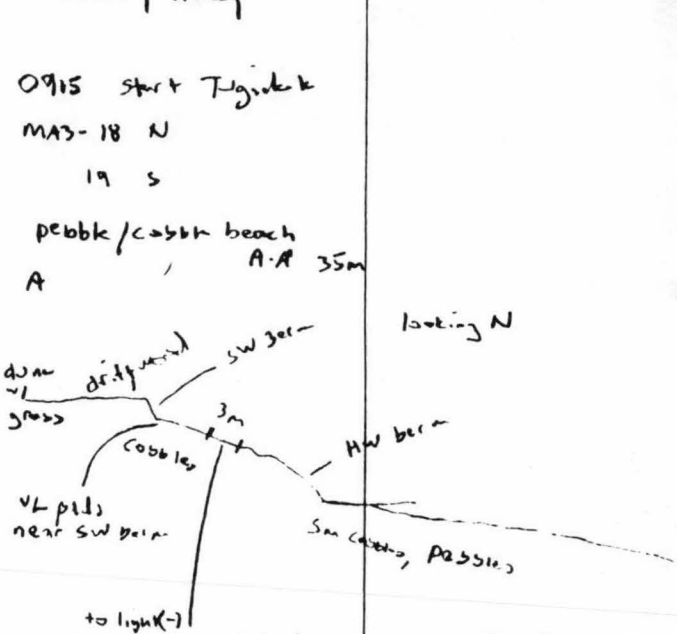


1330
2 mile zone of oil/sand in splash zone
dune beach - no cobbles
at 1330 splat on cobbles on scarp
v lt to lt splat
100m long

1500 return Kodiak
Land Kodiak 1600

0815 Depart Kodiak
~~Seward~~ Finkley

0915 Start Flight 4
MA3-18 N
19 S
pebble/cobble beach



v lt mousse splats in 3m zone of splash zone
mousse splats extend from surface to approx 5cm-15cm
MA3-20, Z1] mousse splats, close up
1 mousse / 2 m² in 3m band of splash zone
sometimes heavier
mousse is into cobbles enough to appear reasonably immobile
intermittent

tar ball spotted 3cm diameter
overall beach - VL
3m band - VL to L
walked approx 1.5 km - at Nend - less mousse
lift off 1105
Send - bird nesting

Action Plan Joint Spill Waiver Weiss ADEC

ACE 8708460

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Kodiak SITE: Sitkalidak Isl. - OCEAN BAY OBSERVER: G. Penn

LOCATION PREFIX: K 8-39 SEG. NO.: OB-1 LENGTH: 10 km (M)

DATE: 07/20/89 TIME (HHMM): 11:30 TIDE HT.: 0.6 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks Boulder (Cobble) Gravel (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None (Y)/N

None on crescent of Bay - only on headlands at Bay entrance.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None (Y)/N

None on crescent of Bay - only on headlands at Bay entrance

Littorina

Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

None on crescent of Bay - Headlands - unobserved

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

none on Crescent of Bay - Headlands unobserved

OTHER OBSERVATIONS: Large Ribbon kelp beds nearshore - 100 M. band of Nereocystis kelp starting 30 m off shore.

CLEANUP PRECAUTIONS: Keep cleanup crews clear of vegetated Dunes. Keep clear of Eagle's nests (see map)

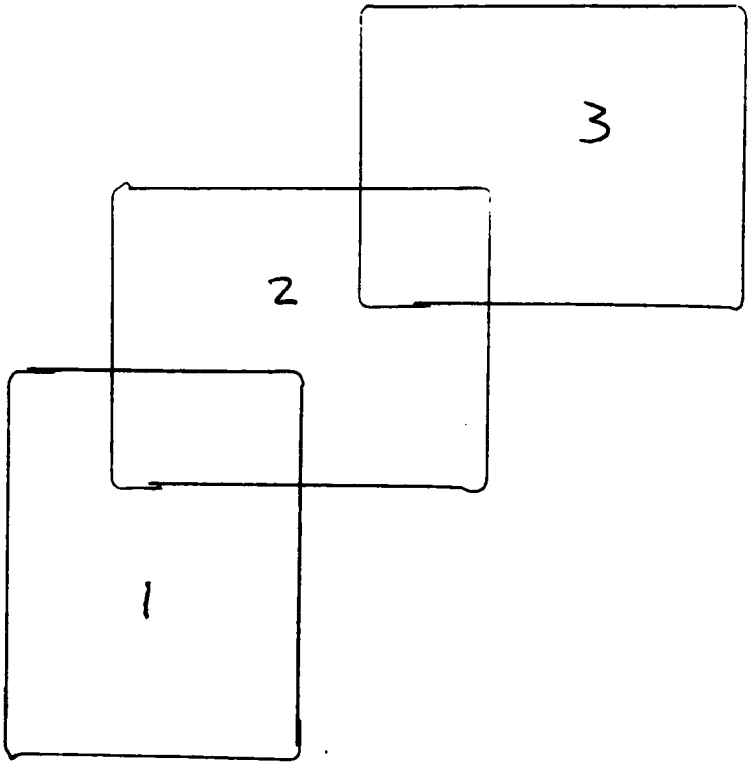
MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

Other Deer, Bear TRACKS

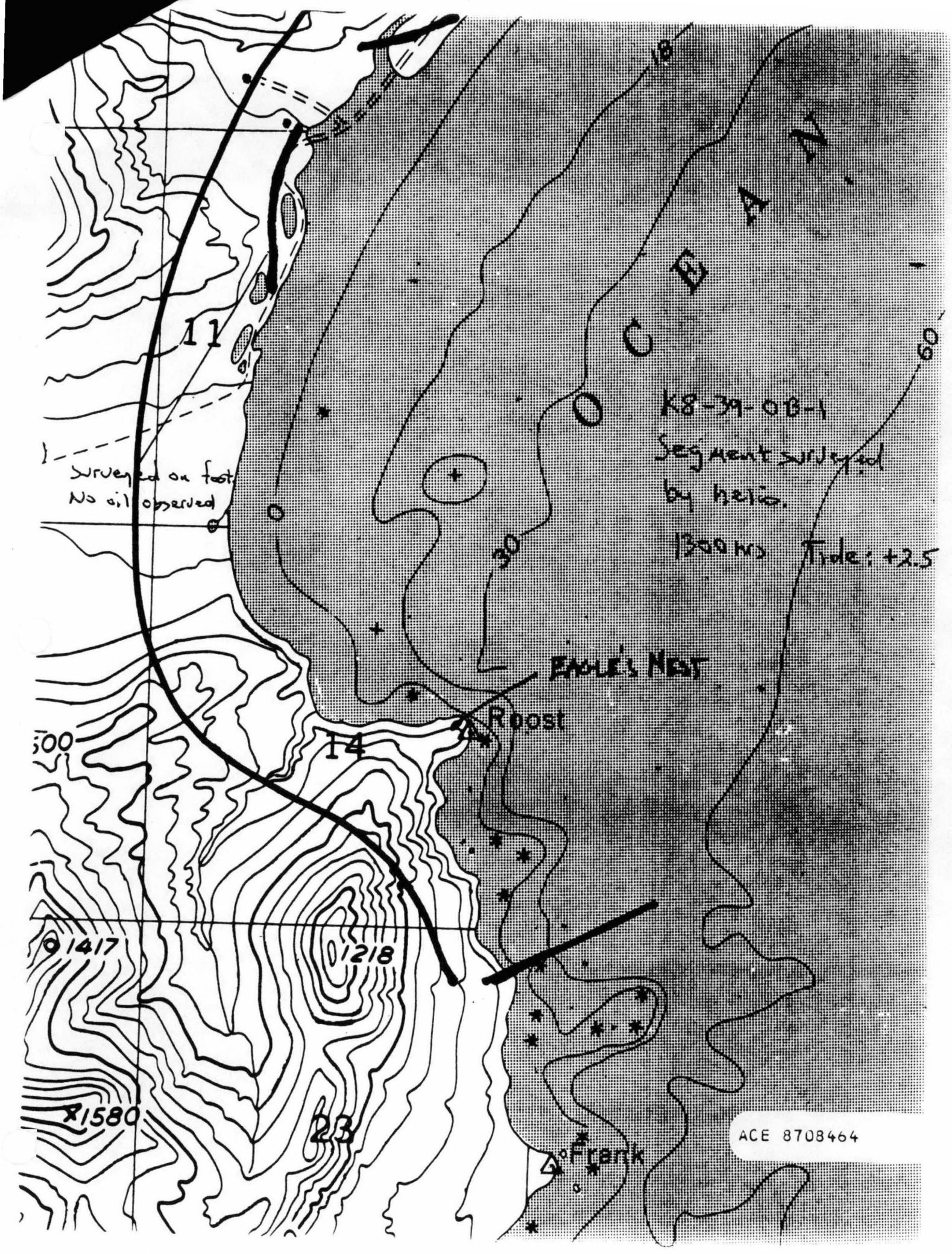
BIRDS: Eagles, Grebes, CORMORANTS

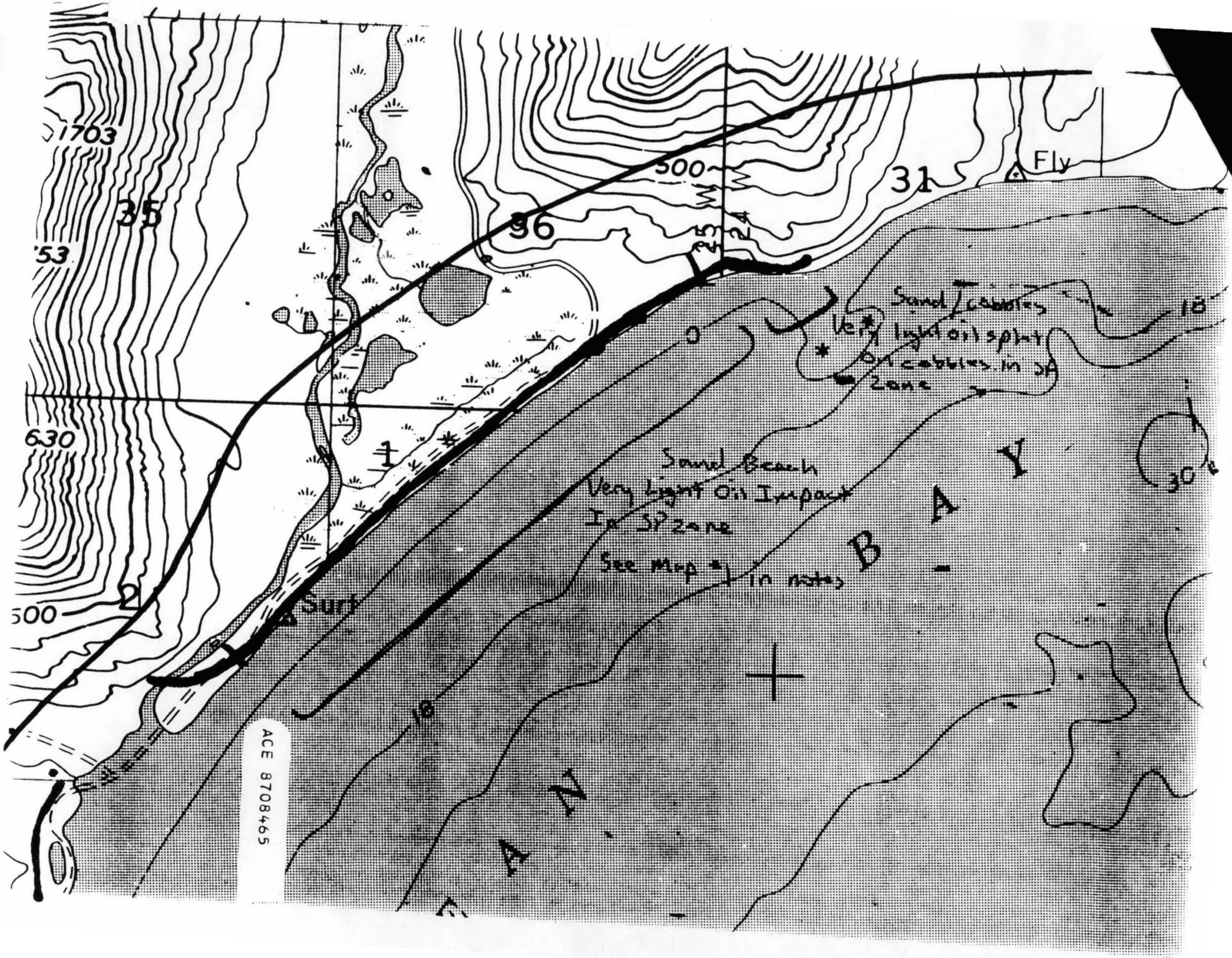
GENERAL OBSERVATIONS: ___

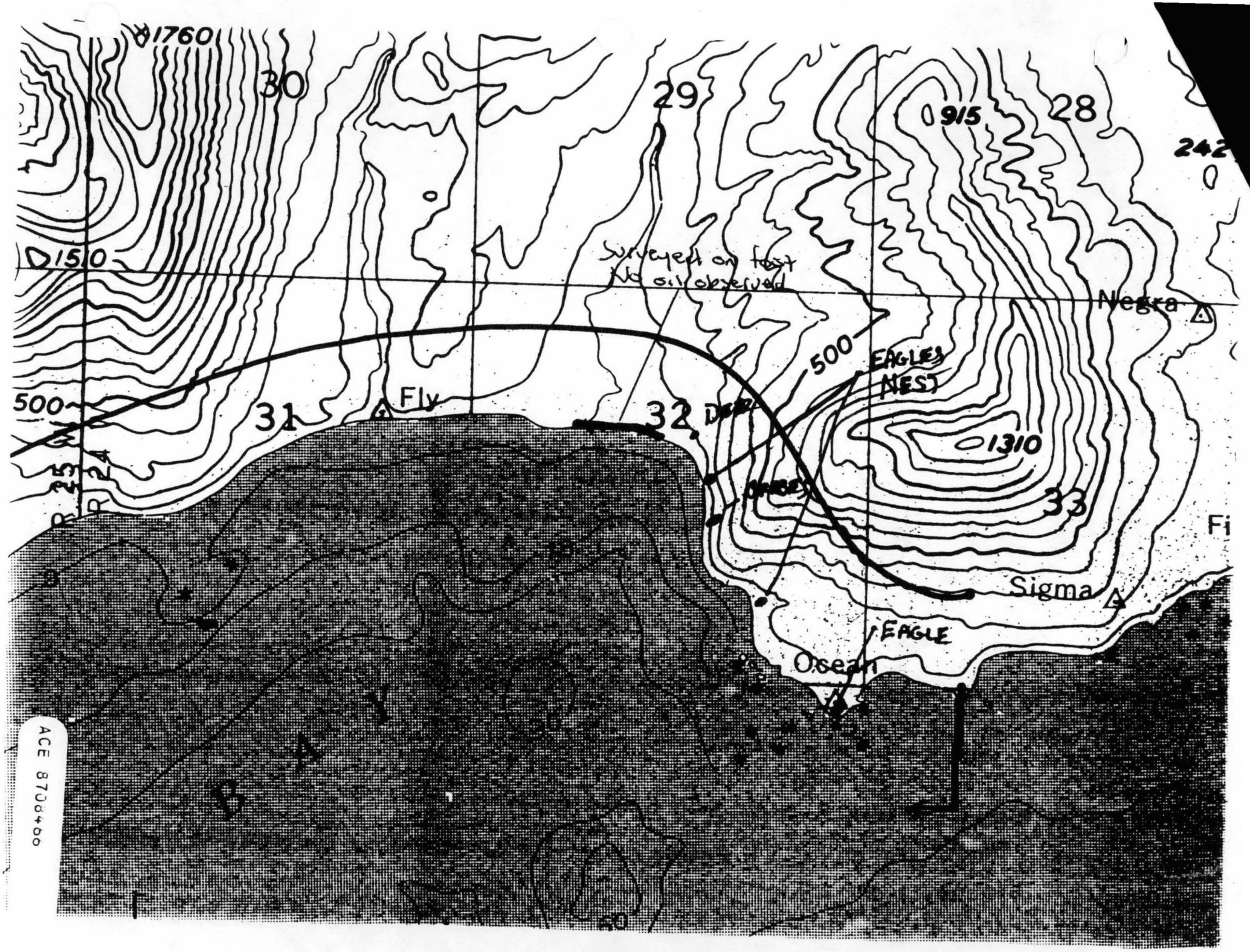
Segment Map Index

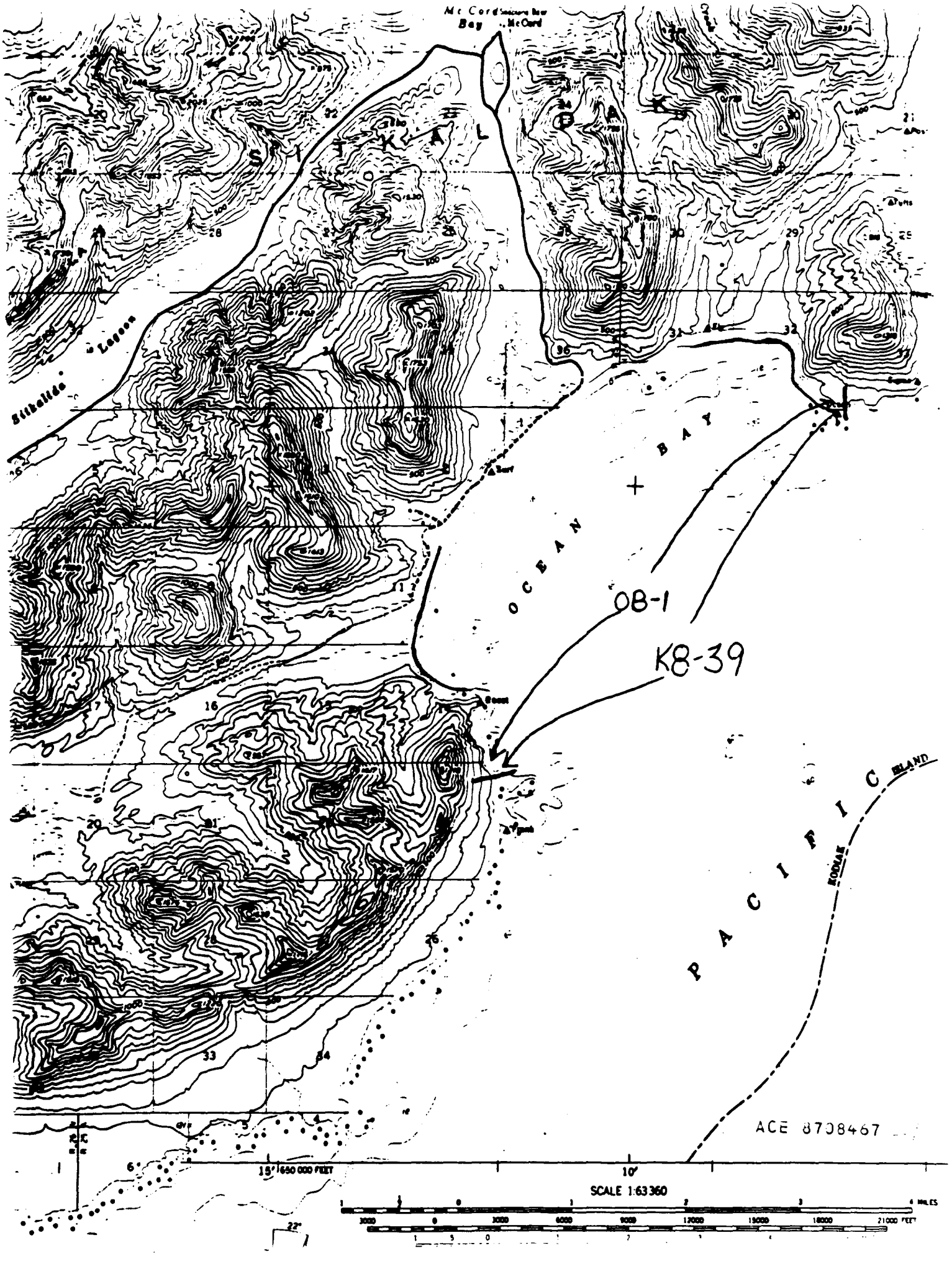


ACE 8708463


OCEAN
18
60
30
0
11
14
Surveyed on foot
No oil observed
K8-39-OB-1
Segment surveyed
by helo.
1300 hrs
Tide: +2.5
EAGLE'S NEST
Roost
500
1417
1218
1580
23
Frank
ACE 8708464


1703
35
53
630
500
2
1
500
96
31
Fly
0
10
30
Very light Oil splat
on cobbles in 3A
zone
Sand/Cobbles
Sand Beach
Very Light Oil Impact
In 3P zone
See Map
in notes
Surf
B
A
Y
A
N
ACE 8708465


1760
30
29
915
28
1510
Surveyed on test
No oil observed
Negra
500
EAGLE
NEST
500
Fly
31
32
1310
33
Sigma
EAGLE
Osear
ACE 87004-00


Mc Cord Entrance Bay
Mc Cord
SITKALIDA
Lagoon
Silbaklida
OCEAN BAY
OB-1
K8-39
PACIFIC
ISLAND
FORAKE
ACE 8708467
15' 1650 000 FEET
10'
SCALE 1:63360
MILES
FEET

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/20/89 SHORELINE SEGMENT K8-39-OB-1

LOCATION: (see enclosed map) Sitkalidak Island, Ocean Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/20/89

Recommended Cleanup Activity(ies):
- -Manual removal of mousse patties (see note map #1 and segment map).

Priorities/Considerations: Class 5-A
- -Boat access may be restricted to calm days.

Ecological Constraints (from site survey):
- -Keep cleanup crews below storm tide line.
- -Keep clear of eagle nests (see ecological map).

Archaeological Constraints (from site survey):
- -Inspection by an archaeological monitor is required during cleanup of this segment.
- -No access to beach ridge/upland zone by beach crews during cleanup.
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 8-2-89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708468

version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 7/20/89 / Time: 1135-1500 Observer: M Acton
Surveyed From: Foot/Boat/Helio/Plane Weather: (Sun)/(Cloud)/Rain/Snow/Fog

LOCATION

Location: Ocean Bay Segment ID: K8-39-03-1
Segment Length: 10 k m. Access: Vehicle/(Boat)/Barge/(Helio)/Float Plane
Access Restrictions: Boat access during low energy periods

SHORELINE

Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT Slope: Lo/(Med)/Hi/(Vert)
Wave Exposure: (High)/Med/Low
Sediment: B 15 % / C ___ % / P ___ % / G&S 70 % / M ___ % / R 15 %

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT) / NONE OBSERVED
Area of Impact: SU/(SP)/(H)/M/L

OIL DISTRIBUTION

Continuous	% of Segment ___	SU/SP/H/M/L	H/M/L/VL
Sporadic	% of Segment 35	SU/(SP)/(H)/M/L	H/M/L/(VL)

Total	Length(m)	Width(m)		
Very light:	3.5 km	15	Thickness >1cm: ___ cm	SU/SP/H/M/L
Light:			Penetration/Rework: ___ cm	SU/SP/H/M/L
Moderate:			Burial Depth: ___ cm	SU/SP/H/M/L
Heavy:				

Mobilization Potential: High/Medium/(Low)
Oil Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: ___

OIL MORPHOLOGY

Pooled Oil: ___ %		SU/SP/H/M/L	
Free" Oil: ___ %		SU/SP/H/M/L	
Splattered: 5 %	H/M/L/VL	SU/SP/H/M/L	
Coated: ___ %	H/M/L/VL	SU/SP/H/M L	
Pancakes/Balls: 95 %		SU/(SP)/(H)/M/L	

Preliminary Cleanup Est.
Total TYPE A: 3.5 km m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

OIL WEATHERING

Fresh: ___ %		SU/SP/H/M/L
Mousse: ___ %		SU/SP/H/M/L
Weathered Mousse: 95 %		SU/(SP)/(H)/M/L
Asphalt Mousse: ___ %		SU/SP/H/M/L
Tar: 5 %		SU/(SP)/H/M/L

COMMENTS

Segment surveyed by helio. Approx 5 km surveyed on foot (see segment map). Very light oil impact observed along 3.5 km length of beach. Impact consisted of 15m band w/in SP zone of oil/sand pancakes on surface down to approx 4 cm. max depth.

ACE 8705469

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached Map

VTR: Y/N Tape Number(s) _____

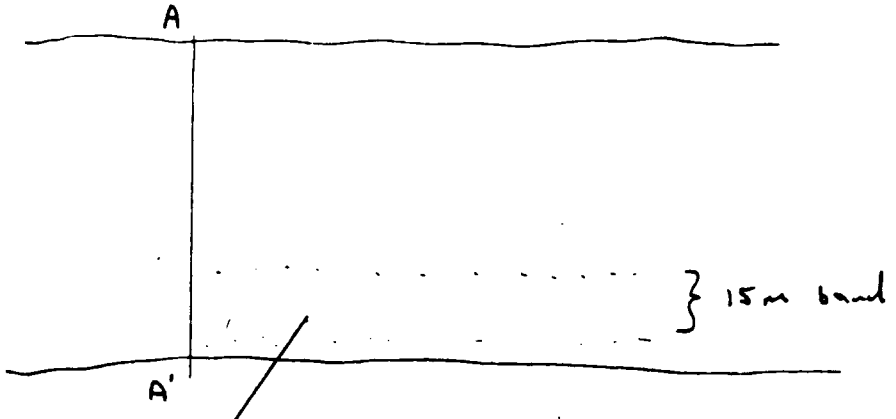
Photography: (Y)/N Roll Number(s) MA3

Sample Numbers Collected: _____

Map #1

N

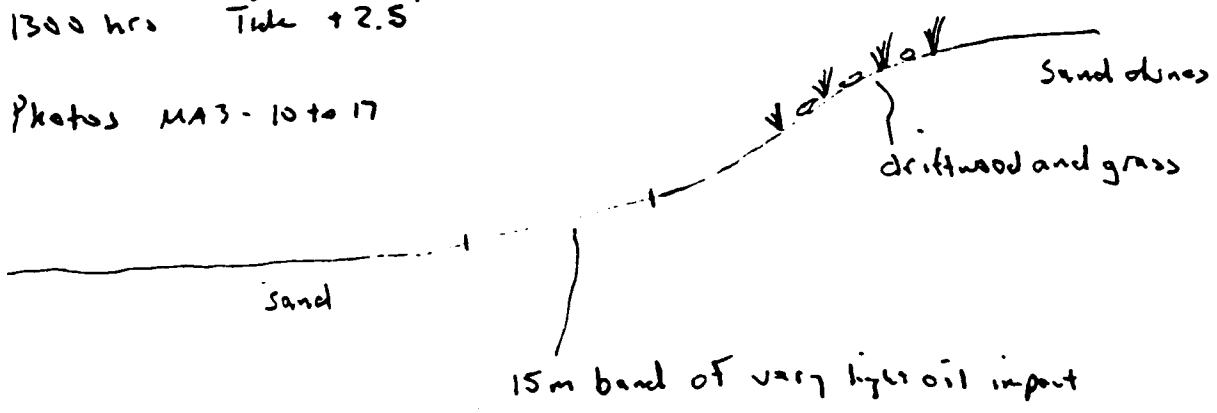
Ocean



very light oil impact, oil/sand pancakes approx 2 - 20 cm in diameter 15m band in SP zone, approx 3.5 km long, surface to 4cm deep discontinuous coverage of oil/sand pancakes within this band in SP zone no spot observed on driftwood.

1300 hrs Tide +2.5'

Photos MA3 - 10 to 17



A A'

A-A' 45m approx

27

		Acton	Jordan
7/20/89	Thurs	Penn	G.I.p..
To Tolstoi, PI		K1-20 · Tc-5	

0805 lift off Kodiak

0830 Tolstoi, PI

0840 visit spill on logs
1 small pool
boulder moon comet mark 1 another beaches

0905 spot flown 6-7 pools <5cm
walked 100m
visit spill on OW

0915 - 0925 no oil observed

0935 finish segment - off the Mercury
K1-

0940 SW corner of Mercury

~~0950~~ 0945 walked 100m
no oil observed

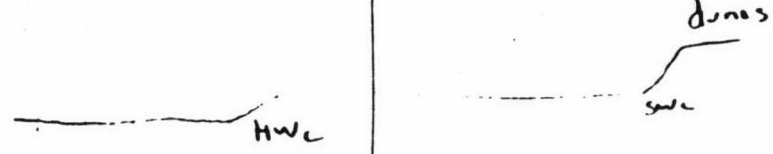
1020 arrive Kodiak for fuel

28

7/20/89 Thurs 1105
Depart Kodiak for Ocean Bay K8-39-

1135 N end of Bay - headland separating Ocean Bay + Princeton cove
overflow Bay
overflow entire segment

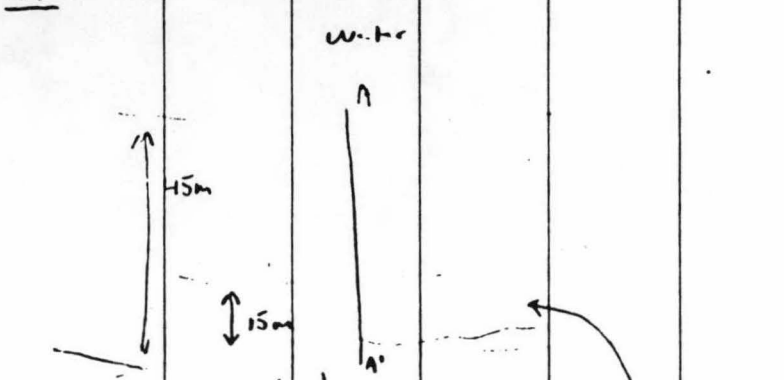
1200 shut off
large accumulation of debris, driftwood
large smelly beaches
walked 400 m
MA3 10 W
11 W
12 E
13 E



1330

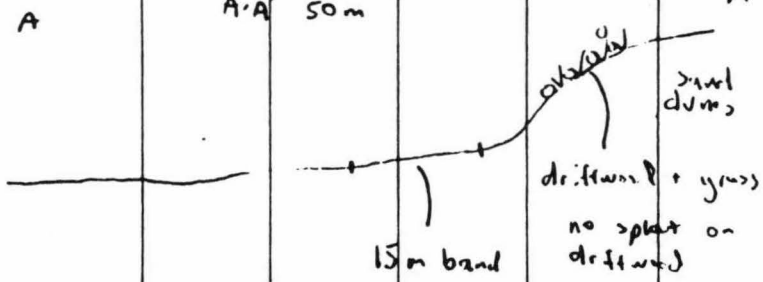
black balls - oil/sand mixture
rem band of oil/sand balls - SP zone
MA3 14 closeup of oil/sand
15 W
16 E
17 closeup of oil/sand

ACE 87084 72



v lt to light oil coverage w/ oil/sand balls
15m band - 2-20cm diameter

several buckets + bags full of oil/sand balls,

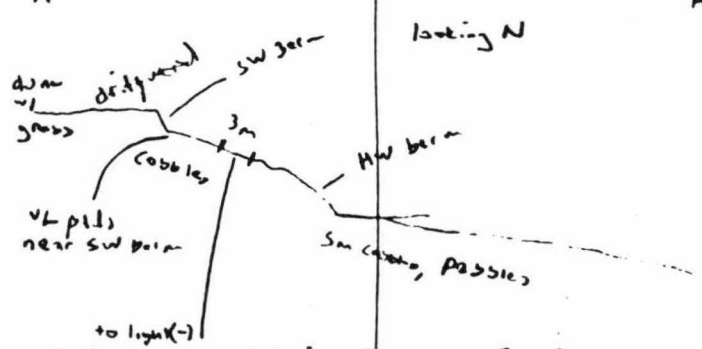


1330
2 mile zone of oil/sand in splash zone
dune beach - no cobbles
at 1330 splat on cobbles on scarp
v lt to lt splat
100m long

1500 return Kodiak
Land Kodiak 1600

0815 Depart Kodiak
~~Saturday~~ Friday

0915 start Tugidak
MA3-18 N
19 S
pebble/cobble beach
A-A' 35m



v lt mousse splats in 3m zone of sprane
mousse splats extend from surface to approx 5cm-15cm
MA3-20 Z1] mousse splats, close up
1 mousse / 2 m² in 3m band of sprane
sometimes heavier
mousse is into cobbles enough to appear reasonable immersion
intermittent

tar ball spotted 3cm diameter
overall beach - VL
3m band - VL to L
walked approx 1.5km - at Nest - less mousse
lift off 1105 Sand - bird nesting

Action [illegible] 10
Penn [illegible] ADF&G
Jordan

ACE 8708473

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Kodiak SITE: Sitkalidak Isl. - OCEAN BAY OBSERVER: G. Penn

LOCATION PREFIX: K 8-39 SEG. NO.: OB-1 LENGTH: 10 km ~~(M)~~

DATE: 07/20/89 TIME (HHMM): 11:30 TIDE HT.: 0.6 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks Boulder (Cobble) Gravel (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None (Y)/N
None on crescent of Bay - only on headlands at Bay entrance.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None (Y)/N
None on crescent of Bay - only on headlands at Bay entrance

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
None on crescent of Bay - Headlands - unobserved

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
None on Crescent of Bay - Headlands unobserved

OTHER OBSERVATIONS: Large Ribbon kelp beds nearshore - 100 M. band of Nereocystis kelp starting 30 m off shore.

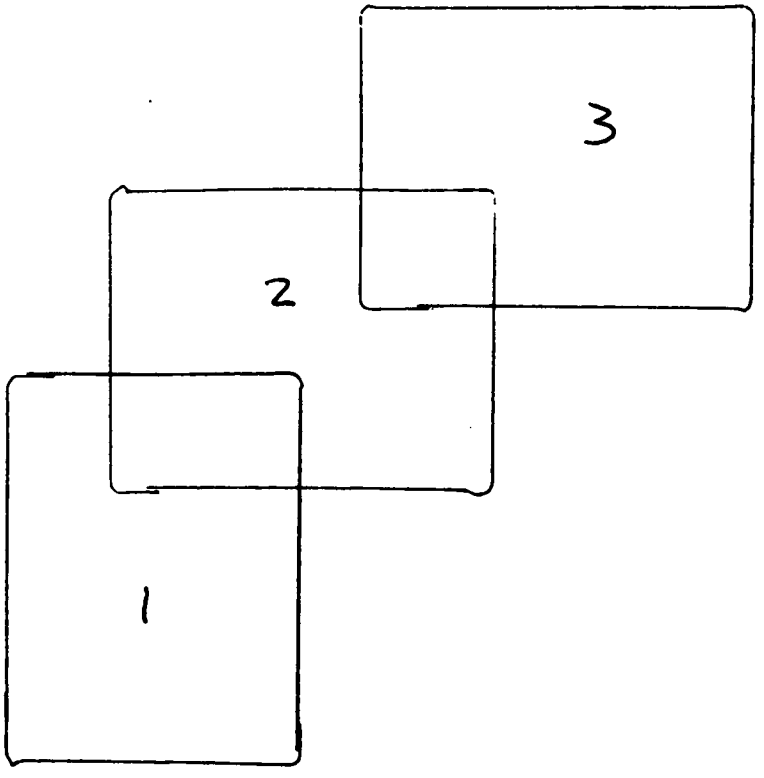
CLEANUP PRECAUTIONS: Keep cleanup crews clear of vegetated Dunes. Keep clear of Eagle's nests (see map)

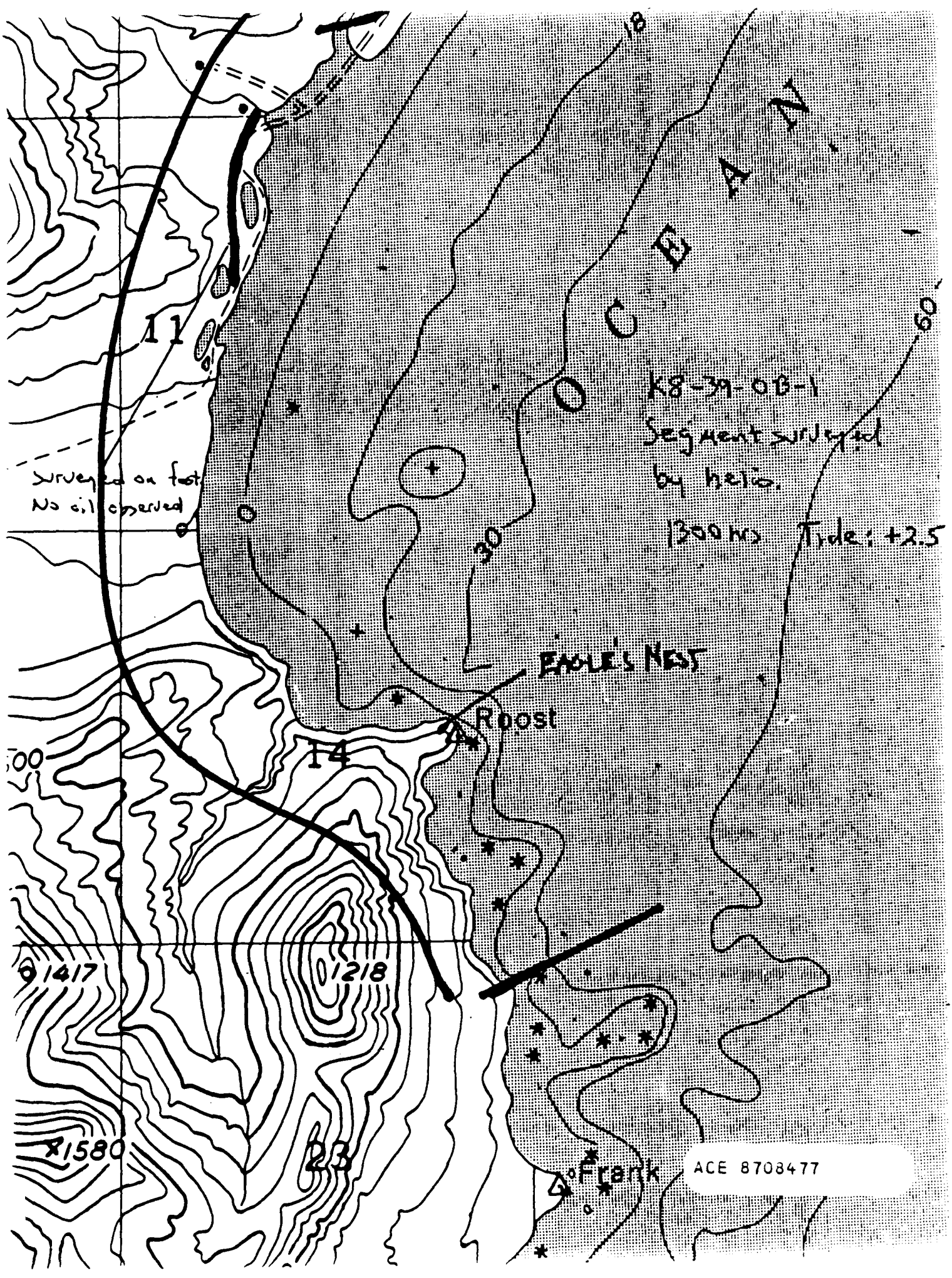
MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other Deer, Bear TRACKS

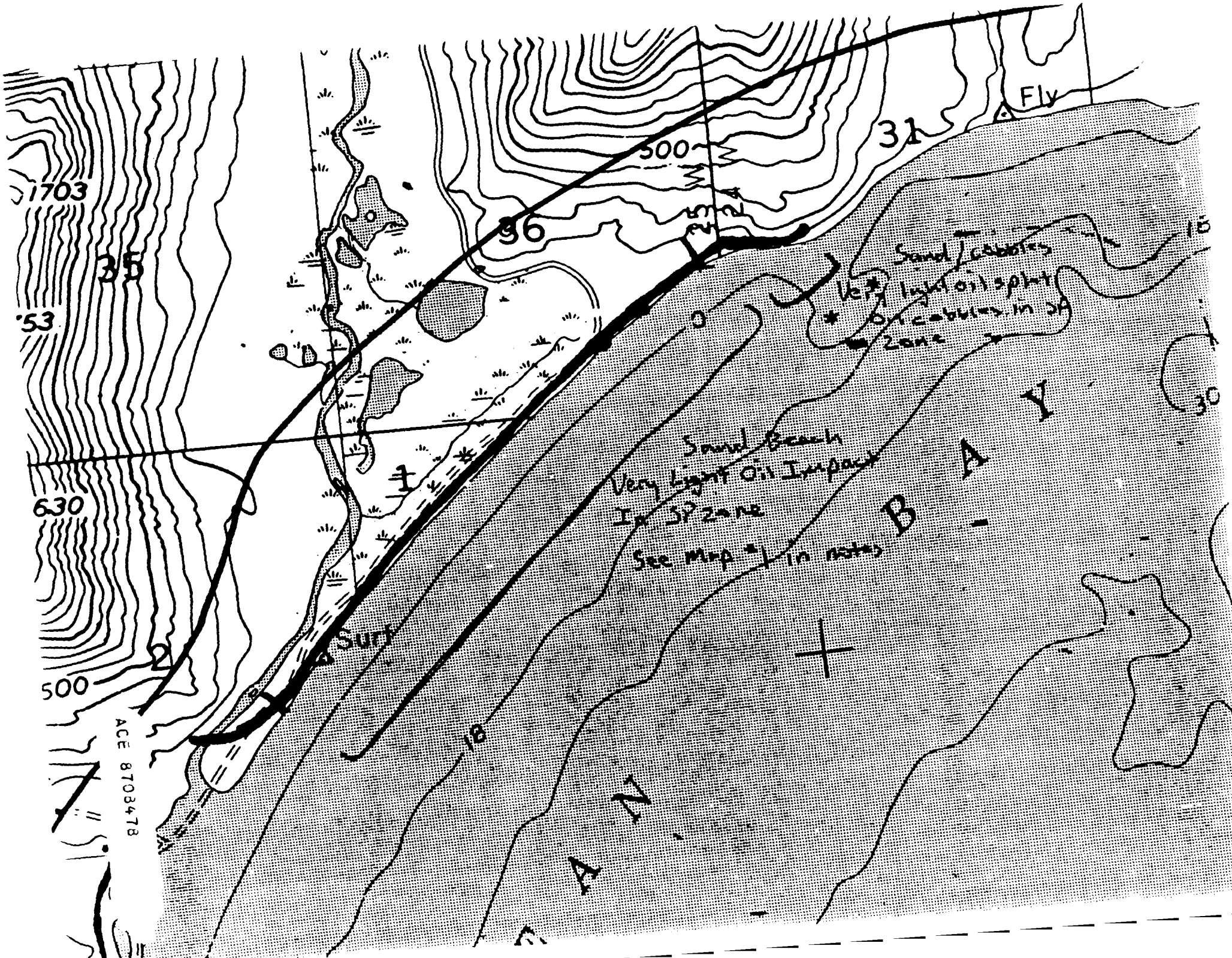
BIRDS: Eagles, Grebes, CORMORANTS

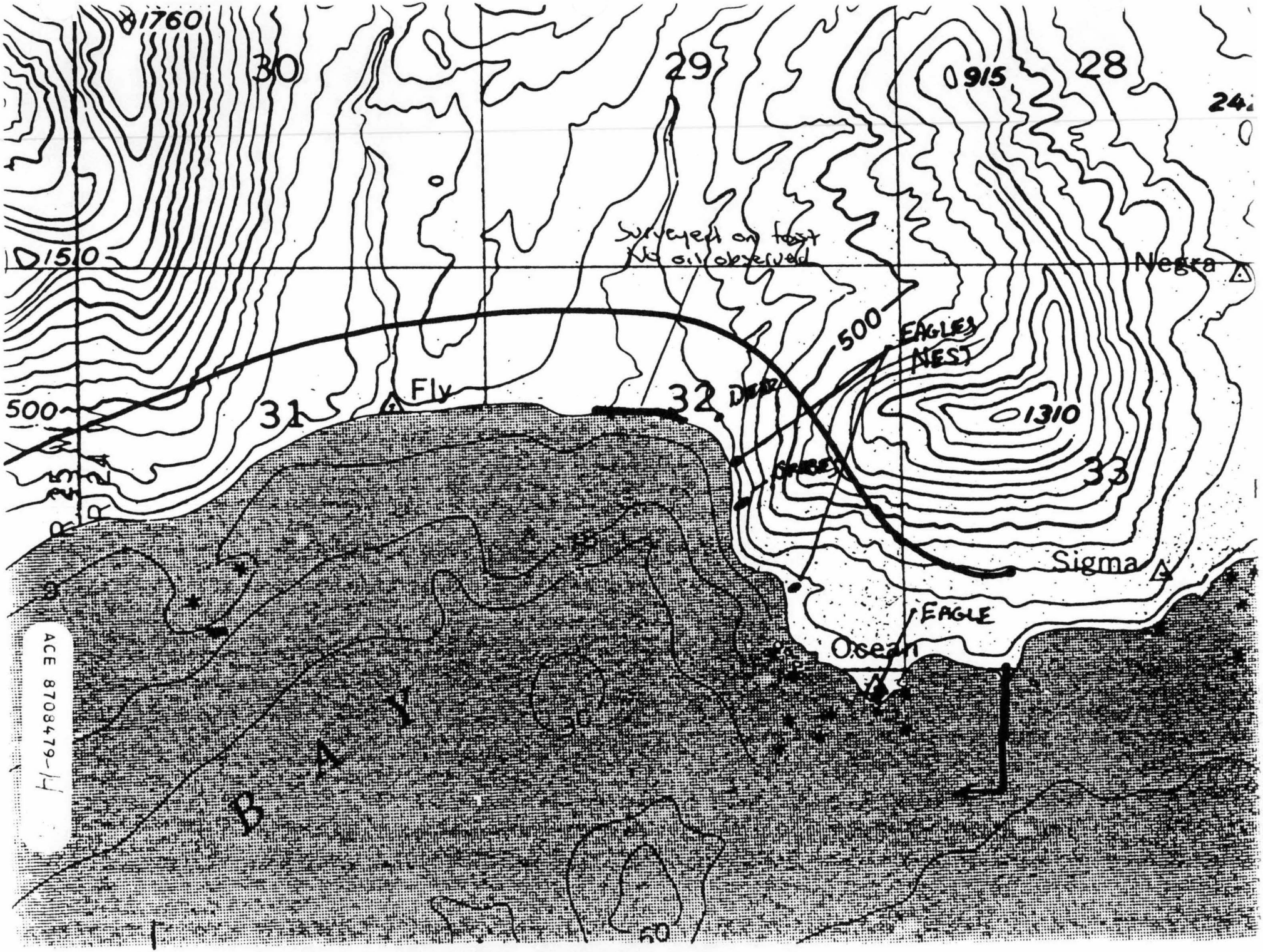
GENERAL OBSERVATIONS: ____

Segment Map Index



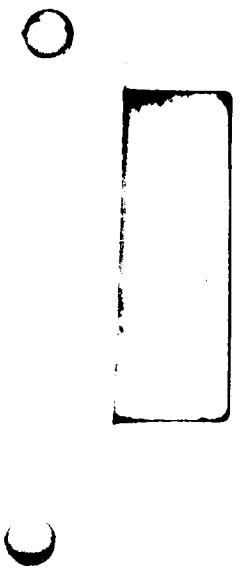

Surveyed on foot
No oil observed
K8-39-08-1
Segment surveyed
by heli.
1300 hrs
Tide: +2.5
EAGLE'S NEST
Roost
Frank
ACE 8708477


Fly
1703
35
53
630
500
36
31
500
0
Sand/cobbles
Very light oil spilt
Oil cobbles in SA
zone
Sand/Beach
Very Light Oil Impact
In SP Zone
See Map 4 In notes
A
B
Y
A
N
A Surf
18
ACE 8703478


1760
30
29
915
28
24
1510
Surveyed on foot
No oil observed
Negra
500
EAGLES
NEST
Fly
31
32
1310
33
500
Sigma
EAGLE
Oseen
A
B
50
ACE 8708479-H

K9-6 CP1 CP2

ACE 7963977



[illegible]

ACE 8708480 +/F/FF

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/26/89 SHORELINE SEGMENT K9-6-CP-1

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. K9 SHORELINE ASSESSMENT DATE: 8/19/89

Recommended Cleanup Activity(ies):
No cleanup recommended, as oil impact observed was sporadic, very light and the shoreline has high potential of natural cleaning. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. Kent McMahan Date: 8/28/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 870848/A +1s

SHORELINE OIL EVALUATION

A. General

1. Date: 8/14/89 2. Time: 1500 3. Observer: M. Acton

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather: Sun/(Cloud)/Rain/Snow/Fog

6. Location Cape Douglas 7. Segment #: K9-6-CP-1

8. Length of shoreline segment: 6000 yds 9. Tidal Stage ± 7 ft.

10. Access: Foot/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 60 %

12. Access Restrictions: High energy beach - access by boat during low tide, low energy periods

B. Shoreline

13. Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT/CLF/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/(Low)

16. Sediment: B__% / C__% / P__% / G__% S__% / M__% / R__%

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type Driftwood Seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/(Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: 3-7 yds
Continuous: Total % of Segment _____
Sporadic: Total % of Segment 60
No Oil: Total % of Segment 40

20. Est. Oil Thickness where >1in: _____in 21. Est. Oil Penetration: _____in

22. Pooled Oil: _____% "Free" Oil: _____% Coated: H__% / M__% / L 100%

23. Fresh _____% Mousse 10 % Tar Formation: 90 %

24. Drift Debris Oiled? (Yes)/No (Sup)/(Up)/Mid/Low Amount: _____H/M/(L)

Comments:
See attached maps

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh	_____	%
Mousse	10	%
Weathered	_____	%
Tar	90	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	3600	37
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
pooled/continuous								
coating/ splat	X	X				3600	37	
cracks / crevices								
patties (>10cm diameter)								
balls (< 10cm diameter)								
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: _____ yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/Medium/(Low)

DOCUMENTATION:

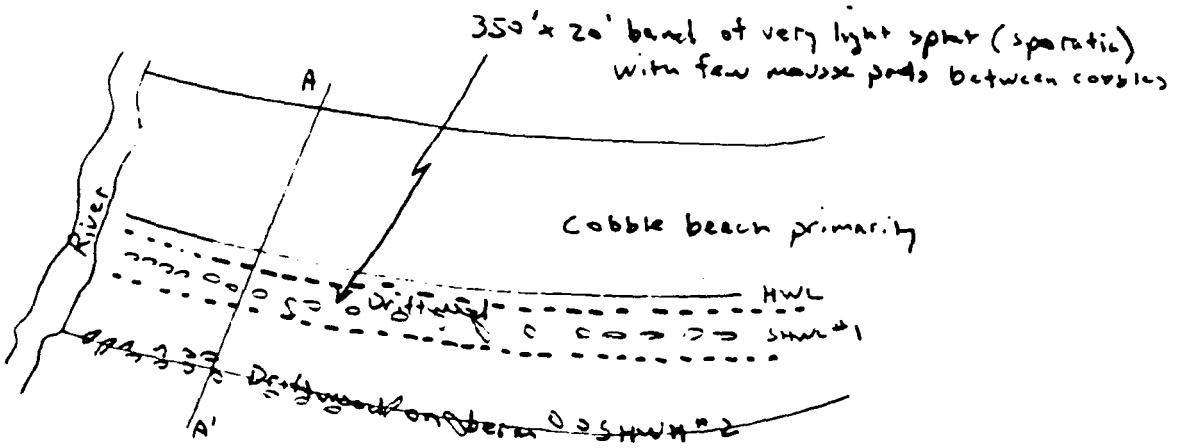
(Map)/Aerial photo marking segment boundaries See Attached Maps

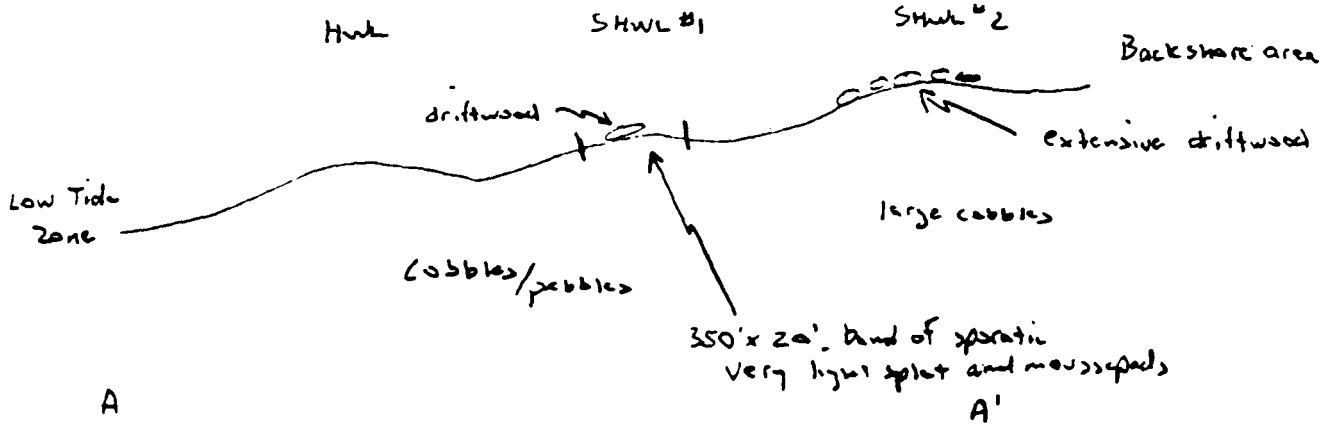
VTR: (Y)/N Tape Number (s) KOS 9

Photography: (Y)/N Roll Number (s) HLD 3

Additional Comments:

Map #1 N ↑



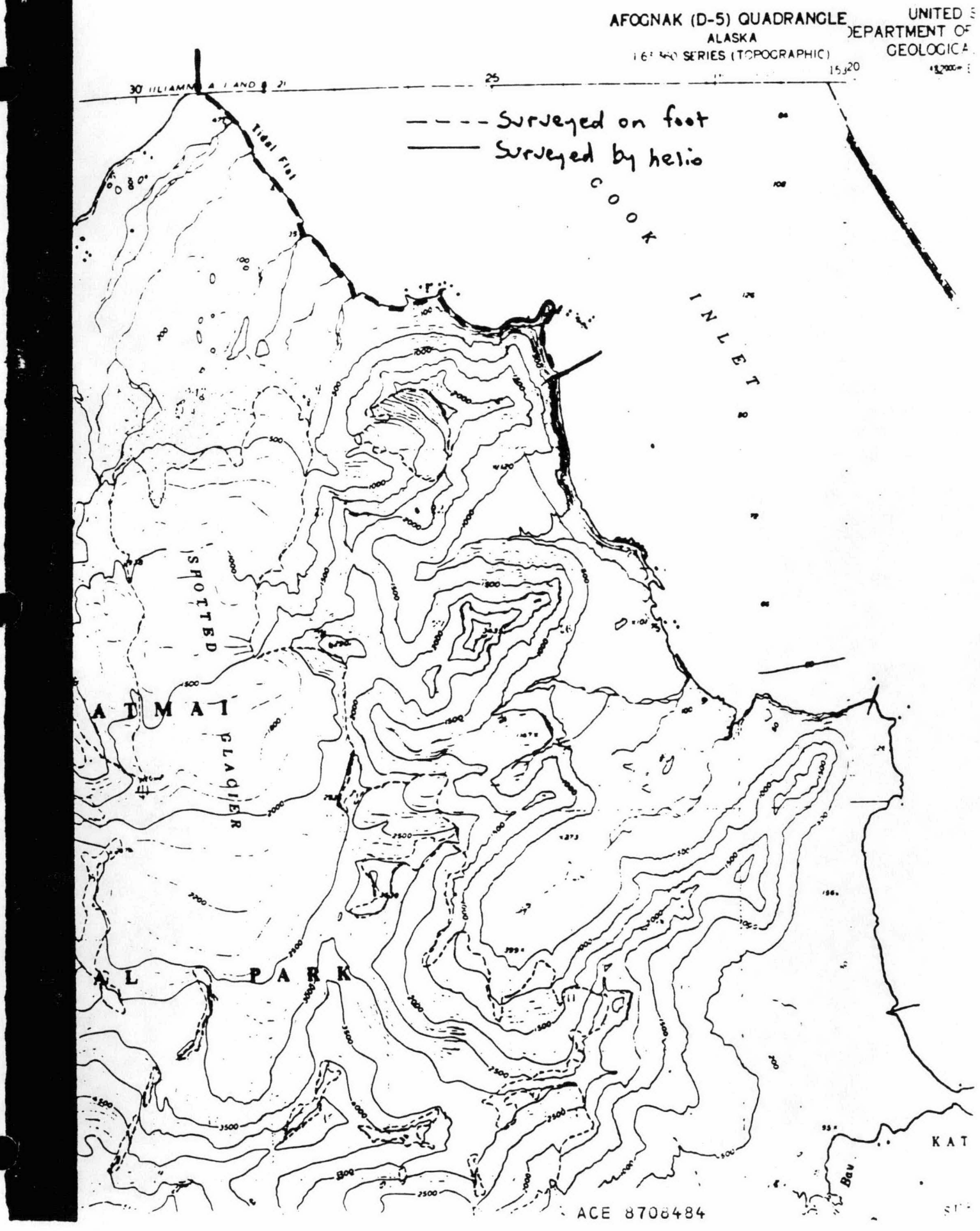


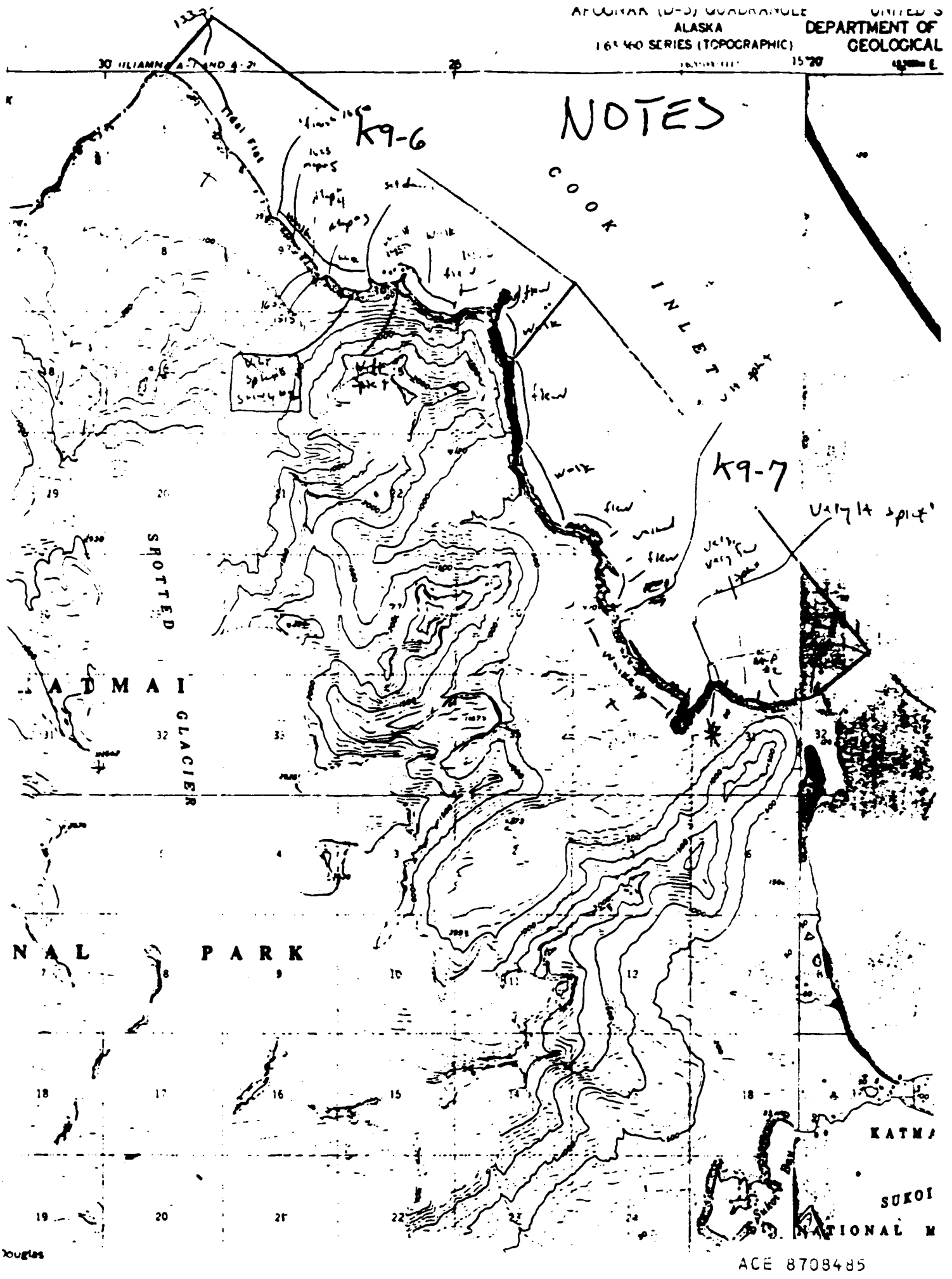
A-A' ≈ 120'

1500 hours Tide approx +8'

This map area is fairly representative of oil impact observed in this segment - very light oil impact, and sometimes very light PNS impact, consisting of splatter on cobbles and driftwood.

K9-6-CP-1


AFOGNAK (D-5) QUADRANGLE
ALASKA
SERIES (TOPOGRAPHIC)
UNITED S
DEPARTMENT OF
GEOLOGICA
Surveyed on foot
Surveyed by helio
COOK INLET
SPOTTED
ATMAI
GLACIER
PARK
KAT
ACE 8708484


APOGNAK (D-5) QUADRANGLE
ALASKA
1:63,360 SERIES (TOPOGRAPHIC)
UNITED S
DEPARTMENT OF
GEOLOGICAL
NOTES
K9-6
K9-7
COOK INLET
SPOTTED GLACIER
ADMAI
NAL PARK
KATMA
SUKOI
NATIONAL M
Douglas
ACE 8708485

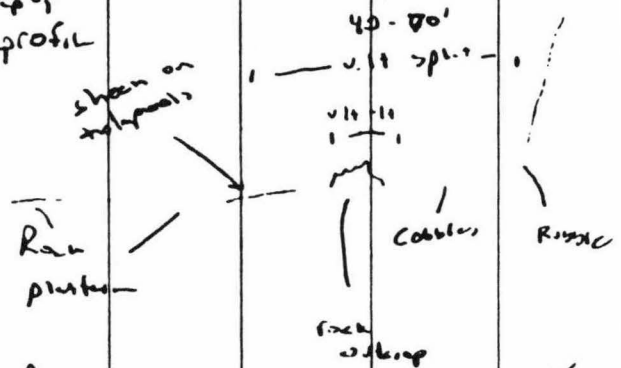
49

8/19 Sat 0905 Depart Kodiak
96>

Acton Davis Thermacher
Judd (USCG) Traver (NPS)

1000 Cape Naugus to retrieve
10 CS bfo off from retrieving

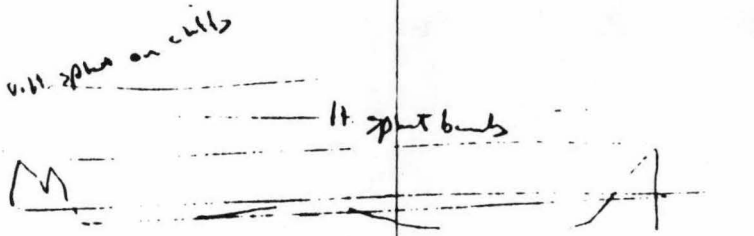
Map of profile



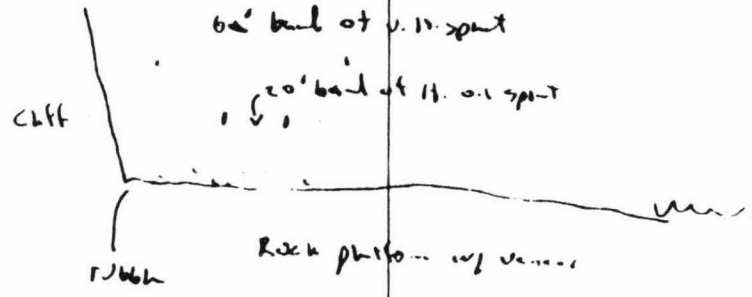
A-A' ≈ 250'

20' band of v.ll to ll. splat in area of R o
splat at cliff base v.ll in rowboat against cliff
along first ½ mile 20-30' band of ll. splat
40-70' band of v.ll splat
ll splat in mid tide + high tide zone

52



Map #2



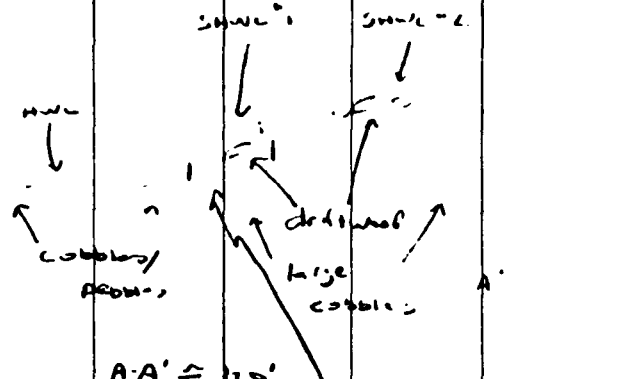
A-A' 100'

V.ll splat on L points marked *
1430 lunch ll.ll off

ACE 8708486
POOR QUALITY ORIGINAL

51

15.5 Map #3



A-A' ≅ 120'

Cobble beach primarily

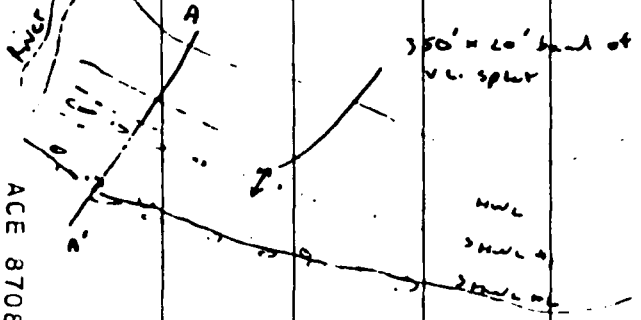
20' band of prolific v. li. spkr

barn. approx 35' long

Splatton driftwood

Map #3

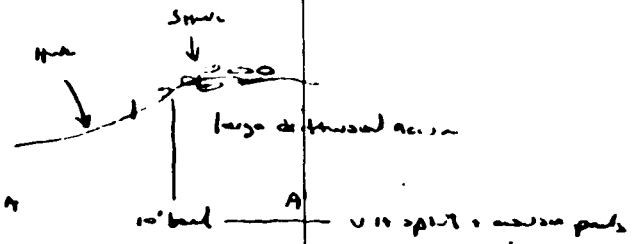
500' section map



ACE 8708487

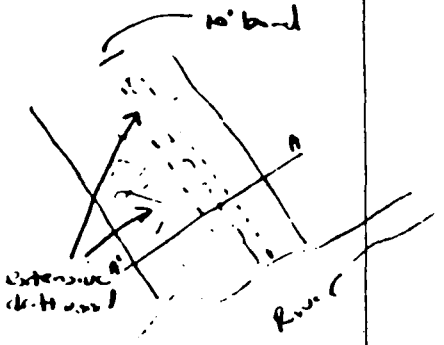
52

1605 Map #4



A-A' ≅ 50'

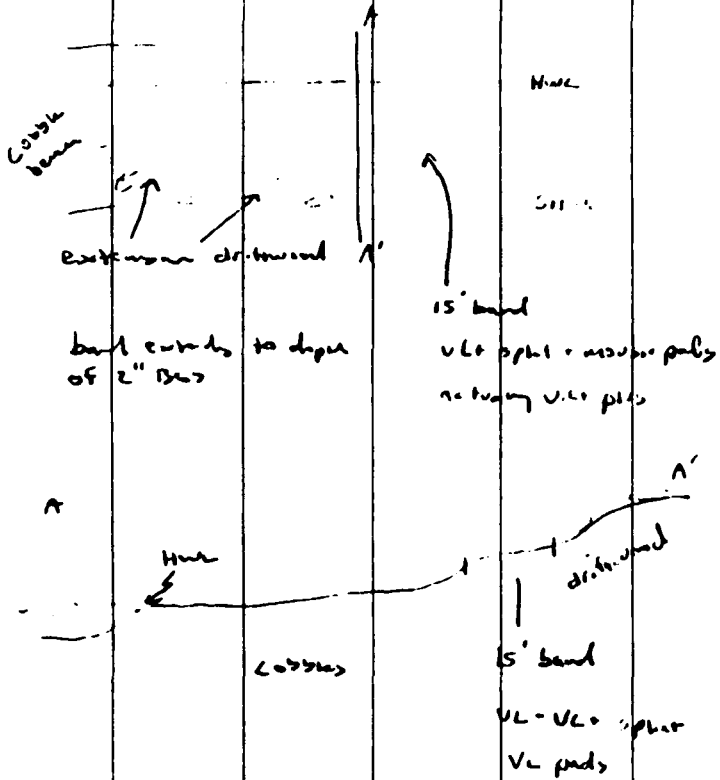
sand/ cobble beach



POOR QUALITY ORIGINAL

53

1625 Map = 6



Depart for Kodiak 1650

Fuel in Cp Douglas 1705-1715

Arrive Kodiak 1800

ACE 8708488

54

9/20 Sunday

0725 Depart Kodiak for Cape Douglas

358 EH Acton Crowell Davis

Troyer (NPS) Judd (USCG)

0840- overfly Shaw Island

Map = 1 0900

0.1 impact in mid - high water t.i.l zone

Heaviest o.i I have seen in Kodiak region

Rock platform / boulder cobble beach

20-25' band of mousse / tar between cobbles / boulders

o.i up to 2-3" thick

band is continuous H impact

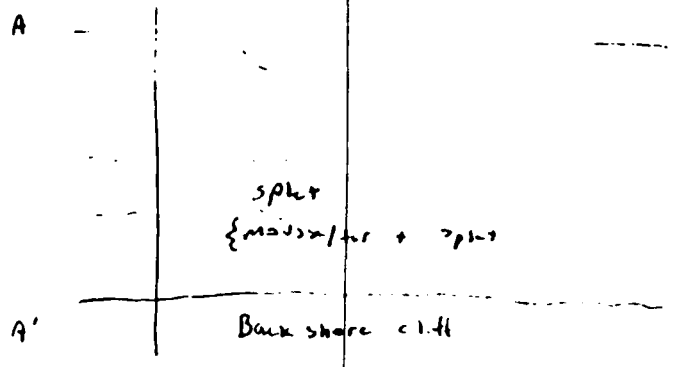
Splat on rocks also VLI to L1.

Splat band up to 100' wide

some splat on driftwood

2 bird carcasses - oiled

o.i coverage in band is averaging > 50 % in many spots



POOR QUALITY ORIGINAL

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas SITE: K9 6 CP1 OBSERVER: H. Davis

LOCATION PREFIX: CP SEG. NO.: 6 CP1 LENGTH: 6000 (M)

DATE: 8/19/89 (8/20/89) TIME (HHMM): 14:15 - 16:50 (13:15 - 14:15) TIDE HT.: +5' - +10' (-1' - +5') (M)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: Rocks (Boulder) (Cobble) (Gravel) Sand (Mud)

LIVE BIOTA

Fucus (algae): (Patchy) Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy on rocky areas. Other algae Ulva, Porphyra, Bigartina, Endocladia, Leathesia are not common. In Cobble areas Ulva and Fucus occur very sparsely.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense patches on rock outcroppings, sparse in boulderfields. None in Cobble Sand Silt areas.

Balanus (Barnacles): (Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

Continuous and dense on all rocky areas. Fewer in high energy cobble areas, none near river mouths and/or silt

Littorina
(Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

Dense (ECC/m²) in rocky areas, none on cobble beaches or near river mouth.

Limpets: (Patchy) (Y)/N Contin. Y/N (Dense) Y/N (Sparse) Y/N None Y/N

Active grazing trails in rocky areas. Acmaea sp. patchy throughout rocky area. None Cobble/Silt/Sand

OTHER OBSERVATIONS: Wide stretches of cobble beach with little biota intertidaly (High energy) Rocky areas have most of the biota. Many streams have high rock flour content from the Spotted glacier

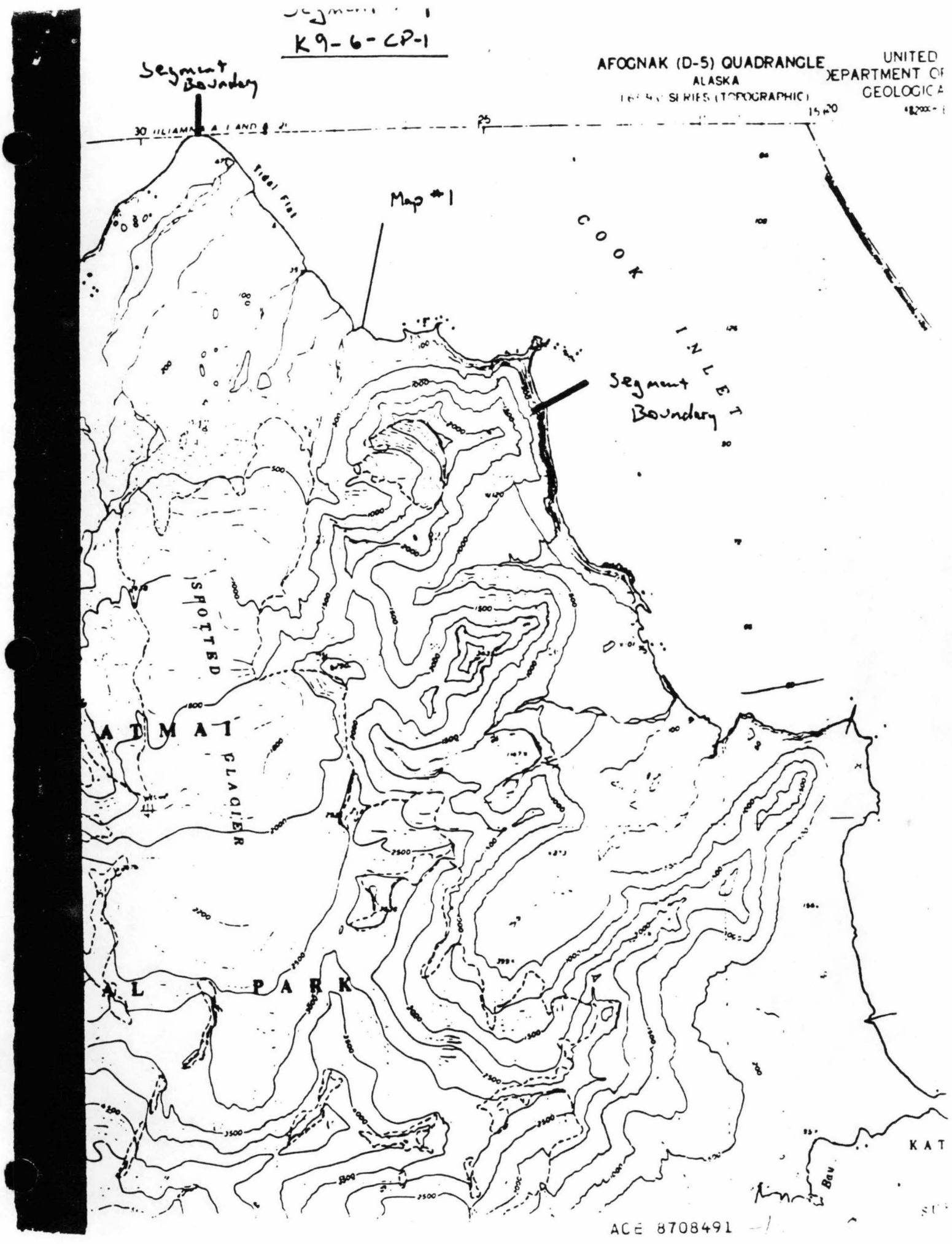
CLEANUP PRECAUTIONS: Avoid anadromous stream heads and watch for bears in those areas. Be careful of over hanging bluffs.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other 1 Moose near estuary area. Wolf, Fox, Bear prints along beaches

BIRDS: 2 wandering tatlers, sandpipers, Glaucous-wing gulls and 3 Tufted Puffins 1 Dead Kittiwake (Not Oiled)

GENERAL OBSERVATIONS: None of the slick or mousse seen had effected the biota

K9-6-CP-1


Segment Boundary
AFOGNAK (D-5) QUADRANGLE
ALASKA
UNITED
DEPARTMENT OF
GEOLOGICA
Map #1
COOK INLET
Segment Boundary
SHOTTED
ATMAT GLACIER
AL PARK
KAT
Bay
ACE 8708491

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/26/89 SHORELINE SEGMENT K9-6-CP-2

LOCATION: (see enclosed map) Shaw Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/20/89

Recommended Cleanup Activity(ies):

-Given deteriorating weather conditions and limited safe access and high potential for natural cleaning, no cleanup of this segment should be attempted. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 3-A

-Access and cleanup during low tide at low energy periods only.

Ecological Constraints (from site survey):

-Avoid puffin rookery on south side of island.
-Avoid juvenile swans on table top island surface.

Archaeological Constraints (from site survey):

-No access to vegetated areas above beach.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. Paul McMahan Date: 8/28/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708492

SHORELINE OIL EVALUATION

A. General

.Date: 8/20 2. Time: 1000 3. Observer: M Acton

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather (Sun)/Cloud/Rain/Snow/Fog

6. Location Shaw Island 7. Segment #: K9-6-CP-2

8. Length of shoreline segment: 4500 yds 9. Tidal Stage ± 0 ft.

10. Access: Foot/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 30 %

12. Access Restrictions: Boat access during low energy periods at low tide!

B. Shoreline

13. Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT/CLF/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/Low

16. Sediment: B20% / C20% / P5% / G__% S5% / M__% / R50%

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type Driftwood Seaweed

C. Oil Summary

8. Degree of Oiling: Heavy/(Moderate)/(Light)/Very Light/No Oil Observed

19. Area of Beach Impact: Width of Band: 8-30 yds
Continuous: Total % of Segment 25
Sporadic: Total % of Segment 50 approx
No Oil: Total % of Segment 25 approx

20. Est. Oil Thickness where >1in: 1 in 21. Est. Oil Penetration: 3 in

22. Pooled Oil: ____% "Free" Oil: ____% Coated: H__% / M34% / L66%

23. Fresh ____% Mousse 34 % Tar Formation: 66 %

24. Drift Debris Oiled? (Yes)/No (Sup)/(Up)/Mid/Low Amount: ____H/M/(L)

Comments:
See Attached Notes and Maps #1, 2, 3

Based upon Kodiak oil impact I have observed, Map #1 is moderate, but might be classified light when compared to PWS.

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse	34	%
Weathered		%
Tar	66	%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:	3000	35
Light:	500	8
Moderate:	500	8
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth
pooled/continuous								
coating/ splat		x	x			4000	35	
cracks / crevices								
patties (>10cm diameter)		x	x			500	8	3
balls (< 10cm diameter)		x	x			500	8	3
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: 350 yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: (High)/Medium/Low

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See attached Maps

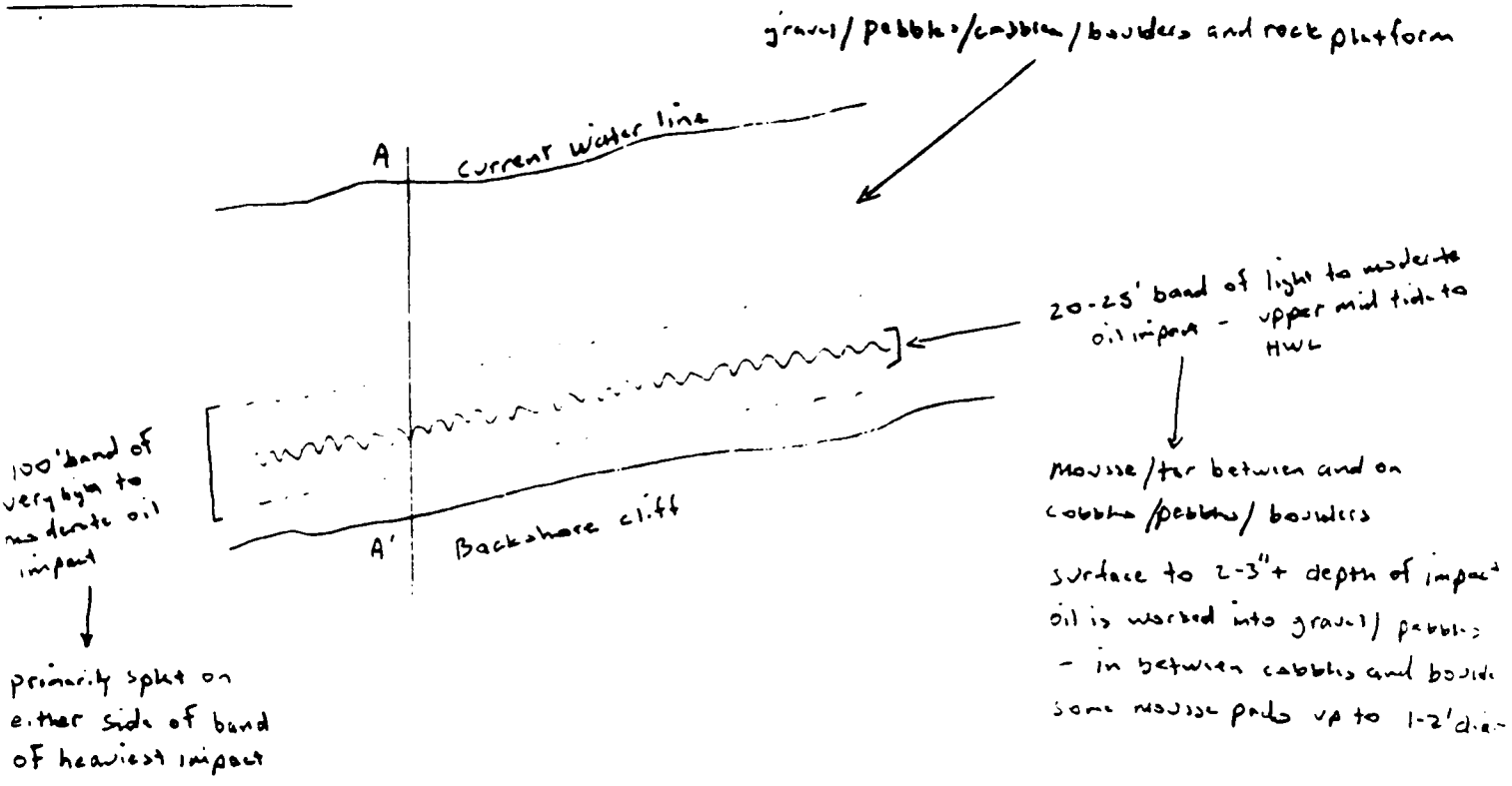
VTR: Y/(N) Tape Number (s) _____

Photography: (Y)/N Roll Number (s) HLD 3

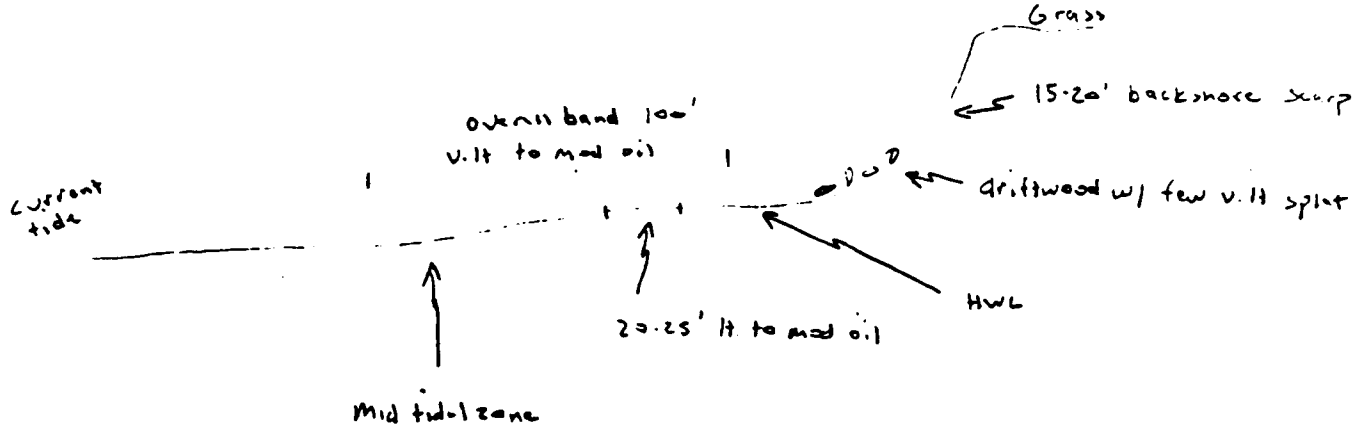
Additional Comments:

Surveyed 75 % of island on foot, 25 % by helo.

Map #1 N ↑



Band extends from approximate area of Map #1 to NE tip of island. Impact is greatest in area of Map #1 and in an area several hundred feet west of NE tip of island. Length of overall band approx 2000'. Length of light to moderate impact within this band approx 750-1000', at Map #1 and near NE tip.



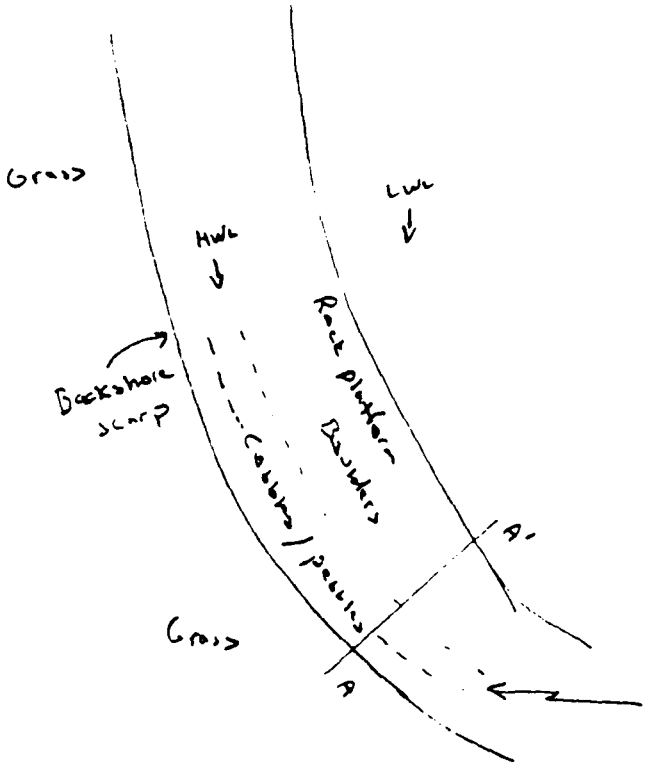
A-A' ≃ 200'

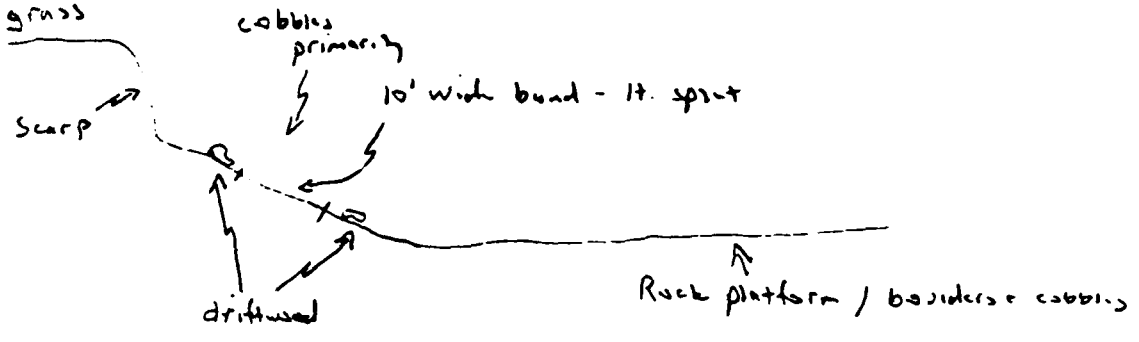
0900 hours +3.5' tide

ACE 8708495

Map 2 N 1

Band of light oil impact - splat, at south end of small cove. Band is in SP zone





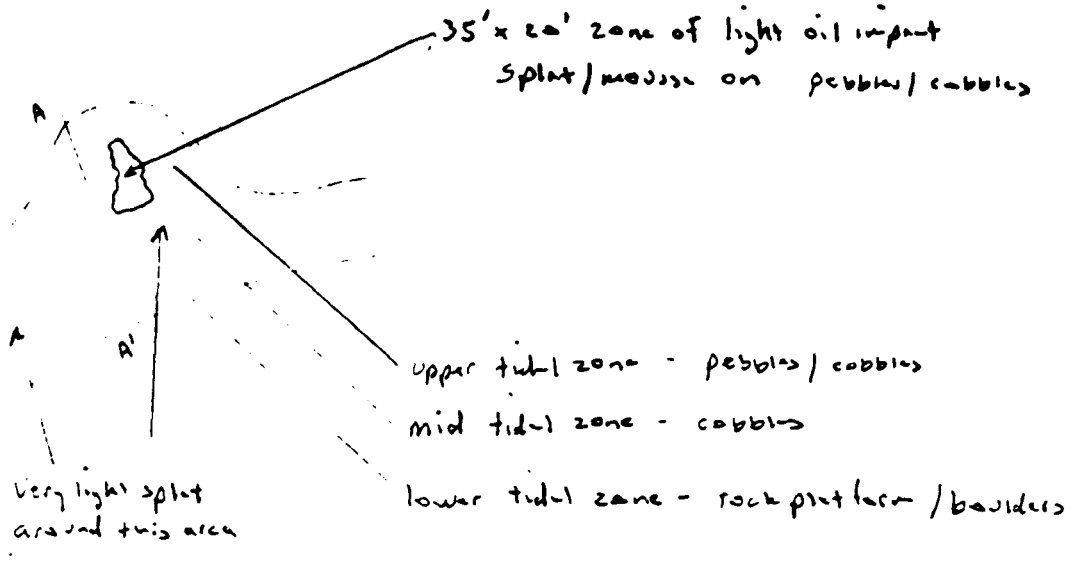
A A'

A-A' ≐ 120'

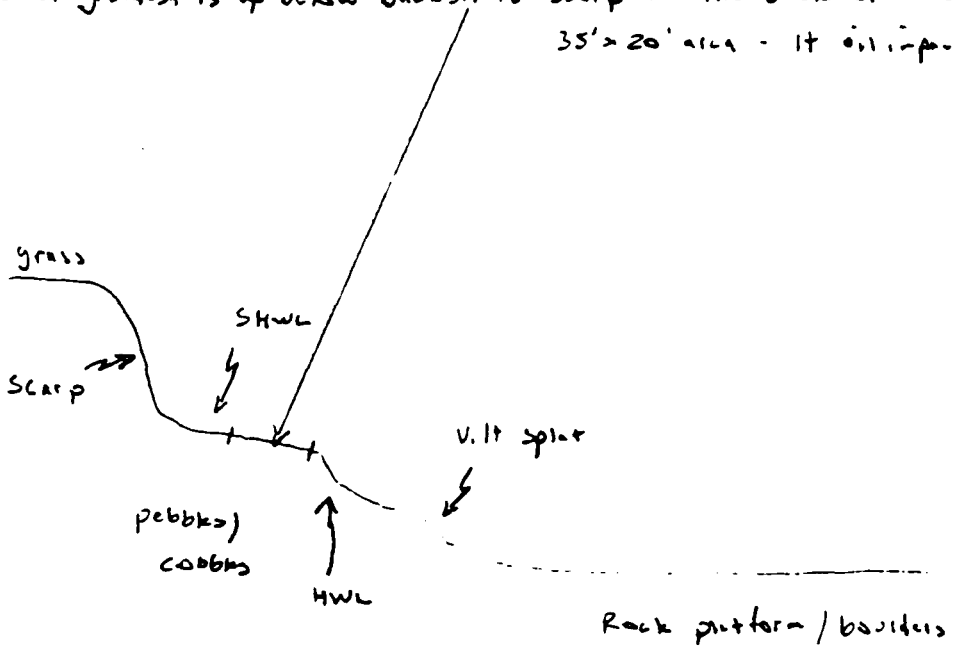
1000 hours 0' tide

ACE 8708490

Map # 3 N ↑



Zone of greatest is up below backshore scarp in the back of a small pocket beach



A A'

A-A' ≃ 120'

1045 hours -1' tide

ACE 8708497

MAP INDEX
Shaw Island
KODIAK D-5
SCALE 1:63360
CONTOUR INTERVAL 100 FEET
DASHED LINES REPRESENT 25 FOOT CONTOURS
DEPTH CURVES AND SOUNDINGS IN FEET DATUM IS MEAN LOWER LOW WATER
ROAD CLASSIFICATION
No roads or trails in this area
ALASKA
SPECIAL PRINTING
KODIAK D

ACE 8703448

POOR QUALITY ORIGINAL

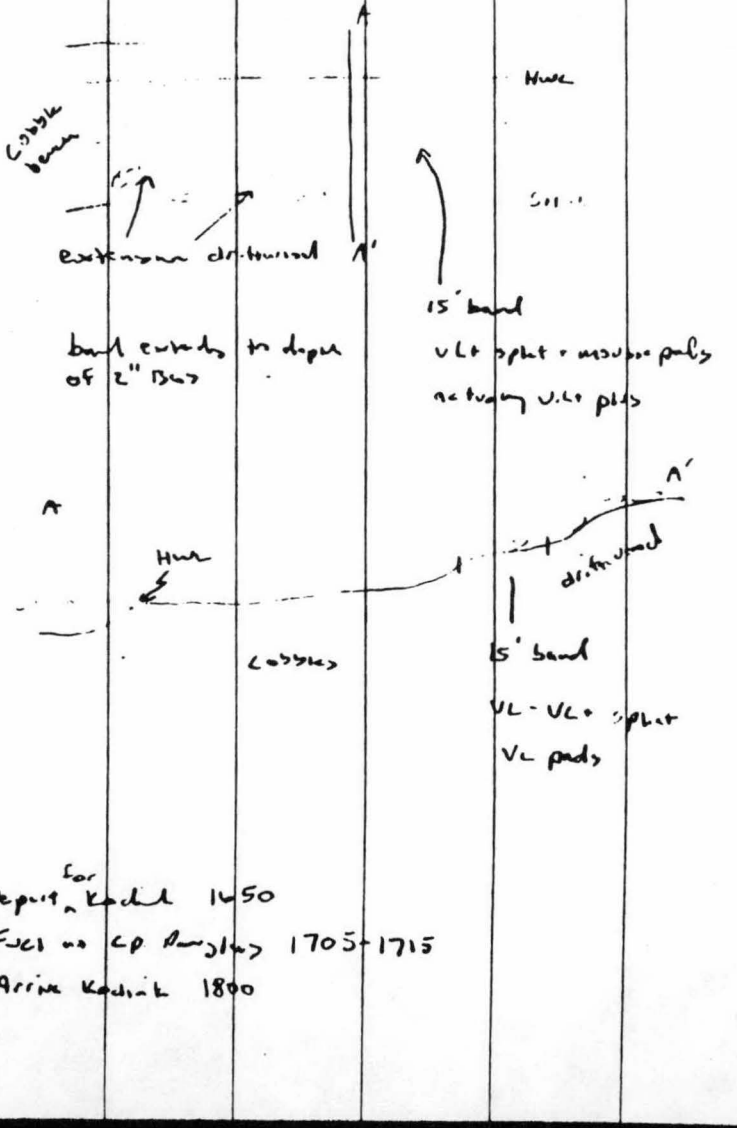
ACE 8708499

POOR QUALITY ORIGINAL

ACE 8708500

53

1625 Map #6



Depart for Kodiak 1450
Fuel on Cp Douglas 1705-1715
Arrive Kodiak 1800

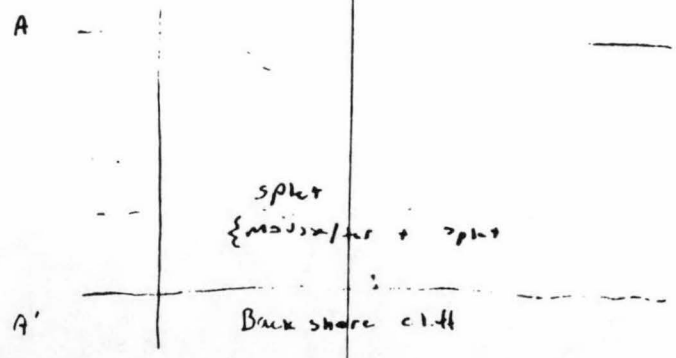
54

0725 Depart Kodiak for Cape Douglas
358 EH Acton Crowell Davis
Troyer (NPS) Judd (USCG)

0840- overfly Shaw Island

Map #1 0900

0.1 impact in mid - high water tidal zone
Heaviest oil I have seen in Kodiak region
Rock platform / boulder cobble pebble shoreline
20-25' band of mousse / tar between cobbles / boulders
oil up to 2-3" thick
band is continuous oil impact
Splat on rocks also VLt to Lt.
Splat band up to 100' wide
some splat on driftwood
2 bird carcasses - oiled
oil coverage in band is averaging > 50 % in many spots



ECOLOGICAL EVALUATION

LOCATION: Shaw Island SITE: K9 6 CP2 OBSERVER: N. Davis

LOCATION PREFIX: K9 SEG. NO.: 6 CP2 LENGTH: 4500 (M)

DATE: 9 / 20 / 89 TIME (HHMM): 845 - 1120 TIDE HT.: -2' - +2' (M)

OILED ZONE: (Splash) (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) Mud
Very little

LIVE BIOTA

Fucus (algae): (Patchy) Y/N (Contin.) Y/N (Dense) Y/N Sparse Y/N None Y/N

Fucus present all the way around the island from dense patches to scattered tufts. A lot of laminarian algae in the rocks.

Mytilus (Mussels): (Patchy) Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy around the island with largest Mytilus patches on rocky areas. All healthy.

Balanus (Barnacles): Patchy Y/N (Contin.) Y/N (Dense) Y/N (Sparse) Y/N None Y/N

A continuous band of Balanus & Chthalamus varied in tidal height and density with wave action.

Littorina
Patchy Y/N (Contin.) Y/N (Dense) Y/N Sparse Y/N None Y/N

Very numerous and able around the island from splash zone to low intertidal.

Limpets: (Patchy) Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy all the way around the island all healthy. One individual found dead at the end of a grazing trail into tar.

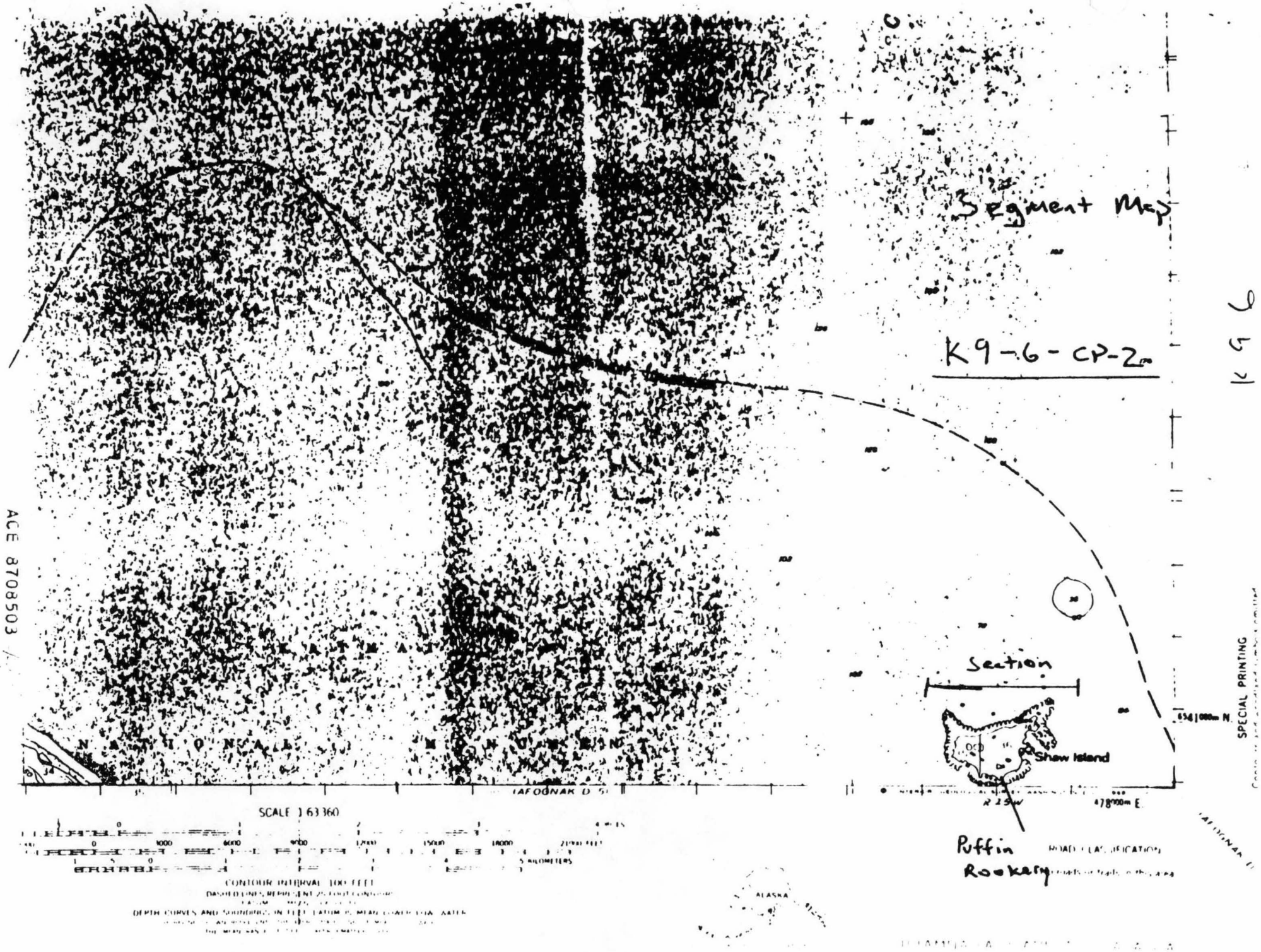
OTHER OBSERVATIONS: Surge channels were incredably rich in flora Cladophora, Ulva, Endocladia Gigartina, Odonthalia, Alaria, Laminaria as well as Fucus, Anthopleura, Balanus, Mytilus, Katharinaloa

CLEANUP PRECAUTIONS: Tufted puffin nesting on cliffs to the south east of the island. Whistling swans have nests in the grass above cliffs. Avoid these two areas.

MAMMALS: Otters 2 (feeding) Harbor Seals 4 Sea Lions ____ Whales ____
Other ____

BIRDS: Tufted puffins, Whistling Swans, Black-legged Kittiwake and Glaucous-winged Gulls

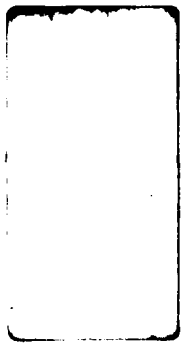
GENERAL OBSERVATIONS: Very healthy active biota on this island. On the Northwest side of the island oil was lower in the intertidal probably due to the large shelf area.


Segment Map
K9-6-CP-2
Section
Shaw Island
Puffin
Rookery
SCALE 1:63360
CONTOUR INTERVAL 100 FEET
ALASKA
SPECIAL PRINTING

ACE 8708503

K9-7 CD1

ACE 7963978



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/23/89 SHORELINE SEGMENT K9-7-CØ-1 LD

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/19/89

Recommended Cleanup Activity(ies):

-No cleanup recommended due to light oiling, limited safe access, safety considerations and high potential for natural cleaning. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 4-A

-Be aware of falling debris fromvertical and overhanging cliffs.

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: 8/23/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708504

SHORELINE OIL EVALUATION

A. General

1. Date: 8/19/89 2. Time: 1020 3. Observer: M. Adam

4. Surveyed From: Foot/Boat/Helio/Plane 5. Weather (Sun)/(Cloud)/Rain/Snow/Fog

6. Location Cape Douglas 7. Segment #: K9-7-CO-1

8. Length of shoreline segment: 7500 yds 9. Tidal Stage ± -2.5 ft.

10. Access: Foot/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 50 %

12. Access Restrictions: Access by boat at lower tide during low energy period

B. Shoreline

13. Shoreline Type: SPI/(SEA)/COV/(MUD)/STRT/(CLP)/DAF

14. Slope: LANG/(HANG)/(VERT)

15. Wave Exposure: High/Med/Low

16. Sediment: B 20 % / C 10 % / P < % / G __ % S __ % / M __ % / R 65 %

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type Driftwood Seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/(Light)/Very Light/No Oil Observed

19. Area of Beach Impact: Width of Band: 6-25 yds
Continuous: Total % of Segment 10
Sporadic: Total % of Segment 10
No Oil: Total % of Segment 80

20. Est. Oil Thickness where >1in: 1 in 21. Est. Oil Penetration: 1 in

22. Pooled Oil: ____ % "Free" Oil: ____ % Coated: H __ % / M __ % / L 10 %

23. Fresh ____ % Mousse 20 % Tar Formation: 80 %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: ____ H/M/L

Comments:
See Attached Map

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse	20	%
Weathered		%
Tar	80	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	750	13-25
Light:	750	6-10
Moderate:		
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
pooled/continuous								
coating/ splat	x	x	x			1500	6-25	
cracks / crevices								
patties (>10cm diameter)	x	x	x		1	1500	6-25	
balls (< 10cm diameter)	x	x	x		1	1500	6-25	
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: 750 yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/(Medium)/Low

DOCUMENTATION:

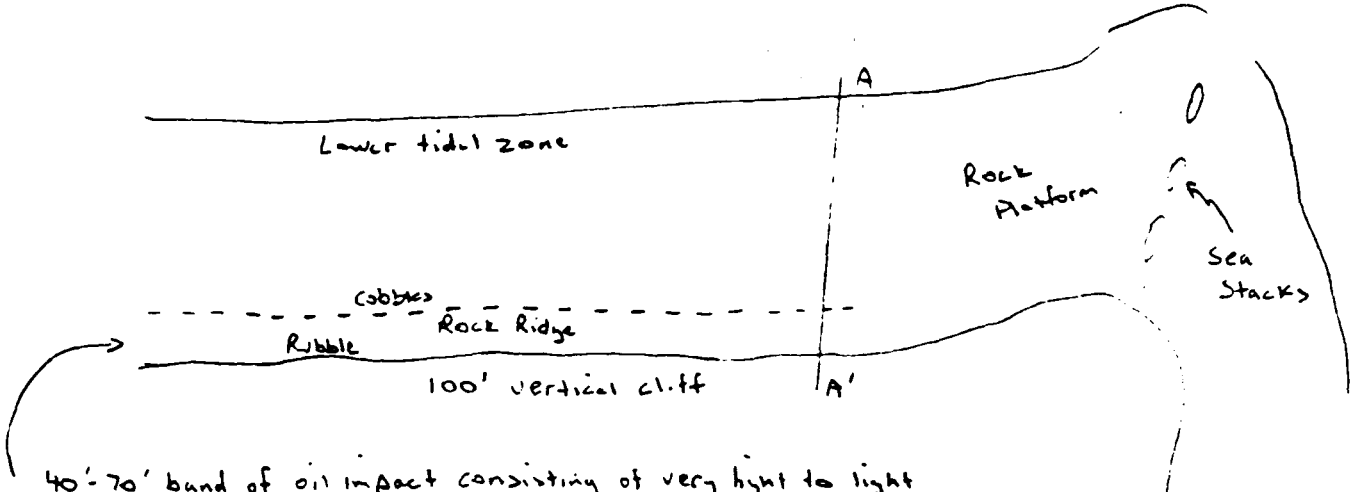
(Map)/Aerial photo marking segment boundaries See Attached Maps

VTR: (Y)/N Tape Number (s) KOS 9

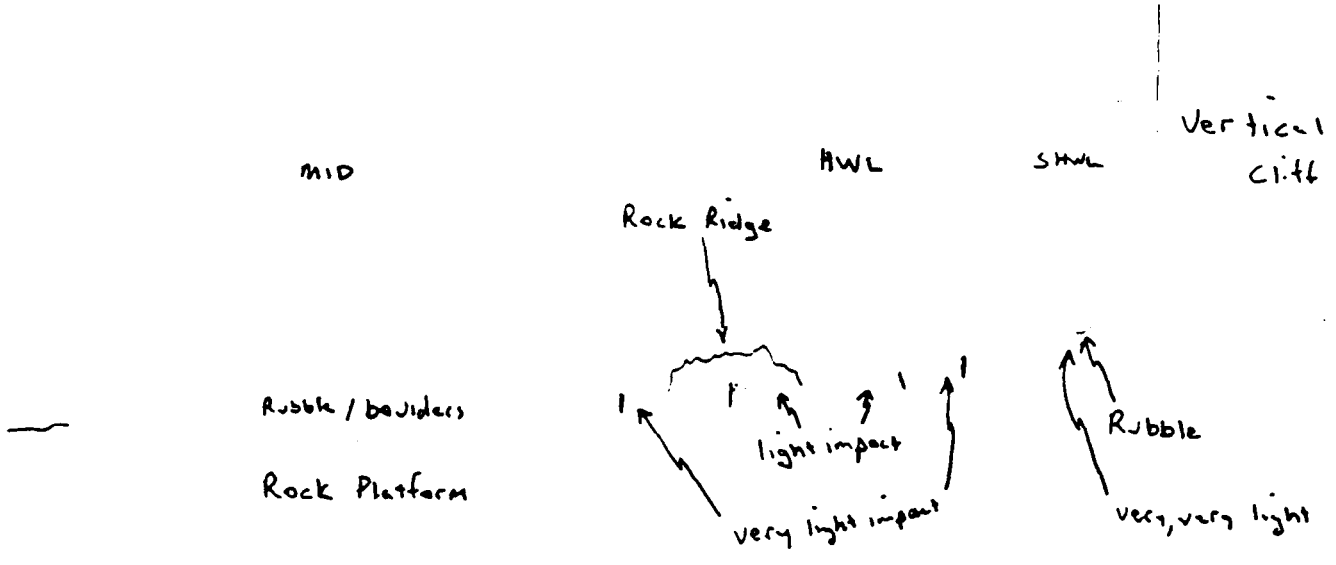
Photography: (Y)/N Roll Number (s) HLD 2

Additional Comments:

Map #1 N 1



40'-70' band of oil impact consisting of very light to light Splat and mousse, width of band extends from backshore cliff toward lower tidal zone for approx 40-70' - band is approx. 2500 feet long, from the area of the seastacks westward. Band is in upper mid tide zone to HWL area

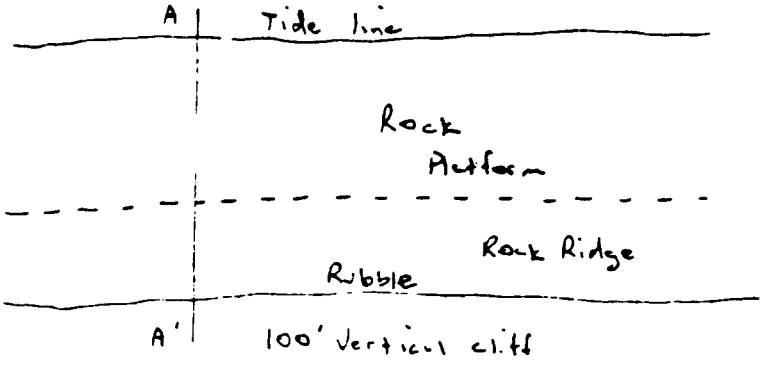


A-A' ≃ 250'

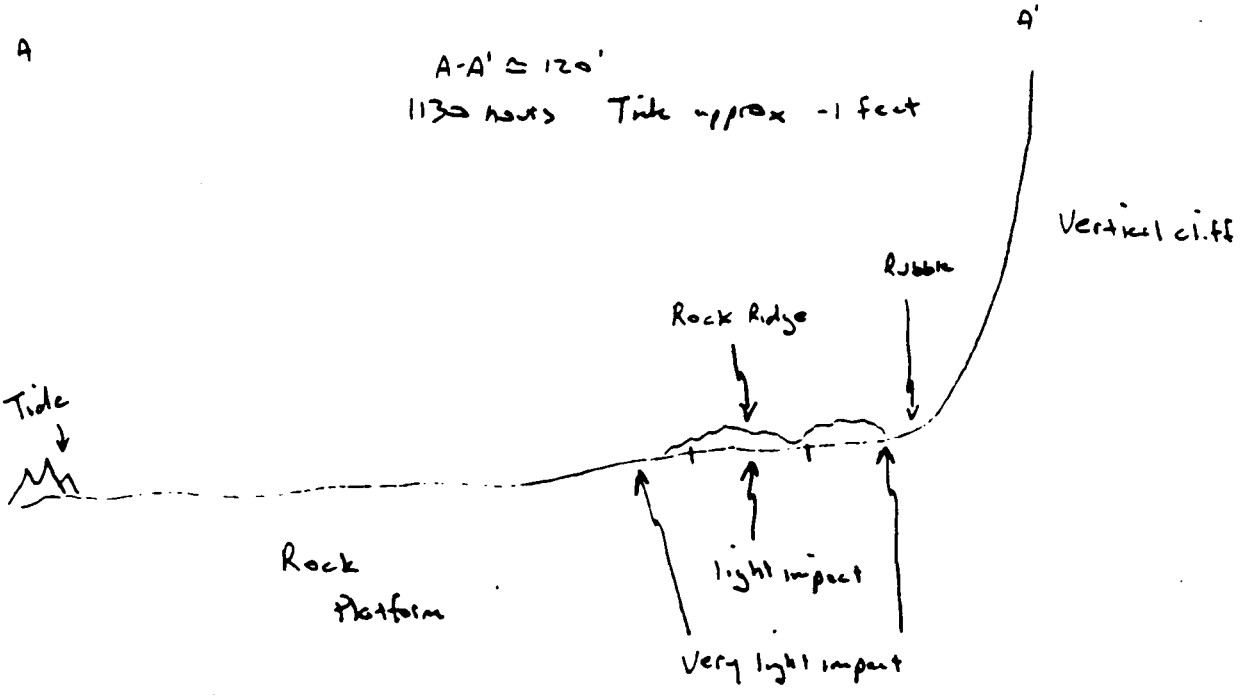
1045 hours Tide approx -2.5'

ACE 8706507

Map # 2 N 1



60' band of oil impact consisting of very light to light splat and mousse on rock ridge and rubble / boulders



light impact - 20' band splat and mousse on rock ridge and rubble

Very light impact - 60' band of splat and mousse on boulders/rubble and rock ridge

ACE 8708508

49

8/19 Sat 0905 Depart Kodiak

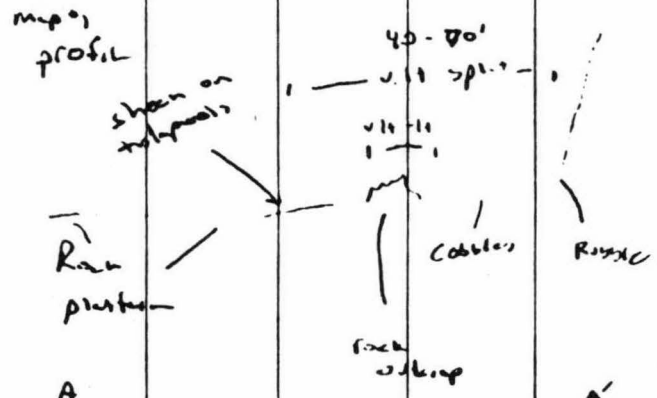
960

Actaeon Davis Intermediate

Dead (N>cc) Trayer (N>>)

1000 Cape Douglas to refuel

1045 left off from refueling



A-A' ≈ 250'

20'-band of v.ll to ll. splat in area of R o

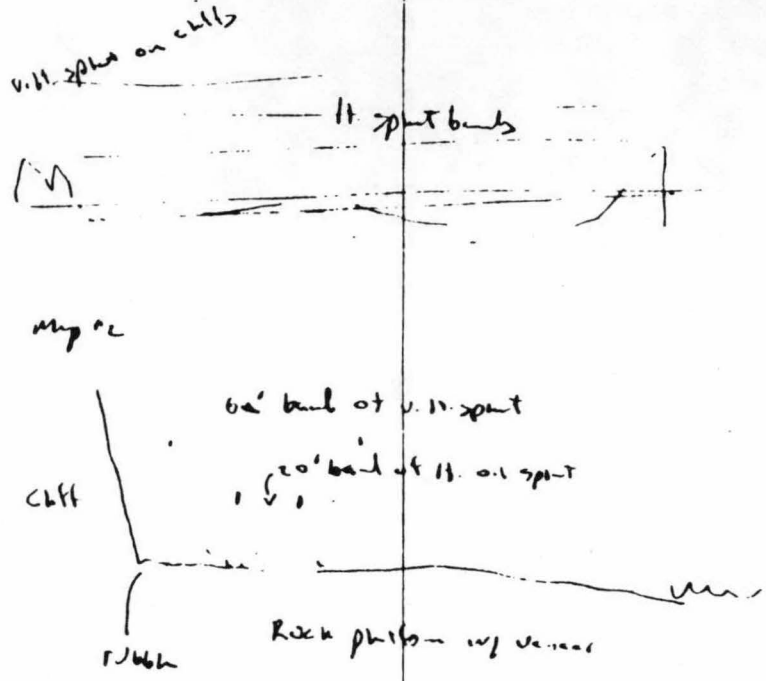
splat at cliff base v.ll in rubble against cliff

along first ½ mile 20-30' band of ll. splat

40-70' band of v.ll splat

ll splat in mid tide + high tide zone.

52

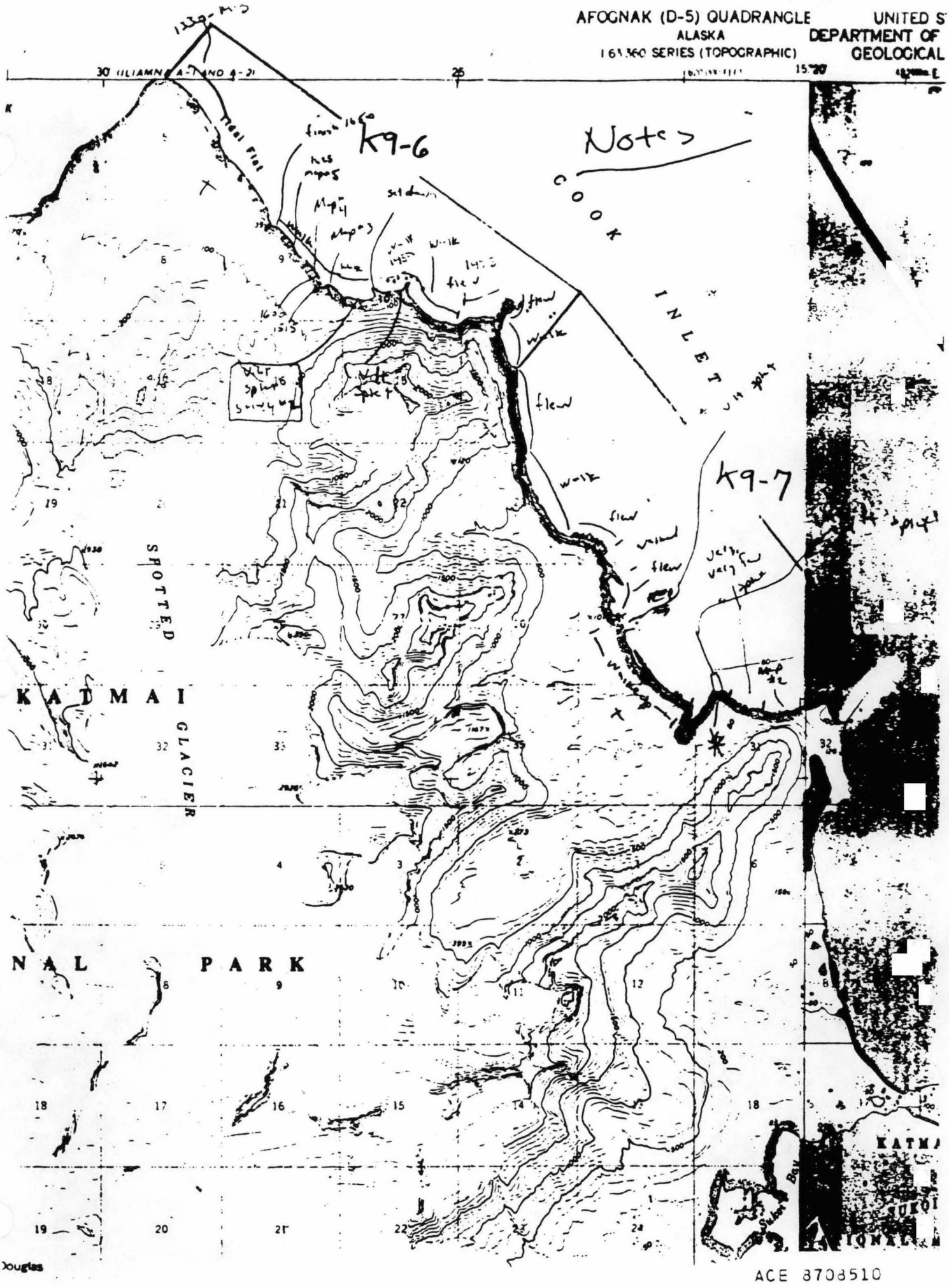


A-A' 100'

v.ll splat on L points marked *

1430 time left off

ACE 8703509


AFOGNAK (D-5) QUADRANGLE
ALASKA
1:63,360 SERIES (TOPOGRAPHIC)
UNITED S
DEPARTMENT OF
GEOLOGICAL
K9-6
Note
K9-7
COOK INLET
SPOTTED
GLACIER
KADMAI
NAL PARK
KATMA
Douglas

ACE 8708510

ECOLOGICAL EVALUATION
K9-7-CO-1

LOCATION: Cape Douglas SITE: K9-7-CO-1 OBSERVER: N. Davis

LOCATION PREFIX: CO SEG. NO.: LENGTH: 7500 (M)

DATE: 9/19/89 TIME (HHMM): 10:45-13:35 TIDE HT.: -1.5' - 10' (M)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) (Mud)

LIVE BIOTA

Fucus (algae): (Patchy) Y/N Contin. Y/N (Dense) Y/N (Sparse) Y/N None Y/N

On rocky boulder and cobble areas Fucus was present in patches along with Ulva, Enteromorpha, Porphyra, Leathesia common

Mytilus (Mussels): (Patchy) Y/N Contin. Y/N Dense Y/N (Sparse) Y/N None Y/N

On rocky areas but patchy. None in boulder fields or cobble areas

Balanus (Barnacles): Patchy Y/N (Contin.) Y/N (Dense) Y/N Sparse Y/N None Y/N

Balanus spp. - Chthamalus dalli continuous except in areas of high silt and sand and gravel

Littorina
Patchy Y/N (Contin.) Y/N (Dense) Y/N Sparse Y/N None Y/N

Littorina spp continuous even in mid intertidal oiled areas. Absent from gravel/sand/silt areas

Limpets: (Patchy) Y/N Contin. Y/N Dense Y/N (Sparse) Y/N None Y/N

Acmea spp observed in high - low intertidal grazing trails left inside splash on rocks.

OTHER OBSERVATIONS: Both plants and animals appear to be healthy with normal growth for this time of year. Pools in the high intertidal often had films of oil when near splashes

CLEANUP PRECAUTIONS: Avoid trucking mousse into mid-intertidal areas, and don't walk through delicate estuary areas. Beware of overhanging bluffs and watch for Bears

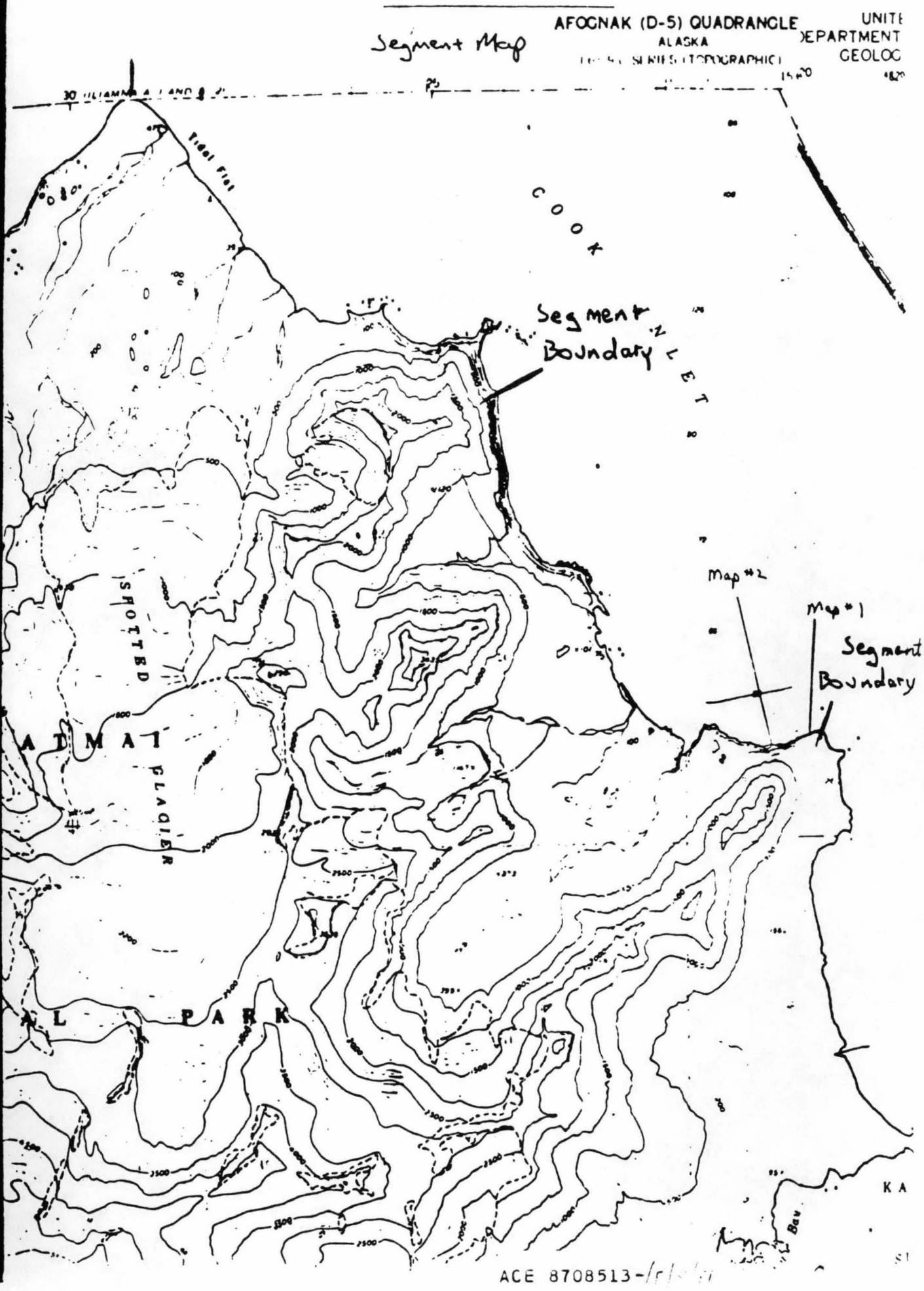
MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: Black legged kittywakes, Glaucous winged gulls, 1 eagle (see map) possible old nesting site

GENERAL OBSERVATIONS: This section of coast had rocky cliffs with boulder bases, boulder fields, rock and cobble fields as well as sandy beaches and fine silt areas

RT-1-20-1

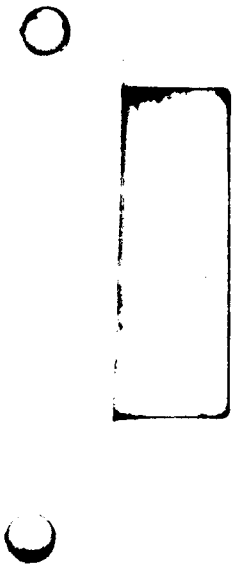
Segment Map



ACE 8708513-

K9-6 CP1 CP2

ACE 7963977



(see)

ACE 8708480 +/F/FF

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/26/89 SHORELINE SEGMENT K9-6-CP-1

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. K9 SHORELINE ASSESSMENT DATE: 8/19/89

Recommended Cleanup Activity(ies):
No cleanup recommended, as oil impact observed was sporadic, very light and the shoreline has high potential of natural cleaning. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. Kevin McMahan Date: 8/28/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 870848i/A +1s

SHORELINE OIL EVALUATION

A. General

1. Date: 8/14/89 2. Time: 1500 3. Observer: M. Acton

4. Surveyed From: (Foot)/Boat/(Helic)/Plane 5. Weather: Sun/(Cloud)/Rain/Snow/Fog

6. Location Cape Douglas 7. Segment #: K9-6-CP-1

8. Length of shoreline segment: 6000 yds 9. Tidal Stage ± 7 ft.

10. Access: Foot/Vehicle/(Boat)/Barge/(Helic)/Float Plane

11. Total Percentage of Segment Accessible: 60 %

12. Access Restrictions: High energy beach - access by boat during low tide, low energy periods

B. Shoreline

13. Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT/CLF/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/(Low)

16. Sediment: B__% / C__% / P__% / G__% S__% / M__% / R__%

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type Driftwood Seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/(Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: 3-7 yds
Continuous: Total % of Segment _____
Sporadic: Total % of Segment 60
No Oil: Total % of Segment 40

20. Est. Oil Thickness where >1in: _____in 21. Est. Oil Penetration: _____in

22. Pooled Oil: _____% "Free" Oil: _____% Coated: H___% / M___% / L100%

23. Fresh _____% Mousse 10 % Tar Formation: 90 %

24. Drift Debris Oiled? (Yes)/No (Sup)/(Up)/Mid/Low Amount: _____H/M/(L)

Comments:
See attached maps

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh	_____	%
Mousse	10	%
Weathered	_____	%
Tar	90	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	3600	3-7
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
pooled/continuous								
coating/ splat	X	X				3600	3-7	
cracks / crevices								
patties (>10cm diameter)								
balls (< 10cm diameter)								
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: _____ yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/Medium/(Low)

DOCUMENTATION:

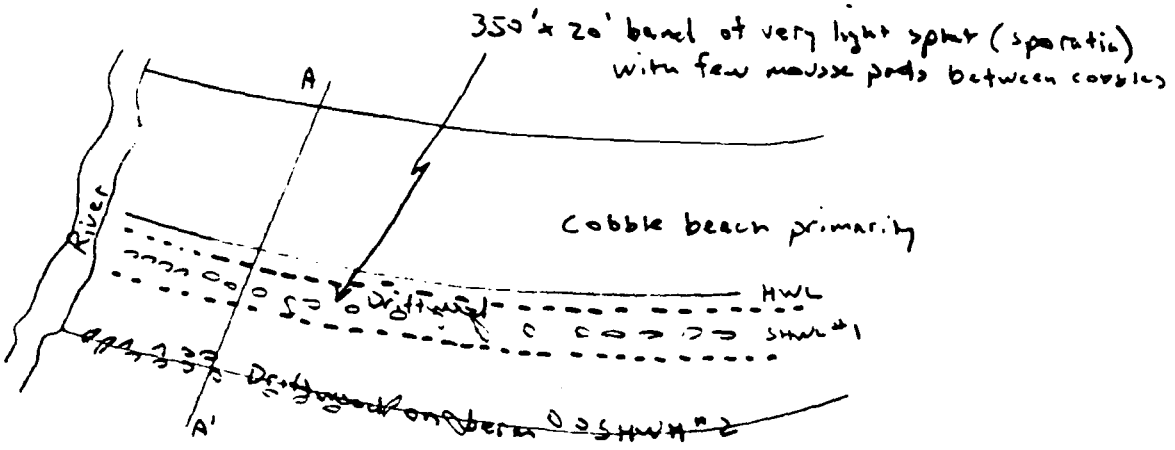
(Map)/Aerial photo marking segment boundaries See Attached Maps

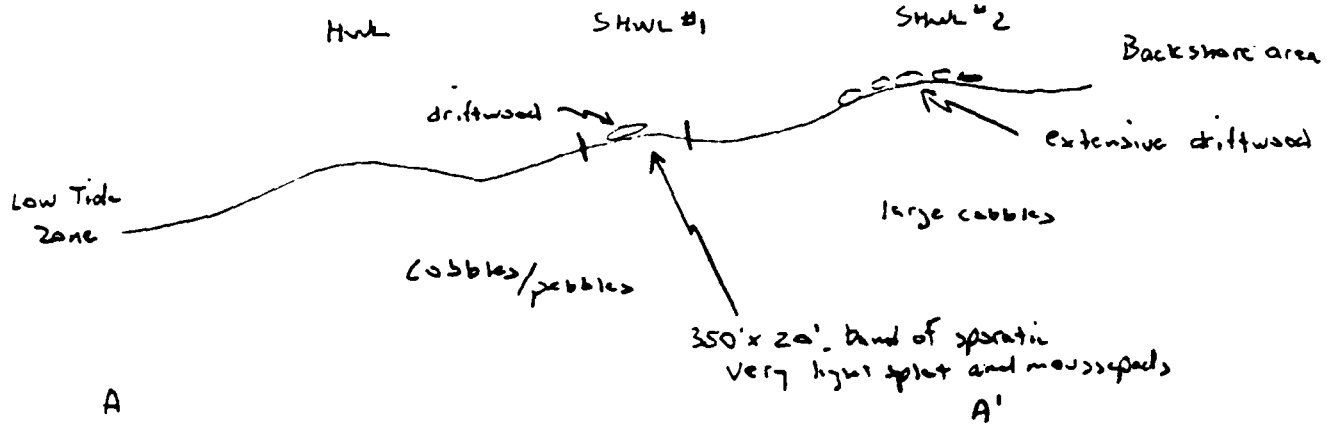
VTR: (Y)/N Tape Number (s) KOS 9

Photography: (Y)/N Roll Number (s) HLD 3

Additional Comments:

Map #1 N ↑





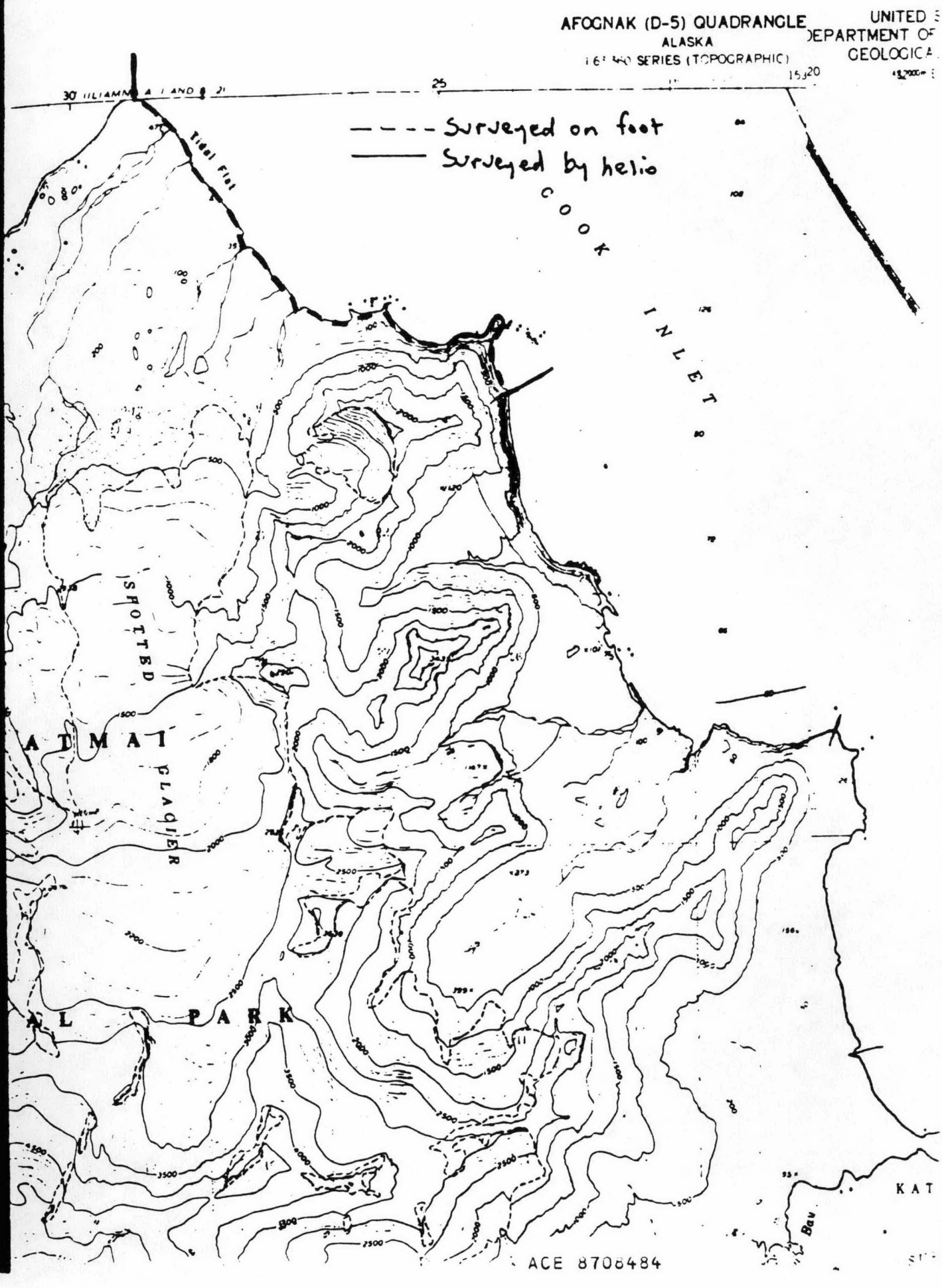
A-A' ≃ 120'

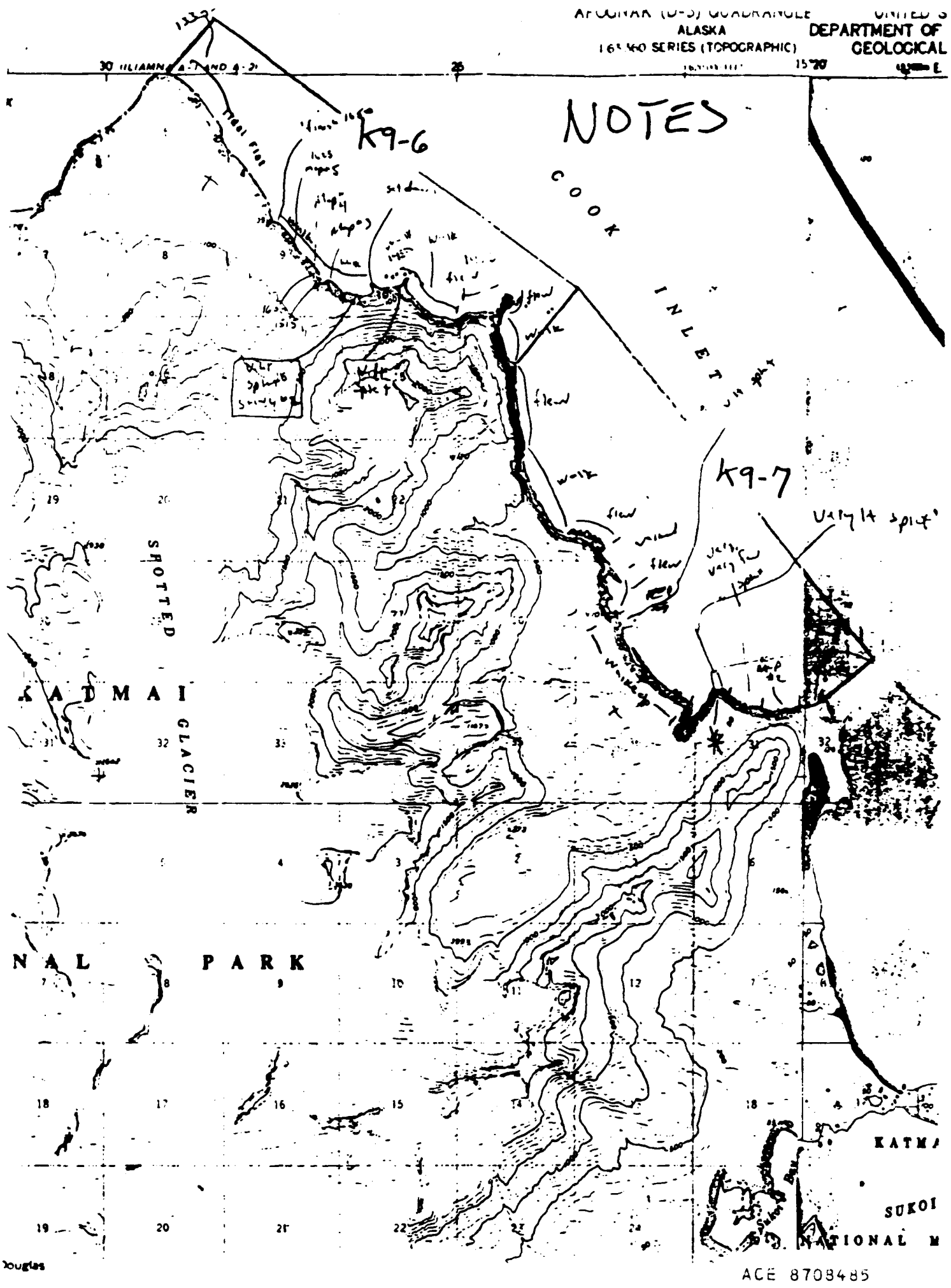
1500 hours Tide approx +8'

This map area is fairly representative of oil impact observed in the segment - very light oil impact, and sometimes very light plus impact, consisting of splatter cobbles and driftwood.

ACE 8708483

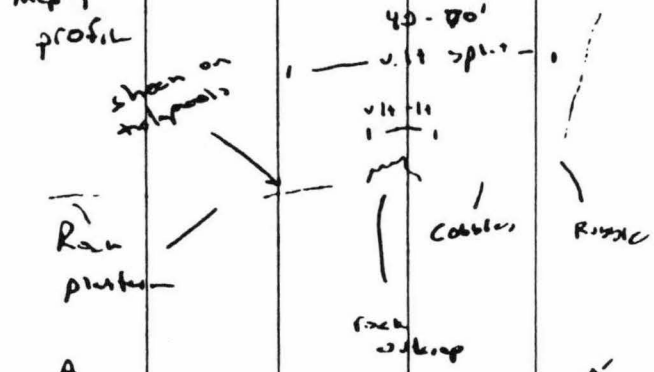
K9-6-CP-1


AFOGNAK (D-5) QUADRANGLE
ALASKA
SERIES (TOPOGRAPHIC)
UNITED S
DEPARTMENT OF
GEOLOGICA
Surveyed on foot
Surveyed by helio
COOK INLET
TIDAL FLAT
SPOTTED
ATMAT
GLACIER
PARK
KAT
Bay
ACE 8708484


ALASKA
DEPARTMENT OF
GEOLOGICAL
NOTES
K9-6
K9-7
COOK INLET
SPOTTED GLACIER
KATMAI
NAL PARK
KATMA
SUKOI
NATIONAL M
ACE 8708485

49

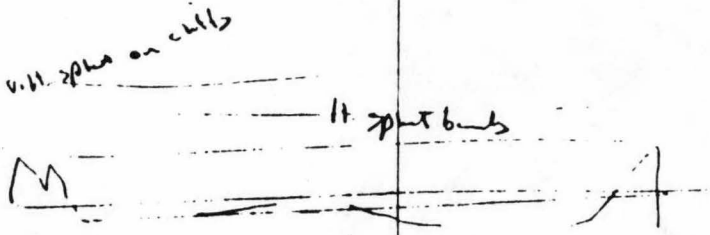
8/19 Sat 0905 Depart Kodiak
965
Actaea Davis Utermahlen
Judd (USCG) Thayer (NPS)
1000 Cape Douglas to refuel
1045 lift off from refueling

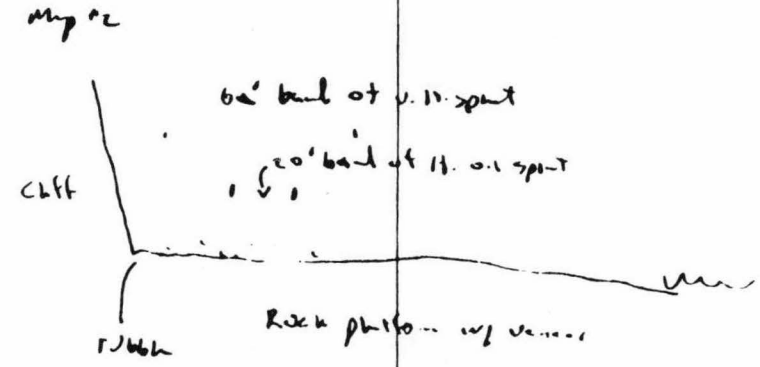


AA' ≈ 250'

20'-band of v.lt to lt. splat in area of R o
splat at cliff base v.lt in rubble against cliff
along first ½ mile 20-30' band of lt. splat
40-70' band of v.lt splat
lt splat in mid tide + high tide zone

52





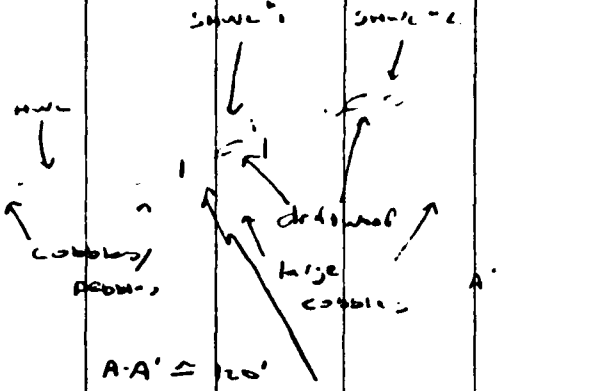
A-A' 100'

v.lt splat on L points marked *
1430 lunch lift off

ACE 8708486
POOR QUALITY ORIGINAL

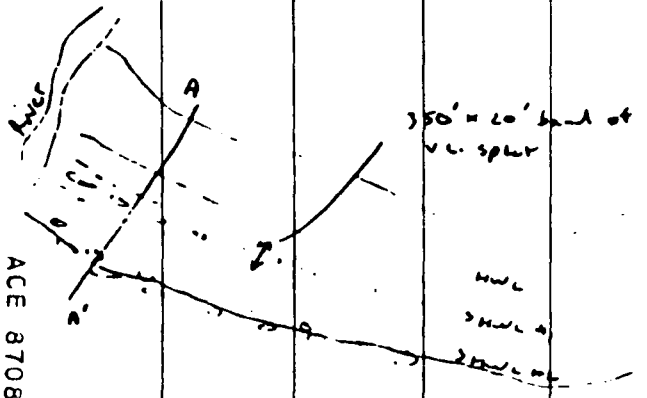
51

1605 Map #3



Map #3

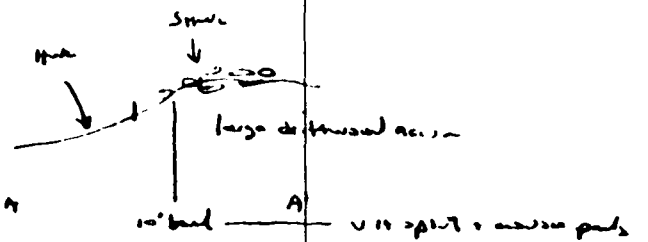
500' section map



ACE 8708487

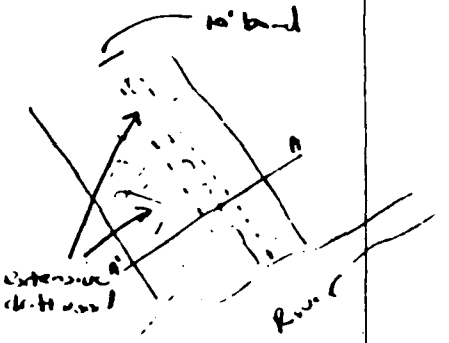
52

1605 Map #4



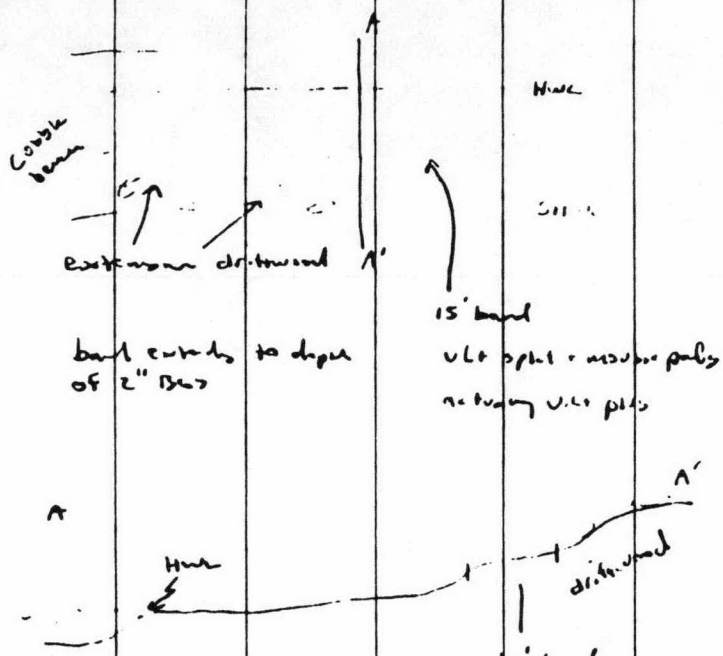
A-A' ≅ 50'

sand/cobble beach



POOR QUALITY ORIGINAL

1625 Map #6



ACE 8708488

Depart for Kodiak 1450

Fuel in CP Douglas 1705-1715

Arrive Kodiak 1800

9/20 Sunday

0725 Depart Kodiak for Cape Douglas

358 EH Acton Crowell Davis

Troyer (NPS) Judd (USCG)

0840- overfly Shaw Island

Map #1 0900

0.1 impact in mid-high water t.i.l zone

Heaviest oil I have seen in Kodiak region

Rock platform / boulder cobble pebble shoreline

20-25' band of mousse / tar between cobbles/boulders

oil up to 2-3" thick

band is continuous H impact

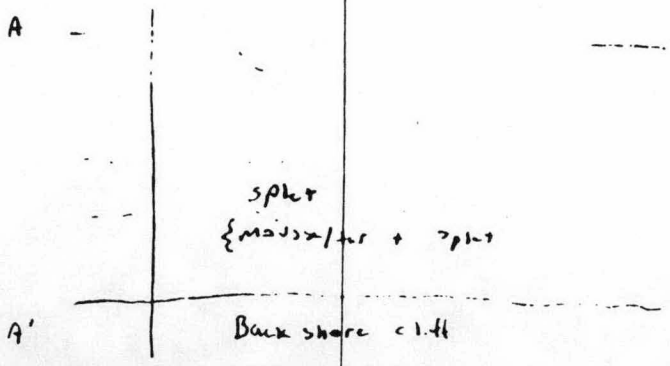
Splat on rocks also VLt to Lt.

Splat band up to 100' wide

some splat on driftwood

2 bird carcasses - oiled

oil coverage in band is estimated > 50 % in many spots



POOR QUALITY ORIGINAL

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas SITE: K96CP1 OBSERVER: H. Davis

LOCATION PREFIX: CP SEG. NO.: 6CP1 LENGTH: 6000 (M)

DATE: 8/19/89 (8/20/89) TIME (HHMM): 14:15 - 16:59 (13:15 - 14:15) TIDE HT.: +5' - +10' (-1' - +3') (M)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: Rocks (Boulder) (Cobble) (Gravel) Sand (Mud)

LIVE BIOTA

Fucus (algae): (Patchy) Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy on rocky areas. Other algae Ulva, Porphyra, Bigartina, Endocladia, Leathesia are not common. In Cobble areas Ulva and Fucus occur very sparsely.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense patches on rock outcroppings, sparse in boulderfields. None in Cobble Sand Silt areas.

Balanus (Barnacles): (Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

Continuous and dense on all rocky areas. Fewer in high energy cobble areas none near river mouths and sandy/silt

Littorina
(Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

Dense (500) m^2 in rocky areas none on cobble beaches or near river mouth

Limpets: (Patchy) (Y)/N Contin. Y/N (Dense) Y/N (Sparse) Y/N None Y/N

Active grazing trails in rocky areas. Acmaea sp. patchy throughout rocky area. None Cobble/Silt/Sand

OTHER OBSERVATIONS: Wide stretches of cobble beach with little biota intertidaly (High energy) Rocky areas have most of the biota. Many streams have high rock flow content from the Spotted glacier

CLEANUP PRECAUTIONS: Avoid anadromous stream beds and watch for bears in those areas. Be careful of over hanging bluffs.

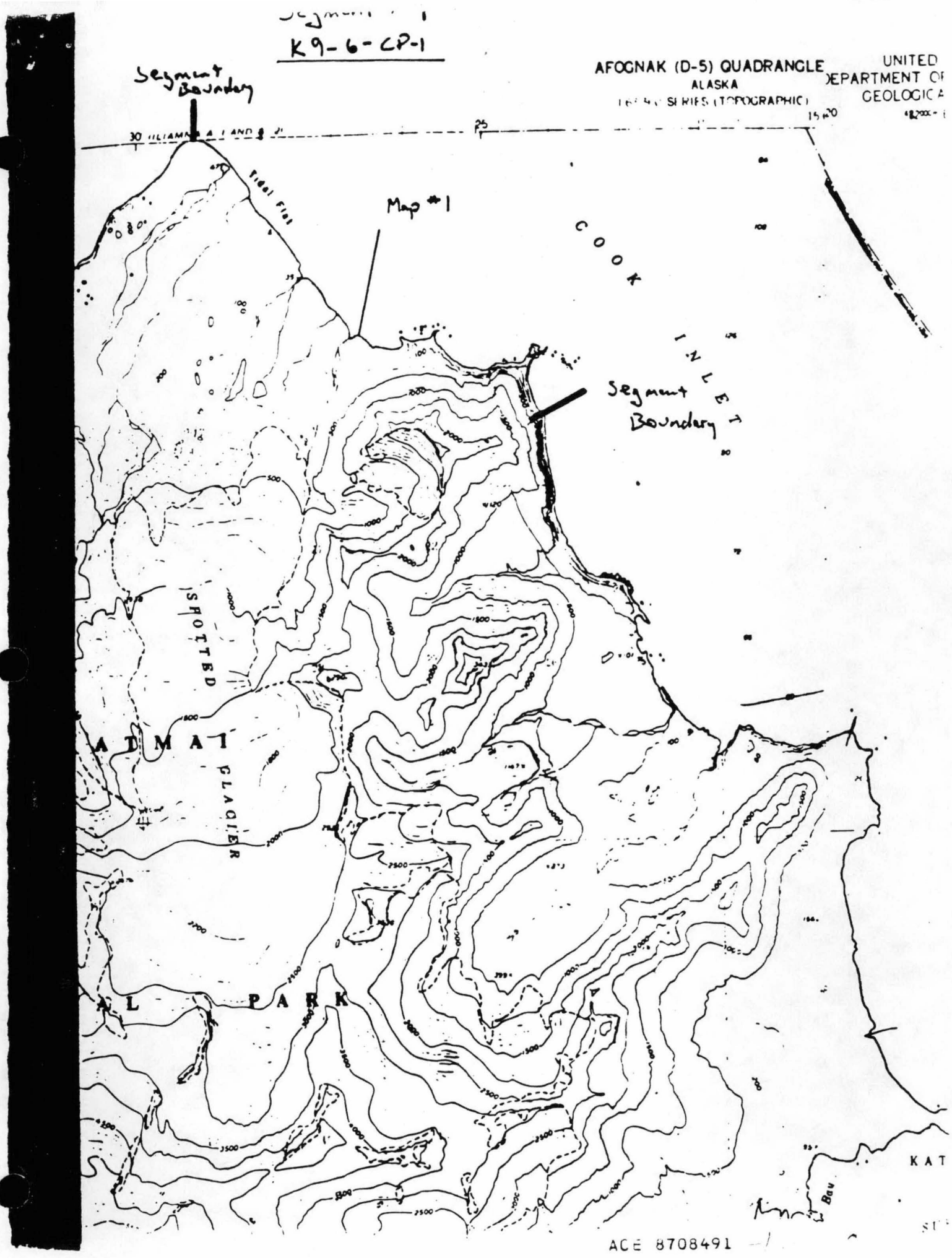
MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other 1 Moose near estuary area. Wolf, Fox, Bear prints along beaches

BIRDS: 26 wandering tatlers, sandpipers, Glaucous-wing gulls and 3 Tufted Puffins 1 Dead Kittiwake (Not Oiled)

GENERAL OBSERVATIONS: None of the splatt or mousse seen had effected the biota

ACE 8708489

K9-6-CP-1


Segment Boundary
AFOGNAK (D-5) QUADRANGLE
ALASKA
UNITED
DEPARTMENT OF
GEOLOGICA
Map #1
COOK INLET
Segment Boundary
SPOTTED
ATMAT
GLACIER
PARK
KAT
Bay
ACE 8708491

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/26/89 SHORELINE SEGMENT K9-6-CP-2

LOCATION: (see enclosed map) Shaw Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/20/89

Recommended Cleanup Activity(ies):

-Given deteriorating weather conditions and limited safe access and high potential for natural cleaning, no cleanup of this segment should be attempted. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 3-A

-Access and cleanup during low tide at low energy periods only.

Ecological Constraints (from site survey):

-Avoid puffin rookery on south side of island.
-Avoid juvenile swans on table top island surface.

Archaeological Constraints (from site survey):

-No access to vegetated areas above beach.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 8/28/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708492

SHORELINE OIL EVALUATION

A. General

1. Date: 8/20 2. Time: 1000 3. Observer: M Acton

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather/(Sun)/Cloud/Rain/Snow/Fog

6. Location Shaw Island 7. Segment #: K9-6-CP-2

8. Length of shoreline segment: 4500 yds 9. Tidal Stage ± 0 ft.

10. Access: Foot/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 30 %

12. Access Restrictions: Boat access during low energy periods at low tide!

B. Shoreline

13. Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT/CLF/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/Low

16. Sediment: B20 % / C20 % / P5 % / G__ % S5 % / M__ % / R50 %

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type Driftwood Seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/(Moderate)/(Light)/Very Light/No Oil Observed

19. Area of Beach Impact: Width of Band: 8-30 yds
Continuous: Total % of Segment 25
Sporadic: Total % of Segment 50 approx
No Oil: Total % of Segment 25 approx

20. Est. Oil Thickness where >1in: 1 in 21. Est. Oil Penetration: 3 in

22. Pooled Oil: ____ % "Free" Oil: ____ % Coated: H__ % / M34 % / L66 %

23. Fresh ____ % Mousse 34 % Tar Formation: 66 %

24. Drift Debris Oiled? (Yes)/No (Sup)/(Up)/Mid/Low Amount: ____ H/M/(L)

Comments:
See Attached Notes and Maps #1, 2, 3

Based upon Kodiak oil impact I have observed, Map #1 is moderate, but might be classified light when compared to PWS.

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse	34	%
Weathered		%
Tar	66	%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:	3000	25
Light:	500	8
Moderate:	500	8
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth
pooled/continuous								
coating/ splat		x	x			4000	35	
cracks / crevices								
patties (>10cm diameter)		x	x			500	8	3
balls (< 10cm diameter)		x	x			500	8	3
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: 350 yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: (High)/Medium/Low

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See attached Maps

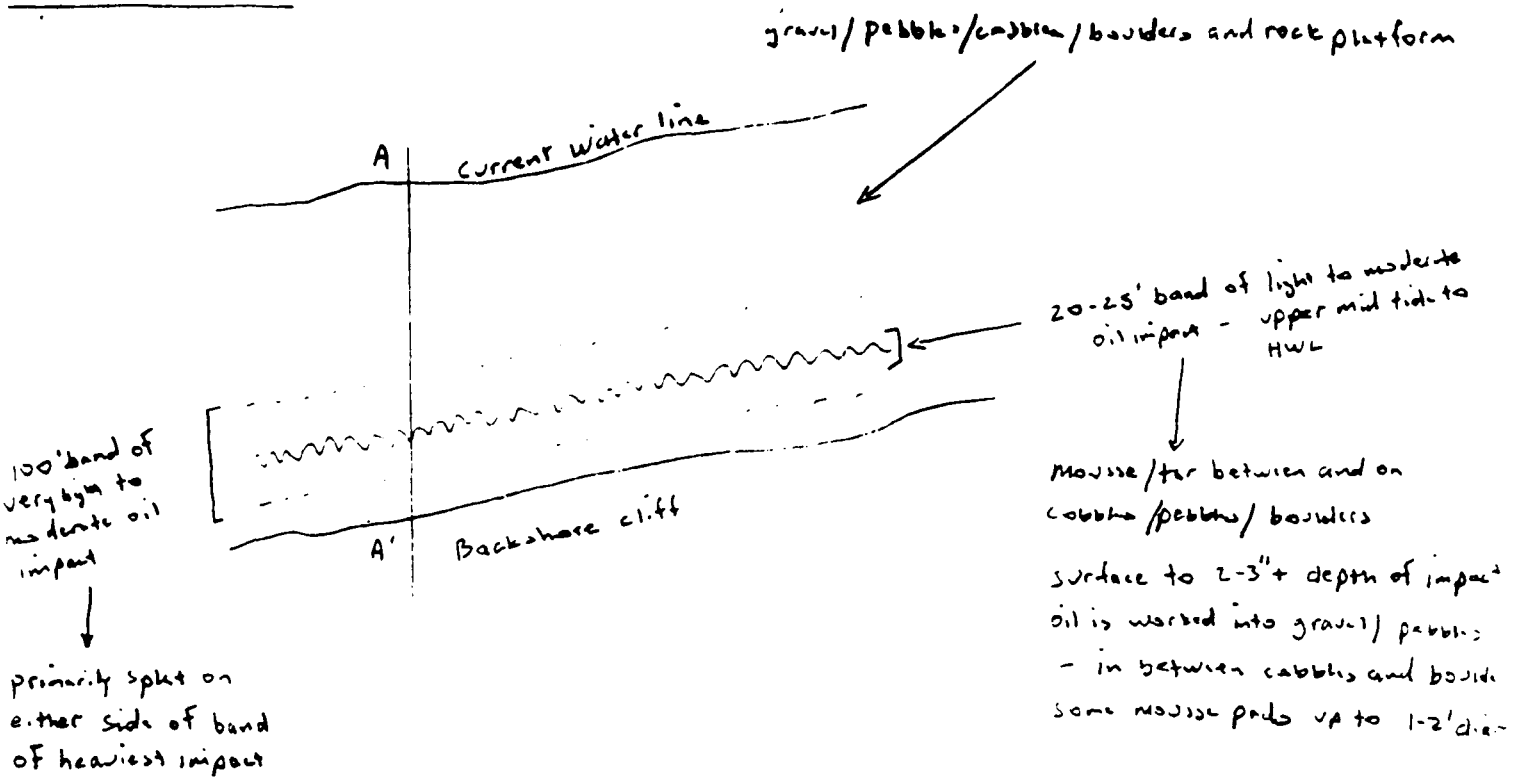
VTR: Y/(N) Tape Number (s) _____

Photography: (Y)/N Roll Number (s) HLD 3

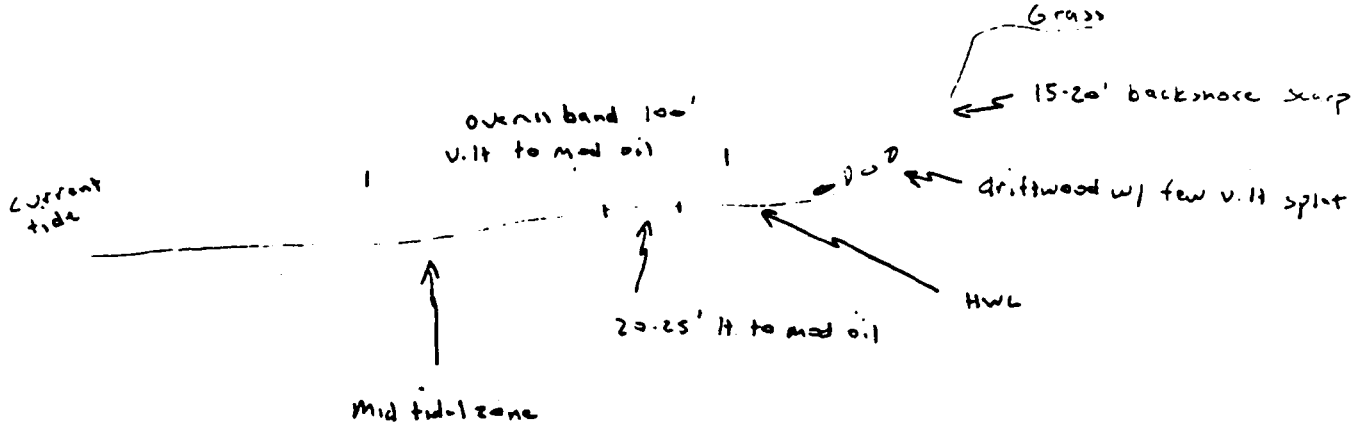
Additional Comments:

Surveyed 75 % of island on foot, 25 % by helo.

Map #1 N ↑



Band extends from approximate area of Map #1 to NE tip of island. Impact is greatest in area of Map #1 and in an area several hundred feet west of NE tip of island. Length of overall band approx 2000'. Length of light to moderate impact within this band approx 750-1000', at Map #1 and near NE tip.



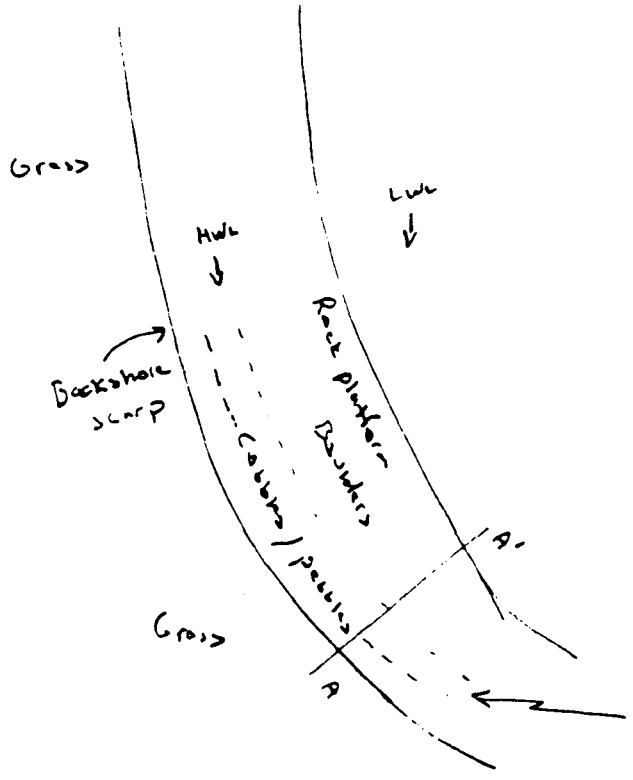
A-A' ≃ 200'

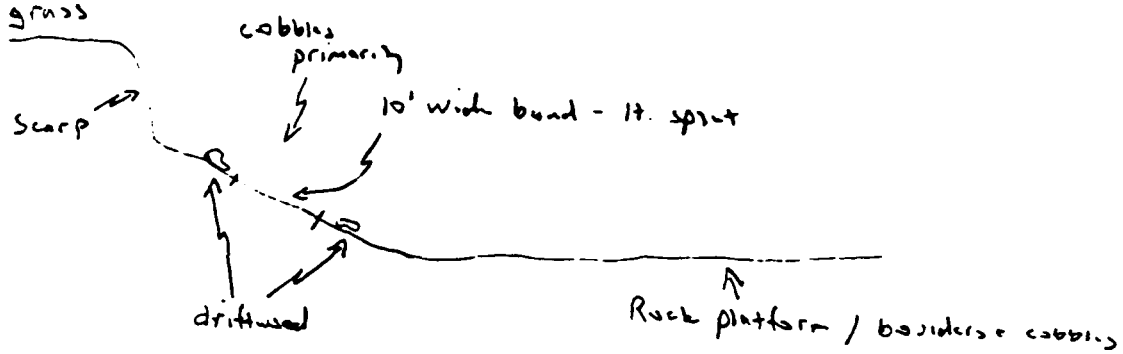
0900 hours +3.5' tide

ACE 8708495

Map # 2 N 1

Band of light oil impact - splat, at south end of small cove. Band is in SP zone





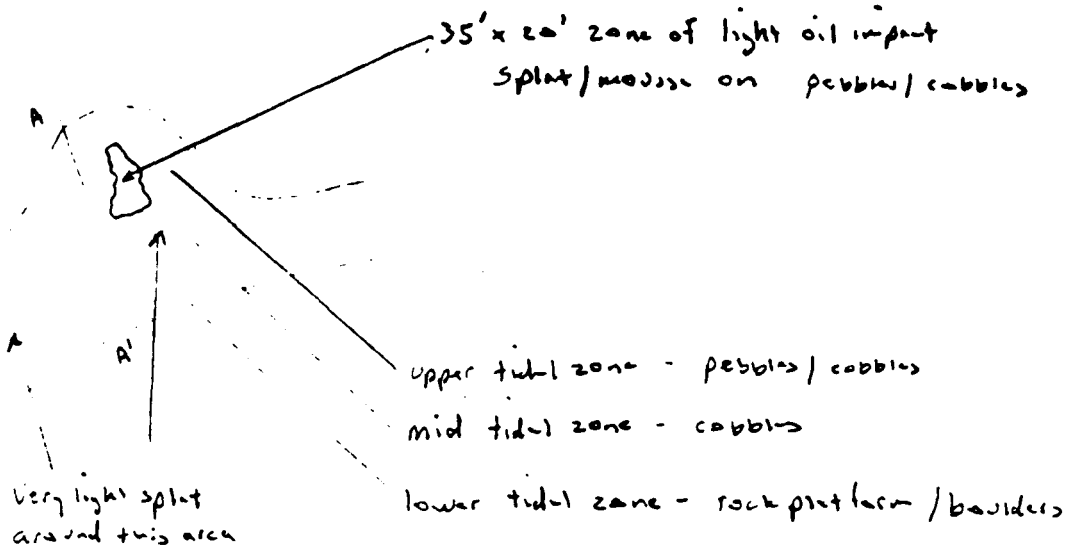
A A'

A-A' ≐ 120'

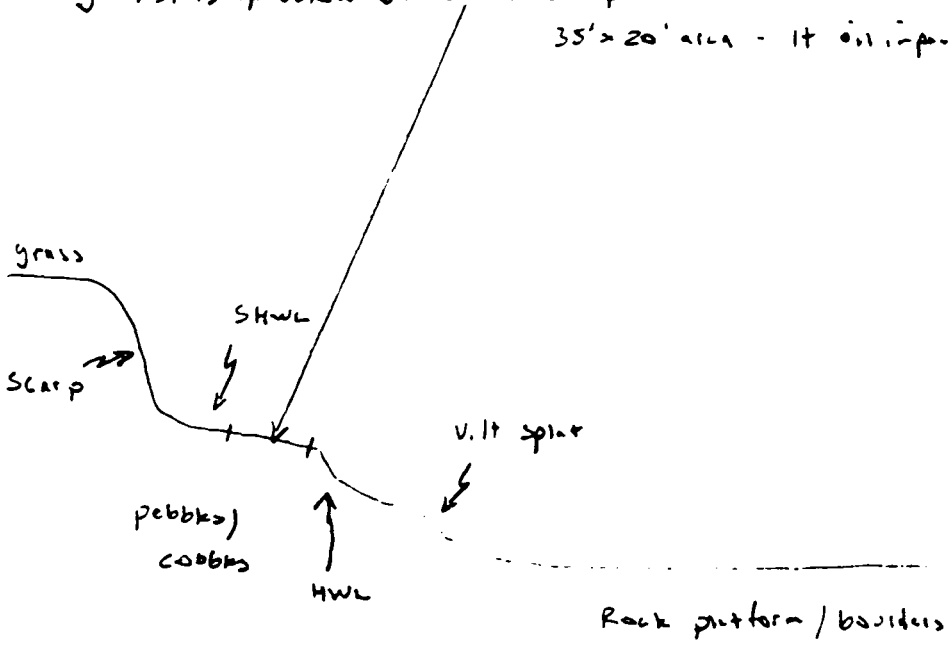
1000 hours 0' tide

ACE 8708490

Map # 3 N↑



Zone of greatest is up below backshore scarp in the back of a small pocket beach

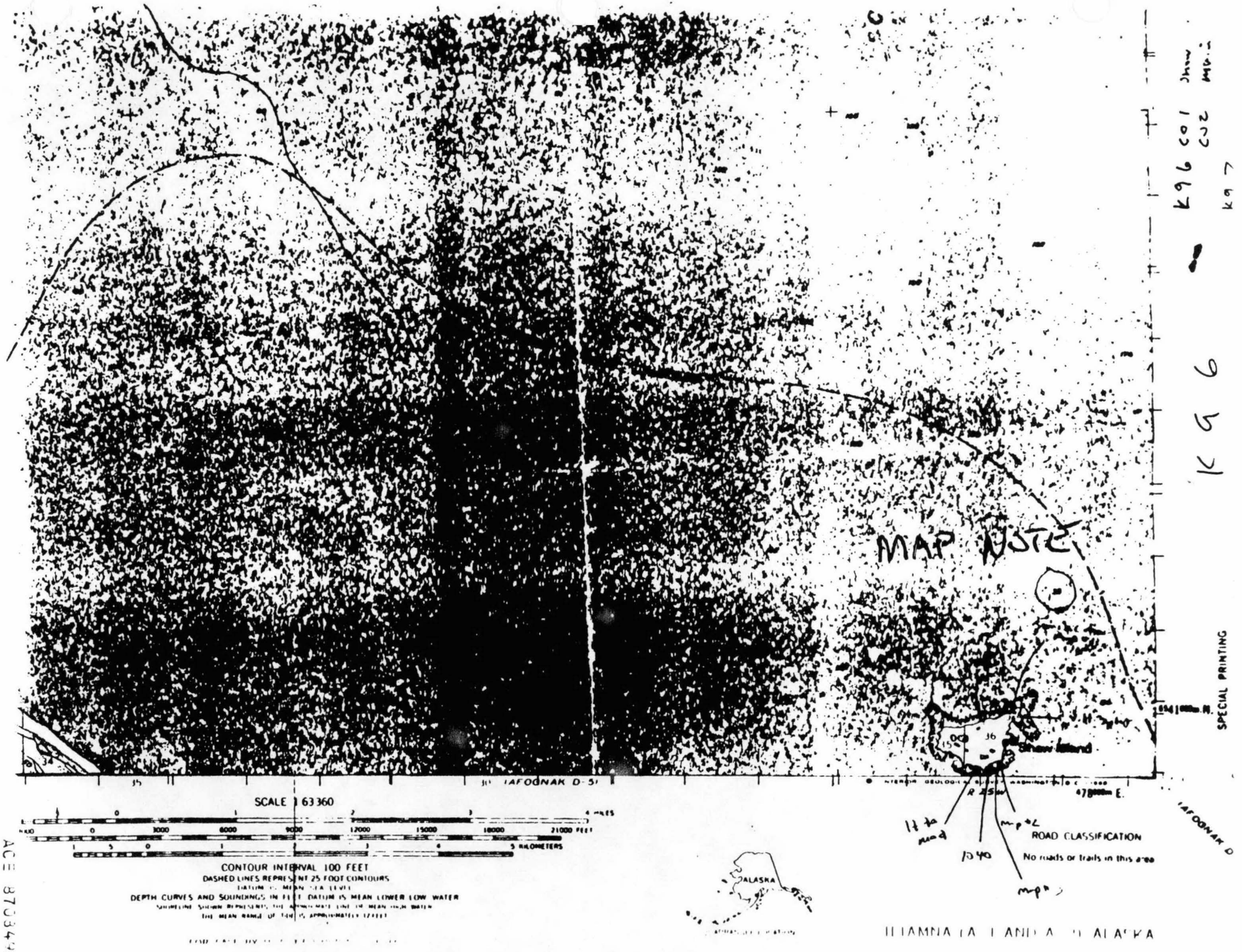


A A'

A-A' ≃ 120'

1045 hours -1' tide

ACE 8706497

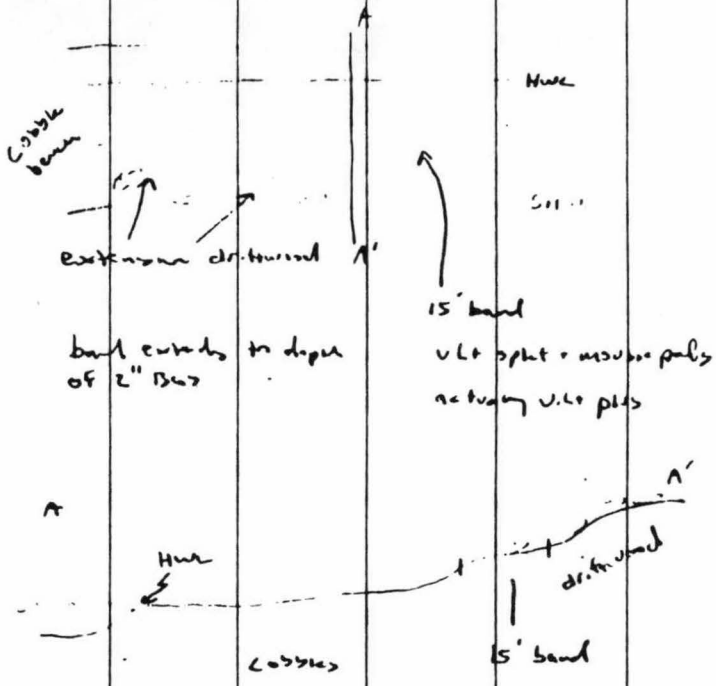

MAP NOT
SCALE 1:63360
CONTOUR INTERVAL 100 FEET
DASHED LINES REPRESENT 25 FOOT CONTOURS
DEPTH CURVES AND SOUNDINGS IN FEET. DATUM IS MEAN LOWER LOW WATER
ROAD CLASSIFICATION
No roads or trails in this area
ALASKA
SPECIAL PRINTING
KODIAK D-5
Shaw Island

ACE 8733448

POOR QUALITY ORIGINAL
ACE 8708499

53

1625 Map #6



Depart for Kodiak 1450

Fuel on CP Ranger 1705-1715

Arrive Kodiak 1800

54

0725 Depart Kodiak for Cape Douglas

358 EH Acton Crowell Davis

Troyer (NPS) Judd (USCG)

0830- overfly Shuyak Island

Map #1 0900

Oil impact in mid - high water tidal zone

Heaviest oil I have seen in Kodiak region

Rock platform / boulder cobble pebble shoreline

20-25' band of mousse / tar between cobbles / boulders

oil up to 2-3" thick

band is continuous M impact

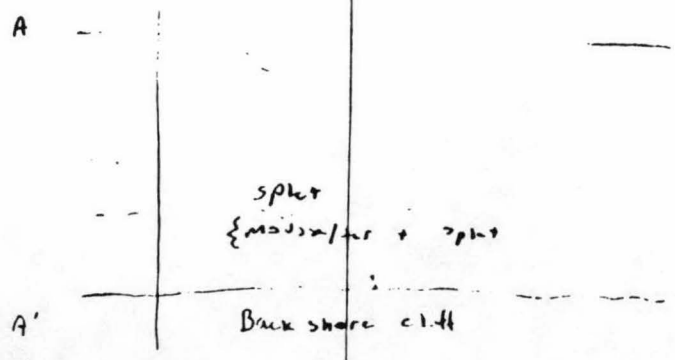
Splat on rocks also VL to L

Splat band up to 100' wide

some splat on driftwood

2 bird carcasses - oiled

oil coverage in band is actually > 50 % in many spots



POOR QUALITY ORIGINAL

ACE 8708500

ECOLOGICAL EVALUATION

LOCATION: Shaw Island SITE: K9 6 CP2 OBSERVER: N. Davis

LOCATION PREFIX: K9 SEG. NO.: 6 CP2 LENGTH: 4500 (M)

DATE: 9 / 20 / 89 TIME (HHMM): 8:45 - 11:20 TIDE HT.: -2' - +2' (M)

OILED ZONE: (Splash) (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) Very little Mud

LIVE BIOTA

Fucus (algae): (Patchy) Y/N (Contin.) Y/N (Dense) Y/N Sparse Y/N None Y/N

Fucus present all the way around the island from dense patches to scattered tufts. A lot of laminarian algae in the rocks.

Mytilus (Mussels): (Patchy) Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy around the island with largest Mytilus patches on rocky areas. All healthy.

Balanus (Barnacles): Patchy Y/N (Contin.) Y/N (Dense) Y/N (Sparse) Y/N None Y/N

A continuous band of Balanus & Chthalamus varied in tidal height and density with water action.

Littorina
Patchy Y/N (Contin.) Y/N (Dense) Y/N Sparse Y/N None Y/N

Very numerous and able around the island from splash zone to low intertidal.

Limpets: (Patchy) Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy all the way around the island all healthy. One individual found dead at the end of a grazing trail intertidal.

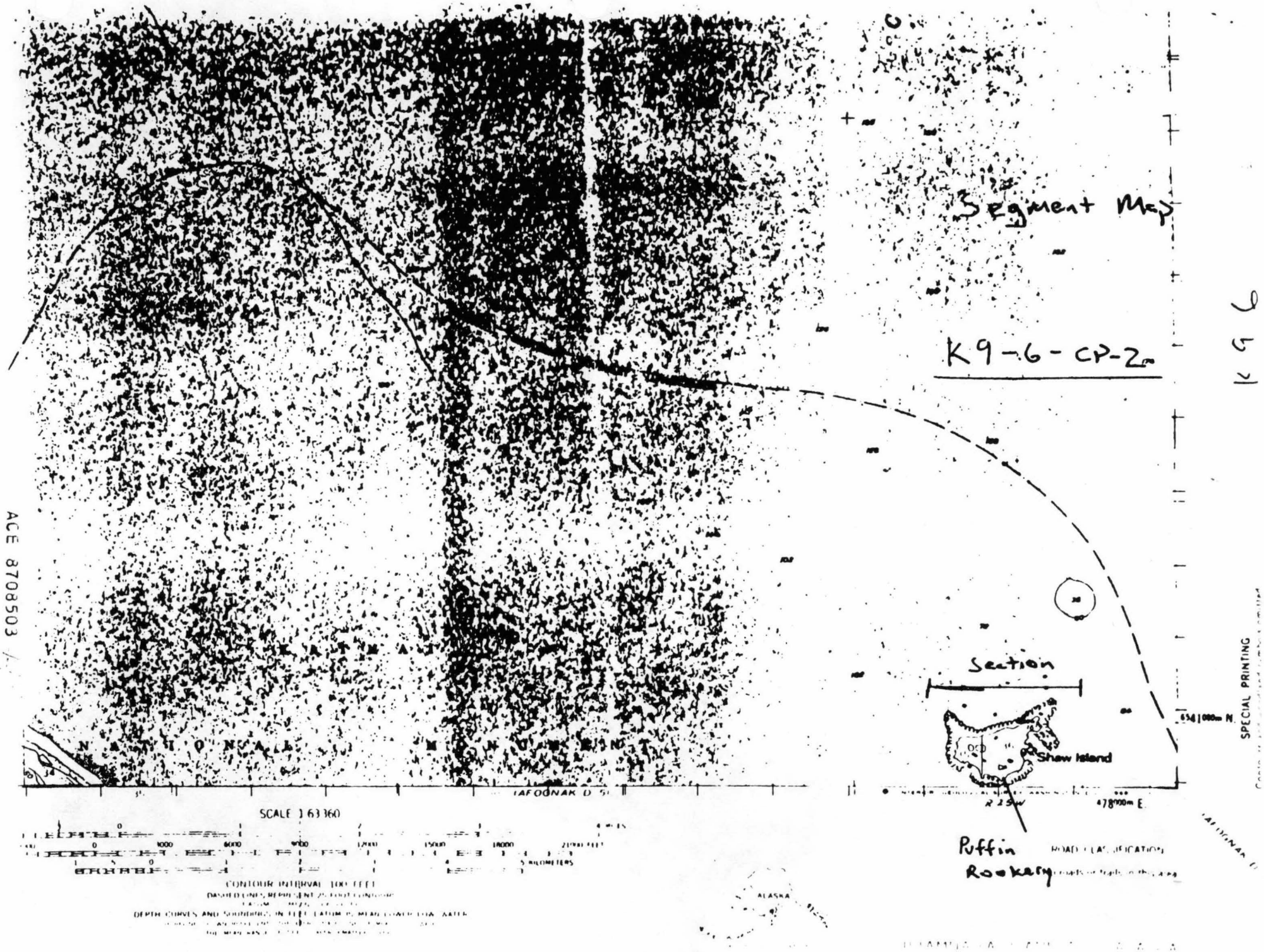
OTHER OBSERVATIONS: Surge channels were incredably rich in flora Cladophora, Ulva, Endocladia Gigartina, Odonthalia, Alaria, Laminaria as well as Fucus, Anthopleura, Balanus, Mytilus, Katharinaloa

CLEANUP PRECAUTIONS: Tufted puffins nesting on cliffs to the south east of the island. Whistling swans have nests in the grass above cliffs. Avoid these two areas.

MAMMALS: Otters 2 (feeding) Harbor Seals 4 Sea Lions ____ Whales ____
Other ____

BIRDS: Tufted puffins, Whistling Swans, Black-legged Kittiwake and Glaucous-winged Gulls

GENERAL OBSERVATIONS: Very healthy active biota on this island. On the Northwest side of the island oil was lower in the intertidal probably due to the large shelf area.


Segment Map
K9-6-CP-2m
Section
Shaw Island
Puffin
Rookery
SCALE 1:63360
CONTOUR INTERVAL 100 FEET
ALASKA
SPECIAL PRINTING
ACE 8708503

517-609-90 KODIAK SCAT K9-8

COMPLETE MAR - 6 1990

ACE 7963979

Talk to 7348

Gary – The Mechanic

re: how much

will have to

fall before snow

removal ~~can~~

~~be~~ as needed.

ACE 8708514
+|F|T|It|FF|-|T|It

But Eric –

We need

snow removal

tomorrow!

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K9-8

Includes Shoreline Segments: CD-1, CD-2, CD-21

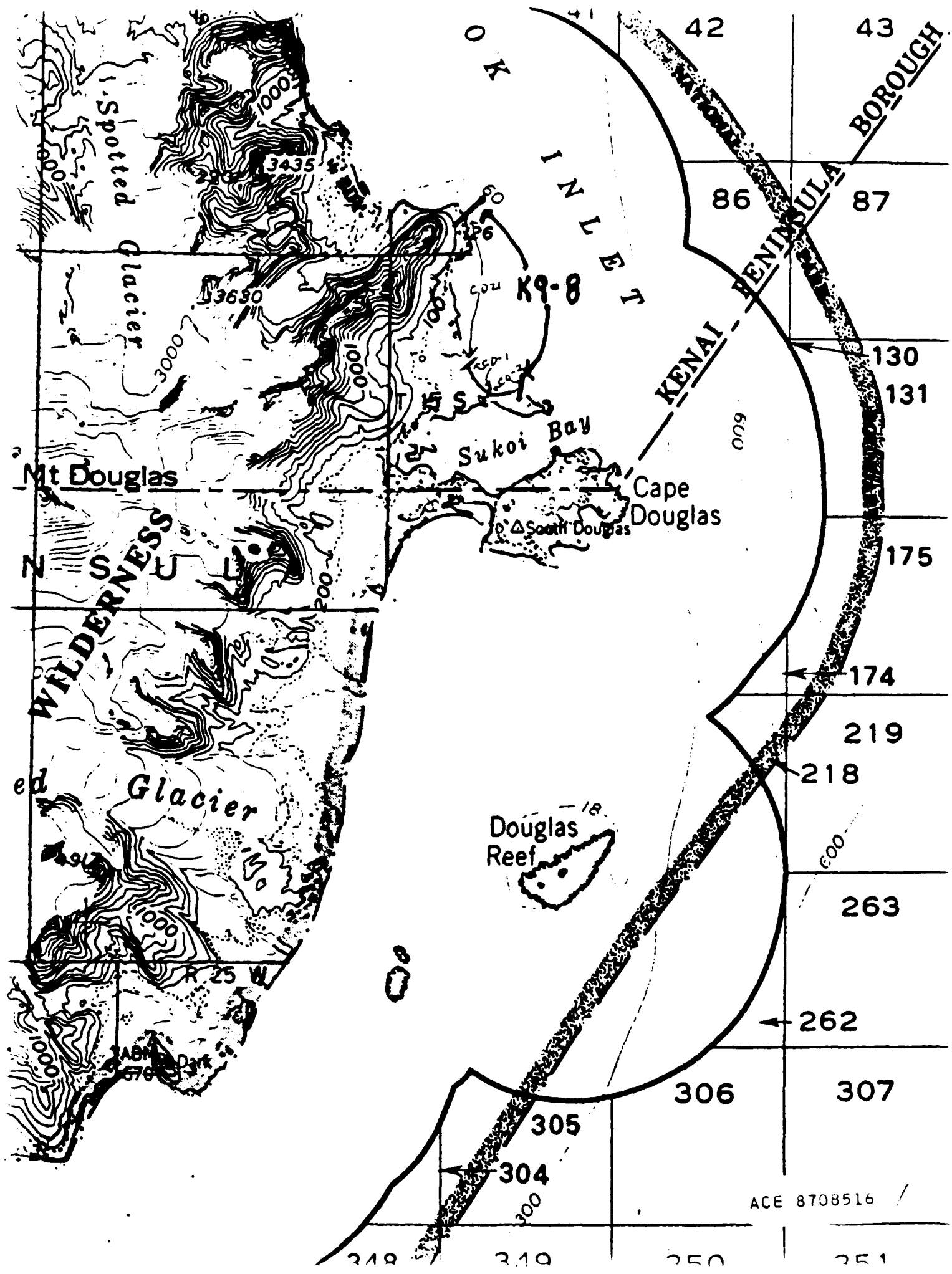
Location: Cape Douglas

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC


42
43
K I N L E T
KENAI PENINSULA BOROUGH
86
87
3435
3630
K9-8
130
131
Sukoi Bay
Mt Douglas
Cape Douglas
South Douglas
175
WILDERNESS
Glacier
174
219
218
Douglas Reef
263
R 25 W
262
306
307
305
304
ACE 8708516
348
349
250
251

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-8-CD-1

LOCATION: (see enclosed map) Cape Douglas, North of Sukoi Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 6/26/89

Recommended Cleanup Activity(ies):

- -Manual removal of oiled debris and localized concentrations of asphalt mousse.
- -No cleanup of other oiled sediments due to light oiling and high natural cleaning potential (wave exposure). Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 4-A

- -Access may be restricted to calm days only.

Ecological Constraints (from site survey):

- -During manual cleanup avoid crushing snails as much as possible.
- -Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):

- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/31/89

State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708517

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 26 1999 / Time: 12:20 Observer: MIKE MILES

Surveyed From: (Foot)/Boat/(Helio)/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION CAPE DOUGLAS
LOCATION NORTH OF SUKOI BAY SEGMENT I.D. K9-8-CD-1

LENGTH OF SHORELINE SEGMENT: 1600 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane) — calm day only

SHORELINE:
Shoreline Type: SPI/(BEA)/COV/HLD/STRT Slope: (LANG)/HANG/VER

Wave Exposure: (High)/Med/Low

Sediment: B 40 % / C 20 % / P 10 % / [illegible] / S 20 % / M ___ % / R 10 %

Drift Debris on Beach: (Yes)/No (Supra/Upper)/(Mid)/Lower Type LOGS & drifted seaweed

OIL
Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved/(Very Light)

Total Area of Beach Impact: SU / (SP / H) / M / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment %_____ No. Bands_____ Width_____

Sporadic: (Y)/N Segment % 90 Min/(Max) Dia 30 Impact Width 6-20 m

Est. Oil Thickness where > 1cm: N/A cm : SU / SP / UP / MID / LO

Est. Oil Penetration: Depth below top seds 5 cm SU / SP / (UP / MID) / LO — local pockets in pebbles only

Layers? Yes/(No) No# Layers_____ Oil Weathering_____

Drift Debris Oiled ? (Yes)/No (Supra/Upper)/Mid/Lower Amount: H / (M / L / VL) — but thin & dried tar

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 30 % Spattered 70 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 0 % SU/SP/VP/MID/LO

Pancake Mousse 0 % SU/SP/VP/MID/LO Asphalt Mousse 100 % SU/(SP/VP)/MID/LO

Tar Formation 0 %

Comments: SEE ATTACHED SHEET

[illegible]

This is a perido cobble boulder [illegible] sand deposits are low angle ink benches in the Lower ITZ

[illegible] edular nrvol

Oil contamination consists of small discrete tar spots & extension through the Upper + Spring tide ITZ

Given the high wave [illegible] small amount of [illegible]

ACE 87Jd516

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODIAK-02

Photography: (Y)/N Roll Number(s) DMC-15

Sample Numbers Collected: N/A

IKE MILES
June 26, 1999

CAPE DOUGLAS
NORTH OF SUKOI BAY
K9-8-CD-1

COMMENTS
SHORELINE OIL EVALUATION

This is a pebble-cobble-boulder beach. Sand depo-. and low angle rock benchs occur in the lower ITZ

Oil contamination consists of discontinuous small diameter tar 'spots' (< 2 cm diameter) in the upper intertidal and inside spring tide berm. Total oil contamination would be described as very light to light. (insert 1)

Given the high wave energy environment and the small amount of oil on this beach, this segment is expected to - be cleaned by wave action in a relatively short period of time. Manual removal of oiled debris and localized concentrations of tar/mousse in sands and pebbles would however likely be beneficial.

Insert 1: Asphalt pavement is forming in small [< 2 m²] areas. The greatest oil concentrations occur on the south-west portion of this segment.

ACE 8705520

version: 4/24/89

CAPE DOUGLAS **ECOLOGICAL EVALUATION**

LOCATION: North of SUKOI BAY SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K9-8-CD SEG. NO.: 1 LENGTH: 1600 (M)

DATE: 6/26/89 TIME (HHMM): 1215 TIDE HT.: +0.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Pebble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Present only in clear lower ITZ

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

This segment overrun with dense littorines

Limpets: Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse Y/(N) None Y/(N)

OTHER OBSERVATIONS: Fidalgia, sculpins in tide pools; no access at south end of segment

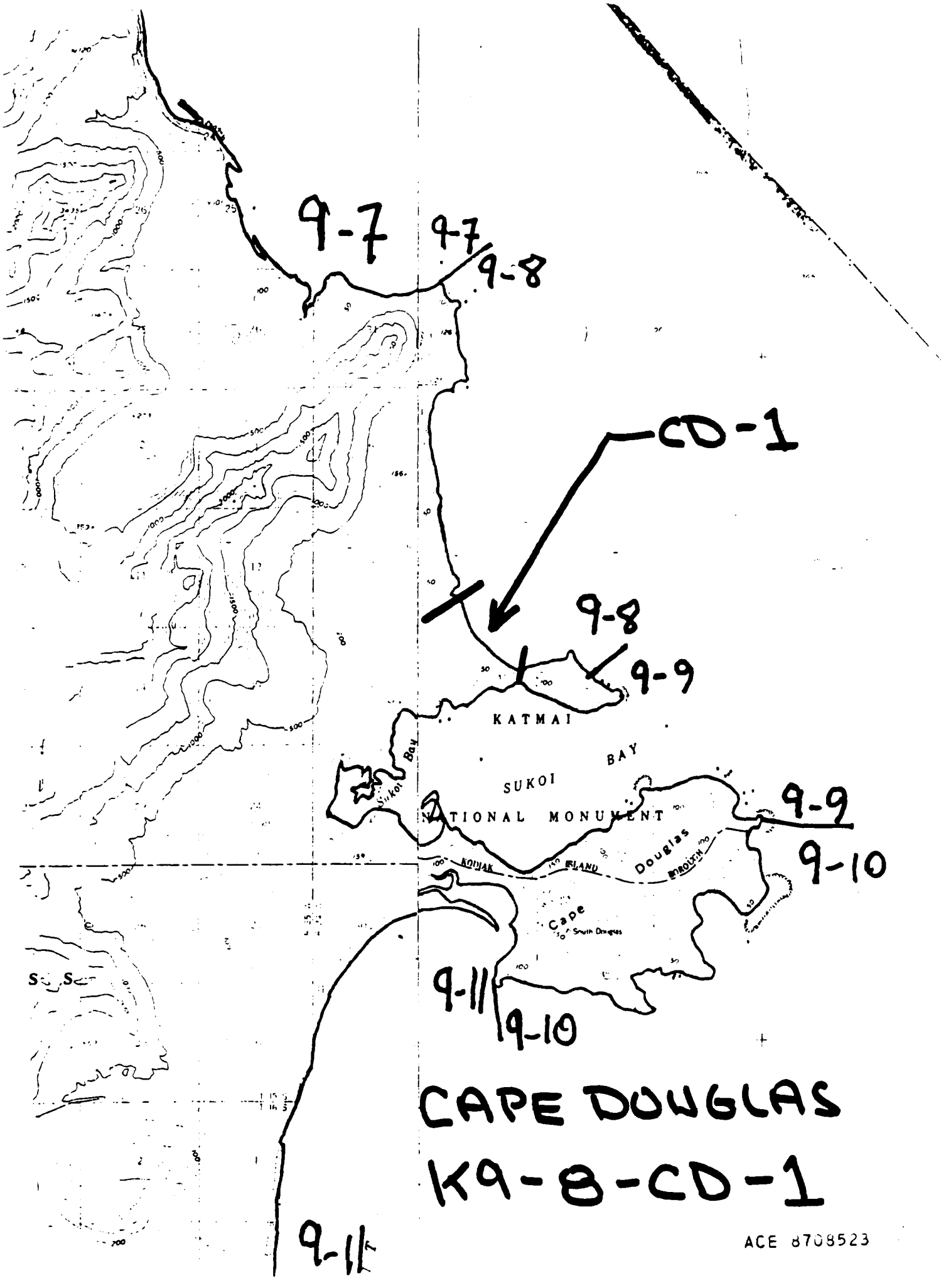
CLEANUP PRECAUTIONS: Avoid crab stomping if possible

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Oil glatter in high ITZ on drift; no oil in mud to high ITZ.

ACE 8708521


9-7
9-7
9-8
CD-1
9-8
9-9
KATMAI
BAY
SUKOI
NATIONAL MONUMENT
Sukoi Bay
9-9
9-10
KODIAK
ISLAND
Douglas
Cape
South Douglas
9-11
9-10
9-11
CAPE DOUGLAS
K9-8-CD-1
ACE 8708523

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-8-CD-2

LOCATION: (see enclosed map) Cape Douglas, North of Sukoi Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 6/26/89

Recommended Cleanup Activity(ies):
- -Manual removal of oiled debris and heaviest contamination in areas of moderate oil.
- -No cleanup of residual oil is recommended following removal of contamination due to high natural cleaning (wave exposure). Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 3-A
- -Access may be restricted to calm days only.

Ecological Constraints (from site survey):
- -During manual cleanup avoid tide pool areas and dense concentration of Littorina in lower intertidal zone.
- -Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahon Date: 7/31/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708524

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 26 1989 / Time: 12:59 Observer: Mike Miles

Surveyed From: (Foot)/Boat/(Helio)/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION
LOCATION CAPE DOUGLAS SEGMENT I.D. K9-8 - CD-2

LENGTH OF SHORELINE SEGMENT: 650 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane) calm day only

SHORELINE:
Shoreline Type: SPI/BEA/COV/(HLD)/STRT Slope: [LANG/HANG/VER]

Wave Exposure: (High)/Med/Low

Sediment: B 80 % / C 15 % / P 5 % / G ___ % / S ___ % / M ___ % / R 10 % with rare common rock backshore

Drift Debris on Beach: (Yes)/No [Supra/Upper/Mid/Lower] Type logs + drifted seaweed

OIL
Degree of Oiling: Heavy/[Moderate/Light]/No Oil/Unobserved/Very Light

Total Area of Beach Impact: SU / [SP / H / M] / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment %_____ No. Bands_____ Width_____

Sporadic: (Y)/N Segment % 100 Min/(Max) Dia 2 m Impact Width <40m heaviest oil over 9-1

Est. Oil Thickness where > 1cm: 2 cm SU / SP / [UP] / MID / LO
Depth below top seds

Est. Oil Penetration: 10-15 cm SU / [SP / UP] / MID / LO
in pebble pockets

Layers? Yes/(No) No# Layers_____ Oil Weathering_____

Drift Debris Oiled ? (Yes)/No [Supra/Upper]/Mid/Lower Amount: H / M / [L / VL]

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 20 % Spattered 80 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse <5 % SU/SP/VP/MID/LO

Pancake Mousse 10 % SU/SP/VP/MID/LO Asphalt Mousse 85 % SU/SP/VP/MID/LO

Tar Formation 0 % ACE 8708525

Comments: OMIT - SEE ATTACHED COMMENTS

This is a boulder beach located in front of a marsh continuous with the backshore. A number of pocket beaches occur in the rocky coast

Spattered tar occurs over a 40 m wide band with heaviest amounts of the mid to high tide. The heaviest oil concentrations occur in a 6-8 m wide discontinuous band located near the base of the cliff. In sheltered areas small pockets (2m x sporadic <25 m) of moderate oil concentrations occur as mixed incorporation with sediments. Tar and mousse pebbles

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) K2k 5- 22

Photography: (Y)/N Roll Number(s) DMC - 15

Sample Numbers Collected: N/A

MIKE MILES
June 26/89

CAPE DOUGLAS
[illegible]

COMMENTS
[illegible] OIL [illegible]

This segment consists of a boulder beach [illegible] by a rocky headland with [illegible] Pocket beaches occur in [illegible] the rocky coast.

Very [illegible] oil [illegible] for [illegible] and a 40 m wide [illegible] to [illegible]. The [illegible] occur [illegible] a [illegible] boulder located [illegible] the base of the cliff. Small pockets (3m wide by <25 m long) of moderate oil concentrations occur adjacent to rocky ridges or ribs. Tar and pooled mousse deposits occur in these areas, and a visible sheen of oil occurs on the surface of many tide pools.

Manual removal of gross oil contamination in areas of moderate oil concentrations would be beneficial (see attached field sketch). Moderate to high pressure hot water would be required to clean the boulders [illegible] the beach. Oil [illegible]

ACE 8708527

POOR QUALITY ORIGINAL

Mike Miles
June 26/89

CAPE DOUGLAS
K9-8-CD-2

COMMENTS - PAGE 2

SHORELINE OIL EVALUATION

[illegible] however, [illegible] the [illegible] of the sediment on their beach and the low foreshore gradient. [Also see biological constraints below] This segment has a high wave exposure environment [illegible] beach. It is therefore suggested that natural processes be left to clean any ~~remaining~~ residual oil contamination following manual removal of gross [illegible].

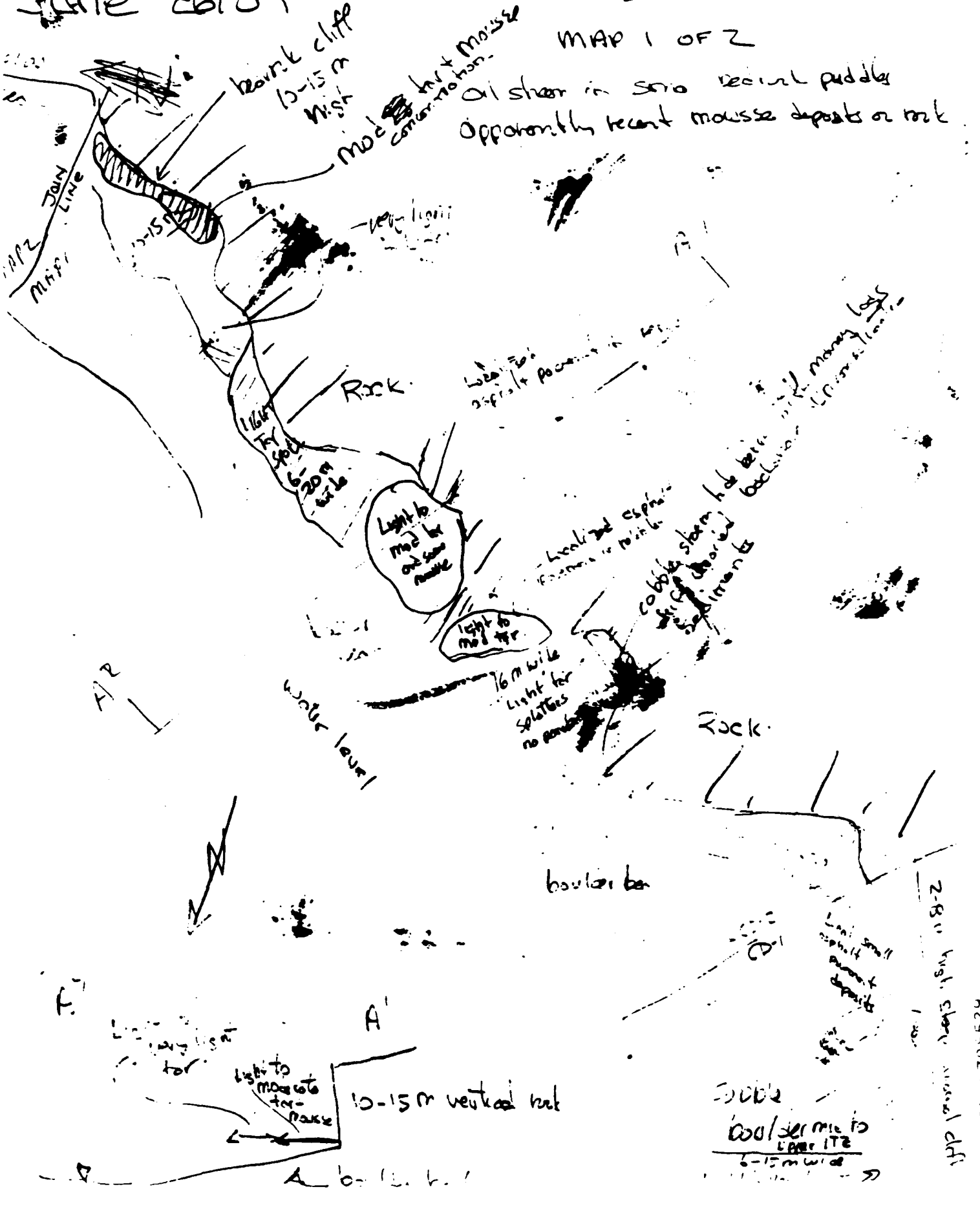
ACE 8708528

POOR QUALITY ORIGINAL

MIKE MILES
JUNE 26/89

CAPE DOUGLAS
CD2

MAP 1 OF 2



ACE 870524

POOR QUALITY ORIGINAL

Mike Miles

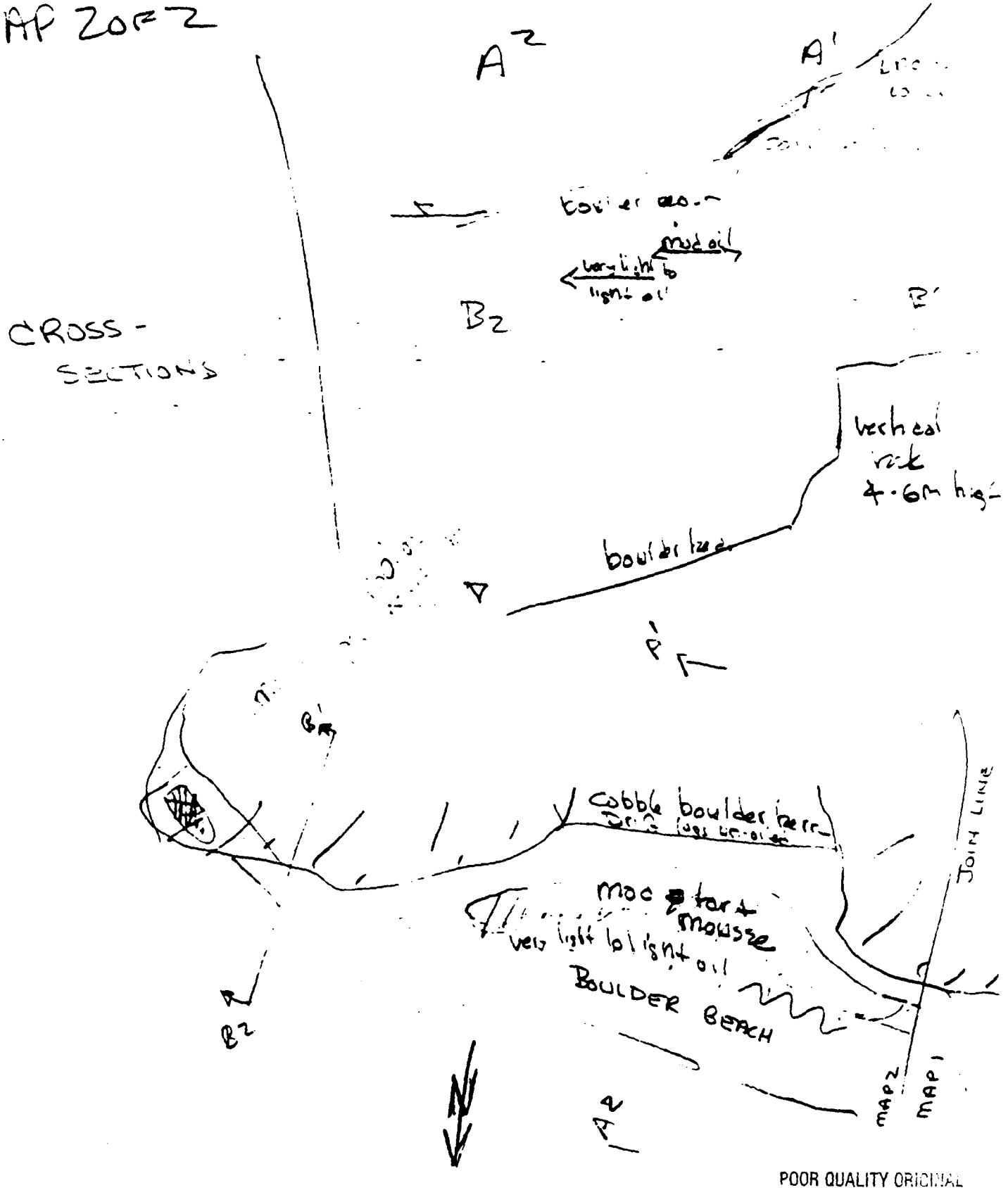
~~#2~~ CAPE DOUGLAS

MAP 2 OF 2

June 26/89

CD-2

MAP 2 OF 2



ACE 8708530

POOR QUALITY ORIGINAL

version: 4/24/89

CAPE DOUGLAS NORTH OF

ECOLOGICAL EVALUATION

LOCATION: SUKOI BAY K9-8 SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: CD SEG. NO.: 2 LENGTH: 650 (M)

DATE: 6/26/89 TIME (HHMM): 1240 TIDE HT.: +0.25 (M)

OILED ZONE: Splash High Medium Low Sheen in Lower Zone

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Dense on boulders

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
This segment overrun with very dense pop of littorines

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: In tide pools: Halichondria sponges, hermit crabs, Sarlesia, Endocladia, kelp patches. Not as much oiled and healthy; 2 dead oiled birds in drift debris in storm berm

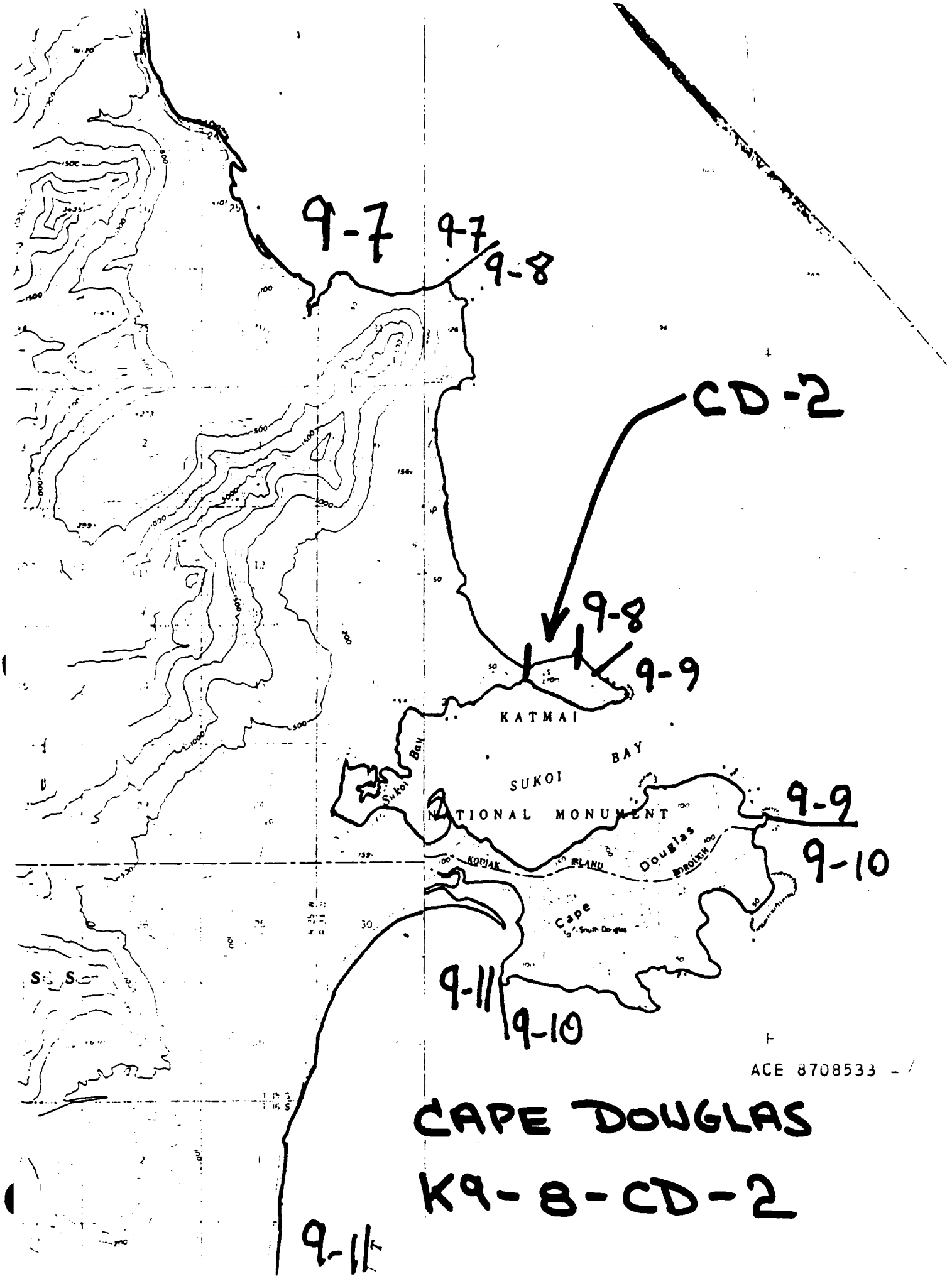
CLEANUP PRECAUTIONS: Avoid tide pools and dense littorine population.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other _____

BIRDS: 2 winter gulls, spotted sandpiper

GENERAL OBSERVATIONS: Some patches of moderately heavy oil - littorines oiled here but less than 5% dead; some sheen seen in lower ET2. Oil band extends to lower mid zone in places, with occasional pooled oil among boulders. Occasional tar patch oiled Endocladia + fucus - remove any seen.

ACE 8708531


9-7
9-7
9-8
CD-2
9-8
9-9
KATMAI
BAY
SUKOI
NATIONAL MONUMENT
Sukoi Bay
9-9
9-10
KODIAK
ISLAND
Douglas
Cape
9-11
9-10
ACE 8708533 -
CAPE DOUGLAS
K9-8-CD-2
9-11

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/23/89 SHORELINE SEGMENT K9-8-CD-21

LOCATION: (see enclosed map) Coast North of Cape Douglas, AK Peninsula

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/24/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to oil in such weathered state, removal from beach material is impractical to impossible.

Priorities/Considerations: Class

Ecological Constraints (from site survey):
-None, since no cleanup is recommended.

Archaeological Constraints (from site survey):
-If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708534

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 24 July 89 / Time: 1455 Observer: [illegible]
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

Location: [illegible] Segment ID: K9-8-CD-21
Segment Length: ~800 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: [illegible]

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 20 % / C 10 % / P 20 % / G&S 30 % / M ___ % / R 20 %

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION

Continuous % of Segment 1 SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment [illegible] SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)
Very light:	100	2
Light:		
Moderate:		
Heavy:		

Thickness >1cm: _____ cm SU/SP/H/M/L
Penetration/Rework: _____ cm SU/SP/H/M/L
Burial Depth: _____ cm SU/SP/H/M/L

Mobilization Potential: High/Medium/Low
Left Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Logs

OIL MORPHOLOGY

Pooled Oil:	%		SU/SP/H/M/L
"Free" Oil:	%		SU/SP/H/M/L
Splattered:	90 %	H/M/L/VL	SU/SP/H/M/L
Coated:	10 %	H/M/L/VL	SU/SP/H/M/L
Pancakes/Balls:	%		SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 100 m
Total TYPE B: _____ m
Total TYPE A/B: _____ m

OIL WEATHERING

Fresh:	%	SU/SP/H/M/L
Mousse:	%	SU/SP/H/M/L
Weathered Mousse:	100 %	SU/SP/H/M/L
Asphalt Mousse:	%	SU/SP/H/M/L
Tar:	%	SU/SP/H/M/L

COMMENTS

NORTH END OF SEGMENT HAS NO OIL. A BEACH (SEE LOCATION MAP FIELD NOTES) HAS VERY LIGHT SPATTER IN THE HIGH INTERTIDAL SPLASH ZONES. THE ROCKY HEADLAND JUST NORTH HAS A LIGHT COATING (3x30m) OF WEATHERED MOUSSE IN THE HIGH INTERTIDAL SPLASH ZONE. LIMITED ACCESS ON ROCKY HEADLAND. NOTE: OIL IN HIGH WEATHERED MOUSSE ON BEACH MATCHES OIL ON NAVE (SEE MAP AND [illegible]

ACE 8708535

POOR QUALITY ORIGINAL

DOCUMENTATION:

Map/Aerial photo marking segment boundaries [illegible]

VTR: Y/N Tape Number(s) _____

Photography: (Y)/N Roll Number(s) [illegible]

Sample Numbers Collected: N/A

24 JULY 89 MONDAY

LAND C. DOUGLAS TO DROP OFF MAIL TO EB 1

1455 START K9-8-CD-21
(CLEAR (HORIZON - HELIO))

1459 α - P/C/B - NO OBSERVED OIL

1502 - LT COAT 3 x 30m COLT. ROCK HOLD EARLIER NEST

1503 β - V LT SPLAT HITZ/SP ON BOULD P/C/S/B BEACH AREAS W/ RECENT OIL CAUSE.

1508 Ø NO OBSERVED OIL SD/P BEACH

1511 σ DITTO

1516 Y - V.LT SPLAT ON HITZ/SP DRIFT LOGS ONLY

1526 END K9-8-CD-21

FLY TO KUKAK TO PICK UP OTHER SCAT TEAM (BOAT - KING DAVID)

1605 LD AT KUKAK FUEL DUMP & PICK UP SCAT LEVEL

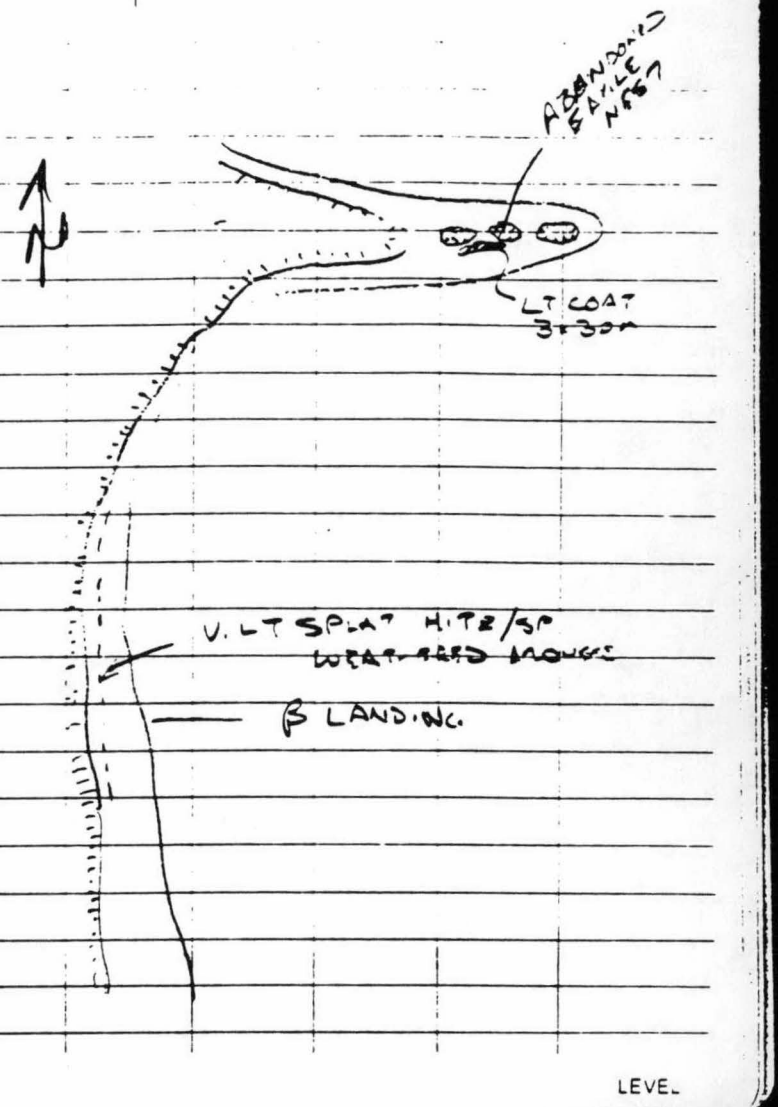
ACE 8708537

OUR QUALITY ORIGINAL

24 JULY 89 MONDAY

CD 21

B BEACH



ACE 8708538

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Near of Cape Douglas K-3-8 SITE: _____ OBSERVER: D McCormick

LOCATION PREFIX: CD SEG. NO.: 21 LENGTH: 4200 (M)

DATE: 7/6/89 TIME (HHMM): 1455 TIDE HT.: +1.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)
Limited extent - rock fissures mainly

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Present at north end of segment

Littorina
Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)
Present at north end of segment.

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N
None observed

OTHER OBSERVATIONS: Endosiphon, pink encrusting algae in tide pools, Anthiamella, Enteromorpha

CLEANUP PRECAUTIONS: None since no cleanups recommended

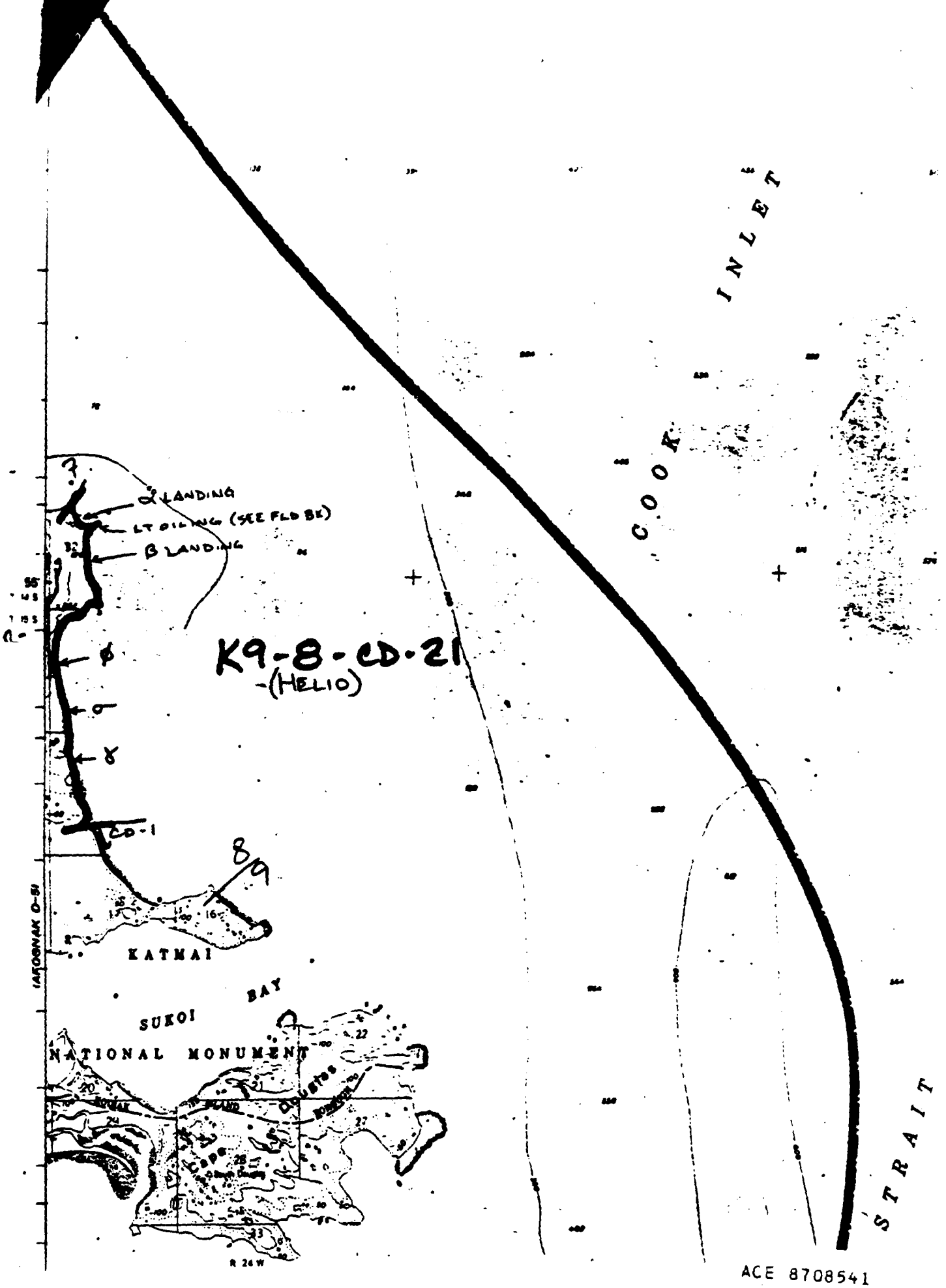
MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: pigeon guillemots, gulls, eagle nest (looked abandoned)

GENERAL OBSERVATIONS: Oil occurred at north end of segment on rock outcropping in high ITZ only. No oil observed on beach area.

ACE 8708539

POOR QUALITY ORIGINAL


COOK INLET
STRAIT
LANDING
LT OILING (SEE FLD BK)
B LANDING
K9-8-CD-21
-(HELIO)
CD-1
KATMAI
BAY
SUKOI
NATIONAL MONUMENT
CAPE
R 24 W
ACE 8708541

517.57 KODIAK SCAT
K9-9

COMPLETE DEC 12 1989

ACE 7963980

PARTIAL #1 DEC 12 1989

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K9-9

Includes Shoreline Segments: CD-3, CD-4, CD-5, CD-6, CD-7, CD-8, CD-9

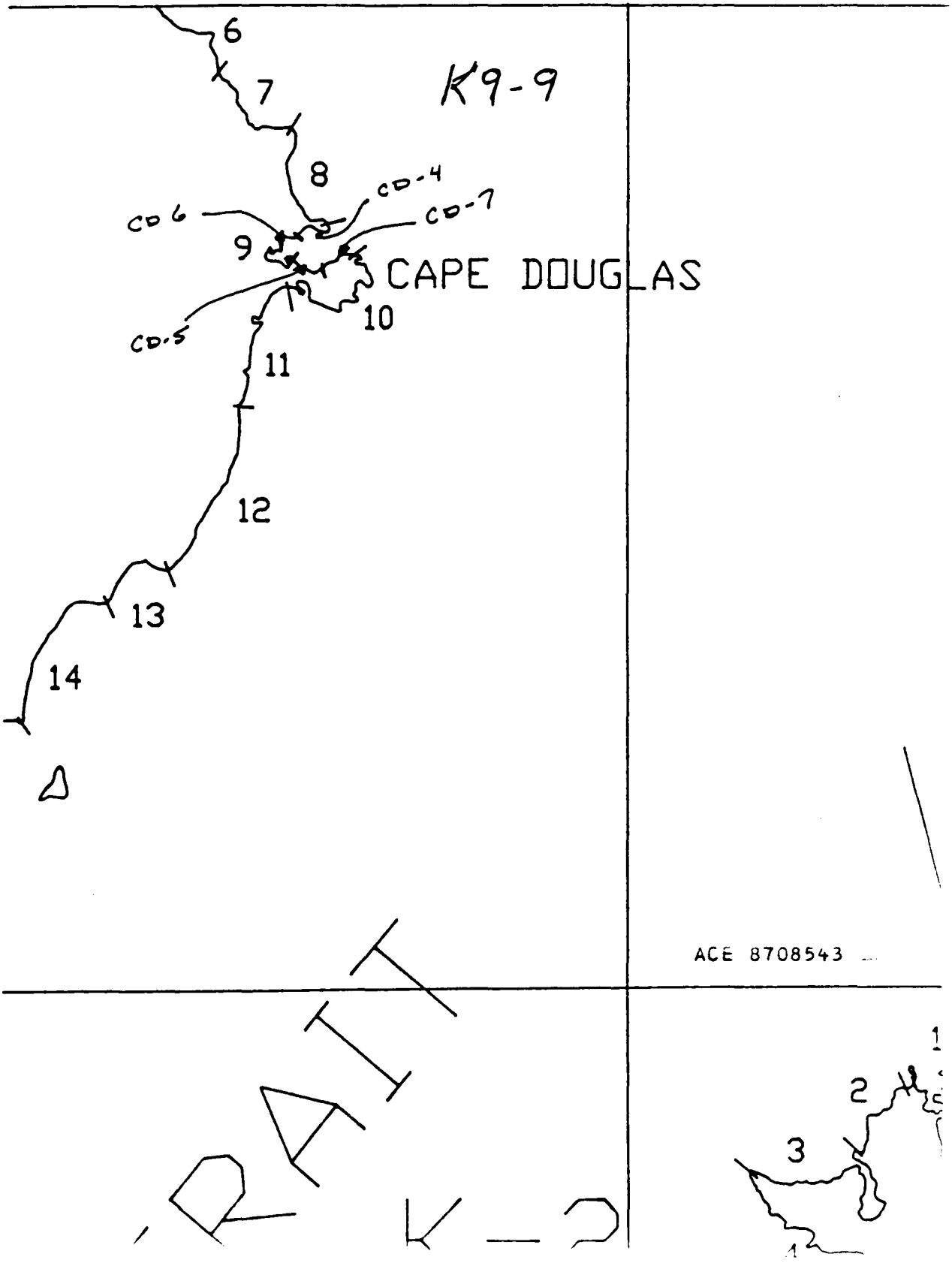
Location: Cape Douglas

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC


153°
K9-9
6
7
8
CO-4
CO-7
CO-6
9
CAPE DOUGLAS
10
CO-5
11
12
13
14
ACE 8708543
2
3

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT K9-9-CD-6

LOCATION: (see enclosed map) Cape Douglas, head of Sukoi Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/27/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to apparent absence of oil. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-B

Ecological Constraints (from site survey):
-No ecological evaluation form is included in this report because the survey was made by helicopter only.

Archaeological Constraints (from site survey):
-If cleanup of this segment is planned at a later date, a full archaeological assessment must be conducted.

J. David McMahan Date: 7/26/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708544

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

JUNE 27

Date: 1989 / Time: 13:00 Observer: MIKE MILES

Surveyed From: Foot/Boat/(Helio)/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION
LOCATION CAPE DOUGLAS SEGMENT I.D. K9-9-CD-6

LENGTH OF SHORELINE SEGMENT: 6780 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane)

SHORELINE:
Shoreline Type (SPI)/BEA/(COV)/(HLD)/STRT LAGOON Slope: (LANG)/HANG/VER

Wave Exposure: High/Med/(Low)

Sediment: B 10 % / C 20 % / P 30 % / [illegible] % / S 30 % / M ___ % / R 10 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type Logs

OIL
Degree of Oiling: Heavy/Moderate/Light/(No Oil)/Unobserved/Very Light

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment % 0 No. Bands _____ Width _____

Sporadic: Y/(N) Segment % 0 Min/Max Dia _____ Impact Width _____

Est. Oil Thickness where > 1cm: N/A cm SU / SP / UP / MID / LO

Depth below top seds
Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/(No) No# Layers _____ Oil Weathering _____

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 0 % Spattered 0 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 0 % SU/SP/VP/MID/LO

Pancake Mousse 0 % SU/SP/VP/MID/LO Asphalt Mousse 0 % SU/SP/VP/MID/LO

Tar Formation 0 %

Comments:

This lagoon is un-oiled as is no clean-up activities are required

ACE 8708545

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODAK - 02

Photography: (Y)/N Roll Number(s) See photos from Mike Niles, Team OG

Sample Numbers Collected: N/A

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Lazo (Lagoon area at head of Sula Bay) SITE: _____ OBSERVER: L McCarthy

LOCATION PREFIX: CA (K9-9) SEG. NO.: 6 LENGTH: 6780 (M)

DATE: 6/27/89 TIME (HHMM): 1300 TIDE HT.: +0.75 (M)

OILED ZONE: Splash High Medium Low None

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ (Fine C) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Aerial/Visual survey only. This segment was not accessed by foot by field biologist on foot

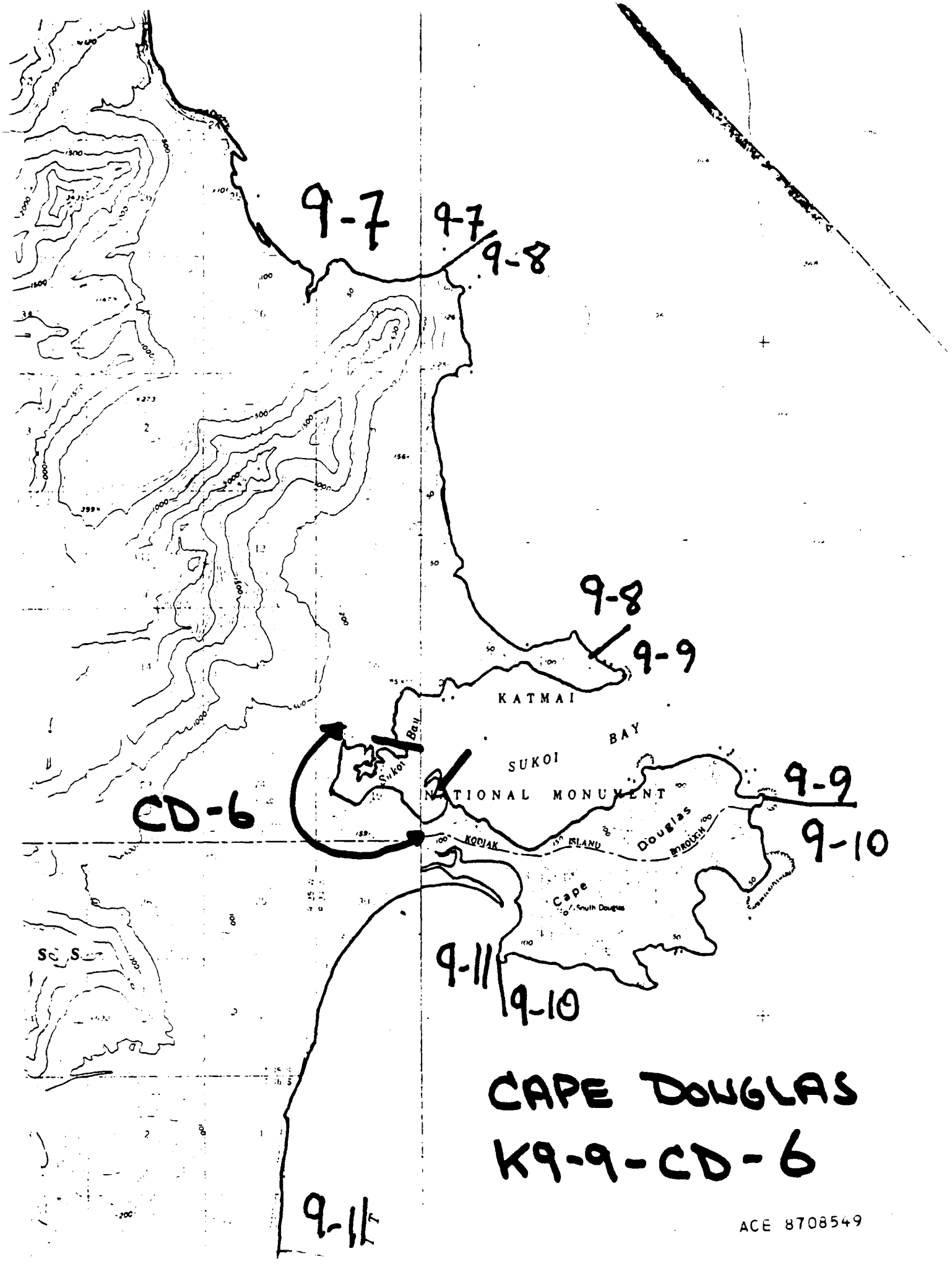
CLEANUP PRECAUTIONS: _____

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: No oil observed

ACE 8708547


9-7
9-7
9-8
9-8
9-9
KATMAI
BAY
SUKOI
NATIONAL MONUMENT
9-9
9-10
CD-6
KODIAK
ISLAND
Douglas
BOROUGH
Cape
9-11
9-10
9-11
CAPE DOUGLAS
K9-9-CD-6
ACE 8708549

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT K9-9-CD-7

LOCATION: (see enclosed map) Cape Douglas, South side of Sukoi Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 6/27/89

Recommended Cleanup Activity(ies):
-Manual removal of heaviest oil concentrations in areas of moderate oil contamination.

Priorities/Considerations: Class 3-A
-Access may be restricted to calm days only.

Ecological Constraints (from site survey):
-No constraints for manual cleanup.

Archaeological Constraints (from site survey):
-No access to the forest/upland zone by beach crews during cleanup.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahon Date: 7/26/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708550

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 27 1989 Time: 13:15 Observer: Mike Mitchell

Surveyed From: Foot/Boat/(Helio)/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION LOCATION CAPE DOUGLAS SEGMENT I.D. K9-9-CD-7

LENGTH OF SHORELINE SEGMENT: 2190 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane — calm day only

SHORELINE:
Shoreline Type: SPI/BEA/(COV)/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low — with vertical rock backing

Sediment: B 65 % / C 20 % / P 10 % / G ___ % / S ___ % / M ___ % / R 5 %

Drift Debris on Beach: (Yes)/No Supra/Upper/Mid/Lower Type loose + weed

OIL
Degree of Oiling: Heavy/(Moderate)/Light/No Oil/Unobserved/Very Light (Locally) TO

Total Area of Beach Impact: SU / SP / H / M / L — much of the beach has had gross contamination removed by wave action

OIL DISTRIBUTION
Continuous: (Y)/N Segment % 10 No. Bands 1 Width 2-6m

Sporadic: (Y)/N Segment % 50 Min/(Max) Dia 3m Impact Width 22 m

Est. Oil Thickness where > 1cm: NA cm SU / SP / UP / MID / LO

Est. Oil Penetration: (Depth below top seds) ≤ 20 cm in pebble berm only SU / (SP / UP) / MID / LO

Layers? Yes/(No) No# Layers ___ Oil Weathering ___

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H / M / L / (VL)

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 5 % Spattered 95 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 50 % (in pebble berm) SU/(SP/VP)/MID/LO

Pancake Mousse 5 % SU/(SP/VP)/MID/LO Asphalt Mousse 45 % SU/(SP/VP/MID)/LO

Tar Formation 0 % OMIT - SEE ATTACHED SHEET

Comments: ACE 8708551

[illegible] western ½ of the segment was [illegible] much of this is beneath or in the high ITZ. Some oil does however remain in small pockets in sheltered areas beneath or behind large boulders. The pebble berm is the area of pebble beach that contains buried tar + mousse to depth of 20 cm. [illegible]

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) Kodak - 02

Photography: (Y)/N Roll Number(s) DMC - 16

Sample Numbers Collected: N/A

MIKE MILES
JUNE 27/89

CAPE DOUGLAS
K9-9-CD-7

COMMENTS
SHORELINE OIL EVALUATION

This rocky coast has a continuous boulder and cobble foreshore. A narrow pebble beach occurs on the north-east end of this segment.

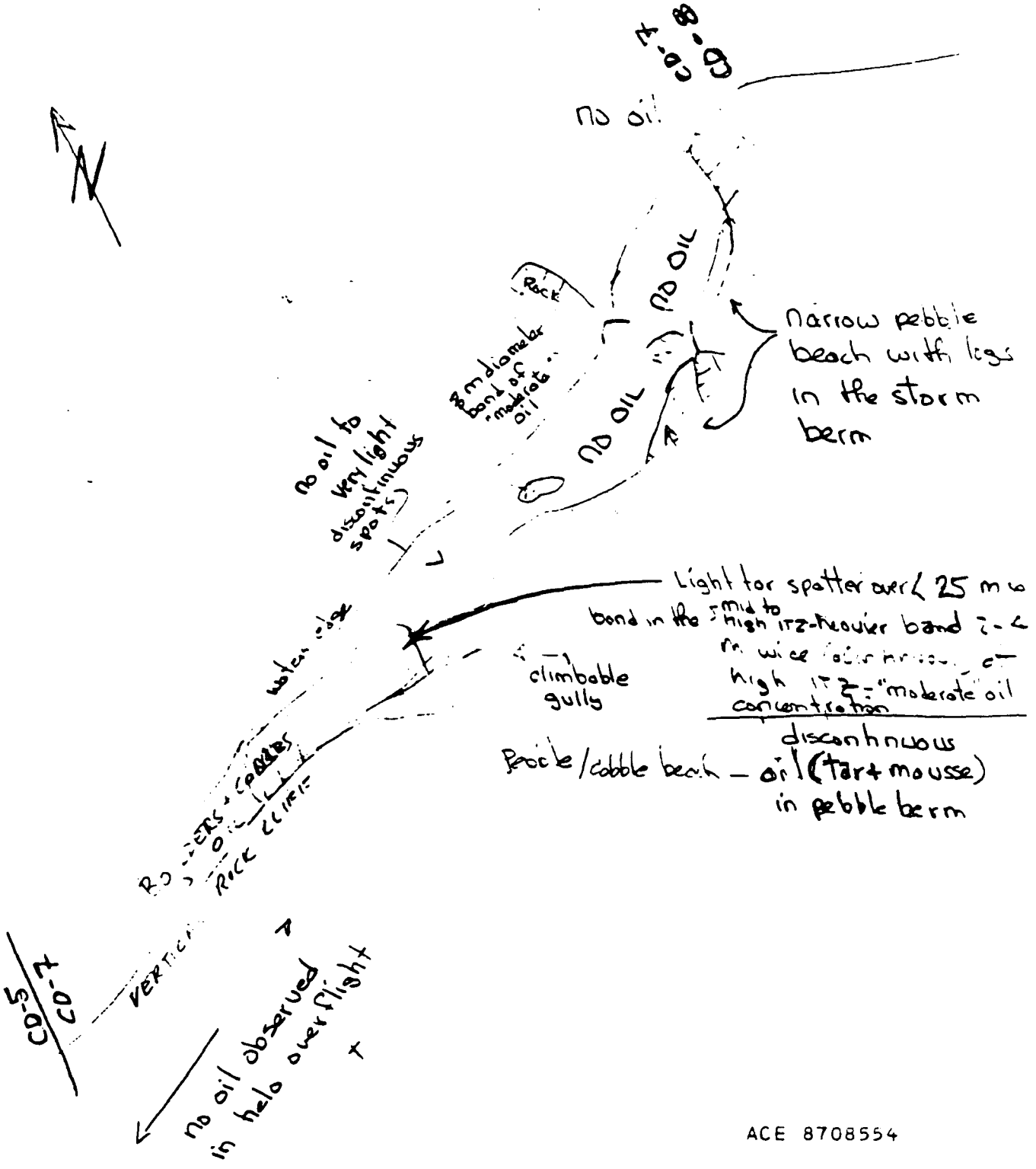
The western half of this segment was originally moderately oiled but wave action has now removed much of this material. Thin spattered oil does however occur on the surface of many boulders and heavier concentrations occur in sheltered areas beneath or behind large boulders. These heavier deposits form 2 to 4 m wide pockets of 'moderate' oil in the high ITZ. Some tar mousse deposits also occur in areas of pebble berm. Oil contamination is not as severe on the eastern end of this segment as indicated on the attached map.

Manual removal of gross contamination in the pockets of moderate oil concentration would be beneficial. Wave action is likely to remove the light tar spatter and clean the lightly contaminated areas of pebble berm.

ACE 0708553

Mike Miles
June 27/89

CAPE DOUGLAS
CD-7



ACE 8708554

ECOLOGICAL EVALUATION

Cape Douglas.

LOCATION: South Side Sucd. Bay SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K9-9 CB SEG. NO.: 7 LENGTH: 2190 (M)

DATE: 6/27/89 TIME (HHMM): 1315 TIDE HT.: +0.5 (M)

OILED ZONE: Splash **High** **Medium** Low

SUBSTRATUM: **Rocks** **Boulder** **Cobble** ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Dense at east end of segment only.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense clumps on boulders at east end of segment.

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Dense at east end of segment only.

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Oiled at east end in patches (25%)

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

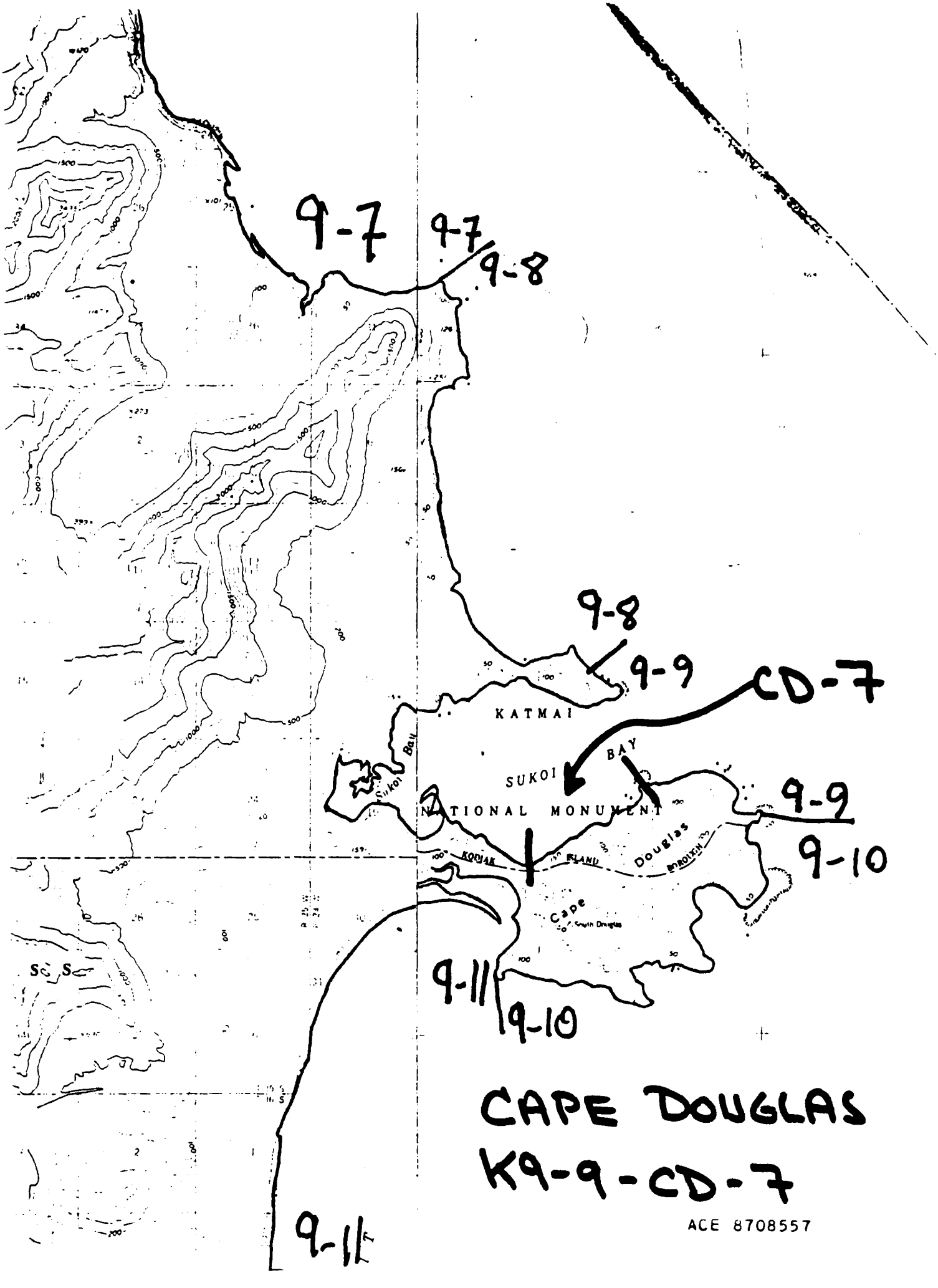
OTHER OBSERVATIONS: In tidepools: hermit crabs Enhydra, Sea lions, fair eagle coverage within low ITZ.

CLEANUP PRECAUTIONS: _____

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other 2 bears on bluff

BIRDS: Gulls

GENERAL OBSERVATIONS: East end of segment has most oiling - portions of pure mousse along boulders with approx. 25% oiled Littorines. At west end of segment is light to very light in mid zone, and is buried in high zone. No affected biota here.


9-7
9-7
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9-8
9-9
CD-7
KATMAI
SUKOI BAY
Sukoi Bay
NATIONAL MONUMENT
9-9
9-10
KODIAK ISLAND
Douglas
Cape
9-11
9-10
9-11
CAPE DOUGLAS
K9-9-CD-7
ACE 8708557

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-9-CD-3

LOCATION: (see enclosed map) Cape Douglas, North of Sukoi Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 6/26/89

Recommended Cleanup Activity(ies):
- -Manual removal of oiled drift and oil accumulations. in areas of moderate oil contamination.
- -If required, low pressure, warm water washing may be tried to remove tar deposits.

Priorities/Considerations: Class 3-A
- -Access may be restricted to calm days only.

Ecological Constraints (from site survey):
- -During manual cleanup avoid dense concentrations of Littorines.
- -Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
- -No access to forest upland zone by beach areas during cleanup.
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/26/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708558 -

(Version 5/16/89)

June 26

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1993 / Time: 1600 Observer: Mike Miles

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
LOCATION Cape Douglas SEGMENT I.D. K9-8-CD-3 K9-9-CD-3

LENGTH OF SHORELINE SEGMENT: 1090 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane — calm day only

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 30 % / C 10 % / P 10 % / G __ % / S __ % / M __ % / R 50 %

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type lots of logs

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/Very Light but varies between very light and heavy.

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment % 50 No. Bands 1 Width 20 to 30 m

Sporadic: Y/N Segment % 45 Min/Max Dia 2 m Impact Width 20 to 30 m

Est. Oil Thickness where > 1cm: 5 cm : SU / SP / UP / MID / LO

Est. Oil Penetration: Depth below top seds 30 cm in cobble + boulder 10-15 cm in sands/pebbles SU / SP / UP / MID / LO

Layers? Yes/No No# Layers ____ Oil Weathering ____

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 2 % "Free" Oil 45 % Spattered 45 % H/M/L/VL Sheen 10 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 20 % SU/SP/VP/MID/LO

Pancake Mousse 40 % SU/SP/VP/MID/LO Asphalt Mousse 40 % SU/SP/VP/MID/LO

Tar Formation 0 %

ACE 8708559

Comments:

Thin band of oil coating boulder ribs on a boulder beach.

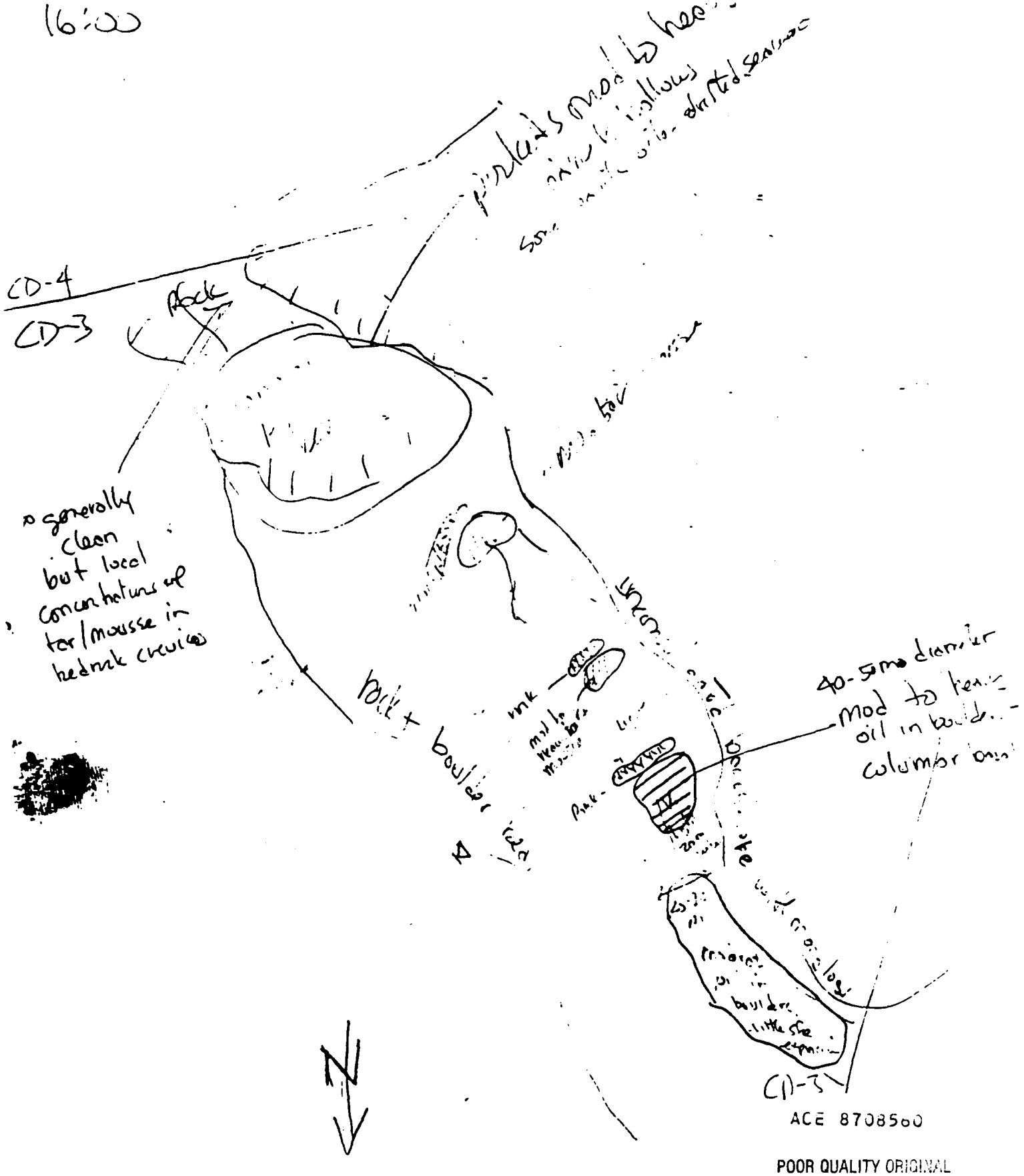
Oil contamination is variable. This area was originally heavily contaminated but was partially removed by the surface oiling. However the undersides of boulder cobble sections of beach are heavily contaminated to depths of 30 cm. Numerous small concentrations of oil contamination occur on the NW sides of sediment bags. This area of oil mousse ~~is~~ and are ~~not~~ causing secondary oil contam-

POOR QUALITY ORIGINAL

Mike Miles
June 26/89
16:00

CAPE DOUGLAS

CD-3



POOR QUALITY ORIGINAL

MIKE MILES
June 26, 1989

CAPE DOUGLAS
K9-8- CD-3
K9-9- CD-3

COMMENTS
SHORELINE OIL EVALUATION

This segment consists of a boulder foreshore which contains bedrock ribs or ridges formed of columnar basalt.

Oil contamination is variable. This area appears to have been initially heavily contaminated but wave action has removed much of the surface oiling. However the underside of boulder / cobble section of beach are frequently contaminated to depths of ≤ 30 cm. Numerous concentrations of moderate oil contamination occur on the N.W. sides of bedrock ribs or ridges. These areas contain mousse and are causing secondary oil contamination.

Appropriate cleanup activities include manual removal of oiled debris and gross contamination in areas of heavy oiling. Moderate to high pressure hot water would be required to remove the tar deposits on this beach area, given the extensive occurrence of these materials, it might be worthwhile to try this procedure to determine its effectiveness on this type of beach. This recommendation will however need to be discussed / reviewed by N.P.S. [illegible]

ACE 87UB561

POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas North of Sukoi Bay SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K9-8-CB- K9-9-CA- SEG. NO.: 3 LENGTH: 1090 (M)

DATE: 6/26/89 TIME (HHMM): 1600 TIDE HT.: +0.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Pebble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Some sections of moderately oiled beach in mid zone - @ 75% Littorines are oil coated

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Serpulorbis, Endocladia, Halichondria in lower ITZ pools; 2 dead oiled birds in storm berm; green algae covering rocks in mid- to low ITZ (in mid zone much of this has a "glaze" of oil on it - no longer food source for grazing littorines)

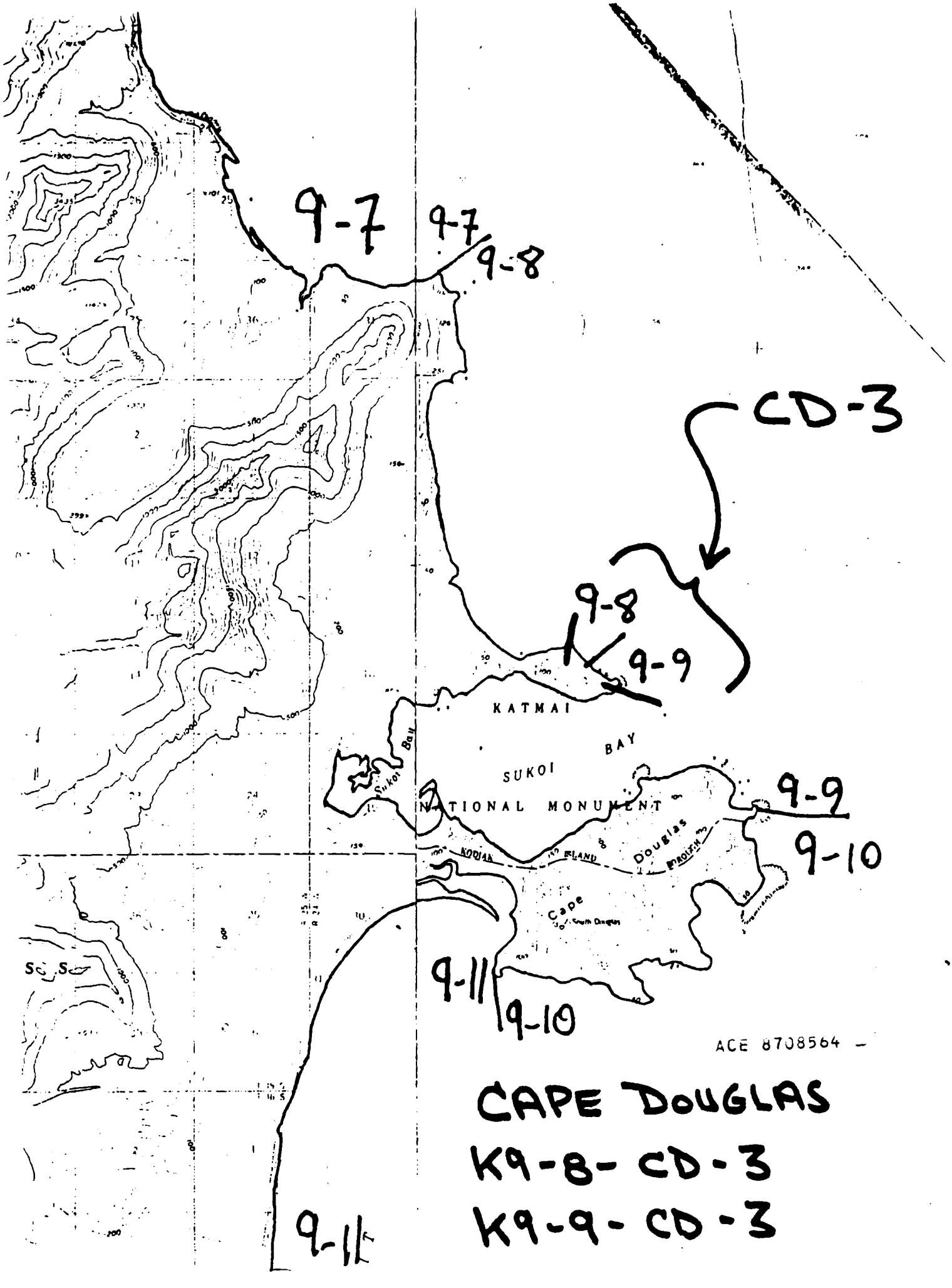
CLEANUP PRECAUTIONS: Natural cleanup avoid mech. disturbance. Washing: remove Littorines from rocks with a cool water low pressure wash before blasting with hot water high pressure to minimize further mortality

MAMMALS: Otters Full-14 Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: vultures, eagles, cormorants ACE 8708562

GENERAL OBSERVATIONS: In high zone oil appears as light splatter but is actually moderate on boulders; a significant amount of sheen observed in lower ITZ pools; pockets of moderate amount of mousse among boulders resulting in oiling of dense Littorine population (75%) in the mid ITZ. Pom-poms should be used here or possibly a hot water or steam high pressure clean-up at appropriate tide levels to avoid contaminating clean sections of beach

POOR QUALITY ORIGINAL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CD-3
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9-9
KATMAI
BAY
SUKOI
NATIONAL MONUMENT
9-9
9-10
9-11
9-10
ACE 8708564 –
CAPE DOUGLAS
K9-8- CD-3
K9-9- CD-3
9-11

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-9-CD-3

LOCATION: (see enclosed map) Cape Douglas, North of Sukoi Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 6/26/89

Recommended Cleanup Activity(ies):
- -Manual removal of oiled drift and oil accumulations. in areas of moderate oil contamination.
- -If required, low pressure, warm water washing may be tried to remove tar deposits.

Priorities/Considerations: Class 3-A
- -Access may be restricted to calm days only.

Ecological Constraints (from site survey):
- -During manual cleanup avoid dense concentrations of Littorines.
- -Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
- -No access to forest upland zone by beach areas during cleanup.
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/26/89
State Historic Preservation Officer *

EXXON: Jack A Ruskan Date: 7/27/89

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-9-CD-3

LOCATION: (see enclosed map) Cape Douglas, North of Sukoi Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/26/89

Recommended Cleanup Activity(ies):
- -Manual removal of oiled drift and oil accumulations in areas of moderate oil contamination.
- -If required, low pressure, warm water washing may be tried to remove tar deposits.

Priorities/Considerations: Class 3-A
- -Access may be restricted to calm days only.

Ecological Constraints (from site survey):
- -During manual cleanup avoid dense concentrations of Littorines.
- -Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
- -No access to forest upland zone by beach areas during cleanup.
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: _____
State Historic Preservation Officer *

EXXON: gk Date: 7/25/89

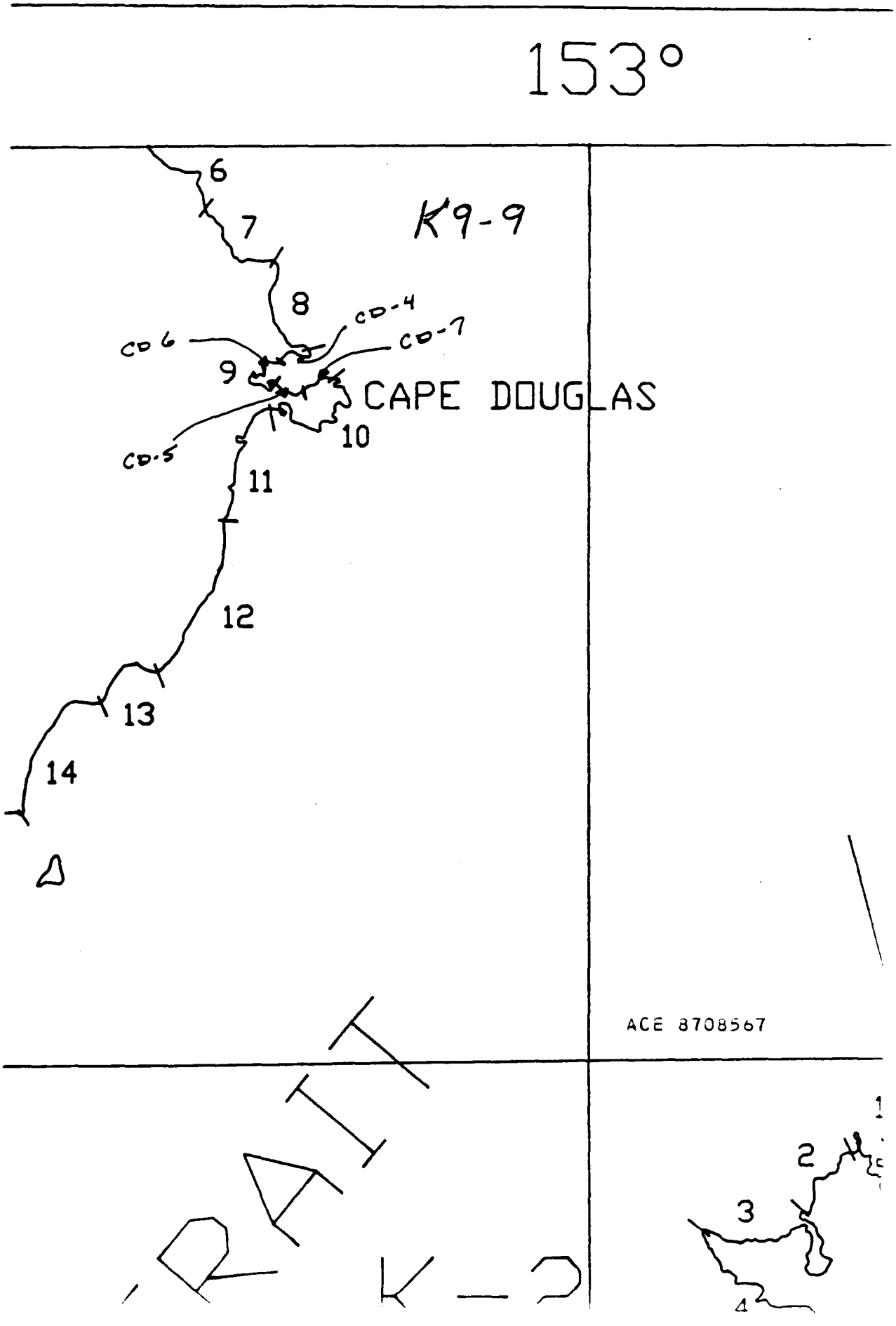
FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

DRAFT

KODIAK

ACE 8708566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K9-9
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CO-4
CO-6
CO-7
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CAPE DOUGLAS
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CO-5
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ACE 8708567
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(version 5/02/89)

SHORELINE CLEANUP PROGRAM

K9-8-CD-3

DATE_____ SHORELINE SEGMENT K9-9-CD-3

LOCATION: (see enclosed map) Cape Douglas, North of Sukoi Bay

ADEC NO._____ SHORELINE ASSESSMENT DATE: 6/26/89

Recommended Cleanup Activity(ies):

- manual removal of oiled ~~debris~~ drift and removal of gross contamination in areas of "moderate" oil accumulations
- If approved by N.P.S. - moderate to high pressure hot water washing with beach irrigation if required
- other techniques as appropriate

Priorities Considerations: 3-A

Ecological Constraints (from site survey): For manual cleanup, avoid dense concentrations of Littorines; if washing is done, clean only at mid to high tide times to avoid contamination of the lower ITZ. Remove Littorines from area by washing rocks with low pressure, cool water before using hot water + high pressure.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: _____
State Historic Preservation Officer *

EXXON: _____ **Date:** _____

FOSC: _____ **Date:** _____

*** Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .**

ACE 8703568

(version 5/16/89)

June 26

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1989 / Time: 1600 Observer: MIKE MILES

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
LOCATION Cape Douglas SEGMENT I.D. K9-9 — CD-3

LENGTH OF SHORELINE SEGMENT: 1090 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane — calm days only

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 30 % / C 10 % / P 10 % / G ___ % / S ___ % / M ___ % / R 50 %

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type lots of logs

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/Very Light — but varies between very light and heavy

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment % 50 No. Bands 1 Width 20 to 30 m

Sporadic: Y/N Segment % 45 Min/Max Dia 2 m Impact Width 20 to 30 m

Est. Oil Thickness where > 1cm: 5 cm : SU / SP / UP / MID / LO

Depth below top seds
Est. Oil Penetration: 30 cm in cobble + boulder SU / SP / UP / MID / LO
10-15 cm in sands/pebbles

Layers? Yes/No No# Layers ___ Oil Weathering ___

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 45 % Spattered 45 % H/M/L/VL Sheen 10 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 20 % SU/SP/VP/MID/LO

Pancake Mousse 40 % SU/SP/VP/MID/LO Asphalt Mousse 40 % SU/SP/VP/MID/LO

Tar Formation 0 %

Comments:

This beach consists of columnal basalt nbs and a boulder/cobble beach.

Oil contamination is variable. This area was originally heavily contaminated but wave action has removed much of the surface oiling. However the underside of boulder cobble sections of beach are significantly contaminated to depths of ~30 cm. Numerous seeps contain oil contamination occur on the NW sides of headlands. This area is Tar Mousse and ore ~~mixt~~ causing secondary oil contami

ACE #708599

POOR QUALITY ORIGINAL

NIKE MILES
June 26, 1989

CAPE DOUGLAS
K9-8- CD-3
K9-9- CD-3

COMMENTS
SHORELINE OIL EVALUATION

This segment consists of a boulder foreshore which contains bedrock ribs or ridges formed of columar basalt.

Oil contamination is variable. This area appears to have been initially heavily contaminated but wave action has removed much of the surface oiling. However the underside of boulder & cobble section of beach are frequently contaminated to depths of ≤ 30 cm. Numerous concentrations of moderate oil contamination occur on the N.W. sides of bedrock ribs or ridges. These areas contain mousse and are causing secondary oil contamination.

Appropriate clean-up activities include manual removal of oiled drift and gross contamination in areas of moderate oiling. Moderate to high pressure hot water would be required to remove the tar deposits on this beach and, given the extensive occurrence of these materials, it might be worthwhile to try this procedure to determine its effectiveness on this type of beach. This recommendation will however need to be discussed/reviewed by N.P.S. [illegible] discussed below)

ACE 870857U

POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: CAPE DOUGLAS North of SUKOI BAY SITE: _____ OBSERVER: D. McCORMICK

LOCATION PREFIX: K9-8-CD- K9-9-CS- SEG. NO.: 3 LENGTH: 1090 (M)

DATE: 6/26/89 TIME (HHMM): 1600 TIDE HT.: +0.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/N

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Some sections of moderately oiled beach in mid zone - @ 75% Littorines are oiled

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Serpulorbis, Endocladia, Halichondria in lower ITZ pools, 2 oiled birds: a storm petrel; green algae covering rocks in mid- to low ITZ (in mid zone much of this has a "glaze" of oil on it - no longer food source for grazing littorines)

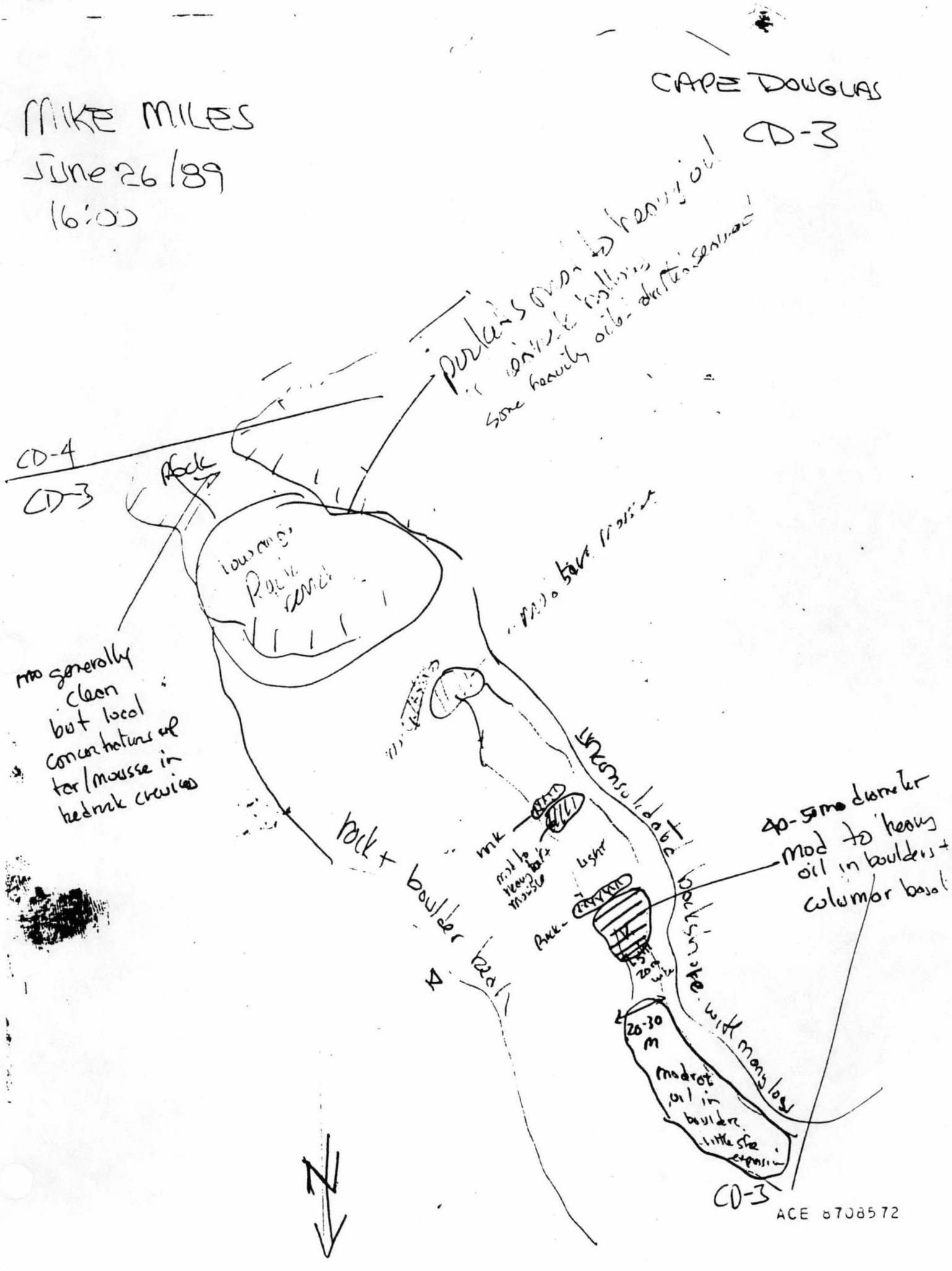
CLEANUP PRECAUTIONS: Manual cleanup: avoid mechanical stripping. Washing: remove Littorines from rocks with a cool water low pressure wash before blasting with hot water high pressure to minimize further mortality

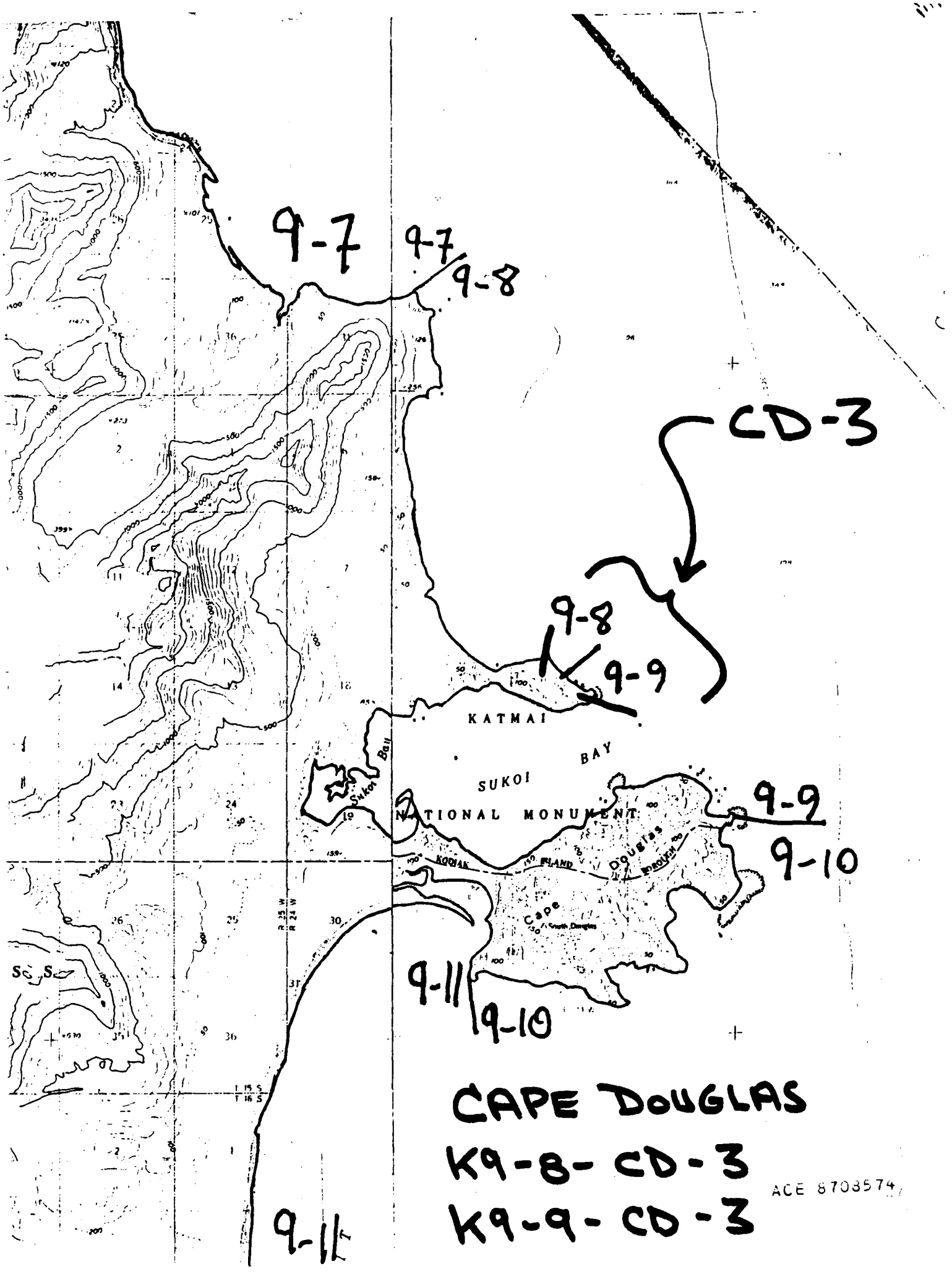
MAMMALS: Otters skull only Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: oystercatchers, eagles, cormorants ACE 8708571

GENERAL OBSERVATIONS: In High zone oil appears as light splatter but is actually moderate under boulders; a significant amount of sheen observed in lower ITZ pools; patches of moderate amount of mousse among boulders resulting in oiling of dense Littorine population (75%) in the mid ITZ. Pom-poms should be used here or possibly a hot water or steam high pressure clean at appropriate tide levels to avoid contaminating

POOR QUALITY ORIGINAL


CAPE DOUGLAS
CD-3
Mike Miles
June 26/89
16:00
CD-4
CD-3
Rock
patches
mod generally clean but local concentrations of tar/mousse in bedrock crevices
bolt + boulder
mix
mod to heavy tar/mousse
light
Arch
40-50 cm diameter
mod to heavy oil in boulders + columnar basalt
20-30 m
moderate oil in boulder little site expansion
CD-3
ACE 8708572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NATIONAL MONUMENT
Sukoi Bay
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KODIAK
ISLAND
DOUGLAS
Cape
South Douglas
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CAPE DOUGLAS
K9-8- CD-3
K9-9- CD-3
ACE 8708574

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT K9-9-CD-4

LOCATION: (see enclosed map) Cape Douglas, North of Sukoi Bay

ADEC NO. SHORELINE ASSESSMENT DATE: 6/27/89

Recommended Cleanup Activity(ies):
-No cleanup is recommended due to very light oiling and relatively high natural cleaning potential (wave exposure). Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 3-A
-Access may be restricted to calm days only.

Ecological Constraints (from site survey):
-No ecological evaluation form is included in this report because this survey was done by helicopter only. However, NPS previously observed sea otters at the east end of this segment.

Archaeological Constraints (from site survey):
-If cleanup is planned at a later date, a full archeological assessment of this segment must be conducted.

J. David McMahan Date: 7/26/89
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 3708575

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 27 '93 / Time: 11:00 Observer: MIKE MILES

Surveyed From: Foot/Boat/Helio/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION
LOCATION CAPE DOUGLAS SEGMENT I.D. K9-9-CD-4

LENGTH OF SHORELINE SEGMENT: 4800 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane) calm day only

SHORELINE:
Shoreline Type: SPI/(BEA/COV/HLD)/STRT Slope: LANG/(HANG/VER)

Wave Exposure: (High/Med/Low)

Sediment: B 15 % / C 15 % / P 15 % / G ___ % / S 15 % / M ___ % / R 30 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type loss - generally only in pebbly beach

OIL
Degree of Oiling: Heavy/Moderate/Light/(No Oil)/Unobserved/(Very Light)

Total Area of Beach Impact: SU / SP / (H) / M / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment %_____ No. Bands_____ Width_____

Sporadic: (Y)/N Segment % <5 Min/(Max) Dia <5cm Impact Width 1-2 m 0.1-0.2 m vertical

Est. Oil Thickness where > 1cm: 0 cm SU / SP / UP / MID / LO

Depth below top seds
Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/(No) No# Layers_____ Oil Weathering_____

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 0 % Spattered 100 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 0 % SU/SP/VP/MID/LO

Pancake Mousse 0 % SU/SP/VP/MID/LO Asphalt Mousse 100 % SU/SP/VP/MID/LO

Tar Formation 0 % OMIT - SEE COMMENT SHEET

Comments:

This section consists of steep rocky coast and a number of small coves. Much of the rocky area has a boulder veneer extending to the water line. The small coves contain sandy, pebbly or cobbly beach with driftwood and other debris in the HIGH ITZ to SU/SP/VP tide zone. ~~At least~~ Two thicker ~~oil~~ streaks of low level, mottled segments of oil were observed on the rocky coast. Occasional tar "splatter" 45cm in diameter were observed on a few boulders and a very light accumulation of tar residue, "splats" or spots occurred in a

ACE 8708576

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map) Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODIAK 07

Photography: (Y)/N Roll Number(s) See photos from Mike Miles, Team 06

Sample Numbers Collected: N/A

MIKE MILES
JUNE 27/89

CAPE DOUGLAS
K9-9-CD-4

COMMENTS
SHORELINE OIL EVALUATION

This segment consists of a steep rocky coast, a number of small coves and a number of beachs. Much of the rocky area has a boulder veneer extending to the water line. The small coves contain sandy, pebbly or cobbly beachs with driftwood and other debris in the high ITz and supra tidal area.

This area was flown twice at low level and most of the segment appears to be un-oiled. Occasional (in the eastern end of the segment) tar 'splatters' < 5cm in diameter were observed on a few boulders ~~near~~ and a very light discontinuous band of tar "spots" occurred in a few areas of vertical rock. IP Given the very light amount of oil in this segment, no clean-up activities appear to be required at this time.

ACE 8708578

POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: CAPE DOUGLAS SITE: _____ OBSERVER: D. McCOEMICK

LOCATION PREFIX: K9-9 CD SEG. NO.: 4 LENGTH: 4800 (M)

DATE: 6/27/89 TIME (HHMM): 1100 TIDE HT.: + 1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Aerial/visual survey only. This segment not assessed by team biologist on foot.

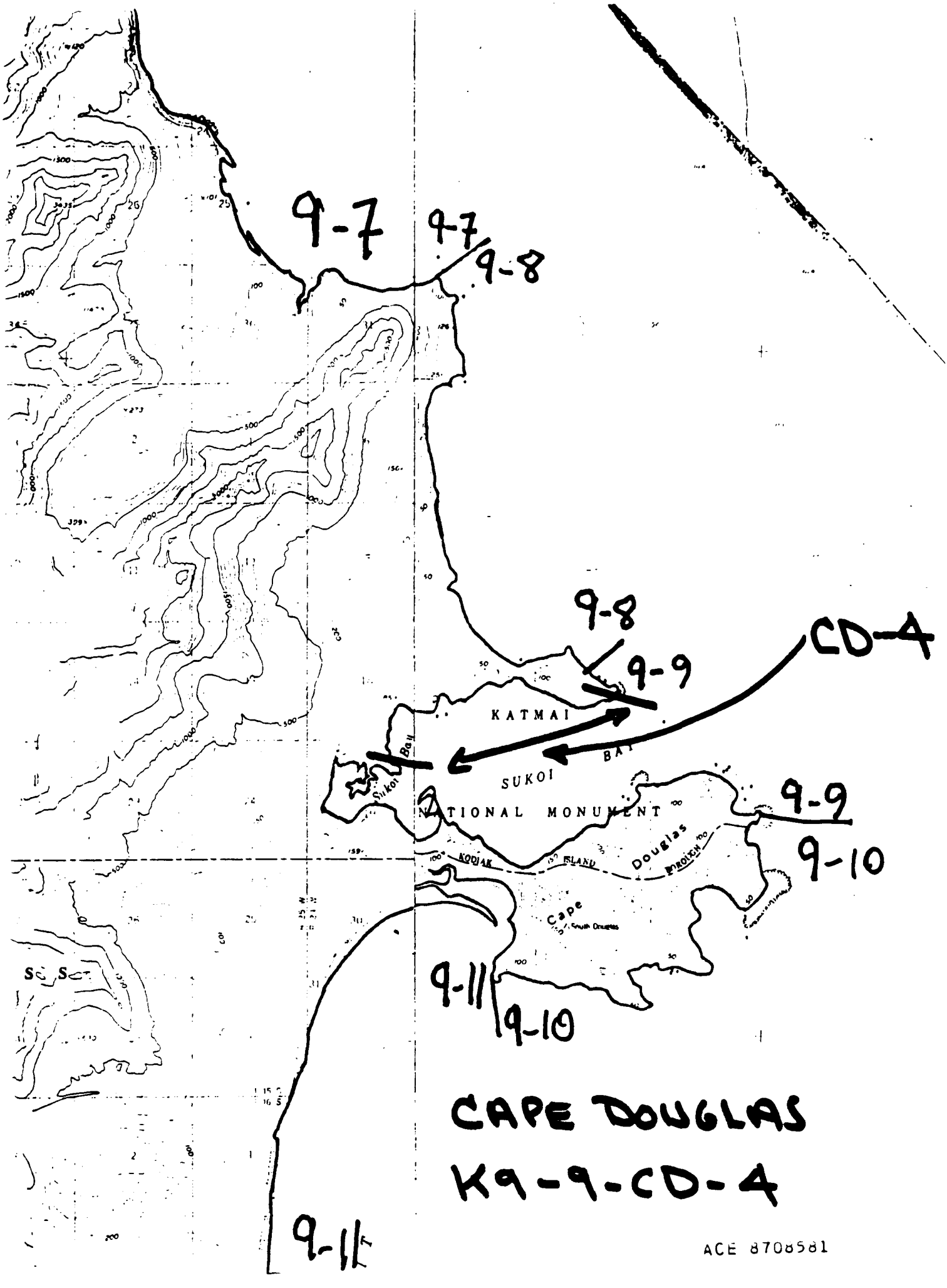
CLEANUP PRECAUTIONS: _____

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Very light oil splatters on a few boulders only.

ACE 8708579


9-7
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9-9
CD-4
KATMAI
BAY
Sukoi Bay
SUKOI
NATIONAL MONUMENT
9-9
9-10
KODIAK ISLAND
Douglas Peninsula
Cape
9-11
9-10
CAPE DOUGLAS
K9-9-CD-4
9-11
ACE 8708581

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT K9-9-CD-5

LOCATION: (see enclosed map) Cape Douglas, South side Sukoi Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/27/89

Recommended Cleanup Activity(ies):

- -No cleanup recommended due to small volume of light oiling and high natural cleaning potential (wave exposure).Subject to FOSC reassessment at a later date.
- -If required, manual removal of mousse patties and oiled debris.

Priorities/Considerations: Class 5-B

Ecological Constraints (from site survey):

- -None. No live biota seen from mid to high intertidal zone. Ecological constraints not a factor for manual cleanup.

Archaeological Constraints (from site survey):

- -If cleanup is planned, a full archaeological assessment of this segment must be conducted.

J. David McMahan Date: 7/26/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708582

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 27 1985 / Time: 11:40 Observer: MIKE MILES

Surveyed From: (Foot) Boat (Helio) Plane Weather: (Sun) Cloud/Rain/Snow/Fog

LOCATION
LOCATION CAPE DOUGLAS SEGMENT I.D. K9-9-CD-5

LENGTH OF SHORELINE SEGMENT: 1750 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

boat landings spots available in all wx in lagoon

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/(Med)/Low

Sediment: B 5 % / C 10 % / P 85 % / G ___ % / S ___ % / M ___ % /R ___ %

Drift Debris on Beach: (Yes)/No Supra/Upper/Mid/Lower Type logs seaweed

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/(Very Light)

Total Area of Beach Impact: SU / SP / (H) / M / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment %_____ No. Bands_____ Width_____

Sporadic: (Y)/N Segment % 100 Min/(Max) Dia 8cm Impact Width <4m

Est. Oil Thickness where > 1cm: 0 cm : SU / SP / UP / MID / LO

Est. Oil Penetration: <10 cm Depth below top sed SU / (SP / UP) / MID / LO

Layers? Yes/(No) No# Layers_____ Oil Weathering_____

Drift Debris Oiled ? (Yes)/No Supra/Upper/Mid/Lower Amount: H / M / L / (VL)

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 0 % Spattered 100 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 10 % SU/SP/VP/MID/LO

Pancake Mousse 70 % SU/SP/VP/MID/LO Asphalt Mousse 20 % SU/SP/VP/MID/LO

Tar Formation 0 % OMIT - SEE ATTACH. COMMENTS

Comments:

This is a pebble beach/spit located at the East end of Lagoon.

Aggassiz mousse patties and tar have become incorporated into the fresh spring tide berm. Very light sheen for 100's meters & few logs in the upper ITZ.

Insufficient oil coating shoreline to warrant clean-up since pristine area could move more into spit zone but were other oil already in bay.

ACE d708583

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODIAK - 02

Photography: (Y)/N Roll Number(s) DMC-16

Sample Numbers Collected: N/A

MIKE MILES
JUNE 27/89

CAPE DOUGLAS
K9-9-CD-5

COMMENTS
SHORELINE OIL EVALUATION

This segment consists of two pebble beaches separated by a short rocky headland. The northern most beach consists of the seaward side of a [illegible] the entrance to Sugar Loaf Lagoon.

Oil contamination on these 2 beaches is very light and consists of the occasional mousse "patty" which has become incorporated into the high tide storm berm. As much of this material is buried it still has a mousse or mousse pancake consistency. Very heavy tar "splotches" also occurs on some driftwood in the high I.T.Z. No oil was observed on the rocky headland.

Insufficient [illegible] on this beach to justify [illegible] The volume of material which could be picked up is small and even without cleanup, wave action will likely clean this beach over the course of the coming winter

ACE 8706585

POOR QUALITY ORIGINAL

version: 4/24/89

CAPE DOUGLAS South Side **ECOLOGICAL EVALUATION**

LOCATION: SUKOI BAY SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K9-9-CD SEG. NO.: 5 LENGTH: 1750 (M)

DATE: 6/27/89 TIME (HHMM): 1140 TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Pebble ~~Gravel~~ Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

OTHER OBSERVATIONS: Kelp debris, clam shells, crab carapaces. No live biota seen in this segment. 1 Fox seen at head of bay.

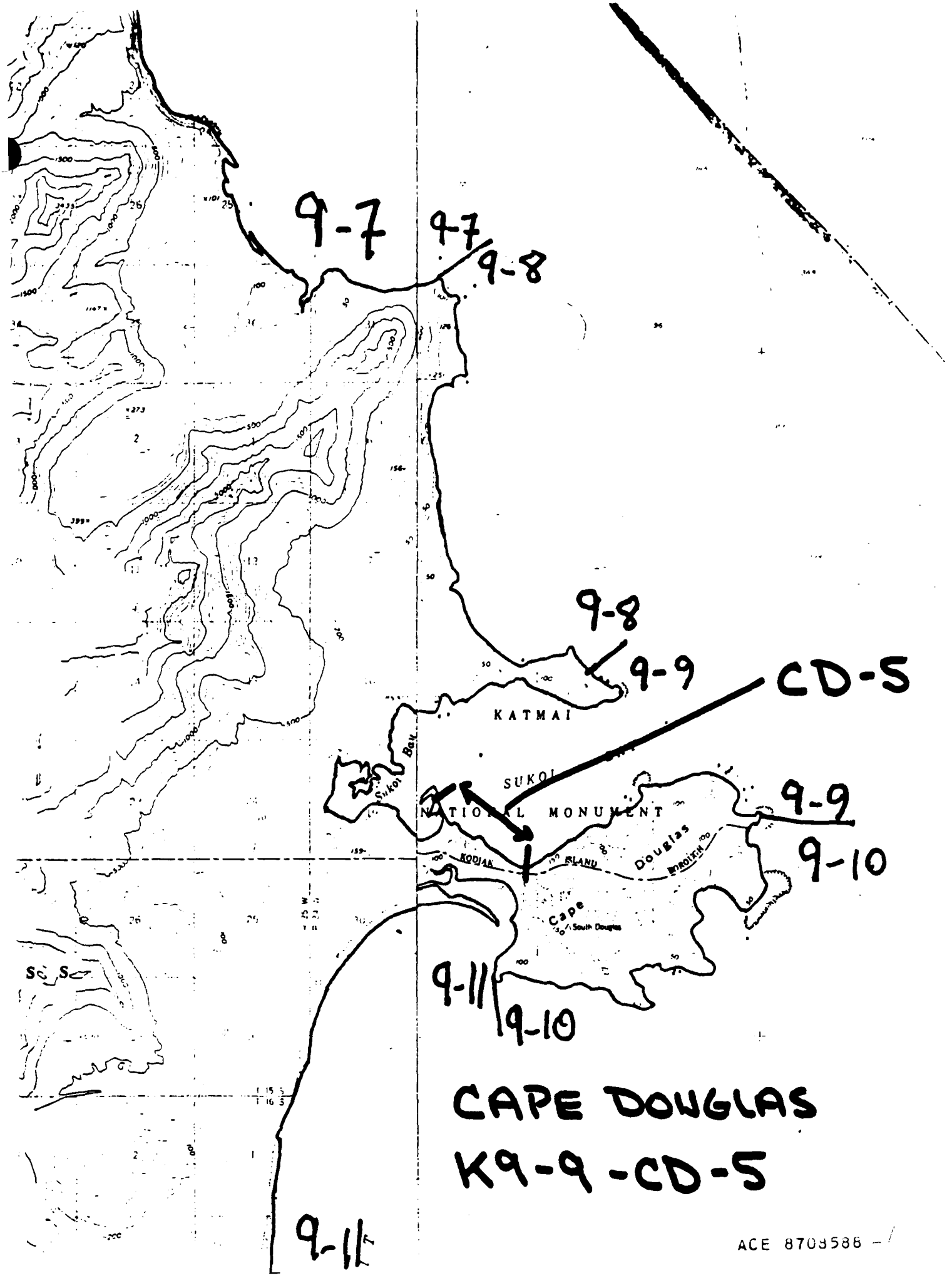
CLEANUP PRECAUTIONS: None

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other fox

BIRDS: _____

GENERAL OBSERVATIONS: Light to very light along in duff debris - no cleanup is warranted.

ACE 8708580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SUKOI
NATIONAL MONUMENT
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KODIAK
ISLAND
Douglas
Cape
South Douglas
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9-10
9-11
CAPE DOUGLAS
K9-9-CD-5
ACE 8703586

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT K9-9-CD-8

LOCATION: (see enclosed map) Cape Douglas, South side of Sukoi Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/27/89

Recommended Cleanup Activity(ies):
- -Manual removal of heavieast oil accumulations in areas of moderate oil contamination.

Priorities/Considerations: Class 3-A
- -Access may be restricted to calm days only.

Ecological Constraints (from site survey):
- -No constraints for manual removal.
- -Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. Daniel McMahon Date: 7/26/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 870d589

(version 5/16/89)

Jun 27

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1989 / Time: 14:21 Observer: Mike Miles

Surveyed From: (Foot) Boat (Helio) Plane Weather: (Sun) Cloud/Rain/Snow/Fog

LOCATION
LOCATION CAPE DOUGLAS SEGMENT I.D. K9-9-CD-8

LENGTH OF SHORELINE SEGMENT: 875 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane) calm day only

SHORELINE:
Shoreline Type: SPI/BEA/COW/(HLD)/STRT Slope: (LANG/HANG/VER)

Wave Exposure: (High)/Med/Low

Sediment: B 40 % / C 10 % / P 5 % / G ___ % / S ___ % / M ___ % / R 45 %

Drift Debris on Beach: (Yes)/No (Supra/Upper)/Mid/Lower Type logs, weed

OIL
Degree of Oiling: Heavy/(Moderate/Light/No Oil)/Unobserved/(Very Light)

Total Area of Beach Impact: SU / SP (H) / M / L

OIL DISTRIBUTION
Continuous (Y)/N Segment % < 5 No. Bands 1 Width 6-8

Sporadic: (Y)/N Segment % 70 Min/(Max) Dia < 30 Impact Width 20 m

Est. Oil Thickness where > 1cm: 5 cm SU / SP (UP) / MID / LO

Est. Oil Penetration: Depth below top seds < 5 cm very low pebbly areas only SU / SP (UP) / MID / LO

Layers? Yes/(No) No# Layers ___ Oil Weathering ___

Drift Debris Oiled ? (Yes)/No Supra/(Upper/Mid)/Lower Amount: H / M / (L) / VL mostly oiled weed

OIL MORPHOLOGY
Pooled Oil < 1 % "Free" Oil < 5 % Spattered 95 % H/(M/L)/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 30 % SU/SP/(VP/MID)/LO

Pancake Mousse 5 % SU/SP/(VP/MID)/LO Asphalt Mousse 65 % SU/SP/(VP/MID)/LO

Tar Formation 0 %

Comments: See comment sheet This segment consists [illegible] boulder [illegible]

Oil contamination is variable. Much of this segment has either no oil or very light to spattering in the [redacted] high tide

Local accumulations of oil occur on the [redacted] west facing [illegible] cutbank or small coastal indentations. Oil is thin and concentrated in the [redacted] depressions around boulders to depths of ≤ 5 cm.

ACE 8703590

Clean up - Manual removal of gross contamination in areas [illegible]

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KOL.AK.02

Photography: (Y)/N Roll Number(s) DMC-16

Sample Numbers Collected: N/A

MIKE MILES
June 27/89

CAPE DOUGLAS
K9-9-CD-8

COMMENTS
SHORELINE OIL EVALUATION

This segment consists of a low elevation rocky backshore fronted by a cobble beach and low angle rock benches.

Oil contamination is variable with concentrations generally being greater on the eastern end of this segment. A 2 to 20 m wide band of it has spotty occurrence in the mid to high ITZ. Less extensive bands of oil can however occur in the high ITZ adjacent to rocky ridges or protoberone and in small coastal indentations. In these areas, pockets of moderate (converging on heavy) oil contamination occur as mousse deposits (can be) up to 5 cm in depth ~~occur~~ around the base of boulders.

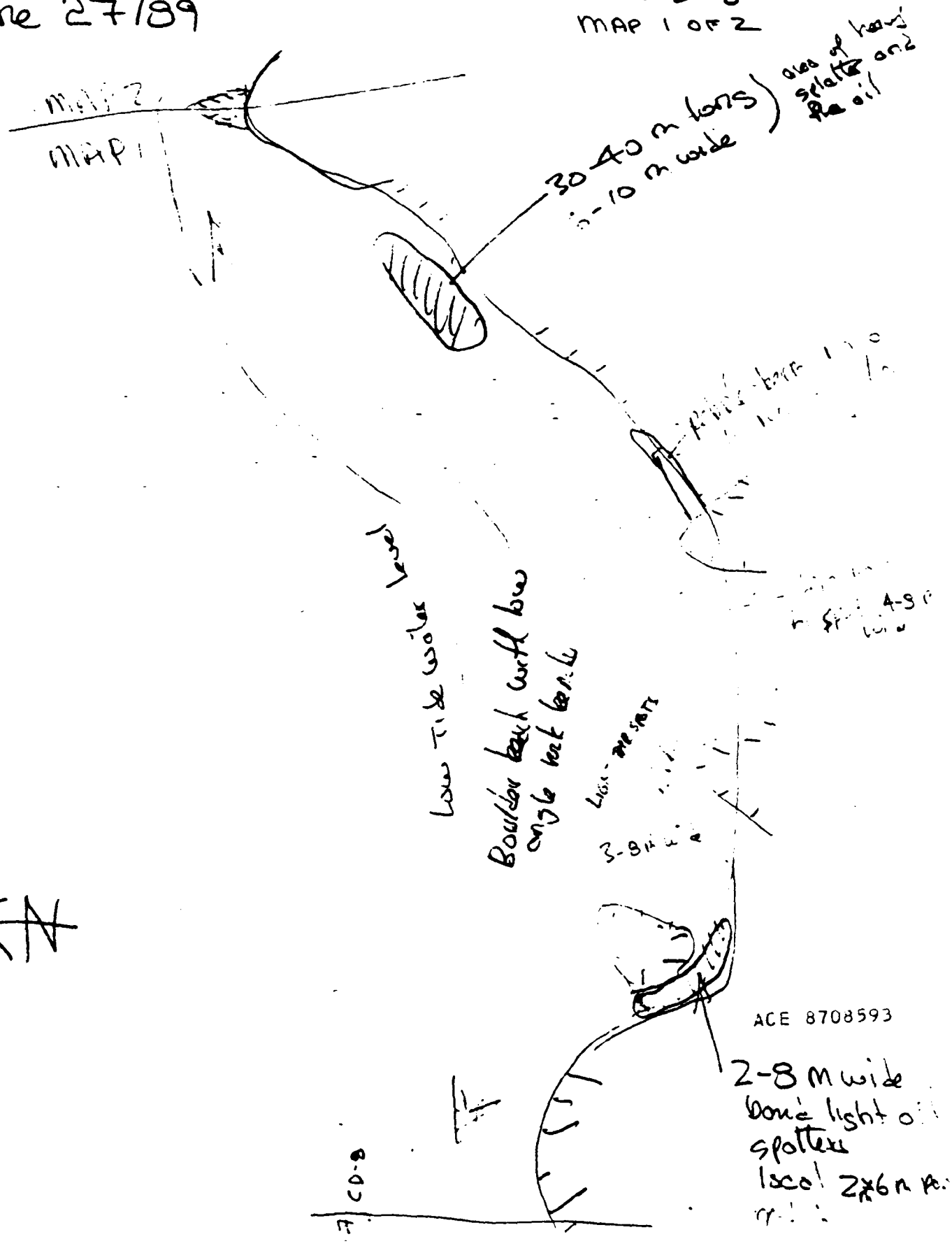
Manual removal of gross oil contamination in areas of moderate to heavier oil contamination would be [illegible] Low to high pressure hot water washing could be required to remove traces of the dried oil residues (on this segment) or deposition of clean terrigle has the potential for only redistributing the oil as oil recovery will be made more difficult by the porous nature of the beach sediments and the low [illegible]

ACE 87CD8 74598

POOR QUALITY ORIGINAL

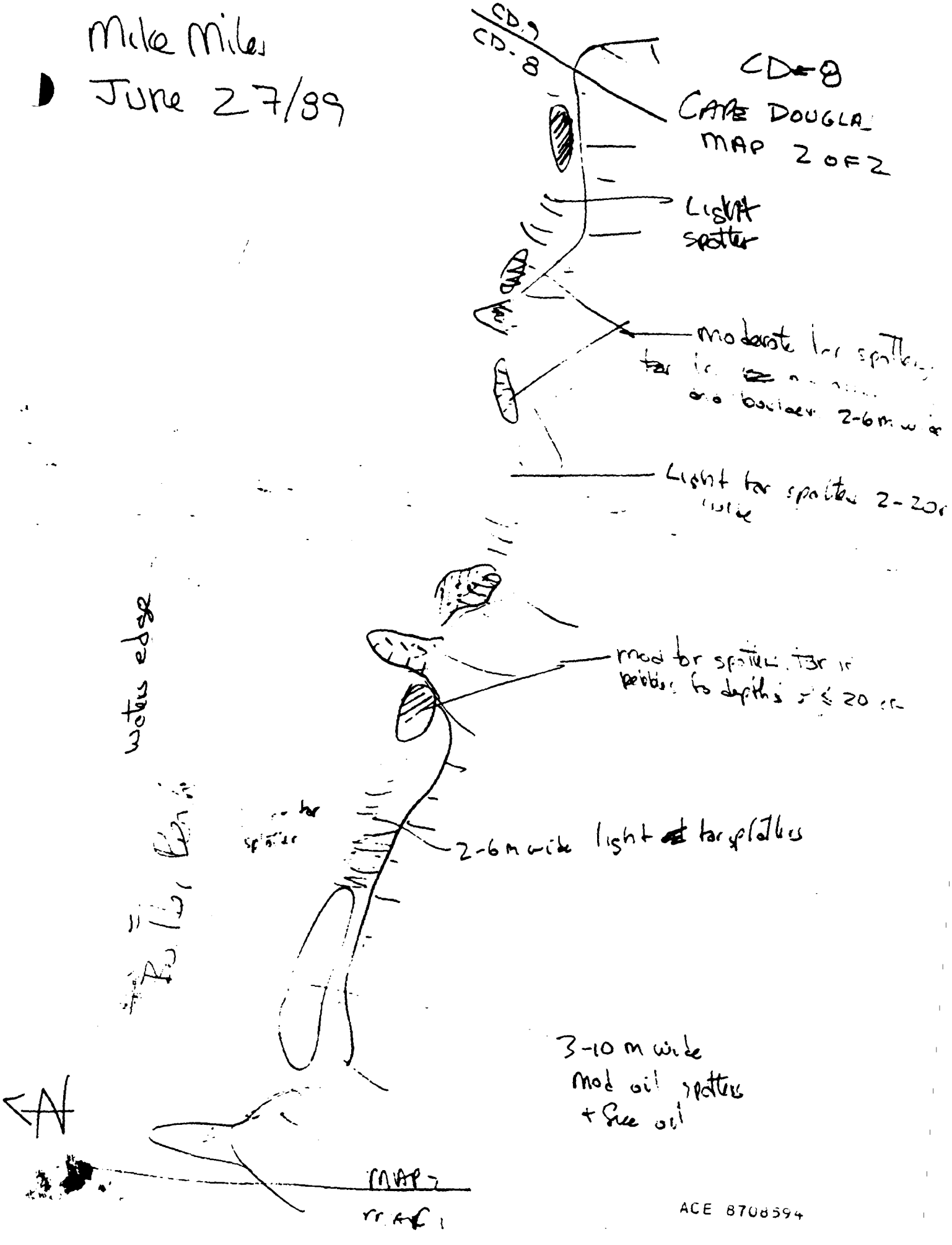
Mike Miles
June 27/89

CAPE DOUGLAS
CD-8
MAP 1 OF 2



POOR QUALITY ORIGINAL

Mike Miles
June 27/89



POOR QUALITY ORIGINAL

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas, Southside Sukoi Bay SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K9-9-CD SEG. NO.: 8 LENGTH: 875 (M)

DATE: 6/27/89 TIME (HHMM): 1415 TIDE HT.: +0.5 (M)

OILED ZONE: Splash **High** Medium Low

SUBSTRATUM: **Rocks** **Boulder** **Cobble** ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/N

Dense clumps on boulders at east end of segment

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/N

Littorina
Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Patchy small littorines (<50% of total solid areas)

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: barnacles encrusting, hermit crabs, amphipods. Diverse intertidal community dominated by mussel beds; Serpulorbis, Halichondria, Ulva

CLEANUP PRECAUTIONS: _____

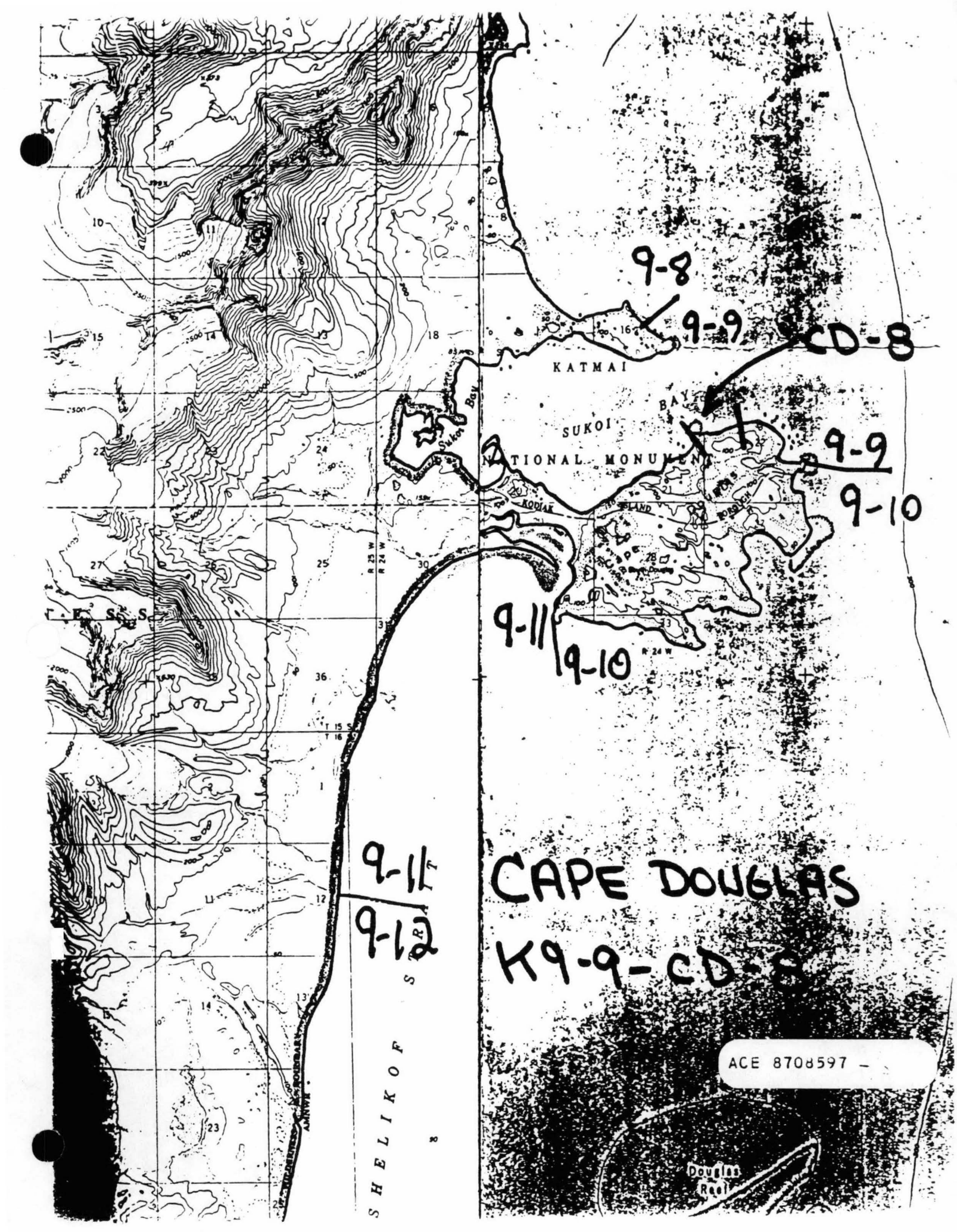
MAMMALS: Otters known to inhabit area Harbor Seals ___ Sea Lions ___ Whales ___
Other Fox

BIRDS: gulls, starfish, [illegible]

GENERAL OBSERVATIONS: Mussels persist in the high ITZ and a few patches in the low ITZ. The mussel beds in high ITZ are very important to many considerations

ACE 8708595

POOR QUALITY ORIGINAL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NATIONAL MONUMENT
Sukoi Bay
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ISLAND
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CAPE DOUGLAS
K9-9-CD-8
SHELIKOF STRAIT
ACE 8708597 -
Douglas
Reef

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/10/89 SHORELINE SEGMENT K9-9-CD-9

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/27/89

Recommended Cleanup Activity(ies):
- -Manual removal of heaviest oil contamination.
- -Low pressure, warm water washing may be tried to remove tar and oil at base of large boulders and rocky areas.

Priorities/Considerations: Class 3-A
- -Access may be restricted to calm days only.

Ecological Constraints (from site survey):
- -Manual cleanup - no constraint.
- -Wash: clean at mid-high tide only.

Archaeological Constraints (from site survey):
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/26/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: JUNE 27 1989 / Time: 16:45 Observer: MIKE MILES

Surveyed From: (Foot)/Boat/(Helio)/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION
LOCATION CAPE DOUGLAS SEGMENT I.D. K9-9-CD-S

LENGTH OF SHORELINE SEGMENT: 650 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane) Calm day only

SHORELINE:
Shoreline Type: SPI/BEA/COV/(HLD)/STRT Slope: (LANG/HANG/VER)

Wave Exposure: (High/Med)/Low

Sediment: B 2 % / C 5 % / P 5 % / G __ % / S __ % / M __ % / R 50 %

Drift Debris on Beach: (Yes)/No (Supra/Upper/Mid/Lower) Type loss weed

OIL
Degree of Oiling: Heavy/(Moderate)/Light/No Oil/Unobserved/Very Light

Total Area of Beach Impact: SU / (SP / H) / M / L

OIL DISTRIBUTION
Continuous: (Y)/N Segment % 50 No. Bands 1 Width 30 to 80 m

Sporadic: (Y)/N Segment % 50 Min/(Max) Dia >2 m Impact Width 30-80 m

Est. Oil Thickness where > 1cm: <5 cm SU / SP / (UP) / MID / LO

Est. Oil Penetration: <10 cm (Depth below top seds) in loose pockets SU / (SP / UP) / MID / LO

Layers? Yes/(No) No# Layers ____ Oil Weathering ____

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H / (M / L) / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil <5 % Spattered 95 % H/(M)/L/VL Sheen <1 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse <5 % SU/SP/(VP/MID/LO)

Pancake Mousse <5 % SU/SP/(VP/MID/LO) Asphalt Mousse 90 % SU/SP/(VP/MID/LO)

Tar Formation 0 %

Comments: SEE ATTACHED COMMENT SHEET

This beach has extensive areas of low angle [illegible]

The HIGH ITZ has a nearly continuous band of fresh oil. The MID ITZ has a wide band of discontinuous tar splats. Concentrations of oily wood & logs occur in the UPPER ITZ & wave action has removed much of the original oil deposit - however substantial amounts still remain. ACE 8708599

2 1/2 pages of comments

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODIAK-02

Photography: (Y)/N Roll Number(s) DMC-16

Sample Numbers Collected: N/A

MIKE MILES
June 27/89

CAPE DOUGLAS
K9-9-CD-9

COMMENTS
SHORELINE OIL EVALUATION FORMS

This area of boulder beach contains extensive areas of low angle bedrock bench.

The high ITZ contains a nearly continuous band of tar and mousse. The mid to low ITZ contains a wide band of discontinuous tar spatters. Concentrations of oiled seaweed logs occur in the upper ITZ. Wave action has removed much of the oil which initially contaminated this beach however substantial amounts of oil still remain.

Mar[illegible] removal of [illegible] contamination from harder hit areas [illegible] the upper ITZ would be of benefit and would reduce the [illegible] for secondary re-oiling. Moderate to high pressure hot water washing would likely be required to remove [illegible] tar deposits and completely remove the heavier mousse deposits from [illegible] the lower ITZ. Oil recovery rate or the segment may be reduced due to the difficulty in working on a low gradient boulder beach. However the [illegible] oil could be contained by [illegible] from the water in [illegible] creating [illegible] to move the [illegible] oil contaminated [illegible]

ACL 87U6U1

POOR QUALITY ORIGINAL

Version: 7/28/89

ECOLOGICAL EVALUATION

LOCATION: CAPE DOUGLAS SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K9-9-CD SEG. NO.: 9 LENGTH: 650 (M)

DATE: 6/27/89 TIME (HHMM): 1650 TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Pebble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Tidepools Endocrisia, Halichondria, Sea Lace.

CLEANUP PRECAUTIONS: Manual cleanup of most heavily oiled areas - no constraints. Washing: clean at mid/high tide times only to avoid contamination to clean areas. Wash first with cool water at low pressure to remove littorina before circling with hot water.

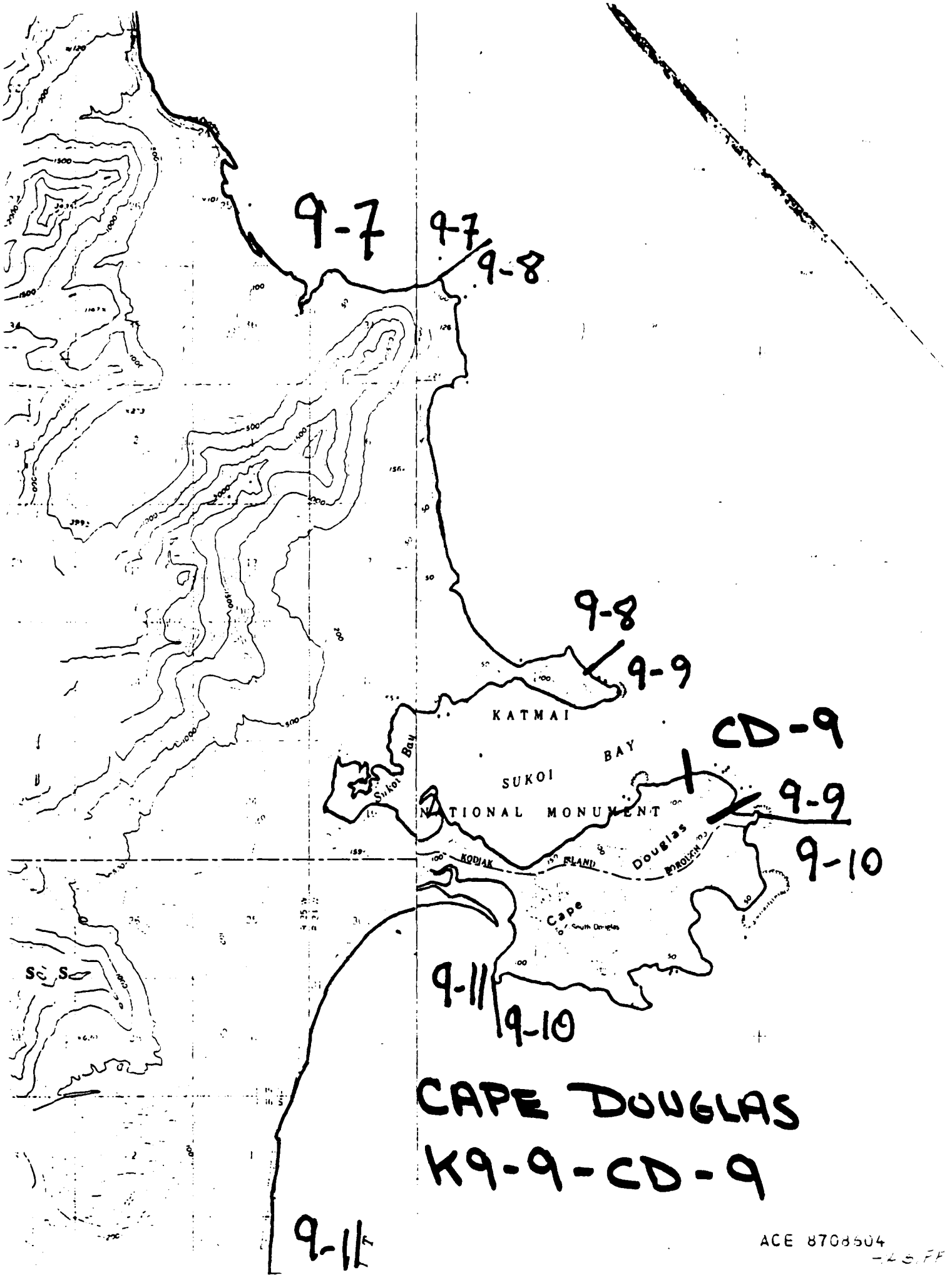
MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Brown mousse on boulders all the way to waterline. Some sheen in lower ITZ.

ACE 8708602

POOR QUALITY ORIGINAL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SUKOI BAY
Sukoi Bay
NATIONAL MONUMENT
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KODIAK ISLAND
Douglas
Cape
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9-10
CAPE DOUGLAS
K9-9-CD-9
9-11
ACE 8708504

17-596

KODIAK SCAT
K9-10

COMPLETE DEC 12 1989

ACE 7963981

DEC 12 1989

PARTIAL #1

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K9-10

Includes Shoreline Segments: CD-10, CD-11, CD-12, CD-13, CD-14, CD-15, CD-16, CD-17

Location: Cape Douglas

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

ACE 870605

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT K9-10-CD-10

LOCATION: (see enclosed map) Cape Douglas

ADEC NO._____ SHORELINE ASSESSMENT DATE: 6/30/89

Recommended Cleanup Activity(ies):
-Manual removal of oil deposits and accumulations with sorbents and snares.
-Manual removal of oiled debris.

Priorities/Considerations: Class 2-A
-Area has high natural cleaning potential. Therefore, removal of very light or residual oil from cleanup operations may not be necessary.
-Boat access may be restricted to calm weather only.

Ecological Constraints (from site survey):
-Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

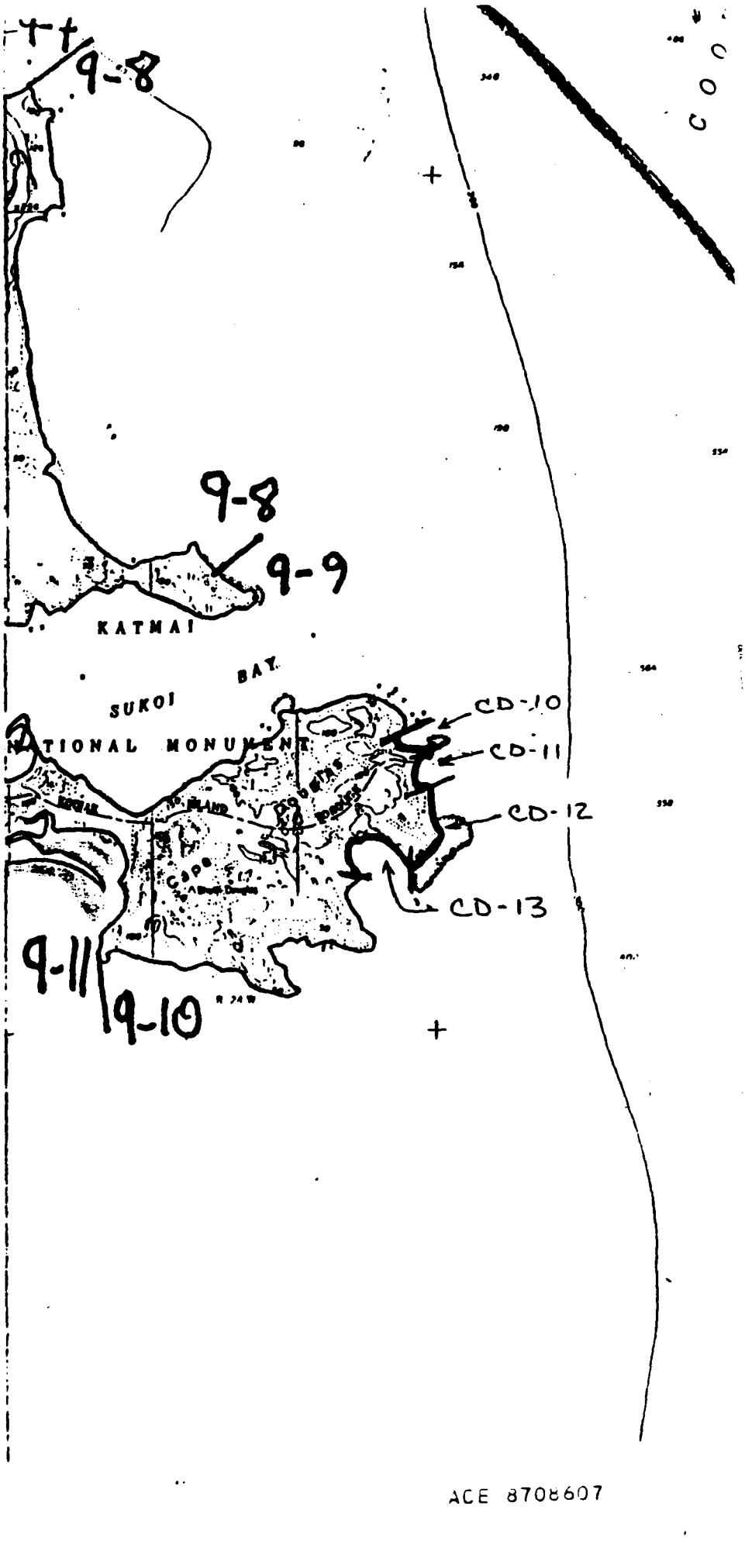
A. David McMahon Date: 7/30/89
State Historic Preservation Officer *

EXXON:_____ Date:_____

FOSC:_____ Date:_____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708606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SUKOI
NATIONAL MONUMENT
CD-10
CD-11
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9-10

ACE 8708607

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 30 June 89 / Time: 1435 Observer: BRYAN TRIMM

Surveyed From: (Foot)/Boat/Helio/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION
LOCATION CAPE DOUGLAS - ALASKA PEN. SEGMENT I.D. CD-1C

LENGTH OF SHORELINE SEGMENT: 500 m

ACCESS: Foot/Vehicle/(Boat)/Barge/(Helio)/Float Plane
Cross Island

SHORELINE:
Shoreline Type: SPI/(BEA)/COV/MIX/STRT Slope: (LAIG)/MANG/VER

Wave Exposure: (High)/Med/Low

Sediment: B 20 % / C 40 % / P 20 % / G 5 % / S 5 % / M - % / R 10 %

Drift Debris on Beach: (Yes)/No (Supra/Upper)/Mid/Lower Type Logs/SEAWEED

OIL
Degree of Oiling: (Heavy)/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / (H) / (M) / L

OIL DISTRIBUTION
Continuous: (Y)/N Segment % 50 No. Bands 1 Width 6-8 m LAG BEACH BERMS AT

Sporadic: (Y)/N Segment % 20 Min/Max Dia — Impact Width 6 m

Est. Oil Thickness where > 1cm: 3 cm SU / SP / (UP) / MID / LO

Est. Oil Penetration: (Reworked) 15 cm SU / SP / (UP) / MID / LO

Layers? Yes/(No) No. Layers — Oil Weathering —

Drift Debris Oiled ? (Yes)/No (Supra/Upper)/Mid/Lower Amount: H / M / (L) / VL

OIL MORPHOLOGY
Pooled Oil — % "Free" Oil — % ~~Spattered~~ Coated 100 % (H)/M/L/VL Sheen —
MED/HEAVY COATING FOR BEACHES A, B

OIL WEATHERING (OW)
Fresh Oil — % SU/SP/VF/MID/LO Choc Mousse — % SU/SP/VF/MID/LO

Pancake Mousse — % SU/SP/VF/MID/LO Asphalt Mousse 100 % SU/(SP)/VF/MID/LO

Tar Formation — %

Comments: ACE 8703608

ASPHALT MOUSSE IS LIGHT COATING. CHOC. MOUSSE WEATHERED TO TARRY CONSISTANCY. HEAT OF THIS SUNNY DAY IS LEACHING OILY DEPOSITS TO THE POINT OF RELEASING LIGHTER AROMATICS. MOUSSE BEING REWORKED INTO LESSER MOUSSY DEPOSITS WITH LIGHT COATING, BUT OCCASIONAL PATCHES OF MEDIUM/HEAVY COATING POINTS (SEE RECORD FIELD MAP). VERY LIGHT OILING OF STRANDED DRIFT IN HIGH INTERTIDAL ZONE REWORKED INTO BERM (MIXED COBBLE/PEBBLE). OCCASIONAL (RARE) TATTERS OF MOUSSE FOUND THAT COULD BE REMOVED BY SORBENT PADS (DO POM POMS). NO TO LITTLE OILING FOUND (SEEN) ON CLIFFS

POOR QUALITY ORIGINAL

DOCUMENTATION:

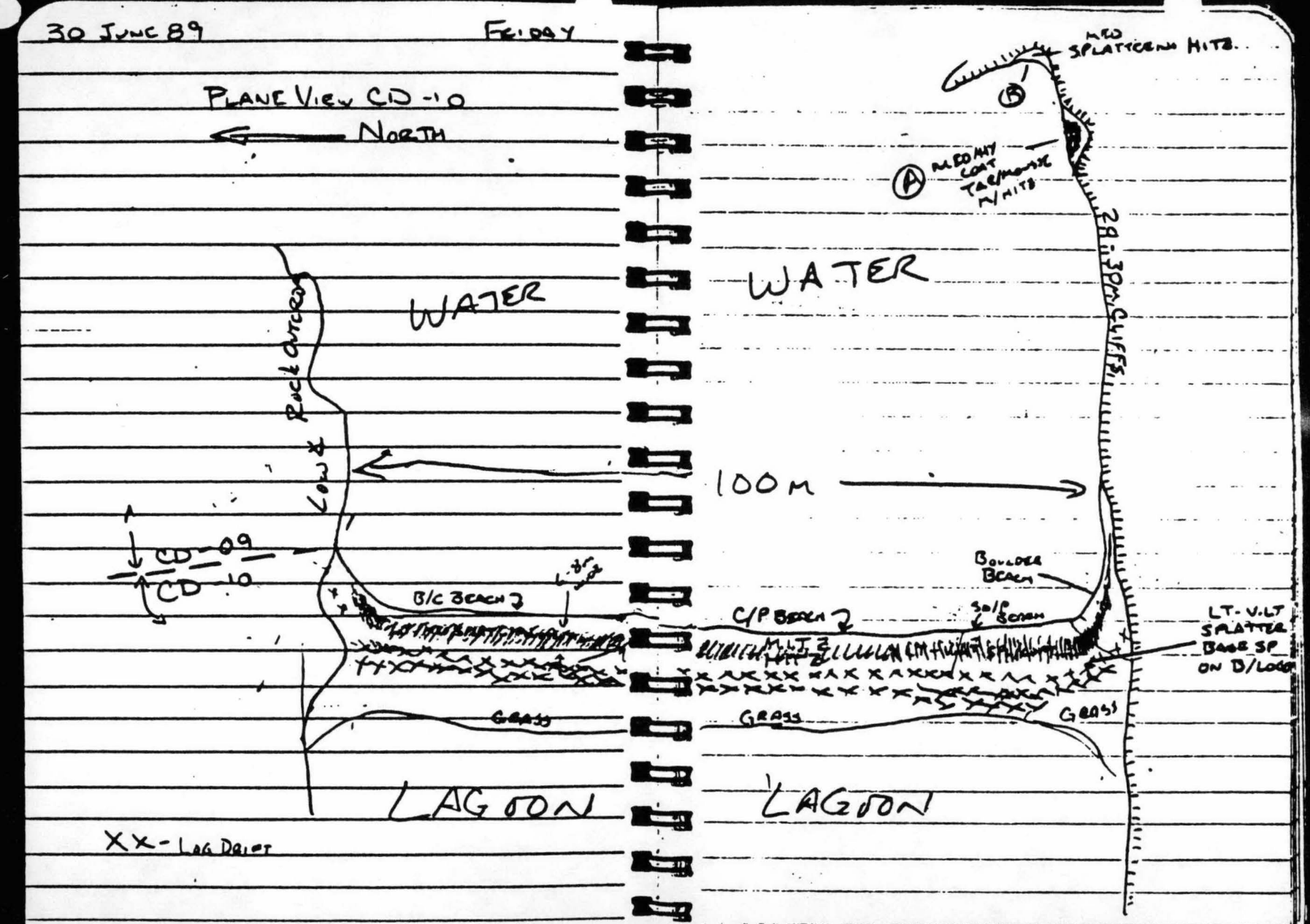
ap/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) Kolin. 02

Photography: (Y)/N Roll Number(s) Dmc-16

Sample Numbers Collected: N/A

30 JUNE 89 FRIDAY



ACE 8708610

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas SITE: _____ OBSERVER: D McCormick

LOCATION PREFIX: K9-9-CD SEG. NO.: 10 LENGTH: 500 (M)

DATE: 6/30/89 TIME (HHMM): 1435 TIDE HT.: +2.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense only at easternmost end of segment

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Continuous only at east end of segment

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Most dense at east end of segment. Approx. 5% of Littorinas are [illegible]

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

OTHER OBSERVATIONS: Littorinas zig-zag on Endocarpon on larger boulders; [illegible]

CLEANUP PRECAUTIONS: none for mussels; for work - clean only at mid-high tide times to avoid contacting lower ITZ.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: Pair of trumpeter swans

GENERAL OBSERVATIONS: Oil contact is the heaviest amount of light par receptive it will be lower ITZ, some pooled oil in depressions among boulders in mid to high ITZ, and buried under pebbles/cobbles in high zone with some oiled drift debris. This is a high energy segment which has undergone some self-cleaning.

ACE 8708611

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT K9-10-CD-11

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/30/89

Recommended Cleanup Activity(ies):

-Manual removal of oil deposits and accumulations and oiled debris (check in cracks and crevices).
-Manual cleaning or pressure washing of oiled logs.

Priorities/Considerations: Class 3-A

-Boat access may be restricted to calm weather only.
-High natural cleaning potential may preclude removal of very light oiling or residual oil following removal of heaviest concentrations.

Ecological Constraints (from site survey):

-Avoid tracking oil to clean areas.
-Work at mid tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):

-No access to forest/upland zone by beach crews during cleanup.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/30/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8706613

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 30 June 89 / Time: 1543 Observer: BRYAN TRIAM

Surveyed From: (Foot) Boat/Helio/Plane Weather: (Sun) Cloud/Rain/Snow/Fog

LOCATION
LOCATION CAPE DOUGLAS, ALASKAN PEN. SEGMENT I.D. CD-11

LENGTH OF SHORELINE SEGMENT: 700 m

ACCESS: Foot/Vehicle/(Boat)/Barge/(Helio)/Float Plane
Good LANDINGS ONLY

SHORELINE:
Shoreline Type: SPI/(BEA)/(COV)/(MIX)/STRT Slope: (LAND)/(MANG)/(VER)

Wave Exposure: (High)/Med/Low

Sediment: B 20% / C 20% / P 10% / G 5% / S 5% / M ___% / R 40%

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type Logs/(SEAWEED) FISHING GEAR
(SP)

OIL
Degree of Oiling: Heavy/(Moderate)/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / (SP) / H / (M) / L)

OIL DISTRIBUTION
Continuous (Y)N Segment % 40 No. Bands 1 Width 1-4m

Sporadic: (Y)N Segment % 30 Min/Max Dia 0.01/3 m Impact Width 1/2 - 4 m

Est. Oil Thickness where > 1cm: ___ cm SU / SP / UP / MID / LO

Est. Oil Penetration: 5 cm SU / SP / (UP) / (MID) / LO

Layers? Yes/(No) No. Layers ___ Oil Weathering ___

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H / M / (L) / VL

OIL MORPHOLOGY
Pooled Oil ___% "Free" Oil ___% Spattered 99 % H/(M)/L/VL Sheen ___

OIL WEATHERING (OW)
Fresh Oil ___% SU/SP/VP/MID/LO Choc Mousse ___% SU/SP/VP/MID/LO

Pancake Mousse ___% SU/SP/VP/MID/LO Asphalt Mousse 100 % SU/SP/VP/(MID)/LO

Tar Formation ___%

Comments: ASPHALT MOUSSE IS WEATHERED CHOC. MOUSSE THAT IS NOW HAS A TARRY CONSISTANCY. ACE 8708014

M-BEACH - LIGHT COATING ASPHALT MOUSSE. GREATEST CONCENTRATIONS IN CRACKS/CREVICES, ESPECIALLY FROM OF FLAT ANGLE (PAVEMENT) ROCK OUTCROPS. & BEACH - MUCH SEAWEED DRIFT DECAY. VERY LIGHT TO LIGHT SPATTER MOUSSE ON LOG/SEAWEED DRIFT IN MID. PENETRATION (SCRAPED) TO 5cm. IN WIDE IMPACTS OF B-BEACH - VERY LIGHT SPATTER IN LOW/MIDDLE TIDE. LIGHT SPATTER IN MID. IMPACT UP TO 15m WIDE (HEAVY). Y-BEACH - VERY LIGHT SPATTER/COATING IN MID/HIGH TIDE. PENETRATION (SCRAPED) TO 15cm IN PEBBLE MATERIAL SMALL PATCHES THAT HAVE MEDIUM/HEAVY COATINGS OF MOUSSE. A-MAIN - CHECK CRACKS/CREVICES. VERY LIGHT SPATTER IN SEAWEED ZONE OILING BEACH 1 LOW/SEE PIC DRIFT QUESTION - IS SHEEN FROM INTERTIDAL ROCK

POOR QUALITY ORIGINAL

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODIAK-03-

Photography: (Y)/N Roll Number(s) DMC-16 / DMC-17

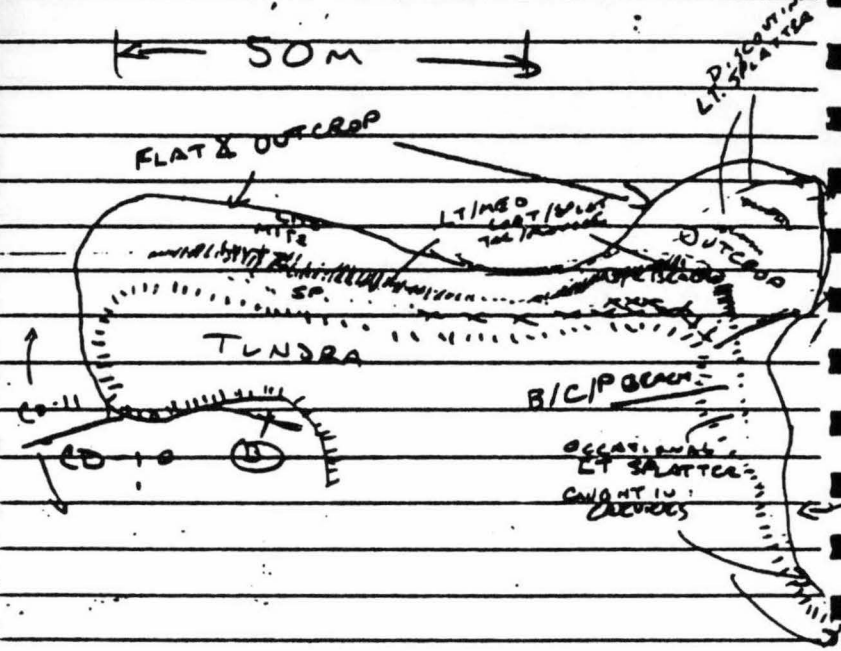
Sample Numbers Collected: N/A

30 JUNE 89 FRIDAY

CD-11 (PLANE VIEW)

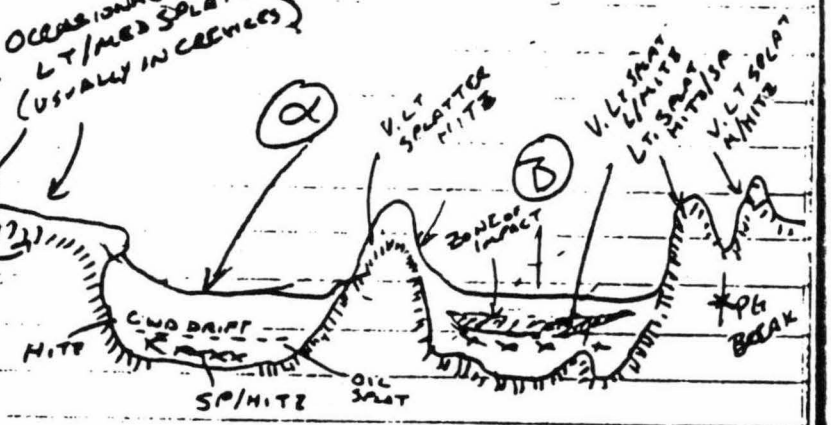
← NORTH

← 50M →

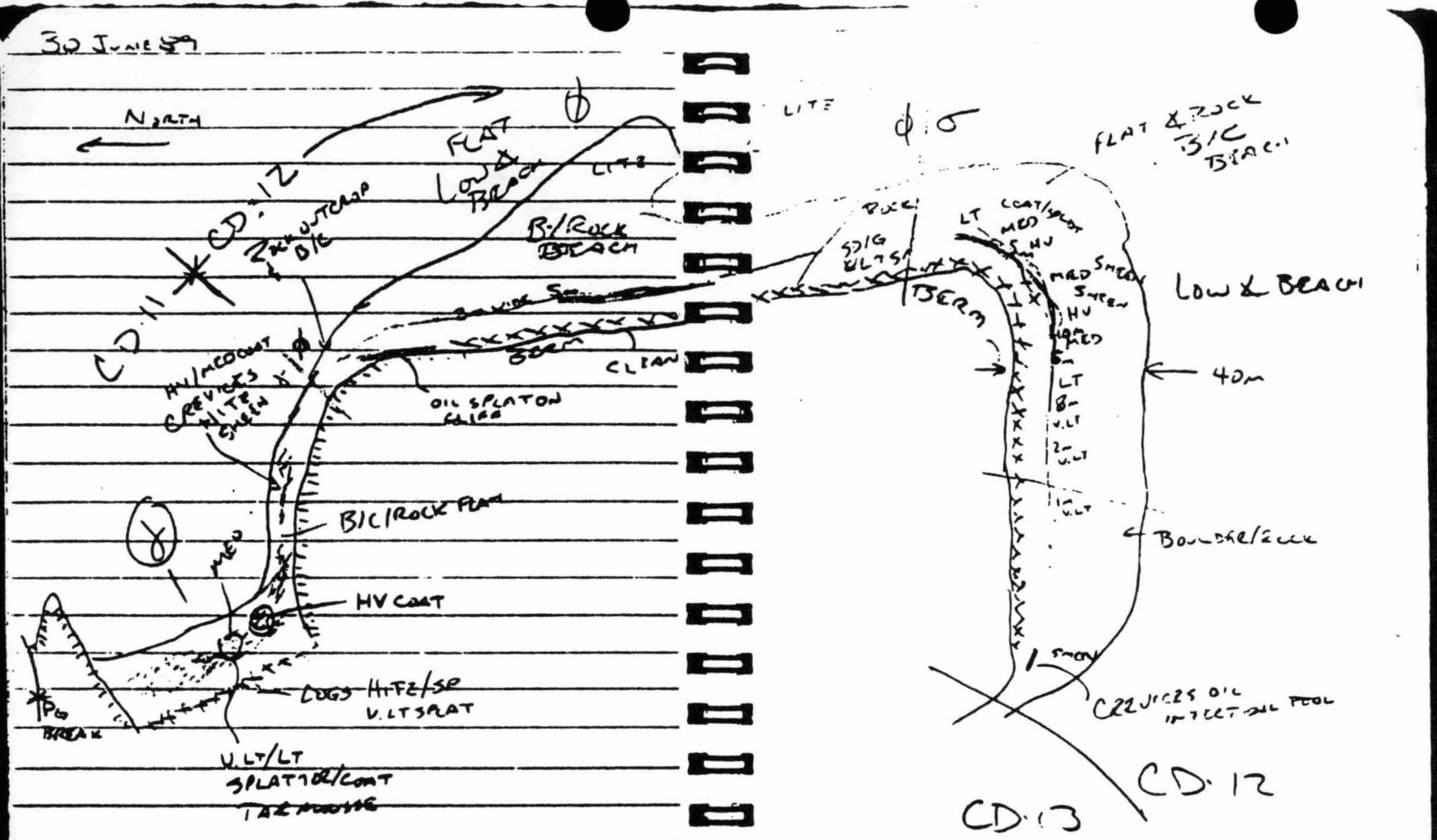


ALL HI ENERGY

COVE →



ACE 8708616


30 JUNE 89
NORTH
FLAT
LOW & BEACH
LITE
B/ROCK BEACH
CD·12
CD·11
CLEAN
OIL SPLATON
BIC/ROCK FLAT
HV COAT
LOGS HITE/SP
V.LT SPLAT
V.LT/LT
SPLAT OIL/COAT
TARBALLS
FLAT & ROCK B/C BEACH
LOW & BEACH
40m
BOULDER/ROCK
CD·13
CD·12

ACE 8708617

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas KG-9-10 SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: CD SEG. NO.: 11 LENGTH: 700 (M)

DATE: 6/30/89 TIME (HHMM): 1540 TIDE HT.: +1.75 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Dense on east facing wide benches

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: In tide pools Ectocarpus, Phyllospadix, Ulva, hermit crabs, sculpin, Enteromorpha on boulders low to mid zone; clam shells; Sertulariidae hydroids in pools, Pocket beaches have kelp beds close with amphipods

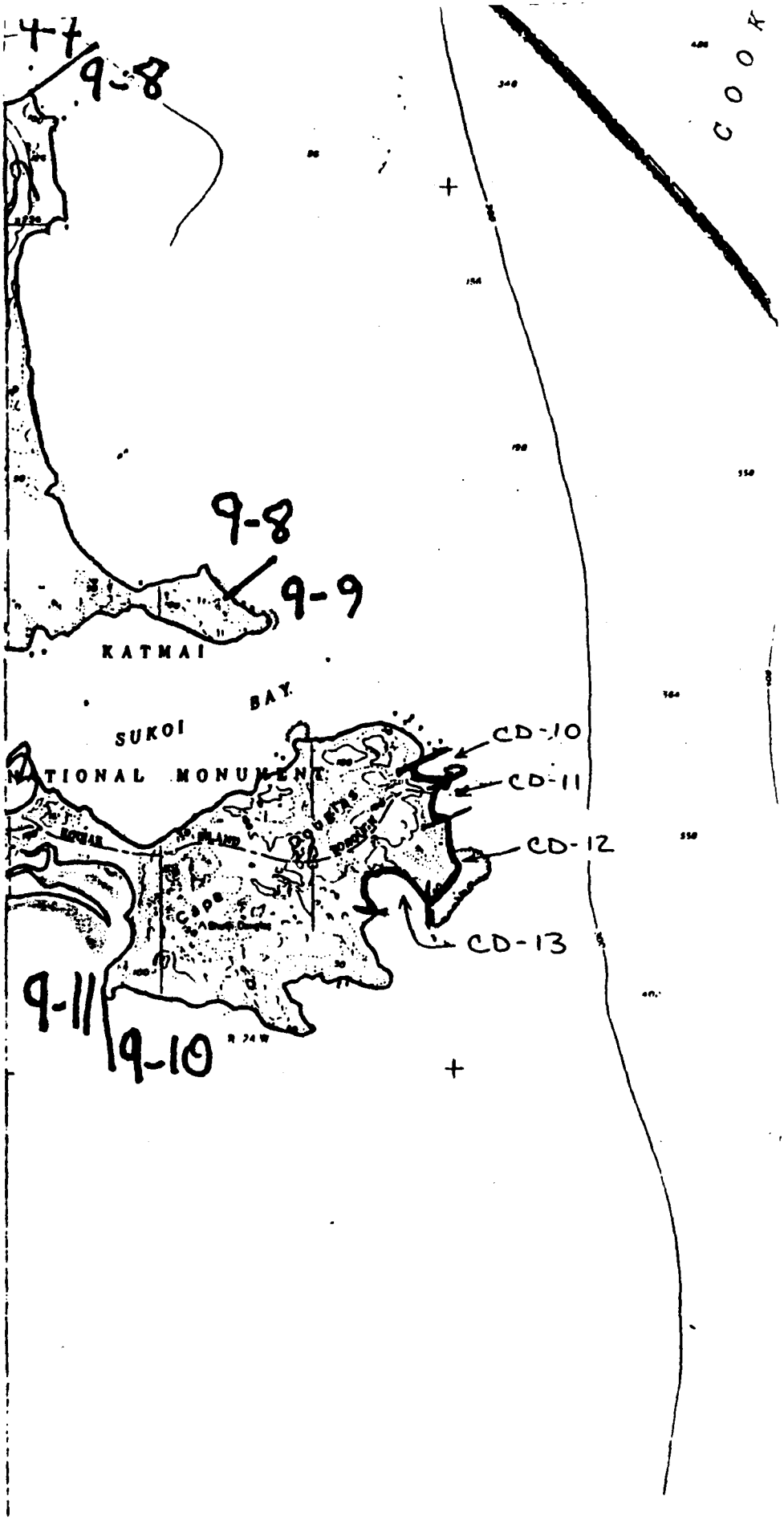
CLEANUP PRECAUTIONS: Manual cleanup; avoid trampling oil to cleaner areas. Hot water wash: clean at mid to high tide times to avoid cross contamination to Segment 12.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: 4 dead oiled birds - 3 were scavenged

GENERAL OBSERVATIONS: Steep rocky shore with mid and low zones of pools, pockets, course and cobble beaches on east facing wide benches. Mid to low zones. High energy segment. High 12 drift in. Lightly oiled on pocket beaches; east end of segment has oil in splash zone on cliffs

ACE 8708618



ACE 8708620

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT K9-10-CD-12

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/30/89

Recommended Cleanup Activity(ies):
- -Manual removal of oil deposits and accumulations and oiled debris.
- -Manual cleaning or pressure washing of oiled logs.

Priorities/Considerations: Class 2-A
- -High natural cleaning potential may preclude removal of very light oiling or residual oil following removal of heaviest concentrations.

Ecological Constraints (from site survey):
- -Avoid tracking oil to clean areas.
- -Work at mid tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan
State Historic Preservation Officer * Date: 7/10/89

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708621

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 20 June / Time: 1650 Observer: Bryan Timms

Surveyed From: (Foot) Boat/Helio/Plane Weather: (Sun) Cloud/Rain/Snow/Fog

LOCATION
LOCATION Cape Douglas - Alaska Pen. SEGMENT I.D. CD-12

LENGTH OF SHORELINE SEGMENT: 1050 m

ACCESS: Foot/Vehicle/Boat/Barge/(Helio)/Float Plane

SHORELINE:
Shoreline Type: SPI/(BEA)/COV/MIX/STET Slope: (FLAT)/MANG/VER

Wave Exposure: (High)/Med/Low

Sediment: B 30% / C 20% / P 5% / G 2% / S 3% / M ___% / R 40%

Drift Debris on Beach: (Yes)/No (Supra)/Upper/Mid/Lower Type Log/(Seaweed)

OIL
Degree of Oiling: (Heavy)/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / (SP / H / M / L)

OIL DISTRIBUTION
Continuous: (Y)/N Segment % 70 No. Bands 1 Width 10m max

Sporadic (Y)/N Segment % 10 Min/Max Dia 0.01/3m Impact Width 2m

Est. Oil Thickness where > 1cm: 5 cm SU / SP / UP / MID / LO

Est. Oil Penetration: UP TO 50 cm SU / SP / (UP / MID) / LO

Layers? Yes/(No) No. Layers — Oil Weathering —

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil — % "Free" Oil — % Spattered 99 % H/M/L/VL Sheen —

OIL WEATHERING (OW)
Fresh Oil — % SU/SP/VP/MID/LO Choc Mousse — % SU/SP/VP/MID/LO

Pancake Mousse — % SU/SP/VP/MID/LO Asphalt Mousse 100 % SU/SP/VP/MID/LO

Tar Formation — %

Comments: Asphalt Mousse is chocolate mousse weathered to a tar consistency.

often found in lower mid ITZ. Very light to heavy coating/splatter in high ITZ. Greatest concentrations cracks & crevices. Mousse up to 5cm thick here. Sheen probably (?) from melting mousse splattering (medium) on rock cliffs (see map). Middle ITZ has occasional light to very light splattering. Oil smelly - release of aromatics.

ACE 8708622

POOR QUALITY ORIGINAL

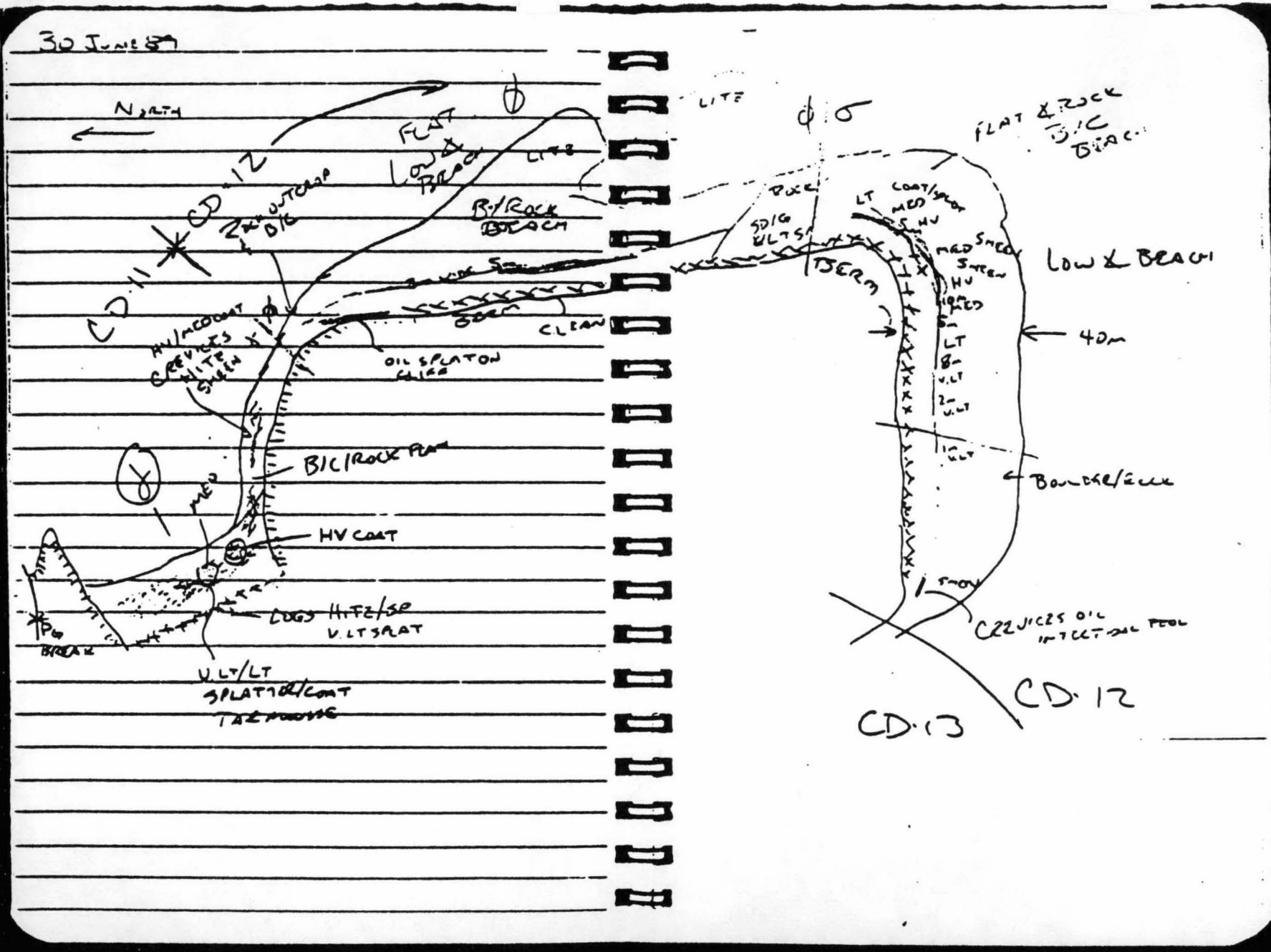
DOCUMENTATION:

..ap) Aerial photo marking segment boundaries See Attached

VTR: (Y)N Tape Number(s) Kobiak 03

Photography: (Y)N Roll Number(s) DMC-17

Sample Numbers Collected: N/A


30 JUNE 89
NORTH
FLAT
LITE
CD-12
2nd OUTCROP
B/ROCK BEACH
CD-11
CLEAN
OIL SPLATTON
BIC/ROCK FLAT
MED
HV COAT
LOGS HVFC/SP
V.LT SPLAT
V.LT/LT
SPLATTER/COAT
TARBALLS
LITE
FLAT & ROCK
B.I.C
BEACH
ROCK
LT COAT/SPLAT
MED
HV
SPLAT
SDIG
V.LT SP
BERM
MED SPLAT
LOW & BEACH
HV
MED
LT
V.LT
40m
BOULDER/COBBLE
STONY
CRevices OIL
CD-13
CD-12

ACE 8708624

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: CAPE DOUGLAS SITE: _____ OBSERVER: D. McCORMICK

LOCATION PREFIX: CD- K9-10- SEG. NO.: 12 LENGTH: 1050 (M)

DATE: 6/30/89 TIME (HHMM): 1700 TIDE HT.: +1.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Pebble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Scalings from large barnacles; Enteromorpha in pools; Enteromorpha on large boulders; some light sheen seen in lower ITZ pools (pre oiled)

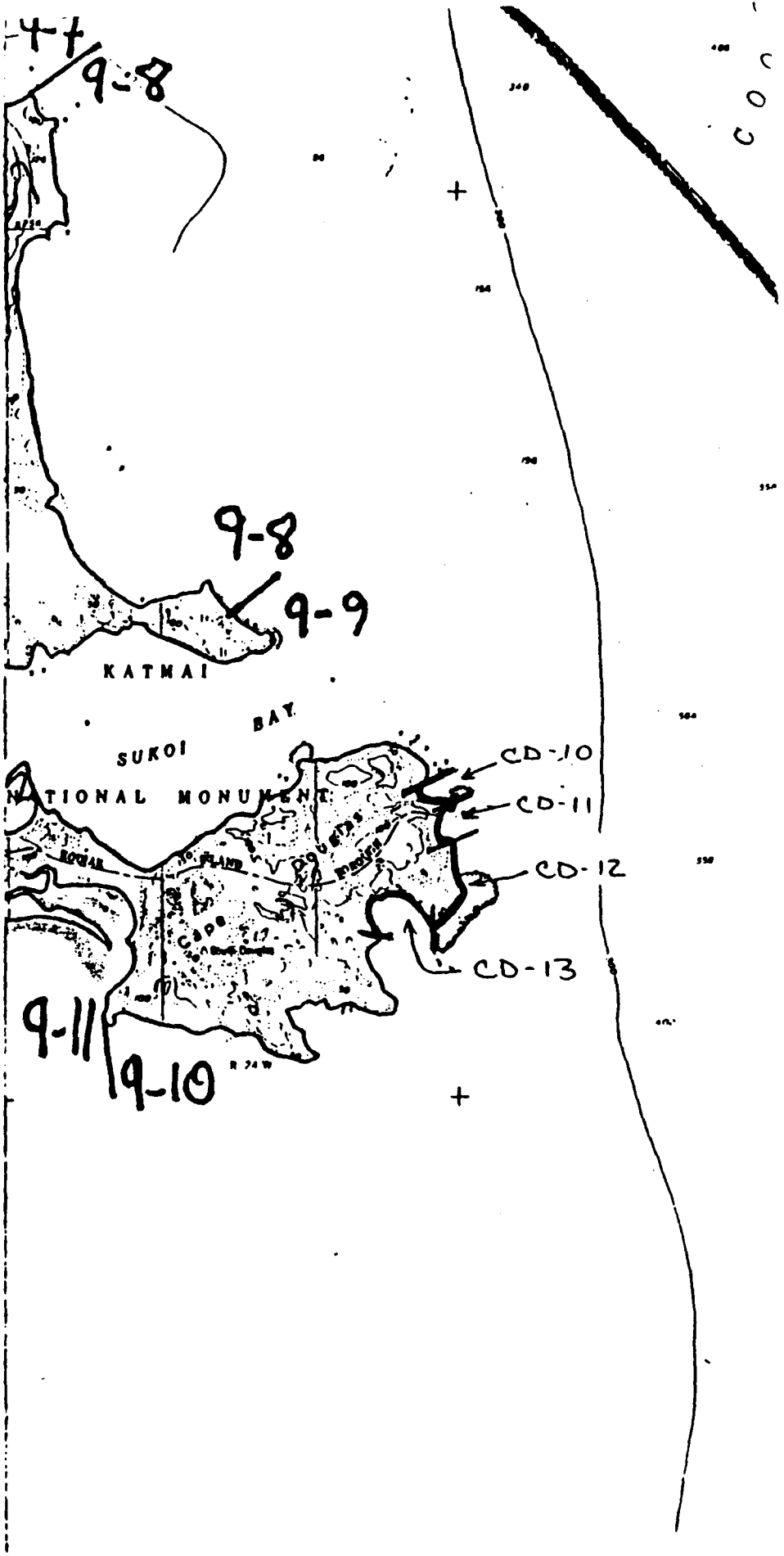
CLEANUP PRECAUTIONS: Manual cleanup, avoid tracking oil to clean areas, wash clean at mid to high tide times to avoid contamination to lower ITZ

MAMMALS: Otters ___ Harbor Seals 2 Sea Lions ___ Whales ___
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Oil occurs here as sheen in lower ITZ pools, as light to spotty mousse splatter in the mid to high ITZ's; some Enteromorpha loosely on it. Moderate to heavy mousse in patches in high ITZ.

ACE 8708625



ACE 8708627

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/30/89 SHORELINE SEGMENT K9-10-CD-13

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/30/89

Recommended Cleanup Activity(ies):

-Manual removal of thicker mousse (oil) deposits in middle/high intertidal and splash (storm) zones. Note: check cracks, crevices and in between boulders for greatest concentrations.

-Manual removal of small drift debris (seaweed, sticks). Do not remove oiled drift logs.

Priorities/Considerations: Class 2-A

-Access may be restricted to calm weather only.

Ecological Constraints (from site survey):

-Avoid tide pool areas and avoid tracking oil to uncontaminated zones.

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/10/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 30 July 89 Time: 1829 Observer: Bryan Trimm

Surveyed From: (Foot)/Boat/(Heli)/Plane (CLIFFS (NE corner)) Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION
LOCATION Cape Douglas, Alaska Peninsula SEGMENT I.D. CD-13

LENGTH OF SHORELINE SEGMENT: 1207 m

ACCESS: Foot/Vehicle/(Boat)/Barge/(Heli)/Float Plane (Good Weather only)

SHORELINE:
Shoreline Type: SPI/BEA/(COV)/(HIB)/STRT Slope: LAIG/HAIG/(VER)

Wave Exposure: (High)/Med/Low

Sediment: B 30% / C 20% / P 10% / G 2% / S 3% / M ___% /R 30%

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type Logs/Scrubs

OIL
Degree of Oiling: (Heavy)/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU /(SP / H / M) L

OIL DISTRIBUTION
Continuous: (Y)/N Segment % 60 No. Bands 0 Width UP TO 15M

Sporadic: (Y)/N Segment % 20 Min/Max Dia 0.01/1 Impact Width 5m

Est. Oil Thickness where > 1cm: 2 cm SU / SP /(UP)/ MID / LO

Est. Oil Penetration: 20 cm SU / SP /(UP)/ MID / LO

Layers? Yes/(No) No. Layers ___ Oil Weathering ___

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/(Mid)/Lower (SPLASH) Amount: H / M /(L) / VL

OIL MORPHOLOGY
Pooled Oil ___% "Free" Oil ___% Spattered 100% (H)/M/(L)/VL Sheen ___%
(COAT)

OIL WEATHERING (OW)
Fresh Oil ___% SU/SP/VP/MID/LO Choc Mousse 5 % SU/SP/VP/MID/LO

Pancake Mousse - % SU/SP/VP/MID/LO Asphalt Mousse 95 % SU/SP/VP/MID/LO

Tar Formation - %

Comments: Asphalt Mousse (Tar Base) Choc Mousse which has dried to thin layer. Tarry consistency

Boulder/Cobble beaches. Oil dominantly dried choc. mousse (Asphalt or Tar mousse) with occasional fr. mousse. Varies from very light splattering/coating to small patches heavy. Oiling fairly continuous on beaches. Rocky headlands generally had a very light splattering/coating. One hit & run had reworked oil to 20 cm. Greatest concentrations in cracks & crevices.

ACE 8708029

POOR QUALITY ORIGINAL

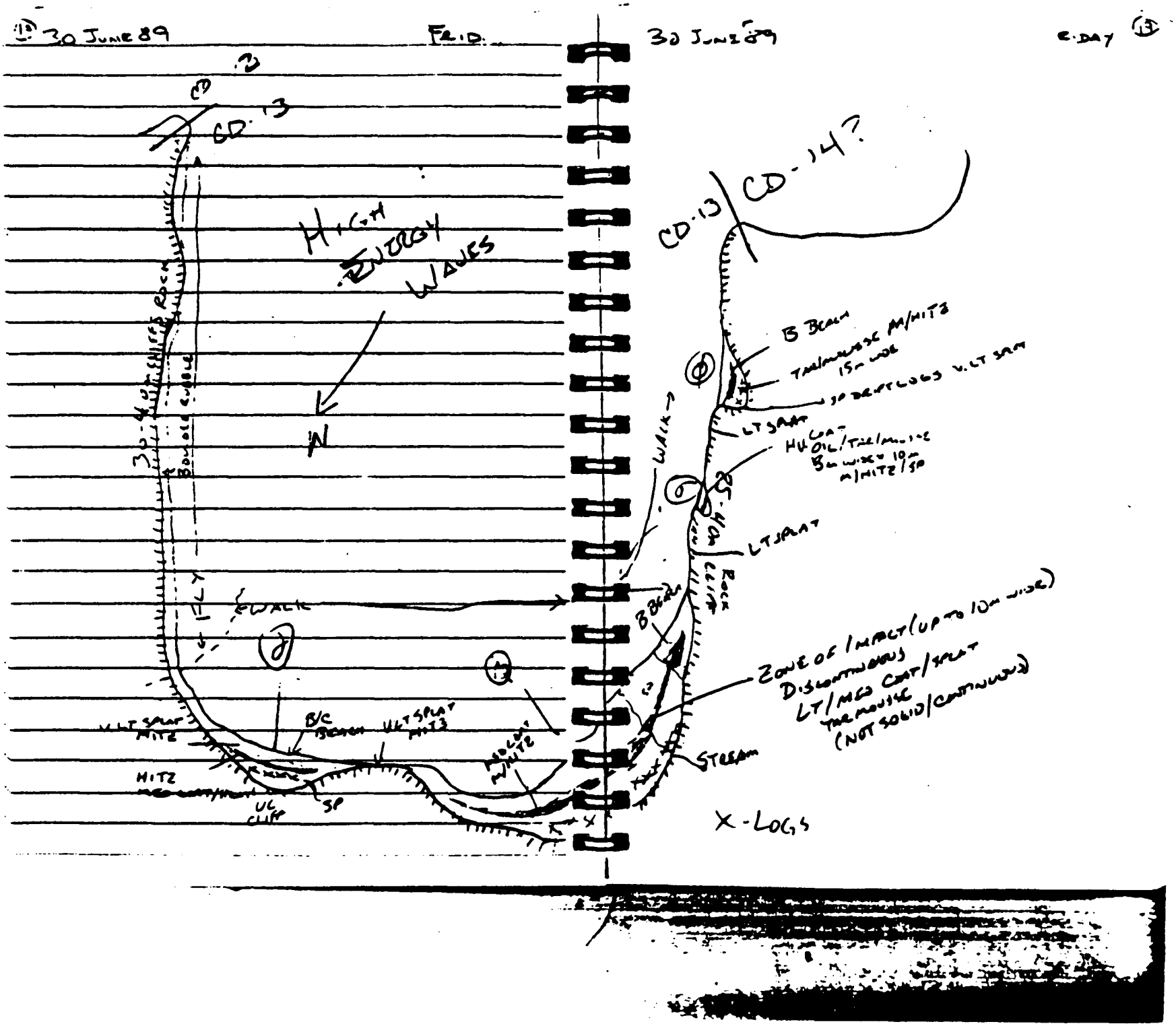
DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

VTR: (Y)N Tape Number(s) KODIAK-02

Photography: (Y)N Roll Number(s) DMC-17

Sample Numbers Collected: N/A


30 JUNE 89
FRI D
30 JUNE 89
E. DAY
CD-13
CD-14?
HIGH ENERGY WAVES
N
WALK
B BEACH
TALUS/TALUS M/HITS 15m WIDE
LT SPRAY
HI CUT OIL/TAR/MUSSEL B m WIDE M/HITS 10m SP
LT SPRAY
ROCK CLIFF
B BEACH
ZONE OF IMPACT (UP TO 10m WIDE) DISCONTINUOUS LT/MED CUT/SPRAY THE MUSSEL (NOT SOLID/CONTINUOUS)
STREAM
X-LOGS
BOULDER CUBBLE
LT SPRAY
ROCK
B/C BEACH
LT SPRAY M/HITS
M/HITS
UL CLIFF
SP

ACE 8708631

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: CAPE DOUGLAS SITE: _____ OBSERVER: D. McCORMICK

LOCATION PREFIX: CD (K9-10) SEG. NO.: 13 LENGTH: 1207 (M)

DATE: 6/30/89 TIME (HHMM): 1830 TIDE HT.: +1.25 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/N Contin. (Y)/(N) Dense (Y)/N Sparse (Y)/N None Y/N
Continuous at north end of segment

Littorina
Patchy (Y)/N Contin. (Y)/(N) Dense (Y)/(N) Sparse (Y)/N None Y/(N)
Become continuous at north end of segment and dense on rock outcrops.

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Enteromorpha algae on boulders; Endocladia in pools; Semibalanus barnacles; hermit crabs; Anthopleura anemones in pools; Colpothrix algae on boulders in mid tide zone. One otter at head of bay until (possibly) tracked it

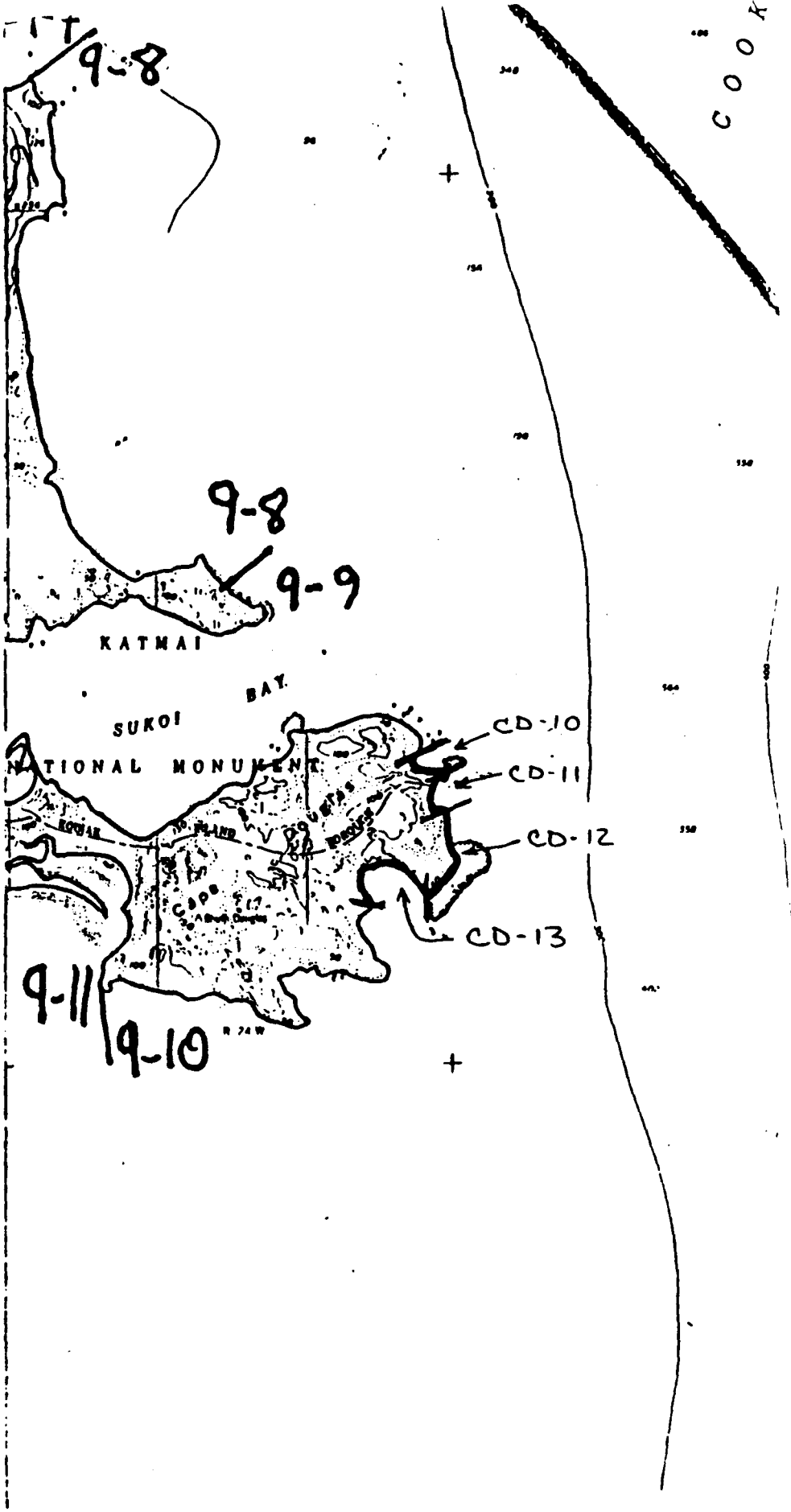
CLEANUP PRECAUTIONS: Avoid tidal pool and tracking oil to uncontaminated area.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Oil stained cobbles/pebbles at high zone; pocket marshes (high energy segment); asphalt/concrete splatters on boulders in the mid-tide zone (confirmed Enteromorpha).

ACE 8708632



ACE 8708634

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/01/89 SHORELINE SEGMENT K9-10-CD-14

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/01/89

Recommended Cleanup Activity(ies):

- -Manual removal of thicker mousse (oil) deposits in middle/high intertidal and splash (storm) zones. Note: check cracks, crevices and in between boulders for greatest concentrations.
- -Manual removal of small drift debris (seaweed, sticks). Do not remove oiled drift logs.

Priorities/Considerations: Class 2-A

- -Access may be restricted to calm weather only.

Ecological Constraints (from site survey):

- -Avoid tide pool areas and avoid tracking oil into cleaner, lower intertidal zone.

Archaeological Constraints (from site survey):

- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/30/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708635

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1 Jun 89 / Time: 1705 Observer: Bryan Tramm

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
LOCATION Cape Douglas Alaska Peninsula SEGMENT I.D. CD-14

LENGTH OF SHORELINE SEGMENT: 300 m

ACCESS: Foot/Vehicle/Road/Ramp/Helio/Float Plane
Cobble/Gravel

Shoreline Type: SPI/BEA/COV/MIX/STR Slope: LAG/MAG/VER

Wave Exposure: High/Med/Low

Sediment: B 40% / C 20% / P 10% / G — % / S — % / M — % / R 30%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Logs/Seaweed

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment % _____ No. Bands 1 Width 15 m

Sporadic: Y/N Segment % _____ Min/Max Dia _____ Impact Width

Est. Oil Thickness where > 1cm: _____ cm SU / SP / UP / MID / LO

Est. Oil Penetration: _____ cm SU / SP / UP / MID / LO

Layers? Yes/No No. Layers _____ Oil Weathering _____

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil — % "Free" Oil — % Spattered 99 % H/M/L/VL Sheen 1

OIL WEATHERING (OW)
Fresh Oil — % SU/SP/VP/MID/LO Choc Mousse 15 % SU/SP/VP/MID/LO

Pancake Mousse — % SU/SP/VP/MID/LO Asphalt Mousse 85 % SU/SP/VP/MID/LO

Tar Formation — %

ACE 8708636

Comments:

LIMITED ACCESS EXCEPT WHERE TRAMPLED (FIELDMAP - BEACH C). 2/3 OF SEGMENT VERTICAL ROCK (20-40m) CLIFFS. BEACH C HAS FLAT (PAVEMENT) ROCK OUTCROP. A 15m BAND OF IMPACT WIDTH OF MEDIUM COAT/SPLATTERED TAR MOUSSE. GREATEST CONCENTRATIONS IN CRACKS, CREVICES & IN BETWEEN ROCK & BOULDERS. ROCKS TOO LARGE TO MOVE - COULD NOT DETERMINE PENETRATION. AROMATICS STRONG EVEN WITH SOUTH WIND. LIGHT SPLATTERING ON HIT 2/SP DRIFT

POOR QUALITY ORIGINAL

DOCUMENTATION:

p/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODIAK-07

Photography: (Y)/N Roll Number(s) DMC-17

Sample Numbers Collected: N/A

1 July 89 SATURDAY

PLAN VIEW

CD-14

NORTH

BEACH

LT/MED COAT/SOME TAR BALLS

BOULDER/ROCK BEACH

SPLASH

1 JULY 89 SATURDAY

CONC IN CRACKS

CD-14

OIL CONC IN CRACKS/CREVICES

CD-15

No Observed Oil

STEEP ROCK OUTCROP CREVICES

FLY NO OBSERVED OIL

SHARP RUBBLE/ROCK OUTCROP

ROCK CLIFFS

ACE 8708638

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K9-10-CD SEG. NO.: 14 LENGTH: 805 (M)

DATE: 7/1/89 TIME (HHMM): 1730 TIDE HT.: +2.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/N

Dense in sparse boulder crevices

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina

Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Approximately 25% of Littorines on northernmost pocket beach are oiled

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/(N) Sparse Y/N None Y/N

Dissected pools

OTHER OBSERVATIONS: Fauna/flora observed: Littorina, barnacles, Fucus oiled in mid high zone on northernmost beach. Fauna in tide pools: Enteromorpha, hydroids, hermit crabs, Scarlet Worm tubes, sponges, Ulva, sculpins, Colpomenia on offshore boulders, Anthopleura in pools, orange Trentepohlia algae on boulders in high ITZ. Bullwhip kelp debris. Enteromorpha algae on boulders in mid zone, Ulva in high ITZ.

CLEANUP PRECAUTIONS: Avoid tidal pools and tracking oil into clean lower ITZ

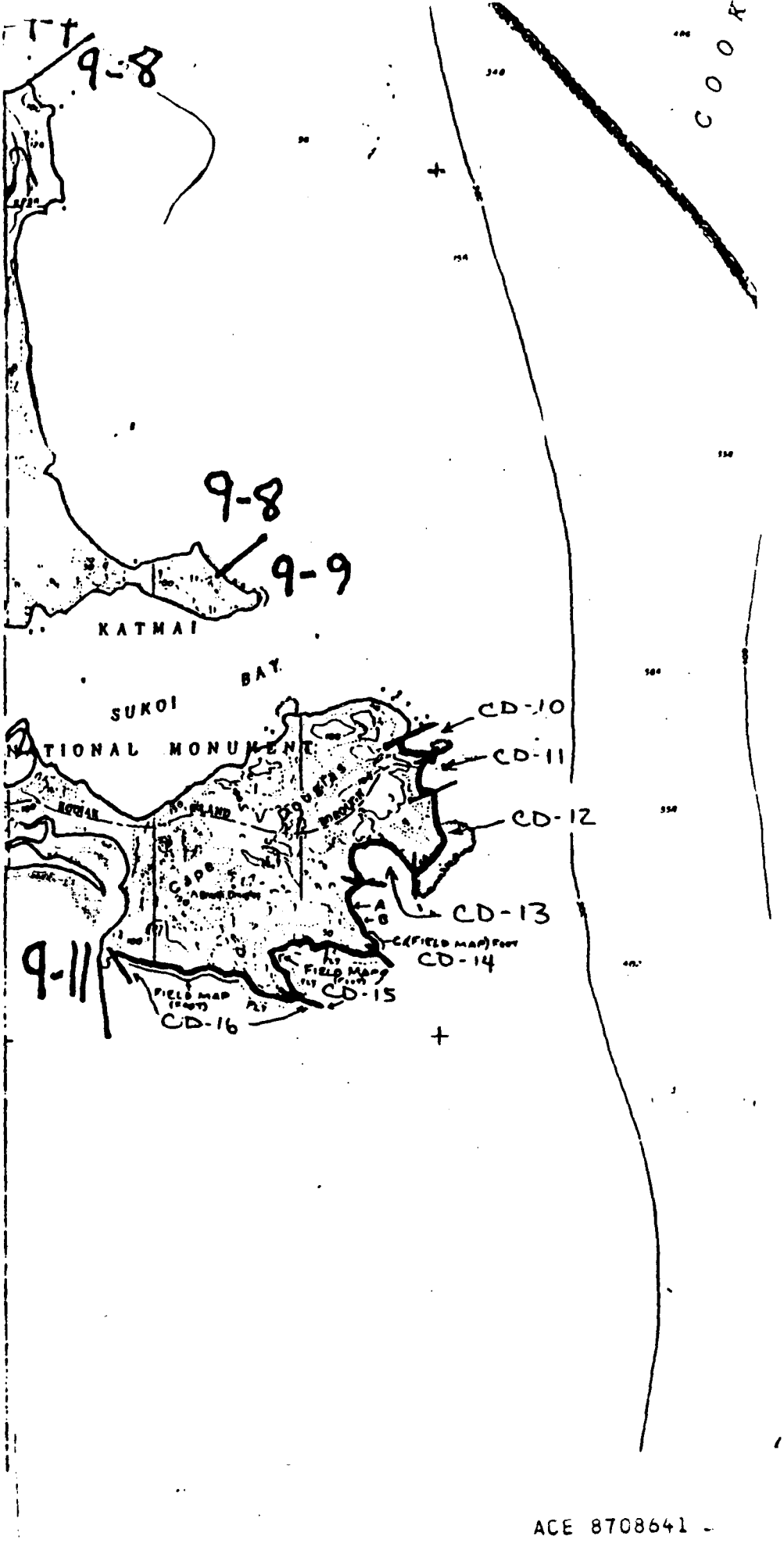
MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

Other Fox (1)

BIRDS: Kittiwakes

GENERAL OBSERVATIONS: Dilocculus in this zone as pooled mousse among boulders in the mid to high ITZ's; and as asphalt/pancake mousse splatter on rocks and boulders in the mid-ITZ. Approximately 50% of tide pools in this segment have an oily sheen

ACE 8708639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CD-16

ACE 8708641

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/01/89 SHORELINE SEGMENT K9-10-CD-15

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/01/89

Recommended Cleanup Activity(ies):

-Manual removal of lightly oiled seaweed and small drift material. Do not remove logs.

-If required, warm water washing and vacuum to remove light, oil from middle and high intertidal zone at small pocket beach with heavy oiling.

Priorities/Considerations: Class 3-A

-Access may be restricted to calm weather only.

Ecological Constraints (from site survey):

-Avoid tidal pool areas and avoid tracking oil into clean areas during manual cleanup.

-Work at mid tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/30/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708642

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1 Jun 89 / Time: 1833 Observer: Bryan Tomm

Surveyed From: Foot/Boat/(Helo)/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION
LOCATION Cape Douglas / Alaskan Pen. SEGMENT I.D. K-9-10-CD-15

LENGTH OF SHORELINE SEGMENT: 2000 m

ACCESS: Foot/Vehicle/(Boat)/Barge/(Helo)/Float Plane
Good Weather only

SHORELINE:
Shoreline Type: SPI/BEA/(COB)/MUD/STRT Slope: (LOW)/MOD/VER

Wave Exposure: (High)/(Med)/Low

Sediment: B 20% / C 30% / P 30% / G 2% / S 8% / M ___% / R 10%

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(MID)/Lower Type Logs/Seaweed

OIL
Degree of Oiling: Heavy/(Moderate)/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / (H) / (M) / L

OIL DISTRIBUTION
Continuous: (Y)/N Segment % 10 No. Bands 1 Width 5

Sporadic: Y/(N) Segment % — Min/Max Dia — Impact Width —

Est. Oil Thickness where > 1cm: — cm SU / SP / UP / MID / LO

Est. Oil Penetration: 5 cm SU / SP / (UP) / MID / LO

Layers? Yes/(No) No. layers 0 Oil Weathering —

Drift Debris Oiled ? (Yes)/No (Supra)/(Upper)/(Mid)/Lower Amount: H / M / (L) VL

OIL MORPHOLOGY
Pooled Oil — % "Free" Oil — % Spattered/Coat 100 % (H)/M/L/VL Sheen ___%

OIL WEATHERING (OW)
Fresh Oil — % SU/SP/VP/MID/LO Choc Mousse — % SU/SP/VP/MID/LO

Pancake Mousse — % SU/SP/VP/MID/LO Asphalt Mousse 100 % SU/SP/VP/MID/LO

Tar Formation — %

Comments:

Rock cliffs have no observed oil. Small pocket beach in cove (field map) has a light coating of asphalt (or tar) mousse in the HITE/SP. The north corner of pocket beach has a small patch of heavy coated oil on boulder/rocks. Reworked oiled beach material to 5 cm.

ACE 8708643

OCUMENTATION:

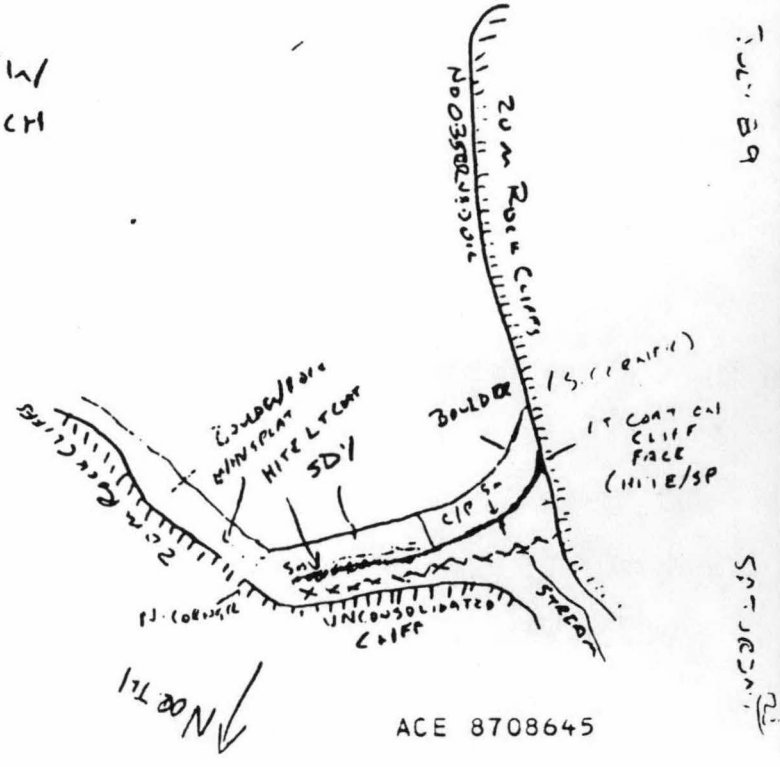
p/Aerial photo marking segment boundaries See attached

TR: (Y)/N Tape Number(s) KODAK-07

hotography: (Y)N Roll Number(s) DMC-17

ample Numbers Collected: N/A

PLANE VIEW
POCKET BEACH
CD-15



ACE 8708645

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Lookout SITE: _____ OBSERVER: D. McCorkle

LOCATION PREFIX: K9-13-CB SEG. NO.: 15 LENGTH: 2011 (M)

DATE: 7/1/89 TIME (HHMM): 1835 TIDE HT.: +2.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Continuous on boulders, dense in patches only

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

continuous on boulders, dense in patches only

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

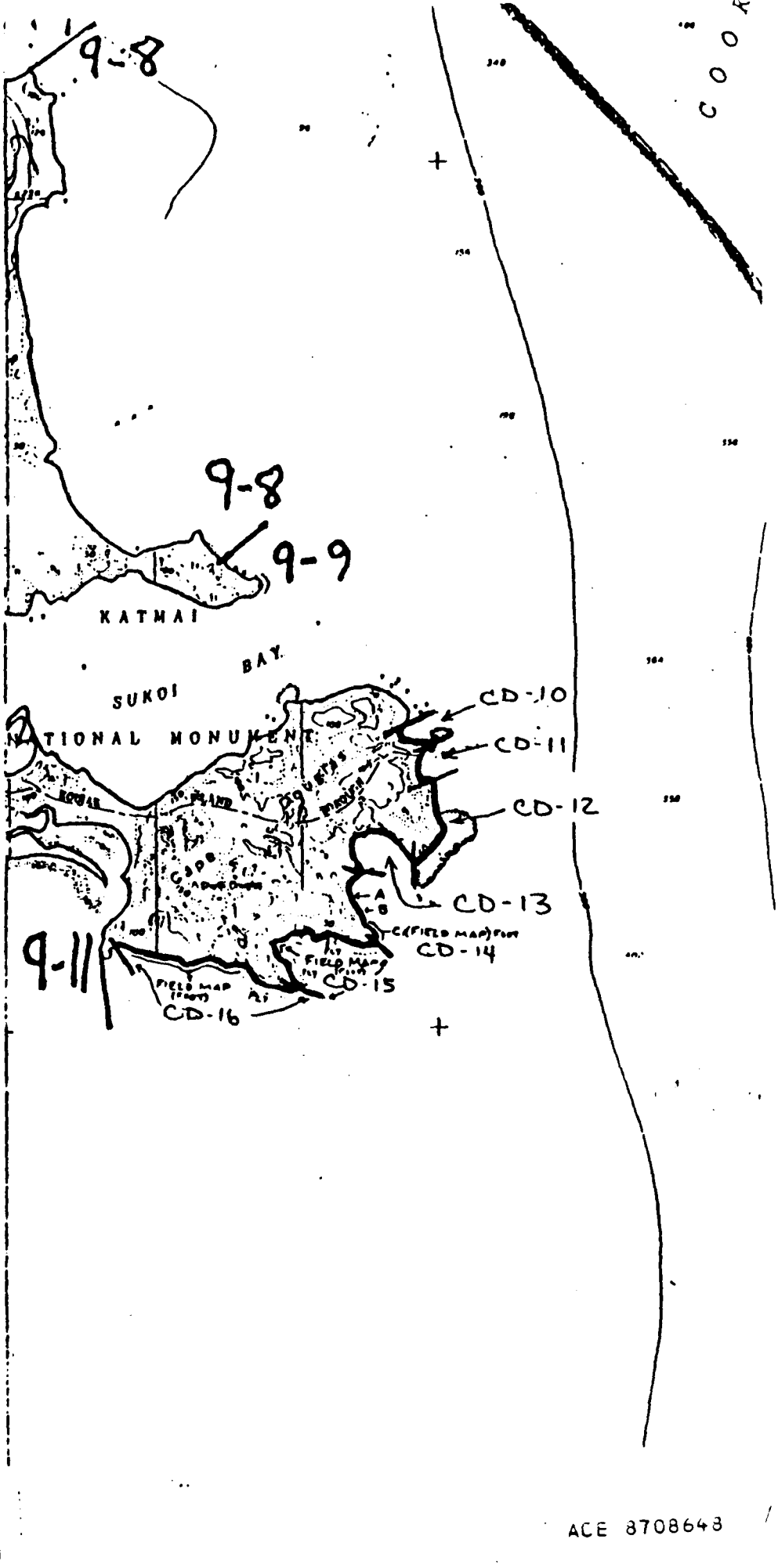
OTHER OBSERVATIONS: Kelp free debris in high ITZ drift on pocket beaches; Fauna in tide pools: hermit crabs, anemones, Scarlet, sculpins, Endocladia, Ulva, hydroids. Endocarp on boulders

CLEANUP PRECAUTIONS: Manual: Avoid tide pools and lower ITZ; wash: Clean only during mid-high tide to avoid contamination of lower ITZ.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Pocket beaches have only drift debris in the high ITZ; Asphalt/pancake splatter on either end of pocket beaches, moderate coating of mousse in crevices between boulders. One stream leading into pocket beach had no sheen observed on surface.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ACE 8708648

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/01/89 SHORELINE SEGMENT K9-10-CD-16

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/01/89

Recommended Cleanup Activity(ies):
-Manual removal of thicker accumulations of oil deposits primarily in high intertidal zone. Check cracks, crevices, and in between boulders for greater concentrations.

Priorities/Considerations: Class 3-A
-Access may be restricted to calm weather only.

Ecological Constraints (from site survey):
-Avoid tidal pool areas and avoid tracking of oil to uncontaminated areas.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/30/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708649

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1 May 89 / Time: 1907 Observer: Bryan Trimm

Surveyed From: (Foot)/Boat/(Helo)/Plane Weather: (SUN)/Cloud/Rain/Snow/Fog

LOCATION
LOCATION Cape Douglas Alaskan Pen. SEGMENT I.D. CD-16 K-9-10

LENGTH OF SHORELINE SEGMENT: 2200 m

ACCESS: Foot/Vehicle/(Boat)/Barge/(Helo)/Float Plane
Good Water Only

SHORELINE:
Shoreline Type: SPI/(SEA)/COV/MUD/STET Slope: LAUG/HANG/(VER)

Wave Exposure: (High)/Med/Low

Sediment: B 30% / C 20% / P 10% / G 2% / S 8% / M ___% /R 30%

Drift Debris on Beach: (Yes)/No (Supra/Upper/Mid/Lower) Type Logs/Seaweed

OIL
Degree of Oiling: Heavy/(Moderate)/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / (SP / H / M) L

IL DISTRIBUTION
Continuous: (Y)N Segment % 80 No. Bands 1 Width 1-8 m

Sporadic: Y/(N) Segment % ___ Min/Max Dia ___ Impact Width ___

Est. Oil Thickness where > 1cm: — cm SU / SP / UP / MID / LO

Est. Oil Penetration: 25 cm SU / SP / UP / MID / LO

Layers? Yes/(No) No. Layers — Oil Weathering —

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil — % "Free" Oil — % Spattered/Coat 99 % (H/M/L/VL) Sheen 1 %

OIL WEATHERING (OW)
Fresh Oil — % SU/SP/VP/MID/LO Choc Mousse 20 % SU/SP/(VP)/MID/LO

Pancake Mousse — % SU/SP/VP/MID/LO Asphalt Mousse 80 % SU/SP/VP/MID/LO

Tar Formation — %

Comments:

LIGHT SMELL AROMATICS. VRY LIGHT → HEAVY SPATTERING/COATING PRINCIPALLY IN HITZ, SOMETIMS IN MITZ & SPLASH ZONE. WIDTH OF IMPACT VARIES FROM 1 TO 8 M. SHEEN FOUND IN A/HITZ INTERTIDAL CHECK CRACKS/CREVICES & INBETWEEN BOULDERS FOR GREATEST CONCENTRATIONS. WILL BE HARD TO CLEAN BECAUSE OF BOULDERS.

ACE 8708650

POOR QUALITY ORIGINAL

DOCUMENTATION:

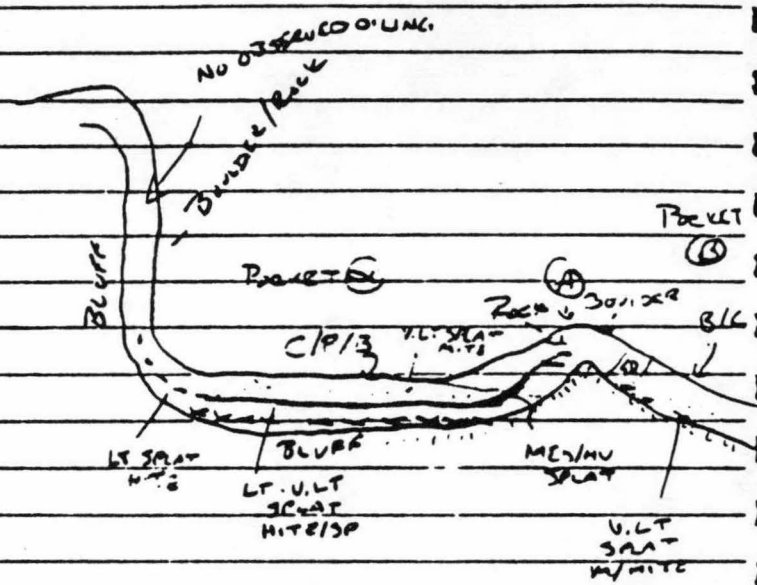
(ap) Aerial photo marking segment boundaries See Attached

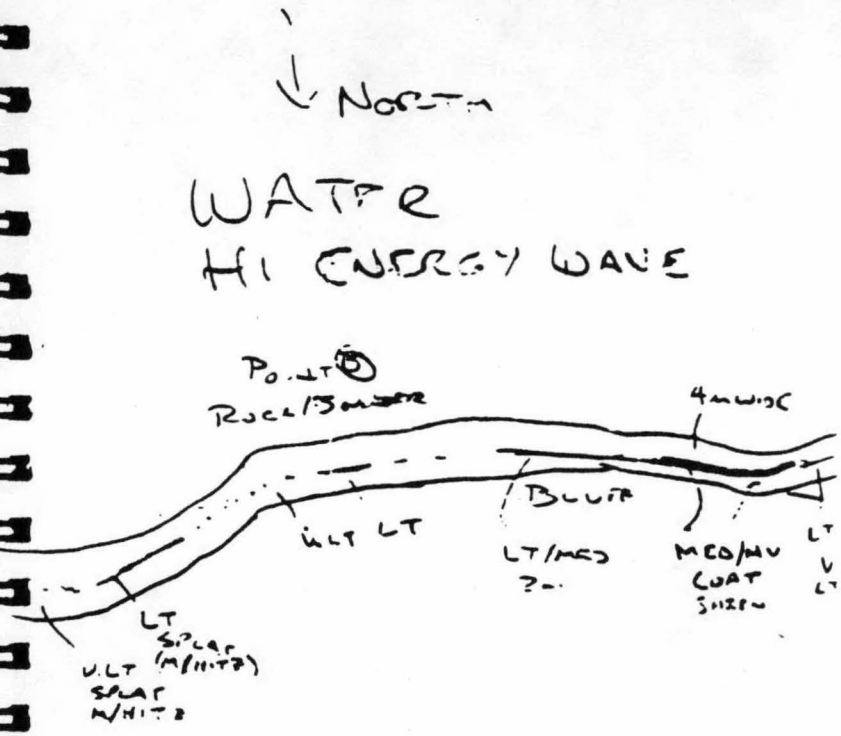
VTR: (Y) N Tape Number(s) [illegible]

Photography: (Y/N) Roll Number(s) DMC-18

Sample Numbers Collected: N/A

PLANE VIEW CD-16





ACE 8708652

(3)

PLANE VIEW CD:16 CONT -

ACE 8703653

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas K9-10- SITE: _____ OBSERVER: D McCormick

LOCATION PREFIX: CD SEG. NO.: 16 LENGTH: 2212 (M)

DATE: 7/1/89 TIME (HHMM): 1905 TIDE HT.: +1.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Few across segment except on pocket beaches.

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Few across segment except on pocket beaches

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Tidepools on larger boulders in mid low ITZ, Colonies on large boulders in low ITZ; Tidepool fauna: Endomyzon, Hermit crabs, Illyanassa, Fucus, Littorina, hydroids, anemones. Black lichen in mid, high ITZ clam shells. Kelp beds.

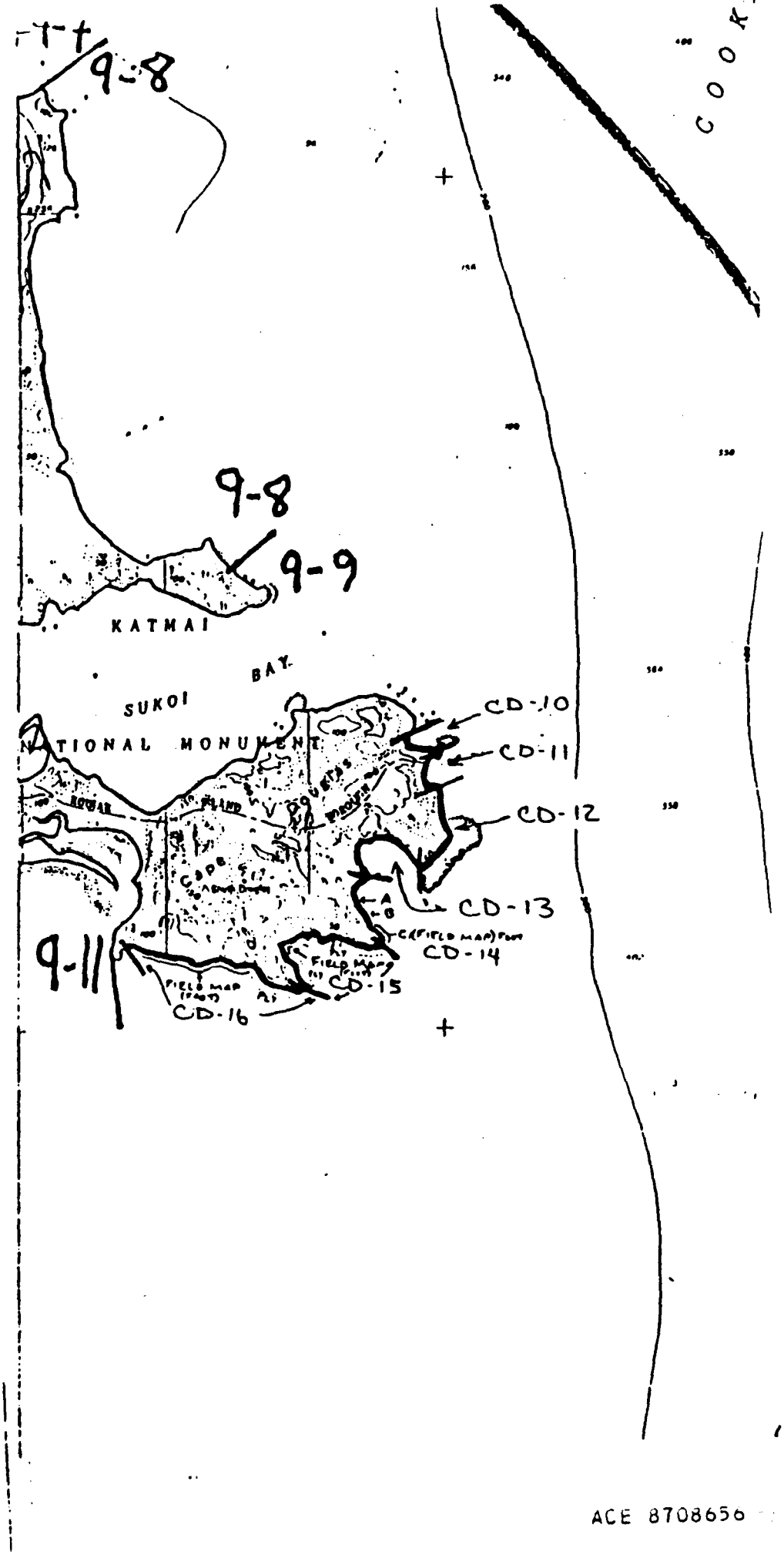
CLEANUP PRECAUTIONS: Avoid tide pools and cleaner lower ITZ.

MAMMALS: Otters ___ Harbor Seals 2 Sea Lions ___ Whales ___
Other _____

BIRDS: Seal killed scavenged on drift

GENERAL OBSERVATIONS: Sections of segment with moderate to heavy oiling in boulders have heavy sheen in tidal pools. Asphalt/pancake splatter on rocky faces in high, mid & low ITZ. Drift debris lightly oiled. Pocket beaches have oil buried under cobble in high ITZ

ACE 8708654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ACE 8708656

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/06/89 SHORELINE SEGMENT K9-10-CD-17

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/06/89

Recommended Cleanup Activity(ies):

-Manual removal of oil deposits and drift debris. May involve removal of greater than 1 to 2 inches of sediments.
-If required, use low pressure/warm water wash and sorbents to remove residual oil from bedrock outcrops. Do not use on sandy/pebble beach.

Priorities/Considerations: Class 2-A

-Access may be restricted to calm weather only.
-High natural cleaning potential may preclude use of pressure washing residual oil following manual cleanup activities.

Ecological Constraints (from site survey):

-Avoid tide pools as much as possible.
-If pressure washing is required, work at mid tide plus or take appropriate measures to protect intertidal zone.

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. Paul McMahan Date: 7/30/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708657

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 6 July 89 / Time: 0922 Observer: Bryan Trimm
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Cape Douglas, S. Coast Segment ID: K9-10-CD-17
Segment Length: 300 m. Access: Vehicle/Boat/Barge/~~Helio~~/~~Float Plane~~
Access Restrictions: Access Due NO GOOD WEATHER ONLY, SKIFF ACCESS OK

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert (BEACH) HOLD
Wave Exposure: High/Med/Low
Sediment: B 30 % / C 15 % / P 5 % / G&S 25 % / M — % / R 15 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment 50 SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 10 SU/SP/H/M/L H/M/L/VL

	Length(m)	Width(m)
Total		
Very light:	—	—
Light:	—	—
Moderate:	10	3
Heavy:	75	5

Thickness >1cm: 3-7 cm SU/SP/H/M/L
Penetration/Rework: 25 cm SU/SP/H/M/L
Burial Depth: 5-15 cm SU/SP/H/M/L

Mobilization Potential: High/Medium/Low
Drift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Logs/SEAWEED

OIL MORPHOLOGY

Pooled Oil:	— %		SU/SP/H/M/L
"Free" Oil:	— %		SU/SP/H/M/L
Splattered:	10 %	H/M/L/VL	SU/SP/H/M/L
Coated:	60 %	H/M/L/VL	SU/SP/H/M/L
Pancakes/Balls:	30 %		SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 85 m
Total TYPE B: — m
Total TYPE A/B: — m

OIL WEATHERING

Fresh:	— %	SU/SP/H/M/L
Mousse:	30 %	SU/SP/H/M/L
Weathered Mousse:	40 %	SU/SP/H/M/L
Asphalt Mousse:	30 %	SU/SP/H/M/L
Tar:	— %	SU/SP/H/M/L

COMMENTS
ASPHALT MOUSSE IS FOUND IN BOULDER BEACH WITH SAND/PEBBLE SUBSTRATE (SEE FIELD MAP). SPLASH (STORM) BERM & HIGH INTERTIDAL ZONE BERMS. THERE IS A LARGE DEPOSIT OF DECAYING SEAWEED DRIFT IN THE MIDDLE & HIGH INTERTIDAL ZONES. SOME OF THIS DRIFT IS BURIED & SOME OILED.

ACE 8708658

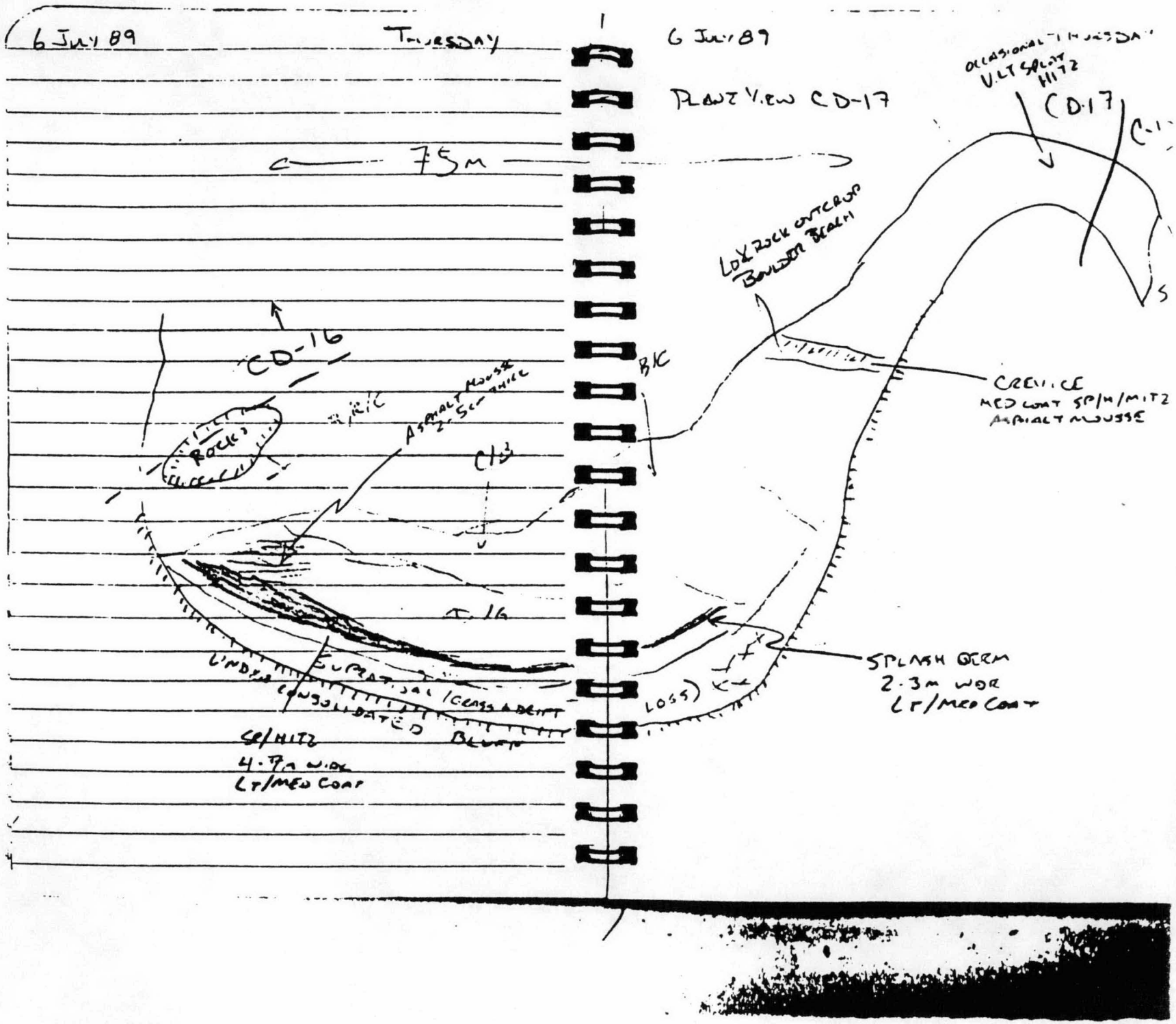
DOCUMENTATION:

(ap)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODIAK-03

Photography: (Y)/N Roll Number(s) DMC-18

Sample Numbers Collected: N/A


6 JULY 89
TUESDAY
6 JULY 89
PLAN VIEW CD-17
75M
CD-16
CD-17
ROCK
BIC
CREVICE
MED LIGHT SP/M/MTZ
ASPHALT MOUSSE
SPLASH ZONE
2-3M WDR
LT/MED CONT
SP/MTZ
4-7M WDR
LT/MED CONT

ACE 8708660

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas K9-10- SITE: _____ OBSERVER: D McCormick

LOCATION PREFIX: CD SEG. NO.: 17 LENGTH: 300 (M)

DATE: 7/6/89 TIME (HHMM): 0920 TIDE HT.: 3.5' (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Dense on rock / boulders outcrop

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Clumped on larger boulders

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: deer tracks + scat on pocket beach; thin gulf fucus Endocladia, hermit crab, pink encrusting algae, Semibalanus, Anthopleura, Halichondria, Katharina, Tealia. Other: Alaria/Laminaria beds, Protothaca, jingle shells, Ulva, Heterosiphonia, Enteromorpha on tops of boulders

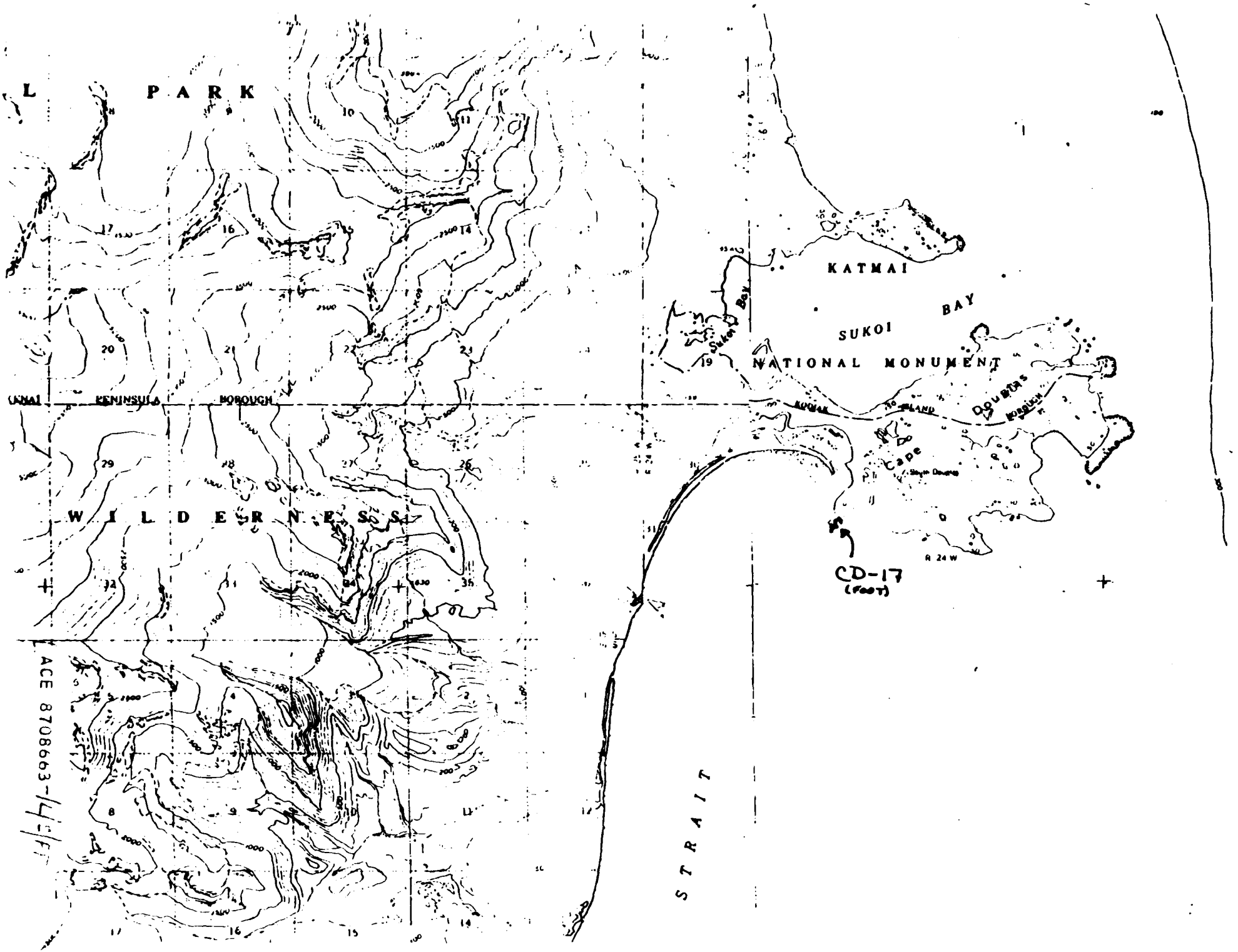
CLEANUP PRECAUTIONS: Manual clean up; stay out of tide pools. Hot water: use only at high tide times only to avoid contaminating lower ITZ.

MAMMALS: Otters ___ Harbor Seals 1 Sea Lions ___ Whales ___
Other Bear habitat - one seen clamming

BIRDS: Sandpipers

GENERAL OBSERVATIONS: Pocket beach oil is buried under pebbles on high ITZ; oil coating on rocks in mid tidal zone as asphalt - some light sheen + pools in mid-ITZ. Some fresh tarballs/pancakes/pine needle balls in low mid ITZ but no oil-stressed biota seen anywhere in this segment. One section of moderate oiling in bedrock crevice with some lightly oiled Endocladia.

ACE 8708661


L PARK
KATMAI
BAY
SUKOI
NATIONAL MONUMENT
Sukoi Bay
KODIAK ISLAND
Douglas
Cape
R 24 W
CD-17
(PROP)
W I L D E R N E S S
STRAIT
ACE 8708663-4-F

K9-11

ACE 7963982

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/06/89 SHORELINE SEGMENT K9-11-CD-18

LOCATION: (see enclosed map) Lagoon - Southcoast Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/06/89

Recommended Cleanup Activity(ies):
-Manual removal of mousse deposits on the sand bar (beach) in front of the lagoon and tidal (mud) flat.

Priorities/Considerations: Class 5-A
-Do not enter tidal flats due to ecological constraints.

Ecological Constraints (from site survey):
-Clean beach as quickly as possible to avoid disturbing brown bears in area.
-Stay completely out of lagoon area.

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 8-2-89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8703664

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 6 Jul 89 / Time: 1050 Observer: Bryan Timm
rveyed From: Foot/Boat/Helo/Plane Weather: Sun/Cloud/Rain/Snow/Fog

OCATION
ocation: Lagoon S Coast Cape Douglas Segment ID: CD-18
egment Length: 3600 m. Access: Vehicle/Boat/Barge/Helo/Float Plane
ccess Restrictions: Small Skiff at High Tide Area is mud/tidal flats; behind sand bm/beach

HORELINE
horeline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
ave Exposure: High/Med/Low
ediment: B___% / C___% / P 5 % / G&S 95 % / M___% / R___% (Not include mud flats = 100% M)

IL
vg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
rea of Impact: SU/SP/H/M/L

IL DISTRIBUTION
ontinuous % of Segment 0 SU/SP/H/M/L H/M/L/VL
poradic % of Segment 2 SU/SP/H/M/L H/M/L/VL

otal	Length(m)	Width(m)
ery light:	800	½
ight:	2	2
oderate:	2	2
eavy:	2	2

Thickness >1cm: 2 cm SU/SP/H/M/L
Penetration/Rework: 2 cm SU/SP/H/M/L
Burial Depth: 2 cm SU/SP/H/M/L

obilization Potential: High/Medium/Low
ift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Logs/Seaweed

IL MORPHOLOGY

ooled Oil:	2 %		SU/SP/H/M/L
Free" Oil:	2 %		SU/SP/H/M/L
plattered:	2 %	H/M/L/VL	SU/SP/H/M/L
oated:	%	H/M/L/VL	SU/SP/H/M/L
ancakes/Balls:	100 %		SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 800 m
Total TYPE B: m
Total TYPE A/B: m

IL WEATHERING

resh:	%	SU/SP/H/M/L
ousse:	2 %	SU/SP/H/M/L
eathered Mousse:	100 %	SU/SP/H/M/L
sphalt Mousse:	%	SU/SP/H/M/L
ar:	%	SU/SP/H/M/L

OMMENTS

No oil observed on Beach A. Beach B in back of mudflat has a small beach above this mudflats. A small band (10cm wide) of oil staining berm (grass roots) Small pancake deposits of weathered mousse is found in very light amounts. Note: Pancake patties covered with mud have a white color to them.

ACE 6708665

DOCUMENTATION:

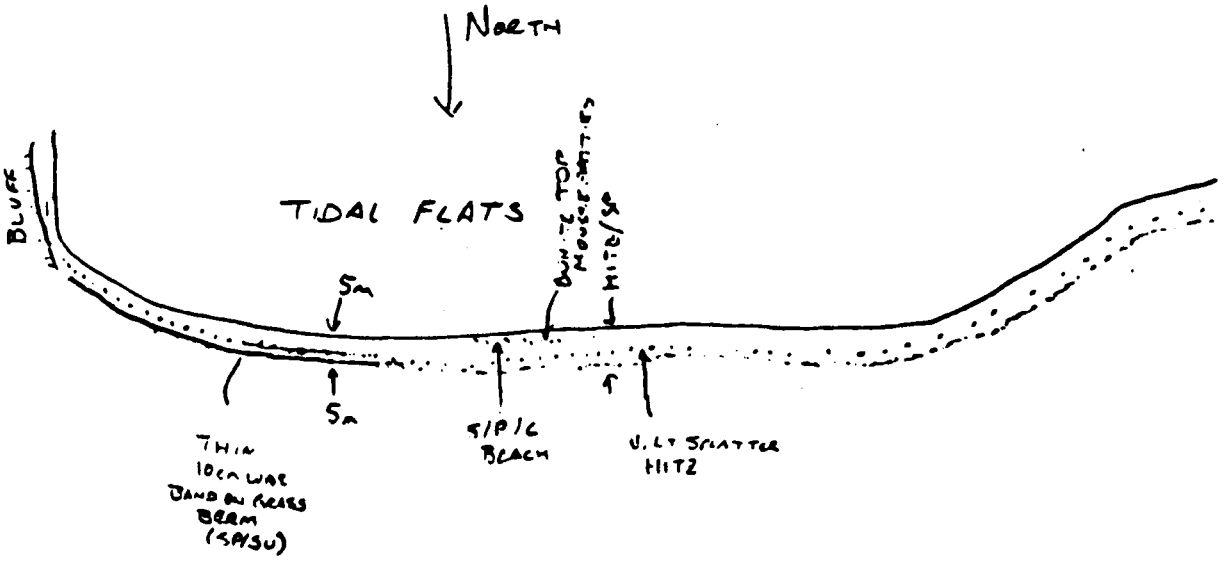
Map/Aerial photo marking segment boundaries See Attached

VTR: (Y)N Tape Number(s) KODAK - C

Photography: (Y)N Roll Number(s) DMC - 18 / DMC - 19

Sample Numbers Collected: N/A

PLANE VIEW CD-18
BEACH B
(BEHIND TIDAL FLATS)



version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas K9-11 SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: CA SEG. NO.: 18 LENGTH: 1200 (M)

DATE: 7/6/89 TIME (HHMM): 1100 TIDE HT.: 0.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Granules Sand Mud Pebble

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Shells only

Balanus (Barnacles): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

OTHER OBSERVATIONS: 6 dead oiled birds (4 were storm gulls). Clam bed. Bird habitat (1 acre). Protothaca shells

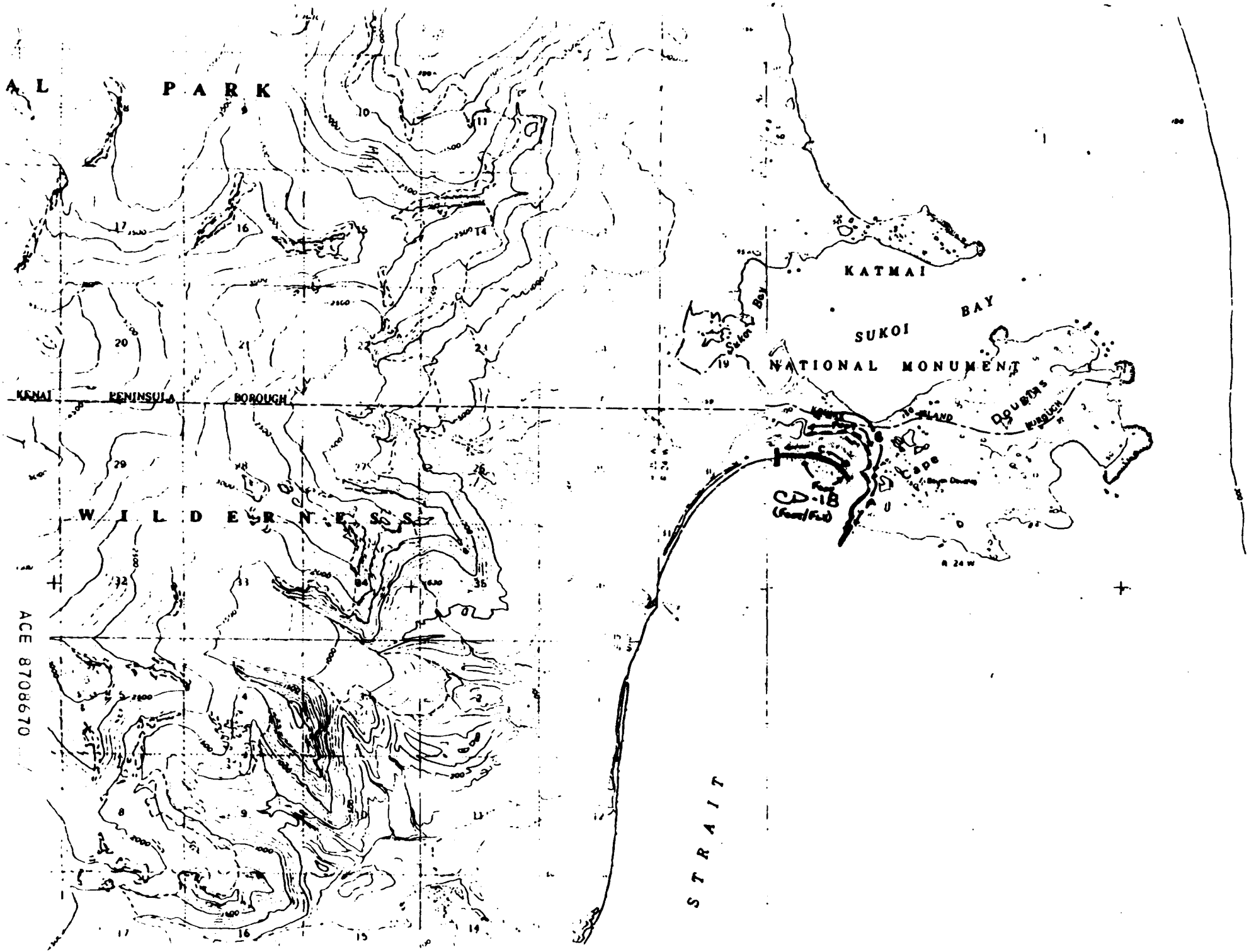
CLEANUP PRECAUTIONS: Manual clean-up of mousse patches should take place as soon as possible to avoid disturbing brown bears in area.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other Bear

BIRDS: waders, gulls, kittiwakes

GENERAL OBSERVATIONS: Oiled base of dune grass - very narrow band. Some mousse patches along upper IT2 of lagoon channel - very limited area is oiled.

ACE 8708668


AL PARK
KENAI PENINSULA BOROUGH
WILDERNESS
KATMAI
BAY
SUKOI
NATIONAL MONUMENT
Sukoi Bay
Cape
STRAIT
ACE 8708670

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/06/89 SHORELINE SEGMENT K9-11-CD-19

LOCATION: (see enclosed map) Cape Douglas

ADEC NO. SHORELINE ASSESSMENT DATE: 7/06/89

Recommended Cleanup Activity(ies):

-Manual removal of weathered (asphaltic) mousse.

-Removal of tar-covered debris (seaweed and grass). This may entail removing 5-8cm of wind blown sand covering the debris.

Priorities/Considerations: Class 4-A

Ecological Constraints (from site survey):

-None.

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 8-2-89

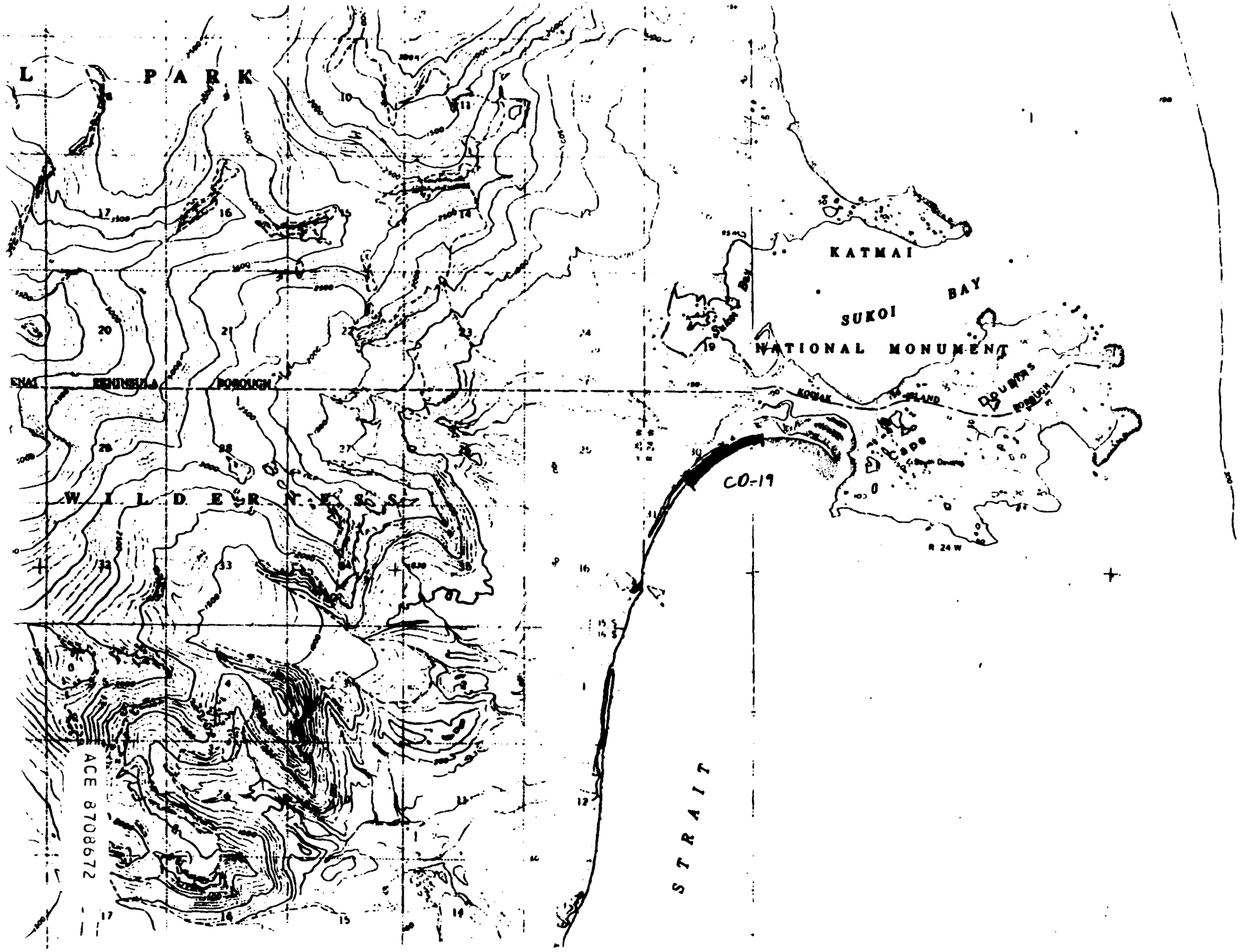
State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708671 -/


L PARK
KATMAI
BAY
SUKOI
NATIONAL MONUMENT
WILDERNESS
CO-19
STRAIT
ACE 8708672

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 6 July 1989 / Time: 12:58 pm Observer: Duncan M Fitzgerald
Surveyed From: (Foot)/Boat/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/(Fog)

LOCATION

K-9-11

Location: Cape Douglas Segment ID: CD-19
Segment Length: 1200 m. Access: Vehicle/(Boat)/Barge/(Helio)/Float Plane
Access Restrictions: high wave energy would restrict access by boat

SHORELINE

Shoreline Type: SPI/(BEA)/COV/HLD/STRT Slope: (Lo)/Med/Hi/Vert
Wave Exposure: High/(Med)/Low
Sediment: B____% / C____% / P 20 % / G&S 80 % / M____% / R____%

OIL

Avg. Degree of Oiling: HEAVY / MODERATE / (LIGHT / VERY LIGHT) / NONE OBSERVED
Area of Impact: SU/(SP/H)/M/L

OIL DISTRIBUTION

Continuous % of Segment 80 SU/(SP/H)/M/L H/M/(L/VL)
Sporadic % of Segment 20 SU/(SP/H)/M/L H/M/(L/VL)

	Length(m)	Width(m)
Total		
Very light:	500	1-3
Light:	700	2-5
Moderate:		
Heavy:		

Thickness >1cm: 1-3 cm SU/(SP/H)/M/L
Penetration/Rework: ____ cm SU/SP/H/M/L
Burial Depth: 1 cm SU/(SP)/H/M/L
Some slight burial at northeastern end

Mobilization Potential: High/Medium/(Low)
Drift Debris Oiled? (Y)/N Amount: H/M/(L/VL) SU/(SP)/H/M/L Type: Driftwood, grass

OIL MORPHOLOGY

Pooled Oil:	%		SU/SP/H/M/L
"Free" Oil:	%		SU/SP/H/M/L
Splattered:	%	H/M/L/VL	SU/SP/H/M/L
Coated:	20 %	H/M/L/VL	SU/(SP)/H/M L
Pancakes/Balls:	80 %		SU/(SP/H)/M/L

Preliminary Cleanup Est.
Total TYPE A: 1000 m
Total TYPE B: ____ m
Total TYPE A/B: 200 m

OIL WEATHERING

Fresh:	%	SU/SP/H/M/L
Mousse:	%	SU/SP/H/M/L
Weathered Mousse:	90 %	SU/(SP/H)/M/L
Asphalt Mousse:	%	SU/SP/H/M/L
Tar:	10 %	SU/(SP/H)/M/L

COMMENTS

- Northeast end seaweed, grass and driftwood are coated with tar. In this area the wind has covered the oil with a 2-8 cm of sand
- moving to the southwest tar balls gradually increase in extent and occasionally there is some asphaltic mousse pancakes 10-25 cm in diam.

ACE 8708073

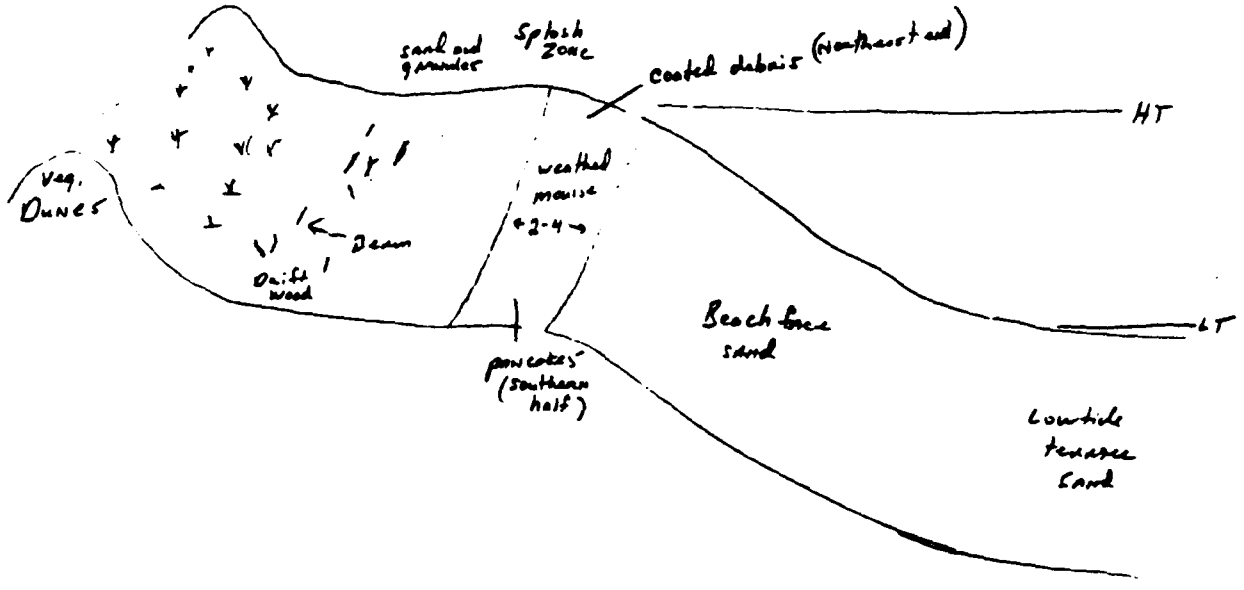
DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: (Y)/N Tape Number(s) KODAK-02

Photography: (Y)/N Roll Number(s) DMC-19

Sample Numbers Collected: N/A


sand and gravel
Splash Zone
coated debris (northeast end)
HT
Veg. Dunes
Drift wood
Beach face sand
pancakes (southern half)
LT
Lowtide terrace sand

ACE 8708675

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Cape Douglas K9-11- SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: CD SEG. NO.: 19 LENGTH: 1200 (M)

DATE: 7/6/89 TIME (HHMM): 1300 TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Granules Sand Mud Pebbles

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

OTHER OBSERVATIONS: Heard oiled bird (probably pigeon guillemot). Bivalve shells - cockles, razor clams, giant Pacific scallops. Clam beds

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ___ Harbor Seals 1 Sea Lions ___ Whales ___
Other _____

BIRDS: mergansers, oystercatchers, gulls

GENERAL OBSERVATIONS: This is a wide sandy beach with no fauna present other than bivalve shells. Drift seaweed in high IT 2 is lightly oiled. Pancake mousse patties in high zone, some are buried.

ACE 8708676

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/23/89 SHORELINE SEGMENT K9-11-CD-20

LOCATION: (see enclosed map) Beach adjacent and south of Cape Douglas

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/24/89

Recommended Cleanup Activity(ies):
- -Use hands/manual removal of small oiled drift debris.
- -Allow wave action and natural weathering to remove light and very light oiling (high wave energy beaches).

Priorities/Considerations: Class 4-A

Ecological Constraints (from site survey):
- -During manual cleanup along stream bank behind spit avoid dune plants that have been oiled, since there have not been adversely affected by presence of oil.

Archaeological Constraints (from site survey):
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

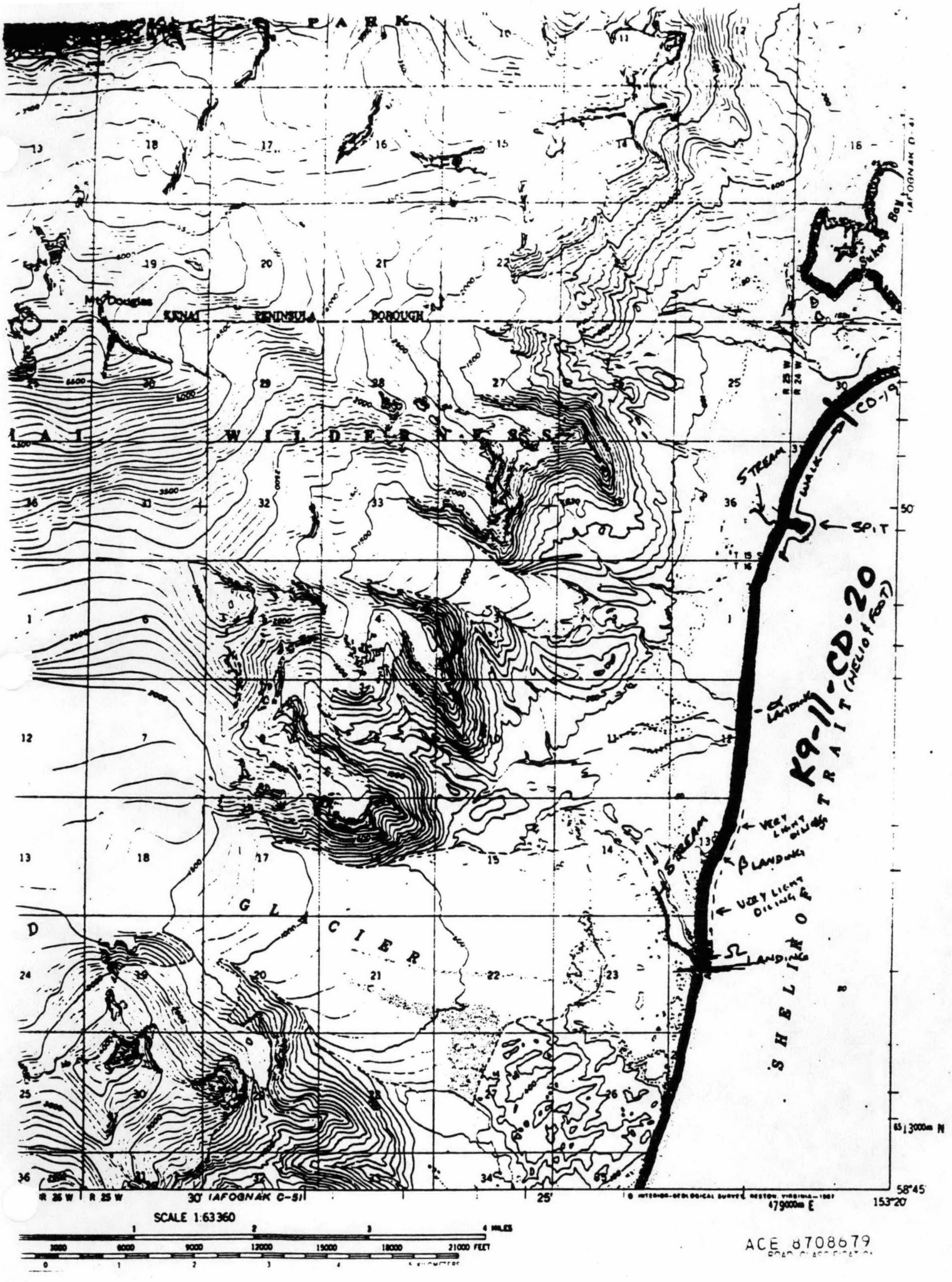
Douglas Reger Date: 8-2-89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8706678


K9-11-CD-20
TRAIT (HELIOPORT)
CD-19
SPIT
STREAM
LANDING
LANDING
SHELIKOF
GLACIER
KENAI PENINSULA BOROUGH
SCALE 1:63360
30' IAFOGNAK C-5
25'
R 26 W
R 25 W
479000m E
153°20'
58°45'
ACE 8708679

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 24 July '89 / Time: 1146 Observer: Bryan Trimm
Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION
Location: Spit - Across Mouth of Cape Douglas Segment ID: K9-11-CD-20
Segment Length: 7650 m. Access: Vehicle/Boat/Barge/Helio/Float Plane
Access Restrictions: _____

SHORELINE
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: Lo/Med/Hi/Vert
Wave Exposure: High/Med/Low
Sediment: B 5 % / C 5 % / P 60 % / G&S 25 % / M ___ % / R 5 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT / VERY LIGHT / NONE OBSERVED
Area of Impact: SU/SP/H/M/L

OIL DISTRIBUTION
Continuous % of Segment 30 SU/SP/H/M/L H/M/L/VL
Sporadic % of Segment 30 SU/SP/H/M/L H/M/L/VL

Total	Length(m)	Width(m)
Very light:	4000	1
Light:	500	1
Moderate:		
Heavy:		

Thickness >1cm: _____cm SU/SP/H/M/L
Penetration/Rework: 10 cm SU/SP/H/M/L
Burial Depth: _____cm SU/SP/H/M/L

Mobilization Potential: High/Medium/Low
Lift Debris Oiled? Y/N Amount: H/M/L/VL SU/SP/H/M/L Type: Logs

OIL MORPHOLOGY

Pooled Oil:	%		SU/SP/H/M/L
"Free" Oil:	%		SU/SP/H/M/L
Splattered:	100 %	H/M/L/VL	SU/SP/H/M/L
Coated:	%	H/M/L/VL	SU/SP/H/M/L
Pancakes/Balls:	%		SU/SP/H/M/L

Preliminary Cleanup Est.
Total TYPE A: 4000 m
Total TYPE B: 0 m
Total TYPE A/B: 0 m

OIL WEATHERING

Fresh:	%	SU/SP/H/M/L
Mousse:	15 %	SU/SP/H/M/L
Weathered Mousse:	50 %	SU/SP/H/M/L
Asphalt Mousse:	%	SU/SP/H/M/L
Tar:	5 %	SU/SP/H/M/L

COMMENTS

VERY LIGHT SPLATTER IN HIGH INTERTIDAL & SPLASH ZONE NORTH OF SPIT. SPIT HAS LIGHT SPLATTER IN BOULDER BEACHES (NORTH & SOUTH SHORES) VERY LIGHT SPLATTER PERSISTS 200M SOUTH OF SPIT - THEN NO OIL OBSERVED. 1700 METERS OF BEACH HAS NO OILING. THE SOUTHERN BOUNDARY OF THE SEGMENT IS THE STREAM OUTLET IN FRONT OF FOUR PEAK GLACIER. VERY LIGHT TO LIGHT OILING IN SPLASH & INTERTIDAL ZONES EXTENDS FROM STREAM MOUTH NORTH FOR 1700M. THIS OILING IS CONTINUOUS. THE FRESH (CHOCOLATE) MOUSSE IS PROBABLY JUST WEATHERED MOUSSE MELTING. NOTE: FRESH MOUSSE UP TO 1CM THICK IN BETWEEN BOULDERS & CREVICES ON SPIT. STREAM MOUTH BY SPIT HAS A BAND OF OILING UP TO 20CM WIDE ON BANK (SPLASH ZONE) 200M UPSTREAM. SOME GRASS IS OILED. NOTE: PLANTS HAVE GROWN UP THRU OIL ZONE WITH NO ADVERSE EFFECTS

ACE 8708680

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries see attached

VTR: Y/N Tape Number(s) KOS-13

Photography: (Y)/N Roll Number(s) [illegible]

Sample Numbers Collected: N/A

24 JULY MONDAY

1102Z CLEAN S/E/P BEACH
MED WAVE

RECOMMEND -
NO ACTION - ONLY 1 2-2CM
CHOC MOUSSE @ α. NOT OBSERVED
ON LAND NOR OR DEEP.

1006 LV FOR ADQ - REFUEL
1023 AR ADQ ↓
1055 LV ADQ -> CAPE DOUGLAS

1146 K9-11-CD-20
SUNNY "PATCHY"
STRANDLINE PEBBLE/SAND BEACH
~ SOME W. OF HI. MED WAVE ENERGY
LOG DEBRIS SP/SUPRA/HITE
BEAUTIFUL!!
V. LT SPLAT HITE/SP CHOC MOUSSE PATTIES
"MELTING" INTO BEACH TO 10CM. ALWAYS
SOFT SURFACE EXPRESSION OF OILING.

LEVEL

ACE 8708682

Monday

24 July

X-Sec OD-20

LITZ / MITZ / HITZ / SPLAT / SURFACE

24 July 89 — Monday

HITZ/SP LINE HAS 2m ZONE IMPACT
V.L.T SPLAT WEATHERED MOUSSE/TAR/CHOC MOUSSE
M/HITE LINE - 1m IMPACT ZONE
V.L.T SPLAT WEATHERED MOUSSE/TAR/CHOC MOUSSE

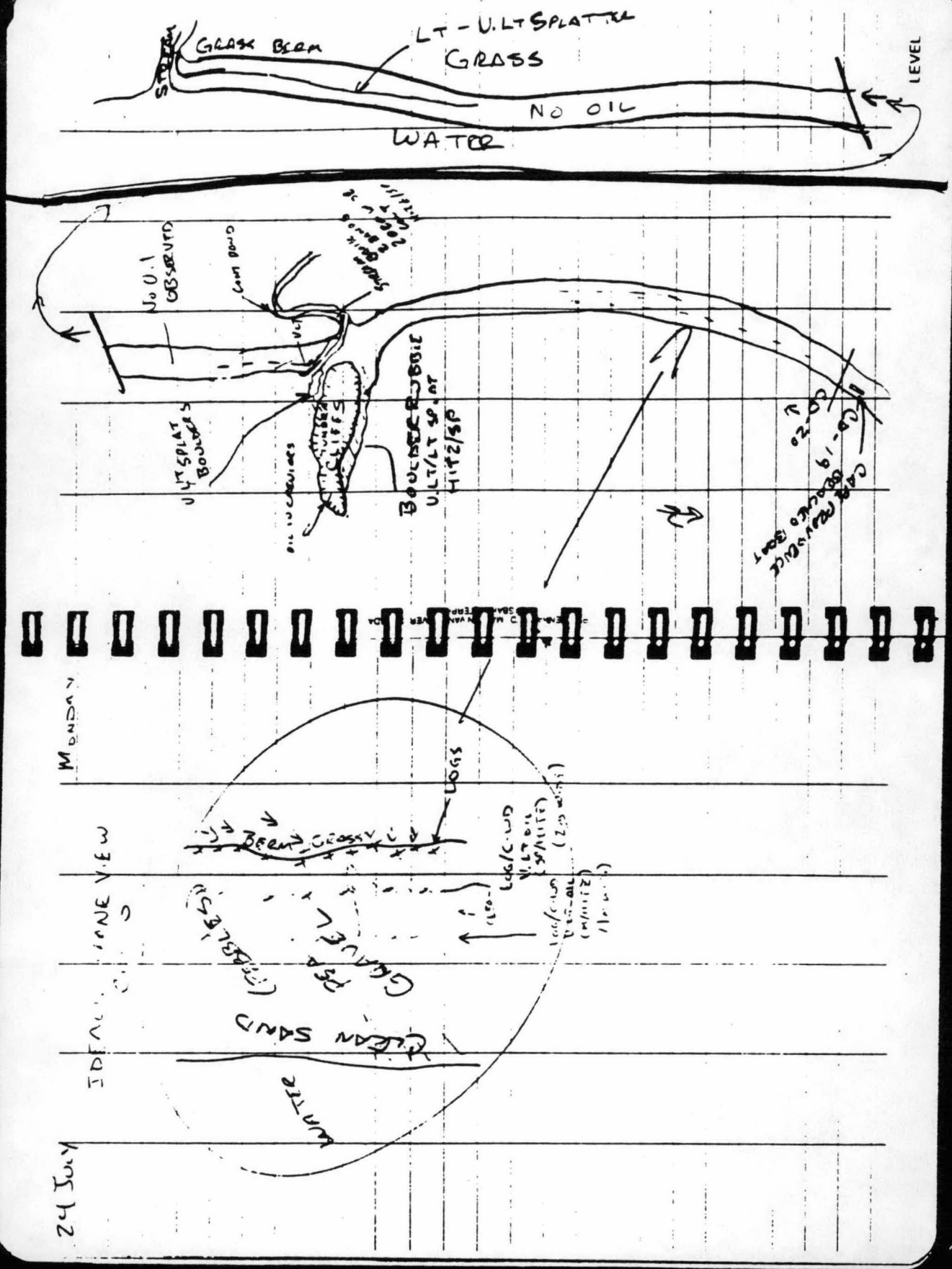
PATTIES MELTS' — LOOKS LIKE OK FRESH OIL'

SOUTH SIDE SPIT -
LIGHT SPLATTERS 5-6m WIDE IMPACT ZONE
HITZ/SP BOULDER/C/P RUBBLE
WEATHERED MOUSSE ON BOULDERS W/
2cm THICK CHOC MOUSSE INBETWEEN BOULDERS

NORTH SIDE SPIT
3m WIDE IMPACT ZONE LT/VLT SPLAT
HITZ/SP ON BOULDERS WEATHERED MOUSSE
OCCASIONAL CHOC MOUSSE INBETWEEN BOULDERS
GRASS BLOWN (GLUED) TO WEATHERED MOUSSE
EAST END SPIT (TIP)
FLAT & BEDROCK VLT (WEATHERED MOUSSE) SPLAT

LEVEL

ACE 8708683



POOR QUALITY ORIGINAL

Monday 1

[illegible] Jan 89 [illegible] MONDAY

[illegible] STREAM C/ [illegible] -

[illegible] BACK TOOM BACK FROM BEACH. NO

[illegible] POSS O.T ON TO RIVIELLO - EXCEPT

[illegible] ON CARBONI/FLAGG-C (TOSS BEACH CP)

[illegible] OIL HAS GRASS DEBRIS INCORPORATED

1115 END WALK - START HOPESKIP

1147 X- BY 2ND STREAM - NODE OBSERVED

1424 B/V.LT/LT SPLAT HITZ/SP C/P BEACH CONTINUOUS B.G EC/REMOVE TO 25cm

1432 - SL STREAM - SAME AS B

1443 - CHECK OTHER STREAM LV FOR CD 21

END 89-11-CD20

2

ACE 8708685

POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: South of CAPE DOUGLAS K-9-11 SITE: _____ OBSERVER: D McCormick

LOCATION PREFIX: CD SEG. NO.: 20 LENGTH: 7650 (M)

DATE: 7/24/89 TIME (HHMM): 1145 TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Present on spit boulders only.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Mussel bed occurs at south end of segment only.

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Present on spit area only.

Littorina
Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Present on spit only.

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Clam shells: razors, Protothaca, Saxidomus, Mya, Dungeness crab carapaces (Clinocardium shells, Cressonatus (all on beaches) On spit area: Haliotis kamtschatkana, Searlesia, Margarites, Lacuna, Neptunea

CLEANUP PRECAUTIONS: Stay away from dune plants when manually cleaning oily debris along the stream on inside of spit.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other 3 Brown Bears

BIRDS: _____

GENERAL OBSERVATIONS: Light to very light mousse and asphalt splatter on debris (on beach and pebble/cobbles; a few tarballs seen. Oil is confined to upper ITZ to about 0.5 deep. On spit area: splatter occurs in splash zone on tidbrock outcroppings. Stream channel behind spit has oil along channel in upper ITZ into dune plants.

ACE 8706660

517.607 KODIAK SCAT
K9-14

COMPLETE DEC 29 1989

ACE 7963983

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K9-14

Includes Shoreline Segments: SK-100, SK-101

Location: Swikshak Lagoon

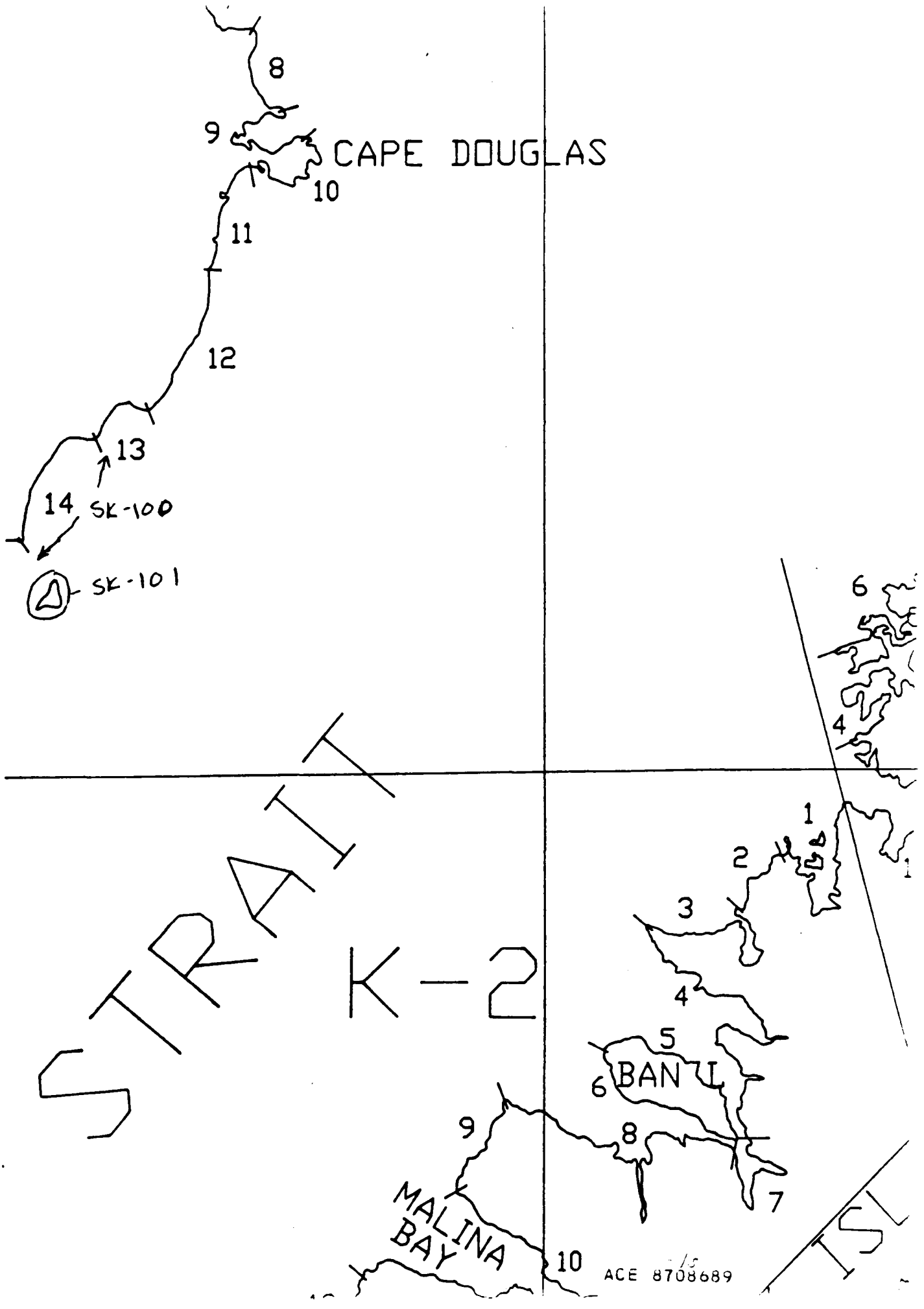
Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

ACE 8708688 - FISFF


8
9
CAPE DOUGLAS
10
11
12
13
14
SK-100
SK-101
STRAIT
K-2
6
4
1
2
3
4
5
6
BAN I.
9
8
7
MALINA BAY
10
ACE 8708689
ISL

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/27/89 SHORELINE SEGMENT K9-14-SK-100

LOCATION: (see enclosed map) North of Swikshak Lagoon

Alaska Peninsula, Kodiak

ADEC NO._____SHORELINE ASSESSMENT DATE: 7/20/89

Recommended Cleanup Activity(ies):

- -Manual removal (rakes and shovels) of oiled debris (popweed, sticks).
- -Manual removal of oiled cobbles and pebbles on beach surface only.
- -Removal of oiled portions of driftwood.

Priorities/Considerations: Class 5-A

- -Segment located within Katmai National Monument.
- -Segment heavily used by bears and contains salmon streams.
- -Seabird nesting colony on nearby Kiukpalik Island.
- -Boat access may be restricted at north and by extensive shallow intertidal area.

Ecological Constraints (from site survey):

- -Avoid heavy foot traffic on grassy beach ridge.
- -Avoid oil contamination of streams.

Archaeological Constraints (from site survey):

- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/31/89

State Historic Preservation Officer *

EXXON:_____ Date:_____

FOSC:_____ Date:_____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708690 -/

(version July 05, 1989)

SHORELINE OIL EVALUATION

Date: 07/20/1989 Time: 12:25 - 14:30 Observer: RICK GILLIE
Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud)(Rain)/Snow/Fog

LOCATION
Location: BEACH NORTH OF SWIKSHAK LAGOON Segment ID: K09-14-SK-100
Segment Length: 10,300 m. Access: Vehicle/(Boat)(Barge)(Helio)/Float Plane
Access Restrictions: WIDE, SHALLOW NEARSHORE ZONE AT NORTHEND

SHORELINE
Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT Slope: Lo/(Med)/Hi/(Vert)
Wave Exposure: (High)/Med/Low
Sediment: B 5 % / C 40 % / P 30 % / G&S 20 % / M ___ % / R 5 %

OIL
Avg. Degree of Oiling: HEAVY / MODERATE / LIGHT /(VERY LIGHT)/ NONE OBSERVED
Area of Impact: SU/(SP)(H)/M/L

OIL DISTRIBUTION

Continuous	% of Segment ___	SU/SP/H/M/L	H/M/L/VL
Sporadic	% of Segment 10	SU/(SP)(H)/M/L	H/M/L/(VL)

Total	Length(m)	Width(m)			
Very light:	500	—	Thickness >1cm:	— cm	SU/SP/H/M/L
Light:	800	1	Penetration/Rework:	5 cm	SU/SP/H/M/L
Moderate:			Burial Depth:	— cm	SU/SP/H/M/L
Heavy:					

Mobilization Potential: High/Medium/(Low)
Drift Debris Oiled? (Y)/N Amount: H/M/L/(VL) SU/(SP)(H)/M/L Type: OILED LOGS

OIL MORPHOLOGY

Pooled Oil: — %		SU/SP/H/M/L	
"Free" Oil: — %		SU/SP/H/M/L	
Splattered: 30 %	H/M/(L)/VL	SU/(SP)(H)/M/L	
Coated: 30 %	H/M/L/(VL)	SU/(SP)(H)/M L	
Pancakes/Balls: 30 %		SU/SP/H/M/L	

Preliminary Cleanup Est.
Total TYPE A: 500 m
Total TYPE B: 1000 m
Total TYPE A/B: 700 m

OIL WEATHERING

Fresh: ___ %		SU/SP/H/M/L
Mousse: ___ %		SU/SP/H/M/L
Weathered Mousse: 70 %		SU/(SP)(H)/M/L
Asphalt Mousse: 30 %		SU/(SP)(H)/M/L
Tar: ___ %		SU/SP/H/M/L

COMMENTS
① Light oil in pocket beach #1.
② Very light for 200-300 M north of Pocket Beach.
③ Oiled logs (rare) north to river mouths.

ACE 8706691

DOCUMENTATION:

Map/Aerial photo marking segment boundaries K09-14-SK-100

VTR: Y/(N) Tape Number(s) _____

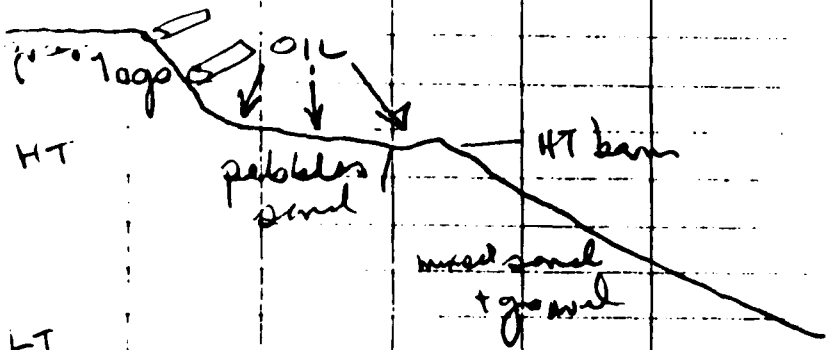
Photography: (Y)/N Roll Number(s) RG-2

Sample Numbers Collected: N/A

July 20/89

SEGMENT K09-14-SK-100

- @ 12:25
- 70m wide beach, zone log



OIL
- discontinuous light oil band (1m)
- oiled pebbles
- penetration < 2 cm, 5-10 max
- weathered mousse
- some debris (sticks + seaweed)

- bag oiled pebbles ✓
- bag debris ✓
- thin cover of oil over sand ✓

SK #2

- Log beach to rock
- South end

- oiled driftwood logs (light)
- oiled timbers
- cut / move

- BEAR TRACKS

- out to 200-300m of south end
- less oil to rock - V. light
  except for oiled logs
  ≈ 1/ 200m

- Lots of bear tracks (3-4)

ACE 8703693

13:00 Back in boats 100m off beach
- Rec oiled log

- No apparent burial - checked 3 times

13:17 Ashore at river mouth
- No oil observed (Light shelter)
- Cut bank
- Smell of something dead.

13.37 Back in boat
Land north of rock - no oil
- Cobble / pebble beach

14:00 North to wide (300m) ITZ
Could not land - surf 2-3'
and 50m off the beach

14 30 Back at the boats.

Waylay oil at mouth river mouth
- Check with helicopter.

Note: This portion surveyed by Ducan Fitzgerald on July 21 / No oil found.

- Bear walking towards along south end of beach as were just on!

Ty 4. Dill: plane

15:00 Helicopter arrives with Ty ? Archaeologist, Harry, No radar technician

- Could not use helicopter - they said they did not have enough fuel to do anything?

- Helicopter left with Rick Knecht + Harry

- Latest instructions N.B.

K09-14 ✓ + Island ✓
K09-19 - Island only
K 20
21
22
23

Seal Bay (19) and Part of (18)

ACE 8700094

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Switchak Area SITE: Beach North of Lagoon OBSERVER: J. Tarpley

LOCATION PREFIX: K9/SK SEG. NO.: K9-14-SK-100 LENGTH: 10,300 (M)

DATE: 7/20/89 TIME (HHMM): 1230 – 1400 TIDE HT.: -0.25 → +2.0 m (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks (Boulder Cobble) (Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Enteromorpha patchy and sparse on rocky bedrock points

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Only on rocky points.

Littorina
Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Only on rocky points

Limpets: Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Only on rocky points.

OTHER OBSERVATIONS: This is a very high energy beach with virtually no living biota. Living biota only exists on rocky outcrops at the ends of the beach.

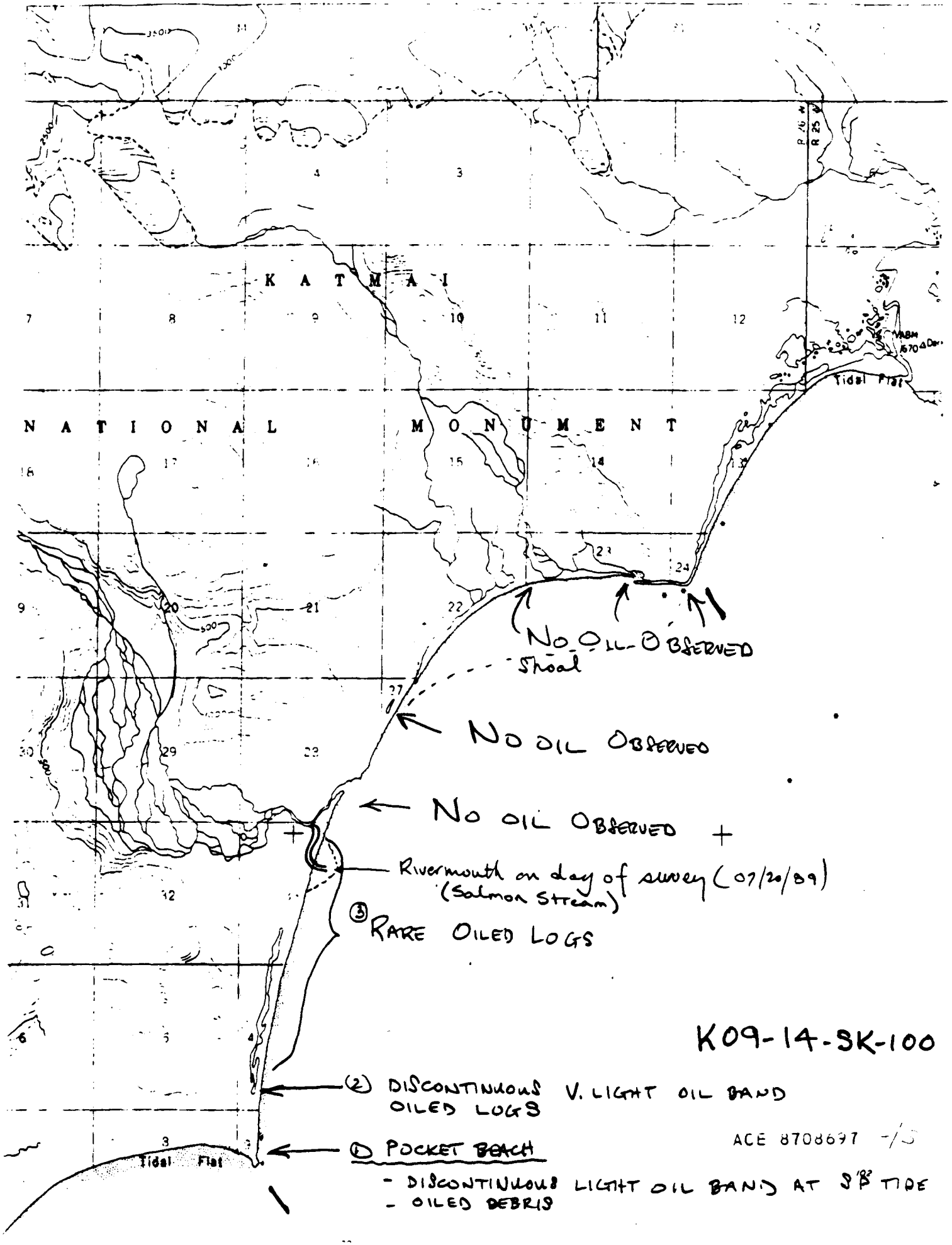
CLEANUP PRECAUTIONS: Many bears in this segment. Stay out of grassy beach ridge area and avoid oil contamination of streams.

MAMMALS: Otters 12-18 Harbor Seals ___ Sea Lions ___ Whales ___
Other 1 bear on beach, many tracks; Fox tracks

BIRDS: Ravens, 3 Bald Eagles, Kittiwakes, Gulls, Scoters, Harlequin Ducks, Murres, Geese, Pigeon Guillemots

GENERAL OBSERVATIONS: Sea Otters ½ mile offshore. At least 3 mother/pup pairs. High energy beach with light to V. light oil splatter at south end of beach.

ACE 8703695


K A T M A I
N A T I O N A L M O N U M E N T
Tidal Flat
NO OIL OBSERVED
Shoal
NO OIL OBSERVED
NO OIL OBSERVED
Rivermouth on day of survey (07/20/89)
(Salmon Stream)
③ RARE OILED LOGS
K09-14-SK-100
② DISCONTINUOUS V. LIGHT OIL BAND
OILED LOGS
ACE 8708697 -/5
① POCKET BEACH
- DISCONTINUOUS LIGHT OIL BAND AT SB TIDE
- OILED DEBRIS
Tidal Flat

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/27/89 SHORELINE SEGMENT K9-14-SK-101

LOCATION: (see enclosed map) Kiukpalik Island, North of Swikshak Lagoon, AK Peninsula, Kodiak

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/20/89

Recommended Cleanup Activity(ies):

- -Manual cleanup of oiled rocks with oil snare or other sorbents.
- -Remove heavily oiled portion of logs.
- -Manual removal of mousse patties.

Priorities/Considerations: Class 5-A

- -Segment located within Katmai National Monument.
- -Island is used as a seabird nesting colony and pinniped handout area.
- -Boat access may be restricted to calm days.

Ecological Constraints (from site survey):

- -Avoid grassy slopes due to nesting sites.
- -Avoid oil contamination and heavy foot traffic in low intertidal zone.

Archaeological Constraints (from site survey):

- -No access to forest/upland zone by beach crews during cleanup.
- -If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708698 +/

version July 05, 1989)

SHORELINE OIL EVALUATION

ate: 07/20/89 Time: 16:15 - 17:27 Observer: RICK GILLIE
urveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

:ATION
ocation: KIUKPALIK ISLAND Segment ID: K09-14-SK-101
egment Length: 5,800 m. Access: Vehicle/(Boat)/(Barge)/(Helio)/Float Plane
ccess Restrictions: EXPOSED TO WAVES

HORELINE
horeline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: Lo/(Med)/(Hi)/(Vert)
ave Exposure: (High)/Med/Low
ediment: B 10 % / C 7 % / P 3 % / G&S ___ % / M ___ % / R 80 %

IL
vg. Degree of Oiling: HEAVY / MODERATE / LIGHT / (VERY LIGHT) / NONE OBSERVED
rea of Impact: SU/(SP)/(H)/M/L

IL DISTRIBUTION
ontinuous % of Segment ___ SU/SP/H/M/L H/M/L/VL
poradic % of Segment 10 SU/(SP)/(H)/M/L H/M/L/(VL)

otal	Length(m)	Width(m)			
ery light:	200	—	Thickness >1cm: — cm		SU/SP/H/M/L
ight:			Penetration/Rework: — cm		SU/SP/H/M/L
oderate:			Burial Depth: — cm		SU/SP/H/M/L
eavy:					

obilization Potential: High/(Medium)/Low
rift Debris Oiled? (Y)/N Amount: H/M/L/(VL) SU/(SP)/(H)/M/L Type: OILED LOGS

IL MORPHOLOGY

ooled Oil: — %		SU/SP/H/M/L	
Free" Oil: — %		SU/SP/H/M/L	
plattered: 20 %	H/M/L/(VL)	SU/(SP)/(H)/M/L	
oated: 60 %	H/M/L/(VL)	SU/(SP)/(H)/M/L	
ancakes/Balls: 10 %		SU/(SP)/(H)/M/L	

Preliminary Cleanup Est.
Total TYPE A: 200 m
Total TYPE B: ___ m
Total TYPE A/B: ___ m

IL WEATHERING

resh: — %	SU/SP/H/M/L
ousse: — %	SU/SP/H/M/L
eathered Mousse: 80 %	SU/(SP)/(H)/M/L
sphalt Mousse: ___ %	SU/SP/H/M/L
ar: 20 %	SU/(SP)/(H)/M/L

OMMENTS

1) VERY LIGHT OILING COMPRISING DRIFTWOOD LOGS AT HIGH TIDE TO STORM WATER LEVEL.

2) MOUSSE PATTIES AND MODERATE OIL SPLATTER AT LOCALIZED SITES (SEE MAP).

ACE 8706699

DOCUMENTATION:

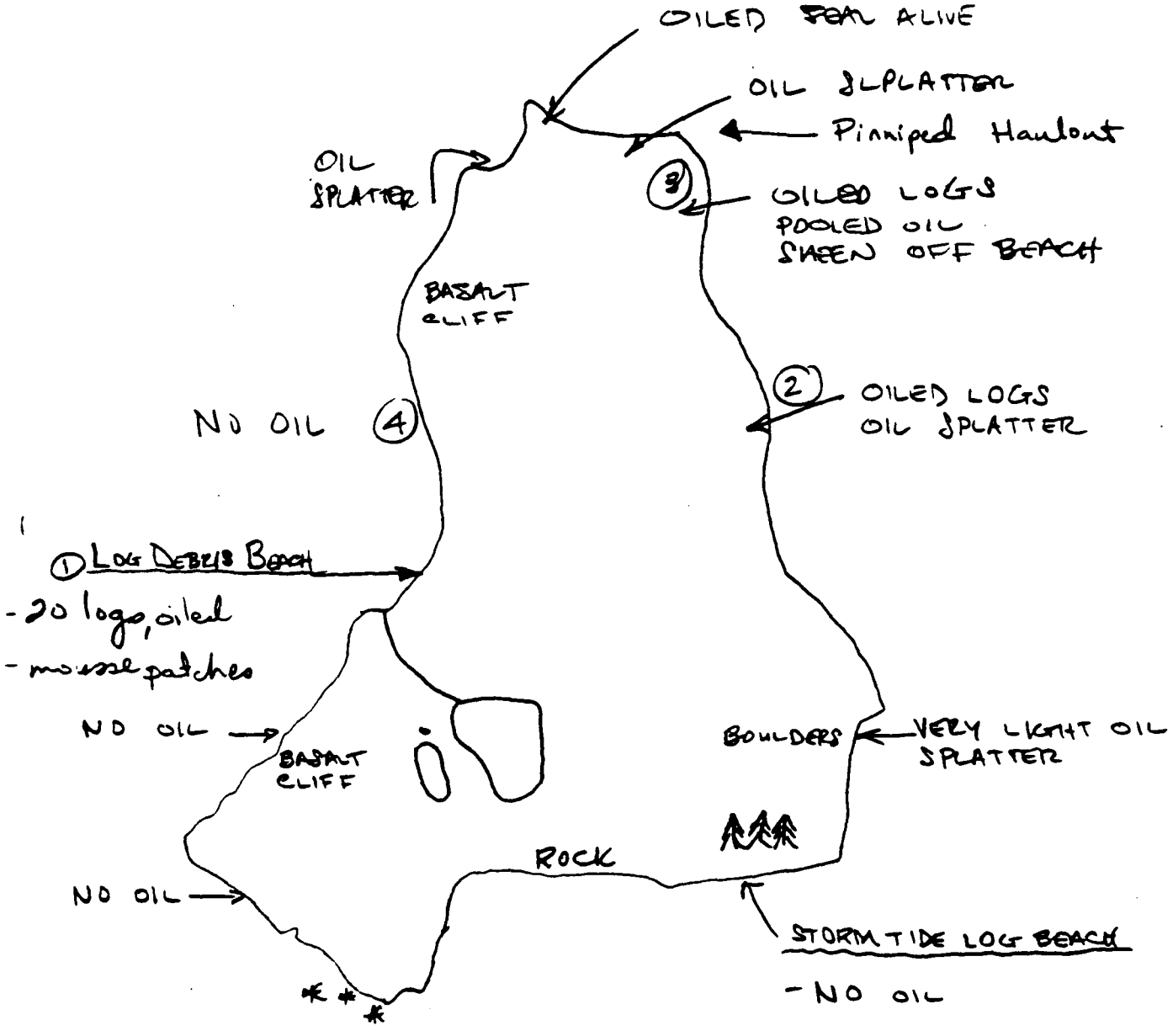
Map/Aerial photo marking segment boundaries K09-14-SK-101

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) RG-1

Sample Numbers Collected: N/A

KIUKPALIK ISLAND
(K09-14-SK-101)



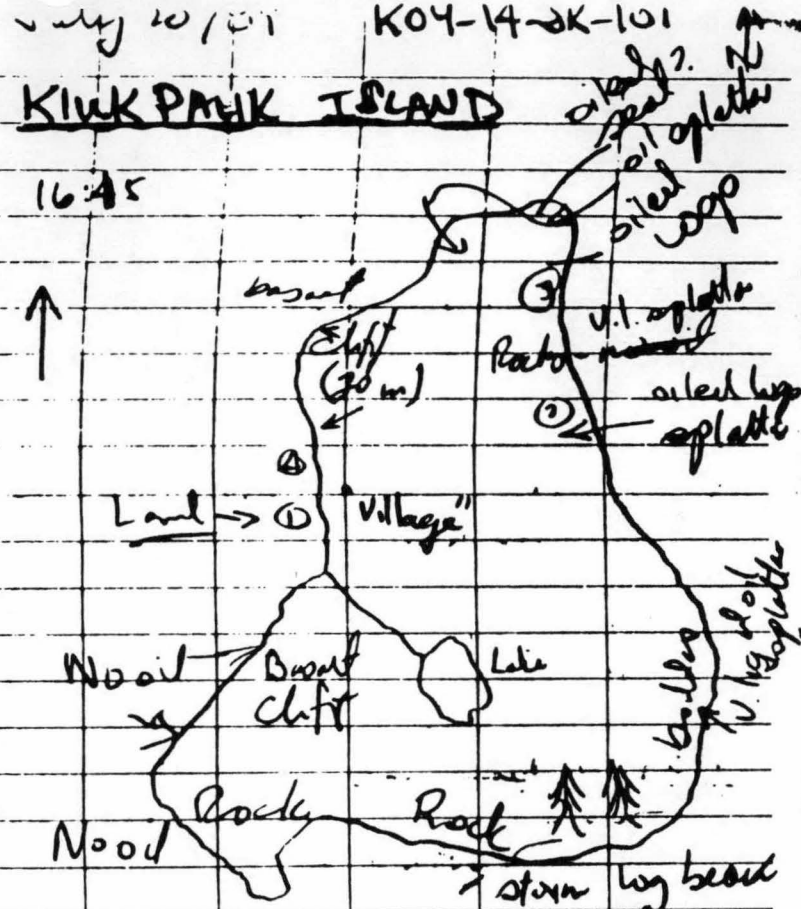
* Island is a Seabird Nesting Colony for Glaucous-winged Gulls, Horned Puffins, and Pigeon Guillemots. Also used as pinniped haulout site

ACE 3708701

July 10/01 K04-14-SK-101

KIWKPAHK ISLAND

16:45



① 50m long log debris beach
- ~~10~~ 12' x 20' oiled logs
- oiled debris
- seagull activity
- HT beach - cobbles / pebbles
- mousse patches

② oiled logs 30 logs, heavy splatter
oil splatter
- wiped up
- log beach

③ boulder beach / logs (2 beaches)
- no oil
- oil splatter on rocks
- product oil - sheen coming off rocks

④ No oil

17:27 off the beach

ACE 8703702

July 30/89

17:45 Depart Kiukpalek Bay for Kukak Bay

21:30 Arrive Kukak Bay
Write-up Field notes

23:00 Do Laundry on the ADVANTAGE

24:00 To BED

July 01, 1989

07:00 Up lift anchor Kukak Bay

07:15 Leave Cannery Passage for Hallo Bay.

09:15 Hallo Bay (13 bears on beach)
- has black pond beaches
- olivine basalt?
- 6 bears in lava tube near mouth either digging clams or fishing

09:21 Call Harry at the office
58°27'N 154°02'W
① K09-14 - dune
② -19 - wheel - Film - TMX400 6 rolls
Color - Ektar 6 rolls
③ Kukak B. - pan

9:30 - Tried again no response!

- Jack King called earlier - thought other radio tech would come out

- Counted 22 bears on the beach!

- Survey island

18:40 Lift anchor for Hallo Bay.

15:40 Kukak Bay

Duncan Fitzgerald completed K09-14 - came by helicopter

17:00 Jack called Harry re
- no messages.

ACE 8708703

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Swikshak Area SITE: KUKPALIK ISLAND OBSERVER: J. Tarpley

LOCATION PREFIX: K9/SK SEG. NO.: K9-14-SK-101 LENGTH: 5,800 (M)

DATE: 7/20/89 TIME (HHMM): 1615-1720 TIDE HT.: +4.5m (M)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble) Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

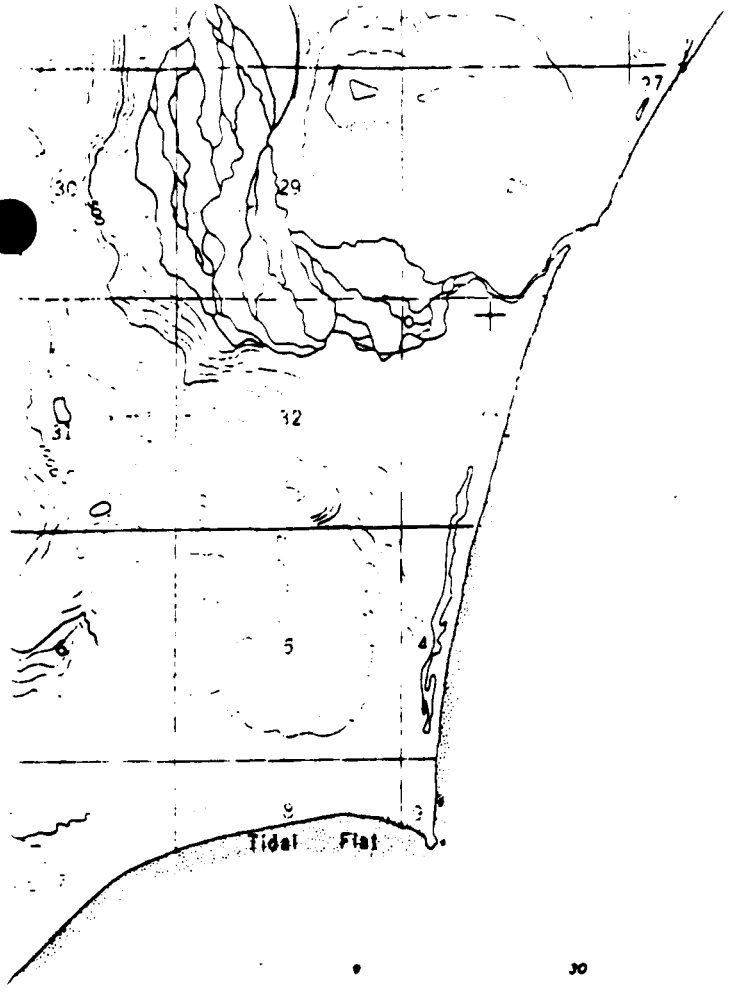
OTHER OBSERVATIONS: Tide was very high (+4m) and intertidal biota was submerged. Therefore I was unable to evaluate the intertidal community.

CLEANUP PRECAUTIONS: Avoid oil contamination and heavy foot traffic over low intertidal zone. Stay off of grassy slopes.

MAMMALS: Otters 1 Harbor Seals 3 Sea Lions ___ Whales ___
Other ___

BIRDS: Horned Puffins; Kittiwakes; Pigeon Guillemots; Gulls

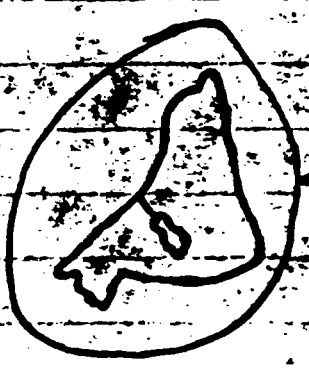
GENERAL OBSERVATIONS: Sea Otter at SW tip of island foraging. 2 Seals on east side on 1 seal hauled out on North tip of island (possibly oil stained). Island is a breeding colony for Glaucous-winged gulls, Horned Puffins, and Pigeon Guillemots.



102

30

ROUND



← KIUKPALIK ISLAND

(K09-14-AK-101)

ACE 8708706 - 12/31/87

517-11- KODIAK SCAT
K9-15

COMPLETE OCT 13 1989

ACE 7963984

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 9/01/89 SHORELINE SEGMENT K09-15B-XX-02

LOCATION: (see enclosed map) Middle Islets, Shakun Islets, Katmai Nat'l. Park

ADEC NO._____ SHORELINE ASSESSMENT DATE: 8/29/89

Recommended Cleanup Activity(ies):

-If cleanup team in area, remove by manual/hand techniques the thicker accumulations of oil deposits in between boulders and in crevices. These islets are of low priority due to the small amounts of oil and safety.

Priorities/ Considerations: Class 5-B

-Access only on the calmest of days.

Ecological Constraints (from site survey):

-Restrict access to lower intertidal area.

Archeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date:_____

State Historic Preservation Officer *

EXXON: _____ Date: 9/1/89

FOSC:_____ Date:_____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

KODIAK

DRAFT

ACE 8708707

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE:_____ SHORELINE SEGMENT: K9-15B-XX-2

LOCATION: (see enclosed map) MIDDLE ISLETS, SHAKUN ISLETS, KATMAI NAT'L PK, ALASKA, USA

ADEC No. _____ SHORELINE ASSESSMENT DATE: 29 AUG 89

Recommended Cleanup Activity(ies):

IF CLEANUP TEAM IN AREA, REMOVE BY MANUAL/HAND TECHNIQUES THE THICKER ACCUMULATIONS OF OIL DEPOSITS IN BETWEEN BOULDERS & IN CREVICES. THESE ISLETS ARE OF LOW PRIORITY DUE TO THE SMALL AMOUNTS OF OIL and SAFETY

Priorities Considerations: Class 5 - B

- ACCESS ONLY ON THE CALMEST OF DAYS.

Ecological Constraints (from site survey):

- Restrict access to lower intertidal area.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 21 April, 1989 as amended.

_____ Date:_____

State Historic Preservation Officer *

ACE 8708708

EXXON:_____ Date:_____

FOSC:_____ Date:_____

* Signiture required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

A. General

1. Date: 29 Aug 89 2. Time: 1045 3. Observer: BRYAN TRIMM

4. Surveyed From: (Foot)/Boat/Helio/Plane 5. Weather: (Sun/Cloud)/Rain/Snow/Fog

6. Location MIDDLE ISLES, SHAKUN ISLETS 7. Segment #: K9-158-XX-2
0.75m 1200m

8. Length of shoreline segment: 1320 yds 9. Tidal Stage ± _____ ft.

10. Access: Foot/Vehicle/(Boat*)/Barge/Helio/Float Plane

11. Total Percentage of Segment Accessible: 75 %

12. Access Restrictions: ONLY ON THE CALMEST OF DAYS

B. Shoreline

13. Shoreline Type: SPI/BEA/COV/(HLD)/STRT/(CLF)/DAF

14. Slope: LANG/(HANG)/VERT

15. Wave Exposure: (High)/Med/Low

16. Sediment: B5% / C10% / P5% / G__% S__% / M__% / R25%

17. Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type LOGS. SEAWEED

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/(Light/Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: 8 yds
Continuous: Total % of Segment ____
Sporadic: Total % of Segment 30
No Oil: Total % of Segment 70

20. Est. Oil Thickness where >1in: ____ in 21. Est. Oil Penetration: ____ in

22. Pooled Oil: ____ % "Free" Oil: ____ % Coated: H__% / M5% / L95%

23. Fresh ____ % Mousse 100 % Tar Formation: ____ %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: ____ H/M/L

Comments:
EAST & NORTH EAST CORNERS OF ISLES HAVE THE HEAVIEST HITS OF OIL. VERY LIGHT TO LIGHT SPLATTER. OIL THICKEST INBETWEEN BOULDERS & IN CREVICES. CLEAN UP ACCESS LIMITED. BEACH ACCESS LIMITED TO CALMEST DAYS!! OIL AMOUNT DOES NOT REQUIRE CREWS UNLESS THEY ARE IN THE AREA. LOW PRIORITY

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse	25	%
Weathered	75	%
Tar		%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:	150	1/4
Light:	50	1
Moderate:		
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth
pooled/continuous								
coating/ splat	X	X			—	125	1/4	—
cracks / crevices	X	X			—	25	1	—
patties (>10cm diameter)								
balls (< 10cm diameter)								
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: 100 yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/(Medium)/Low

DOCUMENTATION:

Map/Aerial photo marking segment boundaries _____

VTR: (Y)/N Tape Number (s) K0563

Photography: (Y)/N Roll Number (s) MHFC

Additional Comments:

(22)

28 AUG — MONDAY

1845 Lv SHAKUN Is - FOR ADQ
1925 Ld ADQ
- BRIEF MARTY ON DEVELOPMENTS
2030 EAT & GOOD NIGHT

29 AUG — TUESDAY

0700 - WRITE UP FOR FAX TO M/V SNOPAC
- FAX COPY TO J. in WADE & M/V SNOPAC
0900 - PREPARE TO GO TO SHAKUN Is (AGAIN!)
1008 - Lv ADQ → SHAKUN Is.
357EH LARRY & EVAN
PAX: LISA JUDD - USCG
MIKE FAWCETT - SCAT - BLM
MILLIE YARBOROUGH - SCAT - ARCH
BRYAN TEIMM - SCAT - GEOL

1045 - CONTACT RANDY DENTON - EXXON REP ON CHANNEL 6

K9-158-SZ-2 CLOUDY
SM INLETS S. OF SZ-1

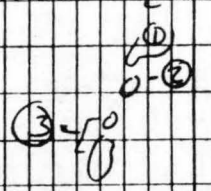
(23)

29 AUG — TUESDAY

ON NE CORNER ON 3RD ISLET
BOZ FRESH/ZOZ WEATHERED MOUSSE
IN HITR/SP - MOD/LT COAT. THICKER
ACCUMULATIONS UNDERTUCKED BOULDERS &
IN CREVICES -
B/C / ROCK BEACH -

1119 - JUMP TO 2ND ISLET
- ROCKY BOULDER W/ BUBBLE AT BOZ
- WEST SIDE - V. LT SPLAT HITR/SP
- NEAST SIDE (WINDWARD) LT/MOD
SPLAT. THICKER ACCUMULATIONS
IN BETWEEN CRACKS/CREVICES
HAND REMOVAL — IF WEATHER ALLOWS

1158 - 3RD INLET - A & D NOW SEPARATES ISLE



SE CORNER - SAME AS NE CORNER

FIELD

ACE 8708711

(24)

29 AUG TUESDAY

SYNOPSIS OF SMALLER ISLETS (SZ 2)
S. OF LG (SZ·1) ISLET —
V.LT/MOD COAT OIL IN HITZ/SP OF
E/NE CORNER OF ISLETS VERY LIMITED
ACCESS TO OIL B/C SIZE BOULDERS
& CREVICES. NOTE: ISLETS - "ROCKS"
ACCESSIBLE ONLY DURING CALMEST
OF DAYS. REALLY NO REASON TO
SEND CLEANUP CREWS IN: ① SAFETY
② LACK OF REMOVABLE OIL. RANGE
OILING (TOTAL) AS V.LT - ③ HIGH
WAVE ENERGY BEACHES —

1319 CHOPTER 357EH PICKS US UP, 2 VECO
BEACH CLEANERS & HEAD TO ADQ

1359 - LD ADQ
- WRITE UP SZ-1 & SZ·2

(25)

FIELD

ACE 8708712

LOCATION: Shakun Islets SITE: middle islets OBSERVER: M. Fawcett

LOCATION PREFIX: [redacted] SEG. NO.: 2 LENGTH: 1200 (M)

DATE: 8/29/89 TIME (HHMM): 1045-1215 TIDE HT.: +0.9 to +2.1 (M)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): (Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

Mytilus (Mussels): (Patchy) Y/N Contin. Y/N Dense Y/N (Sparse) Y/N None Y/N

Balanus (Barnacles): Patchy Y/N (Contin.) Y/N (Dense) Y/N Sparse Y/N None Y/N

B glandula mostly, but large old B. cariosus common

Littorina
(Patchy) Y/N Contin. Y/N ~~Dense~~ Y/N Sparse Y/N None Y/N

Limpets: (Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

Collisella digitalis, C. pelta, Notoacmaea persona & N. scutum

OTHER OBSERVATIONS: fine tide pools and surge channels

1 very large owl pellet containing fur & rodent bones

CLEANUP PRECAUTIONS: avoid trampling lower intertidal area

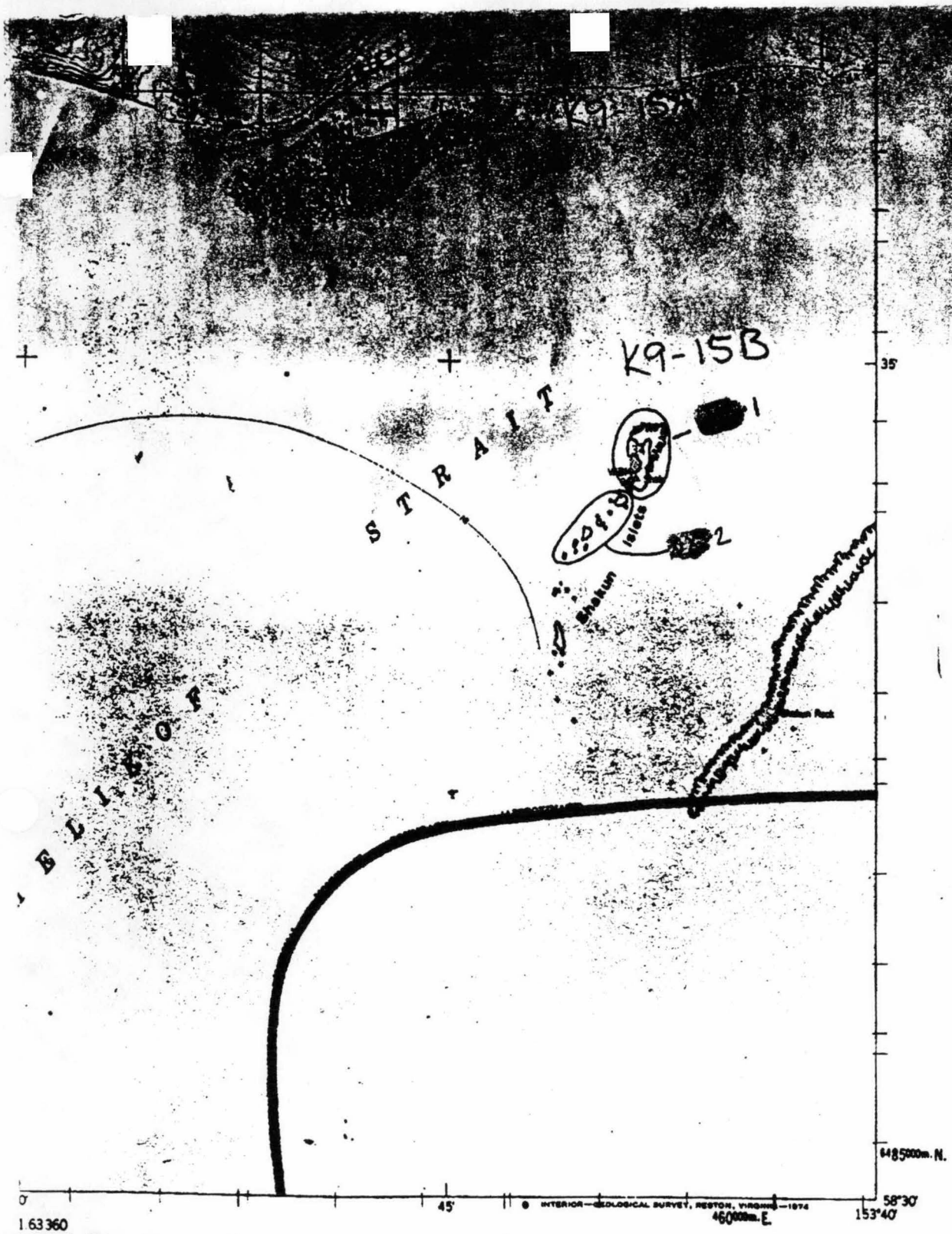
MAMMALS: Otters 2 Harbor Seals ___ Sea Lions 1 Whales ___

Other 3 river otters

BIRDS: 2 Loons, Gu gulls, kittiwakes, puffins (both spp)

GENERAL OBSERVATIONS: mostly vertical faces, plus rocks and boulders set in coarse sand & shell

ACE 8708713



1:63360

2 3 4 MILES
12000 15000 18000 21000 FEET
3 4 5 KILOMETERS

INTERVAL 100 FEET
INT 50 FOOT CONTOURS
N SEA LEVEL
IS MEAN LOWER LOW WATER
PROXIMATE LINE OF MEAN HIGH WATER
IS APPROXIMATELY 12 FEET

EOLOGICAL SURVEY
ORADO 80225, OR RESTON, VIRGINIA 22092
AND) SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

ROAD CLASSIFICATION

No roads or trails in this area

AFOGNAK (C-6), ALASKA

N5830 - W15340/15X20

1951

MINOR REVISIONS 1973

ACE 8708715

SHORELINE OIL EVALUATION

A. General

1. Date: 24/28 AUG. 89 2. Time: 26th - 3. Observer: BRYAN GRIMM

4. Surveyed From: (Foot)/Boat/Helio/Plane 5. Weather: (Sun/Cloud)/Rain/Snow/Fog

6. Location NORTH ISLE, SHARON ISLETS 7. Segment #: K9-158-XX-1
1.0625 mi 1710 m

8. Length of shoreline segment: 1870 yds 9. Tidal Stage ± _____ ft.

10. Access: Foot/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 80 % (Low Tide)

12. Access Restrictions: ONLY ON THE CALMEST OF DAYS

B. Shoreline

13. Shoreline Type: SPI/(BEA)/COV/(WLD)/STRT/(CLF)/BAF

14. Slope: LANG/(HANG/VERT)

15. Wave Exposure: (High)/Med/Low

16. Sediment: B40% / C10% / P10% / G—% S10% / M__% / R30%

17. Drift Debris on Beach: (Yes)/No (Supra/Upper/Mid)/Lower Type SEAWEED & LOGS

C. Oil Summary

18. Degree of Oiling: Heavy/(Moderate/Light/Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: 0 yds
Continuous: Total % of Segment 30
Sporadic: Total % of Segment 30
No Oil: Total % of Segment 40

20. Est. Oil Thickness where >1in: 3 in 21. Est. Oil Penetration: 12 in

22. Pooled Oil: 1 % "Free" Oil: — % Coated: H 19% / M 20% / L 70%

23. Fresh —% Mousse 100 % Tar Formation: — %

24. Drift Debris Oiled? (Yes)/No Sup/(Up)/Mid/Low (SP) Amount: 10 H/M/(L)

Comments:
SEE ATTACHED SKETCH MAP & MEMOS

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh	%
Mousse	25 %
Weathered	75 %
Tar	%
	100 %

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	400	¼
Light:	10	¼
Moderate:	30	10
Heavy:	20	10

27. Oil Distribution

	SP	H	M	L	Thick >1in	Length(yd)	Width(yd)	Burial Depth
pooled/continuous		X			3	20	10	
coating/ splat	X	X	X			400	¼	12 in
cracks / crevices	X	X	X					
patties (>10cm diameter)	X	X	X			75	¼	
balls (< 10cm diameter)	X	X	X			75	¼	
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: 500 yds.
Total TYPE B: ← yds.
Total TYPE A/B: ← yds.

29. Remobilization Potential: High/(Medium)/(Low)

DOCUMENTATION:

Map/Aerial photo marking segment boundaries _____

VTR: (Y)/N Tape Number (s) KOS 63

Photography: (Y)/N Roll Number (s) MHF 5 & MHF 6

Additional Comments:

ACE 8708717

LOCATION: Shakun Island SITE: Northwest Island OBSERVER: M. Fawcett

LOCATION PREFIX: A SEG. NO: [redacted] LENGTH: 1110 (M)

DATE: 8/28/89 TIME (HHMM): 1430 - 1510 TIDE HT.: +1.5 to +2.1 (M)

OILED ZONE: (Splash) (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): (Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

Mytilus (Mussels): (Patchy) Y/N Contin. Y/N Dense Y/N (Sparse) Y/N None Y/N

Balanus (Barnacles): (Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

some very large old Balanus cariosus

Littorina

(Patchy) Y/N Contin. Y/N (Dense) Y/N Sparse Y/N None Y/N

many feeding on oil-coated rocks, seem OK

Limpets: (Patchy) Y/N Contin. Y/N Dense Y/N (Sparse) Y/N None Y/N

Collisella digitalis, C. pelta, Notoacmea scutum, N. persona

OTHER OBSERVATIONS: Puffin burrows on grassy bluffs - 1 sick kittiwake on beach (not oiled). chitons: Katharina, Mopalia - cast skins of Dungeness & helmet crabs - Thais emarginata, canaliculata

CLEANUP PRECAUTIONS: Avoid trampling biota in lower intertidal area

MAMMALS: Otters 3 Harbor Seals ___ Sea Lions 3-4 hauled out Whales ___

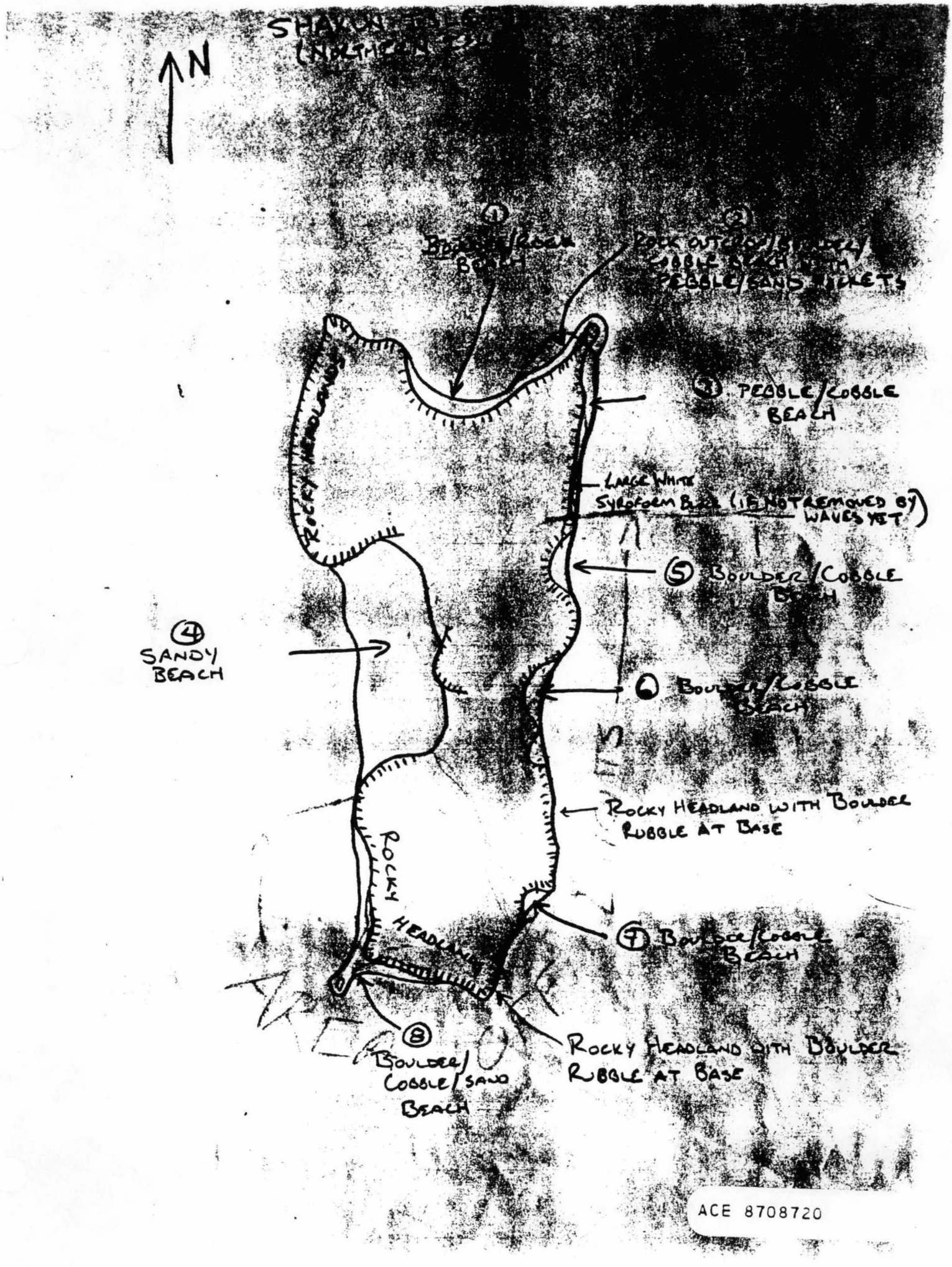
Other ___

BIRDS: GW Gulls, kittiwakes, feeding & roosting T&H puffins (feeding & roosting), cormorants, oystercatchers, ravens, murres, turnstone?

GENERAL OBSERVATIONS: Island mostly steep rock faces, with platforms, packet beaches of sand, cobble & boulders, and one 300m wide sand beach

Many kittiwakes and puffins feeding nearby.

ACE 8708719


N
(1)
(2)
PEBBLE/COBBLE BEACH
(3) PEBBLE/COBBLE BEACH
LARGE WHITE STYROFOAM BLOCK (IF NOT REMOVED BY WAVES YET)
(5) BOULDER/COBBLE BEACH
(4) SANDY BEACH
(6) BOULDER/COBBLE BEACH
ROCKY HEADLAND WITH BOULDER RUBBLE AT BASE
ROCKY HEADLAND
(7) BOULDER/COBBLE BEACH
(8) BOULDER/COBBLE/SAND BEACH
ROCKY HEADLAND WITH BOULDER RUBBLE AT BASE
ACE 8708720

① BOULDER/[illegible]

- REMOVE BY MANUAL/HAND METHODS THE THICKER ACCUMULATIONS OF FRESH MOUSSE INBETWEEN THE BOULDERS, [illegible] REMOVED TO BEACH BIO. REPLACE THE BOULDERS TO PREVENT EROSION.
- REMOVE OR BURN (IF ALLOWED) OILED LOG DRIFT. REMOVE ONLY SMALL PIECES. IT IS NOT NECESSARY TO CUT LARGER LOG DRIFT.

② ROCK OUTCROP/BOULDER/COBBLE BEACH WITH PEBBLE/SAND POCKETS

- REMOVE BY MANUAL/HAND METHODS THE OILED BEACH (PEBBLES) MATERIAL COATED WITH OIL. CHECK PEBBLE BERMS IN STORM TIDE ZONE. A CLEAN LAYER OF PEBBLES SOMETIMES COVER THE OILED MATERIAL. DO NOT CONFUSE DECAYING SEAWEED WITH OIL.
- REMOVE BY MANUAL/HAND METHODS THE THICKER ACCUMULATIONS OF FRESH MOUSSE INBETWEEN ROCKS/BOULDERS & IN THE CREVICES. WORK AT LOW TIDE ONLY.

③ PEBBLE/COBBLE BEACH
SAME AS ②

④ SANDY BEACH.
PICK UP MOUSSE BALLS IN STORM TIDE ZONE. WIPE OFF SPLATTER ON BOULDERS AT NORTH & SOUTH ENDS OF BEACH (HIGH/MIDDLE INTERTIDAL & STORM ZONE).

ACE 8708721

MEMORANDUM

TO: Randy Denton
F/V SNOPAC

FROM: Bryan Trimm
SCAT - Kodiak BAT

RE: Shakun Islets (Northern Isle)

On the accompanying map is the locations of the following beaches. If you need any more information, please contact the SCAT office at 486-5987 (new phone as of this evening) or 486-5680 (today only). The SCAT office is moving today.

5. BOULDER/COBBLE BEACH

Moderate to light coatings of fresh and weathered mousse from the middle and high intertidal zones to the storm (splash) zone. Use manual/hand treatment. Check inbetween boulders and crevices for thicker accumulations of oil deposits. No archaeological constraints.

6. BOULDER/COBBLE BEACH

Same as Beach 5. Note: archaeological constraints on this beach. Do not treat until archaeological monitor is present.

7. BOULDER/COBBLE BEACH

Same as Beach 5. No archaeological constraints.

8. SOUTH SHORE OF ISLET (BOULDER/COBBLE/SAND BEACH)

Moderate oiling of fresh and weathered mousse. Small pools up to 3 inches thick are found at the surface. Remove the oil deposits by manual/hand methods. Check inbetween the boulders for the thicker accumulations of oil. No archaeological constraints.

(6)

K9-158-SE-1

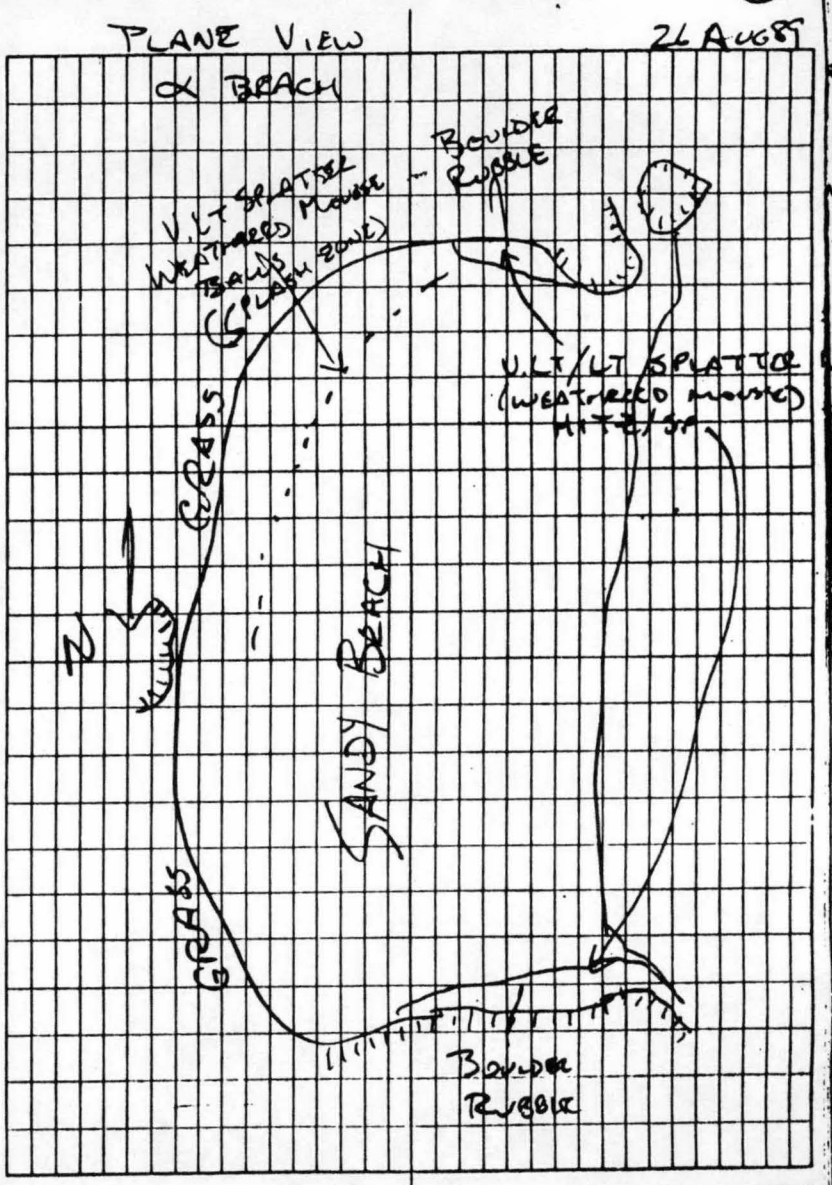
1700 SANDY BEACH G/S SIDE ISLAND.
α BEACH 150 YDS LONG 30 YDS WIDE
V.LT O.L -
WEATHERED MOUSSE (BALLS) /SP/HIT 2)
1% COVERAGE ½ - 4CM DIA, ALL
SDY - NO FRESH MOUSSE INSIDE
ROCKY NODES AT N & S END BEACH HAS
WEATHERED MOUSSE SPLATTER AT HIT 2
(V.LT/LT). ALOT SD IS INCORPORATED
IN W/ OIL. (INERT)

C-WD/LOG DRIFT M-HIT 2/SP
DRIFT OILED IN BOULDER RUBBLE

(7)

PLANE VIEW 24 AUG85

α BEACH



FIELD

ACE 8708723

(8)

26 AUG 89 SATURDAY

B 1745 - BOULDER/ROCK BEACH (POCKET) WITH A 25 x 10 YD BATCH OF OIL FROM M/HITZ TO SP. DRIFT LOGS OILED (LT-MOD) IN SP/HITZ. SLIGHT SMELL OF HYDROCARBONS (YES HELICOPTER IS DOWNWIND ½ OF OTHER SIDE OF ISLAND) 50% FRESH/50% WEATHERED MOUSSE FRESH UP TO 2 CM THICK (HEAVIEST (THICKEST) ACCUMULATIONS INBETWEEN BOULDERS ½ IN CREVICES.

REMOVE OR BURN OILED DEBRIS (SMALLER MAT'L). REMOVE THICKER ACCUMULATIONS OF MOUSSE (ESPECIALLY FRESH).

Ø 1803 PER/SDY POCKET BEACH EAST OF B N. SHORE BIG ISLAND (SHAKUN). V.LT SPLAT HITZ/SP DRIFT LOGS C-WD DOWN TO HITZ/HITZ/SP FRESH MOUSSE BURIED IN PER SP BERM TO 10 CM. DO NOT CONFUSE W/ DECAYING C-WD OIL BURIED AT S. END.

(9)

PLANE VIEW

B

N

BOULDERS

H_2O

50% FRESH MOUSSE 50% WEATHERED MOUSSE

BOULDER/ROCK BEACH

10

FIELD

ACE 8708724

(10)

26 AUG 89 SATURDAY

PLANE VIEW OF Ø

N

Ø

ROCKY/BOULDER

VLT SPLAT

BLACK BERRY FERN MOSS LYNDS IDENTIFIED

BEDROCK BOULDERS

VLT LOGS

VLT SPLAT

4x1/10 RING VEG IDENTIFIED

BEDROCK BOULDERS

VLT SPLATTER

Ø

(11)

CREVICE HAS LT COAT OIL 5K 25 YDS.
CLEAN BY MANUAL METHODS

N

Ø

RED/LT SOLVENT FLUSHED

BEDROCK BOULDER

BOULDER/ROCK COBBLE BOULDER

COB/PEBBLE BEACH WITH LIVING CONTAMINATED MOSS TO 15cm

REMOVAL BLOCK PEB/COB/SD - OK

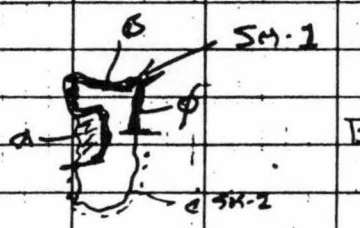
FIELD

ACE 8708725

(12)

26 AUG 89 SATURDAY

1912 Lv SHAKUN Is. (BIG I.) SH-1
1919 Drop NPS RBS (RPO) off
1921 Lv for ADQ
2006 Lnd ADQ



BIG SHAKUN Is (N)

2100 Eat & Ground Night

ACE 8708726

(14)

28 AUG ← → MONDAY 13 HRS

0830 PICK UP SCAT TEAM. DRIVE TO ADQ - WAIT - BAD WEATHER

0900 BACK TO OFFICE. ARRANGE AFTERNOON FLT, CONTACT F/SENOPAC FOR BERTHS - JUST IN CASE. WASH SLEEPING BAG

1130 LUNCH

1230 PACK & GO TO ADQ

1340 LV ADQ -> SHAKUN IS. PHI 145°

1420 LD SHAKUN IS. WAIT FOR LOW TIDE

1635 - START SCAT. SZ 1 CONT

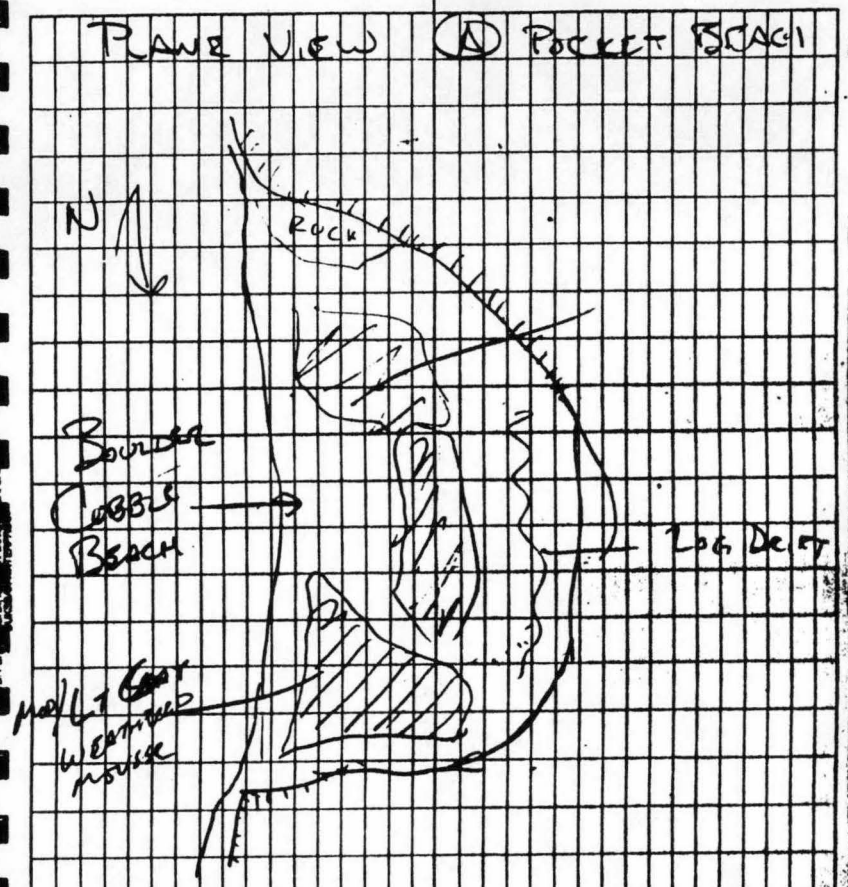
BOULDER RUBBLE S. OF WHITE STYROFOAM BLOCK - V.LT COAT OIL IN B/C/ROCK BEACH HIT 2/SP "LIGHT" WEATHERED - 75% / FRESH 25%

1644 (A) SM B/C POCKET BEACH COC. CRUDE SP

LT/MOD COAT WEATHERED MOUSSE 75%. FRESH MOUSSE 25%.

(15)

PLANE VIEW (A) POCKET BEACH



ACCESS AT LOW TIDE ONLY. WHOLE HIT2 COATED — CAN SMELL CRUDE @ 4.

FIELD

ACE 8708727

(16)

28 AUG MONDAY

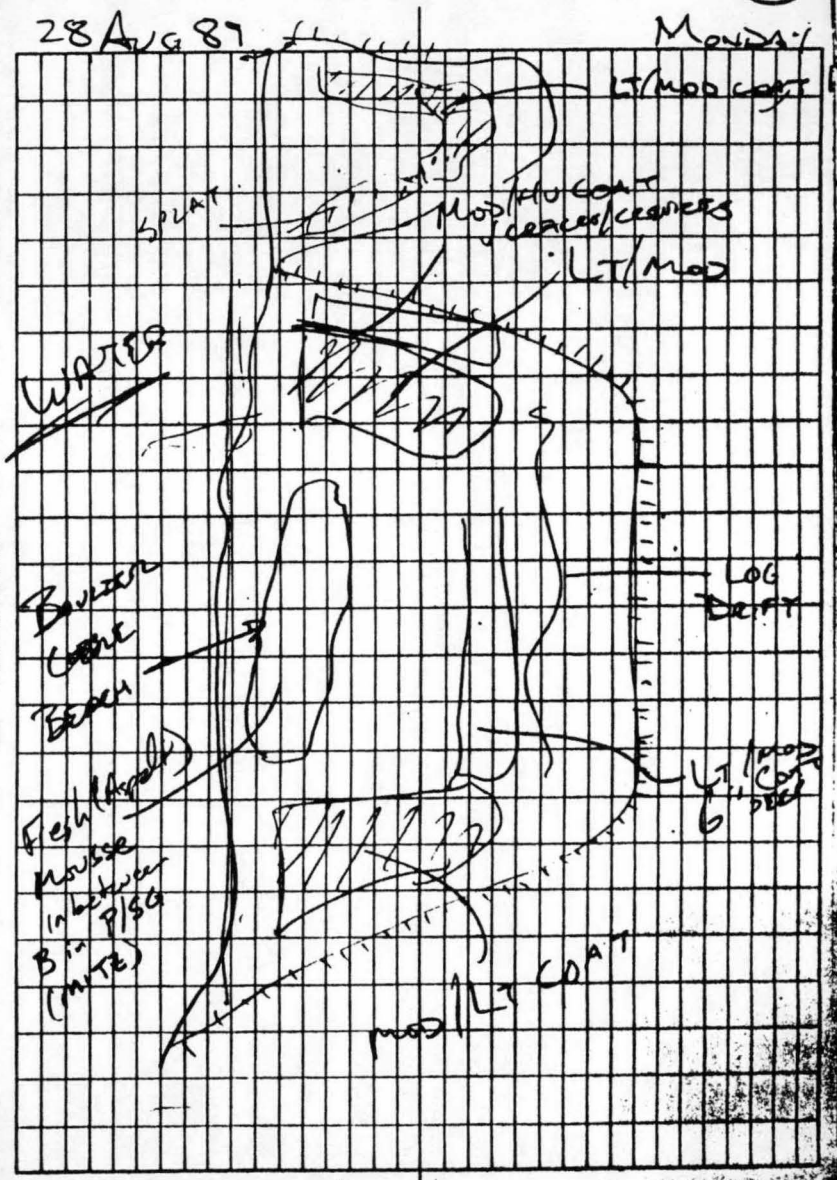
CHECK CRACKS/CREVICES FOR THICKER ACCUMULATIONS OF OIL

ROCKY HIGHLANDS BETWEEN POCKET BEACHES A & B. V.LT. SPLAT HOT2/SP

(B) B/C POCKET BEACH
LSC OILING LIKE (A). SIZEABLE QUANTITIES C-WD. - NMHITB. EVEN IF OILED — DO NOT REMOVE —

(17)

28 AUG 87 MONDAY



FIELD

ACE 8708728

(18)

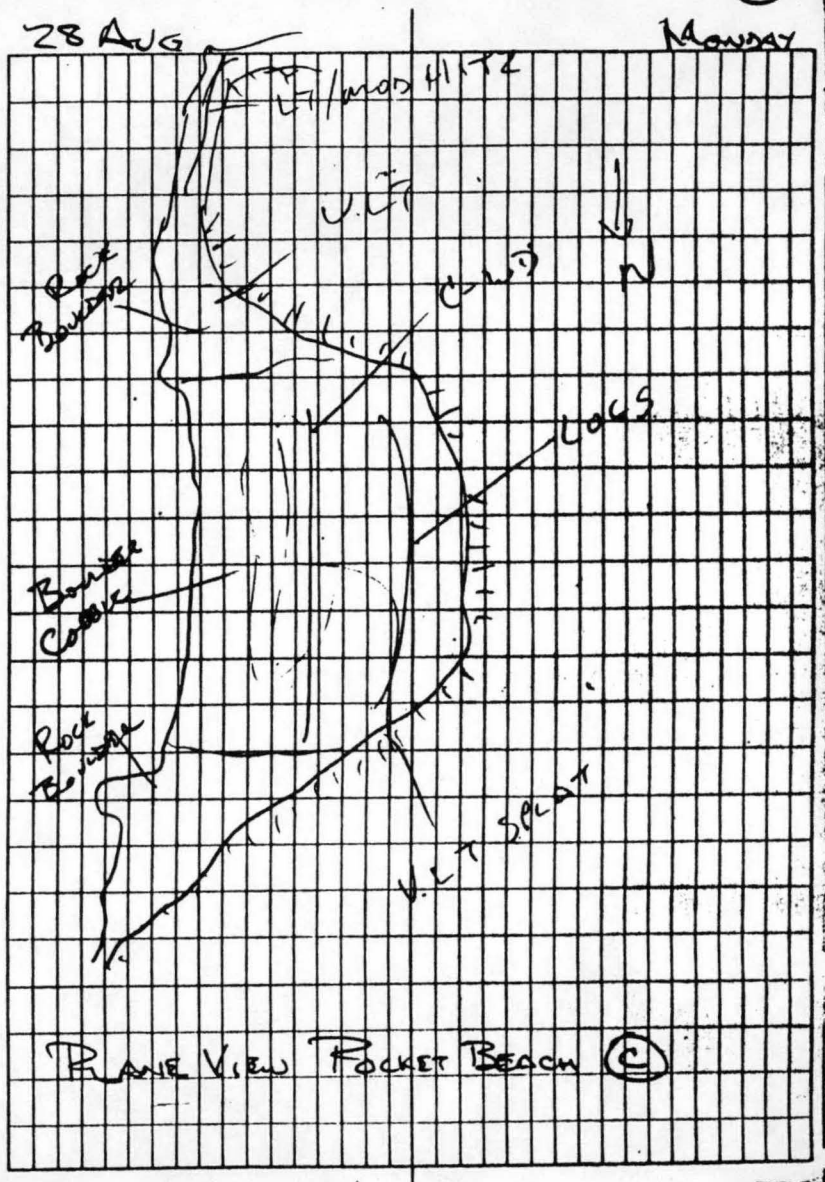
28 AUG 89 — MONDAY

(C) B/C BEACH (POCKET)
1725

1734 ROCKY HOLLAND S. of (C) POCKET BEACH
V.L.T - MOD SPLAT HLTZ/SP
THICKER ACCUMULATIONS IN CRACKS & CREVICES 25% Fresh / 75% WEATHERED MOUSSE

(19)

28 AUG — MONDAY



PLAINE VIEW POCKET BEACH (C)

FIELD

ACE 8708729

(20)

28 AUG. MONDAY

1743 S SHORE ISLAND
ROCKY HEAD E TO TOMBOM E.

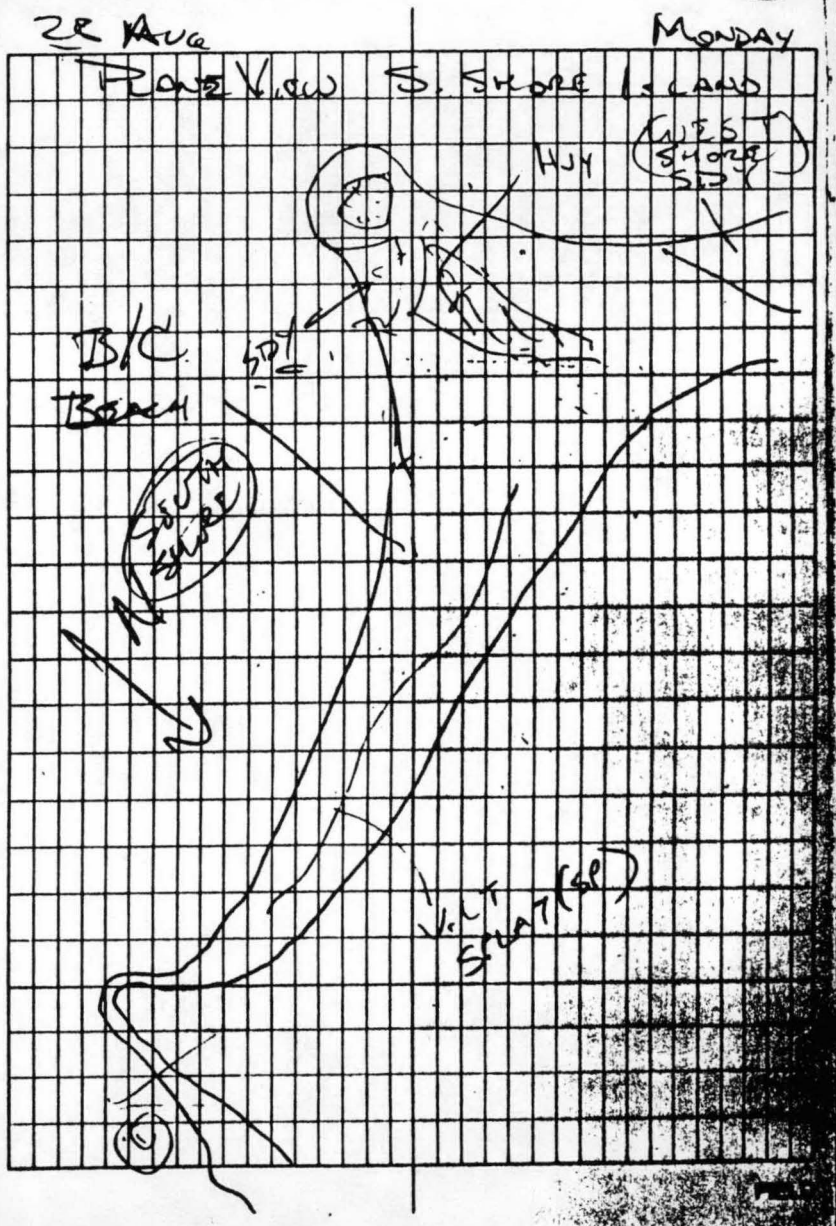
JUST BEHIND ROCKY (TOMBOM) PT, POOLED FRESH MOUSSE TO 10CM THICK AT SURFACE. ASPHALT IS PRESENT. THICKER ACCUMULATIONS WHERE WHEN BOULDERS WATER (TIDAL POOLS) SIT ON TOP OF. POOLED OIL.

1800 WEST SHORE -
BEACH BETWEEN S. SHORE & ∝
SD'Y W/ B/C. V.LT SPLAT (SP)

(21)

2E MAUE MONDAY

PLAN VIEW S. SHORE ISLAND



ACE 8708730 -

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Block (see enclosed map): K9-15

Includes Shoreline Segments: SK-1, SK-2, SK-3, SK-4, SK-5, SK-6, SK-7

Location: Swikshak Bay

Submitted: _____ Date: _____
(for Exxon)

FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. Requirements for safety and the protection of cultural material must be observed.

CC: KISCC

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-15-SK-1

LOCATION: (see enclosed map) South shore of Swikshak Lagoon. AK peninsula (Kodiak)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):

-If necessary, manually remove occasional mousse patty and oiled pebbles or cobbles although natural cleaning should be relatively rapid.

Priorities/Considerations: Class 5-A

Ecological Constraints (from site survey):

-Do not contaminate river with removed oil.
-Avoid traffic in vegetated dunes.
-Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):

-If cleanup is conducted an Archaeological monitor is required.
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708731/B

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 23/89 / Time: 10:30 Observer: Mike Miles

Surveyed From: (Foot)/Boat/(Helio)/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION Left
LOCATION Bank of Swikshak Lagoon SEGMENT I.D. K9-15 - SK-1

LENGTH OF SHORELINE SEGMENT: 1600 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane)

SHORELINE: River / Lagoon
Shoreline Type: SPI/BEA/COV/HRD/STET Slope: LANG/HANG/VER

Wave Exposure: High/Med/(Low) Pebble banks with sand deposits on river bar

Sediment: B___% / C30% / P45% / [illegible]% / S25% / M___% / R___%

Drift Debris on Beach: (Yes)/No (Supra/Upper)/Mid/Lower Type grass + weed

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved (VERY LIGHT)

Total Area of Beach Impact: SU / (SP / H) / M / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment %_____ No. Bands_____ Width_____

Sporadic: (Y)/N Segment %100 Min/Max Dia <3cm Impact Width 4 to 6 m

Est. Oil Thickness where > 1cm: N/A cm SU / SP / UP / MID / LO

Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/(No) No# Layers_____ Oil Weathering_____

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil <1 % Spattered 100 % H/M/L/(VL) Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 0 % SU/SP/VP/MID/LO

Pancake Mousse 40 % SU/(SP/VP)/MID/LO Asphalt Mousse 60 % SU/(SP/VP)/MID/LO

Tar Formation 0 %

Varies with river discharge in upper part of segment

Comments:

SEE ATTACHED COMMENT SHEET

ACE 8708732

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See attached

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) II-2

Sample Numbers Collected: K9-15-SK-1 sample 1 → sand, possibly oiled.

JUNE 23/89
MIKE MILES

SWIKSHAK LAGOON
SEGMENT K9-15-SK-1

COMMENTS
SHORELINE OIL EVALUATION

Segment SK-1 consists of the left bank [looking downstream] of lower Swikshak Lagoon/River. The river bed material generally consists [redacted] and [redacted] cobbles. Localized sand b[redacted] silt/clay veneer do however occur locall[redacted] material consists of marine pebble and c[redacted] interbedded with [redacted] lain by eol[redacted] (spit deposits)

Oil contamination is variable. In some locations 1 or 2 1 to 3 cm tar 'spots' occur over 50 m long sections of riverbank. In other portions of this segment, tar spot densities are higher and small spots can occur almost continuously over [redacted] to 2 m in width and extending over [redacted] 10 to 20 m. [redacted] thin, 10 cm diameter 'pancake mousse' deposits occur intermittently on the surface of some sand bars. Densities are typically very low (0.1-2/m²) and this distribution is [redacted] limited to small areas less than 10-20 m² in extent. [Note the dark band along the edge of the channel is lichen not oil]. ACE 3708734

Manual removal of occasional 'pancake mousse' deposits could be undertaken if desired. Manual removal of [redacted] could be undertaken but river flow [redacted] can be

POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Swikshak Lagoon SITE: South shore OBSERVER: J. Tarpley

LOCATION PREFIX: K9/SK SEG. NO.: K9-15-SK-1 LENGTH: 1600 (M)

DATE: 6/23/89 TIME (HHMM): 1005 TIDE HT.: -0.4 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks Boulder (Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Littorina
Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

OTHER OBSERVATIONS: Shells on beach, No Mytilus observed. This community continues 0.5 mi up river in approximately the same density.

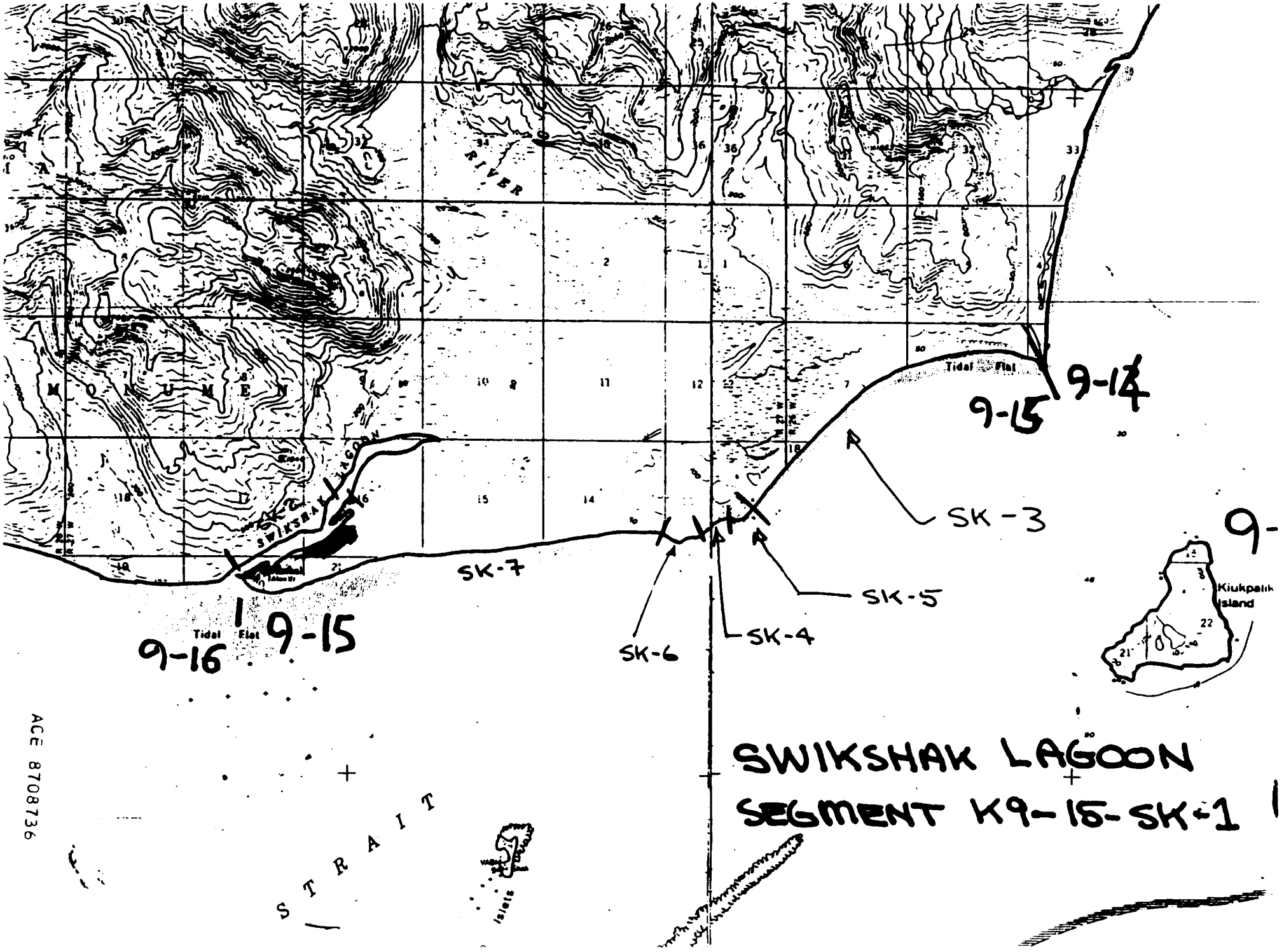
CLEANUP PRECAUTIONS: Avoid grassy dune areas. Do not wash oil into river.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other Red Fox on beach, Bear & Moose Tracks

BIRDS: Magpies, Kittiwakes fly over. Harlequin Ducks moving up & down river

GENERAL OBSERVATIONS: This is a salmon cum river. Heavy siltation (yellow in color). Heavily used by bears. Very light oil splatter on cobble in High IT2.

ACE 8708735


SK-1
SK-2
SK-3
SK-4
SK-5
SK-6
SK-7
9-14
9-15
9-16
Tidal Flat
Kiukpalik Island
SWIKSHAK LAGOON
SEGMENT K9-15-SK-1
ACE 8708736

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-15-SK-2

LOCATION: (see enclosed map) Swikshak Lagoon

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):
-No cleanup recommended subject to FOSC reassessment at a later date due to apparent absence of oil.

Priorities/Considerations: Class 4-A
-Salmon river run.
-Heavily used by bears, fox and waterfowl.
-Segment located in Katmai National Monument.

Ecological Constraints (from site survey):
-Avoid oil contamination of the river, if cleanup should be needed.

Archaeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 5/02/89)

ACE 8708738

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 23 1989 / Time: 12:00 Observer: MIKE MILES

Surveyed From: Foot/Boat/(Helio)/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION
LOCATION SWIKSHAK LAGOON SEGMENT I.D. SK-2

LENGTH OF SHORELINE SEGMENT: 1900 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane)

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STR/(LAGOON) Slope: LANG/HANG/VER

Wave Exposure: High/Med/(Low)

Sediment: B 30 % / C 20 % / P ___ % / G ___ % / S 10 % / M 10 % / R 30 %

Drift Debris on Beach: Yes/(No) Supra/Upper/Mid/Lower Type _____

OIL
Degree of Oiling: Heavy/Moderate/Light/(No Oil)/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment % _____ No. Bands _____ Width _____

Sporadic: Y/(N) Segment % _____ Min/Max Dia _____ Impact Width _____

Est. Oil Thickness where > 1cm: N/A cm SU / SP / UP / MID / LO

Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/(No) No# Layers _____ Oil Weathering _____

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 0 % Spattered 0 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 0 % SU/SP/VP/MID/LO

Pancake Mousse 0 % SU/SP/VP/MID/LO Asphalt Mousse 0 % SU/SP/VP/MID/LO

Tar Formation 0 %

Comments: ACE 8708739

SEE ATTACHED COMMENT SHEET

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See attached

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) JT-2

Sample Numbers Collected: N/A

MIKE MILES
JUNE 23/89

SWIKSHAK LAGOON
SEGMENT K9-15-SK-2

COMMENTS
SHORELINE OIL EVALUATION

Segment SK-2 consists of the right bank [looking downstream] of lower Swiksh[redacted]/ River. The right bank consists of [redacted] materials and [redacted] with bed materials [redacted] bank edge generally being angular cobb[redacted] and local river deposits of sand or finer se[redacted]

This segment was flown at low elevation and no oil was observed, however given the spotty contamination on the left bank, minor amounts of oil may occur in this segment.

[redacted] No clean-up appears to be required at [redacted] however if manual clean-up of oiled debris occurs in Segment SK-2, a walking the shore and picking up any oiled debris or other material which may be found might be advisable.

ACE 8708741

POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Swikshak Lagoon SITE: North Shore OBSERVER: J. Tarpley

LOCATION PREFIX: K9/SK SEG. NO.: K9-15-SK-2 LENGTH: .1900 (M)

DATE: 6/23/89 TIME (HHMM): 1200 TIDE HT.: -0.4 (M)

OILED ZONE: Splash High Medium Low Ø

SUBSTRATUM: (Rocks Boulder Cobble) Gravel (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS:

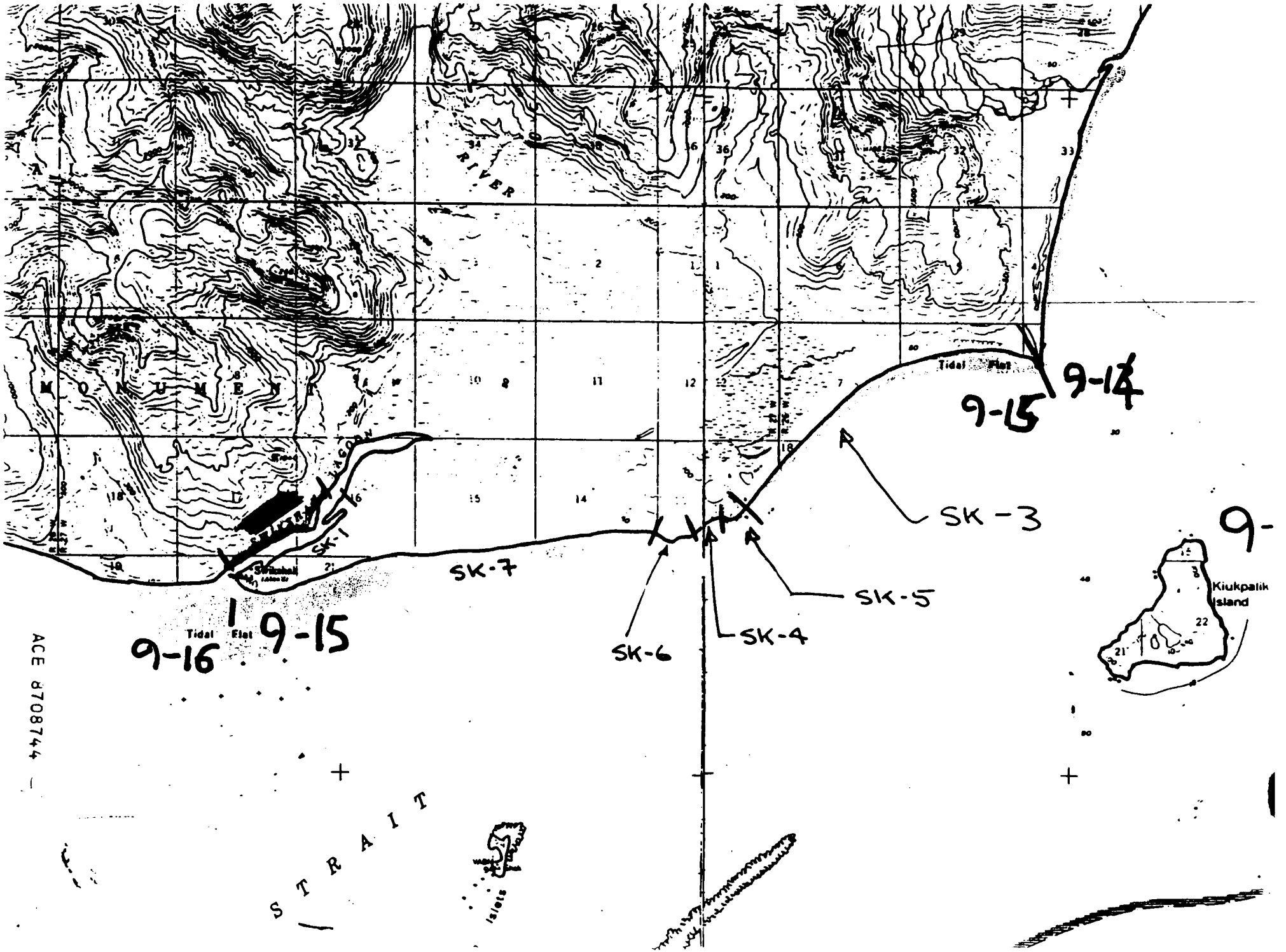
CLEANUP PRECAUTIONS: If there is any oil, do not wash oil into river.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Fox & Bear on shoreline

BIRDS: Gulls/Kittiwakes along river

GENERAL OBSERVATIONS: Yellowish silt in river

Fly over segment. I didnot get out to observed segment on foot.


RIVER
MONUMENT
Tidal Flat
9-14
9-15
SK-3
SK-1
SK-7
SK-5
SK-6
SK-4
9-16
9-15
Kiukpalik Island
STRAIT
ACE 8708744

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-15-SK-3

LOCATION: (see enclosed map) Coast east of Swikshak Lagoon

ADEC NO._____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):
- -Manual removal of oiled debris.
- -Cleaning or removal of lightly oiled sediments not recommended due to high potential for natural cleaning.

Priorities/Considerations: Class 4-B
- -Although critical resources are not immediately present, Swikshak Lagoon behind the dunes is heavily used by bears and waterfowl.
- -Segment located in Katmai National Monument.

Ecological Constraints (from site survey):
- -Avoid traffic on dunes.
- -Avoid oil contamination of lower intertidal zone.
- -Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

A. David McMahon Date: 7/31/89
State Historic Preservation Officer *

EXXON:_____ Date:_____

FOSC:_____ Date:_____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 23 1989 / Time: 12:45 Observer: MIKE NILES

Surveyed From: (Foot) Boat, (Helio) Plane Weather: Sun/(Cloud/Rain)/Snow/Fog

LOCATION COAST EAST OF
LOCATION SWIKSHAK LAGOON SEGMENT I.D. K9-15-SK-3

LENGTH OF SHORELINE SEGMENT: 2400 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane)

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STET Slope: LAND/HANG/VER

Wave Exposure: (High)/Med/Low

Sediment: B___% / C20% / P50% / G___% / S30% / M___% /R___%

Drift Debris on Beach: (Yes)/No (Supra/Upper)/Mid/Lower Type _____

OIL
Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / (H) / M / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment %_____ No. Bands_____ Width_____

Sporadic: (Y)N Segment % 70± Min/(Max) Dia <5cm Impact Width 1-6 m

Est. Oil Thickness where > 1cm: N/A cm SU / SP / UP / MID / LO

Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/(No) No# Layers_____ Oil Weathering_____

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H / (M / L) / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 0 % Spattered 20 % H/M/(L)/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse ~ % SU/SP/VP/MID/LO

Pancake Mousse 20 % SU/SP/(VP)/MID/LO Asphalt Mousse 80 % SU/SP/(VP)/MID/LO

Tar Formation 0 %

ACE 8708746

Comments:

SEE ATTACHED COMMENT SHEET

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See attached

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) JT-2

Sample Numbers Collected: N/A

MIKE MILES
JUNE 23/89

SWIKSHAK LAGOON
SEGMENT K9-15-SK-3

COMMENTS
SHORELINE OIL EVALUATION

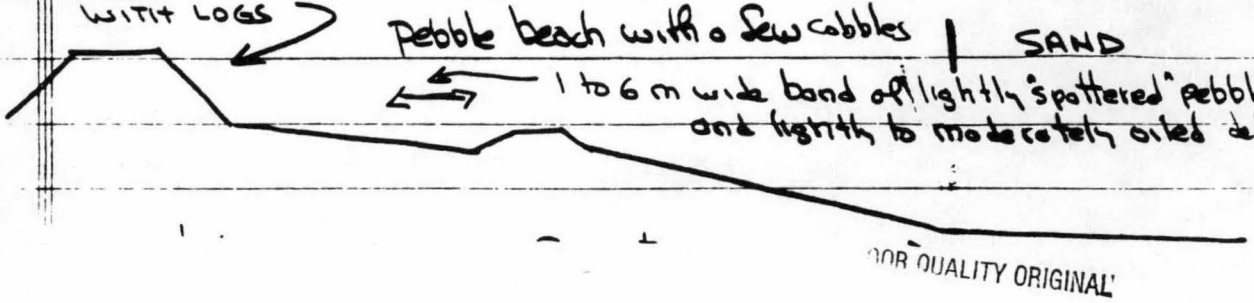
This segment is a high wave energy cobble pebble beach.

Very light to light for "splatters" occu[redacted] a 1-6 m wide band at the hig[redacted]. This area also contains light to m[redacted] oiled debris consisting of pieces of driftwood and drifted seaweed. Comparitively heavier oil concentrations occur in the middle and eastern end of this beach.

Manual removal of oiled debris [redacted] undertaken [redacted] oil occurs [redacted] to warrant' [redacted]ing activities. Small [redacted] of [redacted] could possibly be removed if requested by the N.P.S., otherwise wave action will clean this beach over time.

Representative Cross-Section

ACE 8708748



POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Swikshak Lagoon SITE: Eastern outside shore OBSERVER: J. Tapley

LOCATION PREFIX: K9/SK SEG. NO.: K-9-15-SK-3 LENGTH: 2400 (M)

DATE: 6/23/89 TIME (HHMM): 1215 TIDE HT.: -0.4 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: Rocks Boulder (Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

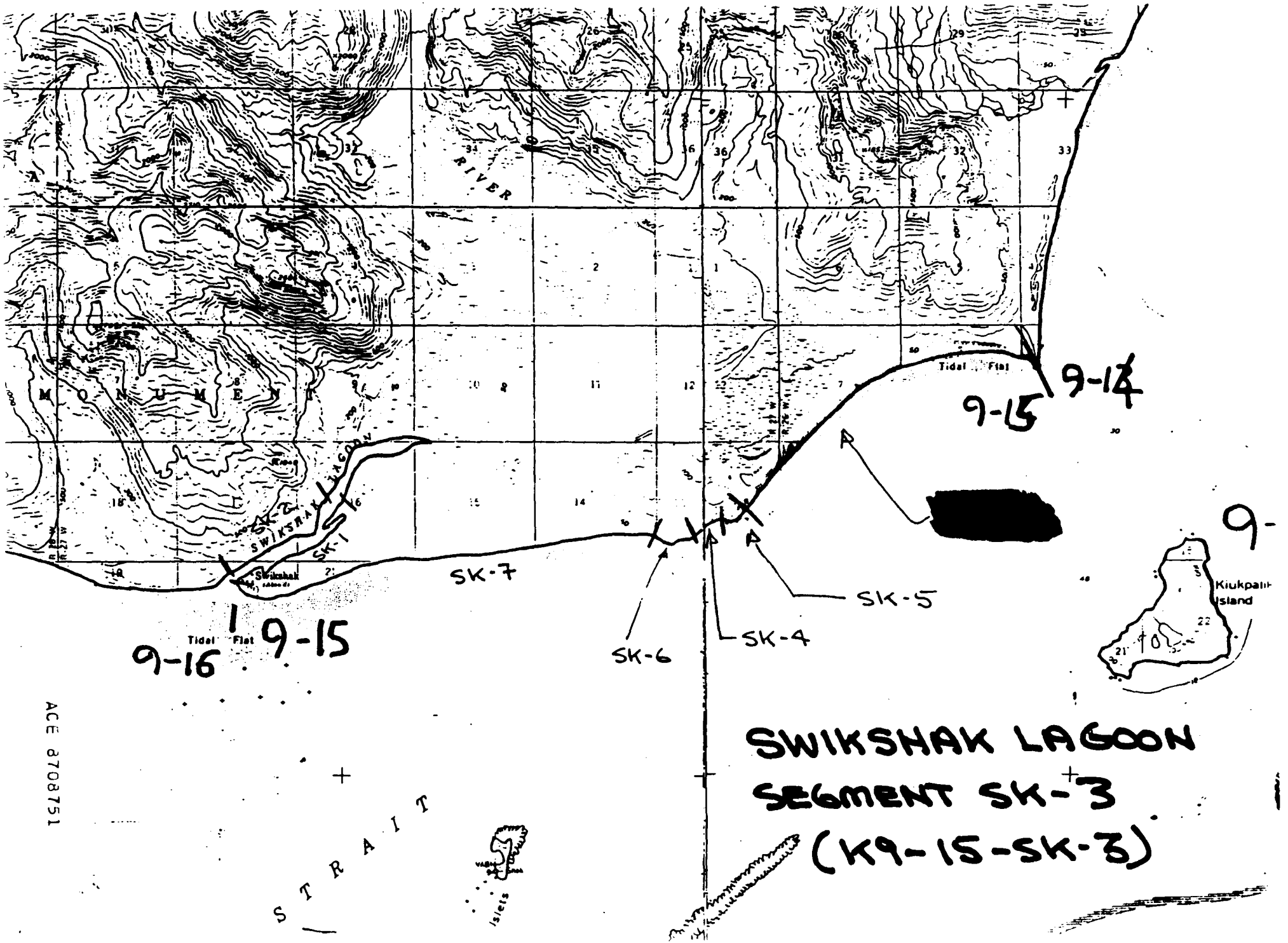
OTHER OBSERVATIONS: Clam shells on beach. Log jam next to vegetated dunes. Very little algal & wood drift material. Clam beds offshore.

CLEANUP PRECAUTIONS: Avoid traffic on vegetated dunes. Avoid oil contamination of lower beach and sand flat.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other NONE

BIRDS: 5 dead oiled birds, 1 bald eagle (live), gulls on beach

GENERAL OBSERVATIONS: High energy beach, lots of cobble turnover. Marsh area behind primary dunes.


RIVER
MONUMENT
SWIKSHAK LAGOON
SK-2
SK-1
SK-7
SK-6
SK-5
SK-4
Swikshak
Tidal Flat
9-16
9-15
9-14
9-15
9-
Kiukpalik Island
STRAIT
ACE 8708751
SWIKSHAK LAGOON
SEGMENT SK-3
(K9-15-SK-3)

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-15-SK-4

LOCATION: (see enclosed map) Coast line east of Swikshak Lagoon. AK Peninsula (Kodiak)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):

-No clean up of lightly oiled subsurface sediments is recommended due to high self cleaning potential (high wave energy). Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 4-B

-Critical resources not immediately present in this segment, although Swikshak Lagoon is present behind dunes and heavily used by wildlife.
-Segment located in Katmai National Wildlife.

Ecological Constraints (from site survey):

-Avoid traffic on dunes.
-Avoid oil contamination of sand flats and clam beds during cleanup.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708752 -

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: June 23 1989 / Time: 13:40 Observer: MIKE MILES

Surveyed From: (Foot)/Boat/(Helio)/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION COAST EAST OF
LOCATION SWIKSHAK LAGOON SEGMENT I.D. K9-15-SK-4

LENGTH OF SHORELINE SEGMENT: 500 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane)

SHORELINE:
Shoreline Type: (SPI/BEA)/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: (High)/Med/Low

Sediment: B 10 % / C 10 % / P 30 % / G ___ % / S 30 % / M ___ % /R 20 %

Drift Debris on Beach: (Yes)/No [Supra/Upper]/Mid/Lower Type Logs and Seaweed

OIL
Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved

Total Area of Beach Impact: SU / [SP / H / M] / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment %_____ No. Bands _____ Width_____

Sporadic: (Y)/N Segment %_____ Min/(Max) Dia <5cm Impact Width 30

Est. Oil Thickness where > 1cm: 0 cm SU / SP / UP / MID / LO

Est. Oil ~~Penetration~~ burial: >20 _____cm SU / (SP) / UP / MID / LO

Layers? Yes/(No) No. Layers_____ Oil Weathering_____

Drift Debris Oiled ? (Yes)/No [Supra/Upper]/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 0 % Spattered 100 % H/M/(L)/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 0 % SU/SP/VP/MID/LO

Pancake Mousse 20 % SU/(SP/VP)/MID/LO Asphalt Mousse 80 % SU/[SP/VP/MID]/LO

Tar Formation 0 %

Comments: ACE 8708753

SEE ATTACHED COMMENT SHEET

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See attached

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) JT-2

Sample Numbers Collected: N/A

Mike Miles
June 23/99

COAST EAST OF SWIKSHAK LAGOON
SEGMENT K9-15-SK-4

COMMENTS -
SHORELINE CLEANUP PROGRAM

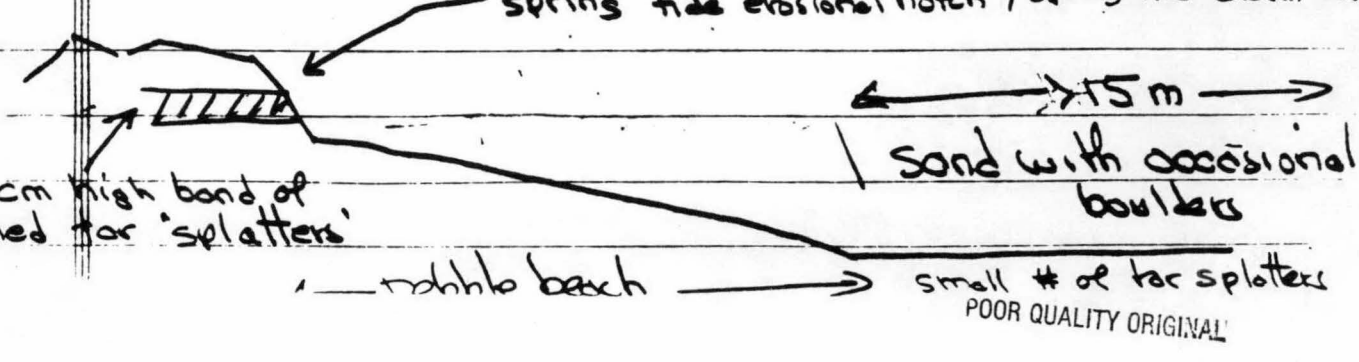
This is a high energy pebble/cobble beach with a low gradient sandy lower I.T.Z. Rocky headlands occur at each end of the beach.

A >20 cm deep band of buried 'spots' occur on the face of the tide/storm berm. A small number of tar spots also occur on the occasional large boulders in the sandy lower ITZ.

Given the buried nature of the oil on this beach manual clean-up is probably not appropriate. Wave action will eventually clean this. Relocation of the oiled pebbles to the surf zone would however increase the rate of beach cleaning.

ACE 8708755

Representative Cross Section



POOR QUALITY ORIGINAL

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Swikshak Lagoon SITE: Coast East of Lagoon OBSERVER: J. Tarpley

LOCATION PREFIX: K9/SK SEG. NO.: K9-15-SK-4 LENGTH: 500m (M)

DATE: 6/23/89 TIME (HHMM): 1325 TIDE HT.: 0.0 (M)

OILED ZONE: Splash High (Medium) Low

SUBSTRATUM: Rocks (Boulder) (Cobble) Gravel (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

OTHER OBSERVATIONS: Some Enteromorpha present on the tops of boulders. Clam beds offshore. Shells on beach.

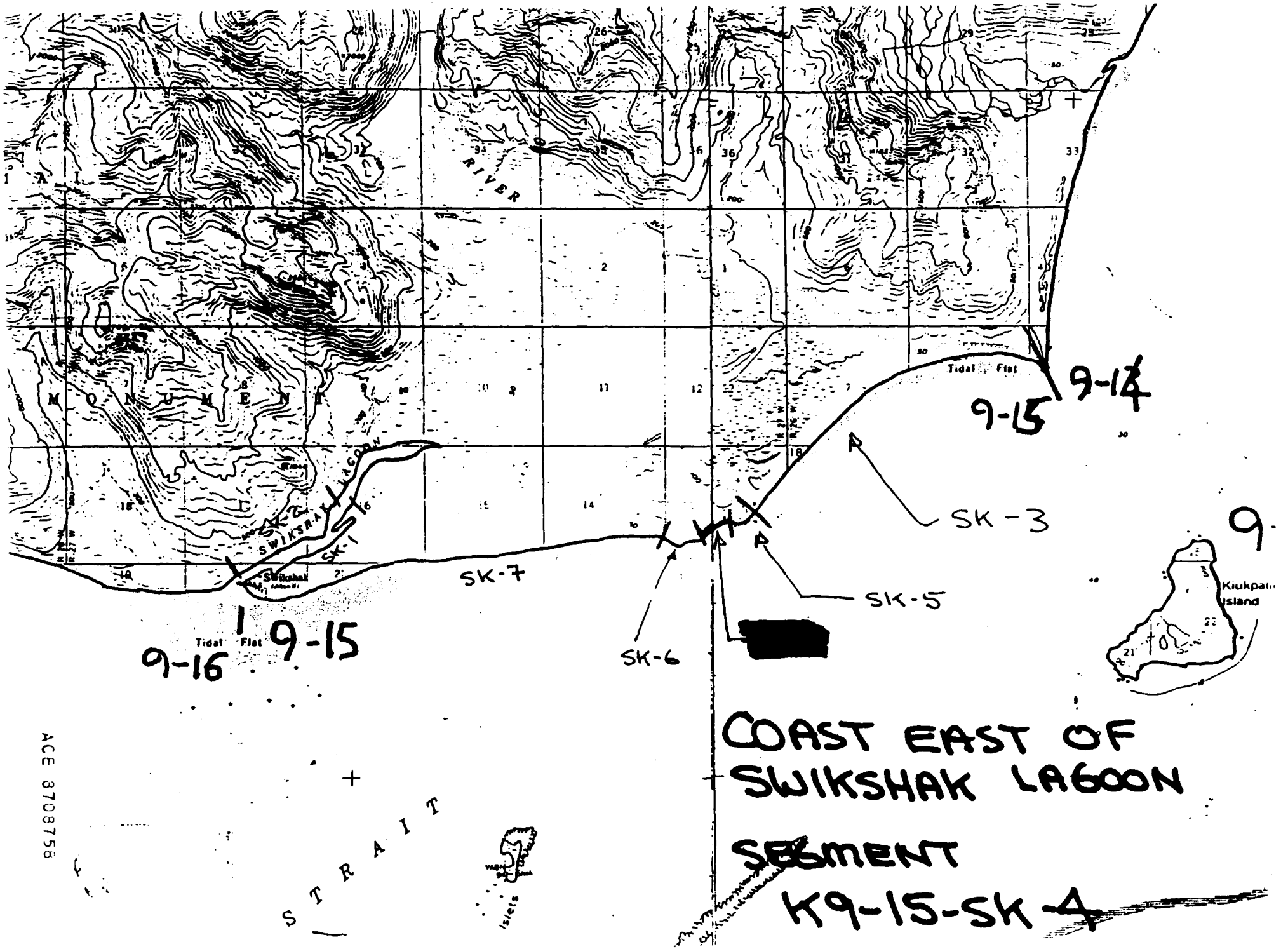
CLEANUP PRECAUTIONS: Avoid traffic on vegetated dunes

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other None

BIRDS: None

GENERAL OBSERVATIONS: Oil splatter mid ITZ

ACE 8708756


SK-1
SK-2
SK-3
SK-5
SK-6
SK-7
SWIKSHAK LAGOON
Swikshak
Tidal Flat
9-16
9-15
9-14
Kiukpalik Island
STRAIT
ACE 3708758
COAST EAST OF
SWIKSHAK LAGOON
SEGMENT
K9-15-SK-4

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-15-SK-5

LOCATION: (see enclosed map) Coastline east of Swikshak Lagoon AK Peninsula, (Kodiak)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):
- -Manual removal of free oil in small area at east end of segment
- -Relocation of oiled sediments to surf zone if acceptable

Priorities/Considerations: Class 3-B
- -Critical resources not immediately present, but Swikshak Lagoon behind beach is heavily used by wildlife.
- -Segment located within Katmai National Monument.

Ecological Constraints (from site survey):
- -Avoid contaminating lower intertidal zone and clam beds.
- -Avoid traffic on dunes/berm.
- -Work at mid-tide plus or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
No access to forest/upland zone by beach crews during cleanup.
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 7/31/89
State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708759

(version 5/16/89)
JUNE 23 **SHORELINE OIL EVALUATION FORM - KODIAK**

Date: 1989 / Time: 13:57 Observer: MIKE MILES

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION HEADLAND EAST OF
LOCATION SWIKSHAK LAGOON SEGMENT I.D. K9-15-SK-5

LENGTH OF SHORELINE SEGMENT: 400 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:
Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B__% / C20% / P30% / G__% / S__% / M__% /R50%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Kelp and small woody debris

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION
Continuous: Y/N Segment % <5 No. Bands 1 Width 3-5m

Sporadic: Y/N Segment % 15± Min/Max Dia <5cm Impact Width 6-8m

Est. Oil Thickness where > 1cm: 2 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 20 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers 1 Oil Weathering Mousse

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 20 % Spattered 80 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 75 % SU/SP/VP/MID/LO

Pancake Mousse 15 % SU/SP/VP/MID/LO Asphalt Mousse 10 % SU/SP/VP/MID/LO

Tar Formation 0 %

Comments:

SEE ATTACHED COMMENT SHEET

ACE 8708760

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries see attached

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) JT-2

Sample Numbers Collected: N/A

MIKE MILES — COAST EAST OF SWIKSHAK LAGOON
JUNE 23, 1989 — SEGMENT K9-15-SK-5

COMMENTS
SHORELINE OIL EVALUATION

This segment consists of the rocky headland between beachs SK-3 and SK-4.

with a pebble lower ITZ located in the area

No oil occurs on this segment except [redacted] 8m wide by 10 m long area on the [redacted] of the headland. This area is nearly com[redacted] coated with oil which has penetrated [redacted] pebble beach for approximately 20 cm. Free oil occurs in some portions of this area.

Sufficient oil occurs in this localized area to justify clean-up. Beach washing techniques are likely inappropriate as the lower to mid ITZ is [redacted] and it would be difficult to recover [redacted] this rocky/pebbly setting. Some means of [redacted] removing this material +/or washing it on site and replacing it may be appropriate. Rates of cleaning by wave action could be accelerated by moving this contaminated material into the surf zone. This however could result in secondary oil contamination.

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Swikshak Lagoon SITE: ~~East~~ east of Lagoon OBSERVER: J. Tarpley

LOCATION PREFIX: K9/SK SEG. NO.: K9-15-SK-5 LENGTH: 400 (M)

DATE: 6 / 23 / 89 TIME (HHMM): 1335 TIDE HT.: +0.25 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Littorina: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

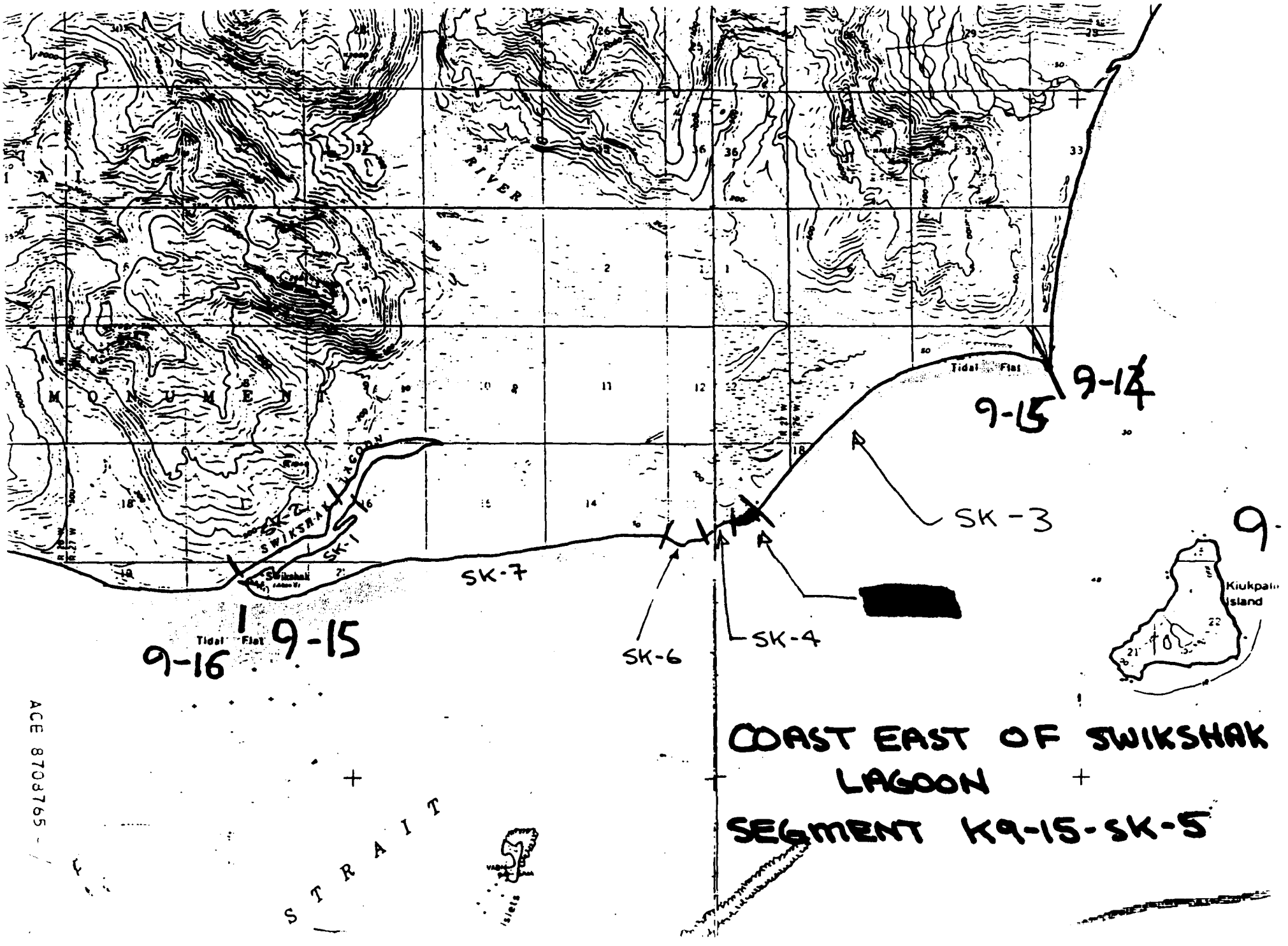
OTHER OBSERVATIONS: Enteromorpha & other algae on rocks. No Fucus present. Shell debris high on beach. Log line adjacent to sand dunes on berm. Algal drift present but not oiled

CLEANUP PRECAUTIONS: Avoid traffic on dunes/berm. Avoid oil contamination on lower ITZ.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other NONE

BIRDS: NONE

GENERAL OBSERVATIONS: Thick mousse and splatter in high ITZ behind rocks. High energy exposed rocky headland.



COAST EAST OF SWIKSHAK LAGOON

SEGMENT K9-15-SK-5

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-15-SK-6

LOCATION: (see enclosed map) First two headlands east of Swikshak Lagoon.

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/25/89

Recommended Cleanup Activity(ies):
-No cleanup recommended due to very light oiling. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-B

Ecological Constraints (from site survey):

Archaeological Constraints (from site survey):
-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan
State Historic Preservation Officer * Date: 7/31/89

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8703766

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: JUNE 25 1999 / Time: 15:30 Observer: MIKE MILES

Surveyed From: (Foot)/Boat/(Helio)/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION FIRST TWO HEADLAND EAST OF SWIKSHAK SEGMENT I.D. K9-15-SK-6

LENGTH OF SHORELINE SEGMENT: 600 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane — Calm day only

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/(HLD)/STRT Slope: LANG/[HANG]/VER

Wave Exposure: (High)/Med/Low

Sediment: B 5 % / C 25 % / P 50 % / [illegible] % / S 15 % / M ___ % / R < 5 %

Drift Debris on Beach: (Yes)/No [Supra]/Upper/Mid/Lower Type LOGS AND DRIFTED WEEDS

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/[Very Light]

Total Area of Beach Impact: SU / SP / [H] / [M] / L

OIL DISTRIBUTION

Continuous: Y/(N) Segment %_____ No. Bands_____ Width_____

Sporadic: (Y)/N Segment % 10± Min/(Max) Dia < 2 Impact Width 8-10 m ±

Est. Oil Thickness where > 1cm: N/A cm : SU / SP / UP / MID / LO

Depth below top seds

Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/(No) No# Layers_____ Oil Weathering_____

Drift Debris Oiled ? (Yes)/No Supra/Upper/Mid/Lower Amount: H / M / L / (VL)

OIL MORPHOLOGY

Pooled Oil 0 % "Free" Oil 0 % Spattered 100 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)

Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 0 % SU/SP/VP/MID/LO

Pancake Mousse 0 % SU/SP/VP/MID/LO Asphalt Mousse 100 % SU/SP/[VP]/[MID]/LO

Tar Formation 0 %

ACE 8708767

Comments:

This segment consists of 2 small rocky headlands and the intervening high wave energy enviornment pebble beach. This beach has a well developed spring hd / storm berm.

Occassional small weathered tar "splotch" < 5cm in diameter occur on large boulders / bedrock outcrops in the mid ITZ. No oil was observered in the upper ITZ or along the edge of the spring hd / storm berm. Small quantities of very lightly oiled debris occurs along the upper ITZ.

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See attached

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) 21C-15

Sample Numbers Collected: N/A

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: East of SWIKSHAK LAGOON K9-13 SITE: _____ OBSERVER: D McCormick

LOCATION PREFIX: SK SEG. NO.: 6 LENGTH: 600 (M)

DATE: 6/25/89 TIME (HHMM): 1515 TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/(N) Dense (Y)/N Sparse Y/(N) None Y/(N)

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Dense on boulders

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

OTHER OBSERVATIONS: some clam beds; Enteromorpha and Laminaria in tide pool.

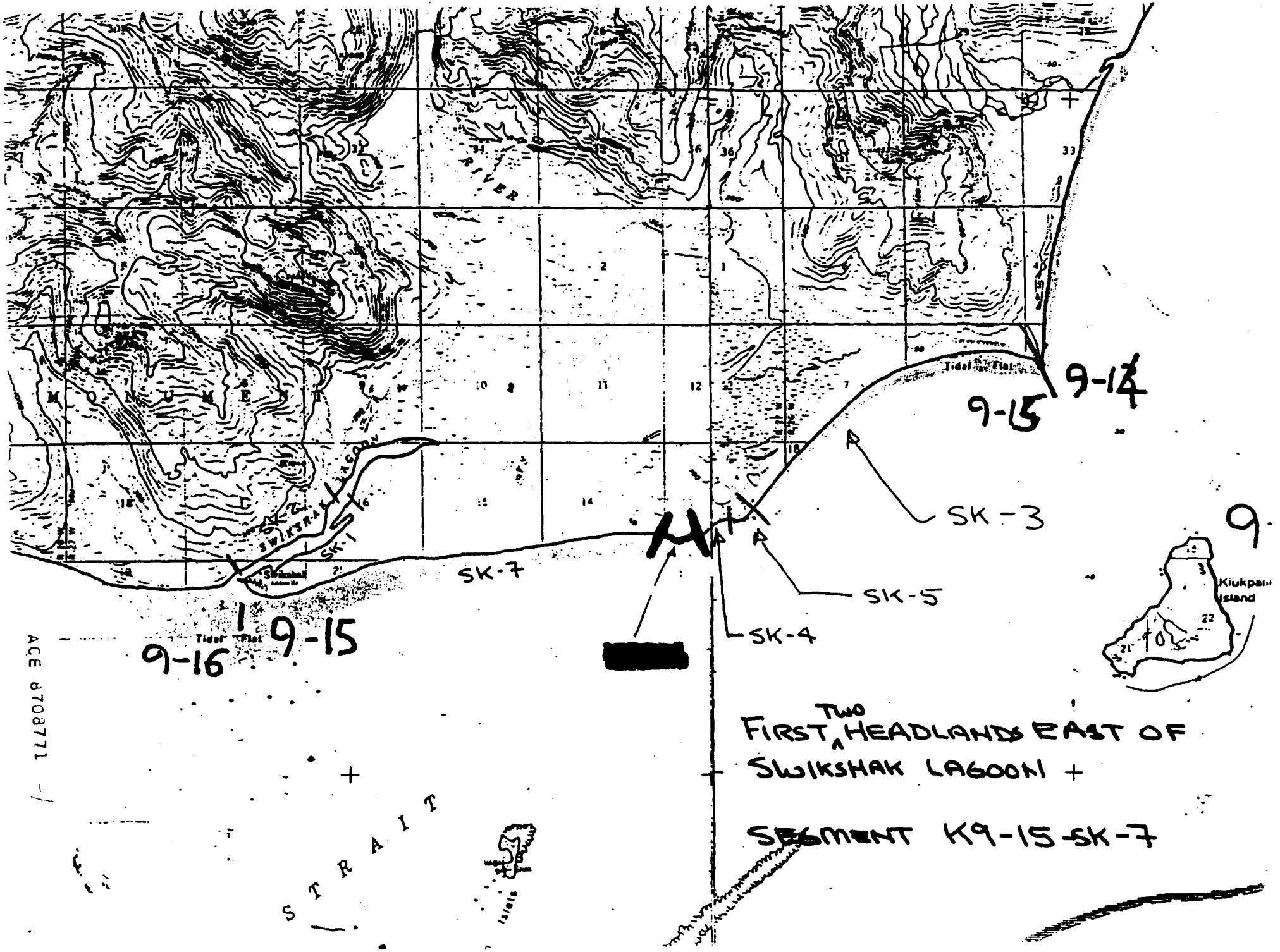
CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ___ Harbor Seals 1 Sea Lions ___ Whales ___
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Oil here is very light splatter only, in mid ITZ - no adversely affected biota seen.

ACE 8708769



FIRST TWO HEADLANDS EAST OF SWIKSHAK LAGOON +

SEGMENT K9-15-SK-7

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/9/89 SHORELINE SEGMENT K9-15-SK-7

LOCATION: (see enclosed map) Beach adjacent to Swikshak Lagoon

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/25/89

Recommended Cleanup Activity(ies):

-No cleanup recommended due to very light contamination, high natural cleaning potential (wave energy) and ecological constraints discussed below. Subject to FOSC reassessment at a later date.

Priorities/Considerations: Class 5-B

Ecological Constraints (from site survey):

-Cleanup may result in disturbance to large population of brown bears known to exist in Swikshak Lagoon.

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahon Date: 7/31/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 5/16/89)

JUNE 25

SHORELINE OIL EVALUATION FORM - KODIAK

Date: 1989 / Time: 15:44 Observer: MIKE MILES

Surveyed From: (Foot)/Boat/(Helio)/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION BEACH ADJACENT TO
LOCATION SWIKSHAK LAGOON SEGMENT I.D. K9-15-SK-7

LENGTH OF SHORELINE SEGMENT: 5200 m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane) calm days only

SHORELINE:
Shoreline Type: SPI/(BEA)/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: (High)/Med/Low

Sediment: B 5 % / C 10 % / P 55 % / [illegible] % / S 30 % / M ___ % / R ___ %

Drift Debris on Beach: (Yes)/No (Supra/Upper)/Mid/Lower Type logs + drifted weed

OIL
Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/(Very Light)

Total Area of Beach Impact: SU / SP /(H)/ M / L

OIL DISTRIBUTION
Continuous: Y/(N) Segment %_____ No. Bands_____ Width_____

Sporadic: (Y)/N Segment % 100 Min/Max Dia <5cm Impact Width 1-4

Est. Oil Thickness where > 1cm: N/A cm : SU / SP / UP / MID / LO
Depth below top seds
Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/(No) No# Layers_____ Oil Weathering_____

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H / M / L /(VL)

OIL MORPHOLOGY
Pooled Oil 0 % "Free" Oil 0 % Spattered 100 % H/M/L/VL Sheen 0 %

OIL WEATHERING (OW)
Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 0 % SU/SP/VP/MID/LO

Pancake Mousse 50 % SU/SP/(VP)/MID/LO Asphalt Mousse 50 % SU/SP/(VP)/MID/LO

Tar Formation 0 %

Comments:

ACE 8708773

This long sandy/pebbly beach is in a high wave energy environment and there is a well defined spring tide/storm berm.

Oiling on this beach consists of very small quantities of lightly oiled drift and the occasional mousse "pancake".

POOR QUALITY ORIGINAL

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) DMC-15

Sample Numbers Collected: N/A

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Beach Adjacent to Swiksnak Lagoon K9-15- SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: SK SEG. NO.: 7 LENGTH: 5200 (M)

DATE: 6/25/89 TIME (HHMM): 1550 TIDE HT.: +1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Mytilus (Mussels): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Balanus (Barnacles): Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Littorina Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

Limpets: Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

OTHER OBSERVATIONS: crab carapaces; cockle shells; sand dollars; Gastrotons, razor clam beds; 2 fox on beach.

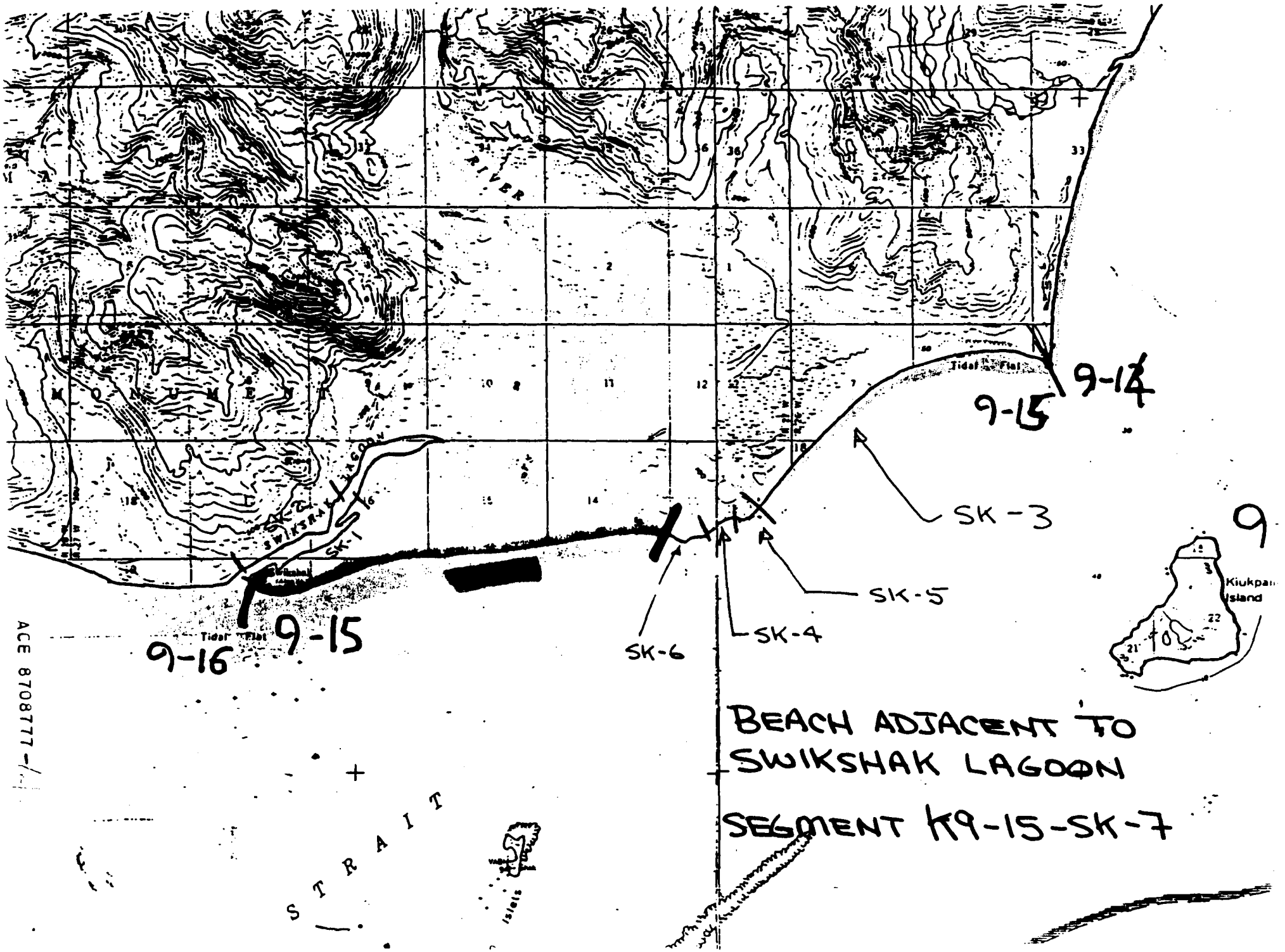
CLEANUP PRECAUTIONS: None.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Fox (2); 1 brown bear ¼ mi. inland

BIRDS: gulls

GENERAL OBSERVATIONS: Very light oil in drift debris - no biota in mid-high zone - clam beds in lower ITZ. Large population of bears in Lagoon. High energy beach.

ACE 8708775


9-14
9-15
SK-3
SK-5
SK-4
SK-6
9-15
9-16
SK-1
SWIKSHAK LAGOON
Tidal Flat
Tidal Flat
STRAIT
Kiukpalik Island
ACE 8708777-/
BEACH ADJACENT TO
SWIKSHAK LAGOON
SEGMENT K9-15-SK-7

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K9-16

ACE 7963985

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/04/89 SHORELINE SEGMENT K9-16-BR-1

LOCATION: (see enclosed map) Big River Bay, Swikshak

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/04/89

Recommended Cleanup Activity(ies):

-Manual removal of oil deposits including mousse and tar patties (maps #1-3), mousse and tar from between cobbles (maps #1 and #3) and oiled drift material along supertidal zone (maps #2 and #3). Do not remove logs.

Priorities/Considerations: Class 3-A

Ecological Constraints (from site survey):

-Take precautions to avoid harassing or disturbing sensitive brown bear habitat.

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 8/11/89

State Historic Preservation Officer *

EXXON: Kay L. Lane Date: 8/12/89

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708778 1/

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/04/89 SHORELINE SEGMENT K9-16-BR-1

LOCATION: (see enclosed map) Big River Bay, Swikshak

ADEC NO. SHORELINE ASSESSMENT DATE: 8/04/89

Recommended Cleanup Activity(ies):

-Manual removal of oil deposits including mousse and tar patties (maps #1-3), mousse and tar from between cobbles (maps #1 and #3) and oiled drift material along supertidal zone (maps #2 and #3). Do not remove logs.

Priorities/Considerations: Class 3-A

Ecological Constraints (from site survey):

-Take precautions to avoid harassing or disturbing sensitive brown bear habitat.

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date:

EXXON: Date: 8/10/89

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

KODIAK

DRAFT

ACE 8708779

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE: 4 Aug 1989 SHORELINE SEGMENT: K-9-16-BR-1

LOCATION: (see enclosed map) Big River Bay, Switshak

ADEC No. _____ SHORELINE ASSESSMENT DATE: 4 Aug 1989

Recommended Cleanup Activity(ies):

- Manual removal of oil deposits including mousse and tar patties (maps 1-3), mousse and tar from between cobbles (maps 1 and 3) and oiled drift material along supratidal zone (maps 2 and 3). Do not remove logs.

Priorities Considerations: Class 3A

Ecological Constraints (from site survey): ~~This is~~ sensitive brown bear habitat. Take precautions to avoid harassing or disturbing ~~them~~.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 21 April, 1989 as amended.

_____ Date: _____
State Historic Preservation Officer *

ACE 8708780

EXXON: _____ Date: _____

FOSC: _____ Date: _____

* Signiture required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

A. General

1. Date: 7 Aug 1989 2. Time: 0920-1110 3. Observer: Duncan M. FitzGerald

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather: (Sun)/Cloud/Rain/Snow/Fog

6. Location Big River Bay Switchback 7. Segment #: K-9-16-BR-1

8. Length of shoreline segment: 4000 yds 9. Tidal Stage ± 1ft ft. below msl

10. Access: (Foot)/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 85 %

12. Access Restrictions: headland portions of bedrock peninsula

B. Shoreline

13. Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT/(CLF)/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/Low

16. Sediment: B 10 % / C 30 % / P 10 % / G 5 % S 25 % / M __ % / R 20 %

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type driftwood and seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/(Light)/Very Light/No Oil Observed

19. Area of Beach Impact: Width of Band: 1-4 yds
Continuous: Total % of Segment 25
Sporadic: Total % of Segment 75
No Oil: Total % of Segment _____

20. Est. Oil Thickness where >1in: 2-6 in 21. Est. Oil Penetration: 2-4 in

22. Pooled Oil: ____ % "Free" Oil: 5 % Coated: H ___ % / M ___ % / L 95 %

23. Fresh _____ % Mousse 60 % Tar Formation: 40 %

24. Drift Debris Oiled? (Yes)/No (Sup)/Up/Mid/Low Amount: _____ H/(M)/L

Comments:
Oiling of this beach is light to moderate consisting of 1) small to large mousse and tar patties, 2) mousse and tar covering cobbles, 3) mousse buried beneath cobbles and 4) tar covered drift material. See accompanying maps.

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse		%
Weathered	60	%
Tar	40	%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:	1000	1-2
Light:	1000	2-5
Moderate:	1600	2-4
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth
pooled/continuous								
coating/ splat	✓	✓				sporadic	1-2	
cracks / crevices		✓				30	1-3	
patties (>10cm diameter)	✓	✓	✓	✓	2-6	] 2600	2-5	3-6 Inches
balls (< 10cm diameter)	✓	✓	✓	✓	1-2	]		
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: 2600 yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/(Medium)/Low

DOCUMENTATION:

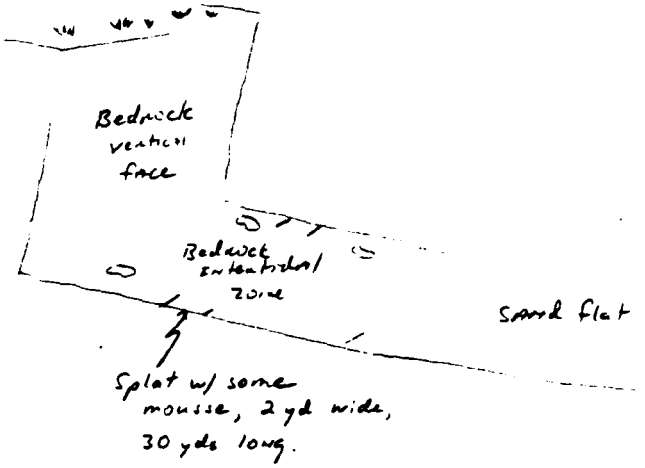
(Map)/Aerial photo marking segment boundaries See Attached

VTR: Y/(N) Tape Number (s) _____

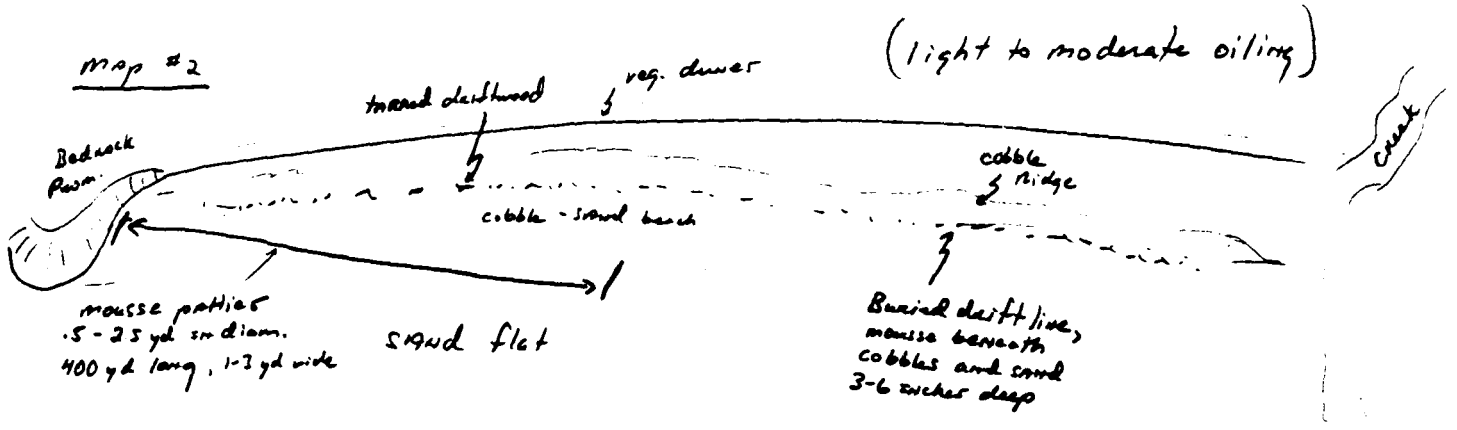
Photography: (Y)/N Roll Number (s) DMC-26

Additional Comments:

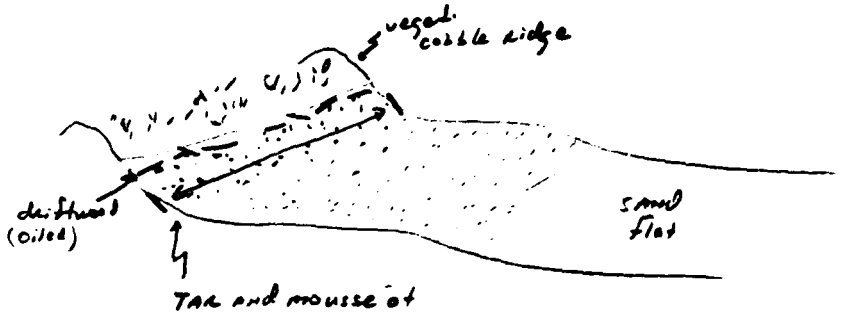
Map #1 Type Section (lightly oiled)



Map #2 (light to moderate oiling)



Map #3 Type Section (moderately oiled)



This type of oiling begins just north of the small creek and continues for approximately 1300 yds.

ACE 8708783

ECOLOGICAL EVALUATION

BIG RIVER BAY

LOCATION: SWIKSHAK AK PENINSULA SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K-9-16-BR- SEG. NO.: 1 LENGTH: 4000 (M)

DATE: 8/4/89 TIME (HHMM): 0920 TIDE HT.: +2.0 Ft

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on bedrock portion of segment only; Dense & continuous

Mytilus (Mussels): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on bedrock portion of segment only; dense & continuous

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on bedrock portion of segment; dense & continuous

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed

Limpets: Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Beach fauna: shells of Mya, Protothaca, Saxidomus, cockles, razor clams, Dungeness crabs. Ulva, Fucus, Laminaria & Alaria Kelp. Cyanea and Aurelia jellyfish. Found 6 dead oiled birds in storm debris.

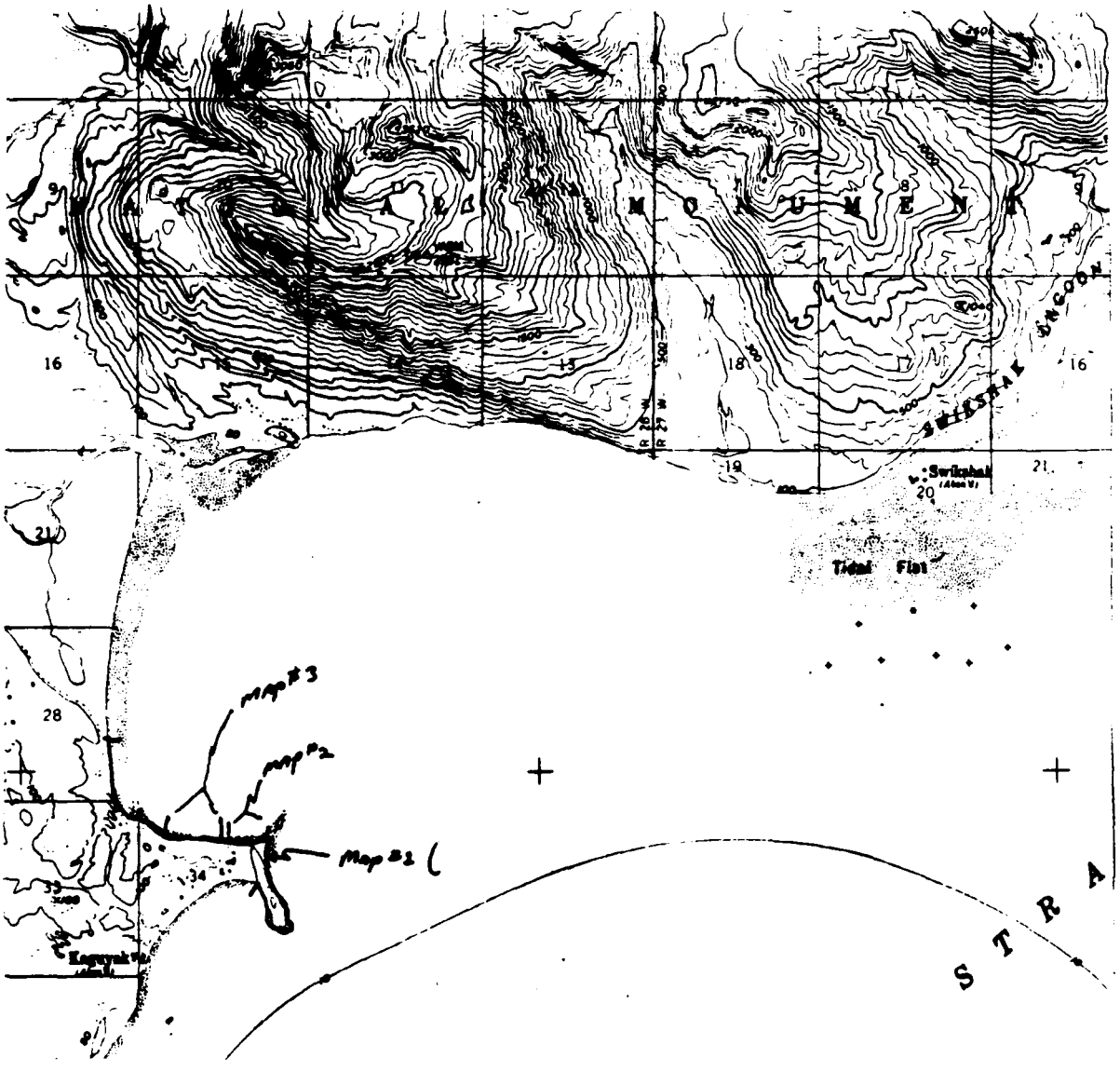
CLEANUP PRECAUTIONS: Be aware of bears in the area and take precautions to avoid harassing them.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Brown Bears (?)

BIRDS: Merlin

GENERAL OBSERVATIONS: Locally moderate but overall light oil conditions exist on this segment primarily as drying mousse pancakes - some several feet in diameter. Also there is a lot of oily drift debris in upper ITZ - most is buried under the pebbles. This segment can be easily cleaned by removing mousse pancakes and oily pebbles in upper ITZ.

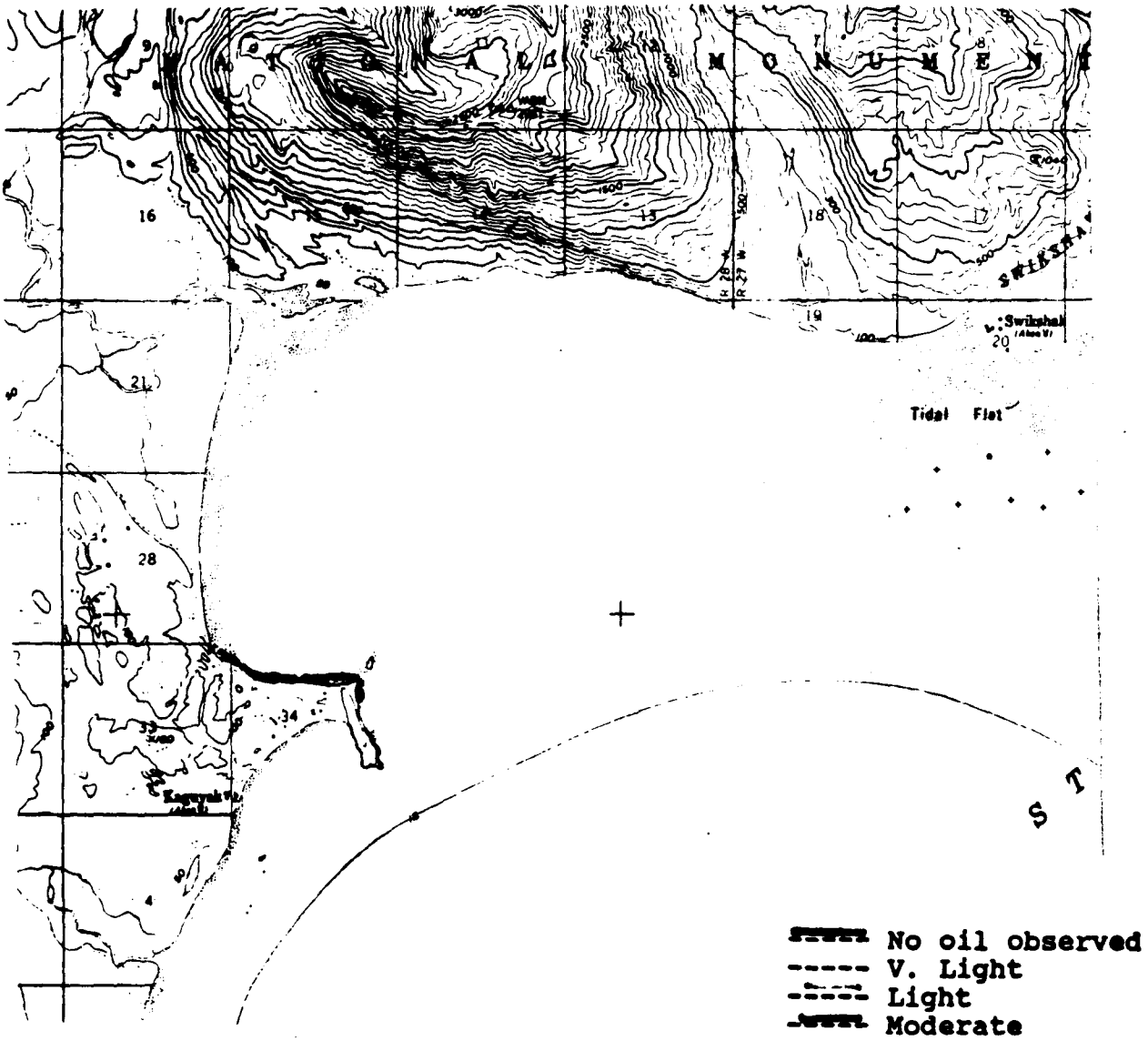
K-9-16-BR-1



Walked entire segment

ACE 8708786

K-9-16-BIC-1



ACE 8708787 -/

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/04/89 SHORELINE SEGMENT K9-16-BR-2

LOCATION: (see enclosed map) Big River Bay, Swikshak

ADEC NO. SHORELINE ASSESSMENT DATE: 8/04/89

Recommended Cleanup Activity(ies):

-No cleanup recommended due to very sporadic, very light oiling conditions and ecological constraints given below. Subject to FOSC reassessment at a later date.

Priorities/Considerations:

Ecological Constraints (from site survey):

-Due to extremely light oil conditions and sensitive brown bear habitat, cleanup is not warranted.

Archaeological Constraints (from site survey):

-If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 8/11/89
State Historic Preservation Officer *

EXXON: Date: 8/12/89

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/04/89 SHORELINE SEGMENT K9-16-BR-2

LOCATION: (see enclosed map) Big River Bay, Swikshak

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/04/89

Recommended Cleanup Activity(ies):

-No cleanup recommended due to very sporadic, very light oiling conditions and ecological constraints given below. Subject to FOSC reassessment at a later date.

Priorities/Considerations:

Ecological Constraints (from site survey):

-Due to extremely light oil conditions and sensitive brown bear habitat, cleanup is not warranted.

Archaeological Constraints (from site survey):

-If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: _____

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

KODIAK

DRAFT

ACE 8708739

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE: 4 Aug 1989 SHORELINE SEGMENT: K-9-16-BR-2

LOCATION: (see enclosed map) Big River Bay, Switchak

ADEC No. _____ SHORELINE ASSESSMENT DATE: 4 Aug 1989

Recommended Cleanup Activity(ies):

- No cleanup recommended due to very sporadic, very light oiling conditions and ecological constraints given below
- Subject to FOSC reassessment at a later date

Priorities Considerations: N/A

Ecological Constraints (from site survey): Due to extremely light oil conditions and sensitive brown bear habitat, clean-up is not warranted.

Archeological Constraints (from site survey): If cleanup is conducted and heretofore undiscovered cultural materials are uncovered ~~during cleanup~~, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 21 April, 1989 as amended.

_____ Date: _____

State Historic Preservation Officer *

ACE 8708790

EXXON: _____ Date: _____

FOSC: _____ Date: _____

* Signiture required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

A. General

1. Date: 4 Aug 1989 2. Time: 1110-1500 3. Observer: O. M. FitzGerald

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather: (Sun)/Cloud/Rain/Snow/Fog

6. Location Big River Bay (Northside) Switchback 7. Segment #: K-9-16-BR-2

8. Length of shoreline segment: 9900 yds 9. Tidal Stage ± 3-4 ft. above MLW

10. Access: (Foot)/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 75 %

12. Access Restrictions: Difficult at boulder headland areas

B. Shoreline

13. Shoreline Type: (SPI)/(BEA)/(COV)/(HLD)/STRT/(CLF)/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: High/(Med/Low)

16. Sediment: B 35 % / C 15 % / P 5 % / G 5 % S 25 % / M __ % / R 15 %

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type driftwood and seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/(Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: 1-2 yds
Continuous: Total % of Segment _____
Sporadic: Total % of Segment 10
No Oil: Total % of Segment 90

20. Est. Oil Thickness where >1in: ✓ in 21. Est. Oil Penetration: ✓ in

22. Pooled Oil: _____ % "Free" Oil: _____ % Coated: H __ % / M __ % / L 100 %

23. Fresh _____ % Mousse _____ % Tar Formation: 100 %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: _____ H/M/L

Comments:
This segment is mostly oil free with some splat occurring along approximately 10% of the shoreline

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh	_____	%
Mousse	_____	%
Weathered	_____	%
Tar	100	%
	100	%

26. Total Oil Coverage

	Length (yd)	Width (yd)
Very Light:	800	1-3
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length (yd)	Width (yd)	Burial Depth
pooled/continuous								
coating/ splat	x	x				800	1-3	
cracks / crevices								
patties (>10cm diameter)								
balls (< 10cm diameter)								
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: _____ yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

None

29. Remobilization Potential: High/Medium/(Low)

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: Y/(N) Tape Number (s) _____

Photography: (Y)/N Roll Number (s) DMC-27

Additional Comments:

_____

_____

_____

_____

_____

_____

_____

_____

version: 4/24/89

ECOLOGICAL EVALUATION

BIG RIVER BAY

LOCATION: SHUKSHAK, AK PENINS. SITE: _____ OBSERVER: D. McCORMICK

LOCATION PREFIX: K-9-16-BR- SEG. NO.: 2 LENGTH: 9900 (M)

DATE: 8/4/89 TIME (HHMM): 1100 TIDE HT.: -0.75 ft (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on northern section of segment. Description applies to this part.

Mytilus (Mussels): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on northern section of segment. " " " "

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on northern section of segment. " " "

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Aurelia, Semlones, Enteromorpha, Ulva, Laminaria, Alaria.

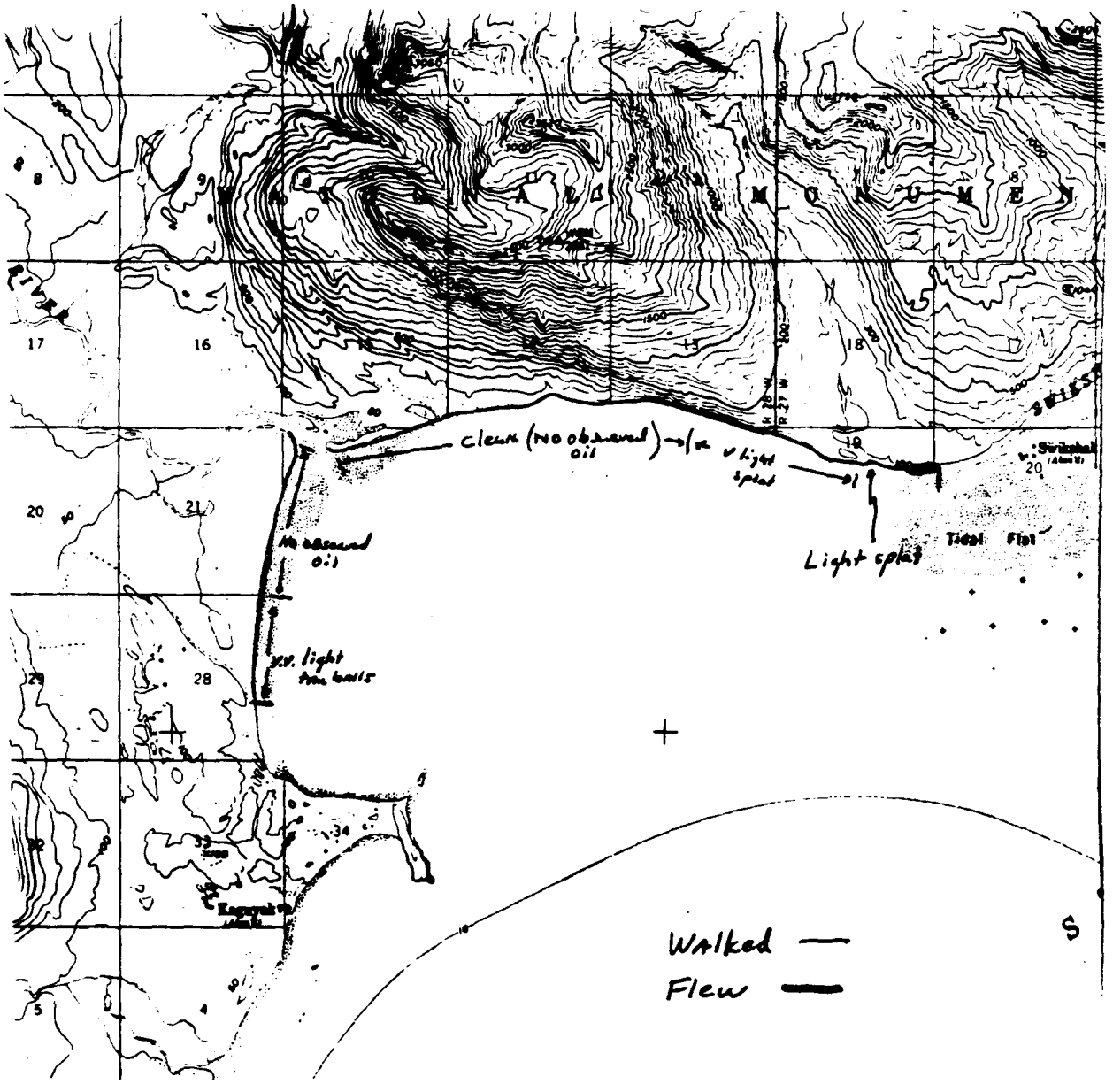
CLEANUP PRECAUTIONS: None. No cleanup is recommended in this segment due to very light oiling conditions and brown bear habitat.

MAMMALS: Otters 2 Harbor Seals ___ Sea Lions ___ Whales ___
Other BROWN BEARS (7)

BIRDS: Yellowlegs, pigeon guillemots, gulls.

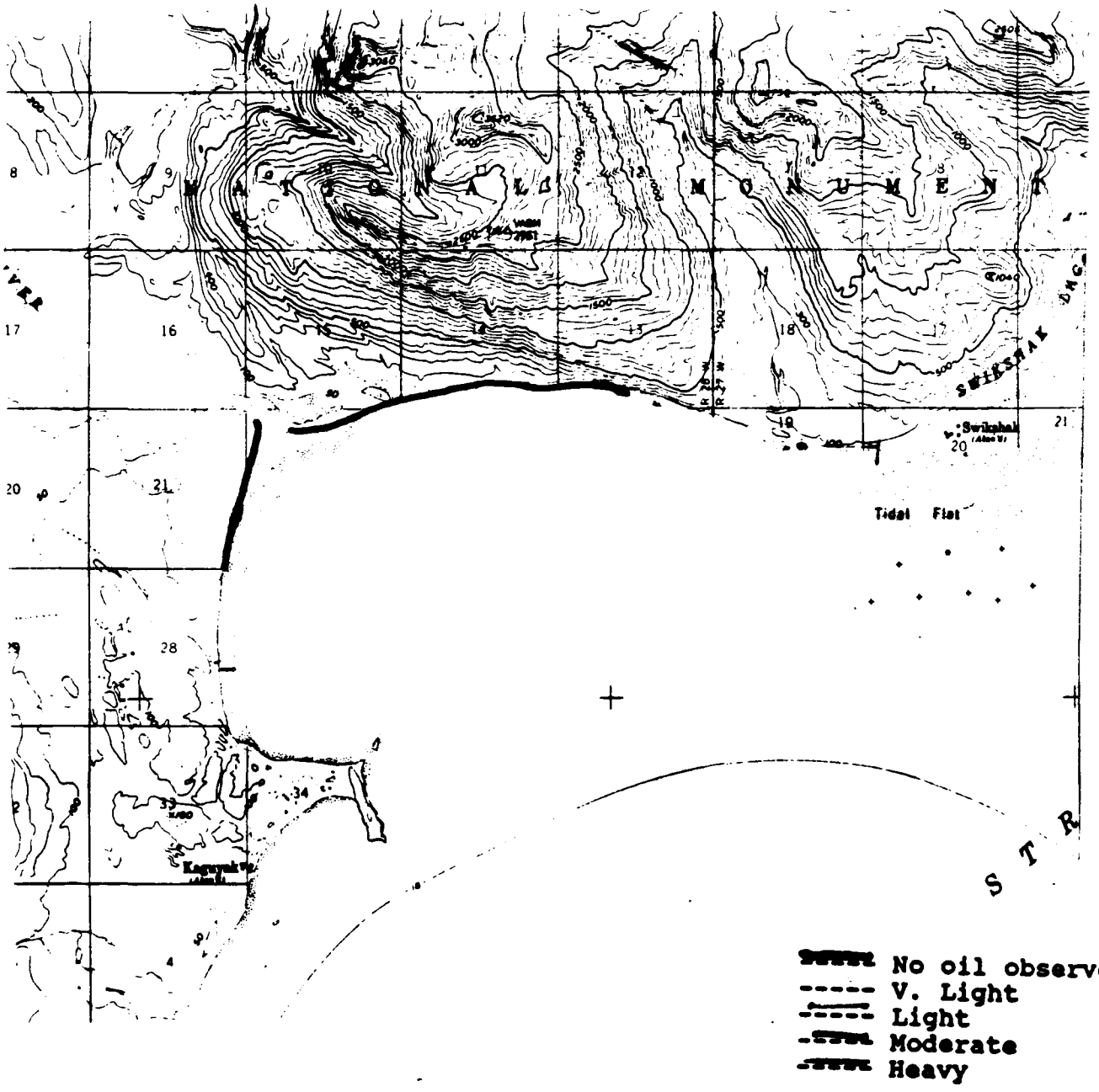
GENERAL OBSERVATIONS: Oil is present here as very light splatter in the upper ITZ.

K-9-16-BR-2



ACE 8708795

K-9-16-BR-2



ACE 8708796

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/04/89 SHORELINE SEGMENT K9-16-BR-1

LOCATION: (see enclosed map) Big River Bay, Swikshak

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/04/89

Recommended Cleanup Activity(ies):

-Manual removal of oil deposits including mousse and tar patties (maps #1-3), mousse and tar from between cobbles (maps #1 and #3) and oiled drift material along supertidal zone (maps #2 and #3). Do not remove logs.

Priorities/Considerations: Class 3-A

Ecological Constraints (from site survey):

-Take precautions to avoid harassing or disturbing sensitive brown bear habitat.

Archaeological Constraints (from site survey):

-If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 8/11/89

State Historic Preservation Officer *

EXXON: _____ Date: _____

FOSC: _____ Date: _____

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

A. General

1. Date: 7 Aug 89 2. Time: 0920-1110 3. Observer: Duncan M. FitzGerald

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather: (Sun)/Cloud/Rain/Snow/Fog

6. Location Big River Bay Switchback 7. Segment #: K-9-16-BR-1

8. Length of shoreline segment: 4000 yds 9. Tidal Stage ± 1ft ft. below msl

10. Access: (Foot)/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 85 %

12. Access Restrictions: headland portions of bedrock peninsula

B. Shoreline

13. Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT/(CLF)/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: (High)/(Med)/Low

16. Sediment: B 10 % / C 30 % / P 10 % / G 5 % S 25 % / M __ % / R 20 %

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type driftwood + seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/(Light)/Very Light/No Oil Observed

19. Area of Beach Impact: Width of Band: 1-4 yds
Continuous: Total % of Segment 25
Sporadic: Total % of Segment 75
No Oil: Total % of Segment _____

20. Est. Oil Thickness where >1in: 2-6 in 21. Est. Oil Penetration: 2-4 in

22. Pooled Oil: ____ % "Free" Oil: 5 % Coated: H ___ % / M ___ % / L 95 %

23. Fresh _____ % Mousse 60 % Tar Formation: 40 %

24. Drift Debris Oiled? (Yes)/No (Sup)/Up/Mid/Low Amount: _____ H/(M)/L

Comments:
Oiling of this beach is light to moderate consisting of 1) small to large mousse or tar patties, 2) mousse and tar covering cobbles, 3) mousse buried beneath cobbles and 4) tar covered drift material. See accompanying maps.

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh		%
Mousse		%
Weathered	60	%
Tar	40	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	1000	1-2
Light:	1000	2-5
Moderate:	1600	2-4
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
pooled/continuous								
coating/ splat	✓	✓				sporadic	1-2	
cracks / crevices		✓				30	1-3	
patties (>10cm diameter)	✓	✓	✓	✓	2-6	2600	2-5	3-6 inches
balls (< 10cm diameter)	✓	✓	✓	✓	1-2			
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A: 2600 yds.
Total TYPE B: _____ yds.
Total TYPE A/B: _____ yds.

29. Remobilization Potential: High/(Medium)/Low

DOCUMENTATION:

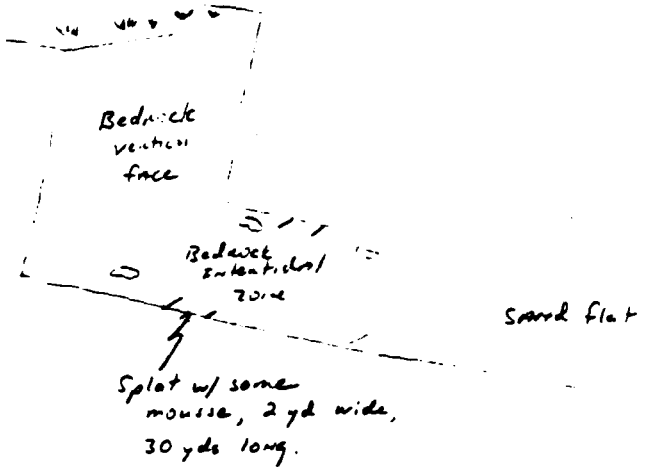
(Map)/Aerial photo marking segment boundaries See Attached

VTR: Y/(N) Tape Number (s) _____

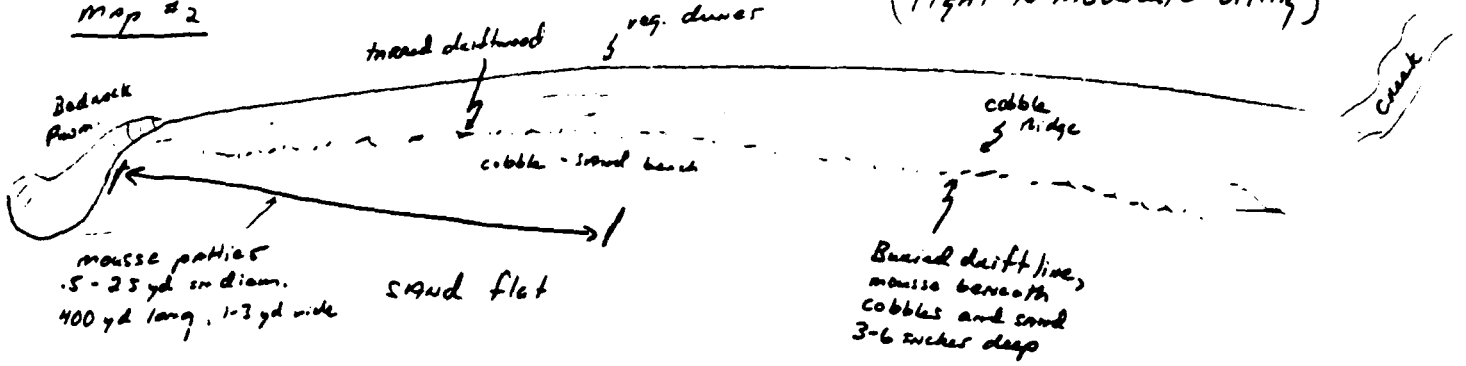
Photography: (Y)/N Roll Number (s) DMC-26

Additional Comments:

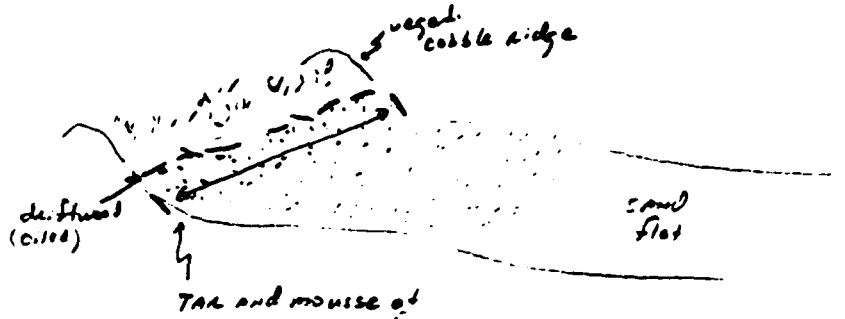
Map #1 Type Section (lightly oiled)



Map #2 (light to moderate oiling)



Map #3 Type Section (moderately oiled)



This type of oiling begins just south of the small creek and continues for approximately 1300 yds

ECOLOGICAL EVALUATION

BIG RIVER BAY

LOCATION: SWIKSHAK AK PENINSULA SITE: _____ OBSERVER: D. McCormick

LOCATION PREFIX: K-9-16-BR- SEG. NO.: 1 LENGTH: 4000 (M)

DATE: 8/4/89 TIME (HHMM): 0920 TIDE HT.: +2.0 Ft

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble ~~Gravel~~ Pebble Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Occurs on bedrock portion of segment only; Dense & continuous

Mytilus (Mussels): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Occurs on bedrock portion of segment only; dense & continuous

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)
Occurs on bedrock portion of segment; dense & continuous

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N
None observed

Limpets: Patchy Y/(N) Contin. (Y)/N Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Beach fauna - shells of Mya, Protothaca, Saxidomus cockles, razor clams, dungeness crabs. Ulva, Enteromorpha, Laminaria & Alaria kelps. Cyprea and Aurelia jellyfish. Found 6 dead oiled birds in storm debris.

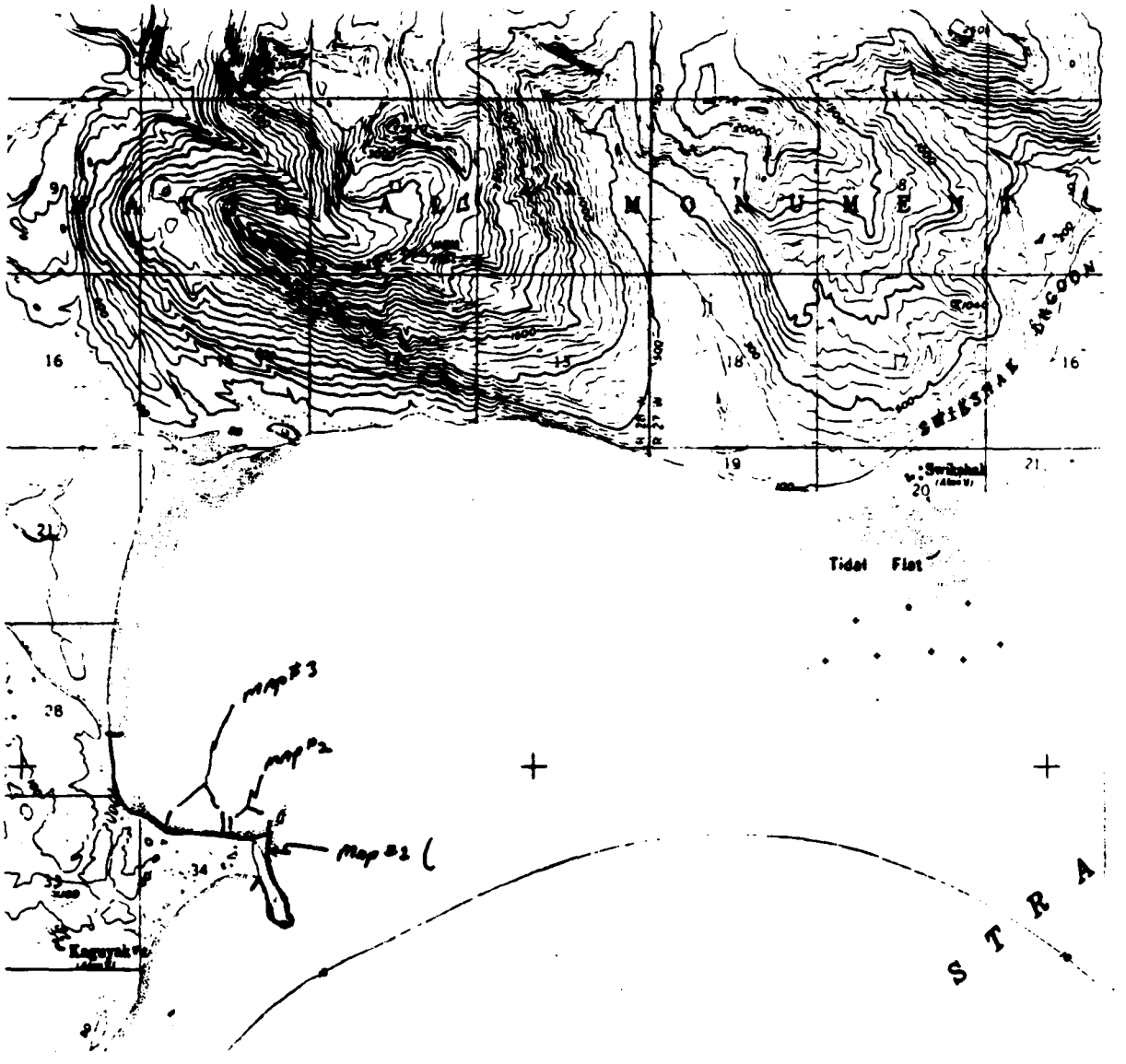
CLEANUP PRECAUTIONS: Be aware of bears in the area and take precautions to avoid harassing them.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other BROWN BEARS (?)

BIRDS: Merlin

GENERAL OBSERVATIONS: Locally moderate but overall light oil conditions exist on this segment primarily as drying mousse pancakes - some several feet in diameter. Also there is a lot of oily drift cobbles in upper ITZ - most is buried under the pebbles. This segment can be easily cleaned by removing mousse pancakes and oily pebbles in upper ITZ.

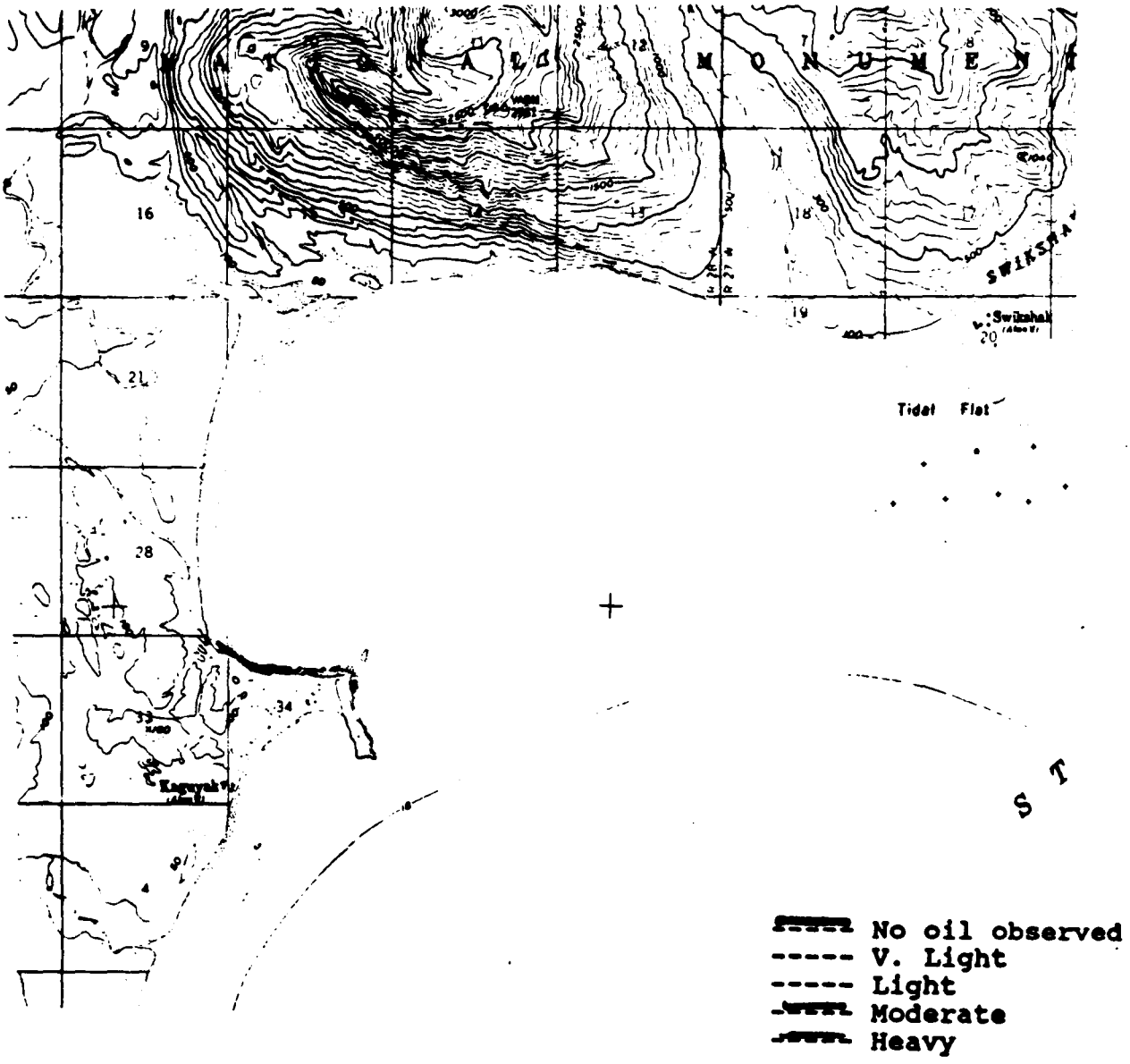
K-9-16-BR-1



Walked entire segment

ACE 8708803

K-9-16-BX-1



ACE 8708804

SHORELINE OIL EVALUATION

A. General

1. Date: 5 Aug 89 2. Time: 1027 3. Observer: Bryan Trimm

4. Surveyed From: Foot/Boat/Helio/Plane 5. Weather: Sun/Cloud/Rain/Snow/Fog

6. Location Lagoon West Shore - Aniakchak Bay AK-Pen. 7. Segment #: K13-7-AK3

8. Length of shoreline segment: 11,000 yds 9. Tidal Stage ± _____ ft.

10. Access: Foot/Vehicle/Boat/Barge/Helio/Float Plane

11. Total Percentage of Segment Accessible: 100 %

12. Access Restrictions: Very Shallow - High Tide / Dry - Low Tide

B. Shoreline

13. Shoreline Type: SPI/BEA/COV/HLD/STRT/CLF/DAF Lagoon

14. Slope: LANG/HANG/VERT

15. Wave Exposure: High/Med/Low

16. Sediment: B__% / C__% / P__% / G 10% S 90% / M__% / R__%

17. Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Logs - Seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/Very Light/No Oil Observed

19. Area of Beach Impact: Width of Band: 0 yds
Continuous: Total % of Segment 0
Sporadic: Total % of Segment 0
No Oil: Total % of Segment 100

20. Est. Oil Thickness where >1in: ____ in 21. Est. Oil Penetration: ____ in

22. Pooled Oil: ____% "Free" Oil: ____% Coated: H__% / M__% / L__%

23. Fresh ____% Mousse ____% Tar Formation: ____%

24. Drift Debris Oiled? Yes/No Sup/Up/Mid/Low Amount: ____ H/M/L

Comments:

No oil observed on walk across Lagoon. No mud found - only sand.
NOS reports cleanup activity around this bay by Chignik Village.

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/04/89 SHORELINE SEGMENT K9-16-BR-2

LOCATION: (see enclosed map) Big River Bay, Swikshak

ADEC NO. SHORELINE ASSESSMENT DATE: 8/04/89

Recommended Cleanup Activity(ies):

-No cleanup recommended due to very sporadic, very light oiling conditions and ecological constraints given below. Subject to FOSC reassessment at a later date.

Priorities/Considerations:

Ecological Constraints (from site survey):

-Due to extremely light oil conditions and sensitive brown bear habitat, cleanup is not warranted.

Archaeological Constraints (from site survey):

-If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archaeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

J. David McMahan Date: 8/11/89

State Historic Preservation Officer *

EXXON: Date:

FOSC: Date:

*Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

ACE 8708806

SHORELINE OIL EVALUATION

A. General

1. Date: 4 Aug 1989 2. Time: 1110-1500 3. Observer: O. M. FitzGerald

4. Surveyed From: (Foot)/Boat/(Helio)/Plane 5. Weather: (Sun)/Cloud/Rain/Snow/Fog

6. Location Big River Bay (Northside) Switchback 7. Segment #: K-9-16-BR-2

8. Length of shoreline segment: 9900 yds 9. Tidal Stage ± 3-4 ft. above MLW

10. Access: (Foot)/Vehicle/(Boat)/Barge/(Helio)/Float Plane

11. Total Percentage of Segment Accessible: 75 %

12. Access Restrictions: Difficult at boulder headland areas

B. Shoreline

13. Shoreline Type: (SPI)/(BEA)/(COV)/(HLD)/STRT/(CLF)/DAF

14. Slope: (LANG)/(HANG)/(VERT)

15. Wave Exposure: High/(Med/Low)

16. Sediment: B35% / C15% / P5% / G5% S25% / M__% / R15%

17. Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type driftwood and seaweed

C. Oil Summary

18. Degree of Oiling: Heavy/Moderate/Light/(Very Light)/No Oil Observed

19. Area of Beach Impact: Width of Band: 1-2 yds
    Continuous: Total % of Segment _____
    Sporadic: Total % of Segment 10
    No Oil: Total % of Segment 90

20. Est. Oil Thickness where >1in: / in 21. Est. Oil Penetration: / in

22. Pooled Oil: _____% "Free" Oil: _____% Coated: H__% / M__% / L100%

23. Fresh _____% Mousse _____% Tar Formation: 100 %

24. Drift Debris Oiled? Yes/(No) Sup/Up/Mid/Low Amount: _____H/M/L

Comments:

This segment is mostly oil free with some splat occurring along approximately 10% of the shoreline

SEE PAGE 2 FOR SUPPLEMENTAL INFORMATION

SUPPLEMENTAL SHORELINE OIL EVALUATION

25. Oil Type

Fresh	_____	%
Mousse	_____	%
Weathered	_____	%
Tar	100	%
	100	%

26. Total Oil Coverage

	Length(yd)	Width (yd)
Very Light:	800	1-3
Light:		
Moderate:		
Heavy:		

27. Oil Distribution

	SP	H	M	M	Thick >1in	Length(yd)	Width(yd)	Burial Depth
pooled/continuous								
coating/ splat	x	x				800	1-3	
cracks / crevices								
patties (>10cm diameter)								
balls (< 10cm diameter)								
asphalt pavement								

28. Preliminary Cleanup Est.

Total TYPE A:_____yds. None

Total TYPE B:_____yds.

Total TYPE A/B:_____yds.

29. Remobilization Potential: High/Medium/(Low)

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries See Attached

VTR: Y/(N) Tape Number (s)_____

Photography: (Y)/N Roll Number (s) DMC-27

Additional Comments:

ECOLOGICAL EVALUATION

BIG RIVER BAY

LOCATION: SUKSHAK, NK PENINS. SITE: _____ OBSERVER: D. McCORMICK

LOCATION PREFIX: K-9-16-BR- SEG. NO.: 2 LENGTH: 9900 (M)

DATE: 8/4/89 TIME (HHMM): 1100 TIDE HT.: -0.75 ft (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on northern section of segment. Description applies to this zone.

Mytilus (Mussels): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on northern section of segment. " " " "

Balanus (Barnacles): Patchy Y/(N) Contin. (Y)/N Dense (Y)/N Sparse Y/(N) None Y/(N)

Occurs on northern section of segment. " " " "

Littorina
Patchy Y/(N) Contin. Y/(N) Dense Y/(N) Sparse Y/(N) None (Y)/N

None observed.

Limpets: Patchy (Y)/N Contin. Y/(N) Dense Y/(N) Sparse (Y)/N None Y/(N)

OTHER OBSERVATIONS: Aurelia, Sea lemons, Endocladia, Ulva, Laminaria, Alaria.

CLEANUP PRECAUTIONS: None. No cleanup is recommended in this segment due to very light oiling conditions and brown bear habitat.

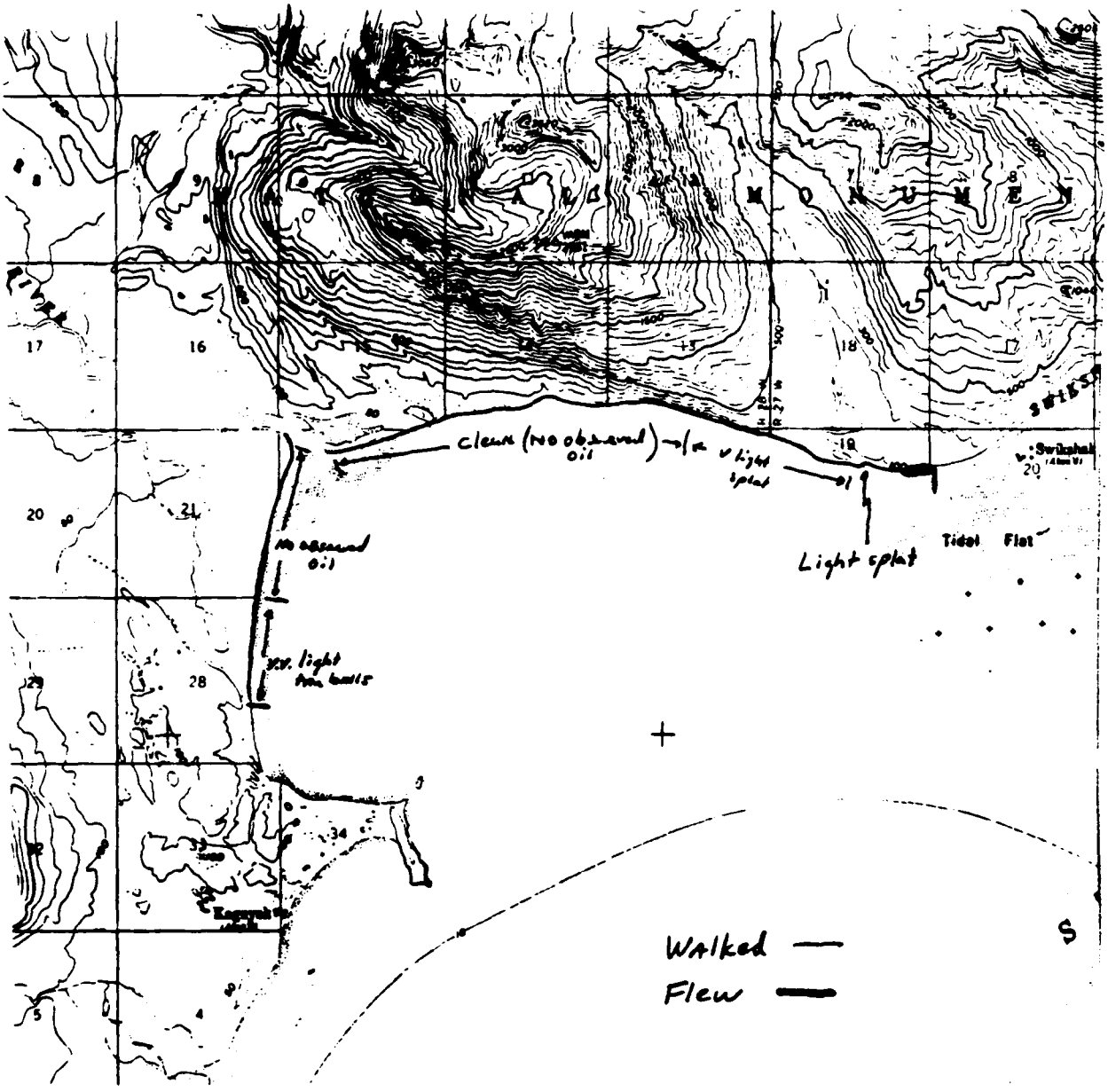
MAMMALS: Otters 2 Harbor Seals ___ Sea Lions ___ Whales ___
Other Brown Bears (?)

BIRDS: Yellowlegs, pigeon guillemots, gulls

GENERAL OBSERVATIONS: Oil is present here as very light splatter in the upper ITZ.

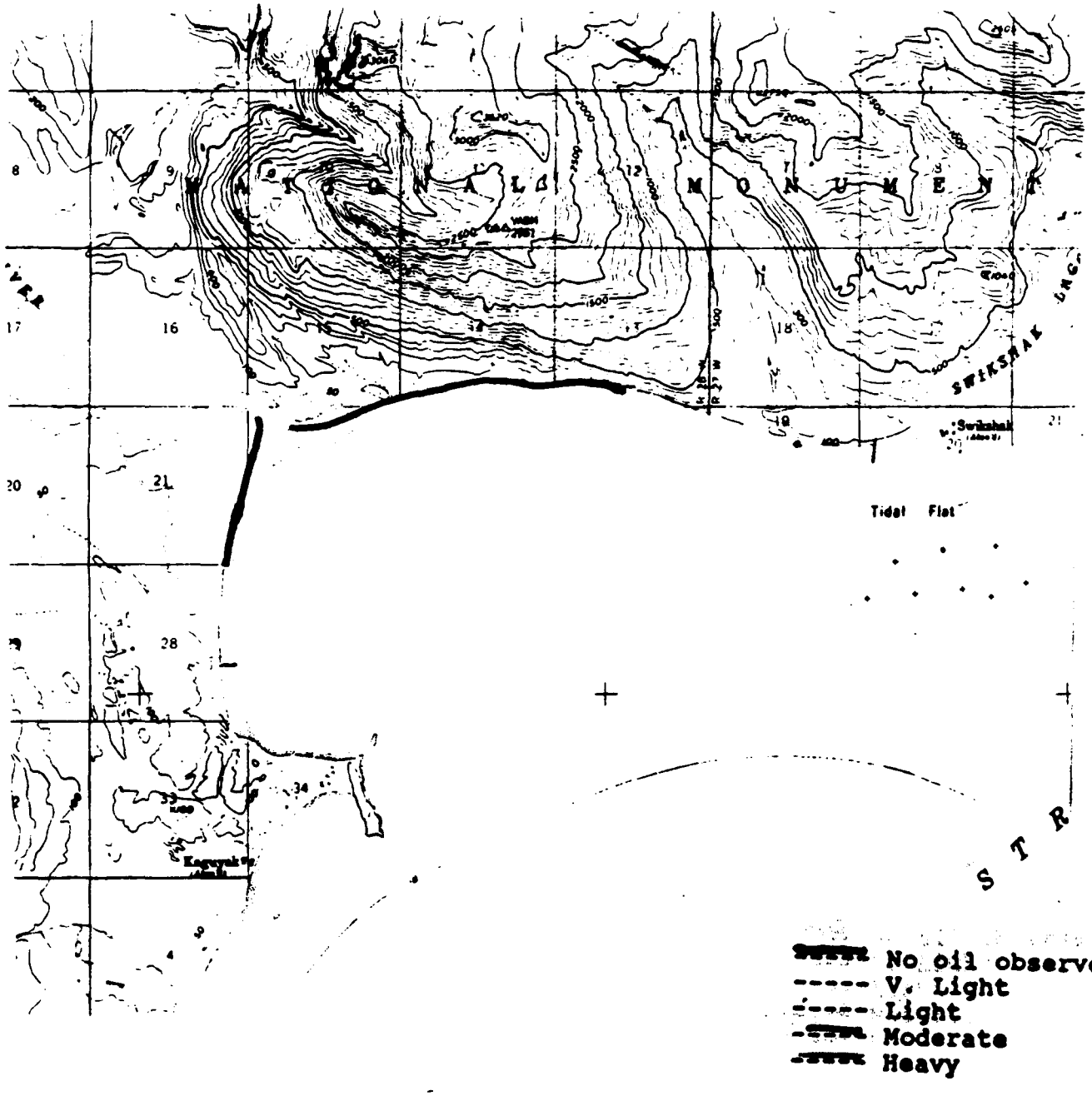
ACE 8708809

K-9-16-BR-2

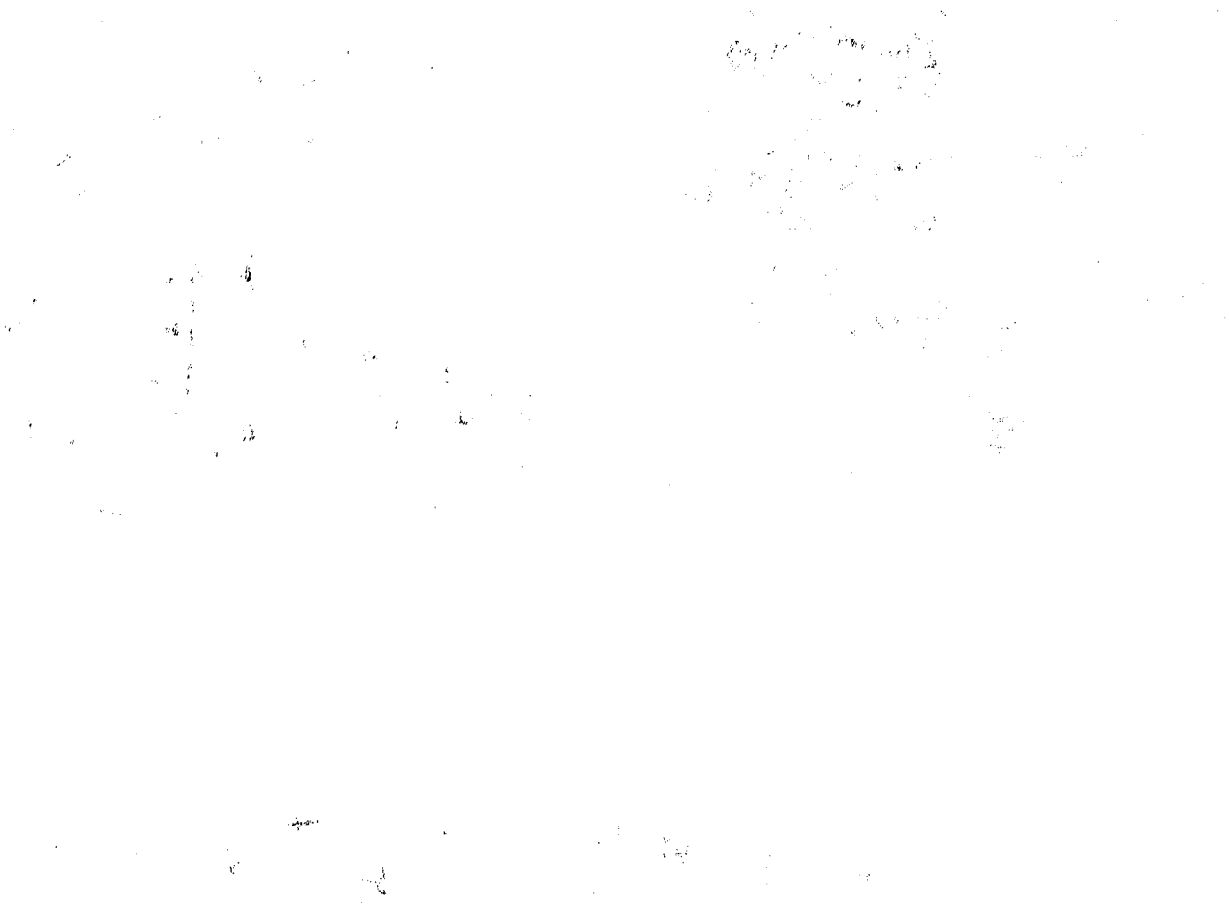


ACE 8708811

K-9-16-BR2



ACE 8708812 -/1/



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