



EVOS
GC
1552
.P75
S42
1990
v.20

[Shoreline evaluations, 1990].

KO7-03 – KO9-15

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SHORELINE EVALUATION

SEGMENT ST/ K0703-LC-005 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sensitive estuary (AA); Stream mouth - fry outmigration (1A) - 3/1 to 5/15; Stream mouth - spawning (1B) - 7/10 to 8/31.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Bald eagles observed in area - but no nest sitings.

SHPO SIGNATURE: Charles E. Homan DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 7053 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: No treatment recommended. No oil observed.

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90

ADEC JOHN BAUER John Bauer

EXXON ANDY TOM Andy Tom

NOAA Byrl Wesscott Byrl Wesscott

USCG G.A. REITER G.A. Reiter

FOSC: DATE: 4-20-90

SEGMENT ST/ 1567.03 LC65 SUBDIVISION: K7-3-LC-SA DATE 9-3-92NAME ^{2G} D.D. Hawes Jr., Gm3, USGP SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil sightedNAME Francine O Bennis SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil observed, except for 1 splatter on a drift log
of supratidal.**LAND MANAGER**NAME JOHN P. HARDISTER SIGNATURE [Signature] USFWS☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDNo oil observed.

CG Acton USCG Haven SEGMENT ST/ K7-3-LC-3
 BIO Davis LAND REP USFWS Hardister SUBDIVISION K7-3-LC-5A
 EXXON Avery ADEC Bennis TIME 2:30 to 6:00
 TEAM NO.: 20 TIDE LEVEL: +5.5 to +1 DATE 4/3 /90
 ST. SUBDIVISION LENGTH: 7036 m 7053 ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 0 % C 35 % P 35 % G 20 % S 10 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 7036 m
 7053

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	A	P	S	SL	BR	RW	GY	SL	DBL	TL	LR	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													✓	✓	✓	✓

PAVEMENT: H F S N/A sq. m by N/A cmPATTIES / TARBALLS N/A BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT			
	SM	MD	LG	
Logs				DEBRIS COLLECTED ☐ YES ☒ NO
Vegetation				
Trash				
Debris				TYPE <u>N/A</u> #BAGS <u>N/A</u>

Photographs:

Roll No. 20-3Frames 2, 3, 6

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UC	SL	BR	RW	GY	SL	DBL	TL	LR	SU	U	M	U		
1	30					✓	-													✓			CP
2	30					✓	-												✓				PC
3	30					✓	-											✓					SC
4	45					✓	-													✓			GP
5	35					✓	-											✓					SC
6	40					✓	-														✓		SP

COMMENTS One oil spot/stain (10cm x 3cm) observed on drift log in SU at extreme N end of segment. No other oil observed. Many pits (approx 66) up to 25-40cm in depth were dug, with no subsurface oil observed. High energy shoreline for entire segment, w/ S end having the steepest and largest storm berms.

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OF	OR	IN	OF	NO		NO	UC	SP	PR	DR	BR	BL	GR	TR	LO	SV	UI	ME	U		
7	30					✓	.											✓					PG
8	30					✓	.											✓					SC
9	30					✓	.													✓			PG
10	30					✓	.														✓		SG
11	30					✓	.											✓					SC
12	30					✓	.												✓				PG
13	30					✓	.											✓					SC
14	30					✓	.													✓			PG
15	30					✓	.											✓					SC
16	30					✓	.											✓					SC
17	40					✓	.											✓					SC
18	40					✓	.												✓				PG
19	40					✓	.													✓			PG
20	40					✓	.											✓					SC

COMMENTS

REVIEWED BAT DATE 4 Apr 90

SHORELINE OILING SUMMARY (PAGE 3 OF 6)

SEGMENT ST/ K7-3-LC-5 SUBDIVISION K7-3-LC-5A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM.CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		CO	CR	CL	OF	NO		DO	UC	SP	BP	TE	FW	ST	SL	UM	TL	SU	U	M	LI		
21	40					✓	.													✓			PG
22	35					✓	.												✓				PC
23	35					✓	.											✓					SC
24	30					✓	.														✓		SG
25	30					✓	.											✓					SC
26	30					✓	.											✓					SC
27	30					✓	.												✓				PC
28	40					✓	.											✓					SC
29	30					✓	.													✓			PC
30	30					✓	.											✓					SC
31	40					✓	.												✓				PC
32	40					✓	.											✓					SC
33	30					✓	.															✓	SG
34	30					✓	.												✓				PC

COMMENTS

REVIEWED BAT DATE 4 Apr 90

SHORELINE OILING SUMMARY (PAGE 4 OF 6)

SEGMENT ST/K7-3-LC-5 SUBDIVISION K7-3-LC-5A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	FLOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	CL	OL	OT	NO		LO	UC	SP	BR	BL	PR	GY	SL	DR	TL	LT	SU	UI	W	U	
35	30					✓	.											✓					SC
36	30					✓	.											✓					SC
37	30					✓	.												✓				CP
38	30					✓	.											✓					SC
39	30					✓	.														✓		SG
40	40					✓	.													✓			GP
41	40					✓	.												✓				PC
42	40					✓	.											✓					SC
43	35					✓	.											✓					SC
44	35					✓	.													✓			PG
45	40					✓	.											✓					SC
46	40					✓	.												✓				PL
47	30					✓	.													✓			PG
48	30					✓	.											✓					SC

COMMENTS

REVIEWED BAT DATE 4 Apr 90

SEGMENT S1/ K7-3-66-5 SUBDIVISION K7-3-66-5A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS		
		OF	OR	OL	OF	NO		LO	UC	SR	BN	TR	FW	GP	SL	DR	TH	LAH	SU	U	M			U	
49	40					✓	-											✓							SC
50	40					✓	-											✓							SC
51	30					✓	-													✓					P6
52	30					✓	-												✓						PC
53	40					✓	-											✓							SC
54	30					✓	-															✓			S6
55	30					✓	-													✓					P6
56	40					✓	-											✓							SC
57	40					✓	-												✓						PC
58	30					✓	-													✓					P6
59	30					✓	-											✓							SC
60	30					✓	-													✓					P6
61	35					✓	-											✓							SC
62	30					✓	-															✓			S6

COMMENTS

REVIEWED BAT DATE 4 Apr 90

[illegible]

REVIEWED BAT DATE 4 Apr 90

OG Acton

SKETCH MAP

SEGMENT ST/K7-3-LC-5

Scale Approx 1cm = 5m

SUBDIVISION K7-3-LC-5A

DATE 4 / 3 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sop/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWLA WL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

$\boxed{CT/P}$
Patchy Distribution

$\boxed{CT/S}$
Splashed Distribution

Oil Distribution

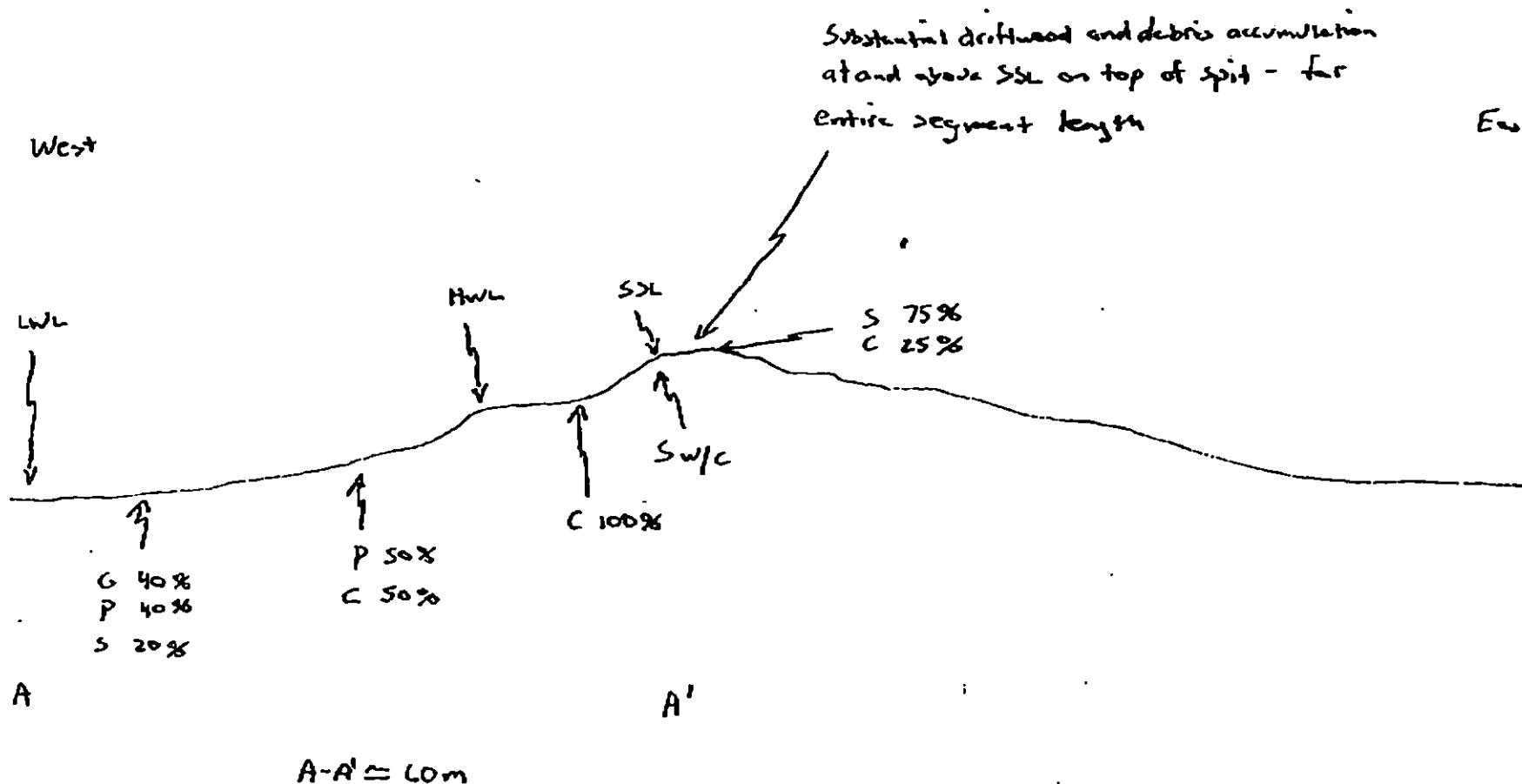
Oil Distribution

1 $\Rightarrow$

Photo location, direction, and number

West

East



Oil Char: Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 T 0 TB 0 FL 0 NO 7053

REVISION: 03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K7-3 Subdivision LC-05A Date (mo/day/yr) 4-3-90

Time (24 hr) 14:35 Biologist H. Davis

Substrate type and % of segments:

(1) Bedrock (2) Boulder (3) Cobble 35 (4) Pebble 45 (5) Sand 20 (6) Silt

(B) Overall % cover of biota (% of segment): Dense Moderate Low 100% (<1%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs: Roll No. ST-20-3

Frames 2,3,6

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: K07-03 LC-05A is the ocean side of a cobble/pebble spit separating Albatraz Lagoon from the Pacific Ocean. It is a high energy beach with a lot of logs washed up above the high tide line by storms. Mytilus shells were found in the drift but there were no populations of Barnacles, Mytilus, Gastropods or Fucus. No Eagle nests were seen, but several (≈ 4) adult Eagles and 2 juvenile Eagles were observed in the area. Deer tracks and scat were found on the grass bluff area above the storm berm. 2 red foxes were seen on the grass bluffs. Birds observed in the area: (40-50) Steller's Eiders, ≈ 50 Rock Sandpiper, Empidonax (10), (40-50) Glaucous-winged Gulls, Harlequin, Old Squaw, (7) cormorant sp., Sooty sp., 5-6 pintail, Murrelets, (6) Tundra swans. 1 sea otter was observed feeding at the southern end of LC-05A. 6-7 King whales were observed off shore. 6-8 Steller sea lions near by at Sukhoi Lagoon just to the north of LC-05A.

Ecological Considerations: (1A, 1B, 8AA) The estuary on the north side of LC-05A is an extremely rich feeding area for many species of birds. Eagles feed and nest in the area (No nest were observed at the time). Tundra swans nest nearby at Sukhoi Lagoon. No streams in the area. Small Fry could be feeding in the Estuary area (LB-01).

GOA
1678

K7-3-LC-5A

Segment
Boundary

LC-6

LC-5

ADEC Segment Length: 7036m

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

METERS

K7-3-LC-5A

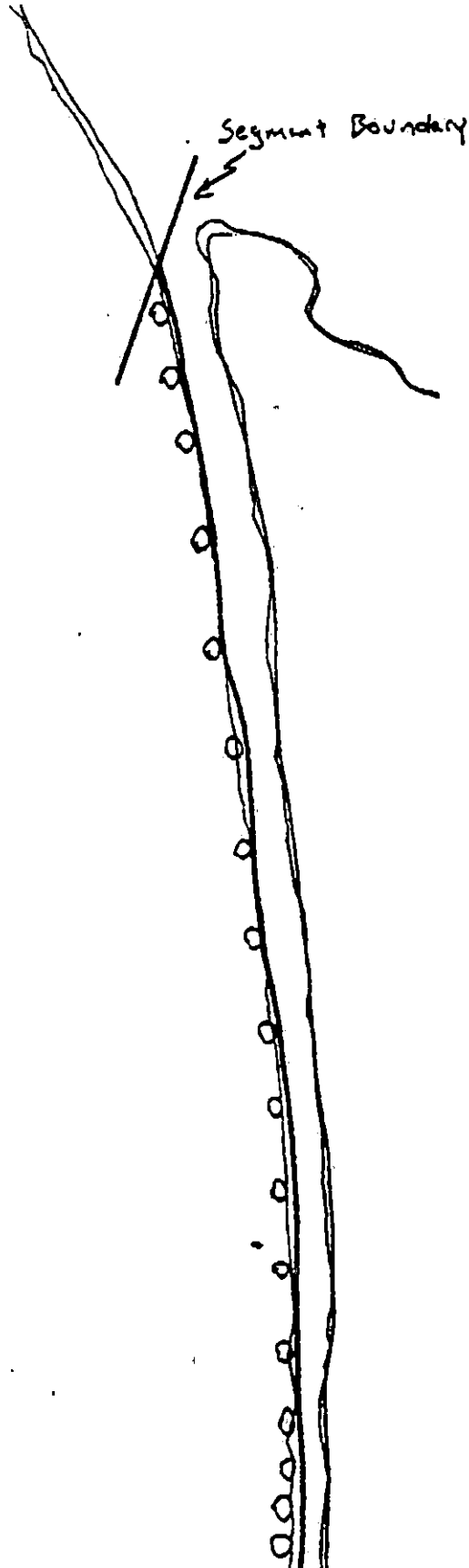
Map Key: GOA-167a

Name: Acton

Date: 4-3-90

Date Entered:

K7-3-LC-5A



↓ GOA
167A

XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

LC-5

ADEC Segment Length: 7036m



K7-3-LC-5A

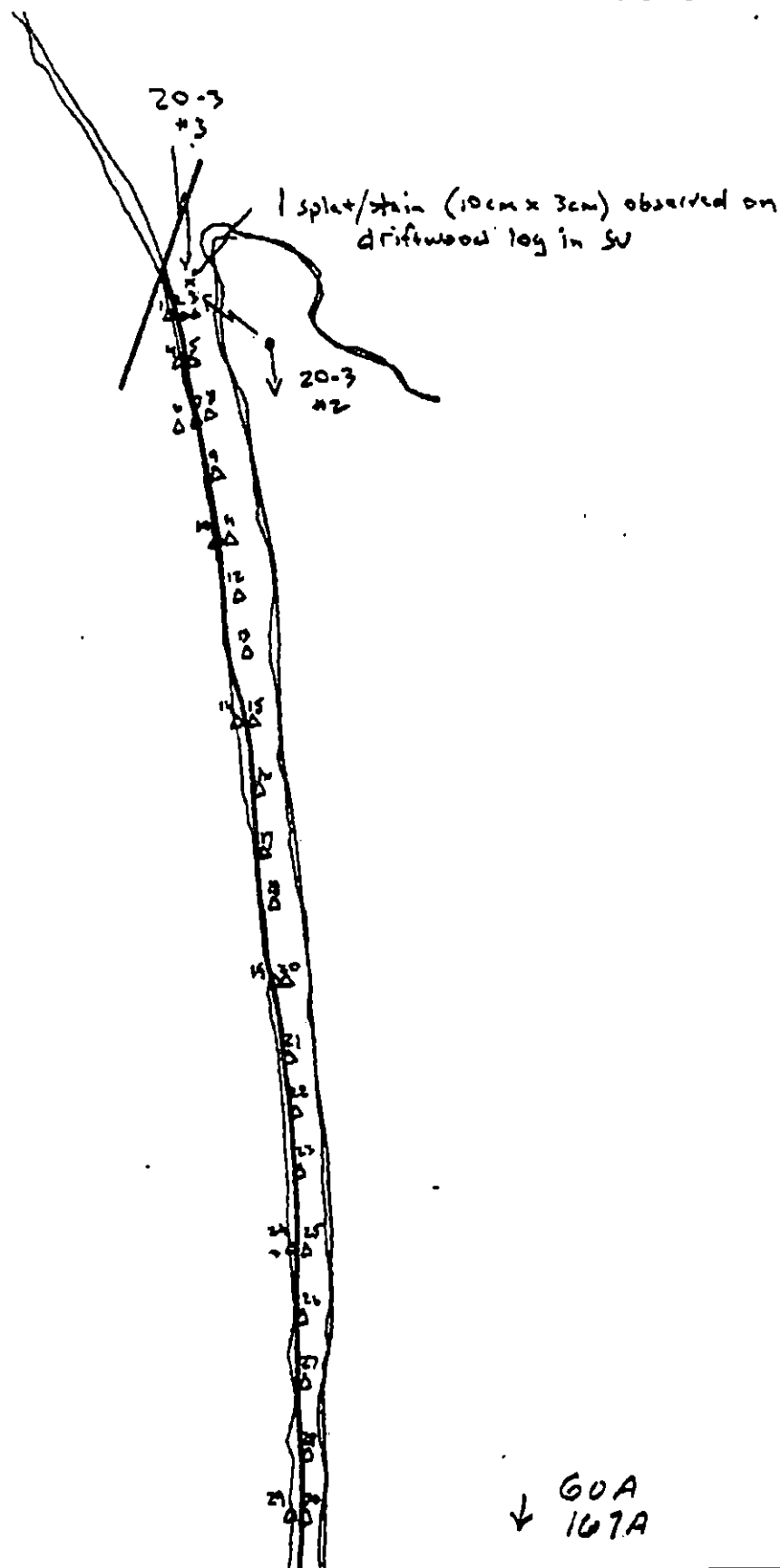
Map Key: GOA-167b

Name: Acton

Date: 4-3-90

Data Entered:

K7-3-LC-5A



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

LC-5

ADEC Segment Length: 7036m



K7-3-LC-5A

Map Key: GOA-167b

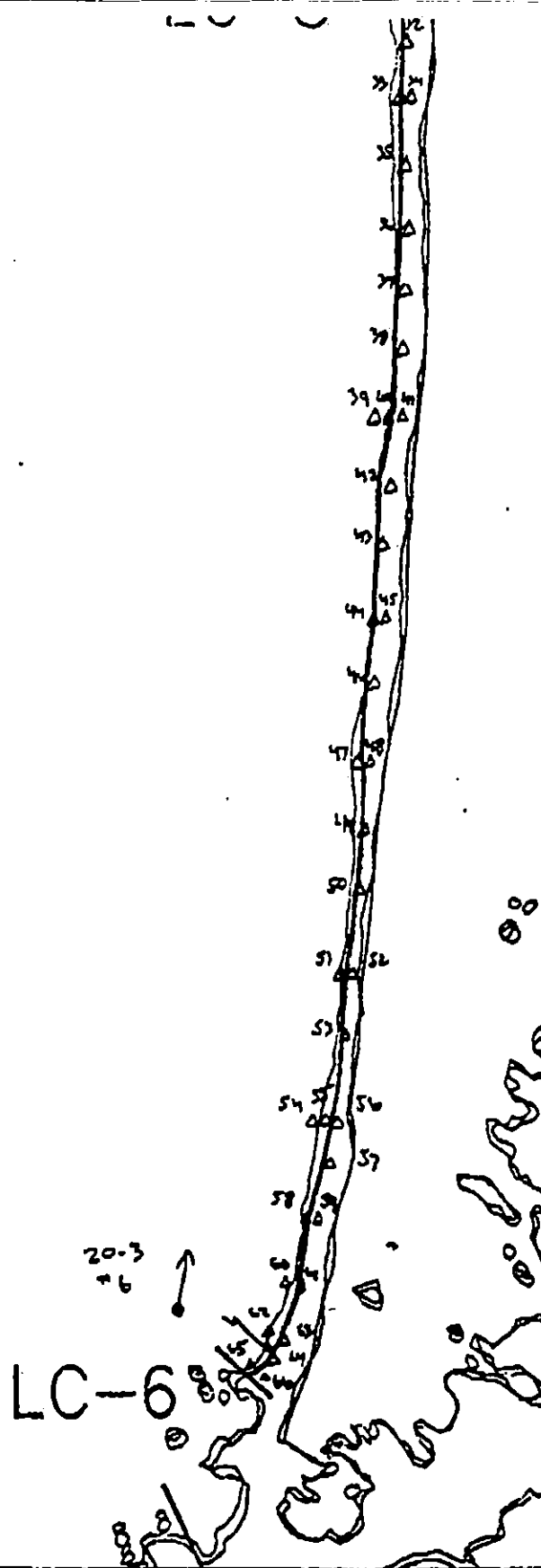
Name: Aston

Date: 4-3-90

Data Entered:

GOA
167B

K7-3-LC-5A



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

LC-5

ADEC Segment Length: 7036m



K7-3-LC-5A

Map Key: GOA-167a

Name: Acton

Date: 4-3-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K07-04-LB-001 SUBDIVISION A (1 OF 1) DATE 4/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: [Signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 8721 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/21/90
ADEC ART WENGER
EXXON ANDY TEM
NOAA Bud [Signature]
USCG KENNETH KERR

FOSC: [Signature] DATE: 4-27-90

SEGMENT ST/ K7-4-LB-1 SUBDIVISION: K7-4-LB-1A DATE 4-3-70

USCG

NAME D.D. Haven Jr., GM3

USCGR

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS -

☐ TREATMENT SUGGESTED

No oil sighted

ADEC

NAME Francine J. Benois

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Walked approximately 5 miles of segment LB 001, along inside of spit along Alitak Lagoon. No oil observed, surface or subsurface

LAND MANAGER

NAME John P. Hardister

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

USFWS

No oil observed

SHORELINE OILING SUMMARY

REVISION NO. 02/01/98

OG Acton USCG Haven SEGMENT ST/ K7-4-LB-1
 BIO Davis LAND REP USFWS Hardwater SUBDIVISION K7-4-LB-1A
 EXXON Avery ADEC Bennis TIME 14:25 to 18:15
 TEAM NO.: 20 TIDE LEVEL: -5.5 to +1 DATE 4/3/90
 EST. SUBDIVISION LENGTH: 7500 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 0 % C 15 % P 20 % G 15 % S 10 % M 40 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 7500 m

US 29500

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	N	P	S	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S 0 sq. m by 0 cm

PATTIES/TARBALLS 0 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. 203

Frames 45

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW	OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			1	2	3	4	5	6	7	8	SU	U	M	U		
1	30					✓	-											✓				SGP
2	30					✓	-											✓				MS
3	30					✓	-											✓				MS
4	30					✓	-											✓				SGP
5	30					✓	-											✓				MS
6	30					✓	-											✓				SGP

COMMENTS No oil observed in this segment. Entire subdivision was surveyed on foot

06 Acta

SKETCH MAP

SEGMENT ST/ K7-4-LB-1

SUBDIVISION K7-4-LB-1A

DATE 4 / 3 90

CHECKLIST

A

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt. Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

A-A' $\approx$ 100m

A'

Accumulated
Driftwood

S/L

HML

S/C

Aitutak
Lagoon

Pacific
Ocean

LWL

LWL

M

Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO 7500

REVISION: 03/24/98

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03-22

Segment ST/107-04 Subdivision LB01A Date (mo / day / yr) 4-3-90

Time (24 hr) 14:35 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock (2) Boulder 5% (3) Cobble 20% (4) Pebble 25% (5) Sand 15% (6) SM 35%
- (B) Overall % cover of biota (% of segment): Dense 10% Moderate 60% Low 30% (40%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-20-3
 Frames 4, 5

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	2	2	X	X	2	2	X	2	2	2	2
X	3	3	X	X	3	3	X	3	3	X	X
4	4	4	X	X	4	4	4	4	4	X	X
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
 1, 5, 6

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	X	2	2
3	X	X	3	X	X	3	3	X	X	X	3
4	X	X	4	X	X	4	4	X	X	X	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
 1, 5, 6

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	X	X	X	3	X	X	X	X	3	3
4	4	X	X	X	4	X	X	X	X	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
 1, 2

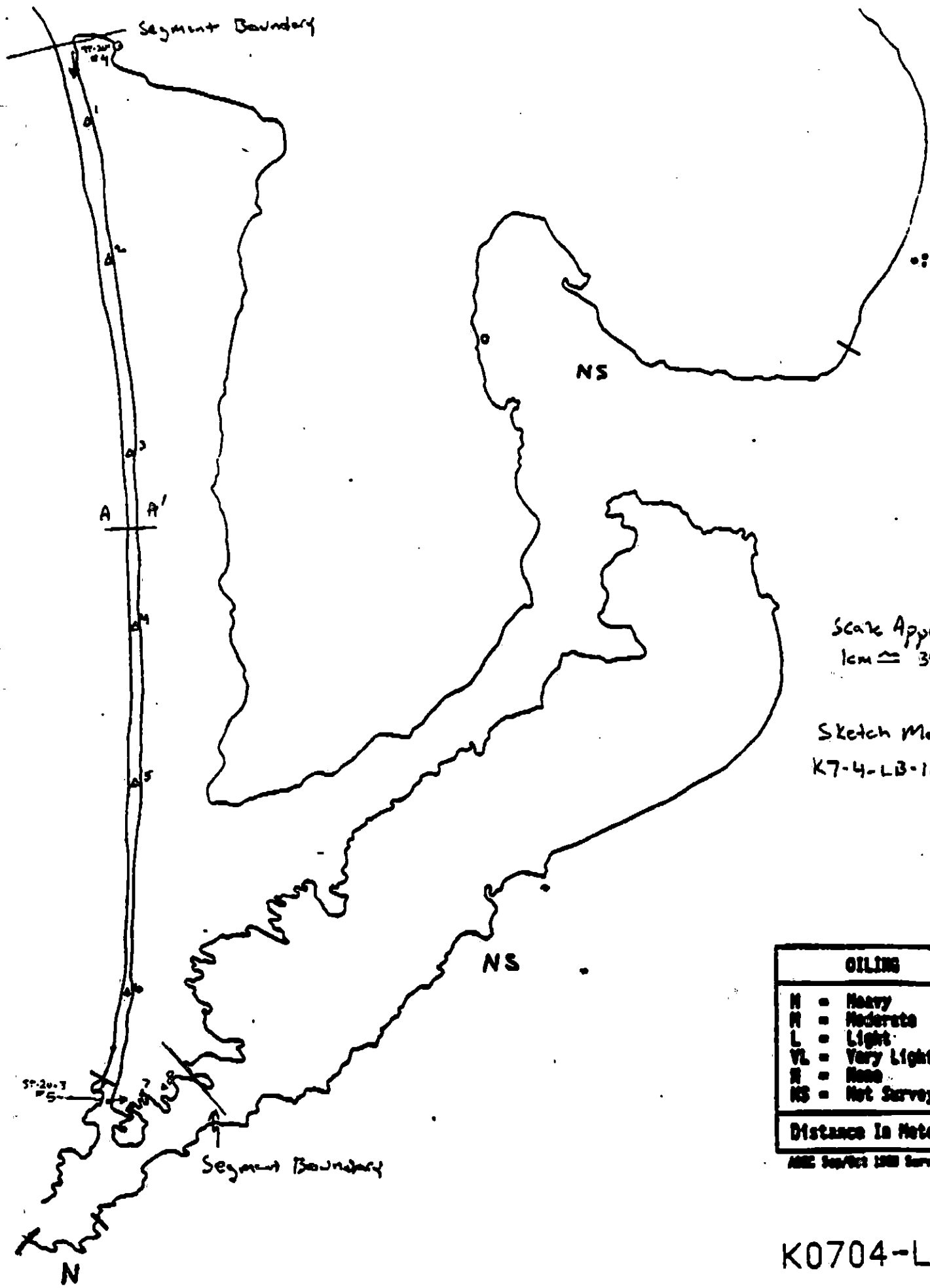
FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	X	X	3	X	X	3	X	X	X	3	3
4	X	X	4	X	X	4	X	X	X	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: Central area of lagoon along side the barrier beach is a shallow mud-flat area with *Sostera* beds. Pintails (205), Ring-billed Gulls (2), Glaucous-winged gulls (30-40) old & young were feeding in this area. *Tringa* was found in scattered but dense patches in the lower intertidal. There was also dense patches of *Ulva* with scattered *Ulva* (sp?) beds of *Mytilus* were also patchy but dense. Deer tracks and scat was found along the shore. 3 juvenile eagles and 2 adults were seen along the barrier beach. 2 Red Foxes were seen. 1 was running across the intertidal.

Ecological Considerations: (None) This is an estuary area separated from the ocean by a barrier beach. Used by water fowl for feeding and breeding. Eagles feed and nest in the area. Seabird and Sea Duck winter in this estuary.



Scale Approx.
1cm $\approx$ 300m

Sketch Map
K7-4-LB-1A

OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
NS	Not Surveyed
Distance in Meters	

ADIC Sep/Oct 1980 Survey

500.0

K0704-LB00

GOA
1586

LB-1

LC-6

Subdivision
Boundary

LC-7

K7-4-LB-1A

GOA
1586 →

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

LB-1

ADEC Segment Length: 46022m



METERS



K7-4-LB-1A

Map Key: GOA-1586

Name: Acton

Date: 4-3-90

Date Entered:

LC-4

K7-4-LB-1A

Subdivision Boundary

↓ GOA 1580

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

LB-1

ADEC Segment Length: 46022m



K7-4-LB-1A

Map Key: GOA-1580

Name: Acton

Date: 4-3-90

Date Entered:



SHORELINE EVALUATION

SEGMENT ST/ K07-13-TI-001 SUBDIVISION A (1 OF 1) DATE 5/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N, 3P	Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q	Harbor seal and sea lion molting (8/15 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Charles E. Holmes DATE: June ~~18~~ 19, 1990

OILING CATEGORIZATION:

Wide_0_m: Medium_0_m: Narrow_0_m: V.Light_0_m: No Oil_9324_m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> X </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 6/16/90
 ADEC Roy M. ...
 EXXON AWAY TEN
 NOAA Jerry J. ...
 USCG G.A. REITER

FOSC: 1 L DATE: 6-27-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C** Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D** Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H** Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I** Gill net area
1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K** Purse seine hook-off
1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M** Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncultured intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P** Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R** Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T** All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U** Recreation: Tent sites (5/1 to 9/15)
6V Anchorages (5/1 to 9/15)
6W Forest Service cabins (5/1 to 9/15)
6X Lodge (5/1 to 9/15)
6Y Special use destination
- 7Z** Subsistence area: Salmon harvesting (8/1 to 9/30)
7H-H Finfish harvesting
7I Deer harvesting (8/1 to 1/7)
7J-J Invertebrate harvesting
7K-K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K-713/TE-1 SUBDIVISION: A DATE 6/1/90

~~USCG~~
NOAA

NAME Tom Callahan SIGNATURE Tom Callahan

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Only two very weathered tarballs observed. A sample of each was taken for fingerprinting analysis in NOAA Lab in Anchorage.

HDFIG

ADEC

NAME JEFF BARNHART SIGNATURE Jeff Barnhart

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Agree with land manager comments. No Treatment recommended.

LAND MANAGER

NAME Mike Godwin/ADEC SIGNATURE Michael Godwin

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This segment is mostly within a Legally designated critical habitat area. Mostly a high wave energy beach area which has deposited bars of beach cobble and gravel during past months. Possibly covering previously deposited oil. Only 2 tarballs and one oil satch was observed during survey.

SHORELINE OILING SUMMARY

REVISION NO. 24-12-20

OG J. Springer USCG A. Smith SEGMENT ST/ K-713/I-1
 BIO D. Lohse LAND REP M. Goodwin SUBDIVISION A (1 OF 1)
 EXXON NOAA T. Callahan ADEC Fish & Game J. Barnhart TIME 11:20 to 15:20
 TEAM NO. 19 TIDE LEVEL +5 TO +1 DATE 05/31/1990
 EST. SUBDIVISION LENGTH: 18,600 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock Stationary dunes & back-beach lagoon.
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 5 % B 5 % C 5 % P 10 % G 30 % S 50 % M 5 % V 5 %
 SLOPE: Lang 100 % Hang 5 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 5 m M 5 m N 5 m VL 0.24 m NO 18,600 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES			
	IC	IS	IP	IR	IL	OR	OS	OP	OL	OT	SU	U	M	L
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
RAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL														

PAVEMENT H F S 5 sq. m by 5 cmPATTIES / TARBALLS 5 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				YES ☐ NO ☒
Vegetation				
Trash				
Debris				
				TYPE <u>5</u>
				#BAGS <u>5</u>

Photographs:

Roll No. 5Frames 5

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UG	UC	OR	OS	OP	OL	OT	SU	U	M	L			
1	30					X			X							X					S/S<
2	50					X			X							X					S/S
3	55					X			X						X						S/S

COMMENTS Most of segment consists of sand spit with stationary back-beach dunes. Extreme northwest end has incompetent mudstone cliffs.

Southeast end of segment was not surveyed due to the presence of seals and bad weather.

on d. Springer

SEGMENT STK 73/II-1

SUBDIVISION A

DATE 05/31/90

CHECKLIST

N Arrow
Approx. Scale
Seg/Sub Bndry
Oil Dist.
Width
Length
% Cover
Substrate Character
Est. HWL/LWL
SSL
Profile Location(s)
Pit Location(s)
Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

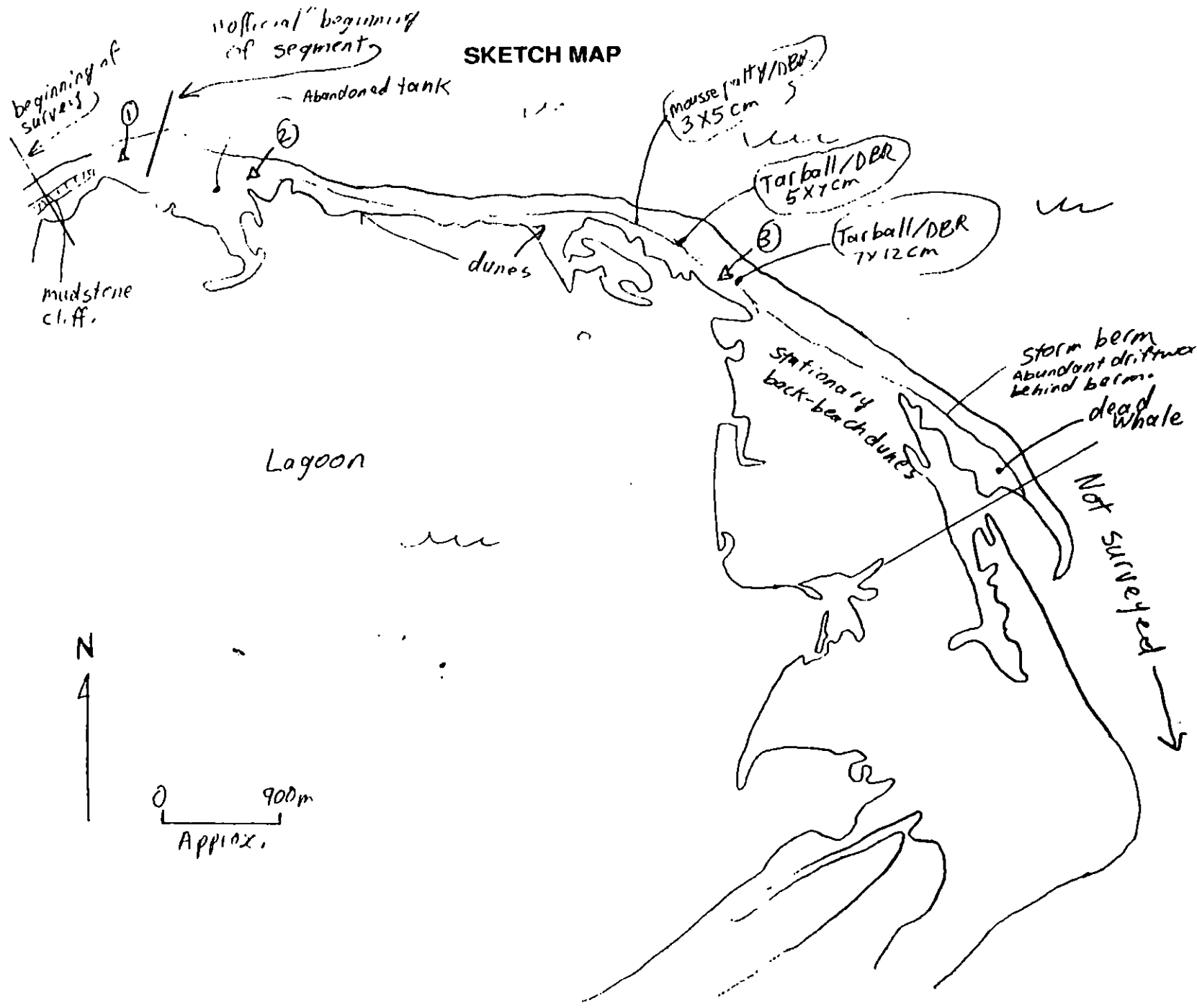
Splashed Distribution

Oiled Vegetation

1 ●→

Photo location, direction,
and number

SKETCH MAP



Oil Character Length (m): AP PO CV CT ST M 05 PT TB 0.19 FL NO 18,600

REVISION: 03/04

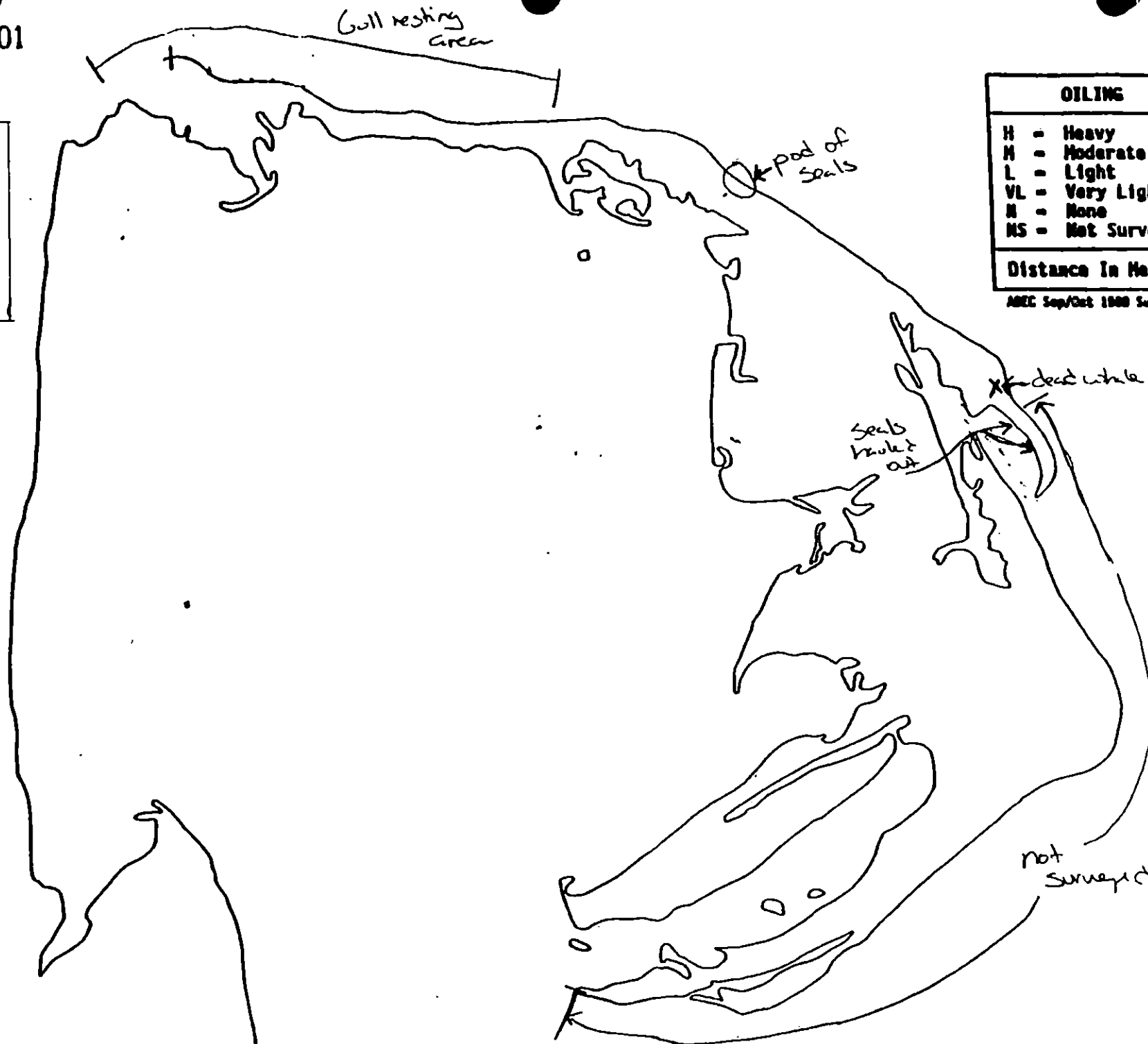
K071J-T1001

Gull resting area

Logy Map
area Codes for
Entire Segment

OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
NS	Not Surveyed
Distance In Meters	

ABEC Sep/Oct 1988 Survey



REVISION: 03-22-80

Time (24 hr) 11:00 Biologist David Lohse

- Photographs:
Roll No. ST-19-100

Frames 22

	Dense		
1U	1M	1L	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

	Sparse		
	1U	1M	1L
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6

	Rare	
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

NOT PRESENT

	Dense		
1U	1M	1L	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

	Rare		
1U	1M	1L	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	

NOT PRESENT

	Dense		
1U	1M	1L	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

	Rare		
1U	1M	1L	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	

NOT PRESENT

	Dense		
1U	1M	1L	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

	Sparse		
1U	1M	1L	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	

	Rare	
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

NOT PRESENT

See page 2

3N₁O - At northwestern end of segment several solitary seals observed in water. Farther east a pod of ~50 seals was observed. In the small lagoon in the center of the segment 2-3 pods of seals were observed hauled out on the beach.

58- (-11) + (-11) = -22

Segment SI/K7-13/TI-1

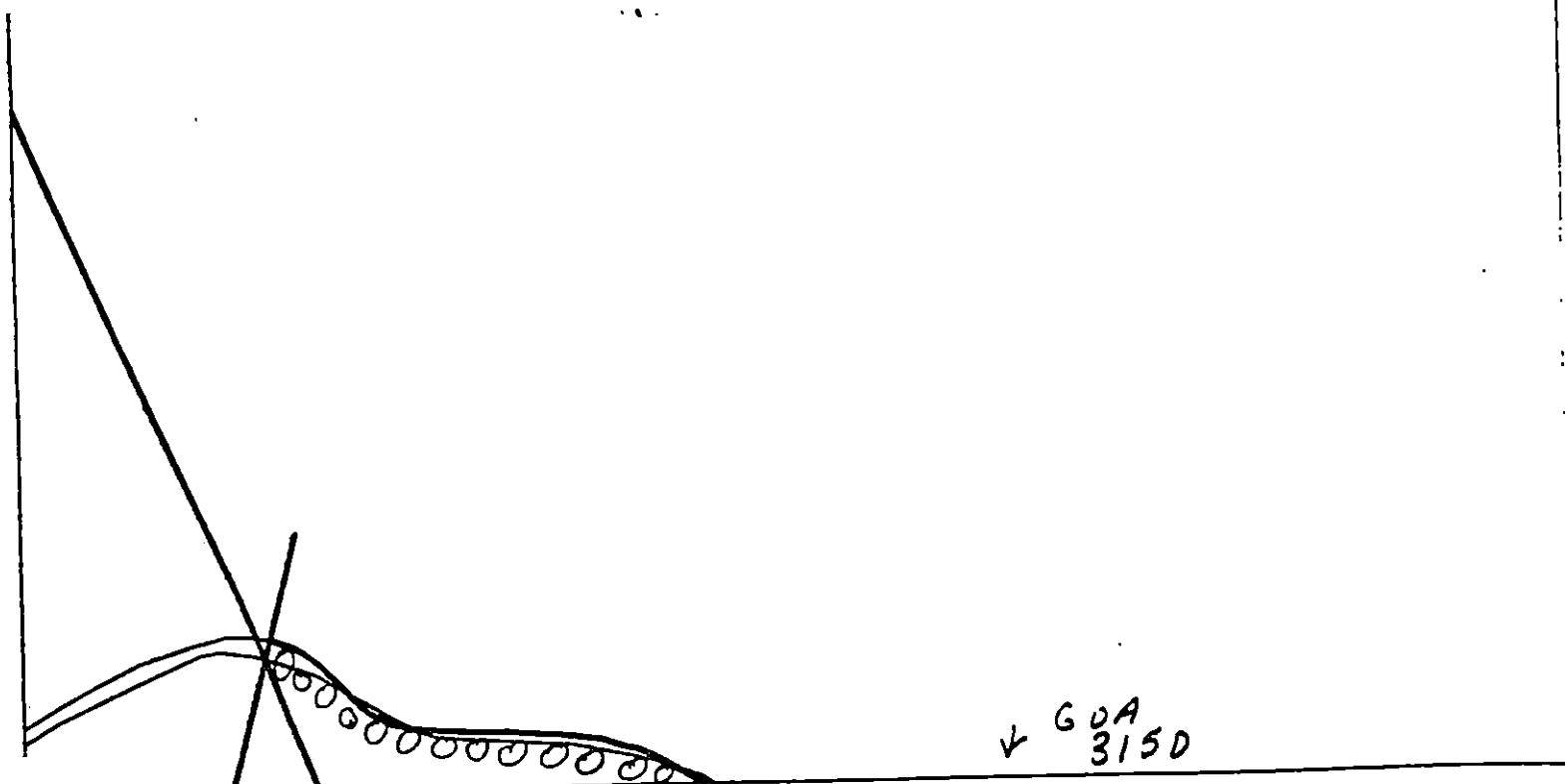
Subdivision A

5-31-90

Biologist: David Lohse

Wildlife Observations/General Comments

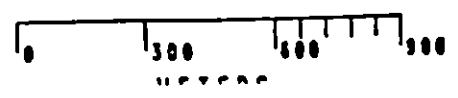
1. One immature bald eagle, ~6 terns, and innumerable gulls were spotted in area
2. One complete baleen whale and the remains of 2 deer and 2 seals were found on beach
3. Intertidal region along segment was sandy beach with scattered pockets of boulders, cobbles, and pebbles. In several locations there were 2 beach bars. At one site the area between the bars was low enough to be covered with water, and the scattered cobbles and pebbles here had some Enteromorpha on them. Other than this the intertidal was devoid of organisms



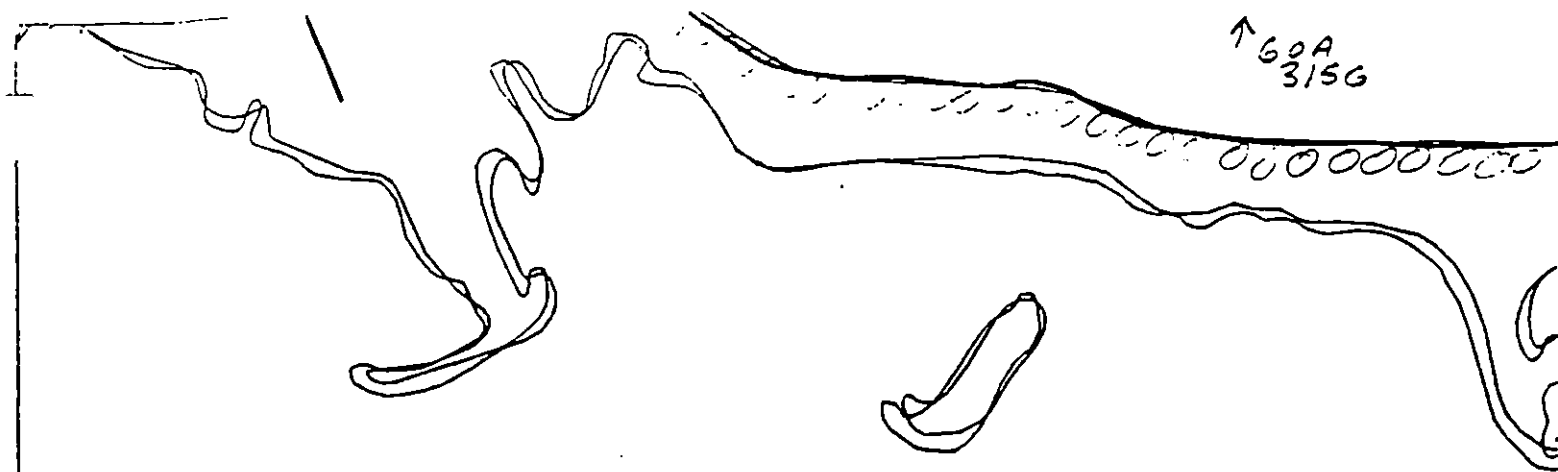
XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

K0713-TI-1-A

ADEC Segment Length: 23866m



Map Key: GOA-315g
 Name: James Springer
 Date: 5/31/90
 Data Entered:



GOA
315E →

XXXX Wide

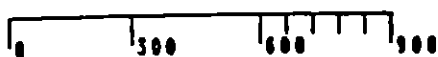
//// Medium

--- Narrow

TTTT Very Light

KØ713-TI-1-A

ADEC Segment Length: 23866m

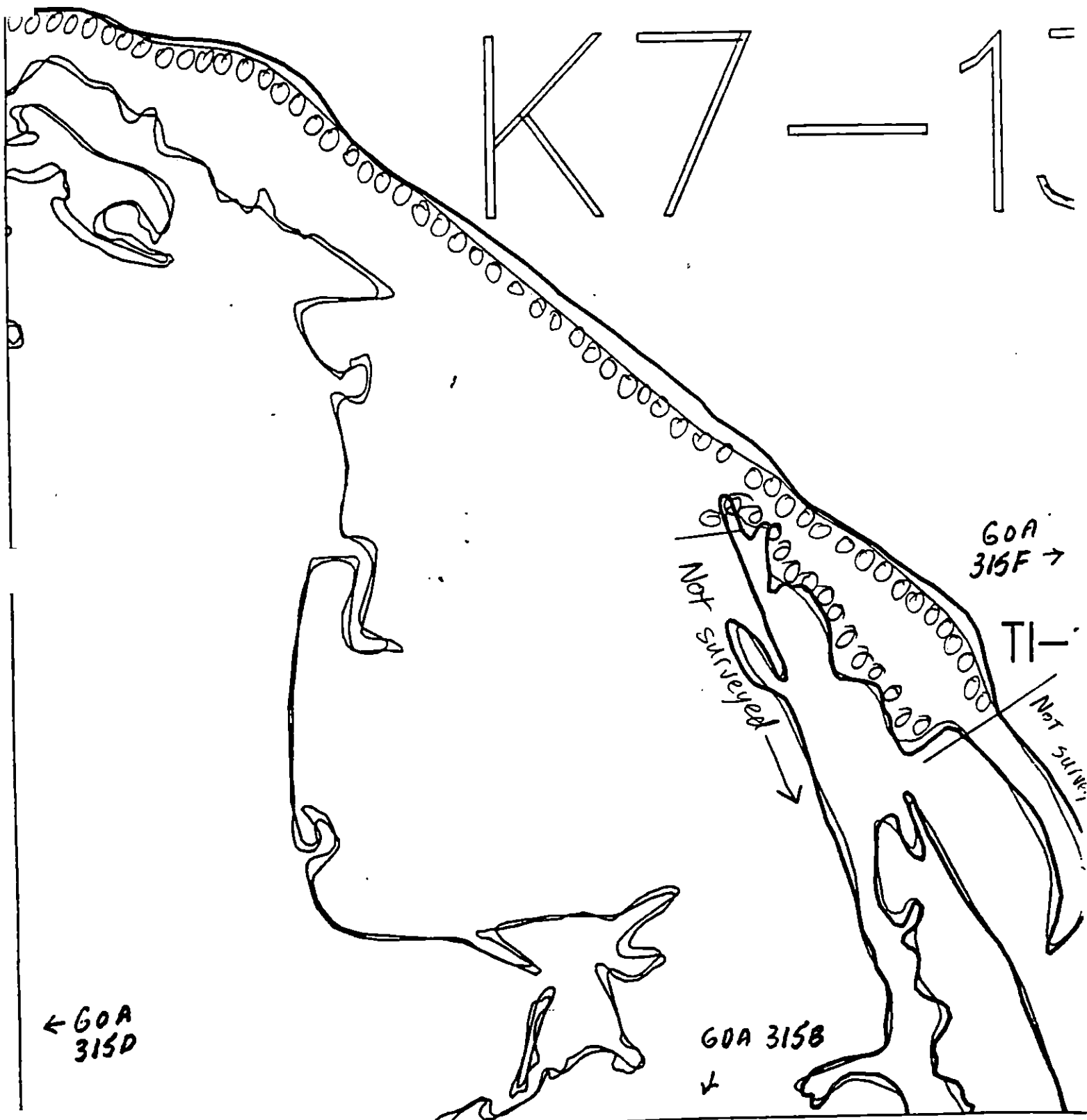


Map Key: GOA-315d

Name: James Springer

Date: 5/31/90

Data Entered:



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

K0713-TI-1-A

ADEC Segment Length: 23866m



Map Key: GOA-315a

Name: James Springer

Date: 5/31/90

Data Entered:

Not
surveyed

← GOA
315E

↓ GOA 315C

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

K0713-TI-1-A

ADEC Segment Length: 23866m

0 500 1000 1500

Map Key: GOA-315I

Name: James Springe

Date: 5/31/90

Data Entered:

↑
GOA 315F

Not surveyed

← GOA
315B

(XXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

K0713-TI-1-A

ADEC Segment Length: 23866m



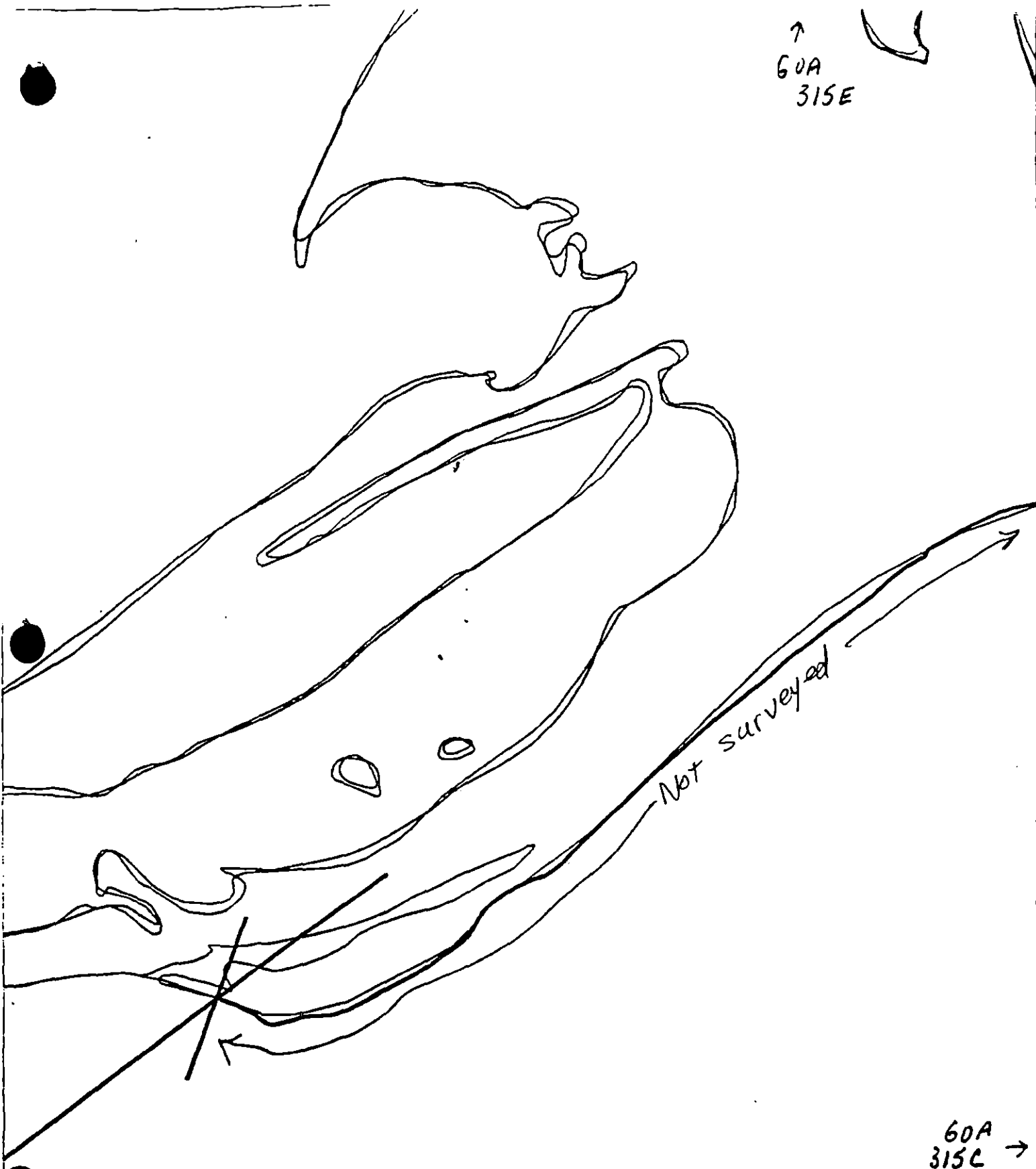
Map Key: GOA-315c

Name: James Springer

Date: 5/31/90

Data Entered:

↑
60A
315E



60A
315C →

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

KØ713-TI-1-A

ADEC Segment Length: 23866m

0 300 600 900

Map Key: GOA-315b

Name: James Springer

Date: 5/31/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K08-04-UB-03 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Harbor seal and sea lion pupping (3N, 3P) - 5/10 to 6/30 and molting (3O, 3Q) - 8/15 to 9/15.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to unoiled biota and substrate. See attached Ecological Constraint Sheet.

SHPO SIGNATURE: Charles E. Hodman DATE: 4/17/90

DILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 15922 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90
ADEC Al. HENK
EXXON Harvey T. G. FOSC: DATE: 4-20-90
NOAA Bruce W. G.
USCG C. A. BEITER

SEGMENT ST / K 8-4 UB03 SUBDIVISION: K-8-4-UB3-3A DATE 4-8-901 GNAME DD Haven Jr, GMB, USCGR SIGNATURE DD Haven Jr☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oil sighted

ADEC

NAME FRANKIE W. BENNIS SIGNATURE Frankie W. Bennis☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

iked entire length of accessible beach in each of our 4 setdowns
in north Ugak Bay. No oil observed.

LAND MANAGER

NAME Ray Burger ADNR SIGNATURE Ray Burger☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Four pocket beaches on segment assessed - no oil
All four are high energy beaches, landable by small craft
& very campable
Deer & eagles abound.
Three-wheeler trail accesses beach #4

SHORELINE OILING SUMMARY

REVISION NO. 03/22/88

OG Acton USCG Hakon SEGMENT ST/ 168-4-08-3
 RIO Davis LAND REP DNR SUBDIVISION 168-4-08-3A
 CXON Avery ADEC Bendin TIME 8:15 to 11:45
 TEAM NO.: 20 TIDE LEVEL: +0.5 to +6 DATE 4/8/90
 EST. SUBDIVISION LENGTH: 15495 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 30 % B 30 % C 10 % P 10 % G 10 % S 10 % M 0 % V 0 %
 SLOPE: Long 33 % Hang 33 % Vert 33 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 15495 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	20	30	40	50	60	70	80	90	100	110	120	SU	U	M	I
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													✓	✓	✓	✓

 PAVEMENT: H F S 0 sq. m by 0 cm

 PATTIES / TARBALLS 0 BAGS

 NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NO

 TYPE 0

 #BAGS 0

Photographs:

 Roll No. ST-20-3

 Frames 27-34

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	50	60	70	80	90	100	110	120	SU	U	M	I		
1	30					✓	-											✓					M S G
2	30					✓	-											✓					M S P
3	30					✓	-											✓					M S G
4	30					✓	-											✓					M S G
5	30					✓	-											✓					M S P
6	30					✓	-											✓					S G

COMMENTS (6000 approx)
 Surveyed 4 sections on foot (see map). Remainder of segment was surveyed by helo at approx 30kts and 30m altitude due to steep to vertical headland and cliff and flooding tide (9000 approx). No oil was observed in areas surveyed on foot. No oil was observed in areas surveyed by helo, although the limitations of spotting oil by helo are obvious. A foot survey of these areas would be required to make a more conclusive judgment regarding the presence of oil.

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 037270

SEGMENT ST/ K8-4-V3-3 SUBDIVISION K8-4-V3-3A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SB OR	DBL OR	OL FW	OL SL	DBL TL	LR	SU	UI	ME	U					
7	30					✓	-									✓								SG
8	30					✓	-									✓								SG
9	30					✓	-									✓								SG
10	30					✓	-									✓								SG
11	30					✓	-									✓								SG
12	30					✓	-									✓								SG
13	30					✓	-									✓								SG
14	30					✓	-									✓								SG
15	30					✓	-									✓								SG
16	30					✓	-									✓								SG
17	30					✓	-									✓								SG
18	30					✓	-									✓								SG
19	30					✓	-									✓								SG
20	30					✓	-									✓								SG

COMMENTS

REVIEWED BAT DATE 9 Apr 90

OG Ag

SEGMENT ST/ K8-4-UD

SUBDIVISION K8-4-UD-3A

DATE 4 / 8 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/AML
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

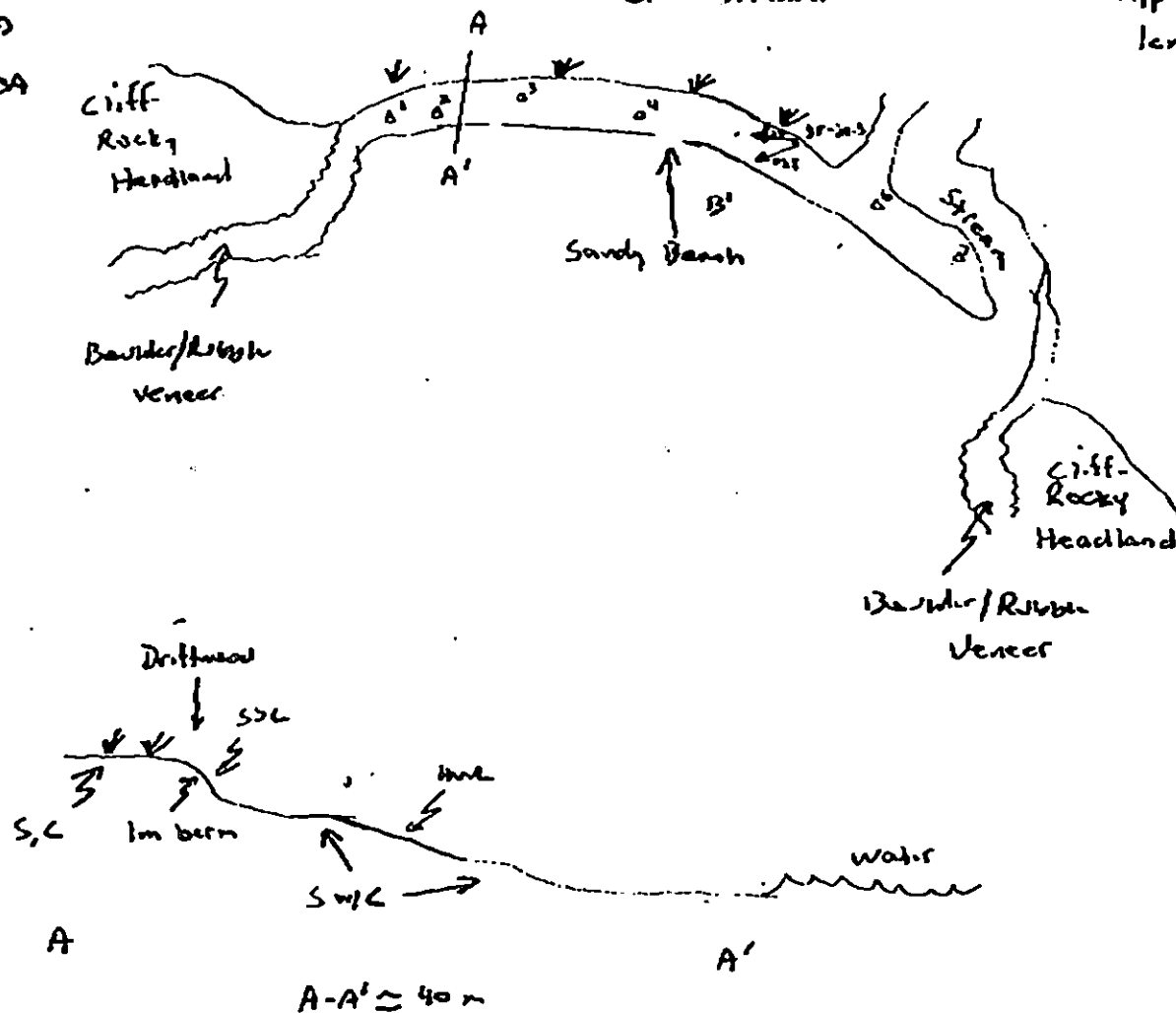
Oiled Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

SI CH MAP #1

N $\uparrow$
Approx Scale
1cm $\approx$ 100m



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 2000

REVISION: 03/24/90

OG Act

SEGMENT ST/ K8-4-VB-3

SUBDIVISION K8-4-VB-3A

DATE 4 / 8 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HNW/LVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

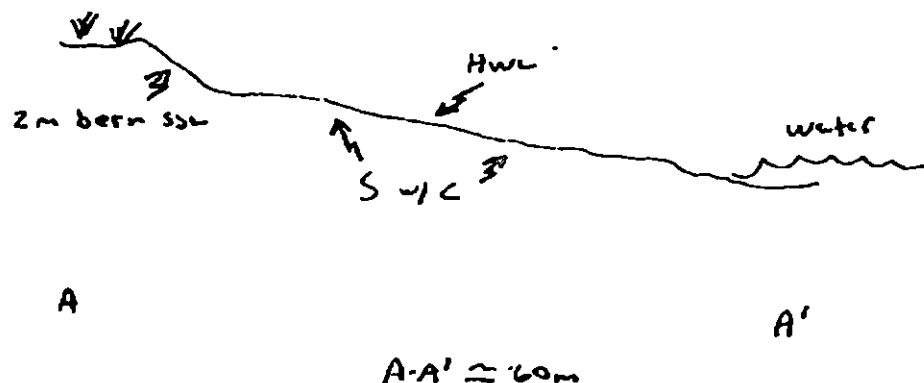
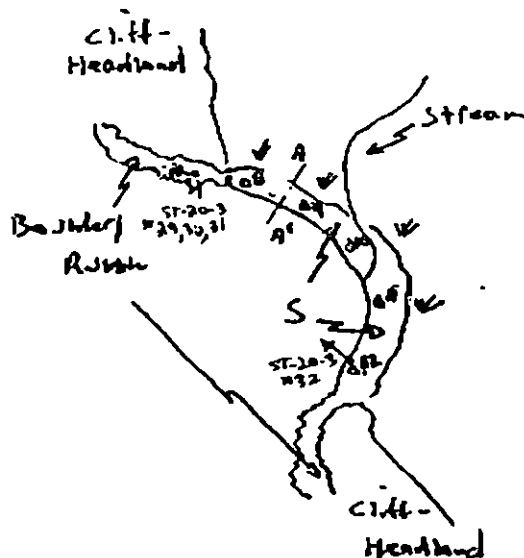
Oiled Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP #2

N $\uparrow$
Approx Scale
1cm $\approx$ 100m



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 150m

REVISION: 00/24/00

DATE 4 / 8 90

SK H MAP⁺ 3

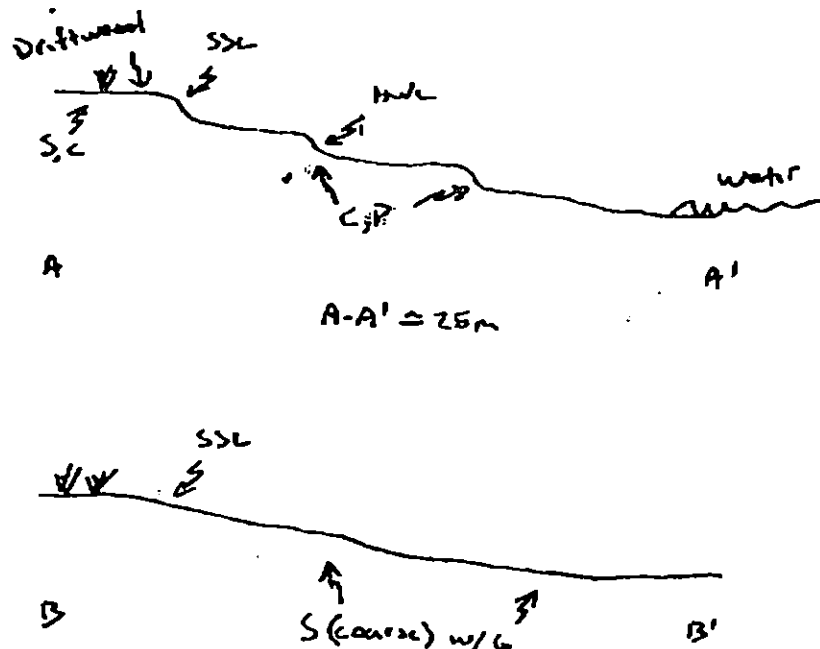
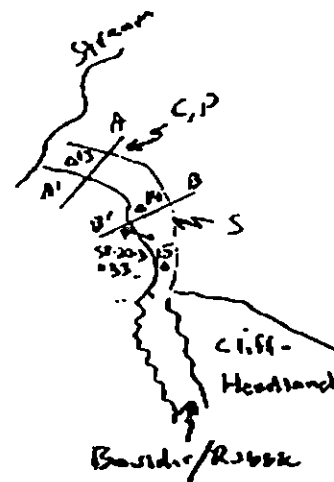
N ↑
Approx Scale
1cm $\hat{=}$ 100m

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sec/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 
 PH - No Subsurface Oil
- 2 
 PH - Subsurface Oil
- 
 CT/C
 Continuous Distribution
- 
 CT/B
 Broken Distribution
- 
 CT/P
 Patchy Distribution
- 
 CT/S
 Spashed Distribution
- Oiled Vegetation
- 1 
 Photo location, direction
 and number



C, 1st Bench - west end of beach

S Beach - central + east end of beach

Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 100

REVISION: 03/24/10

OG Act

SEGMENT ST/ K8-4-JB-3

SUBDIVISION K8-4-JB-3A

DATE 4 / 8 90

SK 1 MAP * 4

N ↑
Approx. Scale
1cm = 100m

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HNTLA/ML
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

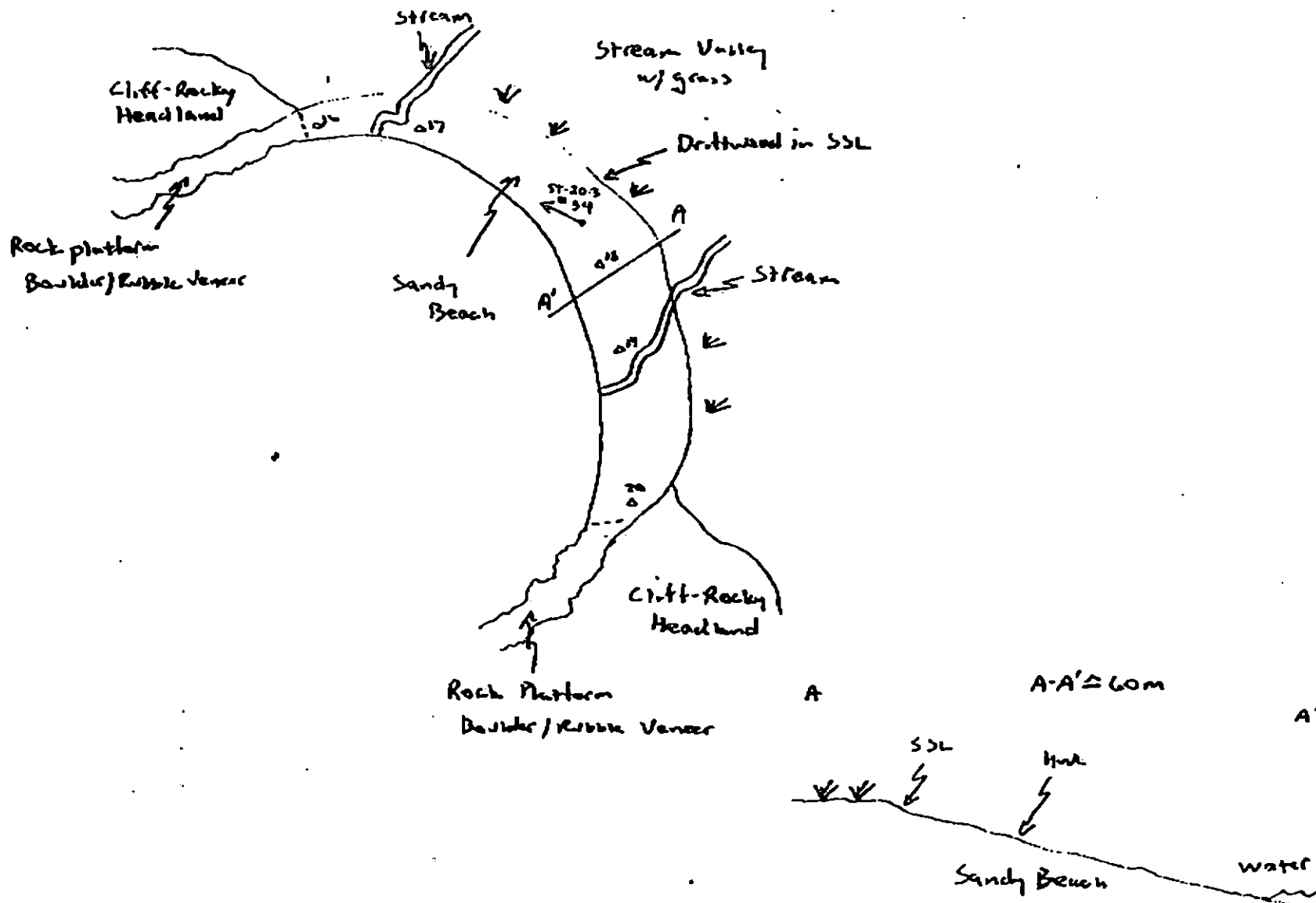
Splashed Distribution

Old Vegetation

1 →

Photo location, direction,
and number

Oil Character Length (m): AP ☐ PO ☐ CV ☐ CT ☐ ST ☐ MS ☐ PT ☐ TB ☐ FL ☐ NO 1500



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K08-04 Subdivision UB-03A (Rocky Points) Date (mo/day/yr) 4-8-90Time (24 hr) 08:25 Biologist H. Davis

(A) Substrate type and % of segments:

(1) Bedrock 30 (2) Boulder 30 (3) Cobble 10 (4) Pebble 20 (5) Sand 10 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 25% Moderate 25% Low 50% (20%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:

Roll No. ST-20-3Frames 27-34

BARNACLES

Dense	Moderate	Sparse	Rare	
1U 2 3 4 5 6	1L 2 3 4 5 6	1U 2 3 4 5 6	1U 2 3 4 5 6	
2 3 4 5 6	2 3 4 5 6	2 3 4 5 6	2 3 4 5 6	NOT PRESENT 5, 6

MYTILUS

Dense	Moderate	Sparse	Rare	
1U 2 3 4 5 6	1U 2 3 4 5 6	1U 2 3 4 5 6	1U 2 3 4 5 6	
2 3 4 5 6	2 3 4 5 6	2 3 4 5 6	2 3 4 5 6	NOT PRESENT 6

GASTROPODS

Dense	Moderate	Sparse	Rare	
1U 2 3 4 5 6	1U 2 3 4 5 6	1U 2 3 4 5 6	1U 2 3 4 5 6	
2 3 4 5 6	2 3 4 5 6	2 3 4 5 6	2 3 4 5 6	NOT PRESENT 4, 5, 6

FUCUS

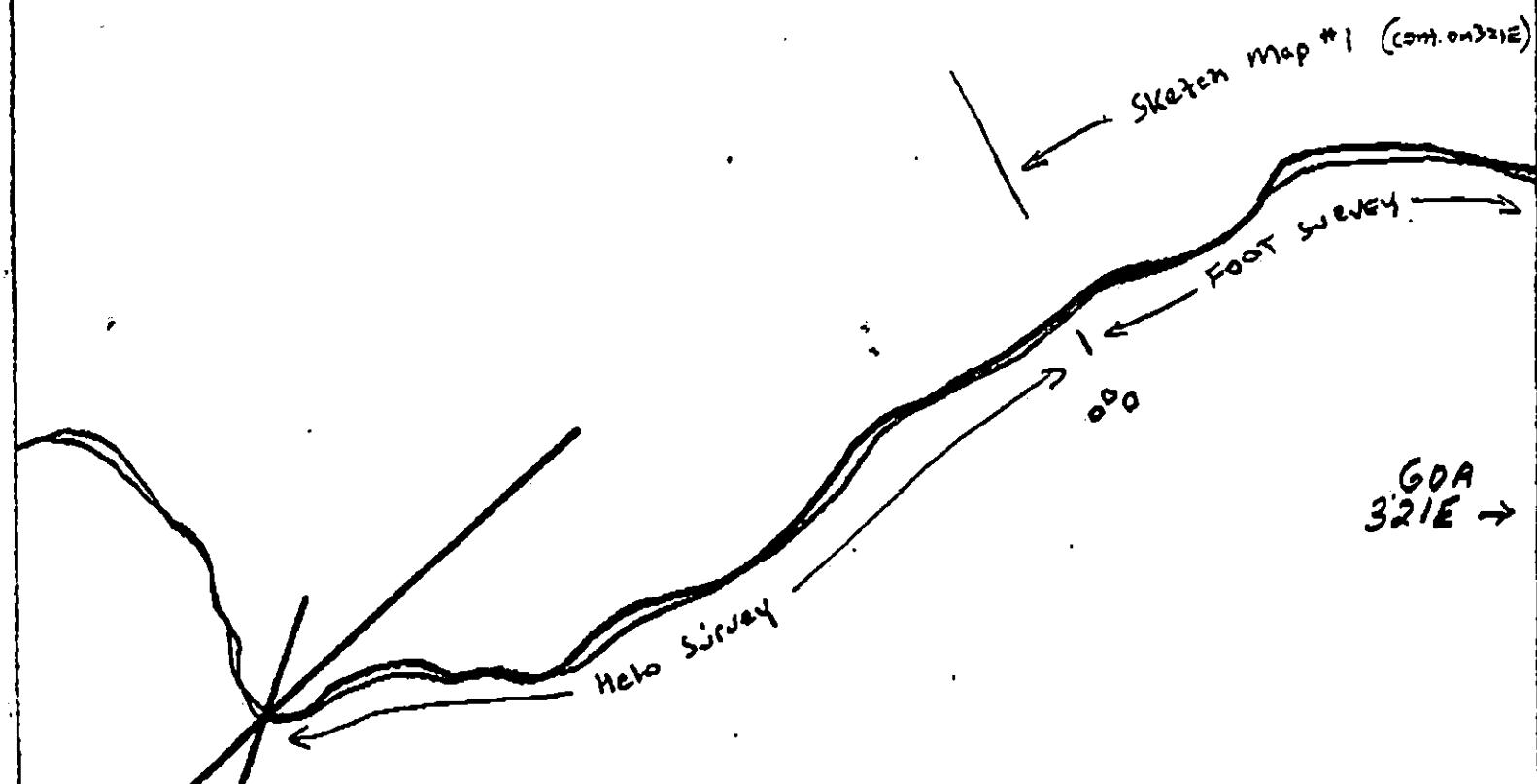
Dense	Moderate	Sparse	Rare	
1U 2 3 4 5 6	1U 2 3 4 5 6	1U 2 3 4 5 6	1U 2 3 4 5 6	
2 3 4 5 6	2 3 4 5 6	2 3 4 5 6	2 3 4 5 6	NOT PRESENT

Wildlife Observations/ General Comments: The rocky/pebbly beaches have no Fucus, Mytilus, Barnacles or gastropods. Shells and algae in the wrecks include: *Filipina patula*, *Thais capax*, *Saxidomus gigas*, *Acanthina mitchellii*, *Laminaria dentifera*, *Perna dissona*, *Nereocystis*, *Strongylocentrotus*, *Halosagitta* and *Aleria*. The rocky points varies from Fucus, gastropod, Mytilus, Barnacle populations to very rich intertidal communities. Deer, Porcupine, other tracks were found 20-30 deer were in the area. All tracks were visible from shore. Gulls, Surf Scoters, Osprey, Mallards, Ducks and Eagles in the area.

Ecological Considerations: (3N, 30) Harbor seals molt and pup in these area. Eagles (5T) are feeding and nesting on the cliffs and pinnacles. (1 nest observed to north of Shark Pt.) at least two of the four streams are anadromous.

KODIAK ECOLOGICAL CONSTRAINTS

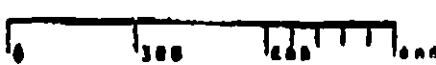
- 1A** Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C** Salmon fry nursery area (4/31 to 7/31)
- 1D** Kotai Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H** Remote release site
- 1I** Gill net area
- 1J** Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K** Purse seine hook-off
- 1L** Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M** Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P** Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q** Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R** Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T** All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U** Recreation: Tent sites (6/1 to 9/15)
- 6V** Anchorages (6/1 to 9/15)
- 6W** Forest Service cabins (6/1 to 9/15)
- 6X** Lodge (6/1 to 9/15)
- 6Y** Special use destination
- 7Z** Subsistence area: Salmon harvesting (6/1 to 9/30)
- 7HH** Finfish harvesting
- 7II** Deer harvesting (8/1 to 1/7)
- 7JJ** Invertebrate harvesting
- 7KK** Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.



XX Wide
 /// Medium
 --- Narrow
 TTTT Very Light

UB-3

ADEC Segment Length: 18040m

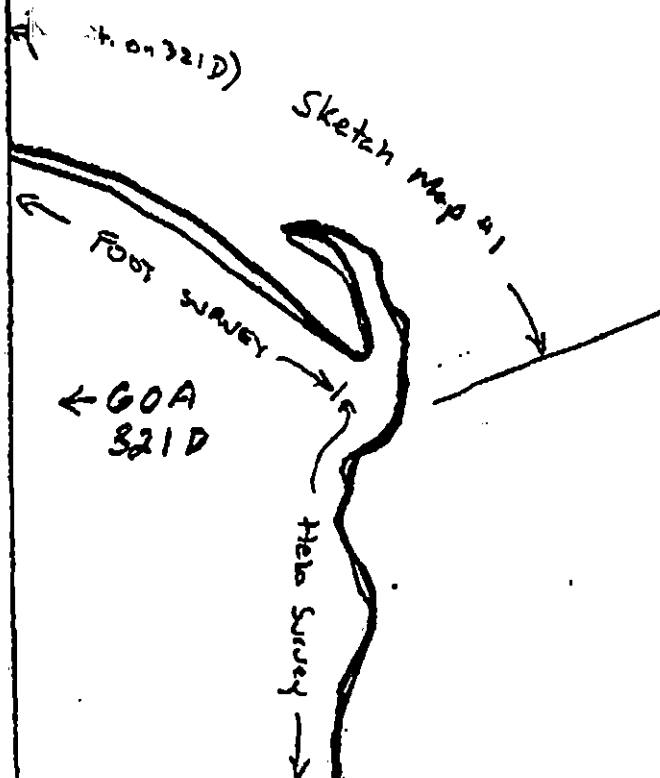


K8-4-UB-3A

Map Key: GOA-321d

Name: Acton

Date: 4-8-90



GOA
↓ 321B

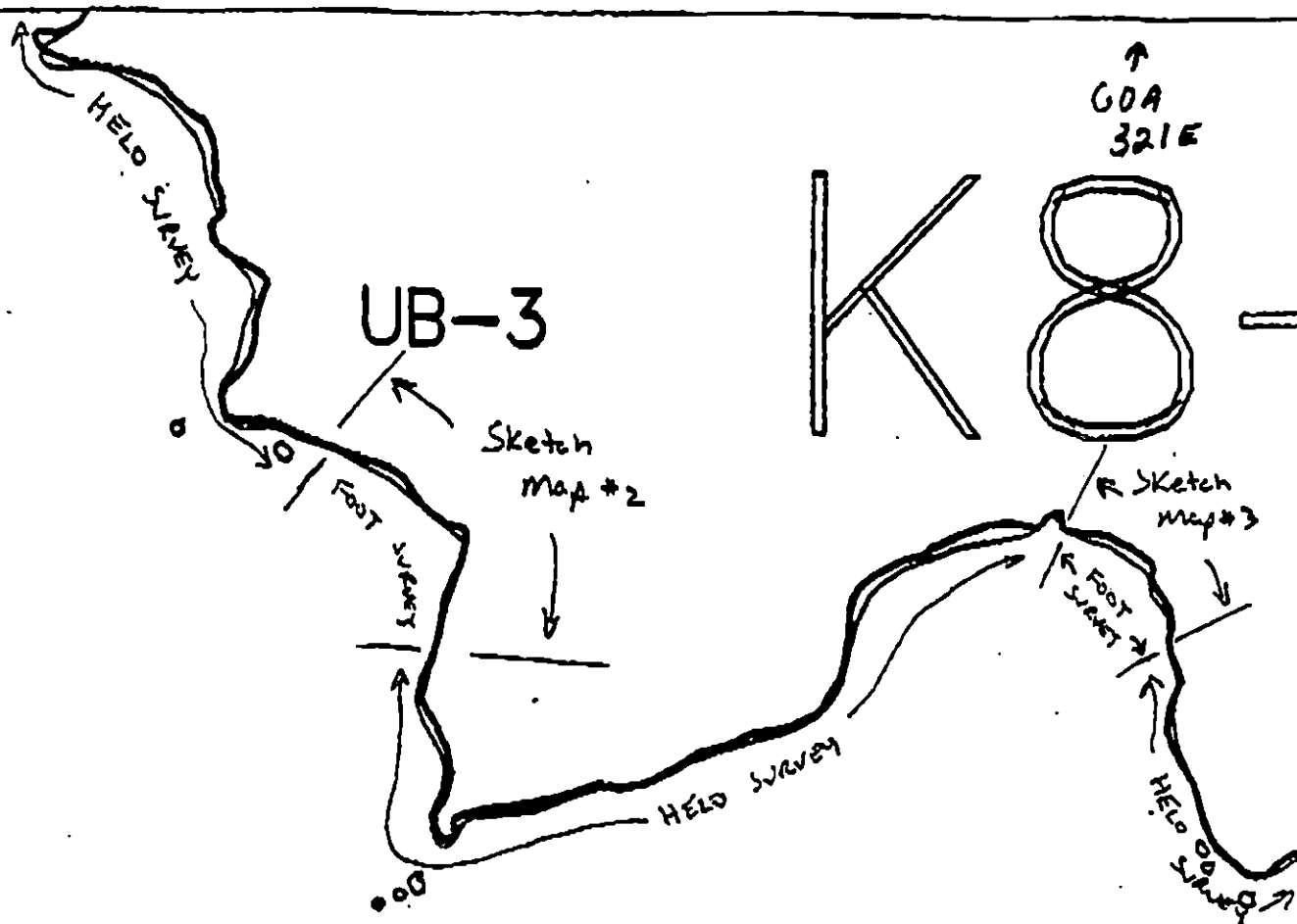
XXX Wide
/// Medium
--- Narrow
TTTT Very Light
OOOO No Oil

UB-3

ADEC Segment Length: 16040m



K8-4-UB-3A
Map Key: GOA-321e
Name: Acton
Date: 4-8-90
Data Entered:



XXX Wide

/// Medium

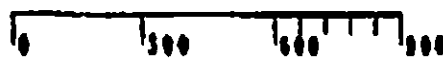
--- Narrow

TTTT Very Light

OOOO No Oil

UB-3

ADEC Segment Length: 16040m



K8-4-UB-3A

Map Key: GOA-321b

Name: Acton

Date: 4-8-90

Data Entered:



vvxx Wide

..// Medium

---- Narrow

TTTT Very Light

0000 No Oil

UB-3

ADEC Segment Length: 16040m



K8-4-UB-3A

Map Key: 00A-321c

Name: Aston

Date: 4-8-90

Data Entered:

K8-4-UB-3A

GOA
321E →

(XX Wide
//// Medium
---- Narrow
TTTT Very Light

UB-3

ADEC Segment Length: 16040m

K8-4-UB-3A
Map Key: GOA-321d

Name: Acton

Date: 4-8-90



K8-4-UB-3A

← GOA
321D

GOA
↓ 321B

(XX Wide
/// Medium

--- Narrow

TTTT Very Light

NNNN No Oil

UB-3

ADEC Segment Length: 16040m

0 500 1000 1500



K8-4-UB-3A
Map Key: GOA-321e

Name: Acton

Date: 4-8-90

note released.

K8-4-UB-3A

← GOA

321B

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

UB-3

ADEC Segment Length: 16040m



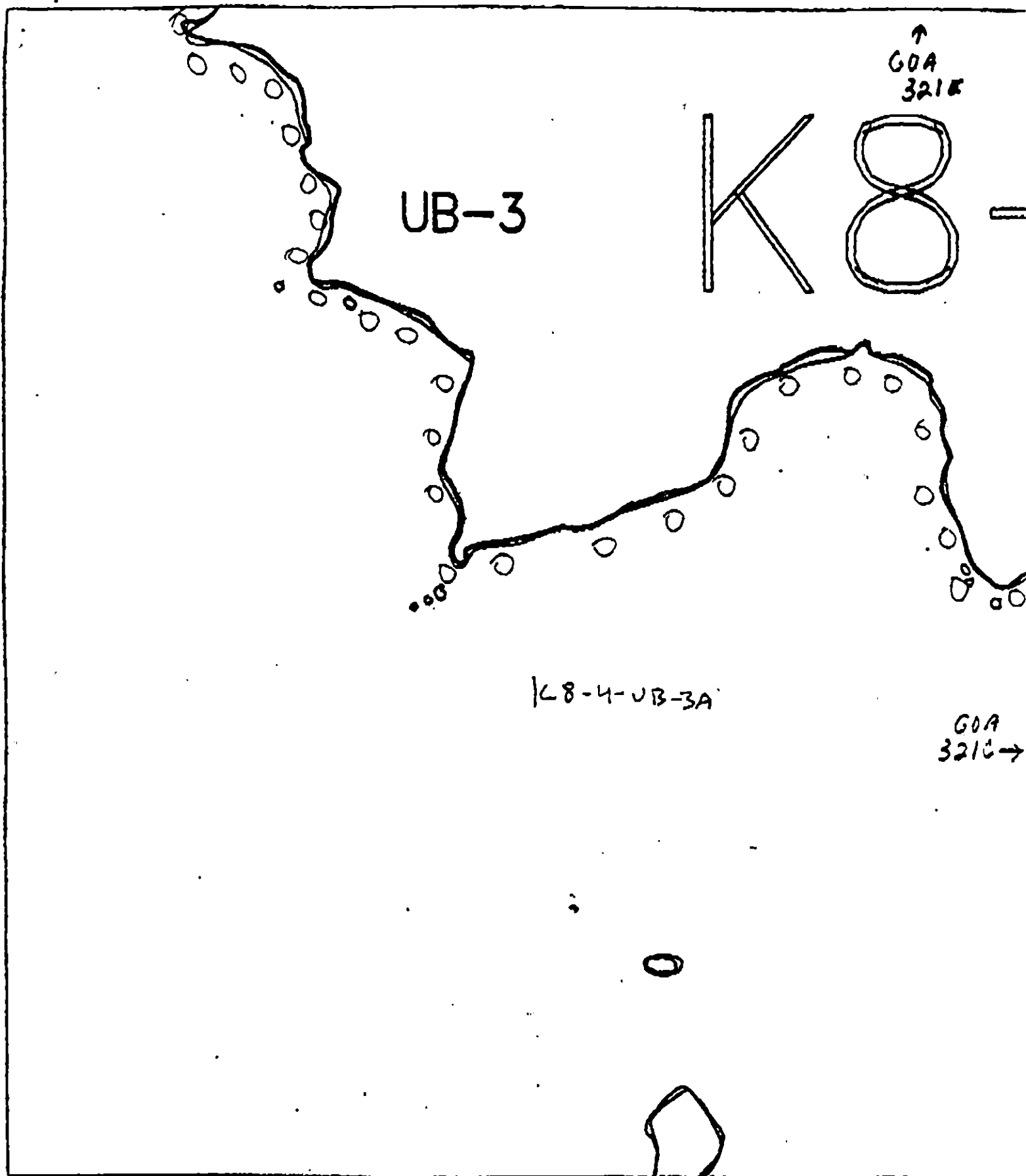
K8-4-UB-3A

Map Key: GOA-321c

Name: Acton

Date: 4-8-90

Data Entered:



XXX Wide

/// Medium

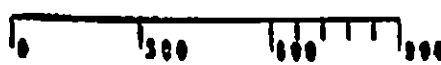
--- Narrow

TTTT Very Light

OOOO No Oil

UB-3

ADEC Segment Length: 18040m



L8-4-UB-3A

Map Key: GOA-321b

Name: Acton

Date: 4-8-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-06-CP-01 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

ADF&G anadromous stream no. 248-40-10105

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)

1B Salmon stream mouth - spawning (7/10 to 8/31)

5R Seabird colony (5/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles H. Hansen DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 74 m: V.Light 223 m: No Oil 3889 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/12/90
ADEC Art Weimer Art Weimer
EXXON AMY TSL Beal
NOAA Gary Petrac Gary Petrac
USCG D.D. Rome D.D. Rome

FOSC: WJL DATE: 5-18-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotai Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Oiga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- P Harbor seal and sea lion pupping (5/10 to 7/1)
--- J Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- SR Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- SS Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- ST All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
6V Anchorages (5/1 to 9/15)
6W Forest Service cabins (5/1 to 9/15)
6X Lodge (5/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
H Finfish harvesting
7I Deer harvesting (5/1 to 1/7)
J Invertebrate harvesting
7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0906 CP-001 SUBDIVISION: A DATE 4/26/90

~~USAA~~

~~USCG~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This segment consisted of very light oil. Mainly stain and coat with one area of small amount of mousse at far eastern end of segment. Recommend no treatment.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

One small 15m x 8m area in the eastern portion of the segment contains patchy interstitial mousse/sediment around large boulders. Manual removal using small tools is recommended.

LAND MANAGER

NAME Carl Schuch SIGNATURE Carl Schuch

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Oiled debris should be removed from storm berm.
The mousse at the south east end of the segment is difficult to access, mostly interstitial and under boulders. This oil can be expected to persist for a long time if not removed.

SHORELINE OILING SUMMARY

REVISION NO. 24

OG LINDSAY NAWASHIMA 4806 (NOAA) JOHN NAUGHTON SEGMENT ST/ K0906
 BIO DEB MCCORMICK LAND REP (NPS) CARL SCHUCH SUBDIVISION CPO01A 1 OF 1
 EXXON FRID AVARS ADEC TERRY ELLSWORTH TIME 7:40 to 9:00
 TEAM NO. 19 TIDE LEVEL +1.3 TO -2.0 FATHOMS DATE 4/26/90
 EST. SUBDIVISION LENGTH: 2465 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock GRASS TO NORTH - ROCK TO SOUTH
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: WEST to EAST
 SURFACE SEDIMENTS: R 10 % B 50 % C 10 % P 3 % G 2 % S 25 % M 0 % V 0
 SLOPE: Long 75 % Hang 15 % Vert 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 15 m VL 200 m NO 2250

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	0	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT			X	X		X					X		
STAIN			X	X		X					X		
MOUSSE			X	X				X			X		
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	

PAVEMENT H F S NONE sq. m by 0PATTIES / TARBALLS NONE BAG:NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris	X		

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS 0

Photographs:

Roll No. ST-19-18Frames 1-3

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE SUBSURFACE SEDIMENT		
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	5	6	7	8	SU	U					M	L
1	30					X	0-0										X					-	-	-	PKGS
							.																		
							.																		
							.																		
							.																		
							.																		

COMMENTS - OILING MAPS INDICATE AREAS NOT SURVEYED - THE AREAS WERE NOTED AS NOT OILED BY ADEC

2100m - OIL IN THE FIRST AREA IS STAIN ON LOGS AND DEBRIS (PLASTIC JUNK/ROPE)
SEE SKETCH THE DISTRIBUTION IS ALONG A 200(M) SECTION OF SHORELINE AND SPORADICALLY DISTRIBUTED AT THE UPPER INTERTIDAL ZONE

365m - MOUSSE EXTENDS TO 2cm
SEE SKETCH

REVIEWED YHDATE 4-29-9

SEGMENT S 16906 - CP001

SUBDIVISION CP001/A

DATE 4/26/90

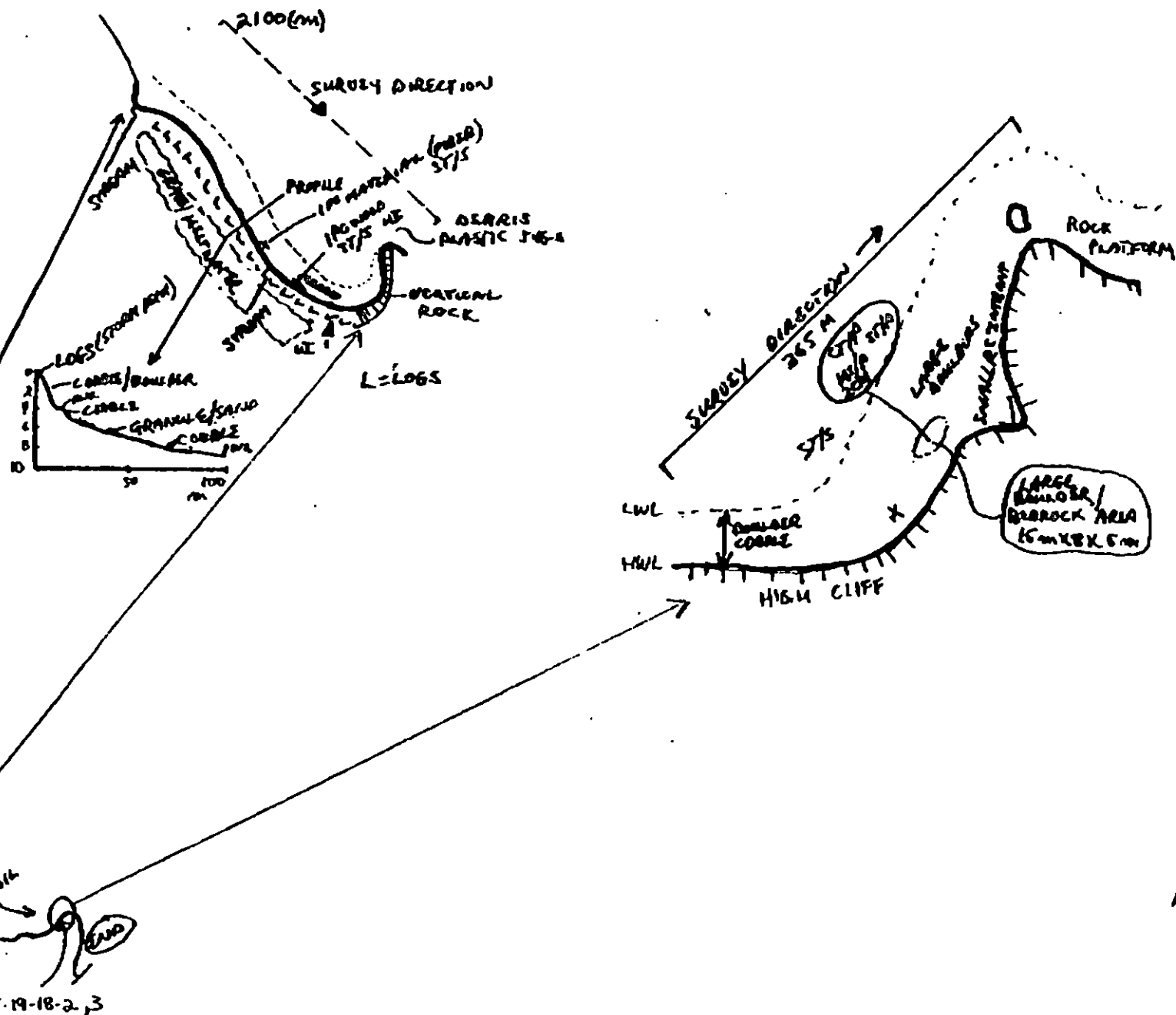
CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Side Grid
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HYDRAULIC
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
PI - No Subsurface Oil
- 2 Δ
PI - Subsurface Oil
- CT/C
Concentric Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- eee
Oiled Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number

ETCH MAP



Character Length (m): AP 0 PO 0 CV 0 CT 15 ST 240 MS 15 PT 0 TB 0 FL 15 NO 2250

REVISION 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/2

Segment ST / KO906 C.P-1 Subdivision A Date (mo / day / yr) 4-26-90

Time (24 hr) 0740-0900 Biologist D. McCormick

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 50 (3) Cobble 10 (4) Pebble 3 (5) Sand 25 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 0 Moderate 10 Low 90

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-19-18

Frames 1-3

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESEN

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESEN

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESEN

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESEN

Wildlife Observations/ General Comments: Oystercatchers and gulls.
Most of segment is pebble/cobble/sand beach with only Fila green algae on LIT2 boulders/cobble.
Intertidal macrofauna confined to boulder beaches at end of segment.

Ecological Considerations: According to NOAA, seabird colonies + at least one eagle nest are included in this segment. Neither of these eco resources were seen during our survey. Also, they are not noted on any USFWS or NPS resource maps. There is one anadromous stream (pinks, Chums + silvers) at the north end of the segment. See ECO map.

DATE 4-26-90 TIME 0740-0900 TIDE HEIGHT -2.0' ~ +3.0'

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA	1	1		in tidal pools
FILAMENTOUS GREENS			2,3	
FILAMENTOUS REDS				
OLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME				
LAMINARIA SPP				
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
PHODOMELA LARIX				
RHOHOMENIA PALMATA				
SCYTOSIPHON SPP				
ULVA SPP				
ZOSTERA MARINA				
ENTOROMORPHA				

FAUNA:

ANTHOPLEURA SPP				
(SEM) BALUNUS CARIOSUS		2,3	2,3	
B. GLANDULA	2			
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS	1,2	2		
LITTORINA SPP	2	2,3	2	
NUCELLA SPP				
PAGURUS SPP				
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				

ECOLOGICAL DATA

JA, 18
5R

SUBJECT ANAKREMOUS
-SIREANI

248-40-10105

AFOGNAK (D-5) QUADRANGLE
ALASKA

1.63 360 SERIES (TOPOGRAPHIC)

30' (ILIAMNA A-1 AND A-2)

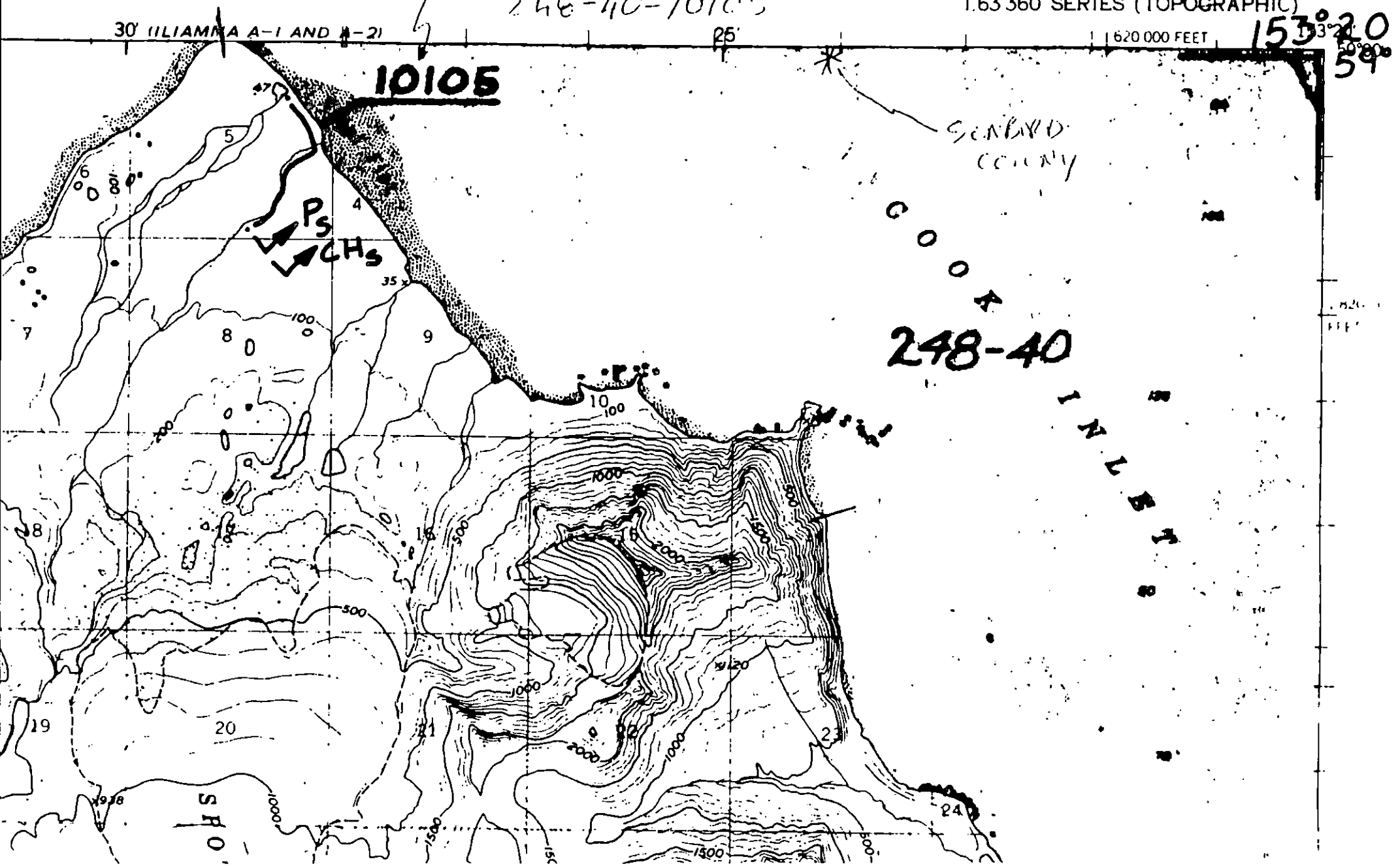
620 000 FEET

153° 20' 59"

10105

SEABYD
COUNTRY

248-40



ECO MAP
Pg 1

No Resources

↓ GOA 62A

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CP-1

ADEC Segment Length: 8074m



Map Key: GOA-62c

Name: _____

Date: _____

Data Entered: _____

↑
GOA
62C

K9N

ECOMAP
Pg 2

Anadromous
Stream

ADF+G 10105 ↑
(pink, chum, silver)

CP-1

K-9-6-CP-1-A

GOA
62B →

XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

CP-1

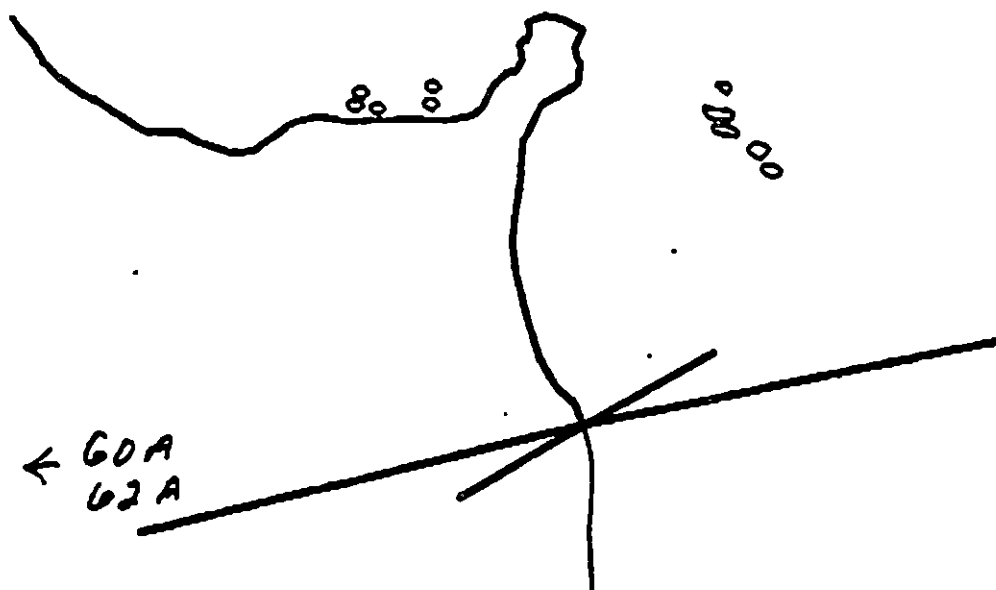
ADEC Segment Length: 8074m



Map Key: GOA-62a
Name: _____
Date: _____
Data Entered: _____

ECO MAP
Pg 3

No Resources



XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CP-1

ADEC Segment Length: 8074m

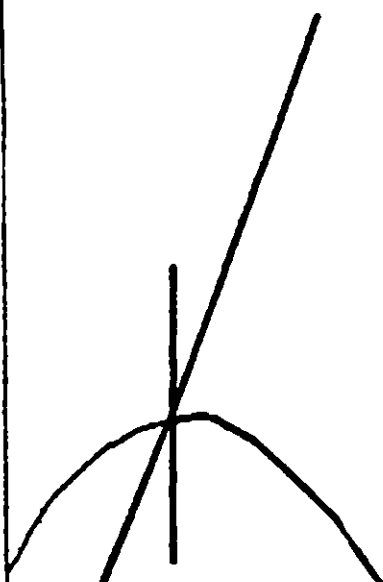


Map Key: GOA-62b

Name: _____

Date: _____

Data Entered: _____



NOT SURVEYED
REPORTED AS NOT
OILED BY ADEC

↓ GOA 62A

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CP-1

ADEC Segment Length: 8074m



METERS



Map Key: GOA-62c

Name: LINDSAY NAKASHIMA

Date: 4/26/90

Date Entered:

↑
GOA
62C

K91

NOT SURVEYED
REPORTED AS NOT OILED
BY ADEC

CP-1

GOA
62B →

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CP-1

ADEC Segment Length: 8074m

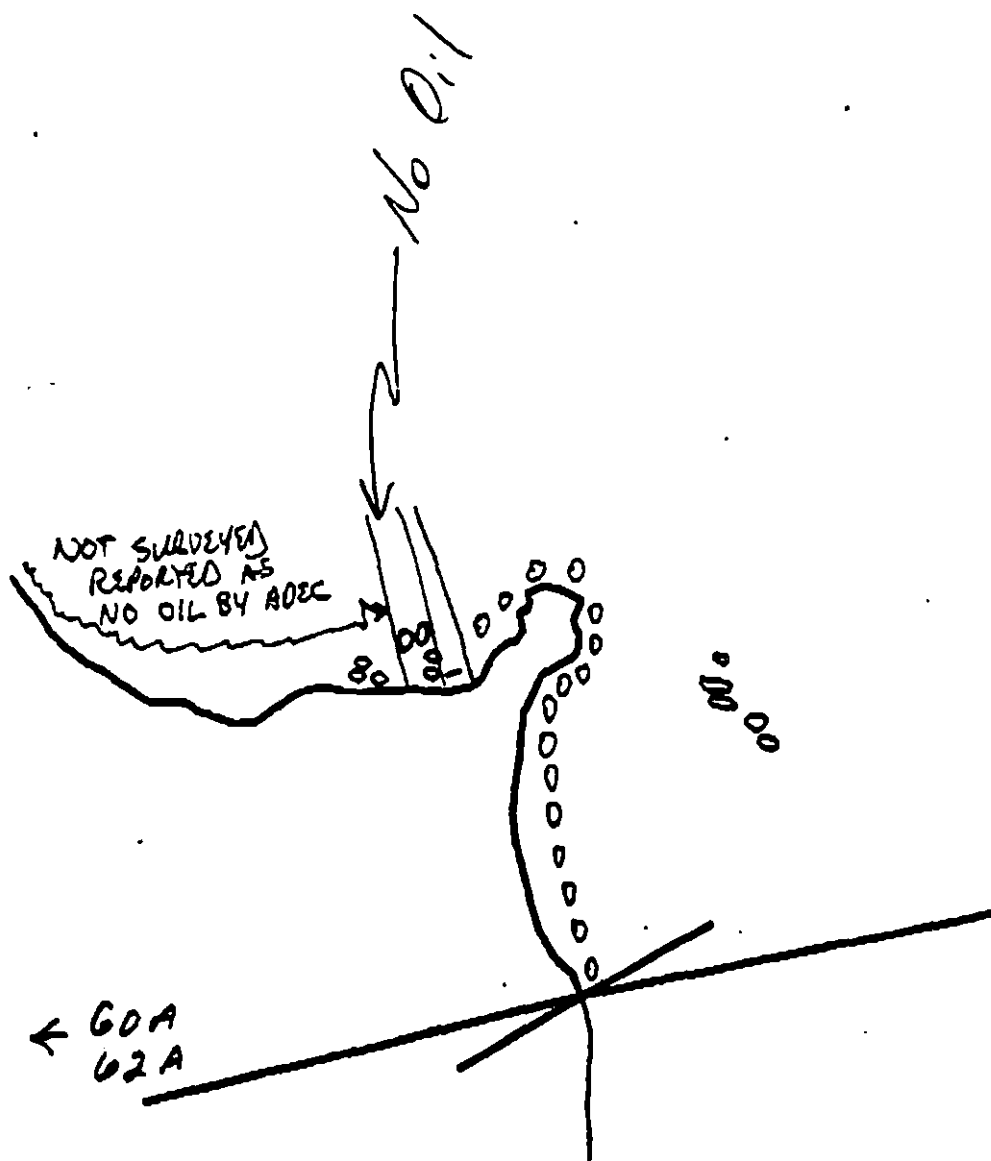


Map Key: GOA-62a

Name: LINDSAY NAKASHIMA

Date: 4/24/90

Data Entered:



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

CP-1

ADEC Segment Length: 8074m



Map Key: GOA-62b

Name: Luisay Nakawida

Date: 4/26/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-06-CP-02 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
Katmai National Park

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: [Signature]

DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 189 m: Narrow 320 m: V.Light 1918 m: No Oil 1241 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes manual pickup of mousse, oiled debris and oiled logs as indicated on sketch map. Bioremediate area indicated on sketch map. Work should be conducted between 7/2 and 8/14 due to pinniped constraints.

TAG COMMENTS: Monitors to assess the significance of the oiled logs

TAG APPROVAL DATE: 5/8/90

ADEC ART WENGER

EXXON ART TOL

NOAA GARY J. STONE

USCG G.A. REITER

FOSC: [Signature]

DATE: 5-12-90

Treat before 15 May or after 15 Sep. Bioremediation is not authorized. NPS monitor to be on site.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- SR Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- SS Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 HH Finfish harvesting
 7H Deer harvesting (8/1 to 1/7)
 7J Invertebrate harvesting
 7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2358

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ 19-6, CP-2 SUBDIVISION: A DATE 4.26.90

USCG

NAME D.D. Haven Jr. 6ms, USCGR SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oiled debris present on North side of island

ADEC

NAME Francine J. Bennie SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

MANUAL CLEAN-UP RECOMMENDED; There are 2 main areas on Shaw Island of collectable oil;

1) A 8m x 150m band of Mousse, + mousse saturated fine sediments on the N side of Shaw I., just to the east of a 46/5 beach. Clean-up crew should check drift beams for mousse patches + tar balls as well.

2) A 3m x 50m band of oil similar to that described above exists on a South west beach as well. Clean-up w/ shovels + trowels will not be difficult.

Clean-up crew should check other areas shown on SSAT field map to collect any other retrievable oil.

LAND MANAGER NPBNAME WILL TROYER SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

I basically agree with the ADEC representative. The long band of mousse on the north side can easily be removed by manual labor with a shovel as much of it has texture boulder with a sand + pebble under layer. Similar granulation are found on the band of mousse on the SW side. Some could be removed in the NE corner band but much of the remaining is in finer bedrock so boulder and little could be removed.

None of the island received treatment float upon. It is an

None of the island received treatment float upon. It is an

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Acton USCG Haven SEGMENT ST/ K9-6-C2-2
 BIO Davis LAND REP NPS Troyer, James SUBDIVISION K9-6-C2-2A (1 OF 1)
 EXXON Avery ADEC Bennis TIME 9:20 10:12:45
 TEAM NO. 20 TIDE LEVEL -3 to +5.6 DATE 4/26/90
 EST. SUBDIVISION LENGTH: 3933 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: Continuation to from N
 SURFACE SEDIMENTS: R 40 % B 40 % C 10 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 80 % Hang 10 % Vert 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 140 m N 200 m VL 2500 m NO 1093 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	W	M	N	VL	W	M	N	VL	W	M	N	U
ASPHALT PAVEMENT												
POOLED												
COVER		<u>U</u>	<u>U</u>	<u>U</u>								
COAT		☒	☒	☒	☒							☒
STAIN		☒	☒	☒	☒							☒
MOUSSE		☒	☒					☒				☒
PATTIES		☒										
TARBALLS												
FILM												
NO OIL									☒	☒	☒	☒

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	☒		
Vegetation			
Trash			
Debris	☒		

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-20-7, ST-20-8Frames 31-37 → 2-9

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	W	M	N	VL	W	M	N	U				
1	5					☒	.		☒						☒						G, R
2	5					☒	.		☒						☒						G, R
3	5					☒	.		☒						☒						S G R
							.														
							.														
							.														

COMMENTS Island has extensive rock platform on all sides, with widths at low tide of up to 120 meters on the north shore. The area with the highest degree of oiling is located on the north shore in the middle of the island, just north of a small pond and just east of a sand/cobble pocket beach (one of few on the island), in the upper VITE.

Pit depths were minimal due to rock/boulder composition of platform veneer. A significant percentage (> 80 %) of the very light oiling was comprised of very sporadic, occasional stain.

REVIEWED WDATE 4/27/90

00 Act

SEGMENT ST/ K9-b-CP-2

SUBDIVISION K9-b-CP-2A

DATE 4 / 26 90

CHECKLIST

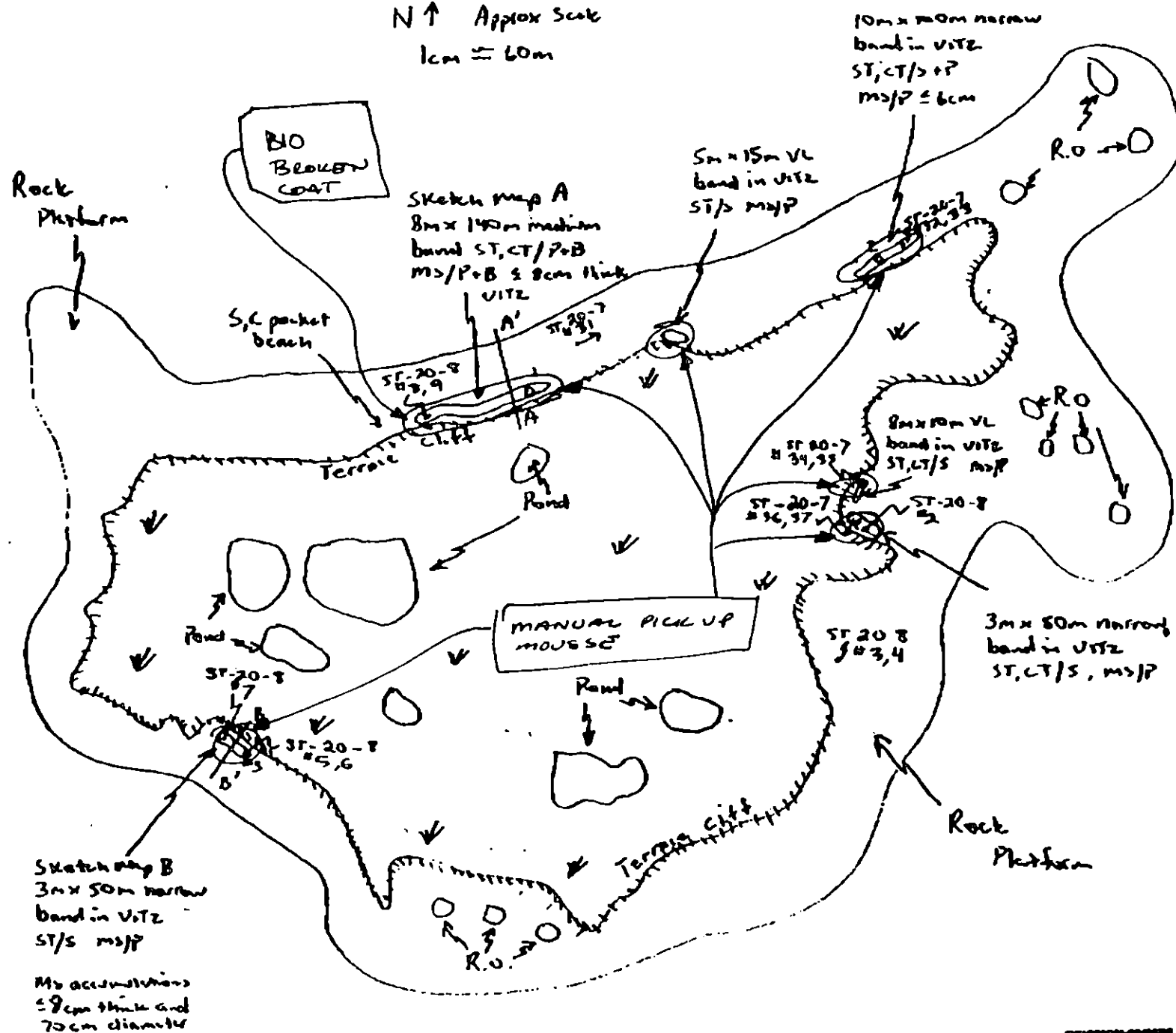
☐ H Area
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. MWL/VL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Pit Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 PN - No Subsurface Oil
 2 Δ
 Pt - Subsurface Oil
 CT/C
 Continuous Distribution
 CT/D
 Broken Distribution
 CT/P
 Patchy Distribution
 CT/S
 Splashed Distribution
 Old Vegetation
 1 →
 Photo location, direction,
 and number

SKETCH MAP

N ↑ Approx Scale
 1cm = 60m



Oil Character Length (m): AP PO CV 2.240 CT 2.240 ST 2.240 MS 2.240 PT TB FL NO 1093

REVISION: 000000

06 A-4

SEGMENT ST/ K9-6-CP-2

SUBDIVISION K9-6-CP-2A

DATE 4/26/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seafloor Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LWL
- ☐ S&L
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PT - No Subsurface Oil

2 Δ

PT - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spotted Distribution

Oil on Vegetation

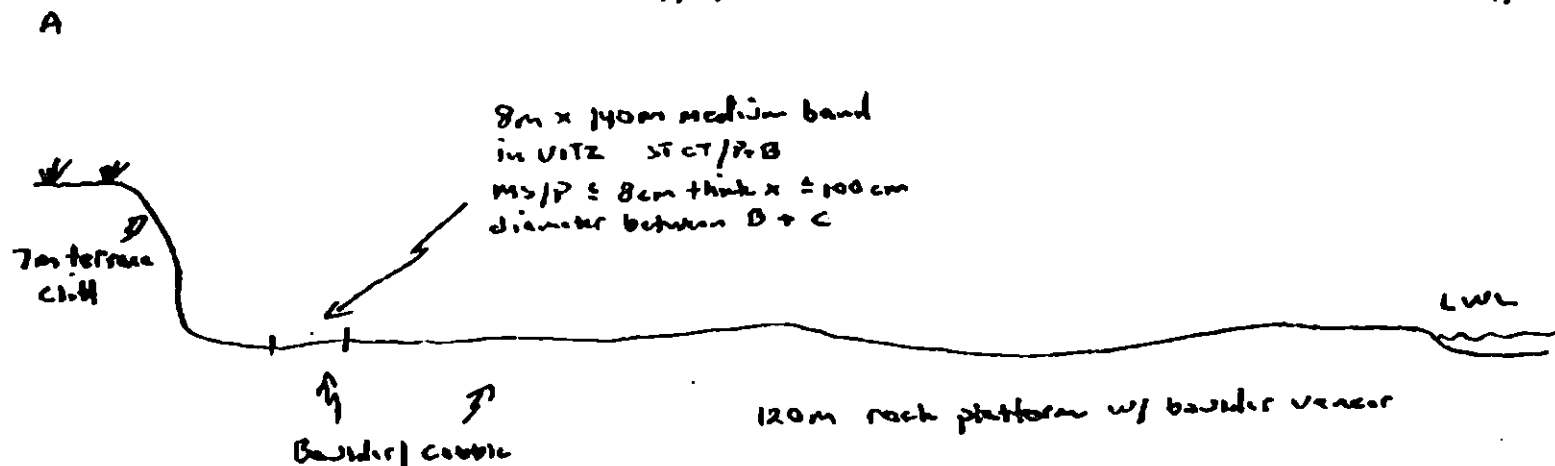
1 →

Photo location, direction, and number

SKETCH MAPS

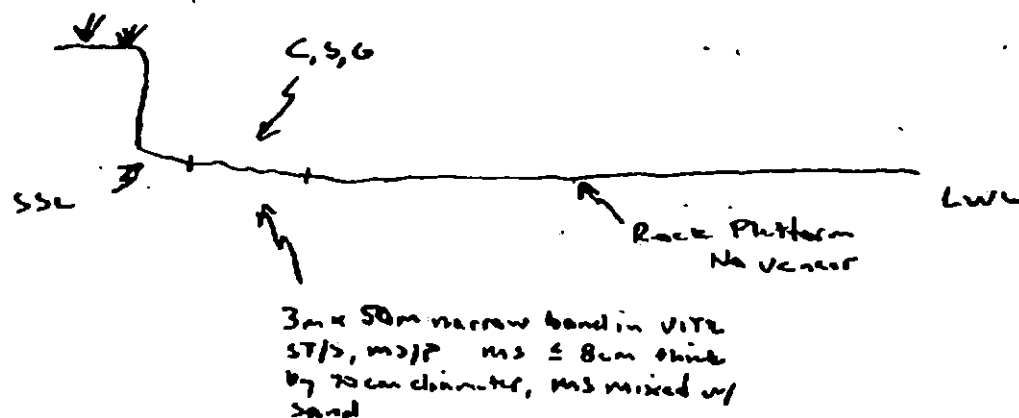
Sketch Map A

A-A' ≈ 120m



Sketch Map B

B-B' ≈ 60m



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

SHORELINE ECOLOGICAL SUMMARY

REVISION 0022

Segment ST / K9-6 Subdivision CP-02 Date (mo / day / yr) 4/26/90

Time (24 hr) 09:20 Biologist N. Davis

(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 10 (4) Pebble 10 (5) Sand - (6) Silt -

(B) Overall % cover of biota (% of segment): Dense 30% Moderate 30% Low 40% (40%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
Roll No. ST-20-7 ST-20-8

Frames 31-37, 1-9

BARNACLES Continuous mostly moderate.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

MYTILUS Small patches all the way around the island.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

GASTROPODS Continuous around the island. Littorina Dense, limpets sparse, Nucella rare.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

FUCUS Patchy and sparse all the way around the island.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: 13-25 Sandhill cranes, 2 tundra swans, Glaucous-winged gulls, 4 pairs of osprey catchers. Sea otters feeding just off shore. A large male otter was surprised in a small pool in the upper intertidal. Spring algal growth is just beginning. Nucella canaliculata laying eggs. Natickionia very common.

Ecological Considerations: Seabird colony. Harbor seals haul out and pup on the North-east tip of the island. Both the horned and tufted puffins have a rookery on the western edge of the island. The Tundra Swan and Sandhill crane nest on the bluffs and around the ponds.

DATE 4/26/90 TIME 09:20 - 13:00 TIDE HEIGHT -3 to +5.5

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT
 4 = pebble

	SPECIES	UTZ	MITZ	LITZ	COMMENTS
FLORA:	BOSSIELLA/CORALLINA	1	1,2	1	
	CALLIARTHRON/CORALLINA	1	1	1	
	CLADOPHORA SPP	—	3	2,3	
	COSTARIA SPP	—	—	—	in drift?
	ENDOCLADIA MURICATA	1	1,2	—	
	FILAMENTOUS GREENS	—	1,2,3	1,2,3	
	FILAMENTOUS REDS	1	2,3	2,3	
	GLOIOPELTIS FURCATA	1	1,2	—	
	HALOSACCION GLANDIFORME	1	1,2	1	Very large (15cm) individuals + New growth
	LAMINARIA SPP	—	—	1,2	
	LITHOTHAMNION	1	1	1	
	NEREOCYSTIS SPP	—	—	2	Off shore + in drift also
	PORPHYRA SPP	1	1,2	—	
	RALPHSIA/HILDENBRANDIA	—	—	—	
	RHODOMELA LARIX	1	1,2	—	large shallow pools on rock shelves filled
	RHODOMENTA PALMATA	1,2	1,2	—	
	SCYTOSIPHON SPP	1,2	1,2	2	
	ULVA SPP	1	1	1,2	
	ZOSTERA MARINA	—	—	—	
	ENTEROMORPHA	1	1,2	—	Near fresh water run off
FAUNA:	ANTHOPELLEURA SPP	—	1	1,2	
	(SEMI) BALANUS CARIOSUS	1,2	1,2	1,2,3	
	B. GLANDULA	1,2,3	1,2,3	2	
	BRYOZOANS	—	—	*	membranopora on drift kelp.
	CHITONS (other than K. TUNICATA)	—	—	1	Conicella on corallina
	CLAMS	—	—	—	Shells Pectenus, Macoma, Saxidomus
	CRABS	—	—	—	
	DERMASTERIAS DORRIGATA	—	—	—	
	KATHARINA TUNICATA	—	1,2	1,2	
	LEPTASTERIAS HEXACTIS	—	—	—	
	LIMPETS	1,2	1,2	1,2	
	LITTORINA SPP	1,2,3	1,2,3	1,2,3	Very numerous
	NUCELLA SPP	—	1,2	—	in barnacles in sheltered areas
	PAGURUS SPP	1	1	1,2	
	PISASTER OCHRACEUS	—	—	—	
	POLYCHAETES	—	—	—	
	PYCNOPODIA HELIANTHOIDES	—	—	—	
	SEARLESIA DIRA	—	—	—	shells w hermit crabs
	SERPULIDS	—	—	—	
	SIPHONARIA THERESITES	—	—	—	
	TEALIA	—	1,2	1	

4-26-90 K7-6 C-F-U

H. Davis

RECRUITMENT AND MORTALITY

- 1) Observations of recent settlement (S) or new growth (G):
 - a) Barnacles, less than 1mm (S), 1-3mm (G)
 1. Vertical distribution (LTZ, MTZ, UTZ):
(S) none in LTZ-MTZ (G) UTZ-LTZ, but mostly found in UTZ
 2. Substrate (Rock, Boulder, Cobble, etc. Note if oiled/un-oiled):
Rock → Cobble. None in oiled areas
 3. Horizontal distribution (Dense, Sparse, Patchy, Cont., etc.):
Continuous/moderate
 - b) Mytilus less than 2mm (S), 2-5mm (G)
 1. Vertical distribution:
No (S) seen. Rare (G) in UTZ-MTZ
 2. Substrate (Note if oiled/un-oiled):
on Rock in crevices below oiled area
 3. Horizontal distribution:
Small scattered patches all the way around the island.
 - c) Littorina, eggs or less than 2mm dia. No eggs observed.
 1. Vertical distribution:
MTZ-LTZ rare-sparse < 2mm dia.
 2. Substrate (Note if oiled/un-oiled):
Rock-Cobble. 90% of the littorina are below the oiled area.
 3. Horizontal distribution:
Continuous around the island.
 - d) Fucus, other algae, seagrass (Note species and what type of growth)
 1. Vertical distribution:
UTZ, MTZ, LTZ
 2. Substrate (Note if oiled/un-oiled):
Rock-Cobble None oiled
 3. Horizontal distribution:
Patchy around the island
 - e) Other (Describe)
The algae look like it is starting its spring growth.
- 2) Observations of mortality:
 - a) Barnacles (Describe as % dead individuals or scars)
 1. Vertical distribution:
LTZ 60% are 11-90% range MTZ 80% are 10-80% range UTZ 30% are 5%-70% range
 2. Substrate (Note if oiled/un-oiled):
Rock-cobble. Very few (19%) in oiled zone.
 3. Horizontal distribution:
Continuous/patchy around the island
 - b) Mytilus (Describe as % Note if drilled or otherwise clearly predated)
 1. Vertical distribution:
LTZ-UTZ are 10% mortality, 0-30% range
 2. Substrate (Note if oiled/un-oiled):
Never in an oiled area.
 3. Horizontal distribution:
Rare/Patchy around the island
 - c) Other:

00 Acta Bio H. Davis

SEGMENT ST/ K9-6-CP-2

SUBDIVISION K9-6-CP-2A

DATE 4 / 26 90

CHECKLIST

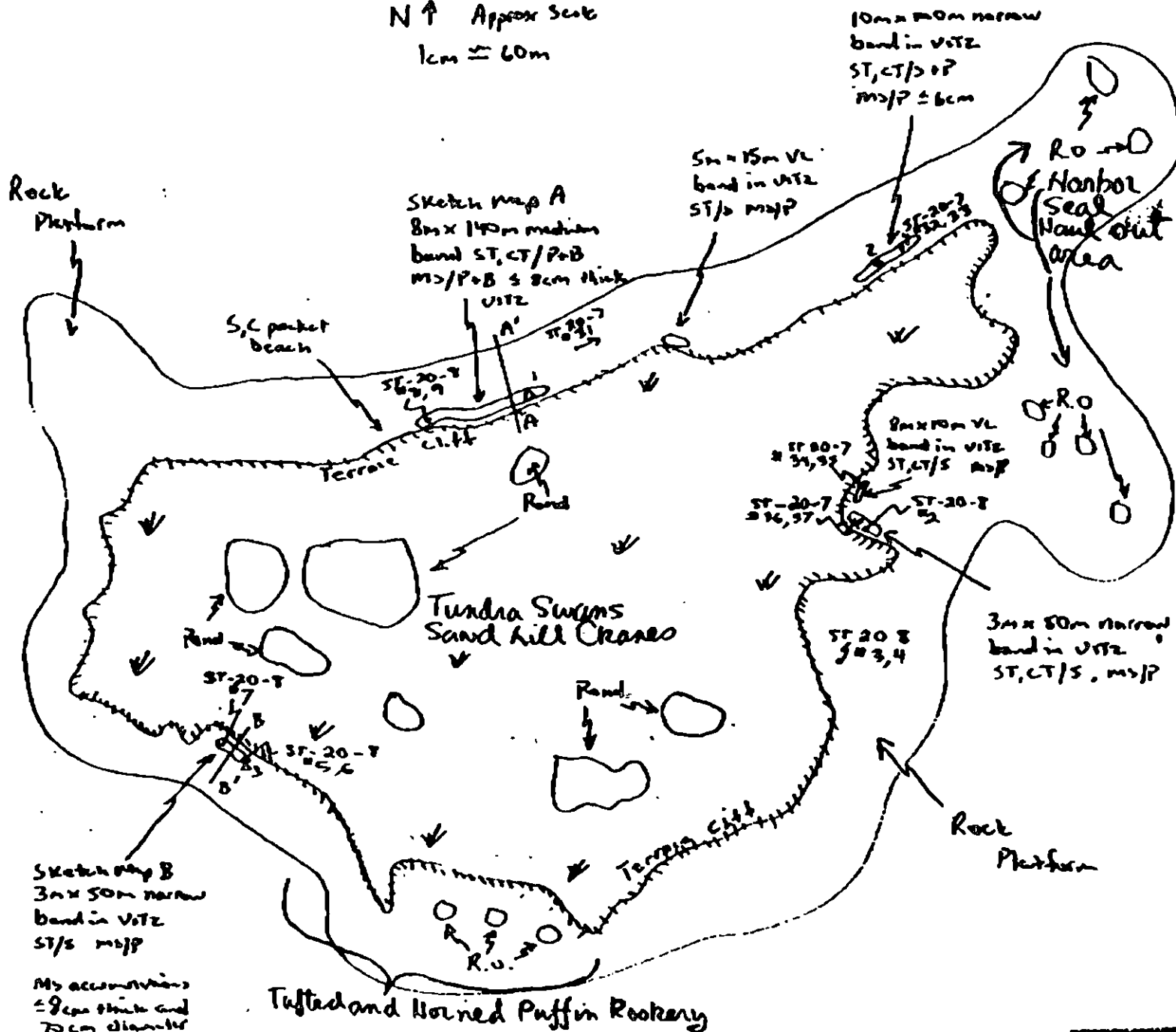
- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Ch Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/VL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ PR Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- PR - No Subsurface Oil
- 2 Δ
- PR - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Spotted Distribution
- Old Vegetation
- 1 →
- Photo location, direction, and number

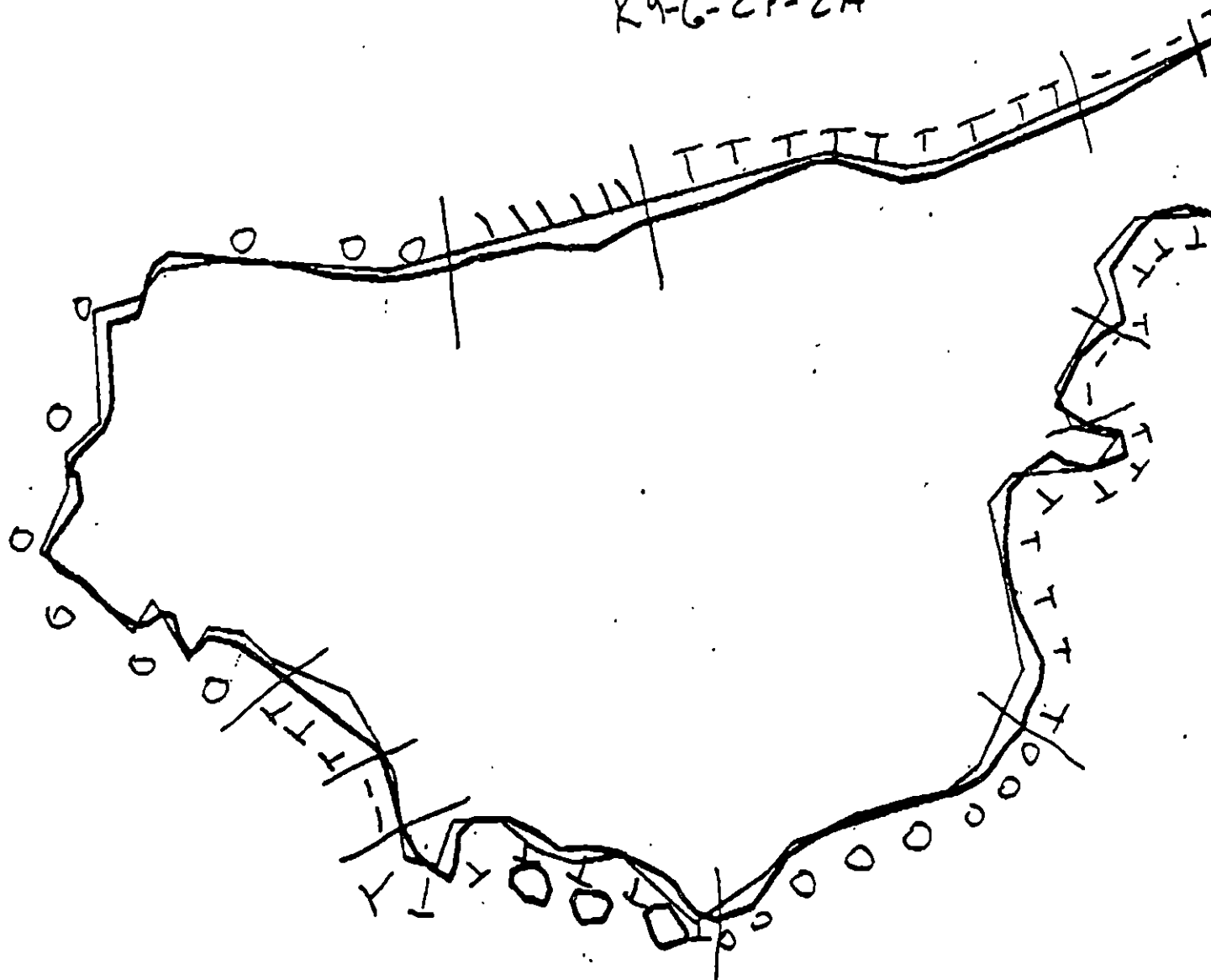
Ec. J. J. J. J. J.
SK... CH MAP

N ↑ Approx Scale
1cm = 60m



OH Character Length (m): AP _____ PO _____ CV 2x40 CT 2x40 ST 2x40 MS 2x40 PT _____ TB _____ FL _____ NO 1093

K9-6-CP-2A



XXXX Wide

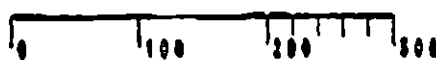
/// Medium

--- Narrow

TTTT Very Light

CP-2

Approx. Segment Length: 4449m



K9-6-CP-2A

Map Key: AKP-CP-2a

Name: Acton

Date: 4-29-10

Scale: 1:1000

K9-G-CP-2A

XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

CP-2

Approx. Segment Length: 4449m



K9-G-CP-2A
Map Key: AKP-CP-2b
Name: Acton
Date: 4-29-90
Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-06-CP-02 SUBDIVISION A (1 of 1.)

WORK WINDOW	
Manual Pickup	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q	Harbor Seal & Sea Lion Pupping and Molting	Closed to manual pickup prior to 7/1 and after 8/15.
5R	Seabird Colony	Closed to all activities; work site is less than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

If seabird colony constraint is removed, other ecological considerations will apply.

FOSC

[Signature]

Date

6-15-90

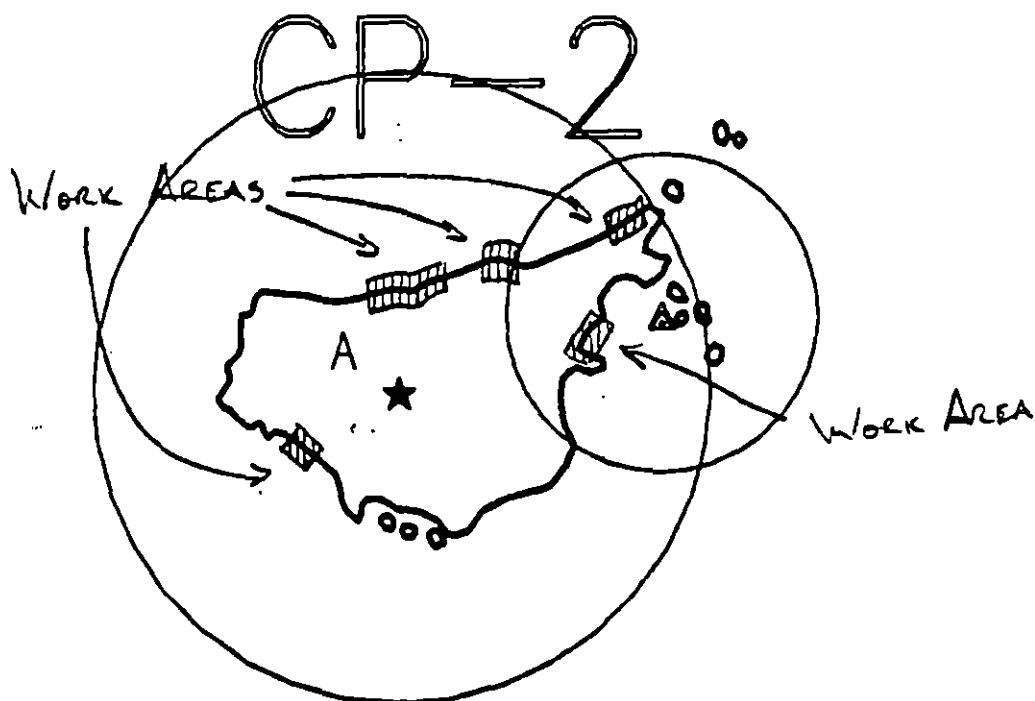
Prepared by

[Signature]

Date

6/15/90

Access denied
make Luke 6/13/90



TREATMENT



Exxon Company, USA

Map Key: AKP-CP-2

June 10, 1990



ECOLOGY MAP SEGMENT K9N-6 CP-2

SUBDIVISION --- (--- of ---)

METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1657 feet

REVISION 1

7/24/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-06-CP-02 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN (NPS & USFWS MONITORS CLOSED REQUIRED)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q	Harbor Seal & Sea Lion Pupping and Molting
5R	Seabird Colony
5T	Bald Eagle Nest

Closed to manual pickup prior to 7/1 and after 8/15.

Open with limited access and NPS monitor present. Closed to all activities; work site is less than 800m from seabird colony.

USFWS 6/1/90 Map indicated an active nest in

SUBDIVISION A. No constraint to manual pickup more than 400m from active nest.

USFWS monitor required for work within 400 m of nest.

OTHER ECOLOGICAL CONSIDERATIONS

If seabird colony constraint is removed, other ecological considerations will apply.


 G.A. Renteria
 for FOSC

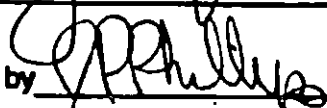
FOSC



Date

6-15-90

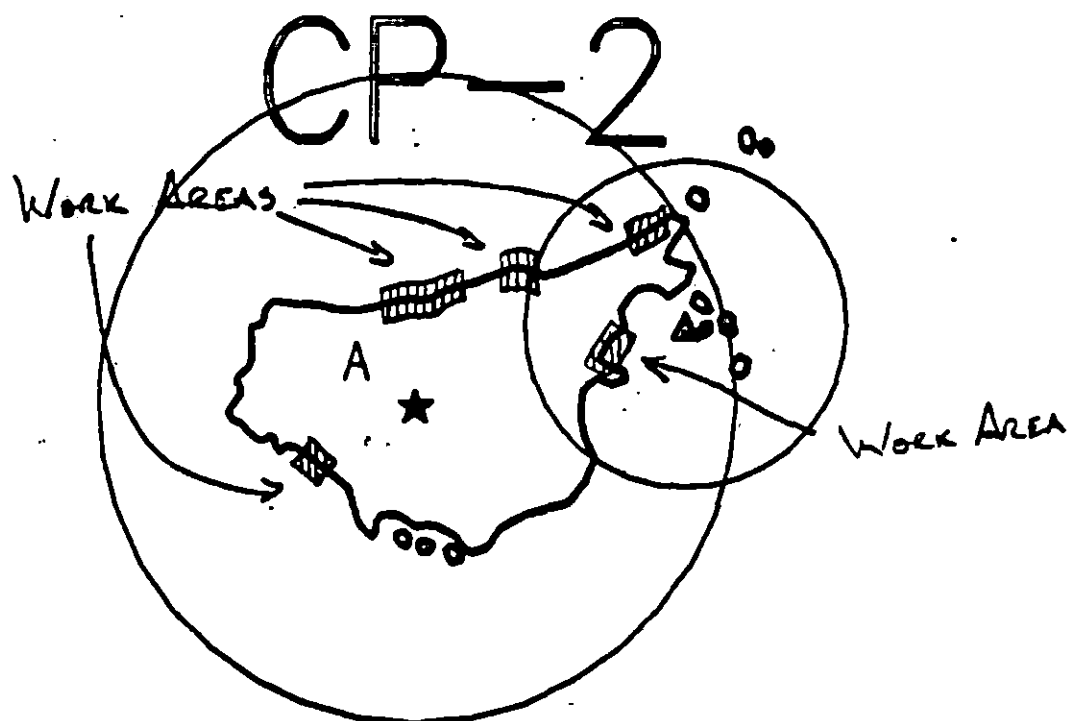
Prepared by



Date

6/15/90

Access denied
Mike Luke 6/13/90



TREATMENT



Exxon Company, USA



ECOLOGY MAP
SEGMENT K9N-6 CP-2
SUBDIVISION --- (--- of ---)
UNCLASSIFIED

- | | |
|---|---------------------|
| ★ | Seabird Colony |
| ▲ | Active Eagle Nest |
| △ | Inactive Eagle Nest |

SHORELINE EVALUATION

SEGMENT ST/ K09-08-CD-01 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Charles E. H. Hines DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 39 m: V.Light 372 m: No Oil 1072 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment is manual pickup of mousse patties.
Work should be conducted after 6/1 with USFWS approval regarding eagle
nest constraint.

TAG COMMENTS:

TAG APPROVAL DATE: 5/12/90.
ADEC Art Wagoner D. Williams
EXXON Ann TGAZ Boal
NOAA Gary Petrus Gary Petrus
USCG D.V. Rome D.V. Rome

FOSC: W L DATE: 5-18-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotot Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
 Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- SR Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- SS Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 6/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorage (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7U Finfish harvesting
 7H Deer harvesting (8/1 to 1/7)
 7J Invertebrate harvesting
 7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K9-09 CD-001 SUBDIVISION: K9-8-CD-1A DATE 4-27-90

USCG

NAME D.D. Haven Jr. TMS, USCGR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This area does have mousse present, but majority of it is deep in the crevices between boulders and would be almost impossible to recover. I have monitored this area all winter long and it has dramatically improved on its own the last two months since the ice has melted.

ADEC

NAME Francine J. Benn's SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Manual clean-up recommended for small area of collectible oil. If clean-up crew is in the area, then they should cruise CD-001 w/SSAT map to remove recoverable MS saturated sediments in a 10x50m area indicated on maps.

Cape Douglas is a HIGH ENERGY area, but mousse saturated sediments apparently are able to persist among cobble/boulders.

LAND MANAGER NPS

NAME Will TROYER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

With travel and shovel some mousse can be removed. This is a high energy beach and will probably clean itself quicker than most

SHORELINE OILING SUMMARY

REVISION NO. 041348

OG Acton USCG Hakon SEGMENT ST/ K9-8-C2-1
 BIO Davis LAND REP NPS Tanager, Tanager SUBDIVISION K9-8-C2-1A (1 OF 1)
 EXXON Avary ADEC Bennis TIME 7:45 to 8:40
 TEAM NO. 20 TIDE LEVEL +5 to +1.5 DATE 4/27/90
 EST. SUBDIVISION LENGTH: 1400 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 40 % B 40 % C 15 % P 1 % G 2 % S 2 % M 0 % V 0 %
 SLOPE: Long 100 % Hang - % Vert - % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 25 m VL 325 m NO 1139 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	R	1	2	3	4	5	6	7	8	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-20-8Frames 11-14

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (%)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		US	UC	1	2	3	4	5	6	7	8					
1	5					✓	•		✓									✓				R
2	5					✓	•		✓									✓				R
3	5					✓	•		✓									✓				R
							•															
							•															
							•															

COMMENTS Shoreline is rock platform w/ B+C veneer in upper V12 and S12. Columnar rock platform surface in lower V12 and M12. Observed oil was above columnar structure area. 10 m x 50 m band VL band was observed (see maps). Other 300 m of VL oiling was from area of sketch map B to S segment boundary and consists of: VL, very sporadic stain. Pit depths are minimal due to R+B.

Mousse in interstitial spaces between rocks, boulders, rubble (± 8 cm thick).

REVIEWED

DATE 5/1/90

W. Section

SEGMENT 5 9-8-CD-1

SUBDIVISION 9-8-CD-1A

DATE 4 / 27 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Bathy
- ☐ Seg/Sub Bathy
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWR/LWR
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/O

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spotted Distribution

Old Vegetation

1 $\Rightarrow$

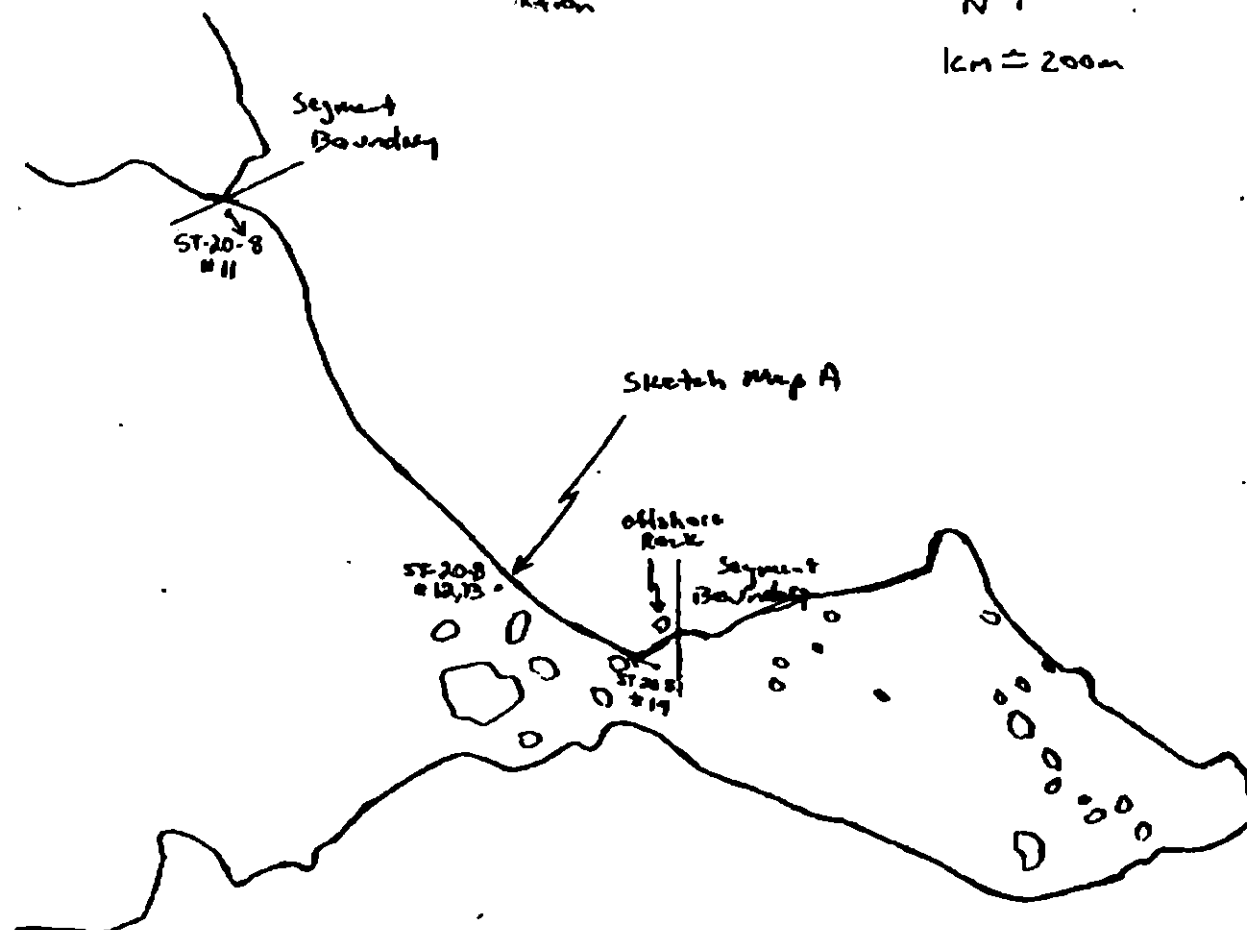
Photo location, direction,
and number

SKETCH MAP

ation

N $\uparrow$

1cm = 200m



Oil Character Length (m): AP _____ PO _____ CV 50 CT 50 ST 350 MS 50 PT _____ TB _____ FL _____ NO 1139

REVISION: 000000

OG A23

SEGMENT ST/ K9-B-CD-1

SUBDIVISION K9-B-CD-1A

DATE 4 / 27 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ OS Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWLA/WR
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PI - No Subsurface OS

2 Δ
PI - Subsurface OS

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Pecchy Distribution

CT/S
Splashed Distribution

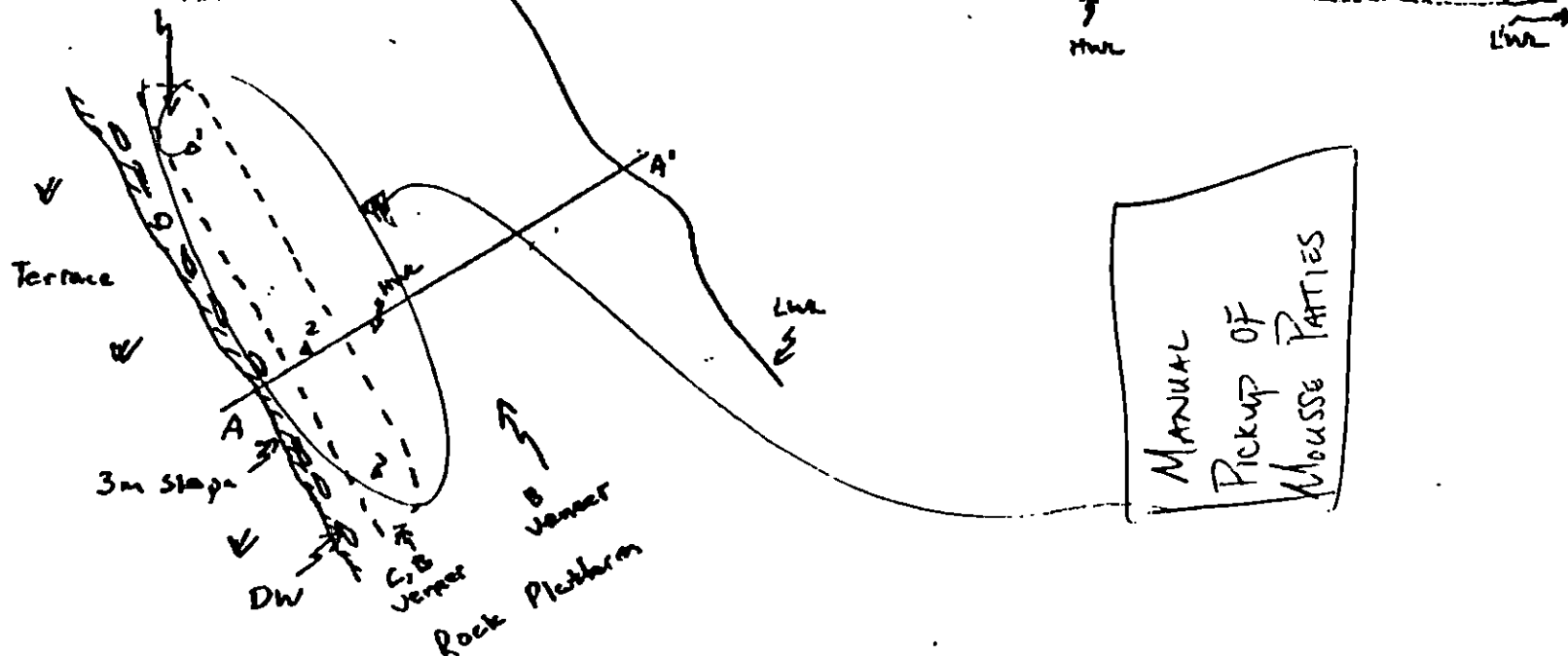
Old Vegetation

1 $\odot$
Photo location, direction,
and number

ETCH MAP A

N ↑
1cm $\approx$ 10m

10m x 50m VL to narrow band
ST, CT/S MS/P
in upper VITZ
MS $\leq$ 10cm thick



A-A' $\approx$ 80m

OS Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 1

Segment ST / K9-08 Subdivision CD-01 Date (mo / day / yr) 4/27/90

Time (24 hr) 7:45 Biologist H. Davis

(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 10% Moderate 30% Low 60% (20%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-20-8

Frames 11-14

BARNACLES *Barnacles* were all small and sparse - rare

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

MYTILUS a few mytilus in protected crevices.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

GASTROPODS *Littorina* very sparse, limpets sparse, *Nucella* sp. rare patchy

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

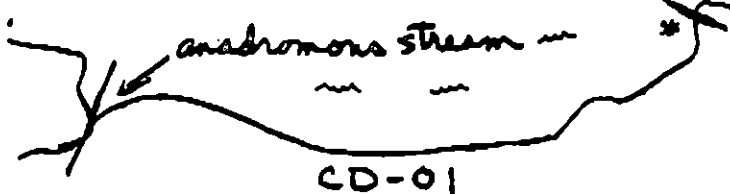
FUCUS growing from worn bases, patchy, *Enteromorpha* patchy.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

Wildlife Observations/ General Comments: Rocky shelves with sand, gravel, and cobbles being moved across them. Buried amphipods. Worn down Fucus. Few Barnacles. *Rhodospira* larvae. Fucus and *Corallinaceae* are the main algae. *Halimnobia* *Panicea* on rocks. *Nucella* sp. in crevices. *Enteromorpha* sp. 1 cm grey. *Spirorbis*. All of the distributions were patchy due to the patchiness of substrate.

Ecological Considerations: Anadromous stream at the north end of the segment. Pink salmon spawn there.



DATE 4/27/90 TIME 7:45 - 8:40

TIDE HEIGHT +5 To +1.5

1 = BEDROCK

2 = BOULDER

3 = COBBLE

5 = SAND

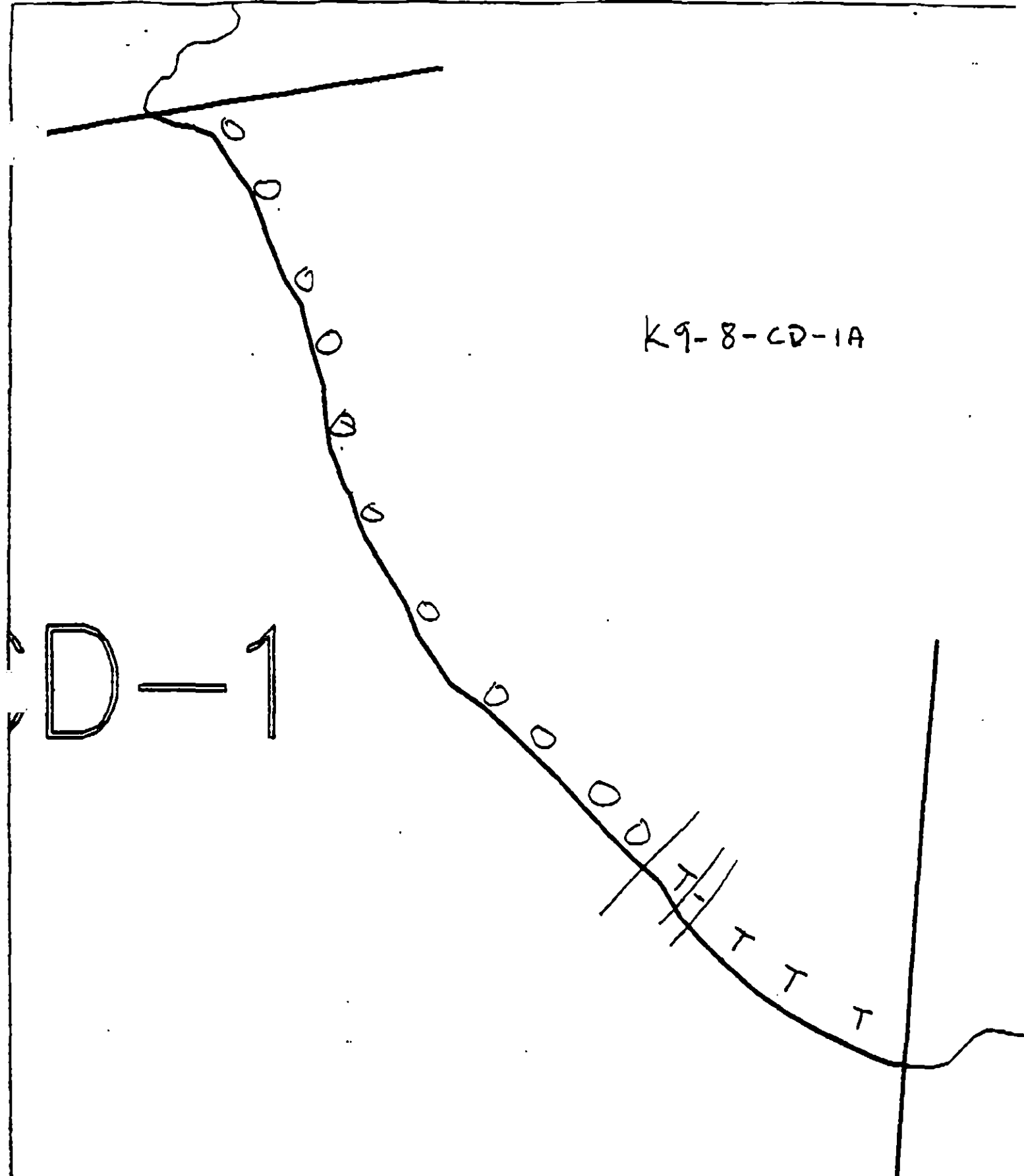
6 = SILT

FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA	1	1	1	In bedrock pools only
CALLIARTHRON/CORALLINA	1	1	1	"
CLADOPHORA SPP	—	—	—	
COSTARIA SPP	—	—	—	
ENDOCLADIA MURICATA	1	1,2	—	
FILAMENTOUS GREENS	—	1,2	—	
FILAMENTOUS REDS	—	1	1	
GLOIOPELTIS FURCATA	—	—	—	
HALOSACCION GLANDIFORME	1	1	1	
LAMINARIA SPP	—	—	1,2	
LITHOTHAMNION	1	1	—	
NEREOCYSTIS SPP	—	—	—	In drift
PORPHYRA SPP	—	—	—	
RALPHSIA/HILDENBRANDIA	—	—	—	
RHODOMELA LARIX	1,2	1	1,2	Most abundant algae in this section
RHODOMENIA PALMATA	—	—	1	
SCYTOSIPHON SPP	—	—	—	
ULVA SPP	1*	1*	—	On Rhodomenia larix
ZOSTERA MARINA	—	—	—	
ENTOMORPHA	—	—	—	

FAUNA:

ANTHOPLEURA SPP	—	1,2	1	On under side of boulder and in crevices
(SEM) BALUNUS CARIOSUS	—	1	1	
B. GLANDULA	1,2	1,2	1,2	
BRYOZOANS	—	—	—	
CHITONS (other than K. TUNICATA)	—	—	—	
CLAMS	—	—	—	
CRABS	—	—	—	
DERMASTERIAS IMBRICATA	—	—	—	
KATHARINA TUNICATA	—	—	—	
LEPTASTERIAS HEXACTIS	—	—	—	
LIMPETS	1	1,2	1	
LITTORINA SPP	1,2,3	1,2,3	1,2,3	very common
NUCELLA SPP	1,2	1,2	1,2,3	
PAGURUS SPP	1,2	1,3	1	Mostly at bottom of pools
PISASTER OCHRACEUS	—	—	—	
POLYCHAETES	—	—	—	
PYCNOPODIA HELIANTHOIDES	—	—	—	
SEARLESIA DIRA	—	—	—	
SERPULIDS	—	—	—	
SIPHONARIA THERITES	—	—	—	
TEALIA	—	1	—	
Cocconeia? Holothmoid	1	—	—	gray 1 cm long sessile bands of ft. at coralline base (5)
Halichondria poeppigii	1	1	1	Very common



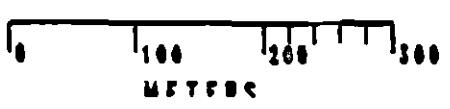
K9-8-CD-1A

D-1

XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

CD-1

ADEC Segment Length: 1484m



K9-8-CD-1A

Map Key: 60A-29

Name: Acton

Date: 4-27-98

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-08-CD-01 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. Authorized per memo dated 6/10/90 from Mary Portner/USFWS to Rex Coulter/Exxon.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

FOSC

[Signature]

Date

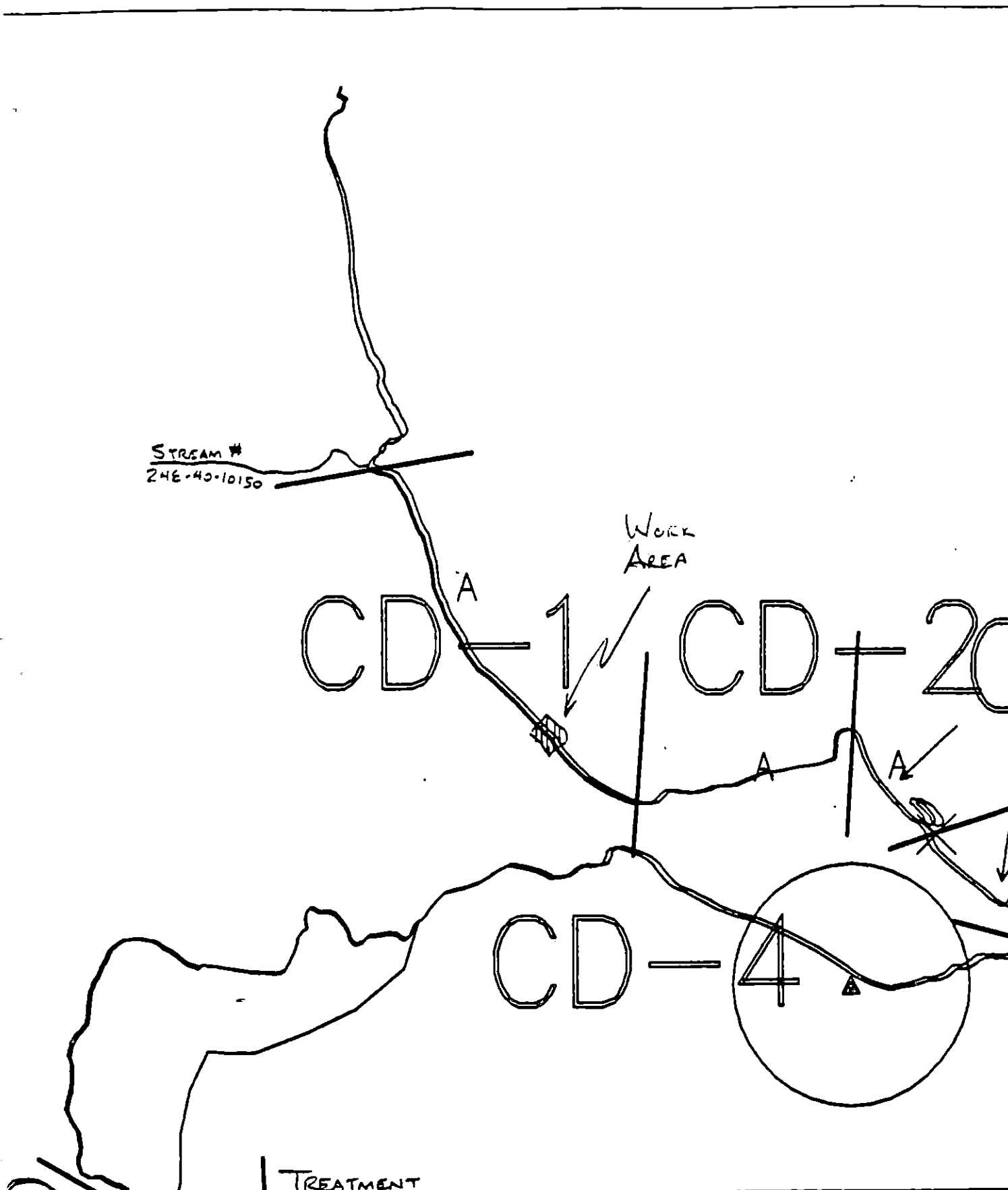
6/13/90

Prepared by

Rex R Coulter

Date

06/11/90

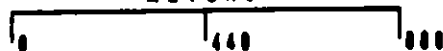


Exxon Company, USA
Map Key: MP-CD-1
June 10, 1990



ECOLOGY MAP SEGMENT K9N-8 CD-1 SUBDIVISION A (1 of 1)

METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1443 feet

SHORELINE EVALUATION

SEGMENT ST/ K09-08-CD-02 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest on NOAA list.

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: [Signature] DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 93 m: V.Light 38 m: No Oil 694 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pickup of mousse
patties and 2) bioremediation of area shown on attached sketch map.
Work should be conducted after 6/1 with USFWS approval regarding eagle
nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/12/90
ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature] DATE: 5-18-90

Monitors/accus need for customized
following mouse pickup.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K9-08 CD-002 SUBDIVISION: K9-8-CD-2A DATE 4-27-90

USCG

NAME D.D. Haven Jr. Tm3 USCG

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This area has a ^{very} small amount of mousse within a band mentioned in Ob Report. Oil band consist of such small amounts of stain (none being recoverable) that treatment can't be recommended. I have monitored this area through the winter and it has dramatically improved itself.

ADEC

NAME Francine J. Bennis

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL CLEAN-UP RECOMMENDED w/ SHOVELS & TROWELS.

Segment has oiled areas at western & eastern edges, & has an area of NO OIL in between these.

Mousse saturated sediments in patchy distribution exist in oiled areas & are collectable.

Clear-up crew should have SSAT maps with them.

LAND MANAGER

NAME WILL TROYER

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Some mousse could be removed by manual means in those areas of major oil concentration. It is a high energy beach that probably will eventually clean itself.

SHORELINE OILING SUMMARY

REVISION NO 04-13-80

OG Acton USCG Havon SEGMENT ST/ K9-8-CD-2
 BIO Davis LAND REP NPS Taylor, James SUBDIVISION K9-8-CD-2A (1 OF 1)
 EXXON Avery ADEC Branis TIME 8:40 to 9:50
 TEAM NO. 20 TIDE LEVEL +1.5 to -2.0 DATE 4/27/90
 EST. SUBDIVISION LENGTH: 814 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 40 % B 40 % C 15 % P 1 % G 2 % S 2 % M 2 % V 0 %
 SLOPE: Long 100 % Hang - % Vert - % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 110 m VL 30 m NO 674 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	A	P	R	SW	W	W	W	W	SW	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER			X	✓	✓					✓			
COAT			X	✓	✓					✓			
STAIN			✓	✓	✓					✓			
MOUSSE			✓					✓		✓			
PATTIES													
TARBALLS													
FILM													
NO OIL										✓		✓	✓

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-20-8Frames 15-20

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					BE OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	US	SW	W	W	W	W	SW	U	M	U				
1	10					✓	.		✓							✓						C B
2	10					✓	.		✓							✓						C B
3	10					✓	.		✓							✓						C B
4	5					✓	.		✓							✓						B R
							.															
							.															

COMMENTS Shoreline is rock platform w/ Doc veneer. Two areas of oiling were observed (see maps). Pit depths are minimal due to R and B. Mousse was observed in interstitial spaces between rocks, boulders, cobbles ($\pm$ 8cm thick).

REVIEWED 7WDATE 5/1/90

OG. Adrian

SEGMENT ST/K9-B-C2-2

SUBDIVISION K9-B-C2-2A

DATE 4 / 27 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PL - No Subsurface Oil

2 Δ

PL - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spashed Distribution

Oil'd Vegetation

1 $\rightarrow$

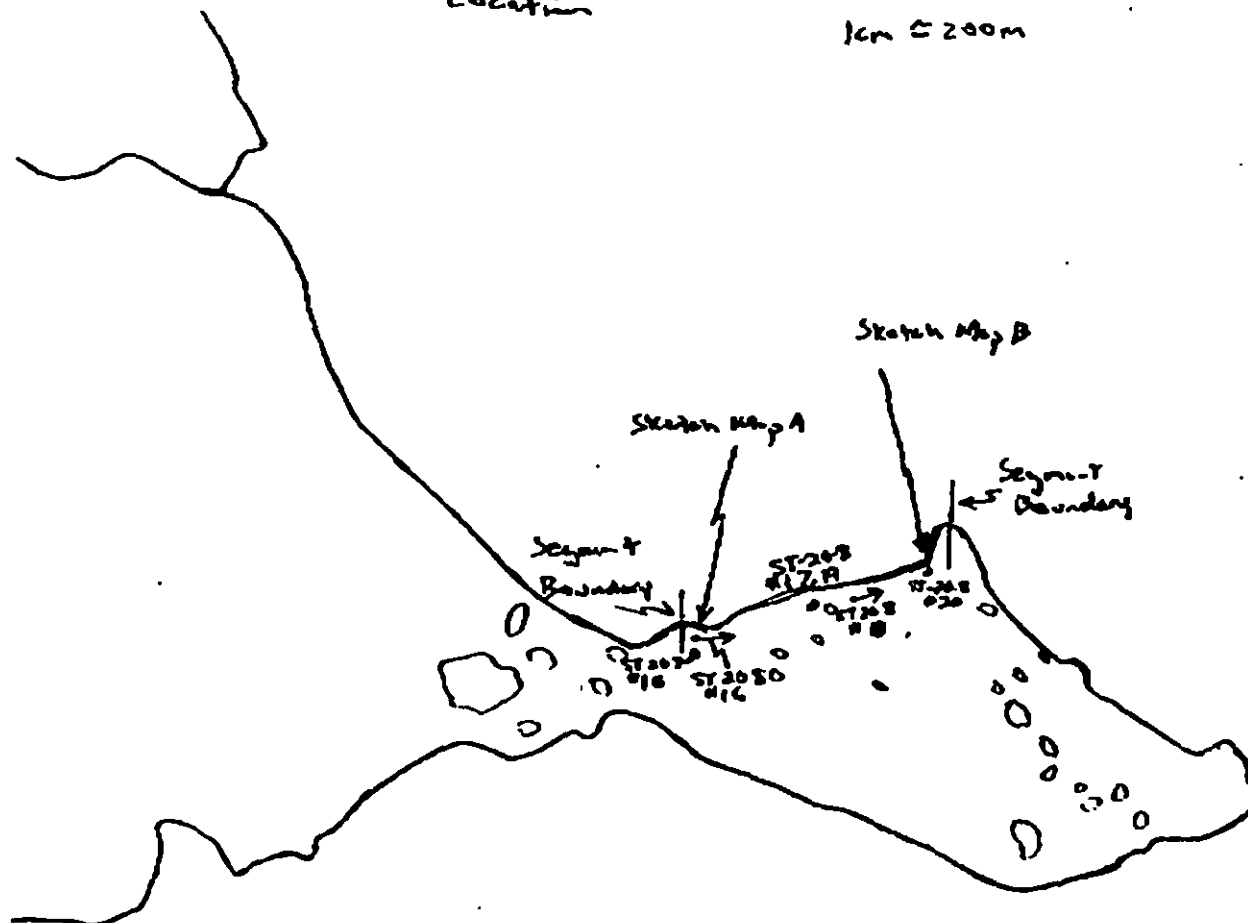
Photo location, direction,
and number

SKETCH MAP

Location

N $\uparrow$

1cm = 200m



Oil Character 1

(m): AP

PO

CV 140

CT 220

ST 220

MS 140

TB

FL

NO 594

REVISED 12/2/88

OG Acton

SKETCH MAP A

SEGMENT ST/ K9-8-CP-2

SUBDIVISION K9-8-CP-2A

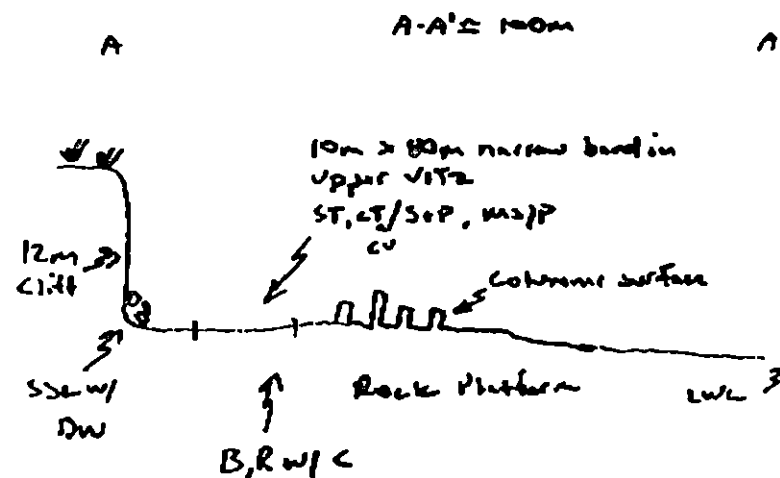
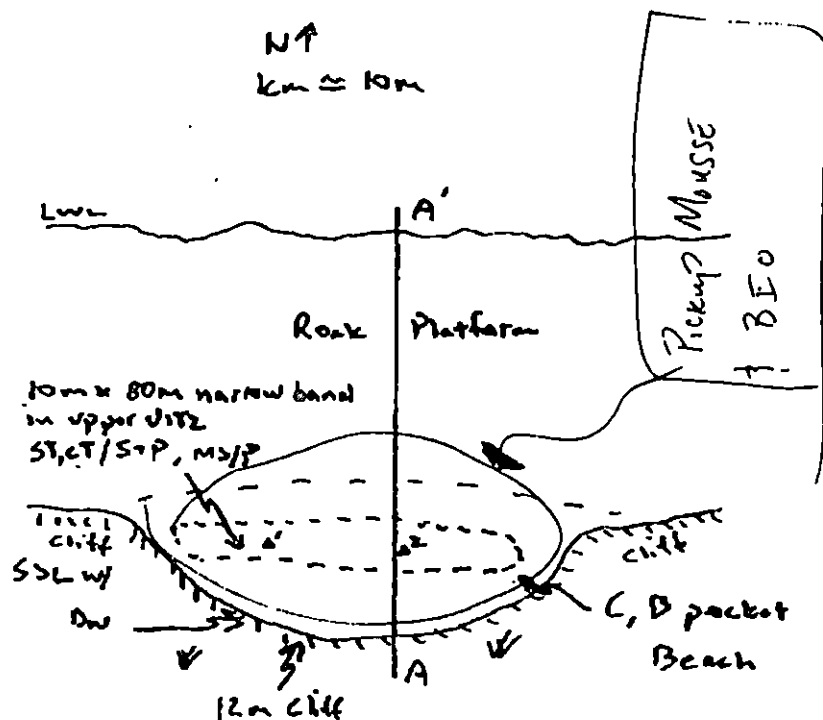
DATE 4 / 27 90

CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Grid
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HMA/LWL
- ☐ SST
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- Pt - No Subsurface Oil
- 2 Δ
- Pt - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Spliced Distribution
- Oiled Vegetation
- 1 $\Rightarrow$
- Photo location, direction, and number



Oil Character

1 (m): AP PO CV CT ST MS TB FL NO

REVISED 10/90

OG Acton

SKETCH MAP B

SEGMENT ST/ K9 8-C7-2

SUBDIVISION K4 8-C7-2A

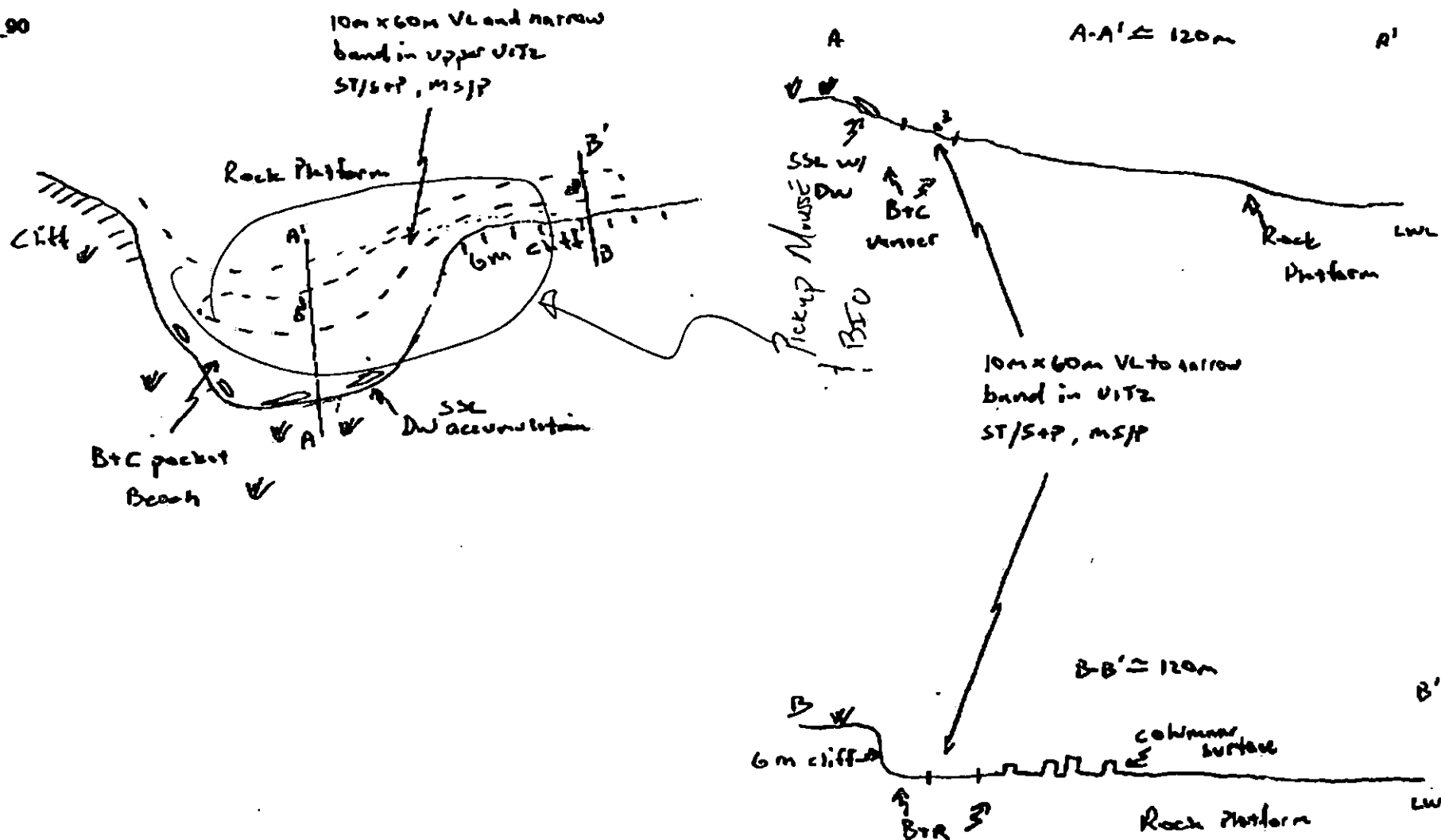
DATE 4 / 27 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAZ/ALW
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
No Subsurface Oil
- 2 Δ
Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patching Distribution
- CT/S
Splashed Distribution
- Oiled Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number



Oil Character () (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ TB _____ FL _____ NO _____

SHORELINE ECOLOGICAL SUMMARY

REVISION: 032

Segment ST / K9-08 Subdivision CD-02 Date (mo / day / yr) 4/27/90Time (24 hr) 8:40 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 40 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 10% Moderate 30% Low 60% (30%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-20-8Frames 15-20

BARNACLES continuous along segment. Sparse to dense distribution

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	2	2	X	2	2	X	2	2	X	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

MYTILUS On crevices. sparse-rare

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

GASTROPODS Littorines dense-moderate, limpets mod-sparse, Nucella sparse-rare

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	2	X	X	2	X	X	2	X	X	2
X	X	3	X	X	3	X	X	3	X	X	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

FUCUS Patchy distribution. moderate-sparse

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: Gulls, winged gulls, Fuca, Rhodomecha, coralina were the dominant algae with some laminaria in the low intertidal. Littorines, limpets were more common. The substrate type went from pebbles and sand to cobble, on boulder. Lots of Halichondria pinnata. Nucella sp. eggs (canaliculate) it looks like spring growth is just beginning. Pagurus sp. with eggs.

Ecological Considerations: There is an anadromous stream in the segment next to this one.

DATE 4/27/90 TIME 8:40-9:50TIDE HEIGHT T 1.5 T_h -2.0

1 = BEDROCK

2 = BOULDER

3 = COBBLE

5 = SAND

6 = SILT

FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA	1	1	—	
CALLIARTHRON/CORALLINA	1	1	—	
CLADOPHORA SPP	—	1,2	1,2	
COSTARIA SPP	—	—	—	
ENDOCLADIA MURICATA	1,2	1,2	—	
FILAMENTOUS GREENS	—	1,2,3	1,2,3	
FILAMENTOUS REDS	—	—	1,2	
GLOIOPELTIS FURCATA	—	—	—	
HALOSACCION GLANDIFORME	—	1	1	old, large plants
LAMINARIA SPP	—	1	1,2	wide band in LTZ
LITHOTHAMNION	1	1	1	
NEREOCYSTIS SPP	—	—	—	in drift and floating off shore
PORPHYRA SPP	2,3	2	—	
RALPHSIA/HILDENBRANDIA	—	—	—	
RHODOMELA LARIX	1	1,2	—	
RHODOMENTA PALMATA	—	2	2	
SCYTOSIPHON SPP	—	—	—	
ULVA SPP	1	1	—	
ZOSTERA MARINA	—	—	—	
ENTOMORPHA	1,2	1,2	1	

FAUNA:

ANTHOPELEURA SPP	—	1	—	
(SEMI) BALANUS CARIOSUS	—	1	1	
B. GLANDULA	—	1	—	
BRYOZOANS	—	—	—	
CHITONS (other than K. TUNICATA)	—	—	—	
CLAMS	—	—	—	
CRABS	—	—	—	
DERMASTERIAS IMBRICATA	—	—	—	
KATHARINA TUNICATA	—	—	—	
LEPTASTERIAS HEXACTIS	—	—	—	
LIMPETS	1,2	1,2,3	1,2	
LITTORINA SPP	1,2,3	1,2,3	1,2,3	Dense
NUCELLA SPP	1	1,2	2	Eggs of Coralliophila in rock
PAGURUS SPP	1	1	—	
PISASTER OCHRACEUS	—	—	—	
POLYCHAETES	—	—	—	
PYCNOPODIA HELIANTHOIDES	—	—	—	
SEARLESIA DIRA	—	—	—	
SERPULIDS	—	—	—	
SIPHONARIA THESITES	—	—	—	
TEALIA	—	—	—	
Halichon dris pontica	1,2	1,2	1,2	very abundant

CD-2

K9-8-CD-2A

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

CD-2

ADEC Segment Length: 825m



K9-8-CP-2A

Map Key: 60A-40

Name: Acton

Date: 4-27-90

Date Entered: _____

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-08-CD-02 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

No constraint to manual pickup. Authorized per memo 6/10/90 from Mary Portner/USFWS to Rex Coulter/Exxon.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unopened blots and substrate.

FOSC

[Signature]

Date

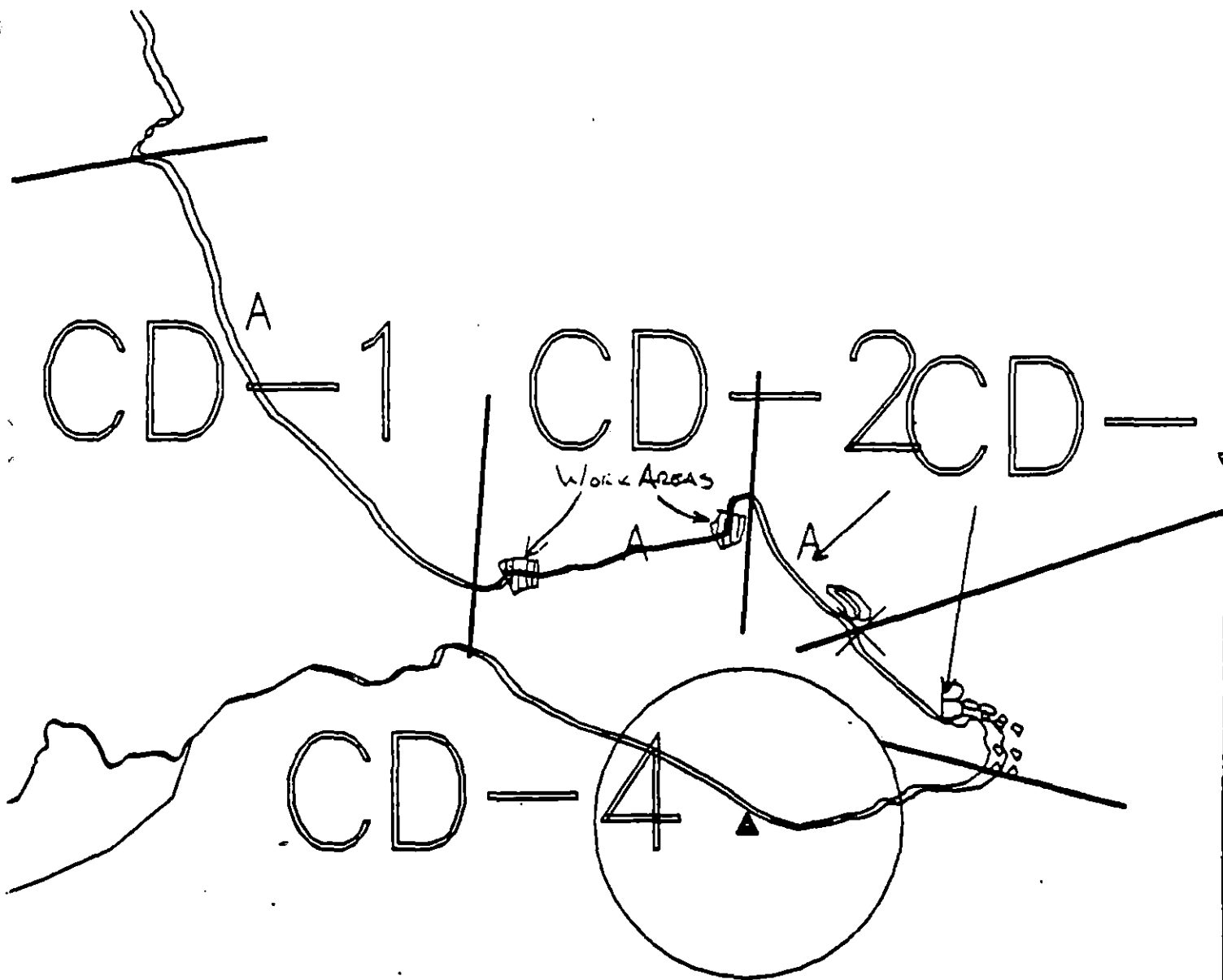
6/13/90

Prepared by

Rex R. Coulter

Date

06/11/90



TREATMENT



Exxon Company, USA

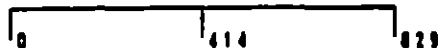
Map Key: AP-CD-2

June 10, 1990



ECOLOGY MAP SEGMENT K9N-8 CD-2 SUBDIVISION A (---Lot---)

METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1359 feet

WORK PLAN ADDENDUM

Segment K09-08-CD-002

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____
NO X

TAG APPROVAL DATE 5/31/90

ADEC ART WEINER Art Weiner

EXXON Andre Teal Andre Teal

NOAA Joseph Talbott Joseph Talbott

USCG G.A. REITER G.A. Reiter

FOSC [Signature] DATE 5/31/90

SHORELINE EVALUATION

SEGMENT ST/ K09-08-CD-03 SUBDIVISION A (1 OF 2) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest on NOAA list.

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles E. Holmes DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 31 m: Narrow 0 m: V.Light 425 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pickup of mousse,
2) bioremediation of areas shown on attached sketch map. Work should
be conducted after 6/1 with USFWS approval regarding eagle nest con-
straint.

TAG COMMENTS:

TAG APPROVAL DATE: 5/12/90.

ADEC Art Weber Art Weber

EXXON Andy Tetz Andy Tetz

NOAA Gary Petrac Gary Petrac

USCG D.D. Rome D.D. Rome

FOSC: DATE: 5-18-90

Assess/need for Custrambend following
mousse pick up. If needed, apply only
in intertidal zone.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage.
 No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites
 USFWS setnet uplands permit 5/15 to 9/15.
- For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)
 Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass.
 Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 6/30)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 8/31)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U Recreation: Tent sites (8/1 to 9/15)
- 6V Anchorages (8/1 to 9/15)
- 6W Forest Service cabins (8/1 to 9/15)
- 6X Lodge (8/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (8/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K9-08 C0003A SUBDIVISION: K9-8-C0-3A DATE 4-27-90

USCG

NAME D.D. Haven Jr., Tm3, USCGR SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

There are some patches of mousse behind bedrock platforms and are protected from wave energy. Is not weathering very fast.

ADEC

NAME Francine J. Beavis SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL CLEAN-UP RECOMMENDED w/ SHovel & TROWELS.

Patchy mousse saturated sediments among cobbles/boulders exist near NW + SE corners of segment, along with ST, CT, CV.
Cleanup crew should have SSAT maps to treat areas of indicated oil.

LAND MANAGER

NAME WILL TROYER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Some mousse could be removed with shovels & trowels.

SHORELINE OILING SUMMARY

REVISION NO 04.13

OG Acton USCG Havre SEGMENT ST/ K9-8-CD-3A
 BIO Davis LAND REP NPS T444, 3000 SUBDIVISION K9-8-CD-3A (1 OF 2)
 EXXON Avery ADEC Bennett TIME 9:50 10:10:50
 TEAM NO. 20 TIDE LEVEL -2.0 to -2.5 DATE 4/27/90
 EST. SUBDIVISION LENGTH: 450 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 40 % B 40 % C 15 % P 1 % G 2 % S 2 % M 0 % V 0 %
 SLOPE: Long 100 % Hang - % Vert - % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 40 m N 0 m VL 410 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	N	E	S	W	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER		X	✓	✓	✓								✓			
COAT		X	✓	✓	✓								✓			
STAIN		X	✓	✓	✓								✓			
MOUSSE			✓							✓			✓			
PATTIES																
TARBALLS																
FILM																
NO OIL													✓		✓	✓

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-20-8Frames 21-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		US	UC	1	2	3	4	5	6	7	8	SU	U	M	U				
1	5					✓	.		✓									✓							CB
6	5					✓	.		✓									✓							R
							.																		
							.																		
							.																		
							.																		

COMMENTS Shoring is a wide rock platform w/ little or no veneer from the lower U12 down and C+B veneer in the upper U12 and S12. The columnar rock surface in the lower U12 appears to dissipate enough wave energy to inhibit natural cleaning of the oiled area. Minimal pit depths due to C+B surface/subsurface.

 REVIEWED 7W DATE 5/1/90

00 Haden

SEGMENT ST/ K98-CD-3A

SUBDIVISION K98-CD-3A

DATE 4 / 27 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Boundary
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PI - No Subsurface Oil

2 Δ

PI - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil Vegetation

1 $\Rightarrow$

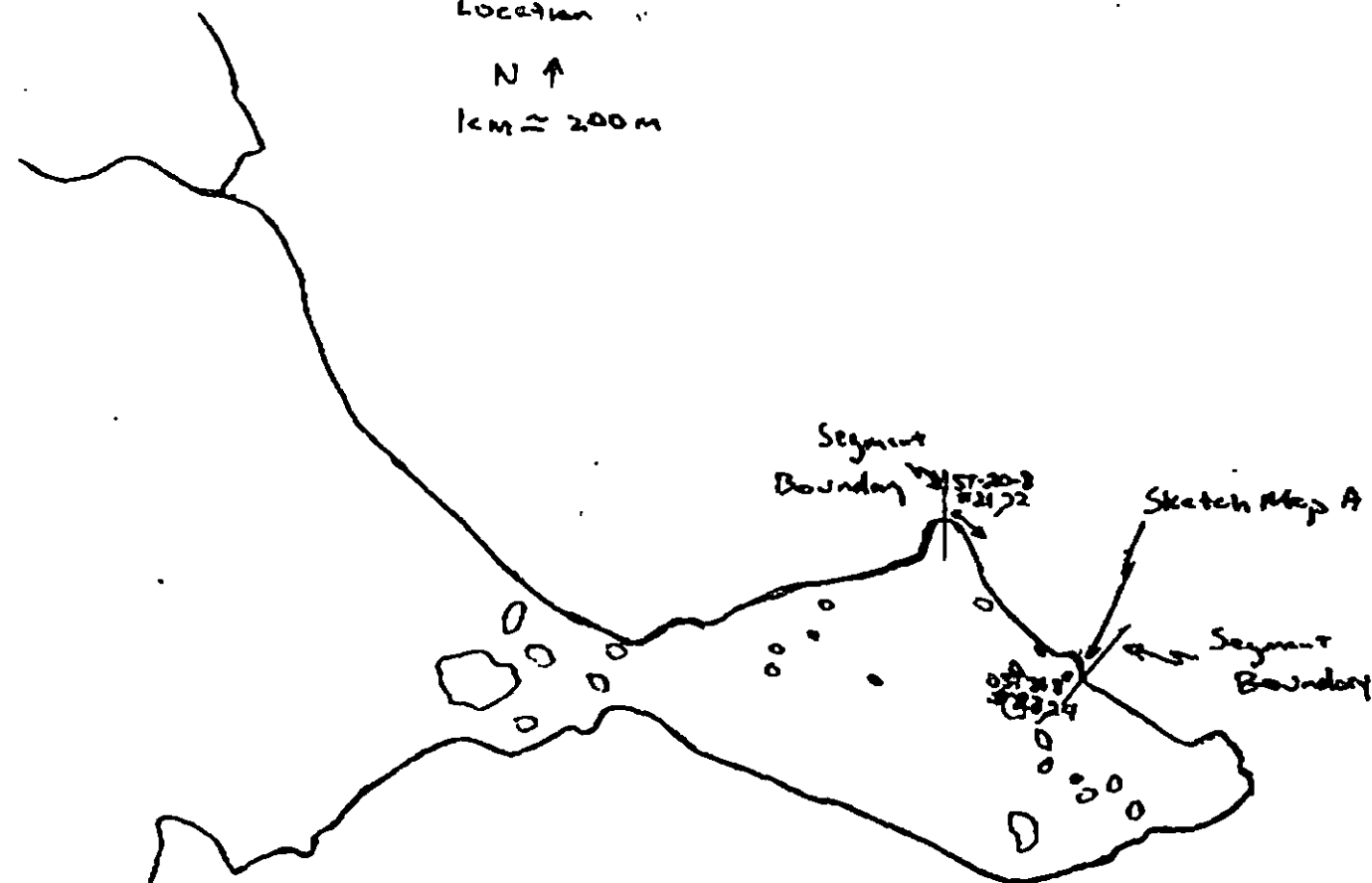
Photo location, direction,
and number

SKETCH MAP

Location

N $\uparrow$

1 cm $\approx$ 200 m



Oil Character Len: AP _____ PO _____ CV 40 CT 40 ST 40 MS 40 P _____ TB _____ FL _____ NO _____

W800R23000

OG Acton

SEGMENT ST/K98-C0-3A

SUBDIVISION K98-CD-2A

DATE 4 / 27 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWM/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Ps - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

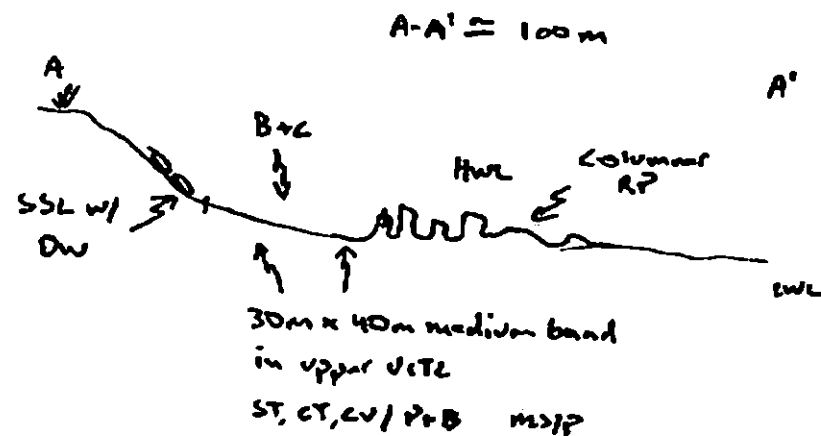
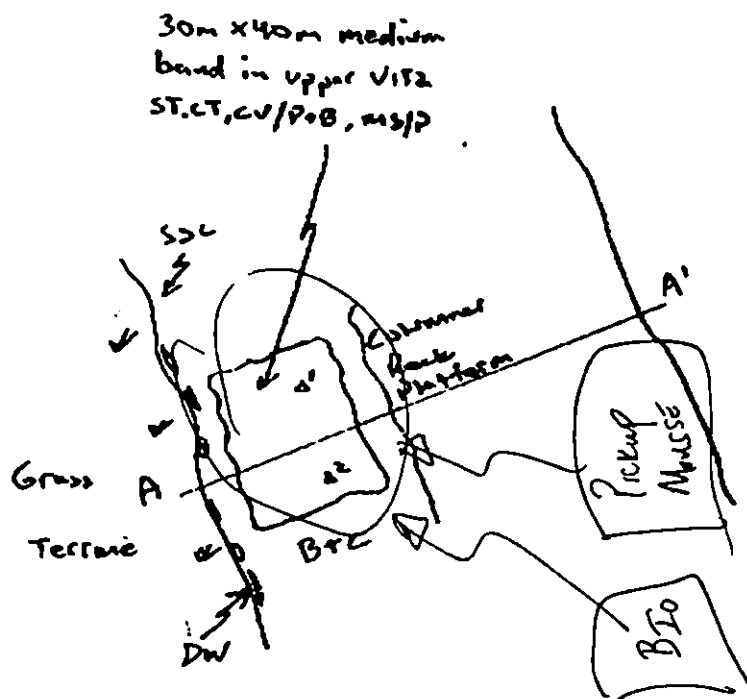
Scattered Distribution

Oil Vegetation

1 ●→

Photo location, direction,
and number

SKETCH MAP A



Oil Character Long

AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

10/10/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 3

Segment ST/K9-08 Subdivision CD-03A Date (mo / day / yr) 4/27/90Time (24 hr) 9:50 Biologist H. Davis(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 15 (4) Pebble 3 (5) Sand 2 (8) Silt —(B) Overall % cover of biota (% of segment): Dense 20% Moderate 40% Low 40% (40%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-20-8Frames 21-24BARNACLES *Continuous but sparse-moderate*

Dense			Moderate			Sparse			Rare		
1U	2	1L	1U	2	1L	1U	2	1L	1U	1M	1L
X	X	2	X	X	2	X	X	2	X	X	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE
4, 5, 6MYTILUS *Small patches between boulders*

Dense			Moderate			Sparse			Rare		
1U	2	1L	1U	2	1L	1U	2	1L	1U	1M	1L
X	X	2	X	X	2	X	X	2	X	X	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE
3, 4, 5, 6GASTROPODS *Littorina dense, limpets sparse-mod, Nucella sp. Sparse-rare*

Dense			Moderate			Sparse			Rare		
1U	2	1L	1U	2	1L	1U	2	1L	1U	1M	1L
X	X	3	X	X	3	X	X	2	X	X	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE
4, 5, 6FUCUS *Patchy all through the segment*

Dense			Moderate			Sparse			Rare		
1U	2	1L	1U	2	1L	1U	2	1L	1U	1M	1L
X	X	2	X	X	2	X	X	2	X	X	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE
4, 5, 6

Wildlife Observations/ General Comments: large boulders, cobble and rocks outcropping. Laminaria, Hedophyllum, Rhodomela, Fucus, Corallina, Ulva, Cladophora and filamentous greens are the most prominent algae. Pagurus sp. common. Eggs of Nucella sp. (canaliculata) Oil overlaps Littorina in the upper intertidal. Graying trails into oil stain.

Ecological Considerations: anadromous stream in nearby segment

DATE 4/27/90 TIME 9:50 - 10:50 TIDE HEIGHT -2.0 to -3.5

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

FLORA:

SPECIES	UTZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA	1	1	1	> on bed rock, in pools
CALLIARTHRON/CORALLINA	1	1	1	
CLADOPHORA SPP	—	2	2,3	
COSTARIA SPP	—	—	—	
ENDOCLADIA MURICATA	1,2	1	—	
FILAMENTOUS GREENS	2	1,2,3	1,2,3	
FILAMENTOUS REDS	—	1,2	1,2	
GLOIOPELTIS FURCATA	—	1,2	—	
HALOSACCION GLANDIFORME	1	1,2	1	
LAMINARIA SPP	—	1	1,2	
LITHOTHAMNION	1	1	1	
NEREOCYSTIS SPP	—	—	—	in drift and off shore
PORPHYRA SPP	1,2	1,2	—	
RALPHSIA/HILDENBRANDIA	—	—	—	
RHODOMELA LARIX	1	1	1,2	
RHODOMENIA PALMATA	1,2,3	1,2,3	—	
SCYTOSIPHON SPP	—	—	—	
ULVA SPP	1	1,2	1,2,3	
ZOSTERA MARINA	—	—	—	
ENTROMORPHA	—	1,2	—	
Neorhizella sp?	1	1	—	in LITZ pools

FAUNA:

ANTHOPLEURA SPP	1	1	1	
(SEMI) BALANUS CARIOSUS	1,2,3	1,2,3	1,2,3	
B. GLANDULA	1,2,3	1,2,3	1,2,3	
BRYOZOANS	—	—	—	
CHITONS (other than K. TUNICATA)	—	1	—	mapalia
CLAMS	—	—	—	
CRABS	—	—	—	
DERMASTRIAS IMBRICATA	—	—	—	
KATHARINA TUNICATA	1	1	—	
LEPTASTERIAS HEXACTIS	1	2	—	Not B. glandina
LIMPETS	1,2,3	1,2,3	1,2,3	
LITTORINA SPP	1,2,3	1,2,3	1,2,3	
NUCELLA SPP	1,2,3	1,2,3	1,2	canaliculata 140 cases
PAGURUS SPP	1	1,2	1	Female w/eggs.
PISASTER OCHRACEUS	—	—	—	
POLYCHAETES	—	—	—	
PYCNOPODIA HELIANTHOIDES	—	—	—	
SEARLESIA DIRA	—	—	—	
SERPULIDS	—	—	—	
SIPHONARIA THERSITES	—	—	—	
TEALIA	—	1	—	

CD-3A

K9-8-CD-3A

SUBDIV.
A
Rep C.

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

CD-3A

ADEC Segment Length: 1090m

0 100 200 300

K9-8-CD-3A

Map Key: 60A-43

Name: Acton

Date: 4-27-90



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-08-CD-003 SUBDIVISION A (1 of 2)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. Authorized per memo dated 6/10/90 from Mary Portner/USFWS to Rex Coulter/Exxon.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unopened biota and substrate.

FOSC

R. Coulter

Date

6/13/90

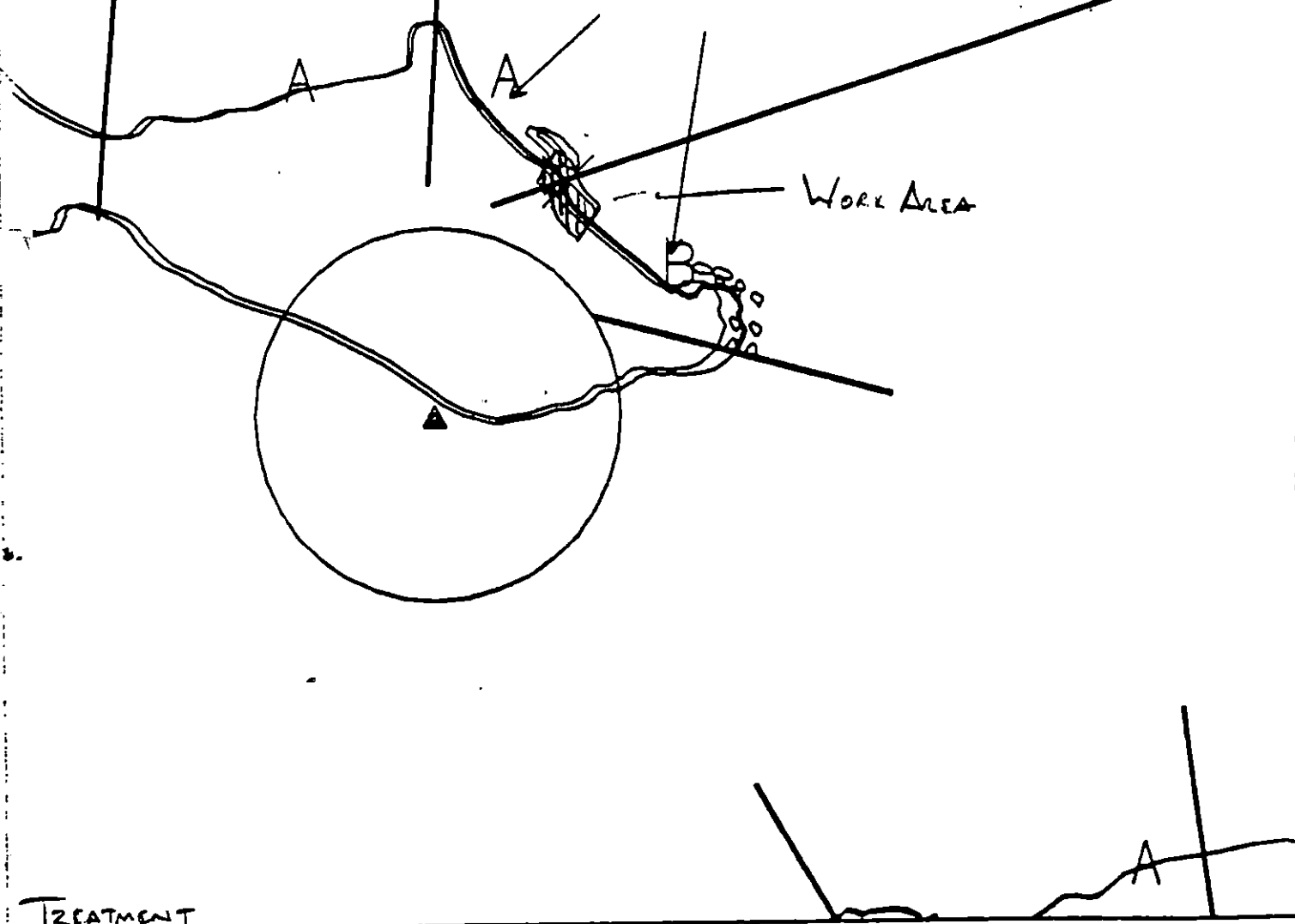
Prepared by

Rex R. Coulter

Date

06/11/90

CD-2CD-3



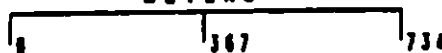
TREATMENT



Exxon Company, USA
Map Key: AP-CD-3
June 10, 1990



ECOLOGY MAP
SEGMENT K9N-08CD-3
SUBDIVISION A (1 of 2)
METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1205 feet

WORK PLAN ADDENDUM

Segment K09-08-CD-003

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____

NO X

TAG APPROVAL DATE 5/31/90

ADEC ART WEINER Art Weiner

EXXON ANDY TEAL Andy Teal

NOAA Joseph Talbott Joseph Talbott

USCG G.A. REITER G.A. Reiter

FOSC [Signature] DATE 5/31/90

SHORELINE EVALUATION

SEGMENT ST/ K09-08-CD-03 SUBDIVISION B (2 OF 2) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: (Signature) DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 62 m: Narrow 534 m: V.Light 38 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pickup of mousse
patties and 2) bioremediation of areas shown on attached sketch map.
Work should be conducted after 6/1 with USFWS approval regarding eagle
nest constraint.

TAG COMMENTS:

TAG APPROVAL DATE: 5/12/90
ADEC (Signature)
EXXON (Signature)
NOAA (Signature)
USCG D. D. ROME

FOSC: (Signature) DATE: 5-18-90
Bioremediation limited to areas indicated on
map which are clearly in the intertidal
zone.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotai Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/8 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7HH Finfish harvesting
 7H Deer harvesting (8/1 to 1/7)
 7JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/K909 CD003B SUBDIVISION: K9-9-CD-33 DATE 4-27-9D

JSCG

JSCG
NAME D.D. Haven Jr. Gms. LSCGR SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

TREATMENT SUGGESTED

COMMENTS

Small amount of recoverable oil

ADEC

NAME Francine J. Bonnis SIGNATURE 

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL CLEAN-UP RECOMMENDED WITH SHOVELS & TROWELS

Within this segment are several locations having collectable mouse saturated fine sediments in the interstitial spaces of boulders/cobble.

2 main areas are:

- 2) 30 x 40 m area with ST, CP, CV, MS, PT

- 2) 20 x 20 m area " " " " " "
Other collectable oil exists in places in UITE in easternmost portion of the segment. Clean-up crew should have SSAT maps + check all areas w/indicated o

LAND MANAGER UPS

NAME Will Troyer SIGNATURE Will Troyer

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Same mouse can be collected with shovel and brush
by digging between boulders in the major area
of mouse concentration. On the east end of the
segment is the very good a few square miles of oil
in fine pebbles that could quickly be
scooped up.

SHORELINE OILING SUMMARY

REVISION NO. 06-13-90

OG Acton USCG Haven SEGMENT ST/ K19-CD-3B
 BIO Davis LAND REP NPS Troyer, James SUBDIVISION K19-CD-3B (1 OF 1)
 EXXON Avery ADEC Benois TIME 12:10:11 :45
 TEAM NO. 20 TIDE LEVEL -3.5 to -2.0 DATE 4/27/90
 EST. SUBDIVISION LENGTH: 611 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 40 % B 40 % C 10 % P 3 % G 3 % S 4 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 65 m N 446 m VL 100 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	A	P	S	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-20-8Frames 25-30

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		SO	UC	1	2	3	4	5	6	7	8	SU	U	M	U				
1	5																								BR
2	5																								BR

COMMENTS

REVIEWED AWDATE 5/1/90

00-11-1990

SEGMENT ST/ K9-9-CD-3B

SUBDIVISION K9-9-CD-3B

DATE 4 / 27 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil Vegetation

1 $\Rightarrow$

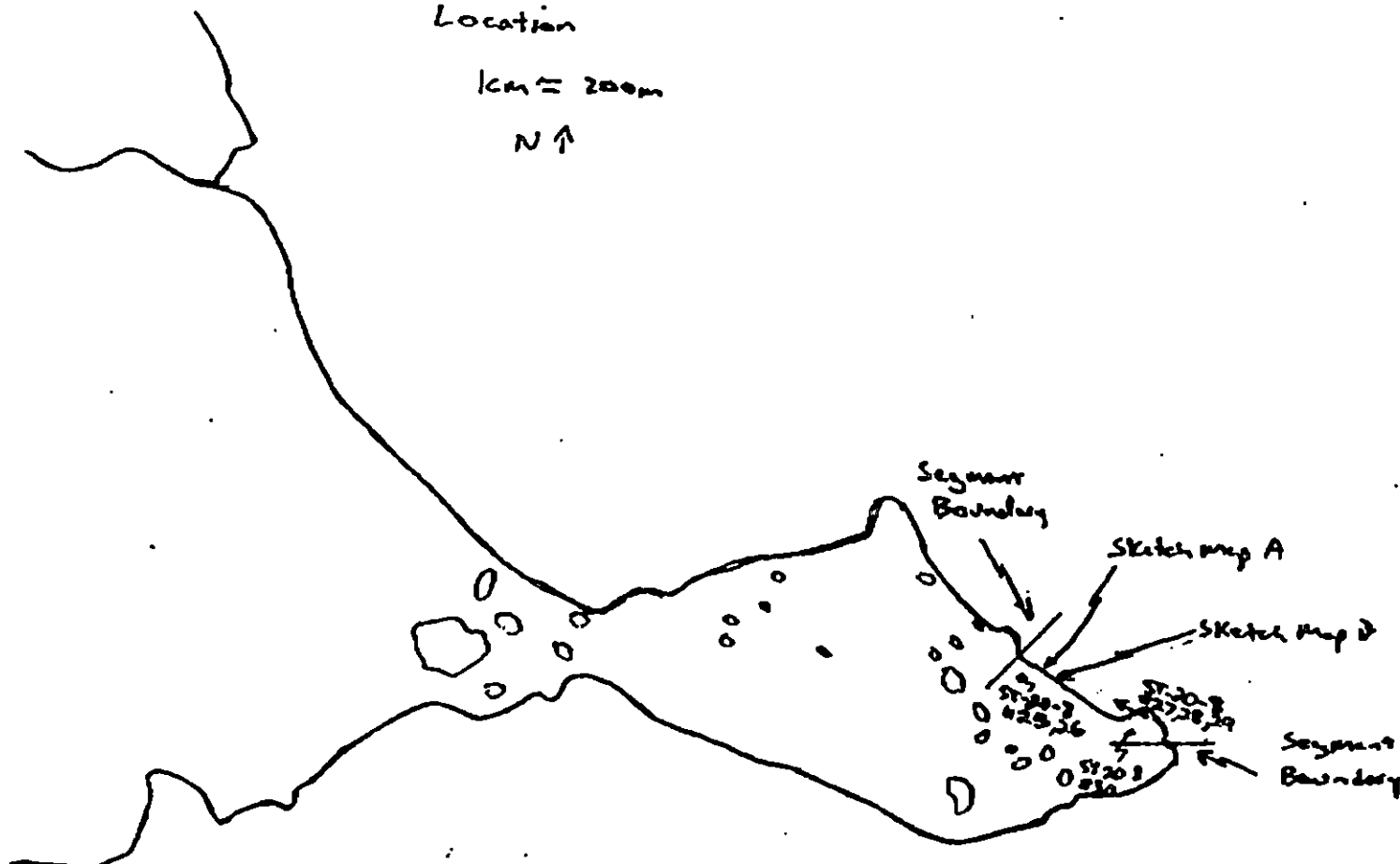
Photo location, direction,
and number

SKETCH MAP

Location

1cm = 200m

N $\uparrow$



Oil Character Log: AP _____ PO _____ CV 54 CT 11 ST 61 MS 51 P1 _____ TB _____ FL _____ NO _____

11/30/2000

OG Acton

SEGMENT ST/ Y9-9-CD-3B

SUBDIVISION K9-9-CD-3B

DATE 4 / 27 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWL/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

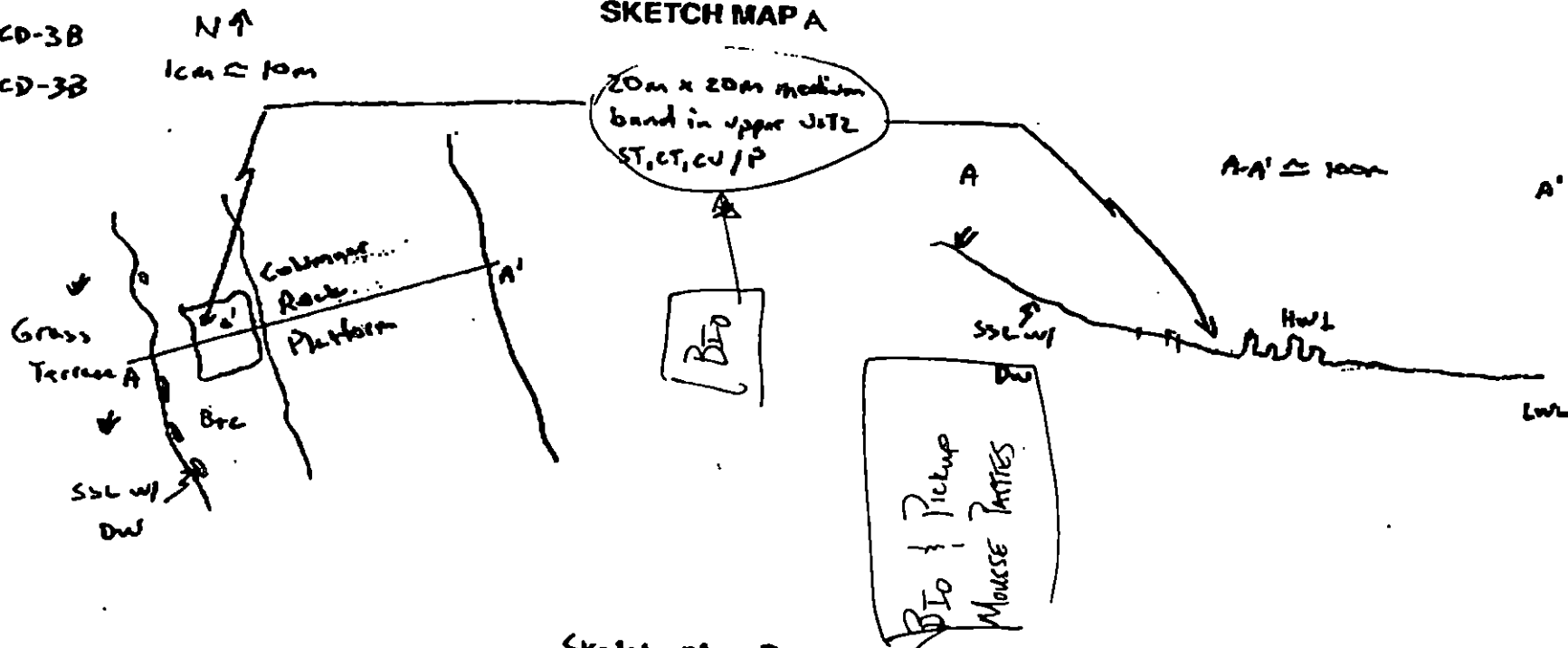
Splashed Distribution

Old Vegetation

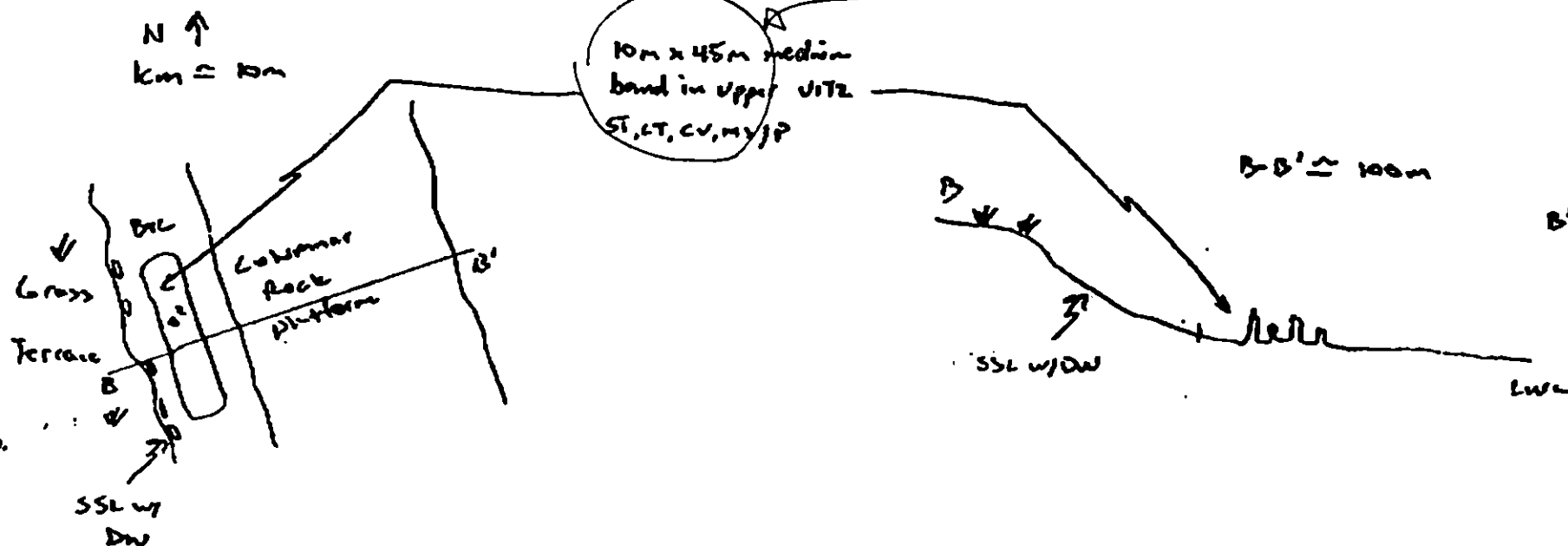
1 $\Rightarrow$

Photo location, direction, and number

SKETCH MAP A



Sketch Map B



Oil Character Long

AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ FT _____ TB _____ FL _____ NO _____

30-000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: C

Segment ST / K9-09 Subdivision CD-03B Date (mo / day / yr) 4/27/90Time (24 hr) 10:50 Biologist N. Davis

(A) Substrate type and % of segments:

(1) Bedrock 40 (2) Boulder 40 (3) Cobble 10 (4) Pebble 6 (5) Sand 4 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 20% Moderate 40% Low 40% (40%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:

Roll No. ST-20-8Frames 25-30

BARNACLES Continuous mostly moderate with sparse areas.

	Dense			Moderate			Sparse			Rare		
	1M	1L		1M	1L		1M	1L		1M	1L	
2	2	2		2	2		2	2		2	2	
3	3	3		3	3		3	3		3	3	
4	4	4		4	4		4	4		4	4	
5	5	5		5	5		5	5		5	5	
6	6	6		6	6		6	6		6	6	

NOT PRESENT

MYTILUS small patches between cobble + boulder

	Dense			Moderate			Sparse			Rare		
	1M	1L		1M	1L		1M	1L		1M	1L	
2	2	2		2	2		2	2		2	2	
3	3	3		3	3		3	3		3	3	
4	4	4		4	4		4	4		4	4	
5	5	5		5	5		5	5		5	5	
6	6	6		6	6		6	6		6	6	

NOT PRESENT

GASTROPODS Dense Littorina, Mod-Sparse limpets mostly on low areas and underside

	Dense			Moderate			Sparse			Rare		
	1M	1L		1M	1L		1M	1L		1U	1M	1L
2	2	2		2	2		2	2		2	2	2
3	3	3		3	3		3	3		3	3	3
4	4	4		4	4		4	4		4	4	4
5	5	5		5	5		5	5		5	5	5
6	6	6		6	6		6	6		6	6	6

NOT PRESENT

FUCUS Patchy all through the segment

	Dense			Moderate			Sparse			Rare		
	1M	1L		1M	1L		1M	1L		1U	1M	1L
2	2	2		2	2		2	2		2	2	2
3	3	3		3	3		3	3		3	3	3
4	4	4		4	4		4	4		4	4	4
5	5	5		5	5		5	5		5	5	5
6	6	6		6	6		6	6		6	6	6

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: Rock outcroppings, boulders, and cobble substrate (LTZ) Laminaria, Hedophyllum, Green filamentous, Cladophora, Alaria, Fucus, Rhodomela, Rhodomela, and Ogulina (LTZ) were the most prominent algae seen. Oil overlaps limpets, littorina and barnacles in some areas in the LTZ.

Ecological Considerations: 5 T Eagle nest. No eagles or nests were seen.

DATE 4/27/90 TIME 10:50 - 11:45 TIDE HEIGHT -3.5 to -2.0

1 = BEDROCK

2=BOULDER

3=COBBLE

5=SAND

6=SILT

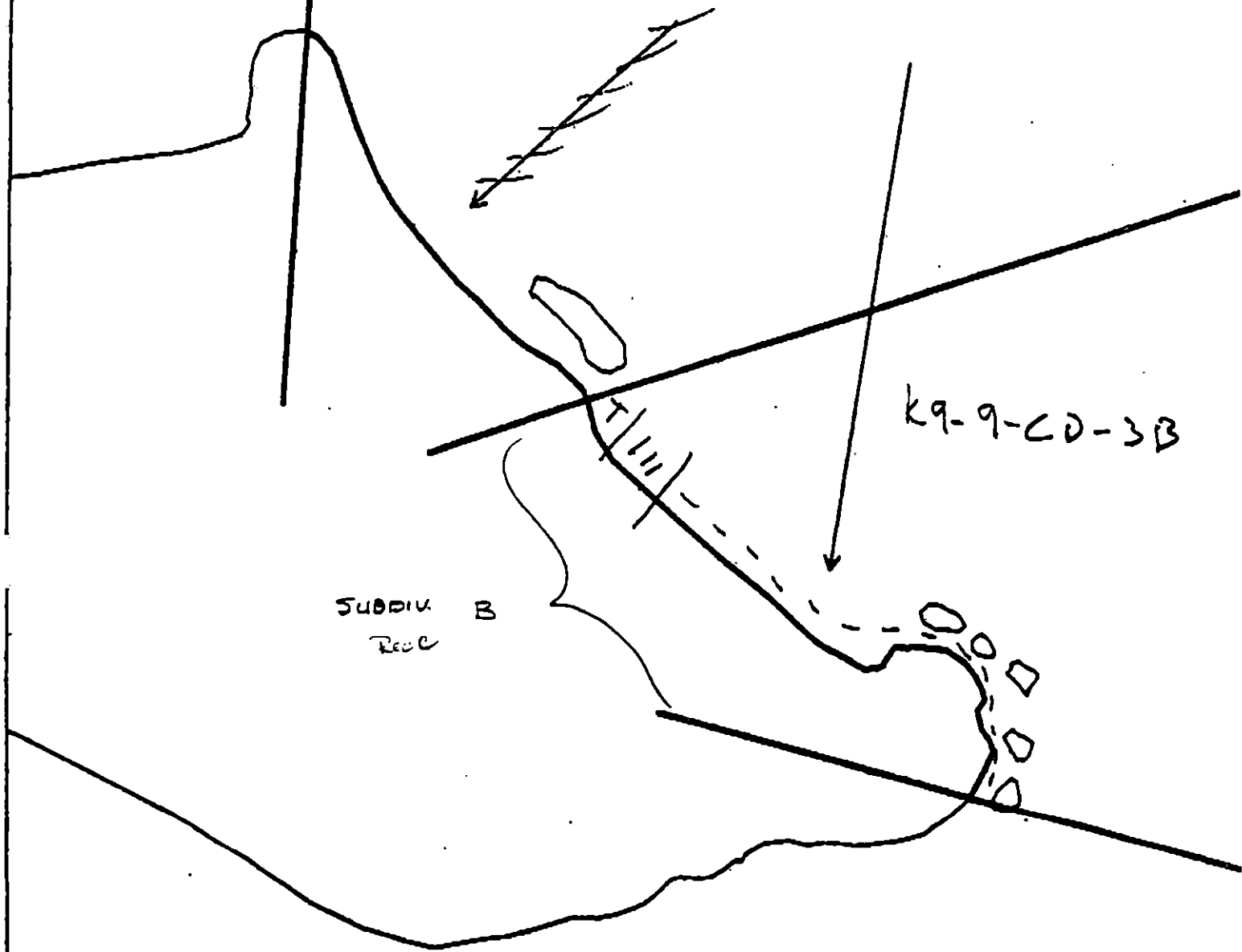
FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA	1	1	1	on bed rock in pools
CALLIARTHRON/CORALLINA	1	1	1	"
CLADOPHORA SPP	—	2	2,3	
COSTARIA SPP	—	—	—	
ENDOCLADIA MURICATA	1,2	1	—	
FILMAENTOUS GREENS	2	1,2,3	1,2,3	
FILAMENTOUS REDS	—	1,2	1,2	
GLOIOPELTIS FURCATA	—	1	—	
HALOSACCION GLANDIFORME	1	1	—	
LAMINARIA SPP	—	1	1,2	
LITHOTHAMNION	1	1	1	
NEREOCYSTIS SPP	—	—	—	in drift and off shore
PORPHYRA SPP	1,2	1,2	—	
RALPHSIA/HILDENBRANDIA	—	—	—	
RHODOMELA LARIX	1	1	1,2	
RHOBOMENIA PALMATA	1,2,3	1,2,3	—	
SCYTOSIPHON SPP	—	—	—	
ULVA SPP	1	1,2	1,2,3	
ZOSTERA MARINA	—	—	—	
ENTOMORPHA	—	1	—	

FAUNA:

ANTHOPELURA SPP	1	1	1	
(SEMI) BALUNUS CARIOSUS	1,2,3	1,2,3	1,2,3	
B. GLANDULA	1,2,3	1,2,3	1,2,3	
BRYOZOANS	—	—	—	
CHITONS (other than K. TUNICATA)	—	1	—	in pools?
CLAMS	—	—	—	
CRABS	—	—	—	
DERMASTERIAS IMBRICATA	—	—	—	
KATHARINA TUNICATA	—	1	1	
LEPTASTERIAS HEXACTIS	—	—	—	
LIMPETS	1,2,3	1,2,3	1,2,3	
LITTORINA SPP	1,2,3	1,2,3	1,2,3	
NUCELLA SPP	1,2,3	1,2,3	1,2	Egg cases of cancellata
PAGURUS SPP	1	1,2	1	
PISASTER OCHRACEUS	—	—	—	
POLYCHAETES	—	—	—	
PYCNOPODIA HELIANTHOIDES	—	—	—	
SEARLESIA DIRA	—	—	—	Pagurus using shells
SERPULIDS	—	—	—	
SIPHONARIA THERSITES	—	—	—	
TEALIA	—	—	1	

CD-3B



XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
OOOO No Oil

CD-3B

ADEC Segment Length: 1090m



K9-9-CD-3B
Map Key: 00A-43
Name: Acton
Date: 4-27-90
Data Entered:



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-08-CD-003 SUBDIVISION B (2 of 2)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. Authorized per memo dated 6/10/90 from Mary Portner/USFWS to Rex Coulter/Exxon.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

FOSC

[Signature]

Date

6/13/90

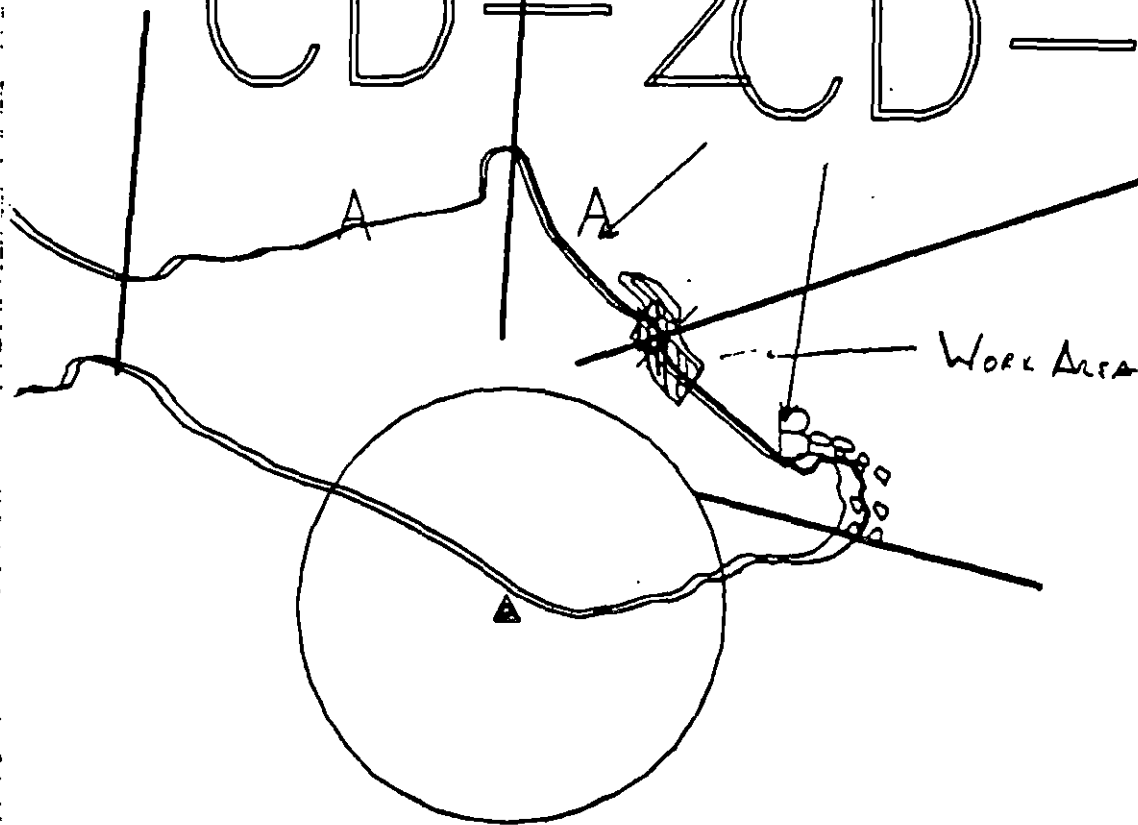
Prepared by

Rex R. Coulter

Date

06/11/90

CD-2CD-3



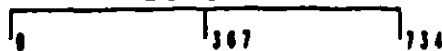
TREATMENT



Exxon Company, USA
Map Key: AKP-CD-3
June 10, 1990



ECOLOGY MAP
SEGMENT K9N-98CD-3
SUBDIVISION B (1-1-2-1)
METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1205 feet

Dated 5/22/90

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____
NO X

TAG APPROVAL DATE 5/31/90

ADEC ART WEINER Art Weiner

EXXON *Amox TEL* *[Signature]*

NOAA Joseph Talbot J. Talbot

USCG G.A. REITER G.A. Reiter

FOSCO Joseph DATE 5/31/90

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-007 SUBDIVISION A (1 OF 1) DATE 5/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL State Marine Park National Parks

3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)

3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles J. H. H. H.

DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 75 m: Narrow 0 m: V.Light 620 m: No Oil 1476 m

Subsurface Oil Observed: Yes X No Maximum Depth 5cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

* X Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

X Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommend treatment includes 1) manual pick up of accessible mousse deposits, 2) spot wash 3) bioremediate ~~inaccessible mousse deposits~~. Work should be conducted between 7/1 and 7/31 due to pinniped constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Cay Menners R. J. J.

EXXON ANNY TAY

NOAA Joseph T. Kott

USCG G. A. M. J. E. C. A. B. E. T. A.

FOSC:

DATE: 7/5/90

* Bio in upper/super tidal zone only at discretion of NPS Monitor.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Adognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- N, 3P Harbor seal and sea lion pupping (3/10 to 7/10)
D, 3P Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31).
Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 588-7235
ADF&G Don Calkins 267-2403
- SR Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- SS Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2208
- ST All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- SU Recreation: Tent sites (8/1 to 9/15)
SV Anchorages (8/1 to 9/15)
SW Forest Service cabins (8/1 to 9/15)
SX Lodge (8/1 to 9/15)
SY Special use destination
- Z Subistence area: Salmon harvesting (8/1 to 9/30)
H Finfish harvesting
T Deer harvesting (8/1 to 1/7)
U Invertebrate harvesting
X Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic to disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K9-09 C0-7 SUBDIVISION: A DATE 5-21-90

USCG

NAME STAN L. SHIELDS SIGNATURE Stan L. Shields☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

IF THIS WERE THE ONLY SEGMENT IN THE CAPE DOUGLAS AREA THAT HAD OILING I WOULD RECOMMEND NO TREATMENT DUE TO AMOUNT FOUND IN THIS SEGMENT. THERE ARE 3 AREAS THAT COULD BENEFIT FROM MANUAL REMOVAL BY SHOVELS AND TROWELS. THE FIRST TWO POCKETS ARE IN THE WEST PART OF SEG. WITH ^{LIGHT} PATCHY MOUSSE AND STAIN IN THE UPPER MIDDLE TIDE ZONE AND THE 3RD POCKET IS IN THE EASTERN PART OF SEG. IN THE UPPER TIDE ZONE AGAIN WITH ^{LIGHT} PATCHY MOUSSE AND STAIN.

ADEC

NAME Francine J. Benoit SIGNATURE Francine J Benoit☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

MANUAL PICK-UP WITH SHOVELS & TROWELS RECOMMENDED.

Three areas of mousse & mousse saturated fine sediments exist along this segment, north facing with medium wave energy:

- 1) 10 m x 50 m band among cobbles/boulders, western part of segment
- 2) 3 m x 5 m band slightly to the east of this
- 3) 2 m x 3 m area of some mousse in coarse gravel among cobbles/boulders in eastern portion of segment.

All as described is recoverable by manual retrieval methods. See SS map on area location

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Not available

USCQ
NAME _____ SIGNATURE _____

ADEC
NAME Fernando J. Benoit SIGNATURE Fernando J. Benoit

All oil described is recoverable by normal retrieval methods. See S&P map on cover location.

AND MANAGER

SIGNATURE _____

NAME Carl Schuch SIGNATURE Carl Schuch

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

Concur with ADEC recommendation. Recoverable oil is primarily in the three pockets/patches indicated on the sketched map. Recommend having NPS/ADEC monitor locate these difficult to find areas.

SHORELINE OILING SUMMARY

REVISION NO. 2413 88

OR Mike Foget USCG Stan shields ^{NPS} SEGMENT ST/ K0909 / CD 007
 BI Heather Davis LAND REPOS Gus Lagerstrom / Dan Connors SUBDIVISION A (1 OF 1)
 EXXON — ADEC Fran Bennis TIME 16:20 18:30
 TEAM NO. 20 TIDE LEVEL 1.60 - 1.2 DATE 5 / 21 / 90
 EST. SUBDIVISION LENGTH: 2117 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock mostly steep rocky backshore
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 5 % B 40 % C 30 % P 10 % G 5 % S 10 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 75 m N 0 m VL 635 m NO 1407 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	1	2	3	4	SW	U	SE	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN			0	X	X				0	X		
MOUSSE			X	X					X	0	X	
PES												
TARBALLS												
FILM												
NO OIL										X	X	

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 30 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. ST-20-12Frames 22-27

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE-SUBSURFACE SEDIMENTS
		OF	OR	OL	OP	NO		US	US	1	2	3	4	5	SW	U	SE	U				
1	20					X	•		X						X					—	—	P, G, S
2	30					X	•		X						X					N	25	P, G, S, P
3	30					X	•		X						X					—	—	C, P, S, P
4	25					X	•		X						X					—	—	C, P, S, P
5	15	X					0.5		X			X			X					Y	10	C, S
6	15	X					0.5		X			X			X					N	—	S, C

COMMENTS Shore zone is a rocky headland with a boulder/cobble beach zone which is low angle, most of the oiling occurs as staining in the HITZ. There is some patchy distribution of Mousse in the HITZ toward the west end of the segment. There is a rock bench to the west of the patch and a point to the east. The mousse is in granule/sand in between boulder/cobb

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K09-09 Subdivision CD-07 Date (mo/day/yr) 5/21/90Time (24 hr) 16:15 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 5 (2) Boulder 40 (3) Cobble 30 (4) Pebble 15 (5) Sand 10 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 10% Moderate 40% Low 50% (30%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (3)

Photographs:
Roll No. ST-20-12Frames 22-27BARNACLES *Variable in density but continuous along the segment*

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	2	2	X	X	X	X	X	X	2	2	2
X	3	3	X	X	X	X	X	X	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6MYTILUS *Rare. Just a few in the segment*

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	X	X	1L	X	X	1L
3	3	3	3	3	3	X	X	2	X	X	2
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6GASTROPODS *Variable in density but continuous.*

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	X	X	X	2	2	2	2
3	3	3	X	X	X	3	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6FUCUS *Patchy*

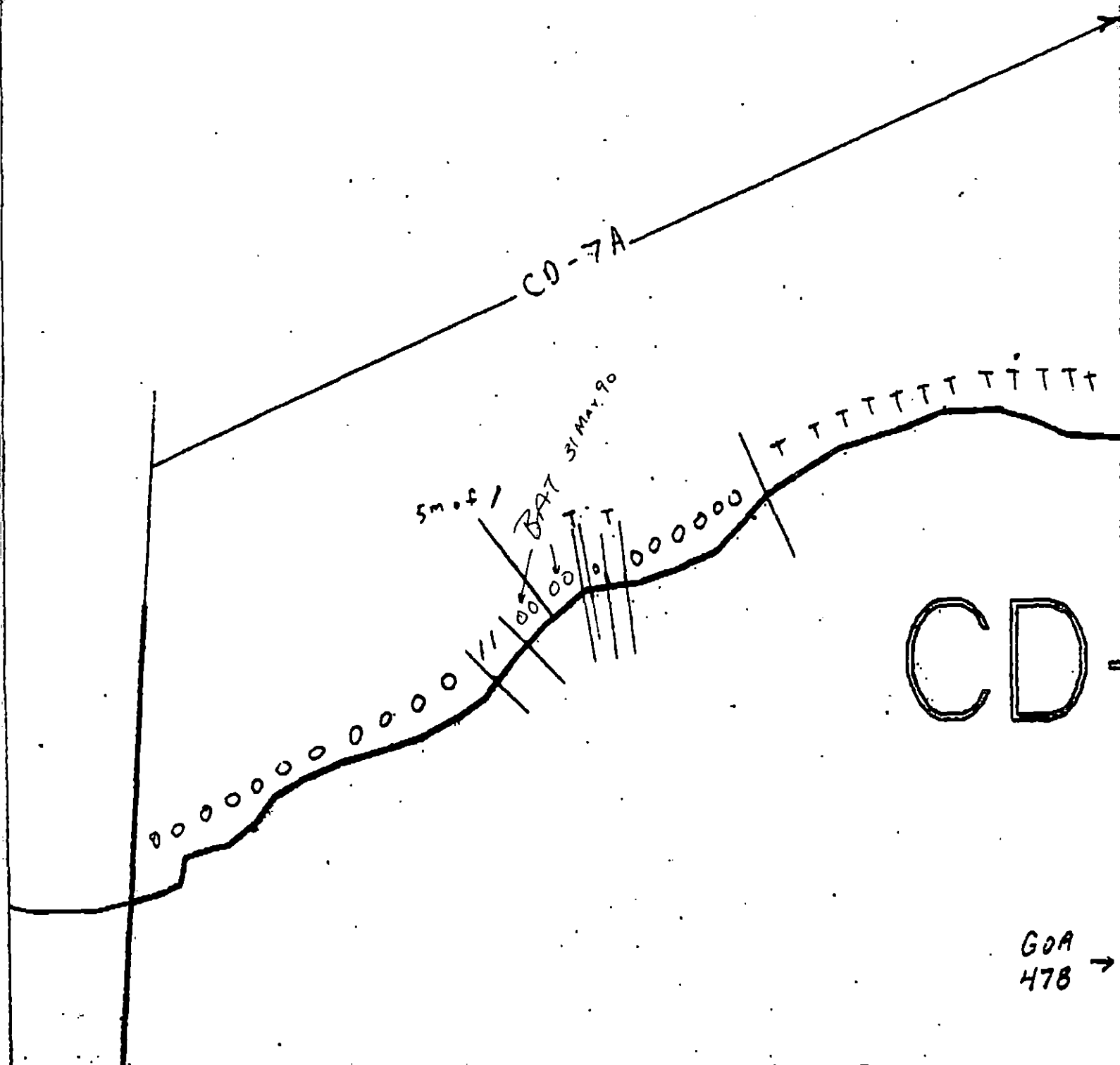
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	2	X	X	2	2	2	2
3	3	3	3	X	3	X	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: MTZ Littorina, limpets, Balanus, some pagurus, amphipods, Porphyra, and Fucus. MTZ Fucus, Ulva, Halosaccion, Odonthalia, Rhodomena? Barnacles, Littorina, limpets, Cymatocera, Leptasterias, Anthopleura (artemisia), sculpins, and G. (on the tops of rocks) MTZ Odonthalia, Ulva, Scytosiphon, Zostera and Corallina. Bear on CD-5. Bear, Fox, and Raccoon tracks found on CD-7. Three Harbor seals seen offshore.

Ecological Considerations: No Ecological Constraints. Eagles in the area. No nests observed. dead Eagle found. Harbor seals haul out and pup in the area.

Birds seen in area: 1 dead Eagle, Wandering Tattler, Black Scoters, Harlequin (4/5) ducks and Glaucous-winged Gulls.



X X X Wide

// // // Medium

- - - Narrow

T T T T Very Light

K0909 CD-7A

ADEC Segment Length: 2,153m

Map Key: GOA-470

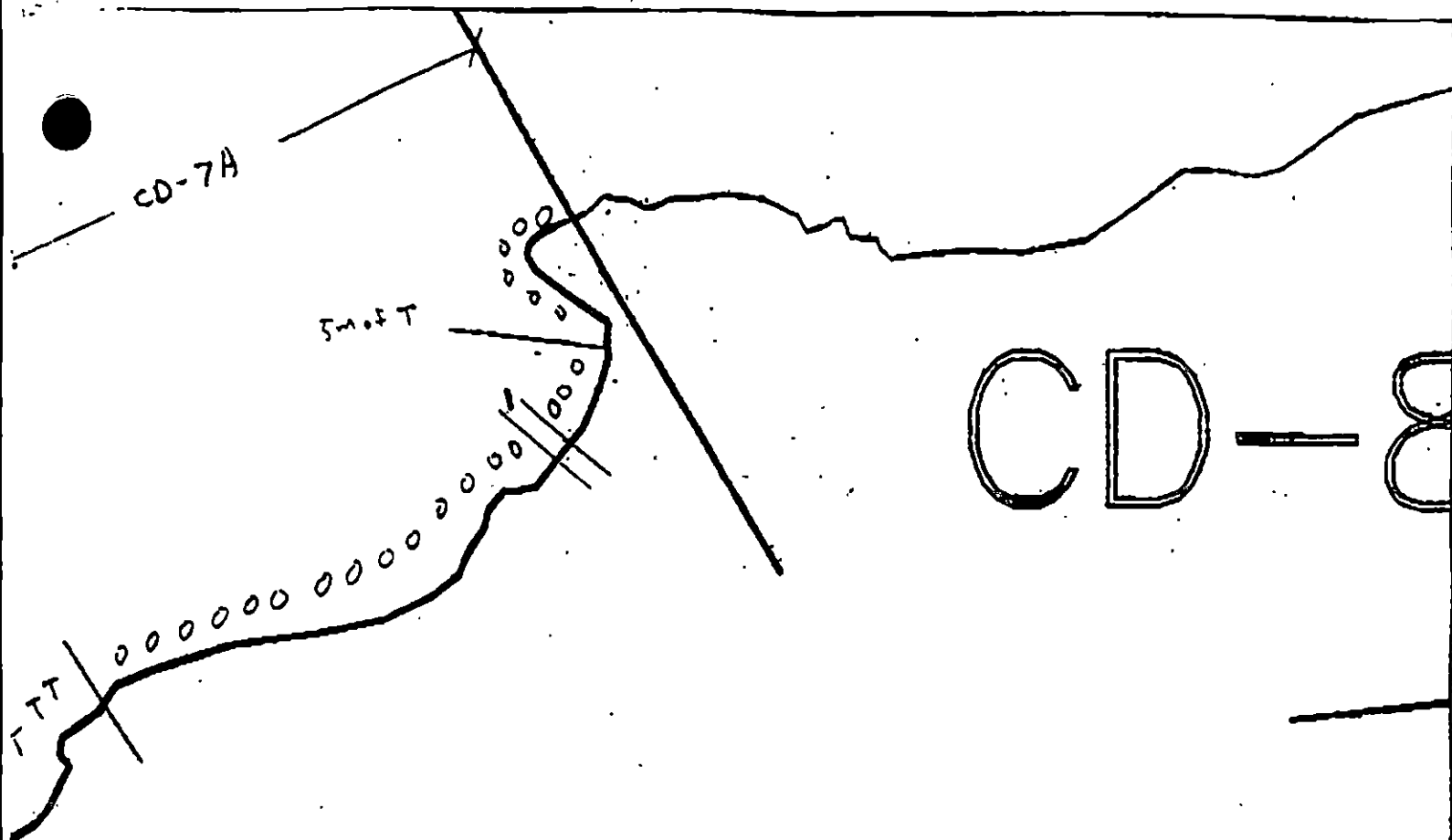
Name: Mike Fogel

Date: 5/21/90

MAY-23-1990 17:03 FROM EXXON KODIAK
MAY-22-1990 15:21 -RUM EXXON SCAT

TO
TO

15643771 P.08
94874006 P.24



← GOA
H7A

XXXX Wide

//// Medium

--- Narrow

TTTT

K0909-CD-7A

ADEC Segment Length: 2155m

Map Key: GOA-47b

Name: Mike Fogel

Date: 5/21/90

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-08 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Michael Czupryn DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 97 m: Narrow 20 m: V.Light 651 m: No Oil 140 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation <u>05/31/90</u>	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment activities include 1) manual pickup of
mousse and 2) bioremediation of areas as indicated on attached sketch
map. No specific ecological time constraints identified.

TAG COMMENTS: MONITORS TO ASSESS LOGS

TAG APPROVAL DATE: 5/15/90.

ADEC ART WOOD Nit Woods

EXXON ANDY KAN Shal

NOAA Joseph Talbot 5/15/90

USCG G.A. REITER G.A. Reiter

FOSC:

DATE: 5-20-90

Monitors ensure bioremediation treatment
is clearly in the intertidal zone,
below mean high tide line.

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 2P Harbor seal and sea lion pupping (5/10 to 7/1)
Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
7HH Finfish harvesting
7I Deer harvesting (8/1 to 1/7)
7J Invertebrate harvesting
7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09-09 SUBDIVISION: C0008A DATE 4/27/90NOAA
BGC
AMEJohn Naughton

SIGNATURE

John J. Naughton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

This segment at Cape Douglas had very little oil over majority of length with two areas containing small amounts of patchy mousse. Recommend this small amount of oil be allowed to weather naturally.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

I concur with National Park Service's conclusions and recommend that the removal of the mousse and oiled debris be accomplished by manual methods.

LAND MANAGER

NAME

Carl Scheeb

SIGNATURE

Carl Scheeb☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

There are three areas of recoverable oil, mostly mousse in interstitial spaces. The entire segment should be walked by a cleanup crew and all recoverable mousse and oiled debris should be removed.

REVISION NO. 03/27/80

CG LINDSEY NAKASHIMA USEG (NOAA) JOHN NAUGHTON SEGMENT ST. 40909-CD008
 BIO DEB MCCORMICK LAND REP (IPS) CARL SCHUCH SUBDIVISION CD008A 1 OF 1
 EXXON FRED AVARS ADEC TERRY GILBERT TIME 7:35 TO 8:30 AM
 TEAM NO. 19 TIDE LEVEL +5.60 TO +2.40 FALL DATE 4/27/90
 EST. SUBDIVISION LENGTH: 879 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock 6
 VIEWED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: WEST to EAST
 SURFACE SEDIMENTS: R 15 % B 25 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 50 % Hang 45 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 60 m N 20 m VL 673 m NO 126 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	G	B	P	S	1	2	3	4	5	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT		X	X	X		X				X			
STAIN		X	X	X		X				X			
MOUSSE		X	X	X				X		X			
PATTIES													
TARBALLS													
FILM													
OIL										X	X	X	

PAVEMENT H F S NONE sq. m by 0 cm

PATTIES / TARBALLS NONE BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-19-18

Frames 23-27

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		UO	UG	1	2	3	4	5	SU	U	M	U				
1	5			X			0.5	X				X			X				N	N	N	C/B

COMMENTS

THIS SEGMENT IS LOCATED AT THE NORTH-FACING SHORE OF SAKOI BAY.
 THE VERY LIGHT OIL CHARACTERIZES MOST OF THE SEGMENT WITH
 SPORADIC PATCHES OF STAIN AND COAT.

REVIEWED BAF DATE 1 MAY 90

00 LINDS VAKASNAHA

SEGMENT ST/ K0909-CD008

SUBDIVISION CD008A

DATE 4 127 90

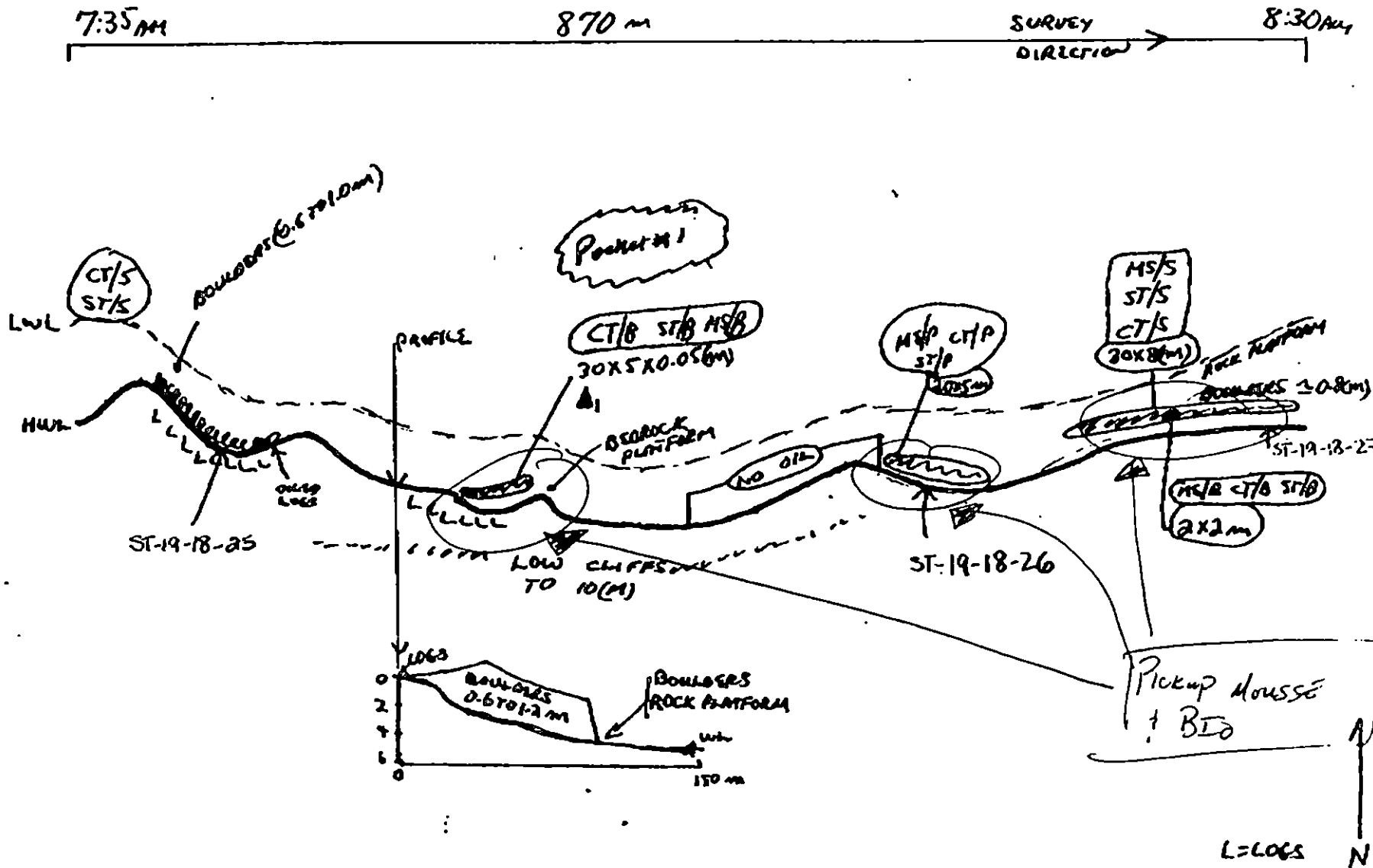
ETCH MAP

CHECKLIST

- M Arrow
- Approx. Scale
- Seg/Sub Entry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. NWL/AVL
- STL
- Profile Location(s)
- Profile(s)
- P/L Location(s)
- Photo Location(s)

LEGEND

- 1 Δ
- PI - No Subsurface Oil
- 2 Δ
- PI - Subsurface Oil
- [CT/C]
- Continuous Distribution
- [CT/B]
- Broken Distribution
- [CT/P]
- Patchy Distribution
- [CT/S]
- Splashed Distribution
- lll
- Oil Vegetation
- 1 $\Rightarrow$
- Photo location, direction, and number



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K-9-9-ED-8 Subdivision A Date (mo / day / yr) 4-27-90Time (24 hr) 0750-0830 Biologist D. McCormick

- (A) Substrate type and % of segments:
 (1) Bedrock 15 (2) Boulder 75 (3) Cobble 10 (4) Pebble 0 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 20% Moderate 50% Low 30%
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-19-18Frames 13-27

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	2	2	X	2	X	X	2	2	2	2
3	3	3	3	X	3	3	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

None seen
NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	2	2	X	2	X	X	2	2	2	2
3	3	3	3	X	3	3	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

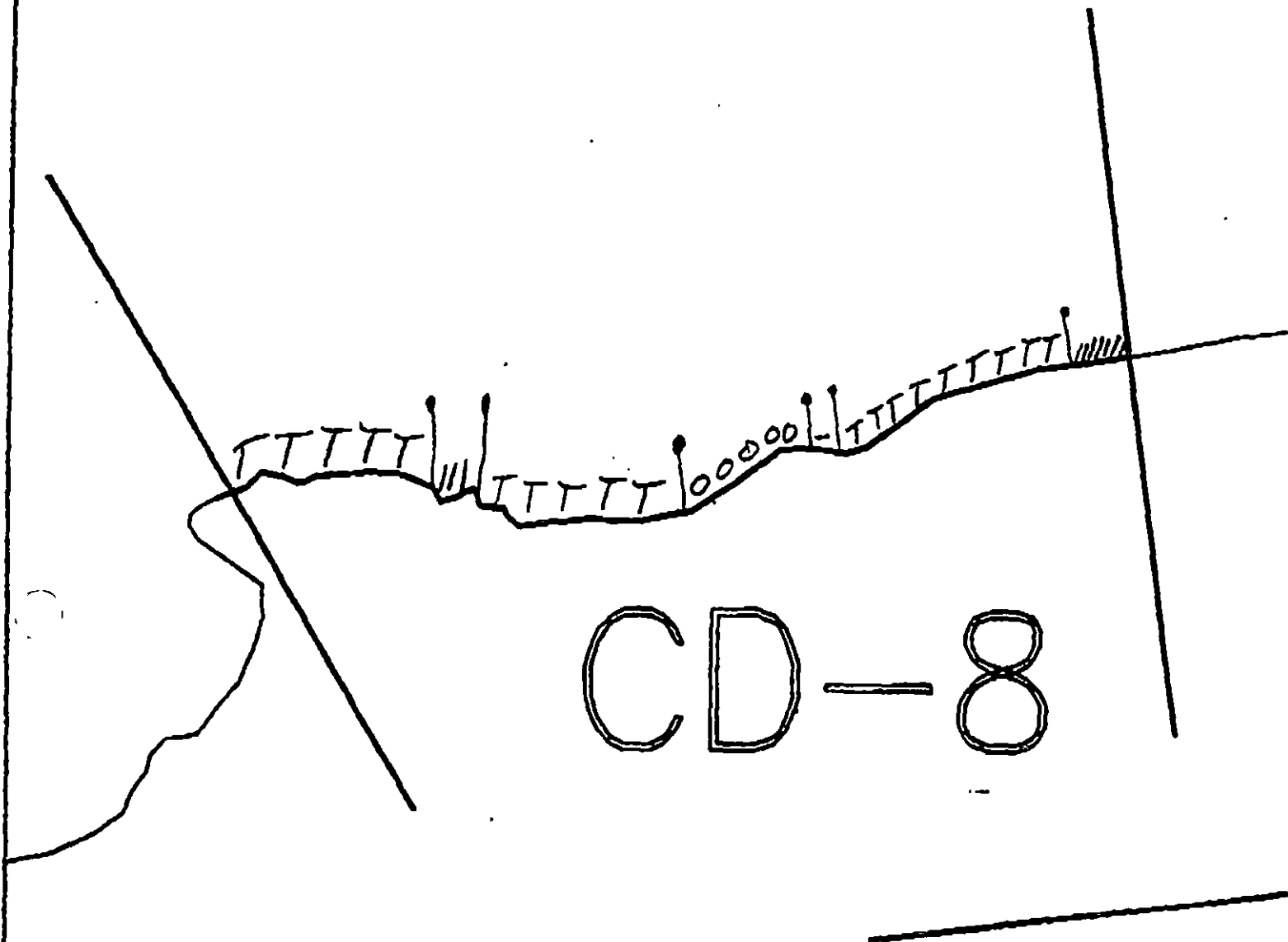
FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	X	2	X	X	2	2	2
3	3	3	3	3	X	3	3	X	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: No birds/ mammals seen in the segment.
 Littorines dominate intertidal community.

Ecological Considerations: NOAA data suggests eagle nest located in this segment. None were observed. No anadromous streams, therefore no ECO map is included in this report.



CD-8

CD

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CD-8

ADEC Segment Length: 924m



Map Key: 60A-48

Name: LINDSEY NAKOSHIMA

Date: 4/27/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT KO9-09-CD-008 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. Authorized per memo dated 6/10/90 from Mary Portner/USFWS to Rex Coulter/Exxon.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

FOSC

R. Zanoaga

Date

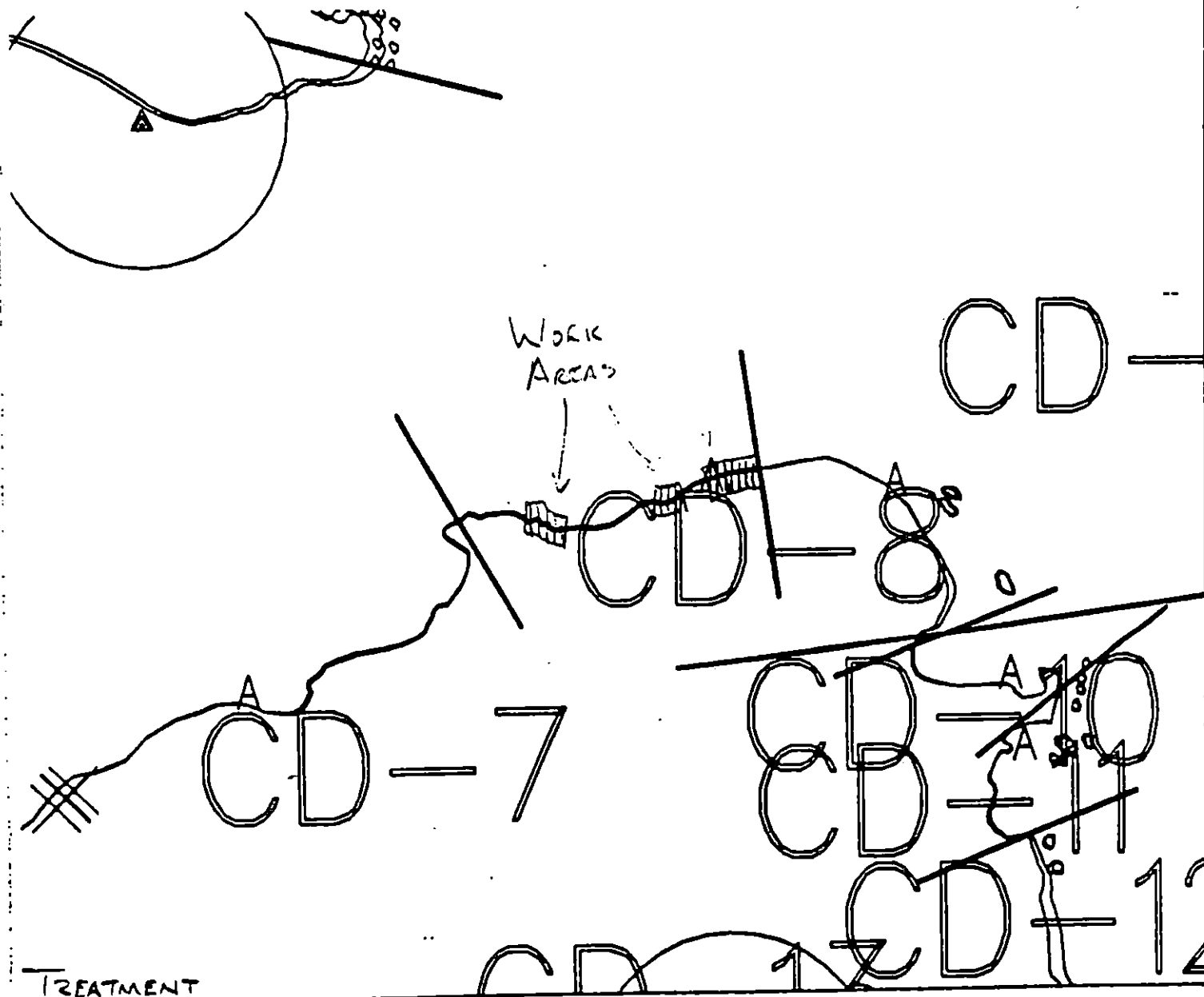
6/13/90

Prepared by

Rex R Coulter

Date

6/10/90



Exxon Company, USA
Map Key: MP-CD-8
June 10, 1990

ECOLOGY MAP
SEGMENT K9N-9 CD-8
SUBDIVISION A (1 of 1)
METERS
0 429 859

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1409 feet

WORK PLAN ADDENDUM

Segment K09-09-CD-008

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____

NO X

TAG APPROVAL DATE 5/31/90.

ADEC ART WEINER Art Weiner

EXXON ANDY TAC Andy

FOSC [Signature] DATE 5/31/90

NOAA Joseph Talbot J Talbot

USCG G.A. REITER G.A. Reiter

SHORELINE EVALUATION

SEGMENT ST/ K09-09-CD-09 SUBDIVISION A (1 OF 1) DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Charles E. Adams DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 120 m: Narrow 142 m: V.Light 643 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes manual pickup of mousse
patties in areas indicated on sketch map. No specific working time
constraints.

TAG COMMENTS: BIOREMEDIATE AREAS OF COAST INDICATED ON SKETCH

TAG APPROVAL DATE: 5/12/90
ADEC ART WOOD
EXXON AMY TEAL
NOAA GARY PETRO
USCG D.D. ROME

FOSC: W L DATE: 5-18-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotai Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/8 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorage (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7-H Finfish harvesting
 7I Deer harvesting (5/1 to 1/7)
 7J Invertebrate harvesting
 7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

SEGMENT ST/ K09-09 SUBDIVISION: CD009A DATE 4/27/98

NOAA
USCG

NAME John Naughton SIGNATURE John J. Naughton

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

This segment mostly light oil with a few areas forward end, ^{with} medium patches of mousse. This area can be cleaned by manual removal - some of patches were at least 10cm deep. Recommend treatment in these few localized areas.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Interstitial mousse/sediment occurs along most of the segment with 6 more concentrated areas. I recommend manual removal of the mousse/sediment and oiled debris.

LAND MANAGER

NAME Carl Schaub SIGNATURE Carl Schaub

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Recoverable oil is mostly interstitial mousse and occasional mousse patches up to 1x1m. Segment should be walked by cleanup crew and recoverable oil removed. Oiled debris should also be removed. Oiled logs cannot be removed or burned.

OG LINOSAY NAMASHIMA USGS (NOAA) JOHN NAUGHTON SEGMENT ST: 40909-CD009
 BIO DEB MCCORMICK LAND REP (NPS) CARL SCHUCH SUBDIVISION CD009A 1 OF 1
 EXXON FRIO AVARS ADEC TERRY ELLSWORTH TIME 8:33 to 9:25
 TEAM NO. 19 TIDE LEVEL +1.9 TO -2.0 FATHOMS DATE 4/27/90
 EST. SUBDIVISION LENGTH: 853 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock CLIFF 94% GRASS AT TOP
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NORTH to SOUTH
 SURFACE SEDIMENTS: R 15 % B 70 % C 5 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 70 % Hang 30 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 130 m N 120 m VL 603 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	1	2	3	4	5	SU	M	N	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT		X	X	X	X						X		
STAIN		X	X	X	X					X	X		
MOUSSE		X	X	X				X		X	X		
PATTIES													
TARBALLS													
FILM			X				X			X			
> OIL										X			X

PAVEMENT H F S NONE sq. m by 0 cr

PATTIES / TARBALLS NONE BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris	X		

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-19-18

Frames 28-31

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	STEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	CP	NO		VO	UC	1	2	3	4	5	SU	M	N	U				
1	5			X			0-3	X				X			X				N	N	-	B/C/P
2	5			X			0-5	X				X			X				N	N	-	B/C/P
3	15			X			0-10	X				X			X				N	N	-	B/C/P/G
							.															
							.															
							.															

COMMENTS

THE ENTIRE SEGMENT IS CHARACTERIZED BY OIL RANGING FROM VERY LIGHT, WHICH CONSISTS OF OCCASIONAL SPLASHES ON BOULDER. NARROW TO MEDIUM CONCENTRATIONS EXIST AT 4 ELONGATED AREAS ALONG THE SEGMENT.

REVIEWED _____ DATE _____

SEG STI K000-CD000

SUBDIVISION CD000

DATE 4, 27 90

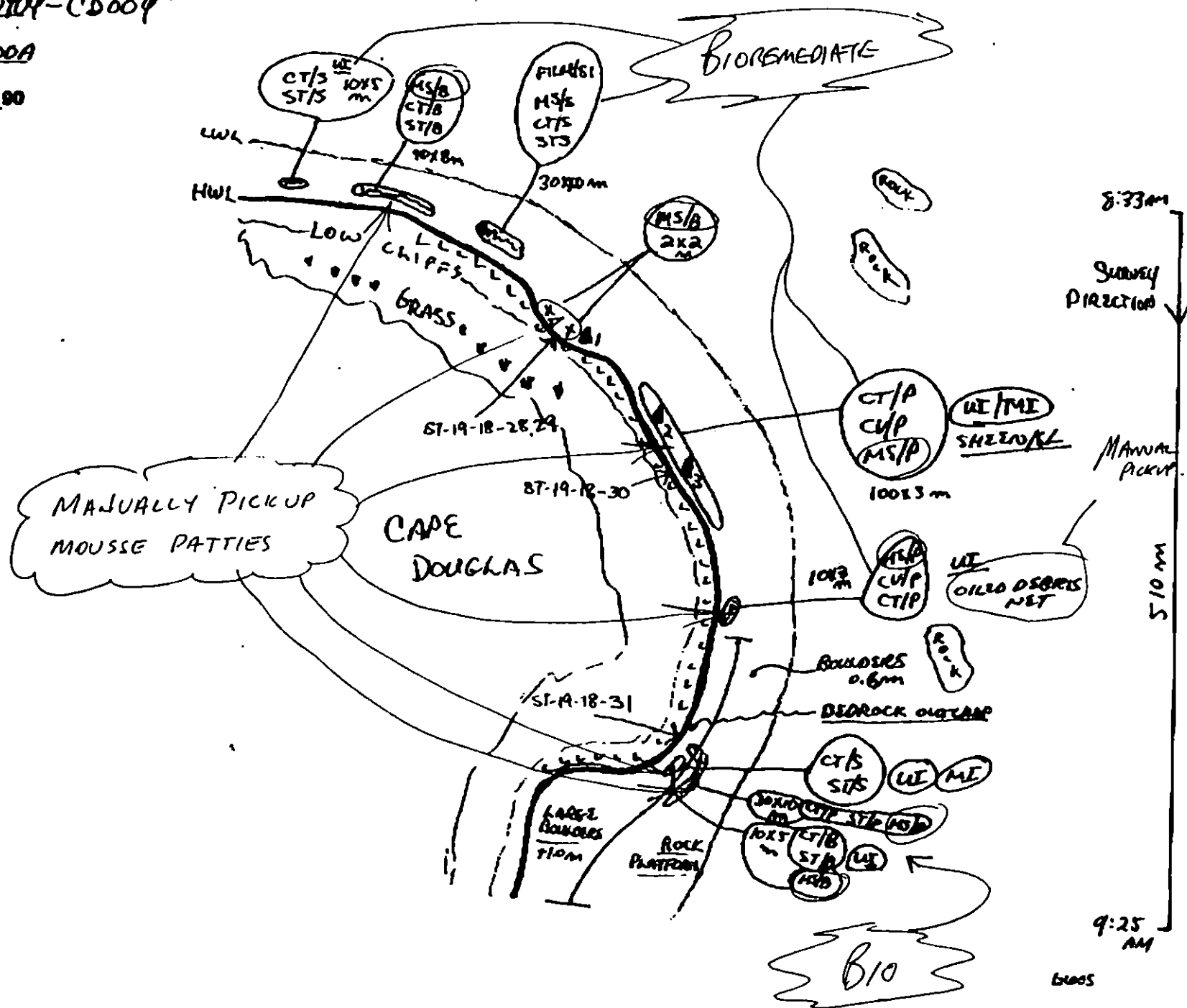
CHECKLIST

- N Arrow
- Approx. Scale
- Background Study
- Oil Out
- Width
- Length
- % Cover
- Substrate Character
- Est. HAZLAVA
- SBL
- Profile Location(s)
- Profile(s)
- Photo Location(s)
- Photo Location(s)

LEGEND

- 1 Δ
- PR - No Subsurface Oil
- 2 Δ
- PR - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Spotted Distribution
- lll
- Oil Vegetation
- 1 →
- Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 210 CT 500 ST 800 MS 285 PT 0 TB 0 FL 100 NO 0

REVISION 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 002

Segment ST / K-2-2-2A-2 Subdivision A Date (mo / day / yr) 4-27-90

Time (24 hr) 0830-0922 Biologist D. McCormick

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 70 (3) Cobble 5 (4) Pebble 10 (5) Sand 0 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 30% Moderate 50% Low 20%

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-19-18

Frames 28-31

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	2	2	X	2	2	2	2
3	3	3	3	X	3	3	X	3	3	3	3
4	4	4	4	X	4	4	X	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	2	2	X	2	2	2	2
3	3	3	3	X	3	3	X	3	3	3	3
4	4	4	4	X	4	4	X	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	2	X	X	2	X	X	2	2	2	2
3	X	3	3	X	3	3	X	3	3	3	3
4	4	4	4	X	4	4	X	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	2	2	X	2	2	2	2
3	3	3	3	X	3	3	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: One eagle overhead - probably same individual observed on yesterday's survey. Littorines dominate intertidal community

Ecological Considerations: No eagle nests, seabird colonies, or anadromous streams; therefore no ECO map is included in this report.

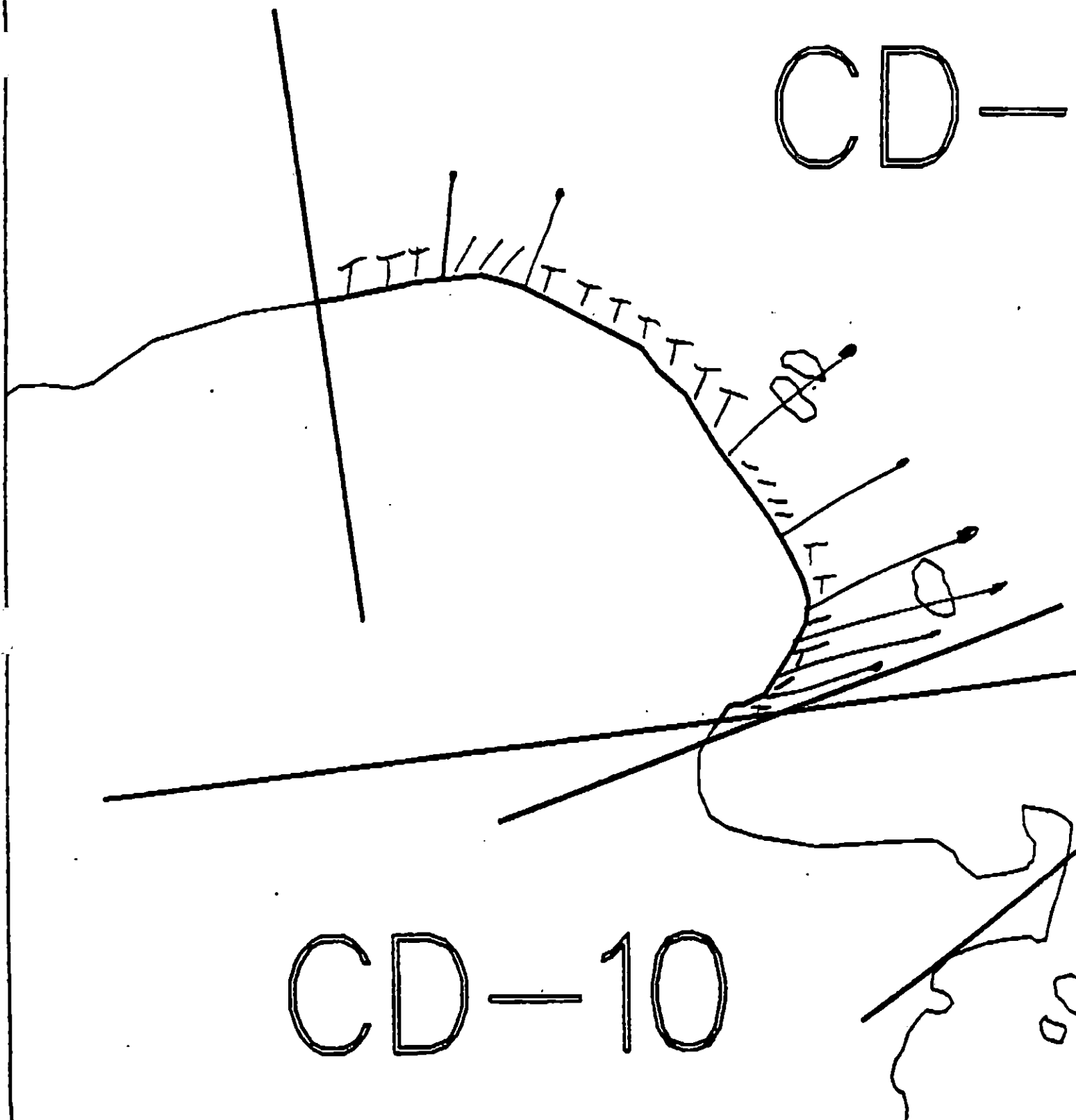
DATE 5-27-90 TIME 0830-0922 TIDE HEIGHT +1.9' -2.0'

1-BEDROCK 2-BOULDER 3-COBBLE 5-SAND 6-SILT

FLORA:

SPECIES	UTZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA		2,3	1,2,3	
FILAMENTOUS GREENS			2,3	Cover in lower ITZ
FILAMENTOUS REDS				
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME		1		In tidal pools
LAMINARIA SPP			2,3	
LITHOTHAMNION		1		In tidal pools
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHISIA/HILDENBRANDIA				
RHODOMELA LARIX				
RHODOMENIA PALMATA		1,2		In tidal pools
SCYTOSIPHON SPP				
ULVA SPP				
ZOSTERA MARINA				
ENTOMORPHA			2,3	Cover in LTZ
Encrusting Pink		1,2		In tidal pools
ANTHOPLEURA SPP				
(SEMI) BALANUS CARIOSUS		1,2		
B. GLANDULA		2,3		
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTRIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS		2,3	2,3	
LITTORINA SPP	1,2	2,3		
NUCELLA SPP				
PAGURUS SPP				
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
Halichondria		1,2		In tidal pools

CD-



CD-10

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

CD-9

ADEC Segment Length: 905m



Map Key: 60A-49

Name: LINDSAY NAKASHIMA

Date: 4/27/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-09-CD-009 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

[Signature]

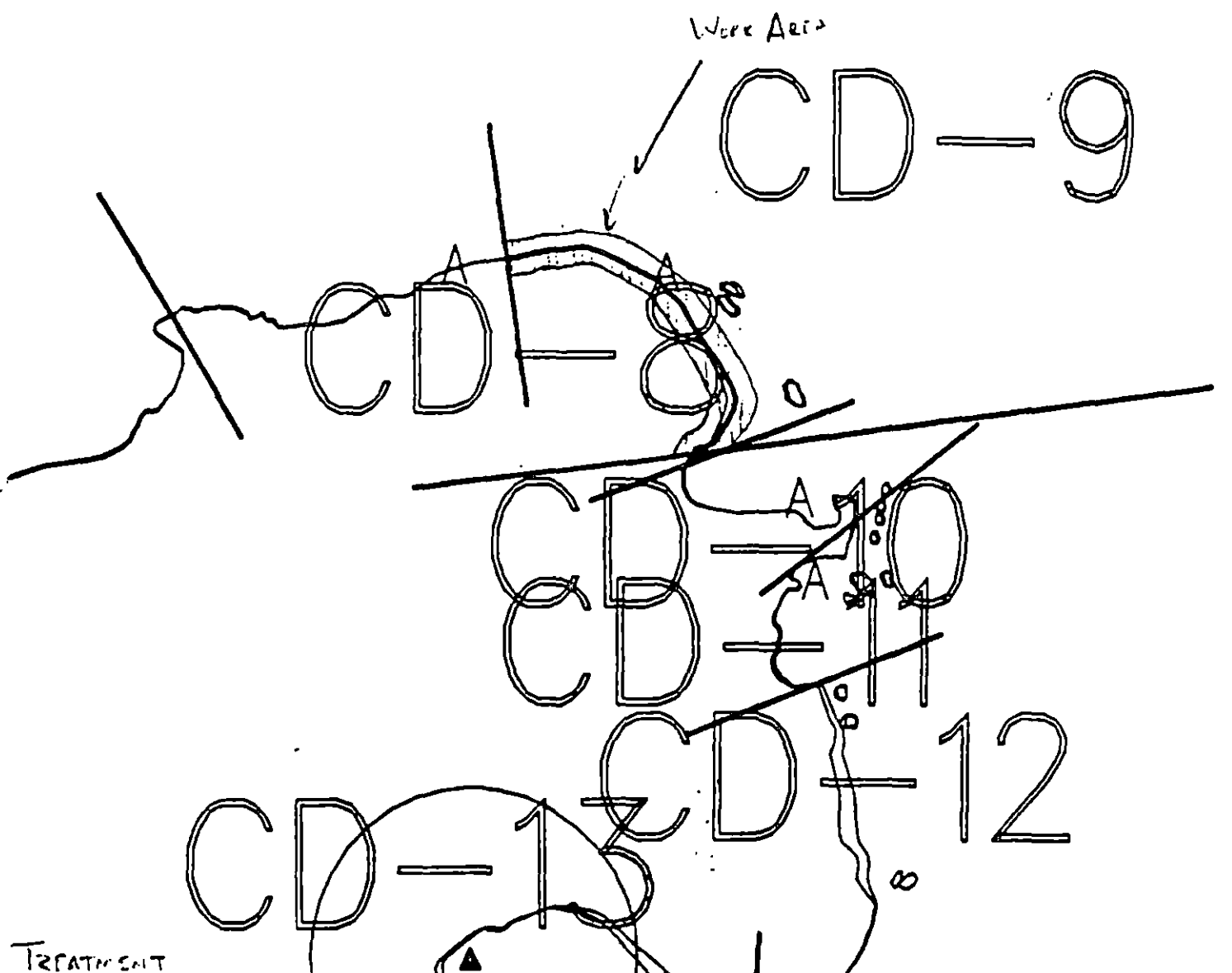
Date

6/13/90

Prepared by *Ray D. Cantor*

Date

06/11/90



TREATMENT



Exxon Company, USA
Map Key: MP-CD-9
June 10, 1990

ECOLOGY MAP
SEGMENT K9N-9 CD-9
SUBDIVISION A (1 of 1)
METERS
0 500 700

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1280 feet

WORK PLAN ADDENDUM

Segment K09-09-CD-009

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____ SHPO SIGNATURE _____
NO X

TAG APPROVAL DATE 5/31/90.

ADEC Art Weiner Art Weiner

EXXON Andy Tera Del

NOAA Joseph Telbott J. Telbott

USCG G.A. Reiter G.A. REITER

FOSC [Signature] DATE 5/31/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-09-CD-009 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony Closed to all activities; work site is less than 800m from seabird colony. Seabird colony location as per letter to Rex Coulter/Exxon from Walter Stieglitz/USFWS on 6/15/90.

OTHER ECOLOGICAL CONSIDERATIONS

If seabird colony constraint is removed, other ecological considerations will apply.

FOSC W L Date 6-22-90

Prepared by J Phillips Date 6/22/90



Seabird Colony
800 m. buffer zone

Work Area

CD-9

CD-10

CD-11

CD-12

CD-13

TREATMENT



Exxon Company, USA

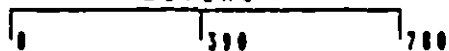
Map Key: MP-CD-9

June 10, 1990



ECOLOGY MAP
SEGMENT K9N-9 CD-9
SUBDIVISION A (1 of 1)

METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 1280 feet

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K9-10-CD-10 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

No constraint to manual pickup as per conversation from Dan Hamson/NPS to Rex Coulter/Exxon on 6/13/90.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict all activity to essential minimum, especially air traffic. Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

FOSC

D. Zawacki

Date

6/14/90

Prepared by

Rex R. Coulter

Date

06/13/90

CD-9

CD-8

Work Area

CD-10

CD-12

CD-13

EATMENT



Exxon Company, USA
Map Key: AP-CD-10



ECOLOGY MAP
SEGMENT K9N-10 CD-10
SUBDIVISION --- (--- of ---)
METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-11 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

9LM Land Mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: A. David McMahon DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 82 m: Narrow 0 m: V.Light 505 m: No Oil 116 m
Subsurface Oil Observed: Yes X No Maximum Depth 7 cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pickup of mousse
followed by 2) bioremediation in areas indicated on sketch map. No
specific working time constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/8/90
ADEC Art Wimmer
EXXON Andy Tetz
NOAA Gary Petrage
USCG G.A. Reiter

FOSC: W L DATE: 5-12-90

In. pol. not approved. NPS Rep to be
on scene. Special use permit required.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 8/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3 Harbor seal and sea lion pupping (5/10 to 7/1)
 3 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 Finfish harvesting
 Deer harvesting (5/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K0910 - CD011 SUBDIVISION: CD011A DATE 4/26/90

~~USCG~~
~~IAA~~

NAME John Naughton SIGNATURE John Naughton

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Majority of segment had very light oil except for one area in the north end of the segment. This area contained patches of mousse which could be removed and recommend this area be the only one treated.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

I agree with National Park Service's observations and recommend manual removal of the mousse and cover in this segment.

LAND MANAGER

NAME Carl Schach SIGNATURE Carl Schach

☒ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Recoverable mousse was found within the first 150 m of the north end of this segment, and with the last 100 m of the south end of this segment. Spatters of mousse were found over a 200 m area at the west shore of this segment.

SHORELINE OILING SUMMARY

REVISION NO. 1

CG LINDSEY NAWISHIMA USCG (NOAA) JOHN NAUGHTON SEGMENT ST. KO910-CD011
 BIO DEA MCGORMICK LAND REP (NPS) CARL SCHUCH SUBDIVISION COOLIA 1 OF 1
 EXXON ERLO BURNS ADEC TERRY ELLSWORTH TIME 9:15 to 10:05
 TEAM NO. 19 TIDE LEVEL -3.0 TO -3.90 DATE 4/26/90
 ST. SUBDIVISION LENGTH: 638 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: WEST to EAST
 SURFACE SEDIMENTS: R 22 % B 30 % C 30 % P 10 % G 3 % S 2 % M 0 % V 0
 SLOPE: Long _____ % Hang _____ % Vert _____ % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 55 m N 0 m VL 300 m NO 283 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	SP	SL	ST	SV	SS	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER		X			X					X			
COAT		X			X					X			
STAIN		X	X	X	X					X			
MOUSSE		X		X				X		X			
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	

PAVEMENT H F S NONE sq. m by 0PATTIES / TARBALLS NONE BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS 0

Photographs:

Roll No. ST-19-18Frames 4-10

SUBSURFACE OIL

PIT NO	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	SL	ST	SV	SS	SU	U	M	L				
1	9			X			0-7	X				X			X				N	N	—	P/C/P/G
							.															
							.															
							.															
							.															
							.															

COMMENTS - NORTH END OF SEGMENT HAS MEDIUM DISTRIBUTION OF OIL OVER 2 MAJOR AREAS - SEE SKETCH

SEE ALSO SKETCH

- THE BAYHEAD AND SOUTH-FACING SHORE HAVE A SPORADIC DISTRIBUTION OF SHEEN
- AN AREA WITHIN THE NORTH-FACING SHORE HAS A MEDIUM AREA OF OIL AND A 3X3 AREA OF MOUSSE TO A 7cm DEPTH

REVIEWED YHDATE 4-29-90

A

SKETCH MAP

EGMENT ST/ K -C0011

UBDIVISION C0011A

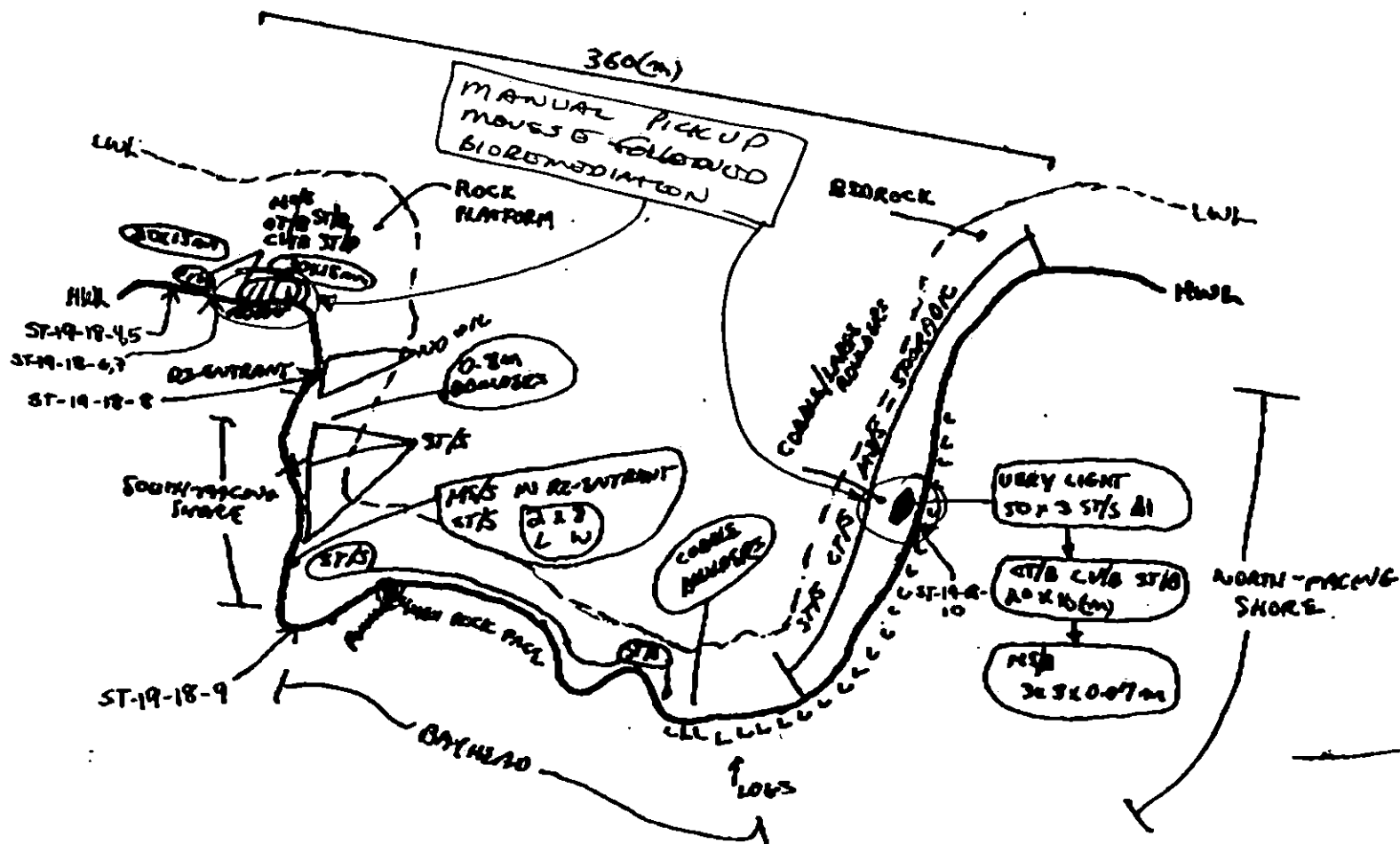
ATE 4, 26 90

CHECKLIST

- ☐ Name
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HMLA VL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PT Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- 1- No Subsurface Oil
- 2 Δ
- 1- Subsurface Oil
- CT/C
- Oil Spill Distribution
- CT/B
- Chem Distribution
- CT/P
- Acry Distribution
- CT/S
- Isched Distribution
- lll
- ed Vegetation
- 1 $\Rightarrow$
- cto location, direction, d number



Character Length (m): AP 0 PO 0 CV 70 CT 70 ST 350 MS 70 PT 0 TR 0 FL 0 NO 283

SHORELINE ECOLOGICAL SUMMARY

REVISION: 05/21

Segment ST / K-9-10-11 Subdivision A Date (mo / day / yr) 4-26-90

Time (24 hr) 0915-1025 Biologist D. McCORMICK

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 30 (3) Cobble 30 (4) Pebble 18 (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 20% Moderate 60% Low 20%

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-19-18

Frames 4-10

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	2	2	X	2	2	X	2	2	2	2	NOT PRESEN
3	X	3	3	X	3	3	X	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	2	2	X	2	2	X	2	2	2	2	NOT PRESEN
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	X	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	2	2	X	2	2	X	2	2	2	2	NOT PRESEN
3	X	3	3	X	3	3	X	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	X	2	2	2	X	2	2	2	NOT PRESEN
3	3	3	3	3	3	3	3	X	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: Opticatheters were only birds noted.

Ecological Considerations: No anisomous streams in this segment. NOAA data suggests seabird colony (ies) in this segment, although none are shown on USFWS maps and none were observed. No eagles seen. No ECO map is included in this report.

DATE 4-26-90 TIME 0915 - 1005 TIDE HEIGHT -3.1' ~ -4.0'

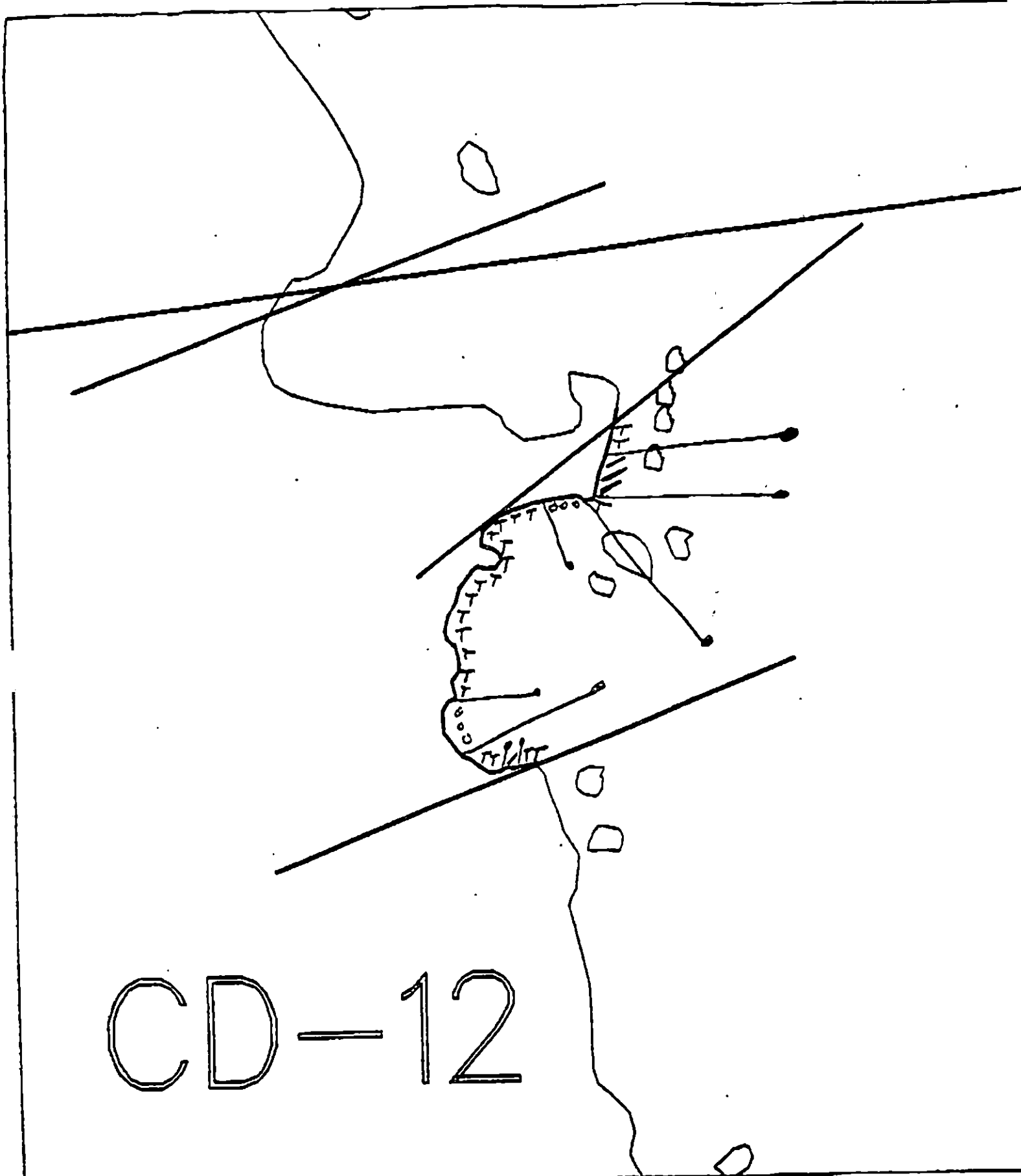
1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA	1	1, 2		Intertidal pools
FILMAENTOUS GREENS			2	Continuous and dense
FILAMENTOUS REDS			2	"
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME		1	1, 2, 3	
LAMINARIA SPP			1, 2, 3	
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
RHODOMELA LARIX			1, 2	
RHOHOMENTIA PALMATA				
SCYTOSIPHON SPP			2, 3	
ULVA SPP		1, 2	1	
ZOSTERA MARINA				
ENTOROMORPHA				
Encrusting pink	1	1, 2		Intertidal pools
Tridacna		2, 3	2, 3	
Verrucaria	1			

FAUNA:

ANTHOPELURA SPP		5		
(SEMI) BALANUS CARIOSUS		1, 2	1, 2, 3	
B. GLANDULA	1	1, 2	1, 2, 3	
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTRIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS	1	1, 2		
LITTORINA SPP	1	1, 2		
NUCELLA SPP		1, 2		
PAGURUS SPP	1			
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA		1, 2		
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

CD-11

ADEC Segment Length: 679m



Map Key: COA-31

Name: LINDSEY NAKASHIMOTO

Date: 4/24/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-12 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Katmai National Park

9LM Land Mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: [Signature] DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 851 m: No Oil 216 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes manual pickup of mousse. No
specific working time constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/8/90.

ADEC ART WENGE Nit Wen

EXXON And GEL Deal

NOAA Gary Petre Long Petre

USCG G.A. RITTER G.A. Ritter

FOSC: [Signature] DATE: 5-12-90

NPS Rep to be on scene. Special
use permit required.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09 10-CD012 SUBDIVISION: CD012A DATE 4/26/90

~~NOAA~~
~~USCG~~
NAME

John Naughton

SIGNATURE

John J. Naughton

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This segment at Cape Douglas had very light oil, mainly splatters of stain, east and a little mousse. Recommend no treatment. High resource area - observed fox, otter, sealions

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

As well as the two small areas of mousse at the southern and northern ends of the segment, sporadic mousse adjacent to cobbles and small boulders occurs in an area ≈ 450 m north of the southern segment boundary. Manual removal is recommended.

LAND MANAGER

NAME

Carl Schuch

SIGNATURE

Carl Schuch

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Recoverable mousse was found in 2 small patches 2×2 m at the northern end and 1×1 m at the southern end.

SHORELINE OILING SUMMARY

REVISION NO. 24-12-86

OG LINDSEY NALASHIANA USES (NPSA) JOHN NAUGHTON SEGMENT ST/ K0910-CD012
 BIO Drs Mc GERNICK LAND REP (NPS) CARL SCHUCH SUBDIVISION CD012A 1 OF 1
 KXON FRID AVARS ADEC TERRY ELLSWORTH TIME 10:10:10:50
 EAM NO. 19 TIDE LEVEL -3.7 TO -2.4M DATE 4/26/90
 EST. SUBDIVISION LENGTH: 1124 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NORTH to SOUTH
 SURFACE SEDIMENTS: R 10 % B 70 % C 10 % P 5 % G 3 % S 2 % M 0 % V 0 %
 SLOPE: Long _____ % Hang _____ % Vert _____ % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 9/4 m NO 2/0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	R	1	2	3	4	5	SW	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER				X	X					X			
COAT				X	X					X			
STAIN				X	X					X			
MOUSSE			X	X				X		X			
PATTIES													
ARBALLS													
FILM													
NO OIL										X		X	X

PAVEMENT H F S NONE sq. m by 0 cmPATTIES / TARBALLS NONE BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE _____

#BAGS 0

Photographs:

Roll No. ST-19-18Frames 11-13

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SW	U	M	U				
* 1	10			X			0-3	X				X			X				N	N	—	P/C/G/S
2	20					X	0-0	X							X							P/G
* 3	10			X			0-3	X				X			X				N	N	—	P/G/S
							.															
							.															
							.															

COMMENTS

AREA LANDWARD OF TIDAL POOL (SEE SKETCH) WAS NOT OILED

* Oiled intervals of less than 5 cm in Pits 1 & 3 do not constitute subsurface oil.

REVIEWED

M/H

DATE 4-29-90

SKETCH MAP

SUBDIVISION CD012A

DATE 4 / 26 90

CHECKLIST

- ___ H Arrow
- ___ Approx. Scale
- ___ Seg/Sub Entry
- ___ Oil (Stat.)
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HFW/LVWL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ FH Location(s)
- ___ Photo Location(s)

LEGEND

4 - No Subsurface Oil

2 A
1 - Substitute Oil

CT/C

CT/B

Star Distribution

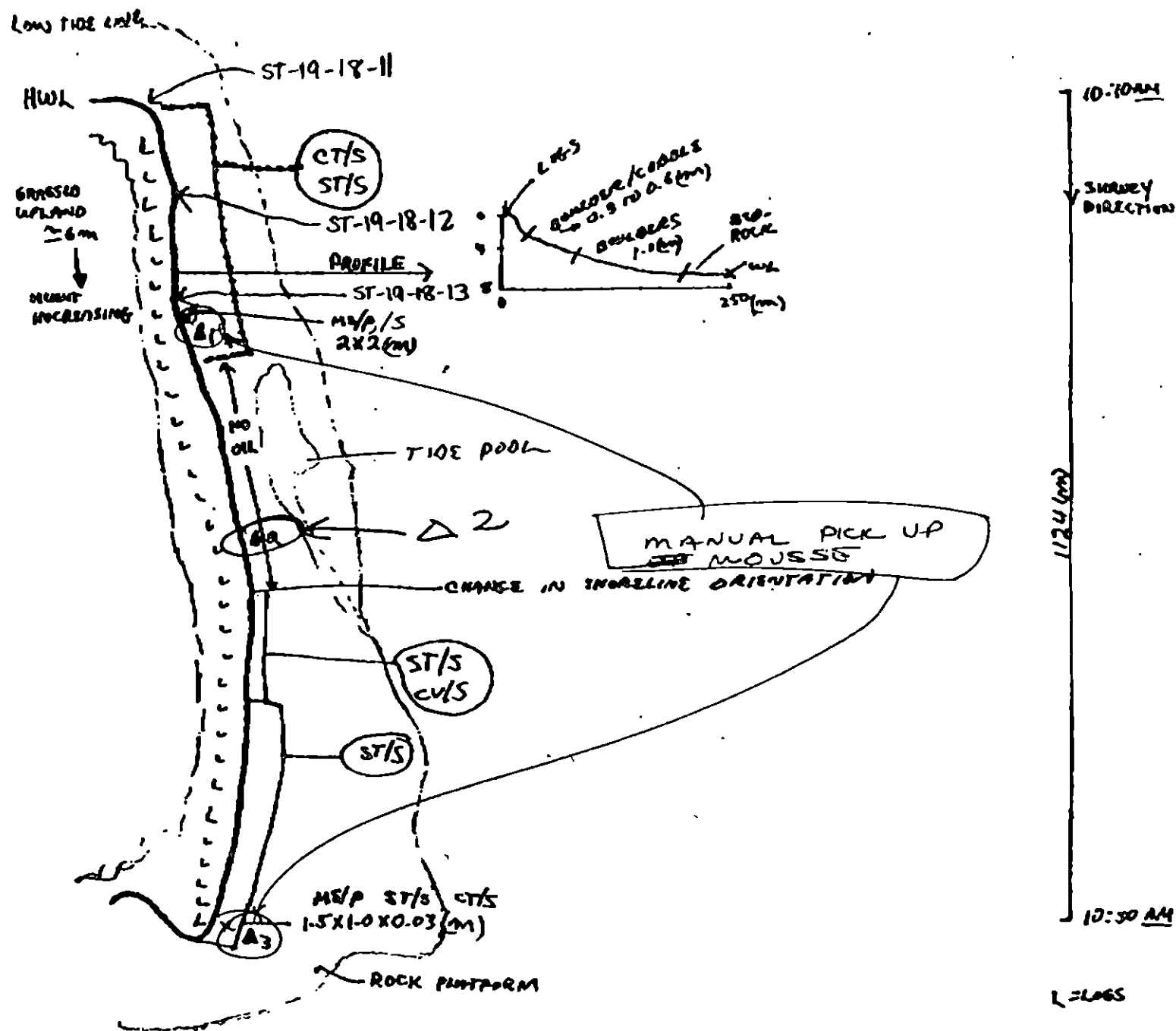
CT/P

Key Distribution

CT/9

222
nd Vegetation

1. location, direction,
number



Tractor Length (in): AP 0 PO 0 CV 160 CT 360 ST 840 MS 3.5 PT 0 TB 0 FL 0 NO 210

Abstract

EXHIBIT NUMBER 100-200000-000000

—
c

1504371

2

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST / K-9-10 CD-12 Subdivision A Date (mo / day / yr) 4-26-90Time (24 hr) 1010-1050 Biologist D. McCORMICK(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 70 (3) Cobble 10 (4) Pebble 8 (5) Sand 2 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 30% Moderate 50% Low 20%

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (O)

Photographs:
Roll No. ST-19-18Frames 11-13

BARNACLES

	Dense		Moderate			Sparse			Rare		
1U	XM	XL	XU	XM	XL	XU	XM	1L	1U	1M	1L
2	X	X	X	X	X	X	X	2	2	2	2
3	X	X	X	X	X	X	X	3	3	3	3
4	X	X	X	X	X	X	X	4	4	4	4
5	X	X	X	X	X	X	X	5	5	5	5
6	X	X	X	X	X	X	X	6	6	6	6

NOT PRESENT

MYTILUS

	Dense		Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	X	3	3	X	3	3	3	3
4	4	4	4	X	4	4	X	4	4	4	4
5	5	5	5	X	5	5	X	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

	Dense		Moderate			Sparse			Rare		
1U	XM	XL	XU	XM	1L	XU	XM	1L	1U	1M	1L
2	X	X	X	X	2	2	2	2	2	2	2
3	3	3	3	X	3	3	3	3	3	3	3
4	4	4	4	X	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

	Dense		Moderate			Sparse			Rare		
1U	XM	1L	X	XM	XL	XU	XM	XL	1U	1M	1L
2	X	2	2	X	X	2	X	X	2	2	2
3	3	3	3	X	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: Red fox. Sea lions offshore, 1 sea otter. Black scoters, @ 30-40 harlequin ducks, glaucous-winged gulls.

Ecological Considerations: According to NOAA, seabird colony(ies) are present in this segment. No specific locations are given on USFWS resource maps; no large seabird colonies were seen. No anadromous streams are located in this segment. Also, no eagles; therefore, an ECO map is not included in this report.

DATE 4-26-90 TIME 1010-1050 TIDE HEIGHT -3.7' ~ -3.4'

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

	SPECIES	UITZ	MITZ	LITZ	COMMENTS
FLORA:	BOSSIELLA/CORALLINA				
	CALLIARTHRON/CORALLINA				
	CLADOPHORA SPP				
	COSTARIA SPP				
	ENDOCLADIA MURICATA	1	1, 2	1	UITZ tidal pools only
	FILAMENTOUS GREENS			2, 3	Dominates LITZ throughout
	FILAMENTOUS REDS			2, 3	" "
	OLOIOPELTIS FURCATA		1		
	HALOSACCION GLANDIFORME		1	1	
	LAMINARIA SPP			1, 2	
	LITHOTHAMNION		1	1	In tidal pools
	NEREOCYSTIS SPP			2	
	PORPHYRA SPP				
	RALPHSIA/HILDENBRANDIA				
	RHODOMELA LARIX		1	1	
	RHOHOMENIA PALMATA				
	SCYTOSIPHON SPP		1, 2	1, 2	
	ULVA SPP		1	1	Mostly new growth in tidal pools
	ZOSTERA MARINA				
	ENTOROMORPHA			1, 2	Dominates LITZ
	Encrusting Red alg	1	1, 2		In tidal pools
	Iridaea		1, 2	1, 2	
FAUNA:	ANTHOPLEURA SPP		1		In tidal pools
	(SEM) BALUNUS CARIOSUS		1, 2	1, 2	
	B. GLANDULA	1, 2, 3	1, 2	1, 2	Throughout segment
	BRYOZOANS				
	CHITONS (other than K. TUNICATA)				
	CLAMS				
	CRABS				
	DERMASTERIAS IMBRICATA				
	KATHARINA TUNICATA				
	LEPTASTERIAS HEXACTIS				
	LIMPETS	1	1, 2		Not as common
	LITTORINA SPP	1	1, 2, 3	1, 2	
	NUCELLA SPP		1, 2	1, 2	
	PAGURUS SPP		1, 2		In tidal pools
	PISASTER OCHRACEUS				
	POLYCHAETES				
	PYCNOPODIA HELIANTHOIDES				
	SEARLESIA DIRA		1, 2		
	SERPULIDS				
	SIPHONARIA THERSITES				
	TEALIA				
	Helichondria		1, 2		In tidal pools

CD-12

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

CD-12

ABEC Segment Length: 1067m

Map Key: 60A-32

Name: LINDSEY NARASHIMAN

Date: 4/26/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K9-10-CD-12 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

OPEN

NPS Rep. To Be Present During Treatment

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

No constraint to manual pickup as per conversation from Dan Hamson/NPS to Rex Coulter/Exxon on 6/13/90.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict all activity to essential minimum, especially air traffic. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

R. Coulter

Date

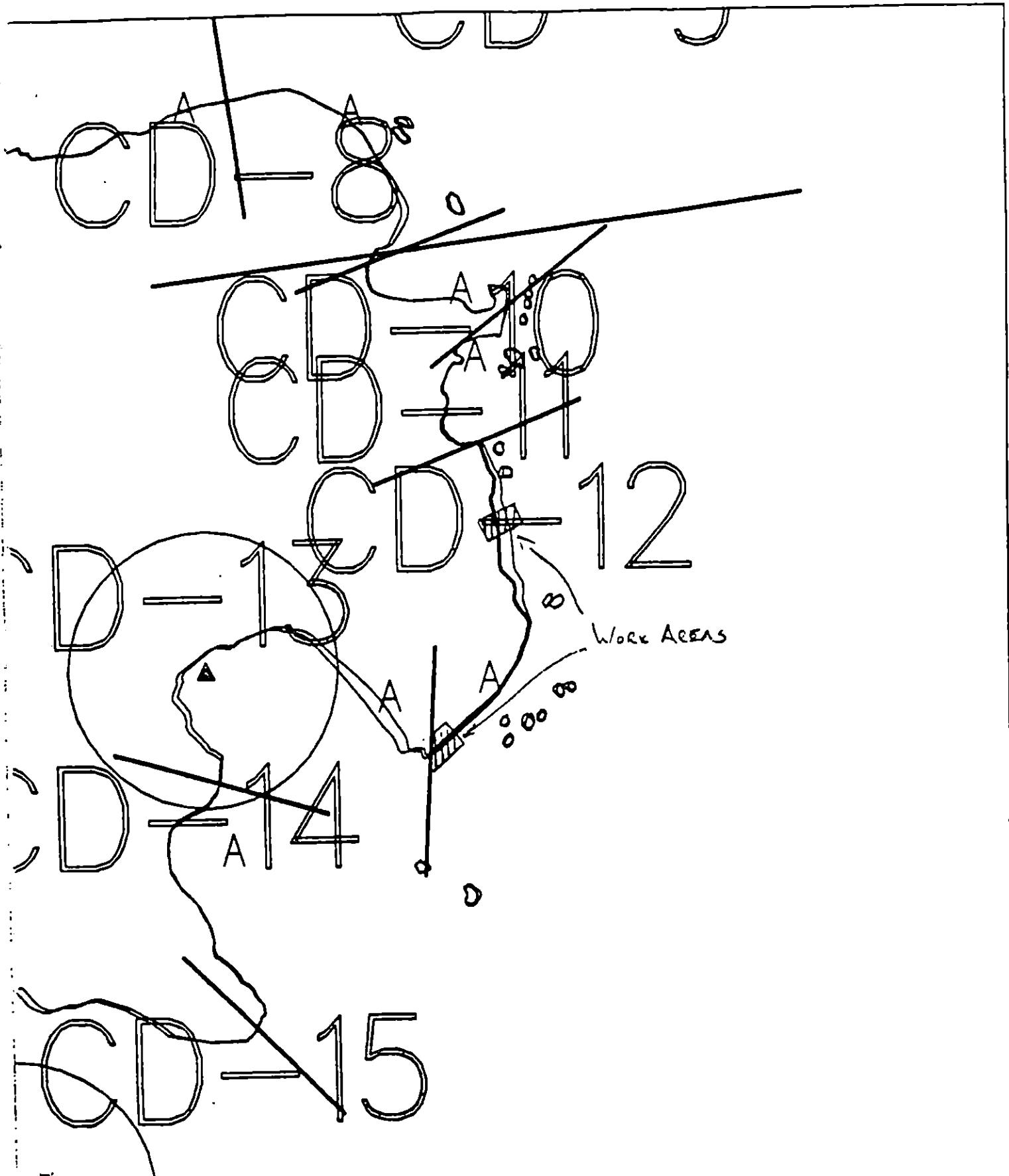
6/13/90

Prepared by

Rex R. Coulter

Date

06-13-90



TREATMENT



Exxon Company, USA
 Mo. Key! AKP-CD-12



ECOLOGY MAP
 SEGMENT K9N-10 CD-12
 SUBDIVISION --- (--- of ---)
 METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K9-10-CD-13 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: J. David McMillan

DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V. Light 384 m: No Oil 956 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended
X Treatment Recommended
X Manual Pickup
 Bioremediation
 Tarmat Removal

 Snare/Absorbent Booms
 Oil Snares (pom poms)
 Absorbents (pads, rolls, etc)
 Spot Washing: Wands
 Beach Cleaner
 Other (see comments)

COMMENTS: Recommended treatment includes manual removal of mousse
patch in area indicated on sketch map. No specific working time con-
straints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/8/90

ADEC Ag. Weiner D. J. Dennis

EXXON Andy Tenz Paul

NOAA Gary Petz Gary

USCG G. A. Reiter G. A. Reiter

FOSC:

DATE: 5-12-90

Cleanup activity restricted to mousse patch
indicated on field sketch to stay away from
eagle nest by 1/4 mile. Check with USFWS to
determine status of nest. NPS Rep to become

KODIAK ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (4/15 to 7/31)
19 Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C** Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D** Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H** Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I** Gill net area
1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M** Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P** Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R** Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T** All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U** Recreation: Tent sites (5/1 to 9/15)
6V Anchorages (5/1 to 9/15)
6W Forest Service cabins (5/1 to 9/15)
6X Lodge (5/1 to 9/15)
6Y Special use destination
- 7Z** Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7I Deer harvesting (5/1 to 1/7)
7JJ Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K0910-CD013 SUBDIVISION: CD013A DATE 4/26/90

~~NOAA~~
~~USCG~~

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

This segment had only one small area containing mussels which is recoverable. I collected a sample which included the easily removed mussels. No additional treatment recommended.

ADEC
NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

One small 3m x 6m area at the eastern end of this segment contains recoverable mussel and cover. Manual removal in this area is recommended.

LAND MANAGER
NAME Carl Schoch SIGNATURE Carl Schoch

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Any recoverable mussel within the 3 x 6 m patch should be removed.

SHORELINE OILING SUMMARY

REVISION NO. 24-13-90

OG Lincoln NAUSETT USCG (NAA) John Naughton SEGMENT STI KD910-C0013
 BIO Dea McCann LAND REP (APS) Carl Schuch SUBDIVISION CDO13A 1 OF 1
 EXXON FRIO AVE ADEC TERRY ELLSWORTH TIME 11:00 10/11/95
 TEAM NO. 19 TIDE LEVEL -3.5 TO -1.80 PM DATE 4/26/90
 EST. SUBDIVISION LENGTH: 133/ m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: EAST to WEST
 SURFACE SEDIMENTS: R 20 % B 40 % C 20 % P 10 % G 5 % S 5 % M 5 % V 5 %
 SLOPE: Long 75 % Hang 15 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 3 m VL 250 m NO 1078 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	B	P	S	ST	ST	ST	ST	SU	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER		X		X	X				X			
COAT		X		X	X				X			
STAIN				X	X				X			
MOUSSE		X					X		X			
PATTIES												
TARBALLS												
FILM				X		X			X			
NO OIL									X	X	X	

PAVEMENT H F S None sq. m by 0 crPATTIES / TARBALLS None BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS 0

Photographs:

Roll No. ST-19-18Frames 14-18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	GREEN	(Y/N)	▽	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	US	ST	ST	ST	ST	SU	U	M	U					
1	2					X	0-0		X					X								G/S/P

COMMENTS

- LARGEST AMOUNT OF OIL AT NORTHERN END OF EMBAYMENT AT THE TOP OF THE UPPER INTERTIDAL ZONE
- EMBAYMENT CONSISTED OF SUBANGULAR BOULDERS BACKED BY HIGH CLIFFS

REVIEWED YHDATE 4-24-90

DATE 4 / 26 90

CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seng/Bus Study
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAZARD
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PB Location(s)
- ☐ Photo & comment(s)

LEGEND

1 ▲
11 - No Subroutine Off

2 ▲
11 - Subroutine Off

CT/C

CT/B

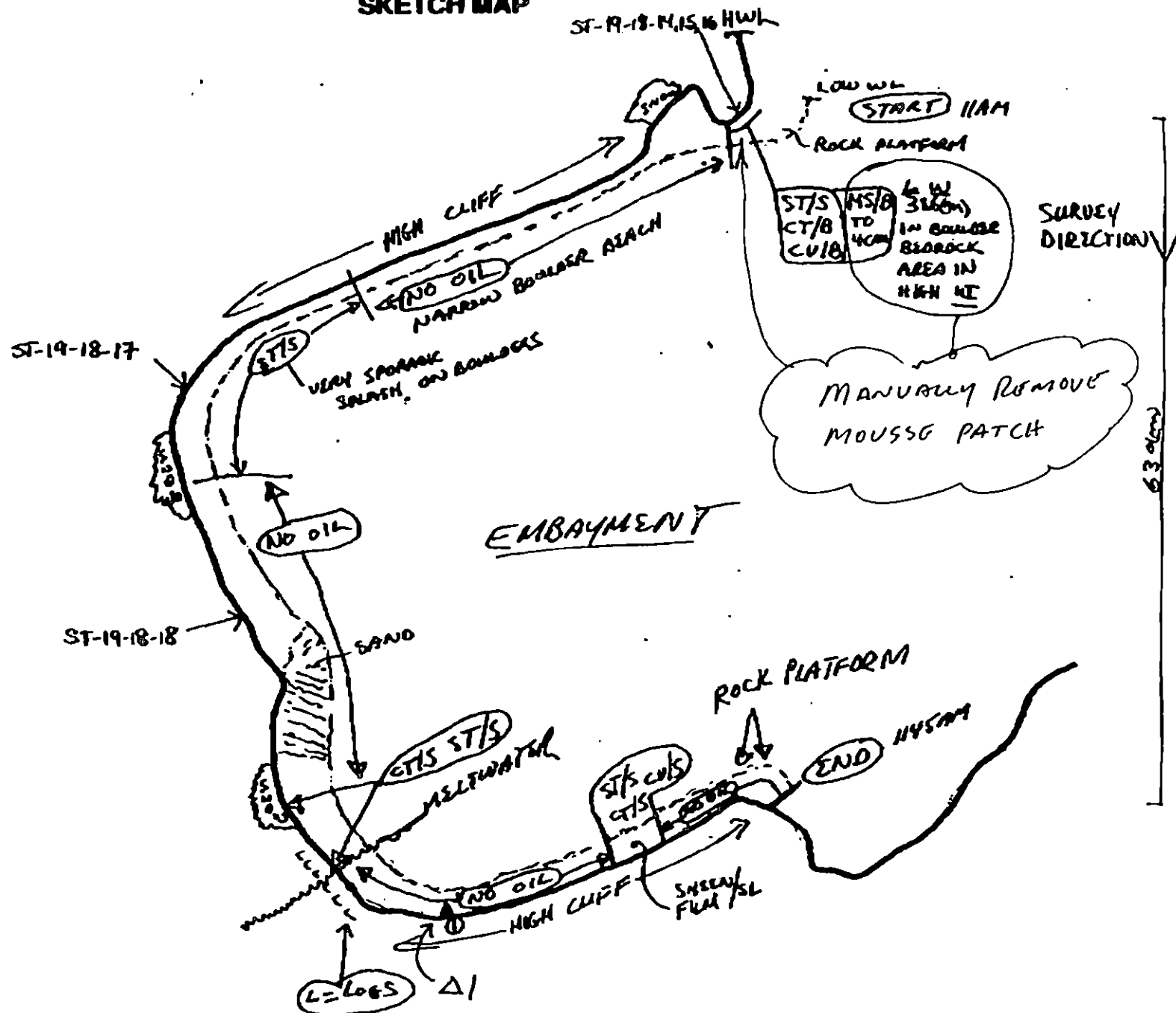
CT/P
every Distribution

CT/S
Control Distribution

eee
Leaf Vegetation

1 on
new toasters, directer,
1 number

SKETCH MAP



SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/2

Segment ST / K-9-10-CD-13 Subdivision A Date (mo / day / yr) 4-26-90Time (24 hr) 1100-1145 Biologist D. McCORMICK

- (A) Substrate type and % of segments:
 (1) Bedrock 20 (2) Boulder 40 (3) Cobble 20 (4) Pebble 15 (5) Sand 5 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 15% Moderate 30% Low 55%
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:

Roll No. ST-19-18Frames 14-18

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	2	2	X	2	X	2	2	2	2	2
3	X	3	3	X	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESEI

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	2	2	X	X	2	X	X	2	2	2
3	X	3	3	X	3	3	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	X	2	2	X	2	X	2	2	2	2	2
3	X	3	3	X	3	3	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	X	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	X	2	X	X	2	2	2
3	3	3	3	X	3	3	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESE

Wildlife Observations/ General Comments: Eagles, gulls. Little bio on sand beaches etc. green algal layer on LIT2 boulders. Observations generally based on rock/boulder portions of segment.

Ecological Considerations: Eagles nest + 2 eagles nearby (see ECO map). NOAA suggests seabird colony(ies) in this segment - none observed. No anadrom streams.

DATE 4-26-90 TIME 1100-1145 TIDE HEIGHT -3.5' ~ -1.8'

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

FLORA:

SPECIES	UITZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA				
FILMAENTOUS GREENS		2,3	2,3	Dominant in LITZ
FILAMENTOUS REDS			2,3	" "
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME		1,2	2,3	Tide pools + boulder interstices
LAMINARIA SPP			2,3	
LITHOTHAMNION				
NEREOCYSTIS SPP			2,3	Dense in L-Subtidal
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
PHODOMELA LARIX				
RHOHOMENTIA PALMATA				
SCYTOSIPHON SPP		2,3	2,3	Moderately dense in patches
ULVA SPP				
ZOSTERA MARINA				
ENTOROMORPHA		2,3	2,3	Very dense on boulders
<i>Tridacna</i>		1,2,3	2,3	

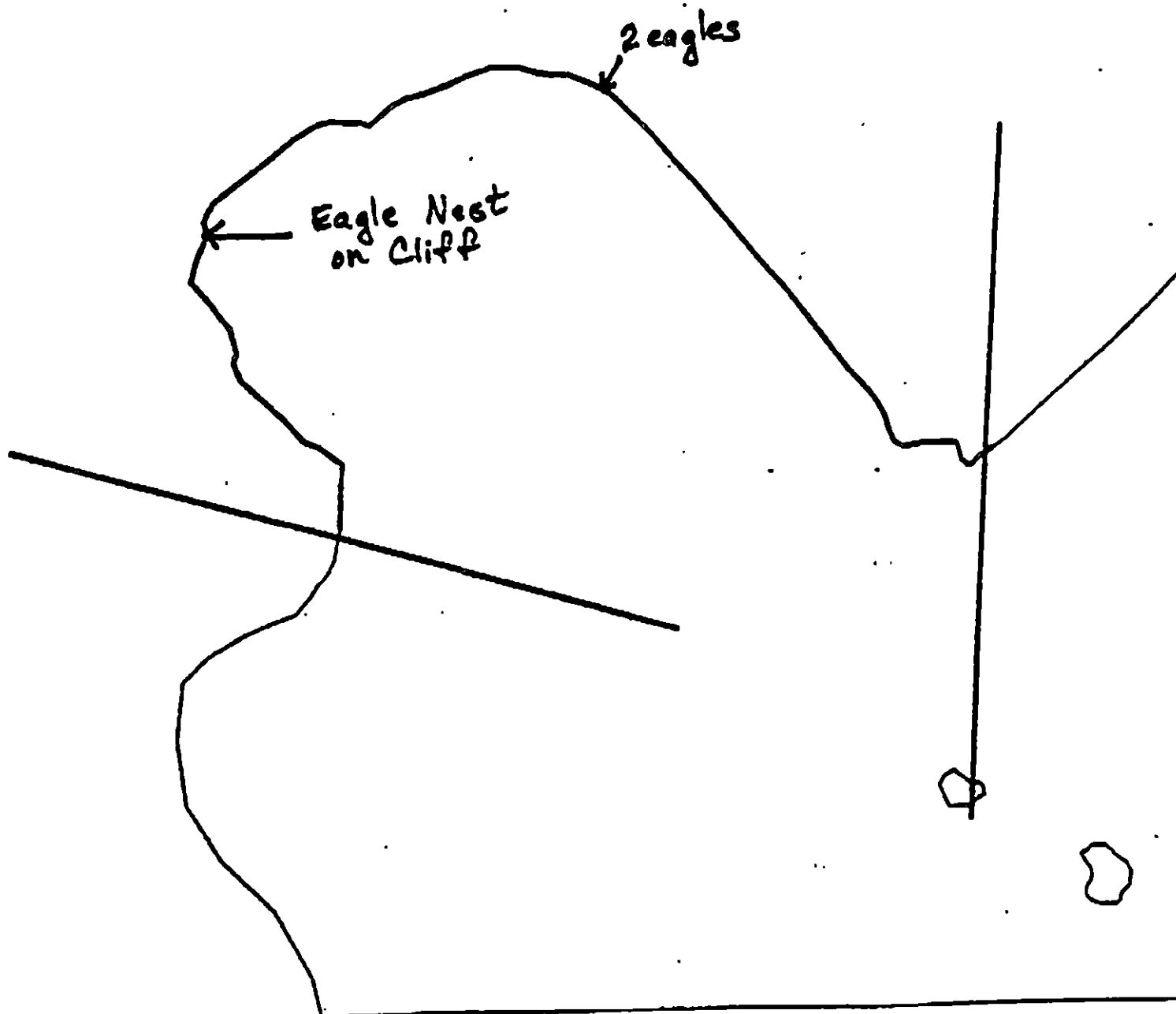
FAUNA:

ANTHOPLEURA SPP			5	
(SEMI) BALANUS CARIOSUS				
B. GLANDULA	1,2	2,3		
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS		1		2 juvenile individuals
LIMPETS	1,2	1,2,3		generally sparse. <i>Notosmnia</i>
LITTORINA SPP	1,2	1,2,3		Dense recruits on MITZ boulders
NUCELLA SPP				
PAGURUS SPP				
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA				
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
<i>Octopus dofleini</i>			5	young individuals (2) washed up
<i>Hydrobia ulvae</i>				

ECO MAP

K-9-10-CD-13-A

CD-12



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

CD-13

ADEC Segment Length: 1369m

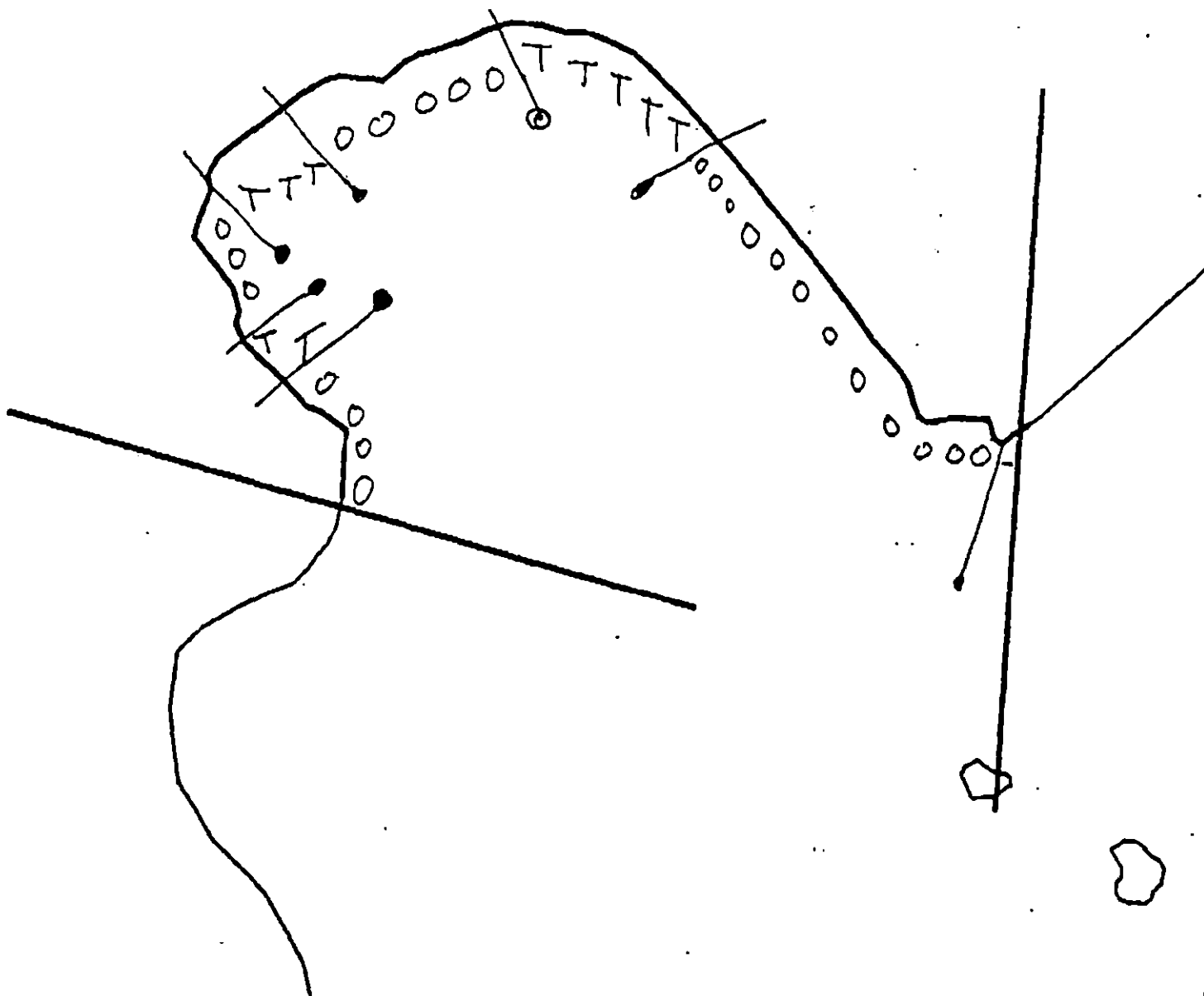
Map Key: GOA-33

Name: _____

Date: _____



CD-12



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

CD-13

ADEC Segment Length: 1369m

Map Key: 60A-33

Name: LINDSAY MAKASHINE

Date: 4/26/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-013 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED

NPS Representative to accompany work crew.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R	Seabird Colony	Closed to all activities; work site is less than 800m from seabird colony.
----	----------------	--

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unrolled biota and substrate. If seabird constraint is removed, other ecological considerations will apply. Restrict all activity to essential minimum, especially air traffic.

FOSC

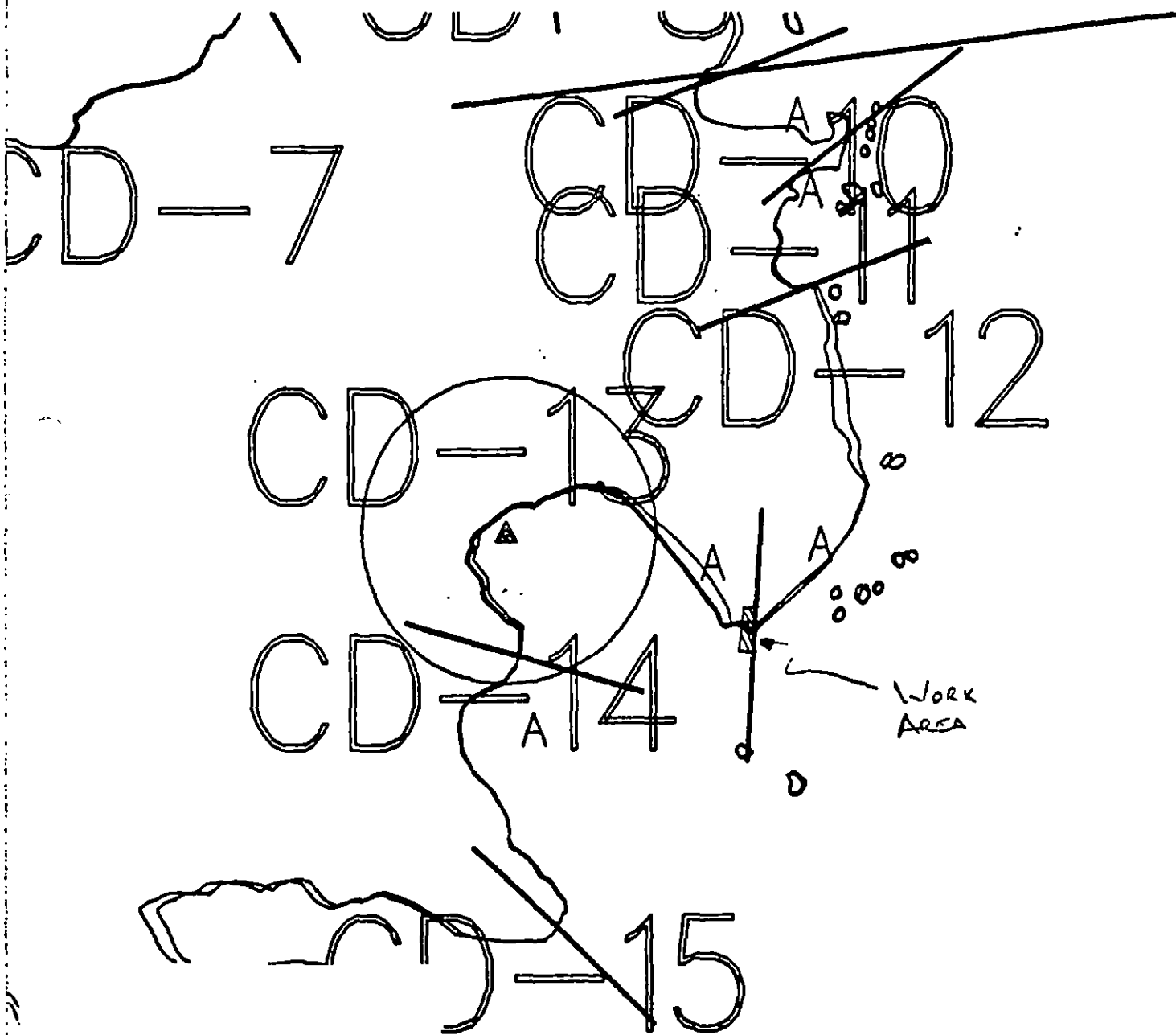
Date

6-20-90

Prepared by

Date

6/20/90



REATMENT



Exxon Company, USA
Map Key: MP-CD-13

ECOLOGY MAP
SEGMENT K9N-10 CD-13
SUBDIVISION --- (--- of ---)
METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

REVISION 1

7/24/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-013 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED OPEN

G.A. Reiter
for FOSC

NPS Representative to accompany work crew.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 584-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

OPEN

Closed to all activities; work site is less than 800m from seabird colony.

5T Bald Eagle Nest

NO CONSTRAINT USFWS 6/1/90 MAP indicates no active nest within 400m of Subdivision A Work Site

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncollected biota and substrate. If seabird constraint is removed, other ecological considerations will apply. Restrict all activity to essential minimum, especially air traffic.

FOSC

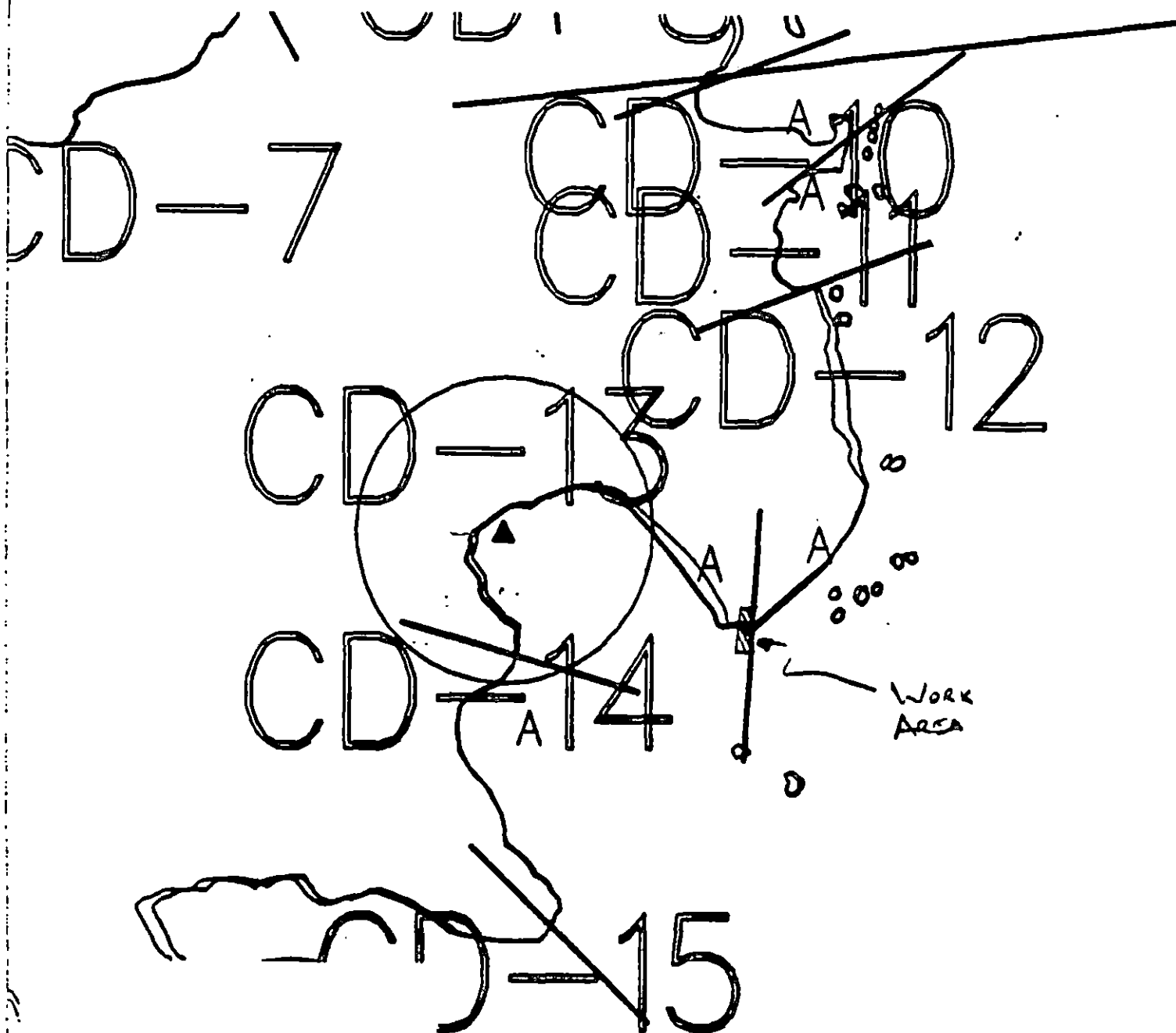
Date

6-20-90

Prepared by

Date

6/20/90



REATMENT



ECOLOGY MAP SEGMENT K9N-10 CD-13

- ★ Seabird Colony
- ▲ Active Eagle Nest

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K9-10-CD-13 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision A work site.
----	-----------------	--

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

FOSC [Signature] Date 6-22-90

Prepared by [Signature] Date 6/22/90

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-14 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Katmai National Park

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: [Signature]

DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 106 m: Narrow 97 m: V.Light 135 m: No Oil 599 m
Subsurface Oil Observed: Yes X No Maximum Depth 5 cm

RECOMMENDATIONS:

 No Treatment Recommended
X Treatment Recommended
X Manual Pickup
X Bioremediation
 Tarmat Removal

 Snare/Absorbent Booms
 Oil Snares (pom poms)
 Absorbents (pads, rolls, etc)
 Spot Washing: Wands
 Beach Cleaner
 Other (see comments)

COMMENTS: Recommended treatment includes manual removal of mousse in
areas indicated on sketch map. No specific working time constraints.

TAG COMMENTS: MANUAL REMOVAL OF MOUSSE IF INACCESSIBLE
SPOT WASH IF REQUIRED PRIOR TO BIOREMEDIATION

TAG APPROVAL DATE: 5/8/90.

ADEC Art W. [Signature]
EXXON Andy [Signature]
NOAA Gary [Signature]
USCG G.A. REITER

FOSC: [Signature]

DATE: 5-12-90

In. pol has not approved. NPS Rep
to be on scene. Special use permit
required.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- JP Harbor seal and sea lion pupping (5/10 to 7/1)
 JJ Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- SR Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- SS Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 HH Finfish harvesting
 7I Deer harvesting (5/1 to 1/7)
 JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0910-CD014 SUBDIVISION: CD014A DATE 4/26/90

~~NOAA~~
~~8600~~
NAME

John Naughton

SIGNATURE

John J. Naughton

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Although not on our priority list this segment contains more oil than the other four segments surveyed today. The oil was found only in the southern portion of the segment. Several patches of medium oil here including recoverable mounds between large boulders. This oil should be removed. No anadromous streams, mammals or unusual birds observed. Treatment recommended just in the medium oil area (also narrow).

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Mousse trapped in cracks and between boulders and cover on bedrock and boulders occurs in variable amounts from broken to patchy in the southern 300m of the segment. If not removed this oil will persist. Manual removal is recommended. Removal of mousse from between boulders will be difficult and require the use of small tools.

LAND MANAGER

NAME

Carl Schach

SIGNATURE

Carl Schach

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Recoverable mousse was found at the southern portion of this segment in several patches of variable dimensions. Sheen was observed in pooled runoff water below the heavier concentrations.

CG LINDSAY NAKASHIMA US06 (N099) JOHN NAUGHTON SEGMENT STI 40910-CD014
 BIO DEA MCCORMICK LAND REP (NPS) CARL SCHUCH SUBDIVISION CD014A : 1 OF 1
 EXXON EPID BYARS ADEC TERRY ELLSWORTH TIME 11:00 12:15
 TEAM NO. 19 TIDE LEVEL -1.40 TO +0.80 ASIDE DATE 4/20/90
 ST. SUBDIVISION LENGTH: 937 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock GRASS AREAS ON TOP OF ROCK CLIFFS
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NORTH to SOUTH
 SURFACE SEDIMENTS: R 20 % B 40 % C 30 % P 5 % G 5 % S 0 % M 0 % V 0
 SLOPE: Long 60 % Hang 40 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 30 m N 190 m VL 90 m NO 637 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	S	P	S	1	2	3	4	5	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER	X	X	X	X	X					X			
COAT	X	X	X	X	X					X			
STAIN	X	X	X	X	X					X			
MOUSSE		X	X	X				X		X			
PATTIES													
TARBALLS													
ILM			X				X			X			
NO OIL										X	X	X	

PAVEMENT H F S ADNS sq. m by 0

PATTIES / TARBALLS ADNS SAG:

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE 1

#BAGS 0

Photographs:

Roll No. ST-19-18

Frames 19-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	SEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SU	U	M	U				
1	5			X			0-5	X				X			X				N	N	N	4/18
							.															
							.															
							.															
							.															
							.															

COMMENTS

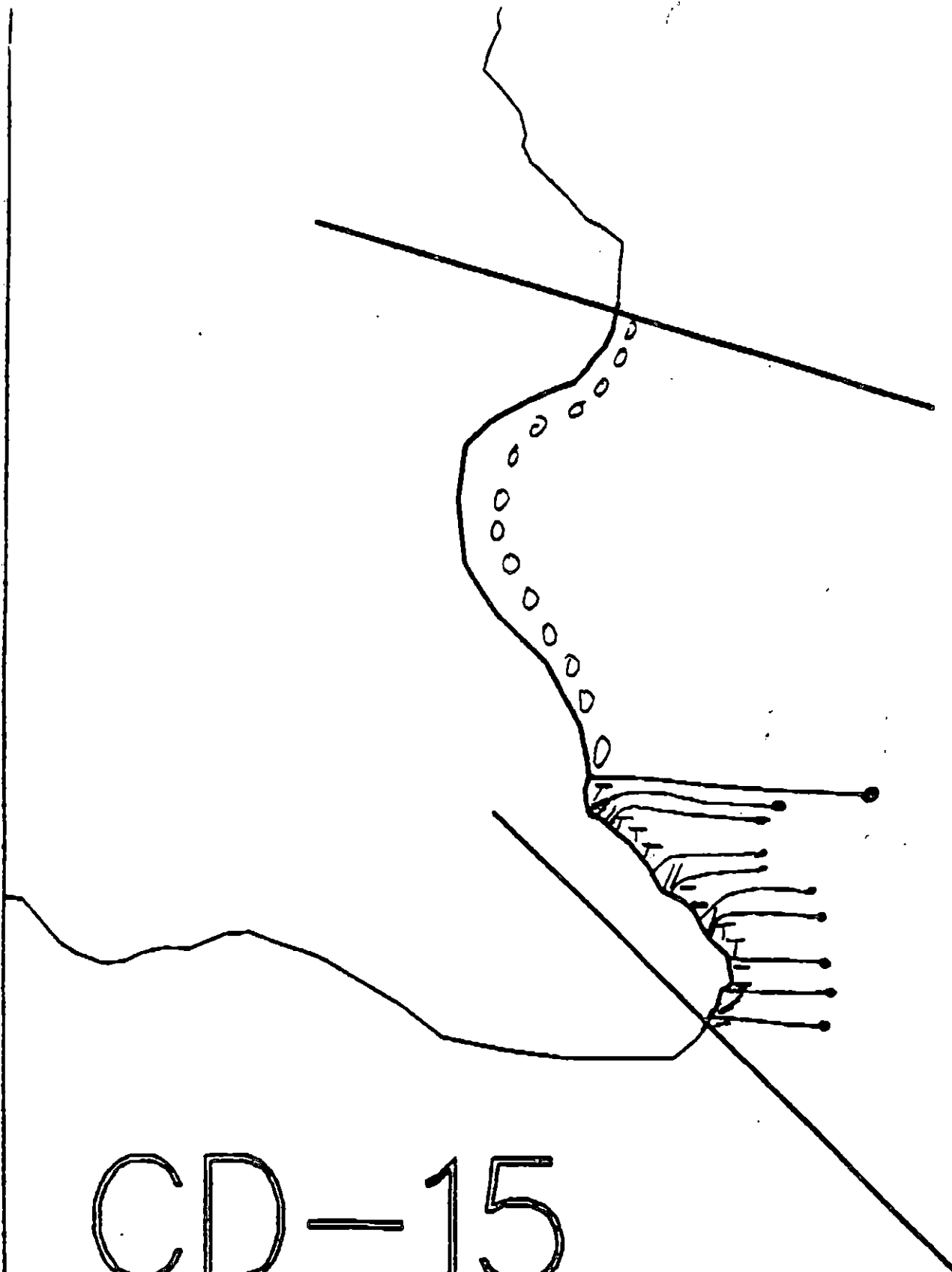
SOUTHERN EXTREMITY OF SEGMENT (≈ 300 m) HAS VARYING QUANTITIES OF OIL RANGING FROM VERY LIGHT IN THE ENTIRE AREA TO BROKEN IN AREAS, PARTICULARLY RE-ENTRANTS IN THE HIGH-UPPER INTERTIDAL ZONE.

REVIEWED MH

DATE 4-29-90

RESEARCH

Ecological Considerations: No anadromous streams. No eagle nests or seabird colonies. No ECO map included in this report.



CD-15

XXXX Wide

/// Medium

TT Narrow

0000 Very Light

Oil

CD-14

ADEC Segment Length: 937m



Map Key: 60A-34

Name: LINDSAY NAKASHIMA

Date: 4/26/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-14 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation*	OPEN

*No Inpol - Use Customblen Only.
NPS Rep. To Be On Location

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

FOSC

[Signature]

Date

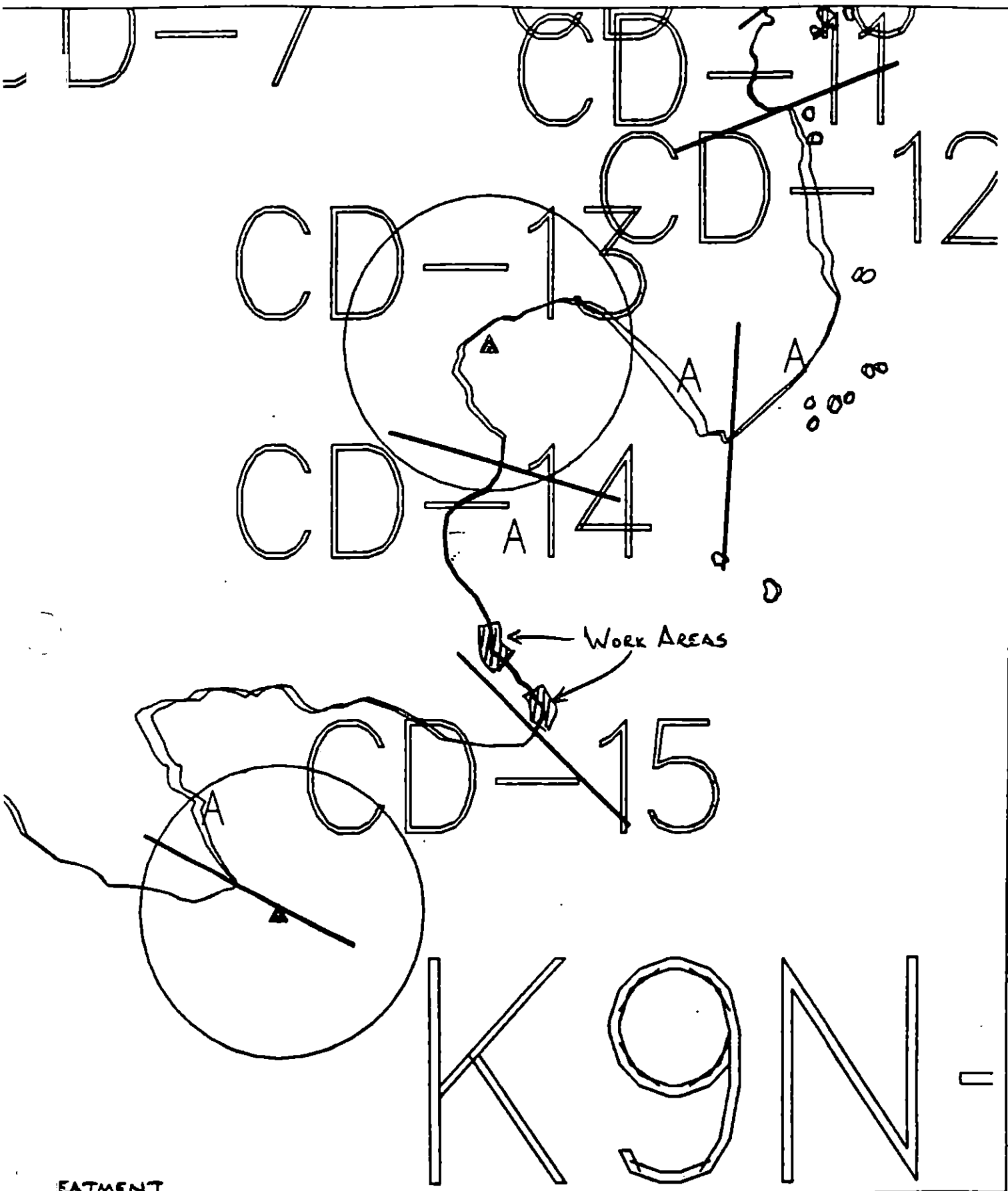
6/16/90

Prepared by

[Signature]

Date

06-14-90



EATMENT



Exxon Company, USA
Mkt. Res. MP-77-14

ECOLOGY MAP
SEGMENT K9N-10 CD-14
SUBDIVISION A (1 of 1)
METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-015 SUBDIVISION A (1 OF 1) DATE 5/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4LL State Marine Park National Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Rebecca D. Dyer DATE: 5/30/90

OILING CATEGORIZATION:

Wide 0 m: Medium 49 m: Narrow 8 m: V.Light 231 m: No Oil 1530 m
Subsurface Oil Observed: Yes No X Maximum Depth 7+cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend manual pick up of mousse, pooled oil and tarballs followed by bioremediation as indicated on the attached sketch map. Work after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS: CREWS TO AVOID ADJACENT UPLANDS

TAG APPROVAL DATE: 5/29/90

ADEC Art Weiner Art Weiner

EXXON Andy TGA Andy TGA

NOAA Bull Worrell Bull Worrell

USCG G.A. REITER G.A. Reiter

FOSC: DATE: 6-19-90

Impol is not authorized. Use Customblen or wave cut platforms only as shown on sketch map.

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Oiga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3I Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7-H Finfish harvesting
 7-I Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K09-10 - C0015 SUBDIVISION: A DATE 5/5/90

NAME STEPHEN LEIMANN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Generally agree with ADEC assessment of the heavily impacted areas, however, manual removal would require ~~substantial~~ substantial disturbance of the beach. Suggest other methods of removal be considered. Further agree with ADEC that, despite the presence of oil, the E. end of the segment should not be treated due to the pair of nesting eagles.

ADEC NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Much of the oiling in this segment consists of stain, coat and cover, mousse occurs in bedrock cracks and crevices and interstitial between cobbles and boulders. There are two main areas of oiling in the segment, one at the east end of the segment and the second at the SW end of the segment. Smaller concentrations occur throughout the segment (see sketch map). Manual removal of mousse is recommended in the impacted area at the east end of the segment. Treatment is not recommended at the SW end because of the small amount of recoverable oil and the presence of an eagle nest with eggs.

LAND MANAGER

NAME Carl Schuch SIGNATURE Carl Schuch

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Recoverable oil consists primarily of interstitial mousse in the boulder /cobble areas indicated on the sketch maps and in isolated crevices /fractures in the bedrock shoreline. The pocket beach in the southwest corner of the segment contains some oiled logs and 2 large (~10cm) tarballs were found.

SHORELINE OILING SUMMARY

REVISION NO. 24-13-90

OG G. HEYMAN NOAA S. LENHART SEGMENT ST/ K-09-10-CD-015
 BIO L. SHARMAN USCG C. SCHUCH NPS SUBDIVISION A (1 OF 1)
 EXXON Not Present ADEC T. FULSWORTH TIME 15:30 10/18/90
 AM NO. 19 TIDE LEVEL +2 to +2 3/4 DATE 5/25/90
 T. SUBDIVISION LENGTH: 1860 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 60 % B 20 % C 10 % P 6 % G 4 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 60 % Vert 32 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 45 m N 5 m VL 200 m NO 1610 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT																
POOLED				X					X					X		
COVER			X	X		X								X		
COAT			X	X		X								X		
STAIN			X	X		X								X	X	
MOUSSE		X	X	X		X								X		
PATTIES																
TARBALLS				X		X								X		
LM																
NO OIL													X			X

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE ---#BAGS ---

Photographs:

Roll No. ST-19 (TIF) -1Frames 2

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VO	1	2	3	4	5	6	7	8					
1	7	X					0-7	X					X					X	N	---	---	B-C/PGP
2	7	X					0-7	X					X					X	N	---	---	B-C/PGP
							.															
							.															
							.															
							.															

COMMENTS

REVIEWED

BAT

DATE 10 May 90

REMOVAL OF
MOUSSE FOLLOWED
BY BIOREMEDIATION

NO	1610
ST	110
CT	70
CV	24
MS	45
PO	1

Wave Cut
Bedrock
Platform

ST-CT-CV as
splatters & drips

Grass covered
Terrace

Very random
ST-CT/S

MANUAL REMOVAL
OF MOUSSE
AND POOLED OIL

SKEI MAP
C. Hayman
ST/K 09-10-CD 015 A
1061
5/15/90

MANUAL REMOVAL
OF MOUSSE, POOLED
OIL AND TARBALLS

Pooled MS/S
in small
pools 1x3cm
to 2cm thick.
In 1x1m area
1% cover

Boulders w/
CT-CV/S 1%
2x30m

POCKET
BEACH

Snow

5x20m area with CV/S
& CT-ST/P, 5x5m area
w/ interstitial MS/S

400m
Arc. From
Eagle nest

5x10m area
MS/P/S Peb-Gran in
interstices b/n boulders
ST-CT/S with CV/S
splatters on boulders 1%
cover

MS/S with MS/S
ST-CT/S, all 1%
cover in U-MITE
MS/S in splatters to
3x3cm, 1-2mm thick,
DBL exterior, shiny
DBR interior

Area not walked, steep rock
wall with lower smooth
low angle face covered w/
green algae, no oil
observed from either end.

Area 1

3 MS splatters
like @ Area 1

APPROXIMATE
EAGLE NEST
LOCATION

Wave Cut
Bedrock Platform

CD-015

~5m ring of
ST-CT+CV+MS/S to
IP around area w/
IP distribution

10x15m w/
ST-CT-CV+MS/P

Oiling continues
into adjacent
segment for
~10m

1/2 - 2m x 20m band
of MS in pbs-gran w/
bldr interstices, near
continuous - MS/S with
some MS/P

5m distance
MS-S-CV+P
in channel formed in
bedrock

MS-CV-CT-ST/P total distribution,
On smaller scale have bldr fractured
faces up near continuous bands to 1 1/2 ft
wide & several feet long. Total area
~20m along shore x 30m

PO-CV/S < 1% in
fracture

ST-CT/S/P on Bldr
MS/S in pbs-gran w/
bldr interstices, protected
behind bldr lin created
by predominant fracture
orientation.

5x1x3m in fracture, oiling same
as in crevices @ Pit 2 location

125
0
Meters

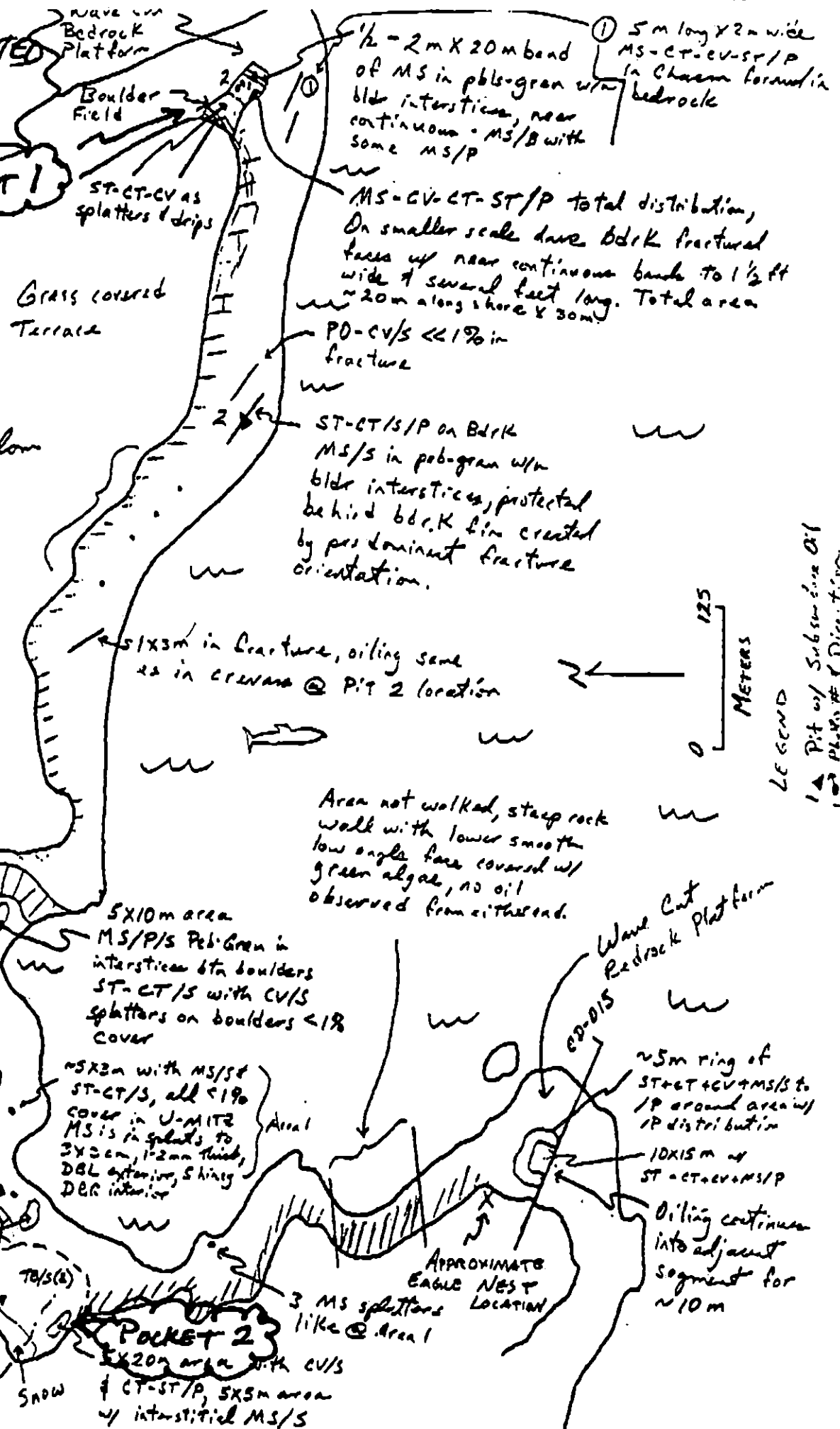
LEGEND
1. Pit w/ Subsurface Oil

UPS ANNOTATED MAP

POCKET 1

1610	120	70	24	45	1
NO	ST	CT	CV	MS	PD

SKE-H MAP
C. Hayman
ST/K 09-10-CD 015A
10F1
5/5/90



OG COMMENTS K-09-10-CD-015 5-5-90 G. HEYMAN

Segment consists of a narrow inlet bound by steep bedrock walls and boulder covered slopes. The points north and south of the inlet are composed of wave cut bedrock platforms. A small pocket beach lies in the head of the inlet.

The majority of the oiling observed in this segment was located on the bedrock platforms at each segment boundary. The oiling occurred above the MITZ in fairly well defined zones, splatters outside the zones indicated on the sketch map were not observed. Within the zones, M, ST, CT, & CV combined to form 1P & 1S distributions. On the northern point, a band of MS filled the pebble-granule pore spaces in the interstices below boulders and cobbles. Dark brown shiny MS was observed on the under-side of cobbles in their $1\frac{1}{2}$ -2m X 20 m band. The band was within a zone of MS-CV-CT-ST on the bedrock and boulders throughout the UITZ. Splatters of ST-CT-CV/S continued into the SUTZ and was observed randomly on drift logs. Two or 3 very small sheens were observed on tidal pools in bedrock crevasses.

On the southern point a 10X15m area of ST-CT-CV-MS combined to form a patchy (~~~~~ 30-40% cover) distribution. This was surrounded by a ring ~5m wide of the same oiling characters with <10% cover. The MS in this area was filling small fractures or occurred as 1-2mm thick patches w/ DBL exteriors & shiny DBR sticky interiors. The fracture filling was small. <1cm thick.

OG Comments K-09-10-CD-015 (concluded)

South of the northern boundary, 5 fractured bedrock-protected chaams were observed with /S, /P & /B distributions of MS+CT+CV+ST. The chaams are narrow and the heavier oiling concentrations are very limited in extent. MS was observed as small fracture filling or filling pebble-granule pores beneath boulders.

Two additional areas were observed with MS in pebbles and granules in boulder interstices.

One 5x10 m area with /S distribution north of the pocket beach; and the other a 5x20 m area ^{of CV, CT & ST} w/ a 5x5 m area of interstitial MS/S.

The remainder of oiling observed in this segment occurred as very random splatters on boulders and bedrock. Areas where these were observed are shown on the sketch maps.

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 00/00/90

Segment ST 1, CD-15 Subdivision A Date (mo/day/yr) 5/5/90

Time (24 hr) 1930-1900 Biologist SHARMAN

Spent 1st 1/2 hour surveying small section at N. end (this window opened 1600).

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 60 (2) Boulder 20 (3) Cobble 10 (4) Pebble 6 (5) Sand 4 (6) Silt Granules

(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate X Low

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs: Roll No. ST-19 (III)-1

Frames 2

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS (ANCELA, LITTORINA, LIMAETE)

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: ~ 25 glaucous-winged gulls, ~ 10 glaucous gulls, 2 ravens, 1 cormorant, 1 murrelet, 1 subadult eagle attacking (unsuccessfully) river otter on bluff edge (otter defended, & eventually headed down to shore among rocks). 1 pair adult breeding eagles with active nest (2 eggs) - see Ecol. Considerations section below. 7 birds seen swimming off N. point (pilot reports seeing ~ 100 further offshore (1-2 miles out). Upland bluff margin is heavily used by terrestrial mammals (cont.)

Ecological Considerations:

Please refer to attached Eco. Maps. The eagle nest is definitely very active (2 eggs asy. to helicopter pilot) with 2 protective adults - nest is very accessible from edge of bluff above. Nest must be protected from any human disturbance. Entire bluff top, particularly the edge along the entire segment, is very important for mammal foraging and as a travel route. N.P.S. representative reports there is another eagle nest just around the corner to the N. on adjacent segment CD-14.

Sharman
5/5/90General Comments (cont.):

there are abundant fox scats, one observed bear scat, the usual major bear/fox/wolf trail along the bluff edge, 3 bird bills (species unknown - probably gulls), a few areas of bear diggings (usually targeting Lupinus roots), rare ptarmigan scat. Eagle/raven/gull feeding remains (fish bones, chiton scutes, urchin test fragments). Fox scats contain feathers, bone fragments, fur. Dominant summer terrestrial plants are sprouting - Argemone, Horradium, Gleum, some grasses (incl. Elymus), and another unidentified monardella (lily?).

This is a very exposed, wave-battered rock cliff shoreline. Intertidally, the biological community is naturally highly stressed/disturbed, a classic of its type, and generally appears perfectly normal & healthy. MTE bedrock pools often dominated by Chthamalus and/or Littorhamium and Littorina snails. Pools also inhabited by foliose corallines, Semibalanus cariosus, Pagurus, tidepool sculpin, small Anthopleura spp. (all 3 spp.), Enteromorpha, Neurella sp., limpets, Katharina. There are also UTE pools, but with considerably less Littorhamium, no anemones or chitons. Some of the pools at the N. end of the segment have a few small algaes (this is the general location of the most heavily oiled portion of the segment) - however, pool Littorina are recruiting well, and the mortality of Littorhamium is ~ 5% areally (well within natural expectation, & clearly not at the level of known "oil-induced" mortality observed elsewhere). At the N. end there are abundant last year's Littorina stuck into MTE + UTE coat/cover lands on bedrock. Effects outside the actual oiling, however, are not discernable. Barnacles are generally rare (dense locally) - spat are very rare (but present). Fucus is quite rare but recruiting unusually well where present - ditto for muscosa. Gelidium locally dense in lower MTE with Fucus. Barnacles, Fucus, & Gelidium all can be very dense locally on flat bedrock platform in the lower MTE. Found large (20cm) branched sponge (Iasodictya sp.?) washed up in the drift line of boulder pocket beach.

ECOLOGY MAP

(1 of 2)

CD-15

(Page 3 of 4)

No resource sensitivities
identified in NOAA database.
(4/22/90)

However, note active bald eagle
nest (code ST) that was located on
this survey on Map 2 (3/1-6/1,
possibly until 9/1).
- not documented on 8/4/89 NPS
eagle nest map.

← GOA
35A

XXX Wide

/// Medium

--- Narrow

TTTT Very light

CD-15

ADEC Segment Length: 1859m

Map Key: GOA-35b

Name: _____

Date: _____

CD-14

CD-15

active
nest
(top of cliff)

ECOLOGY MAP

(2 of 2)

CD-15

(Page 4 of 4)

See map page 1.

GOA
35B

XXXX Wide

//// Medium

--- Narrow

TTTT Very Thin

CD-15

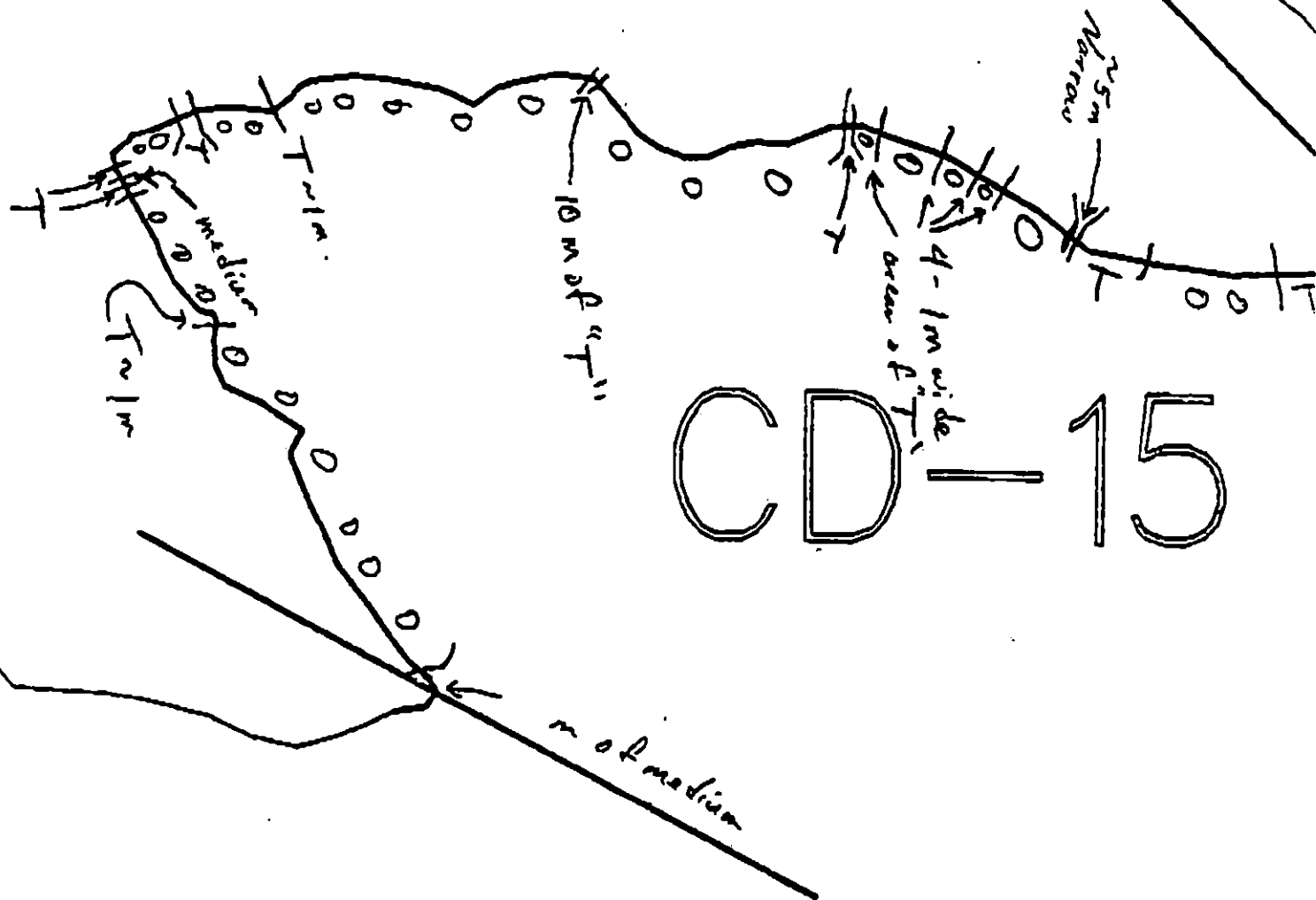
ADEC Segment Length: 1859m

Map Key: GOA-35a

Name: _____

Date: _____

CD-14



GOA
35B

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

CD-15 4 (total)
(1 of 2 sheets)

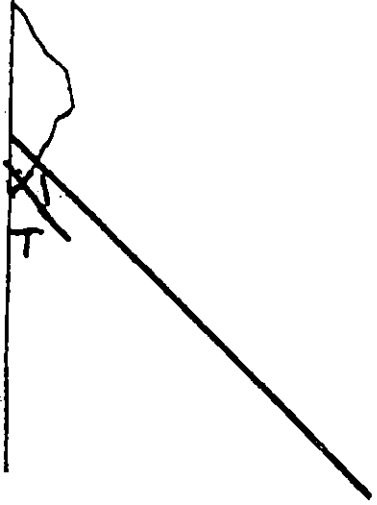
ADEC Segment Length: 1859m



Map Key: GOA-35a

Name: G. Heyman

Date: 5-5-90



← GOA
35A

XXXX Wide

//// Medium

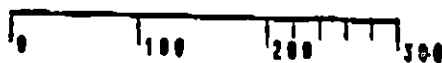
---- Narrow

TTTT Very Light

OOOO No Oil

CD-15 A
(2 of 2 sheets)

ADEC Segment Length: 1859m



Map Key: GOA-35b

Name: G. Hoyman

Date: 5-5-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-015 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN*

*No Inlpol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to uncolled biota and substrate. Avoid adjacent uplands.

FOSC

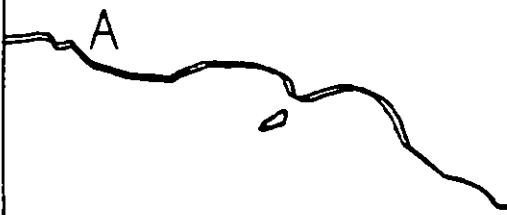
Date

6-22-90

Prepared by

Date

6/22/90



--	--

- ★ Seabird Colony
▲ Active Eagle Nest
△ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-16 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uniled biota and substrate.

SHPO SIGNATURE: Michael Antosquith DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 76 m: Narrow 319 m: V.Light 1279 m: No Oil 503 m
Subsurface Oil Observed: Yes X No Maximum Depth 30+ cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes bioremediation of area as indicated on attached sketch map. No specific ecological time constraints identified.

TAG COMMENTS: MANUAL PICKUP OF MOVERS AS INDICATED ON THE SKETCH

MONITORS TO ASSESS THE SUITZ - SNOW COVERED

TAG APPROVAL DATE: 5/15/90

ADEC Art Wanner Dixie Wanner

EXXON Andy Tan Paul

NOAA Joseph Walcott Jeff

USCG G.A. REITER G.A. Reiter

FOSC: My L DATE: 5-15-90

NO IN.POL

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotai Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorage (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 7HH Finfish harvesting
 7H Deer harvesting (8/1 to 1/7)
 7JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

SEGMENT ST ^{K0910} CD-16 SUBDIVISION: A DATE 4/29/90

USCG

NAME AEC Vandepels SIGNATURE AEC Vandepels

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Michelle Baer SIGNATURE MBaer

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Manually remove MS/s, pebbles and cobbles with CV, and heavily coated substrate. Sporadic patches lay throughout the WITZ. Suggest walking area and to locate patches as they are throughout the Northwestern 2/3's of the segment.

LAND MANAGER

NAME Janis Meldrum SIGNATURE Janis Meldrum

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Mousse patches and mousse covered rock and sediments could be manually removed with shovel or spade. The SITZ was snow covered at the time of the survey. Area should be rewalked after snow recedes. Oil observed was right up against the snow.

SHORELINE OILING SUMMARY

REVISION NO 04-131

K 4/11/90

OG C. DILLON USCG AEC R. Vande SEGMENT ST/ CD-16
 BIO P. Crank LAND REP Janis Meldrum/NPS SUBDIVISION A (1 OF 1)
 EXXON T. Tomblin ADEC Michele Baer TIME 10:15 to 12:30
 TEAM NO. 5 TIDE LEVEL +2 to -2.5 DATE 04/29/90
 EST. SUBDIVISION LENGTH: 2195 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 25 % B 55 % C 10 % P 3 % G 1 % S 1 % M 0 % V 0 %
 SLOPE: Lang 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 10 m M 90 m N 325 m VL 1230 m NO 550 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	R	P	B	ST	CT	SL	LT	VT	SU	U	M	V
ASPHALT PAVEMENT													
POOLED													
COVER				X				X			X		
COAT		X	X	X	X					✓	X		
STAIN				X				X			X		
MOUSSE				X	X			X	X	✓	X		
PATTIES													
TARBALLS													
FILM													
NO OIL	SNOW ON SITZ OF SOME AREAS									S		X	X

PAVEMENT H F S — sq. m by — cmPATTIES / TARBALLS — BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE mousse patchy oiled rocks#BAGS 1

Photographs:

Roll No. ST-5-7Frames 33, 34

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	ST	CT	SL	LT	VT	SU	U	M	V				
1	5					X	-		X							X				N	-	B/C/P - P/G
2	30					X	-		X							X				N	25	G-G
3	20					X	-		X							X				N	-	C/P - P/R
4	25					X	-		X							X				N	-	C-P/G/C
5	30				X		0-30	X		X	X					X				N	-	C-C/P
6	10		X				0-7	X			X				X					N	-	C-P/G

COMMENTS MAJORITY OF THE SUBDIVISION IS LOW ANGLE BOULDERS AND CBBLES (AND SOME AREAS WITH PEBBLES, GRANULES AND SAND IN B/C INTERSTICES) UNDERLAIN BY BEDROCK IN THE U-SITZ AT THE BASE OF VERT R BLUFFS. ALMOST ALL AREAS DESCRIBED AS CT/S AND ST/S OILING HAVE SPORADIC SPLATTERS AND DROPLETS OF WEATHERED DK BEN AND DULL BLACK STAIN/COAT ALONG THE SITZ. SNOW COVERS THE SITZ ALONG THE CENTER OF THE SUBDIV.

REVIEWED BAC DATE 3 MAY 90

00 C. DILLON TEAM 5

SEGMENT ST/ CD-16

SUBDIVISION A

DATE 4, 29 90

CHECKLIST

- _____ M Access
 _____ Approx. Depth
 _____ Bag/Info Study
 _____ Oil Dist.
 _____ Width
 _____ Length
 _____ % Cover
 _____ Substrate Character
 _____ Ex. HURLAFL
 _____ SSI
 _____ Profile Location(s)
 _____ Profile(s)
 _____ PR Location(s)
 _____ Photo Location(s)

LEGEND

- 1 
 Pk - No Subsurface Oil

 2 
 Pk - Subsurface Oil


 Core Cuts Distribution


 Section Distribution

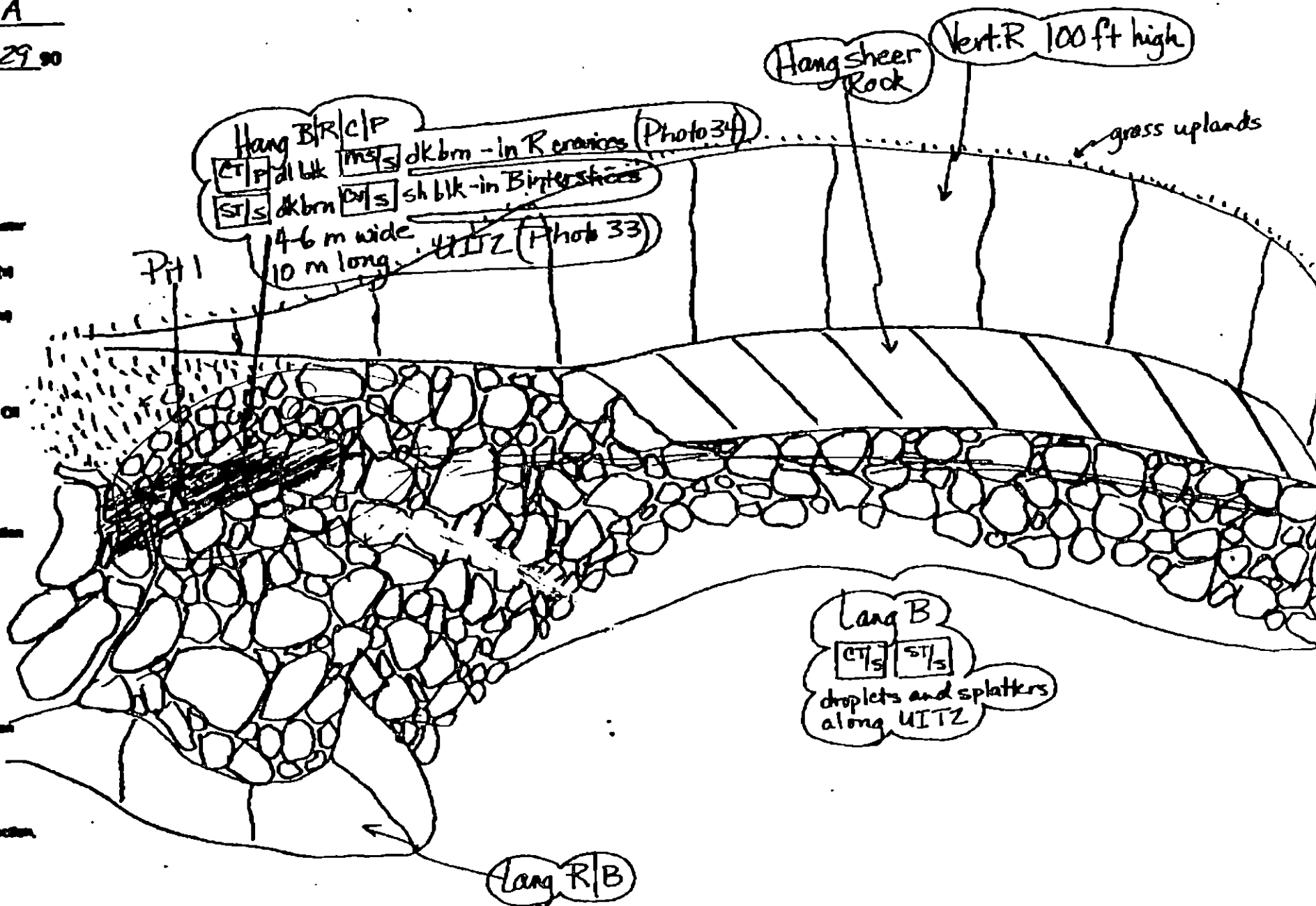

 Patchy Distribution


 Spotted Distribution


 Old Vegetation

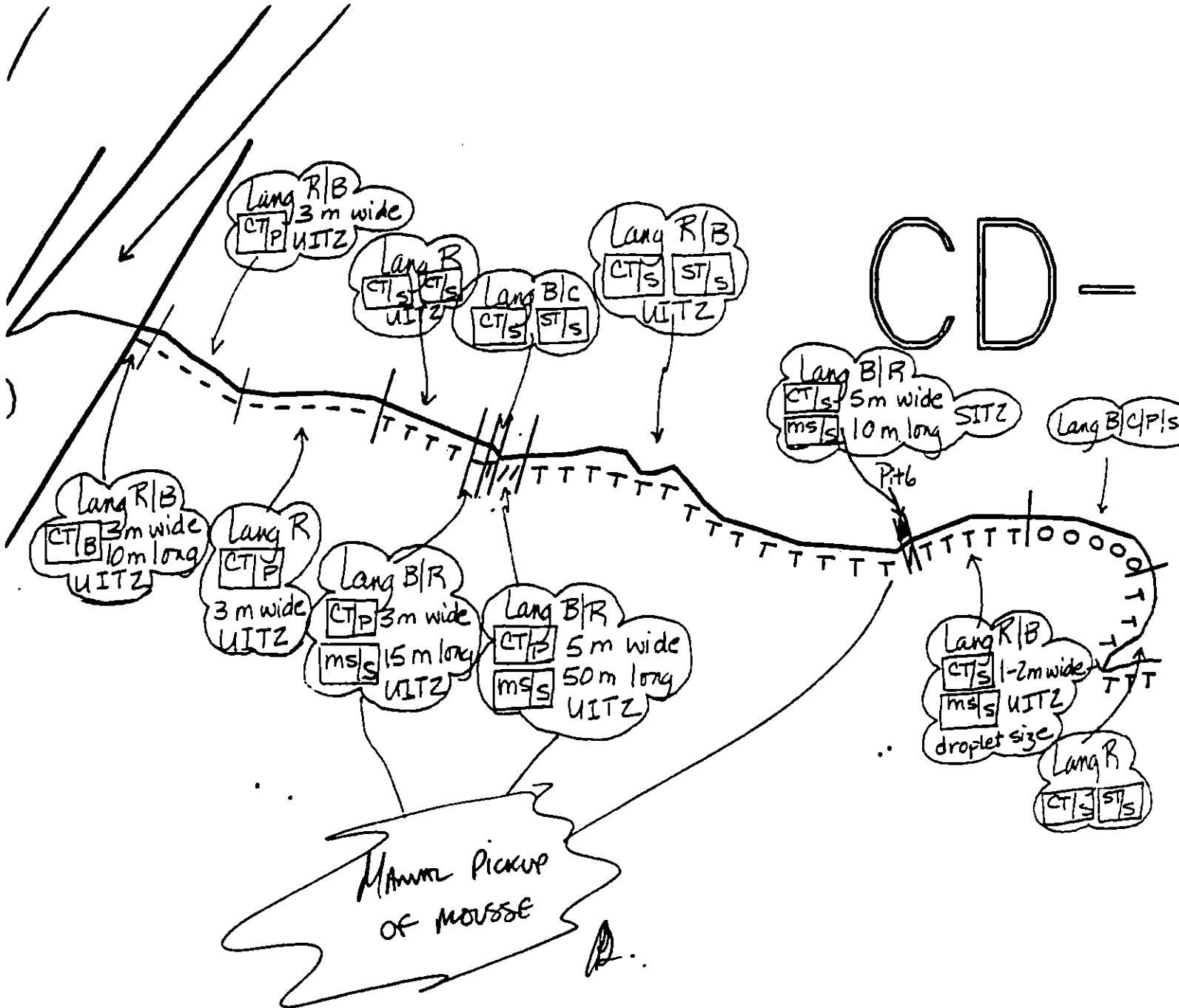
 1 
 Photo location, direction
 and number

SKETCH MAP



DB Character Length (in): AP 0 PO 0 CV 1 CT 98 ST 50 MS 1 PT 0 TB 0 FL 0 NO 0 TOTAL 150m

Abstract



OIL CHARACTER LENGTHS (m): CV 1 CT 1249 ST 400 ms 5 NO 550

GOA
368

XXXX Wide

/// Medium

--- Narrow

.TTT Very Light

0000 No Oil

CD-16-A

EXXON SEGMENT LENGTH: 2195m

ADEC Segment Length: 2176m

0 100 200 300
METERS

Map Key: GOA-368

Name: C. DILLON

Date: 4/29/90

Date Entered:

Segment ST/CD 14 Subdivision A Date (mo/day/yr) 4/29/90

Time (24 hr) 1015-1230 Biologist Crank

Length: 2170

Tide Height: +1 → -1.8

(A) Substrate type and % of segments:
(1) Bedrock 25 (2) Boulder 55 (3) Cobble 10 (4) Pebble 3 (5) Sand 2 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 5 Moderate 20 Low 75

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-5-7

Frames 35

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	X	2	X	2	X	2	2	2	NOT PRESENT 4, 5
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	X	2	2	2	2	NOT PRESENT LITZ 3, 4, 5
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
X	X	X	2	2	2	2	2	2	2	2	2	NOT PRESENT
X	X	X	3	3	3	3	3	3	3	3	3	
X	X	X	4	4	4	X	X	X	4	4	4	
4	4	4	5	5	5	5	5	5	5	5	5	
5	5	5	6	6	6	6	6	6	6	6	6	
6	6	6										

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	X	X	2	2	2	2	NOT PRESENT LITZ 3, 4, 5
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

2 - Gulls
33 - Pigeon Guillemots
50 - Ducks
Ecological Considerations:
Unknown - Office information was unavailable.

3 - Pacific Cormorants - in breeding plum.
4 - Eagles - Mature
1 - Crow - harassing Eagle
2 - Goldeneyes

4 - Harlequins
1 - Sealion
- 1 school of Green Fish approx 5cm long.

- NPS rep found oiled Gullwings & oiled Chiton on upland.

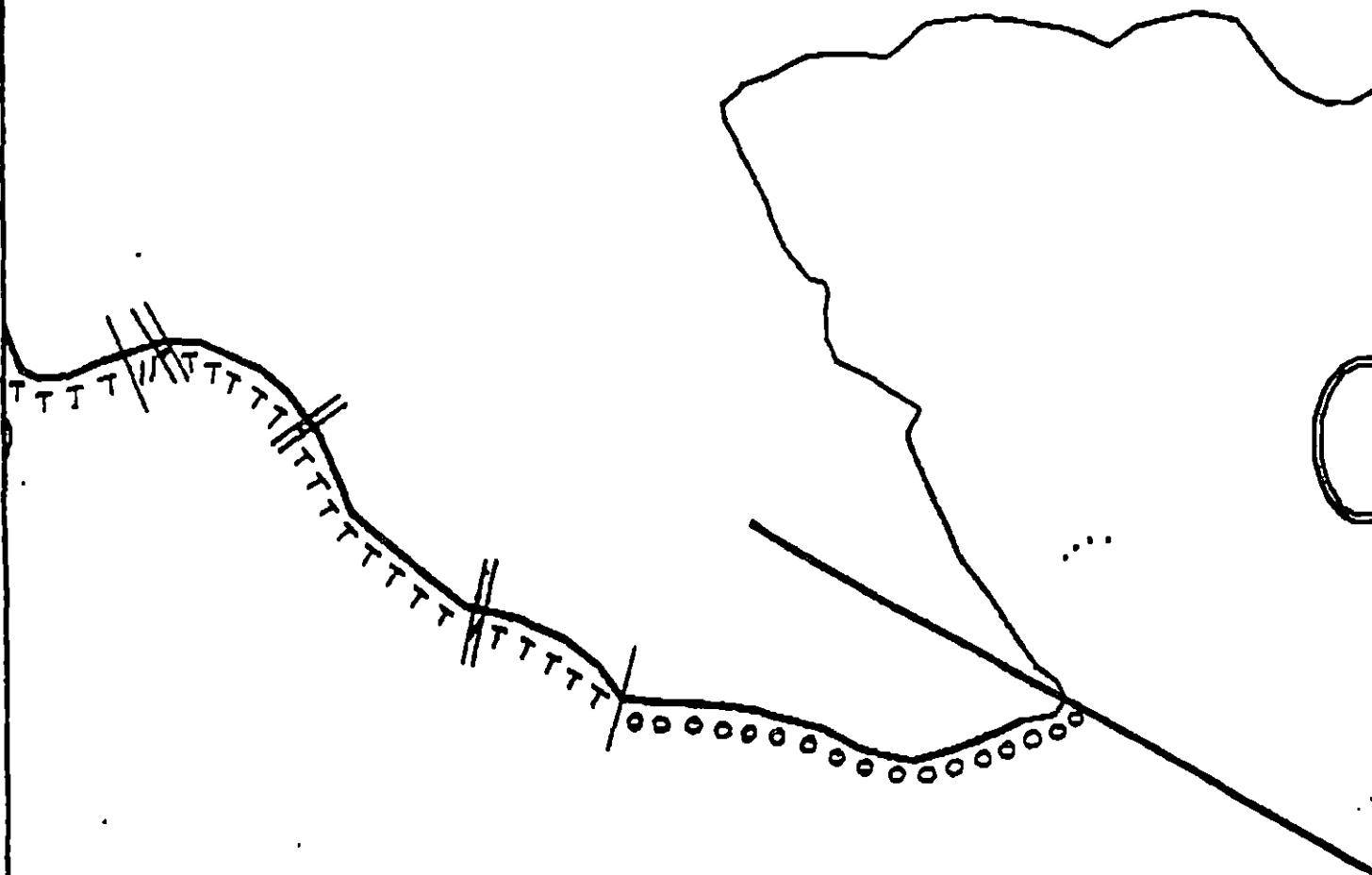
Date: 4/29/90

Time: 1015-1230

Tide Height: +1 $\rightarrow$ -1.8

General Comments

- LITZ cobble: boulders are 50% covered with algae; 60% of the algae in LITZ is Filamentous greens at East end of segment. As traveled west Fil greens down to 25% and Bladed Algs increased. Rock bench 80% algae cover.
- Area has a high exposure with low biotic coverage.
- 50% of sand was composed of crushed shell! No clam bed areas were observed.
- There was a globular green mass on top of LITZ rock. Appeared to be an egg-mass. Unable to ID - took photo
#ST-5-7-35
- Found largest *Halosaccus* I've seen this spring
75cm long.
- Rock bench in LITZ has a shallow layer of sand covering its surface.
- A gull wing and a chiton shell, both with light oil spots were found by the NPS rep on the upland grass above the beach.



← GOA
36A

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

CD-16-A

ADEC Segment Length: 2176m



Map Key: GOA-36A

Name: C. Dillon

Date: 4/29/90

Date Entered:

A hand-drawn diagram showing a geological profile. A wavy line represents the ground surface, with a dashed line below it indicating a subsurface boundary. The profile is marked with various symbols: vertical tick marks, diagonal hatching, and groups of 'T' characters. An arrow points to the left from the top left corner. The text 'CD-' is written in the upper right corner.

XXXX Wide	CD-16-A	
/// Medium		
--- Narrow	ADEC Segment Length: 2176m	
TTTT Very Light		
0000 No Oil		

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-16 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN

*No Inpol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

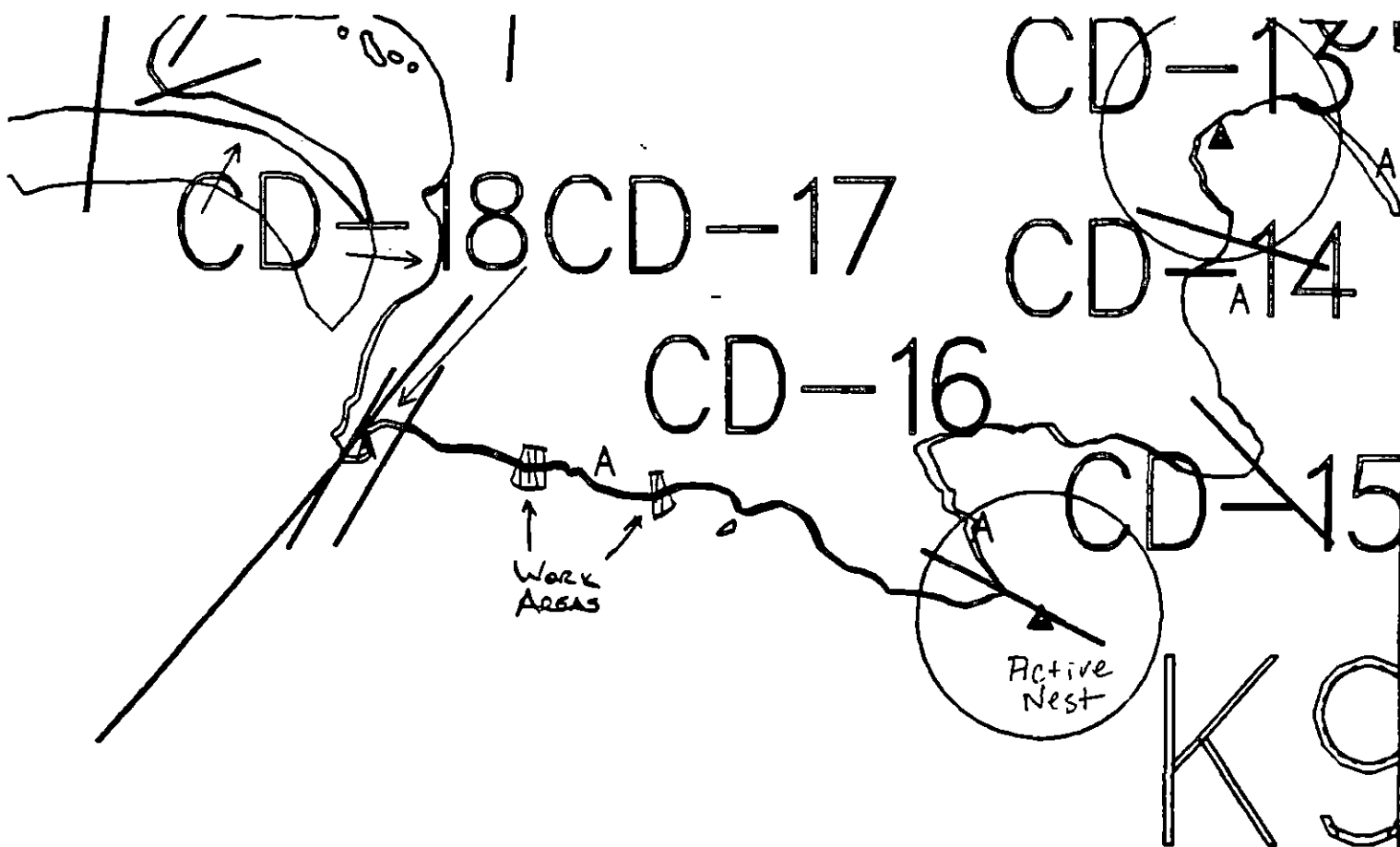
APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC *[Signature]* Date 6-16-90 10 Fri Pol *[Signature]*
Prepared by *[Signature]* Date 6/15/90



ATMENT



Exxon Company, USA
Map Key: MP-CD-16

ECOLOGY MAP
SEGMENT K9N-10 CD-16
SUBDIVISION R (1 of 1)
METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-17 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4LL National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Michael Detrognin DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 191 m: No Oil 147 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☒ No Treatment Recommended	☐ Snare/Absorbent Booms
☐ Treatment Recommended	☐ Oil Snares (pom poms)
☐ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/15/90
ADEC Amy Gern
EXXON Amy Gern FOSC: [Signature] DATE: 5-15-90
NOAA [Signature]
USCG G.A. Reiter

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry/nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotoi Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unhoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal; 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (5/1 to 1/7)
 7JJ Invertebrate harvesting
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

SEGMENT ST 1 ^{K9-10} CD-17 SUBDIVISION: A DATE 4/29/90

USCG

NAME

AEC Vaandepels SIGNATURE AEC Vaandepels

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME

Michelle Baer SIGNATURE 4/29/90

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Oiling limited to splatters on surface sediments.
Cobble is very large and removal is not recommended.
Area has very high wave energy due to exposure.

LAND MANAGER

NAME

Janis Meldrum SIGNATURE Janis Meldrum

☒ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Oil removal could only be accomplished by scrubbing or scraping
of rock surfaces

OG C. DILLON USCG AEC K. Vandepels SEGMENT ST/ CD-14
 BIO P. Crank LAND REP Tania Meldrum (NPS) SUBDIVISION A (1 OF 1)
 EXXON T. Tomblin ADEC Michele Buer TIME 12:30 13:00
 TEAM NO. 5 TIDE LEVEL -2.5m -2 DATE 04/29/90
 EST. SUBDIVISION LENGTH: 339 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 20 % C 5 % P 3 % G 1 % S 1 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 40 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 189 m NO 150 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	A	P	S	1	2	3	4	SU	M	M	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X	X	X			X	X		
STAIN				X	X	X			X	X		
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL											X	X

PAVEMENT H F S sq. m by cm

PATTIES / TARBALLS BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

un-oiled pom pom
TYPE un-oiled trash

#BAGS 1

Photographs:

Roll No. None

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		CP	CR	CL	CF	NO		DO	UC	1	2	3	4	SU	M	M	U				
1	10					X	.	X						X				N	-		C-C/P/G
2	15					X	.	X						X				N	-		C-C/P/G/R
							.														
							.														
							.														
							.														

COMMENTS MAJORITY OF OILING IS IN THE FORM OF COAT / STAIN DROPLETS (UP TO ABOUT 5cm DIAMETER) ALONG THE LITZ OF THE ROCK AND BOULDERS. OILING IS LESS THAN 1% COVERAGE OR AN AVERAGE OF 2 OR 3 DROPLETS PER 10m.

PIT 1 IS IN THE SITZ C/P BERM ON THE E END OF A C/P BEACH. THOSE BERM SURFACE SEDS AND THE B/C/R FOR 20m TO THE EAST HAVE COAT/STAIN SPLATTERS UP TO 20cm DIAMETER. PIT 2 IS IN A 5m LONG SPLATTERED AREA WHICH ARE STAINS ON THE ROCKS/BOULDERS.

REVIEWED BAT DATE 2 May 90

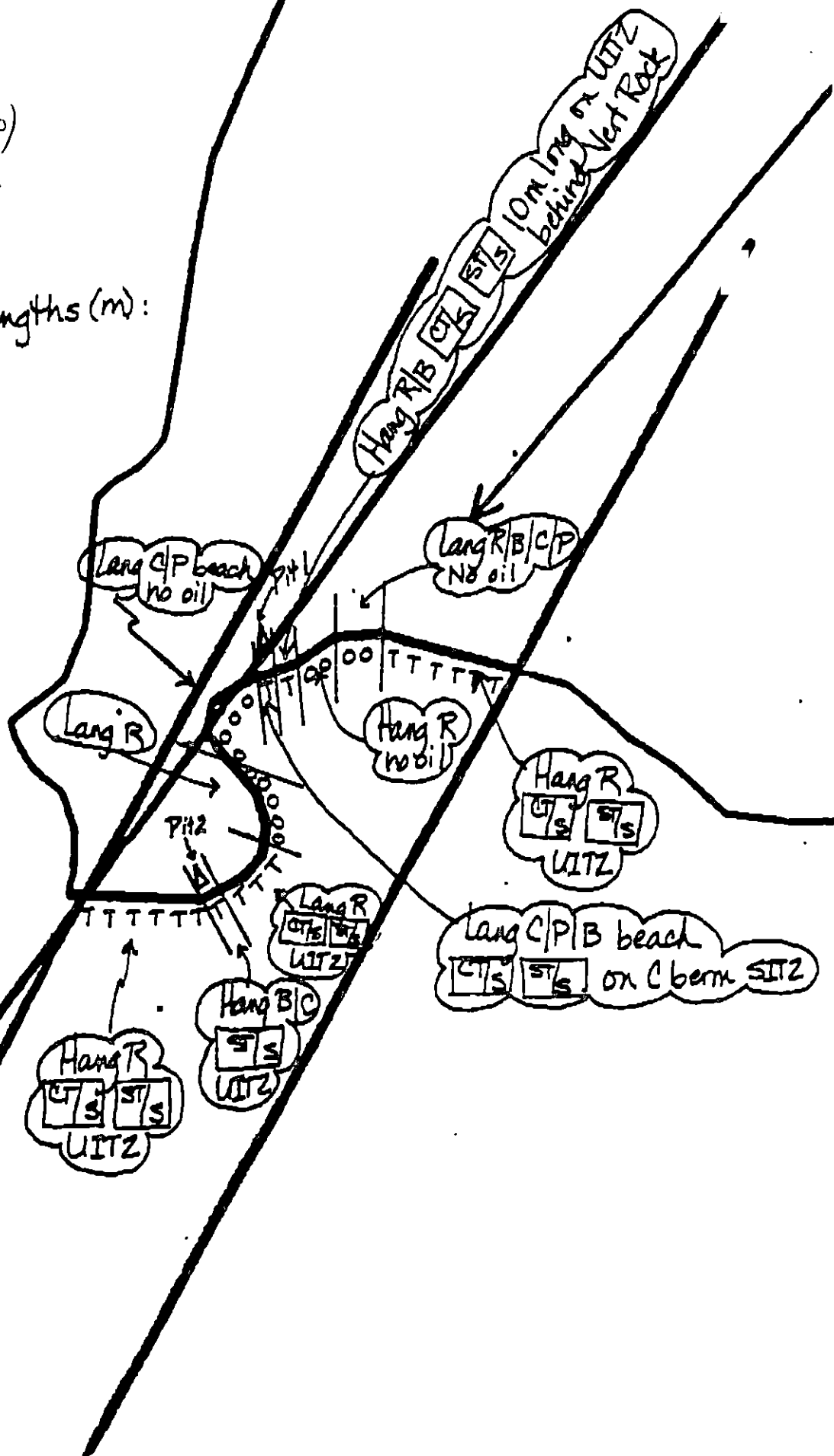
(K9-10)
CD-17-A
339m

Oil Character Lengths (m):

CT 92

ST 97

NO 150



Segment ST / CD17 Subdivision A Date (mo / day / yr) 4/29/90Time (24 hr) 1230-1300 Biologist Crank Length: 339 m
Tide Height: -1.8'

- (A) Substrate type and % of segments:
(1) Bedrock 70 (2) Boulder 20 (3) Cobble 5 (4) Pebble 3 (5) Sand 2 (6) SM
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 20 Low 70
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)
- Photographs: No photos
Roll No.
Frames

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

45

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

345

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

345

Wildlife Observations/ General Comments:

2 - Gulls

1 - Seal

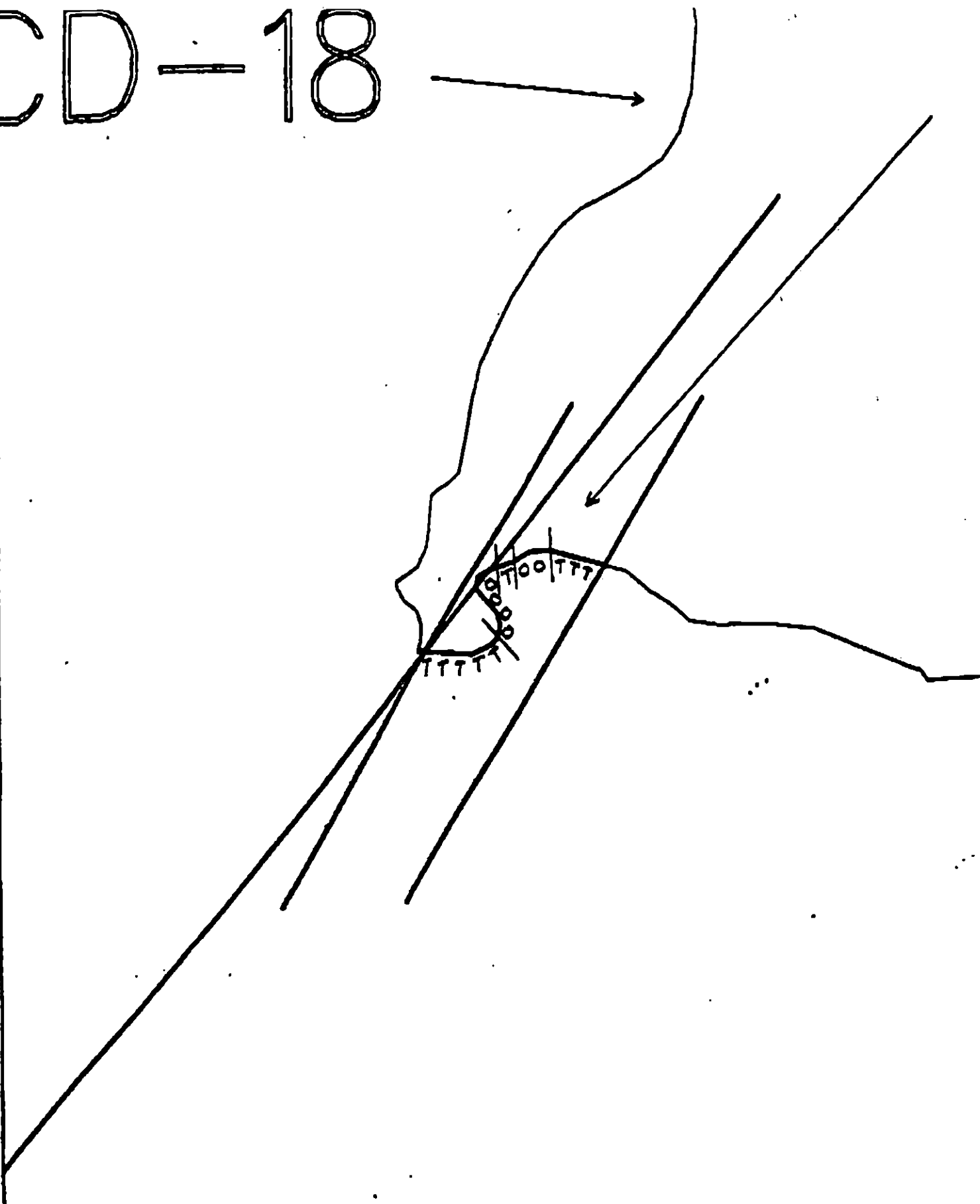
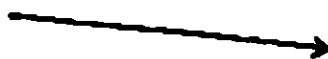
2 - Sea Lions

Ecological Considerations:

Unknown - Office
information was
unavailable

- LITZ 80% rockbench with shallow sand cover. Extensive tidepool area below +1', with rich algae cover 80%.
- Intertidal biota similar to CD16A. This segment appears to have more yellow sponge, however, and seems to have a slight increase in biotic coverage.
- Fucus; mussels are found in sporadic patches.
- Barnacles and Gastropods are continuous population.

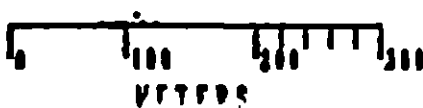
CD-18



XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

CD-17^(K9-10)

ADEC Segment Length: 330m



Map Key: 60A-37
 Name: C. Dillon
 Date: 4/29/90
 Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-100 SUBDIVISION A (1 OF 1) DATE 5/12/90

EGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
4LL State Marine Park National Parks 7/1 and from 8/1 - 9/15
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Mark S. Holmes DATE: June 21, 1994

OILING CATEGORIZATION:

Wide 0 m: Medium 22 m: Narrow 0 m: V.Light 521 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☐ No Treatment Recommended	☐ Snare/Absorbent Booms
☒ Treatment Recommended	☐ Oil Snares (pom poms)
☒ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☒ Bioremediation	☐ Spot Washing: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommend treatment includes 1) manual pick up of pooled mousse
2) bioremediation of areas as indicated on sketch map. Work should be
conducted between 7/1 and 7/31 with approval of USFWS regarding eagle
nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/31/20.

ADEC	Art Weigert	Art Weigert
EXXON	Andy Gal	Andy Gal
NOAA	Joseph Kubott	John J.
USCG	G.A. Peltier	G.A. Peltier

FOSC: ML DATE: 7-10-90

Inv. pol. not authorized. Coordinate treatment
with F&WL re environmental constraints.
NPS monitor + permit required.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 488-4791
- 30, 3Q Harbor seal and sea lion pupping (5/10 to 7/1)
Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- Z Subsistence area: Salmon harvesting (8/1 to 9/30)
H Finfish harvesting
I Deer harvesting (8/1 to 1/7)
7J Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K09-10-CD 100 SUBDIVISION: A DATE 5/12/90USCG
NAME Kenneth M. Traber SIGNATURE K Traber☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

There is broken coat ~~of~~ and stain w/ patchy mussel and pooled oil in crevices in a 10 x 5 meter area of boulders. Splash stain on remaining upper inter-tidal zone. Cleanup not feasible.

ADEC
NAME Francine J. Roberts SIGNATURE Francine J. Roberts☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Concur with Coast Guard rep's comments. Any clean-up is not practical & would be more intrusive than it's worth.

LAND MANAGER UPSNAME Will Traylor SIGNATURE Will Traylor☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Some mussel remains, wedged between boulders. It will be difficult to remove. Any cleanup effort would have to be weighed against damage to resources. This is a sand pipping and hatching ground gull nesting site and a bald eagle nesting site, although there are

OG Greg Chaney USCG Ken Frahm SEGMENT ST/ K09-10-CD-100
 BIO Heather Davis LAND REP Will Snayes (NPS) SUBDIVISION A OF 7
 XON - ADEC Fras Beach TIME 12 00 to 13 00
 AM NO. 20 TIDE LEVEL 0 to 4.0 ft DATE May 12 1990
 EST. SUBDIVISION LENGTH: 501 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock Dwarf wood
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: West to East
 SURFACE SEDIMENTS: R 15 % B 70 % C 5 % P 5 % G 5 % S - % M - % V - %
 SLOPE: Long 95 % Hang 5 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m MIO 0 m N 0 m VL 491 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	25	30	35	40	45	SU	UI	M	U
ASPHALT PAVEMENT													
POOLED				X					X		X		
COVER			X	X		X					X		
COAT		X	X	X		X				X	X		
STAIN			X	X		X	X			X	X	X	
MOUSSE				X				X			X		
PATTIES													
TARBALLS													
LM													
NO OIL													X

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 1 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation	X		
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE NONE

#BAGS NONE

Photographs: NONE

Roll No. -

Frames -

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		VO	VC	25	30	35	40	45	SU	UI	M	U				

Official COMMENTS Segment Length Does Not Accurately Reflect Actual Segment Length.
 See attached

REVIEWED BOY DATE 23 May 90

COMMENTS
SEGMENT K0910-CD-100

Greg Chaney

May 12 1990

Segment K0910-CD-100 consists of the northern portion of Douglas Reef in Shelikof Strait. This low lying segment is composed primarily of a broad low lying boulder reef. At low tide this portion of Douglas Reef may be 1500 meters long and roughly 500 meters wide but the majority of this reef is completely covered at high tide. Near the center of the reef is a low sea stack roughly 200 meters across. This feature is grass covered and retains driftwood but does not appear to be above supra-tidal influences. The survey was conducted near low tide so most of the reef was exposed upon our arrival but when the survey was completed the incoming tide was rapidly covering the reef. The southern portion of the segment was surveyed on foot. It was not possible to survey the northern half of the reef on foot due to the danger of entrapment by the incoming tide, therefore the northern half was surveyed by helicopter. No oil was observed on the broad lower intertidal boulders which compose 90% of the reef. Very little stain was located in the mid-intertidal zone. The upper intertidal zone is restricted to the sea stack region. Traces of splattered tar coats surround the sea stack however the greatest concentration of oil is found on the eastern side of the sea stack. A 5x10 meter area on the north eastern side of the sea stack retained a broken coat and cover totaling 50% coverage in that area. In a bedrock crack at the base of the coat and cover was 5x5 centimeter pocket of pooled mousse. This mousse was brown and at least 2 centimeters deep. Silver sheen was observed in the tidal pools below this relatively concentrated oil. The majority of the oil noted appeared stable, however random patches of mousse still appear to be sheening. Due to the low profile of this reef, the official segment lengths for this segment do not accurately reflect it's actual extent at low tide. (See sketch map.)

OG King Canyon
SEGMENT ST/ K09-10-CD-100

SUBDIVISION A

DATE May 12 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Str Endry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HML/LVL
☐ SSL
☐ Profile Location(s)
☐ Photo(s)
☐ Pht Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
Pht - No Subsurface Oil

2 Δ
Pht - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

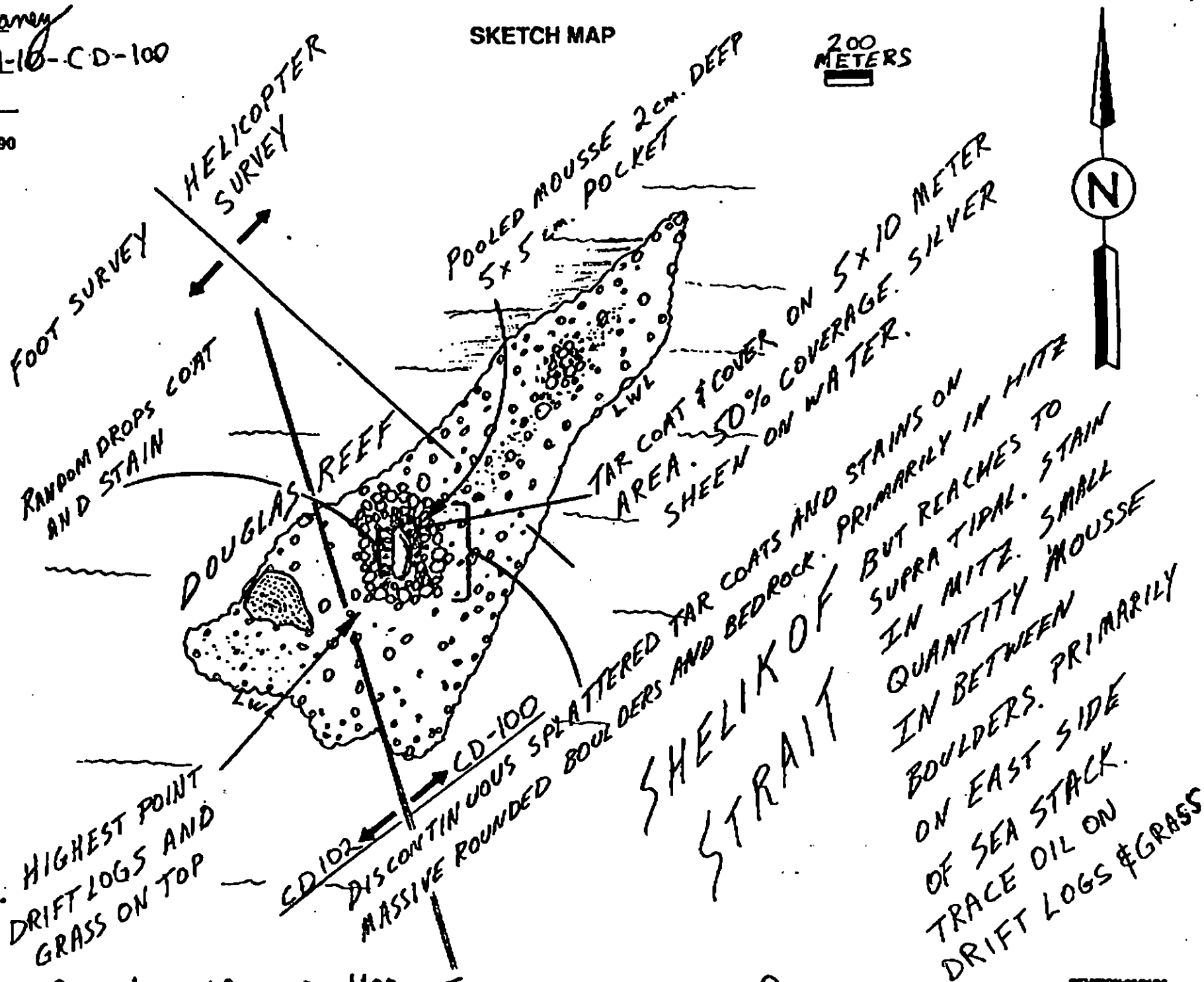
CT/S
Splashed Distribution

Other Vegetation

1 $\Rightarrow$
Photo location, direction,
and number

SKETCH MAP

200
METERS



Oil Character Length (m): AP 0 PO 1 CV 10 CT 100 ST 400 MS 5 PT 0 TB 0 FL 0 NO 0

REVISION 000000

CD-100

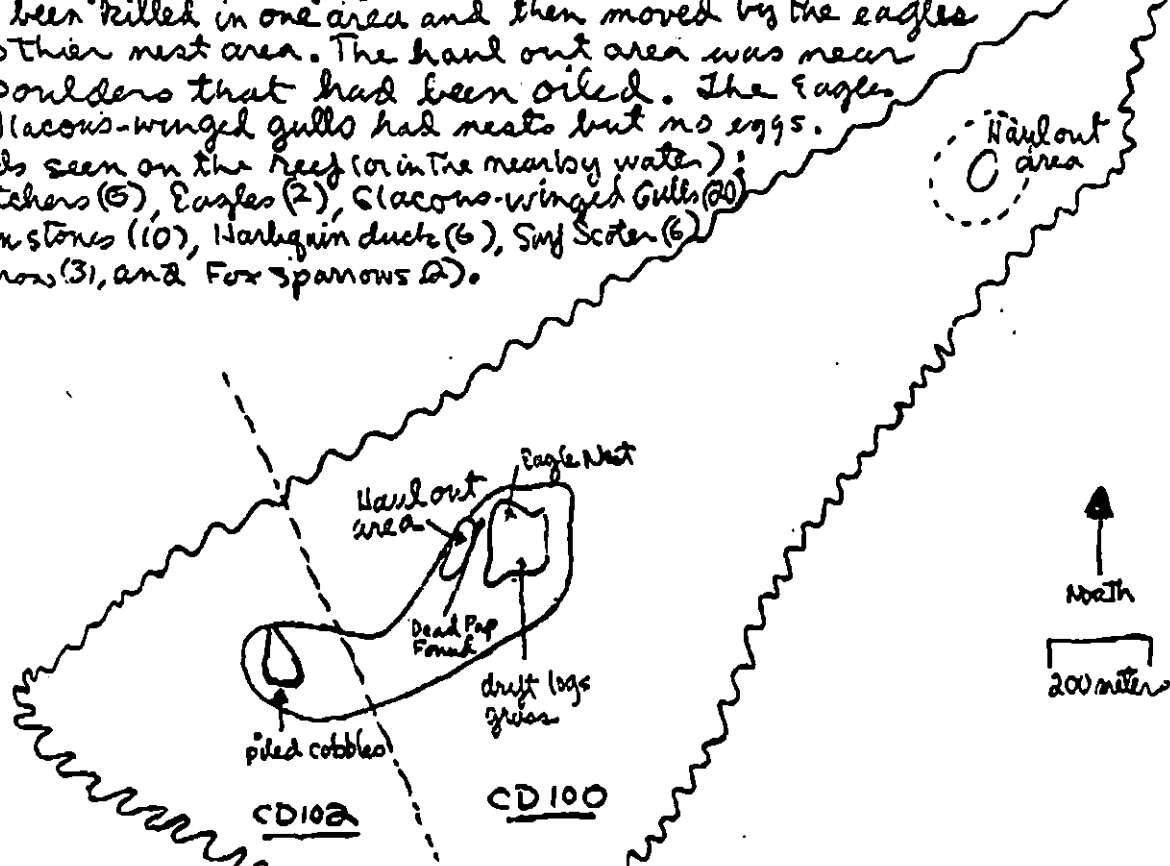
H. Davis

5/12/90

This segment is a low lying area, uncovered at low tide and almost completely covered at high tide. The lowest lying areas have a rock base covered with shell hash, sand, boulders and some cobbles. The boulders and cobbles have a dense covering of algae on top: Rhodomela, Rhodomenia, Fucus, Ulva, Halosaccion and Sargassum. Limpets - (Notosacmea acutum + persona) and Littorina (littorina and some scutellata) are under the algae cover. Under the boulders Leptasterias, Idotea, Cirdana? (pillbox), Henricia, Spirobrachia, Leptogobius, Rhynchocoele sp, Annelids (both Scale-worms and Nereis) and Eupentacta. Growing on bedrock up through the shell hash was Alaria, Zostera, Laminaria, Costaria, Sargassum, Anthopleura (both artemesia and xanthogramma) and Strongylocentrotus drobachensis (in crevices). Coralline algae and the sponge Halichondria panacea were in scattered patches throughout the reef (MTZ-MTZ). In the MTZ the flora was mainly: Zostera, Pleurophyllus, Hedophyllum, Alaria, Odonthelia and Sargassum growing on the bedrock between boulders. Rhodomela, Rhodomenia, Fucus, Gigartina?, Halosaccion and Sargassum cover the boulders and cobbles. Under the boulders and cobbles pricklebacks, sculpins, Leptasterias, Isopods (Idotea, Cirdana), limpets, Annelids (scaleworms and Nereis), Platylabus (a polychaete), Membranoptera, and Halothurids (Eupentacta) were all common. Balanus cariosus, Balanus glandula, Nucella sp., Notosacmea sp, Buccina sp, Littorina, Caracara, and Cancer oregonensis were all found in tide pools. In the upper intertidal area Balanus, Nucella, Littorina, limpets, Fucus, Sargassum, Chlorophyta, and few patches of Mytilus were found.

There was no evidence of any mammals other than Harbor seals on the reef. One dead pup (<1 week old) was found. It appeared to have been killed in one area and then moved by the eagles closer to their nest area. The haul out area was near oiled boulders that had been oiled. The eagles and Glaucous-winged gulls had nests but no eggs.

Birds seen on the reef (or in the nearby water):
Oystercatchers (5), Eagles (2), Glaucous-winged Gulls (20)
Black Turnstones (10), Harlequin ducks (6), Surf Scoters (6)
Song sparrows (3), and Fox Sparrows (2).



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

ment ST/K09-10 Subdivision CD-100 Date (mo/day/yr) 5/12/90

Time (24 hr) 0:15 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 15 (2) Boulder 70 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 25% Moderate 50% Low 25% (80%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (3)

Photographs:

Roll No. ST-20-10Frames 34

BARNACLES moderate to sparse over most of the reef

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	X	X	X	X	2	2	2
3	3	3	X	3	3	X	X	X	3	3	X
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

MYTILUS Rare patches but within the patch moderate-Dense

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	2	X	X	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

GASTROPODS Littorina - Moderate, limpets - Sparse, Nucella - Sparse

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	X	X	X	X	X	2	X
3	3	3	X	X	X	X	X	X	X	X	X
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

FUCUS Patchy all across the segment

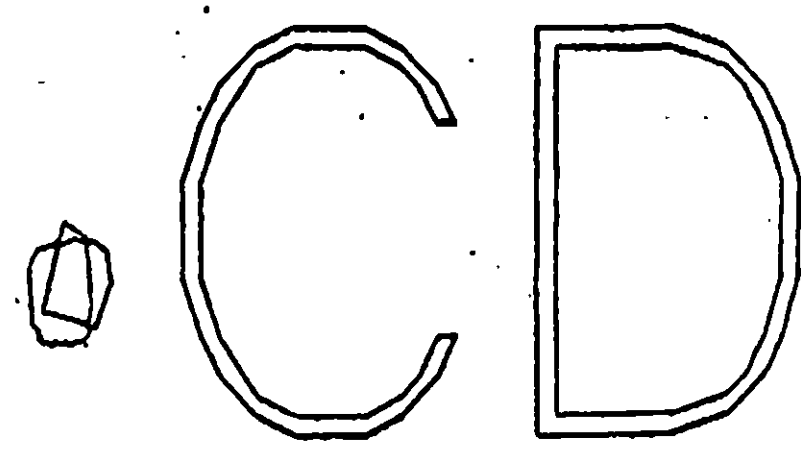
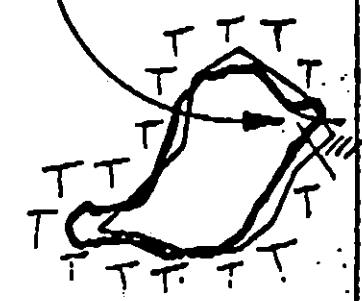
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	2	2	2
3	3	3	3	3	3	3	3	3	X	3	X
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: See attached page.

Ecological Considerations: Not on the list of ecological constraints. There was a nest on the highest point of the reef. 2 adult eagles were in the area but there were no eggs. 8-10 Harbor seals were seen on the edge of the reef. Up higher there was a sandy area where they had been hauled out. They probably will be having pups on the reef. (See attached Notes)

10 meters Medium



XXXX Wide
/// Medium
- - - Narrow
TTTT Very Light

CD-100

ADEC Segment Length: 501



Map Key: AKP-CD-100

Name: Greg Chaney

Date: May 12 1990



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-10-CD-100 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED
Bioremediation*	CLOSED

*Bioremediation with Customblen only – Do not use Inipol
If eagle constraint is lifted, NPS monitor is required.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 4/9/90 map indicates an active nest in Subdivision A. Closed to manual pickup and bioremediation within 400m of active nest. No constraint to manual pickup and bioremediation more than 400m from active nest.

3N,O,P,Q Harbor Seal & Sea Lion
Pupping and Molting

Closed to bioremediation prior to 7/1 and after 7/31. Closed to manual pickup and spot washing prior to 7/1 and after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest constraint is removed, other ecological considerations will apply.

FOSC

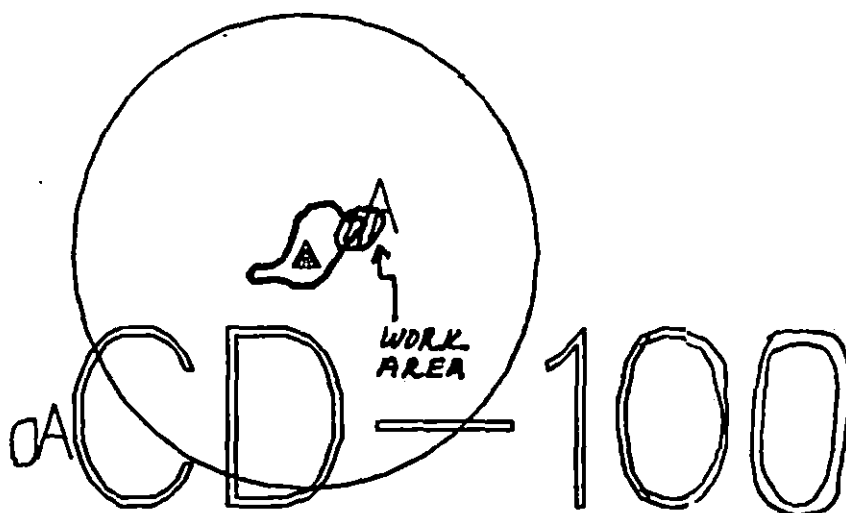
Date

7-11-90

Prepared by

Date

7/10/90



Exxon Company, USA
Map Keys AKP-CD-100



ECOLOGY MAP
SEGMENT K9N-10 CD-100
SUBDIVISION A (1 of 1)
METERS

- | | |
|---|---------------------|
| ★ | Seabird Colony |
| ▲ | Active Eagle Nest |
| △ | Inactive Eagle Nest |

SHORELINE EVALUATION

SEGMENT ST/ K09-10-CD-102 SUBDIVISION A (1 OF 1) DATE 5/12/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)

From Bio Comments Harbor Seal Haulout - restricted

5T(ST) All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

4LL State Marine Park National Parks

From 5/10 to 7/1 & from 8/1 to 9/15.

Adjacent segments has a possible Bald Eagle Nest/All Eagle Nests (3/1 - 6/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Rachel Lee Owen DATE: 6/1/90

SOILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 216 m

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended

 Treatment Recommended

 Manual Pickup

 Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC Agst Weimer Det Weimer

EXXON Amr Tetz Red

NOAA Joseph Talbot

USCG G.A. Reiter G.A. Tule

FOISC: My L DATE: 6-8-90

KODIAK ECOLOGICAL CONSTRAINTS

Salmon stream mouth - fry outmigration (4/15 to 7/31)

Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.

AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299

1C Salmon fry nursery area (4/31 to 7/31)

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.

AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D Kotol Bay Hatchery release

Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.

1H Remote release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.

AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1I Gill net area

1J Purse seine area

Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)

East side Kodiak, East side Afognak (7/4 to 10/1)

1K Purse seine hook-off

1L Set net sites

Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791

Herring spawning (4/15 to 6/30)

Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791

3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)

3O, 3Q Harbor seal and sea lion molting (6/15 to 9/15)

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.

AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235

ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)

Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)

Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 6/1)

Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation:

Tent sites (6/1 to 9/15)

Anchorage (6/1 to 9/15)

Forest Service cabins (6/1 to 9/15)

Lodge (6/1 to 9/15)

Special use destination

7Z Subsistence area: Salmon harvesting (6/1 to 9/30)

7HH Finfish harvesting

7I Deer harvesting (6/1 to 1/7)

7JJ Invertebrate harvesting

7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)

Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K09-10-CD103 SUBDIVISION: A DATE May 12/1990

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Not Available

IEC

NAME Francine T. Beaulieu SIGNATURE Francine T. Beaulieu

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil observed.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Not Available

The segment was split in two after the coast Guard rep. and land manager had left Kodiak. Neither is available for comment.

There was no oil observed on segment K09.10 ED 102 as the new division stands. I have included the original comment sheet for the segment before the division.

Heather Davis
Bio

SHORELINE OILING SUMMARY

REVISION NO. 06-12-90

UG Greg Chaney USCG Ken Trubee SEGMENT ST/ K09-10-CD 102
 BIO Heather Davis LAND REP Will Trayer (NPS) SUBDIVISION A (1 OF 1)
 EXXON - ADEC From Remedy TIME 11:00 to 12:00
 TEAM NO. 20 TIDE LEVEL -0.5 to 0 ft DATE May 12 1990
 EST. SUBDIVISION LENGTH: 204 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock no point is above H/TZ
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: West to East
 SURFACE SEDIMENTS: R 0 % B 90 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 204 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	SP	BR	BL	BY	TL	LR	BU	U	M	U		
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
OUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE NONE

#BAGS NONE

Photographs:

Roll No. ST-20-10

Frames 34

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OS	NO		UO	UC	SP	BR	BL	BY	TL	LR	BU	U	M	U					
1	40					X	.															N	O	PCG
							.																	
							.																	
							.																	
							.																	
							.																	

COMMENTS

See attached

COMMENTS
SEGMENT K0910-CD-102

Greg Chaney

May 12 1990

Segment K0910-CD-102 consists of the southern most portion of Douglas Reef in Shelikof Strait. This low lying segment is composed of a broad low lying boulder reef. At low tide this portion of Douglas Reef may be 500 meters long and roughly 500 meters wide but it is probably completely covered during an extreme high tide. Drift wood was not present and oil was not observed on this portion of the reef. Due to the low profile of this reef, the official segment lengths for this segment do not accurately reflect it's actual extent at low tide.

Photocopy of photograph ST-20-10 #34

Segment K0910 CD 102 looking toward segment
K0910 CD 100 on Douglas Reef.



OG Greg Cheney

SEGMENT ST/ K09-10-CD-102

SUBDIVISION A

DATE May 12 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HAV/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

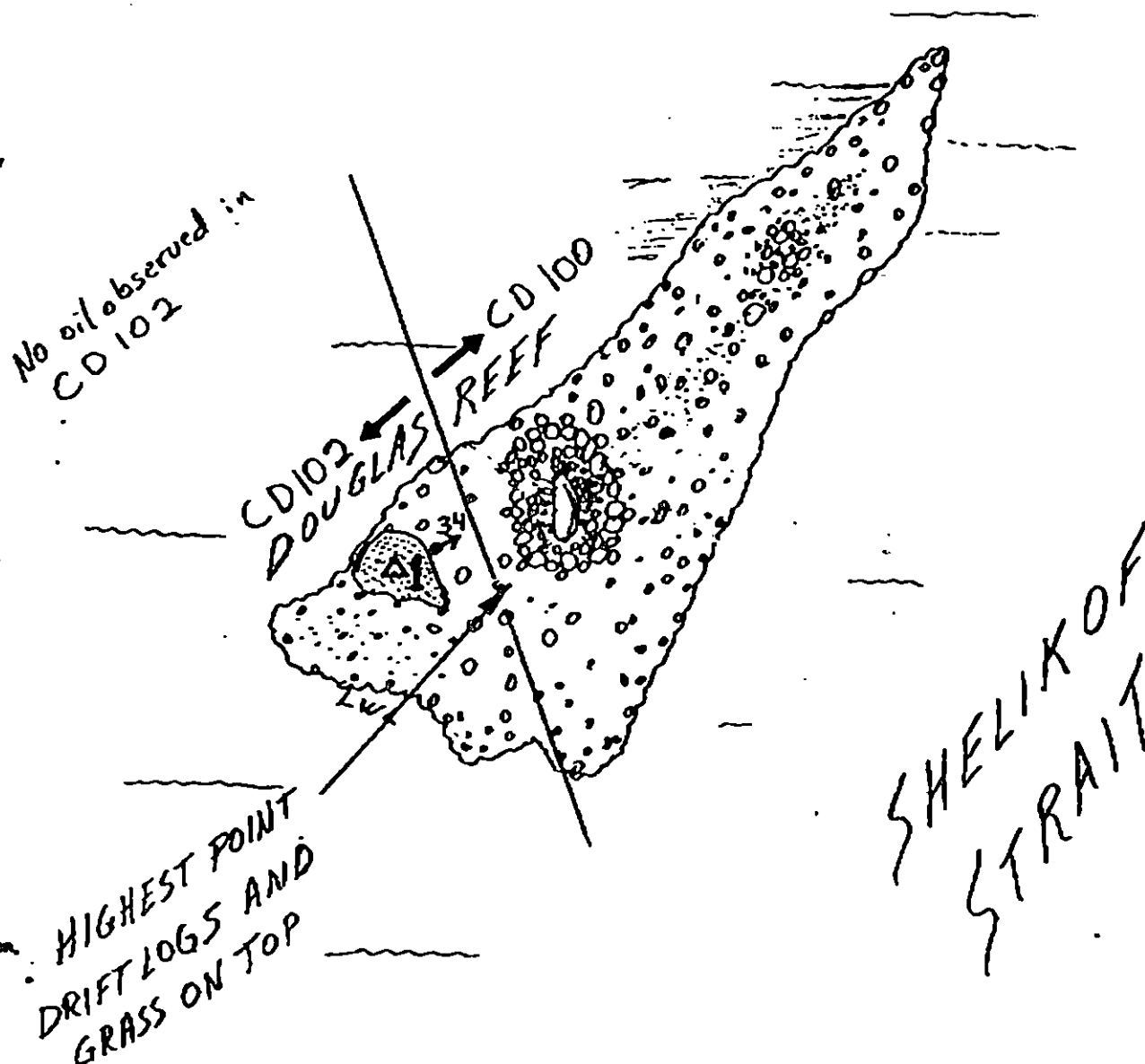
CT/S
Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$
Photo location, direction,
and number

SKETCH MAP

200
METERS



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 0

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K09-10 Subdivision CD-102 Date (mo/day/yr) 5/12/90

Time (24 hr) 11:15 Biologist H. Davis

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 70 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 25% Moderate 50% Low 25% (80%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (3)

Photographs:
Roll No. ST-20-10

Frames 34

BARNACLES moderate to sparse over most of the reef

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	X	X	X	X	2	2	2
3	3	3	X	3	3	X	X	X	3	3	X
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

MYTILUS Rare patches but within the patch moderate-Dense

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	2	X	X	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

GASTROPODS Littorina - Moderate, limpets - Sparse, Nucella - Sparse

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	X	X	X	X	X	X	X
3	3	3	X	X	X	X	X	X	X	X	X
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

FUCUS Patchy all across the segment

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X	X	X	X	X	X	X	X	X	2	2	2
3	3	3	3	3	3	3	3	3	3	3	X
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

Wildlife Observations/ General Comments: See attached page.

Ecological Considerations: Not on the list of ecological constraints. There was a nest on the highest point of the reef. 2 adult eagles were in the area but there were no eggs. 8-10 Harbor seals were seen on the edge of the reef. Up higher there was a sandy area where they had been hauled out. They probably will be having pups on the reef. (See attached Notes)

CD-102 (x501)

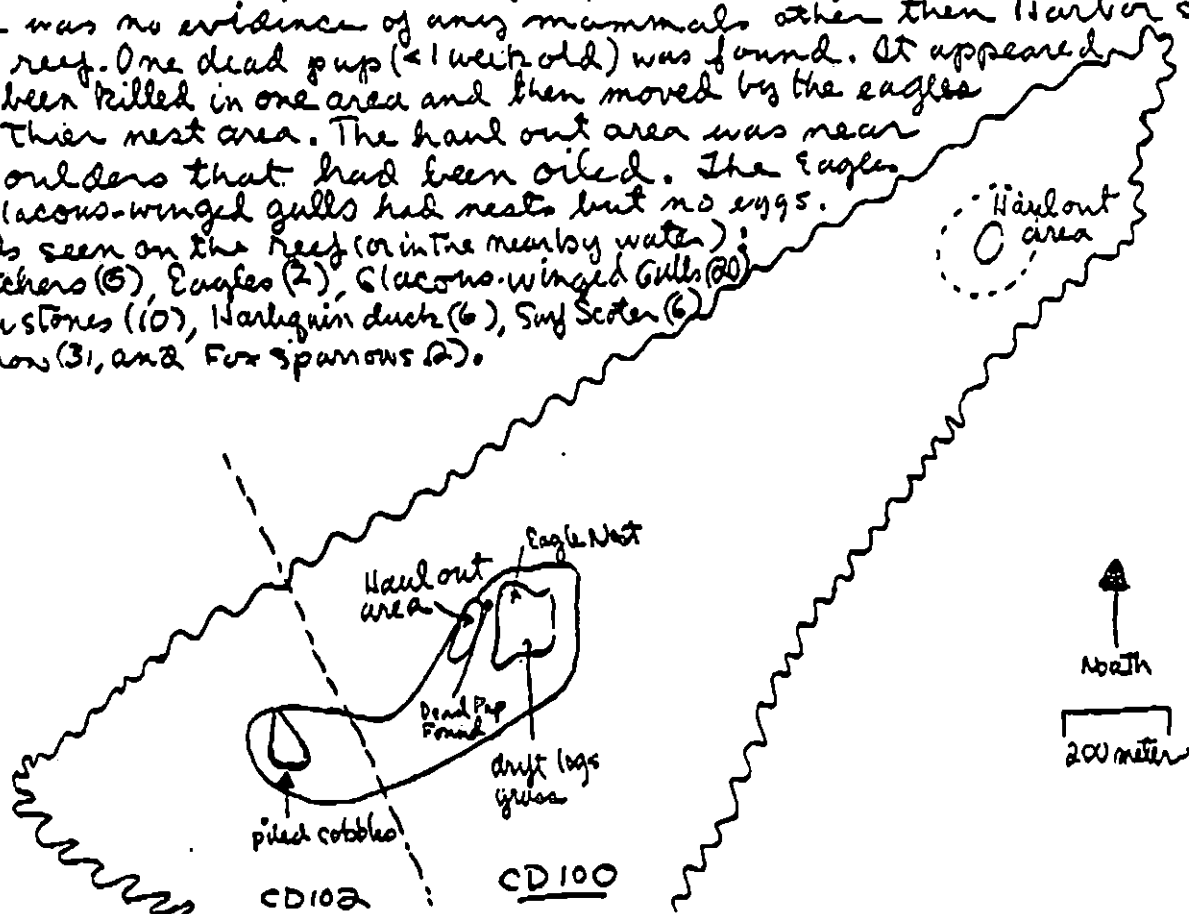
H. Davis

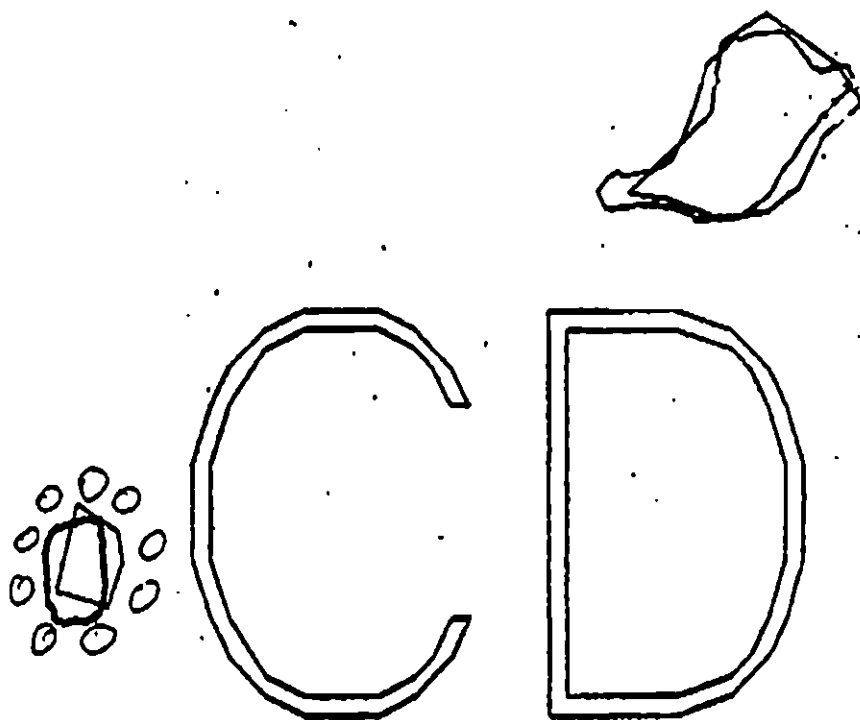
5/12/90

This segment is a low lying area, uncovered at low tide and almost completely covered at high tide. The lowest lying areas have a rock base covered with shell hash, sand, boulders and some cobbles. The boulders and cobbles have a dense covering of algae on top: Rhodomela, Rhodomela, Fucus, Ulva, Halosaccion and Lridaea. Limpets (*Notosacma scutum* + *persona*) and Littorina (*pilula* and some *scutellata*) are under the algae cover. Under the boulders *Leptasterias*, *Idotea*, *Circlana*? (*p. litt.*) *Henricia*, *Spinorbis*, *Leptosynapta*, *Rhynchocoela* sp., *Annichids* (both Scale-worms and *Nereis*) and *Eupentacta*. Growing on bedrock up through the shell hash was *Alaria*, *Zostera*, *Laminaria*, *Costaria*, *Lridaea*, *Anthopleura* (both *artemisia* and *canthogrammica*) and *Strongylocentrotus drobachensis* (*in crevices*). Coralline algae and the sponge *Halochondria panacea* were in scattered patches throughout the reef (LTZ-UTZ). In the MTZ the flora was mainly: *Zostera*, *Pleurophyucus*, *Hedophyllum*, *Alaria*, *Odonthalia* and *Lridaea* growing on the bedrock between boulders. *Rhodomela*, *Rhodomela*, *Fucus*, *Gigartina*?, *Halosaccion* and *Scytosiphon* cover the boulders and cobbles. Under the boulders and cobbles *prickelbacks*, *sculpins*, *Leptasterias*, *Isopods* (*Odestra*, *Circlana*), *Limpets*, *Annichids* (scaleworms and *Nereis*), *Platyhelminth* (*Apolyclad*), *Membranoptera*, and *Holothuroids* (*Eupentacta*) were all common. *Balanus cariosus*, *Balanus glandula*, *Nucella* sp., *Notosacma* sp., *Buccina* sp., *Littorina*, *Carbarea*, and *Dancer oregonensis* were all found in tide pools. In the upper intertidal area *Balanus*, *Nucella*, *Littorina*, *Limpets*, *Fucus*, *Scytosiphon*, *Chlorophyta*, and few patches of *Mytilus* were found.

There was no evidence of any mammals other than Harbor seals on the reef. One dead pup (4 weeks old) was found. It appeared to have been killed in one area and then moved by the eagles closer to their nest area. The haul out area was near oiled boulders that had been oiled. The eagles and Glaucous-winged gulls had nests but no eggs.

Birds seen on the reef (or in the nearby water):
Oystercatchers (5), *Eagles* (2), *Glaucous-winged Gulls* (20),
Black Turnstones (10), *Harlequin duck* (6), *Song Sparrow* (3), and *For Sparrows* (2).





XXXX Wide
//// Medium
- - - Narrow
TTTT Very Light

K&914 - CD-102

ADEC Segment Length: 216m



Map Key: AKP-CD-102

Name: Greg Chancy

Date: May 12 1990

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 262-10-10100

SEGMENT K09-11-CD-18 SUBDIVISION A

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

Cultural Resource Survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archeological constraint entered on shoreline evaluation form.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-10-10100) is in Subdivision A. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Sensitive Estuary.

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-11-CD-18A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

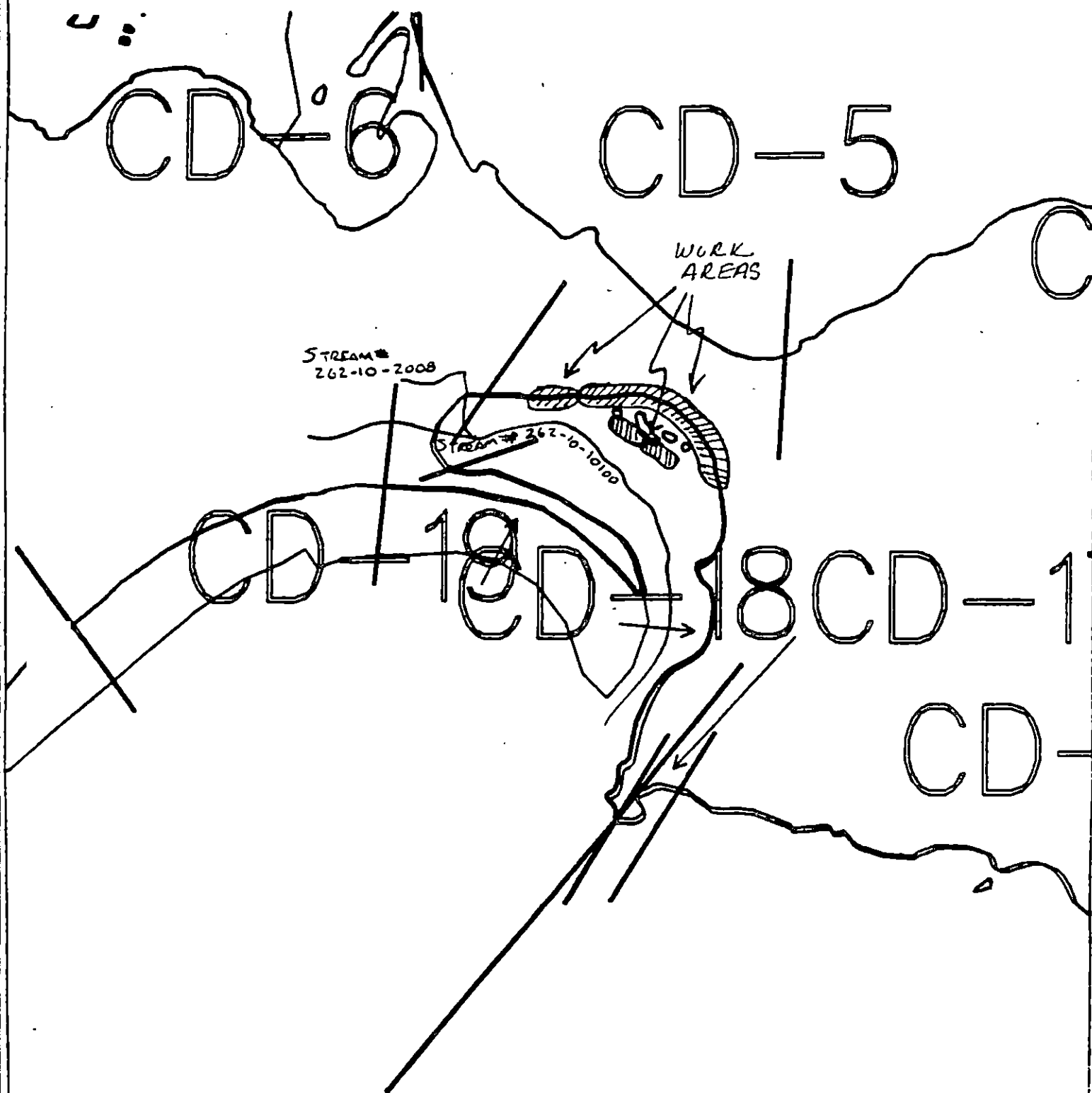
Date

6/29/90

Prepared by

Date

6-28-90



ANADROMOUS STREAM EVALUATION



Exxon Company, USA
Map Key: NP-CD-18
May 23, 1990



ECOLOGY MAP
SEGMENT CD-18
SUBDIVISION A (1-1-1)
METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1574 feet



IFLY REFER TO

United States Department of the Interior

NATIONAL PARK SERVICE

ALASKA REGIONAL OFFICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503-2892



Ref: K9N-10-CD18
(26210-10100)

July 5, 1990

The National Park Service (NPS) will agree to the treatment recommendation on the segment referenced above only under the conditions specified by this office on May 21, 1990. If the Technical Advisory Group specifies the constraints, then treatment can be approved. The specific constraints include:

- Environmental sensitivities restrict treatment prior to July 11.

- Due to the sensitivity of this area, the potential hazard by brown bears, and the probable damage to the intertidal flats by large crews, the NPS recommends accessing this estuary for one day only with helicopters.

- Bioremediation with Inipol is not approved for this segment.

- NPS on-site monitor will be required.

- Special Use Permit will be required.

Cordell J. Roy
Acting Chief, Office of Oil Spill Coordination

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 262-10-10100

SEGMENT K09-11-CD-18 SUBDIVISION A

WORK WINDOW	
Manual Pickup Tarmat Removal	WORK AFTER 7/11
Bioremediation Less Than 100m From Stream*	WORK 7/11 - 7/15 (ADF&G MONITOR REQ.)
Bioremediation More Than 100m From Stream*	WORK AFTER 7/11

*No Inpol - Customblen Only

NPS MONITOR REQUIRED

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-10-10100) is in Subdivision A. Bioremediation less than 100m from stream work 7/11 - 7/15 with ADF&G Monitor present. Bioremediation more than 100m from stream work after 7/11. Manual pickup and tarmat removal work after 7/11.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unrolled biota and substrate. Sensitive Estuary. No flushing of pollutants or sediments into stream drainage; do not allow Inpol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor.

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-11-CD-18A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

[Signature]

Date

7/6/90

Prepared by

Rep R. Coelter

Date

7/6/90

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-12-CD-020 STREAM NO: 262-10-10070 DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)

1B Salmon stream mouth - spawning (7/10 to 8/31)

4LL State Marine Park National Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Charles J. Hume DATE: June 19, 1990

Subsurface Oil Observed: Yes X No Maximum Depth 35+cm

RECOMMENDATIONS:

X No Treatment Recommended

Treatment Recommended

Manual Pickup

Bioremediation

Tarmat Removal

Snare/Absorbent Booms

Oil Snares (pom poms)

Absorbents (pads, rolls, etc)

Spot Washing: Wands

Beach Cleaner

Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 6/16/90

ADEC Ron Morris's R.M.

EXXON ANDY TEAL Real

NOAA Joseph Talbot Johnston

USCG G.A. KEITER G.A. N.

FOSC:

DATE: 6-27-70

KODIAK ECOLOGICAL CONSTRAINTS

- 1A
1B
- Salmon stream mouth - fry outmigration (4/15 to 7/31)
Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery releases
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncultured intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31)
Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
6V Anchorages (5/1 to 9/15)
6W Forest Service cabins (5/1 to 9/15)
6X Lodge (5/1 to 9/15)
6Y Special use destination
- 7Z Subistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7H Deer harvesting (5/1 to 1/7)
7JJ Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.

FIELD SHORELINE COMMENT SHEET

Monument Creek

SEGMENT ST 1 K 09 1/2. CD 020 SUBDIVISION: 262-10-10070 DATE 6/1/90

~~NOAA~~
~~USCG~~

NAME

Tom Callahan

SIGNATURE

Tom Callahan

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Occasional splatter ; < 1 mm thick, on storm berm. High energy area which will continue to rework any remaining oil.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

I agree with NOAA comments. No treatment recommended.

LAND MANAGER

N.A.

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

FIELD SHORELINE COMMENT SHEET

SEGMENT ST ^{K09-11}LD C20B SUBDIVISION: ^{Monument Creek}262-10-10070 DATE 6/2/90

ADEG

NAME JEFFREY BARNHART SIGNATURE Jeffrey P Barnhart

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

See Anadlsot Form. Due To The nature of The oil
and The character of The stream mouth I do not
recommend cleanup.

Jeff Barnhart

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG J. Springer USCG-NOAA T. Callahan SEGMENT STI 5-912/XX520
 BIO D. Lohse LAND REP J. Barnhart SUBDIVISION Monument Creek
 EXXON Park serv. R. Waver ADEC T. Ellsworth TIME 19:45 to 21:00
 TEAM NO.: 19 TIDE LEVEL: +5 to +6 DATE 06/01/90
 EST. SUBDIVISION LENGTH: 550 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R % B 25 % C 50 % P 15 % G 5 % S 5 % M % V %
 SLOPE: Long 100 % Hang % Vert % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W m M m N m VL 50 m NO 500 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	R	P	S	SP	BP	GY	BL	WH	TL	BR	LR	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S sq. m by cm

PATTIES / TARBALLS BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE

#BAGS

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BP	GY	BL	WH	TL	BR	LR	SU	U	M	L		
1	20					X	.		X									X					CPG/CPG
2	35	X					5-35	X							X			X					BC/CPGS
							.																
							.																
							.																
							.																

COMMENTS

Lower and mid-intertidal zones not surveyed.

Springer, 020
IENT ST/ K 942/ X500
IVISION Monument Creek
06/01/90

SKETCH P

CKLIST

Arrow
prox. Scale
y/Sub Bndry
Dist.
dth
ngth
Cover
betrain Character
L HML/LWL
IL
ofile Location(s)
ofile(s)
Location(s)
oto Location(s)

END

△
o Subsurface Oil

2 △
ubsurface Oil

CT/C
uous Distribution

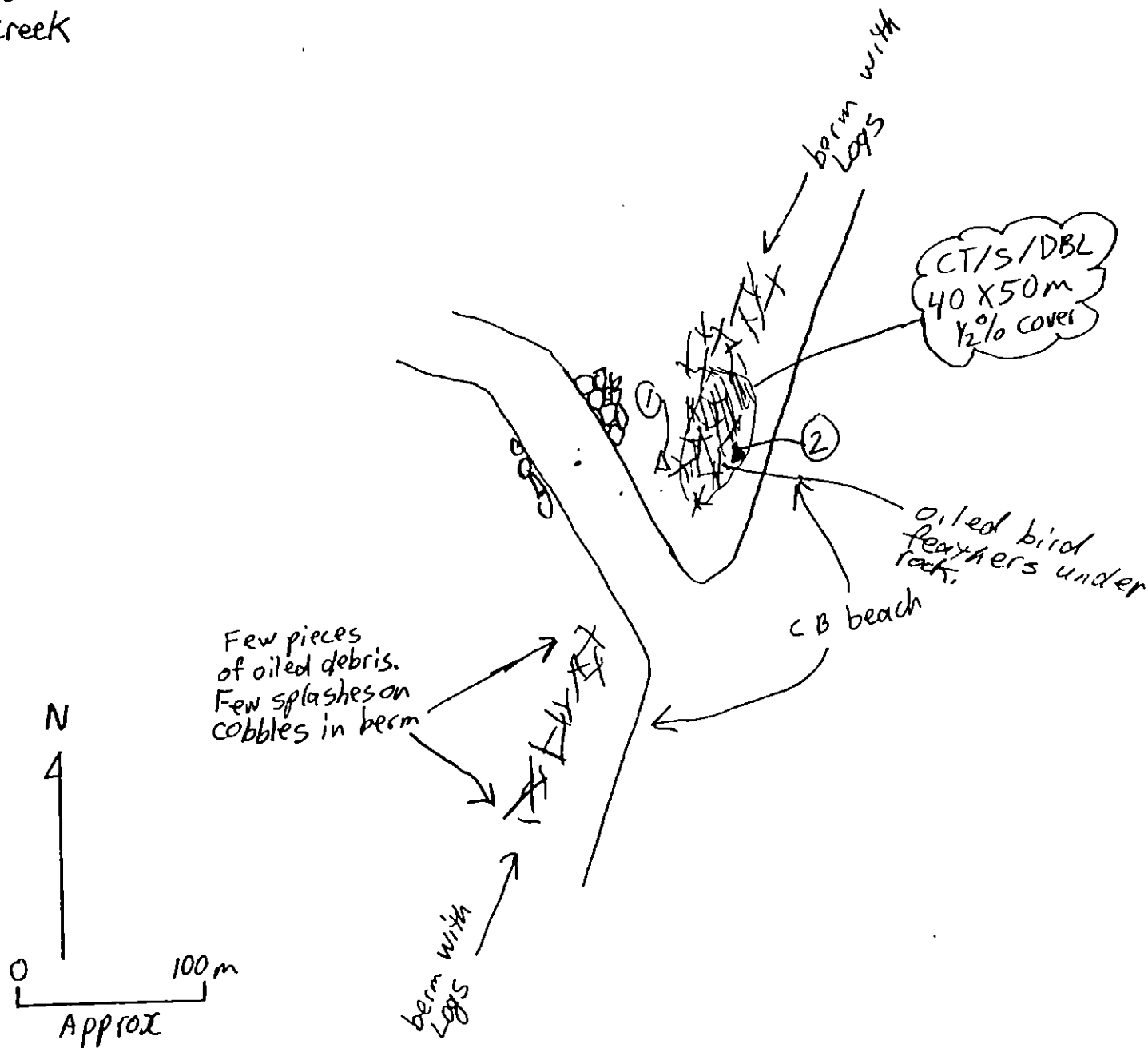
CT/D
Distribution

CT/P
Distribution

CT/S
ved Distribution

re.
Vegetation

→
location, direction,
umber



aracter Length (m): AP PO CV CT ST MS PT TB FL NO

REVISION 03/24/90

Finalist

ADFLG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCH HHS PTA

2 REGION: PWS KP,CI K^(AP)

METHOD: Aerial Ground Boat

3 DATE: 6/1/90

16 HIGH TIDE TIMES: 10:00 AM 1 10:37 PM

21 TEAM RECORDER: JEFF BARNHAR

4 START TIME: 2000

18 HIGH TIDE HTS: 13.1 1 15.5

22 OBSERVERS: Dave Lohse, Jim Springer

5 STOP TIME: 2045

17 LOW TIDE TIMES: 4:00 AM 1 4:06 PM

23 AGENCY: WCC, WCC, DNR, NOAA, DEC, NPS

6 SEGMENT #: C0030B

19 LOW TIDE HTS: 3.9 1 3.4

24 PHOTOS TAKEN: Y (N)

7 STATION #:

10 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT: K09-11

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPES:

9 STAT AREA: 162-10

20 USCG QUAD: Afognak D-5

Starts: Ends:

10 LAT: 58° 46' 30"

11 LONG: 153° 22' 42"

26 SAMPLES TAKEN Y (N) Number

12 SOURCE: Map Loran Anadkat

Oil

13 LOCATION: Douglas Reef Area Alaska Peninsula

Sediment

14 DESCRIPTION:

Biological

EXTENT OF OIL

Water

	SHORELINE				STREAM			
	L	W	N ²	S	L	W	N ²	S
27 SURFACE COVERAGE								

36 CATALOGED ANAD. FISH STREAM? (Y) N

	SHORELINE				STREAM			
	L	W	N ²	S	L	W	N ²	S
28 SURFACE THICKNESS								
29 PENETRATION								

37 CATALOG #: 162-10-10070

38 STREAM NAME: Monument Creek

30 OVERALL OIL IMPACT: N (VL) L N H

39 OIL IN STREAM BED? Y (N)

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

40 OIL ON STREAM BANKS? (Y) N

32 OILED DEBRIS? (Y) N

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N

(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? Y N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove

Where:

Lagoon Marsh

43 ANADROMOUS FISH PRESENT? Y (N)

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock Boulder 15 Cobble 80

Gravel 5 Sand Mud/silt

Species	Aerial	Ground

COMMENTS: ST CT TB / C Debris: L / LG C at high tide line. 2 meter band on N side of stream on beach front and continuing up to stream bank. Several test pits dug indicate oil penetration up to 2 feet. Oiled bird remains wet brown mousse spots up to 5mm, and tar staining/coat present on cobbles in the test pits. South side of stream/stream mouth shows ST CT TB / P oiled debris: LT,

ANADROMOUS FISH STREAM EVALUATION

262-10-10080
SEGMENT ST/K09-11-CD-020 STREAM NO: 262-10-10090 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

No ecological constraints regarding intertidal biota.

SHPO SIGNATURE: Ricki Joan Oser DATE: 5/22/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

☐ No Treatment Recommended	☐ Snare/Absorbent Booms
☒ Treatment Recommended	☐ Oil Snares (pom poms)
☒ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommend manual pick up of mousse and cleanup debris as indicated on attached sketch map. Contact ADF&G for work window dates.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/18/90

ADEC Art Weimer Art Weimer

EXXON Art Tott Art Tott

NOAA Gary Petrac Gary Petrac

USCG G.A. Reiter G.A. Reiter

FOSC: [Signature]

DATE: MAY 25 1990

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (8/9 to 10/1)
 East side Kodiak, East side Adognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 I Deer harvesting (5/1 to 1/7)
 J Invertebrate harvesting
 K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CD-20A SUBDIVISION: 262-10-10080 DATE 02 MAY 90
262-10-10090

USCG

NAME Kerwin L. Dreher SIGNATURE CWO K. L. Dreher☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Type A manual removal.

~~ADEC~~ → ADF&CNAME Edward W. Weiss SIGNATURE Edward W. Weiss☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTEDSUGGEST REMOVAL OF OILY DEBRIS (BOOM, ETC) AND
SMALL BAND OF PATCHES.~~LAND MANAGER~~ NPSNAME Carl Schenk SIGNATURE Carl Schenk☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDThis lagoon/estuary system is very protected and any
oil and oiled debris can be expected to persist for
a long time. A cleanup crew should be sent in to remove
oiled drift, rope, sorbent boom and band of patchy mussels.

SHORELINE OILING SUMMARY(ANAO)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/160912 KAF50
 BIO KEN CRITCHLOW LAND REP CAL SCHACH STREAM 202-10 * (OF)
 EXXON DARLYL YOE ADFG NO WIFE TIME 02:20 103 30 10090 CLE
 TEAM NO. 19 TIDE LEVEL +1.9 FT DATE 5/2/90 *10000 MANU CREEK
 EST. SUBDIVISION LENGTH: 900 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B % C 30 % P 30 % G 30 % S 10 % M % V
 SLOPE: Lang % Hang % Vert % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 25 m NO 875 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	E	P	R	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F S 0 sq. m by 0 c

PATTIES / TARBALLS BAGS

NEAR SHORE SHEEN? ☒ BR ☐ RW ☐ SL ☐ TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Collect DEBRIS
☒ YES ☐ NO

TYPE

#BAGS

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	5	6	7	8	SU	U	M	U				

COMMENTS NO PITS DUG DUE TO LACK OF OIL PENETRATION.

REVIEWED W DATE 5/4/90

SEGMENT ST 1 K-0912

SKETCH MAP

STREAM 262-10

10090 CLEAR CREEK
10080 MONUMENT CREEK

DATE 5/2/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Study
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HMAWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PH - No Subsurface Oil

2 Δ
PH - Subsurface Oil

CT/C
Continuous Distribution

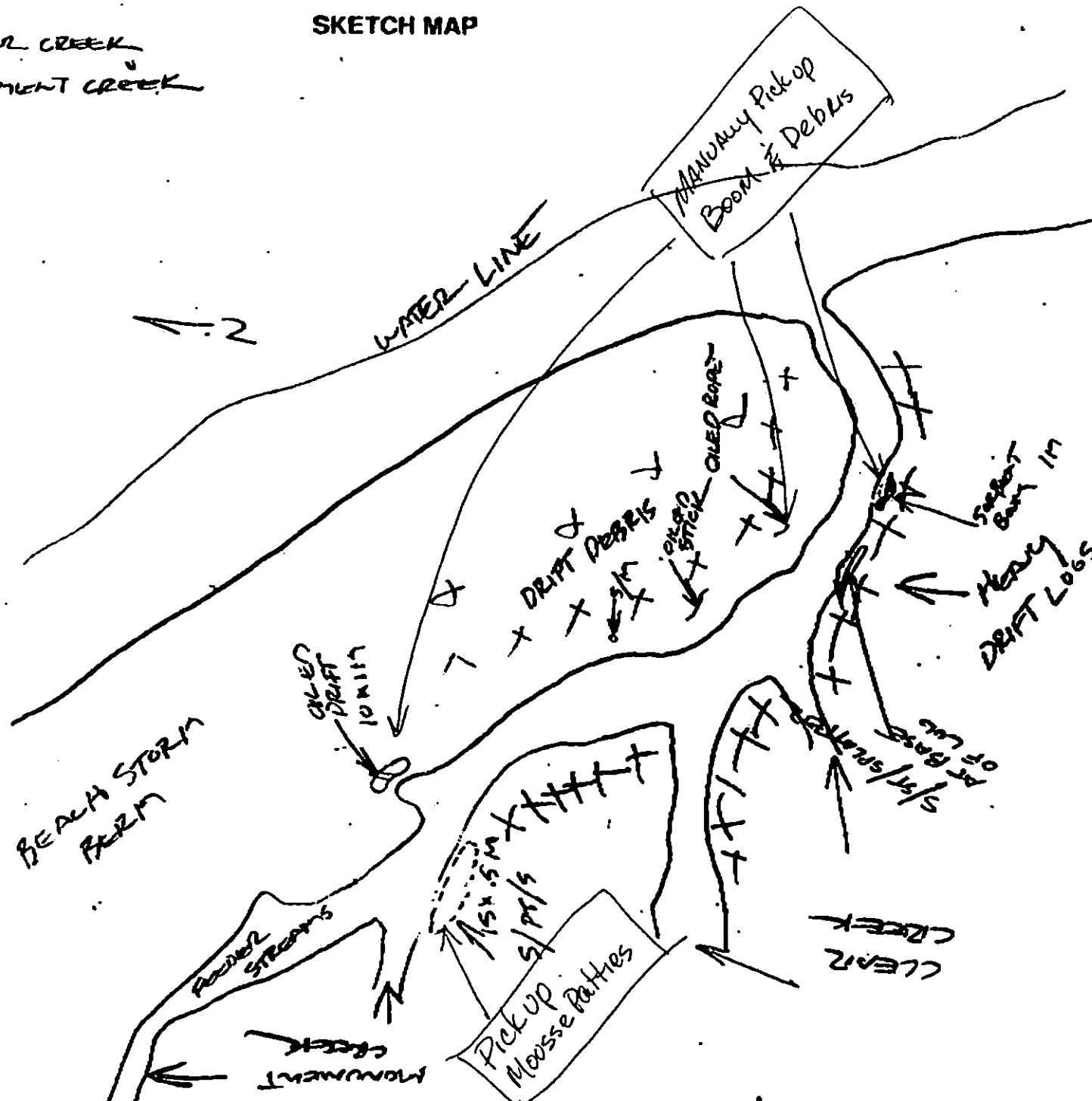
CT/D
Broken Distribution

CT/P
Pecchy Distribution

CT/S
Splashed Distribution

ell
Oiled Vegetation

1 ●→
Photo location, direction, and number



Oil Character Length (m): AP PO CV CT ST 20 MS OT 5 TB FL NO 875

ASC 262-10-10070

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: 88 55 08 78 AVE 304 H98 PTA2 REGION: PWS KP, CI X APMETHOD: Aerial Ground Boat3 DATE: 5/2/9015 HIGH TIDE TIMES: 121 TEAM RECORDED: E. WEISS4 START TIME: 143416 HIGH TIDE HTS: 122 OBSERVERS: K. SCHOCK, C. LARSON5 STOP TIME: 152517 LOW TIDE TIMES: 155023 AGENCY: ADFG/EXXON/NAS/WON6 SEGMENT #: CD20A18 LOW TIDE HTS: 1.9

24 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: K091155 Slack Flood Slack25 VIDEO TAKEN: Y X TAPE: _____

9 STAT AREA: _____

26 USCG QUAD: AFOGNAK D-5

Starts: _____ Ends: _____

10 LAT: 38 48 2011 LONG: 153 22 728 SAMPLES TAKEN Y X NUMBER12 SOURCE: Map Loran CATALOG

OIL _____

13 LOCATION: 24mi SW OF VABM "SOUTH DOUGLAS"

Sediment _____

14 DESCRIPTION: LEGAL DESCRIPTION S 16S 25W 12

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	N	NE	E	L	N	NE	E

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N 55 L N N31 OIL TYPE: Pooled None Tar Asphalt Seely State32 OILED DEBRIS: X N33 SHORELINE TYPE: Headland Lagoon Low-lying Rocks Beach Cove36 CATALOGED ANAD. FISH BREAST X N

262-10-10090

37 CATALOG #: 262-10-1008038 STREAM NAME: CLEAR CREEKMONUMENT CREEK39 OIL IN STREAM BED? Y X40 OIL ON STREAM BANK? X N

41 OIL ON BEACH ADJACENT TO MOUTH? Y N

(within 30 meters)

42 OIL WITHIN 1 MILE OF STREAM Y N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 60

Species Aerial Ground

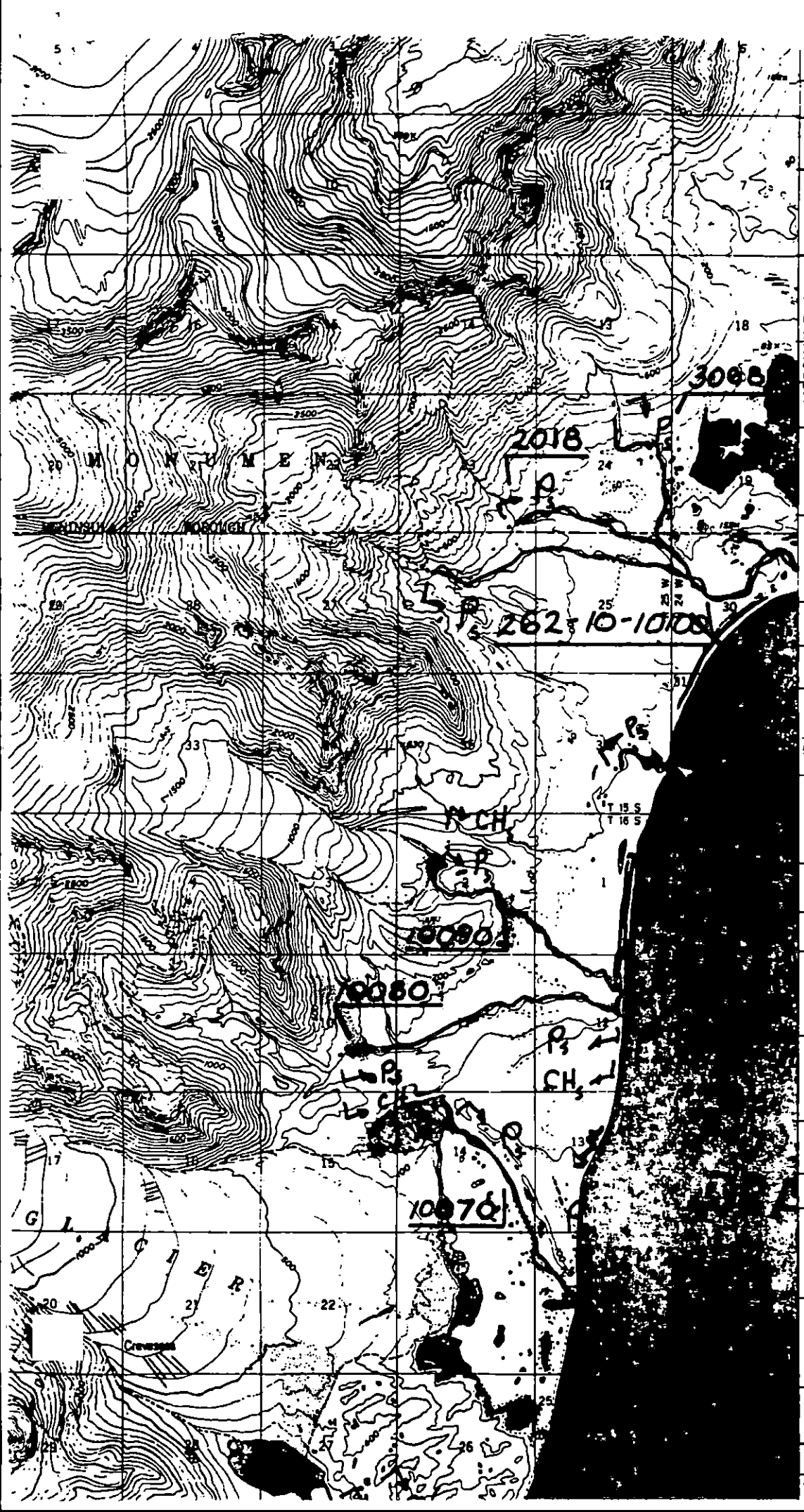
COMMENTS: BT/S ON COBBLE BANK SOUTH SIDE OF STREAM
MID TIDE AREA BELOW STORM BERM. WHERE STREAM
COMES FROM LAGOON. ALSO 3' SECTION OF OILED ABSORBENT
BOOM. BT/S ALSO 12M x 1M IN HEAD OF LAGOON.
SOME BT/L IN STORM DRIFT LINE.

Seg ID: CD-20A Subdiv: 262-10-10080 Monument G
Survey Date: 5/2/90 262-10-10090 Clear Ck
Comments by: Ken Critchlow

Two streams, Monument (No.) and Clear (So.) creeks feed into a common lagoon behind a large storm berm and log jam that protect the lagoon from high energy exposure that affects the fronting beach. No oil nor marine organisms was observed on the beach. The left (So.) bank of the stream where it crosses the beach was characterized by a heavy log jam at the base of which oil stain was observed along with some splatter. A sorbent boom stained by oil was found in this location. Some small areas of oiled drift, mousse, patties and stain were observed near the water's edge in the lagoon.

No ecological constraints were apparent.

KR Critchlow



K9N-11
CD 20

USGS Map
AFOGNAK (D-5)

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NOS. 262-10-10080 and 262-10-10090

SEGMENT K09-12-CD-020 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous streams (262-10-10080 and 262-10-10090) are in Subdivision A. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unrolled biota and substrate. Sensitive estuary.

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-12-CD-020
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

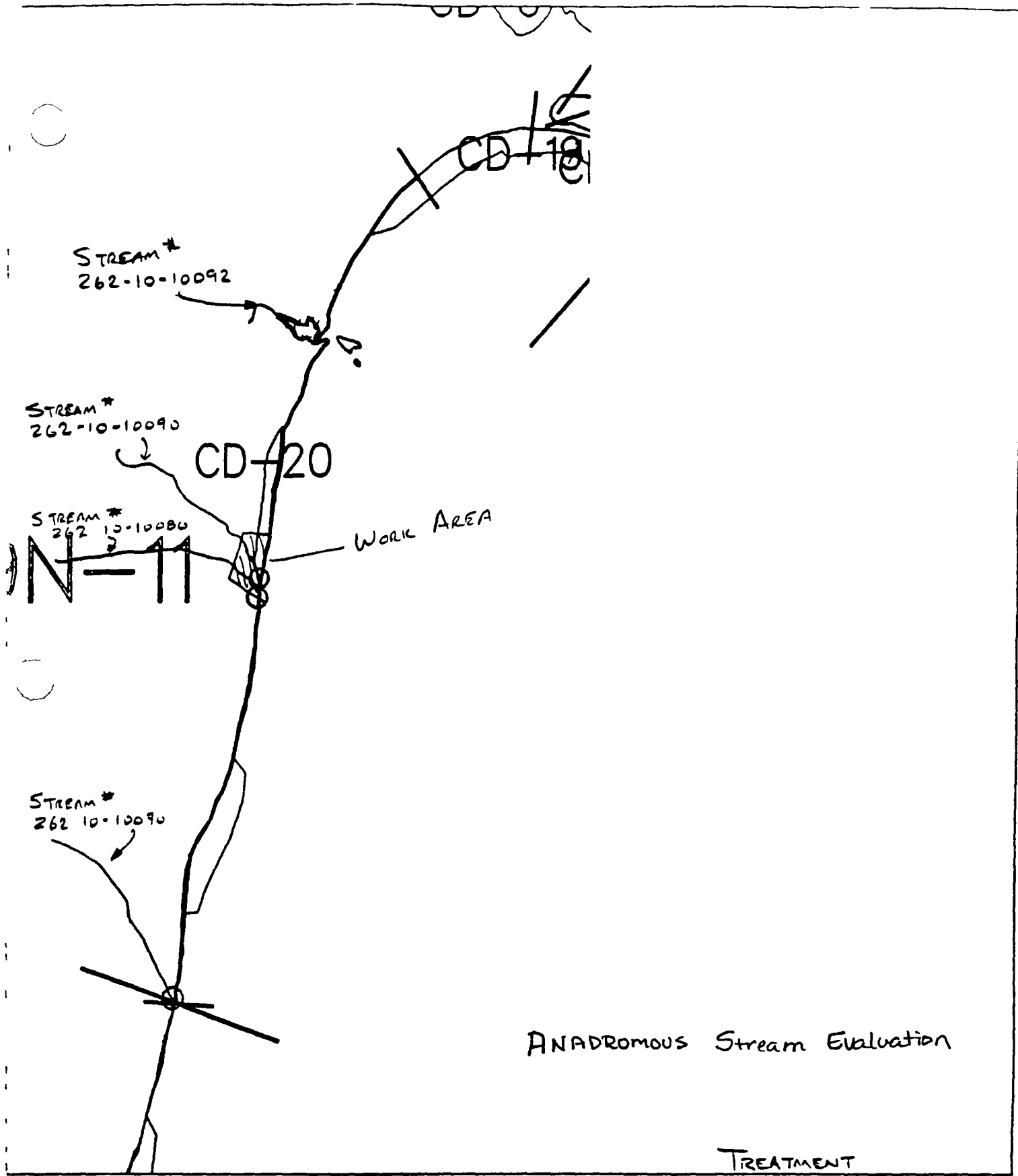
[Signature]
Prepared by *[Signature]*

Date

6-16-90

Date

6/15/90



ANADROMOUS Stream Evaluation

TREATMENT

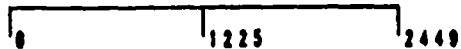


Exxon Company, USA
Map Key: AKP-CD-20
June 08, 1990



ECOLOGY MAP
SEGMENT K9N-11 CD-20
SUBDIVISION A (_ _ 0 1 _ _)

METERS



- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 4018 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-11-CD-020 STREAM NO: 262-10-10092 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
8AA Sensitive estuary

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

No ecological constraints regarding intertidal biota.

SHPO SIGNATURE: Rachel Dan Qu DATE: 5/22/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend manual pick up of mousse and patties in the UITZ and SUTZ as indicated on the attached sketch map. Contact ADF&G for work window dates.

TAG COMMENTS: MONITORS TO ASSESS SUTZ - SNOW COVERED DURING SSAT

TAG APPROVAL DATE: 5/18/90

ADEC ART WEINER Art Weiner

EXXON AMY TOL Amy Tol

NOAA GARY PETROG Gary Petrog

USCG GA REITER GA Reiter

FOSC [Signature]

DATE: MAY 25 1990

FIELD SHORELINE COMMENT SHEET

DRAFT

SEGMENT ST 1 CD-20 A SUBDIVISION 262-10-10092 not catalogued DATE 02 MAY 90

USCG

NAME Kerwin L. Dreher SIGNATURE cwo K L Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Type A manual removal.

~~ADEG~~ → ADFG

NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

STREAM LAGOON IS LOW ENERGY WITH MS FAT/P ON
SOUTH BANK UPTO 700M BACK INTO LAGOON NORTH
BANK HAS LIGHTER TB, ST/S

RECOMMEND TYPE A MANUAL CLEANUP.

~~LAND MANAGER~~ → NPS

NAME Carl Schach SIGNATURE Carl Schach

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

This lagoon/estuary system is very protected and any
remaining oil can be expected to persist for a long time.
Bands and sporadic patches of mussels should be removed with
shovels. Bands of stained pebbles should be left undisturbed. Oiled
debris including fishing net should be cut free and removed.

OG CAL LARSON USCG DREHER, CWE SEGMENT STI CD-20A
 BIO KEN CRITCHLOW LAND REP CARL SCHUCH STREAM 202-10-UNCAT (OF)
 EXXON DARLIL YOE ADFG GP WEEKS TIME/L 50 to 2 10
 TEAM NO. 14 TIDE LEVEL +3 ft DATE 5/2/90
 EST SUBDIVISION LENGTH 1500 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS R % B % C 10 % P 30 % G 30 % S 30 % M % V %
 SLOPE Lang % Hang 100 % Vert % WAVE EXPOSURE ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH W 0 m M 0 m N 10 m VL 400 m NO 1100 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	AC	AS	AP	AS	BLK OR	BRL FW	GY	GR OR	FL OR	BU	UR	MB	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN				✓		✓						✓	
-MOUSSE		X						X		X			
PATTIES				✓		✓					✓		
TARBALLS				✓		✓					✓		
FILM													
NO OIL											✓		✓

PAVEMENT H F S 1 sq m by 6 cm

PATTIES / TARBALLS 10 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect

DEBRIS ☐ YES ☒ NO

TYPE 0

#BAGS 6

Photographs

Roll No _____

Frames _____

SUBSURFACE OIL

[illegible]

COMMENTS NO PITS DUG DUE TO LACK OF OIL PENETRATION

REVIEWED 7W DATE 5/4/90

SEGMENT ST/

DATE 5/2/80

INDU

PH - No Suburbs On

▼2

PK - Subpart 10

Continuous Disasters

8/13

Broken Disks

8/15

Party Distribution

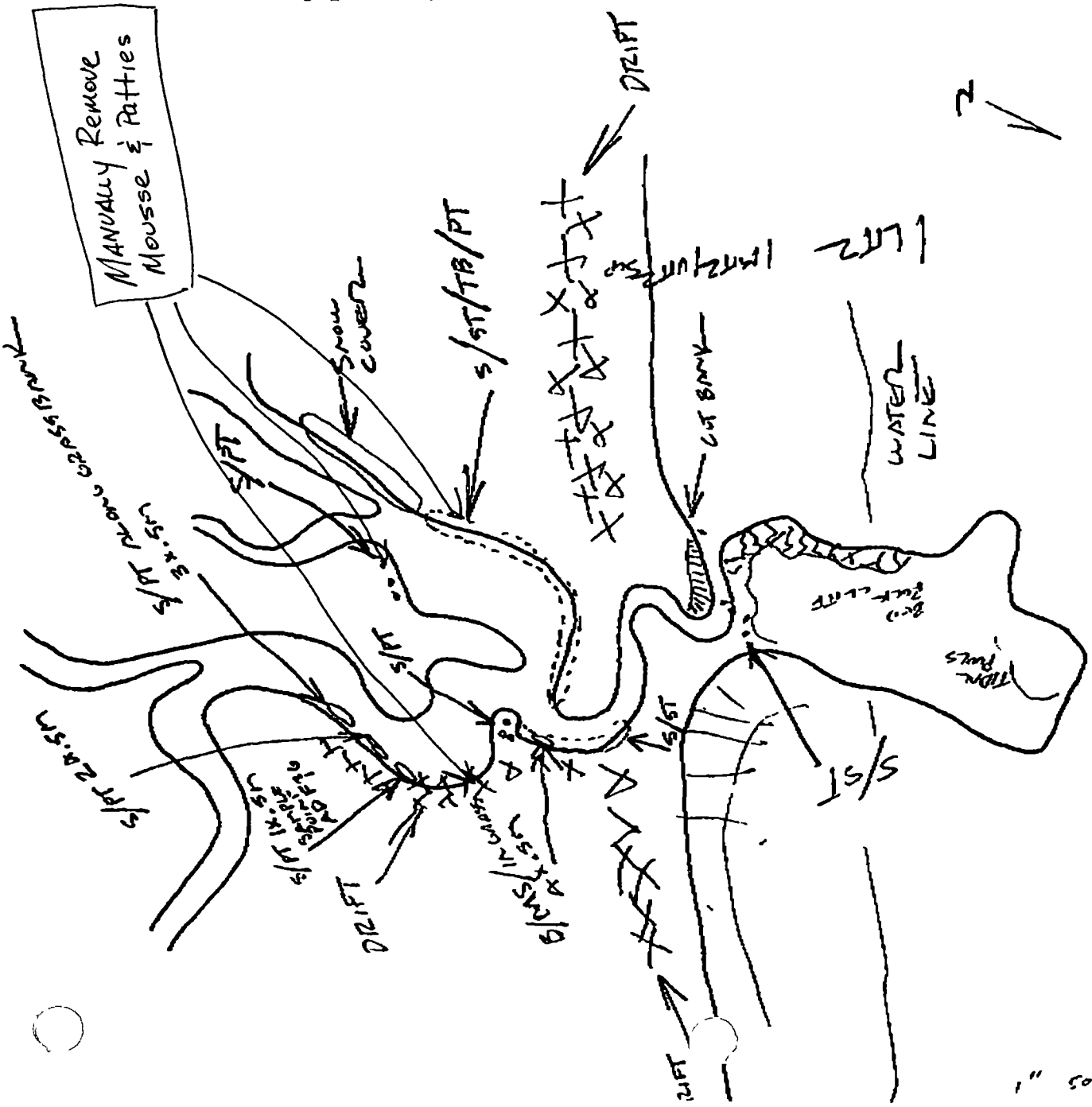
Splashed Dabobson

ooo

Old Dominion

1
Photo location, direction,
and number

01 Character length (m) AP PO CV CT ST 340 MS PT 10 TB 50 FL NO



ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (S) DS TS AVS SCHA HHS PTA

2 REGION: PWS KP, CI K (AP)

METHOD: Aerial (Ground) Boat

3 DATE: 5-2-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: E. Weiss

4 START TIME: 1253

16 HIGH TIDE HTS: 1

22 OBSERVERS: K. SIMOCK, C. LARSON

5 STOP TIME: 1415

17 LOW TIDE TIMES: 1550

23 AGENCY: ADFG/EXXON/NPS/WW

6 SEGMENT #: CD20A

18 LOW TIDE HTS: 1.9

24 PHOTOS TAKEN: X N

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: 004-K Frames: #13-14

8 K-UNIT: ~~K9-11~~

(ebb) Slack Flood Slack

25 VIDEO TAKEN: Y X TAPE#:

9 STAT AREA:

20 USCG QUAD: AFOGNAK D-S

Starts: Ends:

10 LAT:

11 LONG:

26 SAMPLES TAKEN Y X Number

12 SOURCE: Map (LAT)

(011) 908W0004K

13 LOCATION:

Sediment

14 DESCRIPTION: 2 mi. SSW OF DOUGLAS CREEK LAGOON

Biological

EXTENT OF OIL

Water

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH SKELET X N

37 CATALOG #: 262-10-10092

38 STREAM NAME: NONE

39 OIL IN STREAM BED? X N

40 OIL ON STREAM BANKS? X N

30 OVERALL OIL IMPACT: N (VL) L M H

41 OIL ON BEACH ADJACENT TO MOUTH? Y N

31 OIL TYPE: Pooled (House) Tar Asphalt Sticky (Stain)

42 OIL WITHIN 1 MILE OF STREAM? Y N

32 OILED DEBRIS? X N

Where:

33 SHORELINE TYPE: Headland (Lagoon) Low-lying Rocks Beach Cove

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate (Low)

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock Boulder Cobble

Species	Aerial	Ground

Gravel Sand Mud/silt

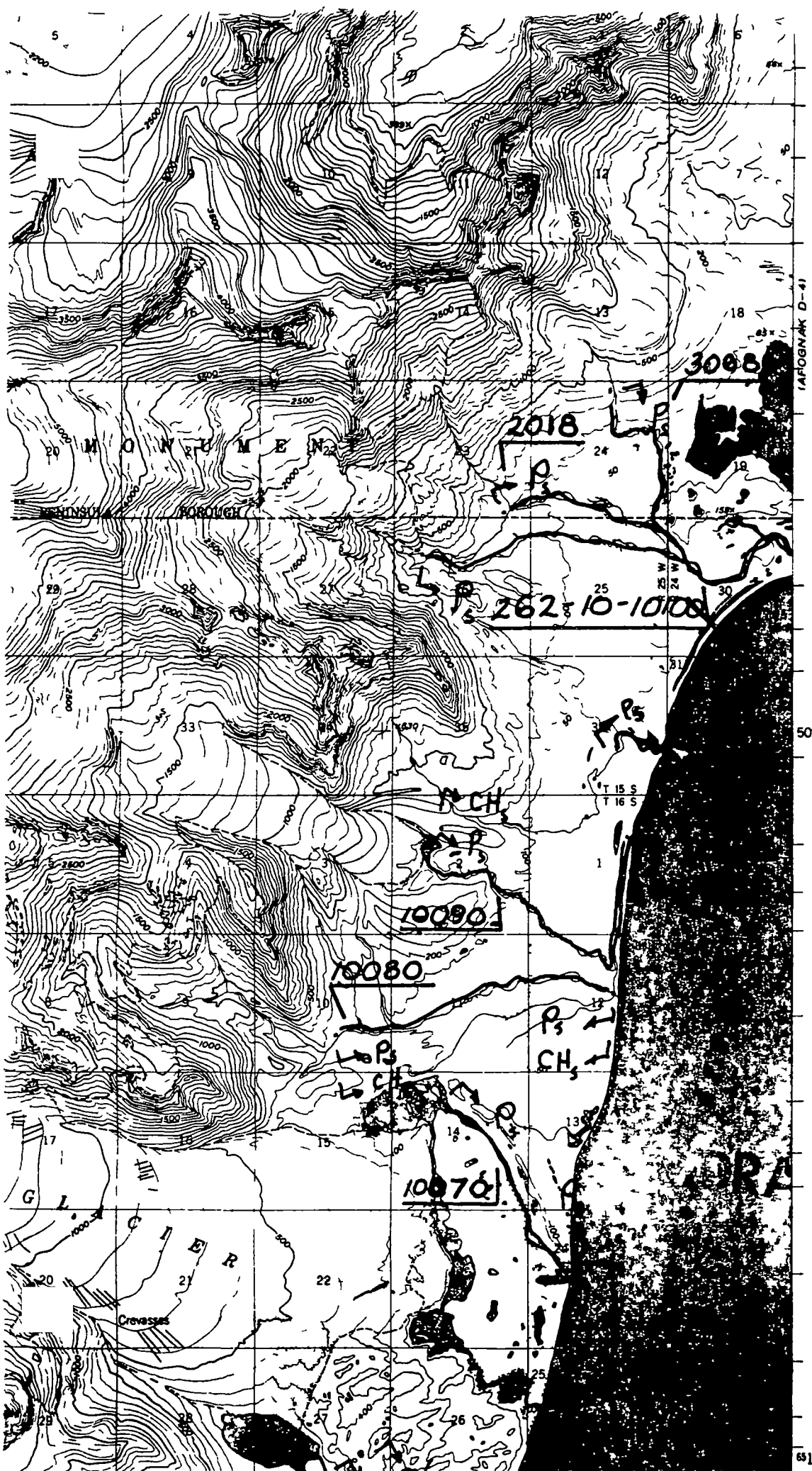
COMMENTS: ST/S ON STREAM BED/BANKS, MS & PT/P IN
BEND OF STREAM BANK AFTER IT COMES OUT OF LAGOON AND
ALONG SOUTH BANK OF LAGOON. TB, ST, CV/S ON
BANK NORTH SIDE OF LAGOON & LAGOON BANK BEHIND
BEACHFRONT.

Seg ID: CD-020A No ASC #
Subdiv: 262-10-~~1000~~
Survey Date: 5/2/90 - 10092
Comments by: Ken Critchlow

This stream crosses a high energy beach backed by a significant storm berm and log jam. No oil was observed on this beach. Behind the storm berm the stream flows through a large lagoon. Within the lagoon right and left banks were observed to have been oiled by scattered, small patches, tar balls and stain. Most of the oil was observed at or near the edge of the STZ.

No ecological constraints were apparent

KR Critchlow



K9N-11
CD 20

USGS Map
AFOGNAK (D-5)

Stream is
uncatalogued
262-10-10092

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO 262-10-10092

SEGMENT K09-11-CD-020 SUBDIVISION A

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (262-10-10092) is in Subdivision A. No constraint to manual pickup

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to uncoiled blots and substrate Sensitive estuary

SEE SUBDIVISION CONSTRAINT ADDENDUM K09-11-CD-020A
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

A. Zauochi

Date

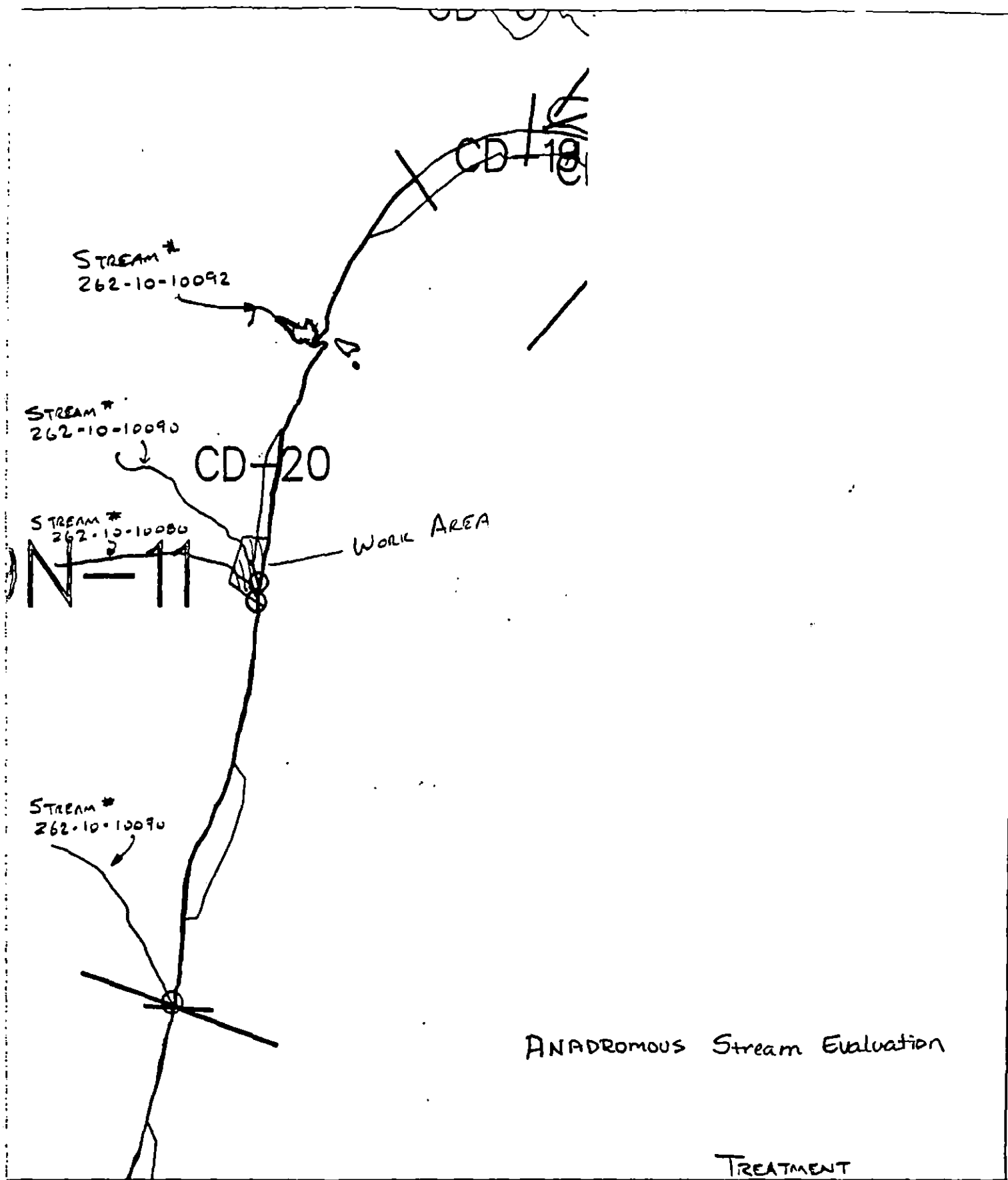
6-16-90

Prepared by

J. Phillips

Date

6/15/90



Exxon Company, USA
Map Key: AKP-CD-20
June 08, 1990

ECOLOGY MAP
SEGMENT K9N-11 CD-20
SUBDIVISION A (A-1-1-1)
METERS
0 1225 2449

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

1 inch = 4018 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-12-~~XX500~~ STREAM NO: 262-10-10040 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
5S Shorebird/waterfowl concentration (4/25 to 5/15)
See attached Ecological Constraint sheet for specific constraints and contracts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

See above.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	_____ Snare/Absorbent Booms
_____ Treatment Recommended	_____ Oil Snares (pom poms)
_____ Manual Pickup	_____ Absorbents (pads, rolls, etc)
_____ Bioremediation	_____ Spot Washing: _____ Wands
_____ Tarmat Removal	_____ Beach Cleaner
	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K-0912-XX500 SUBDIVISION: Asc# 262-10-10040 DATE 02 MAY 90

USCG
NAME Kenwin L. Dreher SIGNATURE CWO K. L. Dreher

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

NOTE: The west shore line of the larger lagoon was still snow covered. I suggest re-surveying this area after the snow melts back. The area I did survey (the east shore) had <1% stained driftwood and minimal very weathered/dry splinter on small submerged cobbles.

~~ADEG~~ → ADP16
NAME EDWARD W. WEISS SIGNATURE Edward W. Weiss

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

LAGOON SEGMENT IS LOW ENERGY AND RATTIES AND COVER ON COBBLES DO PRODUCE SLIGHT SHEEN WHEN RUBBED. THIS SHEEN DOES DISAPPEAR READILY IN WATER. STREAM NEEDS TO BE RESURVEYED FULLY WHEN SNOW COVER MELTS AND WATER LEVEL IS DOWN. BANDS OF (PT, TB, CV, ST)/P IS CURRENTLY 12-24" BENEATH WATER'S SURFACE. CLEANUP WOULD ALSO HAVE TO WAIT UNTIL WATER LEVEL RECEDES. OIL IS ONLY PARTIALLY VISIBLE DUE TO WATER BEATH AND SILT.

~~LAND MANAGER~~ → NPS
NAME Carl Scheek SIGNATURE Carl Scheek

~~☐ NO TREATMENT RECOMMENDED~~ ~~☐ TREATMENT SUGGESTED~~
COMMENTS

This lagoon should be resurveyed at a lower water level in order to determine the exact extent and degree of oiling. This document represents a partial survey only. Based on these findings the observed oil on debris and cobbles should be removed. This lagoon/estuary system is very protected and oil will persist for a long time unless removed. Oil can be removed by wiping with sorbent towels or removing with shovels. Cleanup should not begin until water recedes.

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/K-0912 XX 500
 BIO KEN CRITCHLOW LAND REP CARL SCHOCH STREAM 202-10-100401 (OF)
 EXXON DARRYL YVES ADFG ED WIGGS TIME? 10:4:38
 TEAM NO. 74 TIDE LEVEL +1.9 DATE 5/2/90
 EST. SUBDIVISION LENGTH: 200 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B % C 00 % P 10 % G 5 % S 5 % M % V %
 SLOPE: Long 55 % Hang 45 % Vert % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 150 m NO 50 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	A	P	S	1	2	3	4	5	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN				✓		✓					✓		
MOUSSE													
PATTIES				✓		✓					✓		
TARBALLS				✓		✓					✓		
FILM													
NO OIL										✓		✓	✓

PAVEMENT H P S 0 sq. m by 0 cm

PATTIES / TARBALLS 2 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs		✓	
Vegetation	✓		
Trash			
Debris			

Did you collect DEBRIS

☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OF	OR	OL	OS	NO		VO	UC	1	2	3	4	5	SU	U	M	U				

COMMENTS DUE TO SPRING RUN OFF BACK TIDAL LAGOON AREA WATER LEVEL WAS HIGHER, OIL/DROPS, SPATTER, PATTIES WERE UNDER WATER. OIL OBSERVED WAS HEAVILY WEATHERED. SOME OILED GRASSES WERE OBSERVED ALONG BANK OF BACK SHORE IN LAGOON. NO PITS DUG.

REVIEWED JW DATE 5/4/90

JO CAL LARSON

1" = 100'

SKE MAP

SEGMENT ST/ K 2

STREAM 262-10-10090

DATE 5/2/90

CHECKLIST

- ☐ Name
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
No Subsurface Oil

2 Δ
Subsurface Oil ...

CT/C
Continuous Distribution

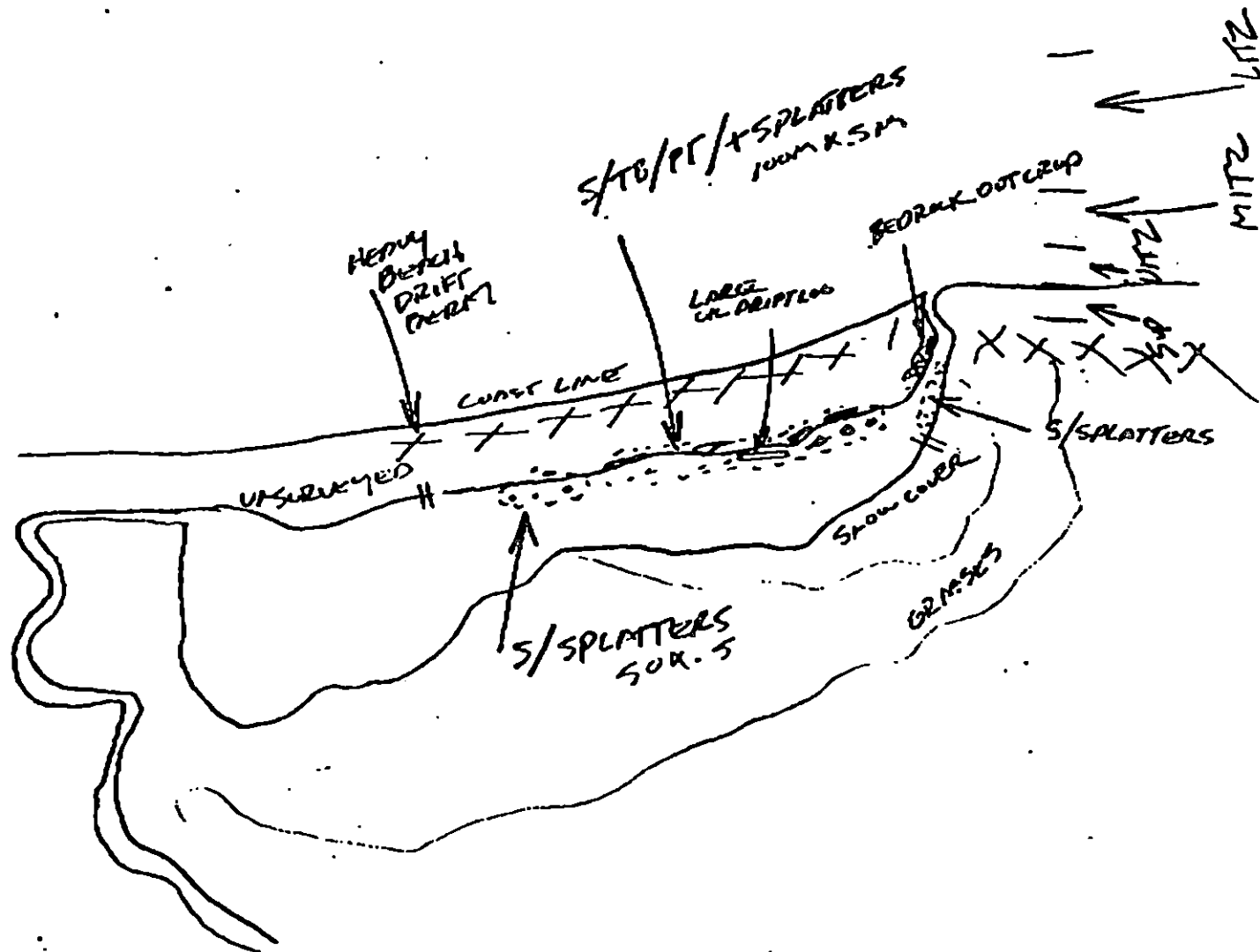
CT/B
Patchy Distribution

CT/P
Sticky Distribution

CT/S
Scattered Distribution

lll
Red Vegetation

1 →
into location, direction,
id number



Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

REVISED 10/90

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS 43 DE TS AVS SCHA HONS PTA

2 REGION: PWS KP, CI K, D

METHOD: Aerial Ground Boat3 DATE: 5/2/9010 HIGH TIDE TIMES: 121 TEAM RECORDED: E. Weiss4 START TIME: 184010 HIGH TIDE HTS: 122 OBSERVERS: K. SCHOCK, C. CARSON5 STOP TIME: 163517 LOW TIDE TIMES: 155023 AGENCY: ADFG/EXXON/NAS/WWC6 SEGMENT #: XX50018 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frames: _____

8 K-UNIT: K0912

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y X TAPES: _____

9 STAT AREA: _____

20 USCG QUAD: AFOGNAL C-5

Starts: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN: Y N Water

12 SOURCES: Map Loran

011 90EW004K13 LOCATION: DOUGLAS REEF AREA, AK PENINSULA

Sediment: _____

14 DESCRIPTION: ~1.5 NW of VABM "DARK"

Biological: _____

Water: _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	N	W	S	L	N	W	S
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N VL (L) N N31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Slain

32 OILED DEBRIS: Y N

33 CATALOGED ANAD. FISH SPECIES: Y N

37 CATALOG #: 262-10-1004038 STREAM NAME: TRIAL LAKES CREEK

39 OIL IN STREAM BED: Y N

40 OIL ON STREAM BANKS: Y N

41 OIL ON BEACH ADJACENT TO MOUTH Y N
(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM Y N

Where: _____

34 SHORELINE TYPE: Headland Lagoon Low-lying Banks Beach Cove

43 ANADROMOUS FISH PRESENT? Y N

35 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

36 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 25Gravel 35 Sand _____ Mud/silt 40

Species	Aerial	Ground

COMMENTS: BAND OFF PT 70 CV, ST Y/P BEGINNING AT MOUTHCONTINUING ON AROUND EAST BANK OF LAGOON. BANDIS AT NORMAL LOW TIDAL AREA BUT DUE TO MELT OFFIS 12-24" BELOW WATER'S SURFACE OF LAGOON AT LOW TIDE.ONLY SURVEYED 1/3 OF LAGOON, 1/3 COVERED WITH SNOW, 1/3 UNSURVEYEDDUE TO TIME CONSTRAINTS. MOUSSE FAIRLY WEATHERED BUT STILL

FRAME(S)

DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM

RECOMMEND: FULL SSAT/ANADSSAT SURVEY BE CONDUCTED AT LATER DATE, WHEN SNOW COVER MELTED AND WATER LEVEL DOWN. MANY PATCHES HARD TO SPOT DUE TO WATER DEPTH AND SILT COVER WOULD BE MORE VISIBLE WITH LOWER WATER.

ALSO RECOMMEND MANUAL PICKUP BASED ON $\frac{1}{3}$ SURVEYED BUT NOT UNTIL WATER GOES DOWN AND IMPACT IS ACCESSABLE.

ALSO HAD TB:ST/S AND ST CT/L/SM ON BANK OF LAGOON ABOVE WATER LEVEL. DW

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

Rapifax 349-1723

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99512-1520
PHONE: (907) 344-0841

RAPIFAX TRANSMITTAL SHEET

TO: Tom Kelly
Exxon - Anch.

DATE: 5-19-90

No. Pages: 3
(including this page)

FROM: Ed Weiss
ADFG Kodiak

MESSAGE:

DID NOT MAKE DIAGRAM USED
ANASSAT OF DIAGRAM.

Seg ID: XX-500

Subdiv: 262-10-10040

Survey Date: 5/2/90

Comments by: Ken Critchlow

The beach at this stream site is very high energy characterized by well-rounded pebble and cobble. A bedrock outcrop guards the stream mouth which breaks through a high storm berm and large log jam. The beach was depauperate.

A very large lagoon was present behind the storm berm. The backshore was about 50 percent covered by snow and couldn't be surveyed. About half of the remaining shore was surveyed. Small amounts of tarballs and patties were observed in the grass... at the water's edge. Some mousse was present on submerged cobble in the lagoon. The extent of oiling of submerged rocks couldn't be determined.

Large numbers of water fowl were observed at the north end of the lagoon. The area is obviously used for feeding and possibly nesting.

KR Critchlow

A brown bear skull (no mandible or teeth) was found at the water's edge in the lagoon. It was left in place.

AFOGNAK (C-5) QUADRANGLE

ALASKA

63 500 SERIES (TOPOGRAPHIC)

1:50,000

152°20'

58°45'

KRM

11/81

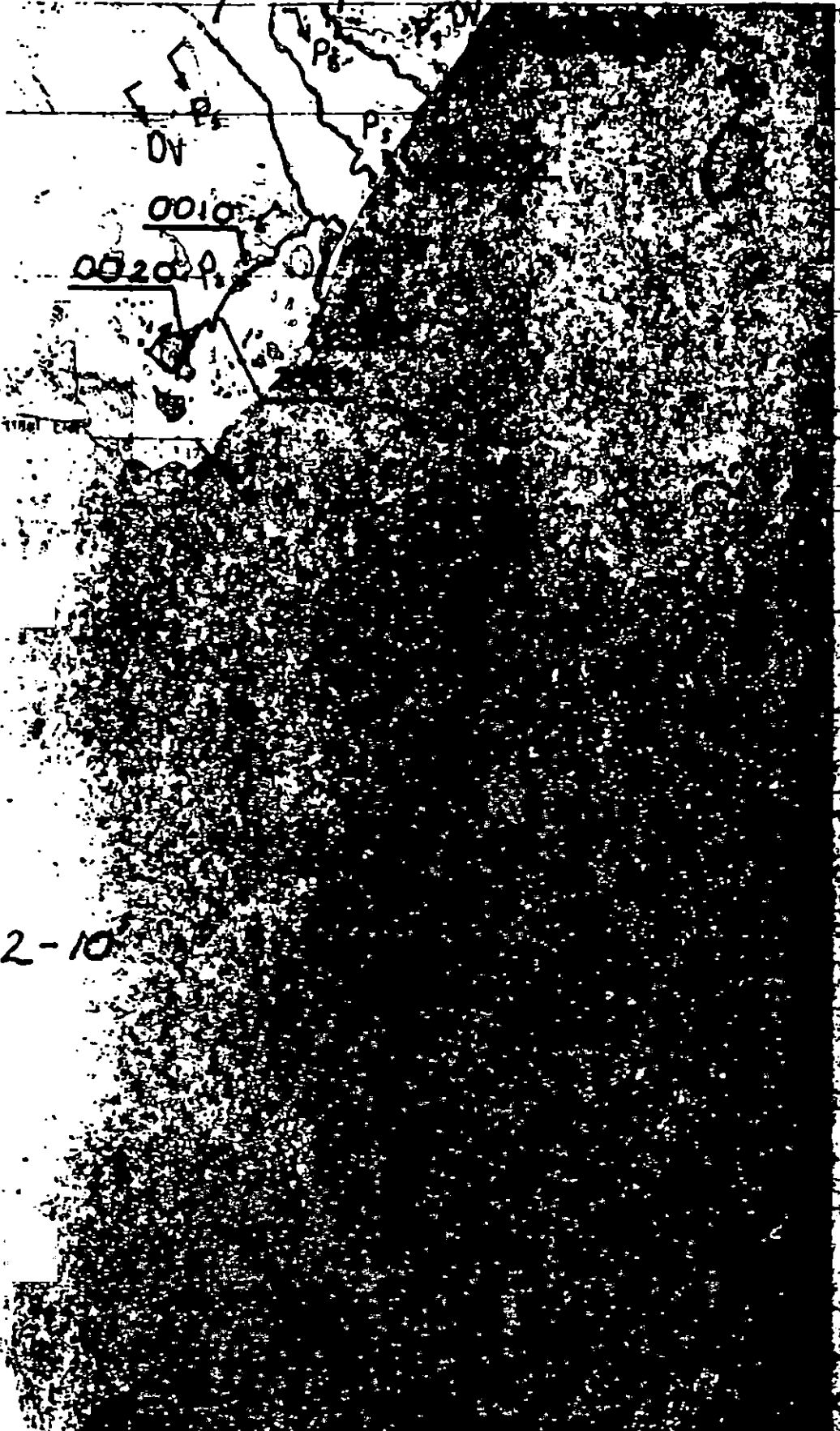
10040 FINAL

10060

0010

0020

2-10



ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: ST/K09-12-XX500

SUBDIVISION: A

STREAM NO: 262-10-10040

THIS IS A TWO PART SURVEY DUE TO SNOW
COVER DURING THE FIRST SURVEY.

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/K09-12 - XK500 STREAM NO: 262-10-10040 DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
5S Shorebird/waterfowl concentration (4/25 to 5/15)
See attached Ecological Constraint sheet for specific constraints and contracts.

SHPO SIGNATURE: Charles E. Holmes DATE: June 29, 1990

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

☐ No Treatment Recommended	☐ Snare/Absorbent Booms
☒ Treatment Recommended	☐ Oil Snares (pom poms)
☒ Manual Pickup	☐ Absorbents (pads, rolls, etc)
☐ Bioremediation	☐ Spot Washing: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommended treatment is manual removal of mousse, patties and oiled debris as shown on attached sketch map.

TAG COMMENTS: SURVEY AREA NOT PREVIOUSLY SURVEYED

TAG APPROVAL DATE: 6/18/90

ADEC Ryan M. Jones R. Adams

EXXON AMY TERN Real

NOAA Joseph Talbot JCB

USCG G.A. HEITER G.A. Heiter

FOSC: D. J. Jaramila DATE: 6/30/90

See ATTACHED CONSTRAINTS
G.A. Heiter

FIELD SHORELINE COMMENT SHEET

Triple Lakes Creek

SEGMENT ST 1 K-912/XX500 SUBDIVISION: Stream # 262-10-10040 DATE 6/1/90

~~NORA~~
~~USCG~~
NAME

Tom Callahan

SIGNATURE

Tom Callahan

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

The storm berm has moved and partially blocked the stream mouth, causing the lagoon level to rise. This occurred after ~~mousse~~ mousse floated in and settled along an edge of the lagoon. As a result, mousse was found incorporated with flooded vegetation in 2-3 ft of water. This mousse/vegetation mixture is recoverable and is still able to ~~create~~ ^{cause} a sheen when disturbed. Suggest this be removed prior to salmon spawning in the area containing mousse.

ADEC

NAME

Terry Ellsworth

SIGNATURE

Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Oil occurs as cu-ct-st on cobbles, driftwood and trash and as a mousse-vegetation mat within the lagoon. The oiled cobbles and ms-veg. mat are presently submerged under 30 cm of water to 3m from the present shoreline. A thin film of silt covers the area making it difficult to see. Water level in the lagoon is not influenced by daily tidal action. Survey was not completed due to a bear on the nearby beach. Manual removal of ms-veg mat and driftwood and cleaning of heavy coat-cover on cobbles is recommended before fish spawn. If assessment is not completed before treatment, it should be completed before crew finishes in the area.

LAND MANAGER

N.A.

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1K69-12 456E SUBDIVISION: 262-10-10040 Triple Lakes Creek DATE 6/2/90

ADFG

NAME JEFFREY P. BARNHART

SIGNATURE

Jeffrey P Barnhart

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

See ADF&G Analysis Form for complete Details.

Recommend^{manual} removal of oiled vegetative mats from under the water. Oiled cobble / pebble should be removed from the water cleaned and replaced.

The oiled cobble / pebble / vegetative mats are difficult to located as a thin film of silt covers them under the water.

ADFG Habitat Division personnel need to be present during cleanup to locate the problem areas.

A complete survey needs to be conducted as it is suspected additional oiled vegetative mats / oiled cobble are present in this low energy Lagoon.

Jeff Barnhart

SHORELINE OILING SUMMARY

REVISION NO. 03/2/90

OG J. Springer USCG NOAA T. Callahan SEGMENT STI K-912/xx500
 BIO D. Lohse LAND REP J. Barnhart SUBDIVISION A / Stream 262-10-10040
~~EXXON~~ Pack Service R. Waver ADDEC T. Ellsworth TIME 18:20 to 19:30
 TEAM NO.: 19 TIDE LEVEL: +2 to +4 DATE 06/01/90
 EST. SUBDIVISION LENGTH: 900 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R % B % C % P 60 % G % S % M 10 % V 20 %
 SLOPE: Lang 100 % Hang % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M 8 m N 10 m VL 100 m NO 232 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	P	S	SP	BP	OL	OP	TL	LR			SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE		X							X				X			
PATTIES																
TARBALLS			✓	X		X							X	✓		
FILM																
NO OIL													X			

PAVEMENT: H F S sq. m by cmPATTIES / TARBALLS 50 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation	X		
Trash	X		
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE #BAGS

Photographs:

Roll No. Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP	BP	OL	OP	TL	LR			SU	U	M	U		

COMMENTS Oil is submerged in lagoon. "Tarballs" occur as black spatters clinging to cobbles. "Mousse" occurs in matts clumped together with vegetation.

Lagoon is in supratidal zone isolated from daily tidal action. Lower and mid-intertidal zones were not surveyed.

The survey of 5/2/90 did not cover supratidal zone or most of backshore. This survey completed the supratidal and backshore

REVIEWED 12-27 DATE 5-1-90

2/11/92

SEGMENT STI K-912/XX500

SUBDIVISION A

DATE 06/01/90

CHECKLIST

N Arrow
Approx. Scale
Seg/Sub Entry
Oil Dist.
Width
Length
% Cover
Substrate Character
Est. HWL/LWL
SSL
Profile Location(s)
Profile(s)
Pit Location(s)
Photo Location(s)

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

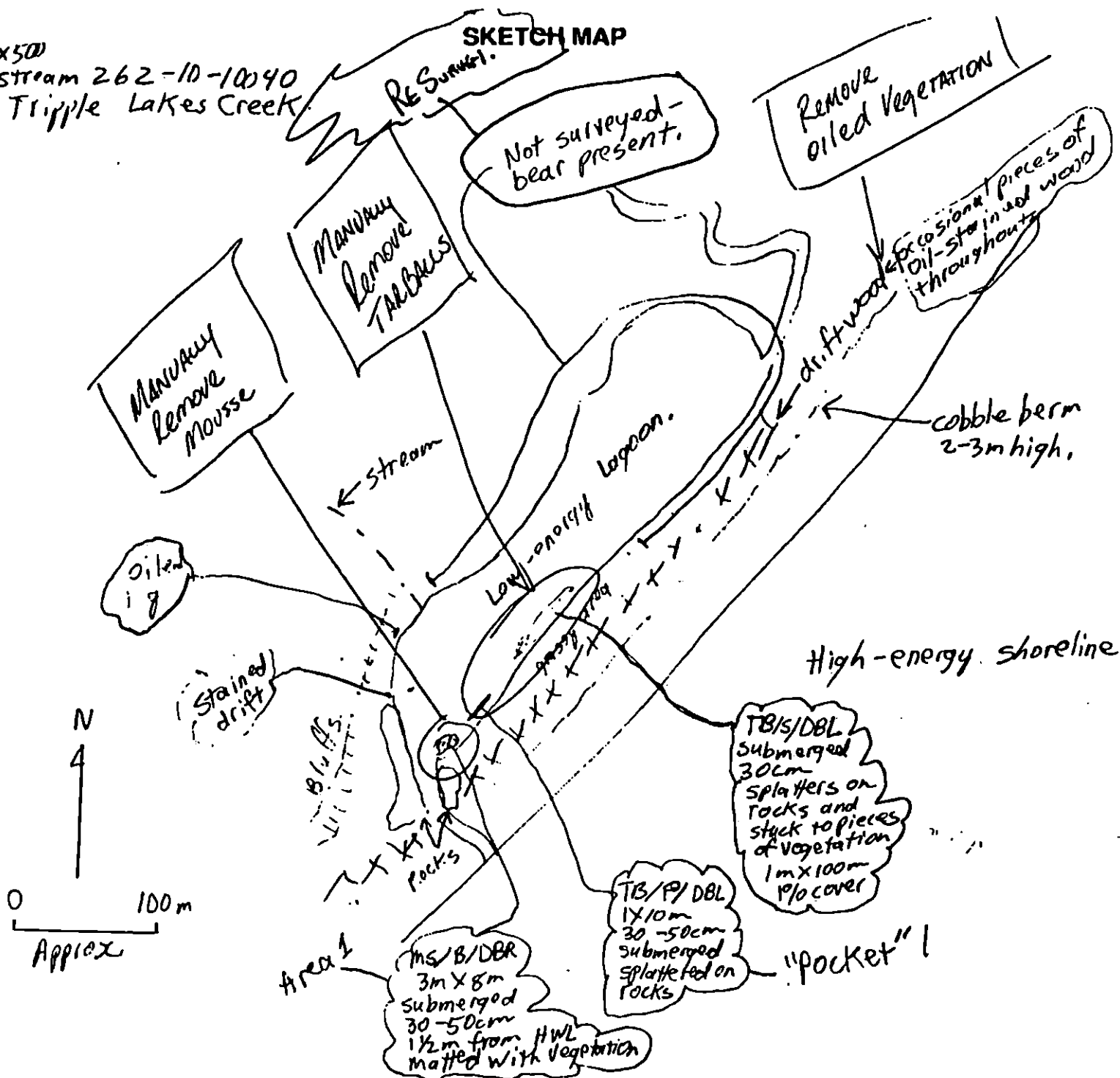
CT/S
Splashed Distribution

Oil Vegetation

1 ●
Photo location, direction, and number

Stream 262-10-10040
Tripple Lakes Creek

SKETCH MAP



Oil Char Length (m): AP PO CV CT ST MS PT TB 110 FL NO 232 4 550

Due to bear out of site, no data

(A5)

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (S3) DS TS AVS SCH NMS PTA 2 REGION: PWS NP, CI KAP
 METHOD: Aerial Ground Boat
 3 DATE: 6/1/90 16 HIGH TIDE TIMES: 10:00 AM / 10:37 PM 21 TEAM RECORDER: JEFF BARNHART
 4 START TIME: 1836 18 HIGH TIDE HTS: 13.1 / 15.5 22 OBSERVERS: DAVE Lohse, Jim Springer
 6 STOP TIME: 1930 17 LOW TIDE TIMES: 4:00 AM / 4:06 PM 23 AGENCY: WCC, WCC, DNR, NOAA, DEC, NP
 8 SEGMENT #: 2x500 19 LOW TIDE HTS: 3.9 / 3.4 24 PHOTOS TAKEN: Y (N)
 7 STATION #: _____ 10 TIDE HT AT SURVEY: _____ Roll #: _____ Frame: _____
 9 K-UNIT: K09-12 Ebb Slack Flood Slack 25 VIDEO TAKEN: Y (N) TAPE: _____
 11 STAT AREA: 262-10-10040 20 USCG QUAD: Alagnak C-5 Starts: _____ Ends: _____
 10 LAT: 58°43'24" 11 LONG: 153°25'26" 26 SAMPLES TAKEN Y (N) Number
 12 SOURCE: Map Loran Anadkat 011 _____
 13 LOCATION: Douglas Reef Area, AK Peninsula Sediment _____
 14 DESCRIPTION: 2.5 miles N.W. of UABM "DARK" Biological _____
 Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	N ²	S	L	W	N ²	S
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N VL (L) N N
 31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain
 32 OILED DEBRIS? (Y) N
 33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh
 34 WAVE EXPOSURE: High Moderate Low
 35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 40
 Gravel 30 Sand _____ Mud/silt 30

36 CATALOGED ANAD. FISH STREAM? (Y) N
 37 CATALOG #: 262-10-10040
 38 STREAM NAME: Triple Lakes Creek
 39 OIL IN STREAM BED? (Y) N
 40 OIL ON STREAM BANKS? (Y) N
 41 OIL ON BEACH ADJACENT TO MOUTH? Y (N)
 (within 50 meters)
 42 OIL WITHIN 1 MILE OF STREAM? Y N
 Where: _____
 43 ANADROMOUS FISH PRESENT? Y (N)
 44 ANADROMOUS FISH OBSERVATION
 Species Aerial Ground

COMMENTS: Oil character: ST TBCT/P on cobble along shore of lagoon and under 1 to 2 ft. of water. In addition

Two areas, one 3m x 8m (75% coverage) and a second 1m x 10m (40% coverage) contain mats of vegetation and sticky Tar in 1-2 feet of water. Oiled debris: L V/P/M/D. Survey incomplete due to presence of bear. NPS, RPO decision. Recommend removal of oiled vegetative mats from under the water. Oiled cobble/pebble should be removed from the water cleaned and replaced. IT is suspected additional oiled vegetative mats are present in the lagoon.



IN REPLY REFER TO

United States Department of the Interior

NATIONAL PARK SERVICE

ALASKA REGIONAL OFFICE
2525 Gambell Street, Room 107
Anchorage, Alaska 99503-2892



Ref: K09-12-XX500
(262-10-10040)

July 2, 1990

The National Park Service (NPS) will agree to the treatment recommendation on the segment referenced above only under the conditions specified by this office on May 15 and 21, 1990. The Technical Advisory Group (TAG) did not recognize the constraints made by the NPS. If TAG specifies the constraints, then treatment can be approved. The specific constraints include:

- Viable/live marsh vegetation should be left intact.

- NPS on-site monitor will be required. We suggest additional ADF&G monitors be present during cleanup due to the extreme sensitivity of the impacted habitat and the difficulty of finding the submerged mousse/vegetation mats.

- Special Use Permit will be required.

Cordell J. Roy
Acting Chief, Office of Oil Spill Coordination

U.S. Department
of Transportation
United States
Coast Guard



Federal On Scene Key
Coordinator
U. S. Coast Guard

Bank Bldg
601 W 5th Ave
Suite 500
Anchorage, AK
99501
(907) 277-3833

July 9, 1990

Ref: K0912-XX500, Stream # 262-10-10040

1. The Coast Guard agrees with the constraints outlined in the enclosed National Park Service letter of 7/2/90 for referenced segment. These constraints shall be adhered to during treatment procedures.

for D. E. Ciancaglini
D.E. CIANCAGLINI
Federal On-Scene Coordinator

SHORELINE EVALUATION

SEGMENT ST/ K09-14-SK-101 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: [Signature] DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 349 m: Narrow 28 m: V.Light 1545 m: No Oil 4329 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pickup of mousse,
oiled debris, oiled trash and oiled bags followed by bioremediation.
No specific ecological time constraints identified.

TAG COMMENTS:

TAG APPROVAL DATE: 5/4/90
ADEC ART WENGER
EXXON ANDY TEAR
NOAA GARY PETRAE
USCG G.A. REITER
FOSC: [Signature] DATE: 5-12-90
Treat before 1 June or after 15 Aug.
Do not use Twpol. CUSTOMBLENDS IS APPROVED
no beach burning of logs/oily debris. Access
shoreline by boat only.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C** Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D** Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H** Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I** Gill net area
1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M** Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- 3N, 3P** Harbor seal and sea lion pupping (5/10 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R** Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T** All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U** Recreation: Tent sites (5/1 to 9/15)
6V Anchorages (5/1 to 9/15)
6W Forest Service cabins (5/1 to 9/15)
6X Lodge (5/1 to 9/15)
6Y Special use destination
- 7Z** Subsistence area: Salmon harvesting (5/1 to 9/30)
7H Finfish harvesting
7I Deer harvesting (5/1 to 1/7)
7J Invertebrate harvesting
7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / 14 SK101 SUBDIVISION: _____ DATE 4-26-90

USCG

NAME DD. Haven Jr. 6m3, USCGR SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

All oiled areas are very minimal and are in a high energy environment that will probably dissipate naturally, except for one patch on the NW side of island that could use some attention.

ADEC

NAME Francine J. Bennis SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Manual pick-up of mousse-saturated sediments is recommended for an area 10m x 100m on the NW side of Kivkapalik.

This island received a heavy impact of oil. The north + east side of Kivkapalik is an extremely high energy environment composed primarily of bedrock + boulder. There is little oil reasonably retrievable on this North, east, + south sides. However, a small crew can collect oil on the island's NW side. SSAT field map should accompany Clean-up crew.

LAND MANAGER

NAME WILL TROYER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

I checked this island a number of times last summer and was surprised winter storms removed most of the oil. There is some mousse on the NW side that could be manually picked up but most of the mousse remaining on the rest of the island is down below huge boulders and is little exposed, he removed. It appears cleanup effort would be more productive in other areas.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Acton USCG Haven SEGMENT ST/ K9-15-SK-10
 BIO Davis LAND REP NPS Tropic, Jones SUBDIVISION K9-15-SK-10, A (1 OF 1)
 EXXON Avery ADEC Bennis TIME 7:30 10:12:30
 TEAM NO. 20 TIDE LEVEL -3.5 to +6 DATE 4/25/90
 EST. SUBDIVISION LENGTH: 6177 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: clockwise to from N end
 SURFACE SEDIMENTS: R 35 % B 55 % C 4 % P 2 % G 2 % S 2 % M 0 % V 0 %
 SLOPE: Long 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 400 m N 35 m VL 1715 m NO 4027 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	B	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER		✓	✓	✓		✓							✓	✓		
COAT		✓	✓	✓		✓							✓	✓		
STAIN		✓	✓	✓		✓							✓	✓		
MOUSSE			✓					✓					✓	✓		
PATTIES																
TARBALLS																
FILM																
NO OIL															✓	✓

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs	✓			YES ☐ NO ☒
Vegetation				
Trash	✓			
Debris	✓			
				TYPE <u>0</u>
				#BAGS <u>0</u>

Photographs:

Roll No. ST-20-7Frames 8-20, 28-30

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	7	8	SU	U	M	U				
1	5					✓	.		✓									✓							G, R
2	5					✓	.		✓									✓							G, R
3	5					✓	.		✓									✓							G, C.
4	5					✓	.		✓									✓							G, R
5	5					✓	.		✓									✓							G, R
6	5					✓	.		✓									✓							G, R

COMMENTS Areas depicted in sketch maps 2 and 3 (N end of island) had more mousse than in areas depicted in sketch maps 4 and 5 (E end of island), probably due to increased exposure to wave energy and/or last year's summer cleanup.

Island shoreline is primarily rock platform w/ boulder/rubble veneer, which limited pit depth. Very little fine sediment existed on rock platforms, with mousse collected between boulders, rocks, or cobbles directly on top of the rock platform.

REVIEWED 7WDATE 4/27/90

OG Act.

SEGMENT ST/ K9-15-3K-101

SUBDIVISION K9-15-3K-101A

DATE 4 / 25 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HPR/L/V/L
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 ▲

PH - No Subsurface Oil

2 ▲

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

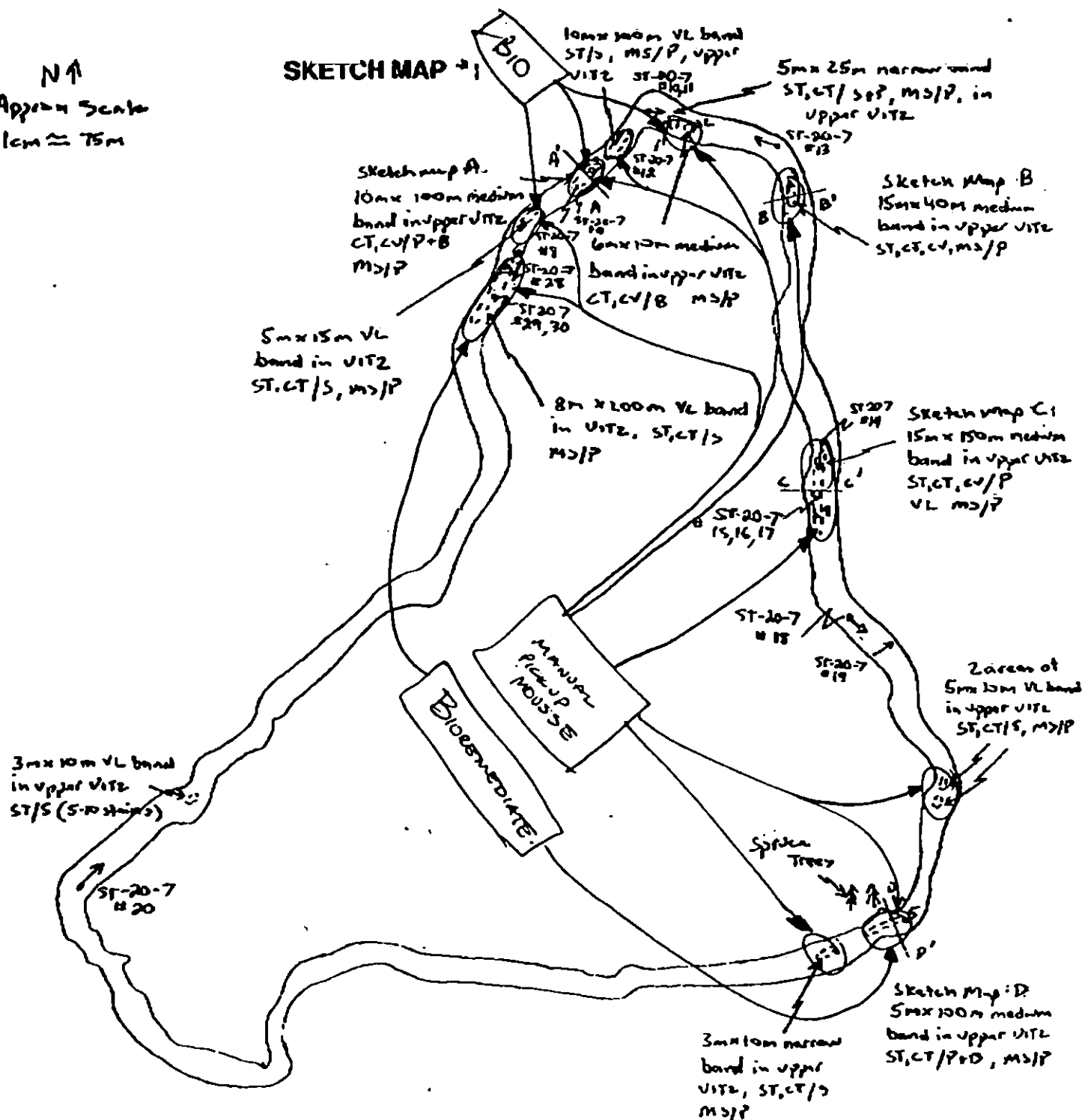
Oiled Vegetation

1 ➔

Photo location, direction, and number

N ↑
Approx Scale
1cm ≈ 75m

SKETCH MAP #1



Oil Character Length (m): AP _____ PO _____ CV 2250 CT 2250 ST 2250 MS 2250 PT _____ TB _____ FL _____ NO 4027

REVISION: 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST / 14 / K09-10 Subdivision SK101 Date (mo / day / yr) 4/25/90

Time (24 hr) 7:30 Biologist H. Davis

(A) Substrate type and % of segments:
(1) Bedrock 35 (2) Boulder 55 (3) Cobble 4 (4) Pebble 4 (5) Sand 2 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 25% Moderate 25% Low 50% (30%)

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-20-7

Frames 8-20, 28-30

BARNACLES continuous around the island. Sparse mod on the Eastern side. Western side is Dense mod.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

MYTILUS sparse patch in crevices and pools. More numerous on the Western side of Kuikoolik

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

GASTROPODS continuous around the island. Much more numerous on the Western side

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
4, 5, 6

FUCUS small areas of moderate-sparse patches. Some new growth.

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT
3, 4, 5, 6

Wildlife Observations/ General Comments: Short-eared owl's seen on bluffs. Mergansers, Harlequin
Pair of Rough-legged Hawks, 6 oystercatchers, 3 Glaucous gulls and 30-40 Glaucous-winged gulls.
The oil found was above the level of intertidal fauna and flora. Large mortality of bivalve
in the LTZ (Balanus cariosus) Harbor seals, 12 lions, 5-6 sea otters and a whale (or) were
seen off shore. Crows, plover were upon the bluffs.
Ecological Considerations: Seabird colony (Glaucous wing gulls), Eagle nest in spruce tree.
nest last year only one eagle there this year. Pair of Rough-legged Hawks nesting
on cliffs. Harbor seals hauled out in area. 5-6 sea otters feeding in the area.

DATE 4/25/90 TIME 07:30 - 12:30 TIDE HEIGHT -3.5 to +6

1 = BEDROCK 2 = BOULDER 3 = COBBLE 5 = SAND 6 = SILT

	SPECIES	UTZ	MITZ	LITZ	COMMENTS
FLORA:	BOSSIELLA/CORALLINA	1	1,2	1,2,3	Continued to pools in the UTZ
	CALLIARTHRON/CORALLINA	1	1,2	1,2,3	"
	CLADOPHORA SPP	—	1,2,3	1,2,3	
	COSTARIA SPP	—	—	—	
	ENDOCLADIA MURICATA	1,2	—	—	
	FILAMENTOUS GREENS	1,2,3	1,2	1,2,3	
	FILAMENTOUS REDS	—	2,3	1,2	
	GLOIOPELTIS FURCATA	1,2	1	—	
	HALOSACCION GLANDIFORME	—	1,2	1,2	
	LAMINARIA SPP	—	1	1,2	
	LITHOTHAMNION	—	—	—	
	NEREOCYSTIS SPP	—	—	—	In drift and off shore
	PORPHYRA SPP	1,2,3	1	—	
	RALPHSIA/HILDENBRANDIA	—	—	—	
	RHODOMELA LARIX	1,2	1	—	
	RHODOMENIA PALMATA	1,2	1,2	1,2	
	SCYTOSIPHON SPP	1,2,3	1,2,3	—	
	ULVA SPP	1,2	1,2	1	
	ZOSTERA MARINA	—	—	—	
	ENTROMORPHA	—	1	—	
FAUNA:	ANTHOPLEURA SPP	1	1	1,2	
	(SEM) BALANUS CARIOSUS	1	1	1,2	
	B. GLANDULA	1,2	1,2,3	—	
	BRYOZOANS	—	—	—	
	CHITONS (other than K. TUNICATA)	—	1	—	m. palis sp. in pool
	CLAMS	—	—	—	Shells of Chionea sp. in pool. Pseudostrea sp.
	CRABS	—	—	—	Small ones in pool
	DERMASTIERIAS IMBRICATA	—	—	—	
	KATHARINA TUNICATA	1	1,2	—	
	LEPTASTERIAS HEXACTIS	—	—	—	
	LIMPETS	1,2	1,2,3	1,2,3	
	LITTORINA SPP	1,2	1,2,3	1,2,3	
	NUCELLA SPP	1,2	1,2,3	—	Very few in crevices
	PAGURUS SPP	1	1,2	1	In pools
	PISASTER OCHRACEUS	—	—	—	
	POLYCHAETES	—	—	—	
	PYCNOPODIA HELIANTHOIDES	—	—	—	
	SEARLESIA DIRA	—	—	—	One shell used in pool
	SERPULIDS	—	—	—	
	SIPHONARIA THERSITES	—	—	—	
	TEALIA	1,2	1,2	1,2	
	Epistaxis prolifera	1,2,3	1,2	—	Very numerous

OG Action

Shoreline Site Sketching 2-5
SKETCH MAP

SEGMENT ST/ K9-10 - SK-101

SUBDIVISION K9-15 - SK-101A

DATE 4 / 25 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWW/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

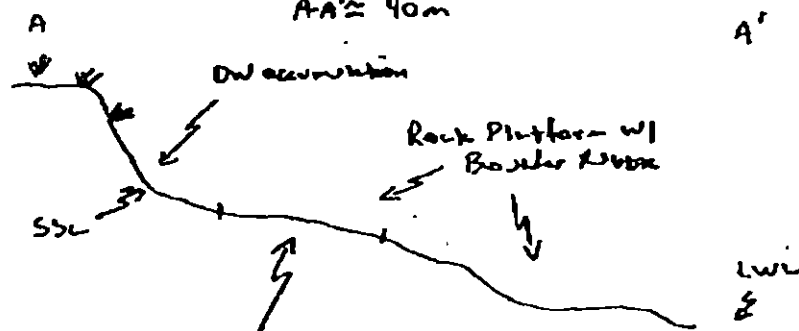
Oiled Vegetation

1 ●

Photo location, direction, and number

Sketch Map A

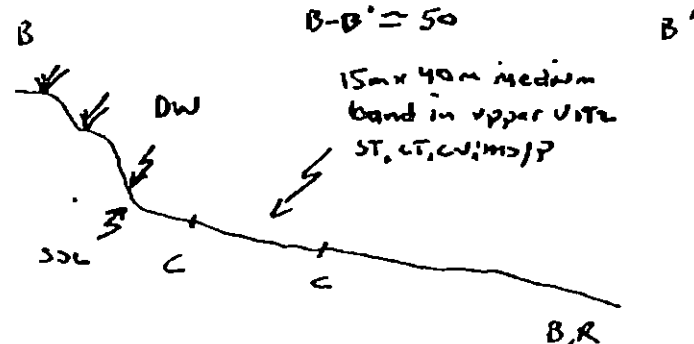
A-A' ≈ 40m



15m x 100m medium band in upper VITZ CT, CV/P+B MS/P

Sketch Map B

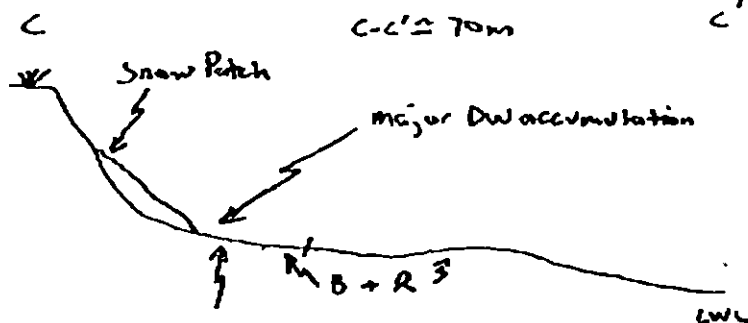
B-B' ≈ 50



major Driftwood accumulation at this location

Sketch Map C

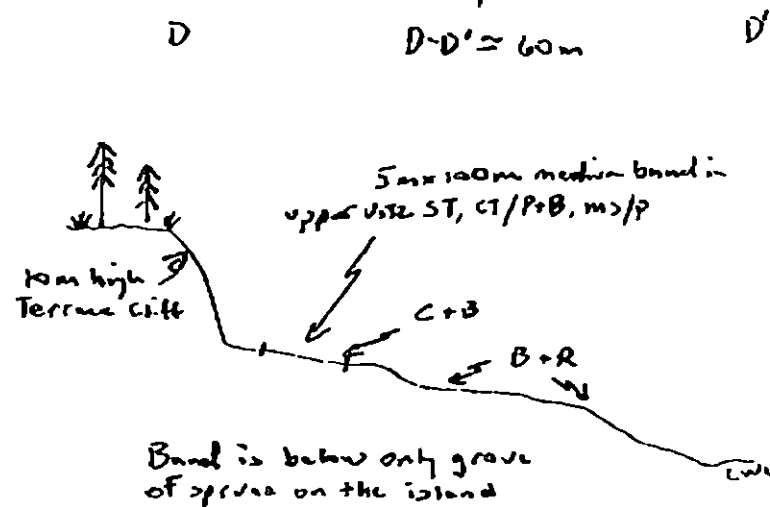
C-C' ≈ 70m



15m x 150m medium band in upper VITZ ST, CT, CV/P w/ VL MS/P
0.1 may be under snow also

Sketch Map D

D-D' ≈ 60m

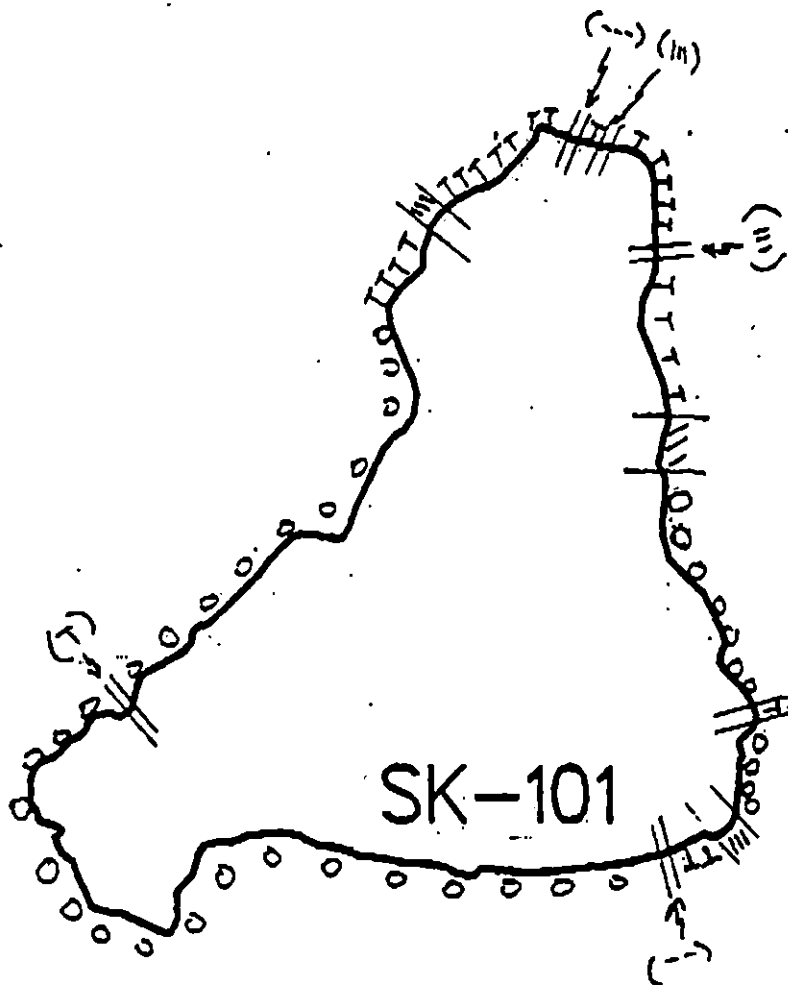


Band is below only grove of spruce on the island

Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

REVISION: 03/24/90

K9-15-SK-101A



XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 OOOO No Oil

SK-101

ADEC Segment Length: 6243m



K9-15-SK-101A
 Map Key: GOA-267

Name: Acton

Date: 4-25-90

Data Entered:

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K09-14-SK-101 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup Less Than 400m From Active Nest	CLOSED PRIOR TO 7/1
Manual Pickup Less Than 400m From Active Nest	WORK AFTER 7/1 (USFWS MONITOR REQ.)
Manual Pickup More Than 400m From Active Nest	OPEN
Bioremediation Less Than 400m From Active Nest	CLOSED PRIOR TO 7/1
Bioremediation Less Than 400m From Active Nest	WORK AFTER 7/1 (USFWS MONITOR REQ.)
Bioremediation More Than 400m From Active Nest	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision A. Closed to manual pickup and bioremediation within 400m of active nest until 7/1. No constraint to manual pickup and bioremediation more than 400m from active nest. All work areas open to manual pickup and bioremediation after 7/1 with USFWS Monitor present.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

FOSC

Date

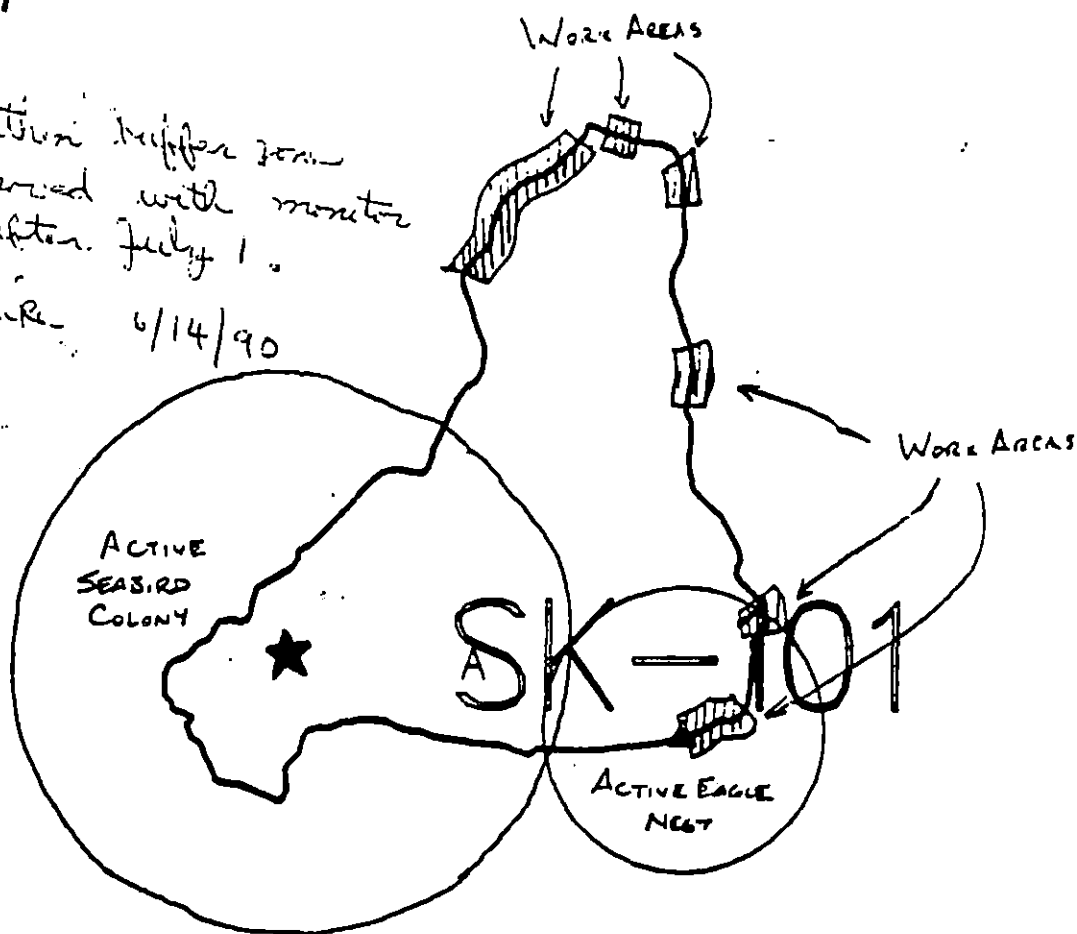
6-22-90

Prepared by

Date

6/22/90

Work within buffer zone
area approved with monitor
on site after July 1.
Mike Luke 6/14/90



USFWS INFO. FROM
6/15/90 LETTER TO REAC/UTTER
FROM REG. DIRECTOR (SEABIRD INFO)

TREATMENT



Exxon Company, USA
New York, NY 10001

ECOLOGY MAP
SEGMENT K9N-14 SK-101
SUBDIVISION A (L-01-L)
METERS

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-101 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
4LL National Parks
5R Seabird colony (5/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Michael Antognoni DATE: 5/15/90

OILING CATEGORIZATION:

Wide 34 m: Medium 0 m: Narrow 47 m: V.Light 469 m: No Oil 1179 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation <i>of 5/1/90</i>	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) bioremediation of area indicated on attached sketch map. Work should be conducted between 7/1 and 8/15 based on pinniped constraints with approval of USFWS regarding seabird colony.

TAG COMMENTS: Bioremediate Areas of TP 5, 7, + 8

TAG APPROVAL DATE: 5/15/90

ADEC Arthur [Signature]

EXXON Andy [Signature]

NOAA Joseph [Signature]

USCG G.A. [Signature]

FOSC: [Signature]

DATE: 5-28-90

monitors/evaluate need for treatment at time of intended application.

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotai Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unilled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- P Harbor seal and sea lion pupping (5/10 to 7/1)
 Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7H Deer harvesting (3/1 to 1/7)
 JJ Invertebrate harvesting
 KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

K0915

SEGMENT ST 1 SB-101 SUBDIVISION: A DATE 4/28/90**USCG**NAME AEC Vandepels SIGNATURE AEC Vandepels☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED**ADEC**NAME Michelle Baer SIGNATURE M Baer☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Recommend a small crew (<10) recover TB's, and spots with CV on underlying layer. Hand-size CB should also be recovered with 50%+ CT. Area can be found by referencing map descriptions and pit #'s. Concentrate efforts on East side, with pickups of TB's made at designated areas on West side. Keep crews off areas above SHTZ to avoid disturbing bird colonies.

LAND MANAGERNAME Janis Meldeum SIGNATURE Janis Meldeum☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Tar balls and oil covered ~~rock~~ cobble and sediment could be manually removed with shovels.

REVISION NO. 02/21/90

05.01.90 05:08PM *EXXON Seward

OG C. DILLON USCG AEC Vandepels SEGMENT ST/ K045
 BIO P. Crank LAND REP Janis Melderum (NPS) SUBDIVISION 93-101
 EXXON T. Tomblin ADEC Michele Baer TIME 19:001012:30
 TEAM NO. 5 TIDE LEVEL -0.5 to +1 DATE 04/28/90
 EST. SUBDIVISION LENGTH: 1662 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock Island chain connected by tidal flats
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 35 % B 30 % C 15 % P 10 % G 5 % S 5 % M 0 % V 0 %
 SLOPE: Lang 75 % Hang 25 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 50 m M 0 m N 45 m VL 300 m NO 1333 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	1	2	3	4	SW	SE	NE	NW
ASPHALT PAVEMENT												
POOLED												
COVER					X	X			X			
COAT			X	X	X	X			X	✓		
STAIN			X	X	X	X			X	✓		
MOUSSE												
PATTIES												
TARBALLS			X			X			X			
FILM												
NO OIL											X	X

PAVEMENT H F S sq. m by cr.

PATTIES / TARBALLS 1 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MO	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE oiled debris

#BAGS 1

Photographs:

Roll No. ST-5-7

Frames 27, 29

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				AN A	SHEEN (N/A)	↓	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	SW	SE	NE	NW				
1	40					X	.		X					X				N	—		S-S
2	60					X	.		X					X				N	—		S-S
3	30					X	.		X					X				N	—		P/S-S/L
4	60					X	.		X					X				N	—		C/P-P/S
5	25	X					0-10	X		X				X				N	—		C-C/P
5	25					X	10-20	X			X			X				N	—		C-C/P/G

THE MAJORITY OF THE SUBDIVISION IS LANG AND HANG ROCK AND BOULDER - UNOILED OR WITH OCCASIONAL SMALL SPLATTERS OF COA AND STAIN ALONG THE SITE. THE WEST SIDE OF THE ISLET IS MOSTLY UNOILED WITH THE EXCEPTION OF SMALL, SOFT SANDY TAR BALLS ON THE HANG BOULDERS BORDERING THE LARGE SANDY BEACH IN THE CENTER. THE NORTH SIDE OF THE ISLET HAS A SMALL LANG COBBLE/PEBBLE/GRANULE/SAND AND A LANG B/C BEACH WITH SPLASHES OF STAIN/COAT AND OILED DRIFTWOOD ON THE SITE. OILED LOGS HAVE SPLATTERS ON THEM.

REVIEWED PAT DATE 2 MAY 90

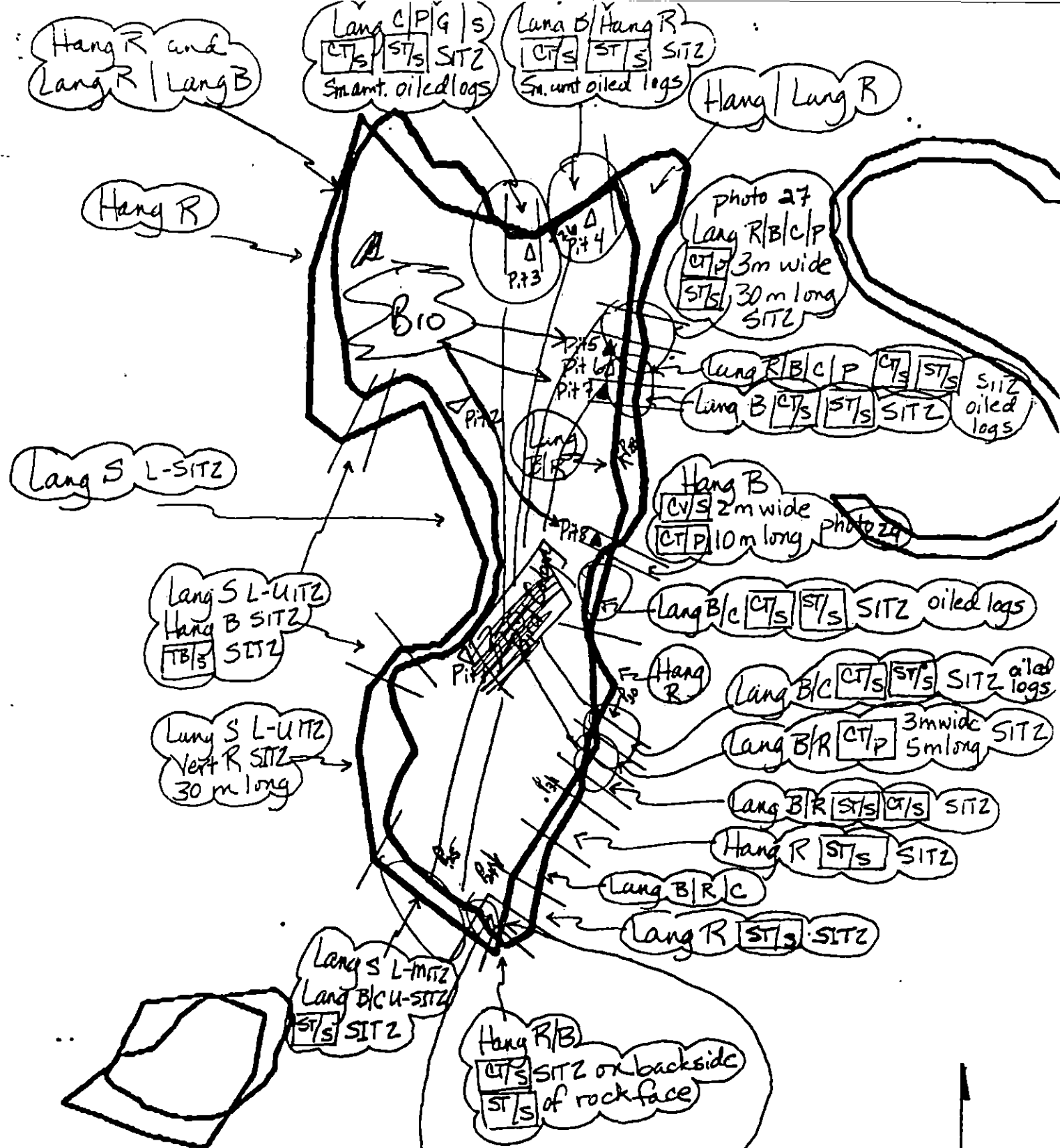
SEGMENT ST/ SB-101 SUBDIVISION A (1 OF 1)

[illegible]

COMMENTS

COMMENTS
THE EAST SIDE OF THE ISLET HAS 3 LANG BOULDER/COBBLE BEACHES WITH BOULDER SHOULDERS. THE COASTING BECOME PATCHY ON THE BOULDER SHOULDERS AND WIDENS TO 3m WIDTH ALONG THE SITZ FOR LENGTHS OF 5, 10 AND 30m. THE 10m LONG AREA IN THE VICINITY OF PIT 8 HAS A FEW COBBLES AND BOULDERS WHOSE INTERSTICES HAVE A SHINY, UNWEATHERED COVER. THE SOUTHERNMOST B/C BEACH AREA HAS A 10m WIDE X 50m LONG U/S ST/S ALONG THE U-SITZ BUT NO SUBSURFACE PENETRATION.

ALL OIL (EXCEPT THE COVER) IS EXTREMELY WEATHERED AND THE COAT IS ALMOST DRIED TO A STAIN. MOST OILING IS IN THE FORM OF SPORADIC SPLASHES AND SPOTS BETWEEN 2 CM DIAMETER AND 20 CM DIAMETER. NO SKETCHES INCLUDED DUE TO LIGHT & UNIFORM OILING & GEOMORPH. REVIEWED BAL DATE 2 MAY 90



OIL CHARACTER LENGTHS (m):



 CV 2

 CT 293

 ST 100

 TB 40

 NO 1333

Lang SIBL-MITZ
Lang BICs U-SITZ
CT/S U-SITZ
ST/S 10m wide
50m long
No subsurface oiling

SB-101-A
1662m

Time (24 hr) 0850-1230 Biologist Cranl pg 1 of 4

(A) Substrate type and % of segments:
(1) Bedrock 35 (2) Boulder 30 (3) Cobble 15 (4) Pebble 10 (5) Sand 10 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 15 Low 75

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (O)

Photographs: Roll No. ST-5-7

Frames 24-31

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	X	2	2	2	X	2	2	2	NOT PRESENT 4,5
3	3	3	X	X	3	X	X	X	X	X	X	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	X	2	NOT PRESENT 1,4,5
3	3	3	3	3	3	3	3	3	3	X	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
X	X	X	2	2	2	2	2	2	2	2	2	NOT PRESENT
X	X	X	3	3	3	3	3	3	3	3	3	
X	X	X	4	4	4	X	X	X	4	4	4	
4	4	4	5	5	5	5	5	5	X	X	X	
5	5	5	6	6	6	6	6	6	6	6	6	
6	6	6										

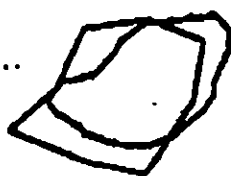
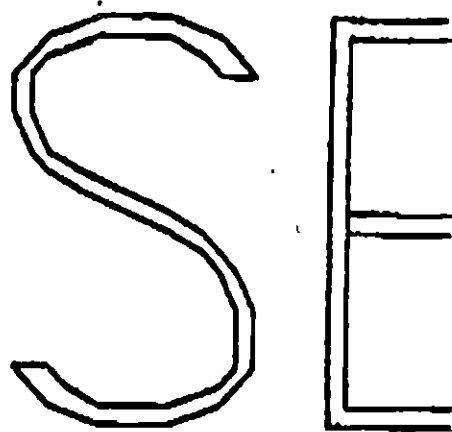
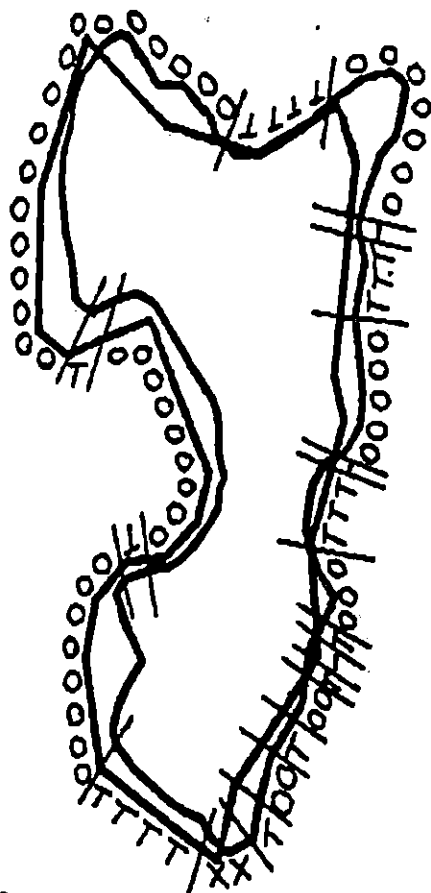
FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	X	2	2	X	2	NOT PRESENT 3,4,5
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/General Comments: - Otter in U172 cobble appeared to be in labor
 >100- Gulls - Glaucous-winged and Mew? (much smaller than Gull) visible breeding dot on hi
 14 Barrows Goldeneye >20- Oystercatchers
 10 Harlequin L. Turt. & Puffins
 1- Swallows - heard.
 2 Pigeon Guillemot
 18- dr. small Alcids
 1- Shalton
 4 Seal
 7 Others
 4- Cormorants
 8- Dippers?
 1- Raven
 Ecological Considerations:
 Sea Bird Colony
 Eelgrass bed
 Kelp bed
 Counts made only for flying birds. Did not enter onto colony.
 NPS rep. found fresh dead gull in U172 - no apparent oiling.

General Comments

- Subdivision is an exposed islet with 2 sandy beach areas (one on the SE corner and the other on the west side), an extensive rock bench (along the east side) and small rock and boulder headlands. Above the rock bench, the MITZ and UITZ comprises of boulder fields and bedrock. The uplands appear to be grassy and a breeding area for gulls. Several other species of birds were also observed but not in the great numbers as the gulls. I did not walk into the uplands; therefore, nesting information not available.
- On the Southern end of the islet in the upper UITZ cobble there was an otter present. It appeared to be in labor as abdominal contractions were visible and although it made hissing noises it did not leave.
- At the Northern End of the Islet there is a *Zostera* bed; on the East side a Laminarian bed (beginning at the -4' tide level). 70% Bladed reds cover on the LITZ rock & boulders.
- Throughout the MITZ there are sporadic sparse patches of *Fucus*.
- Mussels not observed on West side of Islet; on east side a rare individual was found under cobble and there were 3 1m² patches in the MITZ boulder on SW end.
- *Littorina* sparse on sand but throughout rest of Segment substrate and in all zones this was the most dense population I've seen this spring.
- Segment appears healthy.



XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

SB-101-A
 EXXON SEGMENT LENGTH: 1662m
 Approx. Segment Length: 1695m



Map Key: AKP-SB-101
 Name: C. DILLON
 Date: 4/28/90
 Data Entered:

WORK PLAN ADDENDUM

Segment K09-15-SB-101

Subdivision A

Dated 5/22/90

MODIFICATION

1. REASON FOR MODIFICATION

- FOSC Request
- Landowner comments

2. ADJUSTMENT TO WORK PLAN

- No bioremediation

SHPO APPROVAL NEEDED YES _____

SHPO SIGNATURE _____

NO X

TAG APPROVAL DATE 5/31/90

ADEC Art WEINER Art Weiner

EXXON ANDY TGA Andy TGA

NOAA Joseph Talbot J. Talbot

USCG G.A. REITER G.A. Reiter

FOSC [Signature] DATE 5/31/90

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-102 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)

3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)

4LL Set net sites (6/11 to 7/25)

5R Seabird colony (5/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Michael Antognelli DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1162 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended

 Treatment Recommended

 Manual Pickup

 Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads,rolls,etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/15/90

ADEC Aet Warner Dnt Weiner

EXXON ANDERSON

NOAA Joseph T. Holt

USCG G. J. SEITZ

FOSC: W L

DATE: 5-18-90

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- SR Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- SS Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2208
- E All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 1 Deer harvesting (5/1 to 1/7)
 U Invertebrate harvesting
 ...K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0915 SB-102 SUBDIVISION: A DATE 4/28/15

USCG

NAME AEC Vandepelt SIGNATURE AEC Vandepelt

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Michele Baer SIGNATURE M Baer

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No treatment recommended due to very light, sporadic, small droplet sizes of CT and ST splatters throughout segment. Area is very high energy. Suggest treatment left to natural wave energy.

LAND MANAGER

NAME Janis Meldeum SIGNATURE Janis Meldeum

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

A comprehensive survey of islands in this segment was not completed due to the rising tide. Oil observed was in a weathered state and could only reasonably be removed by intensive scrubbing of rock surfaces.

SHORELINE OILING SUMMARY

REVISION NO 06/13

OG C. DILLON USCG AEC Vandepels SEGMENT ST/ K0915
 BIO P. Crank LAND REP Janis Meldrum (NPS) SUBDIVISION SB-102
 EXXON T. Tomblin ADEC Michele Baer TIME 12:30 to 13:30
 TEAM NO. 5 TIDE LEVEL +1 to +4 DATE 4/1/28/190
 EST. SUBDIVISION LENGTH: 1814 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock Teletchain connected by tidal flats
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 40 % B 35 % C 5 % P 5 % G 5 % S 10 % M 0 % V 0 %
 SLOPE: Lang 25 % Hang 50 % Vert 25 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 1814 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	S	P	B	1	2	3	4	SU	U	M	V
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X			X		X			
STAIN				X			X		X			
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X	X	X	

PAVEMENT H F S — sq. m by — cmPATTIES / TARBALLS — BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

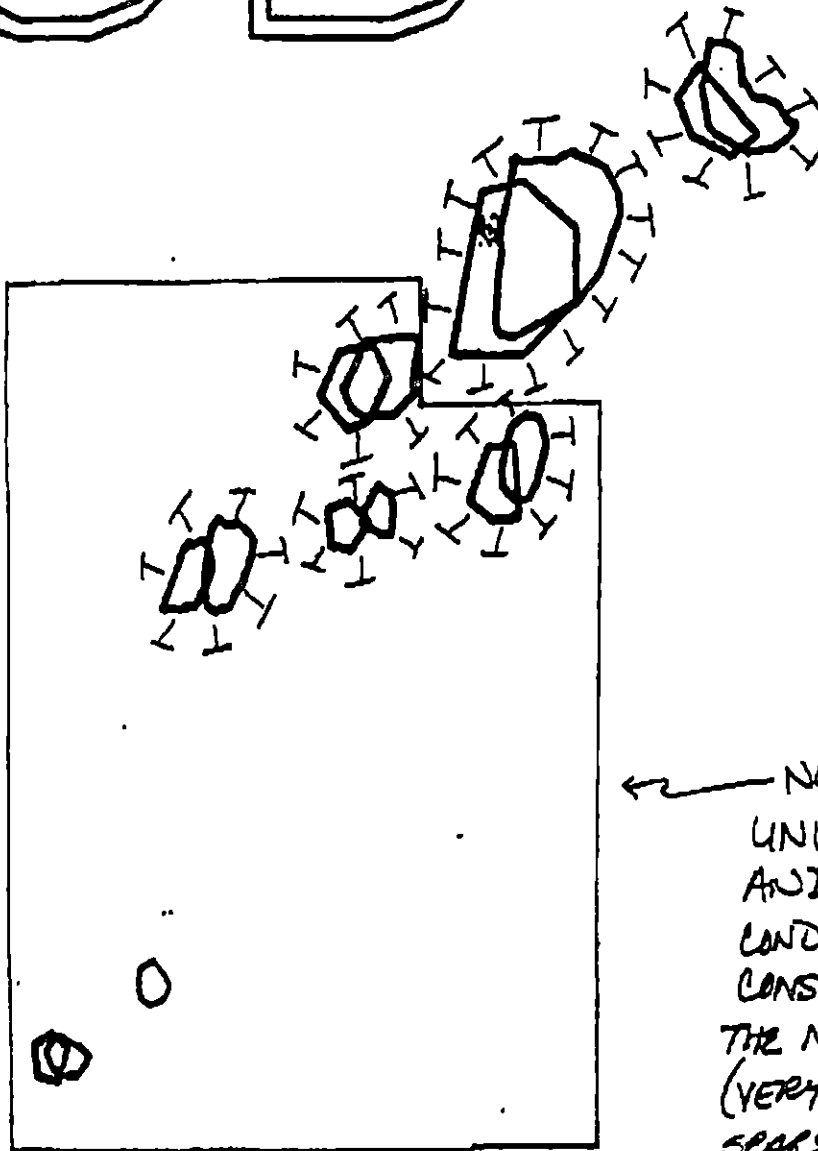
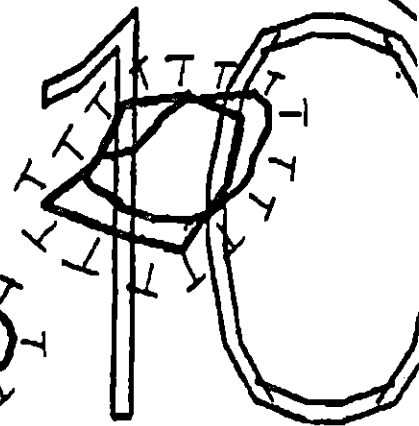
Roll No. None.Frames —SUBSURFACE OIL NONE - ALL HANG/LANG/VERT ROCK AND BOULDER/RUBBLE

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR							PIT ZONE				A	N	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UC	UC	1	2	3	4	5	6	7	SU	U	M	V					

COMMENTS THE SUBDIVISION CONSISTS OF SEVERAL (8-10) SMALL ISLETS WITH M-SITZ OF HIGH ANGLE BOULDER/ROCK AND SOME VERTICAL ROCK. AT LOW TIDE THE ISLETS ARE SURROUNDED AND CONNECTED BY LOW ANGLE ROCK AND BROAD SANDY TIDAL FLATS. THE NORTHERNMOST 4 ISLETS WERE SURVEYED BY FOOT AND WERE CONSISTENTLY SPOTTED WITH VERY LIGHT AND SPORADIC SMALL DROPLET SIZE STAIN AND COAT SPLATTERS. THE 4 (OR 6?) SMALL SOUTHERN ISLETS WERE NOT SURVEYED REVIEWED BAT DATE 3 MAY 90
 DUE TO RISING TIDE AN INACCESSABILITY BY FOOT. DUE TO THE UNIFORM CONDITIONS OF THE ENVIRONMENT/SHORELINE, OILING IS CONSIDERED UNIFORM.

SB

—



← NOT SURVEYED - DUE TO
UNIFORM ENVIRONMENTAL
AND GEOMORPHOLOGICAL
CONDITIONS, THE OILING IS
CONSIDERED UNIFORM WITH
THE NORTHERNMOST ISLETS
(VERY LIGHT STAIN/COAT SPOTS
SPARSELY SCATTERED ALONG
THE SITE ROCK/BOULDERS)

(COMBINED OILING IS SO LIGHT THAT IT OCCUPIES
LESS THAN 1% OF THE SURFACE SEDIMENTS.)

OIL CHARACTER LENGTHS (m): CT 907 S 907 NO 0

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

SB-102-A

EXXON SEGMENT LENGTH: 1814m

Approx. Segment Length: 1858m



Map Key: AXP-SB-102

Name: C. DILLON

Date: 4/28/90

Date Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISED 8/83

K0915

Segment ST 56 102 Subdivision A Date (mo / day / yr) 4/28/90Time (24 hr) 1230-1320 Biologist Crank

pg 1 of 4

(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 35 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt(B) Overall % cover of biota (% of segment): Dense 10 Moderate 15 Low 75

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-5-7Frames 32

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

GASTROPODS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Uplands did not appear to be part of breeding colony. Only a few Gulls were obs.

- High after use on west side more than 100 dgs obs.

- Intertidal similar to 5B 101 A.

Ecological Considerations:

Segment: S7/K0915/SB102 A Length: 1858m

Biologist: Crank

Date: 4/28/90

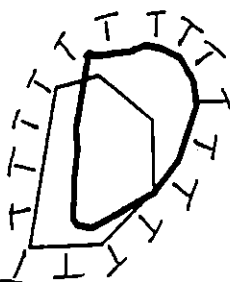
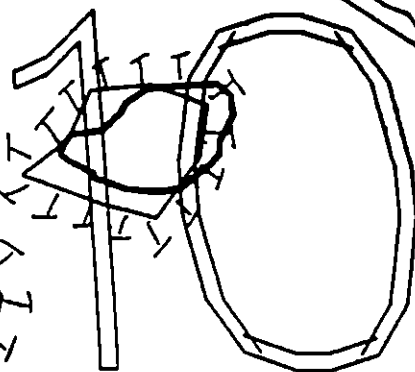
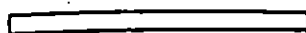
Time: 1230 - 1320

Tide Height: +1 → +4'

General Comments

- Segment is corrected at extreme low tide to SB101 by a large flat on the N end. There is another large flat on the SW side of SB102A between ... and ...
- On the SW ... there was a 10m² area distinct with other ... > 100% = ... other ...
- Between sand area, segment is mainly, boulder/rocks field. In LITZ the b/c are 90% covered by algae; 70% of this core (black red).
- Intertidal comparisons and distribution almost exact to SB101A. Hard bottom tests found on SB102A, not found on SB101A being the only observed difference.
- Segment appears healthy.

SB



XXXX Wide

//// Medium

---- Narrow

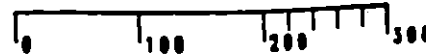
TTTT Very Light

0000 No Oil

SB-102

Approx. Segment Length: 1850m

1814m



METERS



KD915 was XX-2, XX501

Map Key: AKP-SB-102

Name: C. DILLON

Date: 4/28/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K09-15-SB-103 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
4LL National Parks
5R Seabird colony (5/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SHPO SIGNATURE: Michael C. Auger DATE: 5/15/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 708 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u>X</u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/15/90
ADEC Art Weimer Dit Weimer
EXXON Andy Ter Real FOSC: L DATE: 5-18-90
NOAA John Talbot John
USCG G.A. Reiter G.A. Reiter

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 No disturbance of stream bed or banks unless authorized by ADF&G No beach flushing into stream drainage No bioremediation or other chemical application within 100m of stream without authorization from ADF&G No use of methods which might affect nearshore oil or toxicity levels such as hot water wash or inipol application, unless authorized by ADF&G Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels such as manual removal can probably proceed without adherence to time constraints In any case contact ADF&G prior to treatment for consultation and/or permit application
 AGENCY CONTACT PERSON ADF&G Ken Middleton 267 2299
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels such as hot water wash or inipol application unless authorized by ADF&G Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal can probably proceed without adherence to time constraints Contact ADF&G prior to treatment for confirmation and advice
 AGENCY CONTACT PERSON ADF&G Larry Peltz 424-3214
- 1D Kotoi Bay Hatchery release
 Pink salmon late May early June Chum salmon June, Sockeye salmon - early July
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels such as hot water wash or inipol application unless authorized by ADF&G Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal can probably proceed without adherence to time constraints Contact ADF&G for confirmation and authorization
 AGENCY CONTACT PERSON ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland West side Kodiak, Shuyak & Moser/Oiga Bay (6/9 to 10/1)
 East side Kodiak East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation dates and locations may vary Restrict boat and air traffic to essential minimum When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G If plans for treatment include methods such as hot water wash or inipol application which might affect nearshore oil or toxicity levels contact ADF&G for consultation and authorization
 AGENCY CONTACT PERSON ADF&G Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation dates and locations may vary Restrict boat traffic to essential minimum Avoid damage to unholed intertidal and subtidal algae and seagrass If plans for treatment include methods such as hot water wash or inipol application which might affect nearshore oil or toxicity levels contact ADF&G for consultation and authorization
 AGENCY CONTACT PERSON ADF&G Larry Nicholson 486-4791
- 3N 3P 1Q Harbor seal and sea lion pupping (5/10 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum No personnel within 400m Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts No application of inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31)
 Contact ADF&G and USFWS prior to treatment for confirmation
 AGENCY CONTACT PERSON US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267 2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum No personnel within 800m Aircraft to maintain 800m horizontal 300m vertical distance from colony Contact USFWS prior to treatment
 AGENCY CONTACT PERSON USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum especially air traffic Contact USFWS and ADF&G for confirmation
 AGENCY CONTACT PERSON USFWS Jill Parker 786-3377
 ADF&G Tom Rothly 267 2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum No personnel within 400m 3/1 to 6/1 Air approach and takeoff from and to seaward only maintain 800m horizontal 300m vertical distance from nests Contact USFWS prior to treatment for confirmation of dates
 AGENCY CONTACT PERSON USFWS Jill Parker 786-3377
- 6U Recreation Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area, Salmon harvesting (8/1 to 9/30)
 7H Finfish harvesting
 7I Deer harvesting (8/1 to 1/7)
 7J Invertebrate harvesting
 7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 Contact ADF&G and appropriate Native Corporation for specific dates locations and constraints Restrict boat and air traffic and beach disturbance to essential minimum If plans for treatment include methods such as hot water wash or application of inipol which might affect intertidal or nearshore oil or toxicity levels contact ADF&G and appropriate Native Corporation for authorization see Native Corporation Contact List for each Native Corporation's contact person
 AGENCY CONTACT PERSON ADF&G Jim Fall 267 2359

FIELD SHORELINE COMMENT SHEET

K0915
SEGMENT ST 1 SB-103 SUBDIVISION: A DATE 4/28/90

USCG

NAME AEC Vandepelt SIGNATURE AEC Vandepelt☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Survey was done from skiff because
it was not possible to walk on rock walls.

ADEC

NAME Michelle Baer SIGNATURE MBaer☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No oiling observed from skiff.

LAND MANAGER

NAME Tanis Meldeum SIGNATURE Tanis Meldeum☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Island circumnavigated by skiff; no oil observed. If a foot
survey had been possible, it is likely that oil may have
been observed in the form and quantity documented in segments
SB101 ~~and SB102~~. Such oiling would not be easily spotted
from a skiff.

OG C. DILLON USCG AEC 1 Vanderpelt SEGMENT ST/ SB-103
 BIO P. Crank LAND REP Janis Meldrum (NPS) SUBDIVISION A (LOF 1)
 EXXON T. Tomblin ADEC Michele Baer TIME 13:30 to 13:45
 TEAM NO. 5 TIDE LEVEL +4 to +5 DATE 4 / 28 / 90
 EST. SUBDIVISION LENGTH: 694 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock Rocky Islet
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 75 % B 25 % C 0 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 80 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 674 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	1	2	3	4	NO	U	M	L
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X	X	X	X

PAVEMENT H F S sq. m by cm

PATTIES / TARBALLS BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE

#BAGS

Photographs:

Roll No. None

Frames

SUBSURFACE OIL NONE (MOSTLY DUE TO LACK OF SUBSURFACE SEDS)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				ANALYSIS	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		US	UC	1	2	3	4	NO	U	M	L		

COMMENTS THE ENTIRE SUBDIVISION IS AN ISLET OF VERTICAL AND HIGH ANGLE ROCK AND HIGH ANGLE BOULDER. THE SUBDIVISION WAS SURVEYED ENTIRELY BY SKIFF AT CLOSE PROXIMITY AND NO OIL WAS OBSERVED. FOOT ACCESS IS NOT POSSIBLE IN MOST PLACES AND DIFFICULT IN THE REST (BOULDERS ALONG E. SIDE). IF A FOOT SURVEY WAS PERFORMED ALONG THE LARGE BOULDERS OR CLOSER TO THE ROCK CREVICES IT IS UNLIKELY THAT ANY OIL WOULD BE MORE THAN SPORADIC STAIN/COAT

REVIEWED BAT DATE 2 May 90

SHORELINE ECOLOGICAL SUMMARY

Revised: 10/22

K0915

Segment ST / SR 103 Subdivision A Date (mo / day / yr) 4 / 28 / 90Time (24 hr) 1320-1340 Biologist CranePg 1 of 2(A) Substrate type and % of segments:
(1) Bedrock 75 (2) Boulder 25 (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____(B) Overall % cover of biota (% of segment): Dense _____ Moderate 20 Low 80

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs: No photos
Roll No. _____

Frames _____

BARNACLES

Dense		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Rare		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

NOT PRESENT

MYTILUS

Dense		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Rare		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

NOT PRESENT

GASTROPODS

Dense		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Rare		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

NOT PRESENT

FUCUS

Dense		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Moderate		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Sparse		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

Rare		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

~20 Gulls

~172 unexpected

Ecological Considerations:

Possible Small ...

- Entire Segment surveyed by skiff; not able to make gastropod observations

- Fucus in a discontinuous 1/2 m band in MITZ. 80% of population sporlings.

- Mussel in a 50m x 1/3 m band with a sparse concentration. Unable to make recruitment or mortality obs.

- Barnacles in continuous moderate band 30% spawning. Unable to make recruitment or mortality obs.



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SB-103-A

EXXON SEGMENT LENGTH: 67m
Approx. Segment Length: 68m



Map Key: AXP-SB-103

Name: C. DILLON

Date: 4/28/90

Date Entered:

ARLIS
Alaska Resources
Library & Information Services
Anchorage, Alaska