

OIL SPILL PUBLIC INFO. CENTER



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EVOS
GC
1552
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S42
1990
v.9

[Shoreline evaluations, 1990].

EV-20 – EV-900

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SHORELINE EVALUATION

SEGMENT ST/ EV-20 SUBDIVISION A (1 OF 1) DATE 4/19/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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. Hoffmann

DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 228 m: Narrow 99 m: V.Light 520 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X 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 removal of tarmat and manual
pick up of oiled vegetation and tarballs. Work should be conducted
after 6/1 and with approval of USFWS regarding eagle nest.

TAG COMMENTS: MONITORS TO HESSE-SUITZ

BIOREMEDIATION OF AREAS INDICATED ON SKETCH

TAG APPROVAL DATE: 5/4/90.

ADEC ART WEINER Art Weiner

EXXON ANDY ERL Andy Erl

NOAA Gary Petree Gary Petree

USCG G.A. BEITER G.A. Beiter

FOSC:

DATE: 5-18-90

NOTIFY CWC 24 HRS IN ADVANCE
OF WORK

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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 Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 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)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- SR Seabird colony (5/1 to 9/1)
 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.
- SS Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- ✓ ~~SR~~ 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 (5/1 to 9/30)
 7HH Finfish harvesting
 ✓ ~~7HH~~ Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

SEGMENT BT / EV-20 SUBDIVISION: A (1st 1) DATE 4-19-90

NAME Michael Buehner SIGNATURE *[Signature]*

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS Predominately narrow steep butte/cobble shoreline with stain band 3m wide at southern end tapering to 1m moving north. Minor cut was seen on back & under sides of rocks and in crevices. Sporadic patches of asphalt occurred in underlying gravel. No oil was observed thru the middle of the segment. A 2m band of cut under rock was seen above fence zone just south of pocket beach. The pocket beach was highly protected with vertical rock walls along either side of entrance. A 1/2 rock outcrop also blocks entrance. The outcrop & rock walls have bottle top stem ring (1m) cobble boulders at the landward end, including grass debris.

ADEC NAME John Hayes SIGNATURE *[Signature]*

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
① Manual pick up of asphalt pottier & manual mop up of oil UTR 3X30m. Band (see sketch map)
② Manual removal of oiled grass + oil beneath grass - oiled vegetation in 2 pocket beaches on sketch map #2. Oil accumulations on boulder tops also + sorbent pads would be appropriate.
③ Pocket beach #3 manual removal of tar band and subsurface oil to 2cm.

LAND MANAGER NAME _____ SIGNATURE *[Signature]*

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
NORTHERN : SOUTHERN SEGMENTS HAD STAIN ; BANDS OF ASPHALT, SOUTHERN SEGMENT ROCKS ; COBBLE BAND OF ASPHALT 3m X 30m RUNS NORTH BAND THING ON 30m ASPHALT PATCH, CONTINUING NORTH STAIN ; TUBES BECAME BROWN DISTRIBUTION, AT THE NORTH END OF SEGMENT FOUND WATER COVE, LOWER TIDAL AND SUBTIDAL. PATCHES OF OIL PATCH WERE FOUND, AREAS SOUTH WEST OF COVE COULD HAVE BEEN PATCHES. SOUTHERN HAD STAIN PRESENT ON LOWER TIDAL.

SHORELINE OILING SUMMARY

REVISION NO. 04/1988

OG CHINE FOUNT ~~NAME~~ Michael Burman SEGMENT ST/ SV-20
 RIO KATHLEEN ~~LAND REP~~ James A. Basset SUBDIVISION A (1 OF 1)
 EXXON LORET OLSON ADEC John Hayes TIME 16 45 17 45
 TEAM NO. 11 TIDE LEVEL + 3.3 DATE 4 / 19 / 90
 EST. SUBDIVISION LENGTH: 236 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock SNOW in the SUPR ITZ in some Low angle Boulders
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: 3 to N
 SURFACE SEDIMENTS R 20 % B 50 % C 25 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 5 % Hang 25 % Ven 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 80 m N 0 m VL 656 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	E	S	E	W	U	M	U	W	U	M	U
ASPHALT PAVEMENT			X		X				X			
POOLED												
COVER												
COAT			X		X				X	X		
STAIN			X		X				X			
MOUSSE												
PATTIES			X		X				X			
TARBALLS												
FILM												
NO OIL									X	X		

PAVEMENT H (ft) S 5 sq. m by 2 cmPATTIES / TARBALLS 15 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT	
	SM	MD LG
Logs		
Vegetation	X	
Trash		
Debris		

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE grass#BAGS 0

Photographs.

Roll No. _____

Frames _____

SUBSURFACE OIL # OILED INTERVAL < 5 CM IN PIT NOS. 3 AND 4 DOES NOT CONSTITUTE SUBSURFACE OIL

PIT NO.	PIT DEPTH (CM)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A	N	S	C	U	S	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	GP	NO		W	U	W	U	M	U	W	U	M	U							
1	15					X	.	X						X										P.G.S
2	15					X	.	X						X										C.G.S.C
* 3	15	X					0-2	X		X				X										P.G.C
* 4	15	X					0-2	X		X				X										G.C
							.																	
							.																	

COMMENTS

Medium oiling occurs in the Southern and Northern Parts of the Segment.
 There is a 3m x 10m broken coat among the boulders in the southern part of the segment.
 The Northern Part of the segment has a narrow protected cove w/ a low angle cobbles / pebbles beach. Located in the SUPR ITZ are a few patches of grass with a oil coat at the base of the grass, some of this is covered by snow in the SUPR ITZ. (map 2)
 The majority of the segment is a splattered distribution of stain among the high angle boulders / cobbles in the ITZ.

REVIEWED JW DATE 4-21-90

00_1 Foget
 SEGMENT ST/ EV-20
 SUBDIVISION A
 DATE 4/19 00

CATCH MAP 2

CHECKLIST

N Arrow
 Approx. Scale
 Seg/Sub Body
 Oil Dist.
 Wash
 Length
 % Cover
 Substrate Character
 Est. HWA/LWA
 SSI
 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

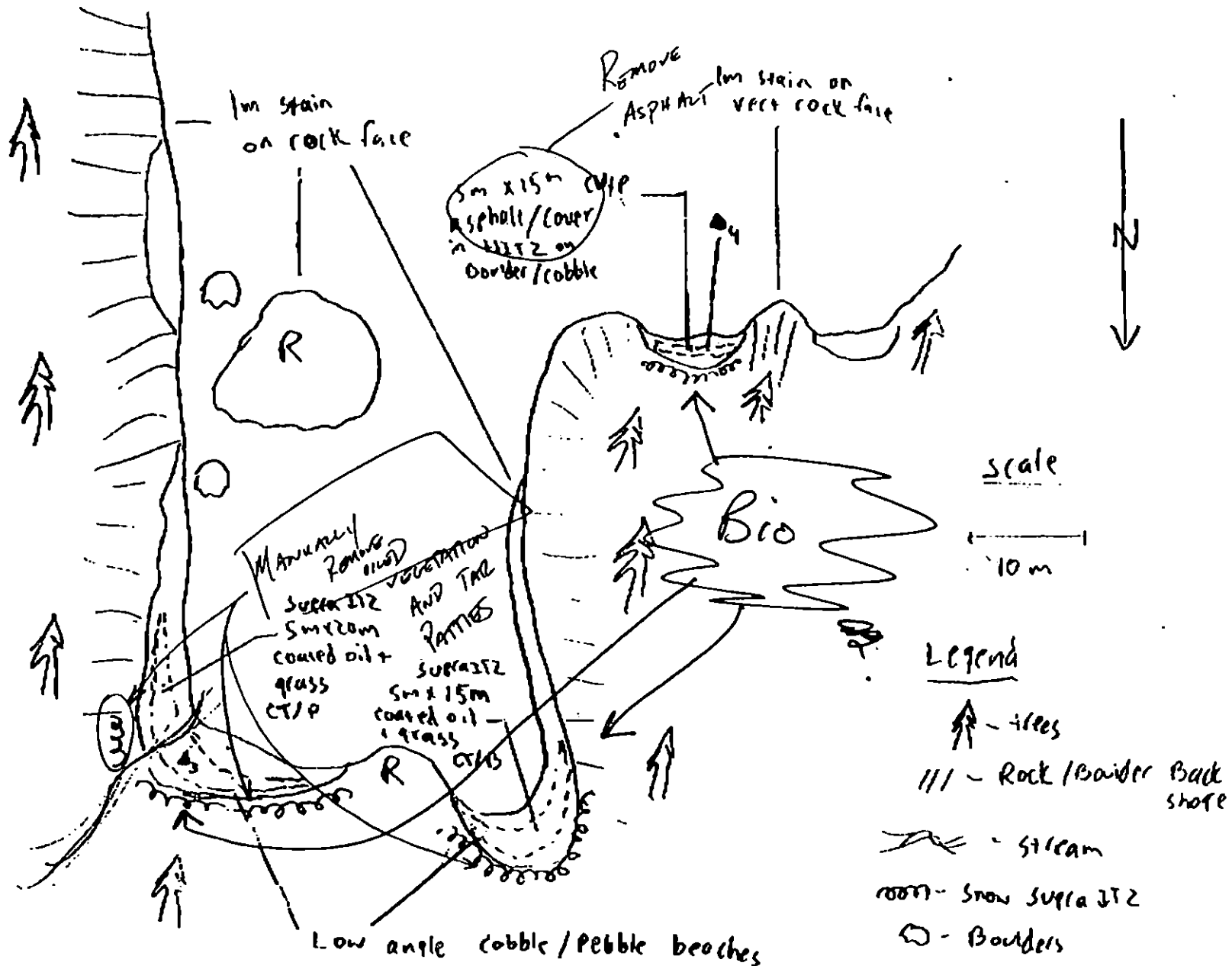
CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

Oil on Vegetation

1 ●
 Photo location, direction,
 and number

9/12



See map 1

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

REVISION 230000

SHORELINE ECOLOGICAL SUMMARY

REVISION 000000

Segment ST / BV-20 Subdivision A (1 OF 1) Date (mo / day / yr) 4 / 19 / 90

Type (24 hr) 1630 Biologist KATHLEEN COLLAW

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 50 (3) Cobble 25 (4) Pebble 5 (5) Sand 0 (6) SR 0

(B) Overall % cover of biota (% of segment): Dense 5 Moderate 80 Low 15

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

Photographs:

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

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:

Heavy cover of brown filamentous algae on boulders.

Many mussels broken by predatory gastropods

Ecological Considerations:

About 50% heavily coated mussels and barnacles alive, others dead

ECOLOGY MAP (1 of 1)

Resource Codes For
Entire Segment ✓



BALD EAGLE NEST

EV-2

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-20

ADEC Segment Length: 847m

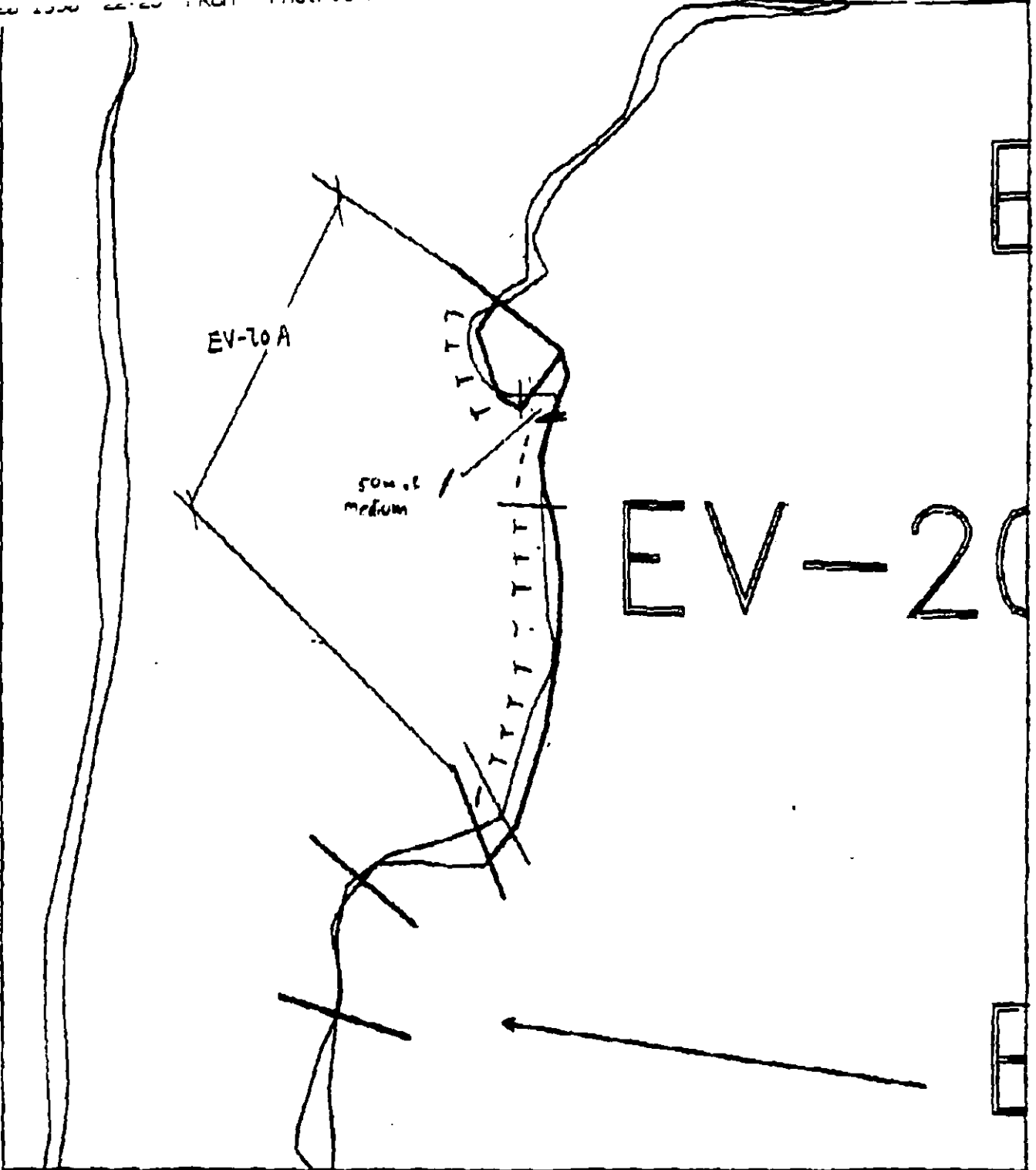


Map Key: PWS-189

Name: _____

Date: _____

Date Entered: _____



XXXX Wide	EV-20A	Map Key: PWS-100
//// Medium		Name: <u>Mike Foster</u>
--- Narrow	ADBC Segment Length: 847m	Date: <u>4/19/90</u>
TTTT Very Light		Data Entered:
0000 No Oil		

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-20 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	CLOSED
Bioremediation	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to manual pickup, tarmat removal, and bioremediation within 400m of active nest.

7II Subsistence: Deer Harvesting

Closed to bioremediation after 8/15. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest constraint is removed, other ecological considerations will apply.

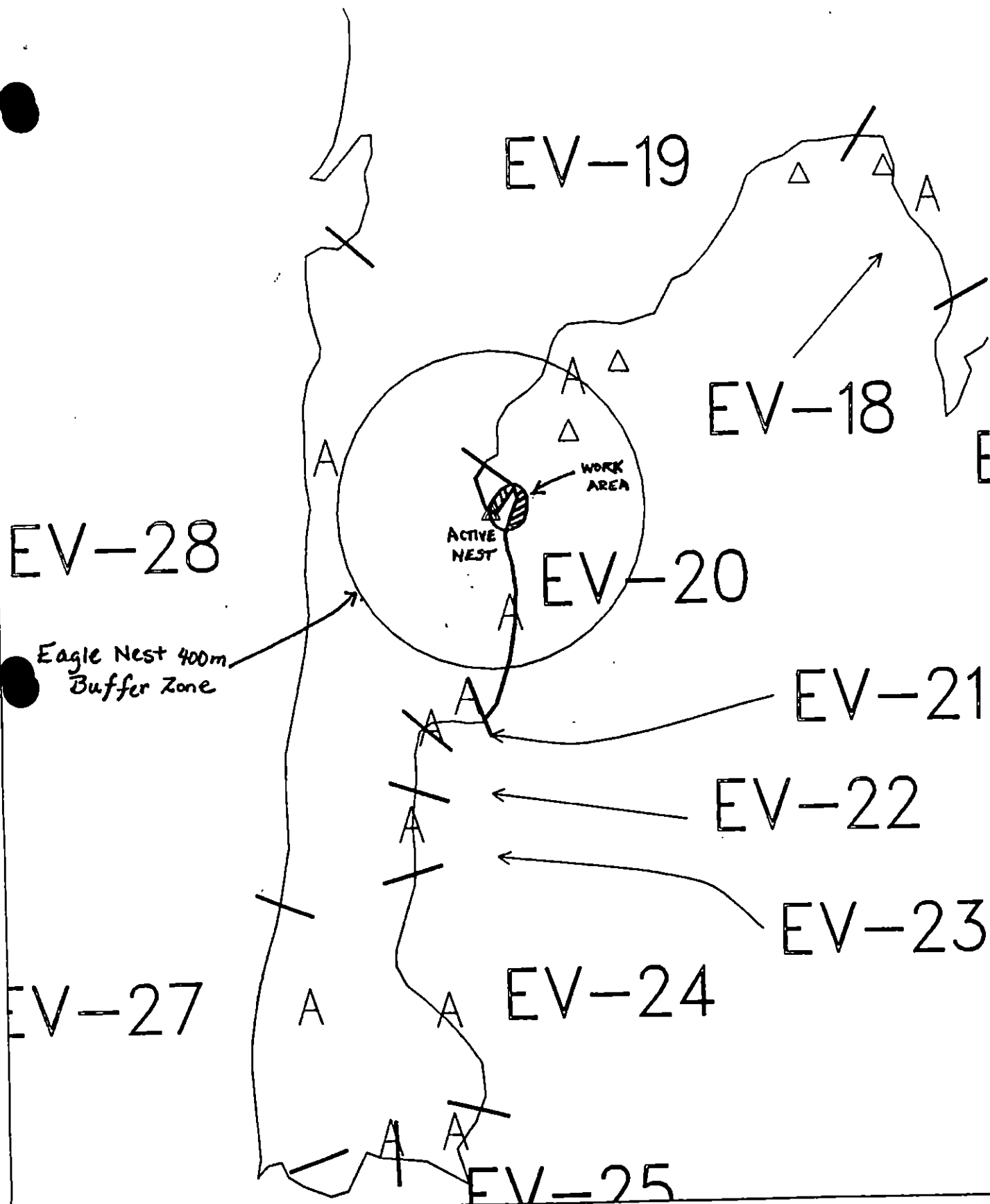
TAG APPROVAL DATE _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC _____

DATE 17 June 1990

Prepared By: WJ

Date 6/7/90



Exxon Company, USA
Map Key: PWS-EV-20
June 04, 1990

ECOLOGY MAP
SEGMENT EV-20
SUBDIVISION A (1 of 1)
METERS

0 334 669

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

1 inch = 1097 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-21 SUBDIVISION A (1 OF 1) DATE 4/19/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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: G. L. Hill M^cMurken DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 138 m: Narrow 0 m: V.Light 26 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 35 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> X </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tar patties and tarmats in areas indicated on attached sketch map, and 2) bioremediation of beaches indicated on sketch map after tar patties and tarmats are removed. Work should be conducted after 5/1.

TAG COMMENTS: MONITOR TO ASSES SUITZ

TAG APPROVAL DATE: 7/28/90.

ADEC	ART WEINER	Art Weiner
EXXON	ANDY TEAL	Andy Teal
NOAA	GARY PETRAE	Gary Petrae
USCG	KENNETH KEANE	Kenneth Keane

FOSC: DATE: 5-8-90

CRC does not object to bioremediation.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
1E Main Bay Hatchery release (4/20 to 5/10)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (8/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass.
Contact ADF&G for specific dates and locations.
- 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)
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 9/1)
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 (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-21 SUBDIVISION: A (1 of 1) DATE 4-19-90

NAME

Michael Burkman

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS This segment is largely a broad pebble beach with occasional rock outcroppings. ~~Scattered~~ Western tip is rock outcrop with a small pocket beach. Asphalt band continues from pocket beach to strain or east band on rock outcrop. Rocks on beach are all stranded on bottom half. Light stain present on pebbles thru out beach. Several patches of asphalt scattered about beach. Silver to rainbow sheen observed in snow melt seepage near asphalt patches. A presumably old pit, filled with water, had a slight silver sheen and a 5cm band of oil oiled sediments was clearly detectable. Physical characteristics of beach may be appropriate for bioremediation. Oiled debris extended under snow cover.

"Coating" is the only one that saw oiled debris.

ADEC

NAME

John Hayes

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS * Exxon / Davies + Moore Study Test Site

Beach segment EV-21 is a 152m segment primarily made up of sand + gravel + bordered on both sides by boulder outcrops. Entire segment has surface oil film.

① Mop up + pick up oil in matrix of boulders that border segment on both sides.

② Manual removal of large extensive asphalt patches on segment (see sketches).

③ Till gravel beach, flush with hot water deluge, + bioremediate w finishing treatment. Beach is a good candidate for tilling + has S/S oiling extensive OR S/S oil in MITZ from 5-15 cm / S/S oil film to 35cm in UITE.

④ SITE covered with snow, oiled logs + vegetation at snow line manual removal.

LAND MANAGER

NAME

JAMES A BARKER

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

NOTE! EXXON STUDY SITE, BEACH LOW GRADE ANGLE, BEACH WAS LARGELY SAND, GRAVEL AND PEBBLE, MORE THAN 1 DOZEN HOLES WERE DUG, MOST REVEALING STAIN: SHEEN, SOME REVEALED SATURATION 3cm to 10cm DEPTH.

MUCH OF THE BEACH SEGMENT WAS COVERED WITH LARGE ASPHALT PATCHES PATCHES VARIOUS IN SIZE. 4m x 7m TO 8m x 30m. WEST: EAST ENDS OF SEGMENT WERE ROCK: COBBLE, STAIN: ASPHALT PRESENT.

SHORELINE OILING SUMMARY

REVISION NO. 001390

OG/MINE FOOT 11 15.3 m Michael Buhlman SEGMENT ST/ EU-21
 BIO KATHLEEN Carlin LAND REP JAMES A BARBER SUBDIVISION A (1 OF 1)
 EXXON CARL Alan ADEC John Hayes TIME IS 15:45 to 16:45
 TEAM NO. 11 TIDE LEVEL +2.1 DATE 4/14/90
 EST. SUBDIVISION LENGTH: 15.3 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock Surf ITZ covered by snow
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 15 % C 10 % P 30 % G 20 % S 5 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 15 % Vert 15 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 122 m N 0 m VL 20 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	W	M	N	VL	NO	1	2	3	4	SU	U	M	N
ASPHALT PAVEMENT		X				X				X	X		
POOLED													
COVER													
COAT			X			X					X		
STAIN				X		X				X	X	X	
MOUSSE													
PATTIES			X			X					X		
TARBALLS													
FILM													
NO OIL													X

PAVEMENT H ☒ S 10 sq. m by 2 cmPATTIES/TARBALLS 20 BAGSNEAR SHORE SHEEN? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT	
	SM	MOLE
Logs	X	
Vegetation	X	
Trash		
Debris		

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE Logs: fuel#BAGS 0

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW	OIL / FILM COLOR					PIT ZONE				AN A	SHEEN	CYND	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OS	NO			1	2	3	4	5	SU	U	M	N					
* 1	30		X				0-5	X		X					X				Y		20	P, G, S
* 2	30				X		0-5	X			X			X					N		-	P, G
* 3	36				X		0-35	X			X			X					N		-	P
* 4	25				X		0-10	X			X				X				Y		20	G
* 5	30				X		0-5	X			X			X					Y		15	G
* 6	20				X		0-5	X			X			X					N		-	G

COMMENTS

Shore zone consists mostly of a cobble/pebble beach w/ some boulders and a rock/boulder outcrop to the East and West of the beach. The rock outcrop to the West has coating among the boulders/rocks with some asphalt/wr in the crevices. The pebble cobble beach has several large asphalt patches (screwup) in the upper and mid ITZ. Boulders located on the C/P beach also have a C/P stain on them. The entire 120m x 35m C/P beach has a light stain w/ some film residue in the subsurface sediments.

REVIEWED SW DATE 4-21-90

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 06/15/88

SEGMENT ST/ EV-21 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR						PIT ZONE				A	N	A	SHORE (M)	↓	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	5	6	SU	U	M	U						
7	50		X				5-15		X	X						X							N		P, G, S
* 8	20				X		0-5		X				X			X							N		G
* 9	30				X		0-15		X				X			X							N		G
* 10	20	X					0-2		X	X						X							N		G, S
							.																		
							.																		
							.																		
							.																		
							.																		
							.																		
							.																		
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							.																		
							.																		
							.																		

* OILED INTERVAL ~~WAS~~ < 5cm IN PIT NOS. 1, 2, 3, 4, 5, 6, 8, 9, 10 DOES NOT CONSTITUTE SUBSURFACE OIL

COMMENTS

For Pits 2, 3, 6, 8 and 9 there is no film on the sediments just a oil residue that rubs off on your hands.

Cobble / Pebble beach is a low angle beach, with possible oiled vegetation and logs in the supra ITZ. A majority of the supra ITZ is covered by snow on the C/P beach.

REVIEWED TW DATE 4-21-90

SEGMENT S-EU-21

SUBDIVISION A

DATE 4 / 19 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Sep/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HMM/LVL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ PI Location(s)
☐ Photo Location(s)

LEGEND

1 ▲

PI - No Subsurface Oil

2 ▲

PI - 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

MANUALLY REMOVE
TARMATS AND PATTIES
OFF BEACHES

DIR OUTCROP

3m x 10m AP/P
Asphalt Patties
in the HITZ

2m x 20m
Stain
HITZ

SKETCH MAP

3m x 20m CT/P
Coat on DIR Outcrop
in the HITZ

2m x 20m PT/P
Dist. of asphalt
Patties in the
HITZ

3m x 15m
AP/O in HITZ
w/ CV on Rocks
and Boulders

3m x 10m
AP/B in
HITZ

6m x 12m AP/B
Asphalt Patties HITZ

2m x 30m
AP/O asphalt
band HITZ

2m x 10m
AP/O asphalt band
HITZ

Legend ~~MANUALLY REMOVE OILED~~

(OOO) - snow in the surf HITZ
w/ some oiled logs & debris

Boulders

Trees

Scale

20m

Total segment requires
a squad to clean entire
segment as several areas
have asphalt Patties

Entire 120m x 33m P/G beach w/
some Boulders has a light stain, with
a subsurface residue which will rub
off on ones hands.

BIOREMEDIATE PEBBLE AND GRAVEL
BEACHES ~~MANUALLY REMOVE~~ AFTER
TARMATS ARE REMOVED

Oil Character Length (m): AP 77 PO 0 CV 0 CT 40 ST 40 MS 0 PT 30 TB 0 FL 0 NO 0

SHORELINE ECOLOGICAL SUMMARY

REVISION: 6/28/79

Segment ST/ EU-21 Subdivision A (1 OF 1) Date (mo / day / yr) 4/19/90Time (24 hr) 1544 Biologist K. CONLAN(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 15 (3) Cobble 10 (4) Pebble 30 (5) Sand 25 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 5 Moderate 15 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:
Roll No. ST-11-3Frames # 2

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	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			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	X	1	
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			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments:

Heavy filamentous brown algal cover on rocks
 About 40% of the Balanus glandula in the low intertidal zone

Ecological Considerations: on the bedrock are dead.

Strong predation on Mytilus by Nucella

DATE 19 APR 90 TIME 1544TIDE HEIGHT 2.0 ft

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				
FILAMENTOUS GREENS				
FILAMENTOUS REDS				
GLOIOPELTIS PURGATA				
HALOSACCION GLANDIFORME				
LAMINARIA SPP				
LITHOTHAMNION	2			
NERBOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
PHODOMELA LARIX				
RHOHOMENIA PALMATA				
SCYTOSIPHON SPP				
ULVA SPP				
ZOSTERA MARINA				
ENTOMORPHA			3	

FAUNA:

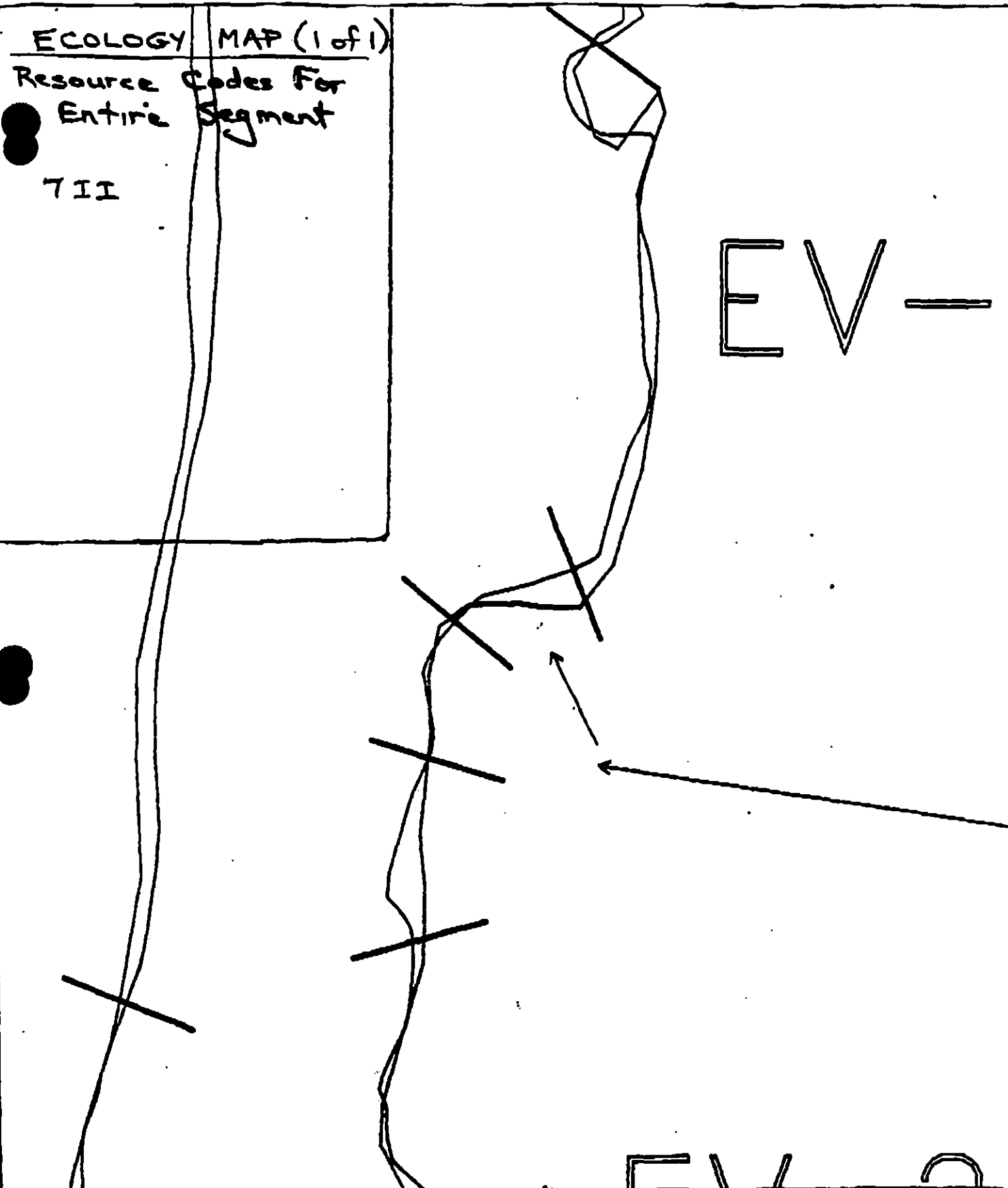
ANTHOPEURA SPP				
(SEMI) BALUNUS CARIOSUS		2		
B. GLANDULA		2		
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				1
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS		2		
LITTORINA SPP		2		
NUCELLA SPP			1	
PAGURUS SPP				
PISASTER OCHRACEUS			5	Gray-black, ~ 10 cm across
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA		2		
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				

ECOLOGY MAP (1 of 1)

Resource Codes For
Entire Segment

7II

EV-



XXXX Wide

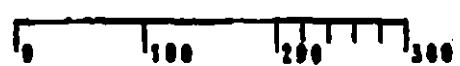
//// Medium

--- Narrow

TTTT Very Light

EV-21

ADEC Segment Length: 164m



Map Key: PWS-190

Name: _____

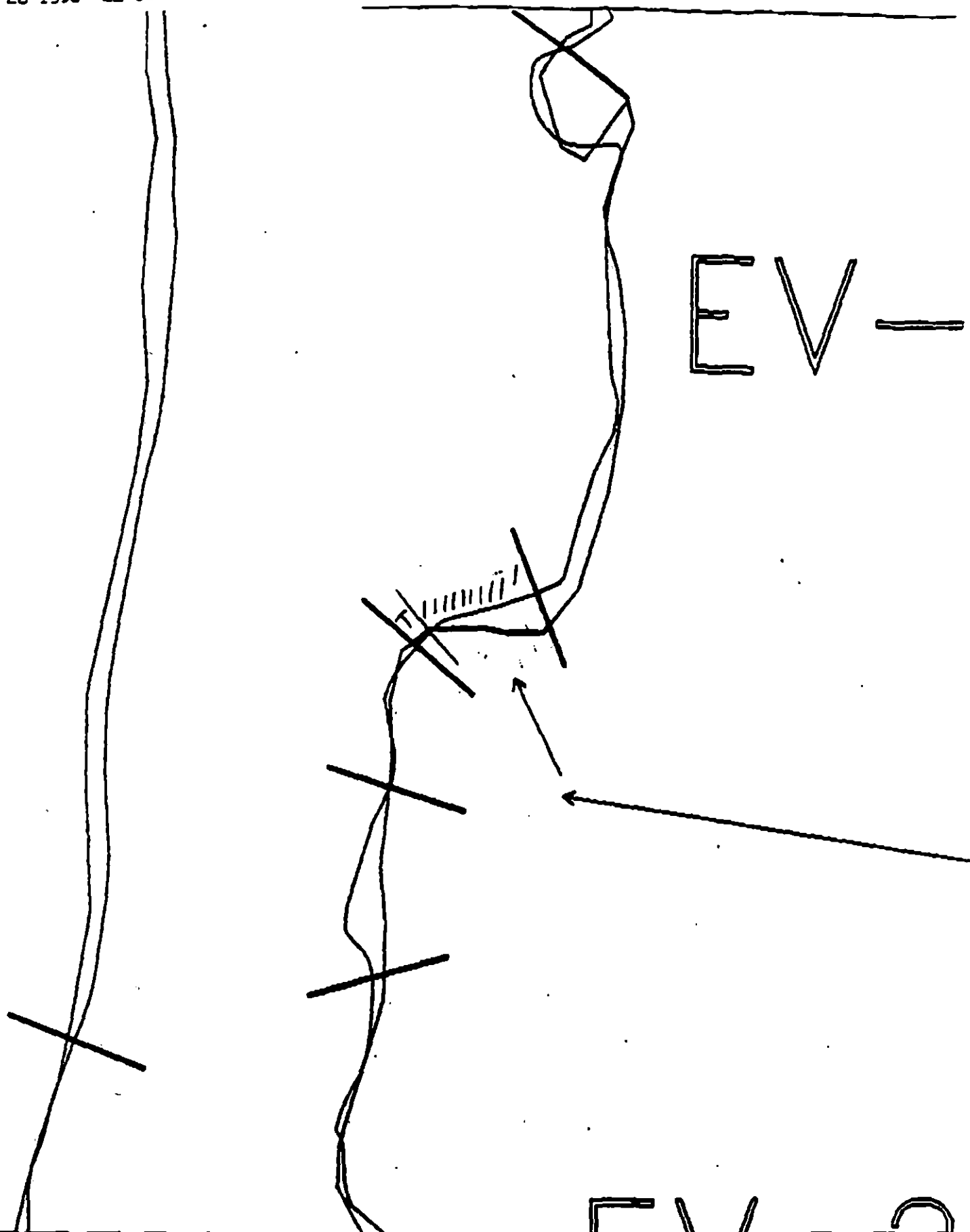
Date: _____

Data Entered: _____



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

EV-



XXXX Wide

//// Medium

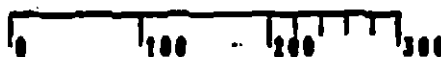
--- Narrow

TTTT Very Light

0000 No Data

EV-21A

ADEC Segment Length: 164m



Map Key: PWS-190

Name: Mike Fogel

Date: 4/19/90

SHORELINE EVALUATION

SEGMENT ST/ EV-22 SUBDIVISION A (1 OF 1) DATE 4/19/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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. Daniel M. Mahan DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 9 m: No Oil 159 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: MONITORS TO ASSESS THE USED FOR THE PARTY
PICK UP AS SHOWN ON SKETCH.

TAG APPROVAL DATE: 4/28/90.
ADEC ART WEINER
EXXON ANDY TEAL
NOAA GARY PELTZER
USCG KENNETH KEENE

FOSC: DATE: 5-8-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (8/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (8/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass.
Contact ADF&G for specific dates and locations.
- 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)
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 9/1)
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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV 22 SUBDIVISION: A (1 of 1) DATE 4-19-90

008
NAME Michael Buchman SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Tail ends of this segment are rock faces (covered by barn).
Middle of segment is narrow, very steep sloped boulder beach (walked).
Light stain was observed on boulders in a 1x15m band.
No oiling was observed in crevices or on underside of rocks.
Two small patches of asphalt ($\frac{1}{4} m^2$) were observed south of water fall. in underlying gravel

ADEC
NAME John Hayes SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Segment is steep boulder beach bordered on both sides with vertical headwall.
Observed staining + tar splatters in U.I.T.Z.
Two ^{small} asphalt patches south of waterfall. Recommend manual pickup if crews are working in area.
Low priority for treatment. Except for isolated patches (2) observed no treatment recommended for the rest of segment.
No pits dug as substrate was boulder + bedrock.

LAND MANAGER
NAME JAMES A. PARKER SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

EU - 22 , BEACH SEGMENT HARD TO OBSERVE DUE TO STEEP SLOPE OF BEACH. 60% - 70% WAS WALKED, LARGE ROCK - BOULDER ON THIS SEGMENT, LIGHT STAINING WAS FOUND 2 STAIN WERE FOUND AT SOUTHERN END OF SEGMENT 1 MAX 20 CM ANOTHER THAT WAS 15.420CM STAIN.

SHORELINE OILING SUMMARY

REVISION 40, 06/12/90

OG MINE FOOT ~~NAME~~ Michael Bushman SEGMENT ST/ EU-22
 BIO Kathleen Conlin LAND REP STEVE A WARD SUBDIVISION A (1 OF 1)
 EXXON LARRY ELSON ADEC JOHN HAYES TIME 15:30 to 15:45
 TEAM NO. 11 TIDE LEVEL +2.1 DATE 4/19/90
 EST. SUBDIVISION LENGTH: 169 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 40 % B 30 % C 25 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 60 % Vert 40 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 15 m NO 154 m

SURFACE OIL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Sorbent pad#BAGS 1

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
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	5	SU	U	M	L				
							.															
							.															
							.															
							.															
							.															
							.															
							.															

COMMENTS

No pits were excavated due to Nature of the shore zone
 cobbles were overturned but not logged, No oiling was observed in
 this segment with the exception of a very light 1m x 15m staining in the
 supra ITZ. Shore zone consisted mostly of Boulder/Cobble High arctic beach...
 Very rock wall to the Northern end of the segment

REVIEWED SWDATE 4-20-90

SEGMENT EV-22

SUBDIVISION A

DATE 4 / 19 90

CHECKLIST

- ☐ NA row
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Etc. HMLA/VL
- ☐ SSZ
- ☐ 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
Sporadic Distribution

Oil Vegetation

1 ●●
Photo location, direction,
and number

SKETCH MAP

Scale
20 m



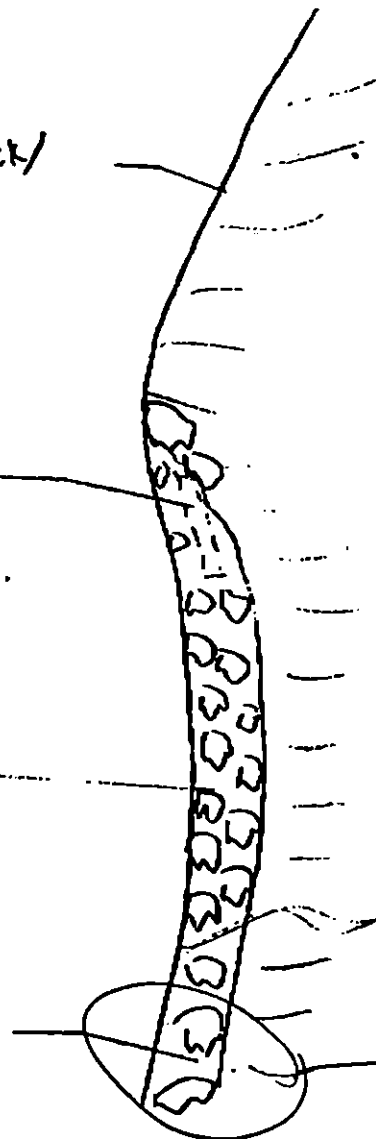
vert Rock/
boulder

1m x 15m ST/S
stain in the supra
ITZ among the boulder
beach

High angle boulder/
cobble beach

2 far: patches in the
HITZ, 0.2m x 0.3m and
0.1m x 0.2m

Legend
/// - high angle rock / boulder
backshore
○ - boulders



Water fall

Monitors

Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 15 MS 0 PT 0 TB 0 FL 0 NO 154

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/90

Segment ST/B-22 Subdivision A (1 of 1) Date (mo/day/yr) 4/19/90
 Time (24 hr) 1530 Biologist KATHLEEN CONLAN

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 30 (3) Cobble 25 (4) Pebble 5 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 95 Moderate 0 Low 5
- (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. _____

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

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:

1 SEA OTTER DENNING.

Ecological Considerations:

DATE 19 APR 90

TIME 1530

TIDE HEIGHT

2.0 ft

1 = BEDROCK

2 = BOULDER

3 = COBBLE

5 = SAND

6 = SILT

FLORA:

SPECIES	UTTZ	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA				
FILMAENTOUS GREENS				
FILAMENTOUS REDS				
GLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME				
LAMINARIA SPP				
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA				
PHODOMELA LARIX				
RHOHOMENTIA PALMATA				
SCYTOSIPHON SPP				
ULVA SPP		3		
ZOSTERA MARINA				
ENTOROMORPHA				

FAUNA:

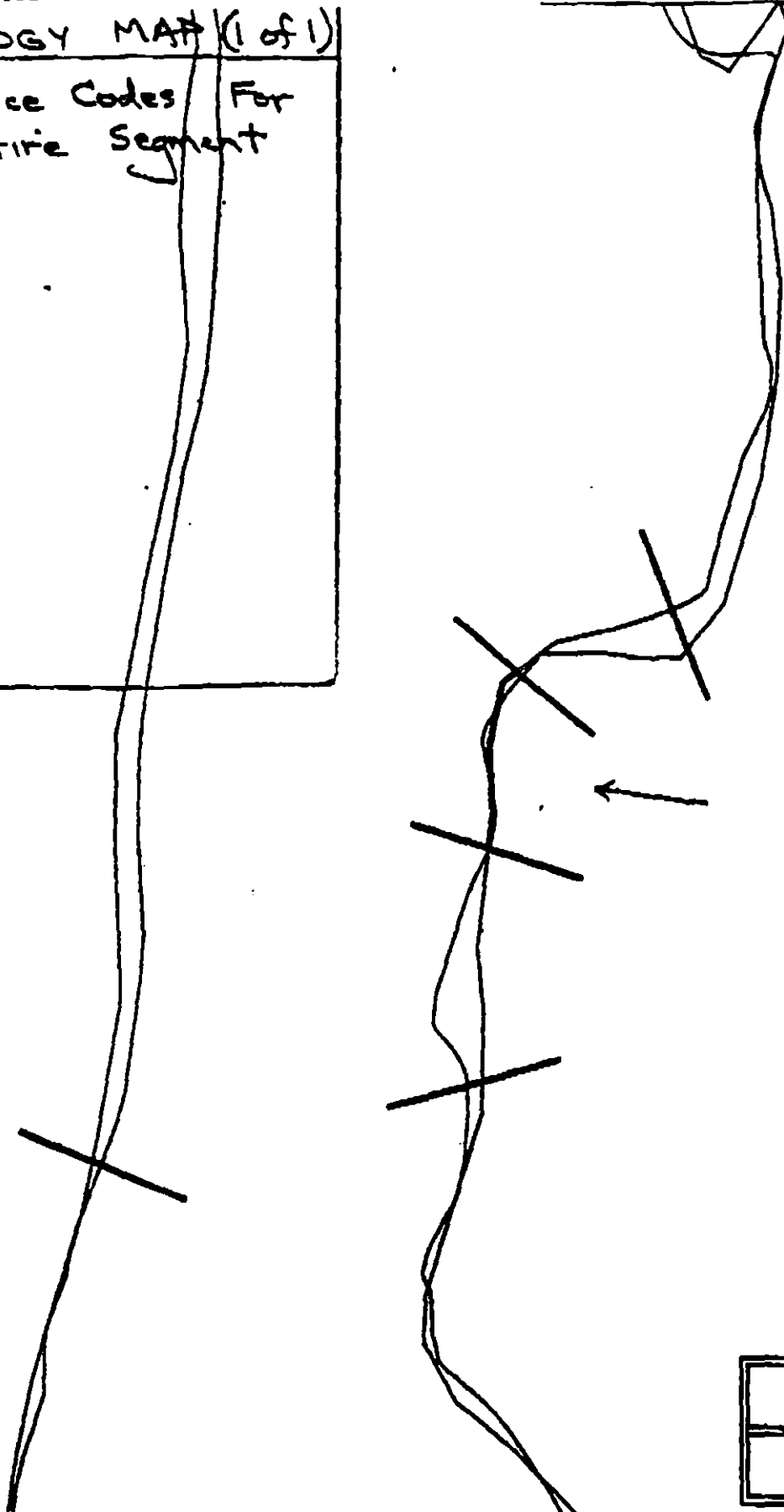
ANTHOPLLEURA SPP				
(SEMI) BALUNUS CARIOSUS				
B. GLANDULA				
BRYOZOANS		3		
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS		3		
LITTORINA SPP				
NUCELLA SPP				
PAOURUS SPP		5		
PISASTER OCHRACEUS				
POLYCHAETES				
PYCNOPODIA HELIANTHOIDES				
SEARLESIA DIRA		3		
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				

ECOLOGY MAP (1 of 1)

Resource Codes For
Entire Segment

7II

EV-



EV-2

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-22

ADEC Segment Length: 168m

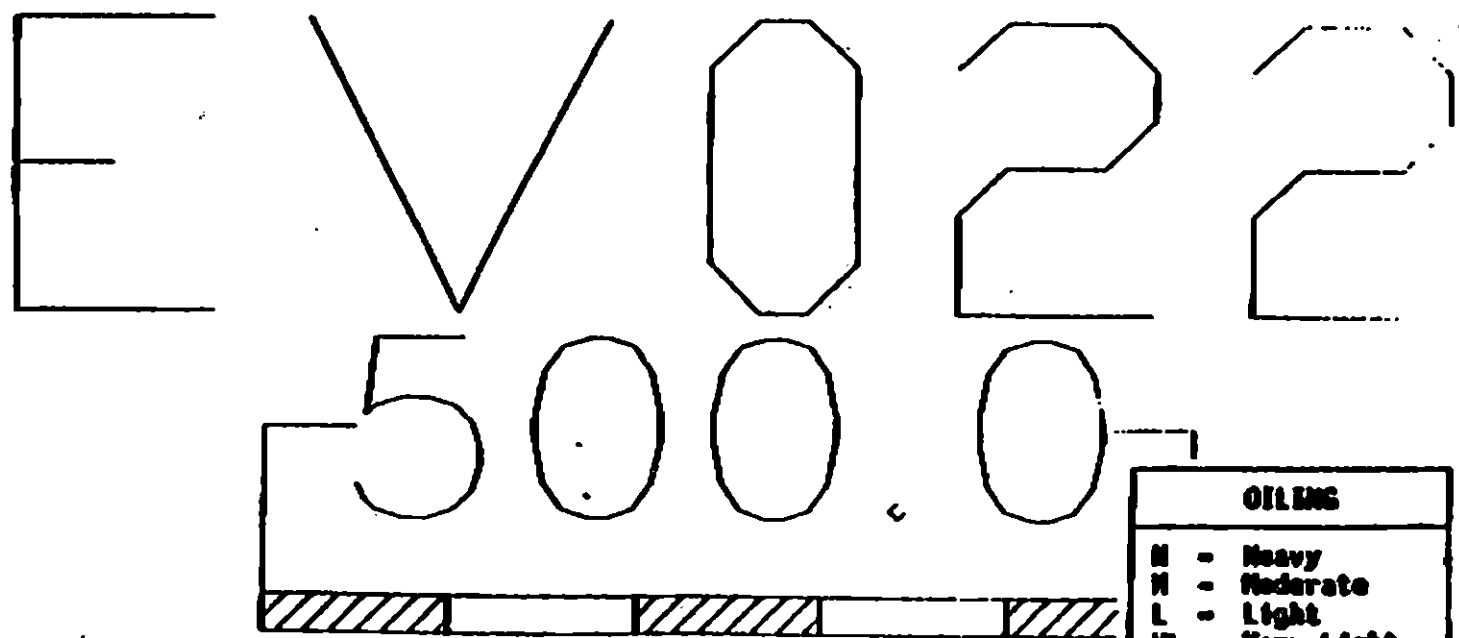
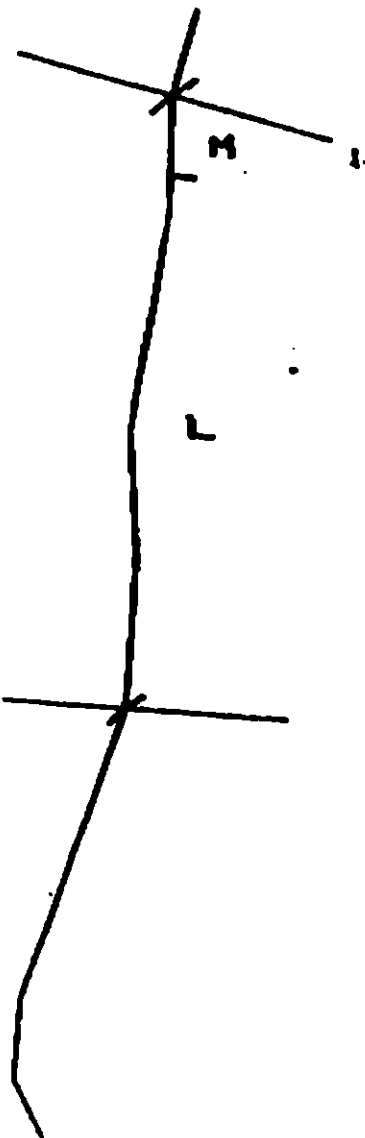


Map Key: PWS-191

Name: _____

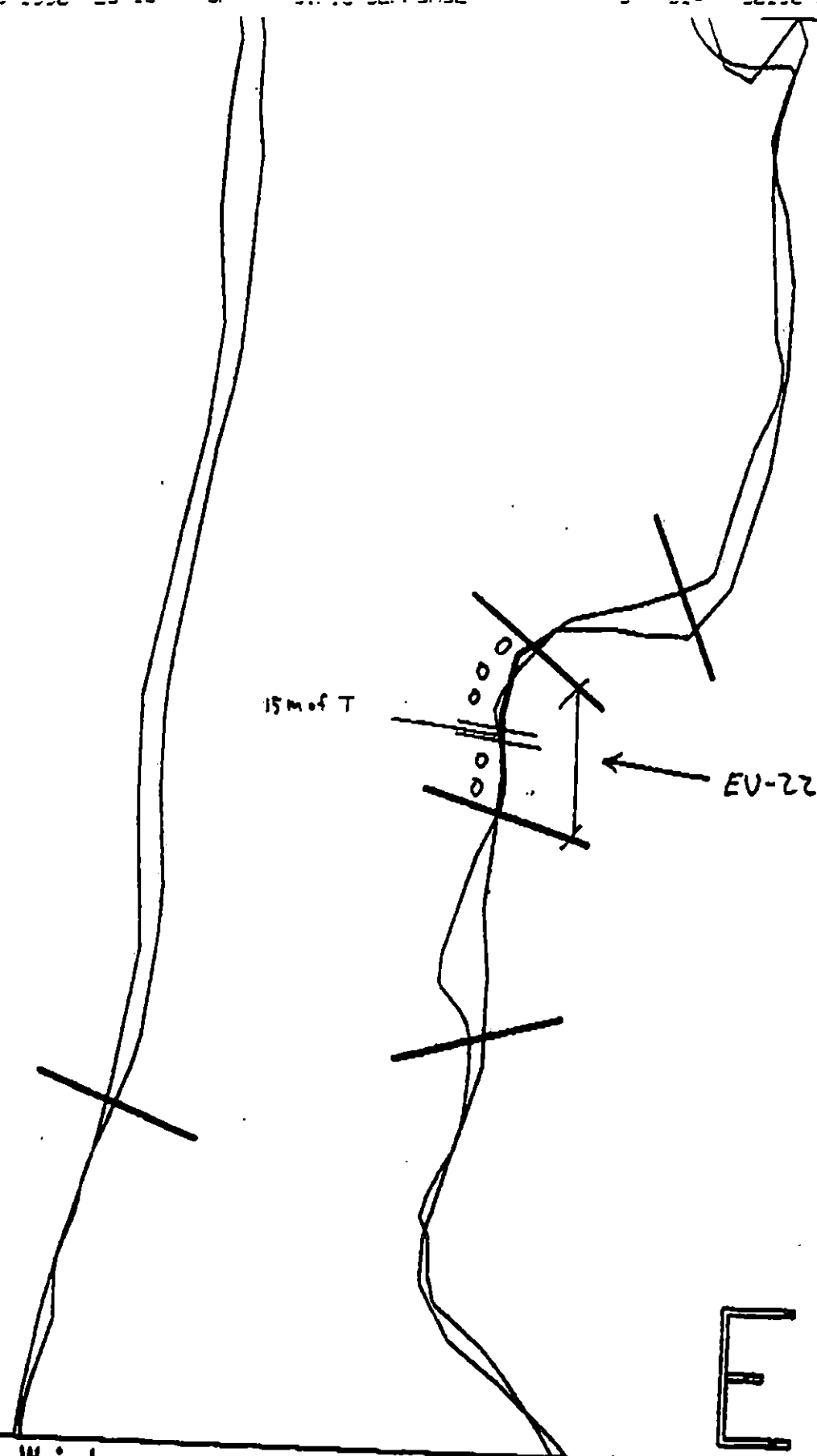
Date: _____

Data Entered: _____



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

EV-



EV-

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-22A

ADEC Segment Length: 168m



Map Key: PWS-191

Name: Mike Fogel

Date: 4/14/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-23 SUBDIVISION A (1 OF 1) DATE 4/19/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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: *David M. Mahan* DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 61 m: Narrow 0 m: V.Light 55 m: No Oil 95 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes manual removal of tarmats in
two areas indicated on sketch map. Work should be conducted after 5/1.
No specific time constraints identified. REMOVE UNATTACHED OILED
VEGETATION.

TAG COMMENTS: MONITORS TO ADDRESS SURT2

TAG APPROVAL DATE: 4/28/90.

ADEC *Art Weiner* *Art Weiner*

EXXON *ANDY TAY* *ANDY TAY*

NOAA *GARY PETRAE* *GARY PETRAE*

USCG *KENNETH KERN* *KENNETH KERN*

FOSC: *ML* DATE: 5-8-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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 Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 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)
 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 9/1)
 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.
- 6J 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 (5/1 to 9/30)
 7H-H Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 7J Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-23 SUBDIVISION: A (1 of 1) DATE 4-19-90

DDAR

NAME Michael Buchman SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Center of this segment is a narrow, high angle rock/boulder beach which tapers into gravel/pebble beach at either end. There's a broad band of Fucus below the boulder area which tapers off too. A 10 m wide band of asphalt patches, straddling above & below the high water line of the Fucus zone, was observed near a lg rock outcropping on the northern half. A silver sheen was on snowmelt seepage in this area. It did not extend to water's edge. The asphalt patches were also observed in the gravel underlying the rock/boulder beach. Approximately six 1/2 m² patches were seen. Lg boulders have splatter stain.

ADEC

NAME John Hayer SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

① Rec. mop up + manual pick up of oil in UITS band.
② Rec. manual pick up of 3 oblong large asphalt patties in middle of segment. Patties range from 2-5 cm. in depth. (See sketch map) Raker + shovels for asphalt patties.

LAND MANAGER

NAME JAMES A BARKER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

FOUND IN CENTRAL AREA OF SEGMENT EXTENDING NORTH PATCHES AND BANDS OF ASPHALT FOUND, PITS OUG SATURATION SHOWN ASPHALT STAIN. BANDS RANGE IN SIZE 4m x 6m, 3x15m, BAND RUNS TO END OF SEGMENT. OVERTURNING ROCKS REVEALED STAIN.

SHORELINE OILING SUMMARY

REVISION NO. 04/10/90

OG Mike Fobert ~~NAME~~ Michael Buckman SEGMENT ST/ EV-23
 BIO KATHLEEN CARLIN LAND REP JAMES A. BARTER SUBDIVISION H (1 OF 1)
 EXXON JOHN HAYES ADEC JOHN HAYES TIME 14:45 to 15:30
 TEAM NAME 11 TIDE LEVEL +2.1 DATE 4/19/90
 EST. SUBDIVISION LENGTH: 2.31 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock SNOW IN THE SURF DZ
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S 10 W
 SURFACE SEDIMENTS: R 20 % B 25 % C 40 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 50 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 75 m N 0 m VL 60 m NO 96 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	N	B	C	P	R	B	C	P	G	S	M	V	U
ASPHALT PAVEMENT		✓	✓			✓					✓	✓	✓
POOLED													
COVER			X			X					X		
COAT													
STAIN				T		T					T		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													X

PAVEMENT H PS 4 sq. m by 5 cm

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? ☒ BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE Logs: fuelsBAGS 0

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)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	OR		US	US	R	B	C	P	G	S	M	V	U				
1	15				X		0.5	X					X			X				Y	5	C, P, G
2	15				X			X								X				N	5	C, P, G
3	30							X								X				N	-	P, G, S, M
* 4	20						0.5	X		X						X				Y	5	P, G
* 5	15						2	X		X						X				N	-	P, S

* OILED INTERVAL < 5 CM IN PIT NOS. 4 AND 5 DOES NOT CONSTITUTE SUBSURFACE OIL

COMMENTS

No oil was observed in the Northern and Southern Parts of the Segment.
 On the Large Boulder/Rock outcrop, there is a patchy distribution of asphalt and staining. staining occurs on the Rocks + Boulders and asphalt is located between the crevices in the rocks. To the north of this rock outcrop is a patchy distribution of asphalt in the Boulder/Cobble. The Band is 10m wide at the rock outcrop and tapers down to 1m wide stain, 50 m north of the outcrop.
 shore zone consists mostly of cobble beach w/ some

REVIEWED JWDATE 4-20-90

OG Mile 1

SEGMENT ST/ Ev-23

SUBDIVISION A

DATE 4 / 19 90

CHECKLIST

- ☐ Name
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LVL
- ☐ 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
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Splattered Distribution
- Oil Vegetation
- 1 →
- Photo location, direction, and number

SKETCH MAP

Scale

20 m

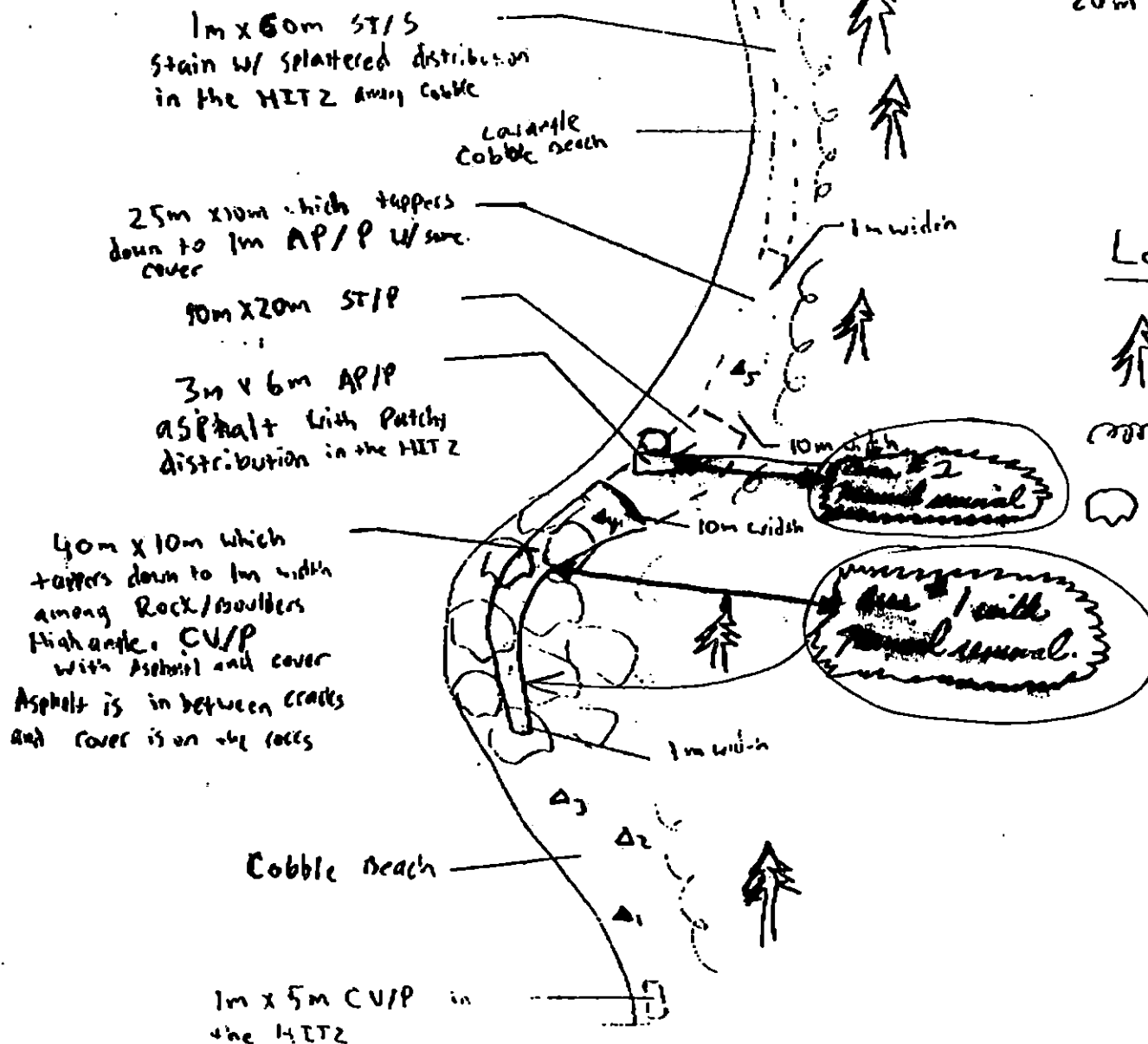


Legend

↑ - trees

--- - Boulders Backshore

☪ - Boulder / Rock outcrop



Oil Character Length (m): AP 31 PO 0 CV 45 CT 0 ST 80 MS 0 PT 0 TB 0 FL 0 NO 40

SHORELINE ECOLOGICAL SUMMARY

REVISION: 09/22/88

Segment ST/ EU-23 Subdivision A (1 of 1) Date (mo/day/yr) 4/19/90

Time (24 hr) 1516 Biologist K. CONLAN

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 25 (3) Cobble 40 (4) Pebble 10 (5) Sand 5 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 80 Moderate 10 Low 10

(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. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	X	2	2	2	2	2	2	2	2	2	
3	X	X	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			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	X	2	2	2	2	
3	3	3	3	3	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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	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	

Wildlife Observations/ General Comments:

GASTROPOD EGG MASSES UNDER COBBLES
AMPHIPODS, ISOPODS, OLIGOCHAETES

Ecological Considerations:

DATE 19 APR 90 TIME

1500

TIDE HEIGHT

2.2 ft

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				
FILAMENTOUS GREENS				
FILAMENTOUS REDS				
OLOIOPELTIS FURCATA				
HALOSACCION GLANDIFORME				
LAMINARIA SPP				
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA	1			
PHODOMELA LARIX				
RHODOMENIA PALMATA				
SCYTOSIPHON SPP			3	
ULVA SPP			1	
ZOSTERA MARINA				
ENTOROMORPHA				

FAUNA:

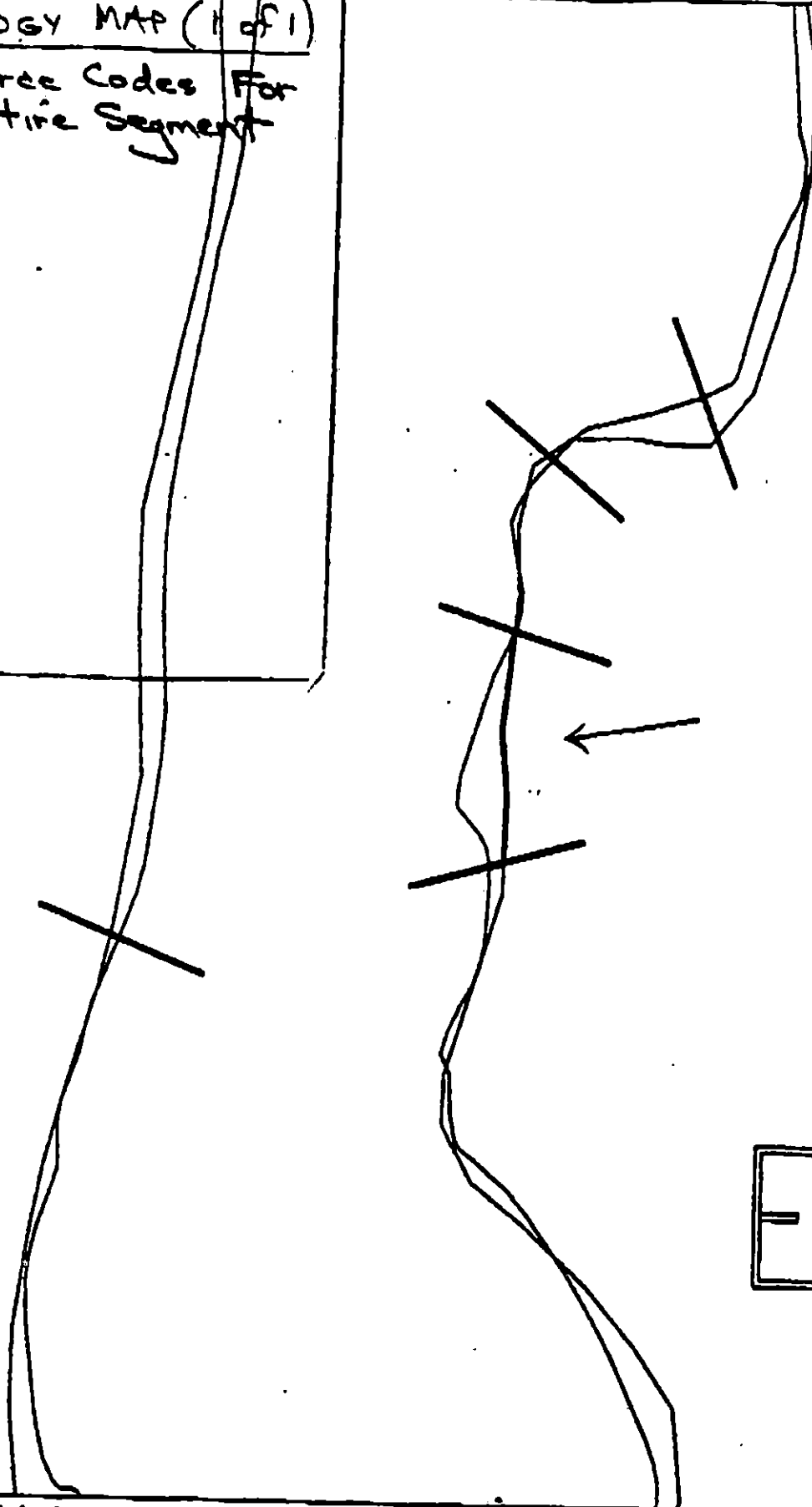
ANTHOPLEURA SPP				
(SEMI) BALUNUS CARIOSUS	1			
B. GLANDULA			1	
BRYOZOANS				
CHITONS (other than K. TUNICATA)				
CLAMS				
CRABS				
DERMASTERIAS IMBRICATA				
KATHARINA TUNICATA				
LEPTASTERIAS HEXACTIS				
LIMPETS		1	1	
LITTORINA SPP		1	1	
NUCELLA SPP			1	
PAGURUS SPP				
PISASTER OCHRACEUS		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

ECOLOGY MAP (1 of 1)

Resource Codes For
Entire Segment

7 - II

EV



EV-

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No

EV-23

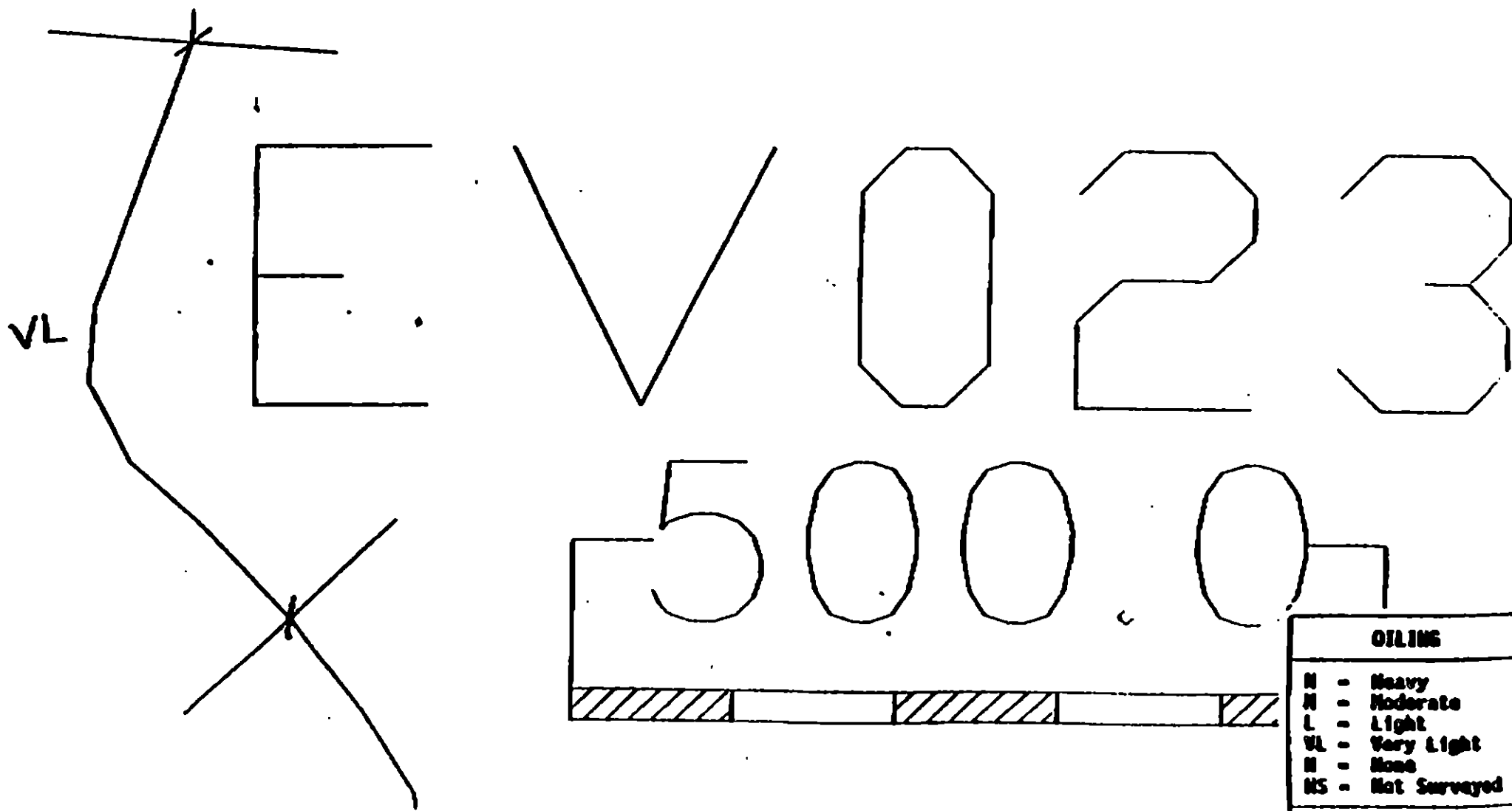
ADEC Segment Length: 210m



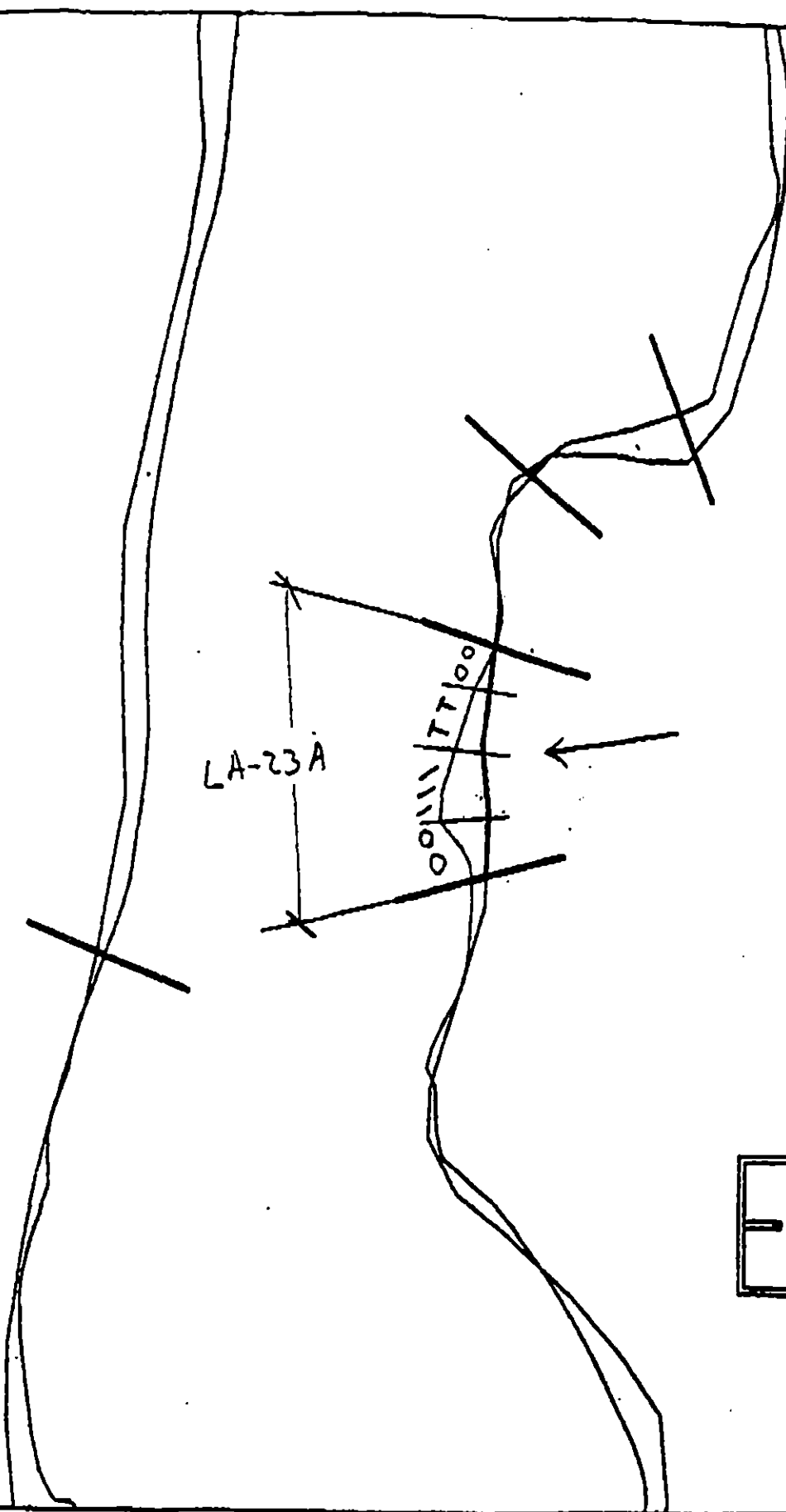
Map Key: PWS-192

Name: _____

Date: _____



EV

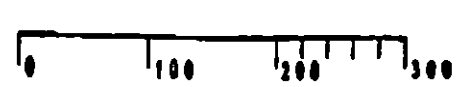


EV-

XXXX Wide
//// Medium
--- Narrow
TTTT Very Light
OOOO

EV-23

ADEC Segment Length: 210m



Map Key: PWS-192
Name: Mike Foote
Date: 4/14/90

SHORELINE EVALUATION

SEGMENT ST/ EV-24 SUBDIVISION A (1 OF 1) DATE 4/19/90

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)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Anadromous stream at southern end of segment.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 34 m: Narrow 29 m: V.Light 642 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments) <u>+ PATTIES</u>

COMMENTS: Recommended treatment includes removal of tarmats as shown on sketch map and bioremediation of area of surface cover to within 50M of uncatalogued anadromous stream. Work should be conducted between 5/15 and 7/10 based on anadromous stream constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/4/90

ADEC Art Weiner Art Weiner

EXXON Andy Teal Andy Teal

NOAA Gary Petros Gary Petros

USCG G.A. Reiter G.A. Reiter

FOSC: DATE: 5-18-90

NOTIFY CVC 24 HRS PRIOR TO WORK.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

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 Esther Hatchery release (4/15 to 6/1)

1E Main Bay Hatchery release (4/20 to 5/10)

1F Sawmill Bay Hatchery release (4/15 to 6/1)

1G Cannery Creek Hatchery release (4/21 to 6/1)

1H Remote release site

1I Gill net area (8/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (8/11 to 7/25)

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M Herring spawning (4/1 to 6/15)

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
3O, 3Q

Harbor seal and sea lion pupping (5/15 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.

5R

Seabird colony (5/1 to 9/1)

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

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 (5/1 to 9/30)

7H-H

Finfish harvesting

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-24 SUBDIVISION: EV-24 DATE 4/19/90

NOAB

NAME Michael Dickson SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS This segment alternates from benches of shale slivers to narrow bands of boulder/rock shoreline, & ends at the north with a rock outcrop

Frequent bands & patches of asphalt patches thru out the segment. Silver stream in sewage water near some patches. Underlying gravel in boulder shoreline area was frequently cemented into asphalt patches

ADEC

NAME John Hayes SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS * Aired stream in EV-25 approx. 32m. from oiling in EV-24.

① Low - moderate pressure hot water deluge on boulder outcrop at S. end of segment. Work + mid tide to protect healthy focus bed below oiling. Oil at U.T.Z. focus M.T.Z.

② 4 Bands of asphalt patches going N on segment from Bedrock Outcrop at S. beginning of segment. Manual removal with rakes + shovels. Map up + scrape up where bands extend into Matrix of boulders. (See sketch map.)

③ Bioremediate as finishing treatment M.+U. T.Z's after manual treatment

LAND MANAGER

NAME James A. Barker SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

BEACH SEGMENT SOUTH END REVEALED STAIN ; ASPHALT PATCHES UNDER BOULDER AND COBBLE. STARTED MOVING NORTH ASPHALT PATCH STARTED 2m x 30m GETTING SMALLER TO A 1m x 20m BAND THEN BECOMES BROKEN DISTRIBUTION. NORTHERN END OF SEGMENT REVEALS STAINING

SHORELINE OILING SUMMARY

REVISION NO. 04/13/98

OG Mike Foget NOAA Michael Buchanan SEGMENT ST/ EV-24
 BIO KATHLEEN COULIN LAND REP James A. Barker SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 13:15:10:14:45
 TEAM NO. 1 TIDE LEVEL +3.6 DATE 4/19/90
 EST. SUBDIVISION LENGTH: 675 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 5 % B 25 % C 35 % P 20 % G 10 % S 5 % M 0 % V 0 %
 SLOPE: Long 25 % Hang 70 % Vert 5 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 35 m N 30 m VL 610 m NO 0 m

SURFACE OIL

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

PAVEMENT H (F) S 10 sq. m by 3 cmPATTIES/ TARBALLS 50 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation	X		
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE Grass#BAGS 0

Photographs:

Roll No. ST-11-3Frames 1

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				ANALYSIS	DEPTH (cm)	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	VO	1	2	3	4	SW	U	M	U			
1	25		X				0-10		X	X				X				N	-	C, PG
2	20					X	.		X			X			X			Y	10	P, G
3	30					X	.		X			X		X				Y	5	P, G
4	20					X	.		X					X				N	0	G
* 5	20			X			0-3		X			X		X				Y	10	P, G
6	20					X	.		X					X				N	-	P, G

COMMENTS The Southern End of the segment starts at a rock outcrop 32m

North of an AN/D stream. On this outcrop is 3m x 35m Patchy distribution of oil on a High angle Boulder outcrop. The oiling tapers down to a splattered distribution of asphalt Patties. The width of the band increases because the shore zone changes to a low B/C Grain. The distribution of Patties decreases up to the rock outcrop in the Northern part of the segment. To the North of this rock outcrop is a Broken distribution of asphalt (2-x-20) this tapers down to a 1m x 20m Patchy distribution of asphalt which again tapers down to a light stain.

REVIEWED AW DATE 4-21-90

電話 04-1240

REVIEWED JW DATE 4-21-90

00 1 Foot
 SEGMENT ST/ EV-24
 SUBDIVISION A
 DATE 4 / 19 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ See Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HAB/LVA
☐ SCL
☐ Profile Location(s)
☐ Photo(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

5/2

ETCH MAP

Rock outcrop

Scale

100m



Legend

/// - Bedrock / boulders
 - - - Stream
 ↑↑ - trees

1m x 20m asphalt AP/P
 Patchy dist. among B/C
 in the HITZ.

2m x 30m Asphalt
 AP/B broken dist.
 in the HITZ, among
 the rock outcrop

2m x 100: 57/5 stained
 splattered distribution
 in the HITZ (<10%)

Low alk B/C beach
 10m x 100m AP/B
 distribution of asphalt foams
 in the HITZ and HITZ, translucent
 sheen in HITZ in Pits.

3m x 35m GVB
 Patchy distribution of tar/oil
 cover in the HITZ w/ some
 asphalt patches among the crevices
 oil occurs on backside + underlain
 of boulders + rubble, high alk B/C
 beach, translucent sheen in Pits

REMOVE PAVEMENT

REMOVE PAVEMENT

REMOVE PAVEMENT

BIO HERE
~~NO COASTAL TERN~~
~~SAND FLAT AND~~
 STREAM

AND STREAM

Oil Character Length (m): AP/60 PO 0 CV 55 CT 0 ST 480 MS 0 PT 0 TB 0 FL 0 NO 0

REVISION 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 10-88

Segment ST/ EU-24 Subdivision A (1 of 1) Date (mo / day / yr) APRIL 19, 1990

Time (24 hr) 1327 Biologist KATHLEEN COILAN

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 25 (3) Cobble 35 (4) Pebble 20 (5) Sand 15 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 25 Low 5

(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-11-3

Frames # 1

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:

5 SEATOTTERS IN SHELTER BAY, ONE A MOTHER WITH PUP
2 CORMORANTS JELLYFISH FLOATING IN BAY.
410 SEATOTTERS 1 SEAL

Ecological Considerations:

SEE BLENNY UNDER MID-INTERSTITIAL COBBLE. GELATINOUS EGG MASS (GASTROPOD?) ON FINE COBBLE UNDERSURFACE
AMPHIPODS, OLIGOCHAETES AMONGST COBBLES, PEBBLES
ISOPODS, CENTROPODE

TIDE LEVEL: SF

ECOLOGY MAP (1 of

Resource Codes For
Entire Segment

7 - II

EV-2

STU-3

← #1 (OILED BOULDER)

EV-25

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-24

ADEC Segment Length: 705m

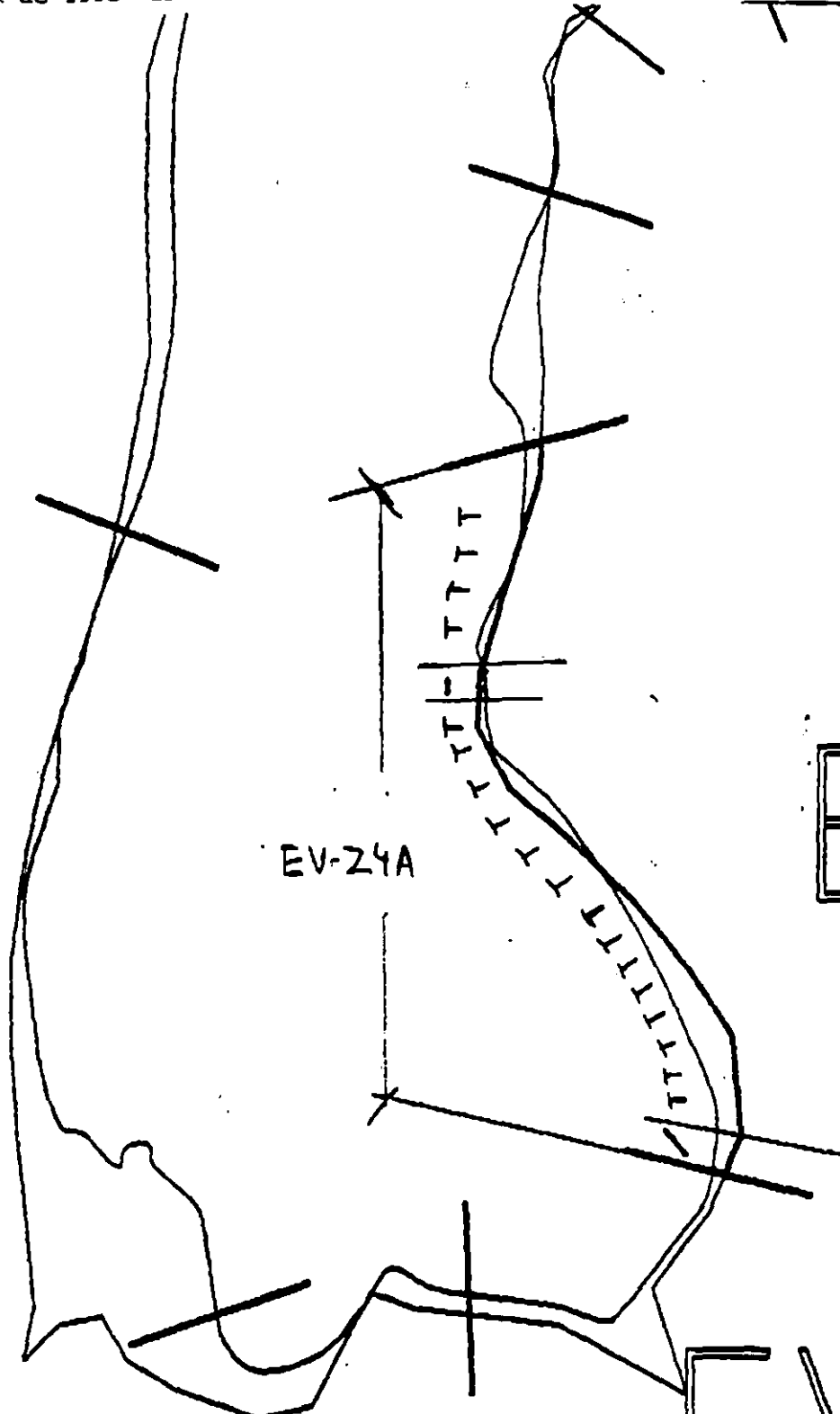
0 100 200 300
METERS

Map Key: *S. Bluespore*
PWS-193

Name: *K.E. Cowley*

Date: *20 APRIL 1990*

Data Entered:



EV-2

EV-25

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-24A

ADEC Segment Length: 705m



Map Key: PWS-193

Name: Mike Foret

Date: 4/19/20

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-24 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	WORK BEFORE 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

NO CONSTRAINT. Not an ADF&G catalogued anadromous stream.

7II Subsistence: Deer Harvesting

Closed to bioremediation after 8/15. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

If stream is determined to be anadromous, other ecological considerations apply. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unloiled biota and substrate.

TAG APPROVAL DATE 6/04/90.
ADEC Ray Morris R.22
EXXON Amy TEAR
NOAA Joseph Tallant
USCG G.A. WEITER G.A. Dyer

FOSC

[Signature]

DATE

6/4/90

Prepared By:

[Signature]

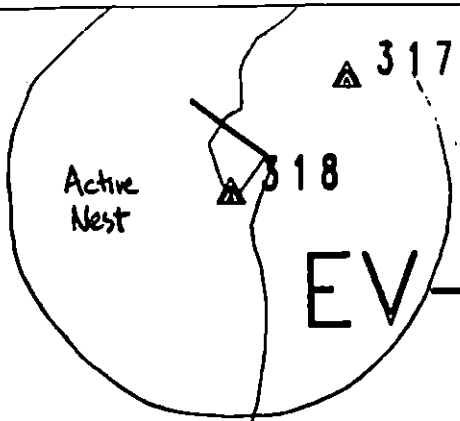
Date

6/3/90



EV-28

EV-18



EV-20

EV-2

EV-22

EV-2

EV-27

WORK AREAS

EV-24

uncatalogued stream

EV-26

EV-25

Incorporates information from
USFWS Active Eagle Nest Maps
dated 6/1/90.



Exxon Company, USA
Map Key: PMS-EV-24
May 11, 1990



ECOLOGY MAP ^{6/3/90}
SEGMENT EV-24
SUBDIVISION A (1 of 1)
METERS
0 348 696

- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1142 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-25 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16613

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

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

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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 Z. Smith

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 222m: Medium 36 m: Narrow 28 m: V.Light 40 m: No Oil 84 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X Tarmat: X Breakup

X Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes 1) manual breakup and removal of tarmat in the areas shown on attached sketch map, 2) manual pickup of oiled debris. Work should be conducted between 5/15 and 7/10 based on salmon constraints.

TAG COMMENTS:

ADD BIOREMEDIATION UP TO THE STREAM BANK.
TO BE CLARIFIED / CONSTAINED BY ADF&G PRIOR TO
TREATMENT.

TAG APPROVAL DATE: 4/20/90

ADEC

ART WEINER

EXXON

ANDY TEAL

NOAA

Bull Washoff

USCG

KENNETH KENNY

FOSC:

DATE: 5-1-90

Do not bioremediate IAW Lm's desires.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A 1B	Salmon stream mouth - fry outmigration (3/1 to 5/15) Salmon stream mouth - spawning (7/10 to 8/31) 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	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/15 to 6/1)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (6/7 to 8/31)
1J	Purse seine area (7/20 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (6/11 to 7/25) For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15) Restrict boat traffic to essential minimum. Avoid damage to unrolled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P 3O, 3Q	Harbor seal and sea lion pupping (5/15 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.
5R	Seabird colony (5/1 to 9/1) 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	Anchorage (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 (5/1 to 9/30)
7HH	Finfish harvesting
7II	Deer harvesting (8/15 to 2/28)
7JJ	Invertebrate harvesting
	For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-25 SUBDIVISION: A DATE 04/08/90

USCG

NAME

RANDOLPH W. HUBBARD

SIGNATURE

[Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I recommend the area clean up consist of washing the beach and removing the thick oil substance and tilted area where surface appears to be.

ADEC

NAME

J. LYNN MARTIN

SIGNATURE

[Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

AGREE WITH EXXON OPS. RECOMMENDATION FOR MANUAL REMOVAL OF TARMATS AND OILED AREAS. SEE MAP BY DOUG REMER OG.

LAND MANAGER

NAME

PATRICK SCLAWICE

SIGNATURE

[Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Manual Removal of Tarmats. I agree with, but there is also saturated oil which is going to need a different type of cleaning process.

REVISION NO. 00-23-780

SURFACE OIL

PAVEMENT: H (F) S 800 sq. m by 3 cm cm

PATTIES / TARBALLS 1 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

DEBRIS COLLECTED
☐ YES - ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-16-6

Frames 11-19

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		DO	UC	BL OR	BL FW	GY SL	DRY TL	DRY LRT	SU	U	M	LI			
30	30					X	-										X			GP	
20	20					X	-										X			GAC	
40	40					X	-										X			GSP	
40	40					X	-										X			GSP	
35	35					X	-											X		GSM	
35	35					X	-										X			GSP	

COMMENTS Small Cove with rocky headlands on either side, fresh water stream and delta/tidal flats in center of Cove. Boulder and cobbles along the rocky boundaries, pebbles and cobbles across tidal flats. There is a sporadic sand on the rocks on the southwest rocky shore with occasional patches (local) in the MZ. The oiling increases toward the Southwest from a barren cover and patchy asphalt to a continuous cover and patchy asphalt, where the low angle beach shows the oiling changes to a continuous Asphalt (2cm) thick. This continuous pavement extends around the entire head of the Cove except for where the action stream is flowing. In a band 8-10 m wide, below this is a broad area of patchy pavement (10-20%) (3cm) - No Subsurface oil was found.

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03/22/90

SEGMENT ST/ EV-25 SUBDIVISION -

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	BR	DR	GR	OR	PR	RL	SL	BU	U	M	U			
7	40					X	.											X				GSP	
8	35					X	.											X				GSPCM	
9	40					X	.											X				GP	
							.																
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COMMENTS

REVIEWED _____ DATE _____

REVISION: 002400

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/98

Segment ST / EV 25 Subdivision Date (mo / day / yr) 4 / 8 / 96Time (24 hr) 0925 ON 1035 OFF Biologist TONY ZAMORA(A) Substrate type and % of segments:
(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 5 Moderate 45 Low 50Photographs:
Roll No. ST-16-UFrames 11-19

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:

- 1 OTTER SPOTTED

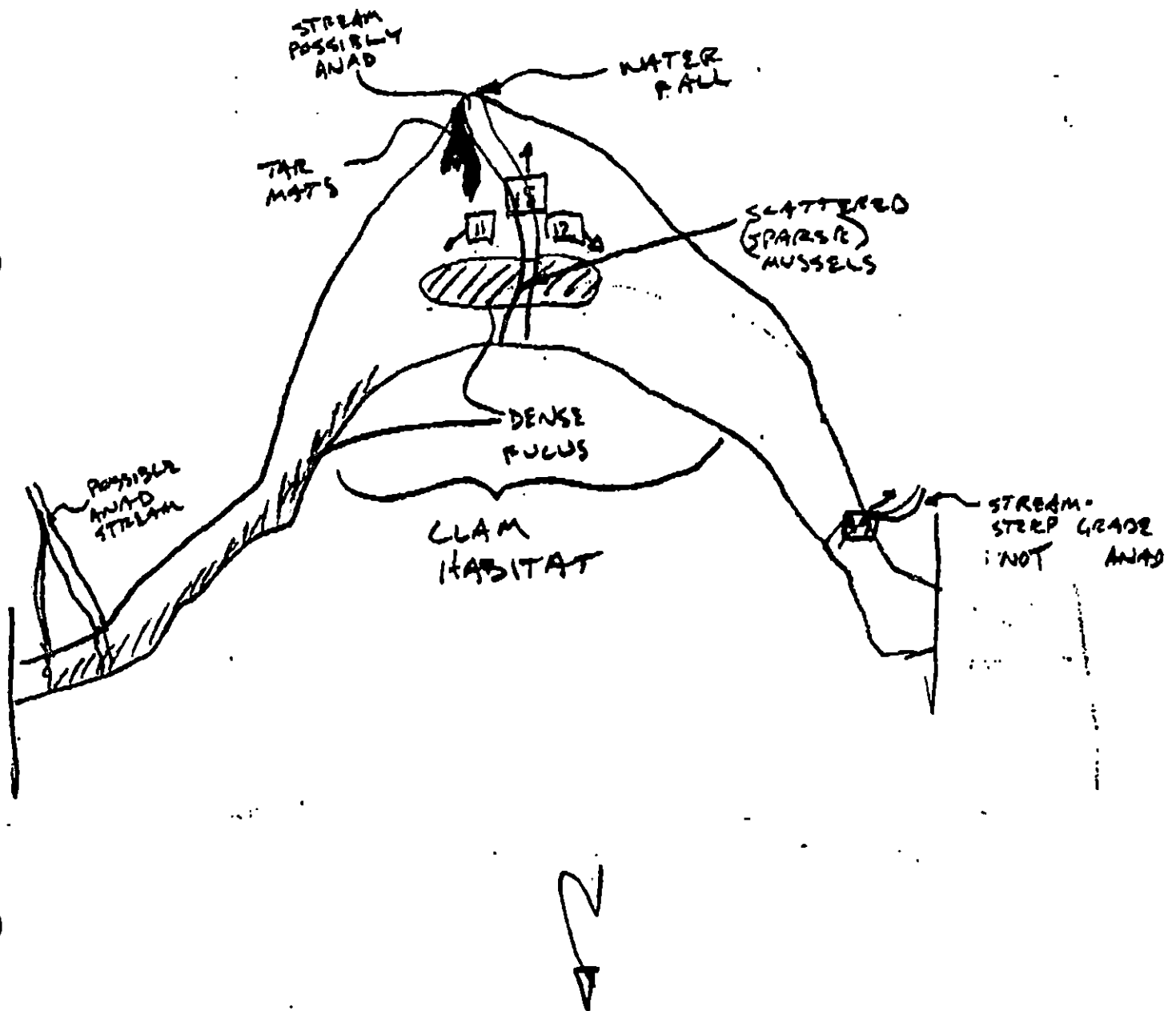
- DENSE, SEXUALLY ACTIVE AMPHIBIANS IN MI.

- MANY EMPTY MUSSEL SHELLS (MOST DRILLED) IN MI, IN & AROUND STREAM.

Ecological Considerations: FJJ, 1A/B- CLAM HABITAT (SOFT SILT/SAND) LOWER MI ON EACH, CLAM FOUND
(MYA TRUNCATA) ? ~ 8 cm.- STREAM POSSIBLY ANADROMOUS - FED BY 5m HIGH WATERFALL. PINK
SALMON MAY SPAWN NEAR INTERTIDAL.

EV 25

BIO-SCHEMATIC & PHOTOLocations



EV-2

EV-25

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-25

ADEC Segment Length: 410m



Map Key: PWS-194

Name: Reimer

Date: 4/8/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS**SEGMENT EV-25 SUBDIVISION A (1 of 1)**

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Over 100m From Stream	WORK PRIOR TO 8/15
Bioremediation Less Than 100m From Stream	WORK PRIOR TO 7/10 (ADF&G MONITOR REQ.)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS**1A,1B Salmon Stream**

ADF&G catalogued anadromous stream (226-40-16613) is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to manual pickup and tarmat removal.

7II Subsistence: Deer Harvesting

No constraint to manual pickup and tarmat removal; closed to bioremediation after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unloiled biota and substrate.

**SEE ANADROMOUS FISH STREAM EVALUATION ADDENDUM (226-40-16613)
FOR ADDITIONAL CONSTRAINT INFORMATION**

TAG ADDENDUM DATE 6/04/90
 ADEC Ray Morris
 EXXON Andy Teal
 NOAA Joseph Tallant
 USCG G.A. Smith

FOSC

[Signature]

DATE

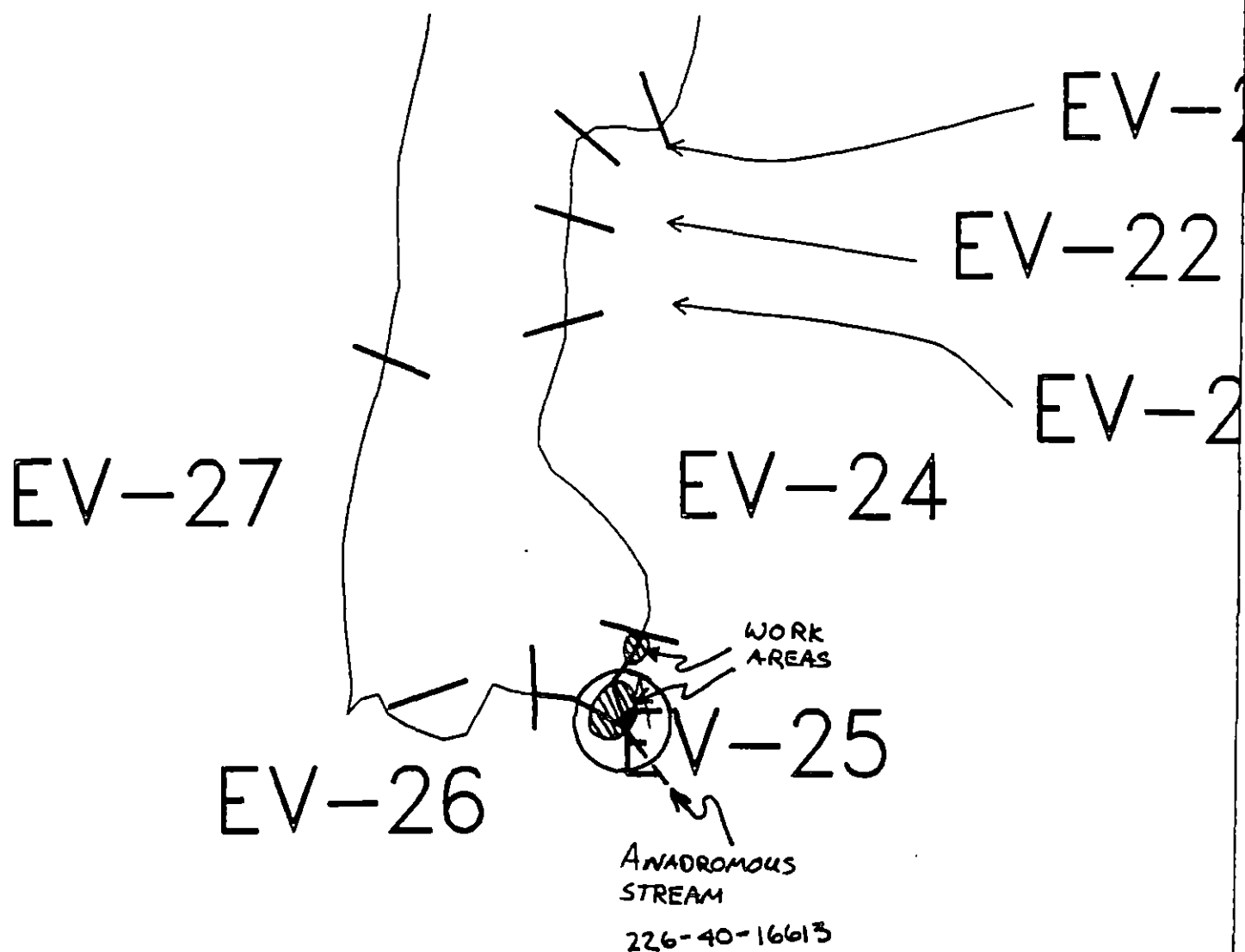
6/4/90

Prepared by:

[Signature] PP

Date:

6/4/90



Exxon Company, USA
Map Key: PMS-EV-25
May 11, 1990



ECOLOGY MAP
SEGMENT EV-25
SUBDIVISION A (1-1-1-1)
METERS
0 342 684

★ Seabird Colony
▲ Eagle Nest

1 inch = 1122 feet

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT EV-25SUBDIVISION ADATED 7/1/90

MODIFICATION

1. REASON FOR MODIFICATION

after about one hour of manually rolling rocks on this site in the UTZ, it became apparent that under the boulder/cobble cover there was a band $\approx 60m L \times 3m W$ of a combination of Mousse, OP-OR seds to an average depth of ground 7cm. all of us were in agreement that the remaining manual work to be done was beyond the scope of a bio crew. The band had a 1/B distribution.

2. SUGGESTED ADJUSTMENT TO WORK PLAN

Send in manual crew to clean under the band described above (also refer to attached sketch map from OG). Bioremediate after manual treatment.

Stream # 226-40-16613

* 3. TIMING ISSUES ADFG Anal stream nearby ($\approx 60m$ from site); 1A; 1B; 7II; Permit required (we had Tom's crew's approval from ADFG); Bioremediation less than 100m from stream; work prior to 7/10/90 — ADFG monitor required.

Addendum #1 approved by TAG and FOSC 5/24/90.

Addendum #2 approved by TAG and FOSC 6/04/90.

ADEC

EXXON

USCG

LAND MANAGER

(if field rep is on scene)

Mike Elashansky (CUC, send on for signature)

Bioremediation has been demobilized for the anadromous site portion of this segment 7/1/90. This adjacent site is further to the west of the demobil stream area.

EV-25A Status Report 7/1/90

On the afternoon of 7/1/90 members of Squad 4 Bio Team demobilized the Anadromous portion of EV-25A after manually working (raking, breakup) and applying Customblen.

We then surveyed the remainder of the segment to the west and discovered an area of substantial oiling not indicated on the work order. This was due to a misplacement of the segment boundary on the SSAT. (See attached sketch map.) We then began manual work required on this portion of the segment.

After rolling rocks and removing/breaking up oiled sediments, it was determined that the manual work involved was beyond the scope of the Bio team as far as equipment and time considerations, etc.

I recommend a manual squad be brought in to complete the work needed to prepare the segment for bioremediation. All monitors involved are in agreement with this recommendation.

The area on the east side of the segment indicated on the work order for bioremediation was treated previously in conjunction with the treatment of EV-24 as determined by USCG monitor present during treatment of this site.

ADFG: Tom Crow

ADEC: Mike Ebel *ME*

CVC: Mike Eleshansky

USCG: Chris Van Pelt *CVP*

OG : Doug Reimer *DR*

Exxon: Chris Katsimpalis *CK*

OOPS: David Bellow

SKETCH MAP

DATE 7 / 8 80

CHECKLIST 3/7

- ☒ Name
- ☒ Approx. Size
- ☒ Say Sub Entry
- ☒ OS Del
- ☒ Width
- ☒ Length
- ☒ X-Cover
- ☒ Subscript Character
- ☒ Ext. MARKING
- ☒ SSA
- ☒ Profile Location(s)
- ☒ Pull(s)
- ☒ Pin Location(s)
- ☒ Photo Location(s)

LEGEND

D A

FD-302a (Rev. 11-29-01)2. 

Fl1 - Subsurface Oil

5746

Geographical Distribution

CTO

Background

CT/P

Storage Distribution

CT/S

Solubility Distribution

Cold Vegetables

8.

**State location, direction,
and number**

Oil Character Length (in): AP _____ PO _____ CY _____ CT _____ ST _____ MS _____ PT _____ TG _____ FL _____ NO _____

Abstract

Photo bottom, director,
and member

CORRECTED BIO. SQUAD 4
MAP. 7-1-90. amk

TRUE

SITE #1
CUSTOMER ONLY

SITE #2
CUSTOMER BLEND
1 ONLY

SITE #3
AREA of MANUAL
WORK

AREA BIOREMEDIATED
BY PRIOR TEAM
(CHRIS VANPELT)
USGA

Segment Boundary
as indicated on
SSAT sketch map

ACTUAL SEGMENT
Boundary as indicated
in Computer MAP

≈ 60 meters

WORK PLAN ADDENDUM

Segment EV-25

Subdivision A

Dated 7/18/90

MODIFICATION

1. REASON FOR MODIFICATION

- Joint request from field monitors.

2. ADJUSTMENT TO WORK PLAN

- Send in manual crew to remove/break up oiled sediments at the west end of the segment. (see attached sketch)
- Bioremediate following manual pick up.

SHPO APPROVAL NEEDED YES X
NO

SHPO SIGNATURE Rachel Jean Dea 7/20/90
STANDARD CONSTRAINT APPLIES

TAG APPROVAL DATE 07/19/90

ADEC RAY MORRIS R. Morris

EXXON AMY TOL

NOAA Burt Wescott Burt Wescott

USCG G.A. RETER G.A. Reter

FOSC ML DATE 7-24-90

Ensure land manager is aware of this addendum.

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-25 A STREAM NO: 226-40-16613 DATE 4/20/90

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)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Subject stream is located in Subdivision A (1 of 1).

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

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> X </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes removal of pavement and manual pickup of patties as indicated on sketch map. *Bioremediate area of pits #2 and 3, first approved by ADF&G. Work should be conducted between 5/15 and 7/10 based on anadromous stream constraints.

TAG COMMENTS: REMOVE ANY OILED DEBRIS / UNATTACHED OILED VEGETATION.
MONITOR TO ASSESS SUITZ

TAG APPROVAL DATE: 5/7/90

ADEC ART W. GIBSON

EXXON ANDY TEA

NOAA GARY PETRAE

USCG G.A. REITER

FOSC: [Signature]

DATE: 5-18-90

NOTIFY CUE 24 HRS IN ADVANCE
OF WORK

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.

AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

C 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/1)

1E Main Bay Hatchery release (4/20 to 6/10)

1F Sawmill Bay Hatchery release (4/15 to 6/1)

1G Cannery Creek Hatchery release (4/21 to 6/1)

1H Remote release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.

AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214

1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511

1I Gill net area (8/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (8/11 to 7/25)

Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212

2M Herring spawning (4/1 to 6/15)

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 Evelyn Biggs 424-3235

IP Harbor seal and sea lion pupping (5/15 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 (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 (5/1 to 9/30)

7-H Finfish harvesting

Deer harvesting (8/15 to 2/28)

7-J Invertebrate harvesting

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 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / SV-025 SUBDIVISION: ^{ASC #} 226-40-14613 DATE 4-20-90

USCG

NAME Kevin L. Draher SIGNATURE Kevin L. Draher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADFG

ADEC

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Manual removal of oiled vegetation & debris
Manual removal (shovel) of asphalt layer along both sides of stream
larger material can be wiped & put aside
removal of smaller material would be facilitated by use of 4-wheeler with tire
average thickness of asphalt layer - 4cm
place string of pom-poms along edge of stream when treating
Spot wash boulders & large rocks on right side facing down stream beyond area
where smaller gravels & cobbles end.
Booms recover oil when washing or use absorbent material at base of

LAND-MANAGER ADFG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

treated area.
No bioremediation recommended.

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 11

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ EV-025
 BIO REN CRITCHLOW LAND REP STREAM 226-40-1003 OF
 EXXON DARWIN YVES ADFG REK GUSTIN-AIMEE WISEMAN TIME 13:40 10/4/95
 TEAM NO. 14 TIDE LEVEL #4 DATE 4/20/90
 EST. SUBDIVISION LENGTH: 100 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 5 % C 70 % P 20 % G 2.5 % S 2.5 % M 5 % V 5
 SLOPE: Long 100 % Hang 5 % Vert 5 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 65 m M 5 m N 5 m VL 5 m NO 30

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	S	1	2	3	4	SW	M	VL	U
ASPHALT PAVEMENT	✓				✓				✓			
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES			✓		✓						✓	
TARBALLS												
FILM												
NO OIL												

PAVEMENT H P (S) 650 sq. m by 2PATTIES / TARBALLS BANEAR SHORE SHEEN? NO BR RW SL 1

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

Did you collect DEBRIS
☐ YES ☒ NOTYPE #BAGS

Photographs:

ANAD-14-

Roll No. 1Frames 19-36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW	OIL / FILM COLOR				PIT ZONE				AN A	DEPTH (cm)	↓	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO			1	2	3	4	SW	M	VL	U				
* 1	20	✓					0-4	✓	✓				✓					N	N	FB, GR, SD
* 2	16	✓					0-8	✓	✓				✓					N	N	FB, GR
* 3	15	✓					0-10	✓	✓				✓				✓	Y	Y	FB, GR, SD
4	12					✓							✓					N	N	FB, GR, SD
5	12					✓		✓	✓				✓				✓	N	N	FB, GR, SD
* 6	6	✓					0-3	✓	✓				✓							FB, GR, SD

COMMENTS BROWN PATCHES TO CONTAMINANTS IN UTLZ. VARYING THICKNESS 2-3 CM.SMALL HERRING TRAPED IN UTLZ FOCUS BEDSNOW OBSERVED AT SITE OVER LAPPING OIL.LARGE FOCUS BED COVERING BOTTOM HALF OF COVER

* OILED INTERVAL < 5 cm IN PIT NOS. 1, 2, 3, 6 AND 9 DOES NOT CONSTITUTE SUBSURFACE OIL.

REVIEWED DATE 4-24-95

SEGMENT STEU 025 - STREAM 226-40-16613 (2 OF 2)

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

REVIEWED JW DATE 4-24-90

SEGMENT 1 EV-25 A
226-40-16613
STREAM

DATE 1 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Background Study
- ☐ On Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAWAII
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

△ No Substrate CI

△ Substrate CI

CT/C
Continuous Distribution

CT/B
Broken Distribution

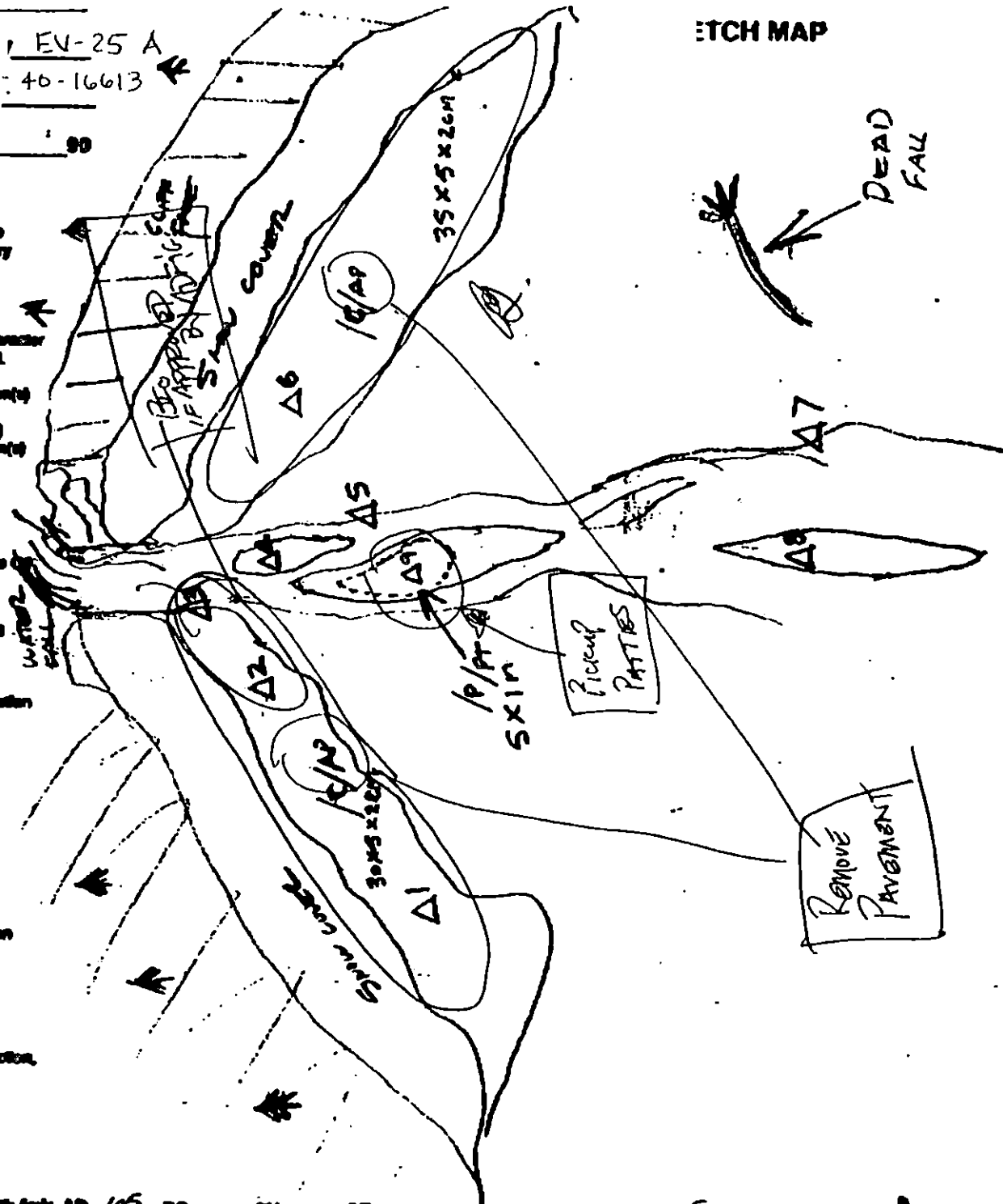
CT/P
Patchy Distribution

CT/S
Splashed Distribution

lll
Clad Vegetation

Photo location, direction, and number

ETCH MAP



Character Length (m): AP 105 PO CV CT ST MS PT 5 TB FL NO

REVISION 000000

ADFLC MULTI-ASSESSMENT DATA FORM

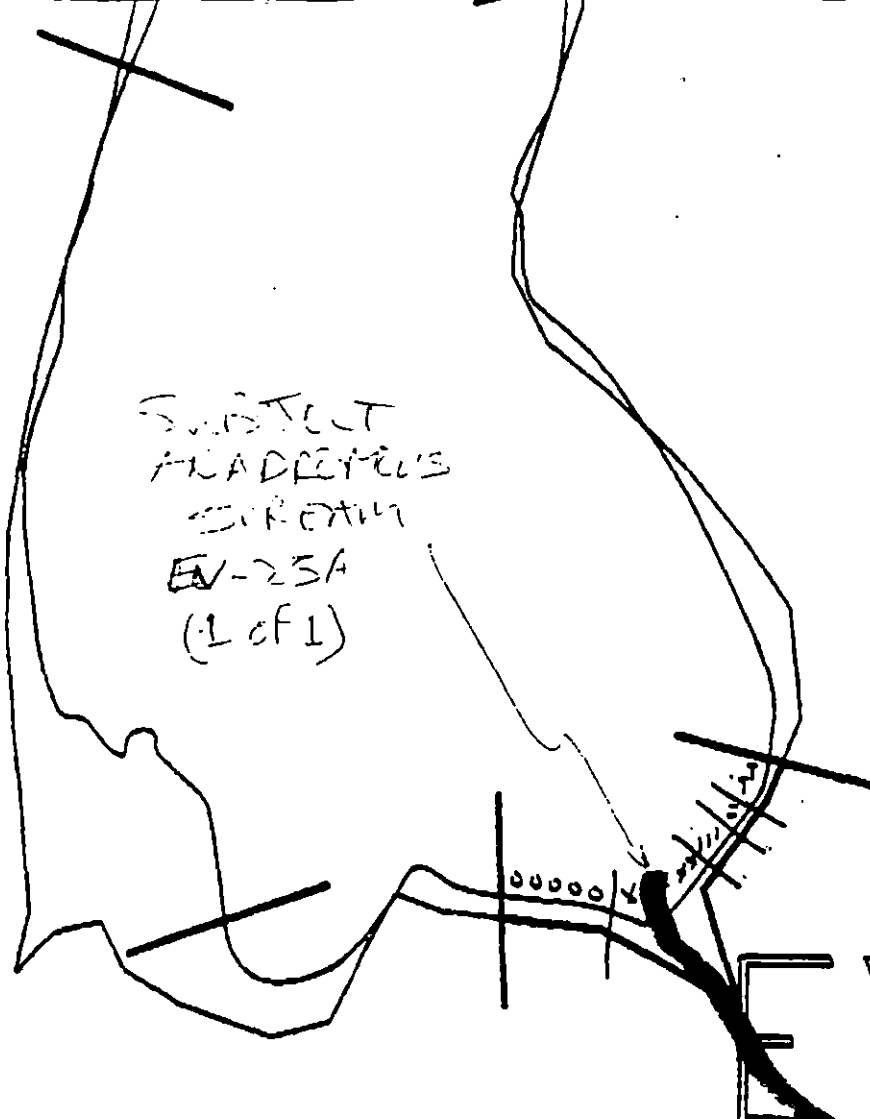
1 SURVEY TYPE: BS SS DE TS AVS SCM MHH PTA 2 REGION: PTE KP, CI K, AP
 METHOD: Aerial Ground Boat
 3 DATE: 4-20-90 15 HIGH TIDE TIMES: 1 21 TEAM RECORDED: B. Butler
 4 START TIME: 1345 16 HIGH TIDE HTS: 1 22 OBSERVERS: A. Weisman
 5 STOP TIME: 1440 17 LOW TIDE TIMES: 1 23 AGENCY: APFG
 6 SEGMENT #: CV25 18 LOW TIDE HTS: 1 24 PHOTOS TAKEN: Y (B)
 7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: _____ Frame: _____
 8 K-UNIT: _____ Dib Slack Flood Slack 25 VIDEO TAKEN: (Y) N TAPES: 90RLG 001 SS
 9 STAT AREA: _____ 20 USCG QUAD: _____ Starts: 1015 Ends: 1178
 10 LAT: _____ 11 LONG: _____ 26 SAMPLES TAKEN: Y (B) Substr
 12 SOURCE: (Hap) Loran 011 _____
 13 LOCATION: EVANS Is. Sediment _____
 14 DESCRIPTION: _____ Biological _____
 Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	Y	M	S	L	Y	M	S
27 SURFACE COVERAGE	100	25-30						
28 SURFACE THICKNESS	3cm	8cm	3cm	1cm	1cm			
29 PENETRATION	3cm	8cm	15cm	15cm	3cm			
30 OVERALL OIL IMPACT:	N	VL	L	M	N			
31 OIL TYPE:	<u>Pooled</u>	<u>Emuls</u>	<u>Tar</u>	<u>Asphalt</u>	<u>Slack</u>	<u>Scale</u>		
32 OILED DEBRIS:	<u>(Y)</u>	<u>N</u>						
33 SHORELINE TYPE:	Headland	Low-lying Rocks	Beach	<u>Cove</u>				
		Lagoon	Marsh					
34 WAVE EXPOSURE:	High	Moderate	<u>Low</u>					
35 SUBSTRATE TYPE:	Bedrock	Boulder	<u>5%</u>	Cobble	<u>70%</u>			
		Gravel	<u>25</u>	Sand		Mud/silt		

36 CATALOGED ANAD. FISH SKELET (Y) N
 37 CATALOG #: 220-40-16613
 38 STREAM NAME: _____
 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
 Shores: _____
 43 ANADROMOUS FISH PRESENT? Y N
 44 ANADROMOUS FISH OBSERVATION
 Species Aerial Ground

COMMENTS: Large areas of benthos primarily upper intertidal extending down into
middle intertidal. Most of Evans Is. has been oiled.
penetration of oil varies 4-16cm. from high tide mark to stream
edge in width in most cases. Shovel removal / Primary means of
cleanup.
NOEL. Evans BSFD - larger rock boulder oiled infrequently



EV-2

EV-25

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

EV-25

ADEC Segment Length: 410m



Map Key: PWS-194
Name: Reimer
Date: 4/8/90
Data Entered:

(57)

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16613

SEGMENT EV-25 SUBDIVISION A

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation More than 100m From Stream	WORK PRIOR TO 8/15
Bioremediation Less Than 100m From Stream	WORK PRIOR TO 7/10 (ADF&G MONITOR REQ.)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (226-40-16613) is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to manual pickup and tarmat removal.

7II Subsistence: Deer Harvesting

Closed to bioremediation after 8/15. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

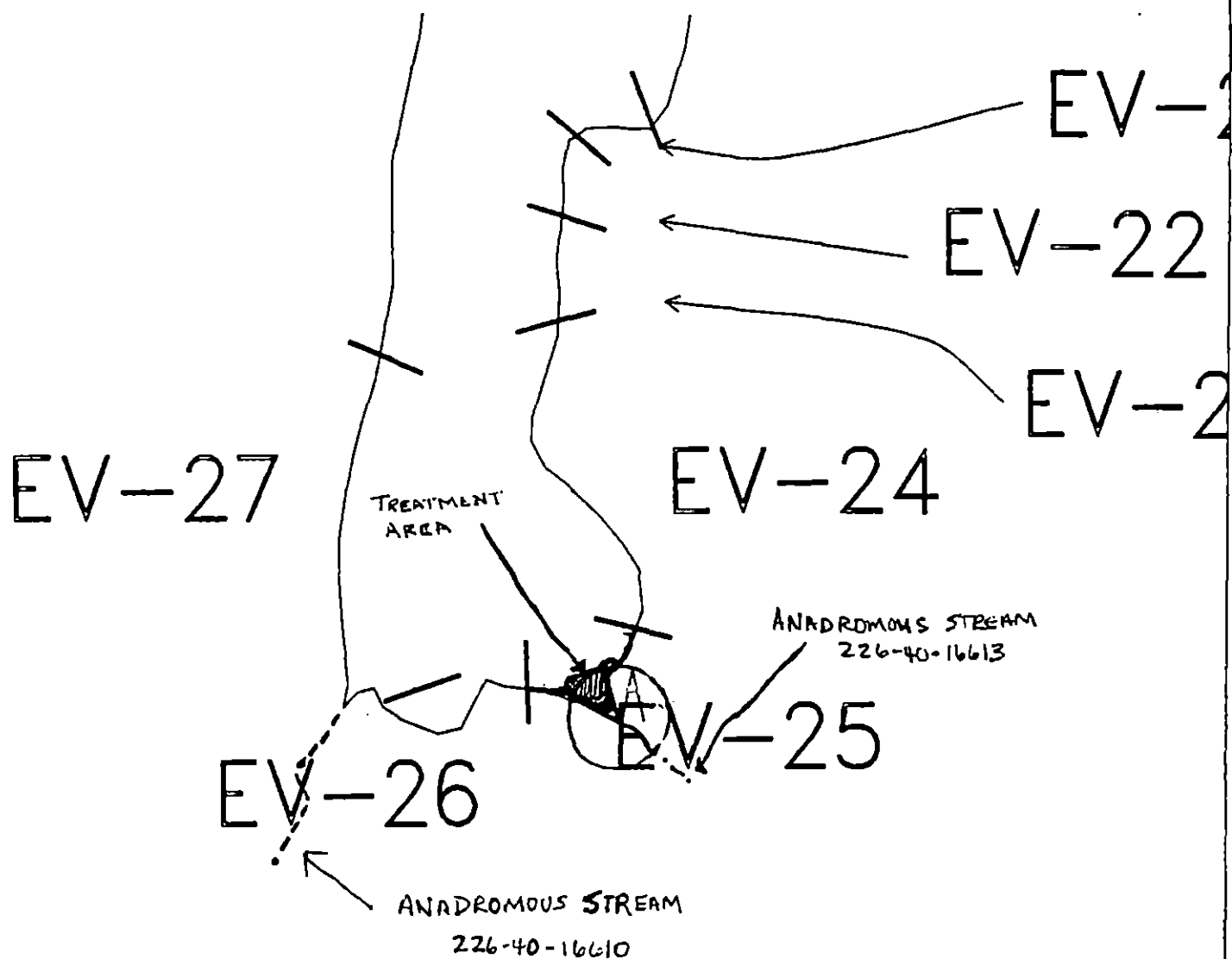
No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Restrict boat and air traffic and beach disturbance to essential minimum. Avoid any unnecessary disturbance or damage to unopened biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM EV-25A
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

Date

6-10-90



ANADROMOUS FISH STREAM EVALUATION (226-40-16613)



Exxon Company, USA

Map Key: PMS-EV-25

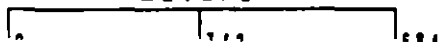
11/11/1990



ECOLOGY MAP SEGMENT EV-25

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

1 inch = 1122 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-26 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6Y Recreation: Special use destination

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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: J. Daniel McManis DATE: 5/11/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 73 m: V.Light 176 m: No Oil 126 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X 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 1) manual pickup of oiled grass in area indicated on sketch map, 2) manual removal of tarmats in areas indicated on sketch map, and 3) manually rake and bioremediate areas indicated on sketch map. Work should be conducted between 5/1 and 8/14 due to deer harvesting constraint.

TAG COMMENTS: MONITORS TO ASSESS SUITZ DUE TO SNOW COVER

TAG APPROVAL DATE: 5/11/90

ADEC Art Wagner Art Wagner

EXXON Andy Kerr

NOAA Joseph Talbott

USCG D.D. Rome

FOSC: DATE: 5-18-90

NOTIFY CDR 24 HRS IN ADVANCE OF WORK

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (8/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (8/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
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 Evelyn Biggs 424-3235
- 3U, 3V Harbor seal and sea lion pupping (5/15 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 (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 Subistence area: Salmon harvesting (5/1 to 9/30)
7A Finfish harvesting
7B Deer harvesting (8/15 to 2/25)
7C Invertebrate harvesting
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 T1 100 U-DIVISION: 8A DATE 4/26/90

USCG
NAME Shawn Maas SIGNATURE DC- [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

RECOMMEND MANUAL REMOVAL ASPHALT/PAVEMENT
PATCHES AND TAR BALLS. VEGETATION NOTES IS DEAD AND
SHOULD BE REMOVED. BEACH R.P.S NOT MUCH R. GOOD
FOR TILLING OPERATION. BIODEGRADATION

NO SUBSURFACE OILS NOTED

ADEC
NAME Dave Sale SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

① MANUALLY REMOVE TAR MAT AND OILED GRASSES AT
TOP (WITZ) OF BANK BETWEEN STABOES. LOOK FOR OTHER
TAR BALLS AT SAME TIME.

② MANUALLY REMOVE SEDIMENTS AND CLEAN LG. CORALS
STAINED/COATED ON S.E. SECTION OF SEGMENT.

③ CHECK SUTZ AFTER SNOW MELTS FOR OILED DEBRIS.

④ TILLING OF SEDIMENTS NOT REMOVED IS RECOMMENDED

LAND MANAGER
NAME Don Kampkoff JR SIGNATURE Donald P. Kampkoff Jr

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

3/4/41

OG R. Marty USCG S. Almas SEGMENT ST/ EV-26
 BIO B. Lamon LAND REP D. Kempcraft SUBDIVISION A (A OF A)
 EXXON J. Garza ADEC D. Sale TIME 20:10 to 20:50
 TEAM NO. 10 TIDE LEVEL +0.32m to +0.44m DATE 25 / April / 90
 EST. SUBDIVISION LENGTH: 2.86 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R S % B 10 % C 15 % P 25 % G 20 % S 2 % M 2 % V — %
 SLOPE: Long 100 % Hang — % Vert — % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N 59 m VL 162 m NO 89 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES				
	C	B	P	S	W	W	W	W	W	W	N	U	M	U	U
ASPHALT PAVEMENT			P							P	P	P			
POOLED															
COVER		B								B		B			
COAT				S						S		S			
STAIN															
MOUSSE															
PATTIES				S						S	S	X			
TARBALLS				B						B	N	X			
FILM											O				
D OIL											W		X	X	

PAVEMENT H F (S) 20 sq. m by 4 cm

PATTIES / TARBALLS 3 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT	SM	MD	LG	DID YOU COLLECT DEBRIS?
Logs	X				YES ☒ NO ☐ TYPE <u>Misc.</u> #BAGS <u>1-2</u>
Vegetation	X				
Trash	X				
Debris	X				

Photographs:

Roll No. ST/10/15

Frames 29-33

SUBSURFACE OIL

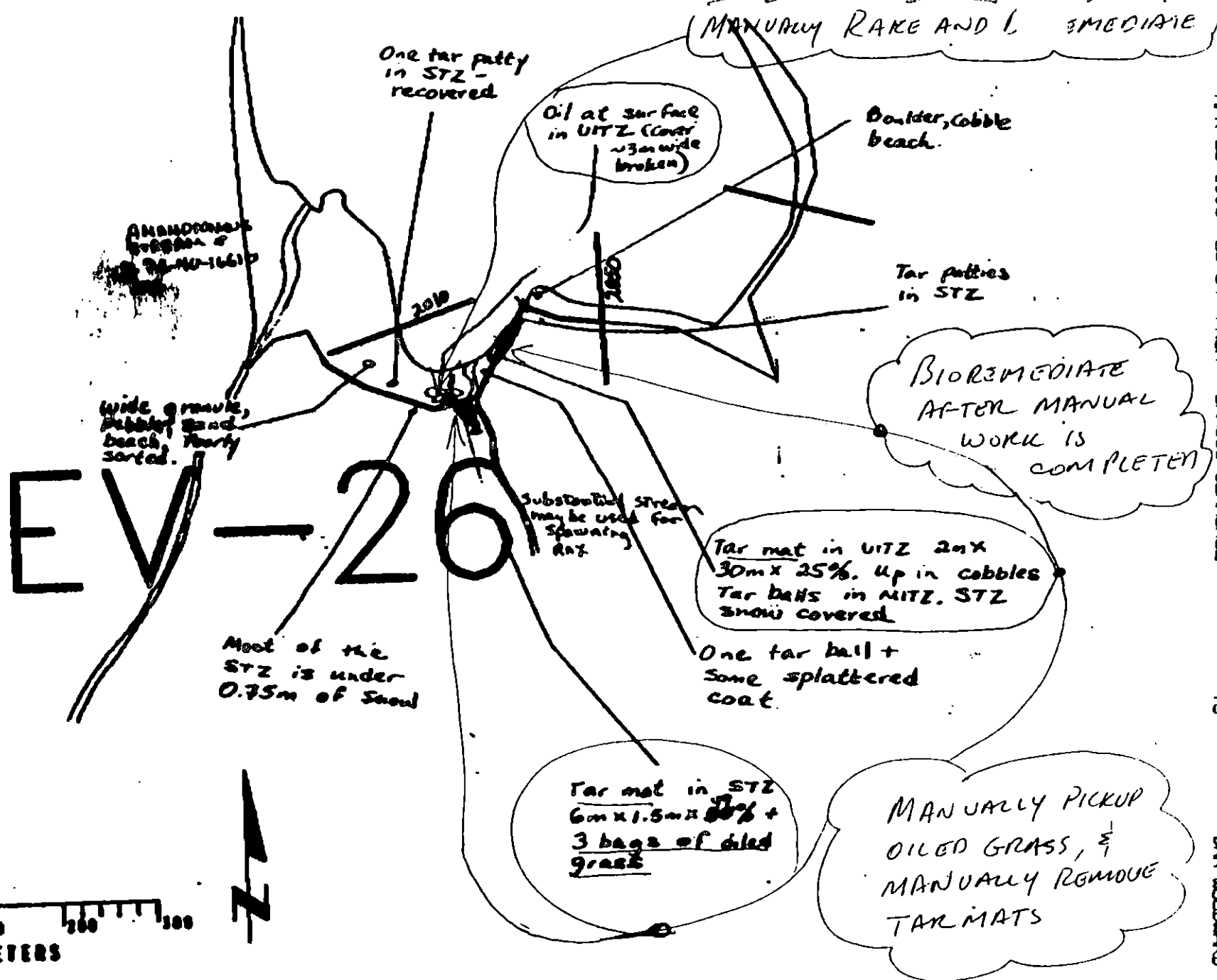
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE					A N A	STEER (Y/N)	Y	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		US	UC	W	W	W	W	W	N	U	M	U	U				
1	40				X		0.31	X				X			X					Y		N	Pgs-GSM
2	25				X		0.31	X				X			X					Y		N	S-SV

COMMENTS

33041

REVIEWED YH DATE 4-27-90

R. Marty
 ELEMENT ST/ EV-
 DIVISION A
 E 25 April 1990



APR-26-1990 20:24 FROM BRIGGS SEADORE TO DAN WOODWARD P.01

SHORELINE ECOLOGICAL SUMMARY

Segment ST/10/EV26 Subdivision A Date (mo / day / yr) 4 / 25 / 90

Time (24 hr) 2010 - 2130 Biologist Lemon

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 10 (3) Cobble 13 (4) Pebble 25 (5) Sand 37 (6) Silt 8

(B) Overall % cover of biota (% of segment): Dense Moderate Low 15%

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

Photographs:
Roll No. ST/10/15

Frames 29 - 33

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:

3 Alcidae

1 gull

4 rose breasted geese

Many mya shells in low zone.
Littering eggs in low zone

Ecological Considerations: A subsistence deer harvest area. A substantial stream (not 16610) would appear to be good for salmon spawning, see map.

370/41

EV-26

EV

EV-

NO	0.3	45	39
VL	0.8	128	168
LT	0.3	45	59
		218	206

410/41

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-26

ADEC Segment Length: 375m



METERS

Map Key: PWS-195

Name: R. MartyDate: 25 April, 1990

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-26 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Manual Raking	WORK BEFORE 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

711 Subsistence: Deer Harvesting

Closed to bioremediation and manual raking after 8/15. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

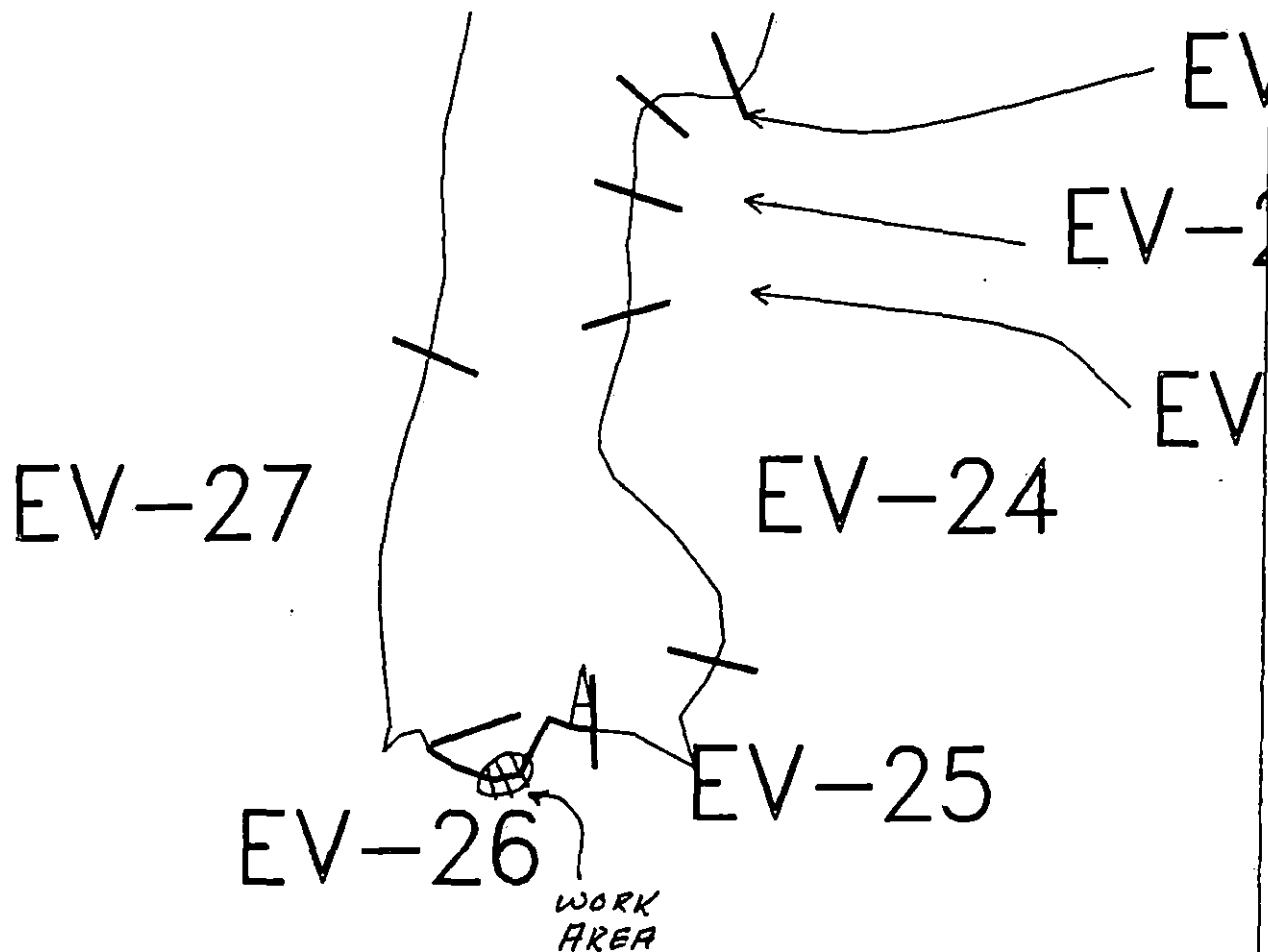
TAG APPROVAL DATE 5/29/90
ADEC Art Weiner
EXXON Art TEAL
NOAA B. Wescott
USCG G.A. REITER

FOSC [Signature]

DATE MAY 29 1990

Prepared By: [Signature] WK

Date 5/27/90



Exxon Company, USA
Map Key: PWS-EV-26
May 11, 1990



ECOLOGY MAP SEGMENT EV-26 SUBDIVISION A (1 of 1)



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1158 feet

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV 26 SUBDIVISION: A DATE 6/5/90

USCG
NAME Bm FAZTO SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

No clean-up is needed. area just have few Turbell and we collected them. -NTR-

ADEC
NAME Peter Montesano SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Segment shows scars from AP removal. Oiled debris and Spill related debris remained in SAITZ. We collected the debris.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SUPRATIDAL RESURVEY

OG Mamm USCG Fazio SEGMENT ST/ EU 26 A
 DEC Montesano SITE A TIME 10:40 to 11:20
 TEAM NO. X DATE 6/5/90
 TIDE LEVEL +6
 EST. SITE LENGTH: 286 m Sun ☐ Clouds ☒ Fog ☐ Rain ☐ Snow ☐
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 5 % B 10 % C 15 % P 25 % G 30 % S 15 % M 0 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH IN SITE: W 0 m M 0 m N 0 m VL 60 m NO 226 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES	
	IC	IS	IP	IB	100% OIL	75% OIL	50% OIL	25% OIL	SPOTS	FOIL	SLUR	RESIDUE	SUPRA	UTZ
ASPHALT														
PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS				✓		✓							✓	
FILM														
NO OIL														

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 2 BAGS

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE tarballs, trash

#BAGS 4

Photographs:

Roll No. —

Frames —

SUBSURFACE OIL *No pits dug because of vegetation cover.*

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE -
		OP	OR	OL	OF	NO		UO	UC	100% OIL	75% OIL	50% OIL	25% OIL	SPOTS	FOIL	SLUR	RESIDUE	SU	UI	MI	U				

COMMENTS

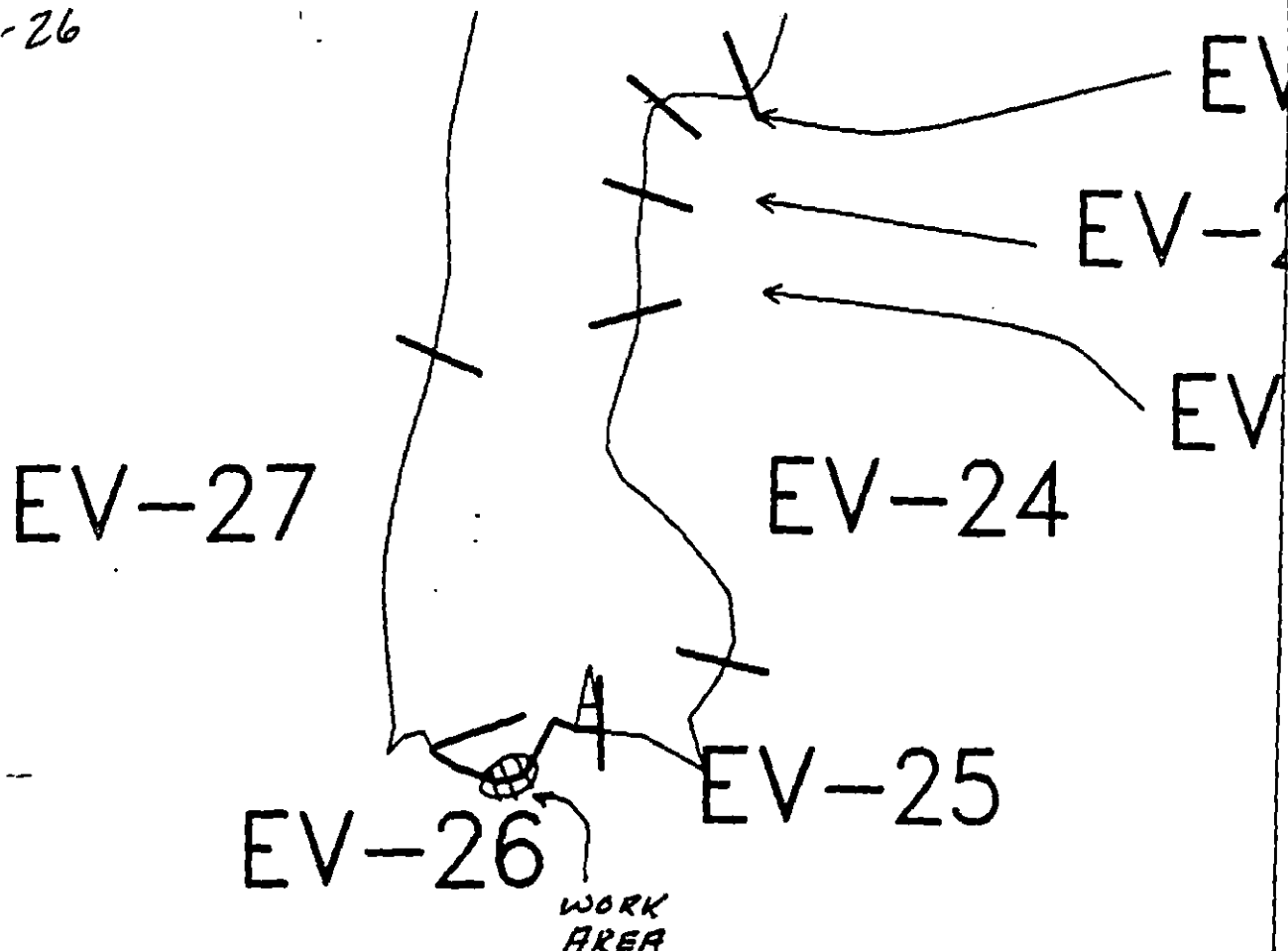
Oiled material (tarballs, trash, and vegetation) was present in the SUTZ on either side of the largest creek mouth (in work area). We picked up most of this debris. No further treatment is suggested.

REVIEWED — DATE —

6/5/90

Supratidal Resurvey

EV-26



only debris was present
in SUTZⁱⁿ eye grass meadow here on
either side of creek mouth.
This debris collected 6/5/90 by Montesano
and Fazio (4 bags' worth)



Exxon Company, USA

ECOLOGY MAP
SEGMENT EV-26

SUBDIVISION A (1-1-1)
METERS

★ Seabird Colony
▲ Eagle Nest

SEGMENT AS / EV-26 SUBDIVISION: A SITE: 1 DATE 8 AUG 90

USCG

NAME Don Davis (USCG) SIGNATURE Don Davis

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

SEVERAL BROKEN STRIPS OF ASPHALT, SURFACE OIL, AND STAINS. RECOMMEND LOW PRIORITY TREATMENT IN 1990, WITH REASSESSMENT IN 1991. HEAVY AREA NOTED IN GULF AREA NEXT TO EV-25. MANY AREAS WILL REQUIRE HAND TROWEL REMOVAL OF AFFECTED AREAS, ESPECIALLY IN LARGE ROCK AREAS.

ADEC

NAME Bob McCaskey SIGNATURE Bob McCaskey

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Remaining AP warrants further treatment in 1990. Area in question runs from East side of stream in segment to East boundary of segment. Diking is characterized by substantial amounts of AP/tar/mat. Approx. 50% of diking in question was manually treated although treatment appeared to have been insufficient. Other 50% of AP/tar/mat was for some reason not manually treated. It was hit by a barge. Squad. large cotton were moved to assist AP/tar/mat with barge being applied directly to AP/tar/mat. Results were virtually no change. ASAP VECO performed some manual removal in this area.

LAND MANAGER

NAME Steve Ward CVC SIGNATURE Steve Ward

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

There is Enough oil to warrant Further Work in 90. This area was worked manually, but a lot of oil remains. It appears it was applied over too much oil. A manual crew could do a lot of work in this area.

EXXON

NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

THE ASPHALT PAVEMENT HERE IS SUBSTANTIAL AND THE VECO ASAP CREW IS WORKING ON THIS AREA AND THIS SUBDIVISION WILL WARRANT A LOOK IN 1991. THE ASAP VECO CREW WILL SPEND ANOTHER DAY IN HERE AND STILL NOT COMPLETE.

SEGMENT EV-26 SUBDIVISION A (17) DATED 8-1-90

MODIFICATION

1. REASON FOR MODIFICATION:

ASAP survey crew located on area / termat not treated during '90 summer cleanup.

2. SUGGESTED ADJUSTMENT TO WORK PLAN:

ASAP-YECO crew worked for approx. ⁴ hours on EV-26 partially removing ~~termat~~ termat/AP.
Removed 1.5 SUPER SACKS

3. TIMING ISSUES:

4. ADDITIONAL COMMENTS:

ADEC BOB McCREARYRobert G. McCreary

EXXON

Randall K. Boyer

USCG

[Signature]

LAND MANAGER

Star Ward (If field rep is on scene)

WORK PLAN MODIFICATION RECOMMENDATION

ASAP TEAM 3

SEGMENT EX-26

SUBDIVISION A(171) ^(SITE 1)

DATED 8-1-90

MODIFICATION

1. REASON FOR MODIFICATION:

Moderate amount of tarmat/AP remains on EX-26 which can be broken up into two areas of concern. Area #1 runs from stream on segment, ~~East~~ to first prominent point. Area #2 runs from same prominent point to East boundary of segment.

2. SUGGESTED ADJUSTMENT TO WORK PLAN:

Remaining AP/Tarmat warrants further treatment in 1990. Work would require a 10 person crew to manually remove remaining AP/Tarmat. Upon completion of manual removal, raking and Customblow application is recommended.

3. TIMING ISSUES:

Although EX-26 requires further treatment in 1990, area is not considered to be extremely high priority.

4. ADDITIONAL COMMENTS:

VECO ASAP WORKED 4 HRS ON THE AP/B PATCHES BETWEEN COBBLES & BOULDERS AND WILL CONTINUE TO WORK POSSIBLY TOMORROW. 10 MAN CREW COULD SPEND 3-4 DAYS WORKING

ADEC BOB MC CREARY Robert B. McCreary

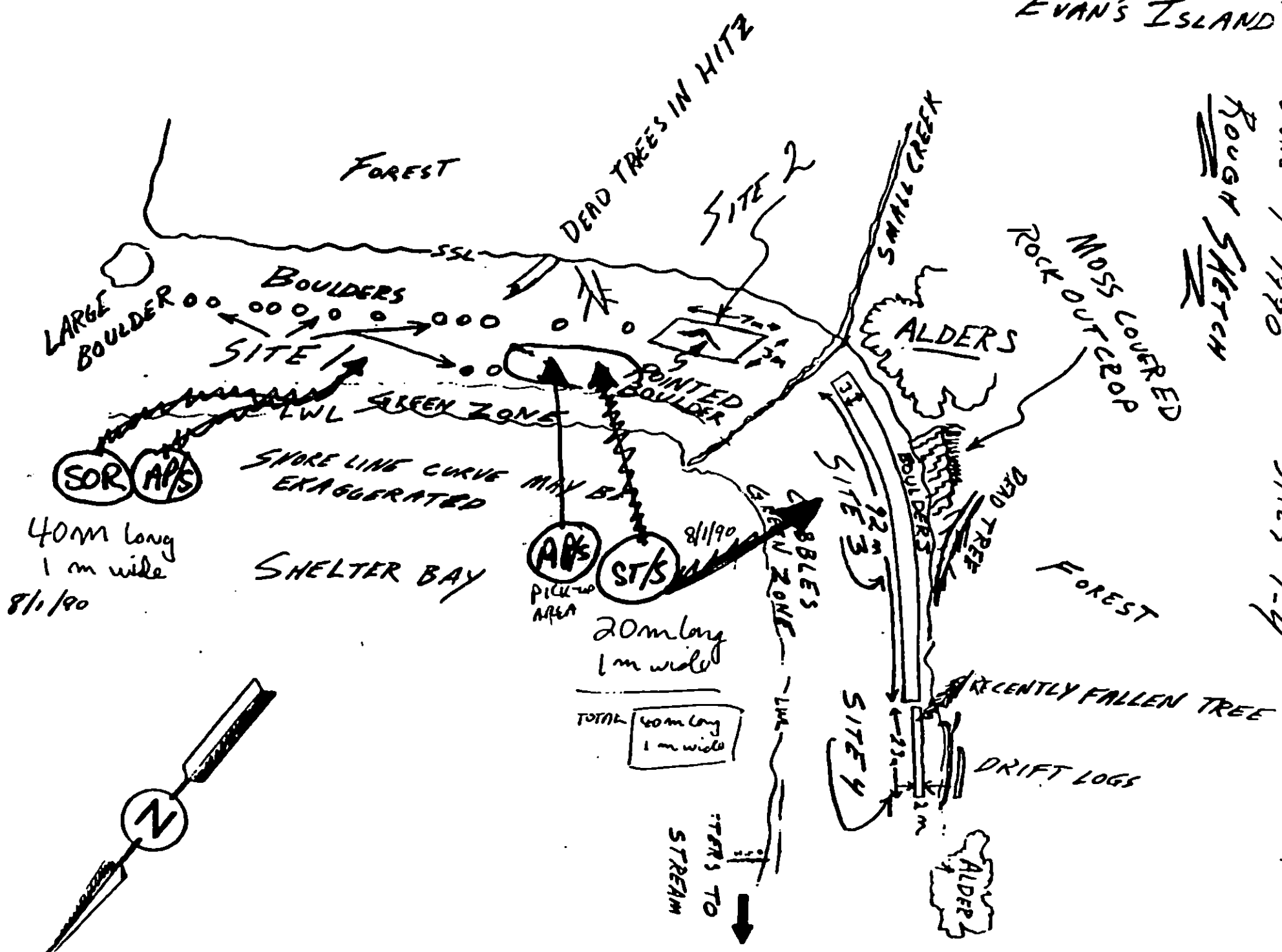
EXXON Randall K. Bohn

USCG One D

LAND MANAGER Steve Ward cwc (If field rep is on scene)

EVAN'S ISLAND

THIS ISLAND
JUNE 9 1990
ROUGH SKETCH
SITES 1-4



ASAP TAG REVIEW SHEET

Segment: EV 26 Subd: A Site: 1 Date
PRE-Review 11 AUG 90

Priority For Addressing In 1990

 HIGH X MEDIUM LOW NTR

Treatment
Recommended:

MANUAL REMOVE TARMAT

SUBSISTENCE: DEER HARVESTING
CLOSED TO BIO 8/15.

LIFTED as long as
as rep on site

Priority Site For Reassessment In 1991

YES NO YES NO YES NO YES NO
X CG X ADEC X EXXON X LAND MGR

Manual Remove accessible manure
of BIO
MODERATE
PRIORITY

SHORELINE EVALUATION

SEGMENT ST/ EV-27 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16610

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

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

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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. H. H. H.

DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 26 m: No Oil 796 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

✓ No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

X Tarmat: Breakup

 X Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS:

REMOVE ASPHALT + OILED TRASH

TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90

ADEC ART WEINER Art Weiner

EXXON ANDY TEAL Andy Teal

NOAA Bruce Wescott Bruce Wescott

USCG KENNETH KEANE Kenneth Keane

FOSC: WJL

DATE: 4-27-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31) 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	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/15 to 6/1)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (5/7 to 8/31)
1J	Purse seine area (7/20 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (6/11 to 7/25) For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15) Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P 3O, 3Q	Harbor seal and sea lion pupping (5/15 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.
5R	Seabird colony (5/1 to 9/1) 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	Anchorage (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 (5/1 to 9/30)
7H-H	Finfish harvesting
7I	Deer harvesting (8/15 to 2/28)
7J-J	Invertebrate harvesting
	For Codes 7Z through 7J-J contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

SEGMENT ST / EV-27

SUBDIVISION: _____

DATE 4/09/90

JSCG

NAME R. HubbardSIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME J. LYNN MARTINSIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

RECOMMEND THAT ANAD SCAT CHECK OIL BESIDE
STREAM, TO DETERMINE WHETHER IT SHOULD BE
PICKED UP.

THE REST OF THE ~~SEG~~ SEGMENT NEEDS NO TREATMENT

LAND MANAGER

NAME PATRICK SEANOFFSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I would strongly suggest treatment be done here, because
the oil is near a salmon stream. I am not
too sure of Bioremediation and its effects but any kind of
attempt would be better than none.

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG Remedy USCG Hulbard SEGMENT ST/ EV - 27
 BIO Zamora LAND REP Salasoff (Civ) SUBDIVISION WA PO
 EXXON Casta ADEC Martin TIME 09:10 to 10:30
 TEAM NO.: 6 TIDE LEVEL: 21 to 24 DATE 4/9/90
 EST. SUBDIVISION LENGTH: 776 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock Snow
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 5 % B 10 % C 15 % P 30 % G 25 % S 5 % M - % V - %
 SLOPE: Long 25 % Hang 15 % Vert - % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W - m M - m N - m VL 50 m NO 726 m

SURFACE OIL

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

PAVEMENT: H (F) 8 2 sq. m by 1 cmPATTIES / TARBALLS - BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MO	LG
Logs			
Vegetation			
Trash	X		
Debris			

DEBRIS COLLECTED
☒ YES ☐ NOTYPE Plastic / Ampers#BAGS 1

Photographs:

Roll No. ST-16-7Frames 14-30

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	CP	NO		UO	GO	1	2	3	4	SU	U	M	U		
1	40					X	.								X				PG
2	45					X	.								X				PGS
3	45					X	.								X				PGS
4	30					X	.								X				G
5	50					X	.								X				GP
6	30					X	.								X				GP

COMMENTS Western head of long embayment. Rocky shoreline with intermixed PG and CG leaders along the north side of the segment. A major fresh water stream and Delta (tidal flat) fills the center of the segment, mantled with pebble, granules and scattered cobbles. The northern end of the segment appears to have a grass covered beach area, however it was mostly snow covered. The only oil found in this segment was a band of sporadic pavement (12) 1cm thick near the northern end, associated with a sporadic coating on pebbles and cobbles. The band was approximately 2m wide and dissipated into a sporadic stain to the southwest. Total length 50m

SEGMENT ST/ EV-27 SUBDIVISION

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	BO	~~Y~~	~~B~~	~~BL~~	~~BR~~	~~GR~~	~~OR~~	BU	U	BU	U		
7	60					X	.												X		GSP
8	40					X	.											X			GP
9	40					X	.									X					GP
10	35					X	.									X					GP
11	30					X	.												X		GSP
							.														
							.														
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							.														
							.														

COMMENTS

REVIEWED _____ DATE _____

OG [REDACTED]

SKETCH MAP

SEGMENT 8T1 EV27

SUBDIVISION _____

DATE 4 / 9 90

CHECKLIST

- ☒ ~~✓~~ Name
- ☒ ~~✓~~ Approx. Scale
- ☒ ~~✓~~ Sex/Age/Body
- ☒ ~~✓~~ US Dist.
- ☒ ~~✓~~ Width
- ☒ ~~✓~~ Length
- ☒ ~~✓~~ % Cover
- ☒ ~~✓~~ Substrate Character
- ☒ ~~✓~~ Est. HPLAVAL
- ☒ ~~✓~~ SOL
- ☒ ~~✓~~ Profile Location(s)
- ☒ ~~✓~~ Profile(s)
- ☒ ~~✓~~ Pz Location(s)
- ☒ ~~✓~~ Photo Location(s)

LEGEND



Fig - No Substitution Oil

2 ▲

PG - Subsurface Oil

CTAC

Cardiac Rehabilitation

CT/D

Business Distribution

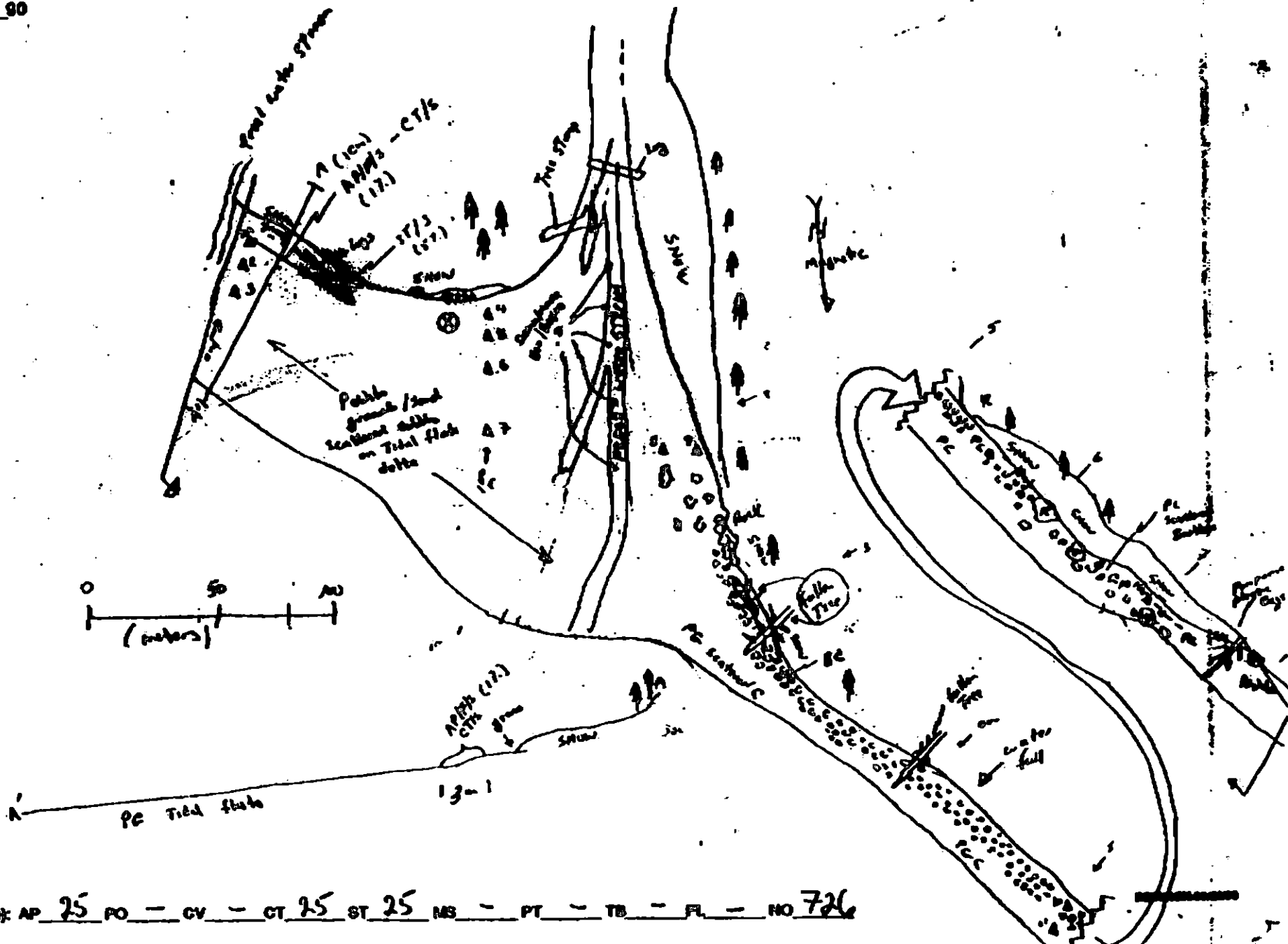
CT/P

Patchy Distribution

CT/S

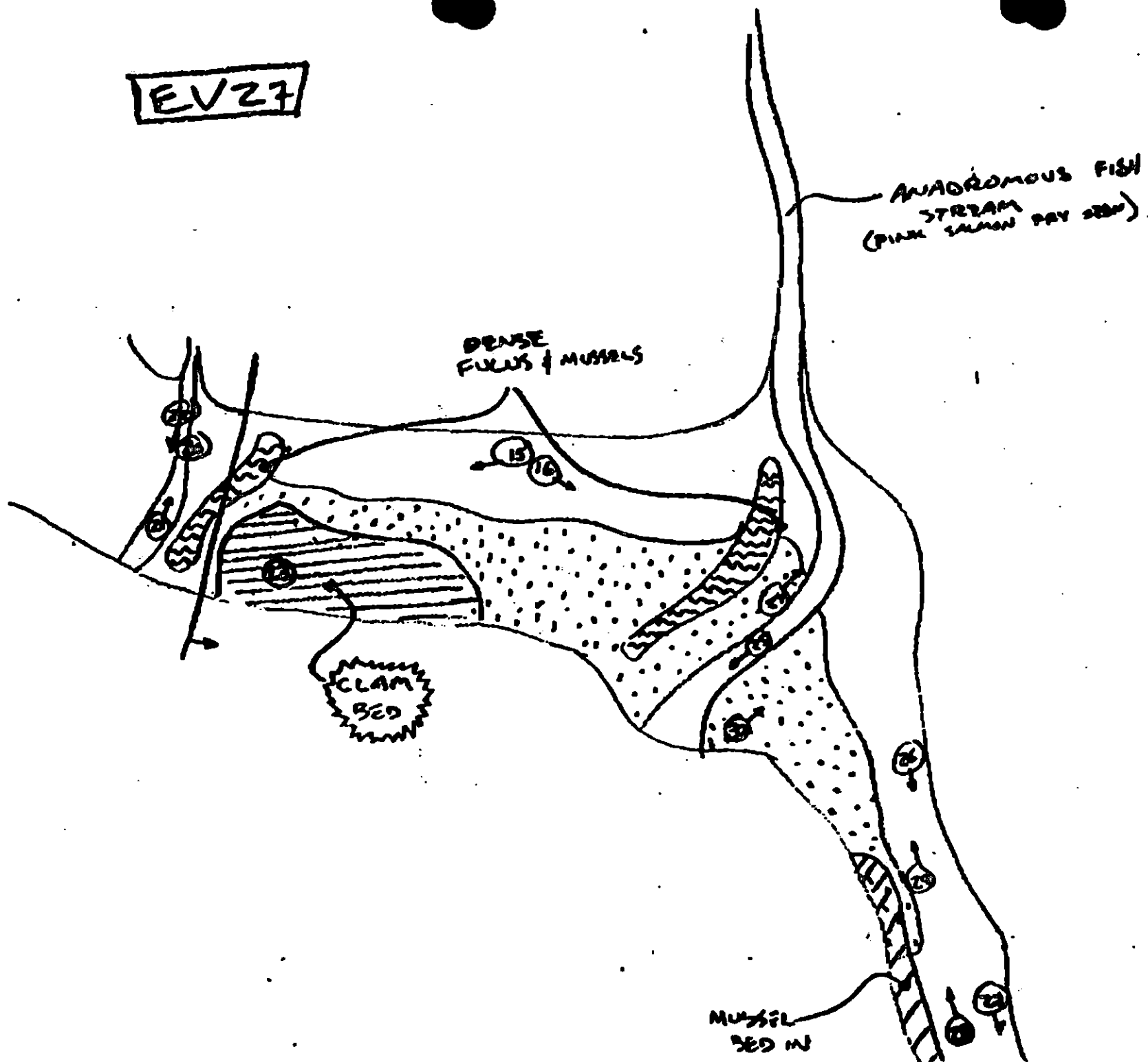
Splashed Illustration

Closed Vegetation

1. **Print location, direction,
and number**

Oil Character Length (m): AP 25 PO - CV - CT 25 ST 25 MS - PT - TB - FL - NO 726

EV27



SHORELINE ECOLOGICAL SUMMARY

REVISION: 001

Segment ST / EV27 Subdivision Date (mo / day / yr) 4/9/90Time (24 hr) 0900 ON 1030 OFF Biologist TONY ZAMORA(A) Substrate type and % of segments:
(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 60 Moderate 20 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: ST-16-7
Roll No. Frames 14-30

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	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 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 2 2	2 2 2	2 2 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 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	

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	NOT PRESENT
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	
6 6 6	6 6 6	6 6 6	6 6 6	

FUGUS

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	NOT PRESENT
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	
6 6 6	6 6 6	6 6 6	6 6 6	

Wildlife Observations/General Comments:

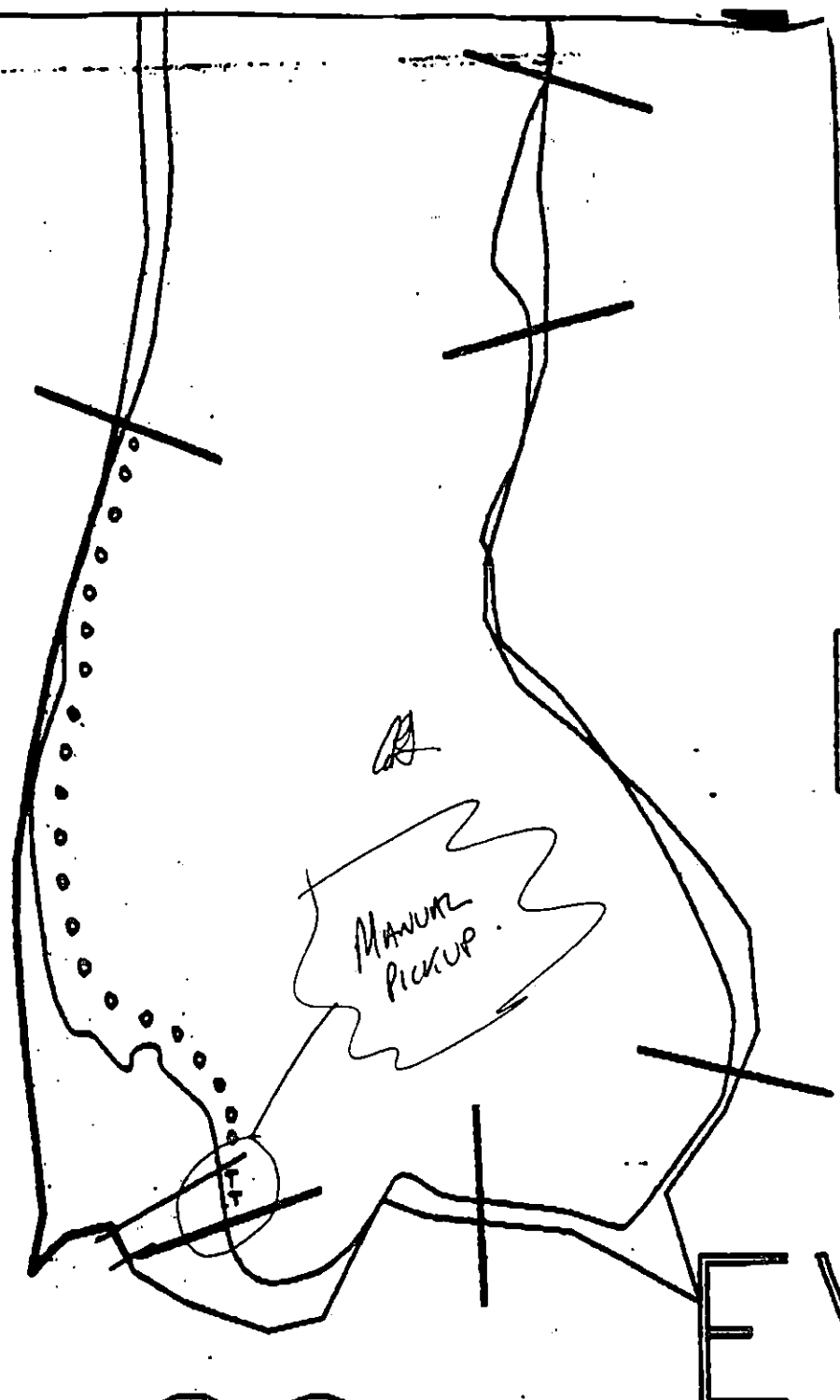
- DENSE CLAM BED - P. STRIMMER, C. ANSELLI, MYA TRUNCATA, SCALDAMUS
- DENSE PULUS NEAR / ALONGSIDE OF RIVER BED.
- DENSE BARNACLES (SPAT UNOBSERVED, BUT I DIDN'T HAVE TIME TO LOOK WELL)
- MANY EMPTY MUSSEL SHELLS IN / AROUND STREAMS, LIVING MUSSELS RARE WITHIN PULUS PATCHES.

- EAGLE, OTTERS SITED.

- MANY PITS IN CLAM BED INDICATE FEEDING AREA FOR OTTERS

ECOLOGICAL CONSIDERATIONS

7II, 7JJ, 1A/B (PINK SALMON RY BED)



EV-26

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-27

ADEC Segment Length: 822m



Map Key: PWS-196

Name: Reimer

Date: 4/9/70

Date Entered:

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16610

SEGMENT EV-27 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

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 (226-40-16610) is in Subdivision A. No constraint to manual pickup

7II Subsistence: Deer Harvesting

No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM EV-27A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

[Signature]

Date

6/16/90

Prepared by

[Signature]

Date

6/14/90

EV-28

EV-20

EV-27

EV-24

ANADROMOUS
STREAM

WORK
AREA

EV-26

EV-25

ANADROMOUS STREAM EVALUATION



Exxon Company, USA
Map Key: PMS-EV-27
June 08, 1990



ECOLOGY MAP
SEGMENT EV-27
SUBDIVISION A (1 of 1)
METERS
0 358 717

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

1 inch = 1176 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-27 STREAM NO: 226-40-16610 DATE 4/26/90

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)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

SHPO SIGNATURE: Rachel Jean Duen DATE: 5/18/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

No Treatment Recommended

 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:

TAG COMMENTS: MANUAL PICKUP OF TAR PATCHES

TAG APPROVAL DATE: 5/9/90

ADEC ART WEINER Art Weiner

EXXON AMY TSAI Amy Tsai

NOAA Burt Wescott Burt Wescott

USCG D.D. ROME D.D. Rome

FOSC: W L DATE: 6-8-90

Katipfy CVC 2 hrs prior to Cleanup

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/5)
 1K Purse seine hook-off (7/20 to 9/5)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unrolled 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 Evelyn Biggs 424-3235
- 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 4Q 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 6/15)
 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 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 (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 (8/15 to 2/28)
 7JJ Invertebrate harvesting
 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 267-2350

FIELD SHORELINE COMMENT SHEET

36

SEGMENT ST EV 027 SUBDIVISION: 166 10 DATE 4/26/90

USCG

NAME AND Mc MAHON SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

1. MANUAL CLEAN-UP; REMOVE TAR PATCHES
(see map)

ADF46

~~ADFC~~

NAME TOM CROWL SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF BAND OF SPORATIC TAR FLOPS FROM
BOTH SIDES OF STREAMS.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ASC #

226-40-16610

Segment

EV-027

Observations A sporadic band of tar patties rings the high tide line adjacent to the two widely spaced mouths of this one stream. No subsurface oil was observed.

Treatment Recommendations Manually remove all tar patties.

SKETCH MAP

File AS-15-6

NA

- Length
- to Comp
- Substrate Character
- Est. WMA/SE
- SE
- Profile Location(s)
- Profile(s)
- PT Location(s)
- Photo Location(s)

LEGEND

▲
Pt - No Substrate Ch

▲
Pt - Substrate Ch

CT/C
Continuous Distribution

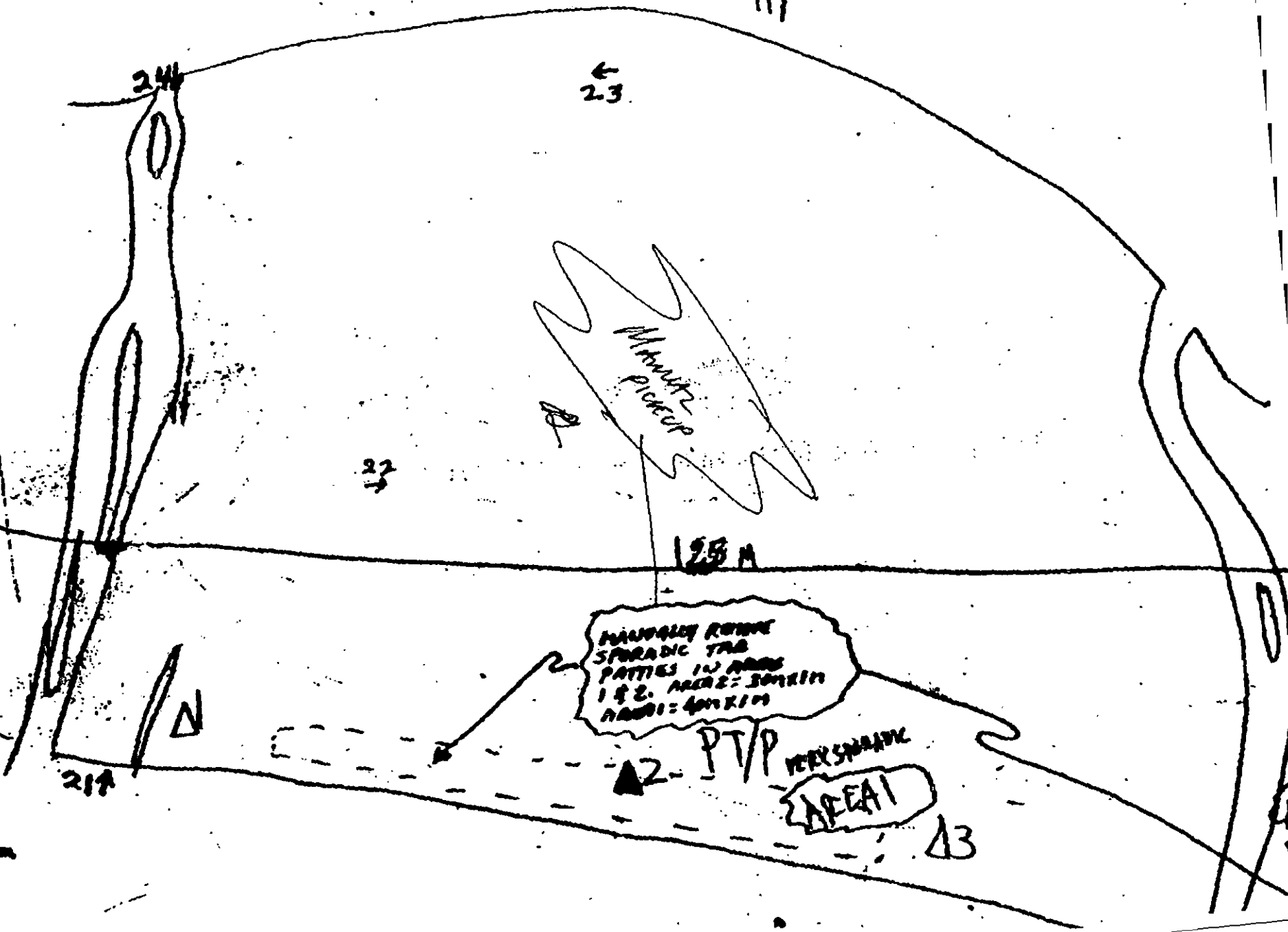
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Sporadic Distribution

eee
Other Vegetation

①
Photo location, direction,
and number



APR-26-1990 20:20 FROM EXXON CMD CORDOVA TO SCAT TEAM P.12

OG WILLIAM LEID

BIO MICHAEL FAYCETT

EXXON GUS GARCIA

TEAM NO. 15

EST. SUBDIVISION LENGTH: 12.5 m

UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock

SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo

SURFACE SEDIMENTS: R 55 % S 30 % C 15 % P 0 % M 0 % V 0

SLOPE: Long 100 % Hang 0 % Vert 0 %

OIL CATEGORY LENGTH: W 0 m M 4.5 m N 0 m VL 0 m NO 80

USCG McMAHON

LAND REP TOM CROWE-ADEC

ADPC MIKE WOODRUFF

TIDE LEVEL +2.2 SF

DATE 26 / APR / 90

☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow

WAVE EXPOSURE: ☐ Low ☒ Med ☐ High

SEGMENT ST/ EV027

STRAKE 100010

TIME 11:35:30

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONE			
	N	E	S	W	1	2	3	4	W	U	U	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES			X				X		X			
TARBALLS												
FILM												
NO OIL									X	X	X	

PAVEMENT H F S 0 sq. m by 0

PATTIES / TARBALLS 30 BAG

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. AS-15-6
 Frames 19-18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW	OIL / FILM COLOR				PIT ZONE				A N A	SHEEN	CYAN	↓	SURFACE - SUBSURFACE SEDIMENTS
		CP	GR	OL	OF	NO			1	2	3	4	W	U	U	U					
1	35					X	.						X					N			P/G/C
* 2	25	X					0-2	X	X				X					N			G/P/C
3	30					X	.						X					N			P/G/C
							.														
							.														
							.														
							.														

COMMENTS * OILED INTERVAL < 5 cm IN PIT NO. 2, DOES NOT CONSTITUTE SUBSURFACE OIL

34/48 ON WILLIAM RD
SEGMENT TO FV027

STATION 225-40-10610

SKETCH MAP

File AS-15-6

DATE 26 APR 80

CHECKLIST

- ☐ 1. Area
- ☐ 2. FV027
- ☐ 3. FV028
- ☐ 4. FV029
- ☐ 5. FV030
- ☐ 6. FV031
- ☐ 7. FV032
- ☐ 8. FV033
- ☐ 9. FV034
- ☐ 10. FV035
- ☐ 11. FV036
- ☐ 12. FV037
- ☐ 13. FV038
- ☐ 14. FV039
- ☐ 15. FV040
- ☐ 16. FV041
- ☐ 17. FV042
- ☐ 18. FV043
- ☐ 19. FV044
- ☐ 20. FV045
- ☐ 21. FV046
- ☐ 22. FV047
- ☐ 23. FV048
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- ☐ 81. FV106
- ☐ 82. FV107
- ☐ 83. FV108
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- ☐ 85. FV110
- ☐ 86. FV111
- ☐ 87. FV112
- ☐ 88. FV113
- ☐ 89. FV114
- ☐ 90. FV115
- ☐ 91. FV116
- ☐ 92. FV117
- ☐ 93. FV118
- ☐ 94. FV119
- ☐ 95. FV120
- ☐ 96. FV121
- ☐ 97. FV122
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- ☐ 99. FV124
- ☐ 100. FV125
- ☐ 101. FV126
- ☐ 102. FV127
- ☐ 103. FV128
- ☐ 104. FV129
- ☐ 105. FV130
- ☐ 106. FV131
- ☐ 107. FV132
- ☐ 108. FV133
- ☐ 109. FV134
- ☐ 110. FV135
- ☐ 111. FV136
- ☐ 112. FV137
- ☐ 113. FV138
- ☐ 114. FV139
- ☐ 115. FV140
- ☐ 116. FV141
- ☐ 117. FV142
- ☐ 118. FV143
- ☐ 119. FV144
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- ☐ 121. FV146
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- ☐ 123. FV148
- ☐ 124. FV149
- ☐ 125. FV150
- ☐ 126. FV151
- ☐ 127. FV152
- ☐ 128. FV153
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segment EV027

4/26/90

Stream 226-40-16610

Michael Fawcett

Ecological Summary

There are two streams at this site (see sketch), separated by a wide, shallow-slope beach of cobble, pebbles, and gravel. Dense barnacles and scattered *Fucus* occur in the UTZ. Little other intertidal biota exist except for a dense patch of mussels at the mouth of the larger (western) stream. Light scattered tar mats were found on the UTZ bank near the eastern stream. Manual removal recommended. There are no ecological constraints.

M. Fawcett

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BB SS CS TS AVE SCM MMS PTA 2 REGION: P-2 NP, CI KAP

METHOD Aerial Ground Boat

3 DATE: 4/26/90 15 HIGH TIDE TIMES: 1526 21 TEAM RECORDER: Tom Cesar

4 START TIME: 1136 16 HIGH TIDE HTS: 11.2 22 OBSERVERS: Mike Wrenner

5 STOP TIME: 1208 17 LOW TIDE TIMES: 0901 23 AGENCY: ADFG ANPOSCAT

6 SEGMENT #: EVO27 18 LOW TIDE HTS: -3.6 24 PHOTOS TAKEN: Y (1)

7 STATION #1: _____ 19 TIDE MT AT SURVEY: +2 Roll #: _____ Frame: _____

8 E-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: Y (1) TAPES: _____

9 STAT AREA: _____ 20 USGS QUAD: _____ Starts: _____ Ends: _____

10 LAT: _____ 11 LONG: _____ 26 SAMPLES TAKEN: Y (1) Residue

12 SOURCE: Map Local Oil _____

13 LOCATION: SHELTER BAY Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM				
	L	V	NP	S	L	V	NP	S	
27 SURFACE COVERAGE									33 CATALOGED ANAS. FISH SEAMS? <u>Y</u> <u>N</u>
28 SURFACE THICKNESS									37 CATALOG # <u>226-40-16610</u>
29 PENETRATION									38 STREAM FLOW: _____
30 OVERALL OIL IMPACT: <u>N</u> <u>VL</u> <u>(1)</u> <u>N</u> <u>N</u>									39 OIL IN STREAM BED? <u>Y</u> <u>N</u>
31 OIL TYPE: Pooled <u>None</u> <u>Tar</u> <u>Asphalt</u> <u>Sludge</u> <u>Emuls</u>									40 OIL ON STREAM BANKS? <u>Y</u> <u>N</u>
32 OILED DEBRIS? <u>Y</u> <u>(1)</u>									41 OIL ON BEACH ADJACENT TO MOUTH? <u>Y</u> <u>N</u> (within 50 meters)
33 SHORELINE TYPE: <u>Headland</u> <u>Low-lying Beach</u> <u>(1)</u> <u>(2)</u> <u>Cove</u>									42 OIL WITHIN 1 MILE OF STREAM? <u>Y</u> <u>N</u>
34 WAVE EXPOSURE: <u>High</u> <u>Moderate</u> <u>(1)</u> <u>Low</u>									Where: _____
35 SUBSTRATE TYPE: <u>Bedrock</u> <u>Gravel</u> <u>✓</u> <u>Beider</u> <u>Sand</u> <u>Coarse</u> <u>Red/silt</u>									43 AMBIGUOUS FISH PRESENT? <u>Y</u> <u>N</u>
									44 AMBIGUOUS FISH OBSERVATION
									Species Aerial Ground

COMMENTS: BOTH STREAM MOUTHS ARE OF SAME ORIGIN AS STREAM MOUTH.
It splits or forks BEFORE entering SHELTER BAY (SEE MAP)
RECOMMEND MANUAL REMOVAL OF INTERMEDIATE TAR PATCHES
(NO INDIAN)

38/42

EV 027

226-40-16610

4/26/90

SPORADIC
TAL FLOPS

SPORADIC TAL FLOPS

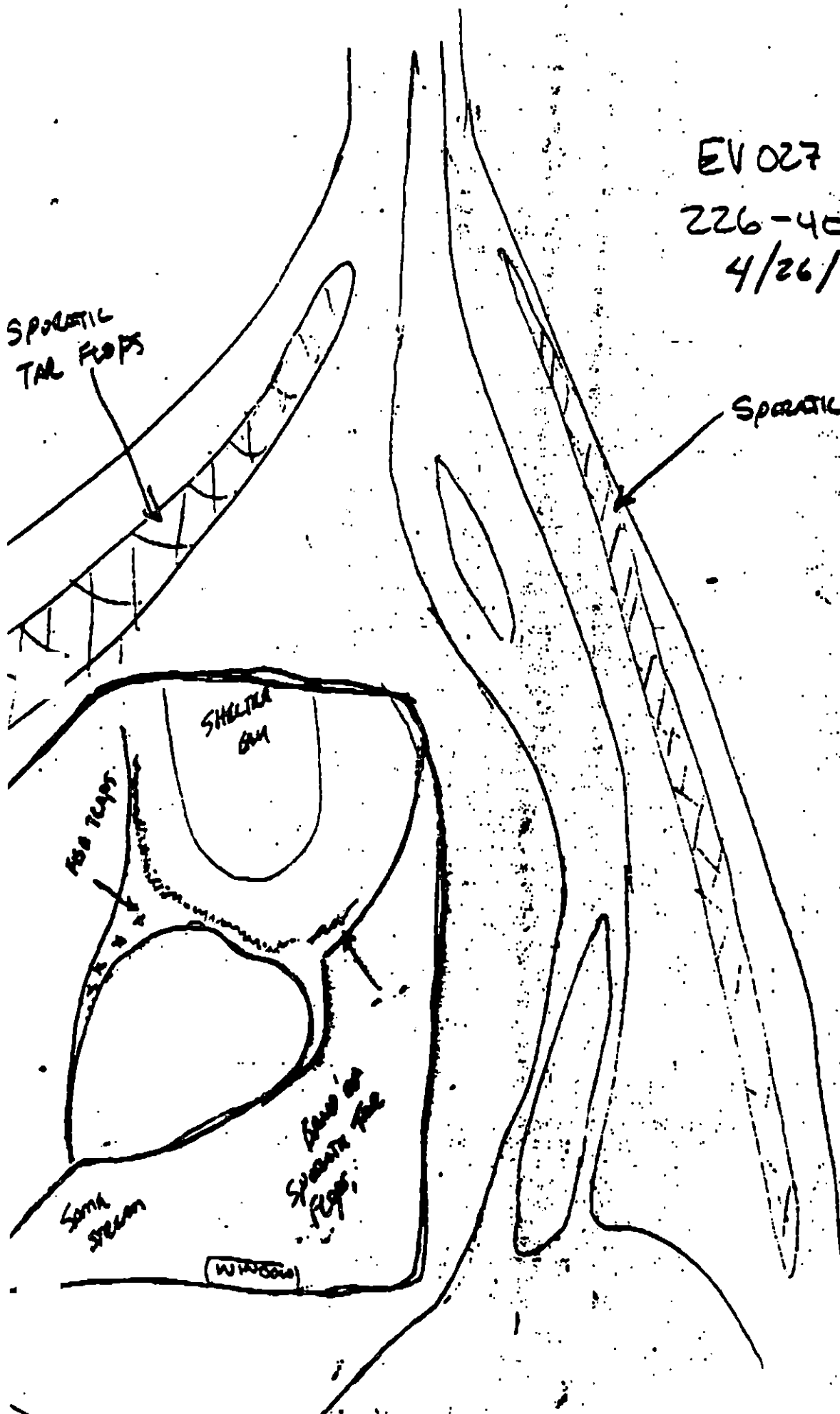
SHELTER
ON

FOR TRAPS

SOME
STREAM

Base of
Sporadic
Flops

WINDSON



ECOLOGICAL MAP

1A, 1B
7II

AN ADREMOUS
STREAM

226-40-16610
(Ps. 12/89)

LOCATED IN

EV-27-A
(1 of 1)

EV-26

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-27

ADEC Segment Length: 822m



Map Key: PWS-198

Name: Reimer

Date: 4/9/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-28 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6Y Recreation: Special use destination

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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: J. David M. Mahan DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 156 m: V.Light 1153 m: No Oil 476 m
Subsurface Oil Observed: Yes X No Maximum Depth 5 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 tar
patties in area indicated on sketch map, and 2) manual raking and
bioremediation of area indicated on sketch map. No specific working
time constraints identified.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/9/90
ADEC Art Weiden
EXXON ANN TEAR
NOAA Burt Wesscott
USCG D.D. Rome

FOSC: W L DATE: 5-18-90

NOTIFY CDR 24 HRS IN ADVANCE OF
WORK.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 257-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (5/7 to 6/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (5/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
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 Evelyn Biggs 424-3235
- 30, 3Q Harbor seal and sea lion pupping (5/15 to 7/1)
Harbor seal and sea lion molting (5/15 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 Collins 257-2403
- 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 257-2205
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (5/1 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)
7H Finish harvesting
7J Deer harvesting (5/15 to 2/25)
Invertebrate harvesting
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 257-2355

SEGMENT ST/ E'V028 SUBDIVISION: A DATE 4/26/90

USCG

NAME Pharm Mass. SIGNATURE ix° Pharm Mass.

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

RECOMMEND MANUAL REMOVAL OF TAR PATCHES SOUTH
END OF BEACH.

SUBSURFACE DRILLING NOTED NORTH END OF BEACH. P-G'S,
FURTHER EVALUATION, POSSIBLE SALMON STREAM CLOSE
BY.

ADEC

NAME DAVE SALE SIGNATURE Dave Sale

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

- ① MANUAL REMOVAL OF TAR PATCHES AND OILED SEDIMENT
NEXT TO STREAM; ON N. END OF SEGMENT, OILED
PEBBLES/GRAVELS TO 5 CM., IN ANAEROBIC SEDIMENTS. REMOVAL
WOULD BE TOP LAYER.
- ② TILLING OF SEDIMENTS THAT ARE NOT REMOVED WOULD
HELP WEATHERING.

LAND MANAGER

NAME Don Karpoff Jr SIGNATURE Donald P Karpoff Jr

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

21041

SHORELINE OILING SUMMARY

REVISION NO. 04/7

OG R. Marty USCG "Al" 2 SEGMENT ST/ -Y-2
 BIO B. Leman LAND REP D. Kempkroft SUBDIVISION A (A OF A)
 EXXON J. Garza ADEC D. Sale TIME 18:25 to 20:10
 TEAM NO. 10 TIDE LEVEL +1.18m to +0.32m DATE 25 / April / 90
 EST. SUBDIVISION LENGTH: 1743 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 15 % B 20 % C 15 % P 30 % G 15 % S 15 % M — % V — %
 SLOPE: Long 90 % Hang 10 % Vert — % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N 130 m VL 1151 m NO 486 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	55	60	65	70
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT			P	S			P	S					
STAIN				S			S			S			
MOUSSE													
PATTIES				P			P			P	P		
TARBALLS													
FILM													
NO OIL											X	X	

PAVEMENT H F S None sq. m by —PATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT				DID YOU COLLECT DEBRIS?
	NO	SM	MD	LG	
Logs	X				YES ☒ NO ☐
Vegetation	X				
Trash	X				
Debris	X				

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Misc.BAGS 1-2

Photographs:

Roll No. 57/1045Frames 2-7, 28

SUBSURFACE OIL

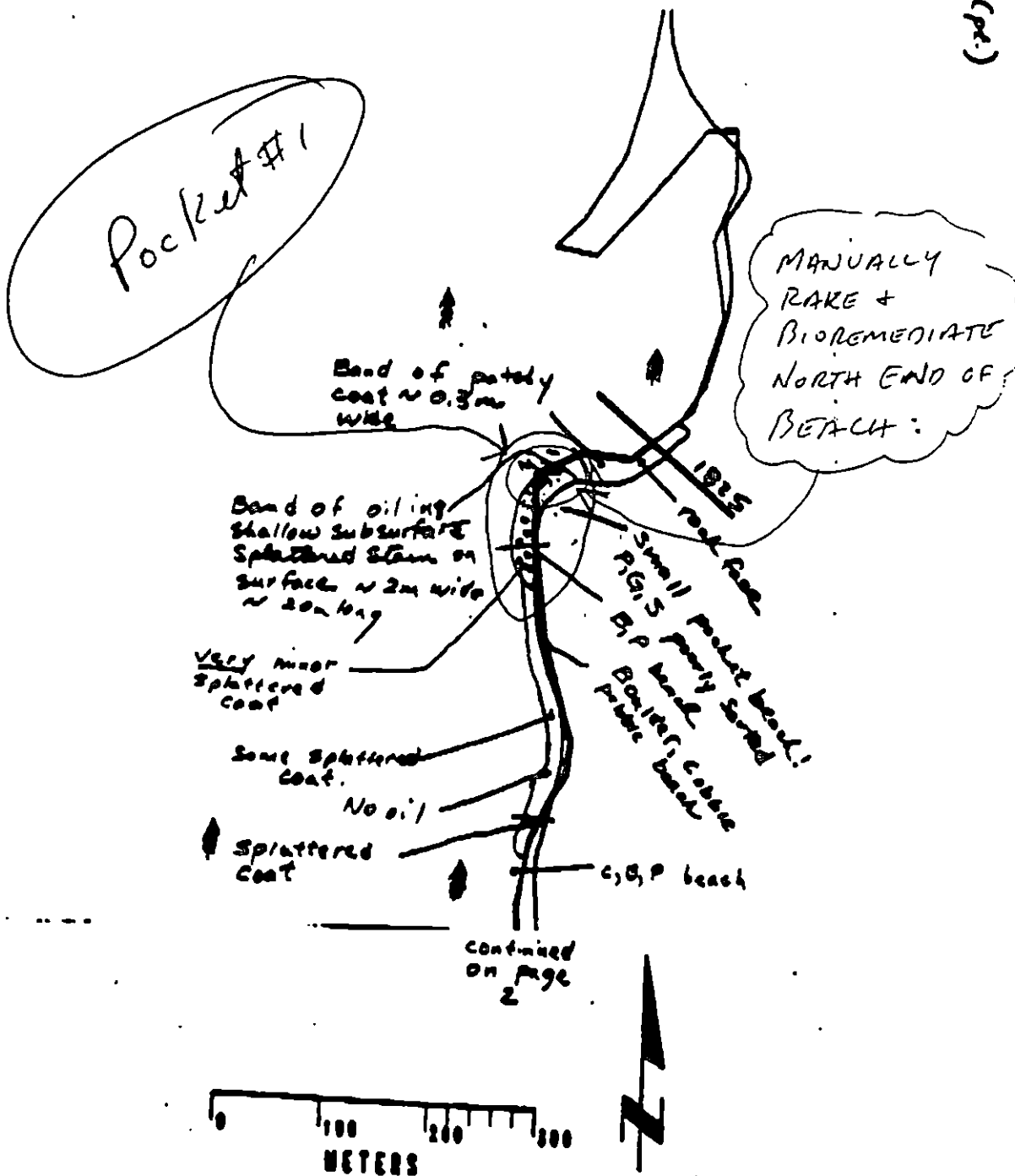
PIT NO.	PIT DEPTH (CM)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A	N	GREEN	S/G (Y/N)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	OS		US	UR	~~1~~	~~2~~	~~3~~	~~4~~	~~5~~	M	U	M	L						
1	35	-	X				0-52	X				X	-	X					Y	Y		33	GC-SV	
2	38					X		X						X					Y	N		33	SG-SG	
							.																	
							.																	
							.																	
							.																	

SEGMENT SV/ EV-28 (pt.)

SUBMISSION 1

DATE 25 Apr 80

EV-28



1/2

22041

On Character Length (m) AP — PO — CV — CT 1200 ST 100 MS — PL 30 TB — FL — NO 486

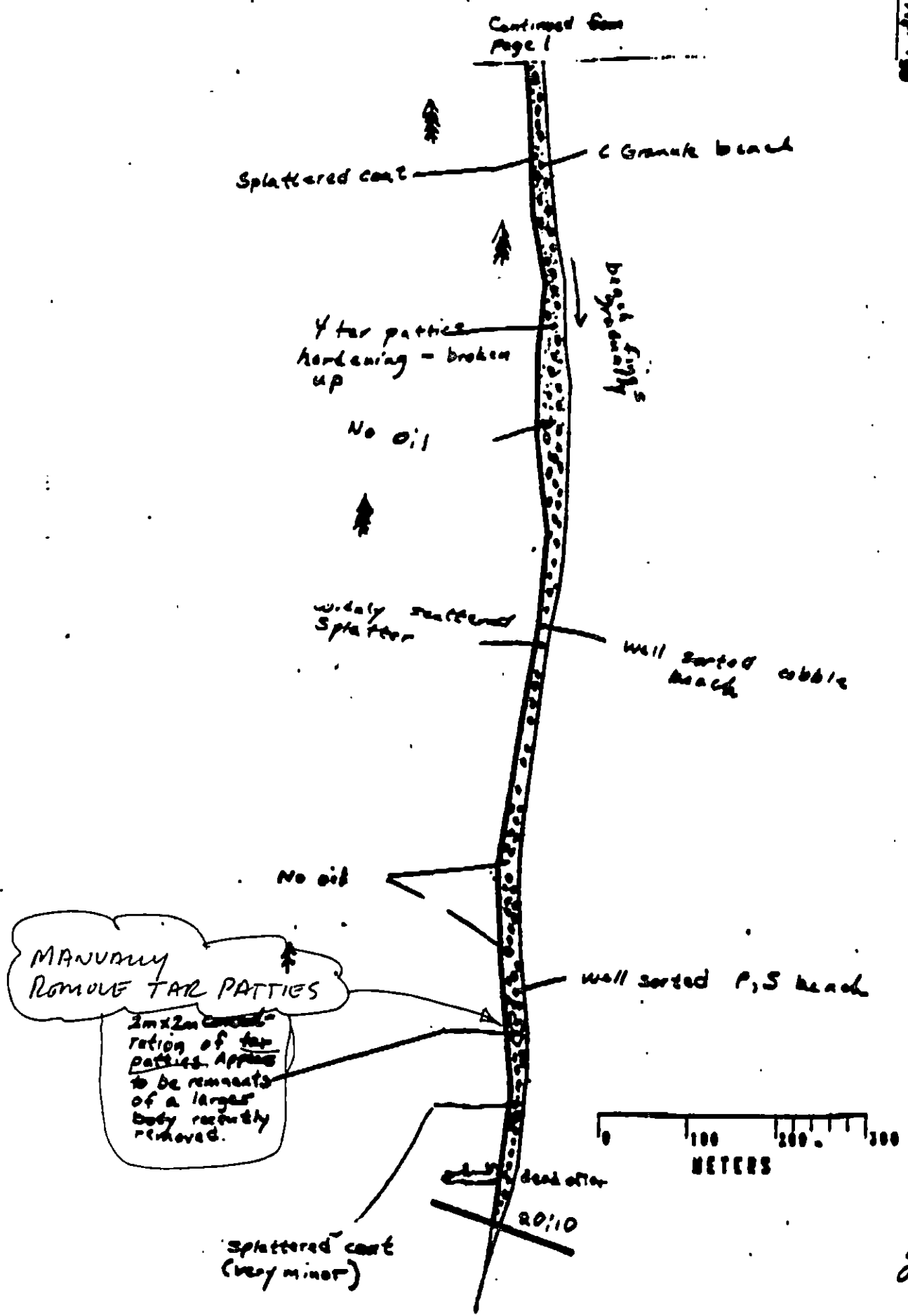
SEGMENT SIX EV-28(P)

SUBDIVISION A

DATE 25 Apr 90

EV-28

10 Character Length Property
FO CV CT ST MS PT TB FL NO



23441

SHORELINE ECOLOGICAL SUMMARY

REVISION 02/90

Segment ST/10/4V 29 Subdivision A Date (mo/day/yr) 4/25/90

Time (24 hr) 1825-2020 Biologist Lemon

(A) Substrate type and % of segments:
 (1) Bedrock 15 (2) Boulder 20 (3) Cobble 15 (4) Pebble 20 (5) Sand 30 (6) SL

(B) Overall % cover of biota (% of segment): Dense Moderate 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 (S)

Photographs: Roll No. ST/10/15

Frames 27, 28

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
XU	XM	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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
XU	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	

Wildlife Observations/ General Comments:
 2 Sealions
 1 dead otter 70 meter from S. end.
 UTX 1 dead flatfish

Fucus is in reproductive condition, Littorina eggs present.
 Water is relatively clear. Large raft of ice went in and out of bay during the day.
 The deeper into the bay we go the lower all zones became displaced; This paper best represents the north end of the segment where all occurs.
 The south end of the segment had noticeably more barnacles in the 1-2 mm size; clearly a fresh set.

Ecological Considerations:
 This is a subsistence deer harvest area.

27 of 41

NO	3.0	450	486
VL	7.1	1005	1151
L	0.8	120	130
		1635	1767



24/41

↓ PWS 197A 1/2

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

000 No Oil

EV-28

ADEC Segment Length: 1785m



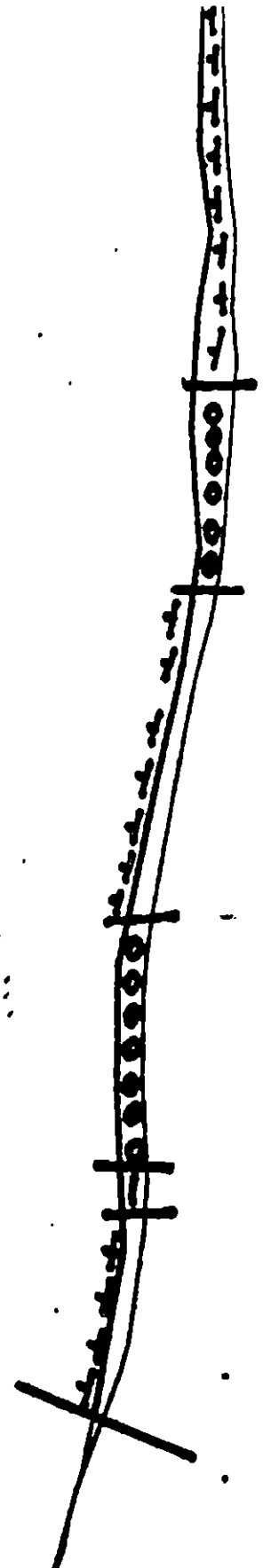
Map Key: PWS-197b

Name: R. Marty

Date: 25 April 1990

Date-Entered:

PWS
1978



25 of 41
2/2

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-28

ADEC Segment Length: 1785m



Map Key: PWS-1978

Name: R. Marty

Date: 25 April 1990

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-28 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation Manual Raking	WORK PRIOR TO 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

7II Subsistence: Deer Harvesting

No constraint to manual pickup; closed to bioremediation and manual raking after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

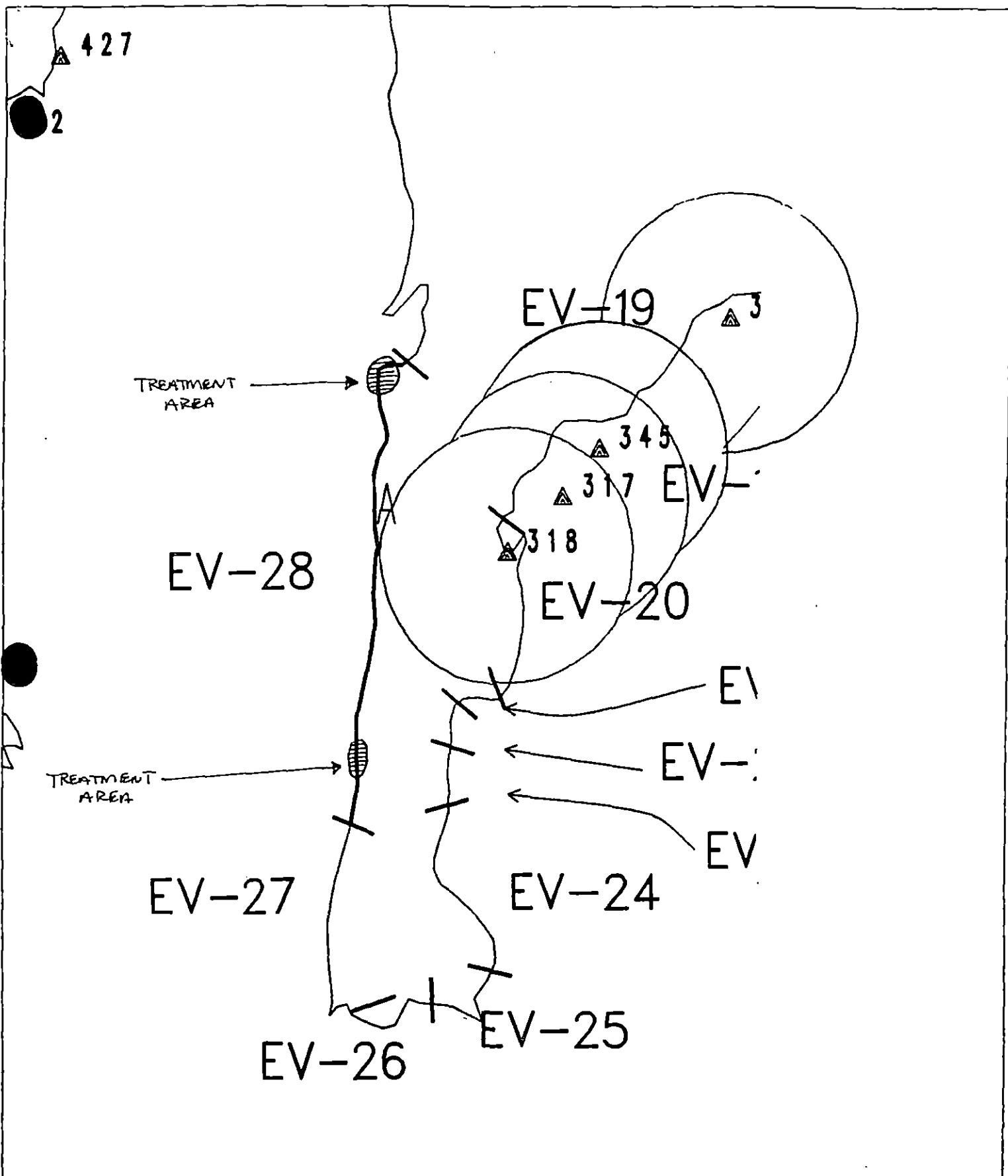
Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG APPROVAL DATE 5/29/90
ADEC Art Weiner Art Weiner
EXXON Art Weiner Art Weiner
NOAA R. W.
USCG G.A. REITER G.A. Reiter

FOSC [Signature] DATE MAY 29 1990

Prepared By: Anders Meyer wrk

Date 5/27/90



Exxon Company, USA
Map Key: PWS-EV-28
May 11, 1990



ECOLOGY MAP
SEGMENT EV-28
SUBDIVISION A (1 of 1)
METERS
0 415 830

★ Seabird Colony
▲ Eagle Nest

1 inch = 1362 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-36 SUBDIVISION A (1 OF 1) DATE 4/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
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. Hume DATE: 5/2/90

OILING CATEGORIZATION:

Wide 0 m: Medium 73 m: Narrow 0 m: V.Light 420 m: No Oil 1403 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: <u> </u> Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/2/90
ADEC Art Wenzel
EXXON Andy Gatz
NOAA Gary Petros
USCG Kenneth Keane

FOSC: DATE: 6-19-90

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/1)
1E Main Bay Hatchery release (4/20 to 6/10)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (8/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
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 Evelyn Biggs 424-3235
- Harbor seal and sea lion pupping (5/15 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 (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)
7H1 Finfish harvesting
7H2 Deer harvesting (8/15 to 2/28)
7J Invertebrate harvesting
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/ EU-36 SUBDIVISION: A (1001) DATE 8-22-90**NOAA**NAME Michael Buchman SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

*Only light stain observed at northern end of segment***ADEC**NAME John Hayes SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

*Only oil observed were light to very light
-tain bands U.I.T.Z. Northern half of segment.***LAND MANAGER**NAME Steve Ward-Cheneshk Corp. SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 04/15/88

OG Mike Foyet ^{NOAA} Mike Buchman SEGMENT ST/ EV-36
 BIO Lynleen Conlin LAND REP Steve Ward CVC SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 7:00 to 5:30
 TEAM NO. 11 TIDE LEVEL +4.2 DATE 4/23/90
 EST. SUBDIVISION LENGTH: 1484 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock 3m vert rock backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 40 % B 50 % C 5 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 100 m N 50 m VL 430 m NO 1464 m

SURFACE OIL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. 0Frames 0

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		VO	UC	1	2	3	4	5	SU	U	M	U				
1	30					X	.		X						X					N	-	C.P.C.
2	25					X	.		X							X				N	-	P.G.C.
3	40					X	.		X							X				N	-	P.B.
4	20					X	.		X							X				N	-	P.C.
5	35					X	.		X							X				N	-	P.C.
6	40					X	.		X							X				N	-	P.C.

COMMENTS

Light Staining and coating was observed in the Northern Part of the Segment in the HITZ among Boulders and Bedrock. Most of the Coat and stain was observed on the Protected Part of the Rock and Boulders, No oiling was observed in the Southern part of the Segment

REVIEWED JWDATE 4-23-90

SEGMENT ST/ AI-36 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A	N	A	SCREEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1/2" / 4"	1/4" / 1/2"	1/8" / 1/4"	1/16" / 1/8"	1/32" / 1/16"	1/64" / 1/32"	SU	U	M	U						
7	30					X	.		X								X					N	-		C, P
8	30					X	.		X							X						N	-		P, C
9	25					X	.		X							X						N	-		P, C
							.																		
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COMMENTS

REVIEWED JW DATE 4-23-90

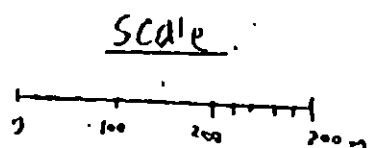
OG: Title Folder
SEI TST/EV-36
SUBDIVISION A
DATE 4/22/90

CHECKLIST

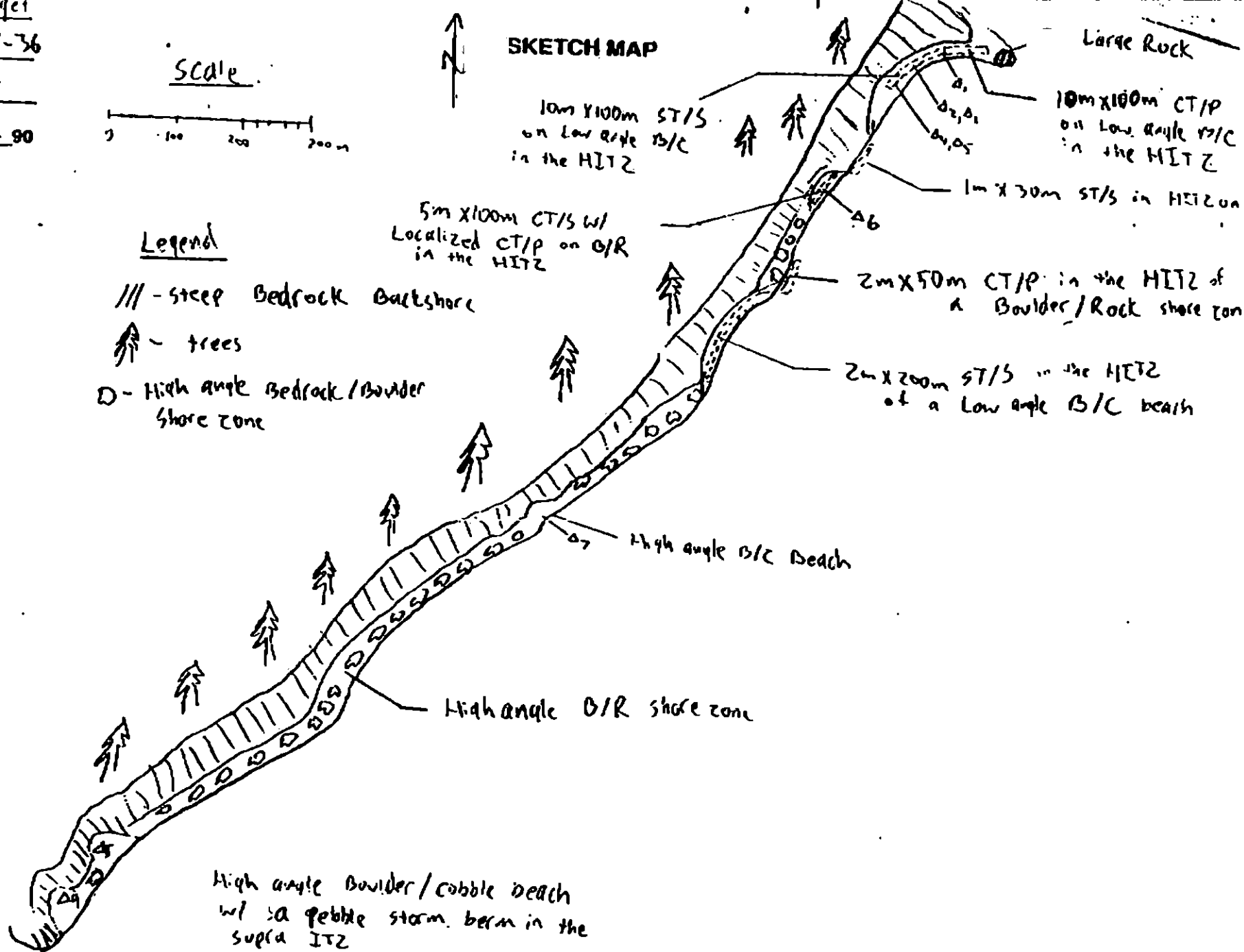
- N Arrow
- Approx. Scale
- Seg/Sub Bndy
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HAZ/LVL
- SSL
- Photo Location(s)
- Profile(s)
- Pt Location(s)
- Photo Location(s)

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 on Vegetation
- 1 →
- Photo location, direction, and number



SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 450 ST 130 MS 0 PT 0 TB 0 FL 0 NO 1404

SHORELINE ECOLOGICAL SUMMARY

REVISION: 09/22/79

Segment ST / EU-36 Subdivision A (IDEI) Date (mo / day / yr) 04/22/90Time (24 hr) 0700 - 0930 Biologist K. CONLAN(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 50 (3) Cobble 5 (4) Pebble 5 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 35 Moderate 40 Low 25

(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. —Frames —

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments:

AMPHIPODS, DECAPOD CRUSTACEANS AMONGST GRAVEL
IN STREAM RUNOFF AT RTZ

Ecological Considerations:

2 STELLAR JAYS
3 BALD EAGLES (1 ADULT, 1 JUV.)
1 MALE HARLEQUIN DUCK.

EV-39

ECOLOGY MAP

EV-37

CONFIRMED
PRESENT

UNOILED
DEER CARCASS INFRA-LITTORAL FRINGE

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-36

ADEC Segment Length: 1984m

0 100 200 300
METERS

Map Key: PWS-242d

Name: _____

Date: _____

Date Entered: _____

ECOLOGY MAP

XXXX Wide

//// Medium

--- Narrow

TTT Very Light

0000 No Oil

EV-36

ADEC Segment Length: 1984m



Map Key: PWS-242b

Name: _____

Date: _____

Data Entered: _____

ECOLOGY MAP (1 of 3)

Resource Codes For
Entire Segment

XXXX

////

TTTT

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-36

ADEC Segment Length: 1984m



Map Key: PWS-242a

Name: K.E. CONLAN

Date: 04/22/90

Data Entered:

EV

~~100~~

↑
PWS-242d

← PWS-242a

XXXX Wide

//// Medium

---- Narrow

TTT Very Light

0000 No Oil

EV-36

ADEC Segment Length: 1984m

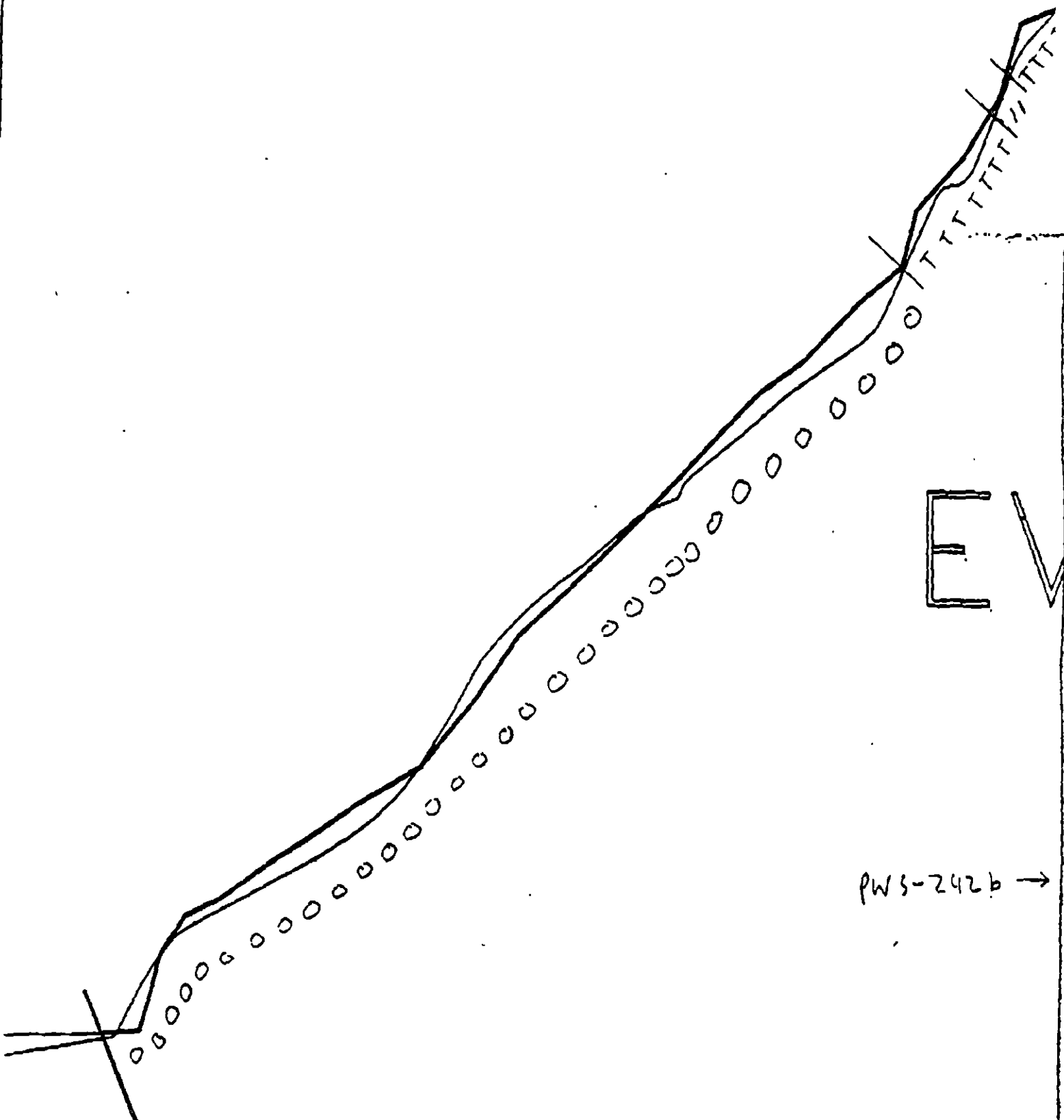


Map Key: PWS-242b

Name: Mike Fogel

Date: 4/22/90

Data Entered:



EV

PWS-242b →

XXXX Wide

//// Medium

--- Narrow

TTT Very Light

OO No Oil

EV-36

ADEC Segment Length: 1984m

0 100 200 300
METERS

Map Key: PWS-242a

Name: Mike Foster

Date: 4/22/90

Data Entered:

EV-39

EV-37

PWS-242b



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-36

ADEC Segment Length: 1984m



Map Key: PWS-242d

Name: Mike Eger

Date: 4/22/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-37 SUBDIVISION A (1 OF 1) DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
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. Danner DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 480 m: Narrow 0 m: V.Light 453 m: No Oil 302 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pickup of oiled vegetation, 2) removal of tarmats, and 3) bioremediation where shown on sketch map. Work should be conducted after 6/1 and with USFWS approval based on eagle nest constraints.

TAG COMMENTS: MANUALLY RAKE/TILL AREA OF TP 6 PRIOR TO ELO

TAG APPROVAL DATE: 5/3/90
ADEC ART WENGER Dittler/Signis
EXXON ANDY TSM
NOAA GARY PETRAE
USCG KENNETH KEANE

FOSC: ML DATE: 5-18-90
NOTIFY CVC 24 HRS IN ADVANCE OF WORK

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (5/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (5/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 3P Harbor seal and sea lion pupping (5/15 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 (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
 7HJ Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 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 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EU-37 SUBDIVISION: A (1061) DATE 4-21-90

NOAA

NAME Michael - Bestman SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Northern end of segment has a raised shelf with oiled debris. First beach on the northern end has noticeably heavier coating, especially toward the south end of the beach. Sheen was seen in tide pools. Poor colonization was observed below oiling in the south end of this beach. Staining & coating continued thru out segment. Southern tip was an area of lg slate slabs with considerable coat of cover on lower portions of in cracks, and asphalt in underlying rock. Oil in pits 5 & 6 were naturally degrading.

ADEC

NAME John Hayes SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

① HWHP Wash U1TZ

② Manual Cleanup of putties + oiled vegetation U1TZ + STZ

③ Bio. on cobble beaches in MITZ

See sketch map. Treatment suggested for Northern, mid, + Southern portions of segment indicated on map.

LAND MANAGER

NAME Steve Warr-Chenega SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Manual clean-up and Hi-Pressure Wash.

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG Mike Fogel NOA Mike Burman SEGMENT ST/ EV-37
 BIO Kathleen Conlin LAND REP Steve Ward CYC SUBDIVISION A (1 OF 1)
 EXXON Larry Olsen ADEC Jana Hayes TIME 16:30 to 18:30
 TEAM NO. 11 TIDE LEVEL 11.5 DATE 4/21/90
 EST. SUBDIVISION LENGTH: 12.55 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock steep rocky backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 50 % B 20 % C 15 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 20 % Vert 40 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 540 m N 0 m VL 420 m NO 295 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	B	P	V	W	M	N	VL	SU	U	M	L
ASPHALT												
PAVEMENT			X			X				X		
POOLED												
COVER												
COAT		X	X	X		X			X	X		
STAIN				X		X				X		
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL											X	X

PAVEMENT H (F) S 10 sq. m by 5 cmPATTIES / TARBALLS 0 BAGSNEAR 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 02#BAGS 0

Photographs:

Roll No. ST 11-3Frames 32-34

SUBSURFACE OIL * OILED INTERVAL < 5 cm IN PIT 5 DOES NOT CONSTITUTE SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A	N	SHEEN (Y/N)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	W	M	N	VL	SU	U	M	L	SU	U	M	L					
1	20		X				0-10		X								X							N	-	C, P, C
2	10				X		0-10		X								X							N	-	C, P, R
3	30					X	.		X								X							N	-	C, P, C
4	30					X	.		X								X							N	-	C, P, C
* 5	30				X		0-10		X								X							N	-	P.
6	30	X					0-30	X		/		X					X							Y	20	C, P

COMMENTS Most of the oiling was observed in the northern end of the segment. The northernmost Pocket beach contained CT/B tar in the upper and MIZ among the boulders and rock with some asphalt and cover in the crevices. There is a discontinuous stain on the rocky headland between the 1st & second Pocket beach. This northernmost beach is a low angle B/C beach with a 25m x 100m CT/B area with some subsurface oiling (pit # 5). South of this B/C beach is a Boulder/Rock outcrop w/ a 10m x 70m CT/B with some asphalt in the crevices and rainbow sheen observed in the tide pools.

REVIEWED JW DATE 4-25-90

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04-13-90

SEGMENT ST/ EV-37 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-DB)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		VO	UC	SP	BR	DR	RP	GT	LC	DR	TR	BU	U	M					U
7	20					X	.		X								X					N	-		C, G, C
8	30					X	.		X								X					N	-		G, C
9	25					X	.		X								X					N	-		P, G, C
10	30					X	.		X								X					N	-		P, G, P, C
11	40					X	.		X								X					N	-		C, P, G, P
12	30					X	.		X									X				N	-		C, P, G, P
13	40					X	.		X								X					N	30		C, P, G, C
14	30.	X					0-10	X					X			X						N	-		C, P, C
							.																		
							.																		
							.																		
							.																		
							.																		
							.																		
							.																		

COMMENTS

Staining continues south of this beach on the rocky headlands. The middle of the segment contains some staining in the HITZ. The southern end of the segment contains a 10m x 40m CT/P on high angle B/R with some localized CV/B and asphalt between the crevasses in the boulder/rock. There is also some oiled vegetation and logs in the supra ITZ. The southern end of the segment contains a 5m x 100m CT/P among low angle boulders/bedrock in the HITZ.

REVIEWED JWDATE 4-25-90

OG Mike Foyet
SEGMENT ST/ EV-37
SUBDIVISION A
DATE 4/21/90

CHECKLIST

- ☐ M. Areas
- ☐ Approx. Scale
- ☐ Sup/Sub Boundary
- ☐ On Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ E.H. INTENSITY
- ☐ S.S.
- ☐ Particle Location (g)
- ☐ Particle Location (g)
- ☐ Photo (location)

LEGEND

- 1. ☐ No Substrate On
- 2. ☐ Substrate On
- ☐ CT/C Continuous Distribution
- ☐ CT/B Broken Distribution
- ☐ CT/P Patchy Distribution
- ☐ CT/S Patchy Distribution
- ☐ Other Vegetation

MANUAL PICKUP OF Oiled VEU

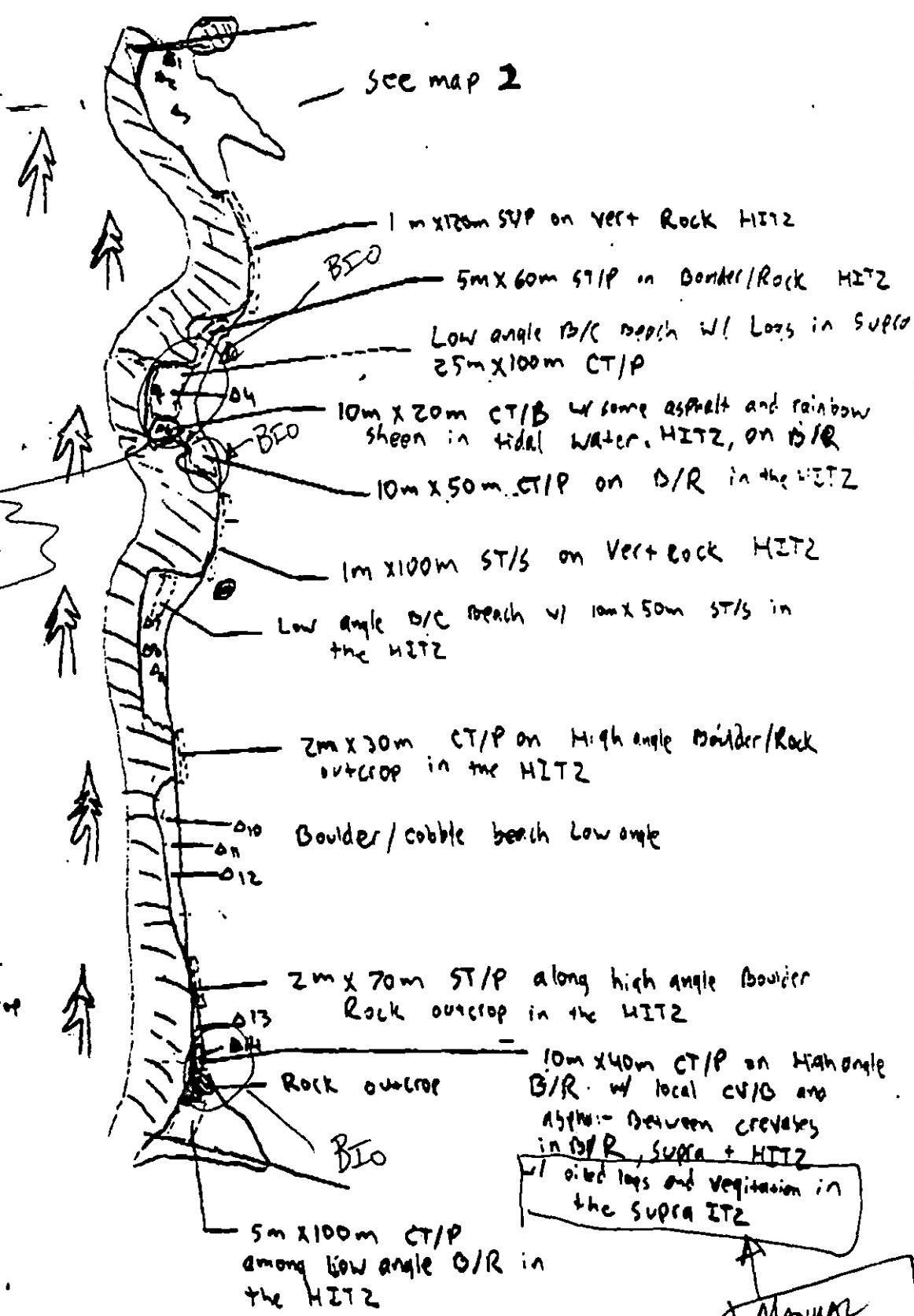
Scale
100m

SKETCH MAP

MANUAL RAKE PRIOR TO BIO

Legend

- trees
- steep Rocky Backshore
- Large Rock outcrop



UG 11111 10901

SEGMENT ST/ EV-37

SUBDIVISION A

DATE 4 / 21 90

CHECKLIST

- Map
- Approx. Scale
- Seg/Sub Entry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HML/LWL
- SSI
- Profile Location(s)
- Photo(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
Spotted Distribution

Oil Vegetation

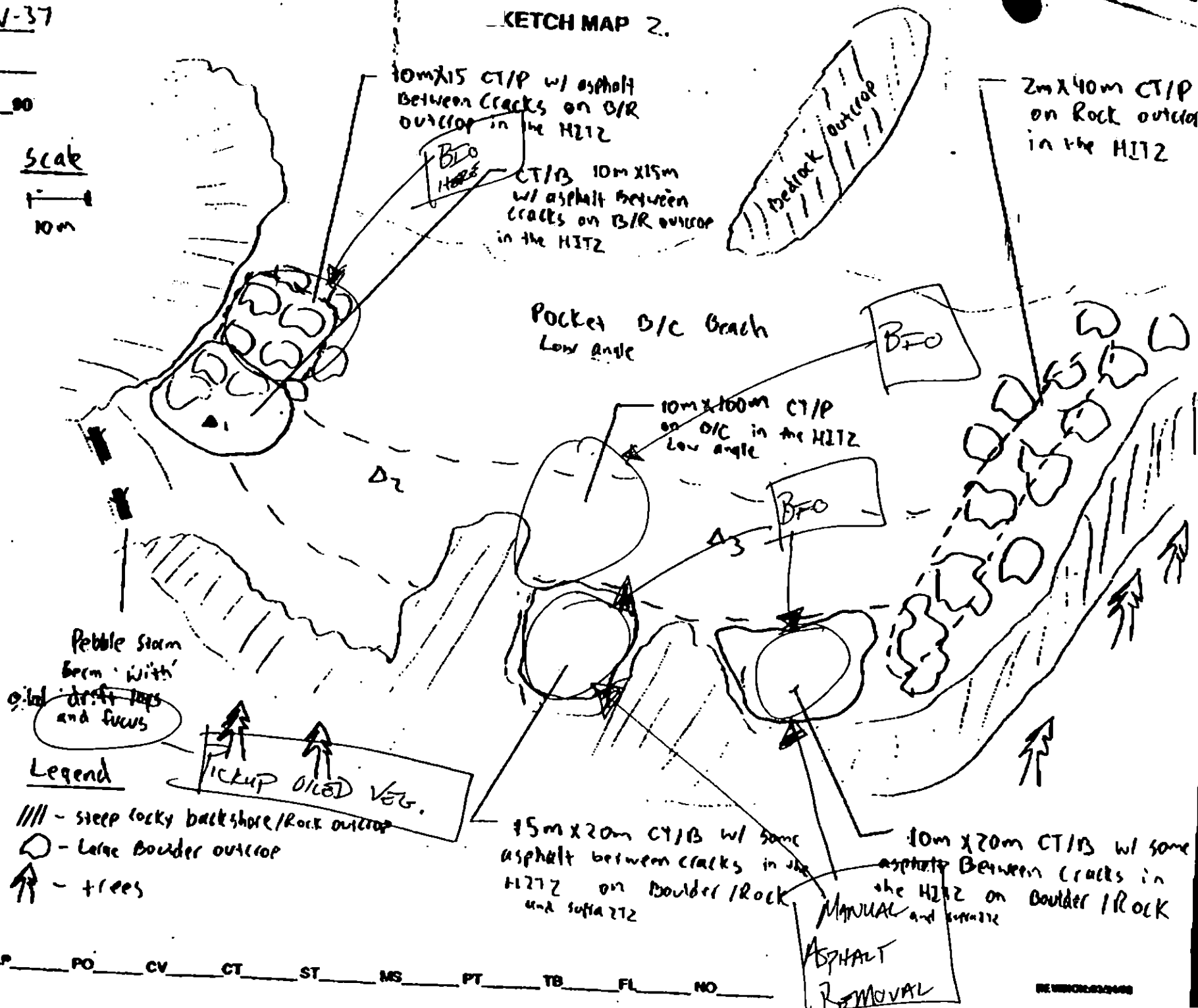
1 →
Photo location, direction, and number

see
MAP 1

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

KETCH MAP 2.

Scale
1" = 10m



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/91

Segment ST/ EU-37 Subdivision A (1 of 1) Date (mo / day / yr) 04/21/90
 Time (24 hr) 1638-1830 Biologist KATHLEEN CONLAN

- (A) Substrate type and % of segments:
 (1) Bedrock 50 (2) Boulder 20 (3) Cobble 15 (4) Pebble 10 (5) Sand 5 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 50 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. ST11-3

Frames 32-34

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	<u>3</u>	2	<u>3</u>	2	2	2	2	2	2	2	2
3	3	3	<u>3</u>	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	<u>3</u>	2	2	<u>3</u>	2	<u>3</u>	<u>3</u>	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	<u>3</u>	2	2	2	2	2	2	2
3	3	3	3	<u>3</u>	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	<u>3</u>	2	2	<u>3</u>	2	2	2	2	2	2	2
3	3	3	3	<u>3</u>	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:

2 SEALS; 2 BALD EAGLES; NUMEROUS (TOTAL OF ~50) GULLS
FLY OVERHEAD, NORTHWARDS FROM SHALLOW BAY AT VILLAGE

Ecological Considerations:

ST11-3
32 →

ECOLOGICAL MAP (1 of 1)

RESOURCE CODES FOR ENTIRE
SEGMENT:

SEA-1

TLE

(PIT # 6) 33, 34 →

EV-3

~~BIRD~~

Confirmed present
at April 1990 Two adults seen.

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-37

ADEC Segment Length: 1255m

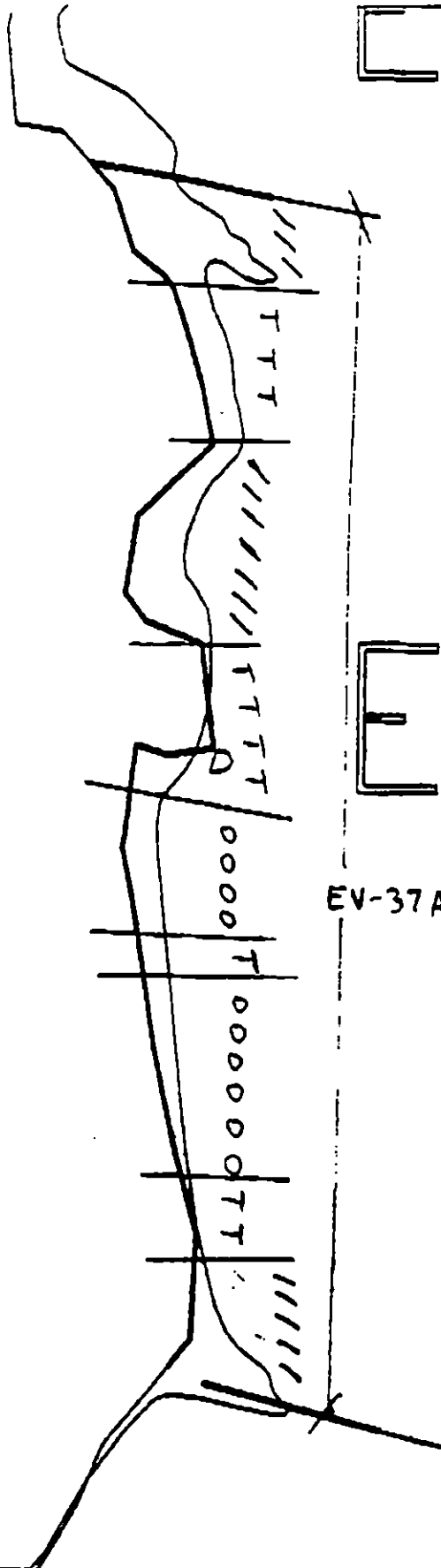


Map Key: PWS-243

Name: K.E. CONLAN

Date: 21 APRIL 1990

Date Entered:



EV-3

EV-37A

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

E V - 3 7 A

ADEC Segment Length: 1255m



Map Key: PWS-243
Name: Mike Fogert
Date: 4/21/90
Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-37 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup and Tarmat Removal Inside Eagle Nest Buffer Zone	CLOSED
Manual Pickup and Tarmat Removal Outside Eagle Nest Buffer Zone	OPEN
Bioremediation and Manual Raking Inside Eagle Nest Buffer Zone	WORK PRIOR TO 7/25
Bioremediation and Manual Raking Outside Eagle Nest Buffer Zone	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1K	Purse Seine Hook-off	No constraint to manual pickup and tarmat removal; closed to bioremediation and manual raking after 7/25.
5T	Bald Eagle Nest	USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to manual pickup, tarmat removal, bioremediation and manual raking within USFWS eagle nest buffer zone established 5/12/90 by Mike Lockhart. No constraint to manual pickup, tarmat removal, bioremediation, and manual raking outside eagle nest buffer zone.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup and tarmat removal; closed to bioremediation and manual raking after 8/15.

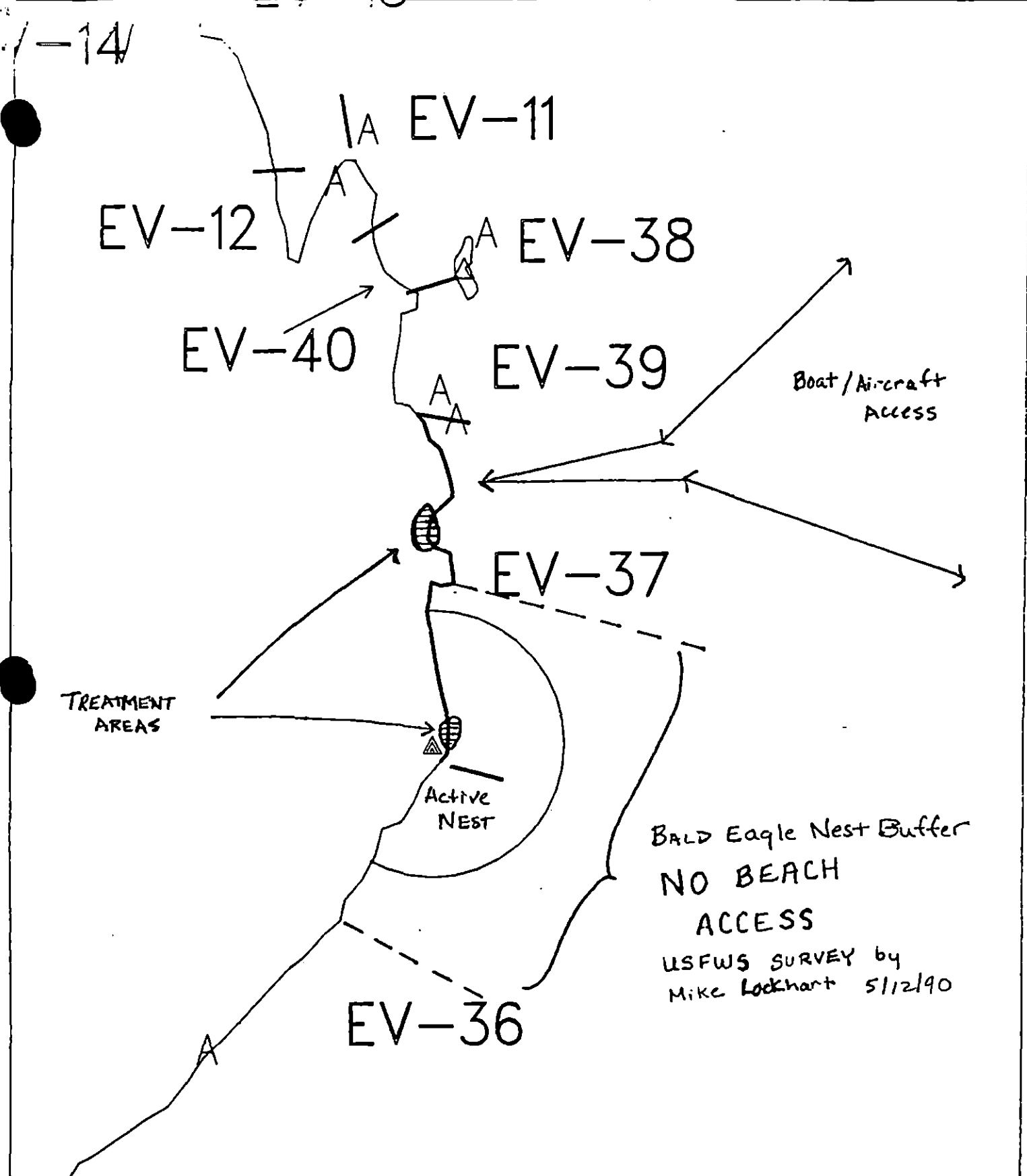
OTHER ECOLOGICAL CONSIDERATIONS

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.

TAG APPROVAL DATE _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC

Date 7 June 1990



Exxon Company, USA
 Map Key: PWS-EV-37
 June 04, 1990

ECOLOGY MAP
 SEGMENT EV-37
 SUBDIVISION A (1 of 1)



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

1 inch = 1152 feet

WORK PLAN ADDENDUM

Segment EV 37

Subdivision A

Dated 07/16/90

MODIFICATION

1. REASON FOR MODIFICATION

ADDITION MANUAL WORK EFFORT REQUIRED.

2. ADJUSTMENT TO WORK PLAN

MANUAL PICK UP OF MOUSSE, POOLED OIL, + ASPHALT PATCHES

SHPO APPROVAL NEEDED YES _____
NO X

SHPO SIGNATURE _____

TAG APPROVAL DATE 07/16/90

ADEC Ray Moan's R. Moan

EXXON ANDY TEAL Andy Teal

NOAA Burl Wescott Burl Wescott

USCG G.A. REITER G.A. Reiter

FOSC ML DATE 7-16-90

ASAP FOLLOWUP RECOMMENDATIONS

Project: AS/ EV-37 Subd.: A Site: _____ Date: 8-17-90 1990

Conditions Observed: Heavy oiling persists throughout northern beach on EV-37. Oiling is AP, Chat, Canar, Tar, OP, OR, and OF and occurs in boulder fields, bedrock, and cobble/pebble beach.

Followup Recommendations: Area is similar to EV-39A. Further removal of gross contamination of gross contamination AP, OP, and OR subsurface sediments is recommended. Area will require some combination of HP hot washing and possibly the use of mechanical equipment. Bioremediation should follow above recommended treatment.

Completed by Pickup Crew: ☐ YES ☒ NO

Priority for Addressing in 1990: ☒ High ☐ Mod. ☐ Low

DEC

Bob McReady
(name)

Robert G. McReady
(signature)

Comments: Like EV-39, EV-37 will be extremely difficult to effectively treat. A creative combination of treatment techniques will be required.

Exxon

JOHN DEAN
(name)

[Signature]
(signature)

Comments: I AGREE WITH RECOMMENDATIONS ABOVE AND FURTHER RECOMMEND A CASE III ASSESSMENT BY TAG IN CONNECTION W/ 39A

USCG

Don Davis
(name)

[Signature]
(signature)

Comments: Agree with all comments and recommendations.

Land Rep.

Steve Wicks CUC
(name)

[Signature]
(signature)

Comments: Follow up Recommendations and High Use Area for the People of Shengon. Hunting, Fishing, Deer Gathering - Los Pile Koe Fire Ward

SEGMENT AS / EV-37 SUBDIVISION: A SITE: 1 DATE 8-7-90

SCG

NAME David "Duke" NOAA SIGNATURE David C. Noe / Duke
Son Davis, Gm, UIC☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

A very complex area of heavy, residual oil. Treatment is recommended for 1990 season, with high priority for 1991 reassessment.

DEC

NAME Bob McCrory SIGNATURE Robert B. McCrory☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Heavy oiling persists throughout northern beach on EV-3. Oiling is AP, Coat, Cover, Tar, OP, OR, and OF and occurs in boulder fields, bedrock, and cobble/pebble beach. Area will require HP HW washing, manual removal, mechanical removal and tilling followed by bioremediation. This segment has heavy oiling and will require a creative mix of treatment methods to adequately remove oil.

MANAGER

NAME Steve WARD CVC SIGNATURE Steve Ward☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Cuts of Surface oil - Cuts of Sub Surface oil -

High Priority for 90 and 91 -

High use Area For Chenequa, Hunting Fishing, etc -

EXON

NAME JOHN DEAN SIGNATURE John Dean☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

/ AGREE WITH TEAM COMMENTS

3
 CG LINDSEY NAKASHIMA USCG USCG - DON CARLOS / NAKASHIMA SUBDIVISION A
 ADEC BOB MCCREARY LAND REP STEVE WARD TOTAL NO SITES 1
 DATE 8 / 7 / 190 TIME 19:30 to 20:00 TIDE LEVEL 10
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 955 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 CATEGORY LENGTH: W 50 m M m N m VL 200 m NO 205 m US 280 m

GENERAL DATA

SEG ID: EV-37 SBOV: A SITE: 1 TEAM: 3 DATE: 8-7-90
SITE LGTH 955 OIL CATEGORIES: W M N VL NO U
1991 REASSESSMENT: USCG: Y ADEC: Y LOMGR: Y EXXON: Y

SURFACE DATA

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT BRKN PTCH SPLH 10
TIDAL ZONE: SU UI X MI LI

CHAR #: 2 OIL CHAR: CV OIL DIST: CONT BRKN 50 PTCH 35 SPLH 25
TIDAL ZONE: SU UI X MI LI

CHAR #: 3 OIL CHAR: CT OIL DIST: CONT BRKN 50 PTCH 35 SPLH 25
TIDAL ZONE: SU UI X MI LI

CHAR #: 4 OIL CHAR: ST OIL DIST: CONT BRKN 50 PTCH 85 SPLH 225
TIDAL ZONE: SU UI X MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: EV-37 SUBDIV: A SITE: 1

PIT # 0 PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
 CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

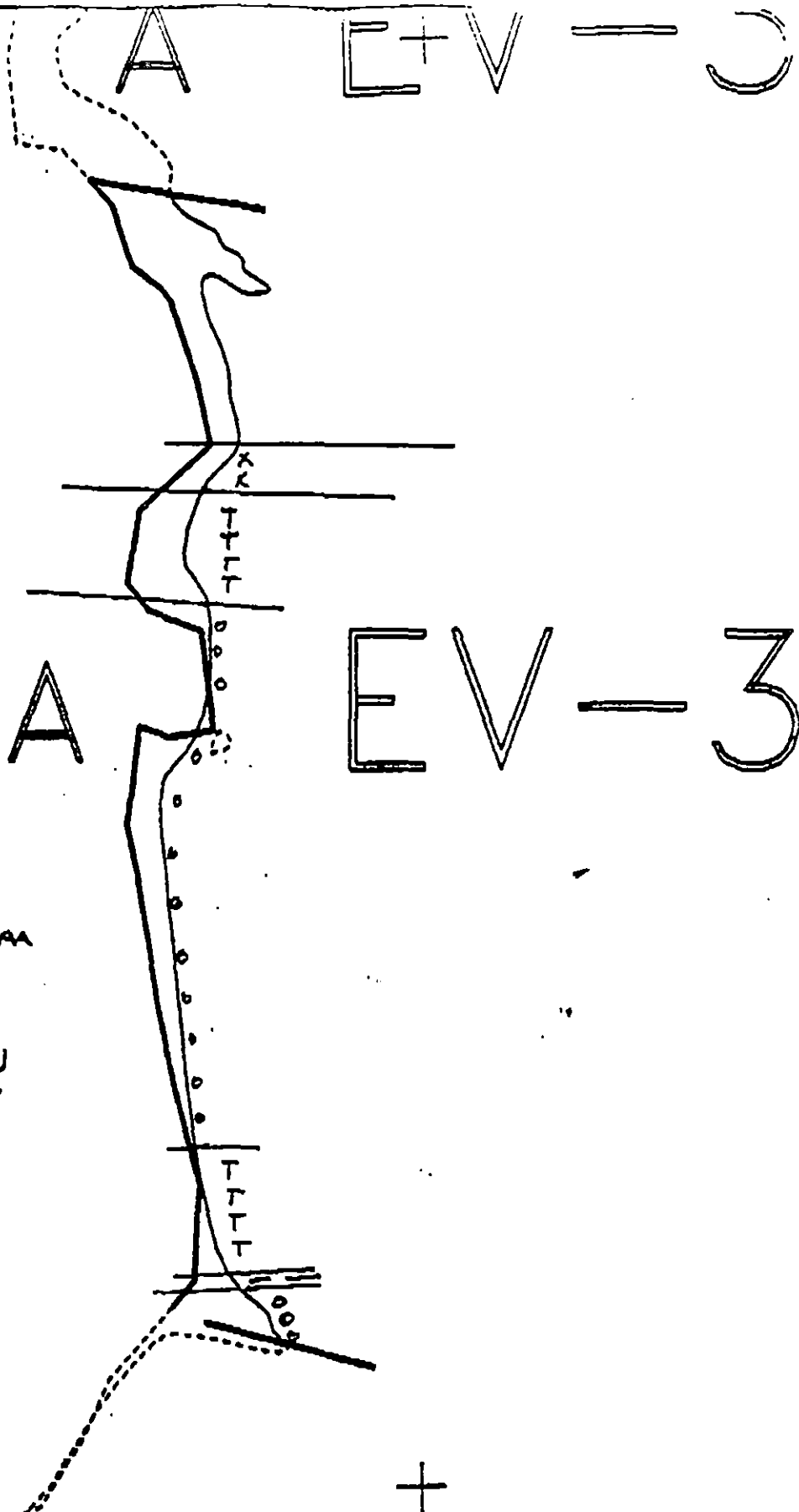
CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG



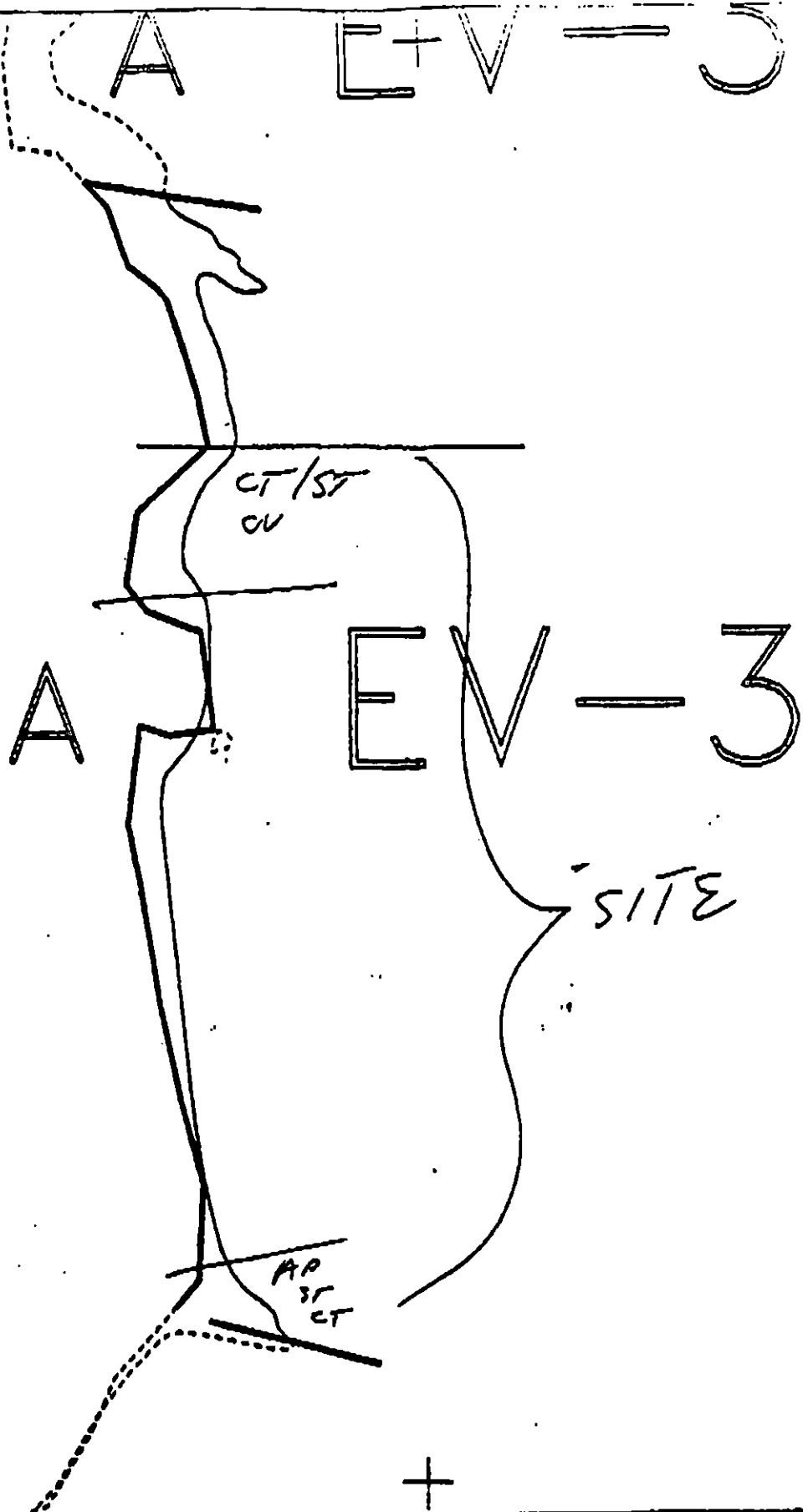
Yes 191 *Shingana, NOAA*
 yes 91 *DneS .USCG*
 Yes 91 *H.W. Ave*
 yes 91 - *JMD* EXXON
 yes 91 - *R.B. May*

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

EV-37 A
 ADEC Subsegment Length: 1235m
 METERS
 0 150 311
 AK State Plane Zone 4 1:8130
 pvt-37a



Subdivision Field Map
 Map Key: PWSEV-37A
 Name: NAKASHIMIT
 Date: 8/7/90
 Date Entered:



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

EV-37 A
 ADEC Subsegment Length: 1235m
 METERS
 0 150 311
 AK State Plane Zone 4 1:6130
 puv-37a

Subdivision Field Map
 Map Key: PWSEV-37A
 Name: NAKASHIMA
 Date: 8/7/90
 Date Entered:



ASAP TAG REVIEW SHEET

Segment: EV 37 Subd: A Site: 1 Date
PRE-Review 11 AUG 90

Priority For Addressing In 1990

☒ HIGH ☐ MEDIUM ☐ LOW ☐ NTR

Treatment

Recommended: MANUAL PICKUP - AP & BIO

OG SHEET DOES NOT REFLECT
HEAVY SOR AS PER COMMENT.
HEAVY COAT STAIN - COVERED w/ BIO

Priority Site For Reassessment In 1991

YES ☒ NO ☐ YES ☒ NO ☐ YES ☒ NO ☐ YES ☒ NO ☐
CG ADEC EXXON LAND MGR
&
NOMA

TAG
13 AUG 90

TAG TRIP

SHORELINE EVALUATION

SEGMENT ST/ EV-38 SUBDIVISION A (1 OF 1) DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
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. H. Jones DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 292 m: V.Light 13 m: No Oil 140 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: 5/3/90
ADEC Art Wanner Art Wanner
EXXON Amy Orr Amy Orr
NOAA Gary Petrac Gary Petrac
USCG Kenneth Keane Kenneth Keane

FOSC: My L DATE: 5-15-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/1)
1E Main Bay Hatchery release (4/20 to 6/10)
1F Seward Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 6/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
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 Evelyn Biggs 424-3235
- 3R, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3Q, 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 Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7J Deer harvesting (8/15 to 2/25)
Invertebrate harvesting
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/ EV-38 SUBDIVISION: A (1 of 1) DATE 4-20-90

NOAA

NAME Michael - Quigley SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS Island with a lg rock outcrop on the northern tip & headlands on the southern end. These are separated by a saddle which may be in wave wash at high tide. NEARLY all the shoreline is uplifted, tilted SLATE SLABS. High waves and sea exposure along the EAST side. Splatter stain with drips was seen along the south west side. The saddle had a stain to cant thru out. Stain band was observed north of beach on eastern side, and continued with increasing intensity to cant on the rock wall to the south and around to the southern tip. It diminished to stain from southern tip around to western side. Oiling on eastern side is dried & highly weathered. One fissure south of beach on east side had noticeably heavier cant with drips

ADEC

NAME John Hayes SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Observed bands of stain + light coat of tar in U.I.T.Z. Island is N. of Evans and gets moderate to high exposure. No treatment recommended weathering is reducing oiling to stain.

LAND MANAGER

NAME Steve [unclear] - [unclear] SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Light oil band - Weather should clean stain

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Mike Follet ~~Michael Bushman~~ SEGMENT ST/ EV-38
 BIO KATHLEEN CORLE LAND REP STEVE WARD SUBDIVISION A (1 OF 1)
 EXXON LARRY OLSEN ADEC John Hayes TIME IS: 2010 14:20
 TEAM NO. 11 TIDE LEVEL +3.2 DATE 4/20/90
 EST. SUBDIVISION LENGTH: 277 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 70 % B 20 % C 5 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 30 % Vert 60 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 480 m VL 10 m NO 287 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	S	1	2	3	4	SU	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT			X		X				X			
STAIN			✓		✓				✓			
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X		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			
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 (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	DEBRIS	(mm)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SU	U	M	U					
1	30					X	-		X						X					N	-		C
2	30					X	-		X						X					N	-		C
3	20					X	-		X							X				N	-		G, P, G
4	20					X	-		X							X				N	-		P, G, C
5	20					X	-		X						X					N	-		C, P, G, C
							-																

COMMENTS Shore zone consists mostly of steep high angle Boulder / Rock

With a few pocket B/C Beaches. There is a Patchy distribution of tar/coat along the South Western end of the Island. Tar coating also occurs in a Rock Valley on the Northern Part of the Island. All oiling occurs in the HITZ on rock / Boulder face. No subsurface oiling was discovered. The Northern, and eastern Parts of the Island have a high wave exposure, while the Western and Southern Parts of the Island have a medium wave exposure

REVIEWED JW DATE 4-23-90

OG 1000048

SEGMENT ST/ EV-38

SUBDIVISION A

DATE 4, 20 90

SKETCH MAP

CHECKLIST

- ☐ H Answ
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LVL
- ☐ SOL
- ☐ 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
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

1 →
Photo location, direction, and number

Scale

100m

Legend

○ - Boulders

↑ - trees

/// - steep bedrock/boulder shore zone

Wave Exposure medium

3m x 50m CT/P on High angle O/C Beach

Δ5

2m x 50m CT/P in rock valley HITZ

Wave exposure High

10m x 15m CT/P in HITZ on O/C saddle

1m x 10m ST/P on HITZ on Vert Rock

High angle O/C Beach

1m x 80m ST/P along High angle O/R shore zone in the HITZ

Δ4

Δ3

1m x 250m CT/P on High angle O/R shore zone in the HITZ

3m x 50m CT/P around O/R in the HITZ

Oil Character Length (m): AP 0 PO 0 CV 0 CT 425 ST 80 MS 0 PT 0 TB 0 FL 0 NO 287

REVISION 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/

Segment ST / EU-38 Subdivision A (1 OF 1) Date (mo / day / yr) 09/20/90

Time (24 hr) 1835 - 1920 Biologist KATHLEEN COLLAN

(A) Substrate type and % of segments:
(1) Bedrock 70 (2) Boulder 20 (3) Cobble 5 (4) Pebble 5 (5) Sand 0 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 70 Moderate 20 Low 10

(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. _____

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

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:

1 BALD EAGLE, 1 SEA OTTER
1 MAGPIE

Ecological Considerations:

ECOLOGY MAP (10)

RESOURCE CODES FOR
ENTIRE SEGMENT:

EV-11

EV-3

EV-39

WIDE OIL NEST

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-38

ADEC Segment Length: 777m



METERS

Map Key: PWS-244

Name: _____

Date: _____

Date Entered: _____

EV-11

EV-3

EV-39

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-38A

ADEC Segment Length: 777m


METERS

Map Key: PWS-244

Name: Mike RogetDate: 4/20/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-39 SUBDIVISION A (1 OF 1) DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Adjacent segment with eagle nest.

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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 Hoffman DATE: 5/3/90

OILING CATEGORIZATION:

Wide 110 m: Medium 154 m: Narrow 32 m: V.Light 170 m: No Oil 0 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: Recommend bioremediation of areas shown on sketch map, and manual pickup of mousse patties and oiled vegetation/debris where indicated. No specific ecological time constraints identified.

TAG COMMENTS: MANUAL PICKUP OF ASPHALT + MOUSSE, MANUAL RAKING PRIOR TO BIO AS INDICATED ON SKETCH, SPOT WASH WHERE FEASIBLE PRIOR TO BIO.

TAG APPROVAL DATE: 5/3/90
ADEC ART WEINER
EXXON ANDY TELL
NOAA GARY DETROIT
USCG KENNETH KETTER

FOSC: DATE: 5-18-90

NOTIFY CWC 24 HRS PRIOR TO WORK

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 6/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (8/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (8/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 3P Harbor seal and sea lion pupping (5/15 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 Lodges (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7H Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 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 Fell 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EU-39 SUBDIVISION: A (of 1) DATE 9-21-90

NOAA

NAME Michael Buchman

SIGNATURE M. Buchman

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS This segment is largely stained and coated cobble beaches with frequent rock outcrops that are coated also. One lg tilted, uplifted slate bench in the middle had noticeably greater oiling. Pits ~~in~~ in this area was saturated with fairly unweathered oil. Tide pools had silver to rainbow sheen. Small patches (~14m²) of asphalt were observed in wave shadows of outcrops/boulders along the beach north of there. Northern & Southern ends had bedrock shelves with oil debris/vegetat. Degree of oiling increased in southern end of segment. Frequent patches of asphalt between boulders & in pea-gravel overlying bedrock. Sheens in tide pools were common here too. Poor colonization was observed in the southern end & below the middle bench. This area would be appropriate for hot water pressure washing & possibly bioremediation.

ADEC

NAME John Hayes

SIGNATURE J. Hayes

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Heavily oiled segment in U.I.T.Z., also areas of oiled vegetation + small oil patches in S.I.T.Z.

① HWHP with a HW Deluge in addition

② Manual Removal of Oiled Vegetation + patches ^{between boulders}

③ Map up of any trapped free oil after HWHP wash.

④ Bioremediate following extensive washing + manual work.

A Segment (as I recall) only had manual treatment last season.

LAND MANAGER

NAME Steve D'Amico-Cheney Corp.

SIGNATURE S. D'Amico

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

- Hot Water Pressure Washing -

- monitor for oil in water -

SHORELINE OILING SUMMARY

REVISION NO 06/12/90

OG Mike Fogar ~~NOTA~~ Mike Buchman SEGMENT ST/ EV-39
 BIO Kathleen Conlin LAND REP Steve Ward CVC SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 14:30 to 16:30
 TEAM NO. 11 TIDE LEVEL +3.3 DATE 4/21/90
 EST. SUBDIVISION LENGTH: 478 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 20 % C 30 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 70 % Hang 20 % Ven 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 180 m M 120 m N 30 m VL 148 m NO 0 m

SURFACE OIL

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

PAVEMENT H (F) S 3 sq. m by 10 cm(PATTIES) TARBALLS 10 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐
Pan PanTYPE: Oiled PFD#BAGS 1

Photographs:

Roll No. ST11-3Frames K-31

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)	T	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SU	U	M	U				
1	50					X	.		X						X				N		40	C,P,C
2	30					X	.		X							X			N		20	P,C
3	30					X	.		X						X				N		-	P,R
4	15					X	.		X						X				N		-	P,R
5	25	X					5-10		X			X			X	X			N		-	C,P,C
6	35					X	.		X						X				N		-	C,P,C

COMMENTS Segment was heavily oiled. The Northern end of the segment had CT/P oiled vegetation in the supra ITZ, with some BT/S staining and some asphalt patties occurring in between Boulder/cobble crevasses. In the middle of the segment there is a large rock outcrop which extends through the LITZ. Just north of this is a 50 m rocky cobble/boulder beach with some CT/P stain and asphalt in between the Boulder/rock/cobble crevasses. There is also some patchy subsurface oiling in the HETZ in the cobble (Pit #5, #7)

REVIEWED W DATE 4-23-90

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 06/12/88

SEGMENT ST/ EV-39 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	Z (M)	▽	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	SH	SL	ST	LT	LS	SU	U	M	U				
7	25		X				5-8		X				X			X					N	-	C, P, C
8	25		X				.		X							X					N	-	C, P, C
9	20	X					5-10		X				X			X					N	-	C, P, R
10	40	X					20-30		X				X			X					N	-	C, P, C
11	50					X	.		X							X					N	-	C, P
12	60					X	.		X							X					N	-	C, P
13	15		X			.	2-5		X				X					X			N	-	C, G, C
14	15					X	.		X										X		N	10	C, G, C
15	30		X				15-25		X				X			X					N	-	P, C
16	10		X				7-10		X				X			X					Y	5	P, R
17	30		X				20-25		X				X			X					N	-	G, C
18	15	X					0-15	X					X			X					N	-	C, R
19	15		X				0-3		X				X			X					N	-	C, G, C
20	30					X	.		X							X					N	-	P

COMMENTS

The Rock Bench outcrop which extends to the LITZ in the middle of the segment was heavily oiled, this had a CTIP on the exposed Boulder / Rock with cover and asphalt on the Protected areas on this outcrop. A rainbow sheen was observed in tide pools on the outcrop. The Boulder Field just south of the large rock outcrop also had CTIP oiling on the exposed Boulder face w/ cover and asphalt in the crevices. The Low angle C/B/P beach south of the rock outcrop and North of the stream had a ST/S staining in the upper and HITZ w/ some subsurface OR and OL oiling (pits 10, 13, 15). The Southern Part of the segment (S. of the stream) consists of bedrock and large boulders. This area was heavily oiled w/ CTIP tar distribution on the exposed rock + boulder face and asphalt with cover in the crevices. This area also contains some oiled vegetation and logs in the Supra ITZ.

REVIEWED JW DATE 4-23-90

OG Mike Roget

SEGMENT ST/ EV-39

SUBDIVISION A

DATE 4/21/90

CHECKLIST

- NA Arrow
- Approx. Scale
- Seg/Sub Entry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HAWLA/WL
- 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
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patched Distribution

CT/S
Spatched Distribution

Oil Vegetation

1 ●
Photo location, direction, and number

Legend

- rock shelf
- Large boulders
- Drift Logs
- trees

SKETCH MAP

Scale

#1 100m

Pickup
Oiled seg.

Localized on bedrock shelf
2m x 30m CT/P,
Ally occurs on vegetation, moss
Logs + moss. very little on
Bedrock. STZ

Low angle B/C Beach 60m x 2m ST/S
in the MITZ w/ some asphalt Pa
behind B/C

3m x 20m CT/S of oil on vegetation (moss) in the supra
on rock shelf

2m x 20m ST/S in the supra ITZ on bedrock

15m x 20m CT/P w stain and asphalt among B/C/R

15m x 30m ST/S on C/O/P beach with patchy sub
oiling

25m x 20m CT/P on Rock bench with
Localized CUIB, and asphalt patches
Rainbow seen observed in tide pools

Pickup
Asphalt
Patches
5m x 20m CT/P on B/C field w/ asphalt

B/C beach in the MITZ + LITZ

10m x 20m CT/P on Boulder/Rock in the MITZ

20m x 20m CT/B with asphalt and CUIB bet.
Boulders MITZ, Rainbow seen in tidal water

20m x 30m CT/B w/ asphalt and CUIB
between boulders MITZ

5m x 80m CT/P on B/C
in the MITZ

Rock outcrop w/
1m x 20m CT/P discon.

2m x 60m Patch
storm berm ST/P

10m x 60m ST/S stain
in the MITZ Pebble/Cobble

W/ or subsurface aling
MANUAL
BAKING
PRIO TO BIO

20m x 20m CT/B
w/ asphalt and cover between boulders
and oiled debris (logs) in the supra ITZ

Oil Character Length (m): AP 40 PO 0 CV 60 CT 2 80 ST 2 30 MS 0 PT 0 TB 0 FL 0 NO 0

REVISION: 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV-39 Subdivision A (10E1) Date (mo / day / yr) 04/21/90

Time (24 hr) 12-1630 Biologist KATHERINE CONLAN

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 20 (3) Cobble 30 (4) Pebble 10 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 40 Moderate 20 Low 46
- (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 11-3

Frames 14-31

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:

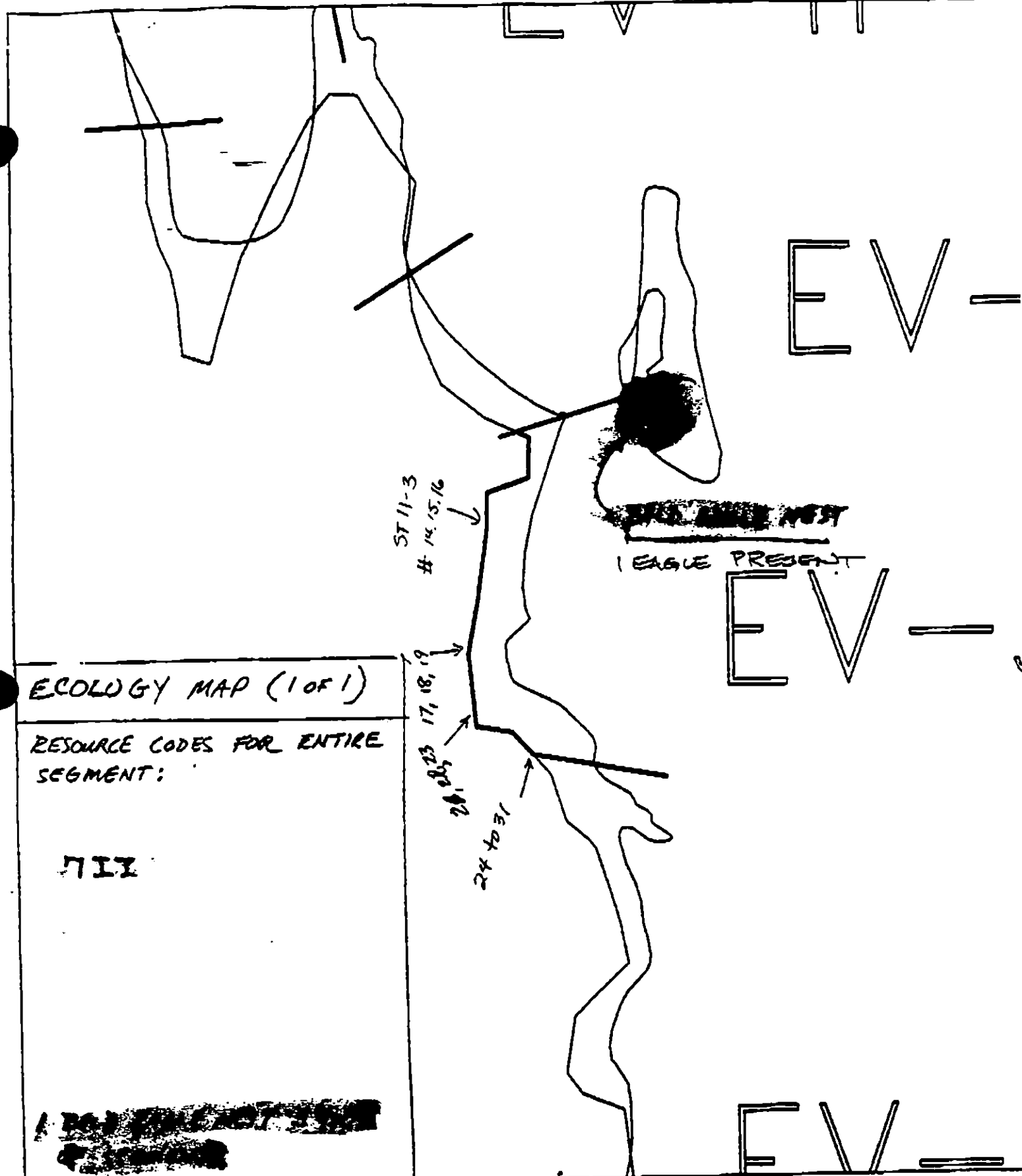
1 SEAL

OLIGOCHAETES

AMPHIPODS IN GRAVEL IN STREAM RUNOFF

ABUNDANT OLIGOCHAETES IN WRACK (WHICH IS OILED)

Ecological Considerations: HEAVILY) BUT NO AMPHIPODS.



ECOLOGY MAP (1 OF 1)

RESOURCE CODES FOR ENTIRE SEGMENT:

II

~~1. 20-31 EAGLE PRESENT~~
~~2. 20-31 EAGLE PRESENT~~

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

EV-39

ADEC Segment Length: 478m

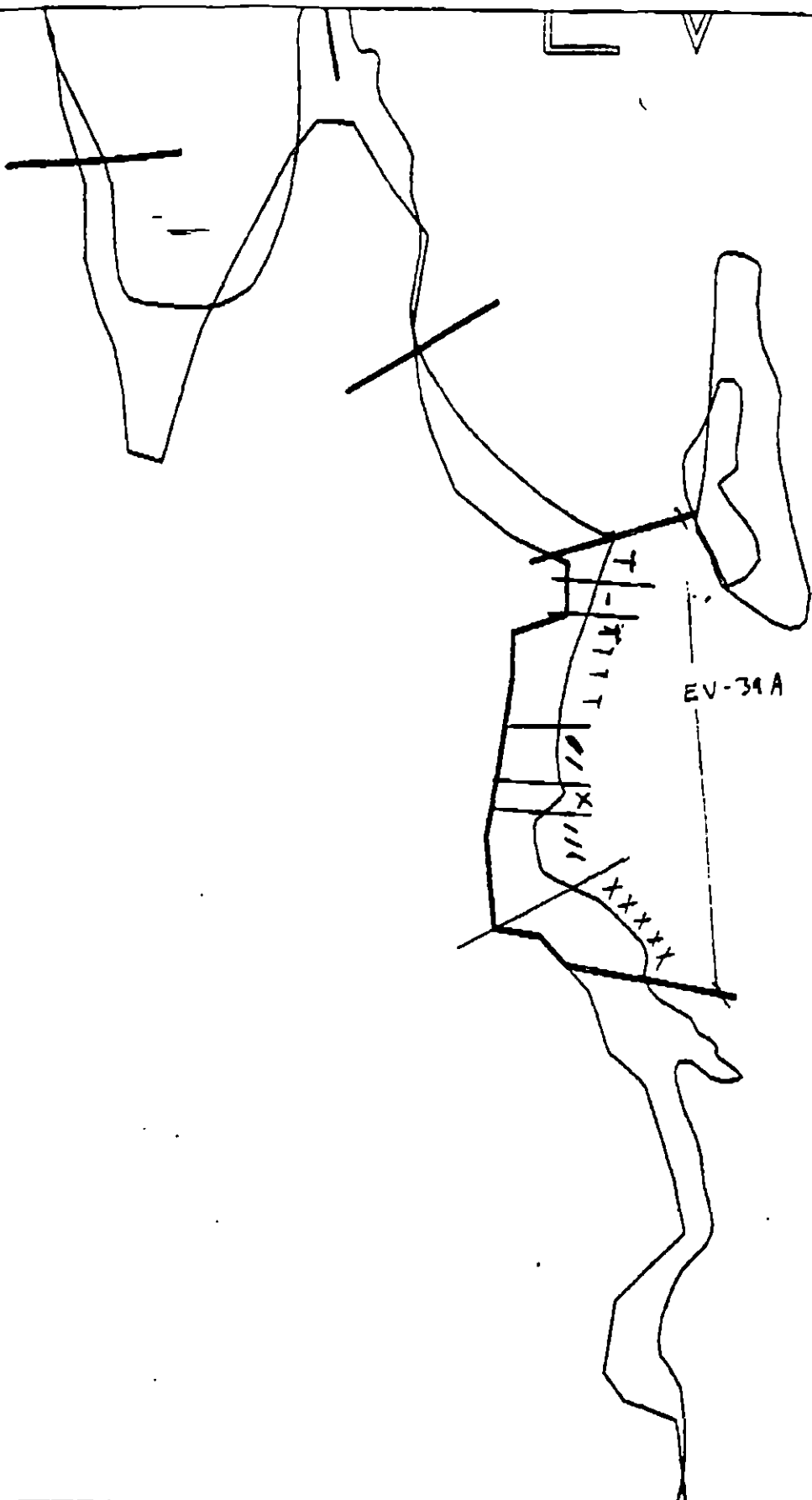


Map Key: PWS-245

Name: _____

Date: _____

Data Entered: _____



EV-

EV-

EV-

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

EV-39A

ADEC Segment Length: 478m



Map Key: PWS-245

Name: Mike Forst

Date: 4/21/90

Date Entered: -

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-39 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation Manual Raking Spot Washing	WORK 6/1 TO 7/25

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1K	Purse Seine Hook-off	No constraint to manual pickup; closed to bioremediation, manual raking, and spot washing after 7/25.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup; closed to bioremediation, manual raking, and spot washing after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/25. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG APPROVAL DATE 6/04/90

ADEC Ray Menais

EXXON ANDY TBM

NOAA Joseph Talbot

USCG GA. JEFFER

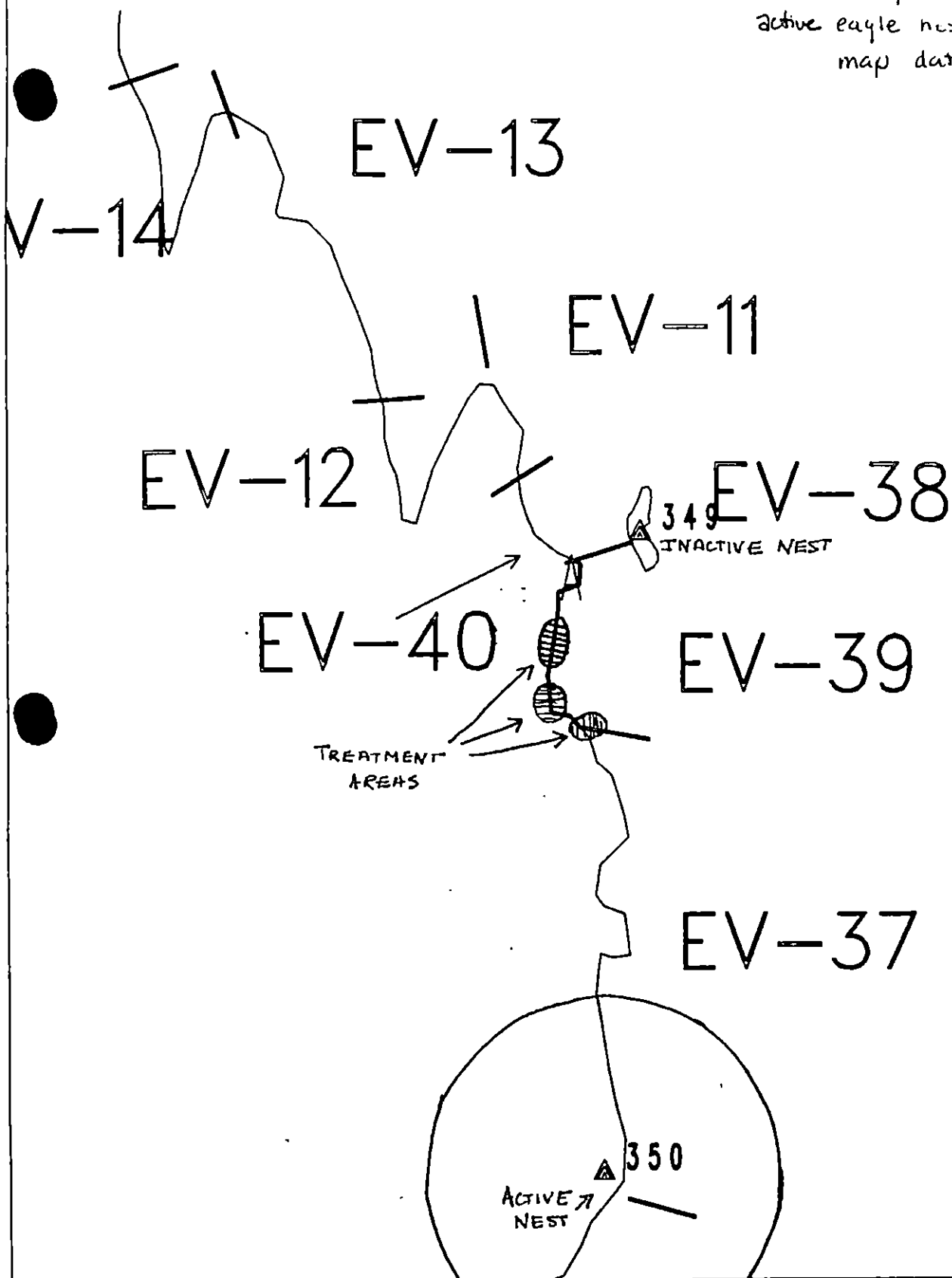
FOSC

DATE

Prepared By: Andrew Meyer

Date 6/3/90

Incorporates USFWS
active eagle nest survey
map data (6/1/90)

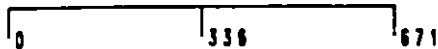


Exxon Company, USA
Map Key: PMS-EV-39
May 11, 1990

ECOLOGY MAP ^{6/3/90} SEGMENT EV-39

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

1 inch = 1101 feet

WORK PLAN ADDENDUM

Segment EV-39

Subdivision A

Dated 6/16/90

MODIFICATION

1. REASON FOR MODIFICATION

REQUEST FROM FIELD FOR EXTENSION OF MANUAL TREATMENT AREA BEYOND THAT WHICH WAS INDICATED ON THE TAG SKETCH.

2. ADJUSTMENT TO WORK PLAN

EXTEND MANUAL PICKUP OF MOUSSE AND ASPHALT PATCHES PRIOR TO BIO.
(SEE ATTACHED SKETCH).

SHPO APPROVAL NEEDED YES ✓
NO X

SHPO SIGNATURE [Signature] 6/19/90

TAG APPROVAL DATE 6/16/90

ADEC Ray Monahan Richard

EXXON Andy Ten Real

NOAA Joseph Talbot [Signature]

USCG G.A. Preter G.A. Preter

FOSC [Signature] DATE 7-10-90

OG Mike Roger
 SEGMENT ST/ EV-39
 SUBDIVISION A

DATE 4/21/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/L/VL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
 Pit - No Subsurface Oil

2 Δ
 Pit - Subsurface Oil

$\square$ CT/C
 Continuous Distribution

$\square$ CT/B
 Broken Distribution

$\square$ CT/P
 Patchy Distribution

$\square$ CT/S
 Splashed Distribution

$\bullet$ Oiled Vegetation

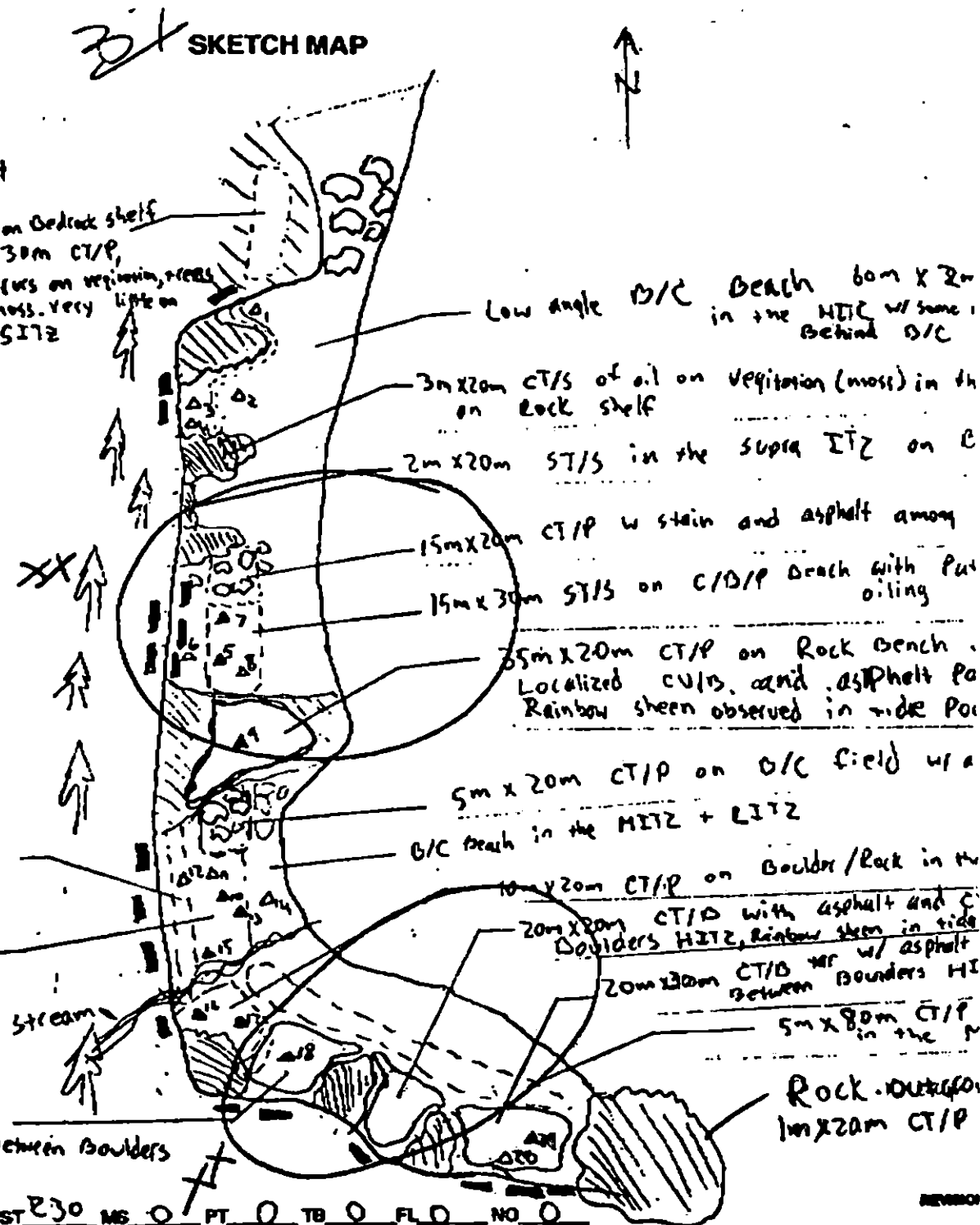
1 $\bullet$
 Photo location, direction,
 and number

- Legend
- --- - rock shelf
 - --- - Large boulders
 - --- - Drift Logs
 - --- - trees

2m x 60m Pebble
 storm berm ST/P
 10m x 60m ST/S. Fine
 in the MITZ Pebble/Cobble
 w/ OP Subsurface oiling

20m x 20m CT/B
 w/ asphalt and cover between boulders

Located on bedrock shelf
 2m x 30m CT/P
 Oiling occurs on vegetation, moss
 Logs + moss. Very little on
 bedrock. SITZ



Oil Character Length (m): AP 40 PO 10 CV 60 CT 2 ST 230 MS 0 PT 0 TB 0 FL 0 NO 0

ASAP FOLLOWUP RECOMMENDATIONS

gment: AS/ EV-39 Subd.: A Site: _____ Date: 8-7-90 1990

Conditions Observed: Despite previous work completed during summer of '90, extremely heavy oiling persists. Through out southern half of segment (Tar, Coat, lower, AP, OP, OR, and OF, oiling is widespread in boulder fields, areas of bedrock, and cobble/pebble beaches.

Followup Recommendations: Further manual removal of gross contamination AP, OP subsurface oil sediments is recommended. Area will require some combination of HP H2O washing and possibly mechanical equipment will aid the de-stresser cleanup this area requires. Bioremediation should follow above treatment (s).

Completed by Pickup Crew: ☐ YES ☒ NO

Priority for Addressing in 1990: ☒ High ☐ Mod. ☐ Low

DEC

Bob McCreary
(name)

Robert F. Miller
(signature)

Comments: It should be noted that EV-39 is an extremely heavily oiled segment which will be very difficult to treat. I recommend full on site TAG review to determine the methods for accomplishing this difficult cleanup.

Exxon

John Dean
(name)

J. Dean
(signature)

Comments: I AGREE THIS SEGMENT SHOULD CARRY A HIGH PRIORITY FOR ADDITIONAL WORK IN '90. I FURTHER AGREE TO REQUEST CLASS III EVALUATION BY TAG.

USCG

Don Davis
(name)

[Signature]
(signature)

Comments: High Pressure Hot Water Washing appears the most effective method of removal in lower rock outcrop and boulder areas. Definite assessment and sampling done for 1990 clean-up should be made.

Land Rep.

Steven Ward
(name)

[Signature]
(signature)

Comments: Follow up Recommendations and this is an area of High use Area for the people on Chocoma Hunting - Fishing - Boating - Log pile for Fire Wood.

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER		X	X			X		
COAT		X	X			X		
STAIN		X	X	X		X		
MOUSSE								
PATTIES/T.B.								
FILM			X			X		
NO OIL					X		X	X
EST. SITE LENGTH					280M			

[illegible][illegible]

SUBSURFACE OIL

[illegible]

Photographs

Roll No. 10

James D

COMMENTS

SOIL WAS FOUND IN 4 AREAS ASSOCIATED WITH LARGE CONCRETES/COBBLES IN A
POKED DISTRIBUTION

- SUGAREAR 016. WAS PRESENT IN TWO PITS ONE AT THE UPPER RT. BERM

REVISON NO. 7/57/200

SEGMENT AS / EB-039 SUBDIVISION: A SITE: 1 DATE 8-7-90

USCG

NAME David C. Noe, NOAA **SIGNATURE** David C. Noe
Don Davis, GM, USCG

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Very thick, residual oiling of boulders, interstitial sediment + bedrock which will be difficult to treat. Further work is recommended for 1990. This would be a higher priority reassessment for 1991.

DEC

NAME Bob McCready **SIGNATURE** Robert E. McCready

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: Despite previous work completed during summer of '90, extremely heavy oiling persists. Throughout southern half of segment. Tar, AP, OP, OR, Coat, and lower is widespread in boulder fields, areas of beachrock, and cobbles/gravel beaches. Further manual, mechanical, HP HW washing, followed by bioremediation has been recommended. Area is very heavily oiled and should receive full TAG review.

MANAGER Steve W. Alford, EVC **SIGNATURE** Steve W. Alford

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: there is a lot of oil still here to be removed.
Sub-Surface Priority Site High use for Oahu Residents
Hunting Fishing, etc.

EXON

NAME John Dean **SIGNATURE** John Dean

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: I AGREE WITH NOAA/USCG COMMENTS ABOVE.
CLASS III TAG REVIEW HAS BEEN RECOMMENDED.

GENERAL DATA

SEG ID: EBP39 SDV: A SITE: 1 TEAM: 3 DATE: 8/7/90
SITE LGTH 280 OIL CATEGORIES: W - M 60 N - VL 10 NO 210 U 186
1991 REASSESSMENT: USCG: Y ADEC: Y LONGR: Y EXXON: Y

SURFACE DATA

CHAR #: 1 OIL CHAR: CV OIL DIST: CONT - BRKN 30 PTCH 30 SPLH -
TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 2 OIL CHAR: CT OIL DIST: CONT - BRKN 70 PTCH 50 SPLH -
TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 3 OIL CHAR: ST OIL DIST: CONT - BRKN 70 PTCH 40 SPLH 10
TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 4 OIL CHAR: FL OIL DIST: CONT - BRKN - PTCH 20 SPLH -
TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 5 OIL CHAR: NO OIL DIST: CONT - BRKN - PTCH - SPLH -
TIDAL ZONE: SU X UI - MI X LI X

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

CHAR #: OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

SUBSURFACE DATA

PAGE 2 OF 2SEGMENT ID: EB-039 SUBDIV: A SITE: 1PIT # 1 PIT DEPTH 20 OIL CHARACTER OF OIL INTVAL: FROM 8 TO 10
CLEAN BELOW: Y PIT ZONE: SU - UI X MI - LI -SUBSURF SEDIMENT: BRK - BLD X COB X PEB X GRN X SAN - MUD - VEG -PIT # 2 PIT DEPTH 10 OIL CHARACTER OR OIL INTVAL: FROM 8 TO 10
CLEAN BELOW: Y PIT ZONE: SU - UI X MI - LI -SUBSURF SEDIMENT: BRK - BLD - COB X PEB X GRN X SAN - MUD - VEG -PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

SUBDIVISION A

DATE 4 / 21 / 80

CHECKLIST

- ☐ J. Auer
- ☐ Approx. Scale
- ☐ Day/Star Study
- ☐ District
- ☐ Notes
- ☐ Length
- ☐ W. Cover
- ☐ Substrate Character
- ☐ Soil
- ☐ Photo Location(s)
- ☐ Photo(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

1 A

Pt - No Substrate Cl

2 A

Pt - Substrate Cl

CT/C

Substrate Distribution

CT/B

Substrate Distribution

CT/P

Partial Distribution

CT/S

Substrate Distribution

Other Vegetation

1 A

Photo location, direction, and number

State BIO LOCATION MAP

REAPPLICATION I

ON 7/17/90

100m

EVANS
ISLAND

8/7/90

10X3
CT/P ON BOLLUSES
& BSCROCK

PWS

8/7/90
FL 120
ST 120
CV 110
CT 120
US 186
NO 210

2X30m
CT/B CV/B
ST/B CV/P

PIT 1

FILE
10X9m
ST/B

20X20m
CT/B CT/P
ST/B ST/P

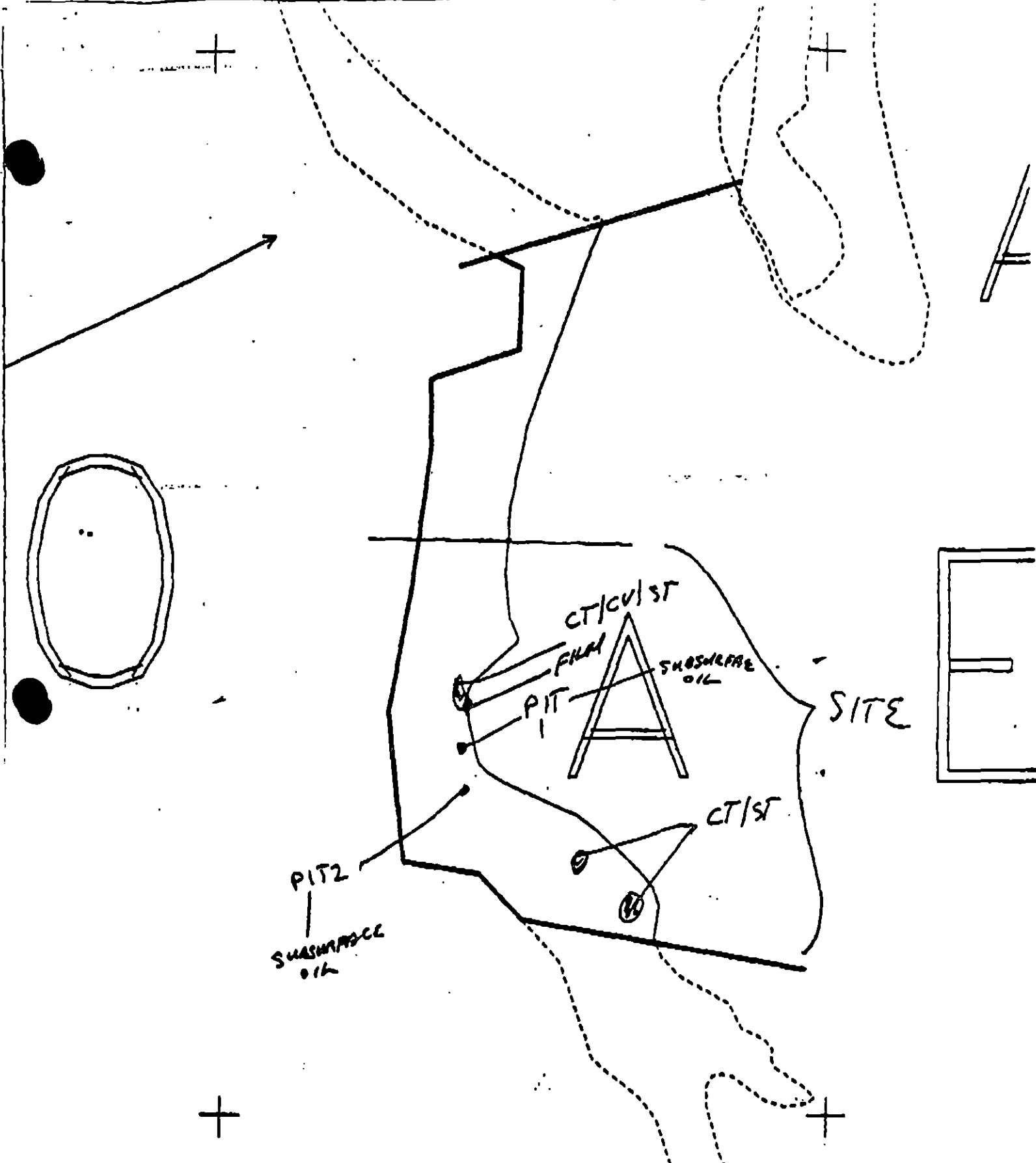
20X20m

PIT 2

Bollers

On Character Length (m) AP 40 NO 10 CV 60 CT 2 R 0 ST 230 MS 0 PT 0 TB 0 FL 0 NO 0

'90-06-26 17:02 OMEGA CORP.



XXXX	Wide	EV-39 A	Subdivision Field Map
TTTT	Medium	ADEC Subsegment Length: 466m	Map Key: PWSEV-39A
0000	Narrow	METERS	Name: <u>NAKASHIMA</u>
	Very Light	0 75 140	Date: <u>8/7/90</u>
	No Oil	AK State Plane Zone 4 1:2674	Data Entered:



ASAP TAG REVIEW SHEET

Segment: EV39

Subd: A Site: 1

Date

PRE-Review 11 AUG 90

Priority For Addressing In 1990

☒ HIGH ☐ MEDIUM ☐ LOW ☐ NTR

Treatment

Recommended: MANUAL PICKUP TAR / AP & BYO

(SUB SURFACE OIL PRESENT TO 8-10 CM)

OG SHEET - EV 039

COMMENT SHEET - EB 039

THE OG SHEET DOES NOT
AGREE WITH COMMENTS.

Priority Site For Reassessment In 1991

YES ☒ NO ☐ YES ☒ NO ☐ YES ☒ NO ☐ YES ☒ NO ☐
✓ CG ✓ ADEC ✓ EXXON ✓ LAND MGR
of
NOAA

TAG 13 AUG 90

TAG TRIP

SHORELINE EVALUATION

SEGMENT ST/ EV-50 SUBDIVISION A (1 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Contact
ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid unnecessary disturbance
or damage to unoiled substrate and biota.

SHPO SIGNATURE: Charles E. Homan DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 138 m: V. Light 18 m: No Oil 359 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: NOTE: FIELD COMMENT SHEET WAS FILLED OUT FOR
ALL SUBDIVISIONS TOGETHER (A+B+C) SEE
SKETCH MAP FOR LOCATION OF TARMAT/HEMAT.

TAG APPROVAL DATE: 4/13/90

ADEC JOHN BAUER EXXON ANDY TGR NOAA Burt Wescott USCG G.A. REITER FOSC: DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV 50 SUBDIVISION: A/B/C DATE 3/30/90

SC NAME LARRY FLETCHER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

AGREE WITH OG FORM.

DEC NAME DAVID M. SALE SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

WASHING OF OIL ON ROCK PILES AND CREVICES w/ LOCAL
ABSORBENT MATERIAL TO AVOID FURTHER ENTRENCHMENT
MANUAL PICKUP OF TAIL MAT ON LOW ANGLE SHORE. BIOREMEDIATE
TREATMENT SAME AS ABOVE TO REDUCE COVER TO STAIN.

AND MANAGER NAME Leigh Carlson SIGNATURE Leigh Carlson

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

segment listed as priority 1 by PWSCA. Hatchery impacts listed in
PWS area plan. Treatment as suggested by ADEC above. Most of
impacted substrate too large for bioremediation

SHORELINE OILING SUMMARY

REVISION NO. 02/24/80

DG R. Nantz USCG LARRY FLETCHER SEGMENT ST/ EV-50
 BIO B. Lantz LAND REP Larry Carlson SUBDIVISION A (1 of 3)
 EXXON J. Egan ADEC Dave Sale TIME 08:00 to 11:00
 TIDE LEVEL: +1' to -1' DATE 03/30/90
 EST. SUBDIVISION LENGTH: 530 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 PLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: to Counter clockwise
 SURFACE SEDIMENTS: R 50 % B 15 % C 15 % P 15 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 25 % Hang 50 % Vert 25 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 167 m VL 28 m NO 334 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	N	B	C	P	R	G	S	M	V	W	L	NO	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X							X				X	
STAIN																
MOUSSE																
PATTIES					X						X				X	
TARBALLS																
F																
NO OIL													X		X	X

PAVEMENT: H F S NONE sq. m by 0 cmPATTIES / TARBALLS < 1 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE #BAGS Photographs: Roll # 2, Frame # 11Roll No. ST-10-1Frames 1, 2, 3

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		UO	UC	R	G	S	M	V	W	L	NO	SU	U	M	U		
<u>NONE</u>																							

COMMENTS

No pits dug - subsurface penetration was mostly negligible
 oil present mostly as a coat on bed rock
 Supratidal zone fairly well exposed. Oiled debris was negligible
 oil penetration into crevices and fractures on bedrock

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/25/90

Segment ST / EV 50 Subdivision a11c Date (mo / day / yr) 3 / 30 / 90Time 24 hr 0930 Biologist Lemon Page 1 of 2(A) Substrate type and % of segments: Temp 4°C, wind 0, waves 0, snowing
(1) Bedrock 50 (2) Boulder 40 (3) Cobble 9 (4) Pebble 1 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense ✓ Moderate 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:

2 Roll No. 111+1 Frames 1-9

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments: Enhydrea lutra (sea otter) 8 of these reported from the boat. Skiff driver reported stellar sea lion Eumetopias swam under boat. 3 waterfowl

Ecological Considerations: Over all high mid and low zones from Chthamalus barnacles, although Fucus, Halosaccion, Hedophyllum & all communities appeared generally healthy, showing recent growth, reproduction and new settlement. Echinoderms, mostly Solaster, were seen feeding on clams Saxidomus and just being the about every 3 meters along shore. Serpulidae and other Serpulidae (Annelid) worms were seen regularly, the former at 40% coverage when a patch was found like on Fucus or a cobble. (continued)

(2)

-V 50.
(continued)

3/30/90

Bio Bob Leman

Subtidal Laminarias covered about 80% as seen from the shore.

Katharina (chiton); Pododesmis capio (bivalve), Telia (anthozoa),

Oregonia gracilis (decapoda) were all found though scarce.

Reproduction was observed in Fucus (conceptacles swelling)

Littorina setkana (laying eggs). Juvenile Fucus, mytilus, Balanus
were seen ≤ 2 mm.

occasions, when pulling out loosened oiled bedrock clasts to look
for oil down in the cracks; we found OLIGOCHAETE
ANNELID worms; this is not where I would expect to find them.

OG R. Marty

SEGMENT ST/ EV-50

SUBDIVISION

DATE 03/30/90

CHECKLIST

N Arrow
Appendix Scale
Background Bathy
On Data
Width
Length
% Cover
Substrate Character
Est HMT/LAM
SSL
Profile Location(s)
Profile(s)
Pit Location(s)
Photo Location(s)

LEGEND

1 ▲

Pit - No Substrates On

2 ▲

Pit - Substrates On

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

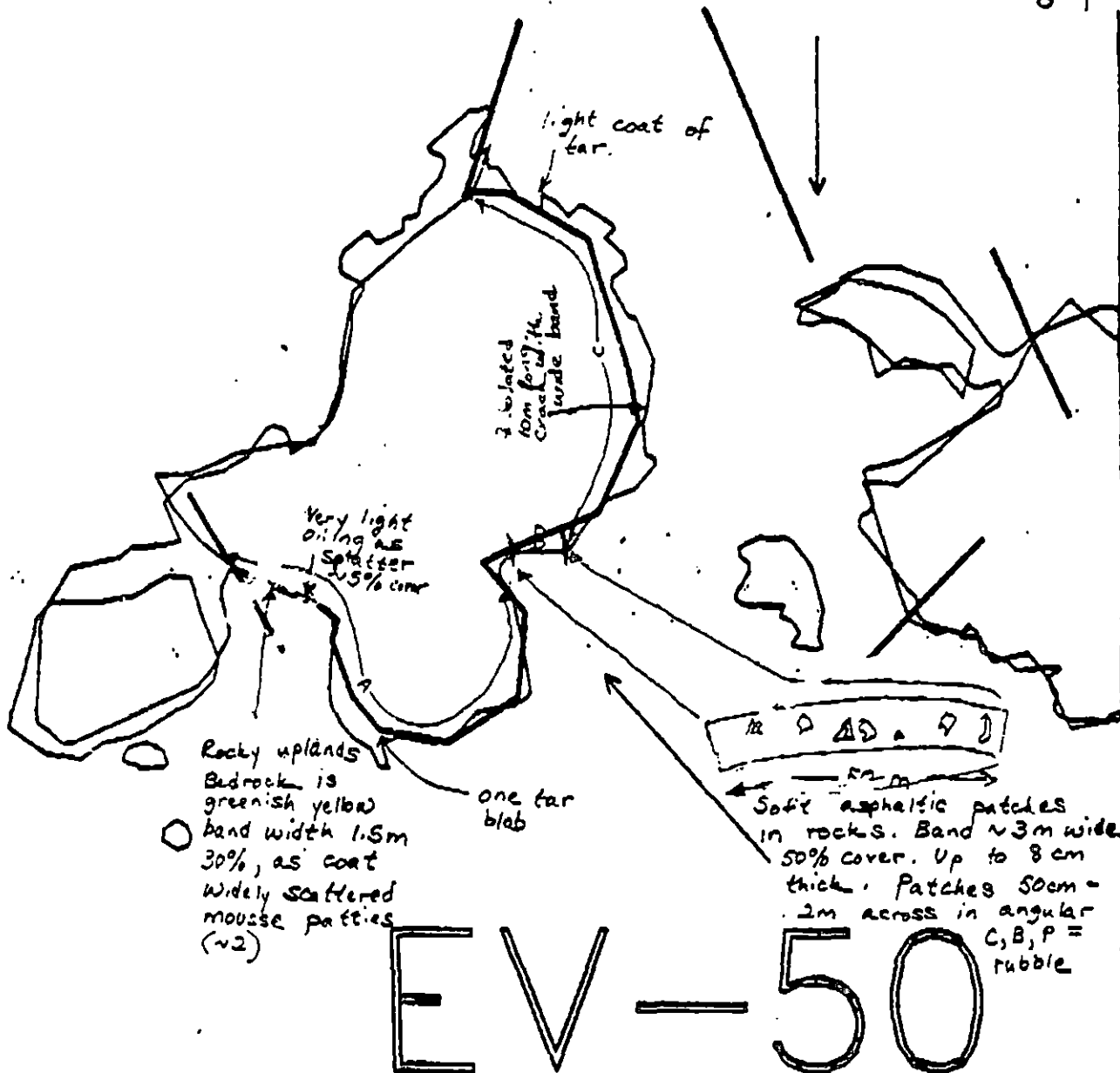
Spotted Distribution

Dead Vegetation

1 →

Photo location, direction,
and number

SKETCH MAP



EV-50

ADEC Segment Length: 1141m



Map Key: PWS-249

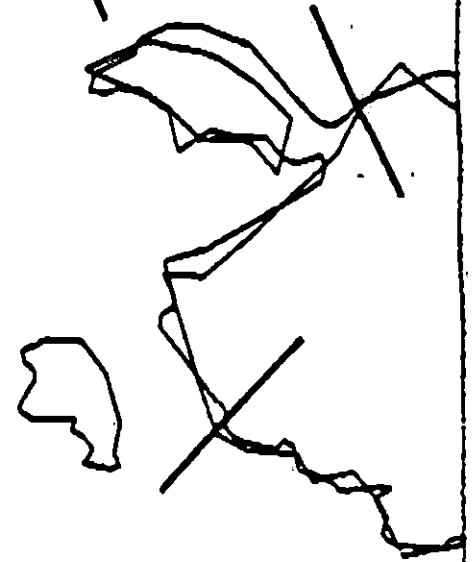
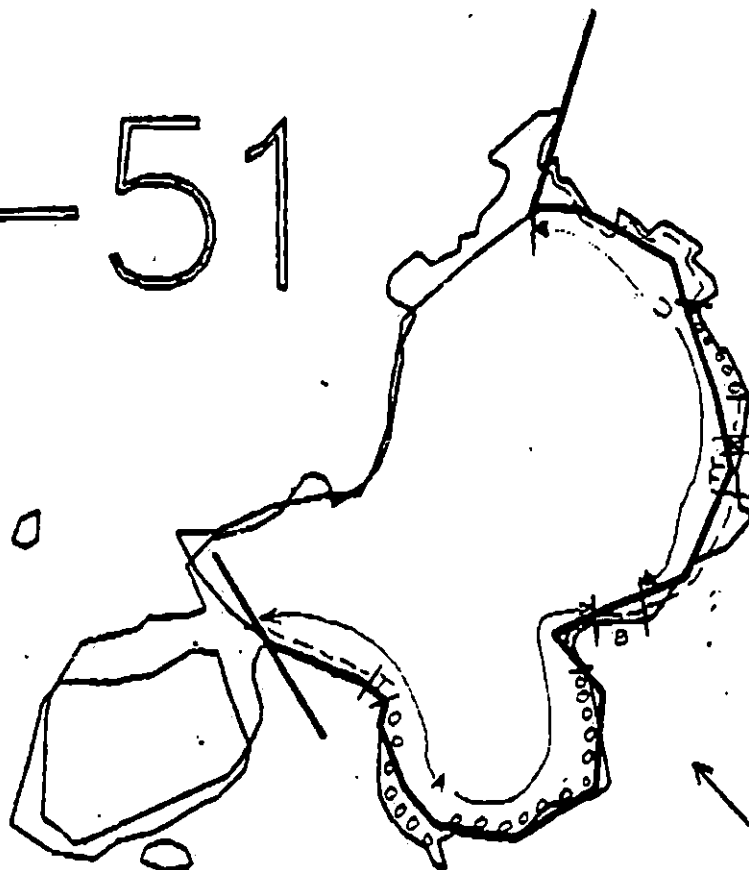
Name: Rich. Marty

Date: 03/30/90

Date Entered:

EV-

V-51



EXXON	MAP		
	LENGTHS		
EV-50A			
Narrow	0.9 = 135	167	
V. Light	0.15 = 22.5	28	
No	1.6 = 230	334	
EV-50B			
Narrow	0.2 = 30	37	
EV-50C			
Wide	0.1 = 15	19	
Narrow	2.4 = 360	445	
V. Light	0.2 = 30	37	
No	0.4 = 60	74	
		923	
		1141 m	

EV-50

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

EV-50

ADCC Segment Lengths 1141m



Map Key: PWS-269
 Name: Richard Marty
 Date: 03/30/90
 Date Entered: 8

SHORELINE EVALUATION

SEGMENT ST/ EV-50 SUBDIVISION B (2 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Contact
ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid unnecessary disturbance
or damage to unoiled substrate and biota.

SHPO SIGNATURE: Charles S. Holden DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 40 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 8 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>X</u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u>X</u> Spot Washing: <u>X</u> Wands
<u>X</u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u>X</u> Removal	<u> </u> Other (see comments)

COMMENTS: Spot wash area of cover using wands and absorbents.
~~Breakup and~~ Remove tarmat. Bioremediate area of cover. Work after
6/1 based on constraints.

TAG COMMENTS: MONITORS TO ASSESS PRESENCE OF "TAR BLOB"
AS INDICATED ON SKETCH MAP FOR SUBDIVISION A

NOTE: FIELD COMMENTS SUGGEST CONFUSING IT IS
FILLED OUT FOR A B + C SUBDIVISIONS TOGETHER.

TAG APPROVAL DATE: 4/13/90
ADEC [Signature]
EXXON ANDY [Signature]
NOAA Buyl Weisoff [Signature]
USCG G.A. REITER [Signature]

FOSC: [Signature] DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV 50 SUBDIVISION: A/B/C DATE 3/30/90

NAME LARRY FLETCHER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
AGREE WITH OG FORM.

NAME DAVID M. SALE SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
1) POT WASHING OF OIL ON ROCK FACES AND CREVICES w/LOCAL
ABSORBENT MATERIAL TO AVOID FURTHER ENTRENCHMENT
MANUAL PICKUP OF TAR MAT ON LOW ANGLE SHORE. BIOREMEDIATE
TREATMENT SAME AS ABOVE TO REDUCE COVER TO STAIN.

NAME Leigh Carlson SIGNATURE Leigh Carlson

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS
segment listed as priority 1 by PWSCA. Hatchery impacts listed in
PWS area plan. Treatment as suggested by ADEC above. Most of
impacted substrate too large for bioremediation

SHORELINE OILING SUMMARY

REVISION NO. 05/29/88

APR 01 1990

G. R. Mandy USCG LARRY FLETCHER SEGMENT ST/ EV-50.8
 IO G. Smith LAND REP Leigh Carlson SUBDIVISION B
 XXON J. Eganaki ADEC Dave Sale TIME 08:00 to 11:00
 EAM 10 TIDE LEVEL: +1' to -1' DATE 03/30/90
 ST. SUBDIVISION LENGTH: 37 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 PLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: to Counterclockwise
 SURFACE SEDIMENTS: R 50 % B 15 % C 15 % P 15 % G 5 % S % M % V %
 LOPE: Lang 25 % Hang 50 % Vert 25 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N 37 m VL m NO m

SURFACE OIL

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

PAVEMENT: H F (S) 60 g/m by 8 cm

PATTIES / TARBALLS BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs		1	
Vegetation		5	
Trash	0		
Debris	2		

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE

#BAGS

Photographs:

Roll No. ST-10-1

Frames 4, 5

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	1	2	3	4	5	6	7	8	SU	U	M	U		
(1)	14	X					0-8	X		X								X				N	Poorly sorted, angular G.S., P.S., etc.

COMMENTS This is the most oiled portion of the segment.
 Asphalt is formed in a thin veneer of angular
 sediments over yellow-green brecciated bedrock.
 Dark brown fatty cover in crevices and fractures

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/28/90

Segment ST/ EV 50 Subdivision all Date (mo / day / yr) 3 / 30 / 90Time (24 hr) 0930 Biologist LemonPage 1 of 2Temp 4°C, wind 0, waves 0, snowing(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 40 (3) Cobble 9 (4) Pebble 1 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense ✓ Moderate 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 (⊙)

Photographs:

2 Roll No. 111+1 Frames 1-9

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
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
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

GALATHEOPODS

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
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
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:

Enhydrea lutra (sea otter) 8 of these reported from the boat. Skiff driver reported stellar sea lion Eumetopias swam under boat. 5 waterfowl

Ecological Considerations: Over all high mid and low zones from Chthamalus barnacles, although Fucus, Halosaccion, Hedophyllum & all communities appeared generally healthy; showing recent growth, reproduction and new settlement. Echinoderms, mostly Aster, were seen feeding on clams Saxidomus and just being the about every 3 meters along shore. Spirorbis and other Serpulidae (Annelid) worms were seen regularly, the former at 40% coverage when a patch was found like on Fucus on a cobble. (continued)

(2)

V 50
(continues)

3/30/90

Bio Bob Lemon

Subtidal Laminarias covered about 80% as seen from the shaft.

Katharina (chiton); Pododesmis capio (bivalve), Telia (anthozoa),
Oregonia gracilis (decapoda) were all found though scarce.

Reproduction was observed in Fucus (conceptacles swelling)

Littorina setkana (laying eggs). Juvenile Fucus, mytilus, Balanus
were seen is $\leq 2\text{mm}$.

occasions, when pulling out loose bedrock clasts to look
for oil down in the cracks; we found OLIGOCHAETE
ANNELID worms; this is not where I would expect to find them.

OG: E. Marty

SEGMENT ST/ EV-50

SUBMISSION

DATE 03/30/90

CHECKLIST

N Arrow
Approx. Scale
Geographic Grid
Oil Dist
Length
% Cover
Success Character
Est. (FW/AM)
SS
Profile Location(s)
Profile(s)
Pit Location(s)
Pit Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Proton Distribution

CT/P

Pitry Distribution

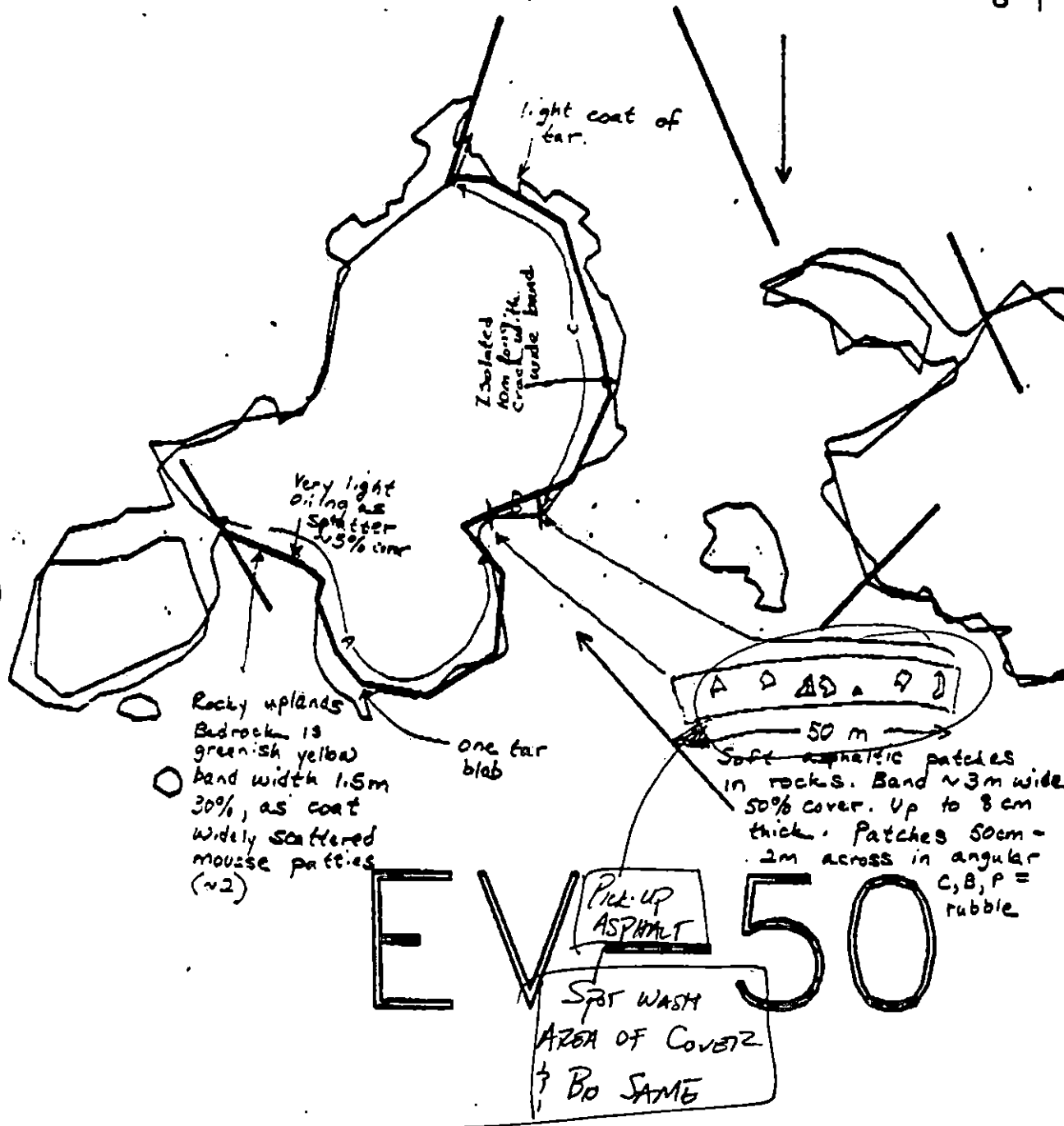
CT/S

Spurred Distribution

Dead Vegetation

Photo location, direction,
and number

SKETCH MAP



EV-50

ADEC Segment Length: 1161m



Map Key: PWS-249

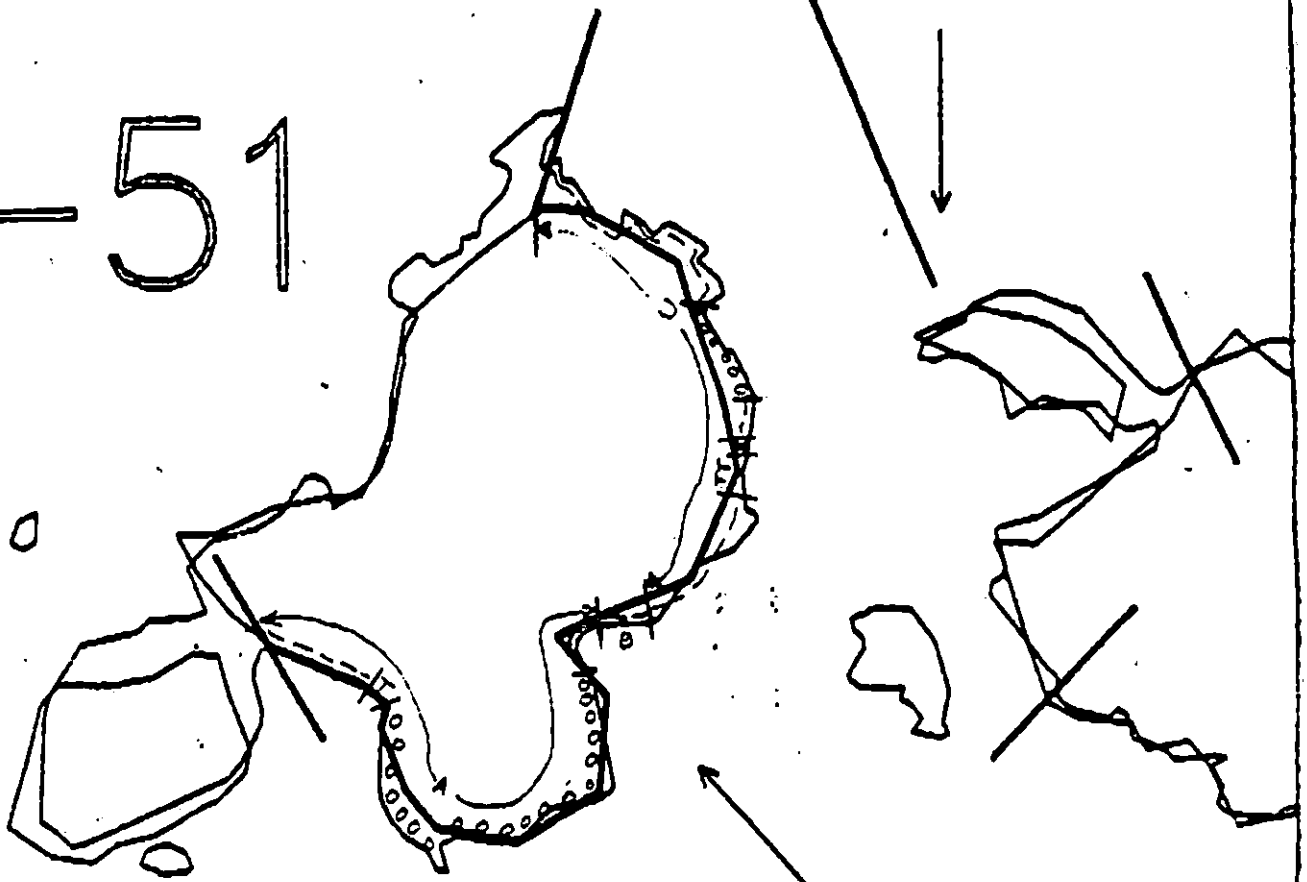
Name: Rich. Marty

Date: 03/30/90

Date Entered:

EV-

V-51



EV-50

EXXON	MAP		
	LENGTHS		
EV-50A			
Narrow	0.9 = 135	167	
V. Light	0.15 = 22.5	28	
No	1.5 = 270	334	
EV-50B			
Narrow	0.2 = 30	37	
EV-50C			
Wide	0.1 = 15	19	
Narrow	2.4 = 360	445	
V. Light	0.2 = 30	37	
No	0.4 = 60	74	
		1141 m	

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

EV-50

ADCC Segment Length: 1141m



Map Key: PWS-249
 Name: Richard Marty
 Date: 03/30/90
 Date Entered: 8

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-50 SUBDIVISION B (2 of 3)

WORK WINDOW	
Tarmat Removal	OPEN
Bioremediation Spot Washing Other Approved Treatment	WORK 6/1 to 7/25

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

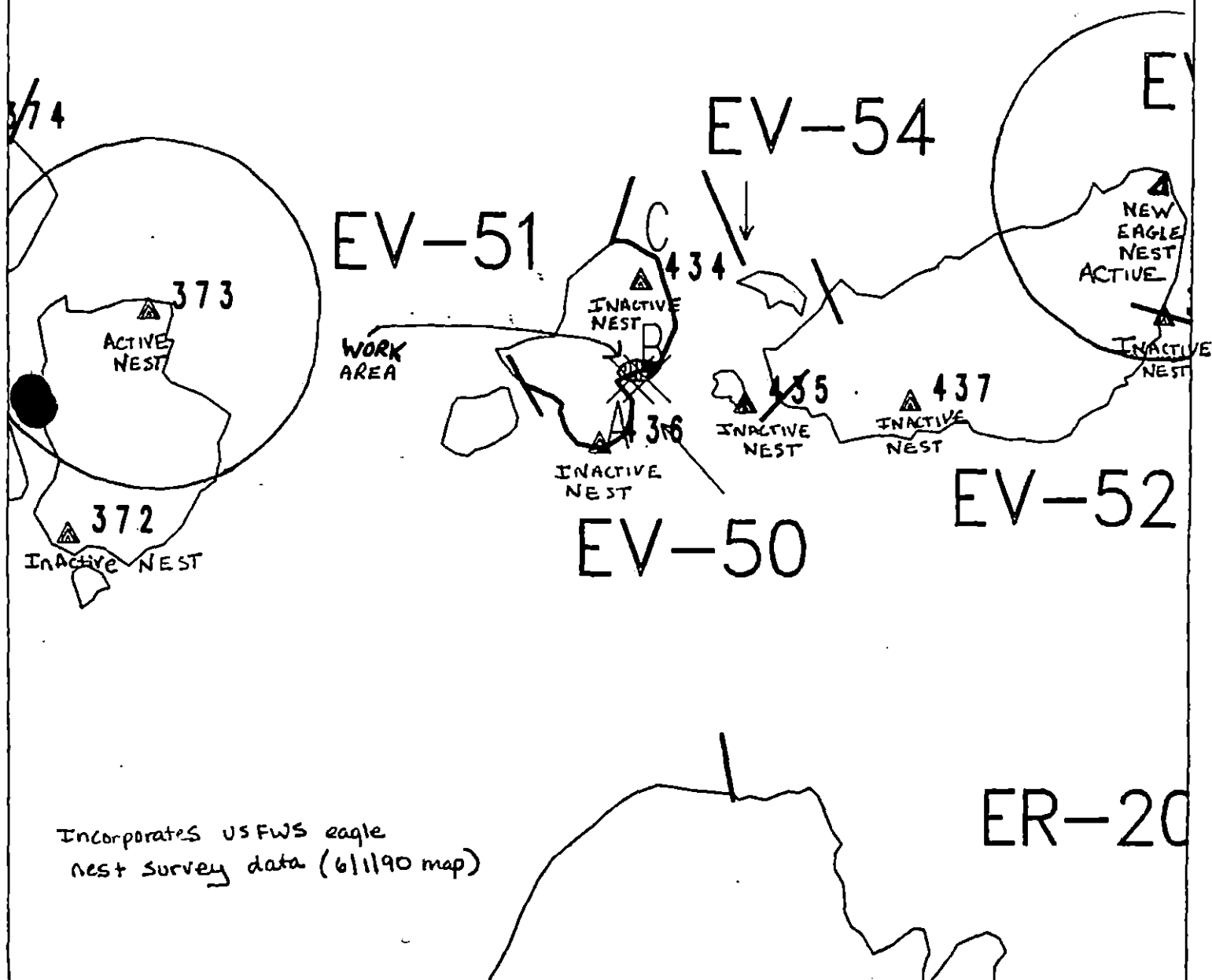
APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	No constraint to tarmat removal; closed to bioremediation, spot washing, and other approved treatment prior to 6/1.
1K	Purse Seine Hook-off	No constraint to tarmat removal; closed to bioremediation, spot washing and other approved treatment after 7/25.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision B work site.
7II	Subsistence: Deer Harvesting	No constraint to tarmat removal; closed to bioremediation, spot washing, and other approved treatment after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

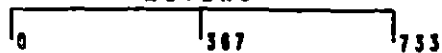
Restrict boat and air traffic to essential minimum after 7/25. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG APPROVAL DATE 6/04/90.
ADEC Ram Morris R. Morris
EXXON AWW TEA Beal FOSC D. Zampalini Date 6/4/90
NOAA Deep Talbot J. Talbot
USCG G.A. KETTER G.A. Ketter
Prepared by Anden Meyer AM Date 6/3/90



Exxon Company, USA
Map Key: PMS-EV-50
May 11, 1990

ECOLOGY MAP ^{6/3/90}
SEGMENT EV-50
SUBDIVISION B (2 of 3)
METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1203 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-50 SUBDIVISION C (3 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Contact
ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid unnecessary disturbance
or damage to unoiled substrate and biota.

SHPO SIGNATURE: Charles F. Holmes DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 16 m: Medium 0 m: Narrow 296 m: V.Light 31 m: No Oil 70 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</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: Recommend bioremediation of small area of surface cover.
Work after 6/1 based on constraints.

TAG COMMENTS: FIELD COMMENTS SHEET FILLED OUT FOR A/B/C.
SEE SKETCH MAP FOR ACTUAL LOCATION OF ASPHALT

TAG APPROVAL DATE: 4/13/90
ADEC Dan Bauer
EXXON ANDY BEN FOSC: DATE: 4-20-90
NOAA Bull/Wesport Bull/Wesport
USCG G.A. MEIER G.A. Meier

FIELD SHORELINE COMMENT SHEET

EGMENT ST/ EV 50 SUBDIVISION: A/B/C DATE 3/30/90

SCG
NAME LARRY FLETCHER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
OMMENTS

AGREE WITH OG FORM.

DEC
NAME DAVID M. SALE SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
OMMENTS

1) SPOT WASHING OF OIL ON ROCK FACES AND CREVICES w/LOCAL
ABSORBENT MATERIAL TO AVOID FURTHER ENTRENCHMENT
MANUAL PICKUP OF TAR MAT ON LOW ANGLE SHORE. BIOREMEDIATE
TREATMENT SAME AS ABOVE TO REDUCE COVER TO STAIN.

AND MANAGER
NAME Leigh Carlson SIGNATURE Leigh Carlson

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
OMMENTS

segment listed as priority 1 by PWSCA. Hatchery impacts listed in
PWS area plan. Treatment as suggested by ADEC above. Most of
impacted substrate too large for bioremediation

SHORELINE OILING SUMMARY

REVISION NO. 00/20/90

OG R. Marts USCG LARRY FLETCHER SEGMENT ST/ EV-50
 BIO B. Lumb LAND REP Leigh Carlson SUBDIVISION C
 EXXON d. Egernich ADEC Dave Sales TIME 08:00 to 11:00
 TIDAL NO.: 10 TIDE LEVEL: +1 to -1 DATE 03/30/90
 EST. SUBDIVISION LENGTH: 575 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: _____ to Counterclockwise
 SURFACE SEDIMENTS: R 50 % B 15 % C 15 % P 15 % G 5 % S _____ % M _____ % V _____ %
 SLOPE: Long 2.5 % Hang 50 % Vert 2.5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 19 m M _____ m N 445 m VL 37 m NO 74 m

SURFACE OIL

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

PAVEMENT: H F S None sq. m by _____ cm

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	2		
Vegetation	0	2	
Trash			1
Debris			

DEBRIS COLLECTED

☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs: Roll #2 Frame #1Roll No. ST-10-1Frames 6-9

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		CO	CR	CL	CF	HC		UC	UC	1	2	3	4	5	6	7	8	SU	U	M	U		
<u>NONE</u>																							

COMMENTS OIL Distribution is highly discontinuous and inhomogeneous
 this is difficult to successfully quantify on a form.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 06/25/88

Segment ST / EV 50 Subdivision all Date (mo / day / yr) 3 / 30 / 90Time (24 hr) 0930 Biologist Lemon Page 1 of 2Temp 4°C, wind 0, waves 0, snowing(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 40 (3) Cobble 9 (4) Pebble 1 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense ✓ Moderate 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 (⊙)

Photographs:

2 Roll No. 111+1 Frames 1-9

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
3	3	3	3	3	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
3	3	3	3	3	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

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
3	X	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
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:

Enhydra lutra (sea otter) 8 of these reported from the boat. Skiff driver reported stellar sea lion Eumetopias swam under boat. 3 waterfowl

Ecological Considerations: Over all high mid and low zones from Chthamalus barnacles, although Fucus, Holoscion, Hedophyllum & all communities appeared generally healthy, showing recent growth, reproduction and new settlement. Echinoderms, mostly Solaster, were seen feeding on clams Saxidomus and just being the about every 3 meters along shore. Sipharurus and other serpulidae (Annelid) worms were seen regularly, the former at 40% coverage when a patch was found like on Fucus on a cobble. (continued)

(2)

V. 50
 (continued)

3/30/90

Bio Bob Leman

Subtidal Laminarias covered about 80% as seen from the shaft.
Katharina (chiton); Pododesmis cepia (bivalve), Telia (anthogoa),
Oregonia gracilis (decapoda) were all found though scarce.
 Reproduction was observed in Fucus (conceptacles swelling)
Littorina setkana (laying eggs). Juvenile Fucus, mytilus, Balanus
 were seen is ≤ 2 mm.

occasions, when pulling out loose and oiled bedrock clasts to look
 for oil down in the cracks; we found OLIGOCHAETAE
 ANNELID worms; this is not where I would expect to find them.

OG E. Marty

SEGMENT ST/ EV-50

SUBDIVISION

DATE 03/30/90

CHECKLIST

N Arrow
Approx. Scale
Seg/Sub Only
Of Dist
Width
Length
% Cover
Success Character
E or HML/VA
SSC
Profile Location(s)
Profile(s)
Pin Location(s)
Photo Location(s)

LEGEND

1 A

Pt.: No Surface On

2 A

Pt.: Surface On

Continuous Disturbance

CT/C

CT/B

Broken Disturbance

CT/P

Partial Disturbance

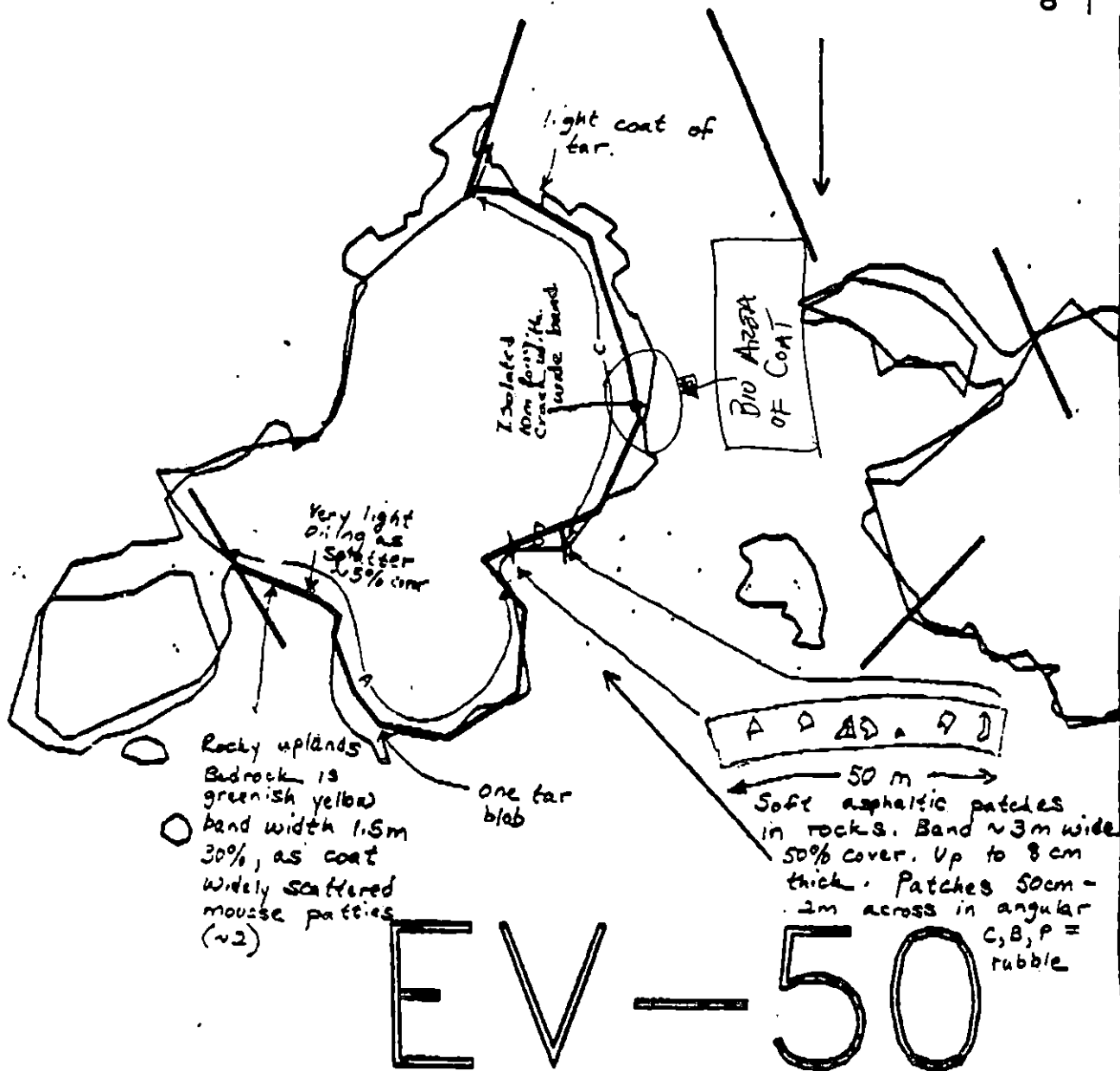
CT/S

Spotted Disturbance

Dead Vegetation

Photo location, direction,
and number

SKETCH MAP



EV-50

ADEC Segment Length: 1141m



Map Key: PWS-249

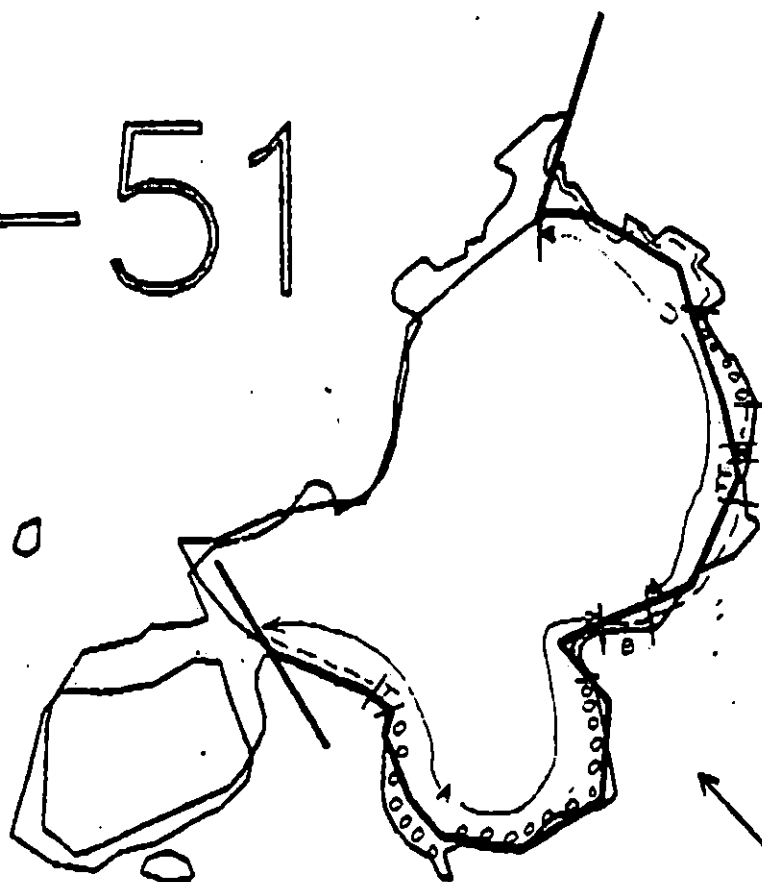
Name: Rich. Marty

Date: 03/30/90

Date Entered:

EV-51

V-51



EV-50

EXXON MAP LENGTHS

EV-50A			
Narrow	0.9	= 135	167
V. Light	0.15	= 22.5	28
No	1.8	= 270	334
EV-50B			
Narrow	0.2	= 30	37
EV-50C			
Wide	0.1	= 15	19
Narrow	2.4	= 360	445
V. Light	0.2	= 30	37
No	0.4	= 60	74
		923	1141 m

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

EV-50

APCC Segment Length: 1141m



Map Key: PWS-249

Name: Richard Marty

Date: 03/30/90

Date Entered: (8)

SHORELINE EVALUATION

SEGMENT ST/ EV-51 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Consult ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *Charles Z. Adams* DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 59 m: Narrow 16 m: V.Light 211 m: No Oil 788 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	<u> </u> Spot Washing: <u> </u> Wands
<u>X</u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u>X</u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend removal of tarmat and bioremediate as indicated on attached sketch map. Treatment activities should be conducted between 6/1 and 8/15 based on above constraints.

RAKE PRIOR TO BIOREMEDIATION IN AREA OF PIT 1+2

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90.

ADEC *A. Kallen*

EXXON *ANDY TEAL*

NOAA *Bud Wescott*

USCG *G.A. REITER*

FOSC: *D.E. Wyll* DATE: 4-20-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV51 SUBDIVISION: NONE A DATE 3/30/90

USCG

NAME LARRY FLETCHER SIGNATURE Larry R Fletcher☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

AGREE WITH OG FORM.

ADEC

NAME DAVID SALE SIGNATURE David W. Sale☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

1 M. WIDE BAND IN MID-SEGMENT → BREAK UP TARMAT, LOOSEN & BIOREMEDIATE SUB SURFACE, TO AVOID MOBILE OIL SHEENING DURING WARMER TEMPERATURES.

SAND/SHELL FRAGMENTS POCKET: REMOVE SAND AND BIOREMEDIATE. DEPTH NOT KNOWN SINCE TIDE WAS OVER POCKET.

ASPHALTIC OIL AT S. END OF SEGMENT: MANUAL REMOVAL OF ASPH. AND BIOREMEDIATION AFTER TURNING; OR, REMOVAL OF SURFACE SED.

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Hatchery impacts as listed in PWS area plan. Treatment as suggested by ADEC above.

SHORELINE OILING SUMMARY

REVISION NO. 03/20/88

OG R. Mary USCG LARRY FLETCHER SEGMENT ST/ EV-51
 BIO B. Smith LAND REP Larry Carlson SUBDIVISION A (1 OF 1)
 EXXON J. Egerick ADEC Dave Sale TIME 11:00 to 13:00
 TEAM NO.: 10 TIDE LEVEL: -0.3m to +1.5m DATE 03/30/90
 SUBDIVISION LENGTH: 1215 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UNDES DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: _____ to Counterclockwise
 SURFACE SEDIMENTS: R 50 % B 15 % C 15 % P 15 % G 5 % S _____ % M _____ % V _____ %
 SLOPE: Long 50 % Hang 25 % Vert 25 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M 33 m N 16.5 m VL 463 m NO 703 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	K	B	P	S	OP	OR	OL	OF	RO	BU	U	M	U	U	U	U
ASPHALT PAVEMENT			X										X			
POOLED																
COVER			✓	X									✓			
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
OIL																

PAVEMENT: H F (S) 65 sq. m by 7 cm

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	2		
Vegetation	2		
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NO

TYPE _____

#BAGS 1

Photographs:

Roll No. ST-20-2Frames 2-10 and 12

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	RO		UO	UC	OP	OR	OL	OF	RO	BU	U	M	U		
(1)	0-8	X					0-8	X		X					X				N	S, G, V
(2)	0-6	X					0-6	X		X					X				N	S, G, V
(2)	6-20				X		6-20	X		X					X				Y	S, G, V (PEAT)

COMMENTS* OILED INTERVAL < 5 cm IN PIT NOS. 1 AND 2 DOES NOT CONSTITUTE SUBSURFACE OIL

SHORELINE ECOLOGICAL SUMMARY

REVISIONS

Segment ST/ EV 51 Subdivision all Date (mo / day / yr) 3/30/90
 Time (24 hr) 1330 Biologist Lemon

(A) Substrate type and % of segments:

(1) Bedrock 50 (2) Boulder 40 (3) Cobble 10 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment). Dense Moderate ✓ 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 (⊙)

Photographs:

Roll No. 2Frames 2-10

And K 12

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: 5 waterfowl

1 bald eagle seen roosting, boat reported 4 more?

A beach worn otter skull was found in an area of 80% shell hash.

5 Enhydra lutra reported (4 from the boat). (sea otter)

Ecological Considerations:

over high mid and low zones from Chthamalus barnacles through Fucus, Halosaccion, Hedophyllum; all communities appeared generally healthy, in some cases showing recent growth, reproduction of new sets. Echinoderms, mostly Solaster, were seen about every 3 meters along the shore; there were dead ones about every 10 meters. Spirorbis and other serpulid (annelid worm) were seen regularly in the Chthamalus.

at about 40% coverage when a patch was found on Fucus on a cobble. Subtidal Laminaria covered about 40% as seen from the skiff. Reproduction was observed in Fucus (conceptacles).

Juvenile (approx 3mm) Balanus, Mytilus, and 1cm Fucus were seen. Some areas of Fucus (<10%) were stipes only, no blades; yet in that same patch juveniles were seen (seen from 4 roll 2).

There were occasional (<10%) pockets where the substrate was about 70% shell hash including Saxidomus and Protothaca (bivalves).

OG R. Marty

SEGMENT ST/ EV-51

SUBDIVISION A11

DATE 03 130 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Sp/ Sub Bdry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ N/A Est. HMC/VOL
- ☒ SSI
- ☒ N/A Profile Location(s)
- ☒ N/A Pth Location(s)
- ☒ N/A Pth Location(s)
- ☒ N/A Photo Location(s)

LEGEND

1 Δ
Pth - No Subsurface Oil

2 Δ
Pth - Subsurface Oil

$\square$ CT/C
Continuous Distribution

$\square$ CT/B
Broken Distribution

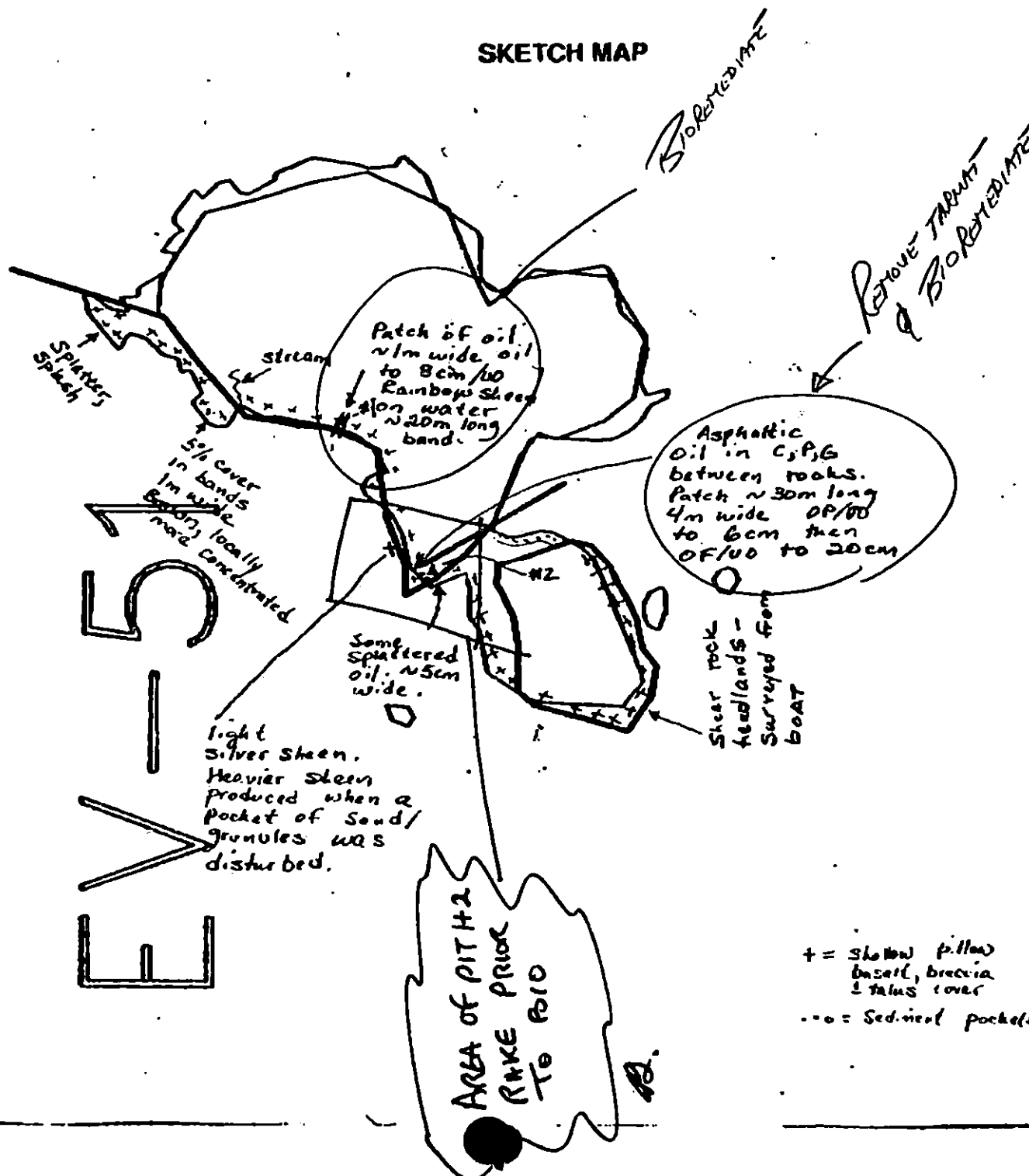
$\square$ CT/P
Pecchy Distribution

$\square$ CT/S
Splashed Distribution

$\square$ Oiled Vegetation

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

SKETCH MAP



+ = Shallow pillow
basalt, breccia
& talus cover
... = Sediment pockets

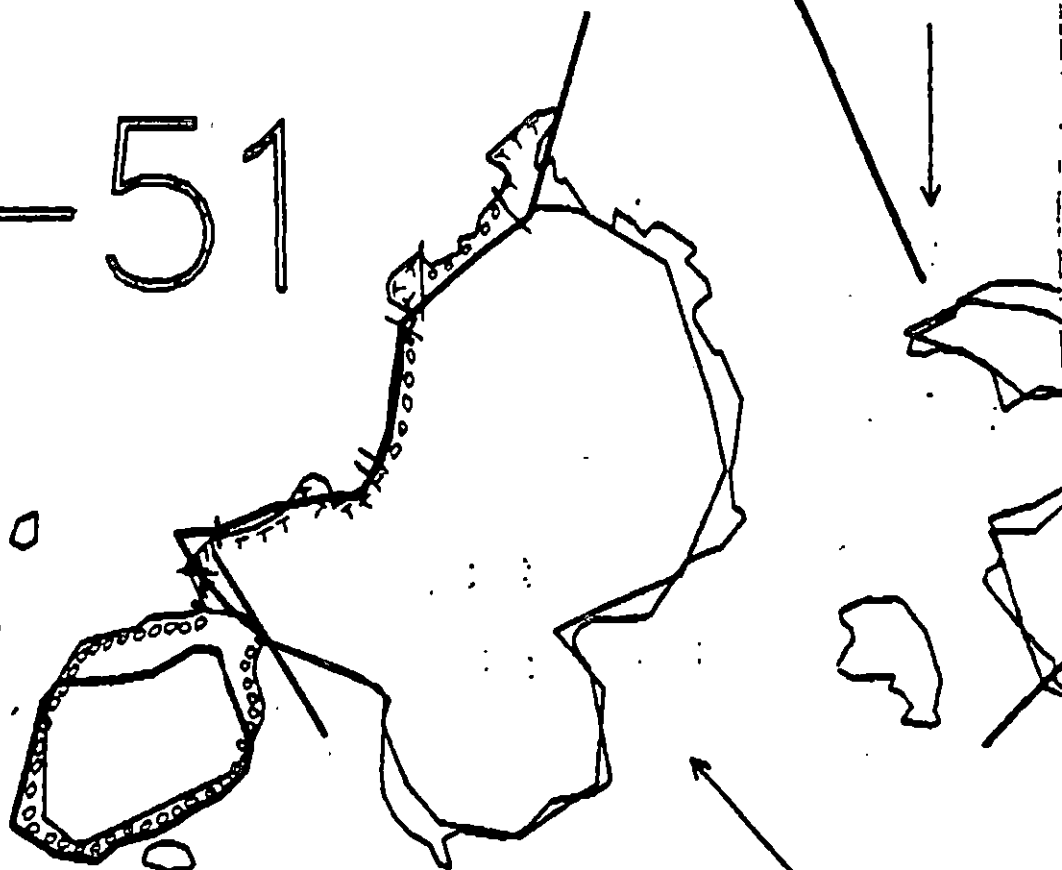
EV-51

ADEC Segment Length: 1214m

0 100 200 300
METERS

EV-51

EV



EVXON	MEASURES	Adjusted
	LENGTHS	
VO	4.25"	630m
VL	2.8"	420m
N	0.1"	150m
M	0.2"	300m
	<u>735"</u>	<u>1,103 km</u>
		Adjusted
		703 m
		463 m
		165 m
		+ 33 m
		<u>1215 m</u>

EV-50

1" = 150m

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-51

ADEC Segment Length: 1214m



Map Key: PWS-251

Name: Richard Morley

Date: 03/30/90

Date Entered:

(24)

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-51 SUBDIVISION A (1 of 1)

WORK WINDOW	
Tarmat Removal	OPEN
Bioremediation Manual Raking	WORK 7/25 to 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	Subdivision closed to bioremediation and manual raking from 4/15 to 6/1. No constraint to tarmat removal.
1K	Purse Seine Hook-off	Subdivision closed to bioremediation and manual raking after 7/25. No constraint to tarmat removal.
7II	Subsistence: Deer Harvesting	Subdivision closed to bioremediation and manual raking after 8/15. No constraint to tarmat removal.
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

Restrict boat and air traffic to essential minimum after 7/25. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

TAG APPROVAL DATE 6/04/90.

ADEC Ray Morris Richard

EXXON Ann T. E. A. L. Real

NOAA Joseph Talbot J. Guss

USCG C.A. BEITER C.A. Beiter

FOSC

[Signature] Date 6/4/90

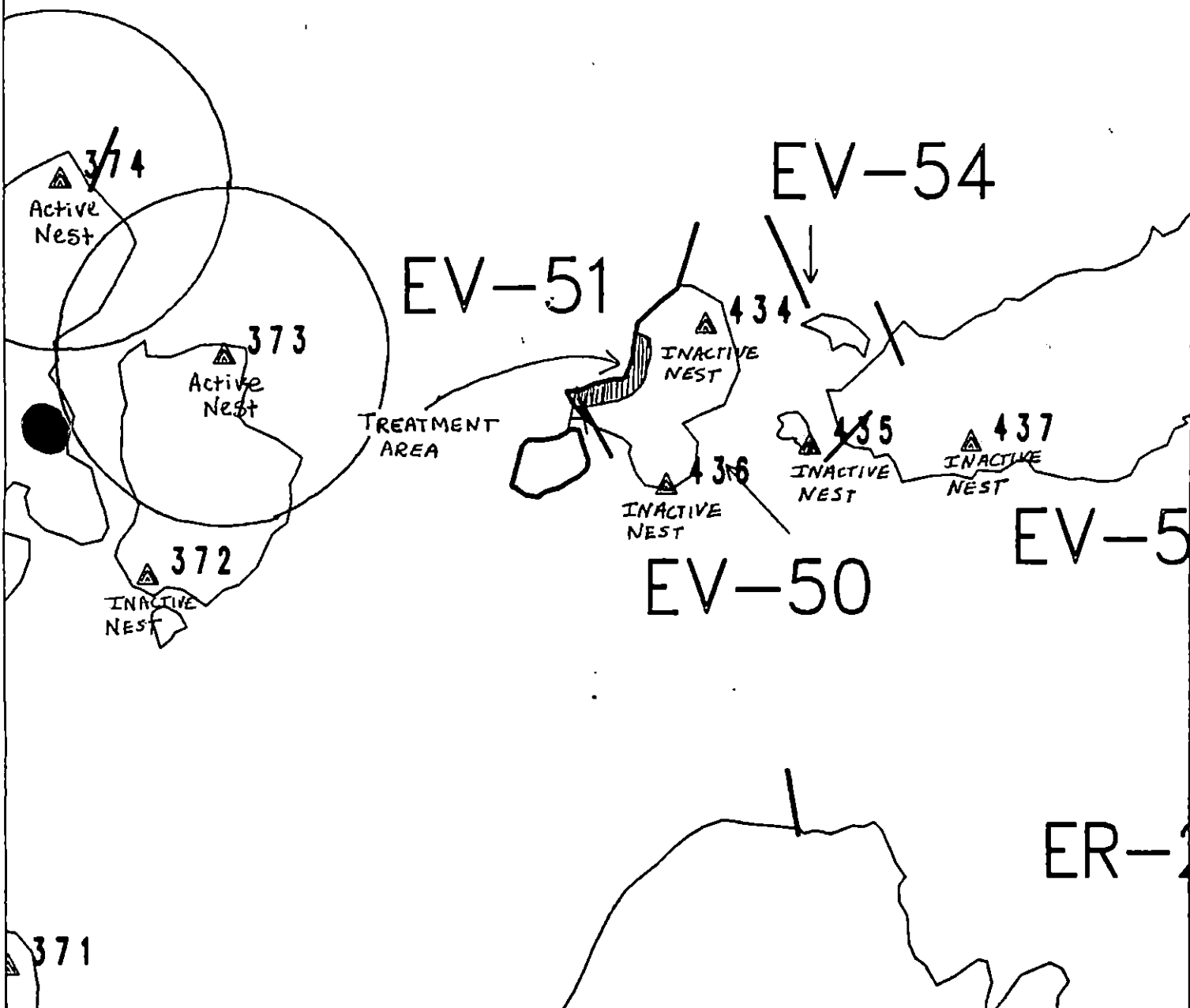
Prepared by

Andru Meyer

Date

6/3/90

* Incorporates USFWS bald eagle nest survey map data (4/11/90).



Exxon Company, USA
Map Key: PMS-EV-51
May 11, 1990



ECOLOGY MAP 6/3/90
SEGMENT EV-51
SUBDIVISION A (1 of 1)
METERS
0 374 748

★ Seabird Colony
▲ Eagle Nest

1 inch = 1227 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-52 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Active bald eagle
nest (5T) - 3/1 to 6/1; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
oiled biota and substrate.

SHPO SIGNATURE: Charles J. Adams DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 697 m: V.Light 421 m: No Oil 95 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: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u>X</u> Other (see comments)

COMMENTS: Recommend manual pickup of tar patties indicated on
sketch map, as well as hand raking of pocket beaches where surface
cover found; follow with bioremediation. Recommend work after 6/1
based on constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4-11-90
ADEC DDM San - DM RANC
EXXON ANNY TCH
NOAA Bud Westcott Bud Shyne
USCG G.A. REITER G.A. Reiter

FOSC: L DATE: 4-28-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV-52 SUBDIVISION: A DATE 3/31/90

USCG

NAME LARRY FLETCHER SIGNATURE Larry R Fletcher

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

1. MANUAL REMOVAL OF TAR PATTIES IN POCKET BEACHES.
2. COAT AND SPLATTER SHOULD BE LEFT ALONE OR BIO-REMEDIATE.

ADEC

NAME DAVID M. SALE SIGNATURE David M Sale

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

- ① manual pickup of asphalt and tar balls in pocket beaches
- ② washing of oil cover on hi-angle slopes, with individualized local use of absorbent material to avoid washing into water or further into cracks
- ③ aeration and bioremediation of contaminated sediments

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Hatchery impacts listed in PWS area plan. Treatment suggested is manual pickup on pocket beaches and possible aeration and bioremediation of contaminated sediments. Cover on rock faces appears to be stable and for the most part is hard to pickout by the untrained eye. Oil is in such a state that not much would be gained by washing the rock faces.

SHORELINE OILING SUMMARY

REVISION NO. 00/20/90

OG R. Mary USCG LARRY FLETCHER SEGMENT ST/ EV-52
 BIO B. Limber LAND REP Lough Connors SUBDIVISION A (10FI)
 EXXON J. Gosselin ADEC Dave Saly TIME 07:05 to ~07:30
 TEAM NO.: 10 TIDE LEVEL: 4.7 to 11 DATE 03/31/90
 EST. SUBDIVISION LENGTH: 1227 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: to Counterclockwise
 SURFACE SEDIMENTS: R 90 % B 5 % C 5 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 5 % Hang 60 % Vert 35 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 713 m VL 448 m NO 66 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	W	M	N	VL	W	M	N	VL	W	M	N	VL
ASPHALT PAVEMENT												
POOLED												
COVER	*	0	✓	X	*✓	0	X		*✓	0	X	
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X	X	X	

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS < 1 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	2		
Vegetation	1		
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST/0/2Frames 13-17

also ST/0/3 frame 25

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
		W	M	N	VL	NO		UP	DE	W	M	N	VL	NO	W	M	N	VL		
1	20					X	NA		X								X		N	G/S
2	2					X	.									X			N	G/S
3	1					X	.										X		N	G/S
							.													
							.													
							.													

COMMENTS Oiling mostly fairly minor.

Team 10

SHORELINE ECOLOGICAL SUMMARY

REVISION: 002398

Segment ST / EV 52 Subdivision

Date (mo / day / yr) 3 / 31 / 90

Time (24 hr) 0700 - 0900

Biologist Lemon

4°C, snowing

- (A) Substrate type and % of segments:
 (1) Bedrock 90 (2) Boulder 5 (3) Cobble 5 (4) Pebble (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense Moderate 60% 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: ST/10/2
Roll No. 2

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	2	2	2	2	2	2	2
3	3	3	3	3	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	X	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

TROPODS

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	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	X	2	2	2	2
3	3	3	3	3	3	3	X	3	3	3	3
4	4	4	4	4	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

Wildlife Observations/ General Comments: 4 eagles, 1 harbor seal, 1 gull, waterfowl

Ecological Considerations: Littorina saxatilis laying eggs under side of cobbles.
 OLIGOCHAETES (ANNELIDA) in drift line at about +12', where they would be expected.

00 Rich Marty

SEGMENT ST/ EV-52

SUBDIVISION A11

DATE 03 / 31 / 90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Entry
- ___ Oil Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HWA/LWR
- ___ STL
- ___ Profile Location(s)
- ___ Profile(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

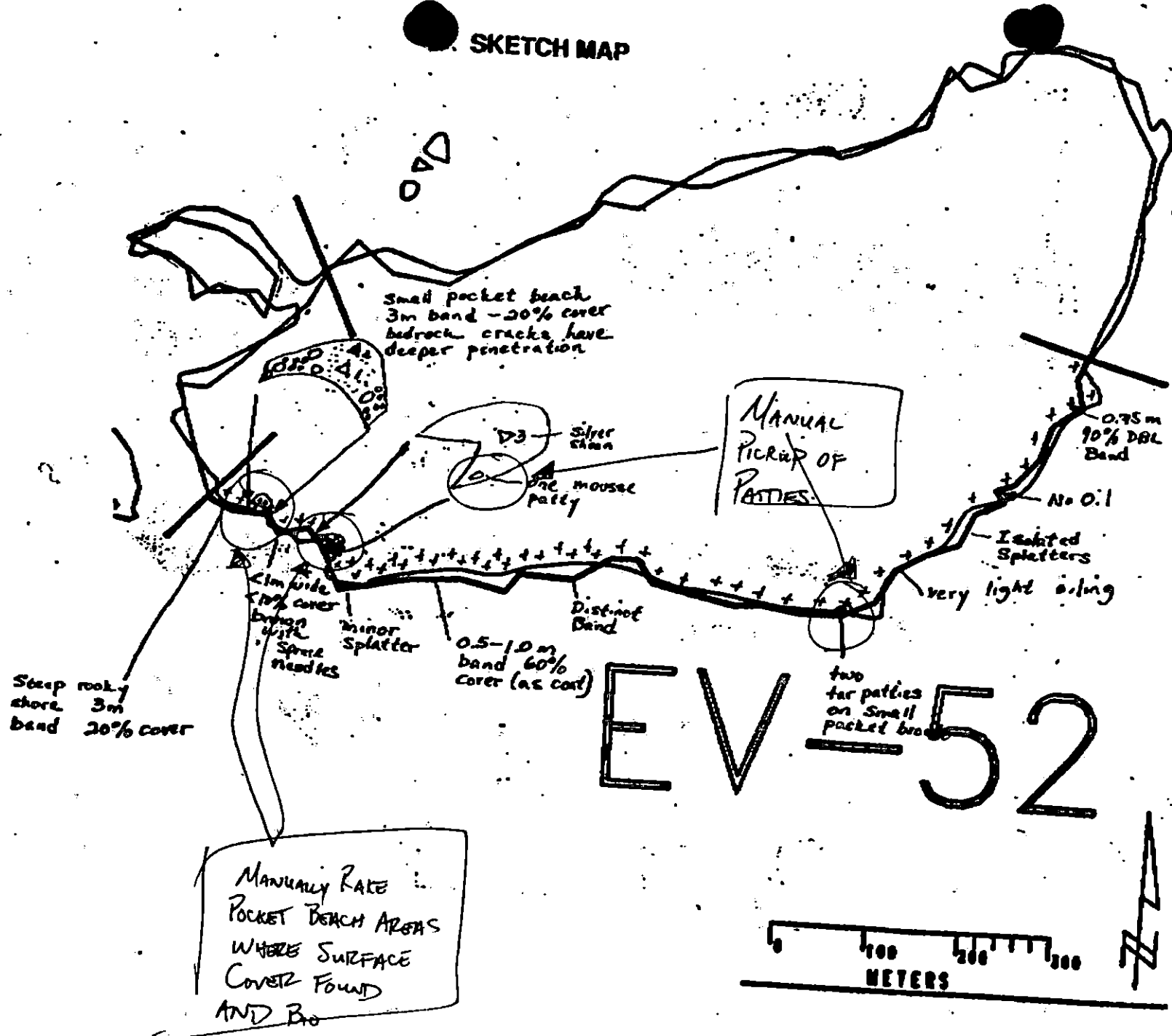
Splashed Distribution

Cited Vegetation

1 ●→

Photo location, direction,
and number

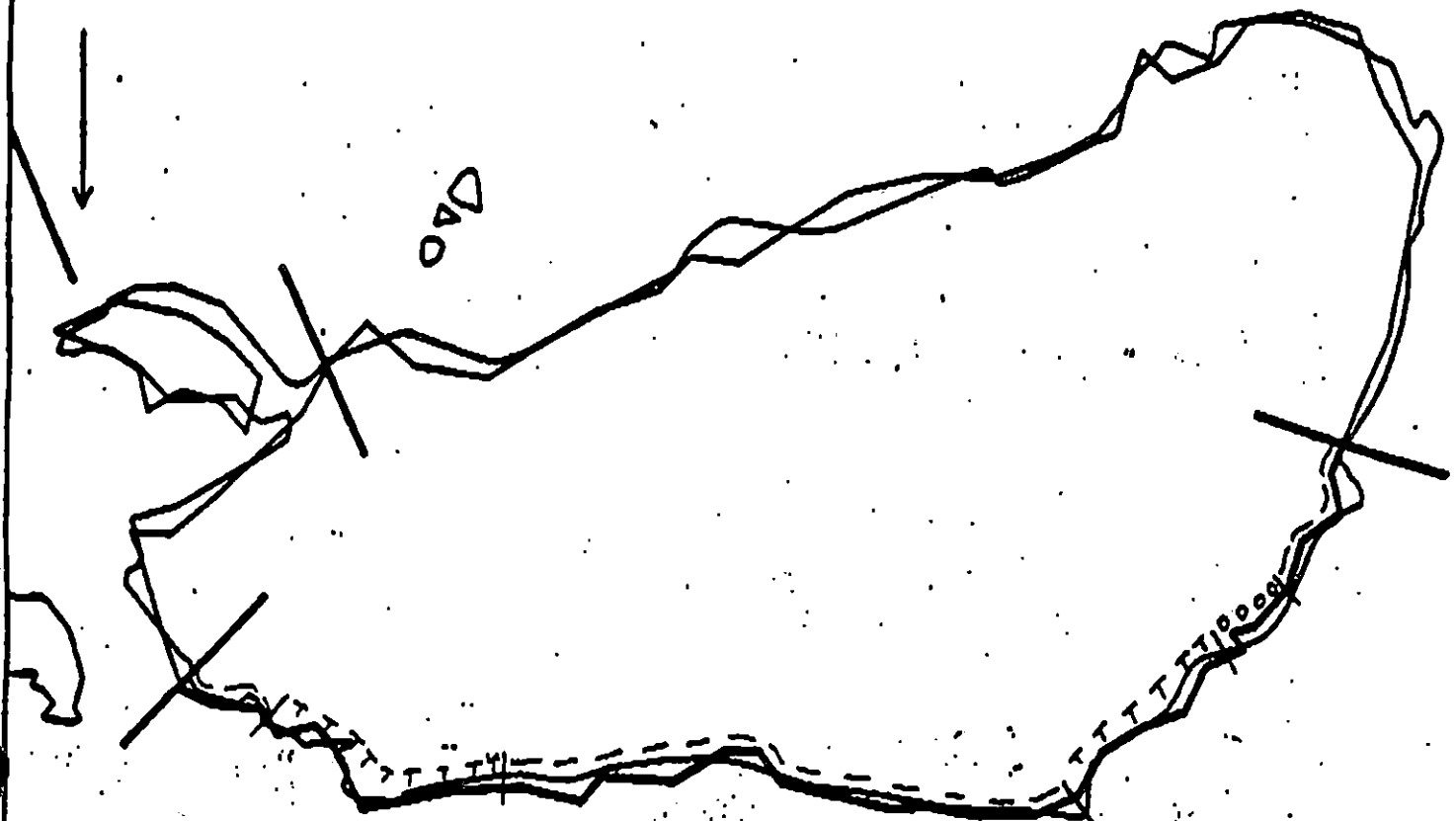
SKETCH MAP



Oil Character Length (m): AP _____ PO _____ CV _____ CT 1161m ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

++ bedrock cliffs with high angle, vertical, or overhang faces - Surveyed by SK.FF
REVISION 02/2000

EV-54



	<u>inches</u>	<u>unadj</u>	<u>adj</u>
Narrow	4.3"	645m	715m
No	0.4"	60m	66.7m
Very Light	2.7"	405	448m
		1110 m	1227

EV-52

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-52

ADEC Segment Length: 1227m



Map Key: PWS-252

Name: MARTY

Date: 4-1-90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-52 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation Manual Raking	WORK 6/1 to 7/25

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	No constraint to manual pickup. Closed to bioremediation prior to 6/1.
1K	Purse Seine Hook-off	No constraint to manual pickup; closed to bioremediation and manual raking after 7/25.
5T	Bald Eagle Nests	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup; closed to bioremediation and manual raking after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/25. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

TAG APPROVAL DATE 6/24/90
ADEC Ran Morris
EXXON Andy
NOAA Joseph
USCG B.H. Reiter

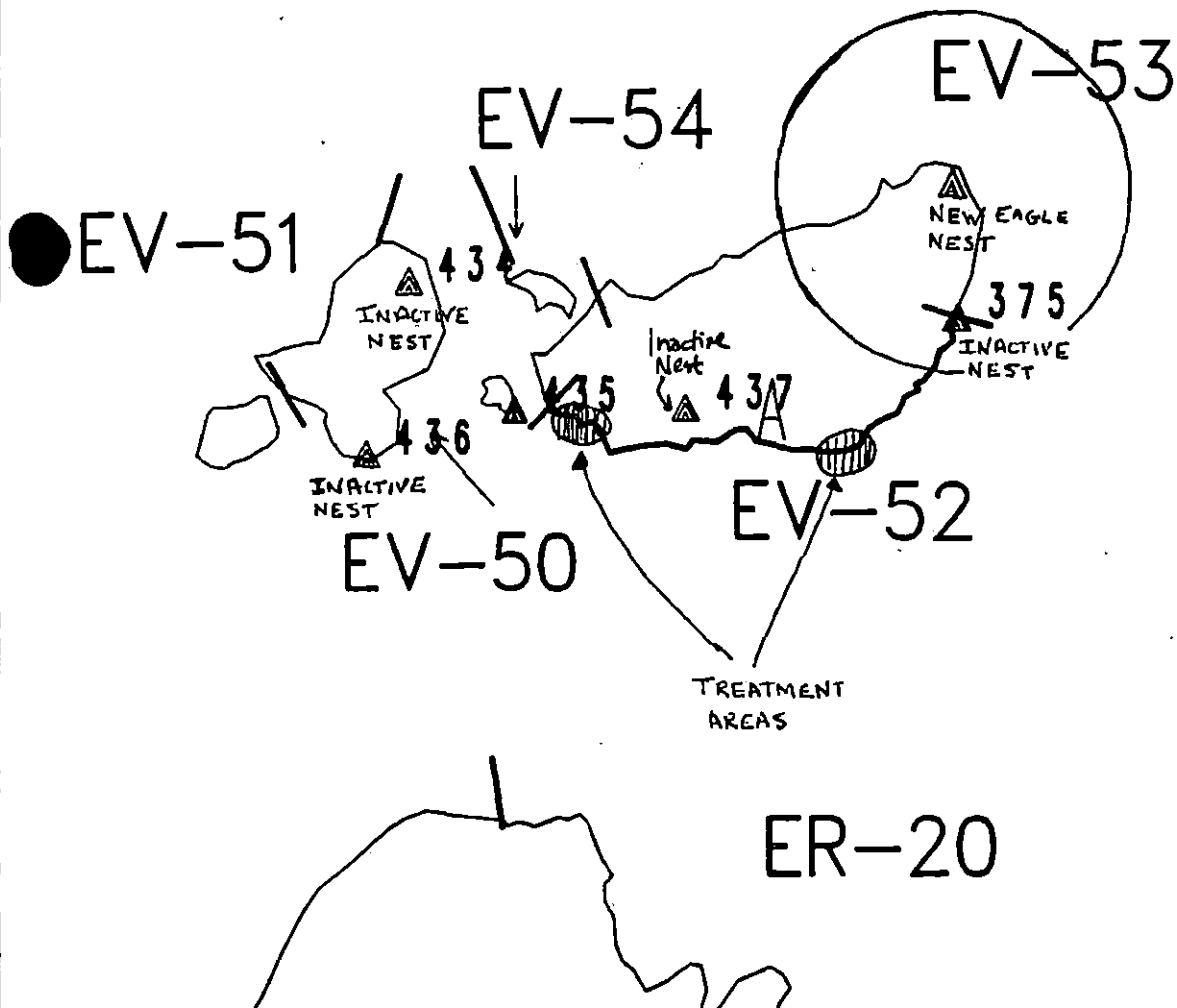
FOSC [Signature]

DATE 6/8/90

Prepared By: Andru May

Date 6/4/90

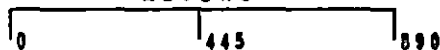
* Incorporates USFWS
BALD EAGLE NEST SURVEY
MAP DATA 6/1/90



Exxon Company, USA
Map Key: PWS-EV-52
May 11, 1990



ECOLOGY MAP ^{6/3/90}
SEGMENT EV-52
SUBDIVISION A (1 of 1)
METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1459 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-53 SUBDIVISION A (1 OF 4) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting (7II) - 8/15 to 2/28; Possible eagle nest in vicinity (5T). Contact ADF&G to verify eagle nest location.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 168 m: V.Light 0 m: No Oil 465 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: <u> </u> Wands
☐ Tarmat: <u> </u> Breakup	☐ <u> </u> Beach Cleaner
☐ <u> </u> Removal	☐ Other (see comments)

COMMENTS: No treatment recommended due to only very spotty coat on small area in upper intertidal. See Field Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90
ADEC JOHN BAUER
EXXON ANDY TGT
NOAA Bryl Waycott
USCG G.A. REITER

FOSC: DATE: 4-26-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-53 SUBDIVISION: A DATE 3/30/90

USCG

NAME LARRY FLETCHER SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME DAVID M. SAUE SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Hatchery impacts listed in PWS area plan.

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG R. Martz USCG LARRY FLETCHER SEGMENT ST/ EV-53
 IO B. Lumb LAND REP Lang. Carson SUBDIVISION A (1 of 4)
 EXXON J. Czarnski ADEC Dave Sade TIME ~10:30 to ~12:00
 TEAM NO.: 10 TIDE LEVEL: 44' to DATE 03/31/90
 EST. SUBDIVISION LENGTH: 657 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: to Counterclockwise
 SURFACE SEDIMENTS: R 80 % B 10 % C 10 % P % G % S % M % V %
 SLOPE: Lang % Hang 100 % Vert % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N 144 m VL m NO 513 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	10	15	20	25	30	35	40	45	SU	U	M	L
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT			X							X		
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X		X	X

PAVEMENT: H F S NONE sq. m by cmPATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	2		
Vegetation	2		
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE #BAGS

Photographs:

Roll No. ST/10/2Frames 18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm - cm) (90-100)	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		10	15	20	25	30			35	40	45	50	55	SU	U	M	L		
	<u>NONE</u>																		

COMMENTS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/27/90

Segment ST / 10/EV53 / Subdivision A Date (mo / day / yr) 3/31/90
 Time (24 hr) 0900 - 1000 Biologist Lemon Wind 10 mph

- (A) Substrate type and % of segments:
 (1) Bedrock 90% (2) Boulder 10% (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 80% Moderate _____ 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/10/2Frames 18-X

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: 1 deer sitting, 1 eagle sitting, 1 eagle nest sitting.
 This Survey was made while skiffing by the shore since walking was not possible.
 Tide ranged from 0 to -1

Ecological Considerations: Nucella (gastropoda) were gathered in a crevice, locally dense.
 Below the fucus band was a 90% coverage of RHODOPHYTA.

OG Port Arthur
SEGMENT ST/ EV-53

SUBDIVISION All

DATE 03 / 31 / 90

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SGL
- ☐ 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

Coastal Distribution

CT/B

Beach Distribution

CT/P

Patchy Distribution

CT/S

Spashed Distribution

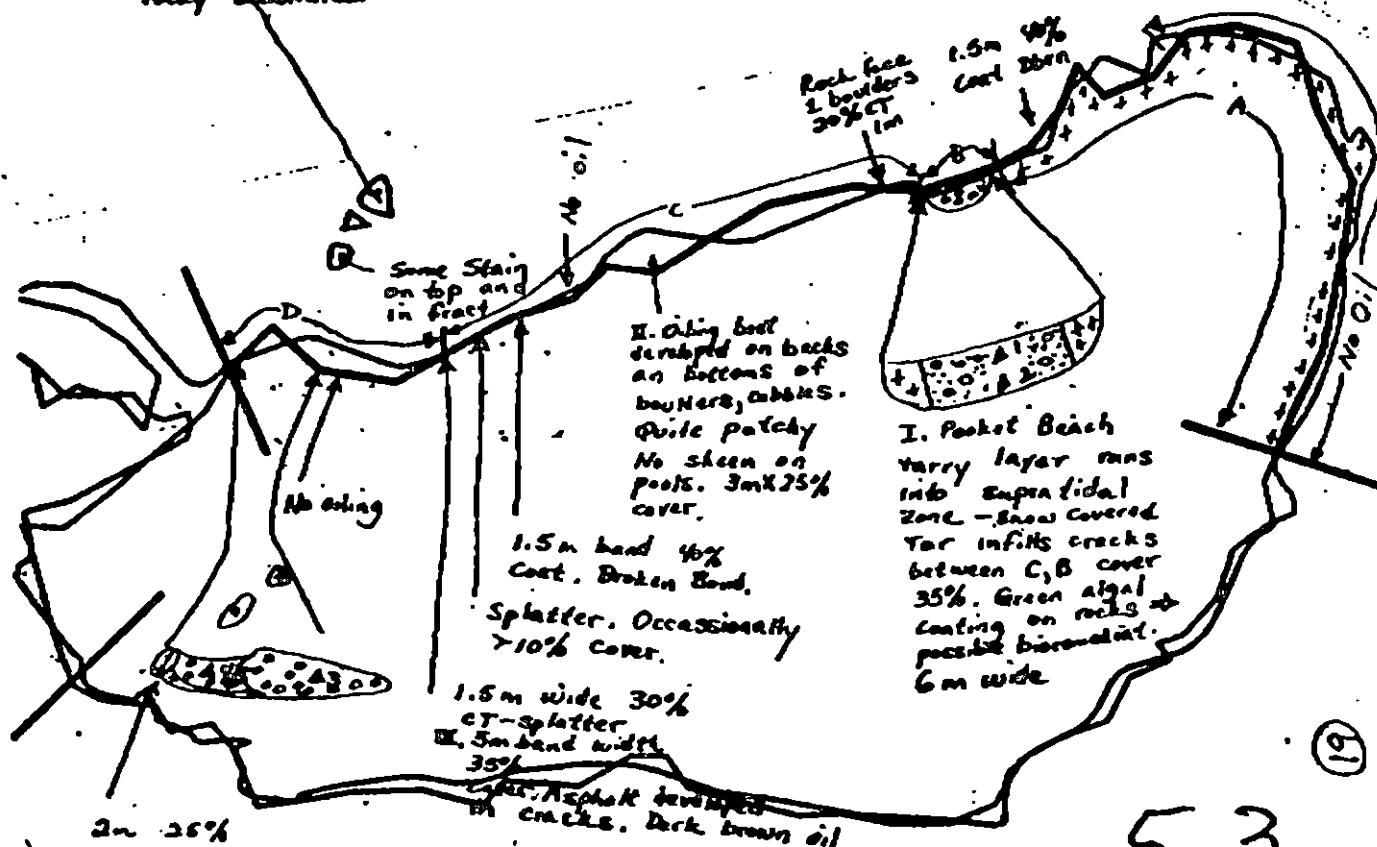
Oil Vegetation

1 $\rightarrow$

Photo location, direction, and number

Y. 30% Cover
10% Stain
10m x 10m - brown
rocky substrate

SKETCH MAP



EV-52

EV-53

EC Segment Length: 1346m

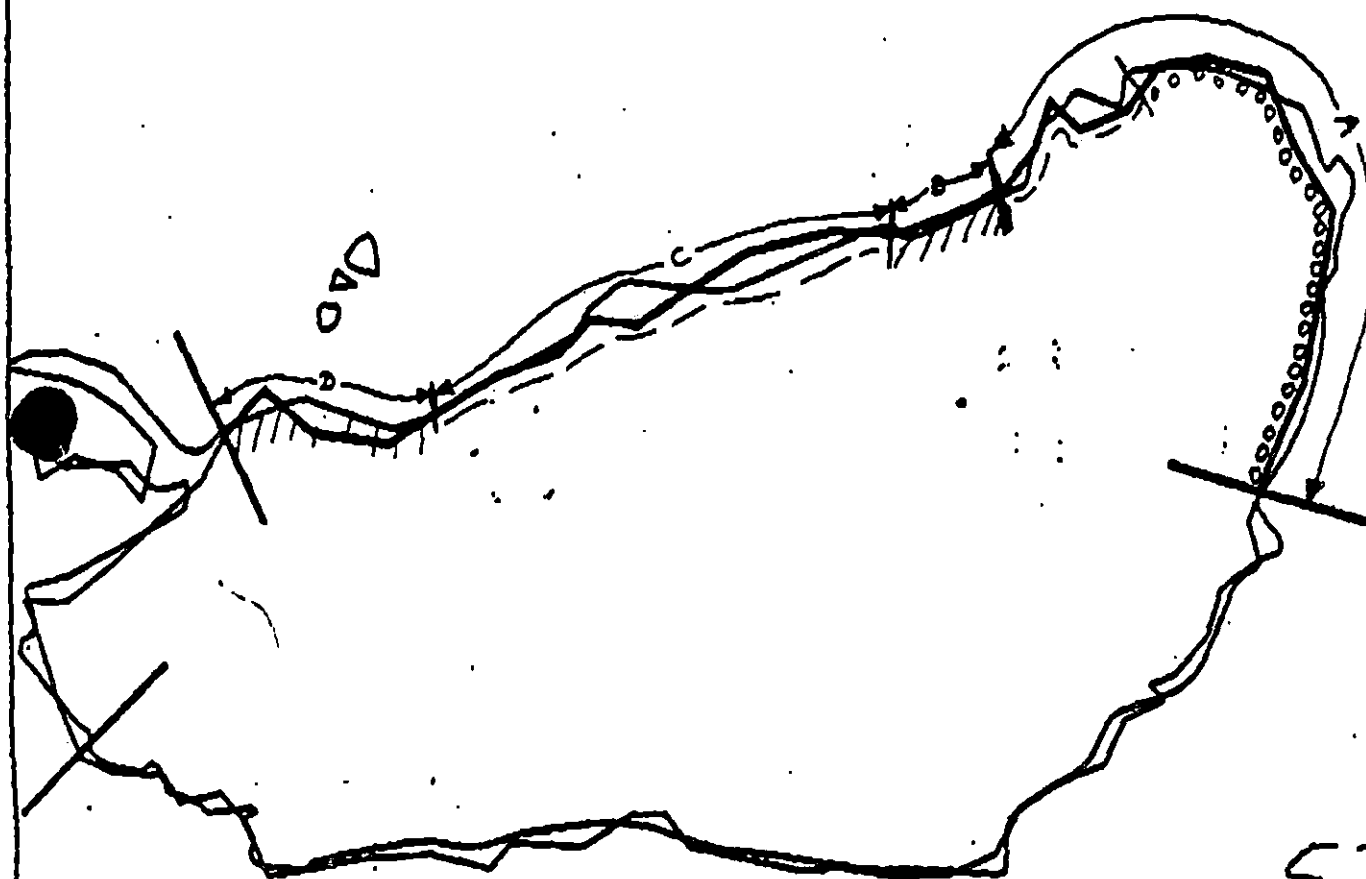
0 100 200 300
METERS

Oil Character Length (m) AP Asphalt PO 64m CV cover CT 144m BT stain MS moose PT oil TB oil FL NO 513m

REVISION 000000

Subseg.	inch	unadj.	normalized
A-No	3.2	480m	513m
Light	0.9	135m	144m
B Med.	0.4	60m	64m
C Light	2.8	420m	449m
D Mid.	1.1	165m	176m
	9.4	1260m	1346m

EV-



53

EV-52

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-53

ADEC Segment Length: 1346m



Map Key: PWS-283

Name: R. Marty

Date: 3/31/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-53 SUBDIVISION B (2 OF 4) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting
(7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance of uncoiled
substrate and biota during cleanup.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 95 m: Narrow 0 m: V. Light 0 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u>X</u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u>X</u> Removal	<u> </u> Other (see comments)

COMMENTS: Manually remove pavement from pocket beach and biore-
mediate. See sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90

ADEC JOHN BAUER John Bauer

EXXON ANDY TATE Andy Tate

NOAA Burt Wescott Burt Wescott

USCG G.A. REITER G.A. Reiter

FOSC: My L

DATE: 4-26-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-53 SUBDIVISION: B DATE 3/3/90

USCG

NAME LARRY FLETCHER SIGNATURE Larry R Fletcher☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

1. MANUAL REMOVE ASPHALT.
2. BIO-REMEDIALATE AREA WITH COATED OIL.

ADEC

NAME DAVID M. SAIE SIGNATURE David M Saie☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

- ① manual removal of sediments where grain contamination is evident. This may involve moving some large rocks for access.
- ② Boom and wash hi-angle bedrock to remove pockets of oil from interstices
- ③ Remove oiled debris

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Hatchery impacts listed in Prince William Sound Area Plan.
Manual removal of asphalt under cobble/boulders. Possible bioremediation after aeration.

SHORELINE OILING SUMMARY

REVISION NO. 02/89

OG R. M. M. M. USCG LARRY FLETCHER SEGMENT ST/ EV-53
 BIO B. L. L. L. LAND REP L. L. L. L. SUBDIVISION B (2 of 4)
 EXXON J. C. C. C. ADEC Dave Sale TIME 09:00 to 12:30
 TEAM NO.: 10 TIDE LEVEL: <+7 Ft to DATE 03/31/90
 EST. SUBDIVISION LENGTH: 64 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: to Counterclockwise
 SURFACE SEDIMENTS: R 0% B 30% C 60% P 10% G 0% S 0% M 0% V 0%
 SLOPE: Long 10% Hang 90% Vert 0% WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 64 m N 0 m VL 0 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	SU	U	M	L
ASPHALT PAVEMENT			X							X	X	X	
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													X

PAVEMENT: H F 8/135 sq. m by 5+ cmPATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	2		
Vegetation	2		
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE SL#BAGS 1

Photographs:

Roll No. ST/10/2Frames 19-20also ST/10/3 Frames 5, 6, 7

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER						OILED INTERVAL (Range - cm) (0.00-0.00)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE BEDIMENTS	
		WAT. OF	FOAM ON	LA. CL.	SLURRY OF	NO	UP		DOWN	10	20	30	40	50	60	SU	U	M	L				
1	5	X					0 - 5	X						X			X						G, C,
2	5	X					0 - 5	X					X				X						G, C
							.																
							.																
							.																
							.																

COMMENTS See map.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/27/90

Segment ST/10/EV53 Subdivision B Date (mo / day / yr) 3/31/90
 Time (24 hr) 000-1030 Biologist Leman

- (A) Substrate type and % of segments:
 (1) Bedrock 5 (2) Boulder 30 (3) Cobble 50 (4) Pebble 5 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 70% Moderate 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/10/2Frames 19-20

also Roll ST/10/3

Frames 5-7

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: walking survey,

Ecological Considerations: Fucus juv, mytilus juv. spirorbis (ANNELIDA) juv. (new settlement).
 Between Fucus zone and water was a band of 95% algae cover, made up of 60% RHODOPHYTA and 40% Ectocarpus CHLOROPHYTA. No Hedophyllum seen.
 PLATY HELMINTHES flatworms found. In the high zone there were otherwise bare boulders that were 100% covered with a green algal fuzz; not big enough to single out individual plants, but covering and colonizing extensively. Seletex about every 2 meters at the water line.

OG Marty
SEGMENT ST/ EV-53

SUBDIVISION ALL

DATE 03/31/90

CHECKLIST

- ☐ M Aest
- ☐ Approx. Scale
- ☐ Seg/Sub Endy
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HML/LWL
- ☐ SBL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit 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

Splashed Distribution

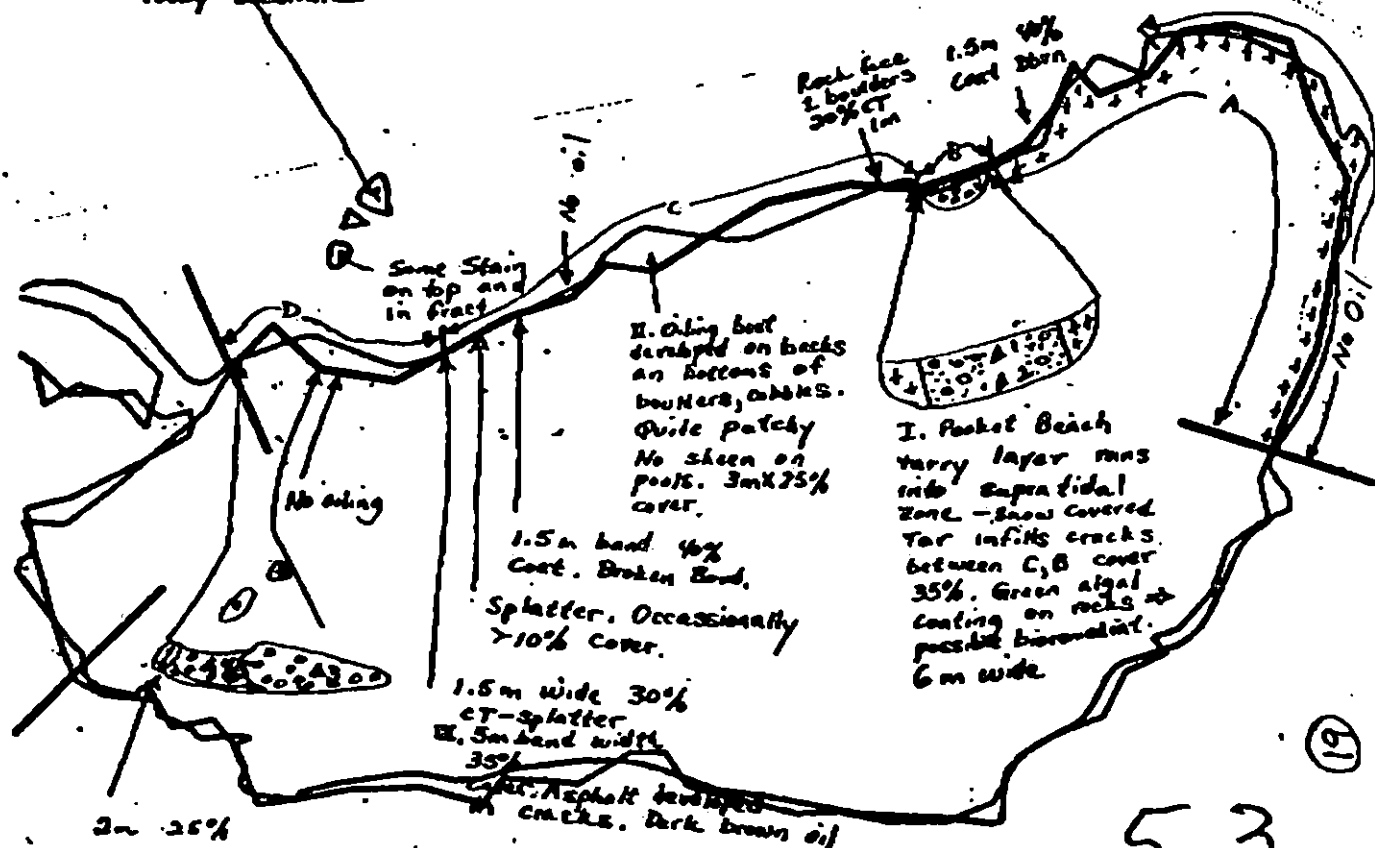
Oil Vegetation

1 $\odot$

Photo location, direction, and number

Y. 30% Cover
10% Substrate
10m x 10m - brown
rocky substrate

SKETCH MAP



EV-52

EV-53

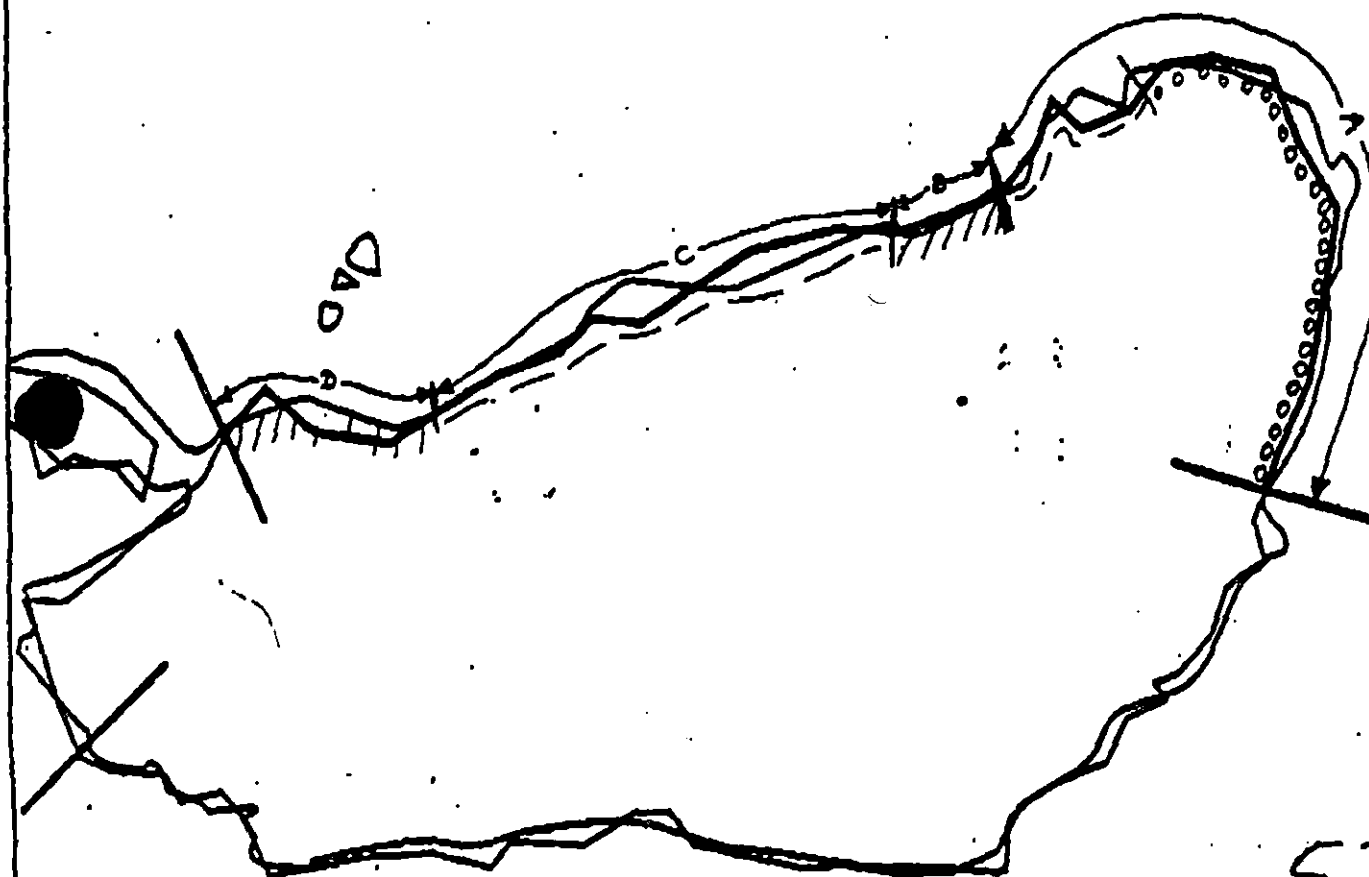
EC Segment Length: 1340m



Oil Character Length (m) MAP Asphalt PO CV CT 144m BT MS PT TB FL NO 513m

Subseg.	inch	undj.	normalized
A-No	3.2	480m	513m
Light	0.9	135m	144m
B Med.	0.4	60m	64m
C Light	2.8	420m	449m
D Med.	1.1	165m	176m
	9.4	1260m	1346m

EV-



53

EV-52

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-53

ABEC Segment Length: 1346m



Map Key: PWS-253

Name: R. Marty

Date: 3/31/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-53 SUBDIVISION B (2 of 4)

WORK WINDOW	
Tarmat Removal	OPEN
Bioremediation	WORK 6/1 TO 7/25

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	No constraint to tarmat removal; closed to bioremediation prior to 6/1.
1K	Purse Seine Hook-off	No constraint to tarmat removal; closed to bioremediation after 7/25.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates an active nest within 400m of Subdivision B work site, however, access to work site granted by USFWS (5/12/90 survey by Mike Lockhart.
7II	Subsistence: Deer Harvesting	No constraint to tarmat removal; closed to bioremediation after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/25. Restrict beach disturbance after 8/15. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG APPROVAL DATE

ADEC Roy Morris R. Morris
EXXON Andy Tera W. Kelly
NOAA _____
USCG _____

FOSC

Date

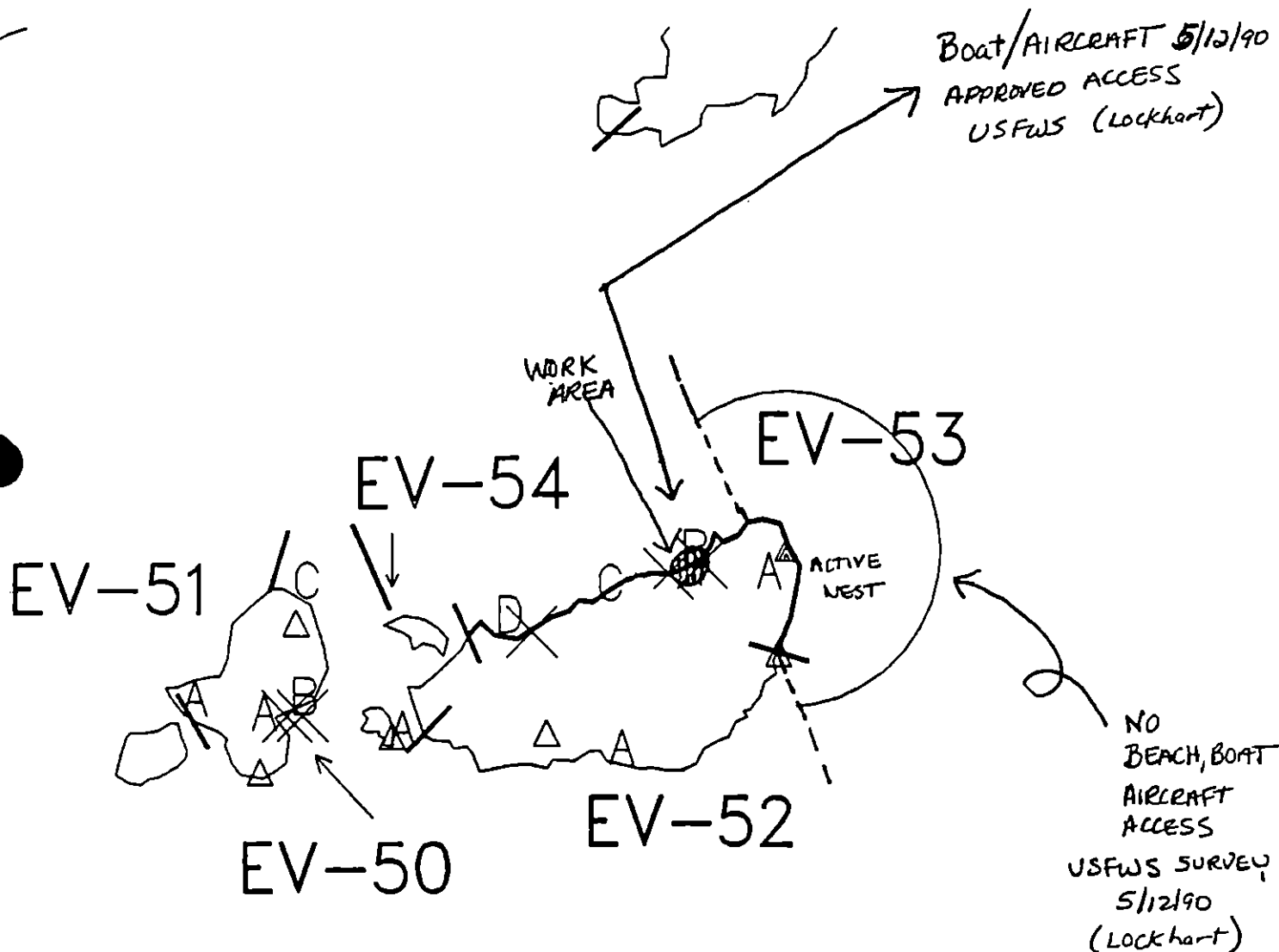
8 June 90

Prepared by

P. Phillips

Date

6/7/90



ER-20



Exxon Company, USA
Map Key: PWS-EV-53
June 04, 1990



ECOLOGY MAP
SEGMENT EV-53
SUBDIVISION B (2 of 4)
METERS



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

1:25,000 - 1978 (1:25,000)

SHORELINE EVALUATION

SEGMENT ST/ EV-53 SUBDIVISION C (3 OF 4) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting
(7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to
uncoiled biota and substrate.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 400 m: V.Light 0 m: No Oil 0 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: No treatment recommended due to only light isolated
splatter in upper intertidal zone. See Field Shoreline Comment
Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90
ADEC JOHN BAUER
EXXON ANDY TATE
NOAA Burl Wiggitt / Ralph Wiggitt
USCG G.A. Reiter

FOSC: DATE: 4-26-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-53 SUBDIVISION: C DATE 3/3/90

USCG

NAME LARRY FLETCHER SIGNATURE Larry R Fletcher☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADEC

NAME DAVID M. SALE SIGNATURE David M Sale☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADMR☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Hatchery impacts listed in PWS area plan

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG R. Maly USCG LARRY RETCHER SEGMENT ST/ EV-53
 BIO B. Lander LAND REP Leigh Carlson SUBDIVISION C (3 of 4)
 EXXON J. Czarnski ADEC Dave Sales TIME 10:30 to 12:30
 TEAM NO.: 10 TIDE LEVEL: <+7 ft to 11 DATE 03/31/90
 EST. SUBDIVISION LENGTH: 449 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: _____ to Counter-clockwise
 SURFACE SEDIMENTS: R 50 % B 25 % C 25 % P _____ % G _____ % S _____ % M _____ % V _____ %
 SLOPE: Long 49 % Hang 60 % Vert _____ % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W _____ m M _____ m N 449 m VL _____ m NO _____ m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	10	20	30	40	50	60	70	80	SU	U	M	L
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT			X				X		X			
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									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	7	
Vegetation	7	
Trash		1
Debris		

DEBRIS COLLECTED

☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. 5010/3Frames 8-13

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		WAT. CP	FOUL. OR	LEG. OL	CL. OF	NO		UP	LD	50	60	70	80	90	SU	U	M	L		
<u>NONE</u>																				

COMMENTS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST/10/EV53 Subdivision C Date (mo/day/yr) 3/31/90

Time (24 hr) 1030 - 1100 Biologist Lemon

(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 40 (3) Cobble 10 (4) Pebble (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 80% Moderate 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/10/3

Frames 8-13

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: There are no new environmental constraints beyond those established.

Ecological Considerations: Between Fucus zone and water line was a band of 90% algae cover split between RHODOPHYTA and CHLOROPHYTA. Frame 9 of roll 3 shows this. In the high zone there were otherwise bare boulders that were 70% covered with a green algae fuzz, unidentifiable. This plant would colonize oiled rock right up to the oil, but not on the oil.

DATE 03 / 31 / 90

CHECKLIST

- ☐ **SI Area**
- ☐ **Approx. Sate**
- ☐ **Seg/Sub Entry**
- ☐ **Off Dist.**
- ☐ **Width**
- ☐ **Length**
- ☐ **% Cover**
- ☐ **Substrate Character**
- ☐ **Est. HRA/LVL**
- ☐ **SSL**
- ☐ **Profile Location(s)**
- ☐ **Profile(s)**
- ☐ **Pit Location(s)**
- ☐ **Photo Location(s)**

LEGEND

1 Δ
Pt - No Subsurface Oil

2A
 PN - Substance C

CT/C
Control Distribution

CT/8
Baker Distribution

[CT/P]
Patchy Distribution

CT/S
Special Distribution

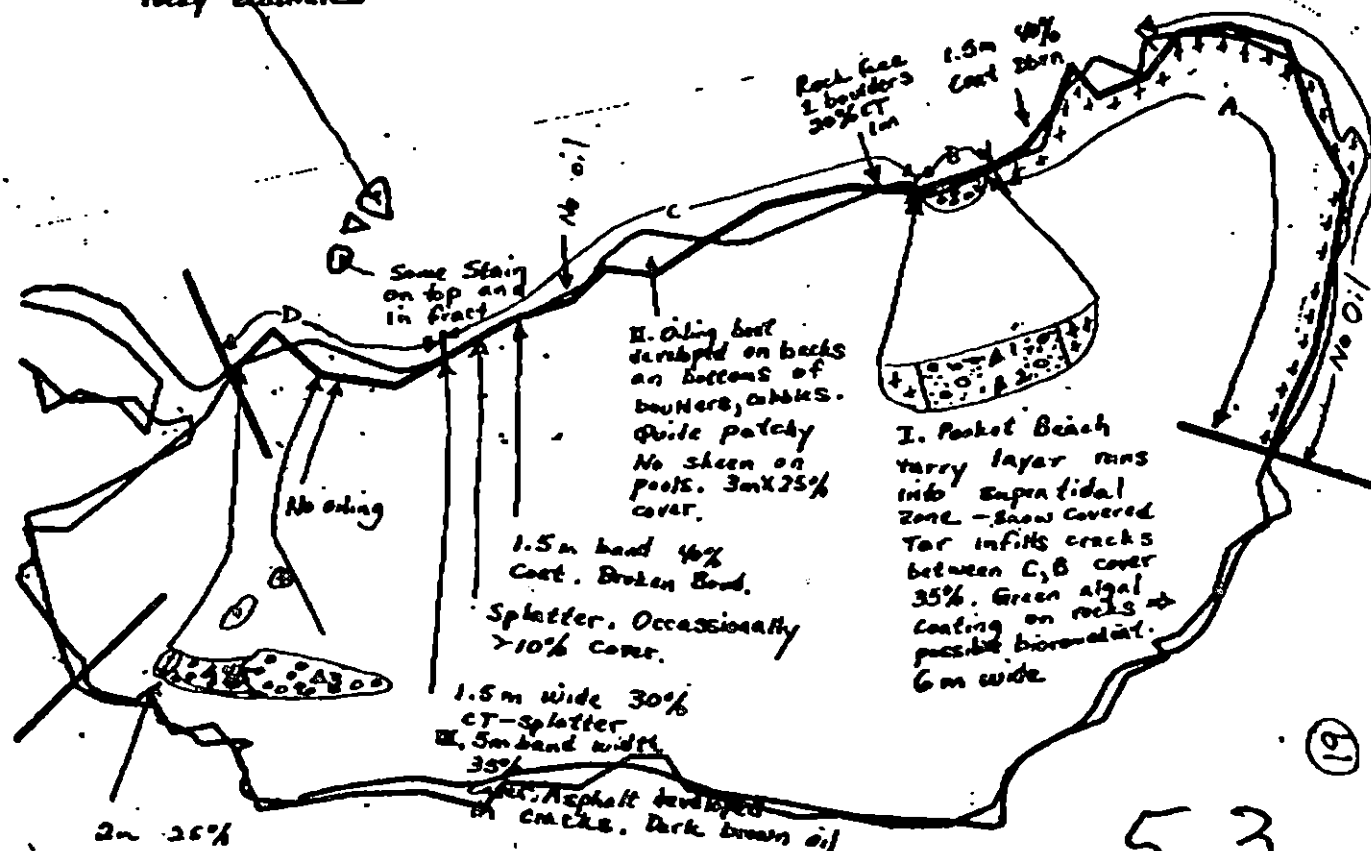
Old Vegetation

1 

Photo location, direction,
and number

Y. 30% Cover
10% Stem
10m x 10m - broad
rocky substrate

SKETCH MAP



~~EV-52~~

EV-53

EC Segment Length: 1346m

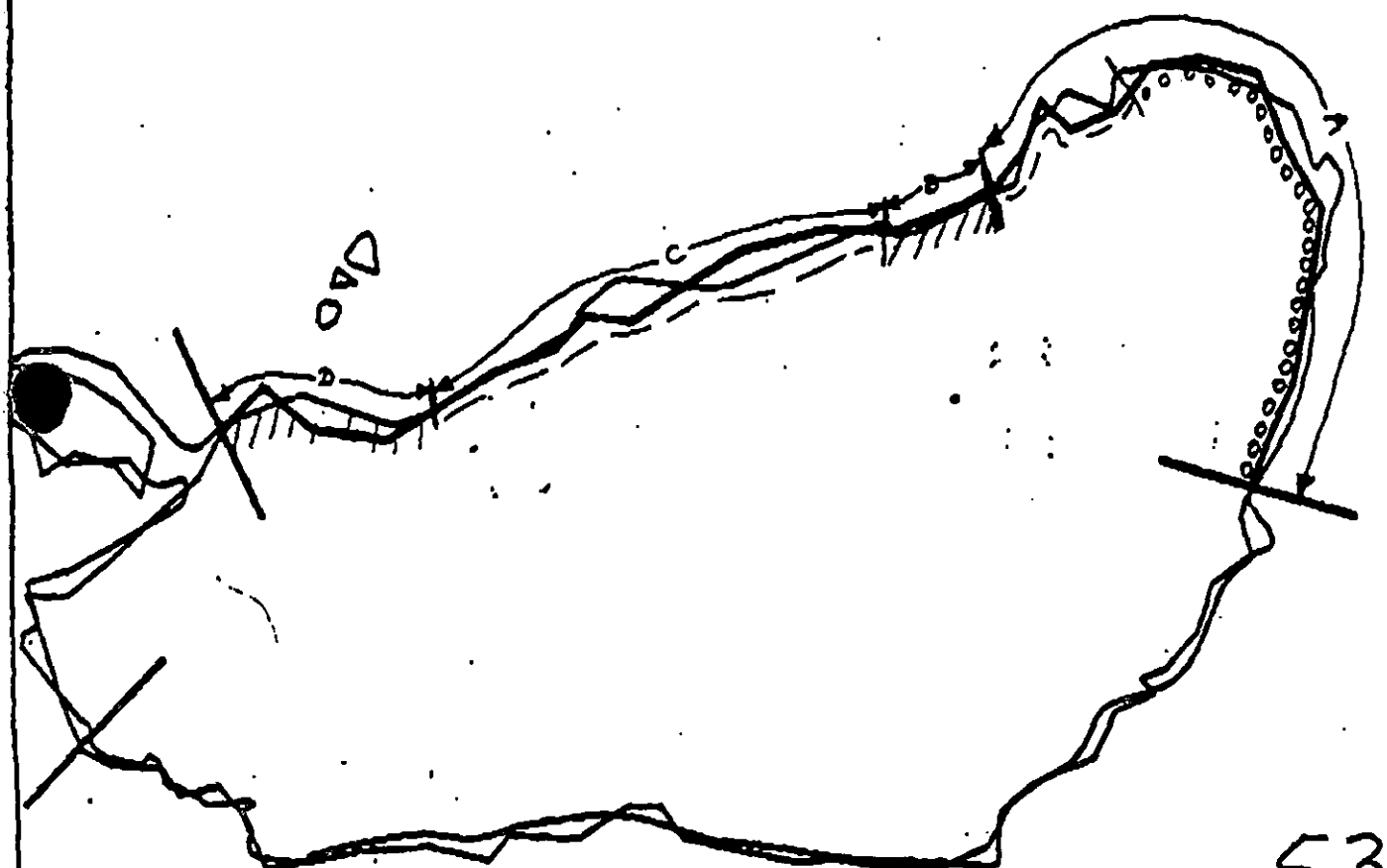


Oil Character Length (m) ^{Asph K} AP ^{pol} PO ^{cover} CV ^{cont} CT 144m ^{stain} ST ^{mousse} MS PT TD FL NO 513m

1000

Subseg.	inch	unadj.	normalized
A-No	3.2	480m	513m
Light	0.9	135m	144m
B Med.	0.4	60m	64m
C Light	2.8	420m	449m
D Mid.	1.1	165m	176m
	9.4	1260m	1346m

EV-



53

EV-52

XXXX Wide

EV-53

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ABEC Segment Length: 1346m



Map Key: PWS-283

Name: R. Marty

Date: 3/31/90

Data Collected:

SHORELINE EVALUATION

SEGMENT ST/ EV-53 SUBDIVISION D (4 OF 4) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting (7II)
8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
oiled biota and substrate.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 202 m: Narrow 0 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 12 +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> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u>X</u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> <u>X</u> Removal	<u> </u> Other (see comments)

COMMENTS: Manually remove oiled debris and tarmats.

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90.
ADEC JOHN BAUER John Bauer
EXXON ANDY TBL Andy TBL FOSC: DATE: 4-26-90
NOAA Burl Wesscott Burl Wesscott
USCG G.A. REITER G.A. Reiter

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EK-53 SUBDIVISION: D DATE 3/31/90USCGNAME LARRY FLETCHER SIGNATURE Larry R Fletcher☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

1. MANUAL REMOVE ASPHALT.

ADECNAME DAVID M. SALE SIGNATURE David M Sale☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

- ① manual removal of sediments where gross contamination is evident
- ② Remove oiled debris
- ③ manually scrape out a wash cover from inside crevices & under ^{oiled} boulders

LAND MANAGERNAME Leigh Carlson SIGNATURE Leigh Carlson ADNR☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Hatchery impacts listed in PWS area plan.

Manual removal of asphalt. Possible bioremediation in smaller substrates.

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG R. M. M. M. USCG LARRY FLETCHER SEGMENT ST/ EV-5253
 BIO B. L. M. M. LAND REP Lang Carson SUBDIVISION D
 EXXON J. C. M. M. ADEO Dave Sale TIME 10:30 to 12:00
 TEAM NO.: 10 TIDE LEVEL: to 11:00 DATE 03/31/90
 EST. SUBDIVISION LENGTH: 176 m ☐ Sun ☐ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: to Counterclockwise
 SURFACE SEDIMENTS: R 25 % B 25 % C 40 % P 15 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 50 % Hang 50 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 176 m N 0 m VL 0 m NO 0 m

SURFACE OIL

$$\frac{1}{4} \times 176 \text{ m} \times 35\% =$$

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	55	60	65	SU	U	M	L
ASPHALT PAVEMENT			X					X					X	X		
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F 8 240 sq. m by 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 10/3

Frames 14-16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm - cm) (N/A - N/A)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		SLT. OP	SLT. OR	SLT. OL	SLT. OF	NO		UP	DOWN	10	15	20	25	30	35	40	45	SU	U	M	L		
3	6					X	NONE		X											X			Granules
4	1					X	.												X				G
5	12	X					0-12	X											X				C, G, S
							.																
							.																
							.																

COMMENTS See map.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST/10/53 Subdivision D Date (mo/day/yr) 3/31/90

Time (24 hr) 1100-1130 Biologist Lemon

(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 40 (3) Cobble 10 (4) Pebble _____ (5) Sand _____ (6) Silt _____

(B) Overall % cover of biota (% of segment): Dense 80% Moderate _____ 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/10/3

Frames 14-16

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:

The ³ rocks just offshore were found to have Posidonia (CHLOROPHYTA) at 100% coverage when patches occurred; total coverage would be more like 50%. These rocks also had a band of stipe only.
Ecological Considerations: Fucus (forms 15 rolls) with complete plants both above and below.
2 gulls and 1 cormorant sighted.

OG B. Marty
SEGMENT ST/ EV-53

SUBDIVISION AII

DATE 03 / 31 / 90

CHECKLIST

- ☐ H Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndy
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/W/L
- ☐ 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

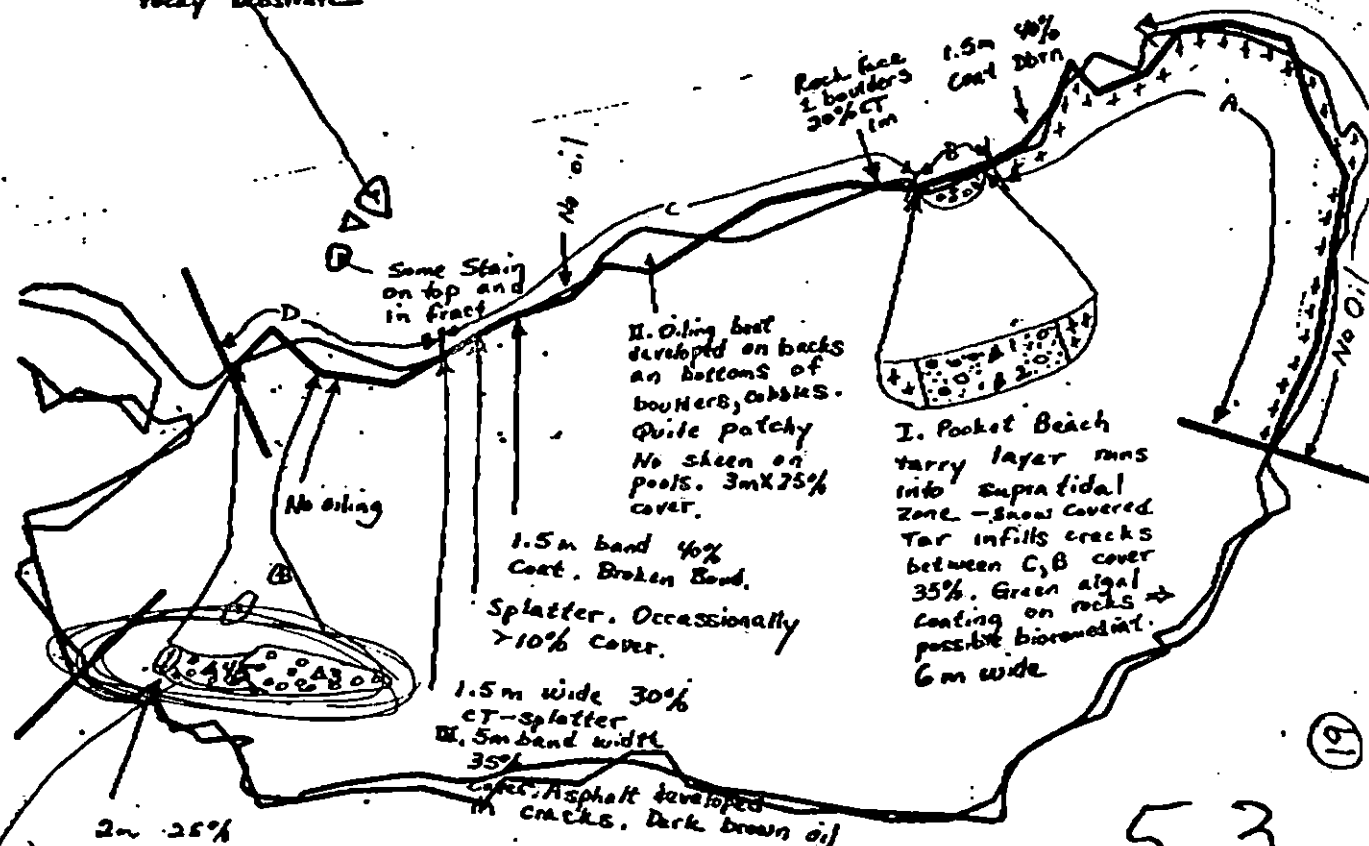
Splashed Distribution

Oiled Vegetation

1 $\odot$

Photo location, direction, and number

Y. 30% Cover
10% Stain
10m x 10m - brown
rocky substrate



Primary Residue - Green Debris & TRUST

53
~~EV-52~~

EV-53

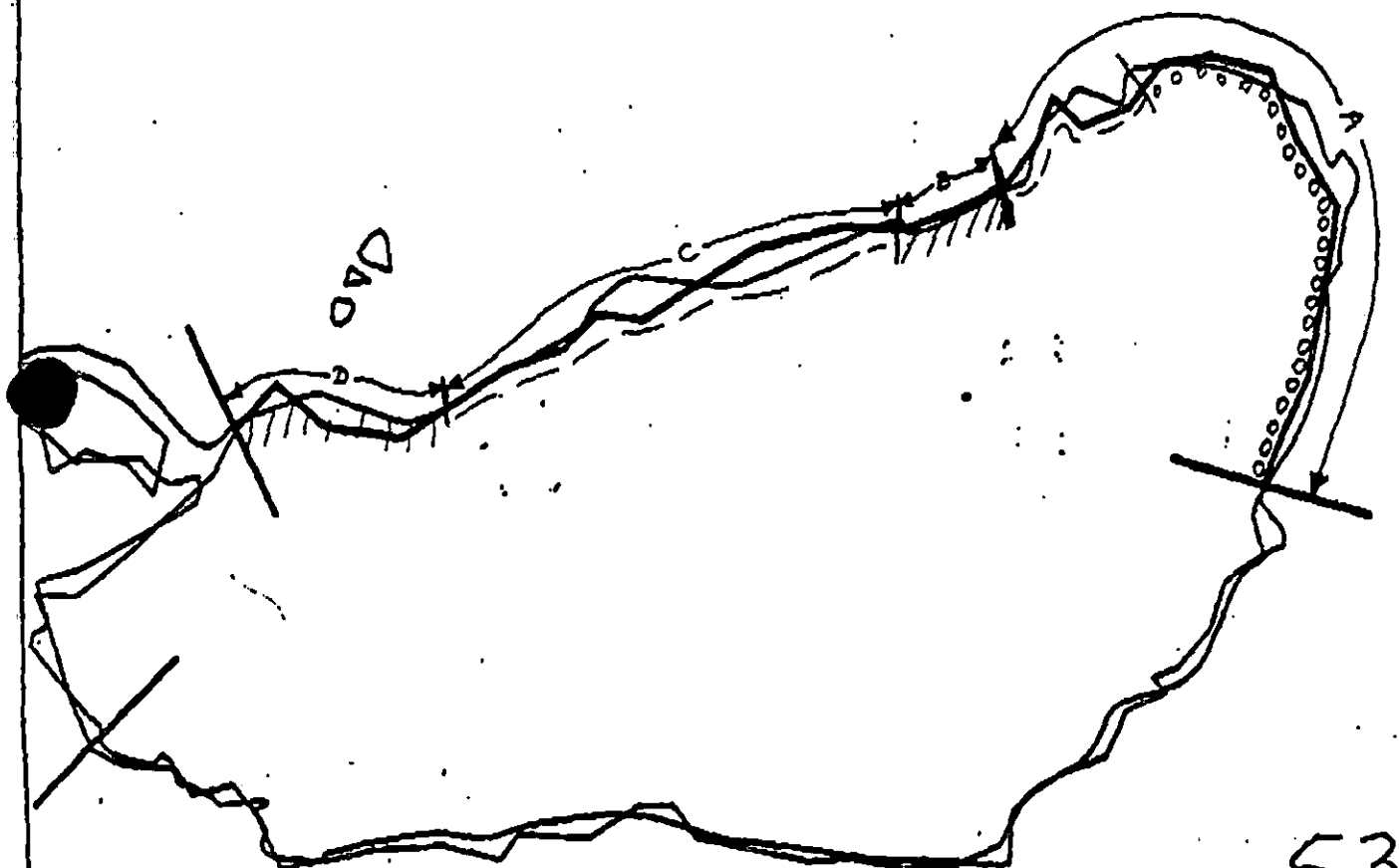
EC Segment Length: 1346m



Oil Character Length (m) AP Asphalt PO pool CV cover CT 144m ST stain MS moose PT PT TB TB FL FL NO 513m

Subseg.	inch	undj.	normalized
A-No	3.2	480m	513m
Light	0.9	135m	144m
B Med.	0.4	60m	64m
C Light	2.8	420m	449m
D Med.	1.1	165m	176m
	9.4	1260m	1346m

EV-



53

EV-52

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-53

ABEC Segment Length: 1346m



Map Key: PWS-253

Name: R. Marty

Date: 3/31/90

Note: PWS-253

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-53 SUBDIVISION D (4 of 4)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	No constraint to manual pickup and tarmat removal.
1K	Purse Seine Hook-off	No constraint to manual pickup and tarmat removal.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/25. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

TAG APPROVAL DATE 6/04/90
ADEC Ray Morris
EXXON AWIX TEAL
NOAA Joseph Teal
USCG SA. J. ELLER

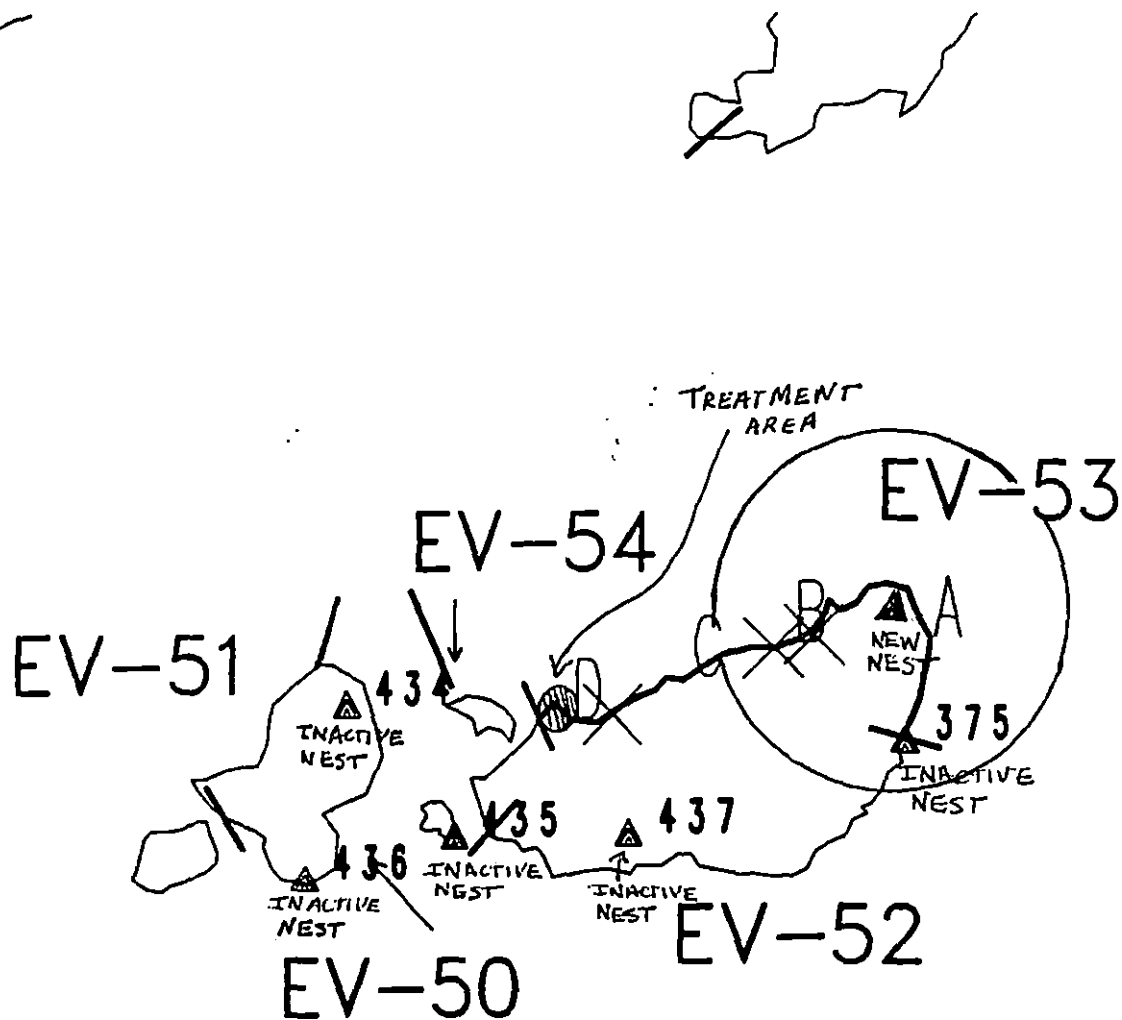
FOSC

DATE

Prepared By:

Date

* Incorporates USFWS
Eagle Nest Survey
Map 6/1/90.



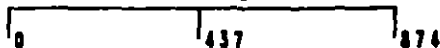
FR-20



Exxon Company, USA
Map Key: PWS-EV-53
May 11, 1990

ECOLOGY MAP^{6/3/90}
SEGMENT EV-53
SUBDIVISION D (4-014)

METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1434 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-54 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1F Sawmill Bay Hatchery release (4/15 to 6/1)
6V Recreation: Anchorages (6/1 to 9/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
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. Hoffman DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 329 m: Narrow 0 m: V.Light 96 m: No Oil 262 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>X</u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u>X</u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of asphalt and tar patties, 2) manual pick up of oiled debris, 3) bioremediation of areas shown on attached sketch map. Work should be conducted after 6/1 based on hatchery release constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/24/90
ADEC ART WEINER
EXXON ROY TSE
NOAA Joseph Talbot
USCG M. J. HALL

FOSC: W L DATE: 5-3-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
1E Main Bay Hatchery release (4/20 to 5/10)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
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 (5/15 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.
- 5R Seabird colony (5/1 to 9/1)
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 (5/1 to 9/30)
7HH Finfish harvesting
7I Deer harvesting (8/15 to 2/28)
7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV-54 SUBDIVISION: _____ DATE 3/31/90

USCG

NAME LARRY FLETCHER SIGNATURE Larry R Fletcher☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

1. MANUALLY REMOVE OILED DEBRIS.
2. MANUALLY REMOVE TAR PATCHES.
3. MANUAL REMOVE ASPHALT LAYER.

ADEC

NAME DAVID M. SALE SIGNATURE David M Sale☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

- ① remove manually surface asphalt layer
- ② aerate + bioremediate where subsurface is more contaminated.
- ③ MANUAL REMOVAL OF OILED BEACH SEDIMENTS IN TOMBOLO (TIDAL SPIT OF LAND)

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Hatchery impacts listed in PWS area plan.

Manual removal of asphalt and oiled drift material:
possible bioremediation in smaller substrates

SHORELINE OILING SUMMARY

REVISION NO. 02/20/90

OG R. M. M. M. USCG LARRY FLETCHER SEGMENT ST/ EV-54
 BIO B. L. M. M. LAND REP L. L. M. M. SUBDIVISION A
 EXXON J. G. M. M. ADEC D. M. M. TIME 10:00 to 13:15
 TEAM NO.: 10 TIDE LEVEL: +2 to +7 DATE 23/1/90
 EST. SUBDIVISION LENGTH: 1123 m ☐ Sun ☐ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to SE
 SURFACE SEDIMENTS: R 50 % B 30 % C 15 % P 5 % G — % S — % M — % V — %
 SLOPE: Long 20 % Hang 30 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M 361 m N — m VL 55 m NO 607 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	N	S	E	W	1	2	3	4	5	6	7	8	SW	SE	NE	NW
ASPHALT PAVEMENT		X				X							X	X		
POOLED																
COVER																
COAT			X			X							X			
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F 8 260 sq. m by 5 cm

PATTIES / TARBALLS 1 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			X
Debris			

DEBRIS COLLECTED
☒ YES ☐ NO
 Pre Exxon Valdez "tar"
 TYPE valdez tar
 #BAGS 1

Photographs:

Roll No. ST/10/3

Frames 17-34 out 36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm) (0-100)	BELOW	OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		SP. OF	AS. OF	LT. OF	NO				1	2	3	4	5	6	7	8	SW	SE	NE	NW		
1	25				X		.										X				Y	Feet
2	9	X					0.4	X										X			Y	Gravelly peat
3	5	X					0.2	X										X			Y	Same
							.															
							.															
							.															

COMMENTS

Note: there are two generations of tar in this segment.
 The older generation has moss growing on the surface and is quite hard $\Rightarrow$ pre Exxon Valdez. The Exxon tar remains soft.

* oil ≤ 5 mm does not constitute subsurface oil.

Team 10
EV54A

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/28/88

Segment ST / ~~10/3~~ Subdivision A Date (mo / day / yr) 3 / 31 / 90Time (24 hr) 1430 to 1515 Biologist Leman(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 10 (3) Cobble 10 (4) Pebble 40 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense Moderate Low 15%

(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 (S)

Photographs: ST/10/3
Roll No. Team 10 roll 3Frames 31-34 and 36

BARNACLES

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

GASTROPODS

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

lower zones observed from skiff
and wading and appeared to be sparse just like higher zones.
Tide rose from 6' to 7' during this survey.

Ecological Considerations:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Team 10 A
Segment ST/EV548 Subdivision A cont'd Date (mo / day / yr) 3 - 31 - 90
Time (24 hr) 1300 - 1430 Biologist Lemon

- (A) Substrate type and % of segments:
(1) Bedrock 85 (2) Boulder 5 (3) Cobble 5 (4) Pebble 5 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense Moderate 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: ST/10/3
Roll No. 3

Frames 17-30

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments: 1 waterfowl, 1 beachworm, 1 otter skeleton, 1 skate egg case. S.W. corner of peninsula had what appeared an otter haulout. A dump site is on the S.E. corner of the peninsula. Some Tar balls appeared to be pre '89, one was photographed and collected; another had terrestrial moss growing on the tar.

Ecological Considerations: The Survey started with a +3' and rising Tide; ending w/ a +6' tide. The lower zones could not be directly observed by walking but were observed from the skiff and shore down through the very clear water. A re-survey would add little new information. Environmental sensitivities need no change. The west facing bedrock is moderately rich in life relative to the greater part of EV548. A photos were taken of oiled barnacles & mussels roll 3 Frames 19 and 20. The otter haulout might be a new sensitivity to consider.

OG Rich

SEGMENT ST/ EV-54

SUBDIVISION A (as previously designated)

DATE 03/31/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Obs.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LML
- ☐ 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
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

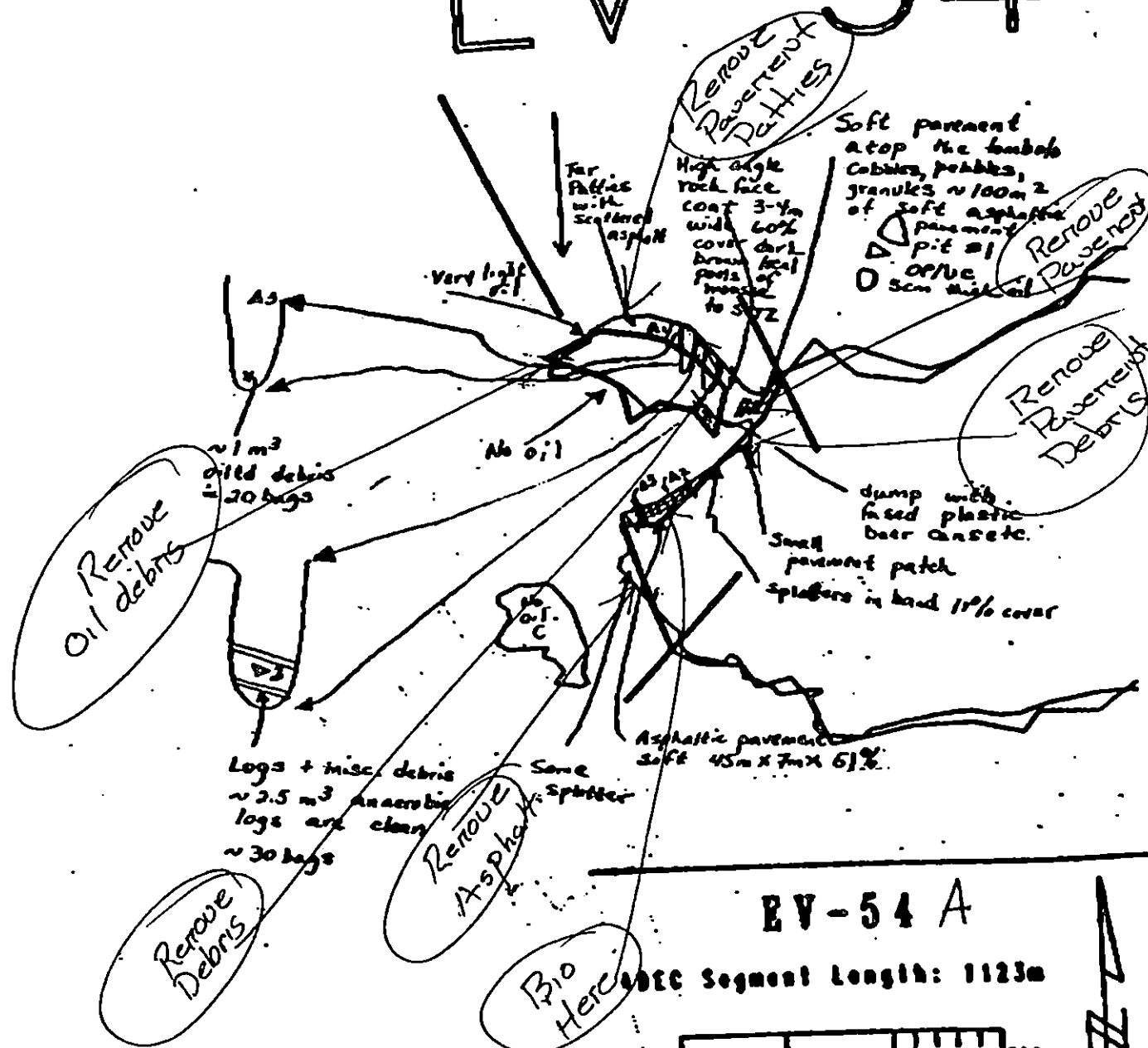
CT/S
Splashed Distribution

Oil Vegetation

1 ●●
Photo location, direction,
and number

SKETCH MAP

EV-54



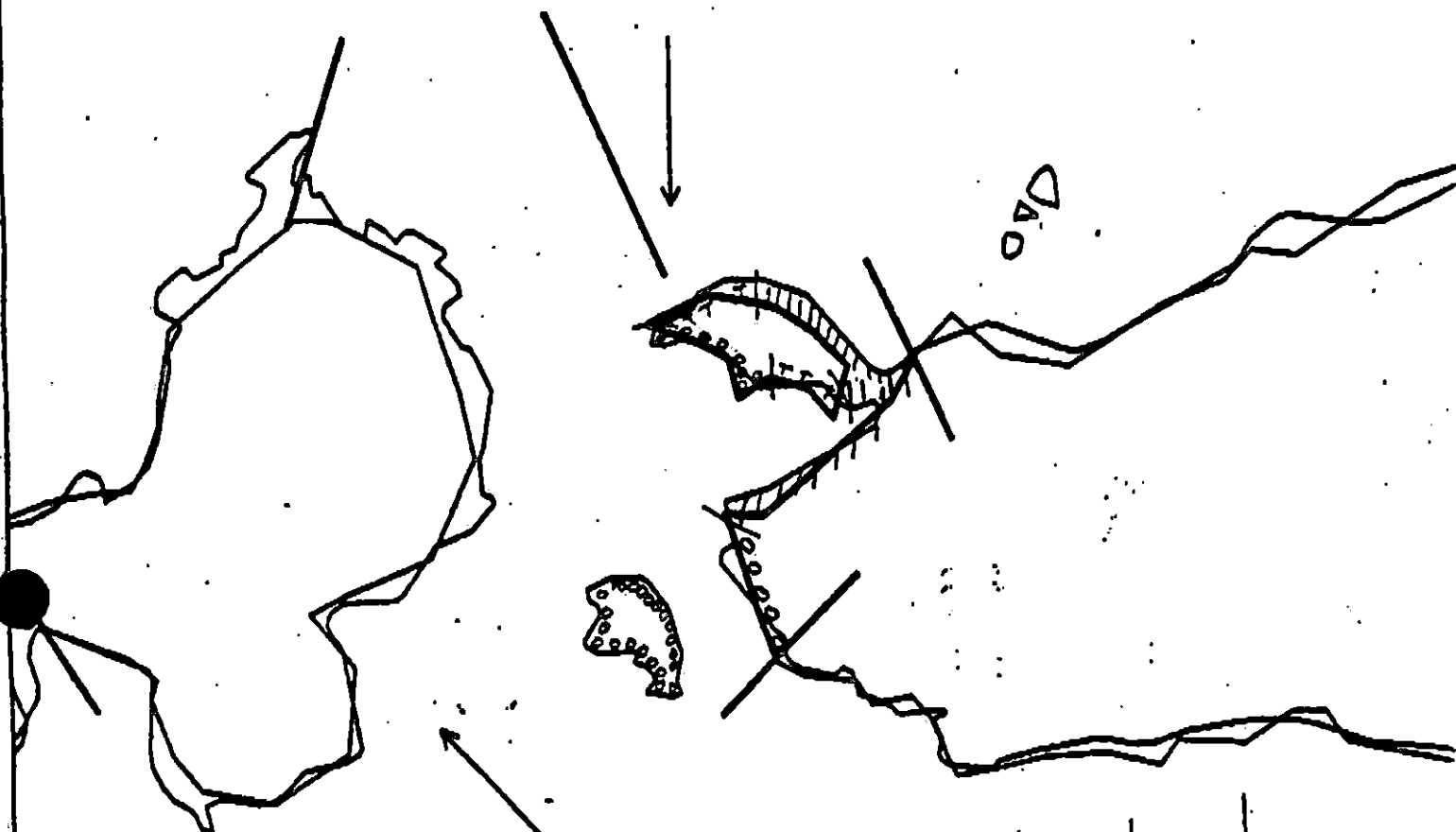
EV-54 A

DEC Segment Length: 1123m



Oil Character Length (m): AP 361 PO CV CT 155 ST MS PT TB FL NO Some

EV-54



EV-50

No	37"	555m	607m
Mid.	2.2"	330m	361m
V. L.	0.95"	142m	155m
		1027m	1123

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

EV-54 A

ADEC Segment Length: 1123m



Map Key: PWS-254

Name: _____

Date: _____

Date Entered: _____

ASAP

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT EV-54 SUBDIVISION A DATED 7-31-90

MODIFICATION CLASS I CLASS II ✓ CLASS III

1. REASON FOR MODIFICATION

Found Mossy area in small bedrock pocket area that needs to be picked up.

2. SUGGESTED ADJUSTMENT TO WORK PLAN

Remove mossy areas indicated on sketch Map + spread custom blend.

3. TIMING ISSUES

ADEC [Signature]

EXXON [Signature]

USCG [Signature]

LAND MANAGER [Signature] (If field rep is on scene)

ASAP

SEGMENT AS1 EV-54 SUBDIVISION: A SITE: 1 DATE 7/31/90SCGNAME MSTC MICHAEL D. BROWN SIGNATURE Michael D. Brown☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: IF SEGMENT IS CUSTOM BLEND BIOD 1990ADECNAME John Hayes SIGNATURE John Hayes☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: Low PriorityTo assess effectiveness of bio. treatment recommended on work plan modification sent in.LAND MANAGERNAME DOUGLAS GIBSON SIGNATURE Douglas Gibson☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: if segment receives minor amount of manual cleanup and bioremediation in 1990EXXONNAME Martinez Nig SIGNATURE Nigel G. Martinez☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: Some light manual pick up + bio should remove the remaining oil

SEGMENT AS EV-54 SUBDIVISION: A SITE: 2 DATE 7/31/90**USCG**NAME MSTC Michael O. Brown SIGNATURE Michael O. Brown☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

IF SEGMENT HAS CUSTOM BLEND BIO COMPLETED 1990**ADEC**NAME John Hayes SIGNATURE John Hayes☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Low PriorityTo assess effectiveness of bio. treatment recommended on work plan modification sent in.**LAND MANAGER**NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

if segment receives minor amount of manual cleanup and bioremediation in 1990**EXXON**NAME Martinez, M.J. SIGNATURE Martinez, M.J.☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Light manual work + bio should remove remaining oil.

SEGMENT AS EV-54 SUBDIVISION: A SITE: 3 DATE 7/31/90**ISCG**NAME MSPR Michael D. BrownSIGNATURE Michael D. Brown☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

IF SEGMENT IS CUSTOM BLEND BIOD FOR 1990**ADEC**NAME John HayesSIGNATURE John Hayes☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Low PriorityTo assess effectiveness of bio. treatment recommended on work plan modification sent in.**LAND MANAGER**NAME DOUGLAS GIBSONSIGNATURE Douglas Gibson☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

if segment receives minor amount of manual cleanup and bioremediation in 1990**EXXON**NAME Martinez Nil.SIGNATURE Richard J. Martinez☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Light manual work + bio should remove remaining oil.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS EV-54 SUBDIVISION: A SITE: 4 DATE 7/31/90

JSCG

NAME MTC Michael D. Brown SIGNATURE Michael D. Brown

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON: IF SEGMENT IS CUSTOM BLEND BLD IN 1990

ADEC

NAME John Hayer SIGNATURE John Hayer

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON: Low Priority

To assess effectiveness of bio. treatment recommended on work plan modification sent in.

LAND MANAGER

NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

if segment receives minor amount of manual cleanup and bioremediation in 1990

EXXON

NAME Martinez M.J. SIGNATURE Martinez M.J.

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Light manual work + bio should remove remaining oil.

ASAP SHORELINE OILING SUMMARY

PAGE 1 OF 3

SHIP NO ONE CREW MARTINEZ DISTRICT EL PASO
 OG Reimer USCG BROWN SUBDIVISION A
 ADEC HAYES LAND REP GIBSON TOTAL NO. SITES 4
 DATE 7/31/90 TIME 8:55 to 10:23 TIDE LEVEL 6 to 6.5
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 365 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OIL CATEGORY LENGTH: W 0 m M 230 m N 75 m VL 0 m NO 60 m US 0 m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT			X			X		
S.O.R.			I/X			I/X		
POOLED								
COVER		X	X			X		
COAT		X				X		
STAIN								
MOUSSE				I		I		
PATTIES/T.B.								
FILM								
NO OIL					X		X	X
EST. SITE LENGTH					75m			

SITE 2

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT				F		F		
S.O.R.			I			I		
POOLED								
COVER		X				X		
COAT			X			X		
STAIN								
MOUSSE			I			I		
PATTIES/T.B.								
FILM								
NO OIL					X		X	X
EST. SITE LENGTH					80m			

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.			X				X	
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X	X		X
EST. SITE LENGTH					80m			

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (CM-CM)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
1	1	8		H			0-5	Y		H			B-PG
2	1	4		X			0-4	Y			X		BC-PG-Rock
	2	10		M			0-8	Y		M			C-PG
3	1	15				X	.				X		PC-GSP
4	1	10		X			0-3	Y		X			C-PG
							.						
							.						
							.						
							.						

Photographs:

Roll No. ASAF-01-61

Frames 1-3

heaviest oiled area

COMMENTS The oil character has not changed much since the Spring Survey - Some of the oiling was reclassified to SOR from AP. There appears to have been little to no manual work done on this segment, Some of the pockets on Site 1-2,4 would be applicable to Bio.

REVISION NO. 7/27/90

ASAP SHORELINE OILING SUMMARY
 SEGMENT AS/ EV-54 SUBDIVISION A

SURFACE OIL (CONTINUED)

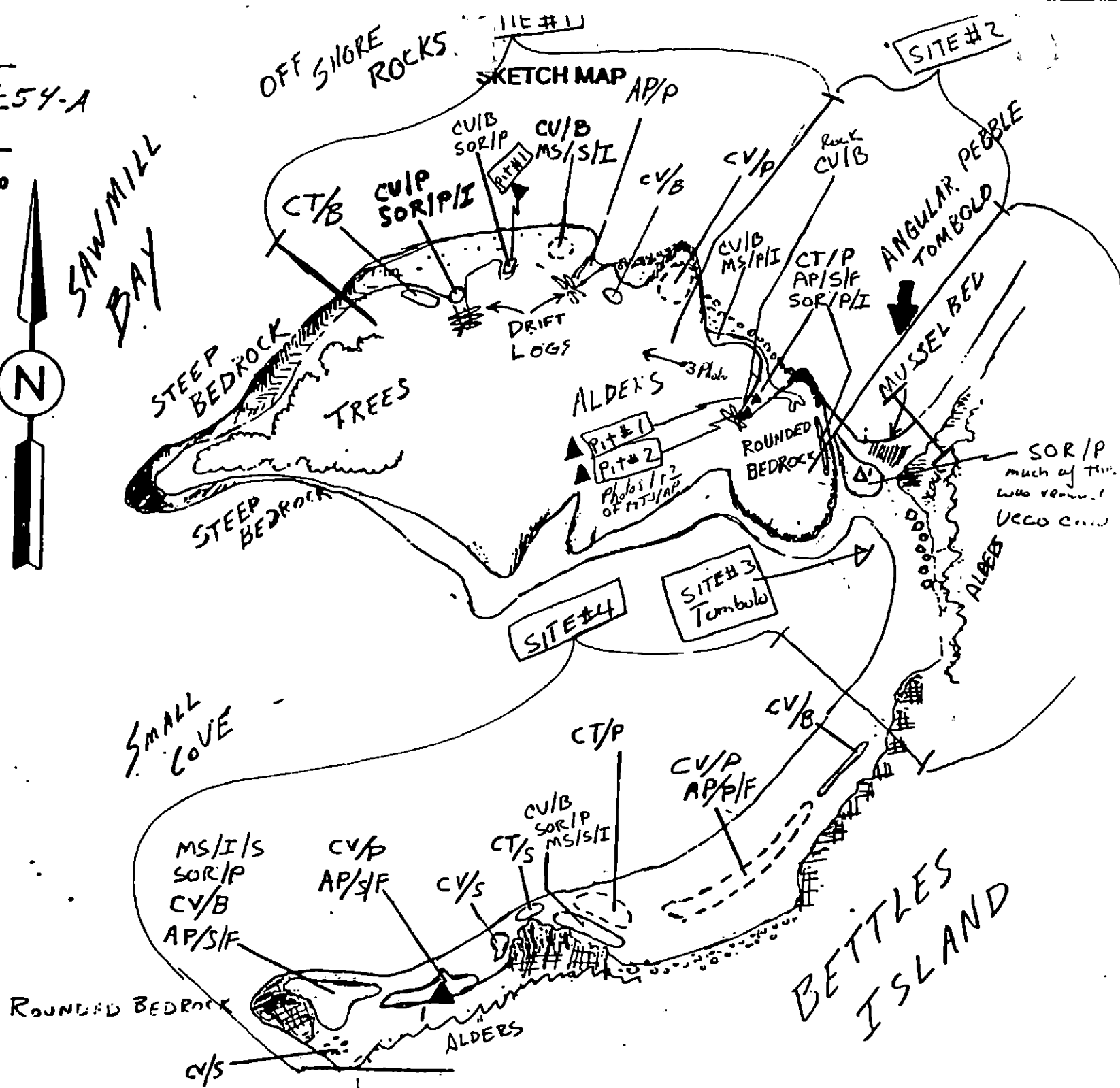
SITE 4										SITE										SITE										
CHARACTER	DISTRIBUTION				OILED ZONES						C	B	P	S	OILED ZONES				C	B	P	S	OILED ZONES							
	/C	/B	/P	/S	SU	UI	MI	LI	SU	UI					MI	LI	SU	UI					MI	LI						
ASPHALT			F	F	F																									
S.O.R.			X		X																									
POOLED																														
COVER		X	X	X	X																									
COAT			X	X	X	X																								
STAIN																														
MOUSSE				I	I																									
PATTIES/T.B.																														
FILM																														
NO OIL					X				X																					
EST. SITE LENGTH					130m																									

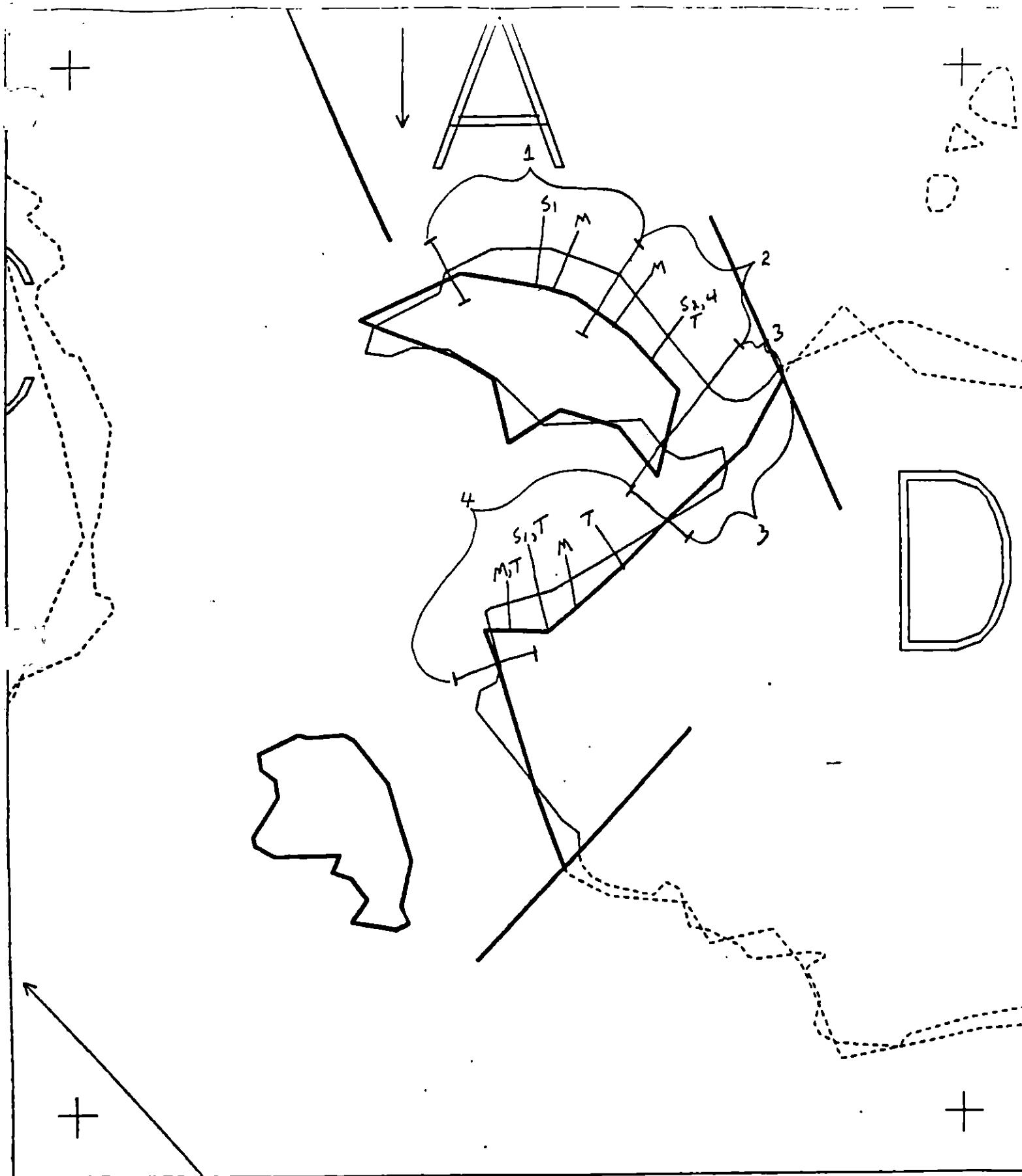
SUBSURFACE OIL (CONTINUED)

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
							.						
							.						
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							.						
							.						

COMMENTS

*Reviewed
F.W.*





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

EV-54 A
 ADEC Subsegment Length: 1108m
 METERS

0 100 132

AK State Plane Zone 4 1:2500



Subdivision Field Map

Map Key: PWSEV-54A

Name: Reimer

Date: 7/31/90

SHORELINE EVALUATION

SEGMENT ST/ EV-57 SUBDIVISION A (1 OF 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1F Sawmill Bay Hatchery release (4/15 to 6/1)
5T-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
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. Hume DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 149 m: V.Light 234 m: No Oil 5997 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: 5/3/90
ADEC Art Weiner
EXXON Andy Teal
NOAA Gary DeLoe
USCG Kenneth Keane

FOSC: DATE: 5-18-90

PWS, SEWARD AND HOMERECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 6/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 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)
 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
- 8P 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 (5/1 to 9/30)
 7A Finfish harvesting
 7B Deer harvesting (8/15 to 2/28)
 7C Invertebrate harvesting
 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 / EV-57 SUBDIVISION: A DATE 4/2**USCG**NAME Michael Buchman SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED**ADEC**NAME John Hayes SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Team walked all pocket beaches and skiffed vertical bedrock shoreline. Only oiling observed was a discontinuous tar band in 4 areas of segment. Band was 6cm - 1m w/ weathered almost to stain. Recovered 2 full bags of oil spill related from this segment. No treatment recommended.

LAND MANAGERNAME Steve Ward-Cheney SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 06/13/80

OG Mike Fogel ^{NOAA} Mike Buckman SEGMENT ST/ EV-57
 BIO Kathleen Conlin LAND REP Steve Ward CVC SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 7:00 to 10:00
 TEAM NO. 11 TIDE LEVEL -1' to +6' DATE 4/23/90
 EST. SUBDIVISION LENGTH: 7112 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Rocky backshore on very Rock shore zone. Mostly forest back shore
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 20 % C 25 % P 25 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 70 % Hang 20 % Ven 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 120 m VL 220 m NO 6772 m

SURFACE OIL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE see map#BAGS 2

Photographs:

Roll No. 0Frames 0

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	SU	U	M	V				
1	25					X	.	X							X				N	-		P, G, S
2	30					X	.	X							X				N	-		P, G
3	30					X	.	X								X			N	-		P, M
4	30					X	.	X							X				N	-		P, R
5	5					X	.	X							X				N	-		P, R
6	25					X	.	X								X			N	-		P, M

COMMENTS

Shore zone consists mostly of low angle cobble / pebble beaches, w/ some high angle beaches and steep boulder / rock shore zones. oiled debris was removed from the SUPRA ITZ (see map). Also some staining was observed in the HITZ see map along high angle R/R shore zones

REVIEWED JW DATE 4-23-90

SEGMENT ST/ EV-57 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

REVIEWED JW DATE 4-23-90

OG Re Foyet

SEGMENT ST/ EV-57

SUBDIVISION A

DATE Y / 23 90

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Sag/Slope Study
- ☐ Oil Out
- ☐ When
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/ALM
- ☐ SSI
- ☐ 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

Coastal Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Scattered Distribution

Oil Vegetation

1 $\oplus$

Photo location, direction, and number

SKETCH MAP

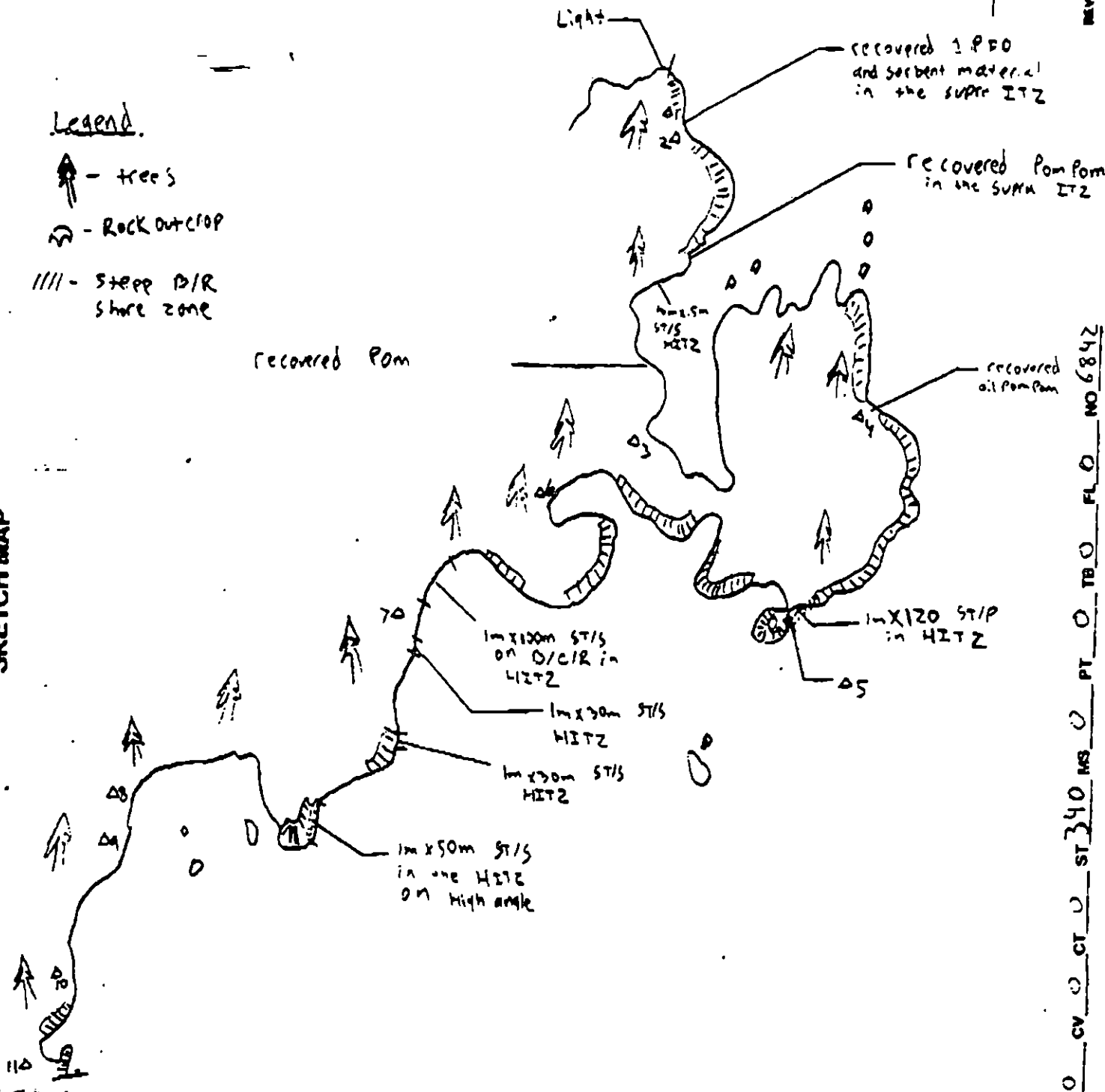
Legend

- $\uparrow$ - trees
- $\cap$ - Rock outcrop
- //// - Steep D/R shore zone

Scale



DE VISION ESCAPE



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 340 MS 0 PT 0 TB 0 FLO NO 6842

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03

Segment ST/EU-57 Subdivision A (1 of 1) Date (mo / day / yr) 04/23/90

Time (24 hr) 0630- Biologist K. CONLAN
1004

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 20 (3) Cobble 25 (4) Pebble 25 (5) Sand 10 (6) Silt 0

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

(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. —

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

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:

3 SEA OTTERS
6 BALD EAGLES
1 SEAL

NUMEROUS CROWS, GULLS (BONAPARTE, GLAUCOUS)

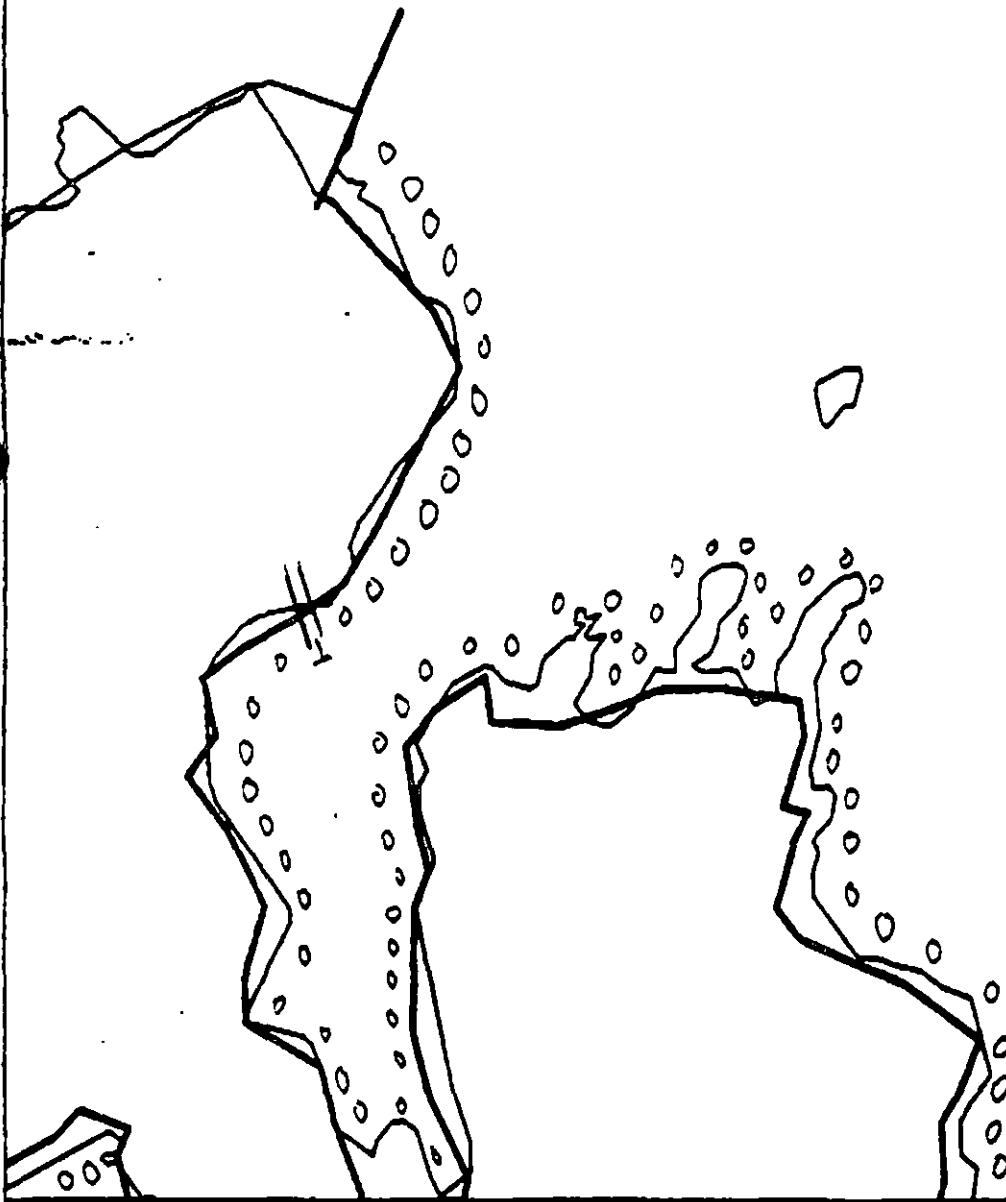
2 CANADA GOOSE

Ecological Considerations:

2 LAND OTTERS

4 MERMAISERS

PWS-256 c



EV

PWS-256 b



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-57

ADEC Segment Length: 7112m



Map Key: PWS-256d

Name: Mike Foget

Date: 4/23/90

Date Entered:

↑
PWS-256d

← PWS-256a

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-57

ADEC Segment Length: 7112m

0 100 200 300
METERS

Map Key: PWS-256b

Name: Mike Fogge

Date: 4/23/90

Data Entered:

EV-

PLS-256b →

EV - 5.7

ADEC Segment Length: 7112m

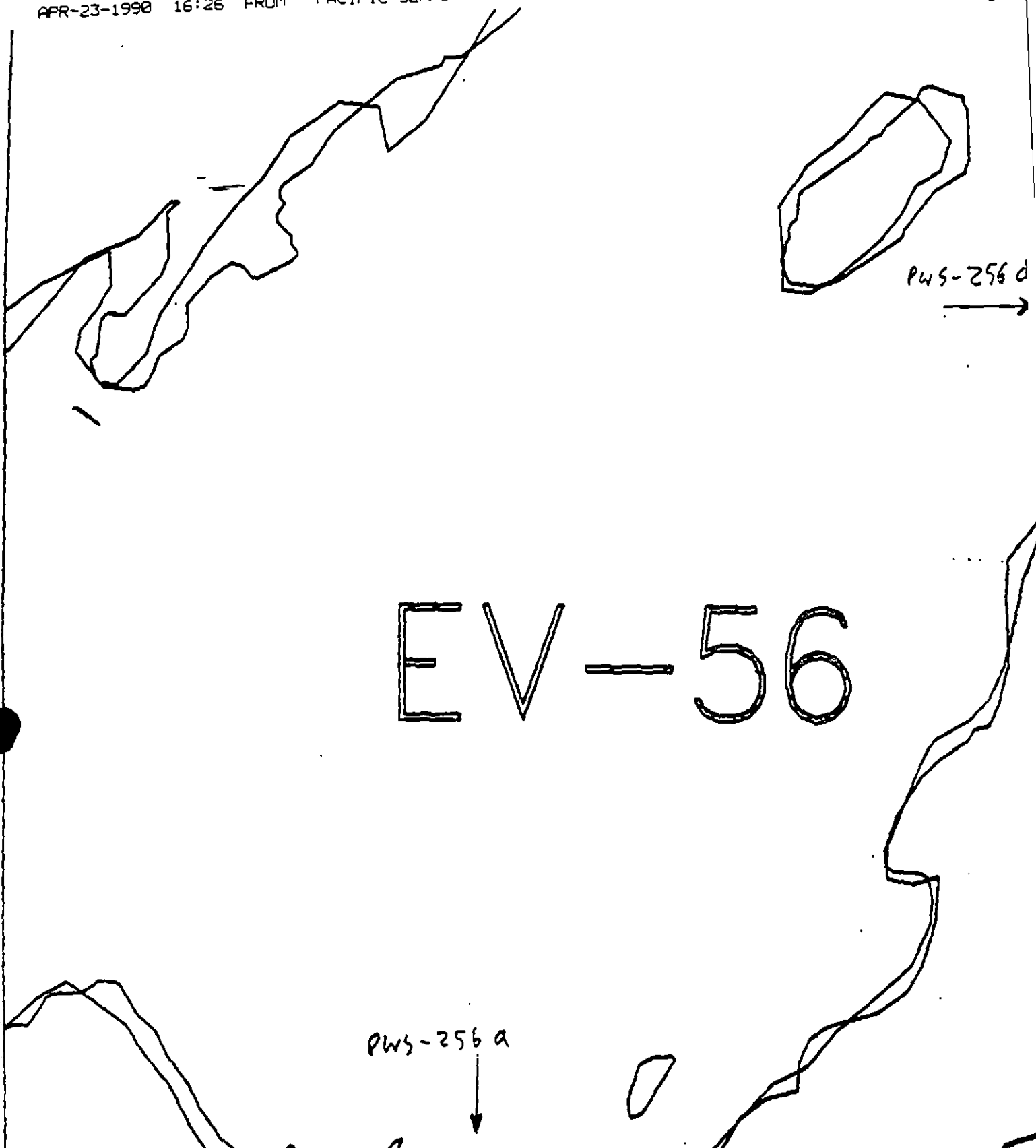


Map Key: PWS-256a

Name: Mike Foye

Ref: 4123/90

Date Entered:



EV-56

PWS-256 d

PWS-256 a

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-57

ADEC Segment Length: 7112m



Map Key: PWS-256c

Name: Mike Foget

Date: 4/23/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-58 SUBDIVISION A (1 of 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F)- 4/15 to 6/1; Finfish
Harvesting (7HH)- Chenega and ADF&G to provide dates; Deer
Harvesting (7II)- 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

SHPO SIGNATURE: Charles S. Holmes DATE: 4/6/90

OILING CATEGORIZATION:

0 m Wide, 0 m Medium, 0 m Narrow, 14 m V. Light, 128 m No Oil
Subsurface Oil Observed X Yes No Maximum Depth 2 cm

RECOMMENDATIONS:

X No Treatment Recommended
 Treatment Recommended
 Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal
 Bioremediation SPOT WASHING Other
 Wands
 Beach Cleaner

Comments: Recommended no treatment as only very light, sporadic
surface oiling found here. Please see field shoreline comment
sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4/6/90

ADEC JOHN BAUER
EXXON ANDY TEAL
NOAA Barl Wesscott
USCG G.A. REITER

FOSC:

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / 58-A SUBDIVISION: A-B DATE 3/20/90

~~USCG~~ NOAA

NAME GARY SHIGENAKA

SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

OVERCAST AND SNOWING BUT GOOD ACCESS TO ALL PORTIONS OF BEACH. EVIDENCE OF OILING VERY SPORADIC WITH PATCHY OILED SPOTS MANIFESTED BY SILVER SHEEN. THESE WERE LIMITED TO A 4-5 M BAND IN THE MID-INTERTIDAL ZONE. AREA RICHLY POPULATED BY AMPHIPODS, LIMPETS, SNAILS, MYTILUS, BARNACLES, HERMIT CRABS, ANNELID WORMS, AND STARFISH. GOOD NEW GROWTH OF FUCUS. BEACH APPEARS TO BE HEALTHY AND OIL IMPACTS MINIMAL.

58A-2 WAS ROCKY HABITAT WITH HEAVY ALGAL GROWTH (FUCUS AND FILAMENTOUS RED). LIGHT POPULATIONS OF BARNACLES AND LIMPETS, LOTS OF SNAILS IN TIDEPOOLS. LOTS OF MUSSEL SHELLS BUT FEW LIVE ORGANISMS. ONLY EVIDENCE OF OILING ON THIS STREET WAS A SHEEN IN A POOL STIRRED BY BOAT.

(THANKS TOM C.)

ADMINISTRATIVE NOTES - EQUIPMENT ISSUED IS MORE THAN ADEQUATE, BUT SUGGEST SUPPLYING OF RITE-IN-RAIN BOOKS AND MECHANICAL PENCILS.

ADEC

NAME John Hayes

SIGNATURE *John Hayes*

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

In assembly Island we found two small patches of Oil film with a maximum pt. of 3 cm. saturation. Island had healthy colonies of fucus, mussels, and barnacles. Recommend no treatment for this area with the exception being manual removal of oiled substrate. Reserve Sensitive area because of Pt San Juan Hatchery in vicinity. No mechanical treatment that would produce sheens or have adverse impact on healthy beach present. Two small patches of oil approx 20cm x 20cm located in M.I.T. are map for exact location. We also noted 3 tar stains on rocks in U.I.T. max. thickness was 2mm. No treatment rec. for stains were weathering well.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No Landmanagers present.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Fogar NOAA Gary Shigenaka SEGMENT ST/ EV-58A
 BIO Richard Ambrose USCG LAND REP — SUBDIVISION I (1 of 2)
 EXXON Larry Olson ADEC John Hayes TIME 8:30 to 10:00
 TEAM NO.: 11 TIDE LEVEL: -1 to -2 DATE 3/30/90
 EST. SUBDIVISION LENGTH: 180 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Vertical rocky uplands w/ forest summit SU
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 20 % B 10 % C 40 % P 30 % G — % S — % M — % V — %
 SLOPE: Long 60 % Hang 40 % Vert — % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 30 m NO 150 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IB	IP	IS	SB	BR	BL	BY	SL	TL	LT	LB	SU	UI	MI	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT					X	X									X	
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

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	X		

DEBRIS COLLECTED

☒ YES ☐ NOTYPE Oil Pump#BAGS —

Photographs:

Roll No. ST-11-1Frames 2 to 5

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CD)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		CO	CB	CL	CF	NO		UC	UC	SB	BR	BL	BY	SL	TL	LT	LB	SU	UI	MI	U		
1	20				X		0-2		X	X										X			C, M
2	20				X		0-2		X	X										X			C, M
3	30					X	.													X			C, M
							.																
							.																
							.																

COMMENTS

Beach is a high angle beach w/ a dark grey angular shale oil is located in the mid intertidal and is very light in oiling. The two Areas w/ oil are located in the center of the beach. Both zones are approximately 15 m x 2 m (L x W).

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EU058A Subdivision 1 Date (mo / day / yr) 3 / 30 / 90Time (24 hr) 0830 Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 20 (2) Boulder 10 (3) Cobble 40 (4) Pebble 30 (5) Sand — (6) Silt —(B) Overall % cover of biota (% of segment): Dense 10 Moderate 60 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. —Frames —

BARNACLES

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

FUCUS

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

2 otters, 1 crow, 1 Harlequin Duck.

lots of empty bivalve shells, sea stars, Rich intertidal biota.

Ecological Considerations:

None specified by code on list. Fucus is abundant and would be sensitive to trampling.

OG Mike get

SEGMENT ST/ EU-58A

SUBDIVISION 1 (1 of 2)

DATE 3 / 30 90

CHECKLIST

- ... N Arrow
- ... Approx. Scale
- ... Seg/Sub Bndry
- ... Oil Dist.
- ... Width
- ... Length
- ... % Cover
- ... Substrate Character
- ... Est. H/W/L/WL
- ... SSL
- ... Profile Location(s)
- ... Profile(s)
- ... Pit Location(s)
- ... Photo Location(s)

LEGEND

1 ▲

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

Scale

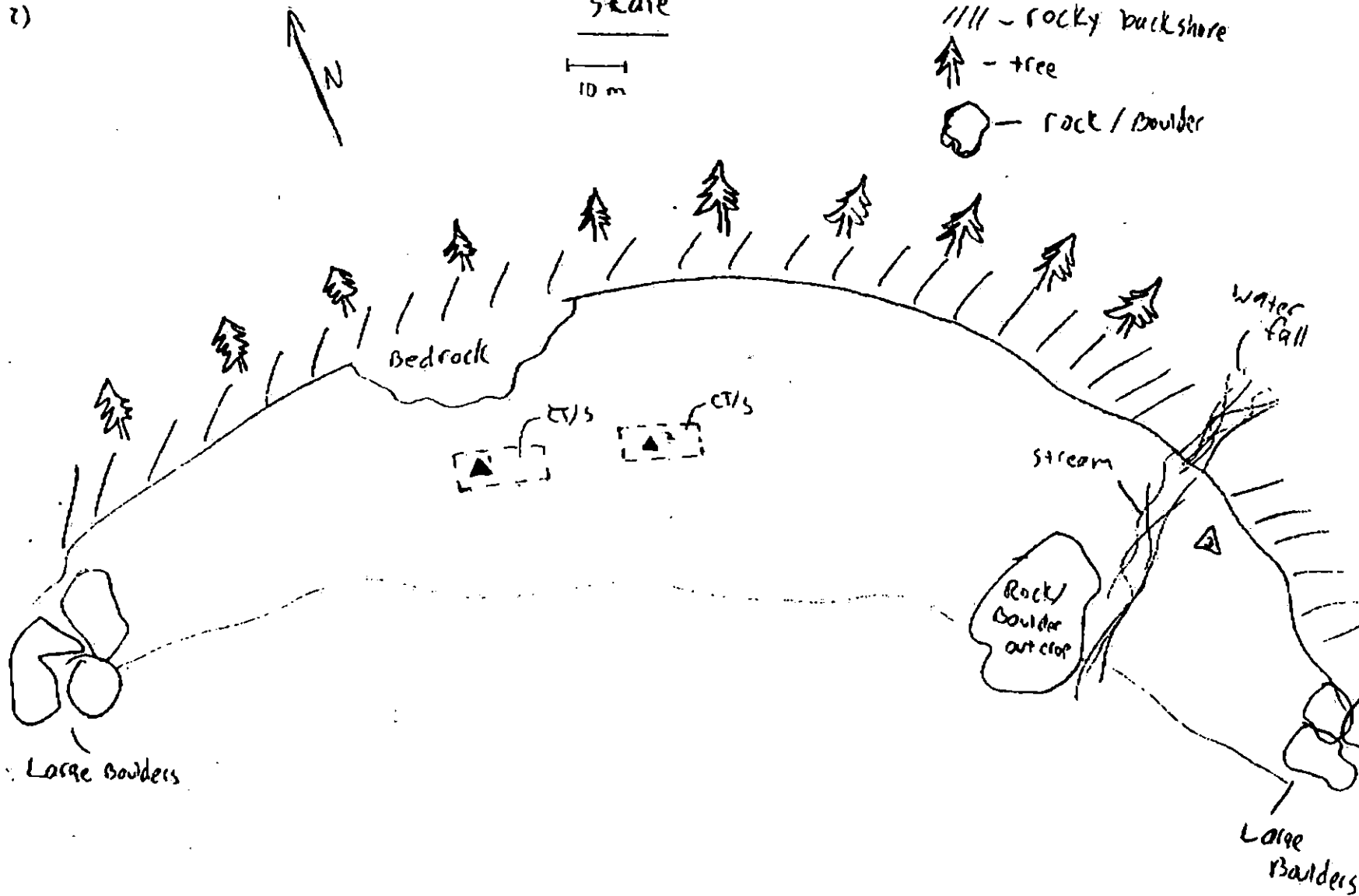
10 m

Legend

/// - rocky backshore

▲ - tree

○ - rock / boulder



Oil Character Length (m) AP PO CV CT 30 ST MS PT TB FL NO 270

EV-58



EV-58

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-58

ADEC Segment Length: 4589m



Map Key: PWS-257a

Name: Mike Foot

Date: 3/30/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-59 SUBDIVISION A* DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F)- 4/15 to 6/1; Deer Harvesting
(7II)- 8/15 to 2/28; Finfish Harvesting (7HH)- Chenega and
ADF&G to provide actual dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

SHPO SIGNATURE: Charles E. Hume

DATE: April 5, 1990

OILING CATEGORIZATION:

0 m Wide, 0 m Medium, 0 m Narrow, 0 m V. Light, 4560 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended

 Treatment Recommended

 Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal

 Bioremediation SPOT WASHING Other

 Wands

 Beach Cleaner

Comments: No treatment recommended as no oil was found in this
subdivision. Please note attached field shoreline comment sheet.

TAG COMMENTS: Concur

APPROVAL DATE: 4/5/90

DEC JOHN BAKER

EXXON ANDY TET

NOAA Burl Wescott

USCG G.A. REITER

FOSC: WJL

DATE: 4-19-90

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foote ^{NOAA} USCG Gary Shigenaka SEGMENT ST/ EV-59
 BIO Richard Ambrose LAND REP John Hayes SUBDIVISION
 EXXON Larry Olson ADEC John Hayes TIME 10:40 to 12:00
 TEAM NO.: 11 TIDE LEVEL: -0.5 to 1.0 DATE 3 / 30 / 90
 EST. SUBDIVISION LENGTH: 4591 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock The N end of the segment contains a grassy hill
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 30 % C 30 % P 20 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 60 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 4591 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	D	P	S	BR	BL	FW	GY	OR	SL	TL	UL	SU	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			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE

#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		UO	UC	BR	BL	FW	GY	OR	SL	TL	UL	SU	U	M	L		
1	20					X	-		X											X			C.P.M
2	30					X	-		X										X				P.M
3	40					X	-		X										X				P.M
							-																
							-																
							-																

COMMENTS

Segment is mostly High angle Boulder Beach with large shale cobbles. Most of the segment was surveyed by boat, Four beaches were surveyed by foot. No oil was observed from the boat or by foot. The N end of the segment contained a low angle Cobble shale beach w/ a low grassy backshore. The rest of the segment contained a steep rocky forested backshore.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/80

Segment ST/EV059 Subdivision none Date (mo / day / yr) 3/30/90

Time (24 hr) 1040 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 30 (3) Cobble 30 (4) Pebble 20 (5) Sand 10 (6) Silt -

(B) Overall % cover of biota (% of segment): Dense 5 Moderate 35 Low 60

(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-11-1

Frames 1

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments:

*
7 others, 2 gulls, 21 Harlequin ducks, 3 eagles, 2 deer, 1 great blue heron, 1 cormorant, 1 loon or merganser. Lots of empty clam shells on flat beach. A few small patches with dense Mytilus recruits.

Ecological Considerations:

1F, 7HH, 7II - no specific location is relevant.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EU-59 SUBDIVISION: EU-59 DATE 3/20/90

USCG NOAA

NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

BEACH CHARACTERIZED BY SHALE COBBLE AND BOULDERS. ENTIRE SEGMENT WAS CLEAN, NO SIGN OF OILING. FULUS, SNAILS, BARNACLES, GOOD RECRUITMENT OF JUVENILE MYTILUS. LOTS OF WILDLIFE. OTTERS, BIRDS, (DUCKS, EAGLES), DEER.

ADEC

NAME John Hayes SIGNATURE John Hayes

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

We found no trace of oil or subsurface oil on this segment. No treatment ~~recommended~~ recommended on this segment. Healthy low angle beach, Deer, ducks and Bald Eagles present. Fucus, mussels and barnacles all doing well and not stained.

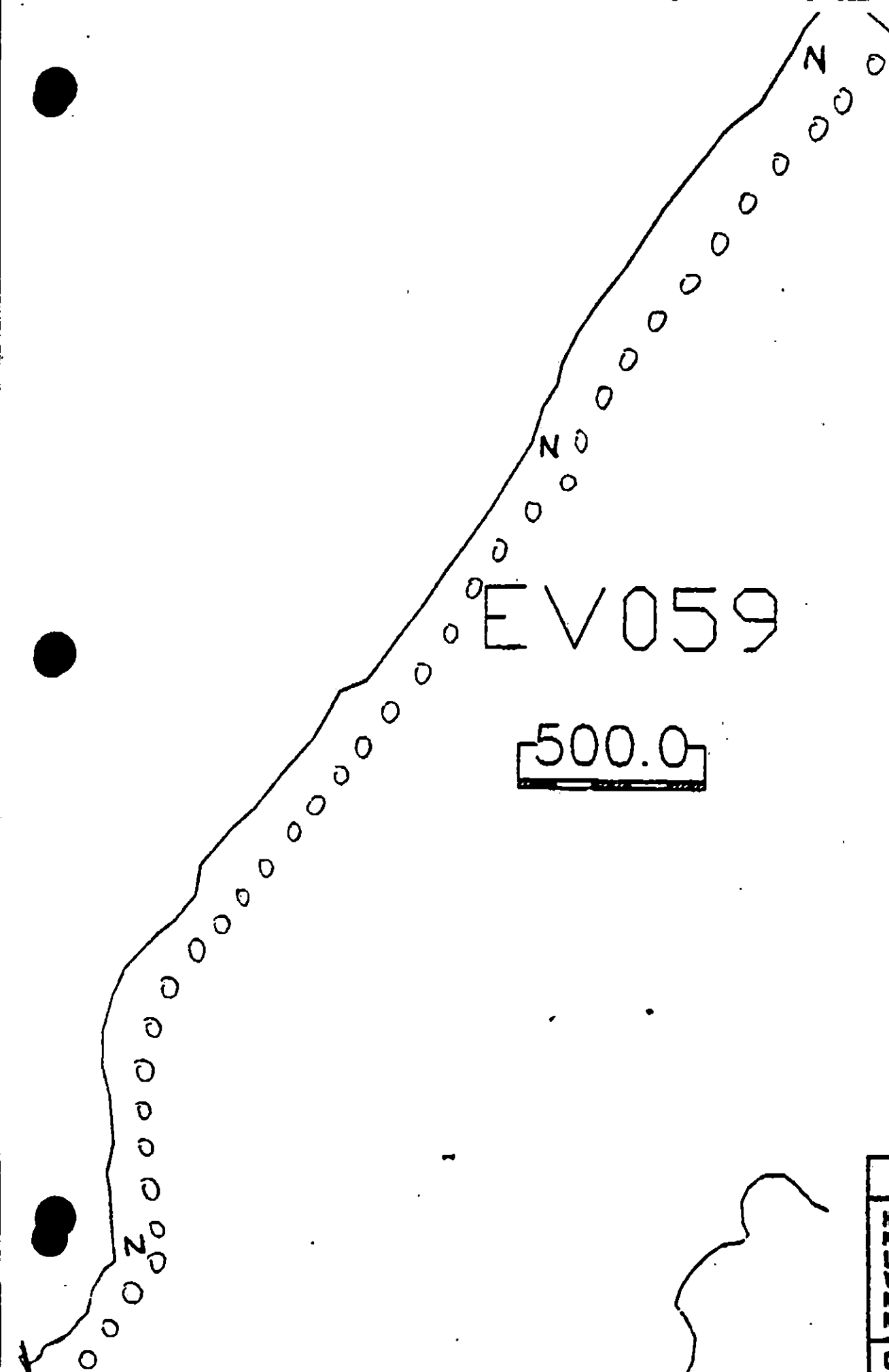
LAND MANAGER

NAME _____ SIGNATURE _____

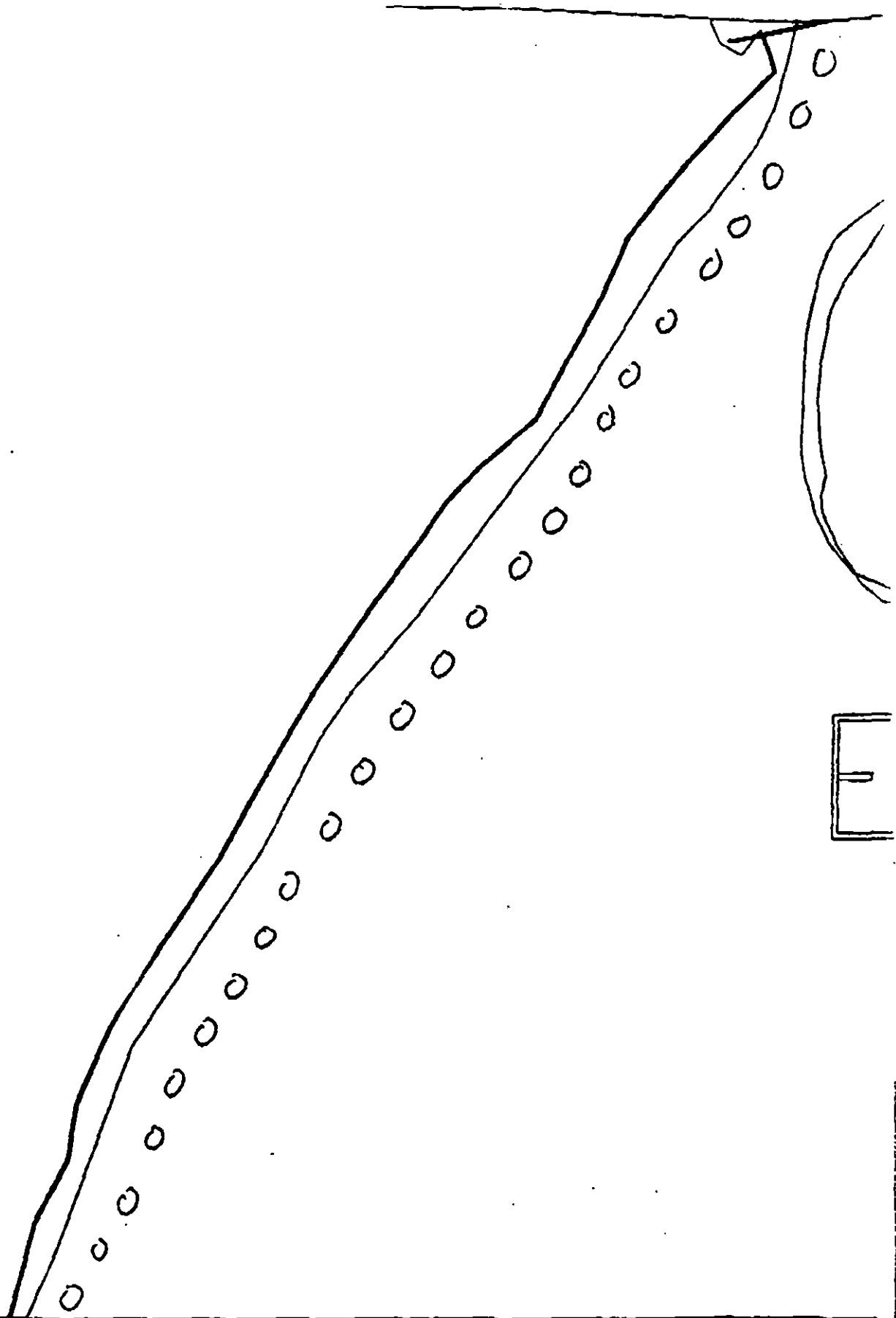
☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS



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



XXXX Wide

//// Medium

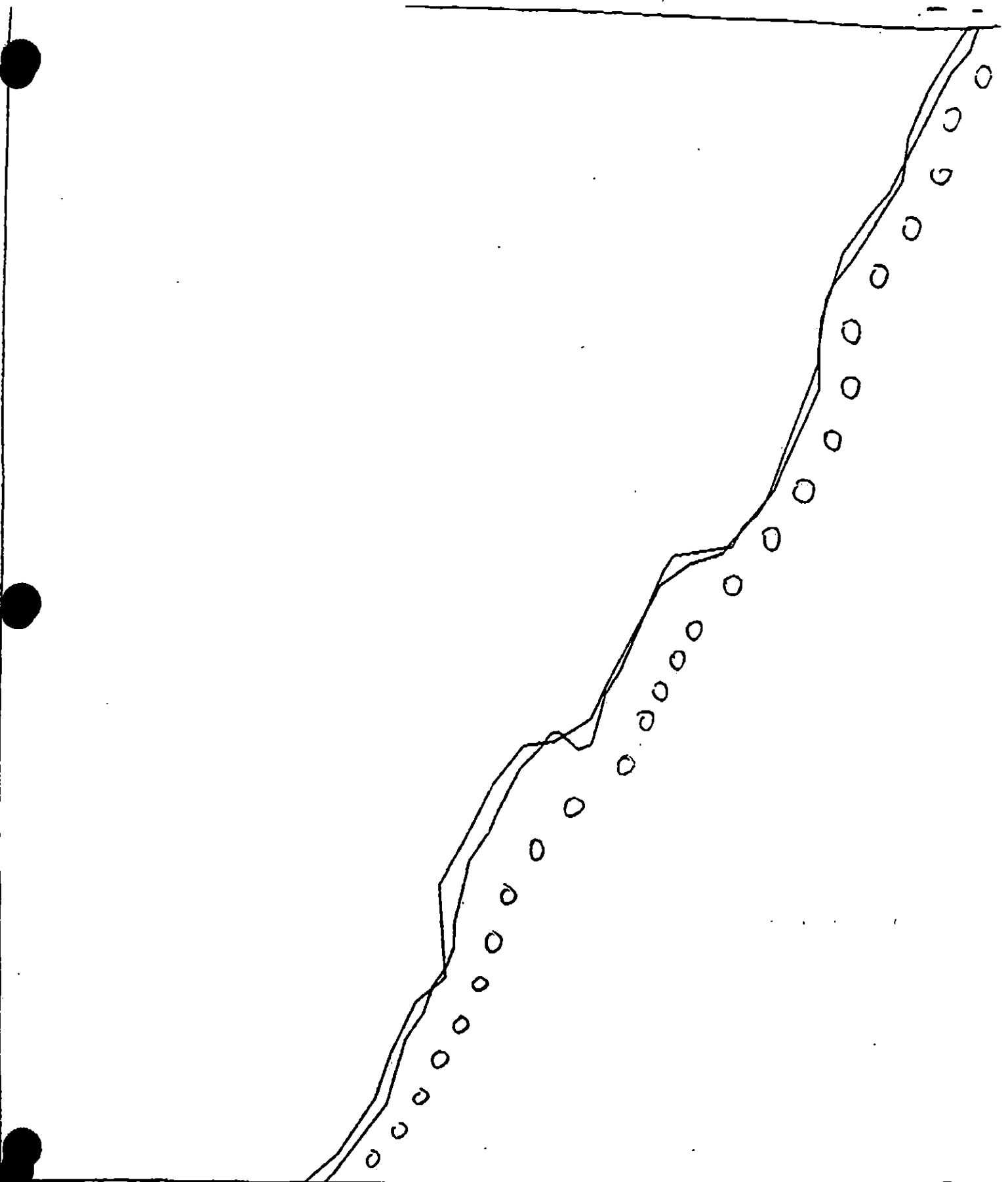
---- Narrow

EV-59

ADEC Segment Length: 4591m

Map Key: PWS-258h

Name: Mike Foyet



XXXX Wide
//// Medium
---- Narrow

EV-59

ADEC Segment Length: 4591m



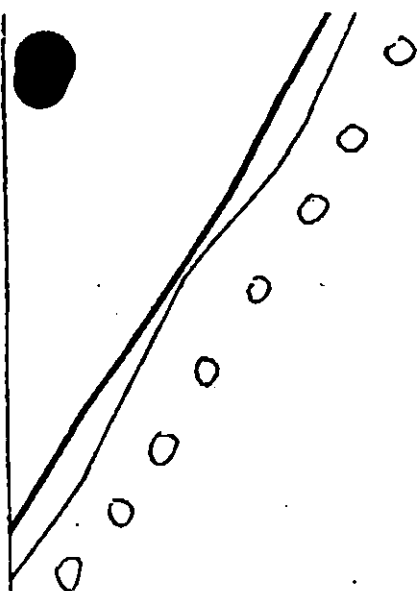
Map Key: PWS-2581

Name: Mike Forster

MAP-30-1890 22:25 FROM PACIFIC SEAHORSE

TO

LAJELAPINA F.15



XXXX Wide
//// Medium
---- Narrow

EV-59

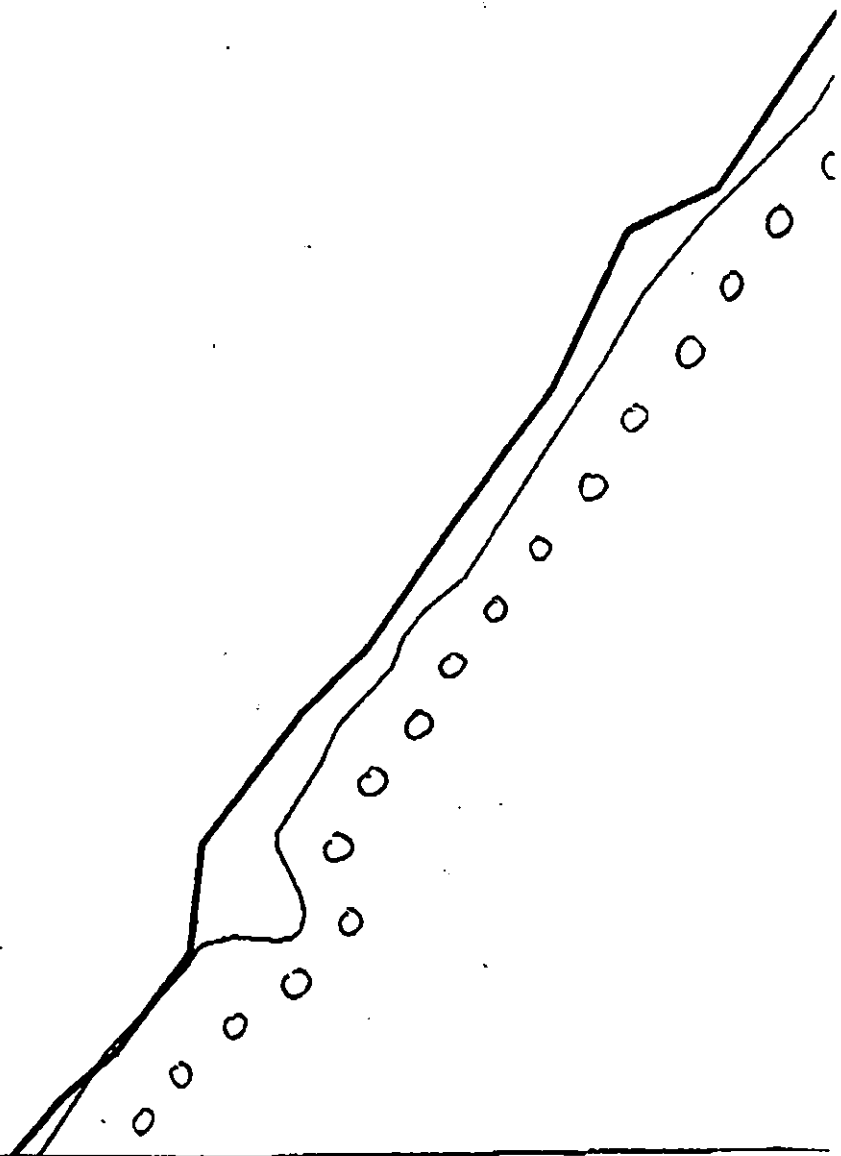
ADEC Segment Length: 4591m

Map Key: PWS-258e

Name: Mike Foget

3/26/04

EV-59



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

EV-59

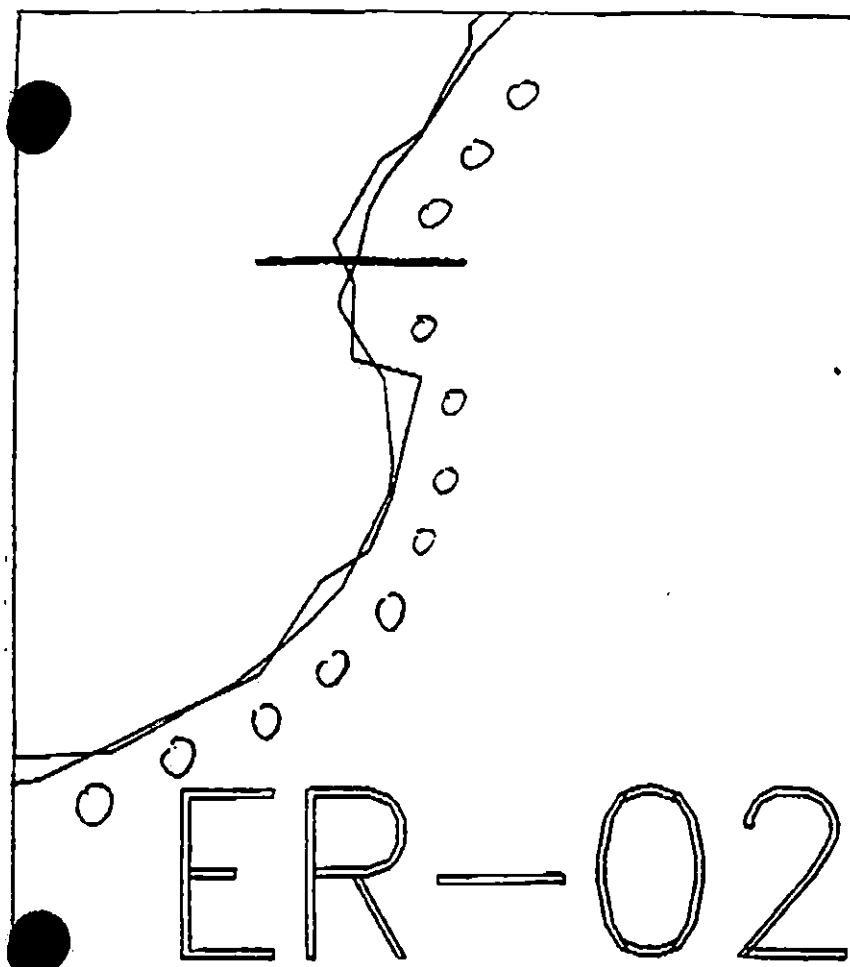
ADEC Segment Length: 4591m



Map Key: PWS-258d

Name: Mike Foyet

Date: 3/30/90



ER-02

XXXX Wide

//// Medium

---- Narrow

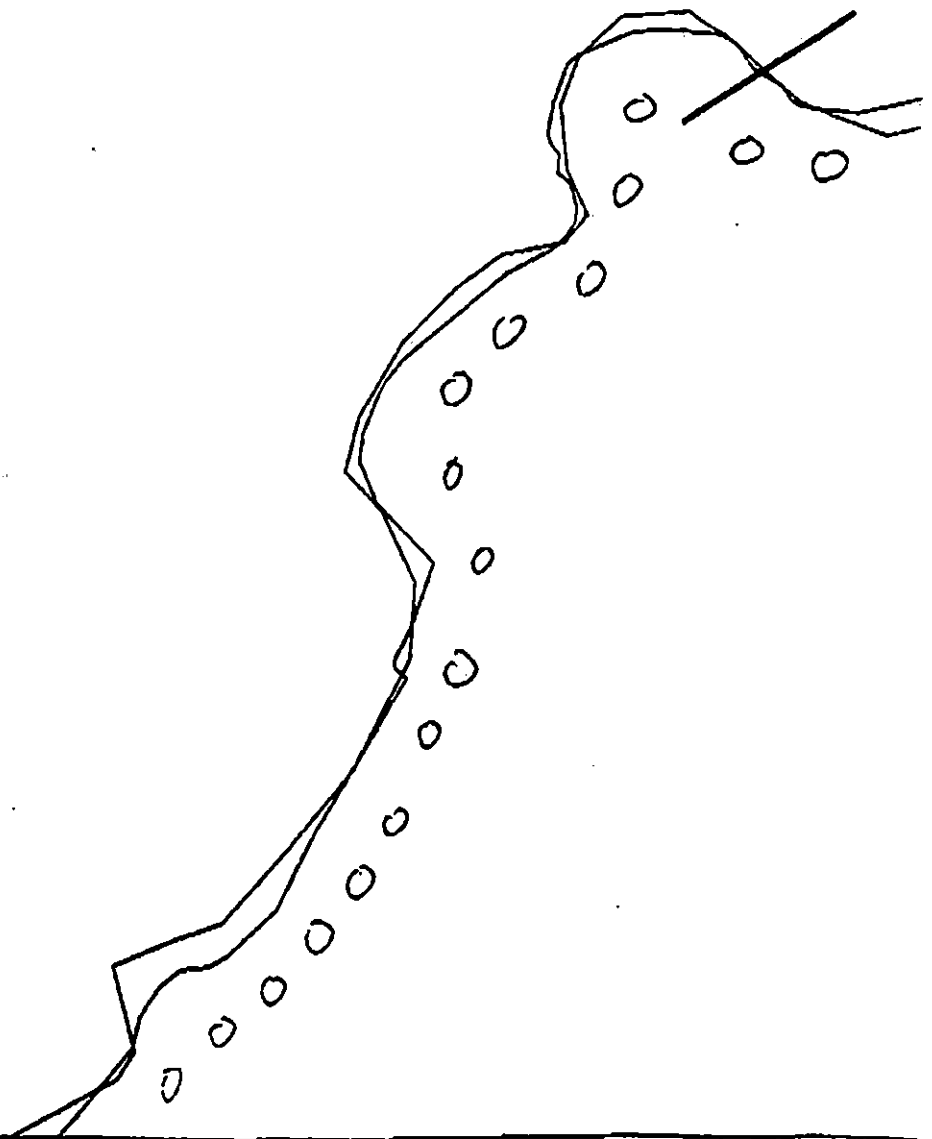
EV-59

ADEC Segment Length: 4591m

Map Key: PWS-258c

Name: Mike Fogel

2/20/00



XXXX Wide

//// Medium

--- Narrow

TTTT Very Shallow

EV-59

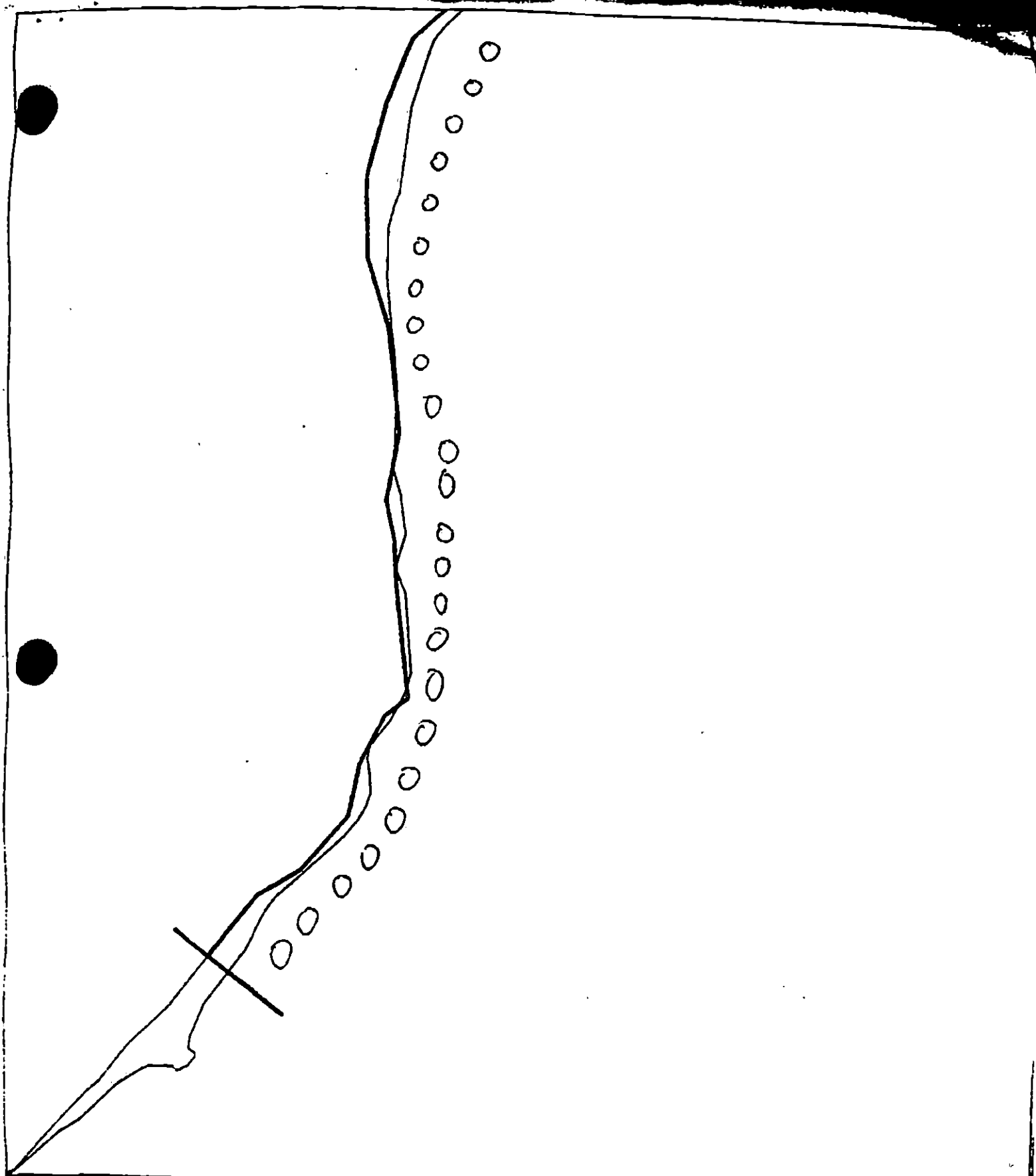
ADEC Segment Length: 4591m



Map Key: PWS-258b

Name: Mike Foyet

Date: 3/30/90



XXXX Wide

/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-59

ADEC Segment Length: 4591m



Map Key: PWS-258a

Name: Mike Fogel

Date: 3/30/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-60 SUBDIVISION A (1 OF 2) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1F Sawmill Bay Hatchery release (4/15 to 6/1)
5T-5 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate.
5T-2 3 in adjacent segment (subdivision)

SHPO SIGNATURE: Reche Jan Darr DATE: 5/22/90

OILING CATEGORIZATION:

Wide 0 m: Medium 170 m: Narrow 396 m: V.Light 591 m: No Oil 0 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

TRASH + DEBRIS

COMMENTS: Recommended treatment includes 1) manual pickup of oiled vegetation in areas indicated on sketch maps, 2) manual removal of tar balls, patties and tarmats in areas indicated on sketch maps, and 3) manually till and bioremediate areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS due to eagle nest constraint.

TAG COMMENTS: MONITORS TO ASSESS LOGS

TAG APPROVAL DATE: 5/21/90

ADEC Art Weiner Art Weiner

EXXON Andy Tan Andy Tan

NOAA Joseph Teller Joseph Teller

USCG G.A. Reiter G.A. Reiter

EOSC: DATE: 6-17-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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** Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I** Gill net area (5/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (5/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M** Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 3N, 3P** Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (5/15 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
- 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 (5/1 to 6/1)
 Active Bald Eagle nests (5/1 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 (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 (5/15 to 2/28)
 Invertebrate harvesting
 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 EV 060 SUBDIVISION: A DATE 4/25/90

USCG
NAME SHAWN MAAS SIGNATURE DC Shawn Maas

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

RECOMMEND MANUAL REMOVAL OF ASPHALT/PAVEMENT
TARBALLS AND PARTIES MOSTLY LOW ANGLE BEACHS
REMOVAL OF OILED DEBRIS NEEDED AT AIB SPLIT
SUBSURFACE OILS NOTED BIOREMEDIATION. AGAIN.
LOW ANGLE BEACHS.

ADEC
NAME Dave Sale SIGNATURE Dave Sale

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

- ① MANUALLY REMOVE TARBALLS, ASPHALT AND PARTIES FROM IMPAIRED AREAS
- ② REMOVE OILED SEDIMENTS AND GRAVEL OR CLEAN, IF POSSIBLE; IN PARTICULAR THE SEDIMENTS NEAR SALMON STREAMS
- ③ EITHER REMOVE OILED BAND OF TIDAL ROCKS (COBBLES) FROM BEHIND BOULDERS ON HIGHER ANGLE SHORELINES, OR ALL PARTIES SHOULD SIGN A PUBLIC DOCUMENT NOTING OIL THAT REMAINS AND THAT IT WILL NOT BE REMOVED.
- ④ REMOVE SUBSURFACE OIL FROM GRAVE/SLATE BEACH
- ⑤ REMOVE OILED DEBRIS + POOLED OIL FROM LOW-ANGLE BEACHROCK.

LAND MANAGER
NAME Don Kempf Jr. SIGNATURE Don Kempf Jr.

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02-1308

OG R. Marty USCG S. Maas SEGMENT ST/ EV-60
 BIO B. Lemen LAND REP D. Karpoff Jr. SUBDIVISION A (A OF 2)
 EXXON J. Coarabasi ADEC D. Sale TIME 9:05 to 09:00
 TEAM NO. 10 TIDE LEVEL +0.17m → -0.09m DATE 23-24 April / 90
 EST. SUBDIVISION LENGTH: 1782 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: _____ to Varies
 SURFACE SEDIMENTS: R 80 % B 10 % C 15 % P 20 % G 5 % S — % M — % V — %
 SLOPE: Long 80 % Hang 20 % Vert — % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 194 m N 428 m VL 278 m NO 107 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	S	E	W	1	2	3	4	SW	SE	NE	NW
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL												

PAVEMENT H F (S) 45 sq. m by 4 cmPATTIES / TARBALLS 5 BAGSNEAR SHORE SHEEN? ☒ NO BR RW (S) TL
 Sheen only on tide pools

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Misc.#BAGS 1Concentrated at
Photographs: East end.Roll No. ST/10/14Frames 14-21

2 of 46

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
		OR	OR	OL	OR	NO		US	US	1	2	3	4	5	SW	SE	NE	NW				
1	43					X									X				N	N	3B	P&S-S&G
2	30	X					0.30	X					X		X				N	—	N	P&G-S&G
3	19					X										X			N	—	N	P, G, S, & P
4	20	X					0.20	—	?				X		X				N	—	N	P, G-R
5	20	X					0.6	—	X				X		X				N	Y	17	C, P, G-G, S
6	20					X	0.4	—	X				X	X	X				N	—	N	P, G-G, V

COMMENTS

The most severe oiling in the segment is found 1) along the west side of the cleft shown in figure 2 and at the east end of the segment. In the former area asphalt pavement has formed and there is subsurface oil. The latter area has large amounts of oiled flatworm/jellyfish in the storm berm. The rest of the segment

Note: segment lengths reflect normalization to length in memo RRC/Sur 02790. This appears to be the ADEC length and not the Exxon length.

REVIEWED 7WDATE 4/27/90

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

38 46

REVIEWED 7w DATE 4/27/90

SUBDIVISION A-1

DATE 28 / April / 90

Aggrav. Scales
Sag Scale Empty
On Day

Width
Length
% Cover
Substrata Character
Eel Habitat
Sex
Pond Location(?)
Pond(?)
In Location(?)
Pond Location(?)

Legend

Δ

24

TM - Subsurface Corrosion

Ordering Details

Customer Order Number

SECRET

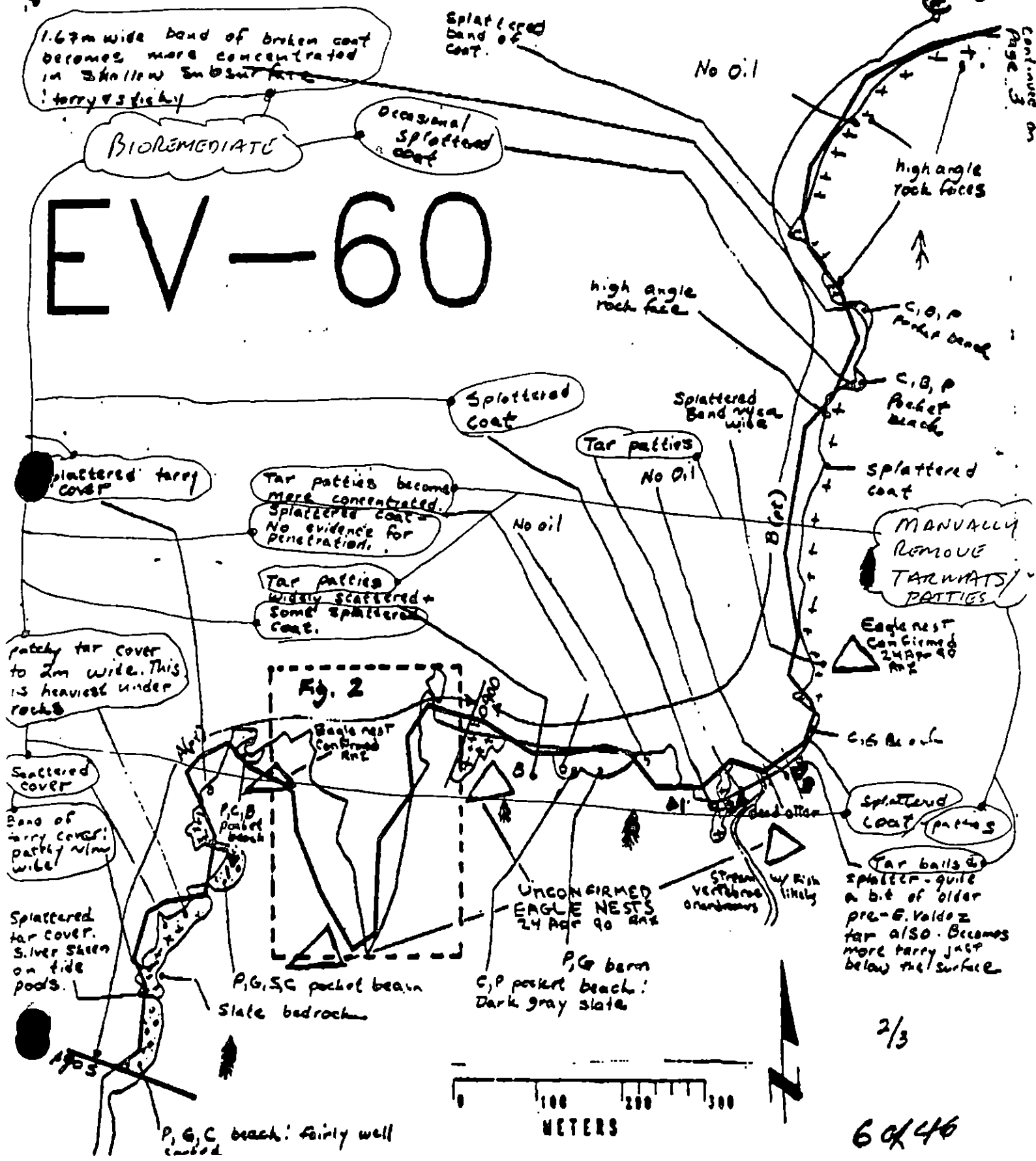
CY75

222.

1

**From London, Ontario,
27th September**

Oil Character **U**: **As**



OG: E. Murphy

SEGMENT ST/ 60-60

SUBDIVISION A (M)

DATE 28 April 80

CHECKLIST

- ✓ In Areas
- ✓ Approx. Scale
- ✓ Sample Study
- ✓ Or Day
- ✓ Length
- ✓ W. Corner
- ✓ Subarea Orientation
- ✓ E in NW/NE
- ✓ S/N
- ✓ Profile (contour)
- ✓ Profile
- ✓ Profile (contour)
- ✓ Profile (contour)

LEGEND

1 A

2 A

3 A

4 A

CT/C

CT/O

CT/P

CT/S

CT/V

CT/W

CT/X

CT/Y

CT/Z

CT/1

CT/2

CT/3

CT/4

CT/5

CT/6

CT/7

CT/8

CT/9

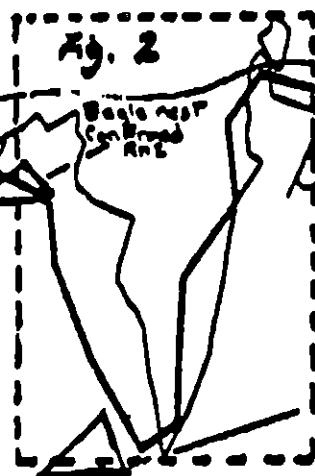
CT/10

Continued on
Page 3

BIOREMEDIATION

EV-60_A

REVISED



Abstract

EV-60A (pt)

R. Marty 24 April 1990

Pocket #1

Scattered surface cover. ~~remains~~ of asphalt in STZ. Oil remains fluid at depth. There is significant oil immediately beneath the surface.

MANUALLY REMOVE TAXMAT, TILL
TITEN
BIUREMIATE

Pocket #3

Tar patties & asphalt
in VITZ and STZ
10m x 2m x 40% x 3cm

Patchy / in wd
band of terry
/ cover.

Patchy terry
cover 3.1/2 wide
Patchy asphalt
06-10-85

well sorted
P.G beach

210r

50-100 bags of oiled debris
in 372. Granules in storm berm
are oil coated. Termite cover
spotted cover, but
no for balls. 3 mi

Notes in store
coated. Tarmacs c
splattered cover, but
no toe balls.
oiliness decreases markedly

7. The balls become less concentrated - in SZ
splattered cover - 1968

Sandstone B, C, P beds.

Tide pools along bedding contact between sandstone & slate - silver Sheen.

Patches of asphalt
in U172, ~4m x 8m
x 25% in among
angular boulders
~4cm thick

Debris in STZ includes
55 gallon drum + 2 bags
of mixed uncoiled debris
but no oil in STZ

MANUALLY
REMOVE
TAR BALLS,
TAR PASTIES
& TAR MATS

Some for tall
parties + 0.3 m
of patchy cover.
+ 2 m of forest at
South end of outer

Tar balls in Uitz
+ lower str

14

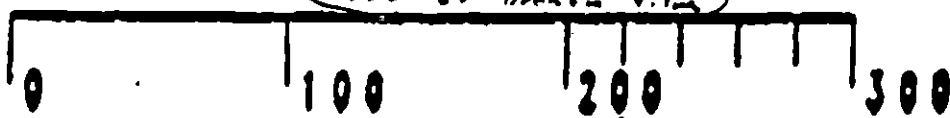
likely erroneous

Asphalt 2m² + 10mm/m²
50% = 5mm thick

2 bags of oiled
grass

MANUALLY -
REMOVE
OILED
VEGETATION

Tar patches
in UIRZ + 2m wide
band of broken film



METERS

* one sided log + one sided data:-

4/11/5

MAIN SKETCH MAP

Figure 2
EV-60A (pt)

R. Marty 24 April 1990

Pocket #1

MANUALLY REMOVE TARMAT, TILL
THEN
DISPERSE

Pocket #3

Sub
Surface

Stop 4/23
Start 4/24

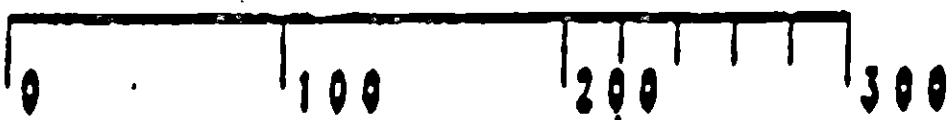
Pocket #2

MANUALLY
REMOVE
OILED
VEGETATION

MANUALLY
REMOVE
TAR BALLS,
TAR PATCHES
& TAR MATS

upish
purple
likely overdone

REVISED
EV-60 A



METERS



SHORELINE ECOLOGICAL SUMMARY

Revision 02/20/90

Segment ST/10/EV60 Subdivision A Date (mo/day/yr) 4/23/90
 Time (24 hr) 1900-2020 Biologist Lemon 9°C, cloudy
0700-0900 Wind 0 seas 0

- (A) Substrate type and % of segments:
 (1) Bedrock 50 (2) Boulder 10 (3) Cobble 15 (4) Pebble 20 (5) Sand 5 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense Moderate 40% 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/10/14
 Frames 14-21

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments: Littorina eggs; other fish eggs unknown origin.

2 eagles 2 crows
 22 otters including 2 pups on offshore rock. "Clam digging" holes; protuthera shells; live Prototheca too.
 3 gulls
 2 Sterna forsteri 1 loon

Ecological Considerations:

No pinnipeds seen on offshore rocks; however otters, invertebrates, and algae were abundant here.

One of 2 reported eagle nests was seen on 24 Apr 90; see map.

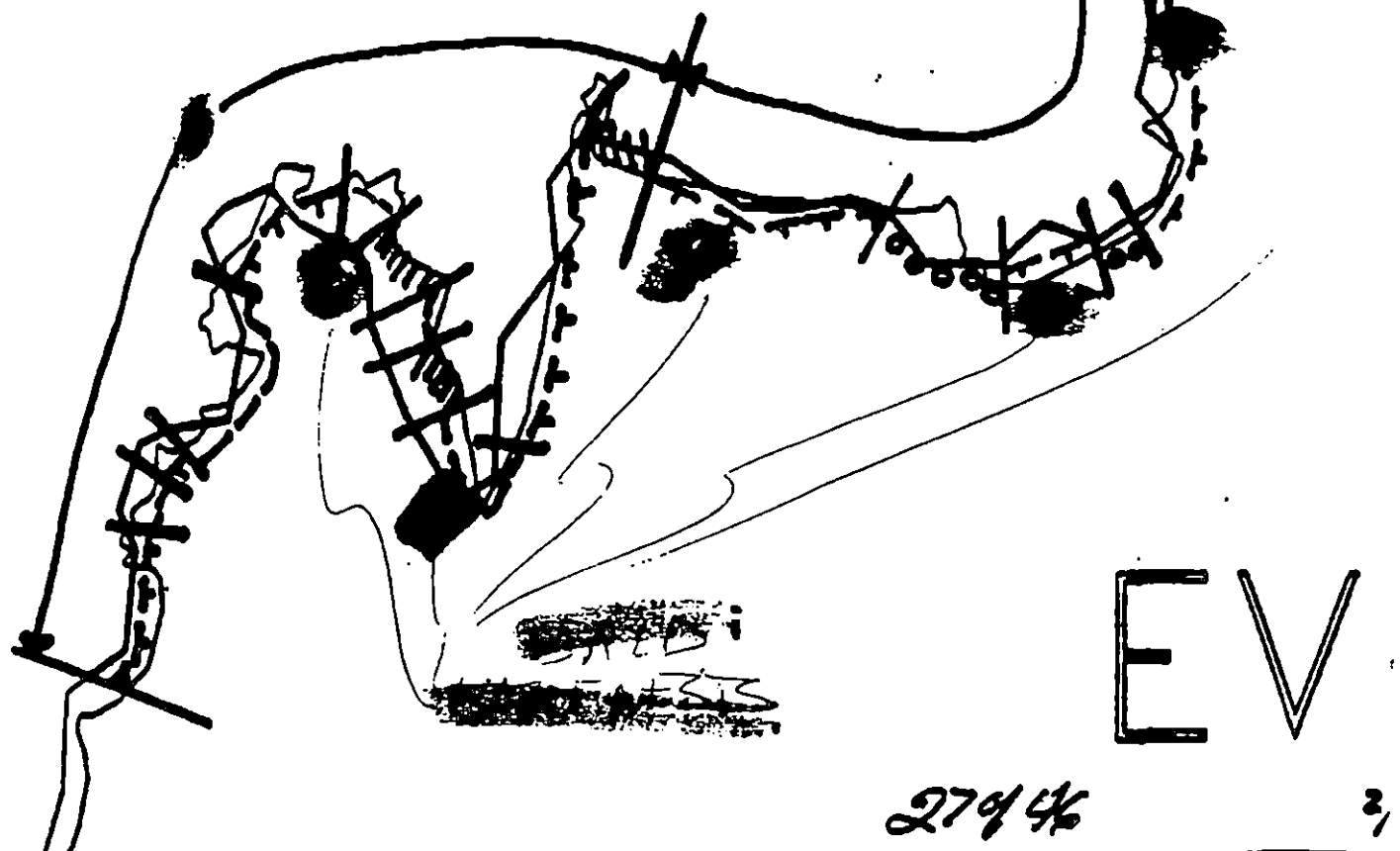
A substantial stream had fish vertebrae; perhaps from adult spawners.

This is a subsistence deer harvest area and a hatchery release route.

1mm and 2mm barnacles in a few places.
 Tidepool with green had healthy Ralphia, Littorina, Callizetta, and Mytilus. 2-3mm alive in oiled band; yet larger sizes were dead gaping.
 Low zone was very rich in life, 90% coverage; mixed reds and greens.

ECOLOGICAL PATH
EV-60A (10F2)

EV-60



EV

2744

2

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

EV-60

ADEC Segment Length: 3688m

Map Key: PWS-260a

Name: R. Marty

Date: 24 April 199

// unadj. normal.

A	No	3.75"	363	487
	VL	6.0"	900	778
	L	3.3"	495	428
	M	1.5"	225	194
B	No	4.2"	630	544
	VL	9.4"	1410	1218
	L	0.3	45	39
			4168	3688

Note segment length from memo
REC/smr. 032990.1 appears to
be ADGC length and not
Exxon length.



26 of 46

1/4

XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO " " " "

EV-60

ADEC Segment Length: 3688m



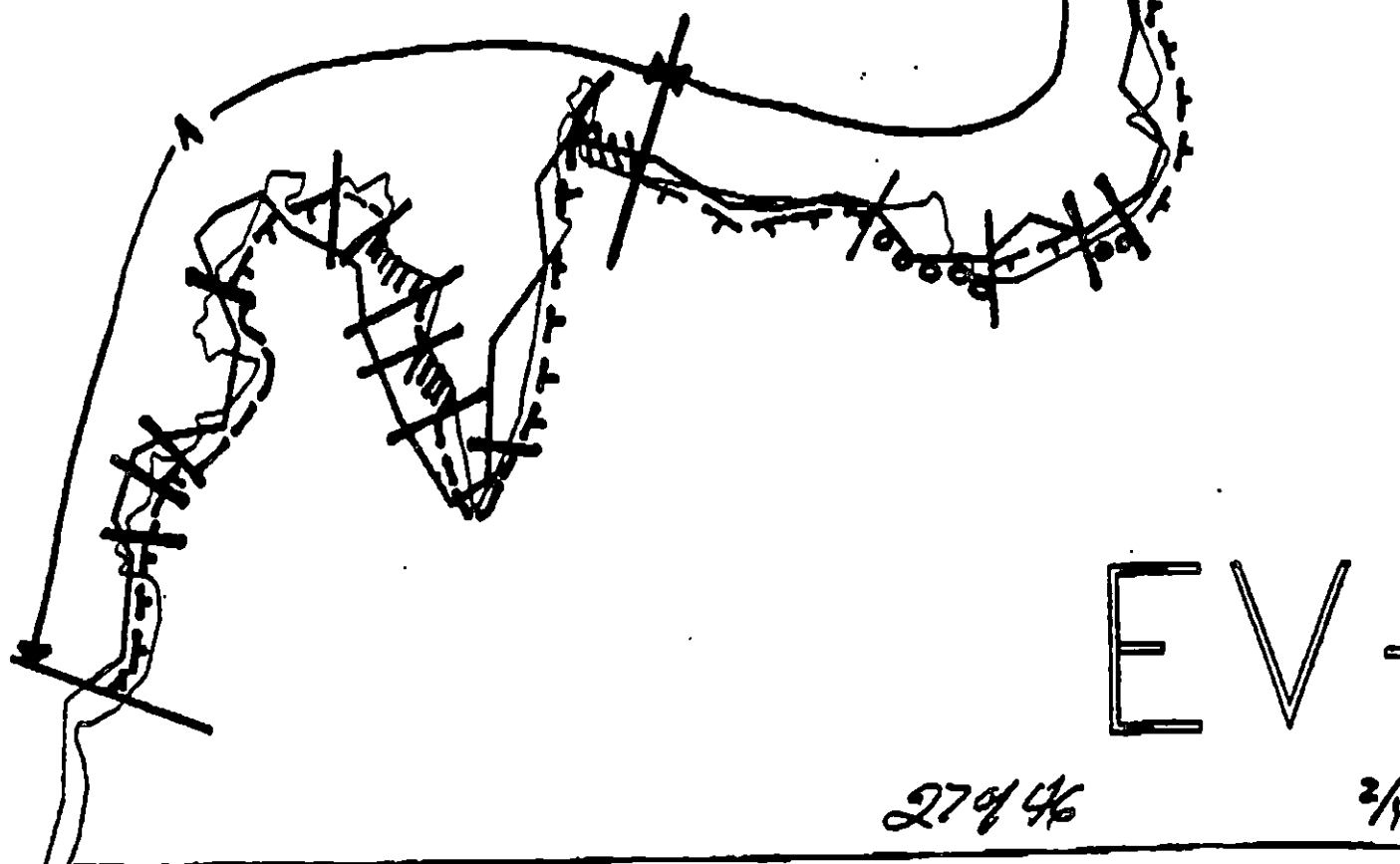
Map Key: PWS-280c

Name: R. Marty

Date: 24 April 1990

Date Entered:

EV-60



EV =

274/46

2/1

XXXX Wide

//// Medium

--- Narrow

TTTT Very tight

EV-60

ADEC Segment Length: 3688m

Map Key: PWS-2600

Name: R. Marty

Date: 24 April 1970



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-60 SUBDIVISION A (1 of 2)

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

Bioremediation & Manually Till **WORK PRIOR TO 8/15**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	No constraint to manual pickup, tarmat removal, bioremediation and manual tilling.
3N,3O	Harbor Seal and Seal Lion pupping	No time constraint. Authorized per memorandum dated 5/14/90 from Kathryn Frost/ADF&G to Mark Kuwada/ADF&G.
3O,3Q	Harbor Seal and Seal Lion molting	
5T	All Bald Eagle nests (3/1 to 6/1)	No constraint. USFWS 6/1/90 map indicates no active nest within 400m of subdivision A work areas.
7II	Subsistence area: Deer harvesting	Closed to bioremediation and manual tilling after 8/15. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

FOSC

Date

6-25-90

Prepared by

Rev P. Chittie

Date

6-25-90

EV-06^A

EV-60

EV-10

WORK
AREAS

EV-09

EV-08

ECOLOGY MAP SEGMENT EV-60

SUBDIVISION A (1 of 2)

METERS

0 505 1010

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

1 inch = 1657 feet



Exxon Company, USA

Map Key: PWS-EV-60

June 09, 1990



SHORELINE EVALUATION

SEGMENT ST/ EV-60 SUBDIVISION B (2 OF 2) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1F Sawmill Bay Hatchery release (4/15 to 6/1)
5T-5 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. 5T-3 and 2 adjacent nests.

SHPO SIGNATURE: Rachel Joan Oare DATE: 5/22/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 40 m: V.Light 1498 m: No Oil 580 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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tarmats and patties in areas indicated on sketch map, and 2) bioremediation of areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS due to eagle nest constraint.

TAG COMMENTS:

TAG APPROVAL DATE: 5/21/90

ADEC Art Weimer Art Weimer

EXXON Art Weimer Art Weimer

NOAA Joseph Tallmadge Joseph Tallmadge

USCG G.A. REITER G.A. Reiter

FOSC: DATE: 6-17-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A** Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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** Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I** Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (8/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M** Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unrolled 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 Evelyn Biggs 424-3235
- 3N, 3P, 3O, 3Q** Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (5/15 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 6/15)
 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 (5/1 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
- Subistence area:** Salmon harvesting (5/1 to 9/30)
 Finfish harvesting
 Deer harvesting (5/15 to 2/28)
 Invertebrate harvesting
 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 ST1 EV060 SUBDIVISION: B of B DATE 4/25/90

USCG

NAME Shawn MARS SIGNATURE K² Shawn MARS

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

MANUAL REMOVAL OF TARTIES TAR BALLS POCKETED
IN LOW ANGLE BEACH. NO OILED DEBRIS. AND
BIOREMEDIATION OF COAST LOW ANGLE BEACH AND
SUBSURFACE OILS NOTED.

ADEC

NAME Dave Sale SIGNATURE Dave Sale

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

- ① MANUALLY REMOVE TAR PARTIES, SAWS & ASPHALT
- ② REMOVE OILCO CLOGS & SEDIMENTS FROM BELOW BOULGERS
AND/OR CLEAN; OTHERWISE, ALL PARTIES SHOULD AGREE TO
SIGN PUBLIC DOCUMENT NOTING EXISTENCE AND LOCATION OF
ALL OIL NOT REMOVED.
- ③ REMOVE AND/OR CLEAN SUBSURFACE OIL FROM SEDIMENTS
(PIT 3) AND ANY OTHER LOCATIONS NOTED.
- ④ WERE CREWS SHOULD NOT DISTURB, HAULED OUT OTHERS ON PINNIPED
ROCKS

LAND MANAGER

NAME Don Rompkoff Jr. SIGNATURE Don Rompkoff Jr.

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

2 of 46

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG R. Marty USCG S. Maas SEGMENT ST/ SV-60
 BIO B. Lemen LAND REP D. Kempf Jr. SUBDIVISION B (2 OF 2)
 XON J. Carmichael ADEC D. Sale TIME 09:00 10/02/90
 TEAM NO. 10 TIDE LEVEL -0.09m → +1.52m DATE 24 / April / 90
 EST. SUBDIVISION LENGTH: 1001 m² ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: _____ to Varies
 SURFACE SEDIMENTS: R 70 % B 10 % C 10 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long _____ % Hang _____ % Vert _____ % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 39 m VL 1212 m NO 544 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	N	P	B	W	U	M	V	W	U	M	V
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X	-	X	X

PAVEMENT H F S None m by 0 cmPATTIES / TARBALLS 15 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE D#BAGS 0

Photographs:

Roll No. ST/10/14Frames 22-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	Y	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		US	US	W	U	M	V	W	U	M	V				
1	15					X			X					X	-			N	-	N	GP-GCR
2	37					X								X	-			N	-	N	GP-PS
3	9	X					0.3	X				X		X	-			N	-	N	GP-SG

COMMENTS The segment is primarily high angle rocks. These have splattered to broken coat. There are also tar balls in some low angle areas. This subsegment has two generations of tar also. One pre-Erson Valdez (hard friable etc) and soft E. Valdez tar.

Note: segment lengths reflect normalization to length in memo REC/Smr 03790. This appears to be the ADEC length and not the Erson length.

12 of 46

00 R. Merty

SEGMENT ST/ EV-60

SUBDIVISION A-EV-60

DATE 29 April 90

CHECKLIST

- M. Armer
- Alperin, B. G.
- Seay, R. G.
- Or. D. M.
- Length
- % Cover
- Substrate Character
- Est. H. M. L. M.
- SSL
- Perfor. Location(s)
- Perfor. (s)
- Perfor. Location(s)
- Photo Location(s)

LEGEND

- 1 A
- 2 A
- Pr. - Substrate Or
- CT/C
- CT/B
- Broken Classification
- CT/P
- Patchy Distribution
- CT/S
- Splattered Distribution
- CT/O
- Old Vegetation
- Photo Location, direction, and number

On Chart Length (m): AP

Continued on Page 3

1.10m wide band of broken coat becomes more concentrated in shallow substrate face. Terry & sticky.

Splattered band of coat.

No Oil

high angle rock faces

EV-60

BIOREMEDIATE

Splattered coat

high angle rock face

Splattered band 1/2 m wide

Tar patties

No Oil

Splattered terry coat

Tar patties become more concentrated. Splattered coat - No evidence for penetration.

Tar patties widely scattered + some splattered coat.

MANUALLY REMOVE TARMATS/PATTIES

Eagle nest Confirmed 24 Apr 90

patchy tar cover to 2m wide. This is heaviest under rocks

Scattered cover

band of terry cover; patchy 1/2 m wide

Splattered tar cover. 5m shown

Fig. 2

Eagle nest Confirmed 24 Apr 90

UNCONFIRMED EAGLE NESTS 24 Apr 90

P, G born C, P pocket beach: Dark gray slate

P, G, SC pocket beach Slate bedrock

Splattered coat on the S

Tar balls & splatter - quite a bit of older pre-E. Volcanic tar also. Becomes more terry just below the surface

Stream vertebrate anemones

w/ fish likely

2/3

0 100 200 300

OC: R. Mearby

SEGMENT S1/ EV-60

SUBMISSION APR 1990

DATE 29 April 90

CHECKLIST

- ☐ N. Area
- ☐ Approx. Scale
- ☐ Sample Study
- ☐ On Day
- ☐ Notes
- ☐ Length
- ☐ N. Corner
- ☐ Substrate Orientation
- ☐ 1 in NW/NE dir.
- ☐ S/S
- ☐ Profile Location(s)
- ☐ Profile Location(s)
- ☐ Profile Location(s)

LEGEND

1 A

Profile Substrate On

2 A

Profile Substrate On

CT/C

Orientation Distribution

CT/B

Substrate Distribution

CT/P

Profile Distribution

CT/S

Substrate Distribution

CT/E

Orientation Distribution

Profile Location, direction, and number

Continued on
Page 3

BIOREMEDIATE

EV-60^B

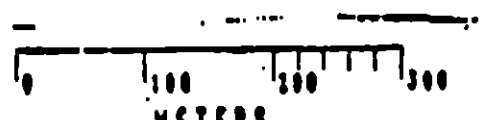
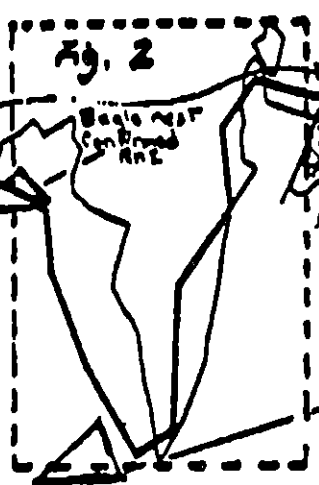
REVISED

MANUALLY
REMOVE
TAR WATS/
PATTIES

Eagle nest
Confirmed
24 Apr 90

UNCONFIRMED
EAGLE NESTS
24 Apr 90

Strong
vertebrate
orientation



SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST/10/EV-60 Subdivision B Date (mo/day/yr) 4/24/90
 Time (24 hr) 0900 - 1100 Biologist Lemon

- (A) Substrate type and % of segments:
 (1) Bedrock 70 (2) Boulder 10 (3) Cobble 10 (4) Pebble 10 (5) Sand — (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense — Moderate 55% 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/10/14
 Frames 22-24

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments: Fucus reproductive at all levels.
 2 eagles, , & schools of "minnows". Fresh set barnacles on oily substrate!
 2 Sea otter; 1 dead otter by worn out teeth, see map.
 loon

Ecological Considerations: one of 3 expected eagle nests was seen, see map. A substantial stream w/ evidence of spawner remains was located in this subdivision. This is a subsistence deer herder area and hatchery release route.

16 of 46

(R. R. Perry)

SEGMENT ST/ EV-60

SUBMISSION B(PE)

DATE 24 April 90

CHECKLIST

Map Area
Aerial Photo
Satellite Imagery
Oil Data
Length
% Cover
Substrate Character
Est. Habitat
Soil
Profile Location
Profile
Photo Location
Photo Location

LEGEND

1 A

PI - No Substrate Or

2 A

PI - Substrate Or

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Partial Distribution

CT/S

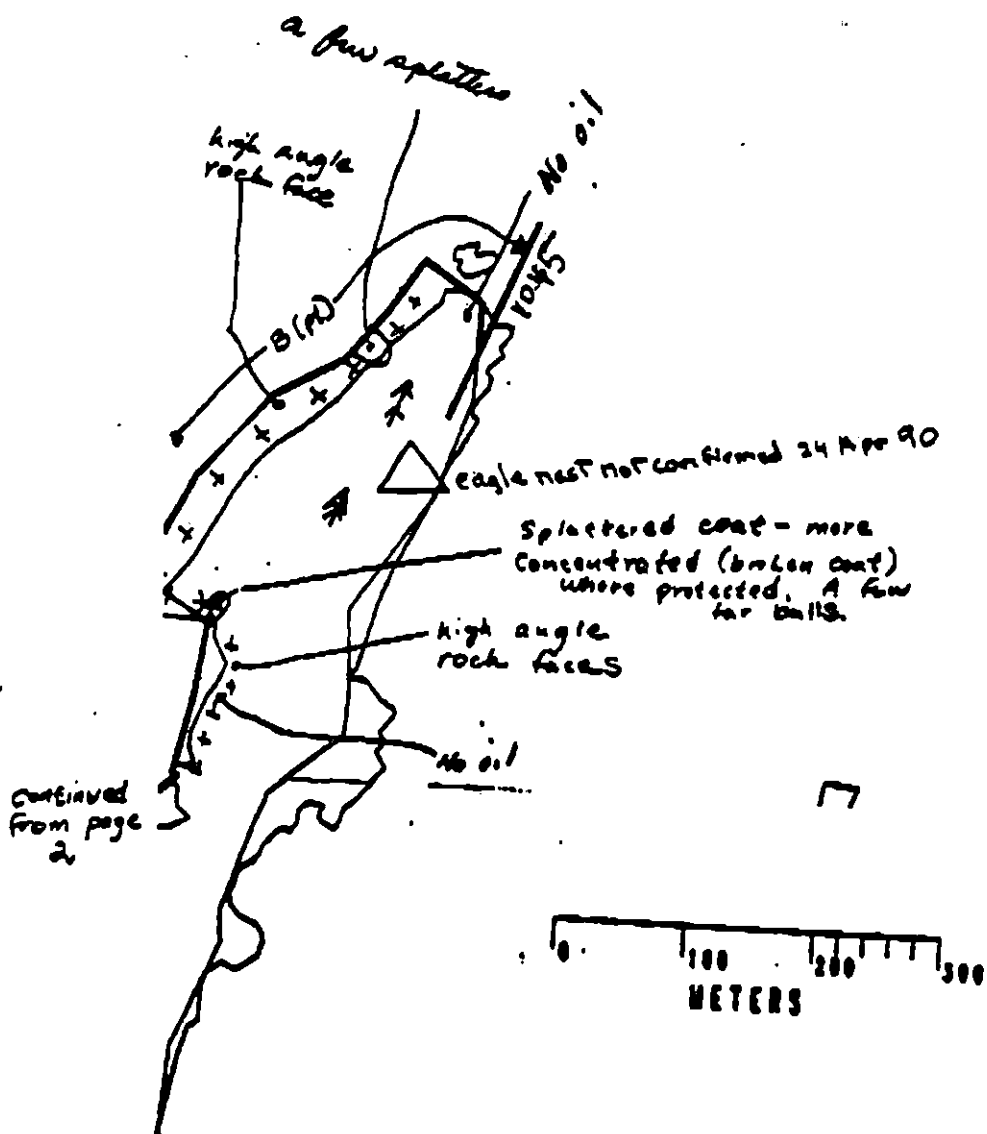
Spaced Distribution

Oil Vegetation

1 00

Photo location, direction,
and number

SKETCH MAP



3/5

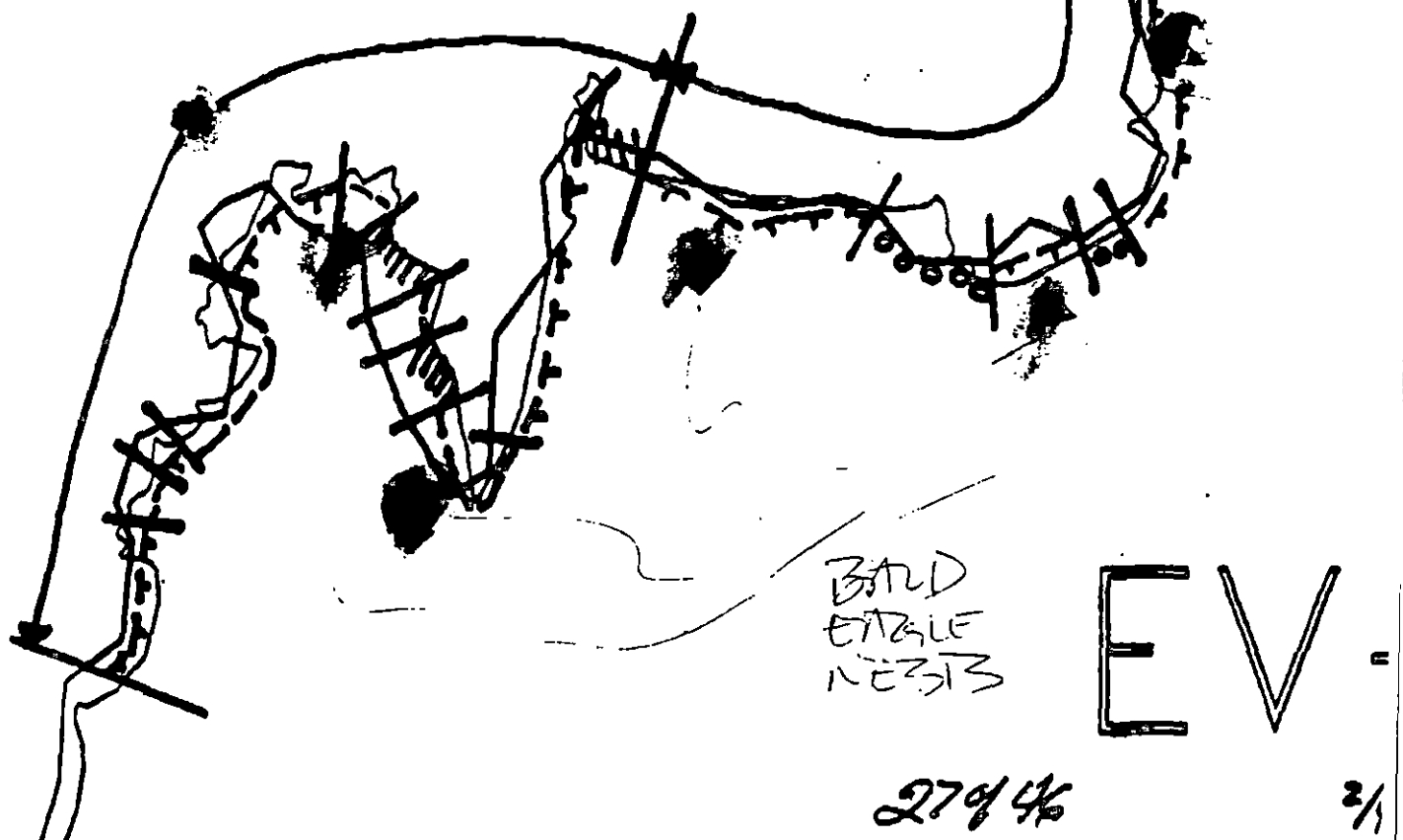
24/46

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

(CCEC/CAI/MA/10/1/10)

EV-60B (2 of 2)

EV-60



BALD
EAGLE
NESTS

EV-

27/4/96

2/1

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

EV-60

ADEC Segment Length: 3688m

0 1.00 1.00 1.00 1.00

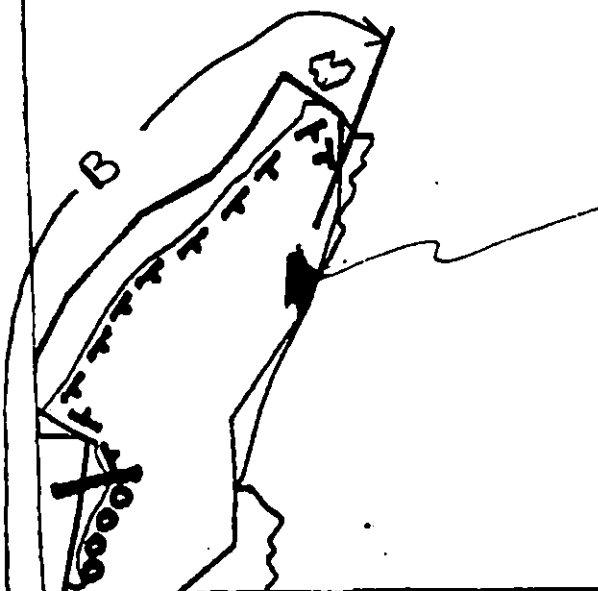
Map Key: PWS-260c

Name: R. Marty

Date: 24 April 1996



(2052)



BARD EAGLE
NEST

288.46

4/4

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-60

ADEC Segment Length: 3688m



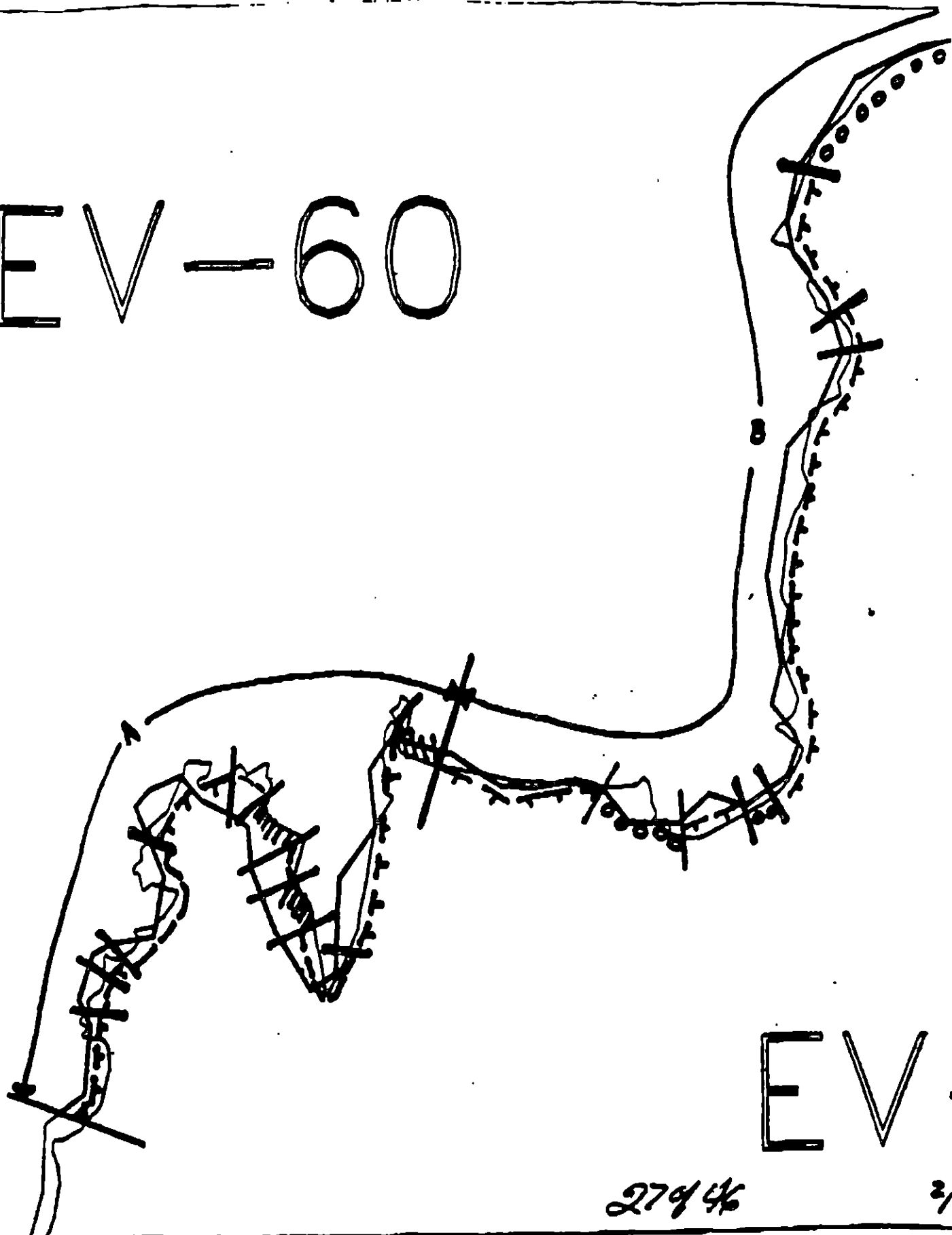
Map Key: PWS-260d

Name: R. Marty

Date: 24 April 1990

Date Entered: _____

EV-60



EV.

27446

2/

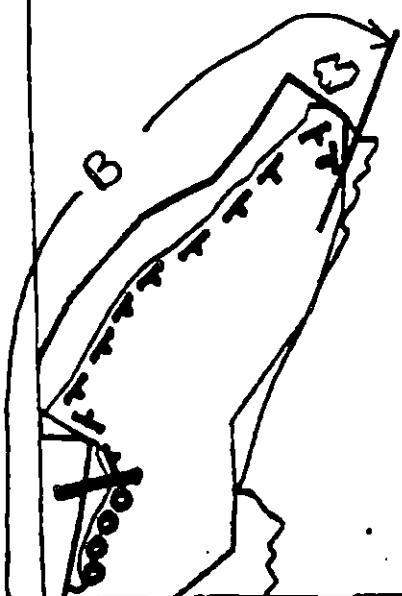
XXXX Wide
 //// Medium
 --- Narrow
 TTTT Very Light

EV-60

ADEC Segment Length: 3688m



Map Key: PWS-260c
 Name: R. Marty
 Date: 24 April 1974



28 g. 4/4

4/4

XXXX Wide

EV-60

//// Medium

--- Narrow

ADEC Segment Length: 3600m

TTTT Very Light



Map Key: PWS-2600

Name: R. Marty

Date: 24 April 1990

...

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-60 SUBDIVISION B (2 of 2)

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

Bioremediation & Manually Till **WORK PRIOR TO 8/15**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	No constraint to manual pickup, tarmat removal, and bioremediation.
3N,3O	Harbor Seal and Seal Lion pupping	No time constraint. Authorized per memorandum dated 5/14/90 from Kathryn Frost/ADF&G to Mark Kuwada/ADF&G.
3O,3Q	Harbor Seal and Seal Lion molting	
5T	All Bald Eagle nests (3/1 to 6/1)	No constraint. USFWS 6/1/90 map indicates no active nest within 400m of subdivision A work areas.
7II	Subsistence area: Deer harvesting	Closed to bioremediation after 8/15. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

FOSC

Date

6-25-90

Prepared by

John P. Chilton

Date

6-25-90

EV-06_A

EV-60

EV-10

WORK
AREAS

EV-09

EV-08

ECOLOGY MAP
SEGMENT EV-60

SUBDIVISION B (2 of 2)

METERS

0 505 1010

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

1 inch = 1657 feet



Exxon Company, USA

Map Key: PWS-EV-60

June 09, 1990



SHORELINE EVALUATION

SEGMENT ST/ EV-61 SUBDIVISION A (1 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting
(7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints identified.

SHPO SIGNATURE: McMillan 2/4/90 DATE: April 4, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 13 m: No Oil 657m
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 due to the only surface oil
observed being a sporadic stain in area shown on sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 4/9/90

ADEC JOHN BAKER

EXXON ANDY TEAR

NOAA Burl Wescott

USCG G.A. REITER

FOSC: by L

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-61 SUBDIVISION: A-B-C DATE 3/30/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

LOWER INTERTIDAL COVERED BY TIDE AT TIME OF OBSERVATION.

SUBDIVISION "A" WAS FREE FROM EVIDENCE OF OILING EXCEPT FOR 2 LARGE BOULDERS WITH HIGHLY WEATHERED STAIN. MYTILUS, BARNACLES AND LIMPETS PRESENT.

SUBDIVISION "B" WAS A GENTLY SLOPING SOMEWHAT SHELTERED BEACH WITH A STREAM BISECTING IT. A MODERATELY OILED SECTION WAS ENCOUNTERED ON THE NORTH SIDE OF THE STREAM. WATER BEADED ON SURFACE ROCKS, AND BROWN STICKY RESIDUE WAS PRESENT TO A DEPTH OF ABOUT 7-10 CM. LEFT BROWN GUNK ON FINGERS (JACQUI M. DIDN'T SAY WHAT TO DO AFTER RUBBING THIS STUFF AROUND IN ONE'S HAND!). NOTICEABLE ODOOR. THIS WAS A DISCRETE OCCURRENCE, HOWEVER. ALTHOUGH SOME EVIDENCE OF OILING WAS OBSERVED NORTH ALONG THIS BEACH, NONE WAS SEEN TO THE SOUTH.

SUBDIVISION "C" WAS CLEAN, ALTHOUGH A 10' SECTION OF OILED BOOM MATERIAL WAS RECOVERED FROM UPPER INTERTIDAL. NEARSHORE WATER COLUMN WAS FULL OF MYSIDS, WHICH RESULTED IN LARGE NUMBERS WASHING UP ON BEACH INTERESTING —

ADEC

NAME

John Hoyer

SIGNATURE John Hoyer

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

In subsection B see map we found an isolated patch of surface subsurface oiling. The coverage was 90% surface cover with ss. pr. ss oiling was approx 10 cm. heavy grading down to a film from 10-30 cm. This isolated patch was triangular shaped Δ covering approx. 8 sq. meters. Bioremediation is recommended for just this small section of oiling. Beach surrounding oil is healthy and mechanical treatment or ss. mechanical treatment would have adverse impact. See map for exact location

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

OG Mike Cooper NOAA Gary Shingnaka SEGMENT ST/ EV-61
 BIO Richard Ambros LAND REP — SUBDIVISION A (1 OF 3)
 EXXON Larry Olson ADEC John Hayes TIME 12:50 to 13:30
 TEAM NO.: 1 TIDE LEVEL: 5' to 6.5' DATE 3/30/90
 EST. SUBDIVISION LENGTH: 630 m ☐ Sun ☒ Clouds ☒ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky forested backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 15 % B 25 % C 30 % P 20 % G 10 % S — % M — % V — %
 SLOPE: Lang 30 % Hang 50 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 3 m NO 627 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	R	BR	BL	OR	OL	GR	GL	SR	SL	SU	U	M	V
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN					X						X				X	
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X		X

PAVEMENT: H F S — sq. m by — cr

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-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	BR OR	BL OR	GR OR	SL OR	SR OR	TL OR	TR OR	SU	U	SE	U			
1	30					X	-		X									X				P, G, S	
							-																
							-																
							-																
							-																
							-																

COMMENTS

Oil is located towards the southern end of the subdivision. It is a 1 m x 3 m splattered distribution. The oil is very weathered and is located in the mid-intertidal zone. The subdivision has a low angle B/C beach to the North and the southern end is a vertical rock wall.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 09/23

Segment ST/ EVO61 Subdivision A Date (mo/day/yr) 3/30/90Time (24 hr) 1250 hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 25 (3) Cobble 30 (4) Pebble 20 (5) Sand 10 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 0 Moderate 25 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. -Frames -

BARNACLES

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

GASTROPODS

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
3	3	3	X	3	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	2	X	2	2	2	2	2
3	3	3	3	3	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

Wildlife Observations/ General Comments: *

Not as rich a biota on this segment as, e.g., EVO58A.

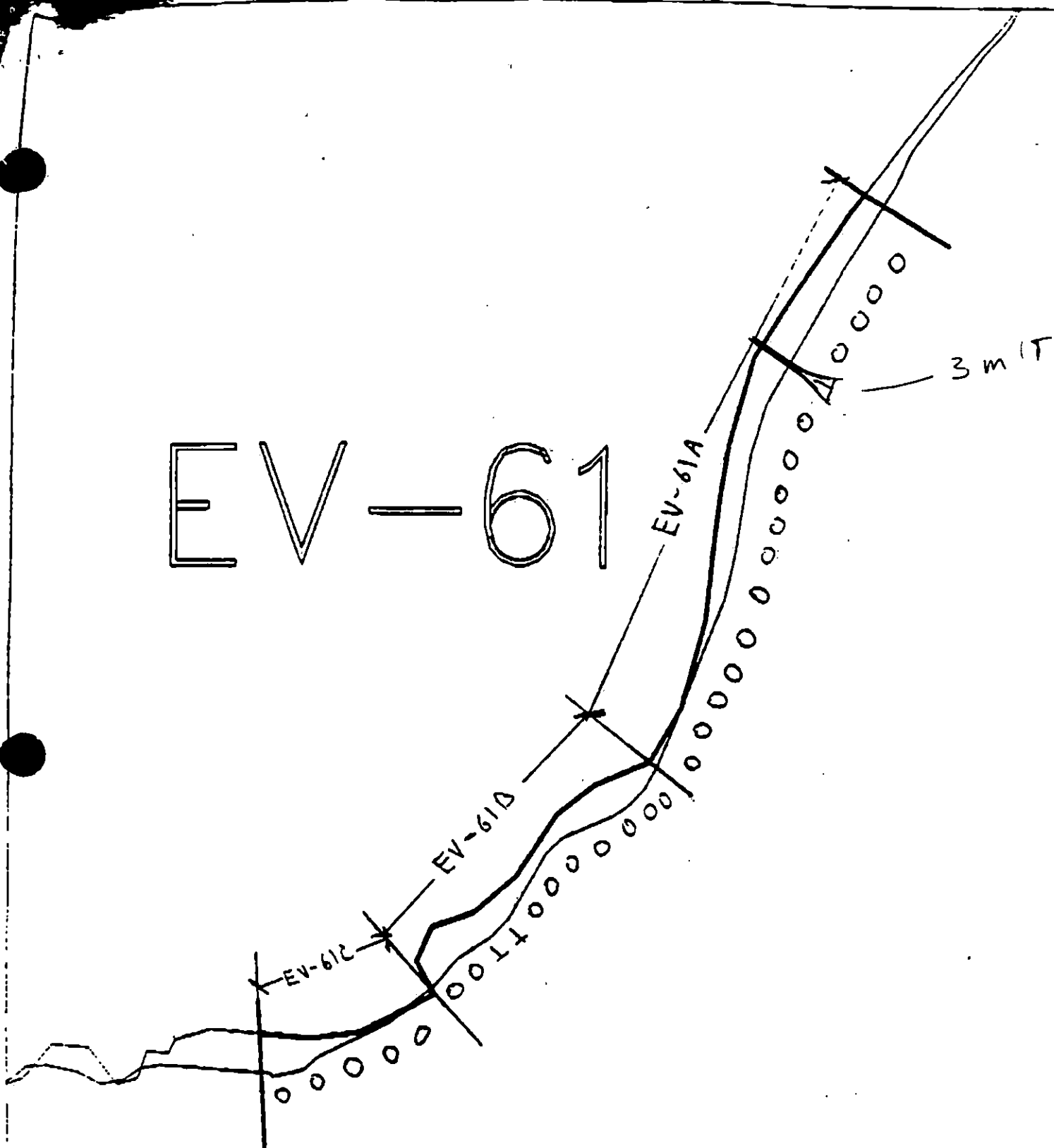
Ecological Considerations:

IF, 711: no specific location is relevant.

* Notes: (1) Most of subdivision surveyed by boat.

(2) Lower intertidal not surveyable - tide too high.

EV-61



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-61A

ADEC Segment Length: 1231m



Map Key: PWS-261

Name: FOGET

Date: 3-30-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-61 SUBDIVISION B (2 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting
(7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints identified.

SHPO SIGNATURE: [Signature] DATE: April 4, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 46 m: V.Light 14 m: No Oil 327m
Subsurface Oil Observed: Yes X No Maximum Depth 30

RECOMMENDATIONS:

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

COMMENTS: No treatment recommended in this subdivision as only
isolated and sporadic surface coat was found. This area is not
considered a high human use location, therefore treatment of this
small patch is not recommended.

TAG COMMENTS:

TAG APPROVAL DATE: 4/9/90
ADEC JOHN BAUER
EXXON ANDY BIL FOSC: [Signature] DATE: 4-19-90
NOAA Burt Wescott
USCG G.A. REITER

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EU-61 SUBDIVISION: A-B-C DATE 3/30/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

LOWER INTERTIDAL COVERED BY TIDE AT TIME OF OBSERVATION.

SUBDIVISION "A" WAS FREE FROM EVIDENCE OF OILING EXCEPT FOR 2 LARGE BOULDERS WITH HIGHLY WEATHERED STAIN. MYTILUS, BARNACLES AND LIMPETS PRESENT.

SUBDIVISION "B" WAS A GENTLY SLOPING SOMEWHAT SHELTERED BEACH WITH A STREAM BISECTING IT. A MODERATELY OILED SECTION WAS ENCOUNTERED ON THE NORTH SIDE OF THIS STREAM. WATER BEADED ON SURFACE ROCKS, AND BROWN STICKY RESIDUE WAS PRESENT TO A DEPTH OF ABOUT 7-10 CM. LEFT BROWN GUNK ON FINGERS (JACQUIE M. DIDN'T SAY WHAT TO DO AFTER RUBBING THIS STUFF AROUND IN ONE'S HAND!). NOTICEABLE ODOR. THIS WAS A DISCRETE OCCURRENCE, HOWEVER. ALTHOUGH SOME EVIDENCE OF OILING WAS OBSERVED NORTH ALONG THIS BEACH, NONE WAS SEEN TO THE SOUTH.

SUBDIVISION "C" WAS CLEAN, ALTHOUGH A 10' SECTION OF OILED BOOM MATERIAL WAS RECOVERED FROM UPPER INTERTIDAL. NEARSHORE WATER COLUMN WAS FULL OF MYSIDS, WHICH RESULTED IN LARGE NUMBERS WASHING UP ON BEACH. INTERESTING —

ADEC

NAME

John Hoyer

SIGNATURE

John Hoyer

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

In subsection B see map we found an isolated patch of surface subsurface oiling. The coverage was 90% surface cover with ss. pr. ss oiling was approx 10 cm. heavy grading down to a film from 10-38 cm. This isolated patch was triangular shaped Δ covering approx. 8 sq. meters. Bioremediation is recommended for just this small section of oiling. Beach surrounding oil is healthy and mechanical treatment or ss. mechanical treatment would have adverse impact. See map for exact location

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

NEITHER NPS OR DNR WERE ABLE TO PROVIDE A REPRESENTATIVE FOR TEAM II.

JMR.
4/5/90

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG Mike Foget NOAA GARY Shingataka SEGMENT ST/ EV-61
 BIO Richard Ambros LAND REP — SUBDIVISION B (2 of 3)
 EXXON Larry Olson ADEC John Hayes TIME 13:30 to 14:00
 TEAM NO.: 11 TIDE LEVEL: 6.5' to 7.0' DATE 3/30/90
 EST. SUBDIVISION LENGTH: 360 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky forested backshore
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 20 % C 20 % P 20 % G 15 % S 15 % M — % V — %
 SLOPE: Long 60 % Hang 30 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N 30 m VL 10 m NO 320 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IF	IR	OR	OF	OL	OP	OG	OS	OM	OV	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT			X	X				X					X			
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													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			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE —

#BAGS —

Photographs:

Roll No. ST-11-1

Frames 3-5

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	OR OR	OF OF	OL OL	OP OP	NO NO	SU	U	M	L					
1	50		X				0-5	X					X			X							C, P, S
2	15		X				0-5		X				X			X							C, M, R
3	30					X	-		X							X							P, S
4	30					X	-		X							X							P, S
1	50				X		5-30	X					X			X							C, P, S
							-																

COMMENTS

Oil is located on the North side of a stream on a Pocke beach in the subdivision. The distribution is mostly patchy (2m x 30m) and is located in the upper intertidal zone. The patch tapers off to a splatter distribution (1m x 10m area). The oil is difficult to locate due to the color of the substrate. It is a black angular pebble shale. The oil is sticky and moist.

REVIEWED JW DATE 3-31-90

SHORELINE OILING SUMMARY

REVISION NO. 06/28/88

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-61
 BIO Richard Ambrose USCG Gary Shigenaka SUBDIVISION B
 EXXON Larry Olson ADEC John Hayes TIME to
 TEAM NO.: 11 TIDE LEVEL: to DATE 3/31/90
 ST. SUBDIVISION LENGTH: m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: to
 SURFACE SEDIMENTS: R % B % C % P % G % S % M % V %
 SLOPE: Long % Hang % Vert % WAVE EXPOSURE: ☐ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL m NO m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	R	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 F S sq. m by cmPATTIES / TARBALLS BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☐ NOTYPE #BAGS

Photographs:

Roll No. Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM/IN)	BELOW	OIL / FILM COLOR										PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			1	2	3	4	5	6	7	8	9	10			
1	50		X				0-5	X					X						X		C.P.S
1	50				X		5-30	X					X						X		C.P.S

COMMENTS

Revised 3/31/90

for Pit # 1

M. Foget

G. Shigenaka

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EVO61 Subdivision B Date (mo / day / yr) 3/30/90Time (24 hr) 1330 hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 20 (3) Cobble 20 (4) Pebble 20 (5) Sand 30 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 0 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: -
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	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

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	X	3	3	3	3	3
4	4	4	X	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	X	2	2	2	2
3	3	3	3	3	3	3	X	3	3	3	3
4	4	4	4	4	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

Wildlife Observations/ General Comments: *

10ter, 2 Herring ducks.

Not as rich an intertidal biota as, e.g., EVO58A; few barnacles, little Fucus.

Ecological Considerations:

1F, 711: No specific location is relevant.

*Note: Lower intertidal could not be surveyed - tide too high.

OG Mik yet

SEGMENT ST/ EV-61

SUBDIVISION B (1 of 3)

DATE 3, 30 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. H/W/L/WL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Pk Location(s)
☐ Photo Location(s)

LEGEND

1 Δ

Pk - No Subsurface Oil

2 Δ

Pk - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 $\bullet \rightarrow$

Photo location, direction,
and number

SKETCH MAP (2)

Legend

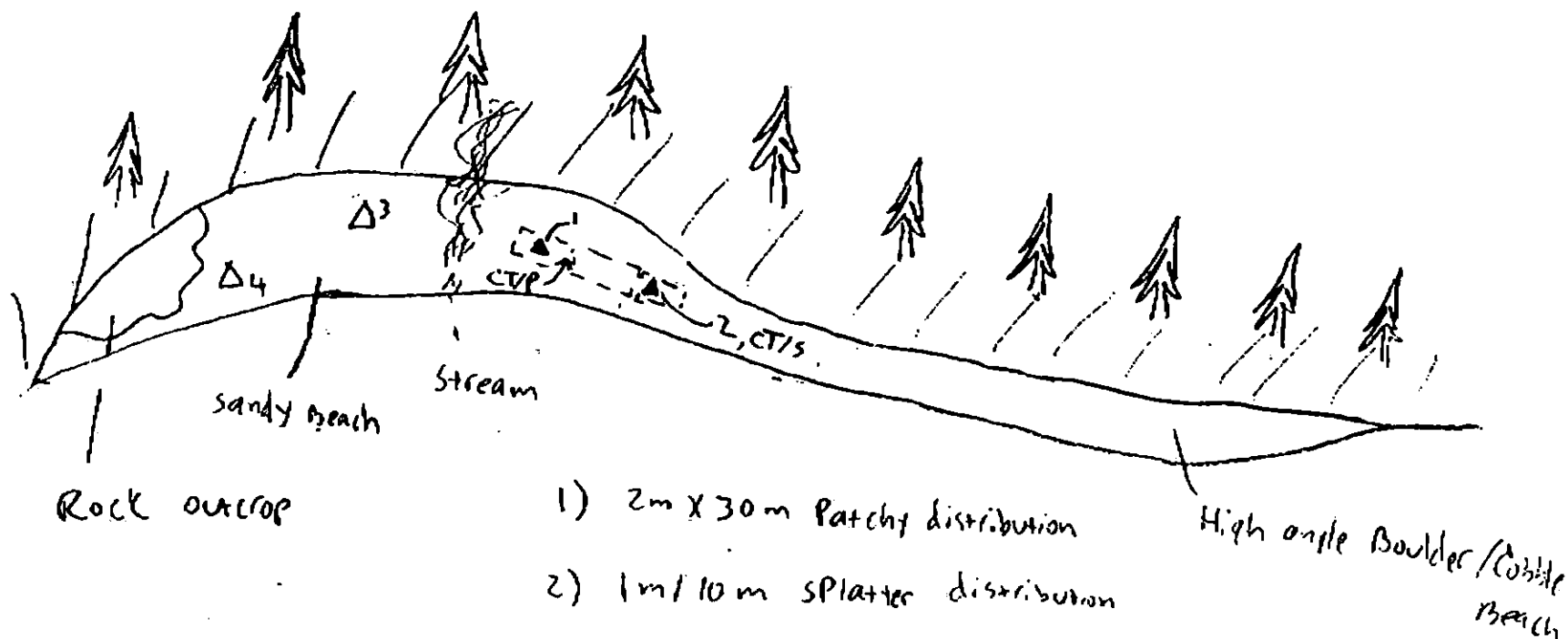
~~xxxx~~ - stream

/// - steep rocky backshore

$\uparrow$ - forested

Scale

40 m



Oil Character Length (m): AP PO CV CT 40m ST MS PT TB FL NO 320

REVISION: 2/24/90

OG M. K. F. 1st
SEGMENT ST/ EV-61

SUBDIVISION -

DATE 3 / 30 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/V/L
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

1 ▲

PI - No Subsurface Oil

2 ▲

PI - Subsurface Oil

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

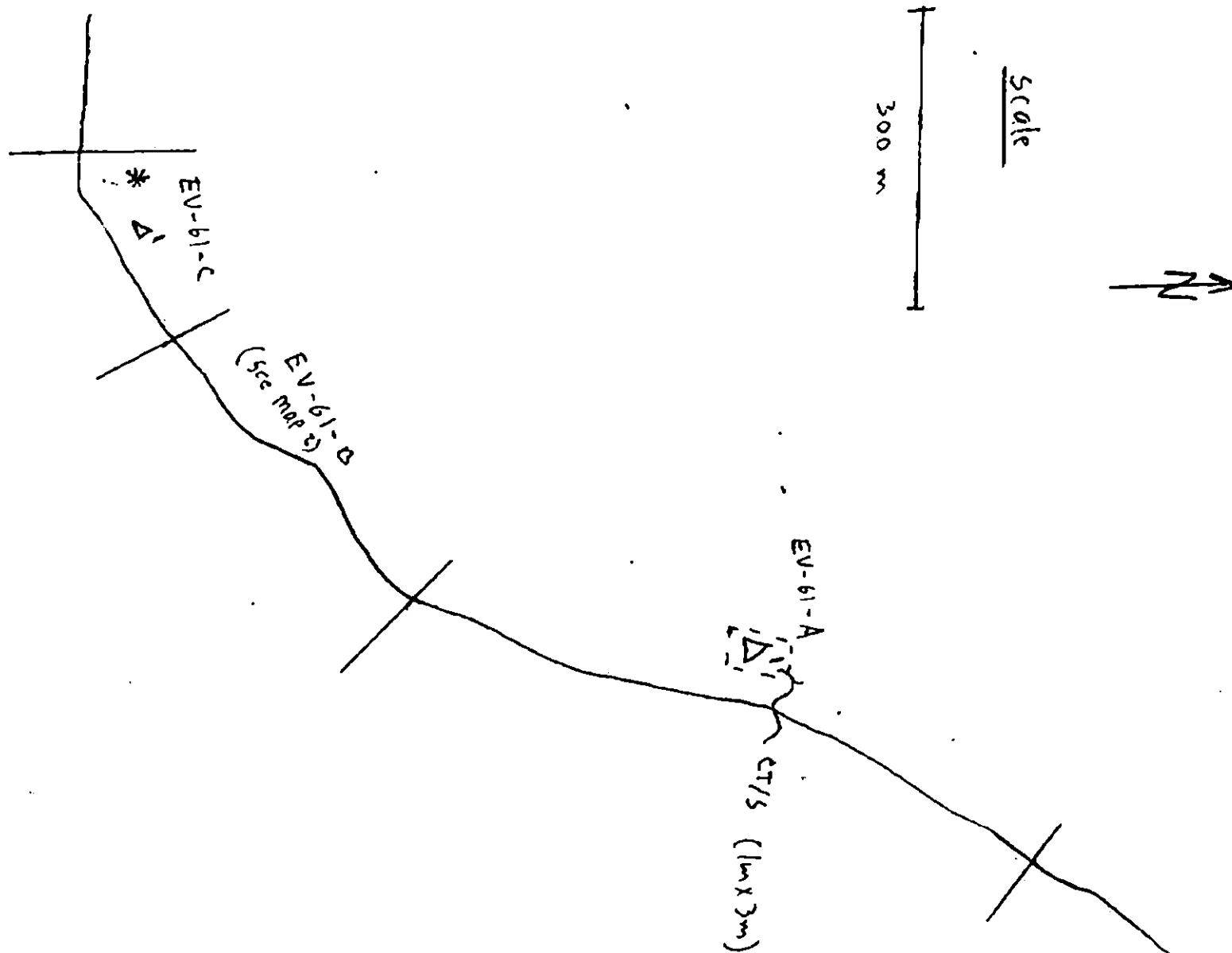
Oil Vegetation

1 ➔

Photo location, direction,
and number

* - Location of
oiled boom

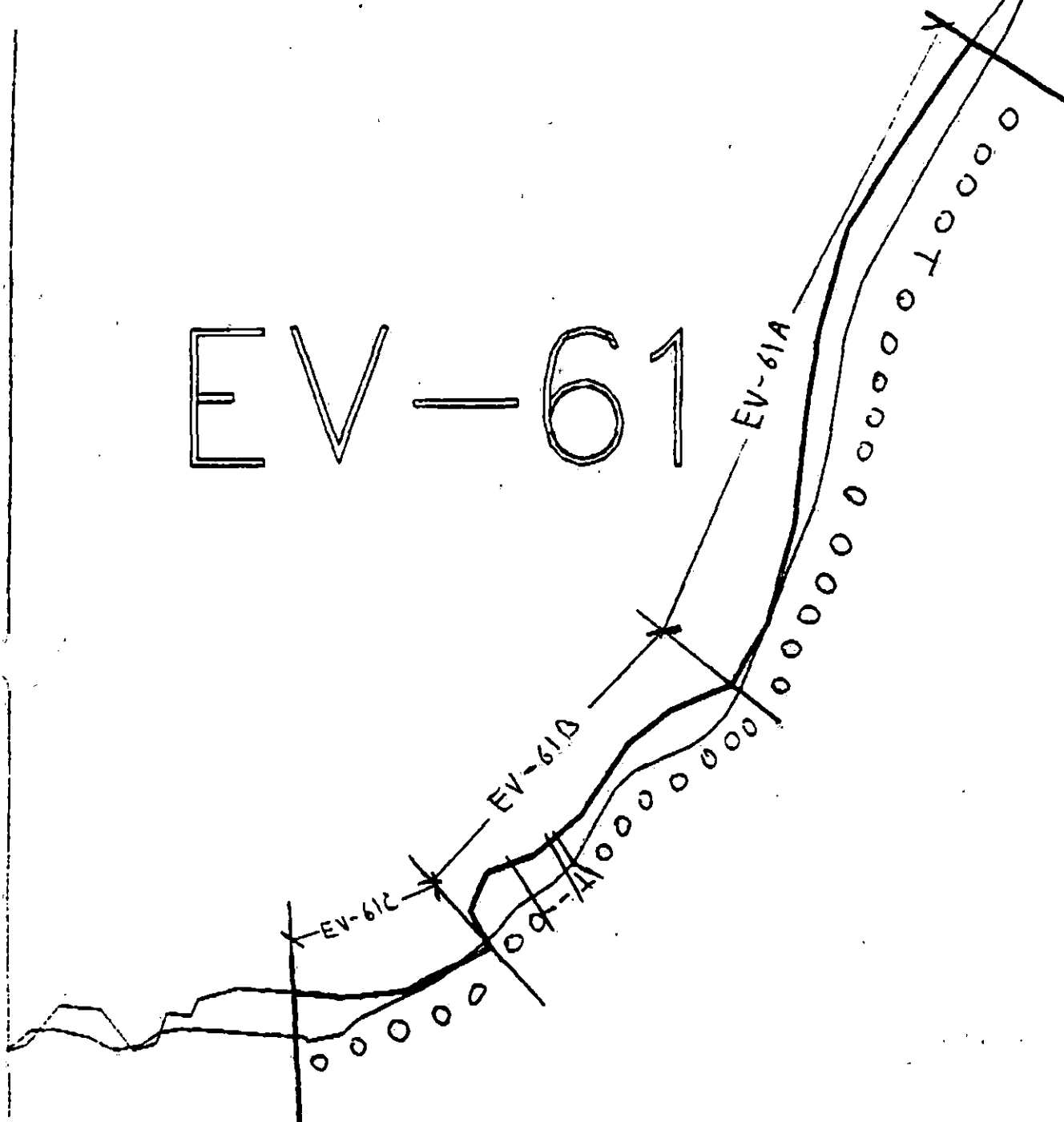
ETCH MAP (1)



Oil Character Length (m): AP - PO - CV - CT 40 ST 3 MS - PT - TB - FL - NO 1188

REVISION: 02/24/98

EV-61



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-61B

ADEC Segment Length: 1231m



Map Key: PWS-261

Name: FOGET

Date: 3-30-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-61 SUBDIVISION C (3 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting
(7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints identified.

SHPO SIGNATURE: Charles E. Holmes DATE: April 9, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 199m
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: No treatment recommended in this subdivision due to no
oil being found during survey. DEC suggested work applies to sub-
division "B" in Field Shoreline Comments.

TAG COMMENTS:

TAG APPROVAL DATE: 4/9/90

ADEC JOHN BAUER John Bauer

EXXON ANDY TELL Andy Tell

NOAA Bruce Wescott Bruce Wescott

USCG G.A. REITER G.A. Reiter

FOSC: DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EU-61 SUBDIVISION: A-B-C DATE 3/30/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LOWER INTERTIDAL COVERED BY TIDE AT TIME OF OBSERVATION.

SUBDIVISION "A" WAS FREE FROM EVIDENCE OF OILING EXCEPT FOR 2 LARGE BOULDERS WITH HIGHLY WEATHERED STAIN. MYTILUS, BARNACLES AND LIMPETS PRESENT.

SUBDIVISION "B" WAS A GENTLY SLOPING SOMEWHAT SHELTERED BEACH WITH A STEAM BISECTING IT. A MODERATELY OILED SECTION WAS ENCOUNTERED ON THE NORTH SIDE OF THIS STREAM. WATER BEADED ON SURFACE ROCKS, AND BROWN STICKY RESIDUE WAS PRESENT TO A DEPTH OF ABOUT 7-10 CM. LEFT BROWN GUNK ON FINGERS (JACQUI M. DIDNT SAY WHAT TO DO AFTER RUBBING THIS STUFF AROUND IN ONE'S HAND!). NOTICEABLE ODOR. THIS WAS A DISCRETE OCCURENCE, HOWEVER. ALTHOUGH SOME EVIDENCE OF OILING WAS OBSERVED NORTH ALONG THIS BEACH. NONE WAS SEEN TO THE SOUTH.

SUBDIVISION "C" WAS CLEAN, ALTHOUGH A 10' SECTION OF OILED BOOM MATERIAL WAS RECOVERED FROM UPPER INTERTIDAL. NEARSHORE WATER COLUMN WAS FULL OF MYSIDS, WHICH RESULTED IN LARGE NUMBERS WASHING UP ON BEACH. INTERESTING —

ADEC

NAME

John Hoyer

SIGNATURE John Hoyer

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

In subsection B see map we found an isolated patch of surface subsurface oiling. The coverage was 90% surface cover with ss. pr. ss oiling was approx 10 cm. heavy grading down to a film then 10-30 cm. This isolated patch was triangular shaped in Δ^2 covering approx. 8 sq. meters. Bioremediation is recommended for just this small section of oiling. Beach surrounding oil is healthy and mechanical treatment or ss. mechanical treatment would have adverse impact. See map for exact location

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foget NO AA USEG Gary Shingora SEGMENT ST/ EV-61
 BIO Richard Amirew LAND REP --- SUBDIVISION C (3 of 3)
 EXXON Larry Olson ADEC John Hayes TIME 14:00 to 14:20
 TEAM NO.: 11 TIDE LEVEL: 7' to 7.5' DATE 3/30/90
 EST. SUBDIVISION LENGTH: 241 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep Rocky Forested Backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 75 % B 5 % C 5 % P 5 % G 5 % S 5 % M --- % V --- %
 SLOPE: Lang 20 % Hang 30 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W --- m M --- m N --- m VL --- m NO 241 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IS	IP	IS	SP	BP	OP	BP	OP	TL	SU	U	M	U
ASPHALT														
PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	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	X		

DEBRIS COLLECTED
☒ YES ☐ NOTYPE Boom#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	OP	BP	OP	TL	SU	U	M	U		
1	40					X	-	X								X					P, G

COMMENTS This segment has vertical rock wall on both sides of the subdivision. There are a few high angle pocket P/G/S beaches with no oil. A oiled boom was located in the supra upper intertidal zone of the beach and was manually removed.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ EVOG1 Subdivision C Date (mo / day / yr) 3/30/90

Time (24 hr) 1400 hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 75 (2) Boulder 5 (3) Cobble 5 (4) Pebble 5 (5) Sand 10 (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 (O)

Photographs: Roll No. -

Frames -

BARNACLES

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X 2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	X 3	3	3	3	3
4	4	4	4	4	4	4	X 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	O 2	2	2	X 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	X 3	3	3	3	3
4	4	4	4	4	4	4	X 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: *

2 otters, 6 gulls.

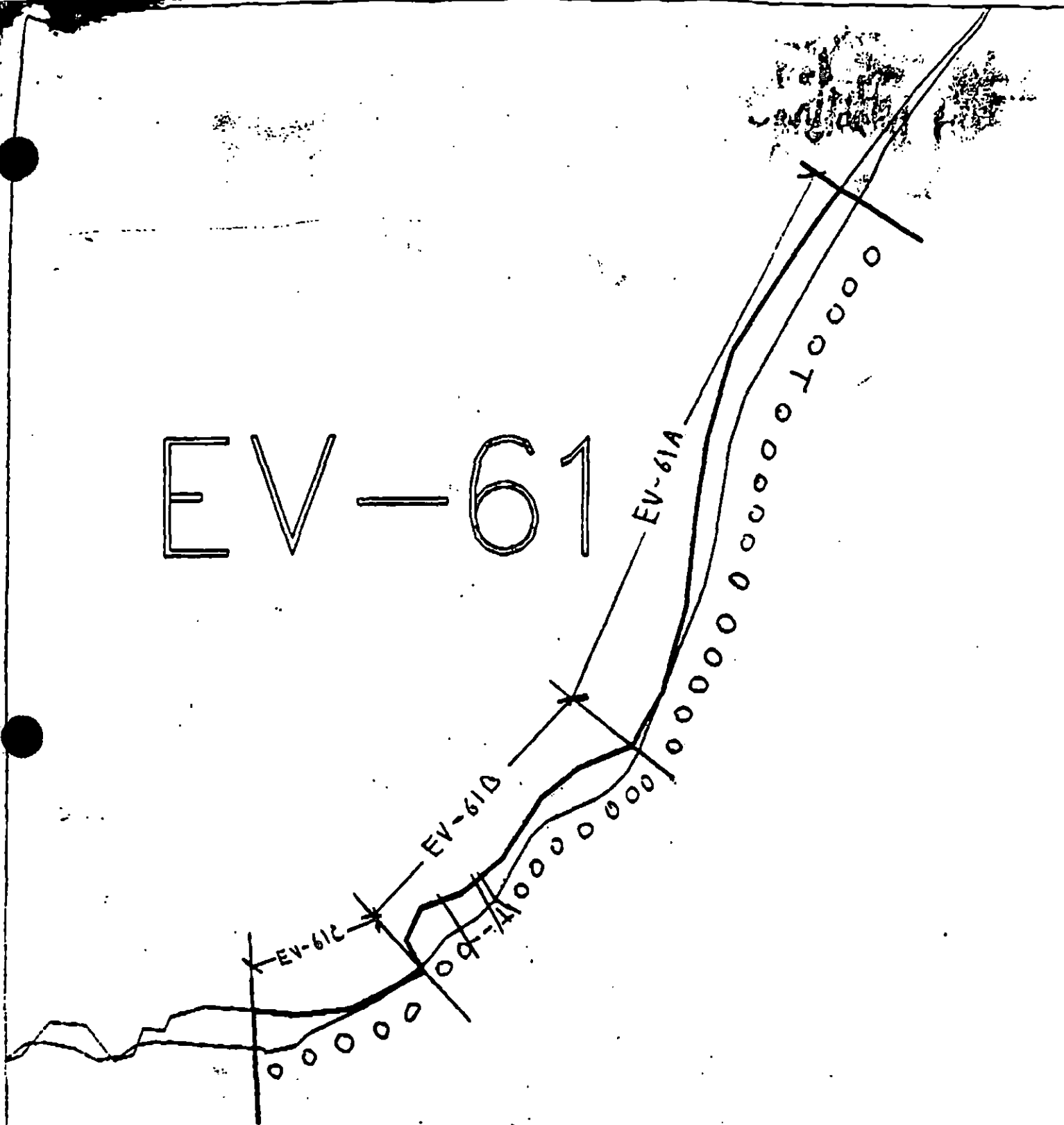
Dense band of mysids washed up at water line, with dense school in shallow water.

Ecological Considerations:

1F, 211: no specific location is relevant.

* Note: Lower intertidal could not be surveyed - tide too high.

EV-61



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-61C

ADEC Segment Length: 1231m



Map Key: PWS-261

Name: FOGET

Date: 3-30-90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-62 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Active bald eagle
nest (5T) - 3/1 to 6/1; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints.

SHPO SIGNATURE: Walter Zeffner DATE: April 6 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 689m
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: <u> </u> Wands
☐ Tarmat: <u> </u> Breakup	☐ <u> </u> Beach Cleaner
☐ <u> </u> Removal	☐ Other (see comments)

COMMENTS: No treatment recommended due to no oil being found
during the survey.

TAG COMMENTS:

TAG APPROVAL DATE: 4/6/90

ADEC JOHN BAUER John Bauer

EXXON ANDY TALL Andy Tall

NOAA Burt Westcott Burt Westcott

USCG G.A. REITER G.A. Reiter

FOSC: DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-62 SUBDIVISION: _____ DATE 3/31/90

~~USEC~~ NOAA

NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SEGMENT CONSISTED OF TWO DISCRETE BEACH TYPES, ONE A WELL-SORTED PORTION WITH BOULDERS RANGING DOWN TO FINE ROCKS AND COBBLES, THE OTHER LARGE ROCKS AND BOULDERS. NO OIL WAS ENCOUNTERED ON THE SEGMENT. BARNACLES, MUSSELS, FUCUS RESIDENT AT CENTRAL POINT OF SEGMENT. NELEOSTIS OFFSHORE. LOWER INTERTIDAL WAS COVERED AT THE TIME OF OBSERVATION.

ADEC

NAME John Hayes SIGNATURE John Hayes

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Heavy concentration of Iron in rocks + boulders along this segment. Iron + minerals resembled weathered oil, although on inspection no oil was found on this segment. Vegetation where land was healthy.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foget ^{NOAA} USEG Gary Shigenaka SEGMENT ST/ EV-62
 BIO Richard Ambrose LAND REP John Hayes SUBDIVISION A (1 OF 1)
 EXXON Larry Olsen ADEC John Hayes TIME 6:50 to 7:15
 TEAM NO.: 11 TIDE LEVEL: 7.1 to 5.7 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 612 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky forested back shore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 50 % B 10 % C 15 % P 5 % G — % S — % M — % V — %
 SLOPE: Long 15 % Hang 15 % Vert 70 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL — m NO 412 m

SURFACE OIL

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

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		UC	UC	UC	UC	UC	UC	UC	UC	UC	UC			
1	20					X	-		X									X		C, P

COMMENTS

No oil was located in this segment. The most eastern end of the segment has a low angle cobble beach, the rest of the segment is vertical rock wall with some high angle pocket boulder beaches. Pit #1 is located on the eastern most cobble beach in the upper inter-tidal.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 10/12/90

Segment ST/ EV062 Subdivision A Date (mo / day / yr) 3/31/92Time (24 hr) 0650 hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 70 (2) Boulder 10 (3) Cobble 15 (4) Pebble 5 (5) Sand — (6) Silt —(B) Overall % cover of biota (% of segment): Dense 0 Moderate 50 Low 50

(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. —Frames —

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	2	2	2	2
3	3	3	X	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

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	X	X	2	2	2	X	2	2	2
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

NOT PRESENT

Wildlife Observations/ General Comments: *

Nereocystis off shore.

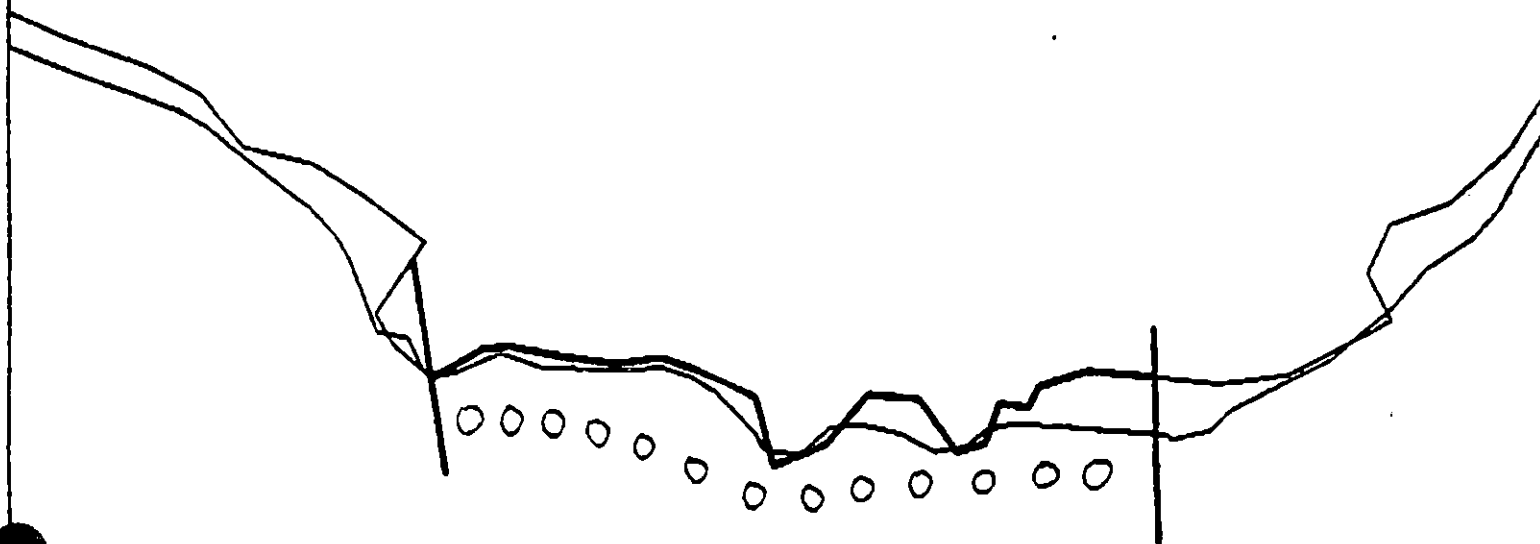
Ecological Considerations:

IF, 7 II, 5T: No eagles or nests seen.

*Note: (1) Could not survey lower tidal zone because of tide; could see some Fucus through water.

(2) Surveyed by boat, so could not see smaller organisms.

EV-6



EV-62

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-62

ADEC Segment Length: 612m



Map Key: PWS-262

Name: Mike Foget

Date: 3/31/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-63 SUBDIVISION A (1 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Anchorages (6V) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Maintain minimal disturbance as possible, eagle nest in vicinity. Restrict air traffic to essential minimum. Approach and takeoff from and to seaward only.

SHPO SIGNATURE: Kathleen [Signature] DATE: 4/10/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 259 m: No Oil 441 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: No treatment recommended due to only light amount of sporadic coat and stain found in this subdivision. Please review Shoreline Comment Sheet.

TAG COMMENTS: NOT ACTUAL ANCHORAGE SITE ANCHORAGE IN ADJACENT BAY

TAG APPROVAL DATE: 4/10/90
ADEC JOHN BAUER [Signature]
EXXON ANDY [Signature]
NOAA Byrd Wesselt [Signature]
USCG G.A. RETTER [Signature]

FOSC: [Signature] DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-63 SUBDIVISION: A DATE 3/31/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SEGMENT CHARACTERIZED BY BOULDER BEACH. EVIDENCE OF OIL-STAINING WAS PRESENT ON BOULDERS. OIL ON SEAWARD FACES WAS WEATHERED, WHILE THAT ON LANDWARD SIDE WAS MUCH LESS SO, STILL TACKY WITH PINE OR FIR NEEDLES EMBEDDED. IMPACTED ZONE APPEARED TO BE ABOUT 1m ABOVE FOCUS. RECRUITMENT OF MUSSELS ON UPPER BEACH WAS GOOD. ONE BOULDER WITH POPULATIONS OF BOTH MUSSELS AND BARNACLES COATED WITH OIL, BOTH POPULATIONS APPEARED TO BE DOING OKAY.

ADEC

NAME John Hayes

SIGNATURE *John Hayes*

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Light oiling indicated on map. Oiling was on boulder with cobble, gravel matrix below them. Surface coat was 20-40% coverage with a maximum thickness of 2mm. This beach is a high energy beach with exposure to swell from the gulf. All indications were that natural weathering was working well on this segment. No treatment recommended.

LAND MANAGER

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02/22/88

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-63
 BIO Richard Ambrose USCG LAND REP SUBDIVISION A (1CF2)
 EXXON Larry Olson ADEC John Hayes TIME 7:15 to 8:00
 TEAM NO.: 11 TIDE LEVEL: 5.7 to 3.9 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 750 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky backshore with trees
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 40 % C 25 % P 5 % G 5 % S 5 % M - % V - %
 SLOPE: Long 60 % Hang 20 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W - m M - m N - m VL 250 m NO 500 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	N	P	B	SW	W	W	W	SW	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X				X				X
STAIN				✓				✓				✓
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		

DEBRIS COLLECTED
☐ YES ☒ NOTYPE -#BAGS -

Photographs:

Roll No. ST-11-1Frames 6, 8-10

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	SW	W	W	W	W	W	SW	U	M	U		
1	15					X	.	X								X					C, P, G
2	20					X	.	X								X					P, G
							.														
							.														
							.														
							.														

COMMENTS

The Oiling is a dark brown coat [CT/S] with a discontinuous splashed distribution. It is located in the Mid IZ and runs along the shore segment 5m x 250m. Oil shows signs of weathering. The exposed oil appears as a dark stain on the rocks, while oil on the backside of boulders and underneath cobble is dark brown in color and is still slicky. There is a localized vertical discontinuous oil banding on the boulders in the MIZ 1m x 20m patch.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / EVO63 Subdivision A Date (mo / day / yr) 3/31/90

Time (24 hr) 0715hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 40 (3) Cobble 25 (4) Pebble 5 (5) Sand 10 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 35 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-11-1

Frames 7

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	2	2	2	2
3	3	3	3	3	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

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	X	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	2	X	2	2	2	2	2
3	3	3	3	3	X	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

Wildlife Observations/ General Comments:

All juv/adult Mytilus are juveniles; no adults found. Oiled barnacles and mussels found on a few boulders.

Saw 1 seal lion, 1 otter, 1 eagle, 2 gulls. Nereocythis occurs offshore.

Ecological Considerations:

1F, 711, 6V: No specific location is relevant.

*Note: much of this subdivision was surveyed by boat.

00 7/1 1981

SEGMENT ST/ EV-53

SUBDIVISION A

DATE 3/31/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LA/WL
- ☐ SSI
- ☐ 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

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

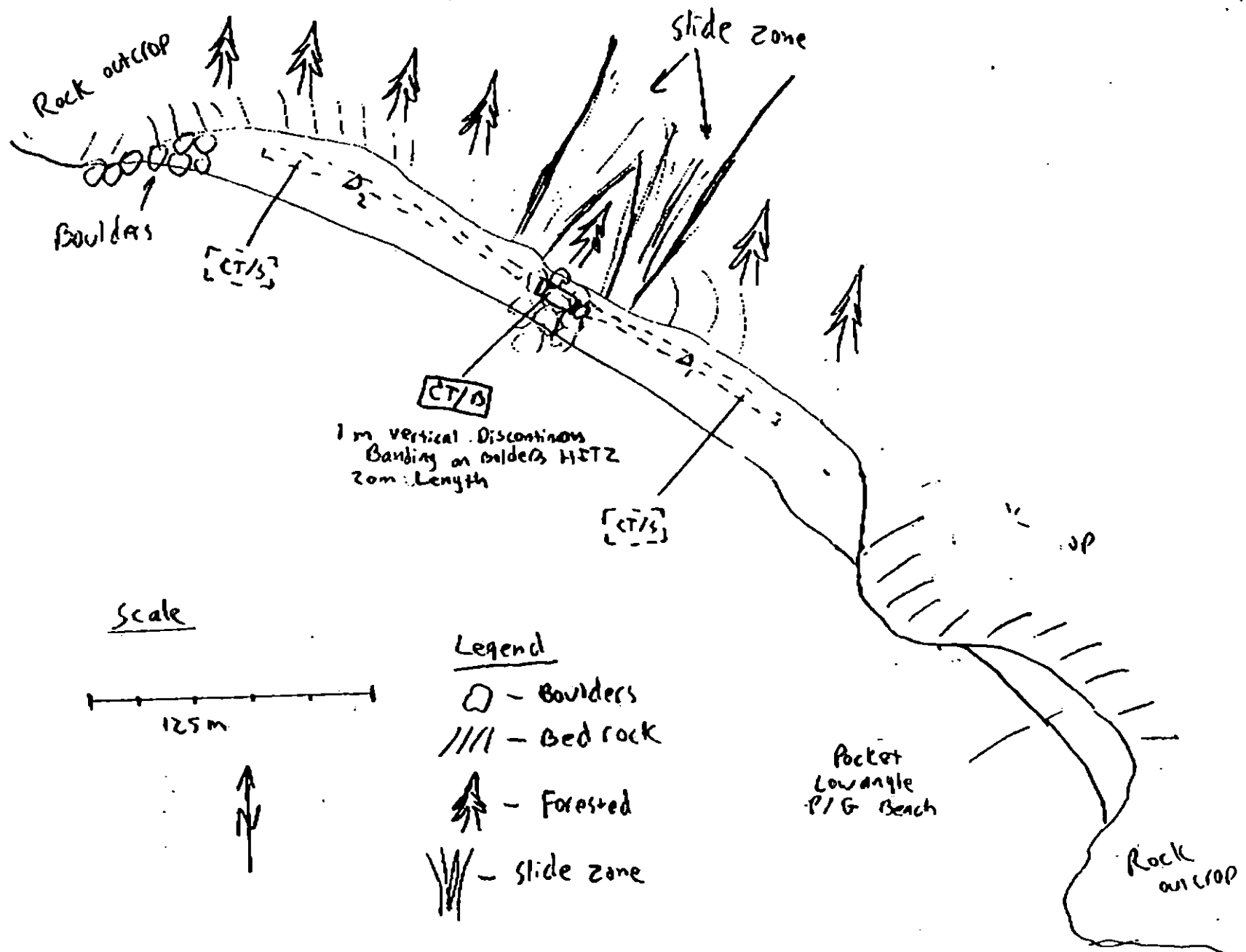
Splashed Distribution

Cited Vegetation

1 ●

Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP — PO — CV — CT 250 ST — MS — PT — TB — FL — NO 500

REVISION 20/20/90

EV-64

Δ'

Pit Location

EV-13B

EV-63

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-63

ABEC Segment Length: 2284m



Map Key: PWS-263a

Name: Mike Fogar

Date: 3/31/10

Date Entered:

EV-64

NO OIL TO
END OF SEGMENT

EV-63B

EV-63A

EV-63

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-63

ADEC Segment Length: 2284m



Map Key: PWS-263a

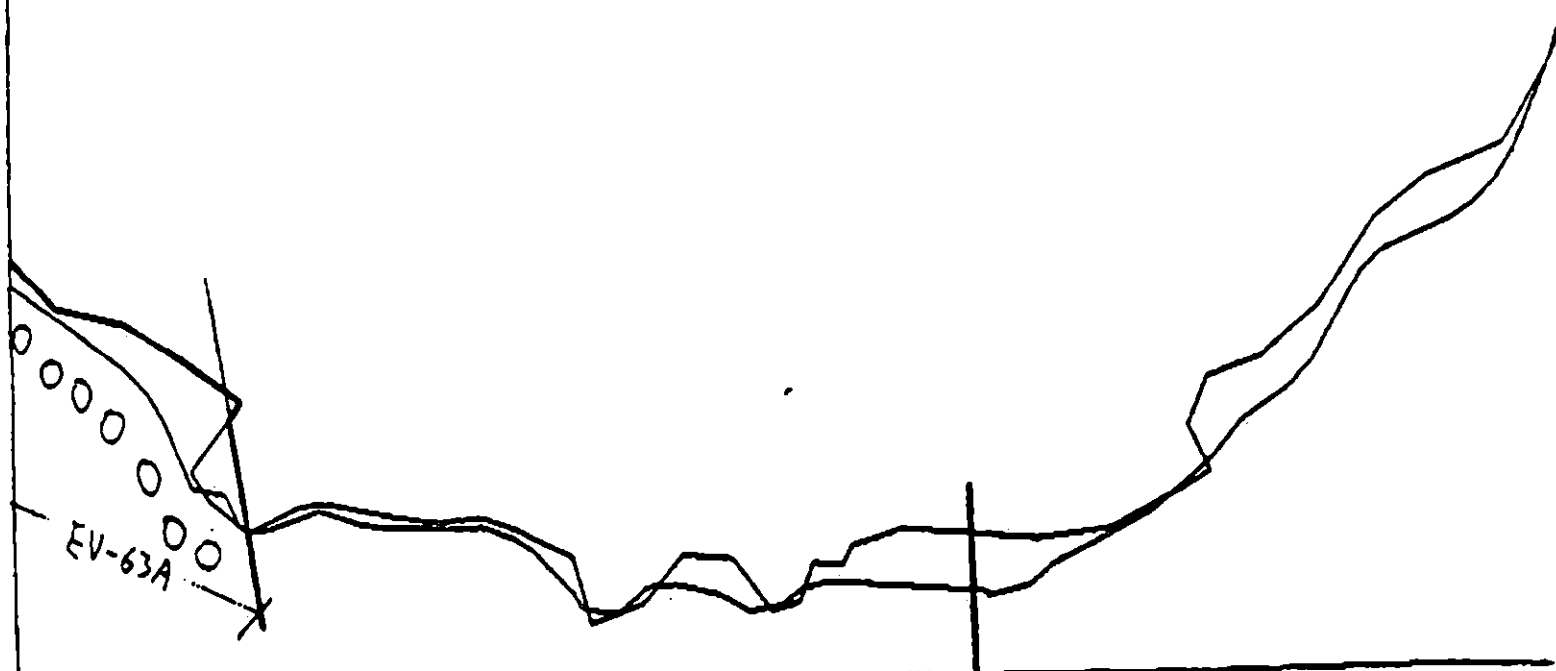
Name: Mike Foret

Date: 3/31/90

Date Entered:



EV-61



SHORELINE EVALUATION

SEGMENT ST/ EV-63 SUBDIVISION B (2 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Anchorages (6V) -
6/1 to 9/15; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Maintain minimum disturbance.
Possible eagle nest. Restrict air traffic to essential minimum,
with approach and takeoff from and to seaward only.

SHPO SIGNATURE: Rachel Ann Owen DATE: 4/10/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1591 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: No treatment recommended. No oil found during survey.

TAG COMMENTS:

TAG APPROVAL DATE: 4/10/90
ADEC JOHN BAUER
EXXON ANDY ER FOSC: DATE: 4-19-90
NOAA Bu/Wesott
USCG G.A. REITER

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-63 SUBDIVISION: B DATE 3/31/90

USEC NOAA

NAME GARY SHIGEMURA SIGNATURE Gary Shigemura

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

MIXED COBBLE/GRAVEL BEACH

NO EVIDENCE OF OILING.

ADEC

NAME John Hoyer SIGNATURE John Hoyer

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oil seen/observed on this segment.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 02/22/80

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-63
 BIO Richard Ambrose LAND REP — SUBDIVISION B (2 OF 2)
 EXXON Larry Olson ADEC John Hayes TIME 8:00 to 8:25
 TEAM NO.: 11 TIDE LEVEL: 3.9 to 2.3 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 1534 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Rocky Backshore with some forest
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 30 % C 30 % P 10 % G 5 % S 5 % M — % V — %
 SLOPE: Long 45 % Hang 35 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 30 m NO 1504 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	B	SP	BR	OR	OL	OP	NO	TL	LR	SU	U	M	V
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	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			

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	OP	NO			VO	UC	SP	BR	OR	OL	OP	NO	SU	U	M	V		
1	15					X	.	X									X					G, S, R
							.															
							.															
							.															
							.															
							.															

COMMENTS

No oil was observed in this segment. The shore zone consists of Rocky headlands w/ pocket Boulder / cobble beaches

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV063 Subdivision B Date (mo / day / yr) 3 / 31 / 90Time (24 hr) 0800 hrs. Biologist Ambrose

- (A) Substrate type and % of segments:
 (1) Bedrock 20 (2) Boulder 30 (3) Cobble 30 (4) Pebble 10 (5) Sand 10 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 15 Moderate 45 Low 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. —
 Frames —

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	2	2	2	2	NOT PRESENT
3	3	3	X	X	3	3	3	3	X	3	3	
4	4	4	X	4	4	X	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	2	2	X	X	2	2	2	2	2	2	2	NOT PRESENT
3	3	3	3	3	3	3	3	3	X	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	

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	NOT PRESENT
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	
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	X	X	2	2	2	2	2	2	2	NOT PRESENT
3	3	3	X	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	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: *

3otters, 1 sea lion, 1 eagle, 3 cormorants, 2 surf scoters; Nereocystis offshore.
 Nearly all Mytilus are juveniles or new recruits.

Ecological Considerations:

1F, 711, 6V: Not relevant.

*Note: much of this subdivision surveyed by boat.

EV-64

△
Pit Location

EV-13B

EV-63

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-63

ADEC Segment Length: 2284m

0 100 200 300
METERS

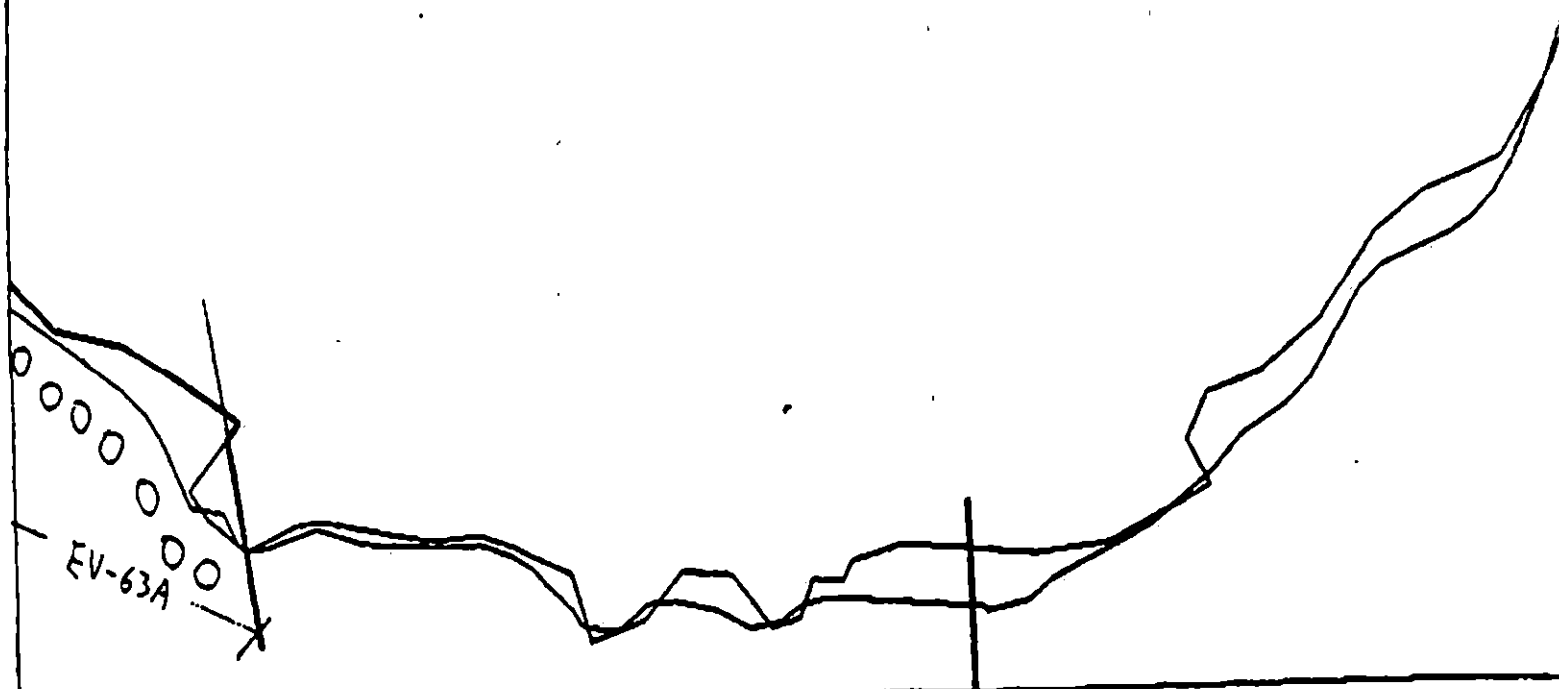
Map Key: PWS-263a

Name: Mike Fogt

Date: 3/31/40

Date Entered:

EV-61



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-63

ADEC Segment Length: 2284m



Map Key: PWS-263b

Name: Mike Foster

Date: 3/30/90

Data Entered:

EV-64

EV-63B

EV-63A

EV-63

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

EV-63

ADEC Segment Length: 2204m



Map Key: PWS-263a
Name: Mike Foret
Date: 3/31/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-64 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Active bald eagle nest (5T) - 3/1 to 6/1; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision constraints.

SHPO SIGNATURE: Charles E. Johnson DATE: April 6, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1066m
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: <u> </u> Wands
☐ Tarmat: ☐ Breakup	☐ Beach Cleaner
☐ Removal	☐ Other (see comments)

COMMENTS: No treatment recommended on EV-64 (A) due to no oil being found during survey. Please see Field Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4-6-90
ADEC JOHN BAUER John Bauer
EXXON ANDY TETZ Andy Tetz FOSC: DATE: 4-19-90
NOAA Burt Wescott Burt Wescott
USCG G.A. REITER G.A. Reiter

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-64 SUBDIVISION: _____ DATE 3/31/90

USCG NOAA

NAME GARY SHIGENAKA SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

LOCATION = SQUIREEL BAY, BOULDER AND LARGE COBBLE BEACH. NO SIGN OF OILING. DEER OBSERVED ON BEACH, MATURE BALD EAGLE IN WOODS JUST ABOVE BEACH.

ADEC

NAME John Hayes SIGNATURE *John Hayes*

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil on this segment, noted Deer - Bald Eagle on segment both healthy.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 000000

DOG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EU-64
 BIO Richard Ambrose USCG LAND REP SUBDIVISION A (1 of 1)
 EXXON Larry Olson ADEC John Hayes TIME 8:35 to 8:50
 TEAM NO.: 11 TIDE LEVEL: 2.3 to 1.1 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 1034 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky forested backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 5 % B 20 % C 40 % P 20 % G 10 % S 5 % M — % V — %
 SLOPE: Long 65 % Hang 30 % Vert 5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL — m NO 1034 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	B	BR	OR	OL	OF	NO	UC	UC	UC	SU	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			

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	BR	OR	OL	OF	NO	FL	LR	SU	U	M	L				
1	15					X	.		X								X							P, G
							.																	
							.																	
							.																	
							.																	
							.																	
							.																	

COMMENTS No oil was observed in this segment, shore zone consists mostly of Low angle Boulder / cobble beach.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/90

Segment ST/ EVO64 Subdivision A Date (mo/day/yr) 3/31/90Time (24 hr) 0835 hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 20 (3) Cobble 40 (4) Pebble 20 (5) Sand 15 (6) Silt -(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: -
Roll No. -Frames -

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	2	2	2	2	NOT PRESENT
3	3	3	3	X	3	X	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	2	2	2	2	2	NOT PRESENT
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	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	X	2	X	2	2	2	2	2	NOT PRESENT
3	3	3	3	X	3	X	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	

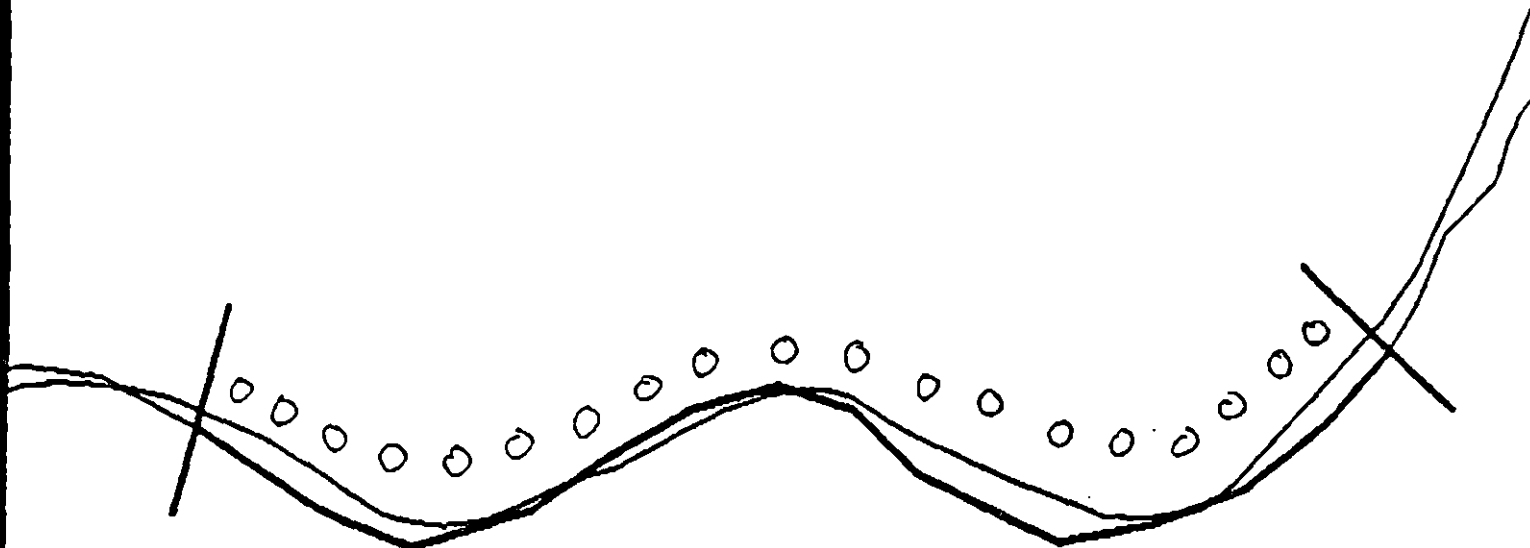
Wildlife Observations/ General Comments: *

5 adult Harlequin ducks and 4 young, 1 deer, 2 eagles (1 mature, 1 immature)
Red algae dense cover in low intertidal.

Ecological Considerations:

1F, 711, 6V: Not relevant.

*Note: Surveyed by boat.



EV-64

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-64

ADEC Segment Length: 1034m



Map Key: PWS-264

Name: Mike Fook

Date: 3/31/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-65 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Anchorages (6V) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision constraints.

SHPO SIGNATURE: Vladimir E. Hanner DATE: April 6, 1990

OILING CATEGORIZATION:

Wide_0_m: Medium_0_m: Narrow_0_m: V.Light_0_m: No Oil_785m
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: _____ Breakup	☐ _____ Beach Cleaner
☐ _____ Removal	☐ Other (see comments)

COMMENTS: No treatment recommended on EV-65 (A) due to no oil being found during survey. Please see Field Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE:

ADEC	JOHN BAUER	JOHN Bauer
EXXON	ANDY TET	Andy Tet
NOAA	Burl Wescott	Burl Wescott
USCG	G.A. REITER	G.A. Reiter

FOSC:

DATE:

4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-65 SUBDIVISION: _____ DATE 3/31/95

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

COBBLE, GRAVEL, BLACK SAND BEACH. NO OIL OBSERVED.

ADEC

NAME Joho Hayes

SIGNATURE *Joho Hayes*

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed on this segment.

LAND MANAGER

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02/88

OG Mike Foget ^{NOAA} USCG Gary Shigenaka SEGMENT ST/ EV-65
 BIO Richard Ambrose LAND REP — SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 8:50 to 9:10
 TEAM NO.: 11 TIDE LEVEL: 1.1 to 0.4 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 727 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Rocky Forested Backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R — % B 5 % C 15 % P 20 % G 20 % S 40 % M — % V — %
 SLOPE: Long 95 % Hang 5 % Vert — % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL — m NO 727 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	B	OP	OR	OL	OF	NO	UC	UC	UC	SU	UI	MI	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	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			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE —#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		UC	UC	UC	UC	UC	UC	UC	UC	UC	UC			
1	20					X	-	X										X		P, G, S
2	30					X	-	X										X		S
							-													
							-													
							-													
							-													
							-													

COMMENTS

No oil was observed on this segment. The shore zone is mostly a low angle black sand beach.

SHORELINE ECOLOGICAL SUMMARY

Segment ST/ EVO65 Subdivision A Date (mo / day / yr) 3/31/90

Time (24 hr) 0850 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock — (2) Boulder 5 (3) Cobble 15 (4) Pebble 20 (5) Sand 60 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 0 Moderate 0 Low 100

(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. —

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	NOT PRESENT
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	2	2	2	2	2	NOT PRESENT
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	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
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	

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	NOT PRESENT
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: *

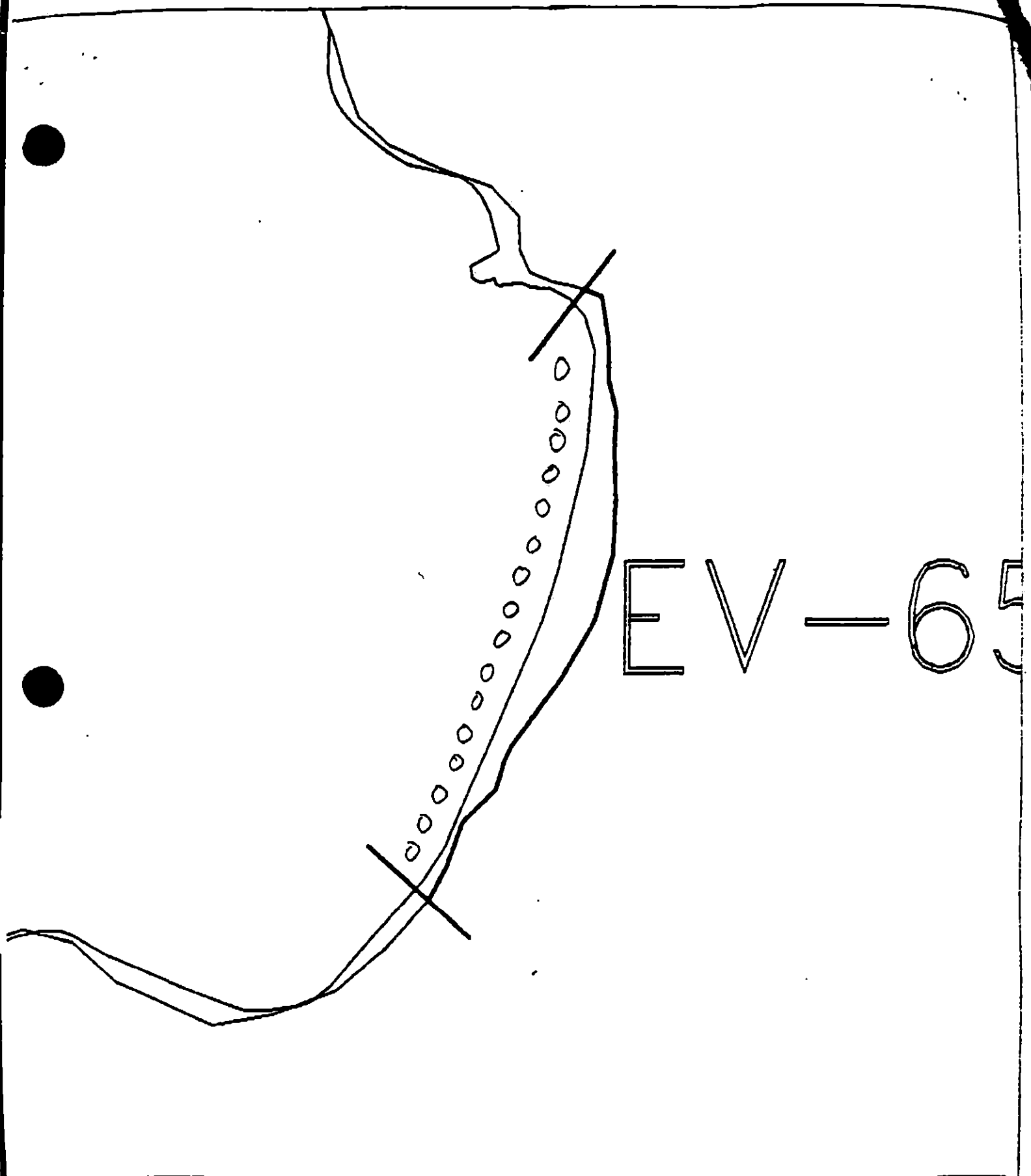
2 eagles.

Pebble/sand beach, no visible biota!

Ecological Considerations:

1F, 711, 6V: Not relevant

*Note: surveyed by boat.



XXXX Wide

EV-65

Map Key: PWS-265

/// Medium

Name: Mike Fogel

--- Narrow

ADEC Segment Length: 727m

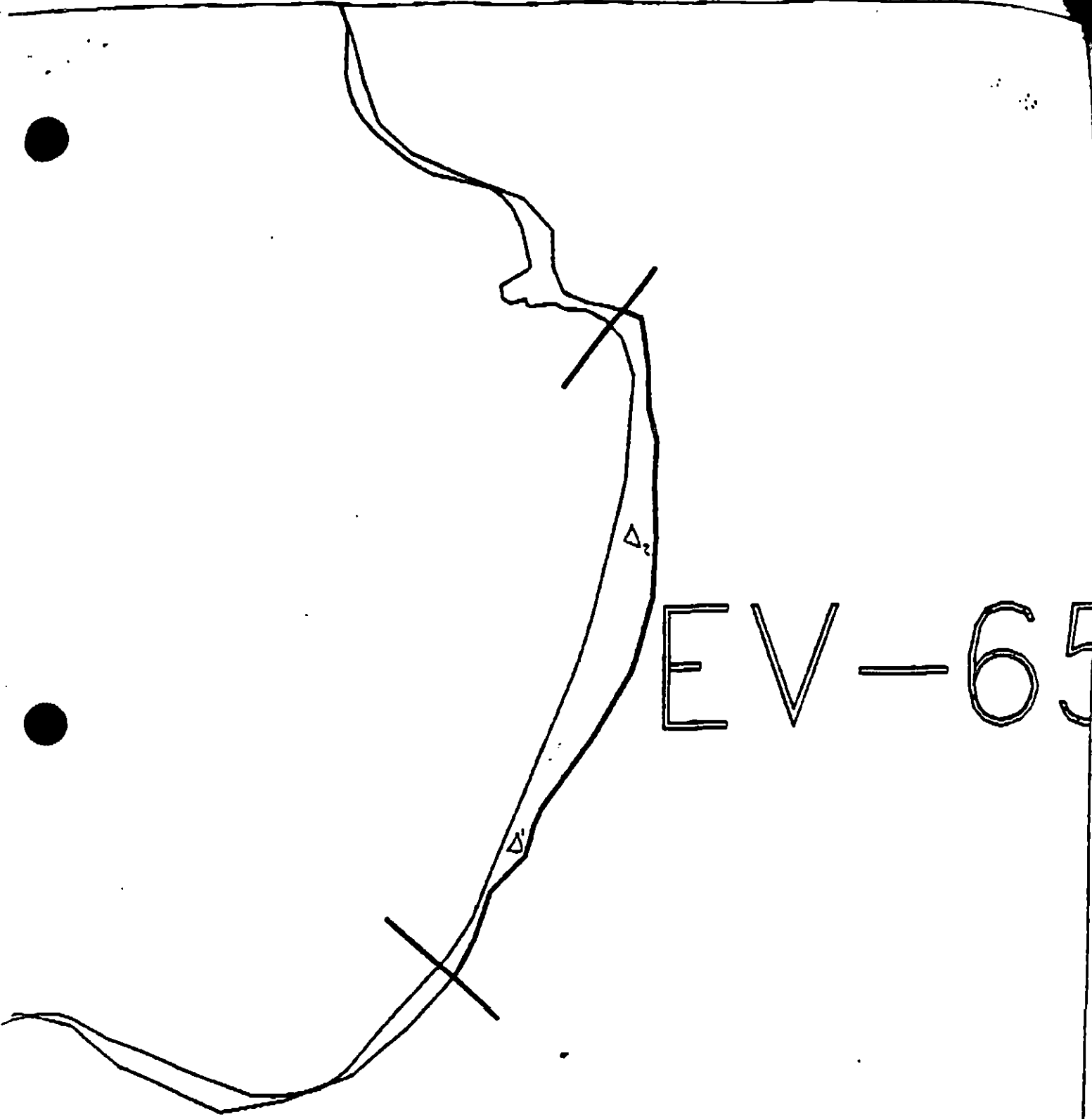
Date: 3/31/90

TTTT Very Light



OOOO No Oil

Data Entered:



EV-65

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

EV-65

ADEC Segment Length: 727m



Map Key: PWS-265
Name: Mike Fojet
Date: 3/31/90
Data Collected:

SHORELINE EVALUATION

SEGMENT ST/ EV-66 SUBDIVISION A (1 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Special use designa-
tion (6Y) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints.

SHBO SIGNATURE: MAURICE J. TITUS DATE: April 6, 1990

If treatment is planned, the above constraint applies.

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 120 m: No Oil 122 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☒ No Treatment Recommended	<u> </u> Snare/Absorbent Booms
☒ Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
☒ 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: Recommend bioremediation of patchy surface coat on
cobble/beach in area indicated on sketch map. Recommend all work
be conducted after 6/1 based on constraints.

TAG COMMENTS: No treatment recommended

TAG APPROVAL DATE: 4-6-90

ADEC JOHN BAUER

EXXON ANDY TOL

NOAA Burt W. Scott

USCG G.A. RETTER

FOSC: by [signature]

DATE: 4-14-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-66 SUBDIVISION: A DATE 3/31/90

USCG NOAA

NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

BOULDER BEACH ALONG NORTHERN PORTION OF SQUIBBEL BAY. SPORADIC SPLASHES OF WEATHERED OIL NOTED ON BOULDERS IN UPPER INTERTIDAL. NORTHERN PART OF SEGMENT CONTAINED LARGE BOULDERS WITH COAT AND/OR COVER, ALSO SPORADIC OCCURRENCE.

ADEC

NAME John Hayes SIGNATURE John Hayes

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

Light stain and oil splash on boulders in U.T.Z. No treatment recommended. Oil splash partially weathering from boulders.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02/2000

OG Mike Foget NoAA USCG Gary Shigenaka SEGMENT ST/ EV-66
 BIO Richard Ambrose LAND REP John Hayes SUBDIVISION A (1 of 2)
 EXXON Larry Olson ADEC John Hayes TIME 9:10 to 9:30
 TEAM NO.: 11 TIDE LEVEL: 0.4 to -0.1 DATE 3/31/90
 ST. SUBDIVISION LENGTH: 300 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock ☒ Steep Forested ☒ Rocky ☒ backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 10 % B 40 % C 30 % P 10 % G 10 % S — % M — % V — %
 SLOPE: Long 40 % Hang 50 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 100 m NO 200 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	N	1	2	3	4	SU	U	M	V
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X				X		X		
STAIN												
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			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#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		VO	UC	1	2	3	4	5	6	7	8	SU	U	M			U	
1	20					X	.		X									X						G, P
							.																	
							.																	
							.																	
							.																	
							.																	
							.																	
							.																	

COMMENTS

Oil was located on the Northern end of the beach in the HITZ in a 5m x 100m splattered distribution. The oil character is a dark brown coat which is weathered. Oil is only located on the sheltered areas of Rocks, boulders and rubble. No subsurface oil was located.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 10/87

Segment ST/ EVO 66 Subdivision A Date (mo / day / yr) 3 / 31 / 90Time (24 hr) 0900hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 40 (3) Cobble 30 (4) Pebble 10 (5) Sand 10 (6) Silt —(B) Overall % cover of biota (% of segment): Dense 25 Moderate 50 Low 25

(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. —Frames —

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	2	2	2	2
3	3	3	X	X	3	X	X	3	3	3	3
4	4	4	4	4	4	X	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	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	X	X	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	X	X	2	2	2	2	2	2	2
3	3	3	X	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 algae (esp. Palmaria palmata) common in low intertidal; Alaria marginata locally abundant in places.

Ecological Considerations:

IF, 711, 6Y: Not relevant.

* Note: some of this subdivision surveyed by boat.

OG 1000 Fogel

SEGMENT ST/ EV-66

SUBDIVISION A

DATE 3 / 31 / 90

CHECKLIST

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

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil on Vegetation

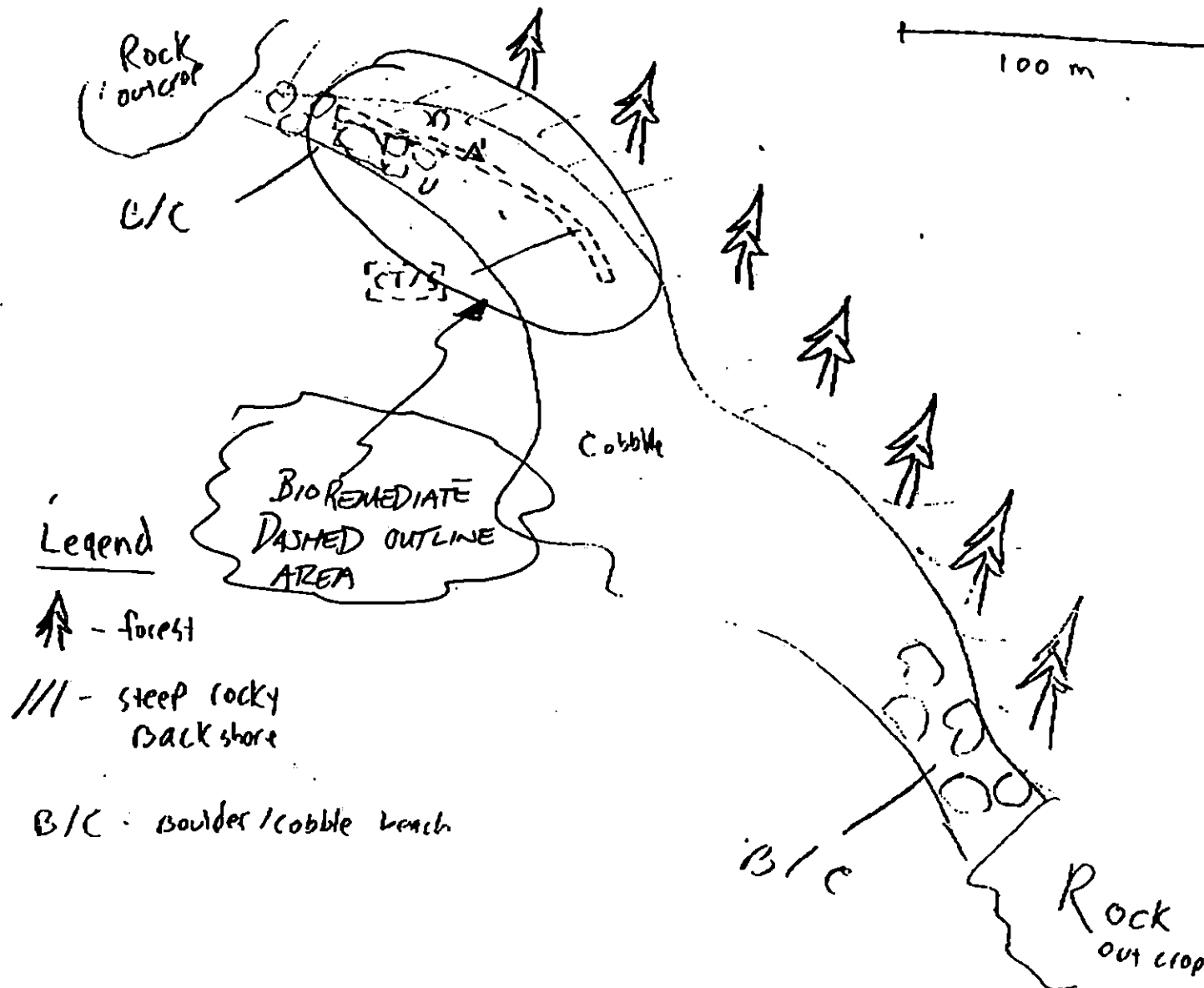
1 $\rightarrow$

Photo location, direction,
and number

SKETCH MAP

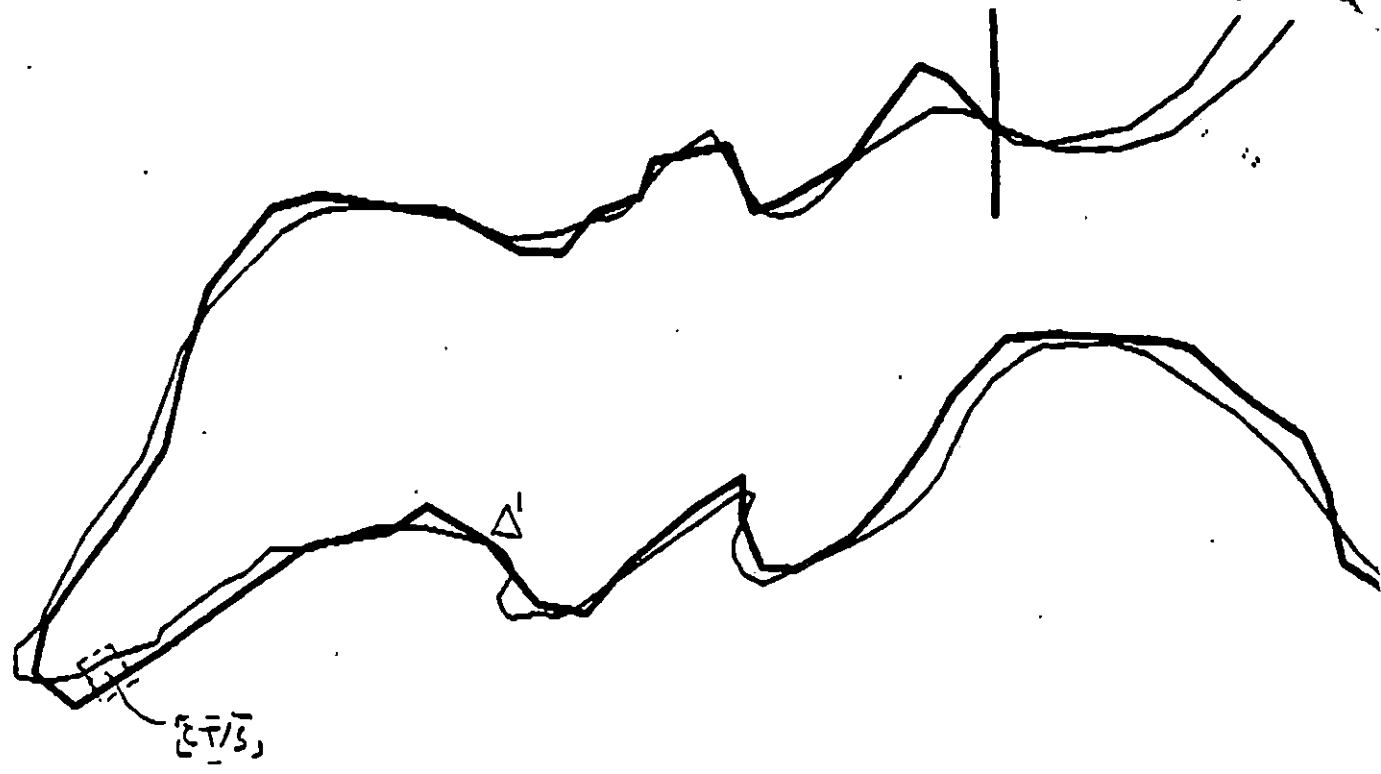
Scale

100 m



Oil Character Length (m): AP PO CV CT 100 ST MS PT TB FL NO 200

REVISION: 000000



Legend

- Δ Pit Location, no oil
- ET/S - splashed distribution

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

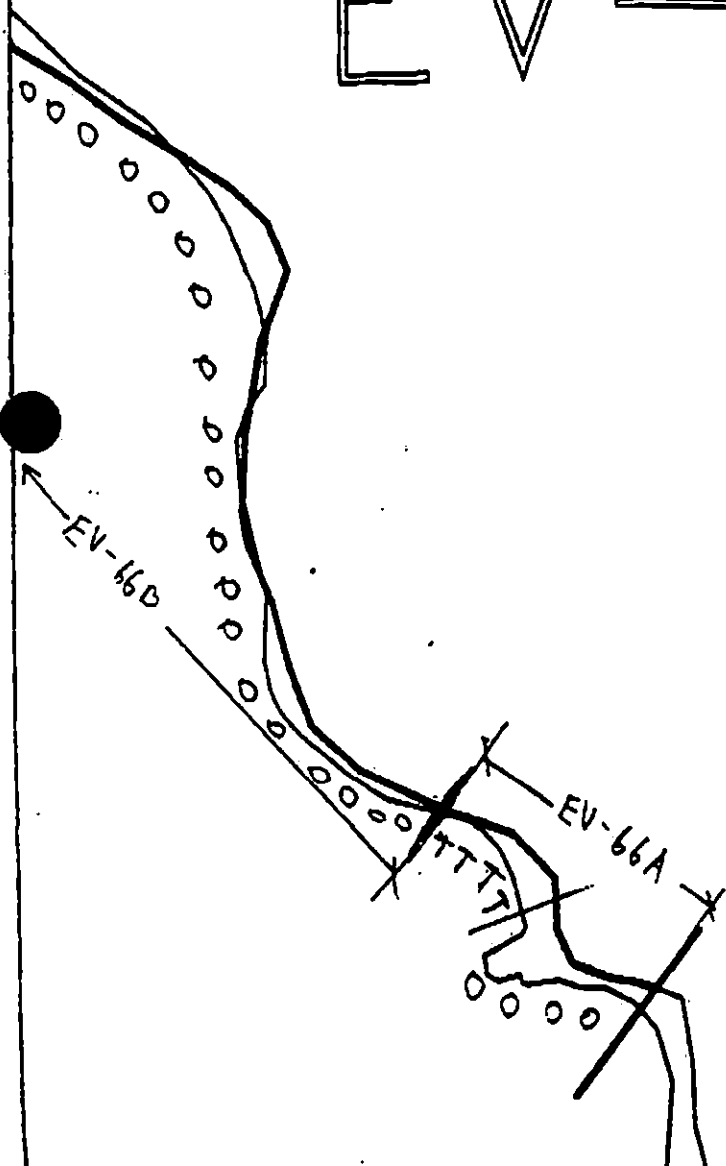
EV-66B

ADEC Segment Length: 3574m



Map Key: PWS-266e
Name: Mike Fogel
Date: 3/31/90
Data Entered:

EV-66



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-66

ADEC Segment Length: 3574m

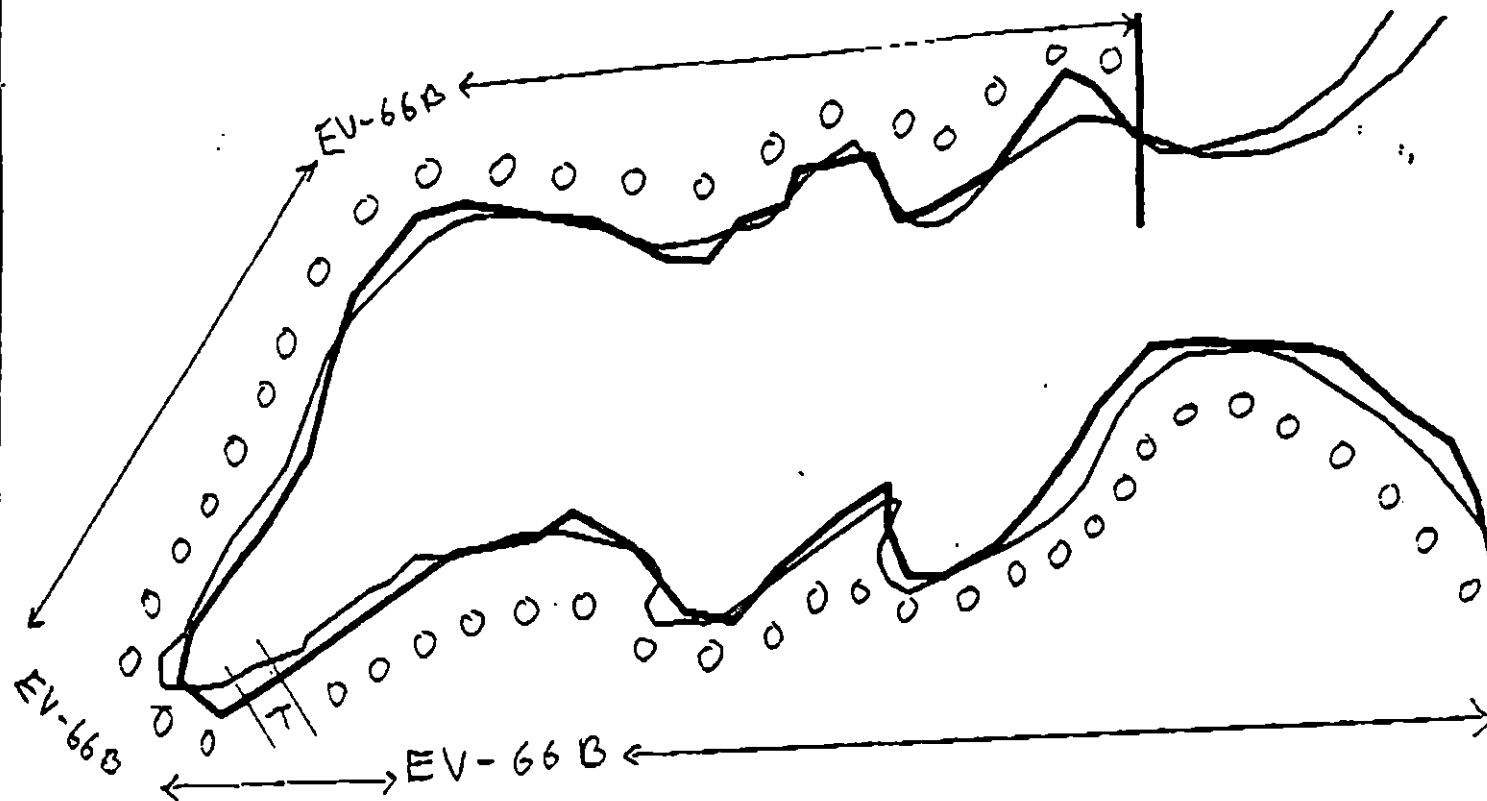


Map Key: PWS-286b

Name: Mike Fogar

Date: 3/31/00

Data Entered:



XXXX Wide

//// Medium

----- Narrow

TTTT Very Light

0000 No Oil

EV-66

ADEC Segment Length: 3574m



Map Key: PWS-256a

Name: Mike Roger

3/31/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-66 SUBDIVISION B (2 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Special use designa-
tion (6Y) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints.

SHPO SIGNATURE: Mark S Holmes DATE: April 6, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 35 m: No Oil 3290m
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: <u> </u> Wands
☐ Tarmat: ☐ Breakup	☐ Beach Cleaner
☐ Removal	☐ Other (see comments)

COMMENTS: No treatment recommended on EV-66 (B). Sporadic stain
on vertical rock face does not lend itself to bioremediation.
Please review Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4/6/90
ADEC JOHN PAUER
EXXON ANDY TER
NOAA Bert Wapolt
USCG G.A. REITER

FOSC: DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-66 SUBDIVISION: 5 DATE 3/31/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SAND, COBBLE, BOULDER BEACH PORTIONS OF SEGMENT SHOWED NO OILING. SOME WEATHERED STAIN OBSERVED FROM INFLATABLE ALONG SHIP ROCK FACE.
PORTION OF SEGMENT NORTH OF SQUIREL BAY SHOWED NO EVIDENCE OF OILING.

ADEC

NAME

John Hoyer

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Stain on vertical face in S.I.T. isolated spattering that was discontinuous over a 5m.W x 100m L. section. No treatment recommended.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 00-0000

OG: Mike Foget NOAA 1666 Gary Shigenaka SEGMENT ST/ EV-66
 BIO: Richard Ambrose LAND REP SUBDIVISION B (2022)
 EXXON: Larry Olson ADEC John Hayes TIME 9:30 to 10:30
 TEAM NO.: 11 TIDE LEVEL: -0.1 to -1.1 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 3274 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky forested backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 50 % B 30 % C 10 % P 5 % G 5 % S - % M - % V - %
 SLOPE: Long 15 % Hang 35 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W - m M - m N - m VL 30 m NO 3244 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	N	P	R	SP	BP	DP	TP	LP	UP	MP	LP	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN				X		X						X				
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													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			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE -

#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			SP	BP	DP	TP	LP	UP	MP	LP			
1	30					X	.	X									X		S
							.												
							.												
							.												
							.												
							.												

COMMENTS

oil was located on the southern part of the western tip in the supra ITZ on a vertical rock wall. The distribution was a splashed stain of dull black oil. The pit was located in a small pocket semi beach. Most of the shore zone consisted of rocky headlands w/ small pocket B/C beaches.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/23/90

Segment ST / EVOGG Subdivision B Date (mo / day / yr) 3/31/90Time (24 hr) 0930hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 30 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 10 Moderate 50 Low 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-11-1Frames 12

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	X	2	2	2	2	2	2	2	
3	3	3	X	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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	2	2	2	2	2	2	2	2	
3	3	3	X	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			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	X	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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	2	2	2	X	2	2	2	2	
3	3	3	3	3	3	X	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	

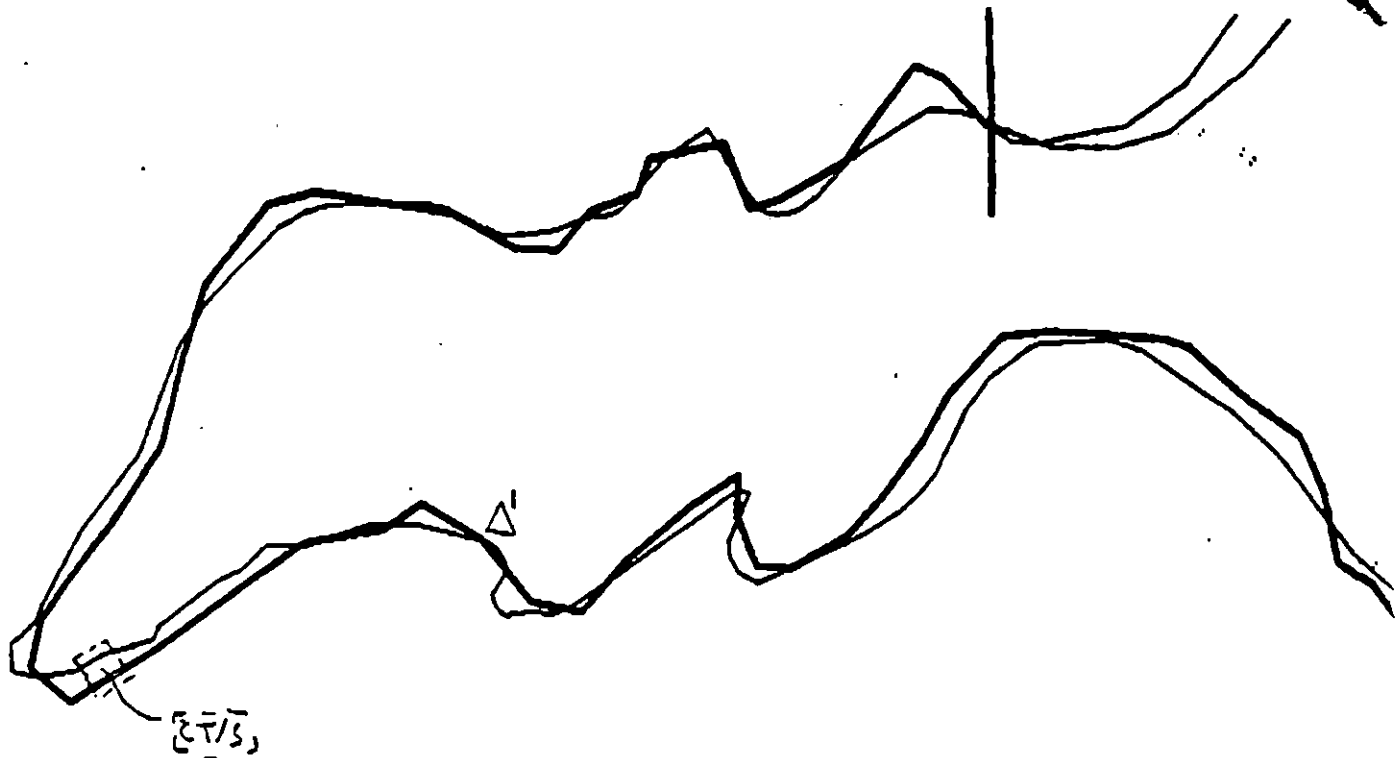
Wildlife Observations/ General Comments: *

Red algae (esp. P. palmata) common in low intertidal. Mytilus occurs as dense patches of juveniles & new recruits (or as a narrow band). Alaria common in low intertidal in some areas, some Postelsia. Saw 2 otters, 2 deer (1 eating kelp) and 1 set of deer tracks, 2 sea lions, 2 cormorants, and 13 unid. birds.

Ecological Considerations:

IF, 7 II, 6Y: Not relevant.

* Note: portions of this subdivision surveyed by boat.



Legend

△ Pit Location, no oil

[ET/S] - splashed distribution

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-66B

ADEC Segment Length: 3574m



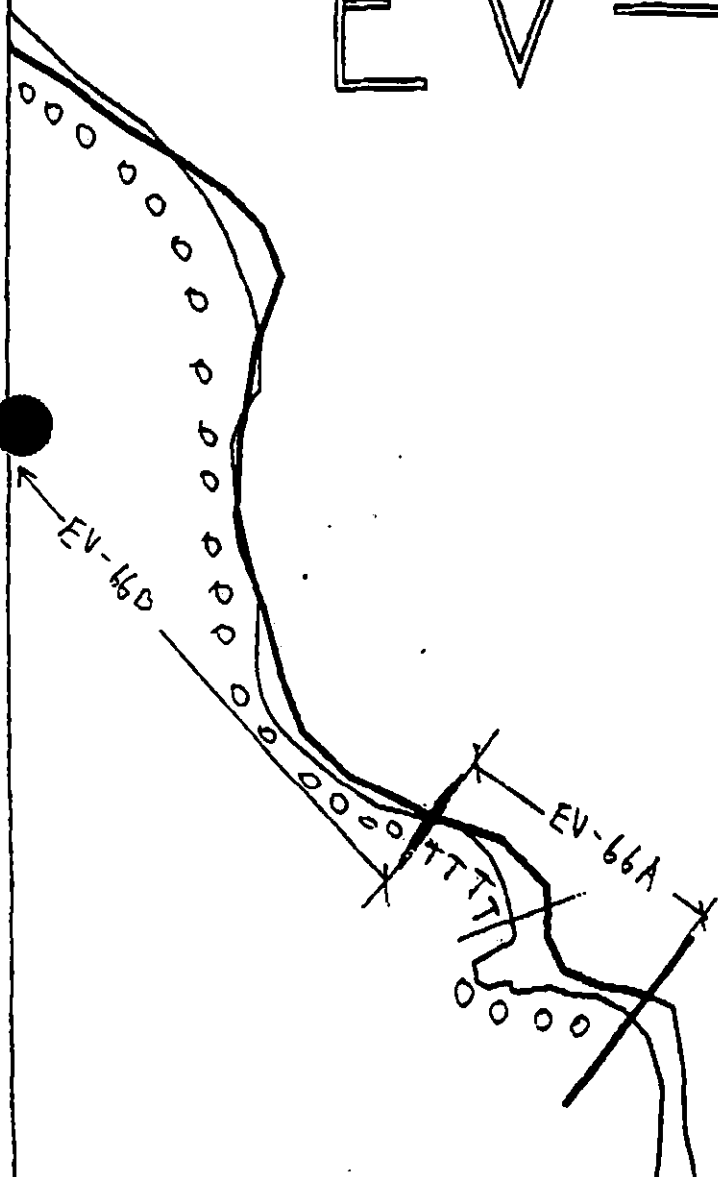
Map Key: PWS-266c

Name: Mike Fogel

Date: 3/31/90

Date Entered:

EV-66



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-66

ADEC Segment Length: 3574m

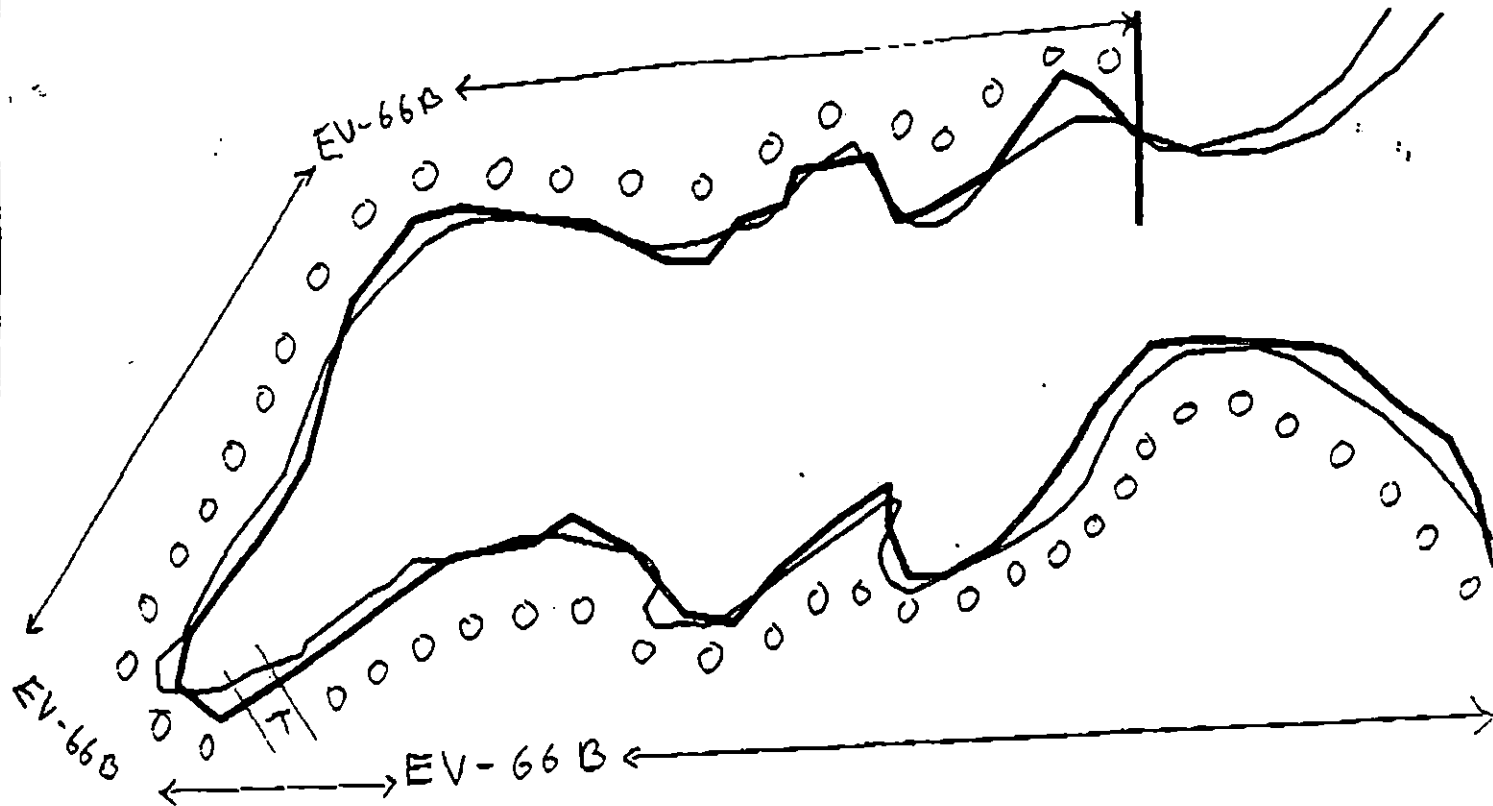


Map Key: PWS-266b

Name: Mike Forster

Date: 3/31/00

Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-66

ADEC Segment Length: 3574m

Map Key: PWS-266a

Name: Mike Toor

Date: 3/31/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-67 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Active bald eagle nest (5T) - 3/1 to 6/1; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision constraints identified.

SHPO SIGNATURE: Rachel Jean Dan DATE: 4/10/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 3334 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: No treatment recommended. No oil found during survey.
Please see Field Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4/10/90.

ADEC JOHN BAUER John Bauer

EXXON ANDY TCH Andy Tch

NOAA Burt Wescott Burt Wescott

USCG G.A. REITER G.A. Reiter

FOSC: MyL

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-67 SUBDIVISION: — DATE 3/31/95

~~IRIG~~ NOAA

NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED.

☐ TREATMENT SUGGESTED

COMMENTS

NO OIL OBSERVED IN SEGMENT. GOOD GROWTH OF MUSSELS, BARNACLES AND LIMPETS, AS WELL AS FUCUS AND OTHER ALGAE. OBSERVED DEER INGESTING ALGAE ON BEACH. OTHERS: EAGLES.

RECOVERED NON-OILED BOOM MATERIAL FROM SHORE.

ADEC

NAME John Hayer SIGNATURE [Signature]

NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

MENTS
No oil observed, segment had healthy vegetation.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 68/22/90

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-67
 BIO Richard Ambrose LAND REP — SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 11:00 to 12:15
 TEAM NO.: 11 TIDE LEVEL: -1.0 to 0.9 DATE 3/31/90
 EST. SUBDIVISION LENGTH: 3272 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Low angle Forested bedrock backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 25 % B 40 % C 30 % P 5 % G 5 % S 5 % M — % V — %
 SLOPE: Lang 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL — m NO 3272 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	SP	BP	FW	OT	SL	TL	UR	U	SU	U	M	U
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

DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED ☒ YES ☐ NO

TYPE Van oiled Boor

#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	FW	OT	SL	TL	UR	U			
1	20					X	-		X								X			P, G, S
2	20					X	-		X								X			P
3	15					X	-		X								X			C
4	20					X	-		X								X			P, G, S
							-													
							-													

COMMENTS

No Oil was observed in this segment. The shore zone contains mostly of High angle Boulder / Cobble beaches with Vertical rocky headlands and some pocket Cobble beaches.

Mike Fret

SKETCH MAP

MENT ST/ EV

DIVISION A

E 3 / 3 90

ECKLIST

✓ Arrow
✓ approx. Scale
✓ Seg/Sub Bndry
✓ Di. Olet.
✓ Mids
✓ Length
✓ Cover
✓ Substrate Character
✓ Est. HW/LA/WL
✓ SSI
✓ Profile Location(s)
✓ Profile(s)
✓ Pk Location(s)
✓ Photo Location(s)

Legend

mm - Bedrock / Boulder
c - cobble
p - pebble
G - Granule
s - sand

500.0 m

GEND

1 Δ

Vo Subsurface Cl

2 Δ

Subsurface Cl

CT/C

radius Distribution

CT/B

in Distribution

CT/P

ly Distribution

CT/S

hed Distribution

Vegetation

→

s location, direction,
umber

Character Length (m): AP — PO — CV — CT — ST — MS — PT — TB — FL — NO 3272

Rocky
Headland

PKS/1

Δ4

Δ/C

Δ3

c

c

c

c/p/G/s

Δ2

Δ1

PREVIOUS: 0409

SHORELINE ECOLOGICAL SUMMARY

Segment ST/EVO67 Subdivision A Date (mo/day/yr) 3/31/00

Time (24 hr) 1105 hrs Biologist Ambrose

- (A) Substrate type and % of segments:
 (1) Bedrock 25 (2) Boulder 40 (3) Cobble 20 (4) Pebble 5 (5) Sand 10 (6) Silt -
- (B) Overall % cover of biota (% of segment): Dense 40 Moderate 40 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. -
 Frames -

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	2	2	X	X	2	2	2	2	
3	3	3	3	3	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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	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	

FUCUS

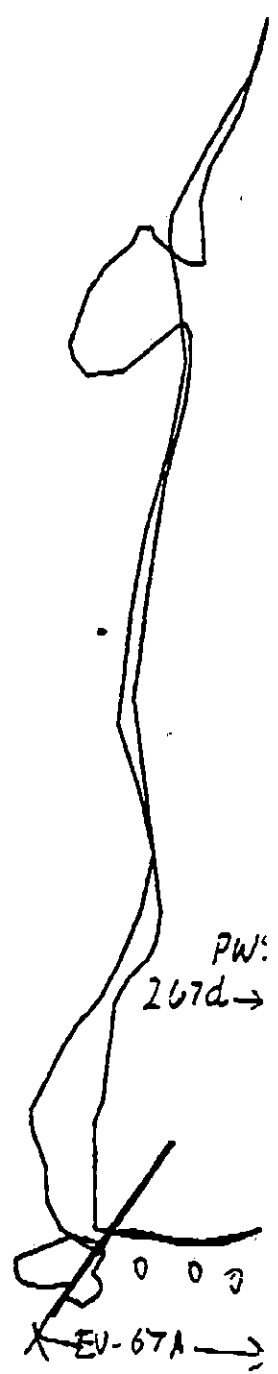
Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	X	2	X	X	X	2	2	2	
3	3	3	X	X	3	3	3	3	3	3	3	
4	4	4	X	X	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: *

Red algae abundant in low intertidal. *Mytilus* are small and occur in dense patches. In much of the middle to low intertidal there is 80-100% cover, though not of the species we record. In addition to eagles (below), saw 2 otters, 3 sea lions, 3 pigeon guillemots, 3 unid. ducks, 1 gull, 1 common merganser, 3 deer (eating algae), 5 Harlequin ducks.

Ecological Considerations:

1F, 711, 5T: 3 bald eagles seen, but no nests.



XXXX Wide
//// Medium
--- Narrow
TTTT Very light

EV-67A

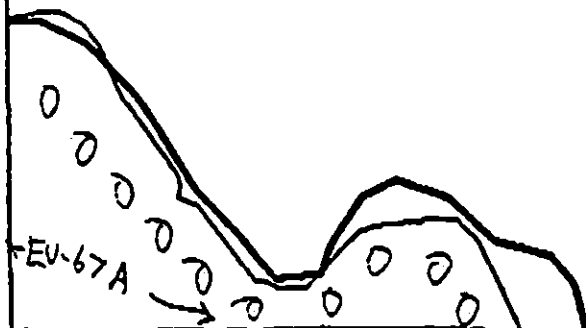
ADEC Segment Length: 3272m



Map Key: PWS-267c
Name: Mike. Foyet
Date: 3/31/90

EV-68

4 PWS 267C



↓ PWS 267B

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

EV-67A

ADEC Segment Length: 3272m

Map Key: PWS-267d

Name: Mike Foret

Date: 3/31/90

OFFICIAL USE ONLY

CANCELLED

0.04

PWS
2670

EV-67A

← PWS
267A

XXXX Wide
//// Medium
---- Narrow

EV-67A

ADEC Segment Length: 3272m

Map Key: PWS-267b

Name: Mike Fore

PWS
267C

EV

PWS
267B-

EV-67A

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

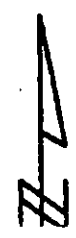
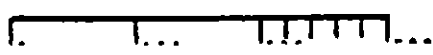
EV-67A

ADEC Segment Length: 3272m

Map Key: PWS-267a

Name: Mike Foster

Date: 3/31/00



SHORELINE EVALUATION

SEGMENT ST/ EV-68 SUBDIVISION A (1 OF 1) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Special use designa-
tion (6Y) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: No specific subdivision con-
straints identified.

SHPO SIGNATURE: Rachel Jean Owen DATE: 4/10/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 2888 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 found during survey.
Please review Field Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4/10/90

ADEC JOHN BAUER

EXXON ANDY TEAL

NOAA Bill Weiratt

USCG G.A. BEITER

FOSC:

DATE: 4-19-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-68 SUBDIVISION: — DATE 3/3/90

096G- NCAA

NAME GARY SHIGEMASA

SIGNATURE

Gary Shigekawa

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

NO C.L. OBSERVED IN THIS SEGMENT.

ADEC

NAME John Hayer

SIGNATURE



☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

№ 01/02/03/04/05/06/07/08/09/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100/101/102/103/104/105/106/107/108/109/110/111/112/113/114/115/116/117/118/119/120/121/122/123/124/125/126/127/128/129/130/131/132/133/134/135/136/137/138/139/140/141/142/143/144/145/146/147/148/149/150/151/152/153/154/155/156/157/158/159/160/161/162/163/164/165/166/167/168/169/170/171/172/173/174/175/176/177/178/179/180/181/182/183/184/185/186/187/188/189/190/191/192/193/194/195/196/197/198/199/200/201/202/203/204/205/206/207/208/209/210/211/212/213/214/215/216/217/218/219/220/221/222/223/224/225/226/227/228/229/230/231/232/233/234/235/236/237/238/239/240/241/242/243/244/245/246/247/248/249/250/251/252/253/254/255/256/257/258/259/260/261/262/263/264/265/266/267/268/269/270/271/272/273/274/275/276/277/278/279/280/281/282/283/284/285/286/287/288/289/290/291/292/293/294/295/296/297/298/299/300/301/302/303/304/305/306/307/308/309/310/311/312/313/314/315/316/317/318/319/320/321/322/323/324/325/326/327/328/329/330/331/332/333/334/335/336/337/338/339/340/341/342/343/344/345/346/347/348/349/350/351/352/353/354/355/356/357/358/359/360/361/362/363/364/365/366/367/368/369/370/371/372/373/374/375/376/377/378/379/380/381/382/383/384/385/386/387/388/389/390/391/392/393/394/395/396/397/398/399/400/401/402/403/404/405/406/407/408/409/410/411/412/413/414/415/416/417/418/419/420/421/422/423/424/425/426/427/428/429/430/431/432/433/434/435/436/437/438/439/440/441/442/443/444/445/446/447/448/449/450/451/452/453/454/455/456/457/458/459/460/461/462/463/464/465/466/467/468/469/470/471/472/473/474/475/476/477/478/479/480/481/482/483/484/485/486/487/488/489/490/491/492/493/494/495/496/497/498/499/500/501/502/503/504/505/506/507/508/509/510/511/512/513/514/515/516/517/518/519/520/521/522/523/524/525/526/527/528/529/530/531/532/533/534/535/536/537/538/539/540/541/542/543/544/545/546/547/548/549/550/551/552/553/554/555/556/557/558/559/560/561/562/563/564/565/566/567/568/569/570/571/572/573/574/575/576/577/578/579/580/581/582/583/584/585/586/587/588/589/590/591/592/593/594/595/596/597/598/599/600/601/602/603/604/605/606/607/608/609/610/611/612/613/614/615/616/617/618/619/620/621/622/623/624/625/626/627/628/629/630/631/632/633/634/635/636/637/638/639/640/641/642/643/644/645/646/647/648/649/650/651/652/653/654/655/656/657/658/659/660/661/662/663/664/665/666/667/668/669/670/671/672/673/674/675/676/677/678/679/680/681/682/683/684/685/686/687/688/689/690/691/692/693/694/695/696/697/698/699/700/701/702/703/704/705/706/707/708/709/710/711/712/713/714/715/716/717/718/719/720/721/722/723/724/725/726/727/728/729/730/731/732/733/734/735/736/737/738/739/740/741/742/743/744/745/746/747/748/749/750/751/752/753/754/755/756/757/758/759/760/761/762/763/764/765/766/767/768/769/770/771/772/773/774/775/776/777/778/779/780/781/782/783/784/785/786/787/788/789/790/791/792/793/794/795/796/797/798/799/800/801/802/803/804/805/806/807/808/809/810/811/812/813/814/815/816/817/818/819/820/821/822/823/824/825/826/827/828/829/830/831/832/833/834/835/836/837/838/839/840/841/842/843/844/845/846/847/848/849/850/851/852/853/854/855/856/857/858/859/860/861/862/863/864/865/866/867/868/869/870/871/872/873/874/875/876/877/878/879/880/881/882/883/884/885/886/887/888/889/890/891/892/893/894/895/896/897/898/899/900/901/902/903/904/905/906/907/908/909/910/911/912/913/914/915/916/917/918/919/920/921/922/923/924/925/926/927/928/929/930/931/932/933/934/935/936/937/938/939/940/941/942/943/944/945/946/947/948/949/950/951/952/953/954/955/956/957/958/959/960/961/962/963/964/965/966/967/968/969/970/971/972/973/974/975/976/977/978/979/980/981/982/983/984/985/986/987/988/989/990/991/992/993/994/995/996/997/998/999/1000/1001/1002/1003/1004/1005/1006/1007/1008/1009/1010/1011/1012/1013/1014/1015/1016/1017/1018/1019/1020/1021/1022/1023/1024/1025/1026/1027/1028/1029/1030/1031/1032/1033/1034/1035/1036/1037/1038/

LAND MANAGER

NAME _____

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 08/23/90

CG Mike Foget ^{NOAA} Gary Shigenaka SEGMENT ST/ EV-68
 BIO Richard Ambrose LAND REP — SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 12:15 to 13:00
 TEAM NO.: 11 TIDE LEVEL: +0.9 to +2.9 DATE 3/31 / 1990
 EST. SUBDIVISION LENGTH: 3128 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock Rocky back shore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 60 % B 35 % C 5 % P — % G — % S — % M — % V — %
 SLOPE: Long 5 % Hang 30 % Vert 65 % WAVE EXPOSURE: ☐ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL — m NO 3128 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	R	B	P	S	1	2	3	4	5	6	SU	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 — cmPATTIES / TARBALLS — BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#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	SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		UD	UC	1	2	3	4	5	6	SU	U	M	L		
							.														
							.														
							.														
							.														
							.														
							.														
							.														

COMMENTS

No oil was observed in this segment. No pits were dug. The shore zone consisted mostly of vertical rock walls with some high angle Boulder Pocket Beaches.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/23/90

Segment ST/ EVO68 Subdivision A Date (mo / day / yr) 3/31/90Time (24 hr) 1215 hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 60 (2) Boulder 35 (3) Cobble 5 (4) Pebble - (5) Sand - (6) Silt -(B) Overall % cover of biota (% of segment): Dense 30 Moderate 40 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-11-1Frames 13

BARNACLES

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

FUCUS

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	X	X	X	X	X	3	3	3
4	4	4	X	X	X	X	X	X	4	4	4
5	5	5	X	X	X	X	X	X	5	5	5
6	6	6	X	X	X	X	X	X	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: *

Red algae abundant in low intertidal. Small Mytilus form discontinuous band; v. dense in band.

Ecological Considerations:

1F, 711, 67: Not relevant.

*Note: surveyed by boat, so small organisms (such as gastropods) could not be surveyed.

PWS
↓ 268B



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

EV-68A

ADEC Segment Length: 3128m



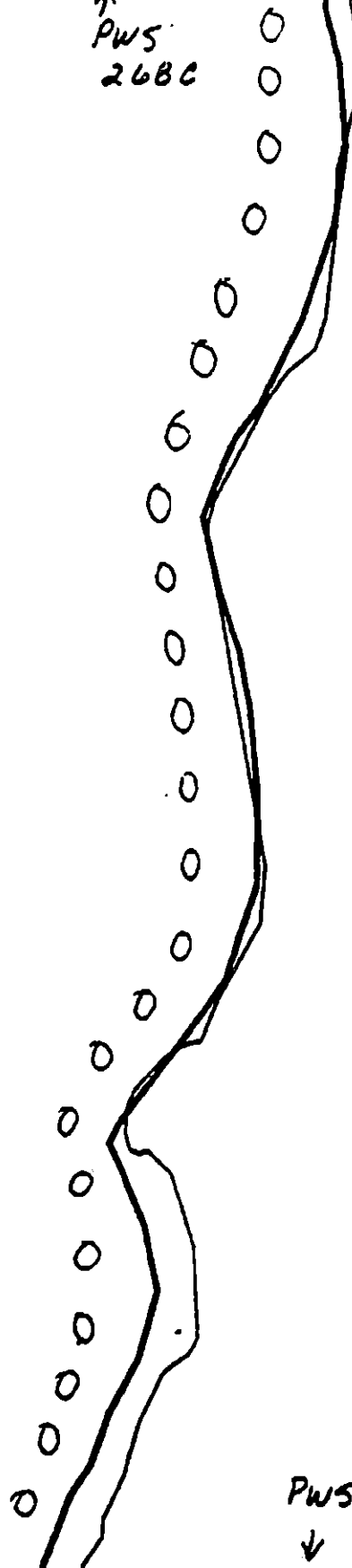
Map Key: PWS-268c

Name: Mike Foget

Date: 3/31/90

Date Entered:

PWS
268C



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-68

ADEC Segment Length: 3128m



Map Key: PWS-268b

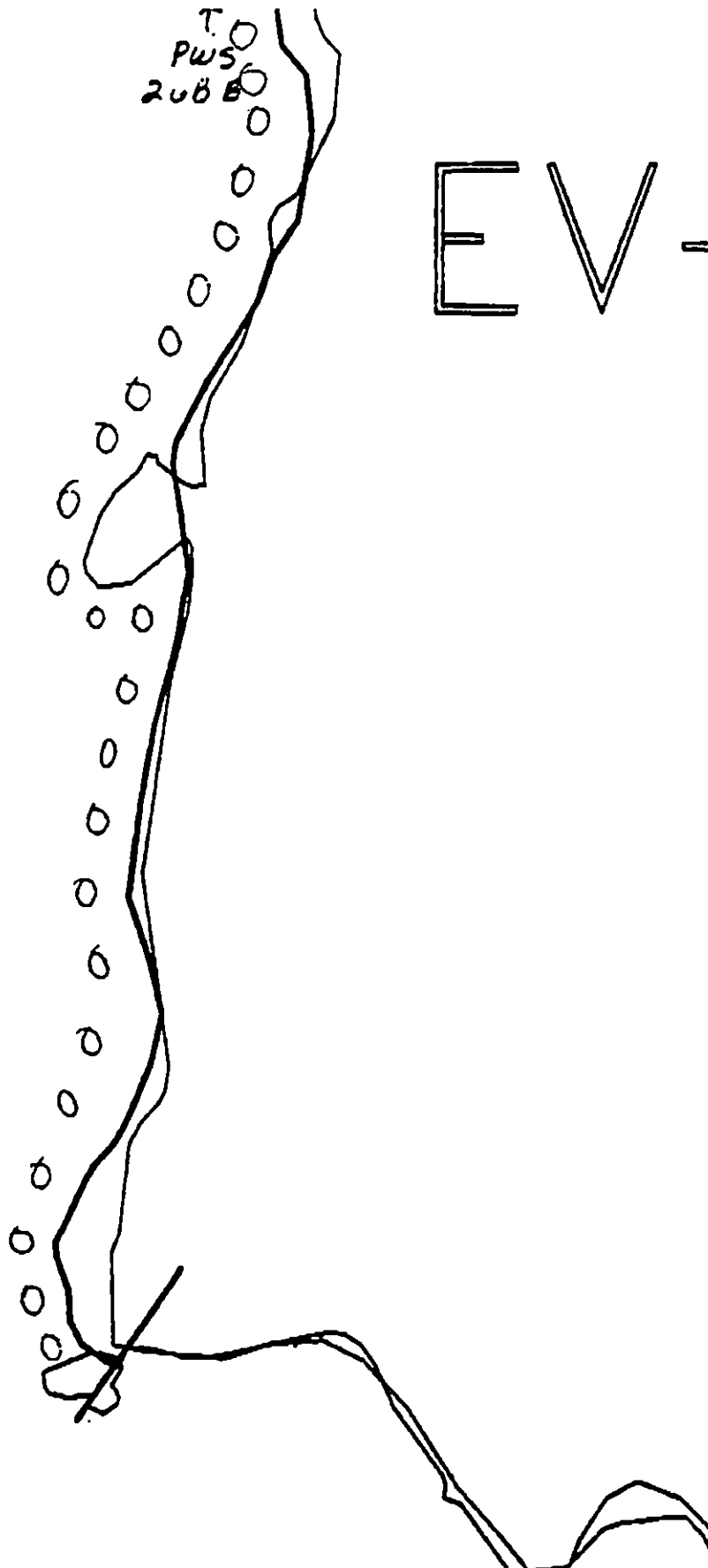
Name: Mike Foyet

Date: 3/31/30

Data Entered:

T. O
PWS
268B

EV-



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

EV-68

ADEC Segment Length: 3128m



Map Key: PWS-268a

Name: M. L. P. Egan

Date: 3/31/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION A (1 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 81 m: No Oil 983 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: 4/25/90

ADEC Art Weiner Art Weiner

EXXON Andy Tom Andy Tom

NOAA Joseph Talbot Joseph Talbot

USCG Kenneth Kean Kenneth Kean

FOSC: W L DATE: 5-3-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A
1B

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

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

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

Esther Hatchery release (4/15 to 6/1)

1E

Main Bay Hatchery release (4/20 to 5/10)

1F

Sawmill Bay Hatchery release (4/15 to 6/1)

1G

Cannery Creek Hatchery release (4/21 to 6/1)

1H

Remote release site

1I

Gill net area (8/7 to 8/31)

1J

Purse seine area (7/20 to 9/30)

1K

Purse seine hook-off (7/20 to 9/30)

1L

Set net sites (6/11 to 7/25)

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M

Herring spawning (4/1 to 6/15)

Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

3N, 3P
3O, 3Q

Harbor seal and sea lion pupping (5/15 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.

5R

Seabird colony (5/1 to 9/1)

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

Anchorage (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 (5/1 to 9/30)

7HH

Finfish harvesting

7II

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: A DATE 4/1/90

USEG NOAA

NAME GARY SHIGENAKA SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF ONE ISLAND. TWO BEACH LANDINGS WERE MADE. OILING WAS MUCH MORE EVIDENT AT THE BEACH LOCATED ON THE NORTHEAST SIDE OF THE ISLAND. CHARACTER OF THE OIL VARIED FROM HIGHLY WEATHERED TO STILL TACKY. WITH EXPOSED FACES OF BOULDERS SHOWING STAIN AND COVER. LANDWARD FACES OF ROCK OUTCROPPING LOCATED ON THE WESTERN SIDE OF THE BEACH SHOWED BOTH A HEAVIER DEGREE OF OILING AND LESSER DEGREE OF WEATHERING.

ADEC

NAME John Hayes SIGNATURE *John Hayes*

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Oiling observed on this small island consisted splash to stains and continuous tar bands with very light coat of stain. No S.S. oiling was observed on this sub-segment. Stain & coat observed was weathering.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 0012/90

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-70 (1 of 8)
 BIO Richard Ambrose LAND REP USGS SUBDIVISION A
 EXXON Larry Olson ADEC John Hayes TIME 12:30 to 13:15
 TEAM NO.: 11 TIDE LEVEL: 0.0 to 0.4 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1030 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested Backshore
 SURVEYED FROM: ☐ Foot ☒ Boat ☒ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20 % B 20 % C 25 % P 10 % G 10 % S 5 % M 0 % V 0 %
 SLOPE: Long 55 % Hang 25 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 5 m VL 70 m NO 1005 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	C	1	2	3	4	5	SU	M	N	U
ASPHALT PAVEMENT													
POOLED													
COVER			X			X					X		
COAT						✓					✓		
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	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			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-11-1Frames 18-20

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		NO	UC	1	2	3	4	5	SU	M	N	U		
1	10					X	-		X							X				C, P, G, S, C
2	5					X	-		X							X				G, C
3	5					X	-		X							X				B, C
4	10					X	-		X							X				C, M, water (5cm to shore)
							-													
							-													

COMMENTS

Oil was observed on the North side of the segment contained a very light 1m x 60m boat located in the MIZ. The Rock out crop on the Western side of the same beach has a few oiling patches on a rock out crop (map 2). The the Western side of the Island consists of high angle Bedrock shore zone and the eastern half of the Island consists of Low angle cobble, pebble, Gravel beach area.

OG M. Project

SEGMENT ST/ EV-70

SUBDIVISION A (blow up)

DATE 4 / 1 / 90

SKETCH MAP 2



Scale

20 m

CHECKLIST

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

Spattered Distribution

Oiled Vegetation

1 Δ

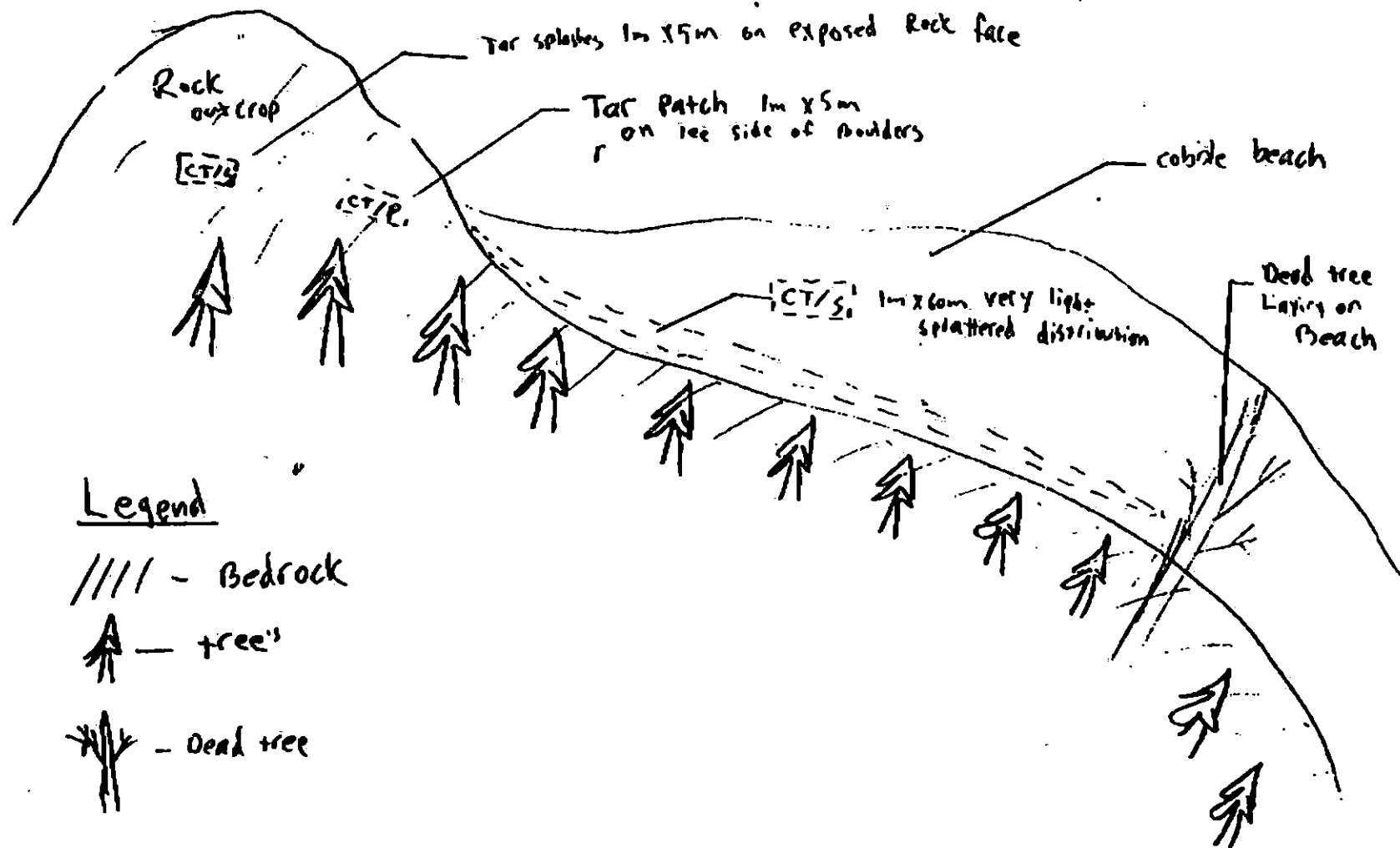
Photo location, direction,
and number

Legend

//// - Bedrock

▲ - tree's

✖ - Dead tree



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

REVISION 130499

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/90

Segment ST/ EVO70 Subdivision A Date (mo / day / yr) 4 / 1 / 90Time (24 hr) 1230 hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 30 (3) Cobble 25 (4) Pebble 10 (5) Sand 15 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 35 Moderate 15 Low 50

(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-11-1Frames 21

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	2	2	2	2
3	3	3	X	X	3	3	3	3	3	3	3
4	4	4	X	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

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	X	X	2	2	2	2
3	3	3	3	3	3	X	X	3	3	3	3
4	4	4	4	4	4	X	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
X	X	2	X	2	2	2	X	2	2	2	2
3	3	3	3	3	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: * 4otters, 6 crows.

Heavy algal cover on rock walls (mostly w. side of island), very sparse cover on cobble beaches that predominate on E. side of island.

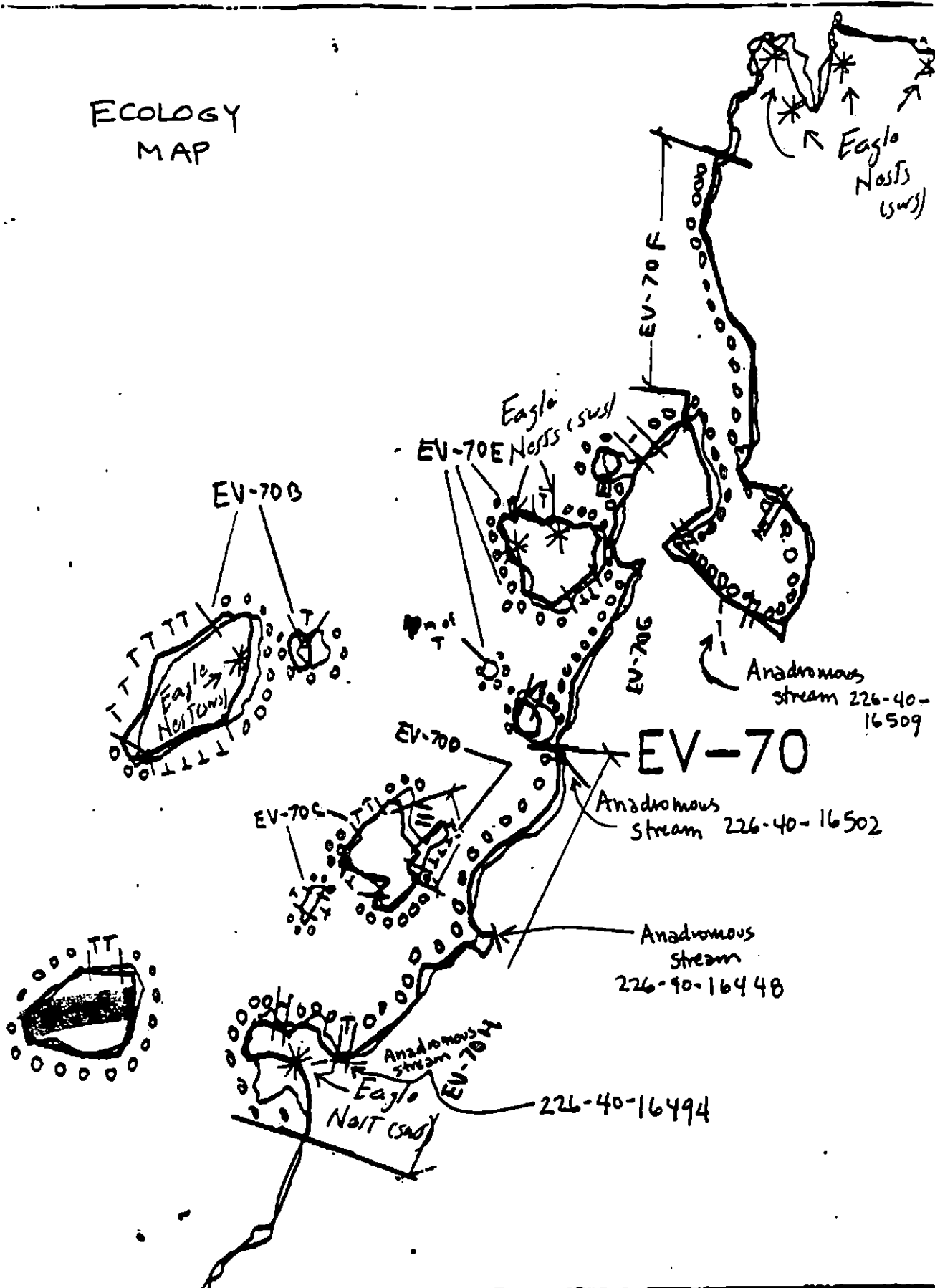
Laminaria abundant in subtidal.

Ecological Considerations:

711, 1B: Not relevant for this subdivision.

* Notes: most surveyed by boat.

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Nil

EV-70

ADEC Segment Length: 12625m

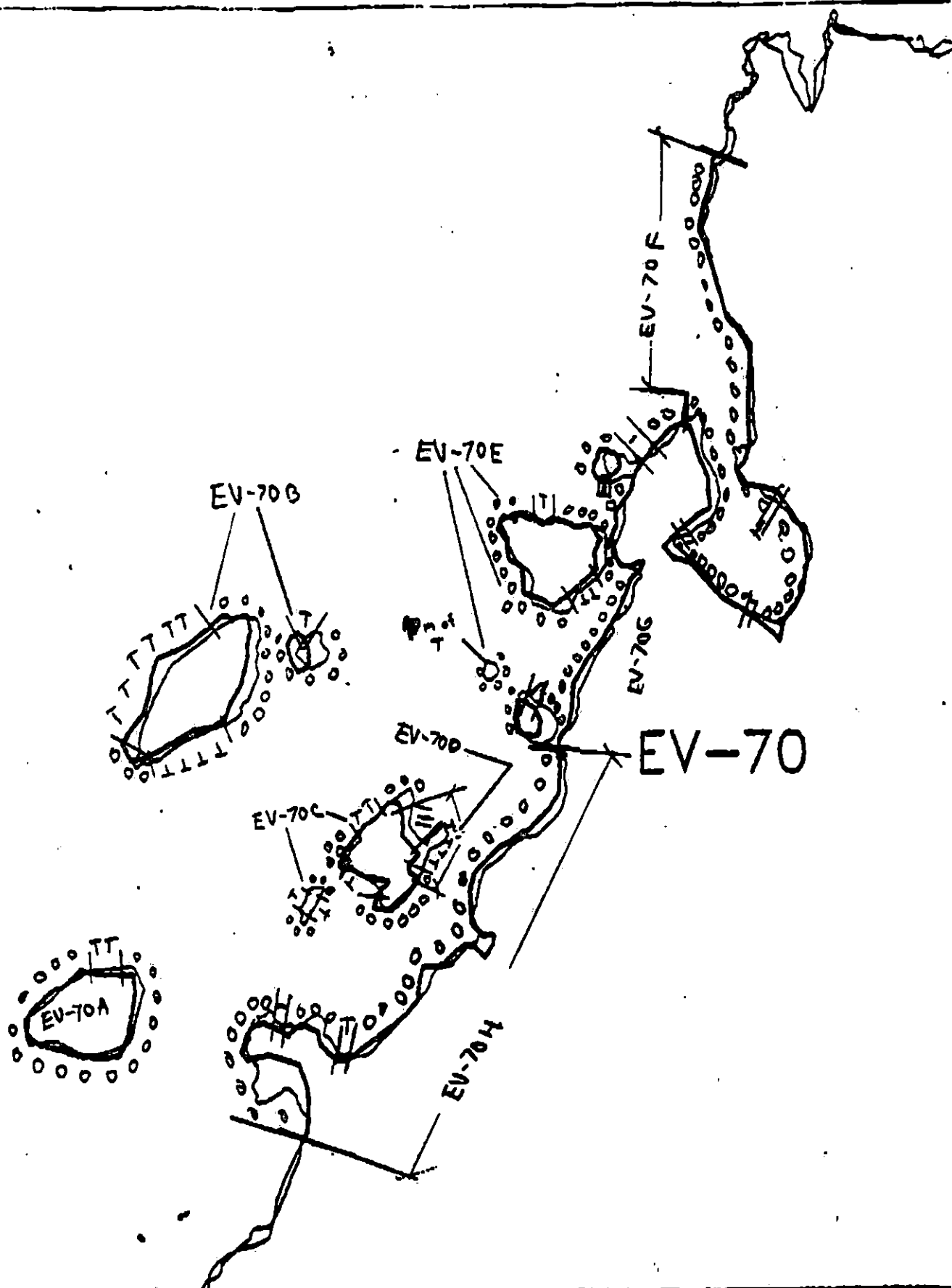


Map Key: PWS-278

Name: Mike Foster

Date: 4/1/90

Date Entered:



XXXX Wide

///// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-70

AOEC Segment Length: 12625m

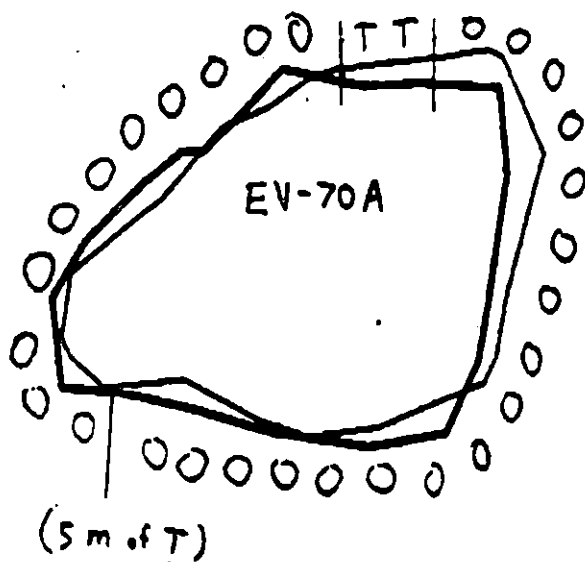
0 300 600 900
METERS

Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

Data Entered:



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

EV-70A

ADEC Segment Length: 12825m



Map Key: PWS-2700

Name: Mike Rye+

Date: 4/1/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION B (2 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Bald eagle nest in Subdivision B.

SHPO SIGNATURE: [Signature] DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 788 m: No Oil 897 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> Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/5/90
ADEC Art Weiner
EXXON Andy Tate
NOAA Joseph Takahashi
USCG Kenneth Kern

FOSC: [Signature] DATE: 5-3-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A
1B
- Salmon stream mouth - fry outmigration (3/1 to 5/15)
Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass.
Contact ADF&G for specific dates and locations.
- 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)
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 9/1)
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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: B DATE 4/1/90

~~USCG~~ NOAA

NAME GARY SHIGENAKA SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF 2 ISLANDS OFF THE WEST CENTRAL COAST OF EVANS ISLAND. ON THE LARGER ISLAND LYING TO THE SOUTHWEST, LIGHT STAIN WAS OBSERVED IN SEVERAL AREAS ON THE WEST SIDE, GENERALLY ON THE LEE SIDE OF ROCKY FACES. SPORADIC SPLATTERS WERE NOTED ALONG THE NORTH AND EAST COASTS.

ON THE SMALLER ISLAND, STAIN WAS NOTED ON ROCK FACES ON THE NORTHEAST COAST.

ADEC

NAME *John Hoyer* SIGNATURE *John Hoyer*

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This sub-segment consisted of two small islands that had high angle headlands for shoreline. Light staining was observed on both islands along with some tar splashes. Stain & splash were on vertical ^{red} rock and weathering.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02/23/88

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EU-70(70)
 BIO Richard Ambrose LAND REP USCG SUBDIVISION B (2 of 8)
 EXXON Larry Olson ADEC John Hayes TIME 13:15 to 13:50
 TEAM NO.: 11 TIDE LEVEL: 0.4 to 1.0 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1800 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested backshore
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 75 % B 20 % C 5 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 5 % Hang 35 % Vert 70 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 850 m NO 950 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	N	1	2	3	4	5	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN				X		X					X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		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			DEBRIS COLLECTED
	SM	MD	LG	
Logs				☐ YES ☒ NO
Vegetation				
Trash				
Debris				
				TYPE <u>0</u>
				#BAGS <u>0</u>

Photographs:

Roll No. 0Frames 0

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		UD	UC	1	2	3	4	5	SU	U	M	L		

COMMENTS No pits were made due to the nature of the shore zone.

Both Islands are mostly steep to vertical Boulder Rock Lr.
 Oiling was observed on Island I as a discontinuous stain located in the HITZ, most of the oiling occurred on Southern exposure Rock faces.
 Island II has 100m of light stain occurring on the Northern side in the HITZ.

03 M. K. Foyet

SEGMENT ST/ EV-70

SUBDIVISION B

DATE 4/1 90

CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Endry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NWLAWL
- ☐ 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

Oiled Vegetation

1 ➡

Photo location, direction,
and number

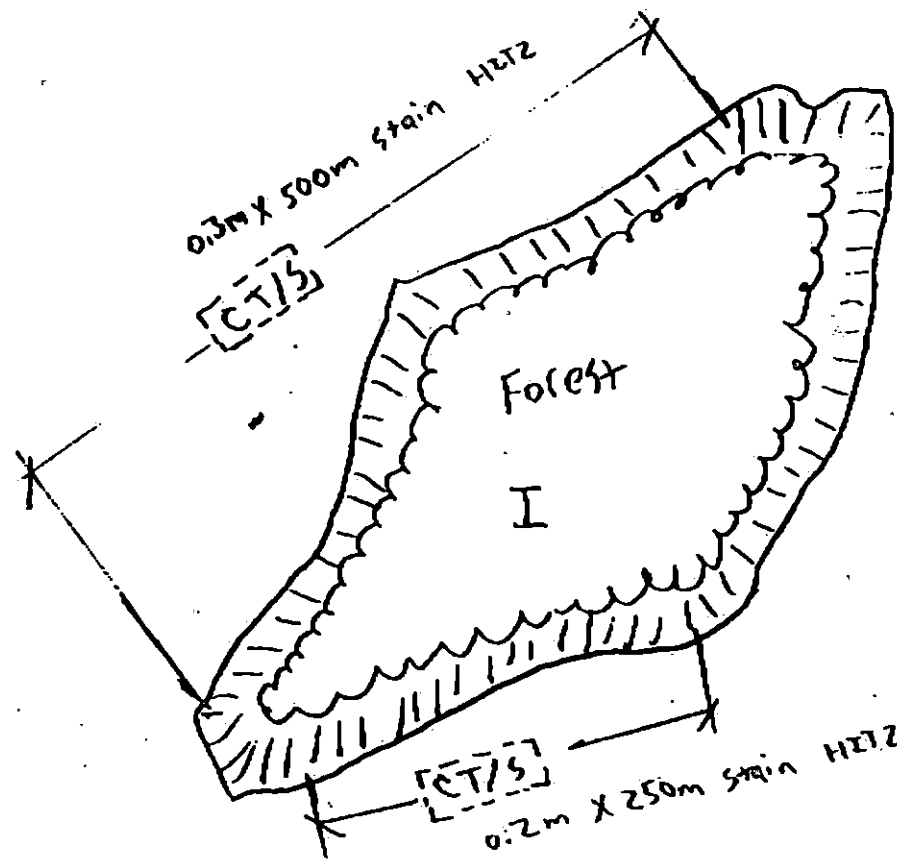
SKETCH MAP

Legend



- Forest

/// - Bedrock/Large Boulders



800 m x 0.2 m Stain
H12



Oil Character Length (m): AP PO CV CT ST 850 MS PT TB FL NO 950

REVISION: 0004/00

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/23/90

Segment ST / EVO 70 Subdivision B Date (mo / day / yr) 4 / 1 / 90Time (24 hr) 1315 hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 75 (2) Boulder 20 (3) Cobble 5 (4) Pebble - (5) Sand - (6) Silt -(B) Overall % cover of biota (% of segment): Dense 70 Moderate 20 Low 10

(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. -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

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: * 1 harbor seal, 2 deer, 1 mature bald eagle.

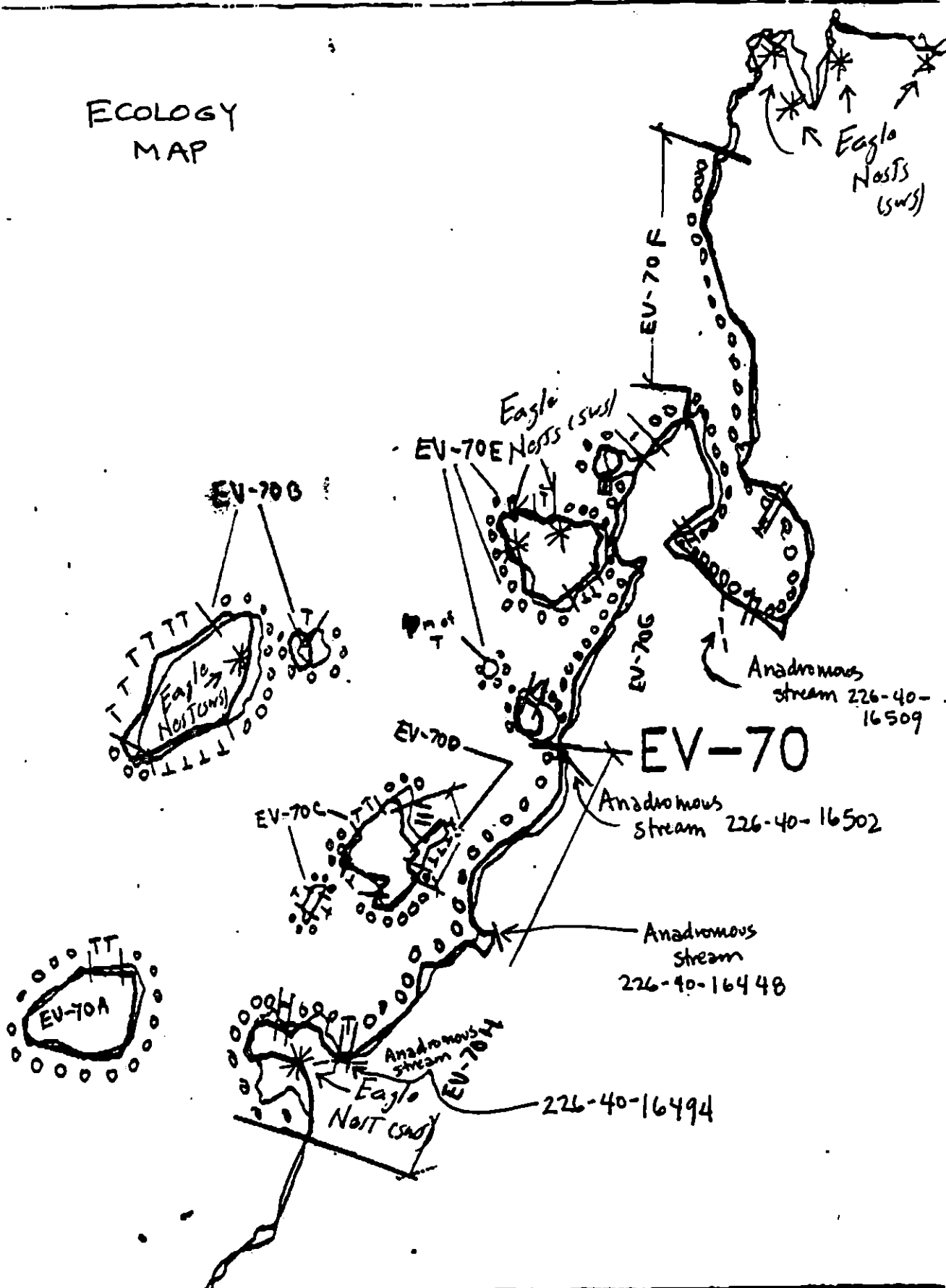
Heavy cover of biota around almost entire island, with only a few areas of sparser cover. Low tidal zone is dominated by red algae.

Ecological Considerations:

711, 1B: Not relevant for this subdivision.

*Note: most surveyed by boat.

ECOLOGY MAP



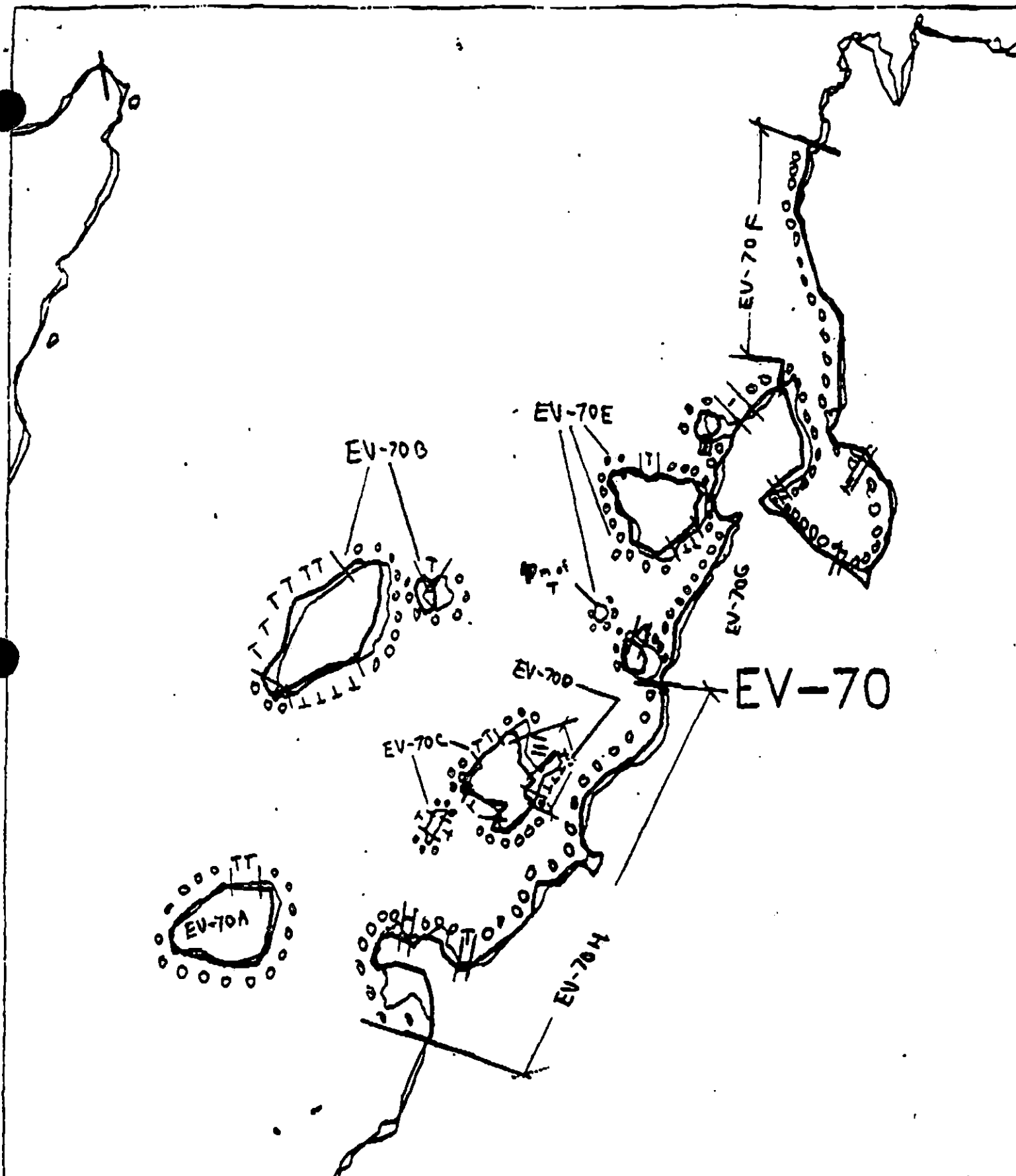
XXXX Wide
 //// Medium
 --- Narrow
 TTTT Very Light
 0000 No Oil

ADEC Segment Length: 12625m

EV-70



Map Key: PWS-279
 Name: Mike Foye
 Date: 4/1/90
 Date Entered:



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

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279
 Name: Mike Fogel
 Date: 4/1/90
 Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION C (3 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 319 m: No Oil 511 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: 4/25/90

ADEC ART WEIGER

EXXON AMY TEAL

NOAA Joseph Talbot

USCG KENNETH KEANE

FOSC: W L

DATE: 5-3-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (8/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (8/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 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)
 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 9/1)
 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.
- 6T 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 (5/1 to 9/30)
- 7-H Finfish harvesting
- 7-I Deer harvesting (8/15 to 2/28)
- 7-J Invertebrate harvesting
 For Codes 7Z through 7-JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: C DATE 4/1/90

USCG NOAA

NAME GARY SWIGENAKA

SIGNATURE *Gary Swigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF ONE SMALL ISLAND AND MOST OF A LARGER ONE LYING TO THE NORTHEAST OFF THE WEST CENTRAL COAST OF EVANS ISLAND. THE PORTION OF THE LARGER ISLAND NOT INCLUDED IN THIS SUBDIVISION (AND DESIGNATED AS SEPARATE SUBDIVISION "D") WAS THE NORTHERN EMBAYMENT OF THE ISLAND.

THE SMALLER ISLAND WAS SURVEYED BY BOAT. SPORADIC WEATHERED SPLATTERS WERE OBSERVED ON ROCK FACES.

SPLATTERS WERE NOTED IN THE MID-TO UPPER-INTERTIDAL OF MUCH OF THE LARGER ISLAND. A BEACH ON THE SOUTH SIDE OF THE ISLAND, CONSISTING OF GRAVEL AND COBBLE WITH BOULDERS IN THE UPPER INTERTIDAL, WAS ASSESSED IN A BEACH WALKING. SPLATTERS WERE OBSERVED IN THE UPPER INTERTIDAL OF THE EASTERN PORTION. A "BATHING RING" OF WEATHERED STAIN AND COAT WAS FOUND IN THE CENTRAL PART OF THE BEACH, AND THIS EXTENDED WEST ONTO THE ROCK FACES THAT BORDERED ON THE WEST.

ADEC

NAME John Hayes

SIGNATURE *John Hayes*

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This sub-section consisted of one island and part of another nearby island (see map). Both islands had tar splatters and tar stain that was weathering. Staining on both islands consisted of discontinuous bands on the U.I.T.Z. No S.S. oiling was observed on these segments.

LAND MANAGER

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-70
 BIO Richard Ambrose LAND REP USEG SUBDIVISION C (3 of 8)
 EXXON Larry Olson ADEC John Hayes TIME 12:58 to 1:00
 TEAM NO.: 11 TIDE LEVEL: 2.2 to 2.4 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1000 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested Backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 75 % B 15 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 50 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 300 m NO 700 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	C	1	2	3	4	SU	U	M	V
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN					X	X				X		
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X	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			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 2Frames 0

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		UC	UC	1	2	3	4	SW	U	M	V		
1	30					X	.		X					X					P.G.S
2	10					X	.		X					X					G.S.M
							.												
							.												
							.												
							.												

COMMENTS

Some discontinuous splattered staining is located in the HITZ on the Eastern side of the island along the vertical rock wall. The cobble beach on the Southern End of the island also has a 1m x 100m discontinuous coating of tar in the HITZ. The smaller island just south of the larger island also has some discontinuous staining located on the bedrock in the HITZ. (See map). All oil looked weathered by its splattered, worn distribution of light staining.

OG 11 Foyer

SEGMENT ST/ EV-70

SUBDIVISION C

DATE 4 / 1 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAZ/AVM
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pst Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pst - No Subsurface Oil

2 Δ
Pst - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

$\boxed{CT/P}$
Patchy Distribution

$\boxed{CT/S}$
Splattered Distribution

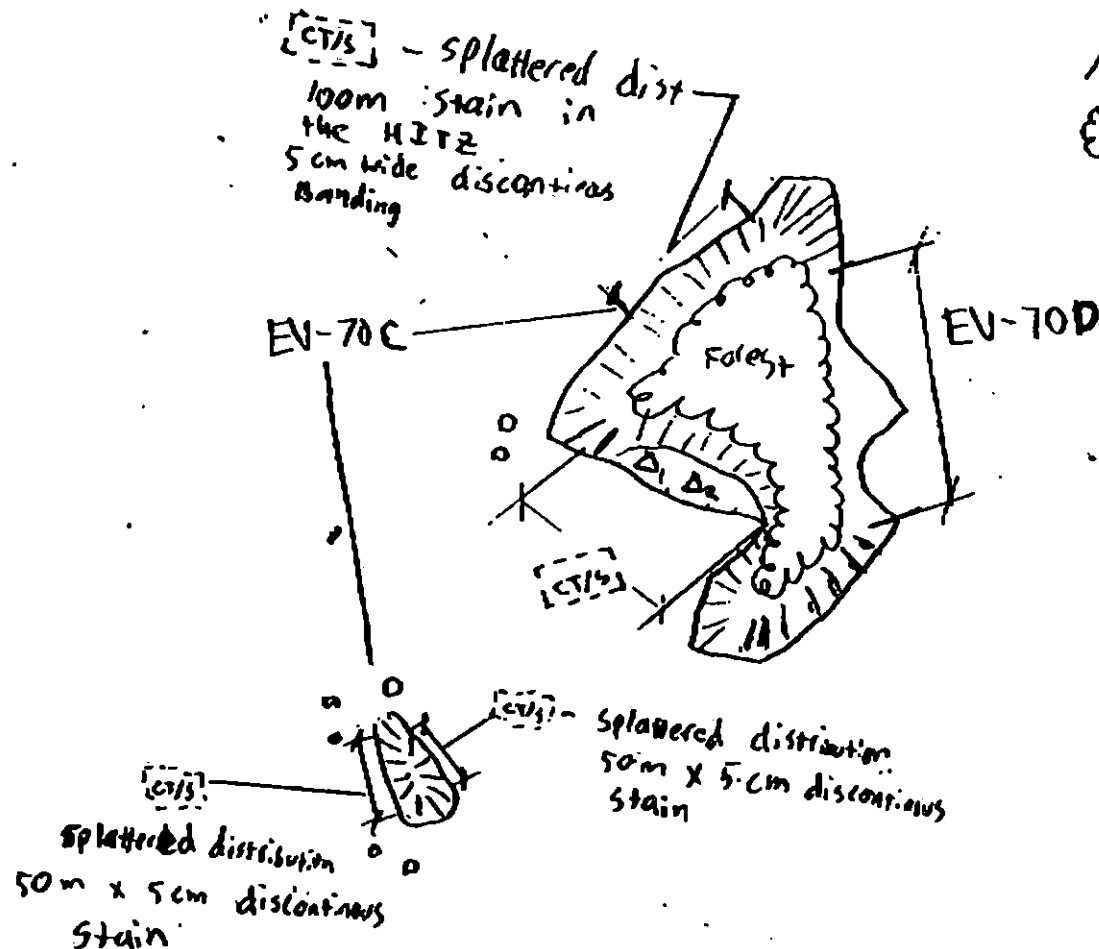
$\Rightarrow$
Oiled Vegetation

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

SKETCH MAP

Legend

- o - Rock
- //// - Bedrock / Large
- ☁ - Forest



Oil Character Length (m): AP PO CV CT 100 ST 200 MS PT TB FL NO 100

REVISION 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/2/90

Segment ST/ EVO70 Subdivision C Date (mo/day/yr) 4/1/90

Time (24 hr) 1350 Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 75 (2) Boulder 15 (3) Cobble 10 (4) Pebble - (5) Sand - (6) Silt -

(B) Overall % cover of biota (% of segment): Dense 55 Moderate 35 Low 10

(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. -

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

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: * 1 otter, 1 great blue heron.

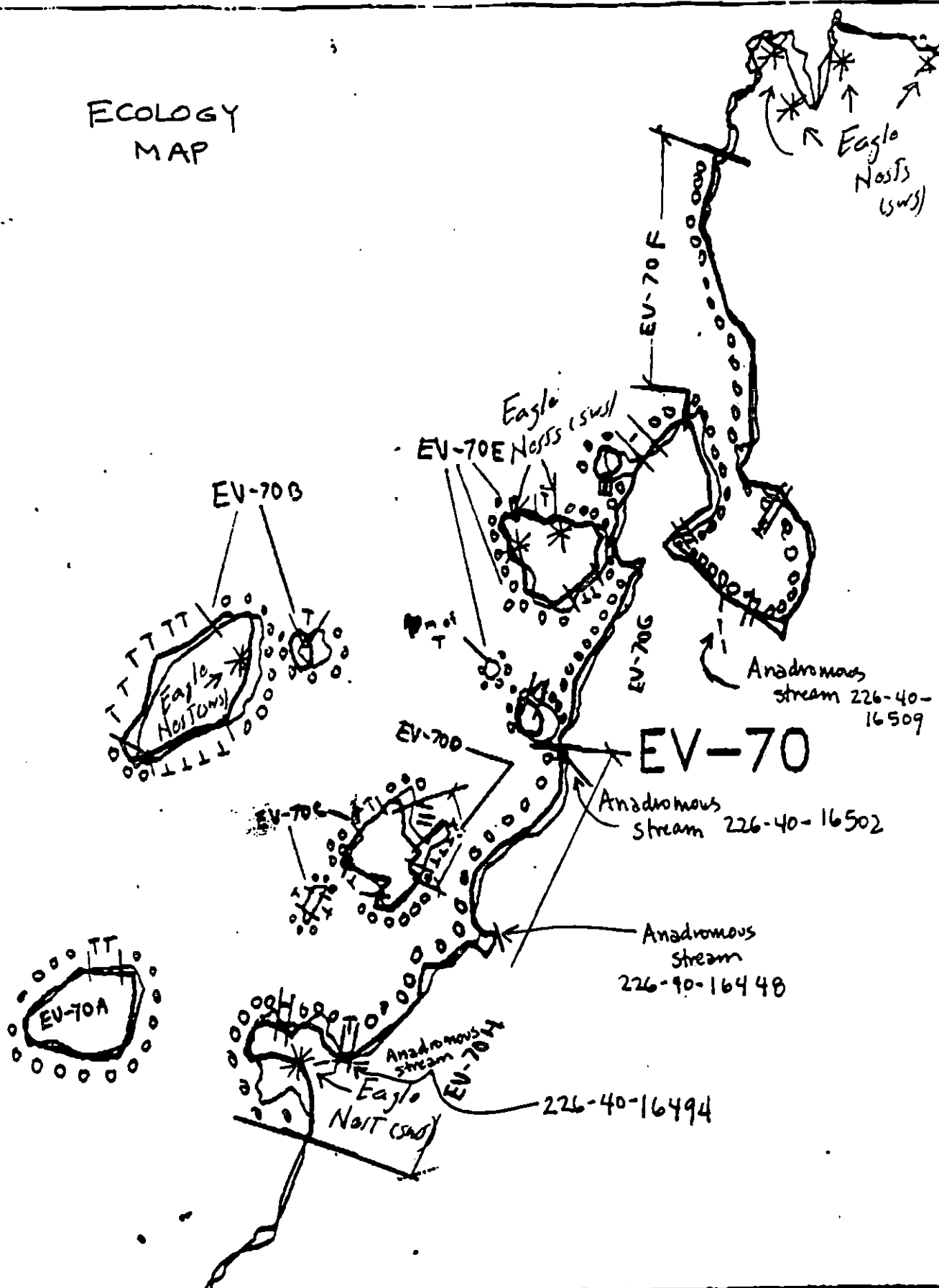
Algal cover a bit sparser than subdivision B on the E side, but still dense on the W. side, esp. with red algae in the intertidal.

Ecological Considerations:

711, 1B: Not relevant for this subdivision.

*Note: most surveyed by boat.

ECOLOGY MAP



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m

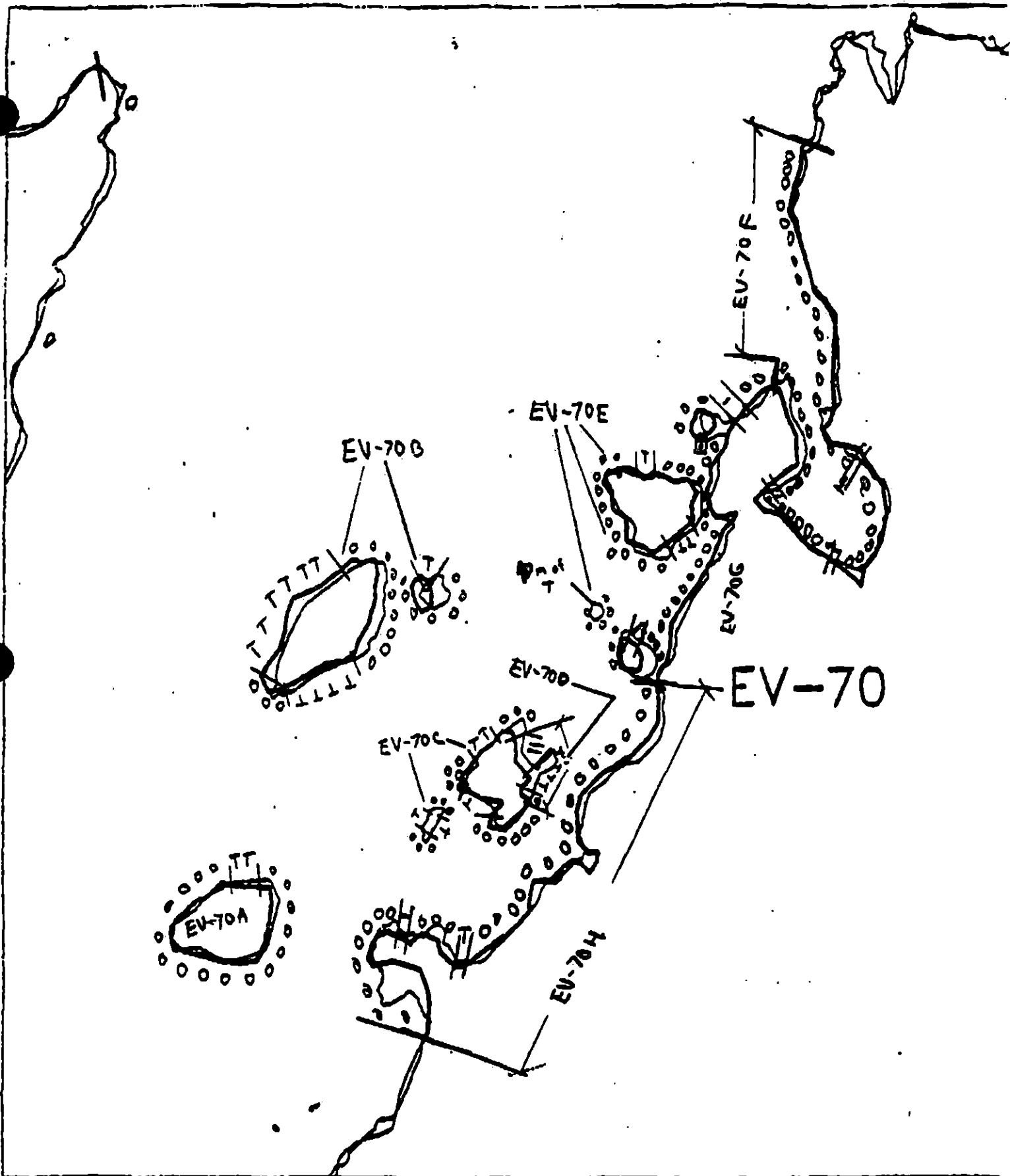


Map Key: PWS-279

Name: Mike Ford

Date: 4/1/90

Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m

0 100 200 300
METERS

Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION D (4 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Do not trample or otherwise damage mussel bed at base of spit.

SHPO SIGNATURE: [Signature] DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 139 m: Narrow 0 m: V.Light 66 m: No Oil 73 m
Subsurface Oil Observed: Yes X No Maximum Depth 5 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>X</u> Tarmat: <u>X</u> Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend bioremediation of area shown on attached sketch
map. Work should be conducted after 6/1 with approval of USFWS regard-
ing eagle nest constraint. Avoid mussel bed near proposed
bioremediation site. REMOVE TARMAT AS INDICATED ON SKETCH

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/25/90

ADEC ART WERNER

EXXON ANDY TEH

NOAA JOSEPH TAKASHI

USCG KENNETH KEENE

FOSC: [Signature] DATE: 5-6-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A
1B

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

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

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

Esther Hatchery release (4/15 to 6/1)

1E

Main Bay Hatchery release (4/20 to 5/10)

1F

Sawmill Bay Hatchery release (4/15 to 6/1)

1G

Cannery Creek Hatchery release (4/21 to 6/1)

1H

Remote release site

1I

Gill net area (6/7 to 8/31)

1J

Purse seine area (7/20 to 9/30)

1K

Purse seine hook-off (7/20 to 9/30)

1L

Set net sites (6/11 to 7/25)

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M

Herring spawning (4/1 to 6/15)

Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrasses. Contact ADF&G for specific dates and locations.

3N, 3P
3O, 3Q

Harbor seal and sea lion pupping (5/15 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.

5R

Seabird colony (5/1 to 9/1)

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

Anchorage (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 (5/1 to 9/30)

7HH

Finfish harvesting

7II

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: D DATE 4/1/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

LIQUID OIL WAS OBSERVED IN THIS SUBDIVISION, WHICH CONSISTED OF AN EMBAYMENT ON THE NORTH SIDE OF AN ISLAND ABOUT A MILE SOUTH OF THE ENTRANCE TO EGUAC BAY (EVANS ISLAND). EXCLUDING THIS EMBAYMENT, THE REMAINDER OF THE ISLAND WAS DESIGNATED AS SUBDIVISION "C". THE BEACH WAS CHARACTERIZED BY SHALE COBBLE AND BOULDERS. THE UPPER INTERTIDAL SHOWED EVIDENCE OF OILING IN THE FORM OF CONSISTENT SPLATTERS THROUGH A 1-2 M BAND ALONG MUCH OF THE BEACH. A BAND IN THE LOWER INTERTIDAL SHOWED EVIDENCE OF CONSISTENT SURFACE OILING (WEATHERED COAT AND COVER). AND EXAMINATION UNDER COBBLE AND BOULDER REVEALED FREE OIL ON THE WATER WITH A DISTINCT ODOR OF CRUDE. THIS 51 M BAND EXTENDED FOR MUCH OF THE ENCLOSED BEACH, ~60M. A SHEEN WAS OBSERVED IN THE IMMEDIATELY ADJACENT NEARSHORE WATERS, AND AS THE BOAT HAD APPROACHED THE BEACH FOR LANDING, BIOLOGIST RICH AMBROSE HAD NOTED OCCASIONAL SMALL (1-2 CM) POCKETS OF SHEEN. LIQUID OIL WAS ESTIMATED TO BE PRESENT TO A DEPTH OF 3 CM IN THE SEDIMENTS, WITH WATER FILLING THE PIT BELOW THIS DEPTH AND MAKING FURTHER OBSERVATION DIFFICULT. NEVERTHELESS, WORMS WERE OBSERVED LIVING IN SEDIMENTS OF ONE OILED PIT. MUSSEL BEDS NEAR THE LOWER INTERTIDAL OILED ZONE APPEARED TO BE OKAY, ALTHOUGH OBSERVED ASPHALTING MAY HAVE CAUSED A PORTION OF THE BEDS TO BREAK AWAY. THIS BEACH MAY BE A CANDIDATE FOR BIOREMEDIATION.

ADEC

NAME John Hoyer

SIGNATURE *John Hoyer*

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This sub-segment consisted of part of an island off the shoreline of EV-70 (see ^{sketch} map). The sub-segment D, had oiling in the L-M-U T's. Subsurface oiling ranged from 3-5 cm. Most of the oiling was concentrated in the U's T's in a continuous band surface coverage was coat and cover.

Treatment recommended is either bioremediation or mechanical, with further evaluation dredge & wash mechanical may be applicable to this beach. The beach appears stable and the free oil is all subsurface. Special attention should be paid to healthy mussel beds & other growth noted on bio. map.

LAND MANAGER

NAME

Rec. treatment only for section with three bands of oiling indicated on ~~map~~ sketch map. Hot water treatment would be applicable but is not advised on the segment.

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/28/90

OG Mike Foget ^{NOAA} used Gary Shigenaka SEGMENT ST/ EV-70
 BIO Richard Ambrose LAND REP — SUBDIVISION D (4048)
 EXXON Larry Olson ADEC John Hayes TIME 14:00 to 15:10
 TEAM NO.: 11 TIDE LEVEL: 1.1 to 3.6 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 240 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock snow covered uplands
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 10 % B 10 % C 35 % P 20 % G 15 % S 10 % M 0 % V 0 %
 SLOPE: Long 6.0 % Hang 20 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 75 m M 50 m N 75 m VL 100 m NO 90 m

SURFACE OIL

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

PAVEMENT: H ☒ S 2 sq. m by 3 cmPATTIES / TARBALLS ☒ BAGSNEAR SHORE SHEEN? NO BR ☒ RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-11-1Frames 22-26, 29-31

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			1	2	3	4	5	SU	U	M	V		
1	5		X				0-1	X	X					X					P, C
2	10		X				0-3	X	X					X					P, C
3	15					X	.	X	.					X					P, C
4	10				X		0-5	X	X						X				C, P, S (water on sand) 96%
5	10			X			0-3	X	X						X				C, P, S (")
6	15					X	.	X						X					P, C

COMMENTS: Subdivision D is located on the North eastern side of subdiv C, this shoreline had more extensive oiling than the rest of subdivision C. A light discontinuous splattered tar/stern is located on the eastern side of the cobble beach in HITZ. The same distribution of stained cobble is located on the eastern side of the Large rock outcrop to the North of the beach. over

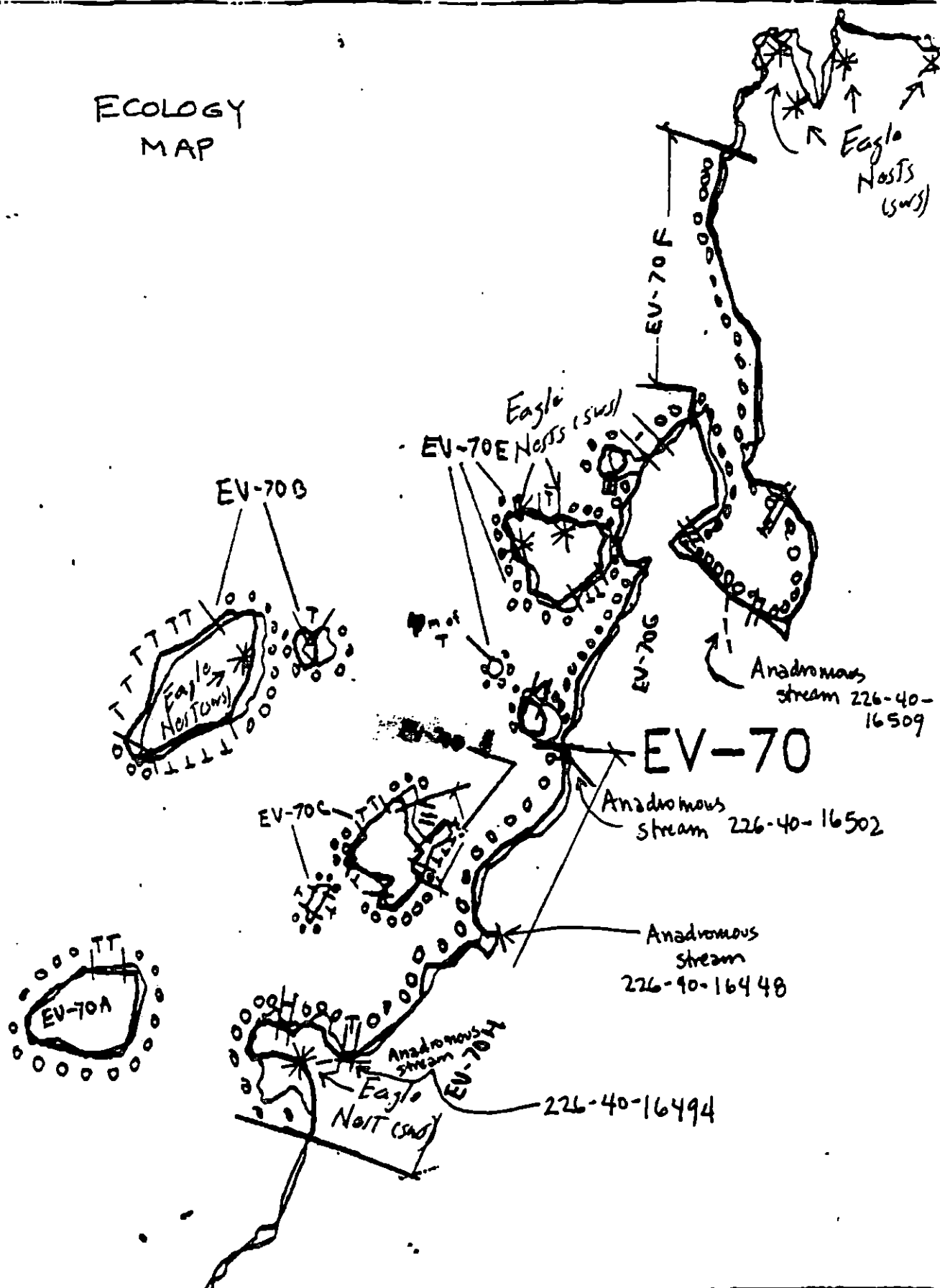
SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS The Beach to the west of the large rock outcrop and mussel Bed was hit fairly hard. The oil category for this section is medium. In the upper ITZ is a 2m X 50m Patchy distribution of oil/tar. ^{There are some tar/asphalt patches located in this zone.} Most of the oil is located on the Protected side of the boulders and cobble. In the Mid intertidal is a splattered 4m X 50m tar staining with most of the oil located on the protected side of the cobble. The oil appears to be weathered on the exposed side of cobbles. In the LITZ there is a 2m X 50m cover of oil/tar in a patchy distribution. On the surface the oil appears highly weathered. Underneath cobbles is free oil. Brown oil globules appear on the water surface (water at 5cm) when cobbles are uncovered. A slight rainbow sheen was observed in the water just off shore.

REVIEWED M.H. DATE 4/11/90

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12025m



Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

Date Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 6/22/79

Segment ST / EVO 70 Subdivision D Date (mo / day / yr) 4 / 1 / 90Time (24 hr) 1400 hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 10 (3) Cobble 35 (4) Pebble 20 (5) Sand 25 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 0 Moderate 15 Low 85

(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-11-1Frames 27, 28

BARNACLES

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
3	3	3	X	X	3	X	X	X	3	3	3
4	4	4	4	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

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	X	3	3	3	3
4	4	4	4	4	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	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	X	X	X	3	3	3
4	4	4	4	4	4	4	4	X	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	X	2	2	2	2
3	3	3	3	3	3	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

Wildlife Observations/ General Comments: * 14 unid. ducks (Harlequins??), 4 cormorants
 Generally sparse biota (since most of subdivision consists of E. side of island). Virtually all mussels occurred in one area; see Addendum.

Ecological Considerations:

711, 1B: Not relevant for this subdivision.
 Mussel bed would be susceptible to trampling; see Addendum.

* Note: most surveyed by boat.

OG N Fojet

SEGMENT ST/ EV-70

SUBDIVISION D

DATE 4 / 1 / 90

CHECKLIST

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

LEGEND

1 Δ
P/L - No Subsurface Oil

2 Δ
P/L - Subsurface Oil

[CT/C]
Continuous Distribution

[CT/B]
Broken Distribution

[CT/P]
Patchy Distribution

[CT/S]
Splashed Distribution

Oil on Vegetation

1 →
Photo location, direction, and number

SKETCH MAP

Scale

25 m

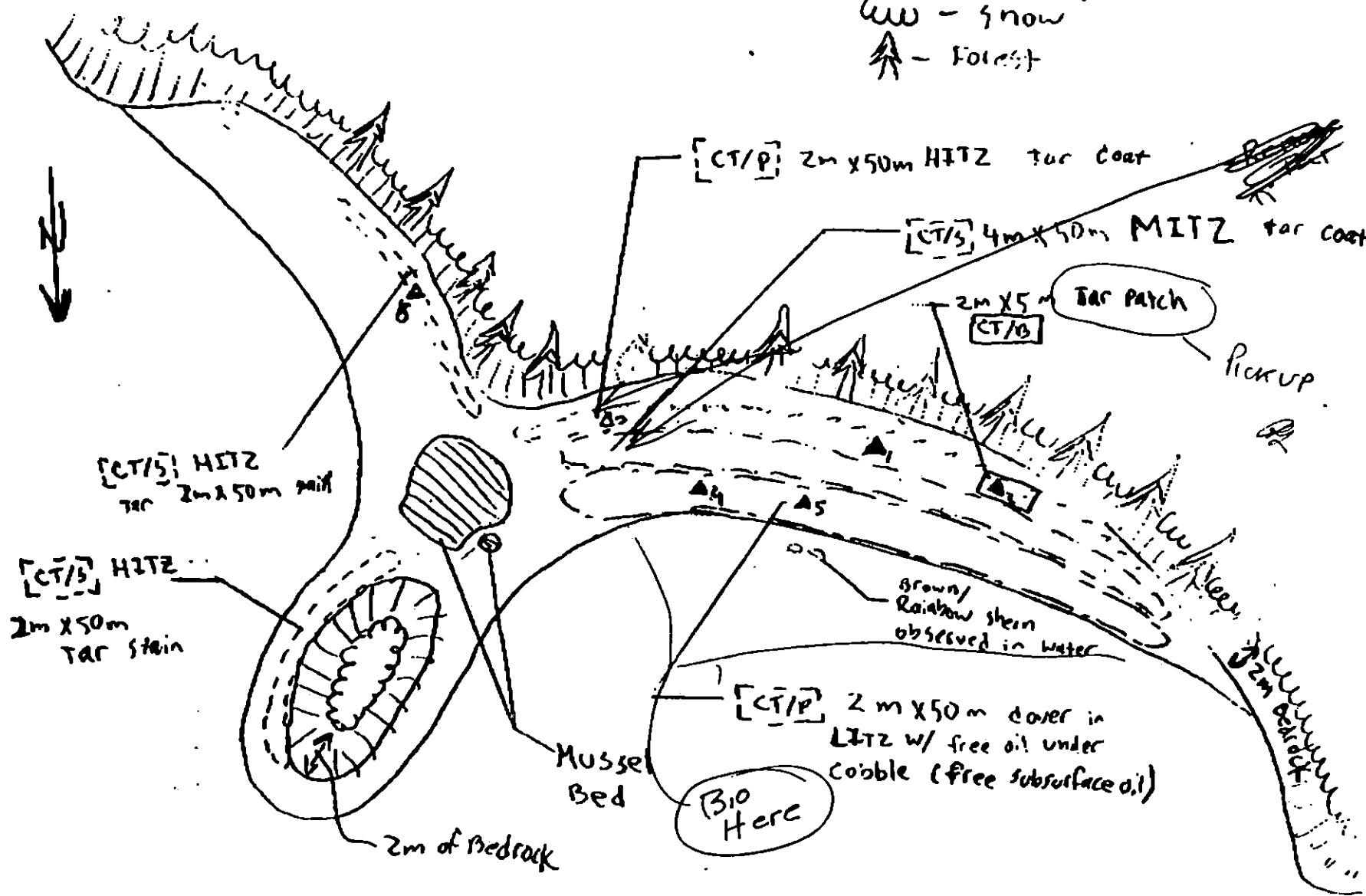
Legend

⊗ - Mussel Bed

/// - Rock/Boulder outcrop

W - Snow

↑ - Forest



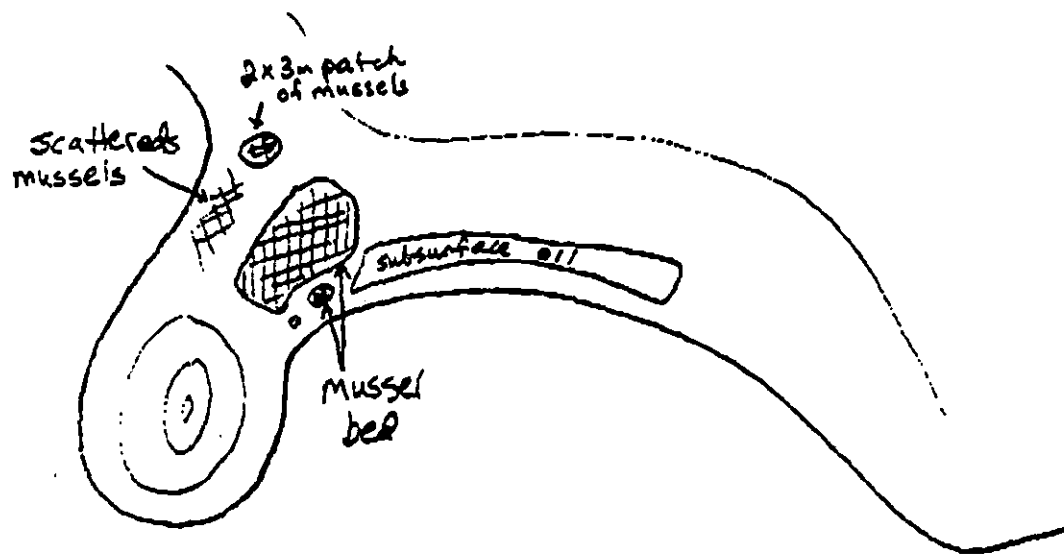
Oil Character Length (m): AP 5 PO - CV 50 CT 150 ST - MS - PT - TB - FL 1 NO 206

REVISED 08/00

4/1/90

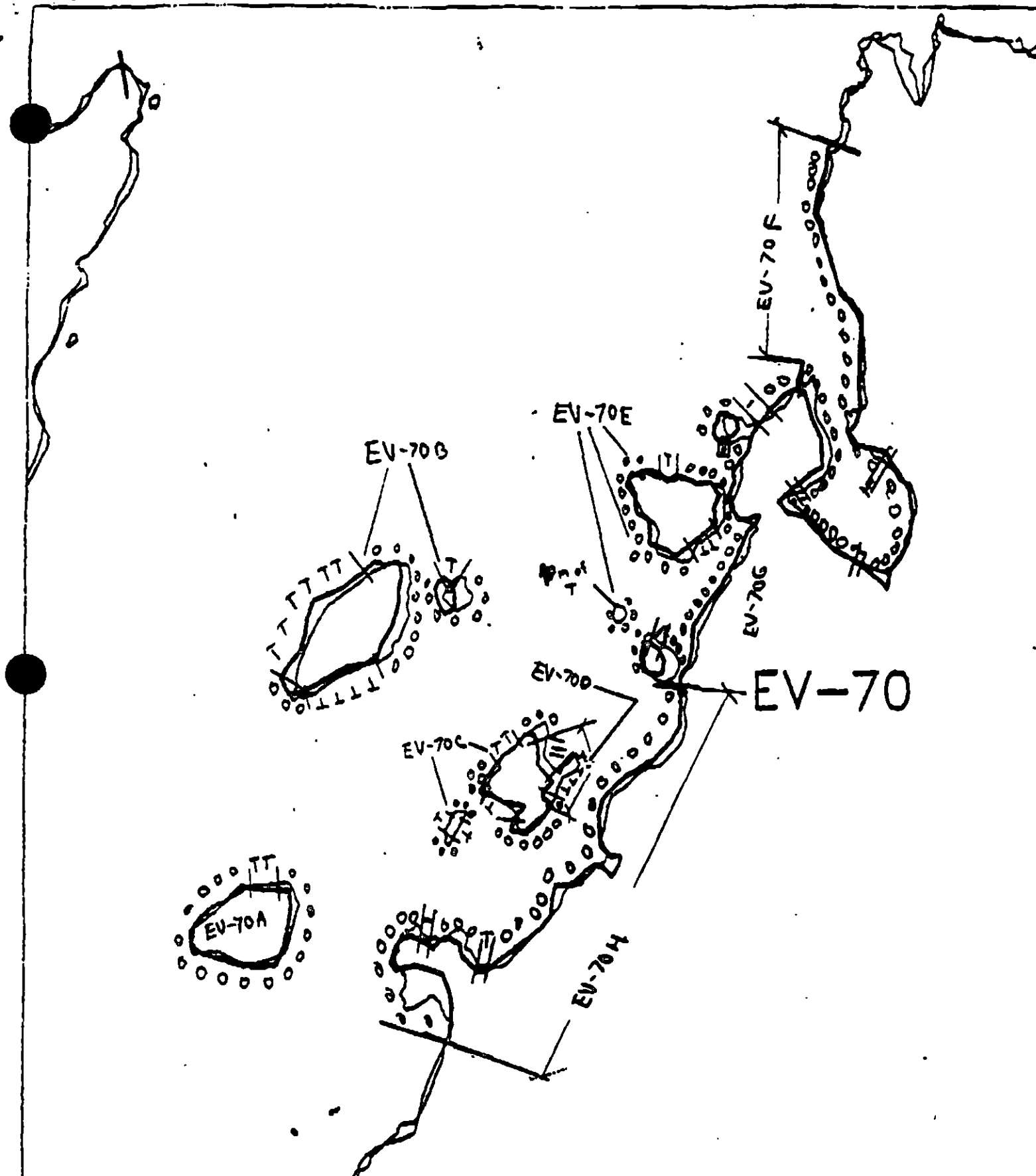
Addendum

A dense mussel bed on pebbles occurred at beach with free subsurface oil. The biota over the main part of the cove was quite sparse, with sparse barnacles & littorines and rare Fucus. The mussel bed would be susceptible to trampling, but it occurs on the ridge east of the main beach, and could be avoided during beach activities:



The mussel bed is about 5cm thick. No oil was found on the mussels; however, the northwest edge of the bed was broken up, and it looks as though the bed used to extend to where subsurface oil and asphalt are found now.

Hermit crabs were observed under one rock in the mid intertidal (in oil zone). A nemertean - alive - was under a rock with a noticeable amount of free oil on the water.



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Foye

Date: 4/1/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-70 SUBDIVISION D (4 of 8)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	WORK PRIOR TO 7/20

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

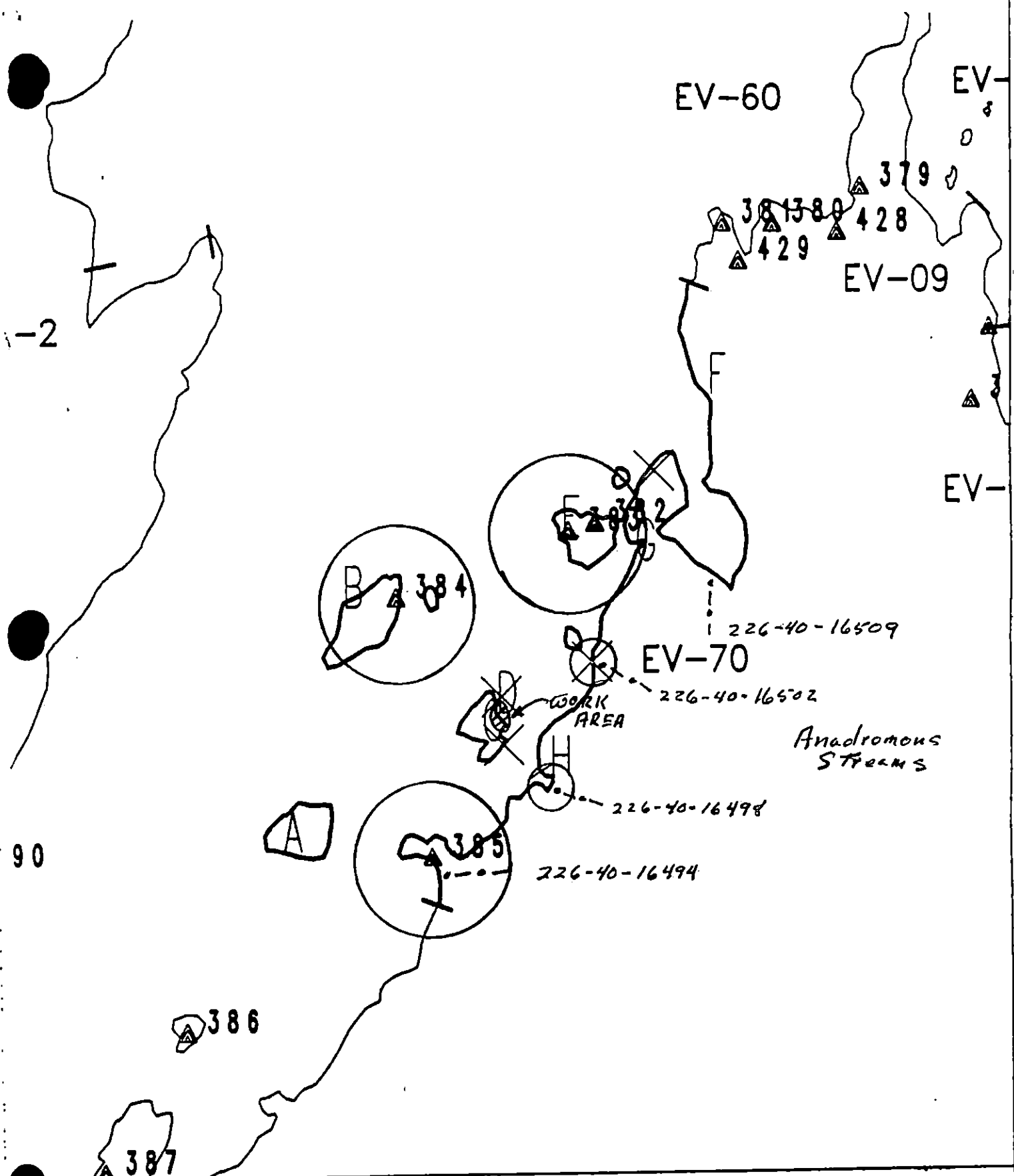
1A,1B	Salmon Stream	NO CONSTRAINT. ADF&G catalogued anadromous streams (226-40-16494, -16498, -16502, and -16509) are more than 100m from the work area.
IK	Purse Seine Hook-off	Closed to bioremediation after 7/20. No constraint to manual pickup and tarmat removal.
5T	Bald Eagle Nest	NO CONSTRAINT. Work area is more than 400m from nest.
7II	Subsistence: Deer Harvesting	Closed to bioremediation after 8/15. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/20. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Do not trample or otherwise damage mussel bed at base of spit and avoid the bed during bioremediation.

TAG APPROVAL DATE 5/29/90.
ADEC ART WEINER Art Weiner
EXXON ANDY TGA Andy TGA
NOAA B. Wescott B. Wescott
USCG G.A. REITER G.A. Reiter
FOSC [Signature] Date MAY 29 1990

Prepared by Andru May WTK Date 5/29/90



Exxon Company, USA
Map Key: PMS-EV-70



ECOLOGY MAP
SEGMENT EV-70
SUBDIVISION D (4 of 8)
METERS

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION E (5 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

SHPO SIGNATURE: [Signature] DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 191 m: No Oil 839 m

Subsurface Oil Observed: Yes X No Maximum Depth 6 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> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend manual pick up of oiled debris and vegetation.
Work should be conducted after 6/1 and with permission of USFWS due to
eagle nest constraints.

TAG COMMENTS: MONITOR TO CHECK SUITZ DURING TREATMENT.

TAG APPROVAL DATE: 4/25/90

ADEC Art Weimer Art Weimer

EXXON Andy Tate Andy Tate

NOAA Joseph Talbot Joseph Talbot

USCG Kenneth Keane Kenneth Keane

FOSC: LL

DATE: 5-3-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (8/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (8/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 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)
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 9/1)
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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: E DATE 4/1/90

USCG NOAA

NAME GARY SHIGENATA

SIGNATURE *Gary Shigenata*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION "E" CONSISTED OF A LARGER ISLAND DUE SOUTH OF THE ENTRANCE TO GUGUAC BAY (EVANS ISLAND). THE SUBDIVISION INCLUDED A VERY SMALL ISLAND LYING TO THE NORTH OF THE LARGER. SPLATTERS OF WEATHERED OIL WERE OBSERVED ON THE SHIP FACES OF THE SMALL ISLAND. THE LARGER ISLAND SHOWED A "BATHTUB RING" OF STAIN ON MANY OF ITS ROCK WALLS AND BOULDERS IN THE UPPER INTERTIDAL. A BEACH ON THE NORTHEAST SIDE OF THE LARGER ISLAND WAS VISITED. THE BEACH CONSISTED OF TWO DISTINCT TYPES, WITH A ROCK OUTCROPPING DIVIDING THE TWO. THAT TO THE WEST WAS COMPOSED OF LARGE BOULDERS. SOME SPLATTERS WERE OBSERVED ON EXPOSED FACES. NO OTHER EVIDENCE OF OILING WAS SEEN. THE SUPRATIDAL WAS NOT ACCESSIBLE DUE TO SNOW. THE EASTERN HALF OF THE BEACH CONSISTED OF COBBLE AND GRAVEL, WITH SOME BOULDERS. THE LANDWARD FACES OF MANY OF THE BOULDERS SHOWED STAIN, COAT OR COVER. COATING WAS SEEN ON BARNACLES ATTACHED TO A ROCKY OUTCROPPING ON THE EASTERN EDGE OF THE BEACH, WITH SOMEWHAT HIGHER INCIDENCE OF DEAD BARNACLES OBSERVED BY BIOLOGIST RICH AMBROSE IN THIS OILED PORTION RELATIVE TO UNOILED. NO EVIDENCE OF OILING WAS OBSERVED UNDER ROCKS OR IN PITS. OILED VEGETATION WAS FOUND IN THE SUPRATIDAL, ALTHOUGH ONLY A SMALL PART OF THAT ZONE WAS ACCESSIBLE DUE TO SNOW. THIS SHOULD BE REEXAMINED AT A LATER DATE TO MORE CLEARLY DEFINE EXTENT OF OILING.

THE REMAINDER OF THE ISLAND SHOWED EVIDENCE OF OILING IN THE FORM OF WEATHERED SPLATTERS OR "BATHTUB RING", BOTH DISCONTINUOUS.

ADEC

NAME John Hayer

SIGNATURE *John Hayer*

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This sub-section consisted of two Islands one large and one small (see map). The small Island had staining on the ~~USTR~~ the staining was a discontinuous band.

The larger Island had a discontinuous tan stain on the USTR.

A pocket beach on the large Island had oiling in the supratidal Z. Although most of the zone was covered with snow we observed oiled pebbles + vegetation in a depth of 6 cm. Area should be re-visited after snow melts and manual pick up of oiled vegetation + pebbles is recommended. It appeared that contamination extended in this zone but was not confirmed due to snow cover.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02/88/90

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-70
 BIO Richard Ambrose LAND REP None SUBDIVISION E (5048)
 EXXON Larry Olson ADEC John Hayes TIME 15:40 to 16:00
 TEAM NO.: 11 TIDE LEVEL: 4.6 to 5.0 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 30 % B 30 % C 20 % P 10 % G 10 % S - % M - % V - %
 SLOPE: Long 45 % Hang 25 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 120 m NO 480 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	N	1	2	3	4	SU	W	M	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN			X		X				X			
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X		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			
Vegetation		X	
Trash			
Debris	X		

DEBRIS COLLECTED
☐ YES ☒ NOTYPE rope
Rope needs / E.#BAGS 0

Photographs:

Roll No. ST-11-1Frames 32

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		OO	OC	1	2	3	4	SU	W	M	U		
* 1	15		X				0-6	X						X	X				Debris, P
2	15					X	-	X							X				P
3	20					X	-	X								X			P
							-												
							-												
							-												

COMMENTS

* oiled interval < 5cm in Pit #1 does not constitute subsurface oil.

Oil is located on a Pocket Beach on the N. side of the Island (Map 2) in the storm berm located in the Super I.T.Z. Most of the Super I.T.Z. is covered by snow. Also there is some staining in the M.I.T.Z. on the S.E. part of the Island

BUT beam does!

JRH 16 Apr 90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/96

Segment ST/ EV070 Subdivision E Date (mo / day / yr) 4/1/90Time (24 hr) 1540 hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 30 (2) Boulder 30 (3) Cobble 20 (4) Pebble 10 (5) Sand 10 (6) Silt —(B) Overall % cover of biota (% of segment): Dense 50 Moderate 30 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-11-1Frames 33

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:*

2 Harlequin ducks, 1 cormorant, 1 common merganser, 1 mature bald eagle, 1 deer plus deer tracks and deer skeleton on one beach.

Ecological Considerations:

711, 1B: Not relevant for this subdivision.

*Note: most surveyed by boat.

SEGMENT EV-70

SUBDIVISION E

DATE 4 / 1 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LVL
- ☐ 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
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- $\odot$
Oiled Vegetation
- $\odot$
Photo location, direction, and number

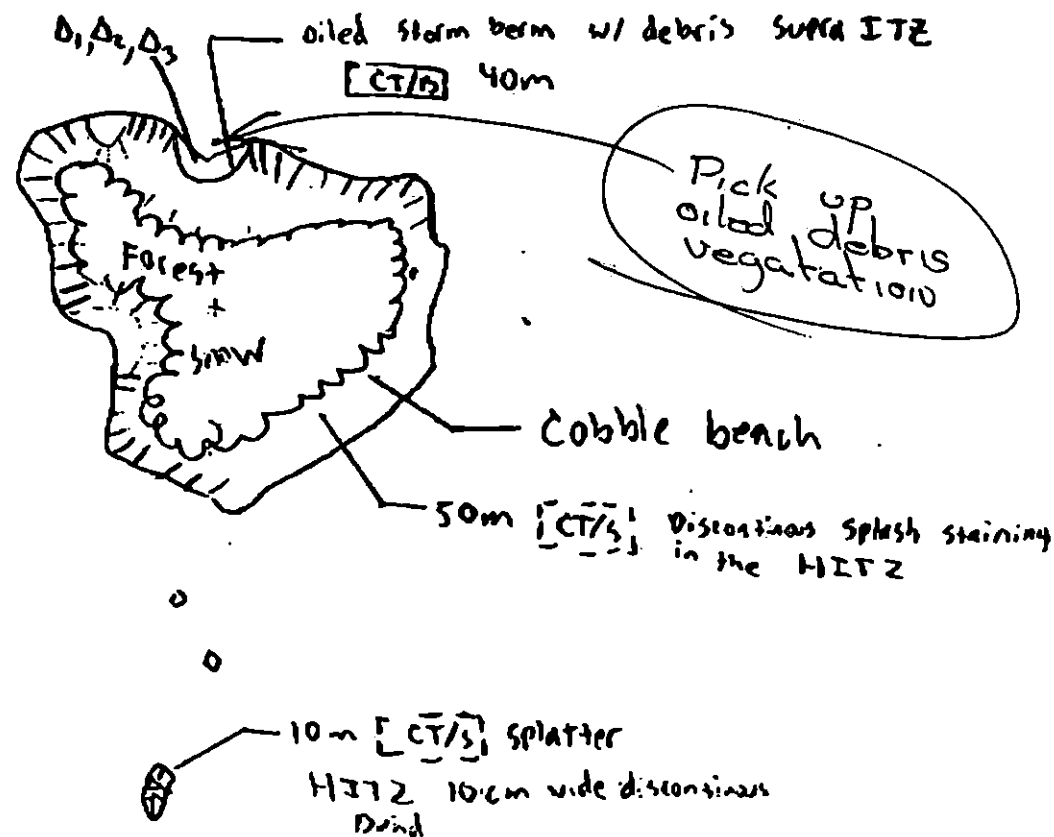
SKETCH MAP

Legend

$\circ$ - Rock

- Forest / Snow

/// - Bedrock / Boulders



Oil Character Length (m): AP PO CV CT 60 ST 60 MS PT TB FL NO 1000

REVISED 200000

SEGA ST/

SUBDIVISION

DATE / 80

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. MW/L/VOL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pts 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 $\Rightarrow$
Photo location, direction,
and number

SKETCH MAP 2

Legend

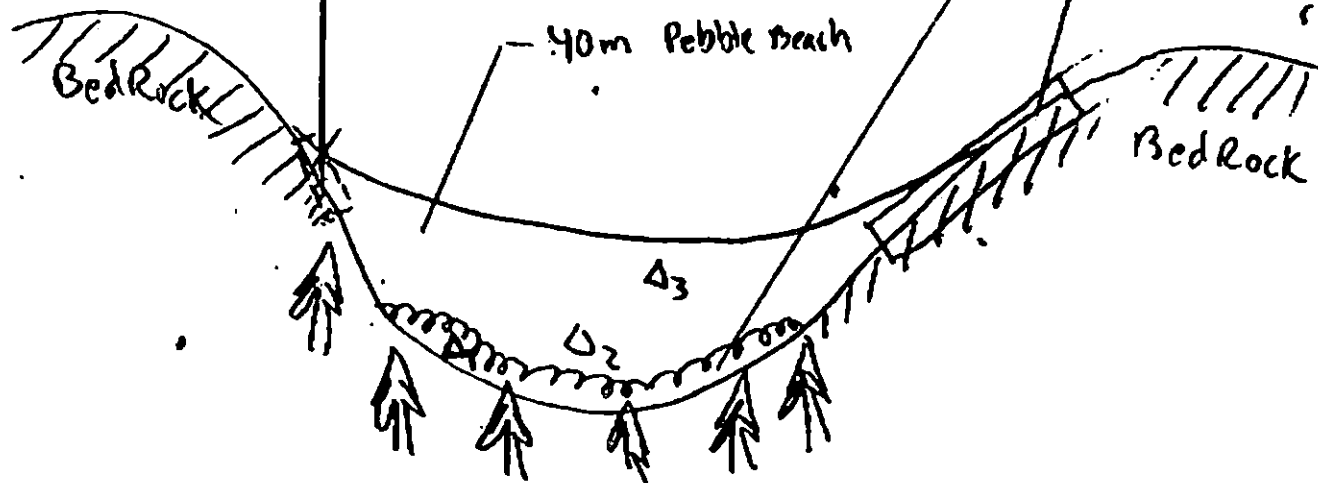
 - snow

/// - Bedrock / Boulder

snow covered supra IT.
40m storm berm w/ oiled debris

CT/B 5m x .5m
Discontinuous
Tar Band in HITZ
on Velt rock wall

CT/D 15m x 0.5m
Discontinuous Tar Band
HITZ on Velt
rock wall



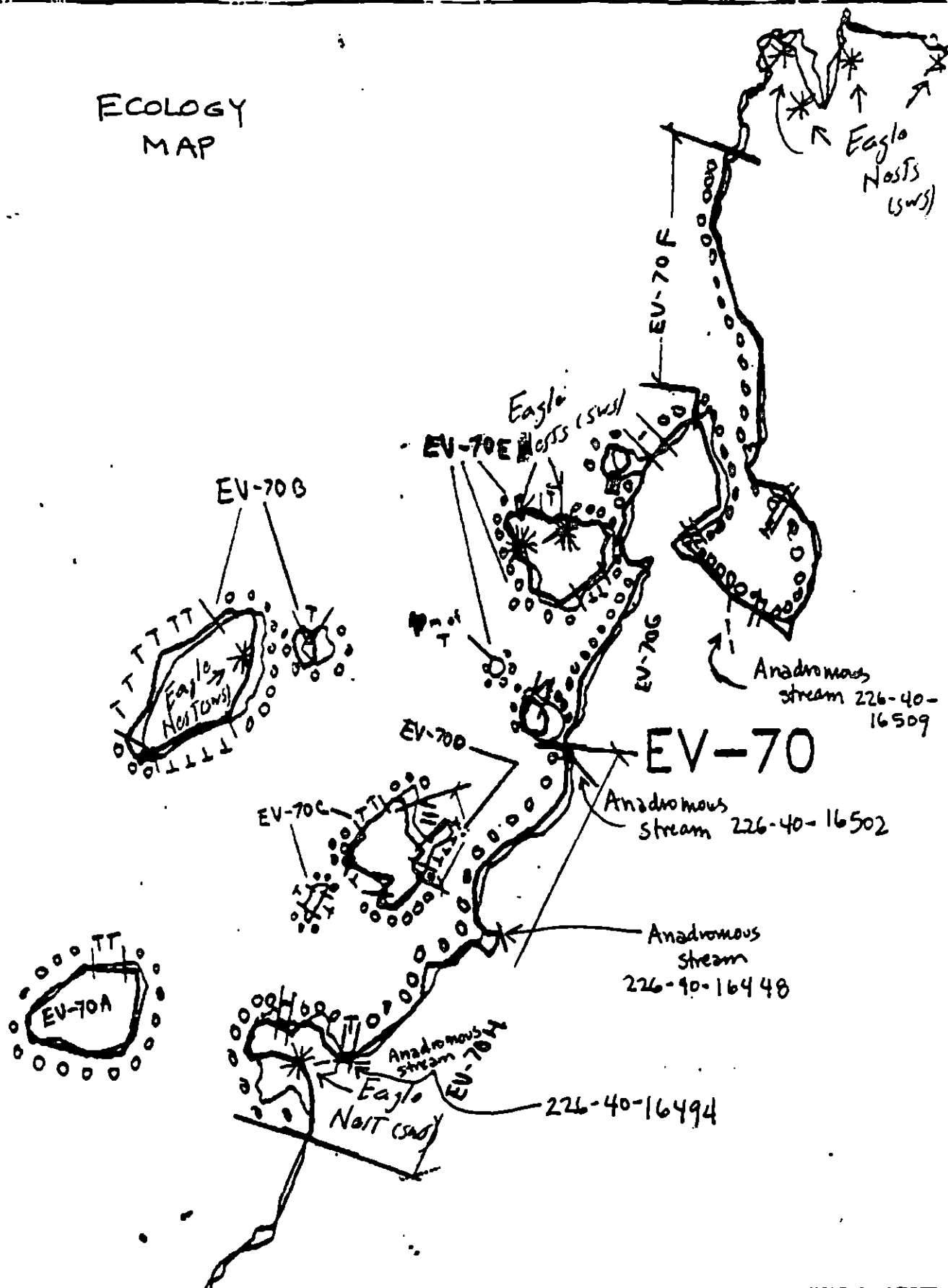
Scale

5m

Oil Character Length (m): AP PO CV CT 60 ST MS PT TB FL NO 20

80m shore zone

ECOLOGY MAP



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

ADEC Segment Length: 12625m



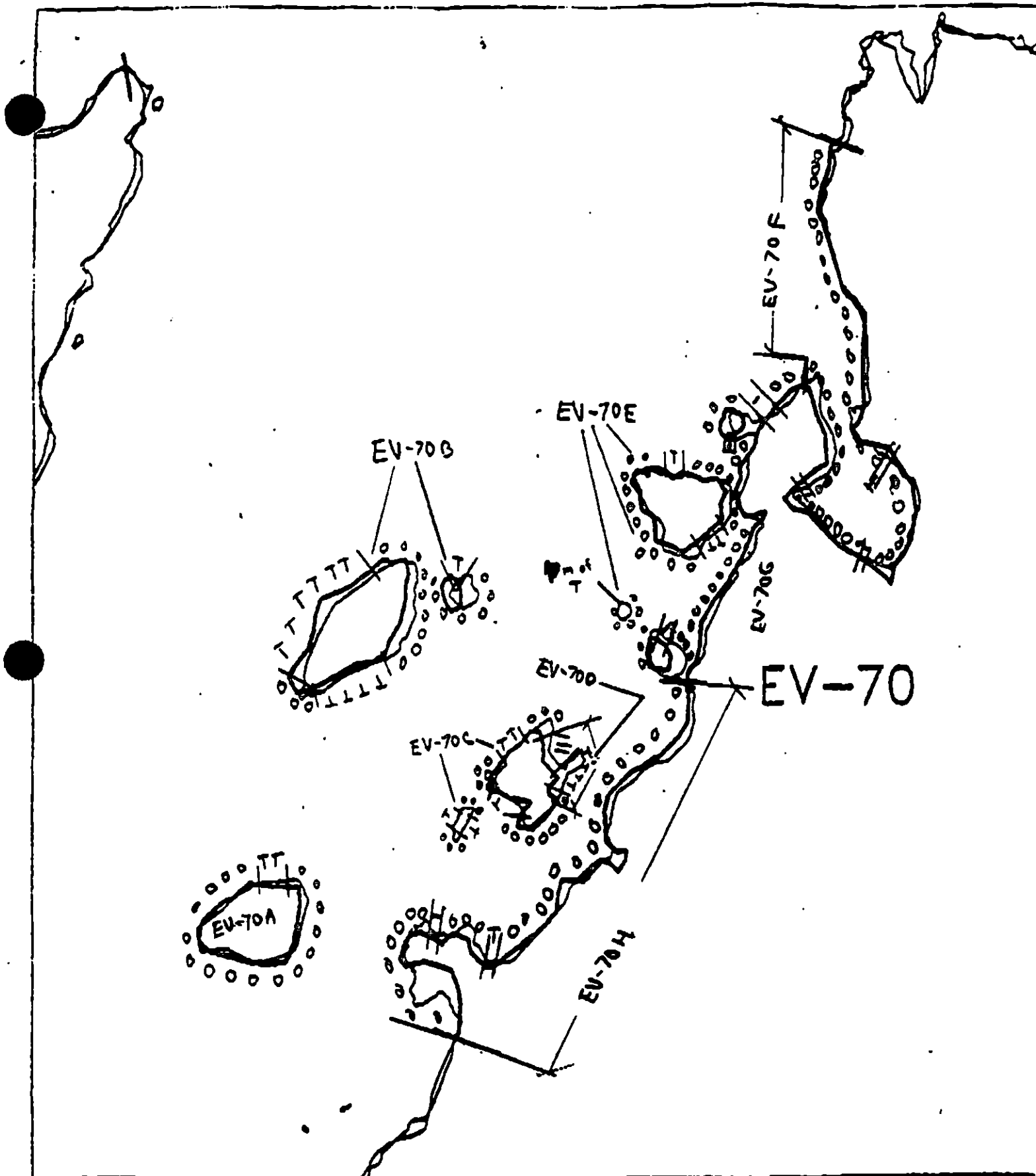
EV-70

Map Key: PWS-279

Name: Mike Foster

Date: 4/1/90

Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m

0 300 600 900
METERS

Map Key: PWS-279

Name: Mike Foyet

Date: 4/1/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

-SEGMENT EV-70 SUBDIVISION E (5 of 8)

WORK WINDOW	
Manual Pickup	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Streams

NO CONSTRAINT. ADF&G catalogued anadromous streams are located in adjacent Subdivisions more than 100m from recommended treatment areas.

1K Purse Seine Hook-off

No constraint to manual pickup.

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision E. Closed to manual pickup within 400m of active nest.

7II Subsistence: Deer Harvesting

No constraint to manual pickup.

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. Restrict boat and air traffic to essential minimum after 7/20. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

TAG APPROVAL DATE _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC

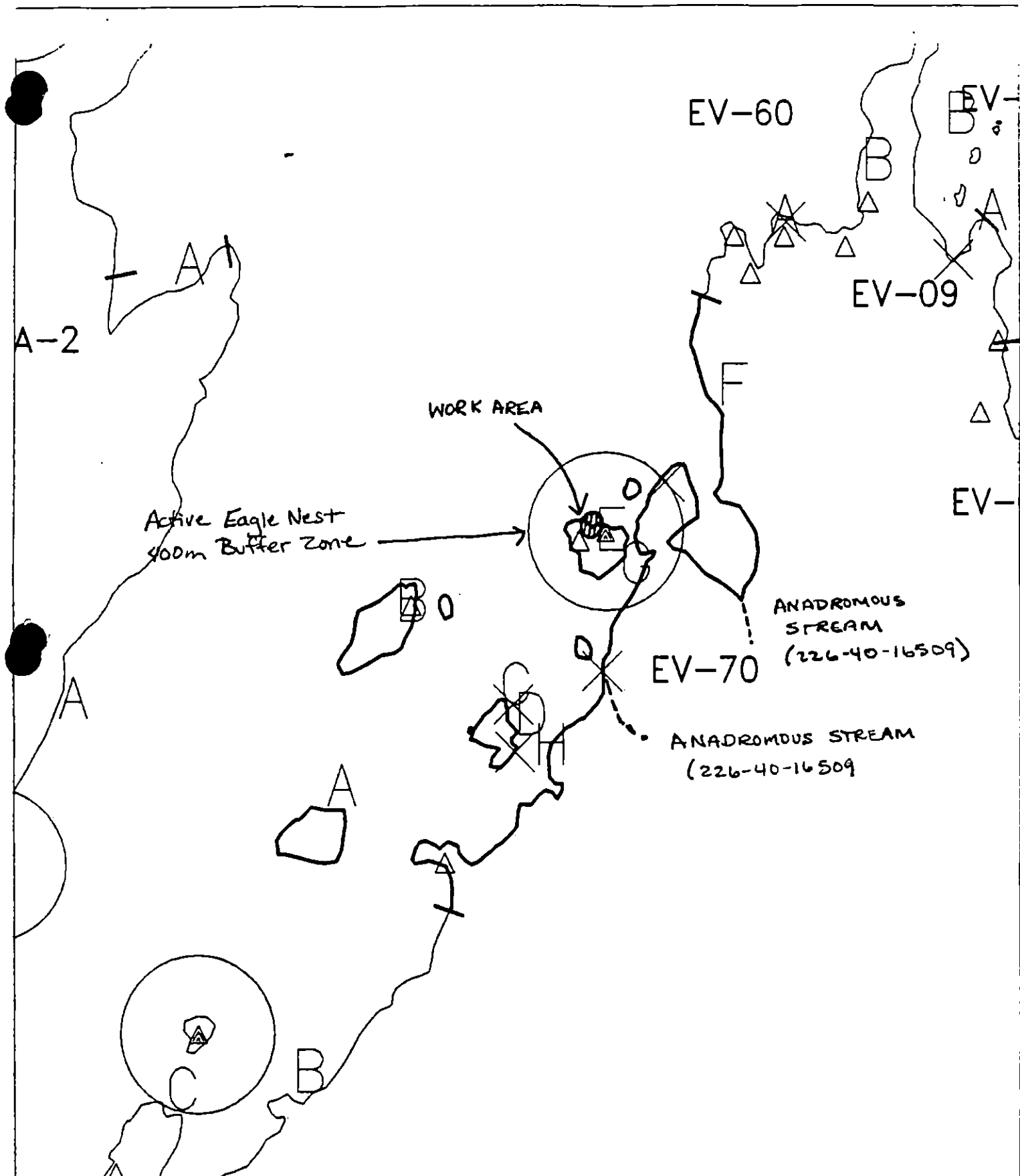
DATE

6.10.90

Prepared By:

Date

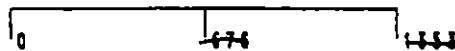
6/9/90



Exxon Company, USA
Map Key: PWS-EV-70
June 04, 1990



ECOLOGY MAP
SEGMENT EV-70
SUBDIVISION E (5 of 8)
METERS



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

1 inch = 2213 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION F (6 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. Anadromous stream no. 226-40-16509 in Subdivision F; 4 bald eagle nests close by in Segment EV-60.

SHPO SIGNATURE: Charles E. Adams

DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 36 m: No Oil 2808 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 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: Recommend bioremediation of areas shown in sketch map and reassessment of segment after additional snow-melt by Anadromous SCAT team. Work should be conducted with the approval of ADF&G regarding anadromous fish stream and USFWS concerning eagle nests.

TAG COMMENTS:

TAG APPROVAL DATE: 4/25/90

ADEC Art Weiner Dat Weiner

EXXON Anna TGA Dea

NOAA Joseph Takatt JCP

USCG Kevin M. Keane Kevin M. Keane

FOSC:

DATE: 5-4-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A
1B

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

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

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

Esther Hatchery release (4/15 to 6/1)

1E

Main Bay Hatchery release (4/20 to 5/10)

1F

Sawmill Bay Hatchery release (4/15 to 6/1)

1G

Cannery Creek Hatchery release (4/21 to 6/1)

1H

Remote release site

1I

Gill net area (6/7 to 8/31)

1J

Purse seine area (7/20 to 9/30)

1K

Purse seine hook-off (7/20 to 9/30)

1L

Set net sites (6/11 to 7/25)

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M

Herring spawning (4/1 to 6/15)

Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

3N, 3P
3O, 3Q

Harbor seal and sea lion pupping (5/15 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.

5R

Seabird colony (5/1 to 9/1)

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

Anchorage (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 (5/1 to 9/30)

7HH

Finfish harvesting

7I

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70

SUBDIVISION: F

DATE 4/6/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF THE SHORELINE OF GUGUAK BAY AND ITS APPENDAGES, ON THE WEST SIDE OF EVANS ISLAND. IT WAS COMPRISED LARGELY OF COBBLE-BOULDER BEACHES WITH ROCK OUTCROPPINGS. ALONG THE NORTH APPROACH TO THE BAY, OIL STAIN WAS OBSERVED, PRIMARILY ON THE LEeward SIDE OF ROCK FACES, AND OFTEN IN THE FORM OF "BATHTUB RINGS". THE ENTIRE SHORELINE OF GUGUAK BAY WAS SURVEYED ON FOOT. VERY SPORADIC STAIN, WITH SOME COATING, WAS OBSERVED ALONG THE NORTHERN SHORE OF THE BAY. SEVERAL SMALL STREAMS AND SNOWMELT SEEPS FED INTO THE NORTHEASTERN END OF THE BAY, WITH THE SOUTHERNMOST OF THESE AN ANADROMOUS STREAM (EVIDENCED BY SALMONID BONES AND CARTILAGINOUS PARTS FOUND IN THE BED). WHILE SOME VERY SLIGHT EVIDENCE OF SHEEN WAS OBSERVED IN THE WATER, NO OILING COULD BE FOUND EITHER IN THE IMMEDIATE VICINITY OR IN THE STREAM. CONTINUING AROUND THE BAY, SOME SPLASHES OF WEATHERED OIL WERE FOUND ON BOULDERS IN THE UPPER INTERTIDAL ABOVE A PEBBLE-COBBLE BEACH ALONG THE SOUTHERN SHORE OF THE BAY, ABOUT 50 M WEST OF THE ANADROMOUS STREAM. ABOUT 80 M WEST OF THE STREAM, SHEEN WAS OBSERVED IN THE MID- TO UPPER INTERTIDAL IN A SEEPAGE AREA, AND CLOSER EXAMINATION REVEALED A 5 M (WIDE) X 15 M (LENGTH) PATCH OF CONTAMINATION. GLOBULAR OIL ON WATER WAS FOUND IN PITS, AND RESIDUAL OIL WAS FOUND IN SEDIMENTS TO 7 CM, WITH FILM DOWN TO 10 CM. NO OTHER OIL WAS FOUND FROM THIS PATCH TO THE SOUTHWEST CORNER OF THE BAY, WHERE A MELT SEEPAGE FED INTO THE BAY. A SURFACE SHEEN WAS OBSERVED IN THE UPPER INTERTIDAL ZONE OF THE SEEP, (CONT. BELOW)

ADEC

NAME

John Hayes

SIGNATURE

John Hayes

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Recommend Anad Seep team assess this bay.

The area is a sheltered bay with very little wave energy also 6 stream drain into bay 5 appear to be small + runoff stream + 1 had signs of being anadromous (jimbrow). No oil was observed near the stream bed. Approx 30 yds west of the stream (see map) was a patch of oiling ^{500m} with 5.5 per. to 13cm. The oiling was fine oil + sheening. Another ^{500m} patch was observed in the NW corner of the bay this had a ^{500m} weathered coat and max per. to 3cm. with a seep film to 11cm.

LAND MANAGER

NOAA (CONTINUED FROM ABOVE)

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

AND ON THE NORTH SIDE OF THE SEEP, A 6 M (WIDE) X 20 M (LENGTH) PATCH OF COVER WAS FOUND. A PIT REVEALED 5 CM PENETRATION INTO THE SEDIMENTS. AN ISOLATED PATCH OF COVER MEASURING 1/4 M X 1/4 M WAS SEEN ON A BOULDER NORTH OF THE PATCH. NO OTHER OILING WAS OBSERVED ALONG THE SOUTHERN APPROACH TO GUGUAK BAY.

MUCH OF THE SUPRATIDAL ZONE WAS COVERED BY SNOW AND SO COULD NOT BE ASSESSED.

Spot working, the dredge work on bays should all be considered for their segment after assessment from Anad-Seep Team. Careful attention should be paid to healthy growth (Bio. Map) + access to bay at high tide due to rocks at the entrance that are exposed at low tide.

SHORELINE OILING SUMMARY

REVISION NO. 03/27/90

OG Mike Fogel NOAA Gary Shigara SEGMENT ST/ EV-70
 BIO Richard Ambrose LAND REP None SUBDIVISION F (6 of 8)
 EXXON Larry Olson ADEC John Hayes TIME 15:00 to 17:15
 TEAM NO.: 11 TIDE LEVEL: 6.0 to 1.2 DATE 4/6/90
 EST. SUBDIVISION LENGTH: 2670 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock with snow in the SUPA ITZ
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 10 % C 30 % P 20 % G 20 % S 5 % M 5 % V 0 %
 SLOPE: Long 60 % Hang 30 % Vert 20 % WAVE EXPOSURE: ☒ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 35 m N 0 m VL 25 m NO 2610 m

SURFACE OIL

Wave exposure - Low in protected bay, medium outside of bay

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	S	OP	OR	OL	OF	NO	CM-CM	SU	U	M	U
ASPHALT PAVEMENT														
POOLED														
COVER		<u>✓</u>				<u>✓</u>					<u>X</u>			<u>✓</u>
COAT														
STAIN				<u>✓</u>							<u>✓</u>			<u>✓</u>
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											<u>X</u>			<u>X</u>

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

DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	<u>X</u>		

DEBRIS COLLECTED

☒ YES ☐ NOTYPE low foam#BAGS 1

Photographs:

Roll No. ST-11-2Frames 13-18

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		UO	UC	OP	OR	OL	OF	NO	CM-CM	SU	U	M	U		
1	20					<u>X</u>	.	<u>X</u>								<u>X</u>					G, C (H ₂ O @ 15cm)
2	30					<u>X</u>	.	<u>X</u>								<u>X</u>					G
3	35					<u>X</u>	.	<u>X</u>								<u>X</u>					G
4	15					<u>X</u>	.	<u>X</u>										<u>X</u>			G, P
5	10					<u>X</u>	.	<u>X</u>										<u>X</u>			G, P (H ₂ O @ 5cm)
6	15					<u>X</u>	.	<u>X</u>										<u>X</u>			G, P (H ₂ O @ 10cm)

COMMENTS Most of the oiling that occurred in this segment was at beach 1 & 2. At Beach 1 a 20m x 6m CT/B cover in the HITZ. Subsurface oiling includes rainbow sheen and globules. Beach 2 had a 15m x 5m CT/B cover of oil/tar in the HITZ. Subsurface oiling included a rainbow sheen. Both of these beach zones are E/P Beaches. The rest of the oiling in this subdivision occurs as a CT/S weathered tar stain among boulders in the HITZ.

SEGMENT ST/ EV-70 SUBDIVISION F

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	~~1~~	~~2~~	~~3~~	~~4~~	~~5~~	~~6~~	SU	U	M	U		
7	10					X	.		X							X					C, G, M
8	10					X	.		X							X					G, S
9	15					X	.		X										X		G, S, M
10	10					X	.		X							X					G, S, M (H ₂ O @ 10cm)
11	20		X				0-7		X	X							X				C, P, G (H ₂ O @ 10cm)
11	20				X		7-10		X	X							X				C, P, G (H ₂ O @ 10cm)
12	15		X				0-5		X	X							X				G, P, S
12	15				X		5-10		X	X							X				G, P, S
13	15				X		.		X							X					C, S, M
14	20		X				0-5		X	X						X					G, S
15	20					X	.		X							X					P, G
							.														
							.														
							.														

COMMENTS

REVIEWED _____ DATE _____

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/26/78

Segment ST / EVO70 Subdivision F Date (mo / day / yr) 4/6/90Time (24 hr) 1455 hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 10 (3) Cobble 30 (4) Pebble 20 (5) Sand 30 (6) Silt —(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:

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	X	X	2	X	2	2
3	3	3	3	3	3	3	X	3	X	3	3
4	4	4	4	4	4	4	X	4	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

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	X	2	2
3	3	3	3	3	3	3	3	3	X	3	3
4	4	4	4	4	4	4	X	4	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

ASTROPODS

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
3	3	3	3	3	3	3	3	3	X	3	3
4	4	4	4	4	4	4	4	4	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

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	2	2	X	X	X	2	2	2
3	3	3	3	X	3	3	3	3	3	3	3
4	4	4	4	4	4	X	X	X	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: 2 oystercatchers, 2 common mergansers, 2 cormorants, and 7 Barrow's goldeneyes, deer tracks.

Most beach was generally sparse cover, with moderate to dense areas;

Guaymas Bay was generally sparse with some Mytilus and Fucus areas

Ecological Considerations:

711, 1B: Oil noted within 80 m of salmon stream (see Addendum).

Oil was also noted at the west end of the Bay; a dense Fucus band in the low intertidal would be susceptible to trampling if this second patch was cleaned. (see Addendum).

00 M Fogel

SEGMENT ST/ EV-70

SUBDIVISION F

DATE 4 / 6 90

SKETCH MAP

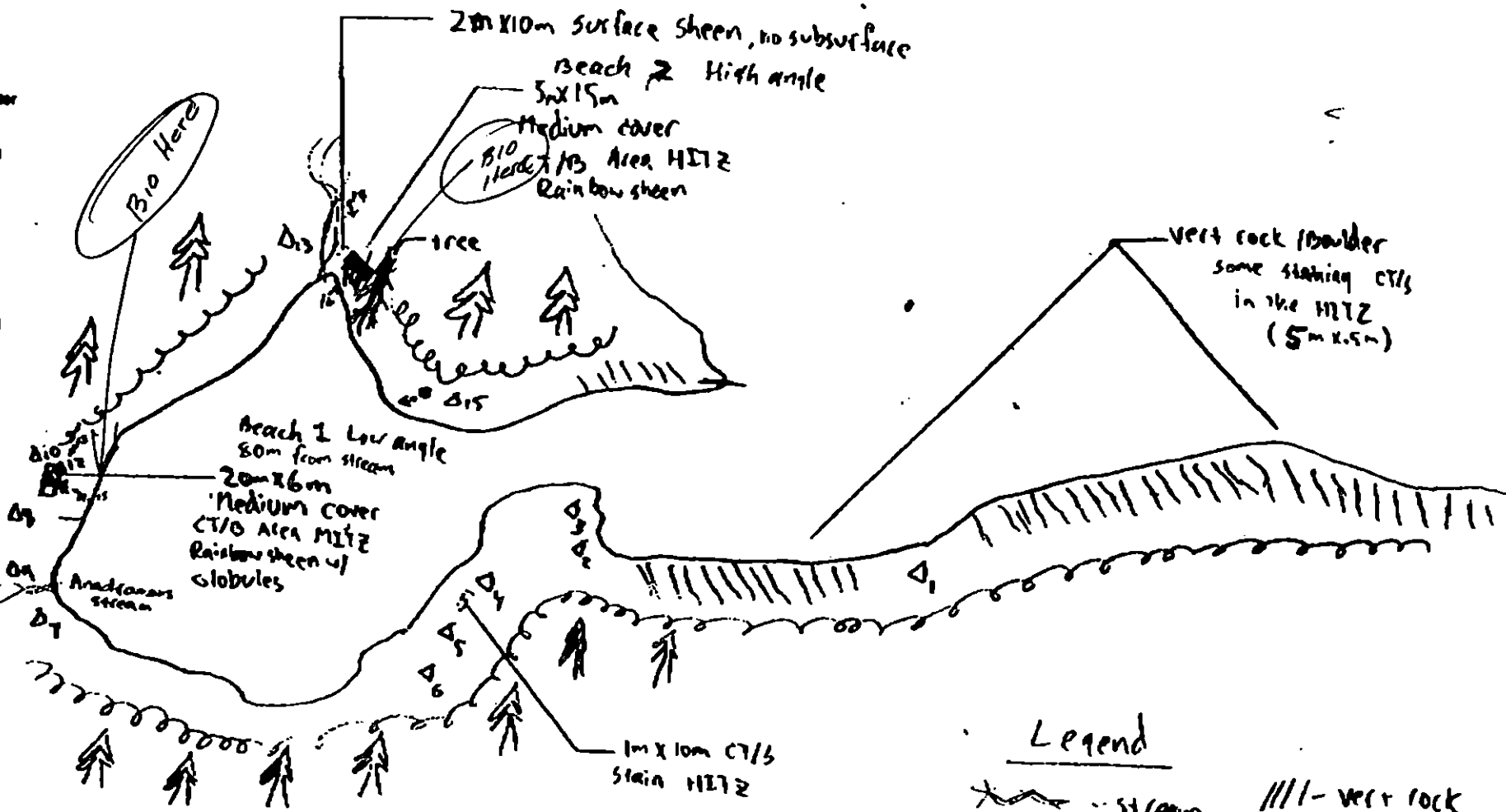
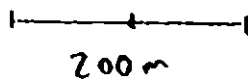
CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Sub Grid
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ C. H. M. L. A. M. L.
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

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

Scale



Legend

- $\sim$ stream
- $\uparrow$ forest
- $\bullet$ snow
- /// - vert rock
- $\rightarrow$ - Horizontal oiled tree in ITZ

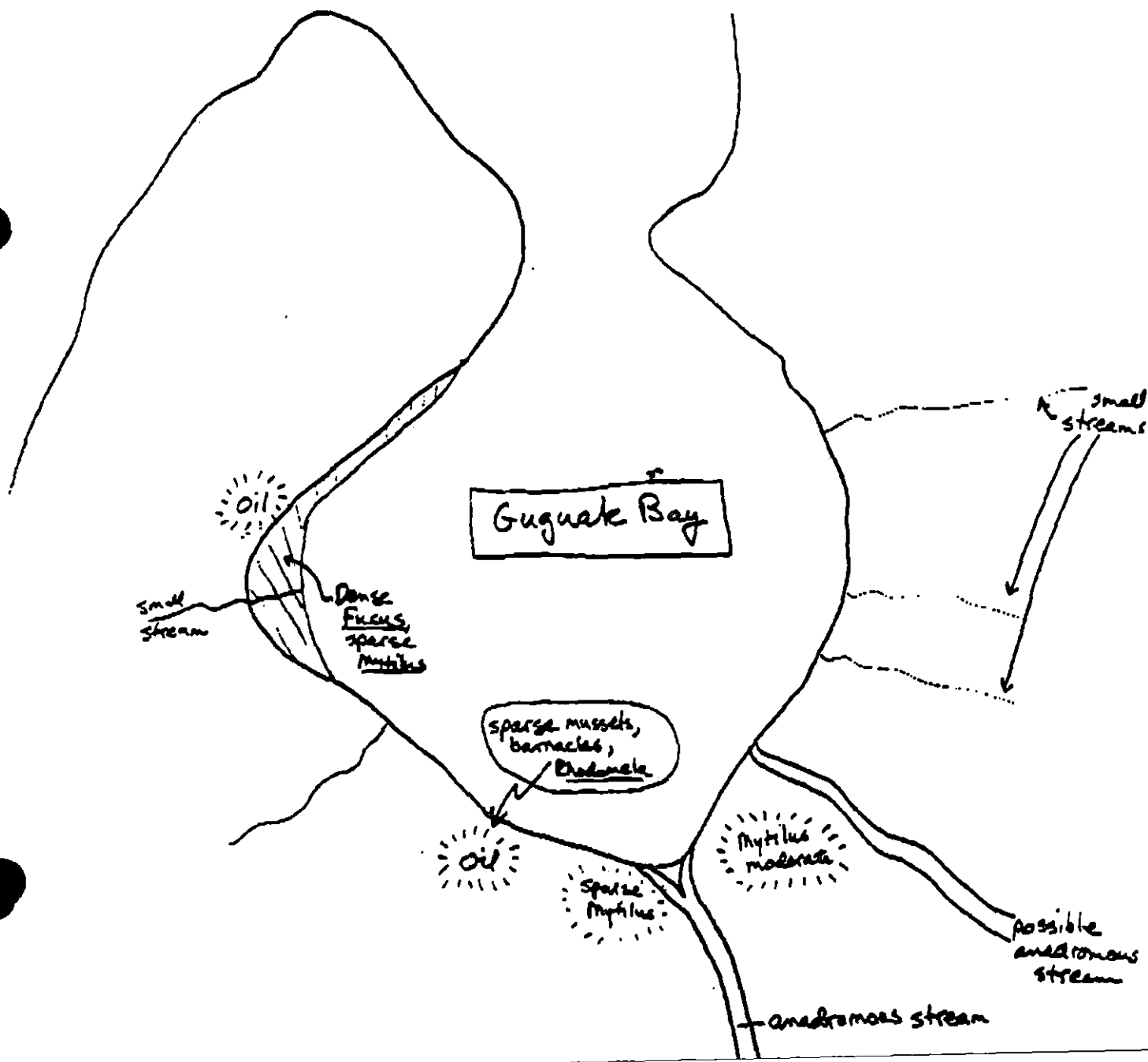
Oil Character Length (m): AP PO CV 35 CT ST 15 MS PT TB FL 45 NO

4/6/90

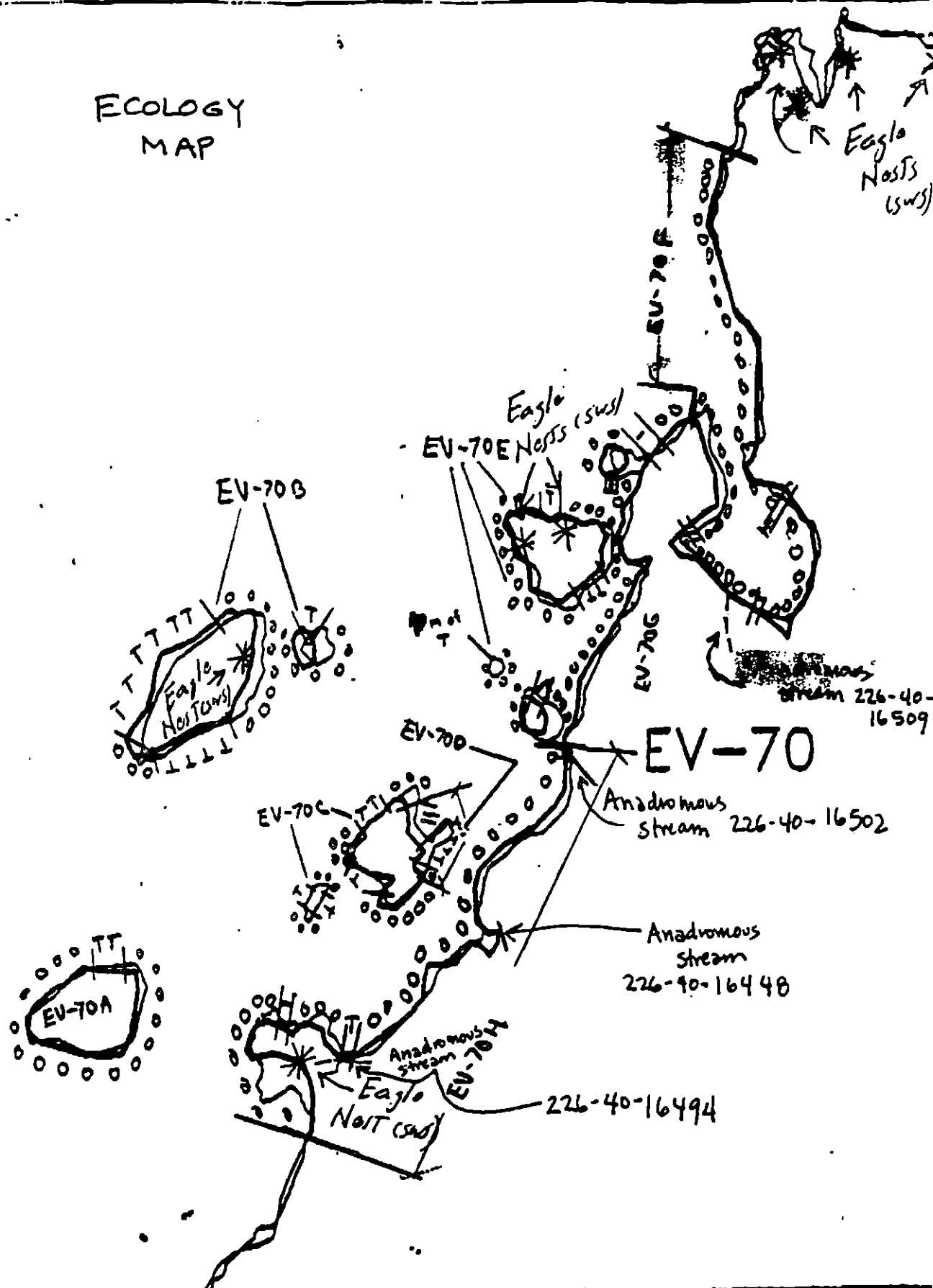
Addendum

Both a salmon stream and oil were found in Guguak Bay. The salmon stream had salmon bones and jaws in the stream. A second stream also seemed large enough to be anadromous.

One oiled location, with globules of free oil & a sheen visible on the water in pits, was about 80m from the known anadromous stream.



ECOLOGY MAP



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m

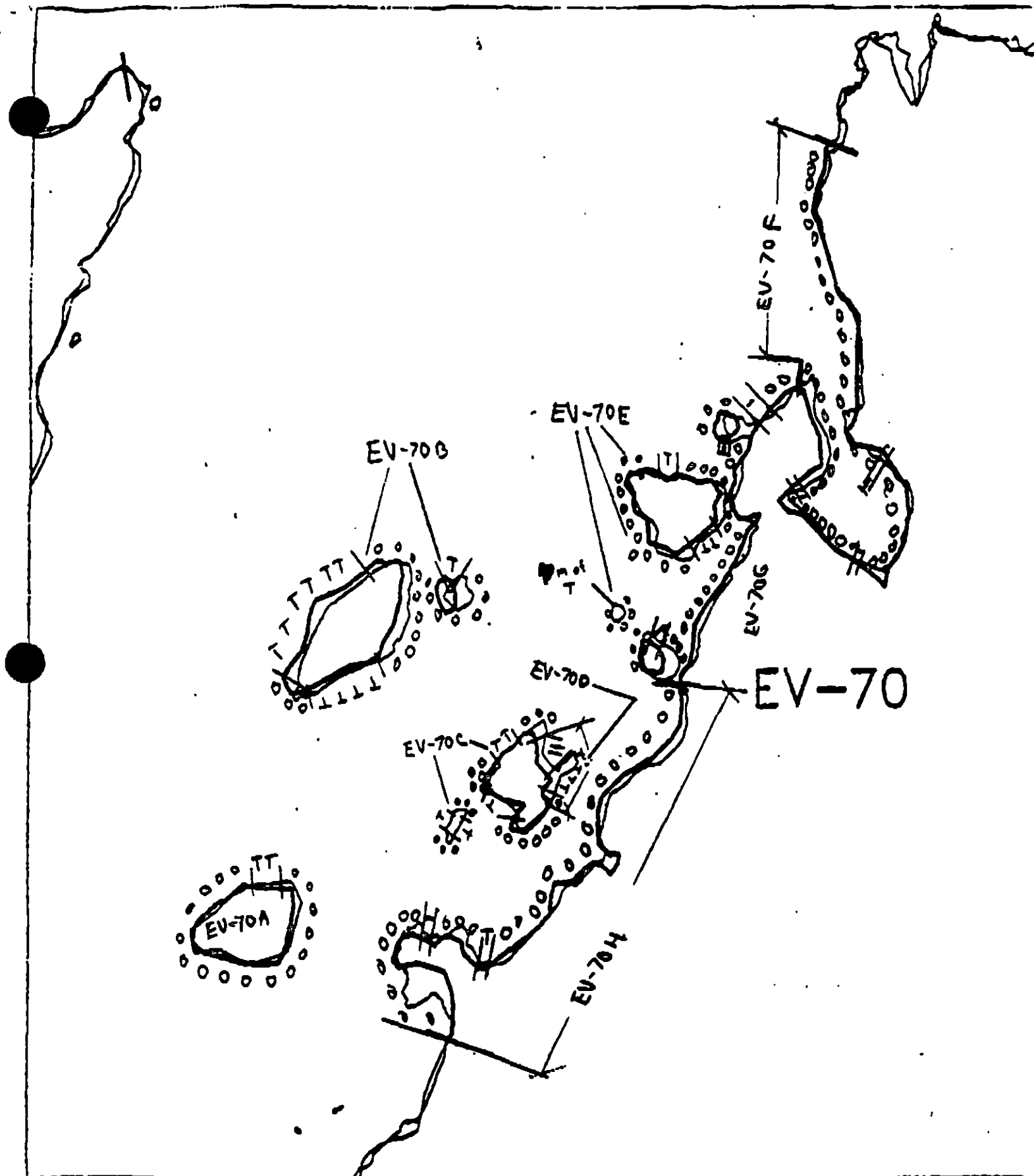


Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Foster

Date: 4/1/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-70 SUBDIVISION F (6 of 8)

WORK WINDOW

Bioremediation More Than 100m From Stream	WORK PRIOR TO 7/20
Bioremediation Less Than 100m From Stream	WORK PRIOR TO 7/10 (ADF&G MONITOR REQ.)
Bioremediation More Than 400m From Active Nest	WORK PRIOR TO 7/20
Bioremediation Less Than 400m From Active Nest	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream	ADF&G catalogued anadromous stream (226-40-16509) is present in Subdivision F. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream.
1K Purse Seine Hook-off	Closed to bioremediation after 7/20.
5T Bald Eagle Nest	USFWS 6/1/90 map indicates an active nest in adjacent subdivision. Closed to bioremediation within 400m of active nest. No constraint to bioremediation more than 400m from active nest.
7II Subsistence: Deer Harvesting	Closed to bioremediation after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

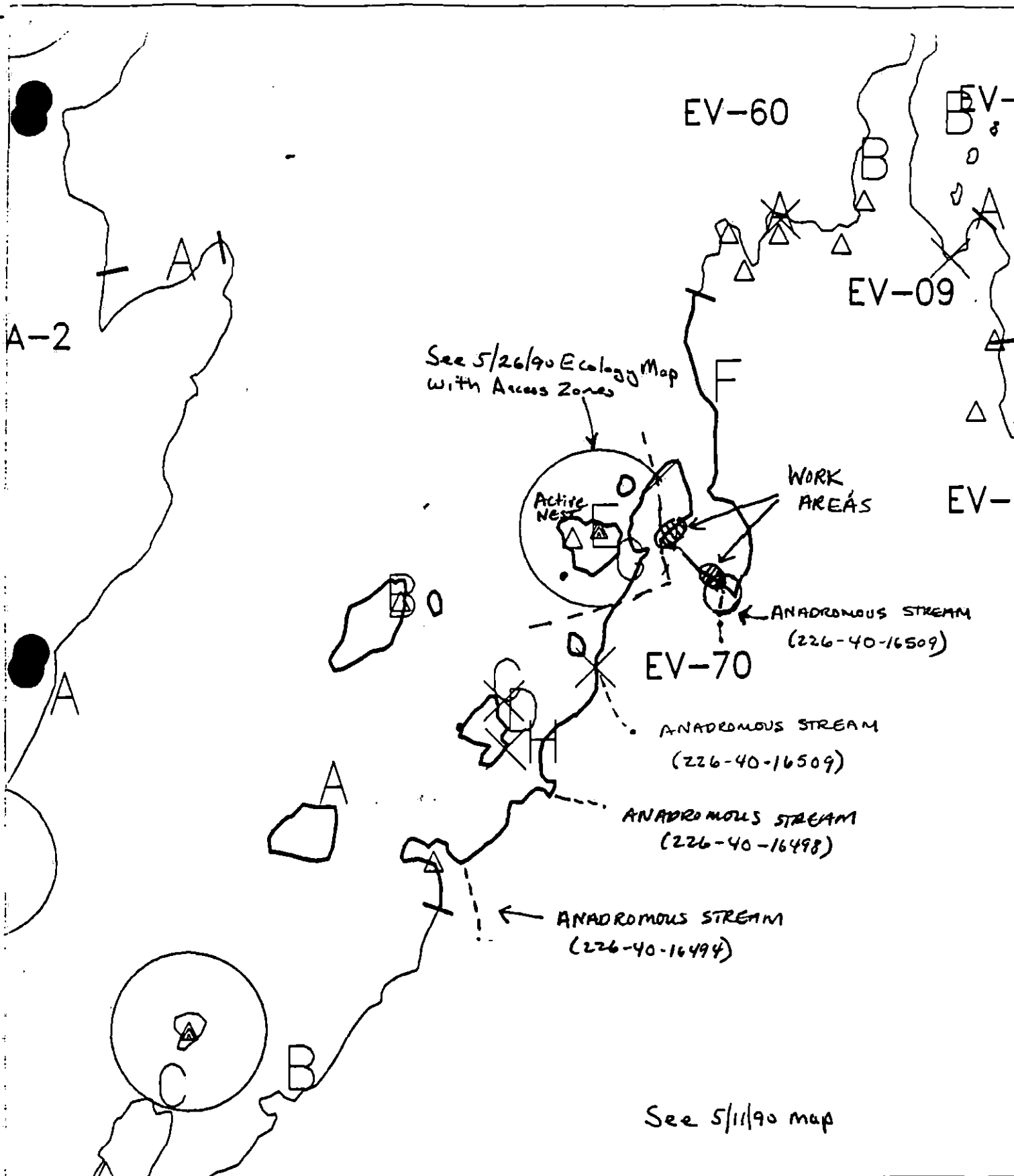
No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Restrict boat and 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 unrolled substrate and biota.

SEE ANADROMOUS FISH STREAM EVALUATION ADDENDUM (STREAM NO. 226-40-16509)
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

Date

6-10-90

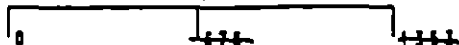


Exxon Company, USA
Map Key: PMS-EV-70
June 04, 1990



ECOLOGY MAP SEGMENT EV-70 SUBDIVISION F (6 of 8)

METERS



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

1 inch = 2218 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494

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

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

1K Purse seine hook-off (7/20 to 9/30)

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

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: Rachel Jean Dore DATE: 5/22/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

_____ No Treatment Recommended

X Treatment Recommended

_____ Manual Pickup

X Bioremediation

X Tarmat Removal

_____ Snare/Absorbent Booms

_____ Oil Snares (pom poms)

_____ Absorbents (pads, rolls, etc)

_____ Spot Washing: _____ Wands

_____ Beach Cleaner

_____ Other (see comments)

COMMENTS: Recommended treatment is manual removal of tarmat where shown on attached sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest.

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING
TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90

ADEC Art Weiner

EXXON Andy Tork

NOAA Gary Petrac

USCG G.A. Renter

FOSC

DATE: MAY 25 1990

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.

AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)

1E Main Bay Hatchery release (4/20 to 6/15)

1F Sawmill Bay Hatchery release (4/15 to 6/1)

1G Cannery Creek Hatchery release (4/21 to 6/1)

1H Remote release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.

AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214

1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511

1I Gill net area (6/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (6/11 to 7/25)

Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212

2M Herring spawning (4/1 to 6/15)

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 Evelyn Biggs 424-3235

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)

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

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 (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 (5/1 to 9/30)

7HH Finfish harvesting

Deer harvesting (8/15 to 2/28)

Invertebrate harvesting

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

32/52

SEGMENT ST EV 070 A SUBDIVISION: 16509 DATE 4/21/90

USCG

NAME

CWO J. McMAHON

SIGNATURE

[Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADFKT

ADEC

NAME

MICHAEL WIEDMERNO Team member

SIGNATURE

[Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

LAND MANAGER

NAME

NO Team member

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAD.) 27/52

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ FV 70A
 BIO MICHAEL FAWCETT LAND REP TOM CROWE - ADFG STATION MS25-40-6504 OF
 EXXON Gus Garcia ADFG Mike Vignier TIME 15:19 to 19:35
 TEAM NO. 15 TIDE LEVEL +2.5 FT DATE 21 / APR / 90
 EST. SUBDIVISION LENGTH: 60 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 20 % P 70 % 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 3.5 m N 0 m VL 0 m NO 2.1

SURFACE OIL

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

PAVEMENT H F 3200 sq. m by 3PATTIES / TARBALLS 0 BAGNEAR SHORE SHEEN? NO BR RW SL T

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Collect DEBRIS
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. AS-15-2Frames 13-16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				AN A	SHEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		UO	VO	1	2	3	4	SU	M	VL	U				
1	35	X					0-3	X				X		X				N			P/G
2	15					X	.								X			N			P/G/C
3	15	X					0-1	X				X			X			N			P/G
							.														
							.														
							.														

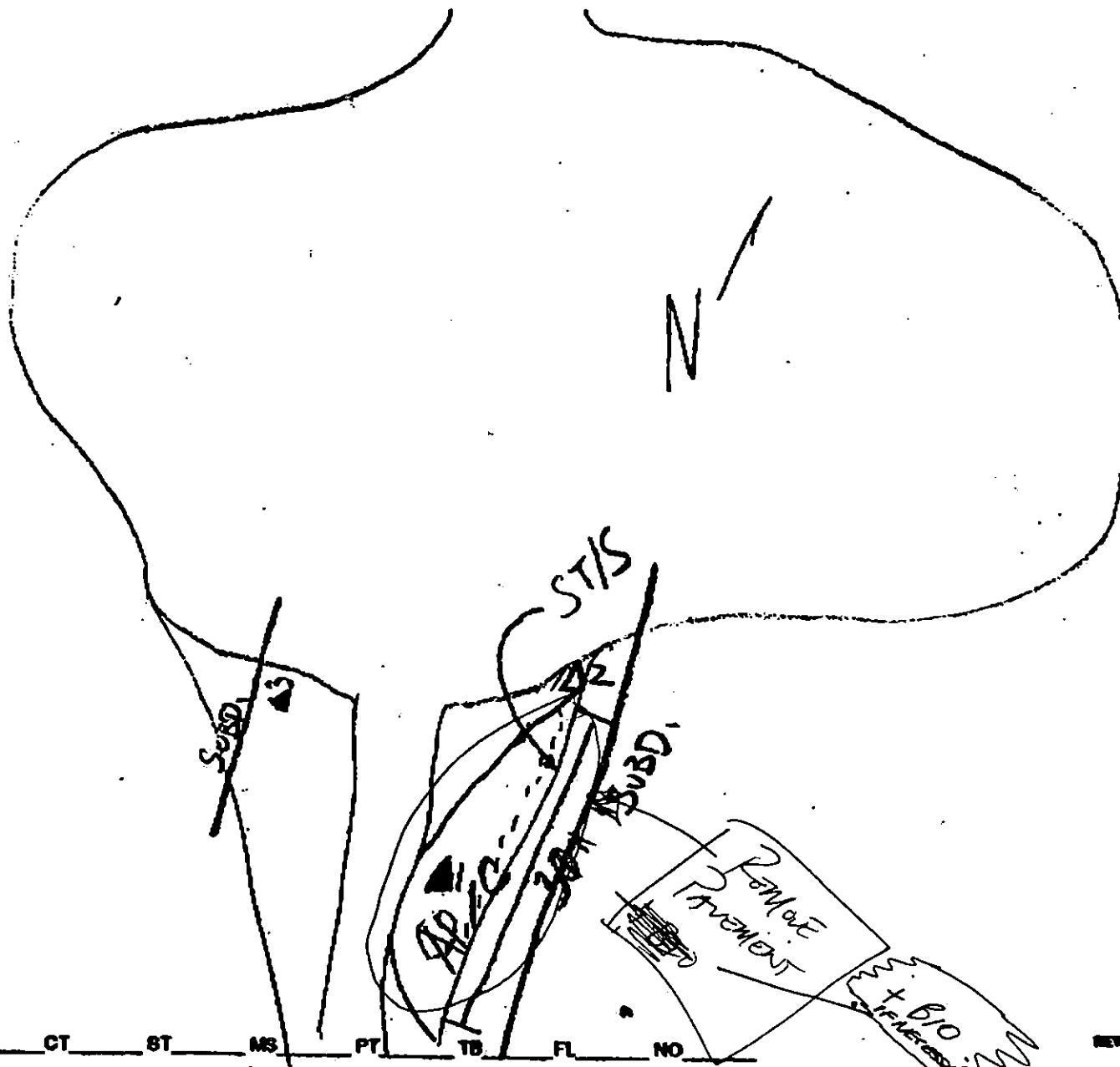
COMMENTS

* OILED INTERVAL < 5cm IN PIT NOS 1 AND 3 DOES NOT CONSTITUTE SUBSURFACE OIL

REVIEWED JW DATE 4-23-90

References

SKETCH MAP



25/52

ADPAC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCH MMS PTA2 REGION: PWS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4/21/9018 HIGH TIDE TIMES: 1109, 234421 TEAM RECORDER: M. WIEDMER4 START TIME: 151519 HIGH TIDE HTS: 9.4, 10.322 OBSERVERS: T. CROWE5 STOP TIME: 153017 LOW TIDE TIMES: 0512, 173023 AGENCY: ADPAC6 SEGMENT #: EV-070A18 LOW TIDE HTS: 2.9, 1.124 PHOTOS TAKEN: Y N7 STATION #: 22G-40-1650919 TIDE HT AT SURVEY: 3.6'

Roll #: _____ Frames: _____

8 K-UNIT: _____

20 USCG QUAD: _____

25 VIDEO TAKEN: Y N TAPES: _____

9 STAT AREA: _____

21 USCG QUAD: _____

Staps: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLE TAKEN Y N Number: _____

12 SOURCE: Map Loran

Oil: _____

13 LOCATION: WEST SHORE EVANS IS.

Sediment: _____

14 DESCRIPTION: _____

Biological: _____

Water: _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
27 SURFACE COVERAGE	100y	20y		<1	40y	3y		0
28 SURFACE THICKNESS	1mm	<0.1	<0.1	0	0	0	0	0
29 PENETRATION	3cm	3cm	0	0	0	0	0	0

36 CATALOGED ANAD. FISH STREAM? Y N37 CATALOG #: 22G-40-16509

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y N40 OIL ON STREAM BANKS? Y N41 OIL ON BEACH ADJACENT TO MOUTH (within 50 meters) Y N42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: _____

30 OVERALL OIL IMPACT: N VL L M H31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS: Y N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock _____ Boulder SS Cobble SSGravel SS Sand _____ Mud/silt _____43 ANADROMOUS FISH PRESENT? Y N

Fry Presumed

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

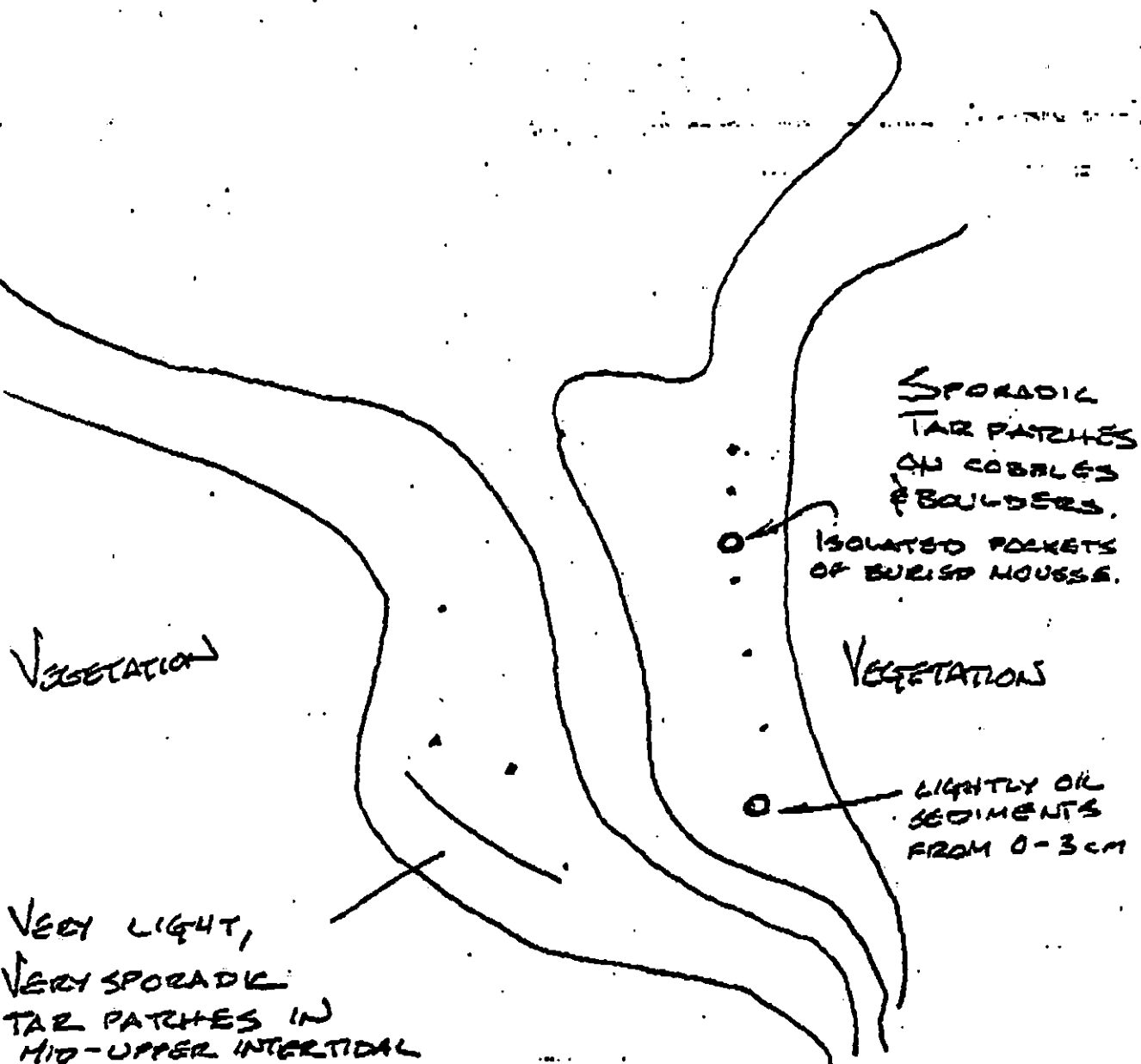
OIL: VERY SPORADIC STAIN, ASPHALT, TAR, AND BURIED MOUSSE.

QUANTITY AND DISTRIBUTION RELATIVE TO STREAM DO NOT
PLACE SALMON OR OTHER ORGANISMS AT RISK. No
TREATMENT IS RECOMMENDED

45 PHOTOLOG

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



31/52

Segment EV 70A (Gugak Cove)

4/21/90

Stream 226-40-16509

Michael Fawcett

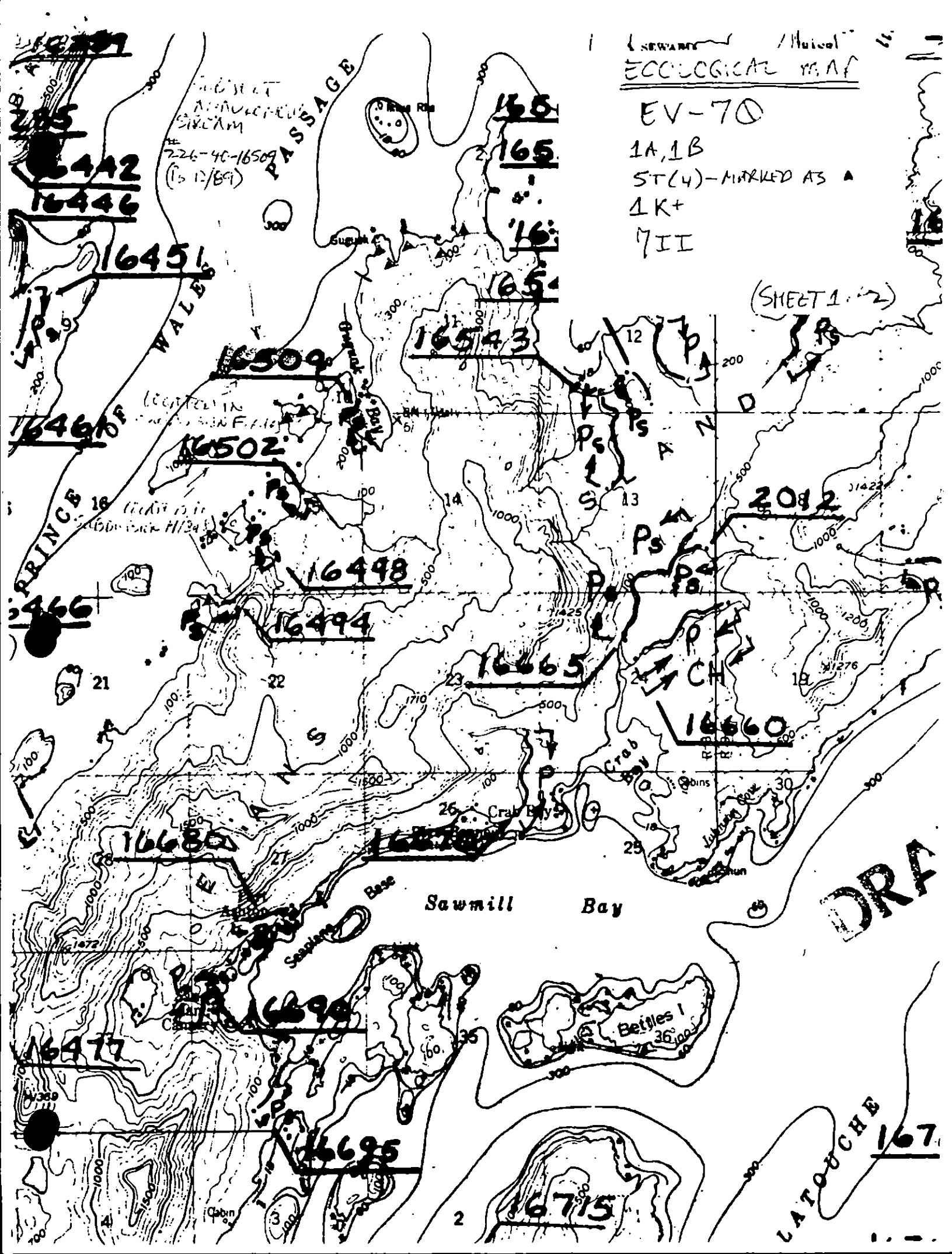
Ecological Summary

This stream has a relatively stable delta composed of pebbles/sand and mud, with a well-developed infaunal community (clams, worms, shrimp, etc.). Sparse scattered clumps of mussels, barnacles, and Fucus occur on isolated pebbles in MTZ and UTZ, along with abundant littorines, dogwhelks, and hermit crabs. Light patches of asphalt and stains were found in UTZ. If any cleanup operations are conducted, trampling and disturbance of LTZ should be avoided.

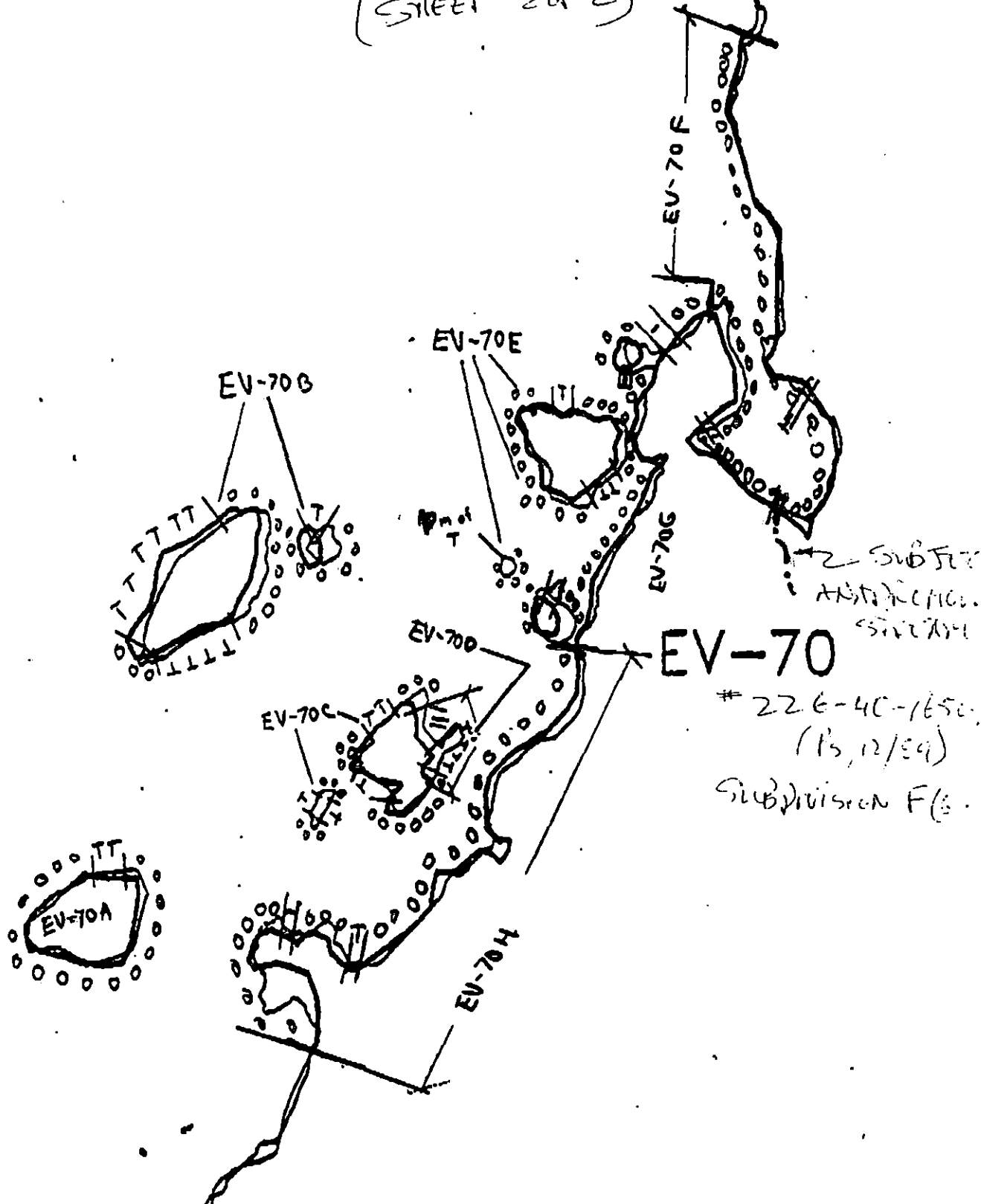
M Fawcett

7 II

(SHEET 1: 2)



ECCOLOGICAL MAP (SHEET 2 of 2)



ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16509

SEGMENT EV-70 SUBDIVISION F

WORK WINDOW

Tarmat Removal

OPEN

Bioremediation Less Than 100m From Stream

WORK PRIOR TO 7/10
(ADF&G MONITOR REQ.)

Bioremediation More Than 100m From Stream

WORK PRIOR TO 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued stream (226-40-16509) is in Subdivision F. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. ADF&G catalogued streams (226-40-16498, -16502, and -16494) are also within segment, however, these do not affect work site.

1K Purse Seine Hook-off

Closed to bioremediation after 7/20. No constraint to tarmat removal.

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision F work site.

7II Subsistence: Deer
Harvesting

Closed to bioremediation after 8/15. No constraint to tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

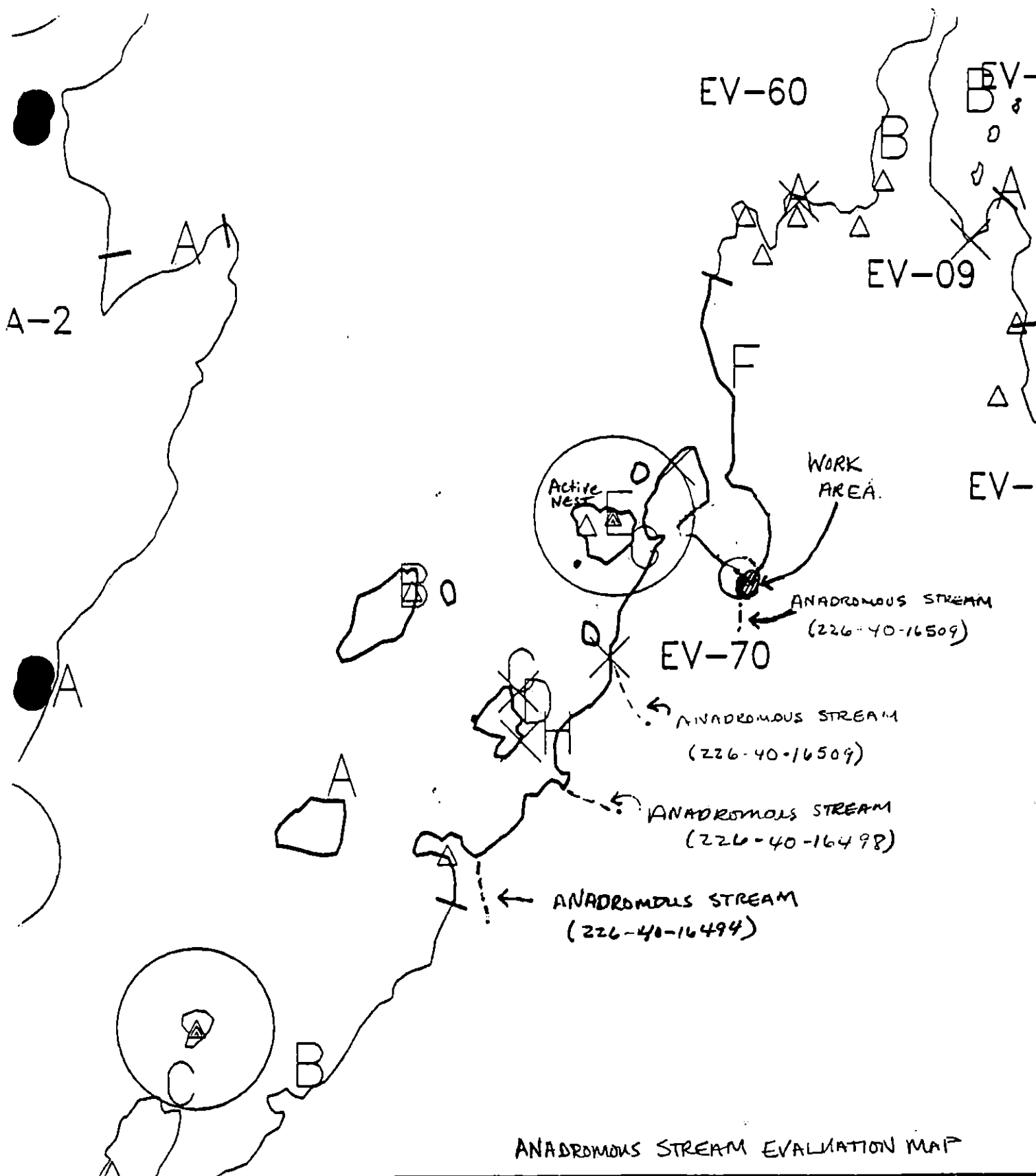
Restrict boat and air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. No flushing of pollutants or sediments into stream drainage; do not allow inipol 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. Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM EV-70F
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

Date

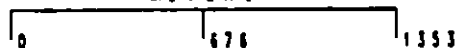
6-10-90



Exxon Company, USA
Map Key: PWS-EV-70
June 04, 1990

ECOLOGY MAP SEGMENT EV-70 SUBDIVISION E (6018)

METERS



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

1 inch = 2219 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION G (7 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Two bald eagle nests in Subdivision E.

SHPO SIGNATURE:

DATE:

OILING CATEGORIZATION:

Wide 0 m: Medium 45 m: Narrow 61 m: V.Light 40 m: No Oil 1639 m

Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X Tarmat: X Removal

Snare/Absorbent Booms

X Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

Spot Washing: Wands

Beach Cleaner

Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tarmat, oiled vegetation and debris, 2) blot any mobile oil with pom poms, 3) bioremediate areas shown on attached sketch map. Work should be conducted after 6/1 and with permission of USFWS due to eagle nest constraint and ADF&G regarding anadromous streams.

TAG COMMENTS:

TAG APPROVAL DATE:

ADEC

EXXON

NOAA

USCG

FOSC:

DATE:

DATE: 5-4-70

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
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 Esthler Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
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 (5/15 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.
- 5R Seabird colony (5/1 to 9/1)
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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: G DATE 4/6/90

~~USCG~~ NOAA

NAME GARY SHIGENAKA

SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF COBBLE-BOULDER ROCKY OUTCROP SHORELINE ALONG THE WESTERN COAST OF EVANS ISLAND. DEGREE OF OBSERVED OILING WAS VARIABLE. WEATHERED STAIN AND "BATHTUB RING" WAS SEEN SPORADICALLY ALONG THE SUBDIVISION. AT THE NORTHERN END OF THE SUBDIVISION, A SMALL ISLAND THAT WAS CONNECTED TO THE MAIN BODY OF EVANS ISLAND AT LOWER PORTIONS OF THE TIDAL CYCLE WAS SURVEYED ON FOOT, AND WEATHERED STAIN AND COVER WAS FOUND, AS WELL AS SOFT PAVEMENT MATERIAL. THE LATTER WAS BROKEN UP WITH THE SHOVEL TO FURTHER THE WEATHERING PROCESS. THE LARGER ISLAND APPEARING ON THE MAPS TO THE SOUTH OF THE PREVIOUSLY DISCUSSED SMALL ISLAND ALSO WAS CONNECTED TO EVANS ISLAND AT LOW TIDE. A CONSISTENT BAND OF SPATTERS WAS OBSERVED IN THE UPPER INTERTIDAL ZONE TO THE EAST OF THIS CONNECTING ISTHMUS ON THE EVANS ISLAND SIDE, AND SOME LIGHT SHEEN WAS SEEN IN PITS DUG IN A FRESHWATER SEEP BELOW THIS BAND. CONTINUING SOUTH DOWN EVANS ISLAND, ANOTHER ISLAND LINKED TO EVANS AT LOW TIDE WAS ENCOUNTERED, AND ALONG THE NORTHERN COAST OF THIS LINKED ISLAND, POOLED BUT WEATHERED OIL WAS FOUND IN THE UPPER INTERTIDAL AMONG BOULDERS. INTERESTINGLY, MUSSELS AND SNAILS WERE DETERMINED TO BE ALIVE IN THIS POOLED OIL. IN THE SUPERTIDAL, POOLED WEATHERED GOOEY OIL WAS ALSO FOUND, WITH A DEPTH OF 2-5 CM, AND IN TWO BANDS OF ABOUT 10M EACH. AT THE SOUTHERN END OF THE SUBDIVISION, A COBBLE-BOULDER BEACH WAS FOUND IN WHICH A SHEEN WITH LITTLE PENETRATION COVERED AN AREA OF APPROXIMATELY 10M (WIDE) X 15M (LENGTH).

ADEC

NAME John Hoyer

SIGNATURE *John Hoyer*

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

~~Subdivision~~ The shoreline on this subsection had a combination of tar stains + splatters that were weathering well. Two tar patches observed were broken up manually and spread out. No treatment recommended for this shoreline. Although there was a small island connected to this subsection by a land bridge at low tide. This island had tar splatters + staining N/A and a patch of oiled vegetation and oil accumulation in the matrix between the boulders (ooey mpy). This oil is lodged in the supertidal and ranges in depth from 2-5cm. Manual pick up + removal is recommended.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

the majority of it is in two 7-10m Bands. These bands are connected by a strip of the same type of oil in matrix between boulders approx 15m.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Fogar NOAA Gary Shigenaka SEGMENT ST/ EV-70
 BIO Richard Ambrose LAND REP USGS SUBDIVISION 9 (2048)
 EXXON Larry Olson ADEC John Hayes TIME 17:15 to 19:45
 TEAM NO.: 11 TIDE LEVEL: 1.2 to 1.9 DATE 4/6/90
 EST. SUBDIVISION LENGTH: 1930 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock SATV in the SUPRA ITZ
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 25 % B 30 % C 25 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 25 % Hang 35 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 2 m M 80 m N 80 m VL 65 m NO 1705 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	N	P	B	SP	BP	GP	WP	VP	TP	LP	MP	SU	U	M	U
ASPHALT PAVEMENT																
POOLED		X								X			X			
COVER																
COAT			X			X								X		
STAIN				X		X								X		
MOUSSE																
PATTIES				X		X								X		
TARBALLS																
FILM																
NO OIL														X	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			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-11.2Frames 19-23

SUBSURFACE OIL

* Patties were broken up

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-IN)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	20 PP	30 PP	40 PP	50 PP	60 PP	70 PP	SU	US	MS	U					
1	10					X	.		X							X								G, P, C
2	20					X	.		X							X								C, P, C
3	20					X	.		X							X								G, P, C
4	30					X	.		X									X						G, S, M
5	20				X		.		X				X			X								C, G, S (Film m H ₂ O)
6	10	X					0-5		X				X			X								0.1, G, S
7	10	X					0-4		X				X			X								0.1, G, S

COMMENTS

Most of the oiling in this segment occurred on two beaches. The oiled beach in the Northern part of the subdivision is a 2m x 80m Ct/P Patchy cover in the HITZ w/ a 15m x 80m very light Ct/S splattered stain in the MITZ which classifies this beach as narrow. There were some tar Patties located in the HITZ which were manually broken up by the SSAT team.

SHORELINE OILING SUMMARY (PAGE ___ of ___)

REVISION 03/22/88

SEGMENT ST/ _____ SUBDIVISION _____

70

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-INS)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	~~W~~	~~B~~	~~Y~~	~~G~~	~~P~~	~~S~~	BU	U	M	L		
7	10					X	.		X							X					C, G, M
8	10					X	.		X							X					G, S
9	15					X	.		X									X			G, S, M
10	10					X	.		X							X					G, S, M (420m x 20m)
11	20		X				0-7	X	X	X							X				C, P, G (420m x 20m)
12	15		X		✓		0-5	X	X							X					G, P, S
12	15				✓		5-10	X	X							X					G, P, S
13	15				✓		.	X	X							X					C, S, M
14	20		X			X	0-5	X	X							X					G, S
							.														
							.														
							.														
							.														
							.														

COMMENTS

11 - Rainbow + Globular sheen MLT2 6m x 20m
14

REVIEWED

70

DATE

4/13/90

6

[illegible]

REVIEWED _____ DATE _____

OG Mike Fogel
 SEGMENT ST/EV-70
 SUBDIVISION G
 DATE 6/6/90

CHECKLIST

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

LEGEND

1 Δ
 Pt - No Subsurface Oil

2 Δ
 Pt - Subsurface Oil

$\boxed{CT/C}$
 Continuous Distribution

$\boxed{CT/B}$
 Broken Distribution

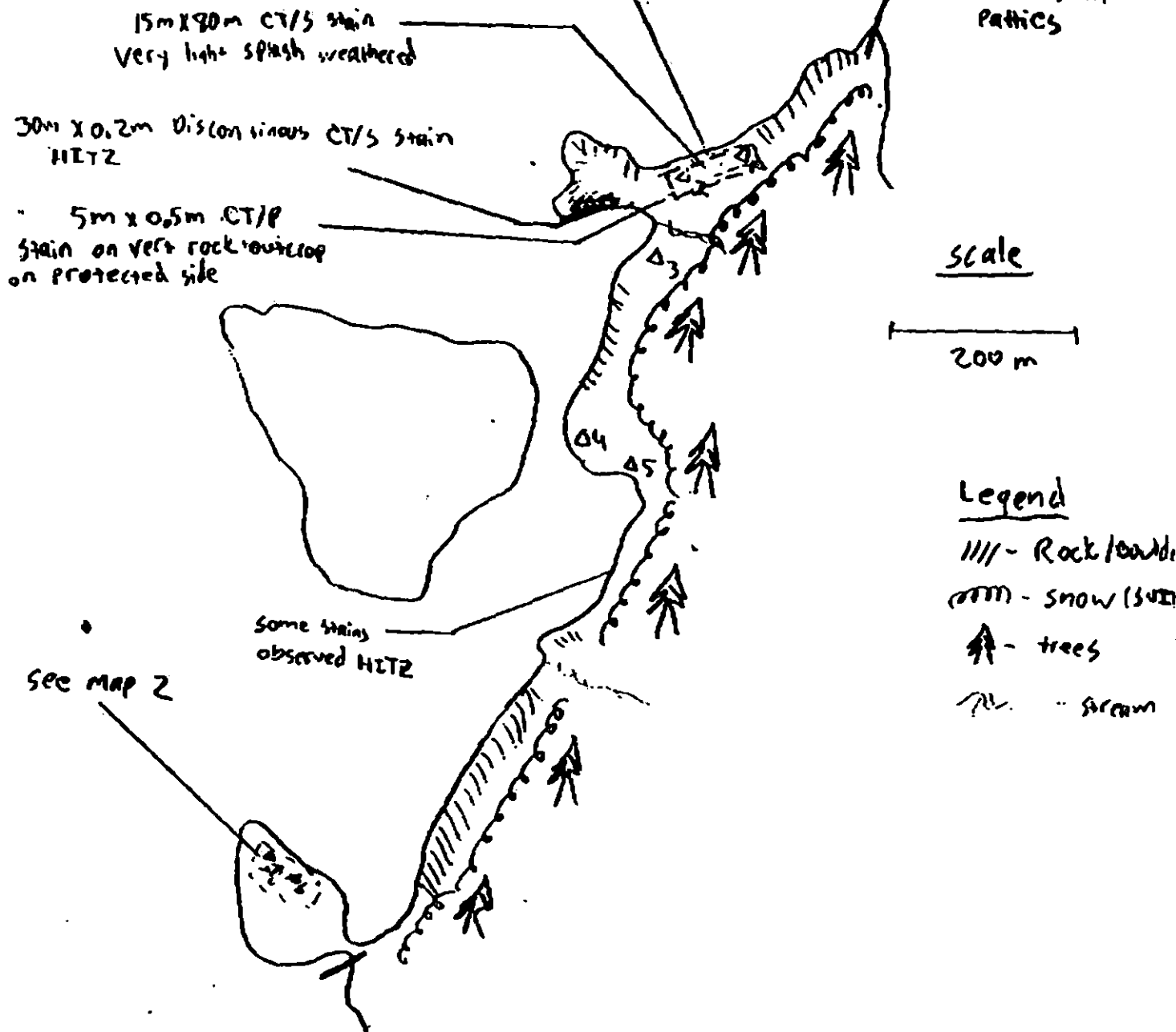
$\boxed{CT/P}$
 Patchy Distribution

$\boxed{CT/S}$
 Splashed Distribution

$\bullet \rightarrow$
 Oiled Vegetation

1 $\bullet \rightarrow$
 Photo location, direction,
 and number

SKETCH MAP 1



Oil Character Length (m): AP PO 20 CV 90 CT 80 ST 145 MS PT TB FL NO

REVISION: 000000

OG Mike Fager
 SEGMENT 57 EU-70
 SUBDIVISION 6
 DATE 4 / 6 90

CHECKLIST

- ☐ M Arroy
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est (m/L, m/L)
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Photo(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

3m x 50m CT/S
 Coat in the HITZ

SKETCH MAP 2

Blot oil
 Port Parts
 of B10

1m x 10m CT/B Band of
 Pooled oil/tar in the
 SUITZ w/ oiled vegetation

Remove
 oiled
 vegetation

3m x 30 m CT/P Coat
 of oil in the HITZ

2m x 10m CT/B
 Band of Pooled oil/tar
 SUPRAITZ w/ oiled
 vegetation

Blot oil Remove
 Tar B10

10m x 0.5m CT/B Coating
 of tar amongst
 Boulders

Remove
 Tar

Boulder/cobble beach

Rocky/Boulder outcrop

Boulder/cobble beach

30m x 0.2m CT/S very light
 stain on boulders in the
 HITZ

Legend

llll - snow
 ▲ - trees

See map 1

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

REVISION 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ EVO70 Subdivision G Date (mo / day / yr) 4 / 6 / 90Time (24 hr) 1715hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 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. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments: 6 Barrow's goldeneyes, 2 eagles (mature)
 High-angle beaches had moderate to high cover, pocket beaches were generally sparse. In one section, Littorina and Nucella were aggregated & laying eggs.

Ecological Considerations:

711, 1B: No relevant observations.

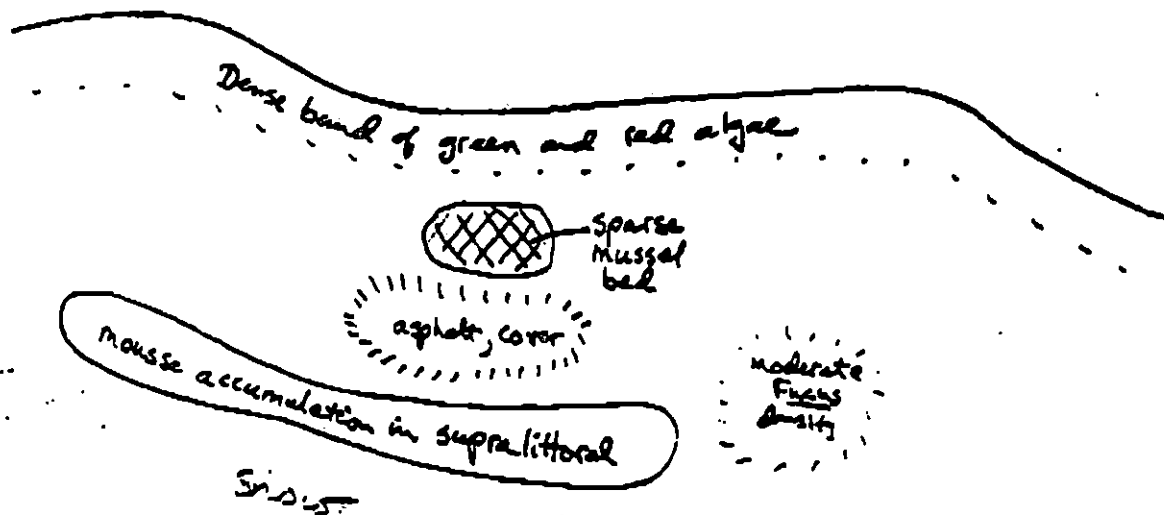
See Addendum.

4/6/90

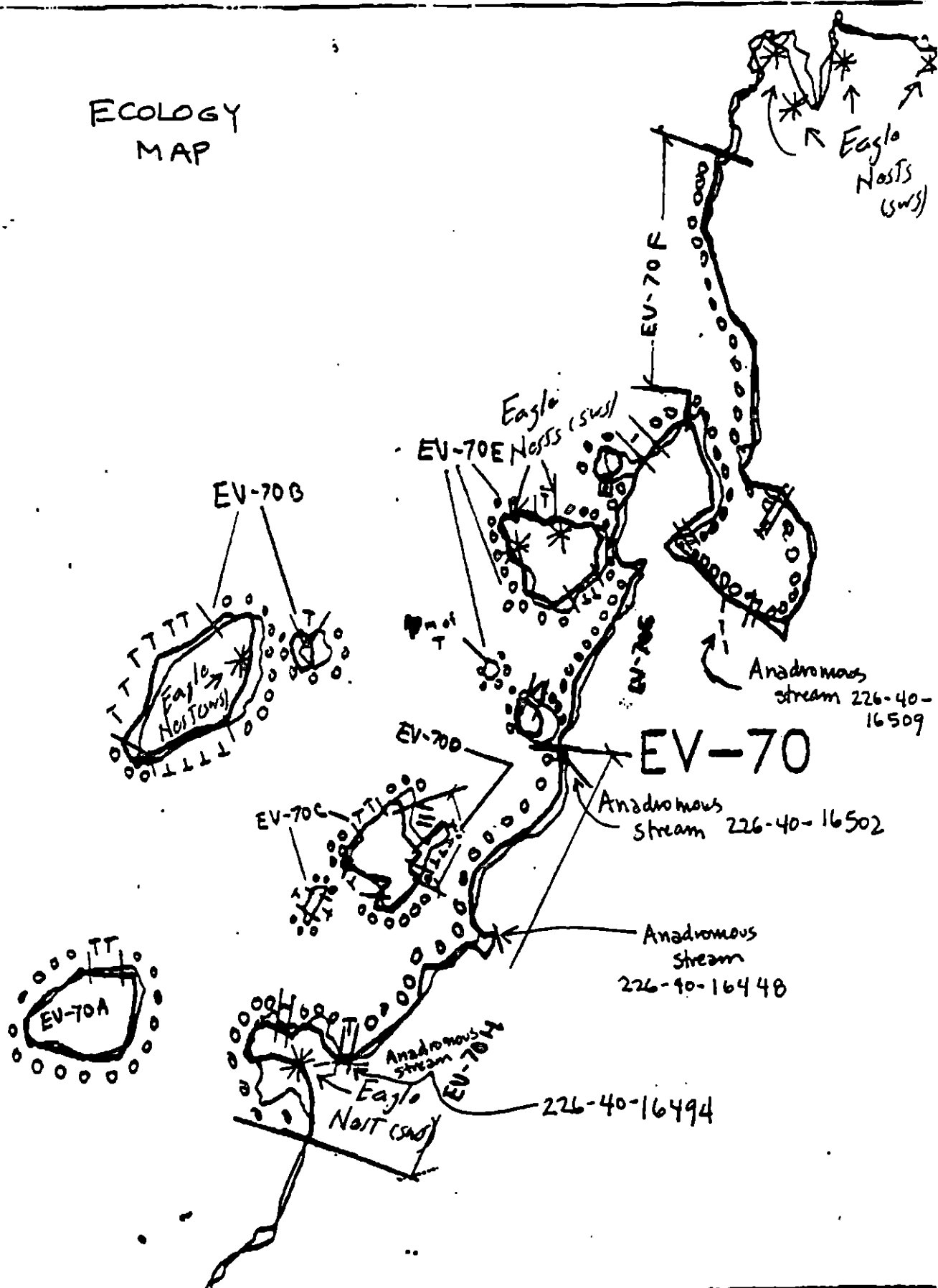
Addendum

Oil was found in two separate areas in this subdivision. In one cove, there were asphalt patches in the upper intertidal. A small mussel bed (with moderate Mytilus density) occurred off to one side of the cove, away from the asphalt. Otherwise, cover was sparse and there are no unusual ecological considerations.

Along one section of beach, asphalt was found in the upper intertidal and a mousse accumulation was found in the supralittoral zone. A sparse bed of mussels would be susceptible to trampling, but there are not many mussels there. There is also a dense band of green and red algae in the lower intertidal; these algae are, in part, ephemeral and not particularly susceptible to trampling.



ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Roper

Date: 4/1/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION H (8 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unhoiled biota and substrate. Three anadromous streams one in Subdivision H: 226-40-16502; 16448; 16494. One bald eagle nest in Subdivision H. Do not trample or otherwise damage mussel bed.

SHPO SIGNATURE

DATE: 7/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 42 m: V.Light 60 m: No Oil 2308 m

Subsurface Oil Observed: Yes X No Maximum Depth 15 cm

RECOMMENDATIONS:

 No Treatment Recommended

X	Treatment Recommended
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1
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80	1
81	1
82	1
83	1
84	1
85	1
86	1
87	1
88	1
89	1
90	1
91	1
92	1
93	1
94	1
95	1
96	1
97	1
98	1
99	1
100	1

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: Recommend manual pick up of oiled debris, vegetation,
patties and mousse. Work should be conducted between 6/1 and 7/10 and
only with permission of USFWS due to eagle nest constraints.

TAG COMMENTS: MONITORS TO FURTHER ASSESS SUITZ DUE TO SNOW COVER PENDING SURVEY.

TAG APPROVAL DATE:

ADEC

EXXON**NOAA**

USCG

ART WEINER

Army Test

Inseon Tak

KENNETH KEAN

FOSC:

DATE:

5-4-70

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A
1B
Salmon stream mouth - fry outmigration (3/1 to 5/15)
Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 3N, 3P
3O, 3Q Harbor seal and sea lion pupping (5/15 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.
- 5R Seabird colony (5/1 to 9/1)
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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: H DATE 4/6/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF A PEBBLE BEACH AND ADJACENT SHORELINE. A SHEEN WAS OBSERVED BELOW A MUSSEL BED ON THE BEACH AND SOFT TAPATTIES AND OILED VEGETATION WERE FOUND IN THE SUPRATIDAL ACROSS THE LENGTH OF THE BEACH (APPROXIMATELY 20 M). A PIT DUG INTO THE SUPRATIDAL BERM REVEALED ABOUT 7 CM OF CLEAN PEBBLES OVERLYING ABOUT 8 CM OF OILED PEBBLES AND VEGETATION.

NO EVIDENCE OF OILING WAS OBSERVED IN THE REMAINDER OF THE SUBDIVISION.

ADEC

NAME

Toba Hayes

SIGNATURE

Toba Hayes

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Oiling observed on this segment consisted of soft patties of oiled vegetation + pebbles in the supratidal zone.

Full extent of oiling was not observed due to snow cover.

Deep into storm berm beyond Ben. were pebbles with residual oil coat. ^{WTR for pebbles}

Recommend manual removal of oiled pebbles + vegetation, also manual pickup of oil patties all of which are in supratidal just above storm berm (see sketch map).

Sheen was observed on beach indicating were it originated from oiling at head of beach & no o.s. or oil coat was observed in L.M.U. TZ's.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/28/90

OG Mike Fogar NOAA Gary Shigenaka SEGMENT ST/ EV-70 (1 of 8)
 BIO Richard Ambrose LAND REP USCG SUBDIVISION H (8 of 8)
 EXXON Larry Olson ADEC John Hayes TIME 19:45 to 20:10
 TEAM NO.: 11 TIDE LEVEL: 1.9 to 2.9 DATE 4/6/90
 EST. SUBDIVISION LENGTH: 2805 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock snow in the SUPRA ITZ
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 35 % C 25 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 40 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 30 m VL 50 m NO 2705 m
2705

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	SP	BP	CP	GP	VP	MP	TP	TP	SU	U	M	L
ASPHALT PAVEMENT				X	X								X			
POOLED				X									X	X		
COVER		X											X	X		
COAT																
STAIN				X	X									X		
MOUSSE																
PATTIES																
TARBALLS																
FILM			X		X										X	
NO OIL																X

PAVEMENT: H F (S) 2 sq. m by 3 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR (RW) SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 100

Photographs:

Roll No. ST-11-2Frames 24-25

* Sheen on water in pits 5 & 6; origin uncertain

SUBSURFACE OIL * If oiled interval < 5cm in pit #2 does not constitute subsurface oil.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-GM)	BELOW	OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			SP	BP	CP	GP	VP	MP	TP	TP			
1	25					X	.	X									X		G, S
2	30					X	.	X									X		P, G, S
3	25					X	.	X									X		C, P, G (H ₂ O @ 12cm)
4	30					X	.	X									X		C, P, G (H ₂ O @ 10cm)
* 5	15				X		.	X			X						X		C, P, S
* 6	10				X		.	X	X								X		G (H ₂ O @ 5cm)

COMMENTS All oiling observed in the subdivision occurred in the southern end. Beach 1 has a 2m x 50m CT/S weathered stain among the cobble in the HITZ. Beach 2 is a 30m pocket low angle cobble/pebble beach with a 1m x 30m CT/B oiling in the storm berm. There is heavily oiled vegetation, asphalt patties and some pooled oil on this area.

SEGMENT ST/ EV-70 SUBDIVISION H

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CL)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP	ST	BR	BL	GR	OR	TR	Y	SU	U	MB	U		
** 7	20		X				0-7		X	X								X					G
8	20		X	X			7-15		X	X								X					P
							.																
							.																
							.																
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COMMENTS

Located in the MITZ on beach 2 is a 5m x 20m CT/P Surface Rainbow sheen. There is no subsurface oil in the MITZ.

REVIEWED

M.G. ^{Yw}

DATE

4/13/80
4/11/80

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/90

Segment ST / EVO70 Subdivision H Date (mo / day / yr) 4/6/90Time (24 hr) 1945 hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____(B) Overall % cover of biota (% of segment): Dense 15 Moderate 15 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 (O)

Photographs:
Roll No. —Frames —

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	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			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	X	2	2	2	2	
3	3	3	3	3	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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	X	X	2	2	2	2	
3	3	3	3	3	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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	X	2	X	X	2	2	2	2	
3	3	3	3	X	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	

Wildlife Observations/General Comments: 6 seals, 22 Barrow's goldeneyes, 6 Harlequin ducks, 6 Canada Geese at anadromous stream, 3 deer tracks, Cobble beaches are fairly sparse, but bedrock and high-angle beaches had dense red and green algae in mid and low intertidal. Dense *Laminaria* in subtidal.

Ecological Considerations:

711, 1B: One anadromous stream noted in this subdivision; no oil seen nearby.

The pocket beach with oil has a mussel bed; see Addendum.

00 MTL F0901

SEGMENT ST/ 70

SUBDIVISION H

DATE 4 16 90

CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Endry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est 10WL/1WL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
Pfr - No Subsurface Oil
- 2 Δ
Pfr - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Pecchy Distribution
- CT/S

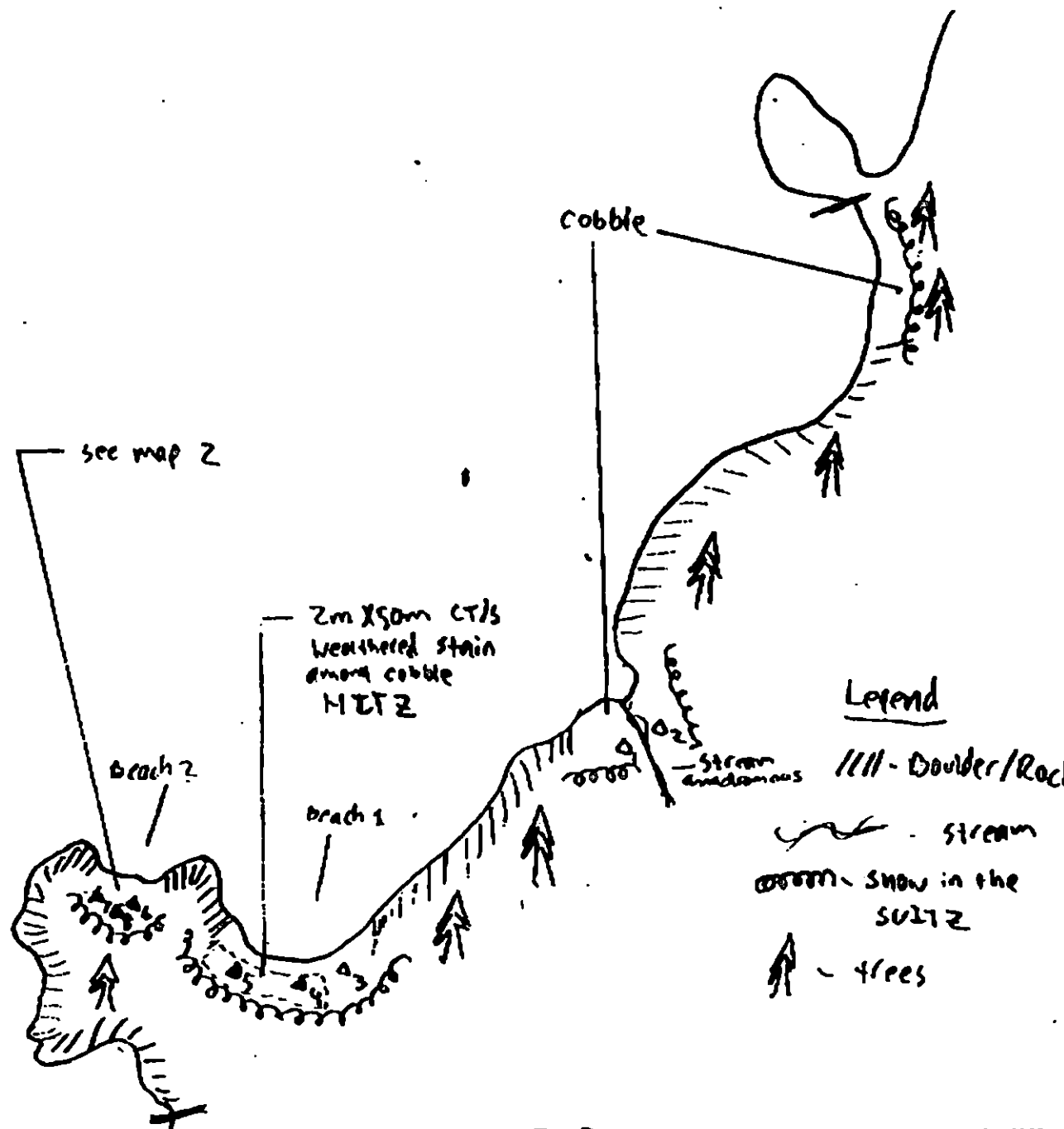
Splashed Distribution
- $\odot$
Oil Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number

SKETCH MAP 1



Scale

100 m



Oil Character Length (m): AP — PO — CV 30 CT — ST 50 MS — PT — TB — FL 20 NO 2725

REVISIONS

OG 2 Foget
 SEGMENT ST/ EV-70
 SUBDIVISION H
 DATE 4, 6 90

SKETCH MAP 2

Scale

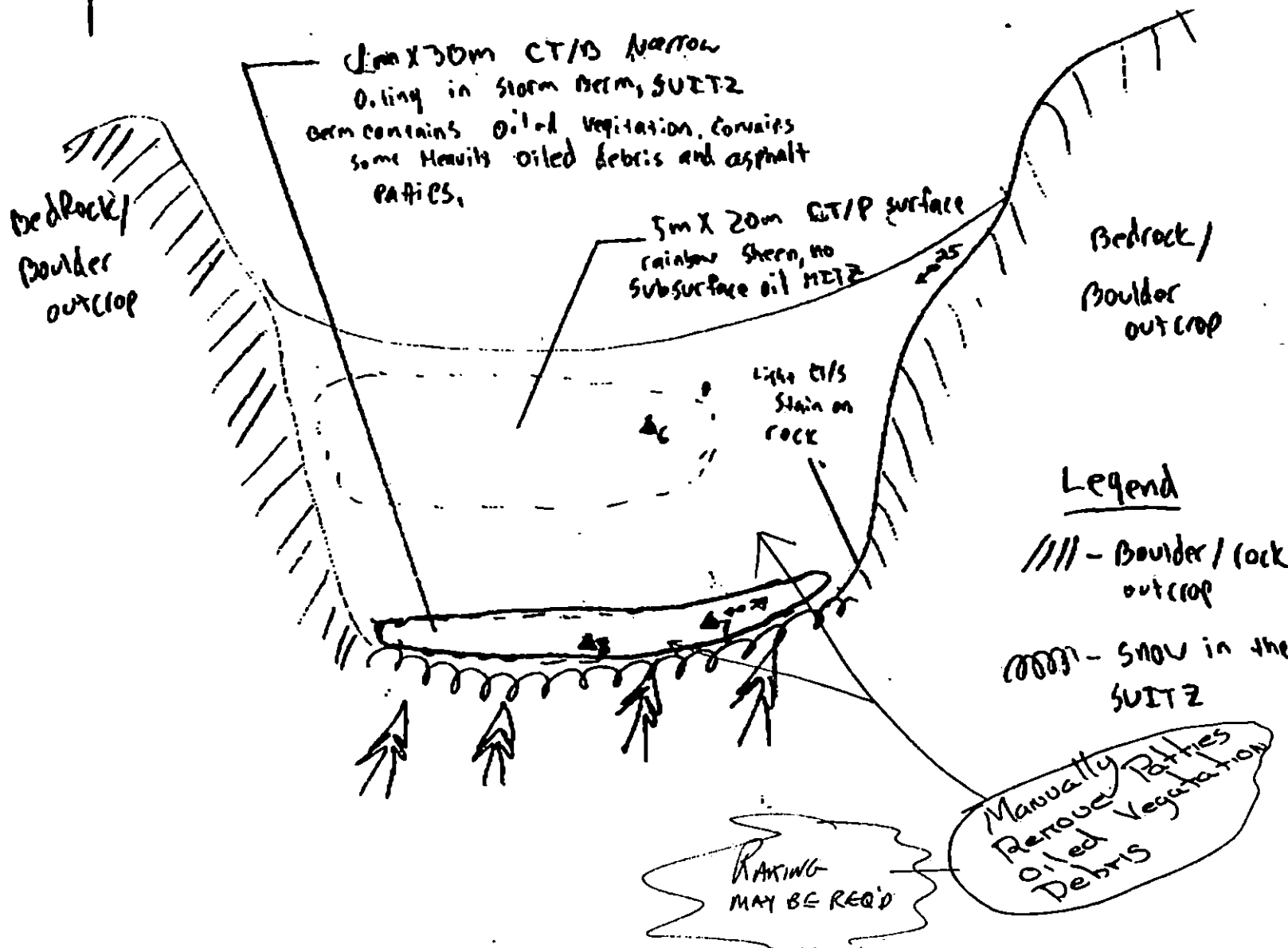
10 m

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sep/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. (HMLA, VL)
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Probe(s)
- ☐ Pn Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- P1 - No Subsurface Oil
- 2 Δ
- P2 - 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

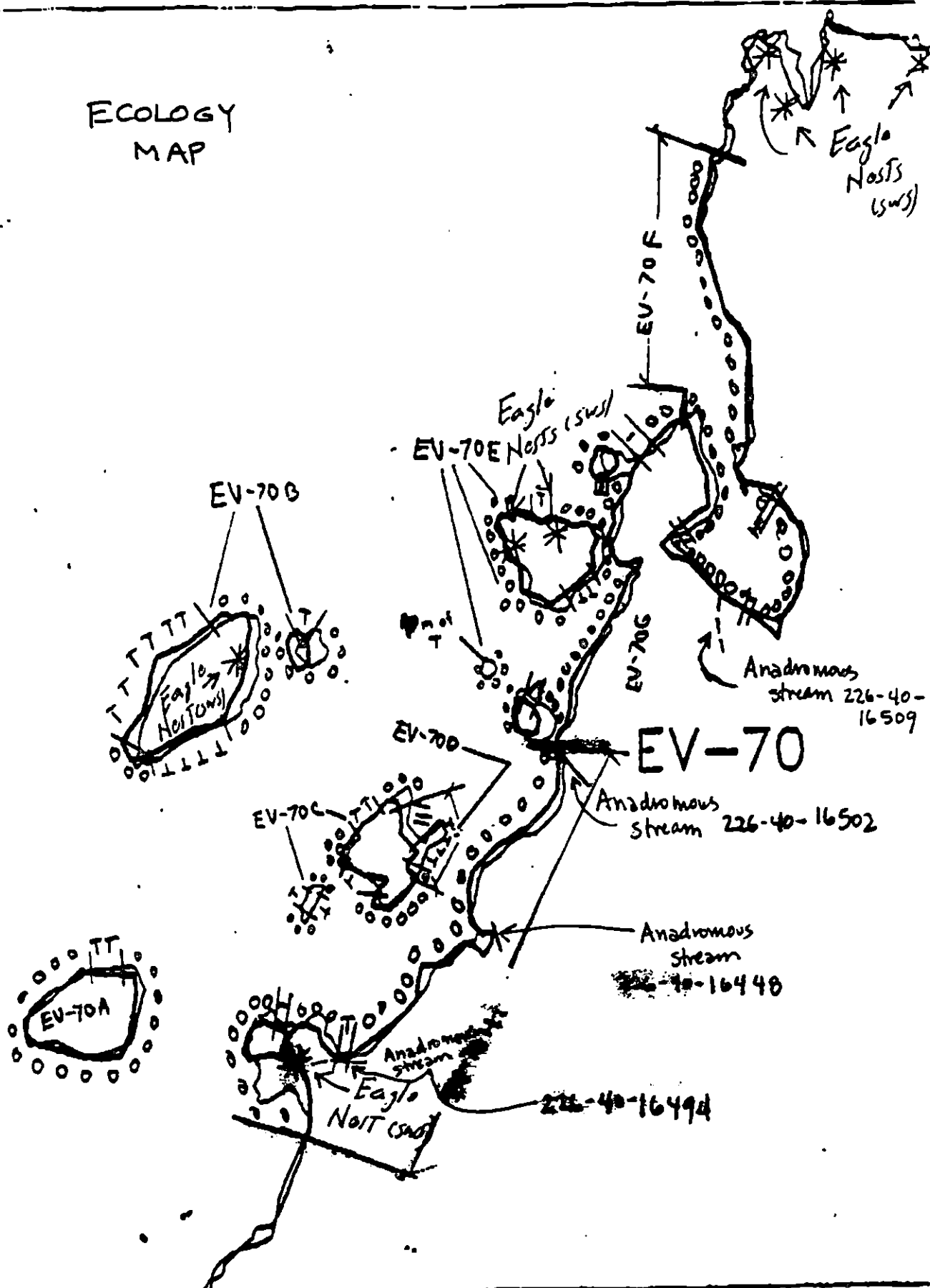


See map 1

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

REVISED 1990

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m

0 100 200 300
METERS

Map Key: PWS-279

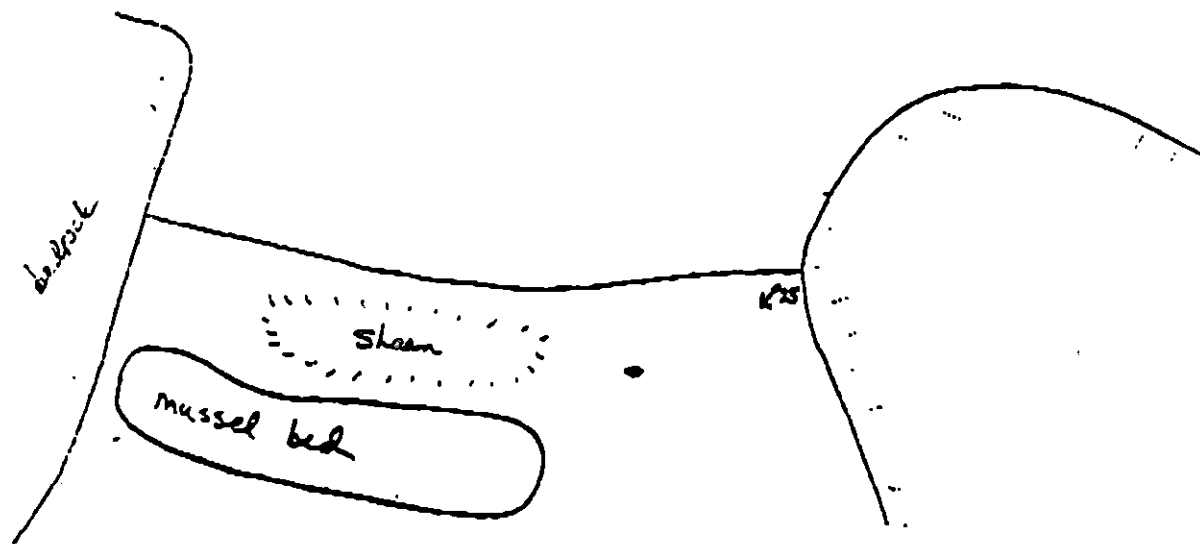
Name: Mike Fager

Date: 4/1/90

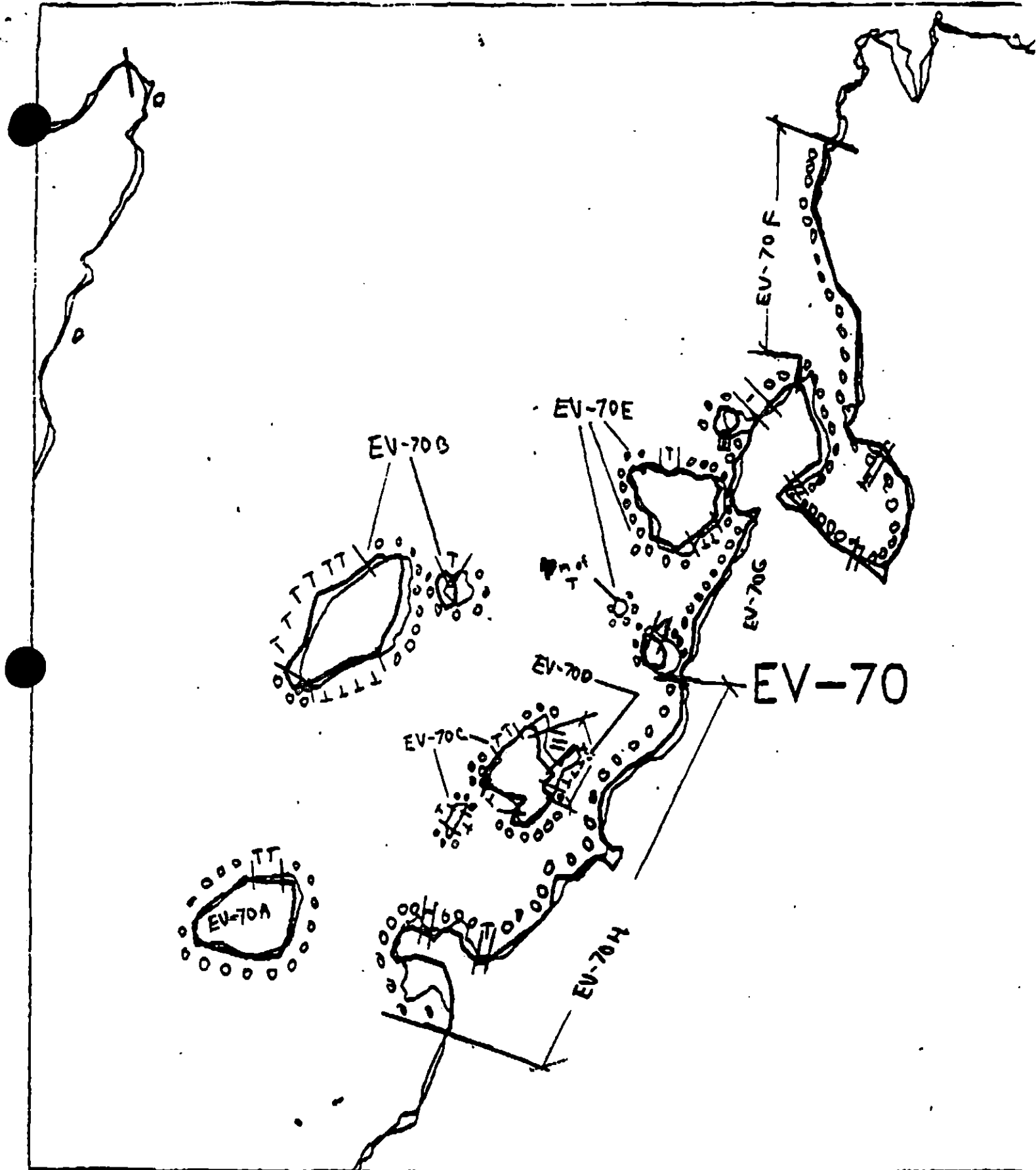
Date Entered:

Addendum

Cobble pocket beach with sheen and oiled debris. Mussel bed in mid intertidal spans half of the width of the beach. Mussels mostly are growing on the sides of large cobbles/small boulders, so are less susceptible to damage by foot traffic over beach. Fucus also occurs in mussel bed (in moderate density), and it would be susceptible to trampling.



oiled debris in supra littoral
Ag 25
Pt # 13



XXXX Wide

TTTT Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m

0 500 1000 1500
METERS

Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-70 SUBDIVISION H (8 of 8)

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 (226-40-16494, 16498, and 16502) are present in Subdivision H. No constraint to manual pickup.

1K Purse Seine Hook-off

No constraint to manual pickup.

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision H work site.

7II Subsistence: Deer Harvesting

No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Do not trample or otherwise damage mussel beds. No disturbance to stream bed or banks. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled blots and substrate.

FOSC

DATE

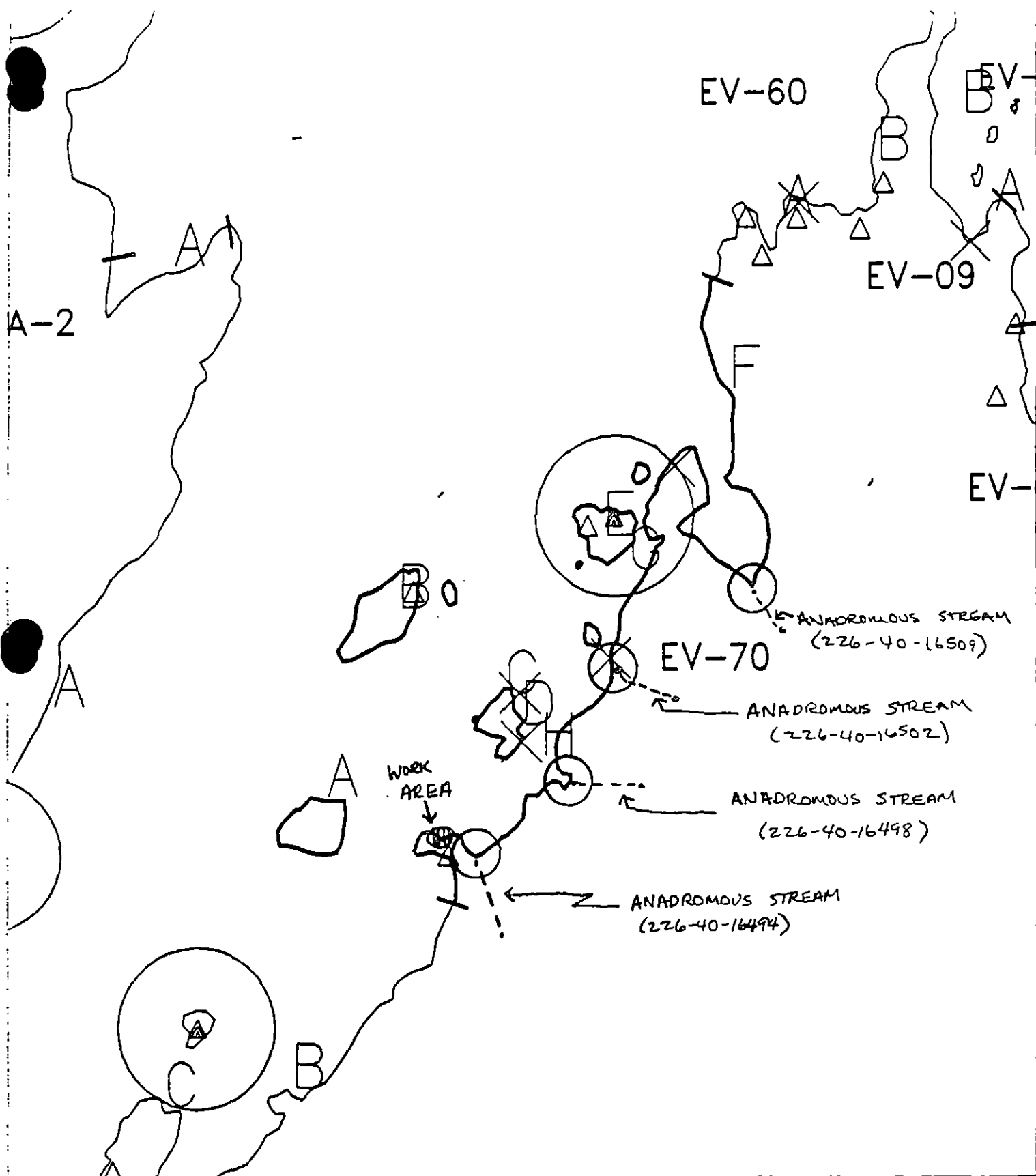
6-10-90

Prepared by:

W. Kelley

Date:

6/9/90



Exxon Company, USA
Map Key: PWS-EV-70
June 04, 1990



ECOLOGY MAP SEGMENT EV-70 SUBDIVISION F (8 of 8) METERS



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

1 inch = 2213 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-71 SUBDIVISION B (2 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no 226-40-16494, 16484, 16477.

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

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

5T-2 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 unopened biota and substrate. 1 eagle nest in EV-70, near border with Subdivision B.

SHPO SIGNATURE: *Charles J. Adams*

DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 118 m: No Oil 4957 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 *Art Wenger*

EXXON ANDY TEMA *Andy Tema*

NOAA BILL WESSOTT *Bill Wessott*

USCG KENNETH KEANE *Kenneth Keane*

FOSC: *[Signature]*

DATE: 4-27-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unholed intertidal and subtidal algae and seagrass.
 Contact ADF&G for specific dates and locations.
- 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)
 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 9/1)
 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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-71 SUBDIVISION: B DATE 3/31/90

NOAA

NAME GARY SHIGENAKA

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

THIS SEGMENT SUBDIVISION COVERED A RELATIVELY LEASTLY PORTION OF SHORELINE AND INCLUDED DIFFERENT BEACH TYPES WITH DIFFERENT VEGEES OF OILING. THE SECTION ADJACENT TO AND CONTINUING NORTH OF SUBDIVISION EV-71A, ENDING ABOUT 1/4 MI. NORTHWARD, SHOWED NO EVIDENCE OF OILING. A COBBLE AND BOULDER BEACH EXAMINED AT A SMALL EMBAYMENT HAD WEATHERED SPATTERS ON BOULDERS AND A BAND OF RESIDUAL OIL ON SEDIMENTS, APPROX 3 CM DEEP AND 1 M OR LESS WIDE EXTENDING FOR A LENGTH OF 100 M. OILING WAS EVIDENT ONLY ALONG THE NORTHERLY FACING PORTION OF THE BEACH. THERE WAS NO OILED SUBSTRATE IN THE BED OF THE STREAM ITSELF, ALTHOUGH THE BAND OF RESIDUAL OIL DISCUSSED ABOVE WAS IN ITS VICINITY TO THE SOUTH. NO OIL WAS NOTED NORTH OF THE STREAM. THE SUPRATIDAL WAS COVERED BY SNOW AND NOT VISIBLE.

THE REMAINDER OF THE SUBDIVISION WAS LARGELY FREE FROM EVIDENCE OF OILING, WITH ONLY OCCASIONAL WEATHERED SPATTERS. SNOW COVERED THE SUPRATIDAL IN AREAS WHERE BEACHES WERE WELL-DEFINED, PRECLUDING ASSESSMENT OF UNDERLYING CONDITIONS.

RESULTS FROM EV-71A AND EV-71B SUGGEST THAT NORTH-FACING BEACHES IN THIS SEGMENT EXPERIENCED A GREATER DEGREE OF EXPOSURE THAN OTHER ORIENTATIONS.

ADEC

NAME John Hayes

SIGNATURE

John Hayes

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Oiling was very light and weathering. Oiling observed consisted of thin patches of film and stain. One area with subsurface oil to 5 cm. continuity of residual oil grading down to a film. Surface oil observed was weathering no treatment recommended. S.S. oiling was isolated and not associated with proximity of a stream.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

NAT'L FOREST REP NOT AVAILABLE

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-71
 BIO Richard Ambrose LAND REP — SUBDIVISION 15 (2 OF 3)
 EXXON Larry Olson ADEC John Hayes TIME 10:30 to 12:00
 TEAM NO.: 11 TIDE LEVEL: 2.7 to 0.2 DATE 9/1/90
 EST. SUBDIVISION LENGTH: 5175 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Rocky backshore w/ forest
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20 % B 35 % C 30 % P 10 % G 5 % S — % M — % V — %
 SLOPE: Long 30 % Hang 50 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 100 m NO 5075 m

SURFACE OIL

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

PAVEMENT: H (F) S 1 sq. m by 3 cmPATTIES / TARBALLS — BAGSNEAR SHORE SHEENT? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE —#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	SUBSURFACE SEDIMENTS
		OF	OR	OL	OP	NO		SO	NO	S	B	G	P	M	SU	U	M	U		
1	20					X	—								X					P, S
* 2	5		X				0-4	X				X			X					P, S
* 3	5		X				0-3	X				X			X					P, S
4	10					X	—								X					P, G
5	20					X	—								X					P, G, S, P
6	15					X	—								X					P, S, H, P

* OILED INTERVAL < 5cm IN PIT NOS. 2 AND 3 DO NOT CONSTITUTE SUBSURFACE OIL

COMMENTS A: Narrow 1m x 100m tar coating was found in the

HITZ among the cobble at a bay located midway through the Sub

locations 2 and 3 are located on this beach. The distribution of the oil is

Patchy. The oil shows signs of weathering, because oil on the exposed rock is a tar stain

and a coat on protected cobble (See map 2). 1m² asphalt patch was also observed in this zone.

no other oil was observed in this sub division w/ the exception of a few weathered

Page 1 of 2

oil splashes.

REVIEWED JW DATE 4-4-90

REVISION 08-23-79

REVIEWED EW DATE 4-4-90

SEGMENT EV-71

SUBDIVISION D - Blow Up

DATE 1 / 1 / 90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HMA/LVL
- ☐ 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/D
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

CT/S
Splashed Distribution

Oil Vegetation

1 Δ
Photo location, direction, and number

Legend

Forest and Snow

Δ - trees

O - Boulders

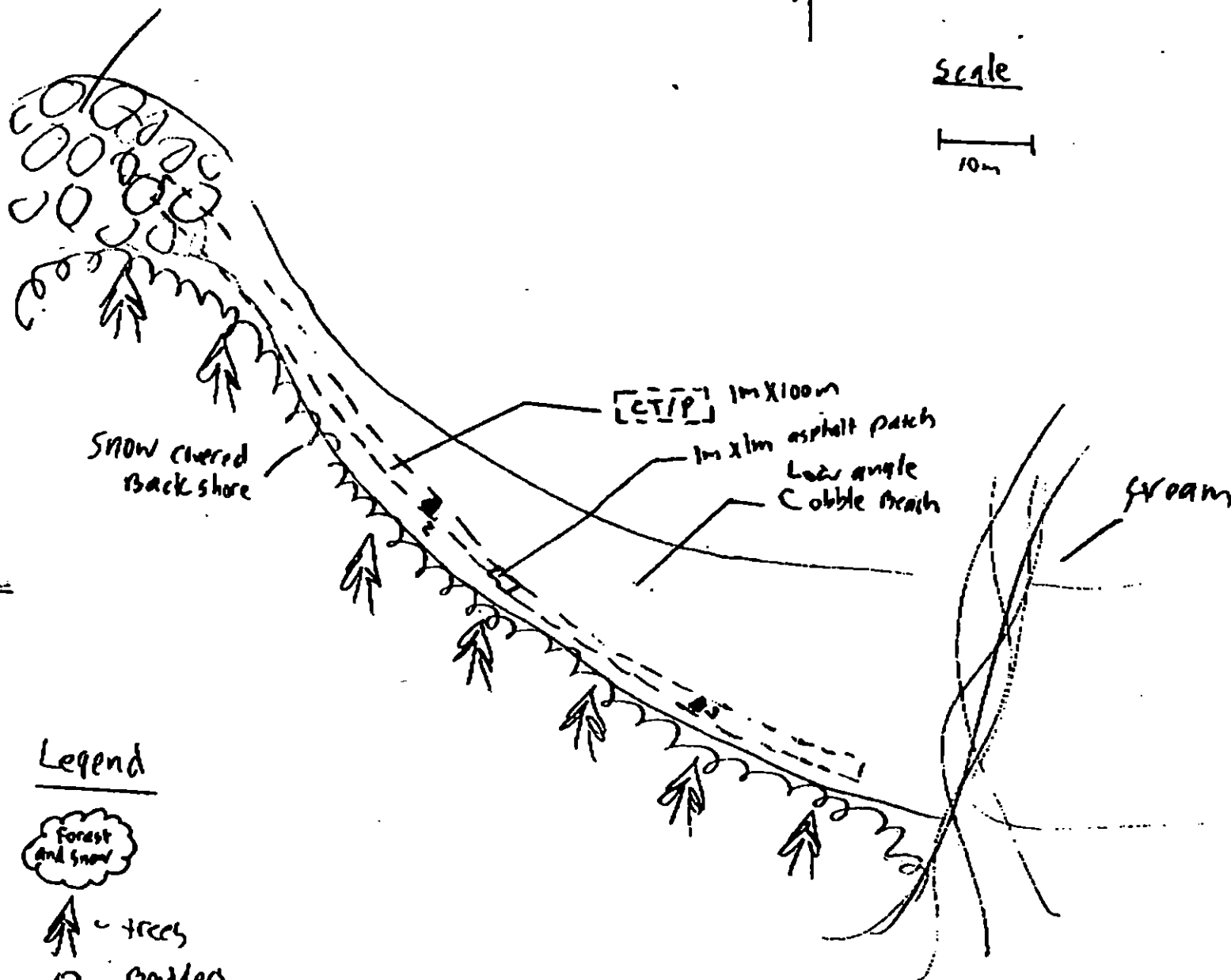
SKETCH MAP

Point - Bedrock / Boulders



Scale

10m



Oil Character Length (m): AP 100 PO 100 CV 100 ST 100 MS 100 PT 100 TB 100 FL 100 NO 5075

SHORELINE ECOLOGICAL SUMMARY

REVISION: 12/22

Segment ST/ EVO71 Subdivision B Date (mo / day / yr) 3/31/90
and
4/1/90

Time (24 hr) 1030 hrs Biologist Ambrose
and 1040 hrs

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 35 (3) Cobble 30 (4) Pebble 10 (5) Sand 5 (6) Silt -

(B) Overall % cover of biota (% of segment): Dense 50 Moderate 20 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: ST-11-1
Roll No. ST-11-1

Frames 16, 17

BARNACLES

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

GASTROPODS

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	X	2	2
3	3	3	3	3	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
X	X	2	2	2	X	2	2	2	2	2	2
X	X	3	X	X	3	3	3	3	3	3	3
3	3	4	4	4	4	4	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

NOT PRESENT

Wildlife Observations/ General Comments:

See addendum

Ecological Considerations:

711, ST-5: 2 mature bald eagles seen, but no nests.

Several beaches have established or beginning mussel beds, with mussels embedded in pebbles; these would be susceptible to trampling (but no oil was found on these beaches).

One stream might possibly be important for salmon. (These are noted on

OG's map)

AddendumWildlife Observations:

2 mature bald eagles, 18 crows, 4 otters, 7 Harlequin ducks, 1 porcupine, 2 common murrelets, 14 cormorants, 1 gull, 1 sea lion, 5 deer. Also noted a possible bear trail leading to the beach!

General comments:

EVO71B is a long and diverse section. Portions of the segment, especially the rock walls and high-angle beaches, have dense cover (with Fucus in the high intertidal and red algae down low). However, cobble and other low-angle beaches have sparse cover.

Laminaria was very dense in the shallow subtidal off of this section.

Mar 21

stream

C/P



1m X 100m [CT/P]
(See Blow up map 02)

● EV071B

500.0

Cobble

mussel beds

Legend

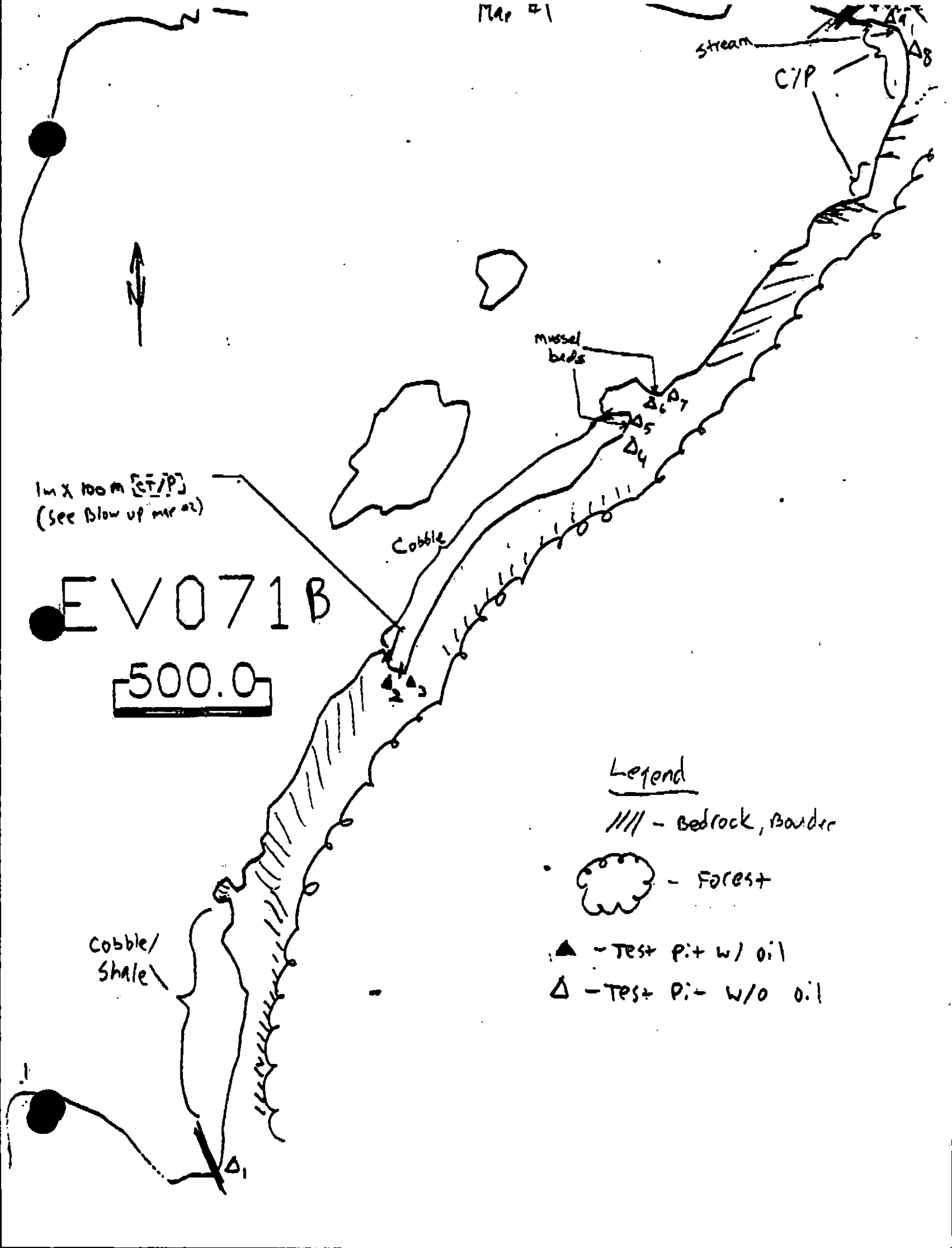
/// - Bedrock, Boulder

• - Forest

▲ - Test Pit w/ oil

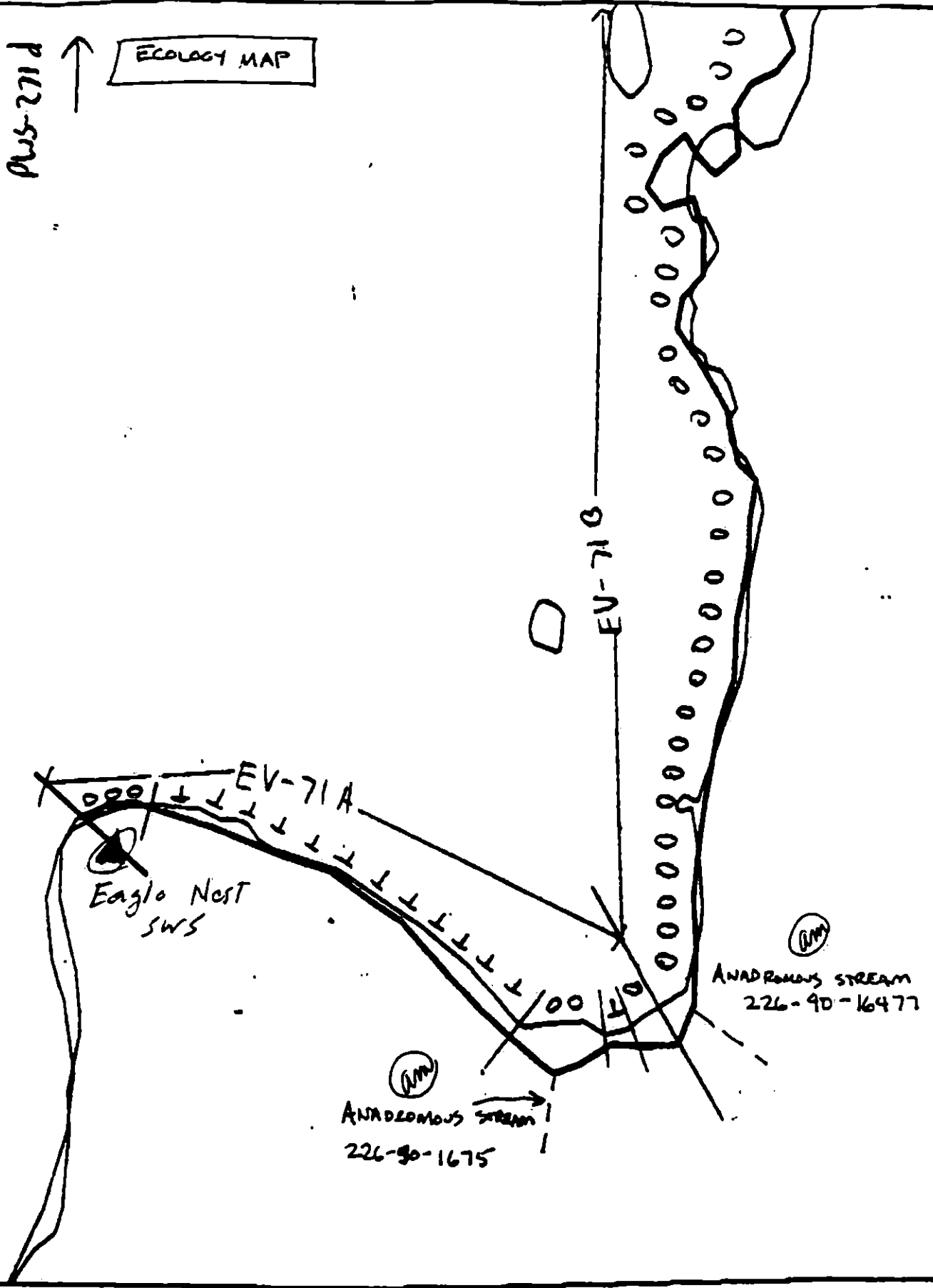
Δ - Test Pit w/o oil

Cobble/
Shale



PWS-2710

ECOLOGY MAP



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

EV-71

ADEC Segment Length: 8115m



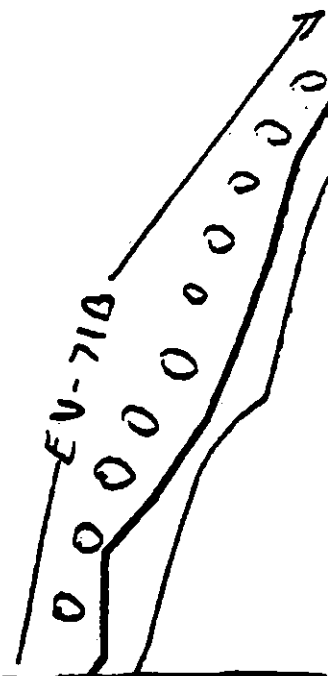
Map Key: PWS-2710
Name: Mike Foyet
Date: 4/1/90
Date Entered:

ECOLOGY MAP

EV-71C
1979

PWS
271c

PWS-271a
↓



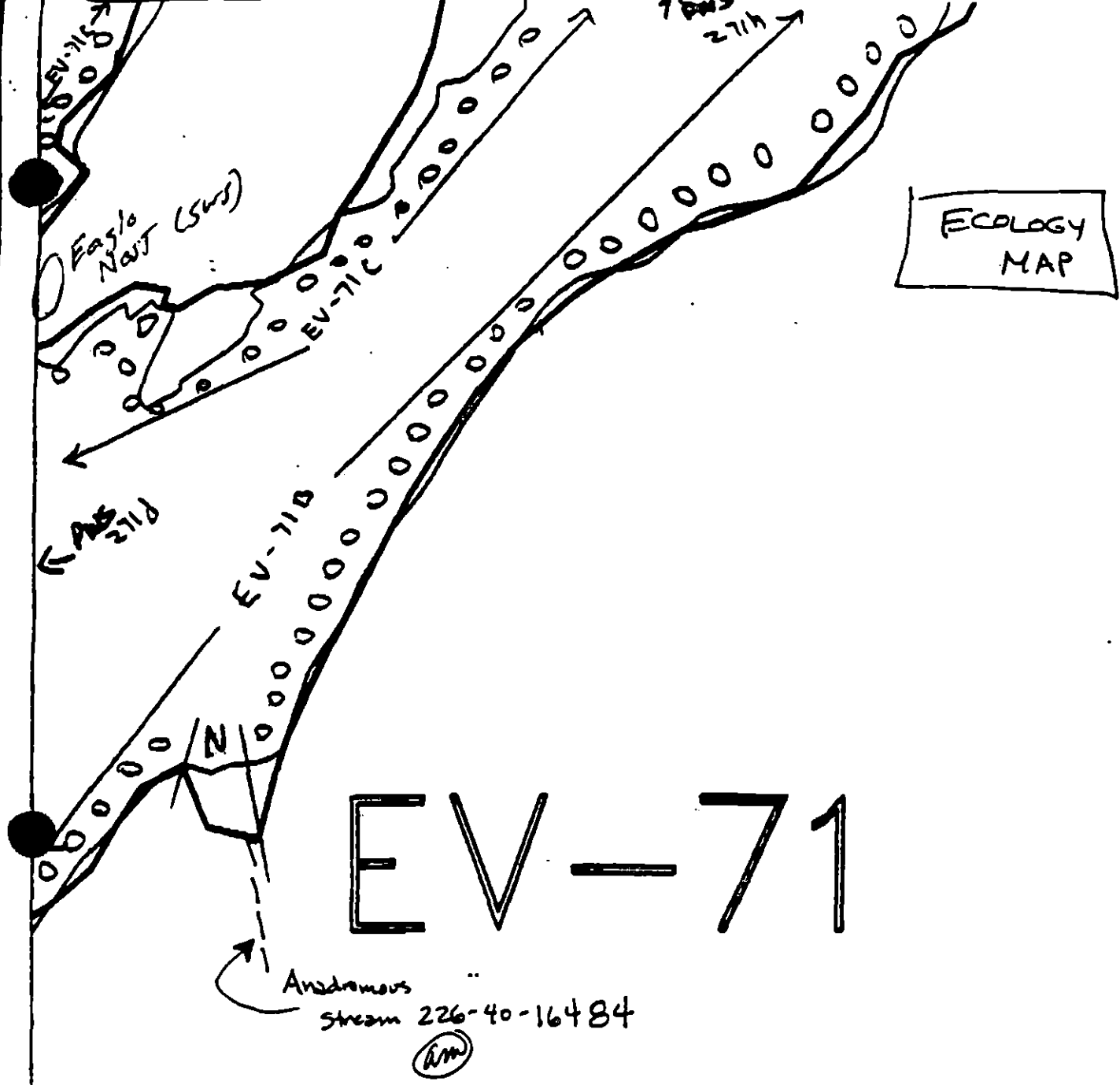
XXXX Wide
/// Medium
--- Narrow
TTTT Very Light
0000 No Oil

EV-71B

ADEC Segment Length: 8115m



Map Key: PWS-271d
Name: Mike Foyet
Date: 4/1/90
Data Entered:



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-71B

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-2710

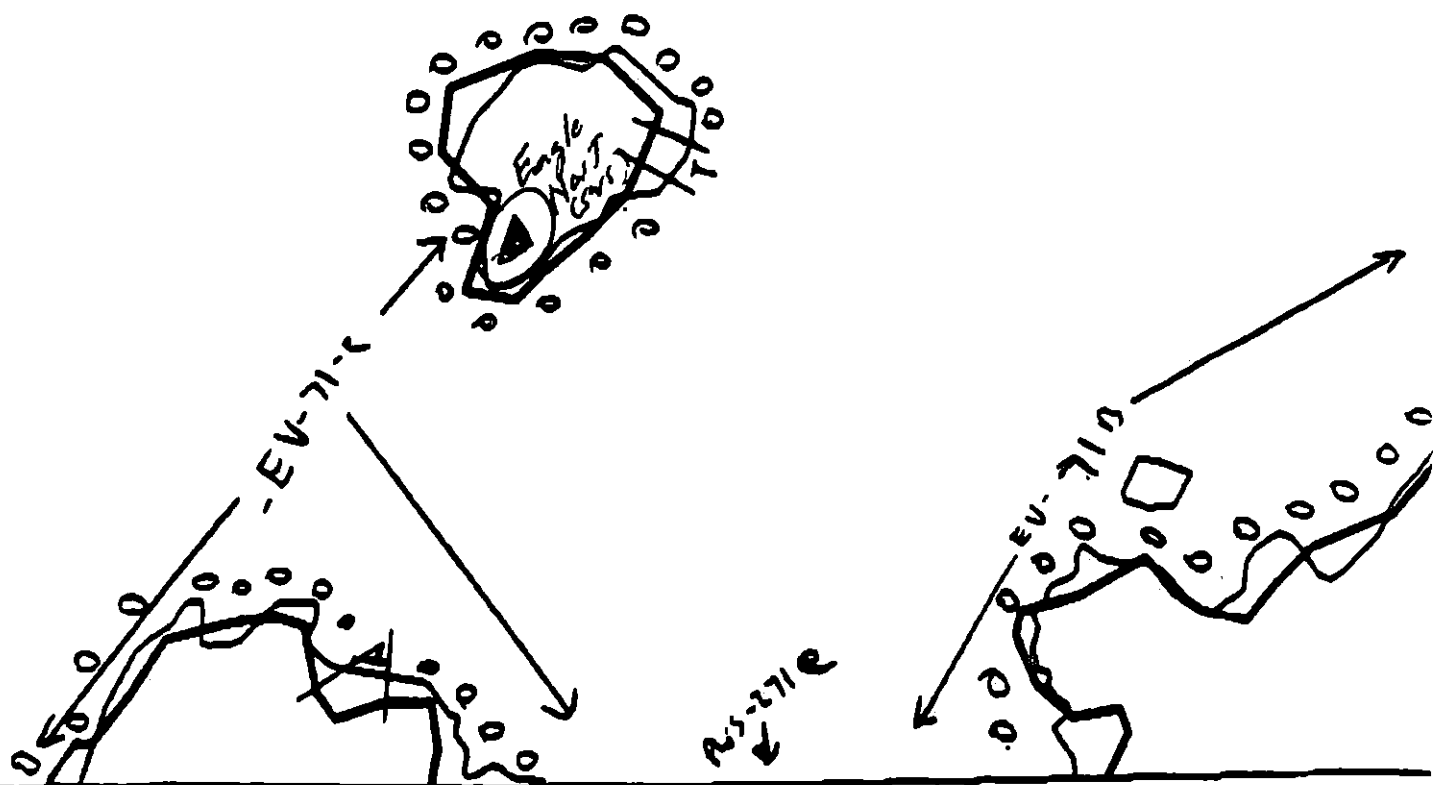
Name: Mike Fogel

Date: 4/1/90

Data Entered:

ECOLOGY MAP

PWS-271i →



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-71

ABEC Segment Length: 8119m

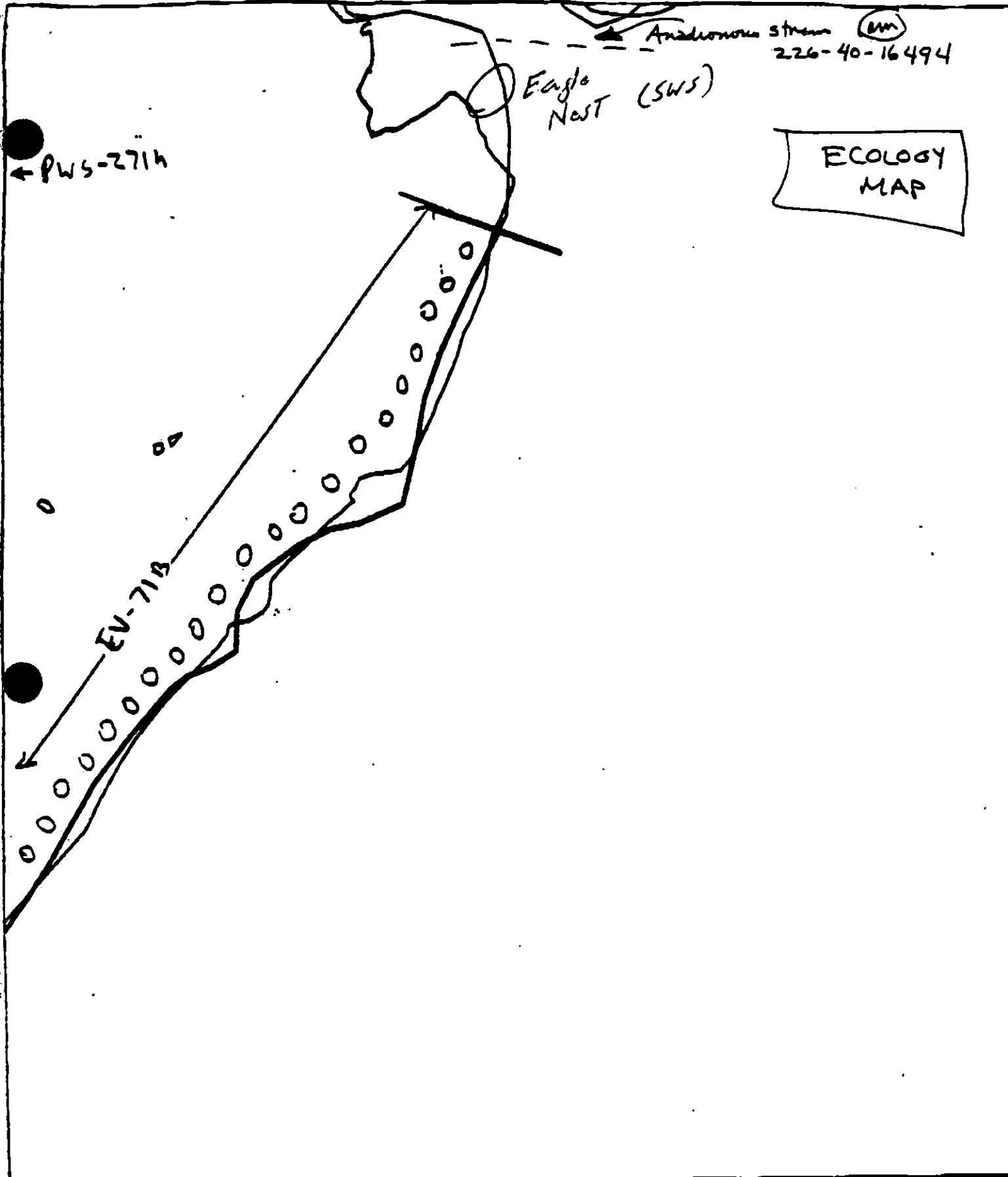


Map Key: PWS-271h

Name: Mike Fogel

Date: 4/1/90

Date Entered:



Anadromous stream (m)
226-40-16494

Eagle Nest (SWS)

ECOLOGY
MAP

← PWS-2714

EV-71B

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

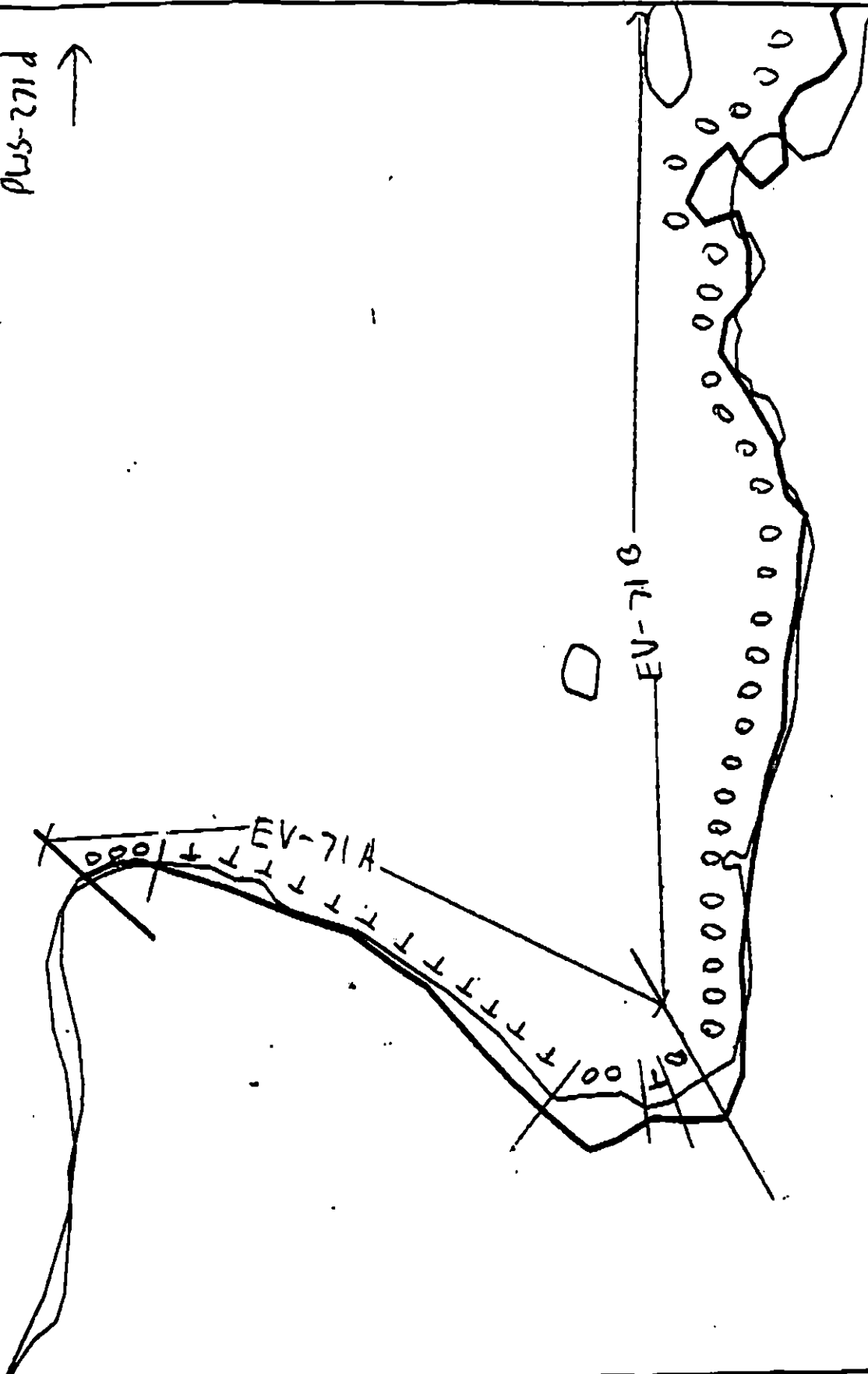
EV-71

ABEC Segment Length: 8115m



Map Key: PWS-2711
Name: Mike Foyle
Date: 4/1/90
Date Entered:

PWS-271d
↑



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-71

ADEC Segment Length: 8115m



Map Key: PWS-271a

Name: Mike Foyet

Date: 4/1/90

Date Entered:

EV-71C

PWS
2712

165-2718

EV-710

EV - 7 1B

ADEC Segment Length: 8115m

TTTT Very Light

0000 No Oil

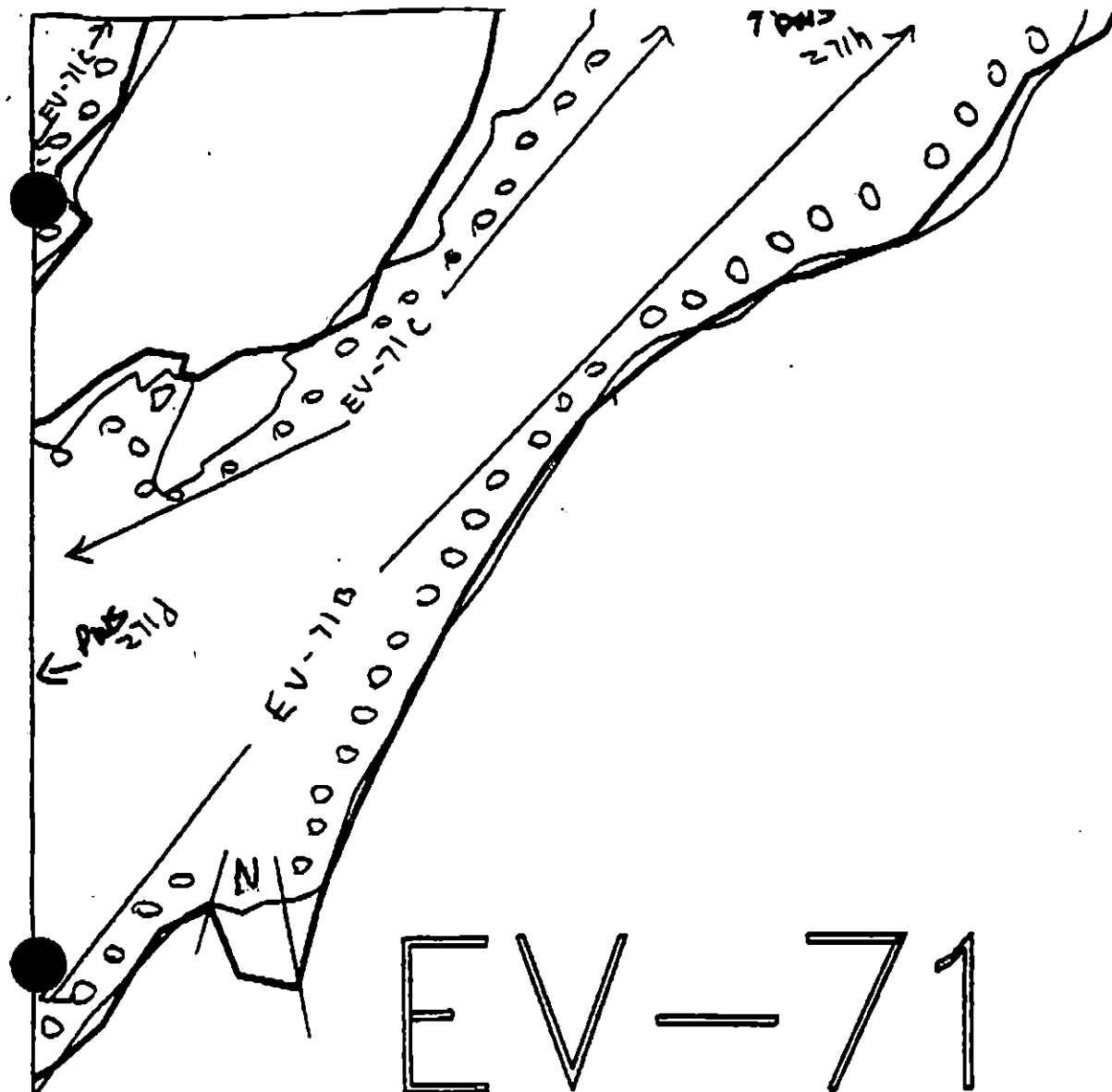
METERS

Map Key: PWS-271d

Name: Mike Foyet

Date: 4/1/90

Date Entered:



EV-71

0000 No. Oil

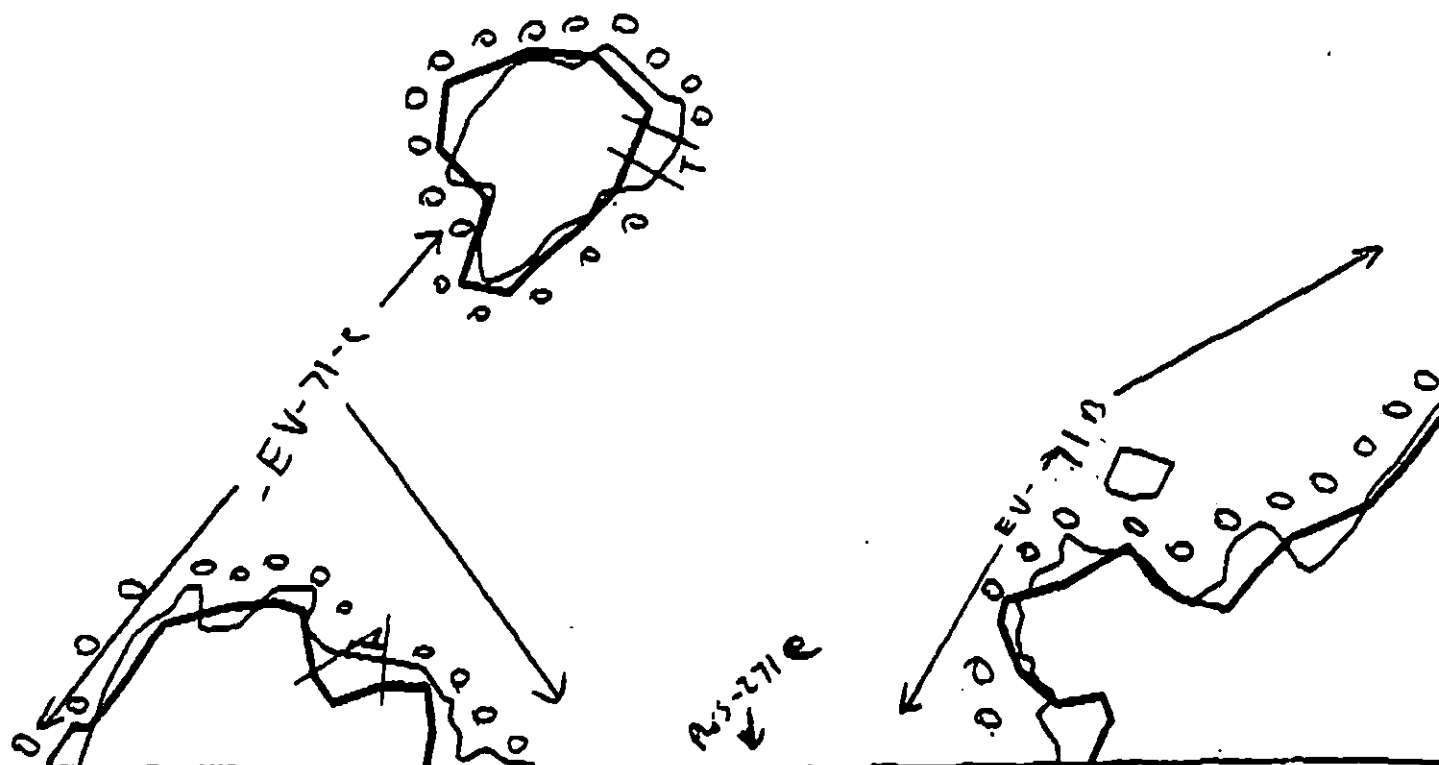
EV-71B

ADEC Segment Length: 8115m



Data Entered:

PWS-271i →



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-71

ADEC Segment Length: 8115m

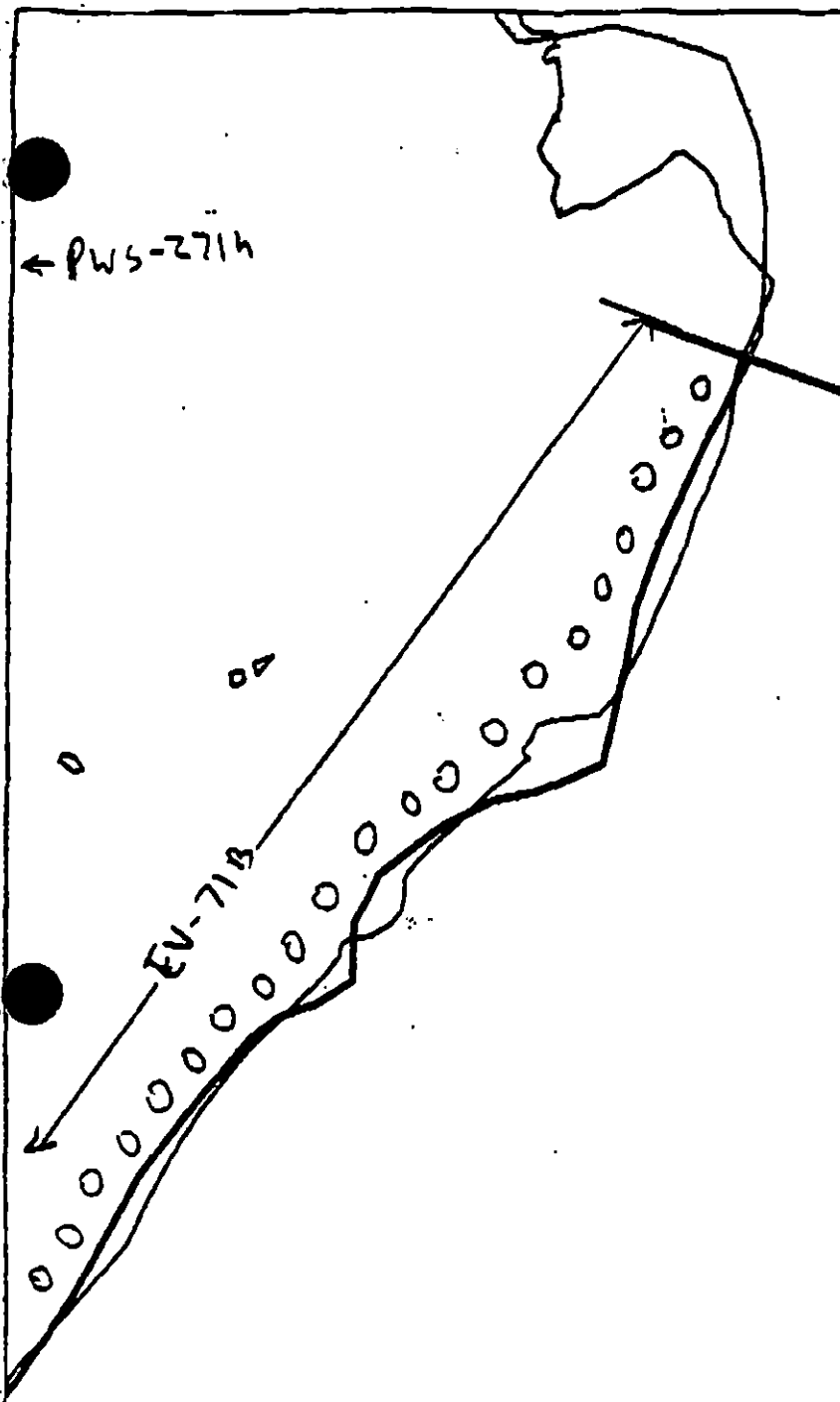
0 100 200 300
METERS

Map Key: PWS-271h

Name: Mike Fogel

Date: 4/1/90

Date Entered:



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-2711

Name: Mike Foyet

Date: 4/1/90

Data Entered:

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-071 B STREAM NO: 226-40-16484 DATE 4/30/90

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)
5T-2 All Bald Eagle nests (3/1 to 6/1)
7II Subsistence area: Deer harvesting

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: Rachel Jean Oare DATE: 5/25/90

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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend manual removal of tarmat as indicated on the attached sketch map. Work from 6/2 to 7/9 with approval of USFWS due to eagle nest.

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/23/90

ADEC ART WEINER Art Weiner

EXXON ANDY EAT Andy Eat

NOAA Bryl Wessett Bryl Wessett

USCG G.H. REITER G.H. Reiter

FOSC: R. Zanozfi

DATE: 5/31/90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 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)
 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 (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 (5/1 to 9/30)
 7HH Finfish harvesting
 7II Deer harvesting (8/15 to 2/28)
 Invertebrate harvesting
 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

23/52

226-40-

SEGMENT ST EV 071 A SUBDIVISION: 16484 DATE 4/21/90

USCG

NAME W. J. McNamee SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

1. MANUAL REMOVAL OF ASPHALT & BOG

ADFG
ADECNAME No Team member SIGNATURE Michael Wiedner☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTEDREFER TO ADFG OBSERVATION AND
TREATMENT COMMENTS FOR THIS DATE.

LAND MANAGER

NAME No Team member SIGNATURE _____☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

OG William Reid USCG McMAHON SEGMENT ST/ EV071A
 BIO MICHAEL FAWCETT LAND REP TAM (3016) STREAM 2344016184 OF
 EXXON GUS GARCIA ADPC MIKE WIEDMER TIME 14:22 to 15:00
 TEAM NO. 15 TIDE LEVEL +3.5 FT DATE 21 / APR / 90
 EST. SUBDIVISION LENGTH: 60 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B % C 60 % P 30 % G 10 % S % M % V
 SLOPE: Long 90 % Hang 10 % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N 45 m VL 15 m NO

SURFACE OIL

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

PAVEMENT H (P) S 75 sq. m by 5

PATTIES / TARBALLS BA

NEAR SHORE SHEEN? (NO) BR RW SL T

OILED DEBRIS	AMOUNT			Did You Coll DEBRIS
	SM	MD	LG	
Logs				☐ YES ☒ NO
Vegetation				
Trash				
Debris				TYPE <u> </u>
				#BAGS <u> </u>

Photographs:

Roll No. A5-15-2

Frames 5-12

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	GREEN %	(Y/N)	↓	SURFACE SUBSURFA SEDIMENT
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	5	6	7	8	SU	U	M	U					
* 1	20	X					0-5	X					X					X					N			P/G/C
* 2	15	X					0-5	X					X					X					N			P/G/C
* 3	15	X					0-5	X					X					X					N			P/G/C
4	15					X												X					N	0		P/G/C

COMMENTS

* OILED INTERVAL <5cm IN PITS 1, 2 AND 3 DOES NOT CONSTITUTE SUBSURFACE OIL

REVIEWED JW DATE 4-23-90

OG WILL REID

SEGMENT ST/ EV071A

STREAM 226-40-16484

DATE 21/ APR 90

S CH MAP



CHECKLIST

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

LEGEND

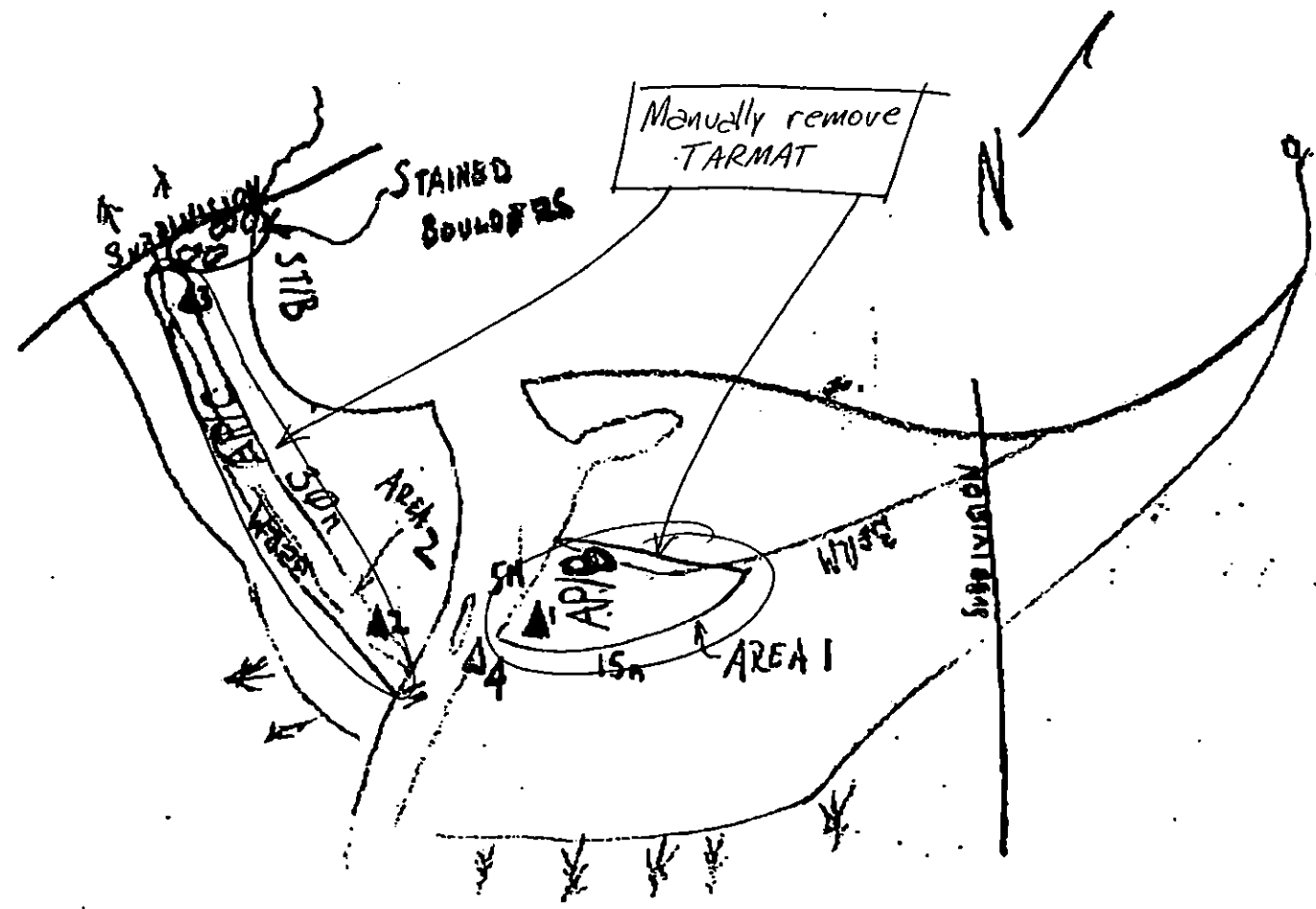
- 1 Δ
Pit - No Subsurface Oil
- 2 Δ
Pit - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- lll
Oil on Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number



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

REVISION 01/90

2/52

EV-071A

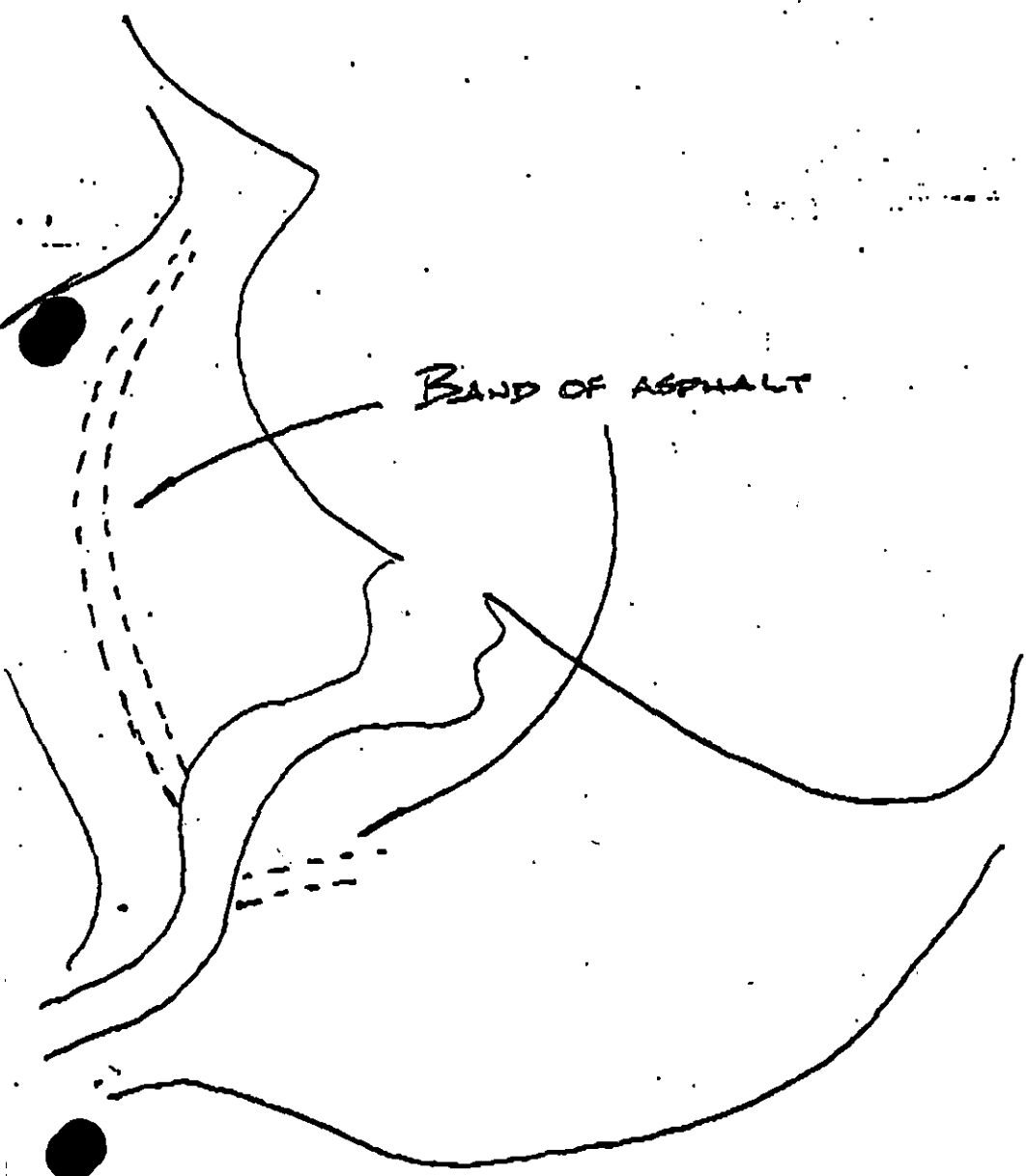
17/52

226-40-16484

45 PHOTOLOG

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



VEGETATION

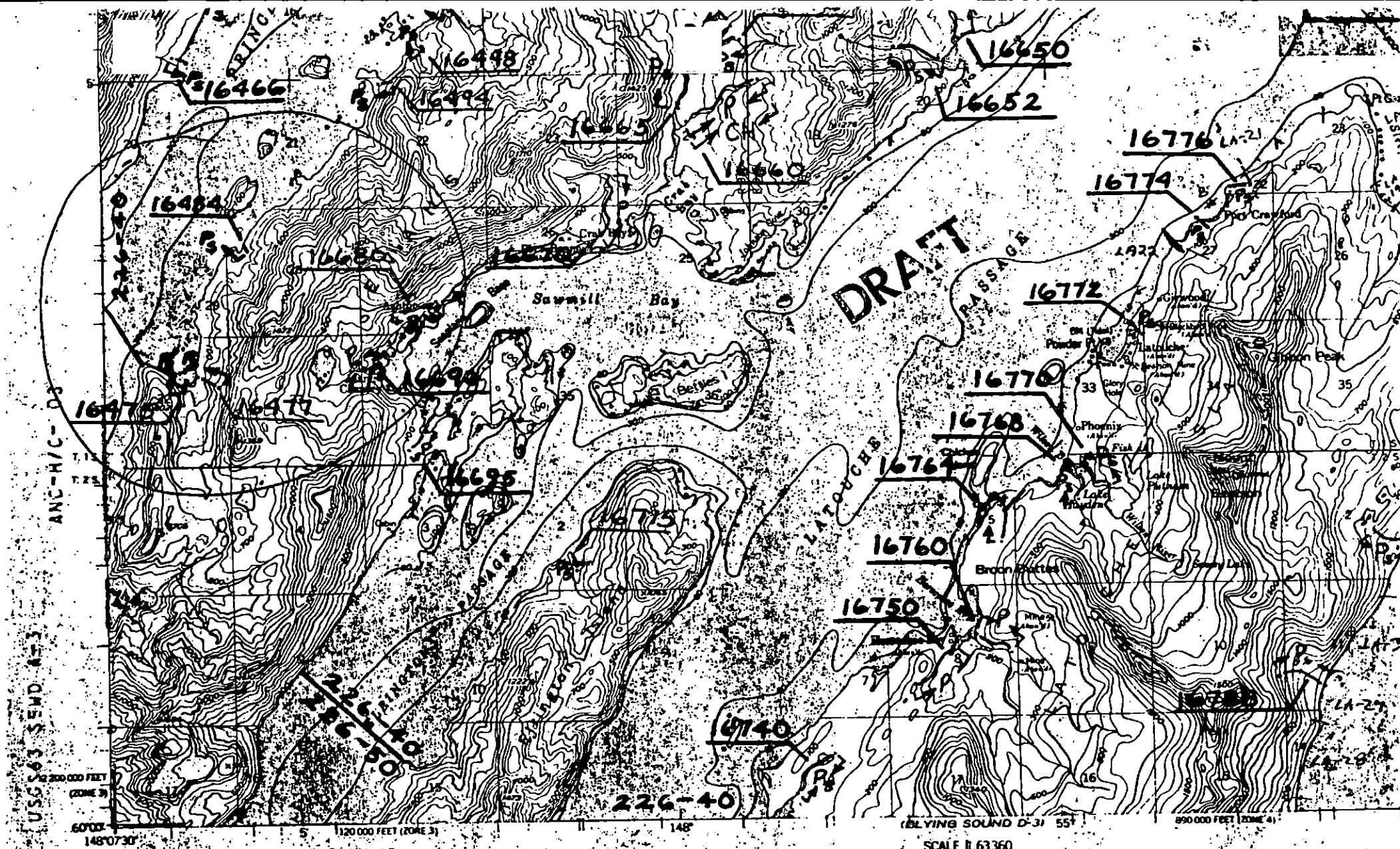
22/52

Segment EV 7/A
Stream 226-40-16484
Ecologist's Summary

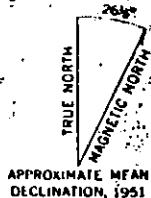
4/21/90
Michael Fawcett

This stream mouth lies on a boulder/cobble/gravel beach in a sheltered bay. There are dense populations of *Fucus*, barnacles, littorines, and associated animals including large, old limpets (*Collisella pelta*) in MTZ and LTZ. A band of tar was found on the surface in UTZ, and manual pickup recommended. There are no ecological constraints on cleanup operations.

M. Fawcett



Maped, edited, and published by the Geological Survey
 Control by USC&GS and USCE
 Topography by photogrammetric methods from aerial photographs
 taken 1950, field annotated 1951. Map not field checked
 Selected hydrographic data compiled from USC&GS Charts
 8515 (1949), 8523 (1951), and 8524 (1943). This information
 is not intended for navigational purposes
 Universal Transverse Mercator projection, 1927 North American datum
 10,000-foot grid based on Alaska coordinate system, zones 3 and 4
 1000 meter Universal Transverse Mercator grid ticks,
 zone 6, shown in blue
 Land lines represent unsurveyed and unmarked locations
 predetermined by the Bureau of Land Management



CONTOUR INTERVAL 100 FEET
 DATUM IS MEAN SEA LEVEL
 DEPTH CURVES AND SOUNDINGS IN FEET DATUM IS MEAN LOWER LOW WATER
 SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
 THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 9 FEET

FOR SALE BY U. S. GEOLOGICAL SURVEY
 FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
 PRINTING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

DRAFT

PWS-2710

ECOLOGY MAP

EV-71A

Eagle Nest
SWS

EV-71B

ANADROMOUS STREAM
226-90-16477

ANADROMOUS STREAM
226-90-1675

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

oooo M. N. I.

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-2710

Name: Mike Foyet

Date: 4/1/90

Date Entered:

PWS
2712

→ 845-2718

A hand-drawn sketch of a road or path, labeled 'EV-71B' and 'K'. The path is marked with a series of small circles and an arrow pointing towards the top right.

XXXX Wide

//// Medium

----- Narrow

TTTT Very Light

EV-71B

ADEC Segment Length: 8115m

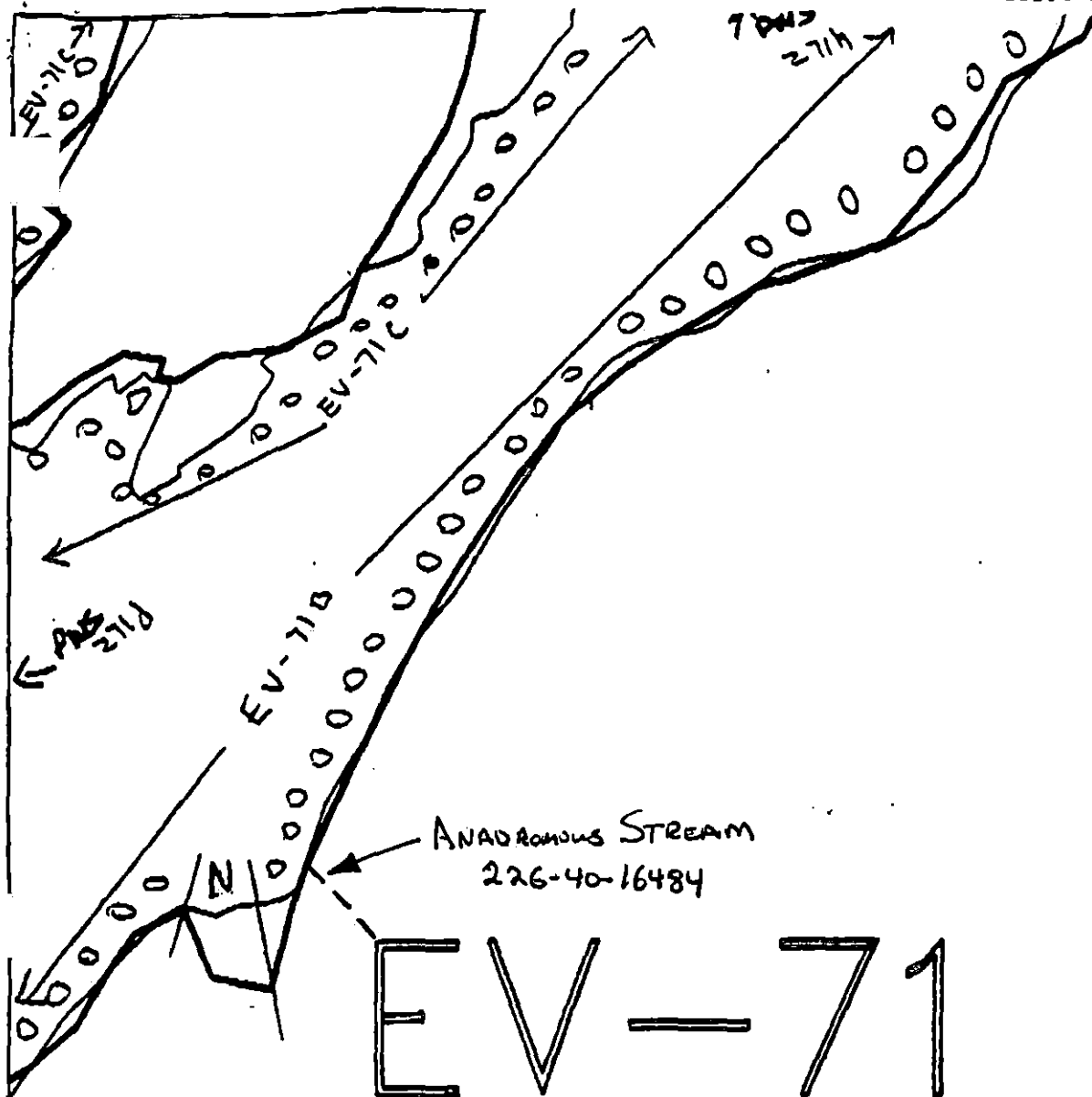


Map Key: PWS-271d

Name: Mike Foyer

Date: 4/1/90

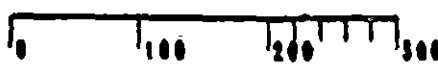
Not Entered:



XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO " " "

EV-71B

ADEC Segment Length: 815m



Map Key: PWS-2710

Name: Mike Foget

Date: 4/1/90

Data Entered:

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16484

SEGMENT EV-71 SUBDIVISION B

WORK WINDOW

Tarmat Removal

OPEN

Bioremediation Less Than 100m From Stream

WORK PRIOR TO 7/10
(ADF&G MONITOR REQ.)

Bioremediation More Than 100m From Stream

WORK PRIOR TO 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (226-40-16484) is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to tarmat removal.

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision B work site.

7II Subsistence: Deer
Harvesting

Closed to bioremediation after 8/15. No constraint to tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. 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. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM EV-71B
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

[Signature]

Date

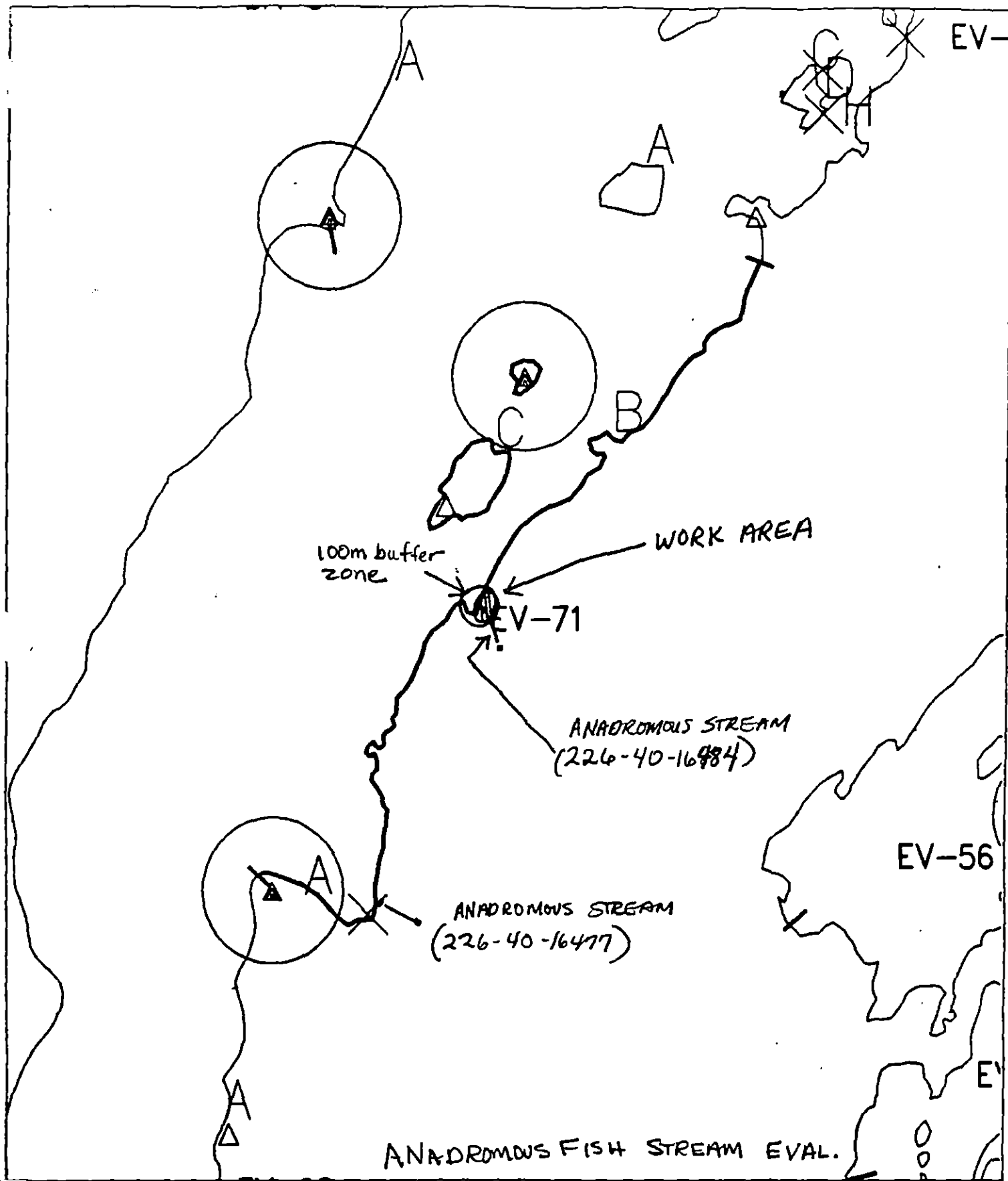
6/12/90

Prepared by

[Signature]

Date

6/12/90



Exxon Company, USA
Map Key: PWS-EV-71.
June 09, 1990



ECOLOGY MAP
SEGMENT EV-71
SUBDIVISION B (2-013)
METERS

0 720 1438

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

1 inch = 2361 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-71 SUBDIVISION C (3 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-2 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: *[Signature]*

DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 105 m: No Oil 2020 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: <u> </u> Wands
☐ Tarmat: ☐ Breakup	☐ Beach Cleaner
☐ Removal	☐ Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/21/90

ADEC ART WEAVER
EXXON ANDY TEAL
NOAA Burt Wescott
USCG KENNETH KEANE

FOSC: *[Signature]*

DATE: 4-27-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A
1B
Salmon stream mouth - fry outmigration (3/1 to 5/15)
Salmon stream mouth - spawning (7/10 to 8/31)
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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 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)
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 9/1)
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.
- 6J 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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-71

SUBDIVISION: C

DATE 4/1/90

NOAA

NAME GARY SHIGENAKA

SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SUBDIVISION CONSISTED OF 2 ISLANDS OFF THE WEST CENTRAL PORTION OF EVANS ISLAND. PERIMETERS OF BOTH WERE COMPLETELY SURVEYED AND SIX BEACH LANDINGS WERE MADE AS WELL. OILING WAS SPORADIC AND CONSISTED OF STAIN AND COATING, MOSTLY WELL-WEATHERED.

ADEC

NAME John Hayes

SIGNATURE *John Hayes*

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Two small Islands west of beach segment EV-71. We made six Landings at pocket beaches on Islands. Oiling observed was very light and consisted of ^{discontinuous} for splashes and sticky weathered oil on surface 1mm. Also observed staining on headlands. Area is currently weathering and no oil contamination was observed.

LAND MANAGER

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

NAT'L FOREST. REP NOT AVAILABLE

SHORELINE OILING SUMMARY

REVISION NO. 02/2000

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-71
 BIO Richard Ambrose USCG LAND REP SUBDIVISION C (3 of 3)
 EXXON Larry Olson ADEC John Hayes TIME 9:05 to 10:30
 TEAM NO.: 11 TIDE LEVEL: 6.9 to 2.9 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 2340 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Rocky backshore w/ Forest
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 35 % B 20 % C 75 % P 10 % G 10 % S 10 % M - % V - %
 SLOPE: Long 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 60 m NO 2280 m

SURFACE OIL

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

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	X		

DEBRIS COLLECTED

☒ YES ☐ NOTYPE Wine, Banding
Clean Pom Pom#BAGS 1

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (COLOR)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		DO	UC	1	2	3	4	SU	U	W	U		
1						X	-		X						X				C, P (420 at 2cm No Sheen)
2						X	-		X								X		C, P, M (420 at 5cm No Sheen)
3						X	-		X						X				P, G, S
4						X	-		X						X				G, C
5						X	-		X						X				P, G, M, C
6						X	-		X								X		G, S (Water at 5cm)

COMMENTS

only some oiling was observed, the oil was weathered and was a splattered distribution in the HITZ. The two island shores consisted mostly of Bedrock / Boulders w some pocket cobble beaches.

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 08/28/88

SEGMENT ST/ EV-71 SUBDIVISION C

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		UD	UC	1	2	3	4	5	6	SV	U	M	U		
7						X	.	X										X			G, S (4.0 S(m))
8						X	.	X									X				S
9						X	.	X										X			P, G, S
10						X	.	X									X				G, S
							.														
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COMMENTS

REVIEWED AW DATE 4-4-90

00 Mike Fojet
 SEGMENT ST/ EV-71
 SUBDIVISION C
 DATE 4/1/90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HML/LWL
☐ SST
☐ Profile Location(s)
☐ Profile(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
 Splashed Distribution

Oil Vegetation

1 ➡
 Photo location, direction,
 and number

Legend

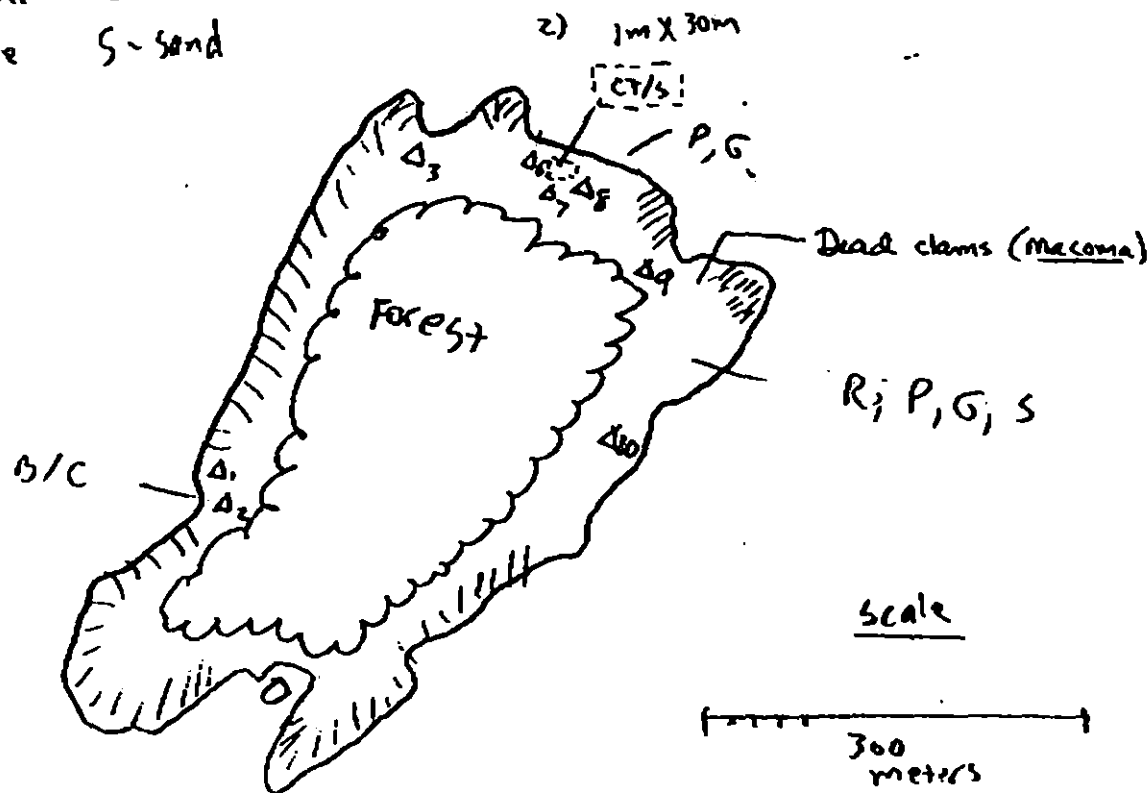
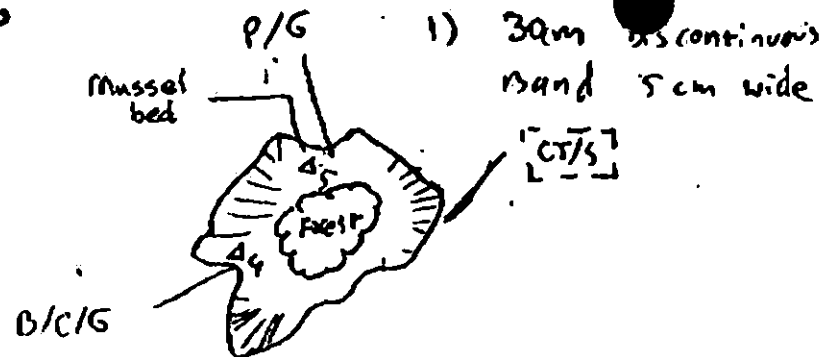
|||| - Bedrock / Boulder

○ - Forest

R - Bedrock P - Pebble
 B - Boulder G - Granule
 C - Cobble S - Sand



ETCH MAP



Oil Character Length (m): AP — PO — CV — CT 30 ST 30 MS — PT — TB — FL — NO 2280

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST, EVO 71 Subdivision C Date (mo/day/yr) 4/1/90Time (24 hr) 0910 hrs Biologist Ambrose

- (A) Substrate type and % of segments:
 (1) Bedrock 35 (2) Boulder 20 (3) Cobble 15 (4) Pebble 10 (5) Sand 20 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 50 Moderate 30 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 (O)
- Photographs: Roll No. _____
 Frames _____

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	NOT PRESENT
3	3	3	3	X	3	3	X	3	3	3	3	
4	4	4	4	4	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	
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	X	2	NOT PRESENT
3	3	3	3	3	3	3	X	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	
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	2	2	2	2	2	2	X	2	2	X	2	NOT PRESENT
3	3	3	3	3	3	3	X	3	3	X	3	
4	4	4	4	4	4	4	X	4	4	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	
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	X	2	2	2	2	NOT PRESENT
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	
6	6	6	6	6	6	6	6	6	6	6	6	

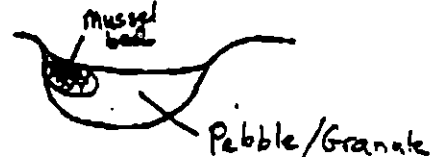
Wildlife Observations/ General Comments:

10 crows, 1 eagle, 4 Harlequin ducks, 3 otters, 3 oystercatchers, 1 great blue heron, 2 sea lions.
 Dense cover on high-angle beaches/rock walls. At one beach, many dead Macoma nasuta still in place, with valves showing at surface (location noted on OG's map).

Ecological Considerations:

TII, ST-5: 1 mature bald eagle seen, but no nests.

Mussel bed found on one pocket beach (noted on OG's map), but no oil seen there. Specific location of bed w/in pocket beach:



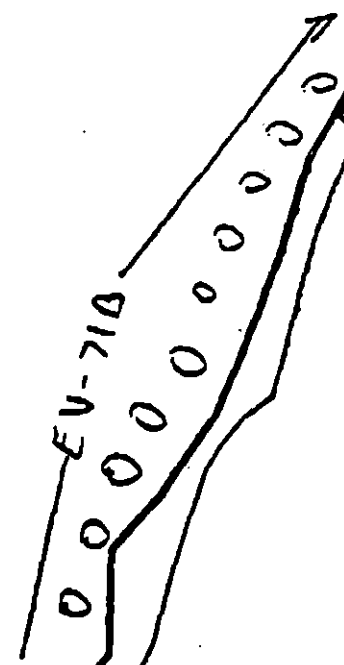
* Much of this section surveyed by boat.

ECOLOGY MAP

EV-71B
1990

AW5
2712

PWS-2710
↓



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-71B

ADEC Segment Length: 8115m

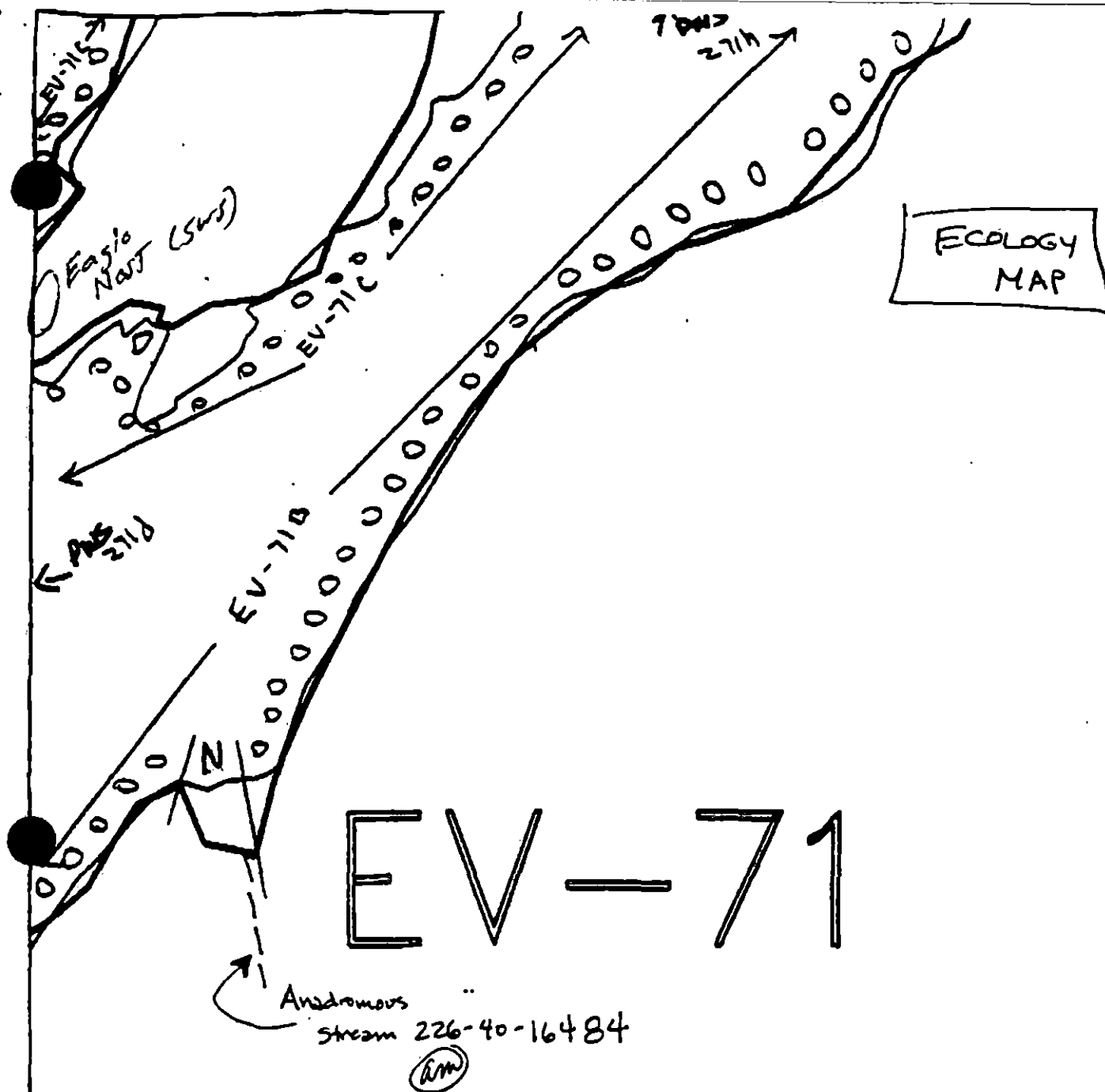


Map Key: PWS-2710

Name: Mike Foyer

Date: 4/1/90

Date Entered:



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

EV-71B

ADEC Segment Length: 8115m

0 100 200 300
 METERS

Map Key: PWS-2710

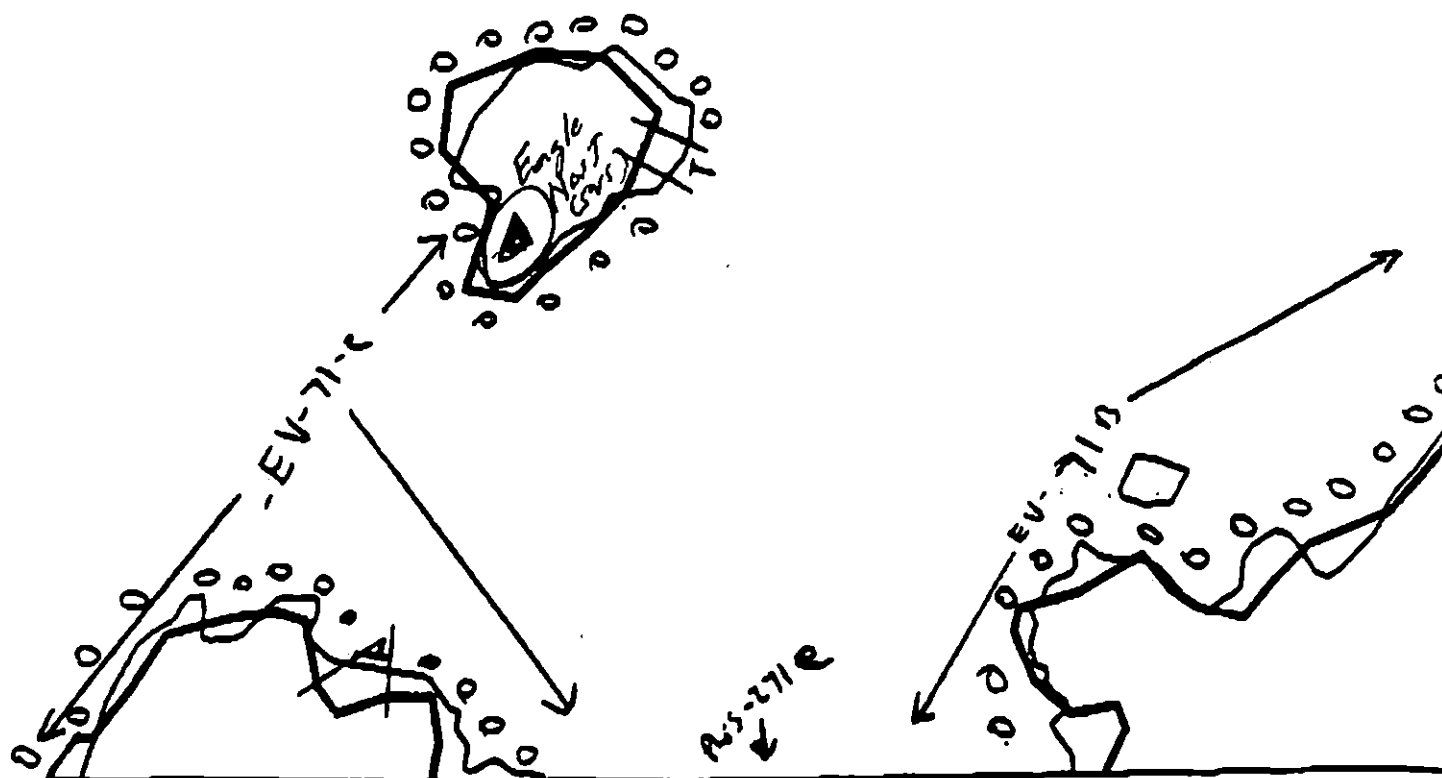
Name: Mike Foget

Date: 4/1/90

Data Entered:

ECOLOGY MAP

PWS-271i →



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

EV-71

ABEC Segment Length: 8119m

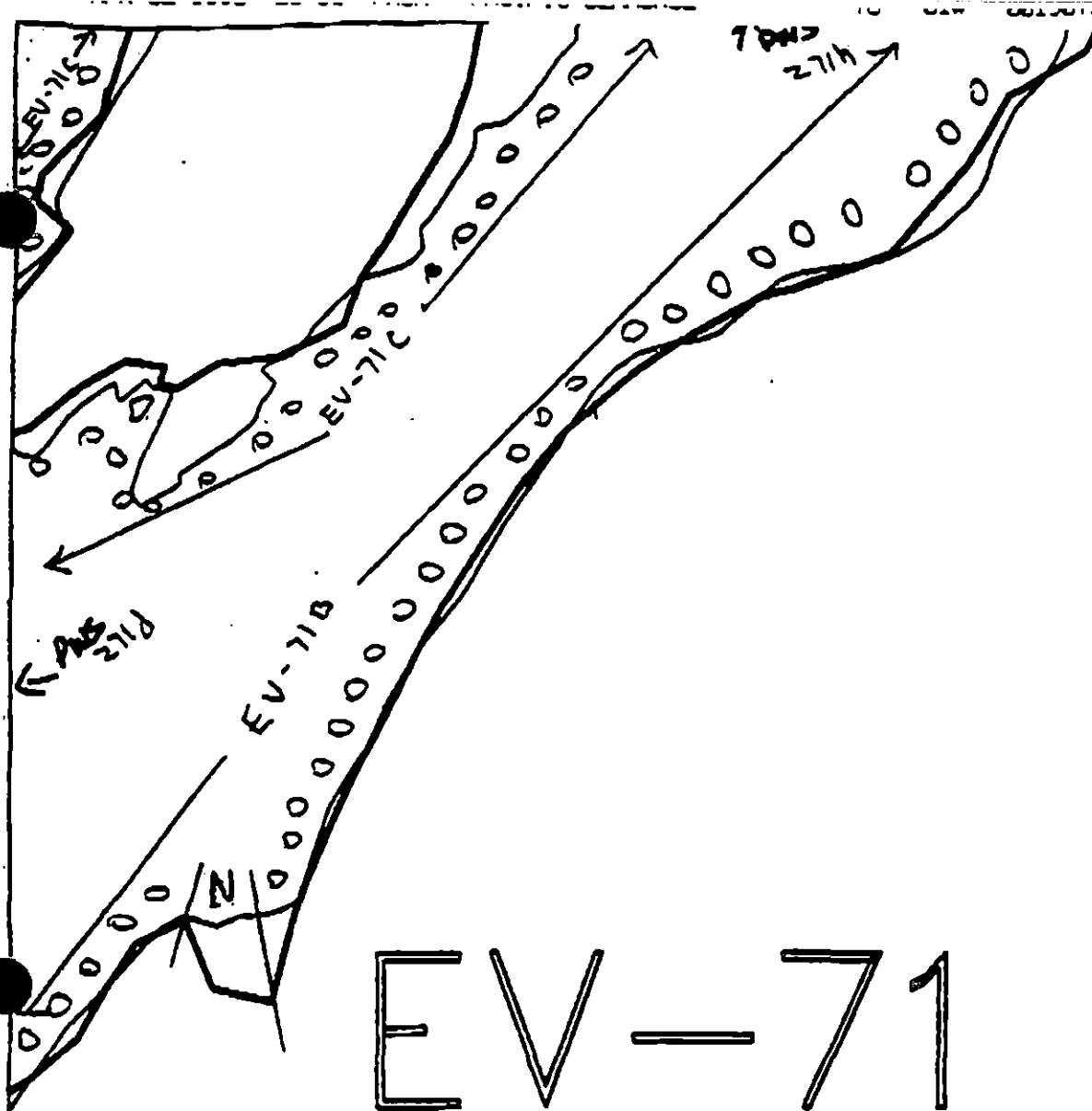
0 100 200 300
 METERS

Map Key: PWS-271h

Name: Mike Fogel

Date: 4/1/90

Date Entered:



EV-71

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-71B

ADEC Segment Length: 8115m



Map Key: PWS-2710

Name: Mike Fogel

Date: 4/1/90

Data Entered:

EV-71C

27/2

PLS-271

EV-71B

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-71B

ADEC Segment Length: 8115m

A scale bar with markings at 0, 100, 200, and 300 meters.

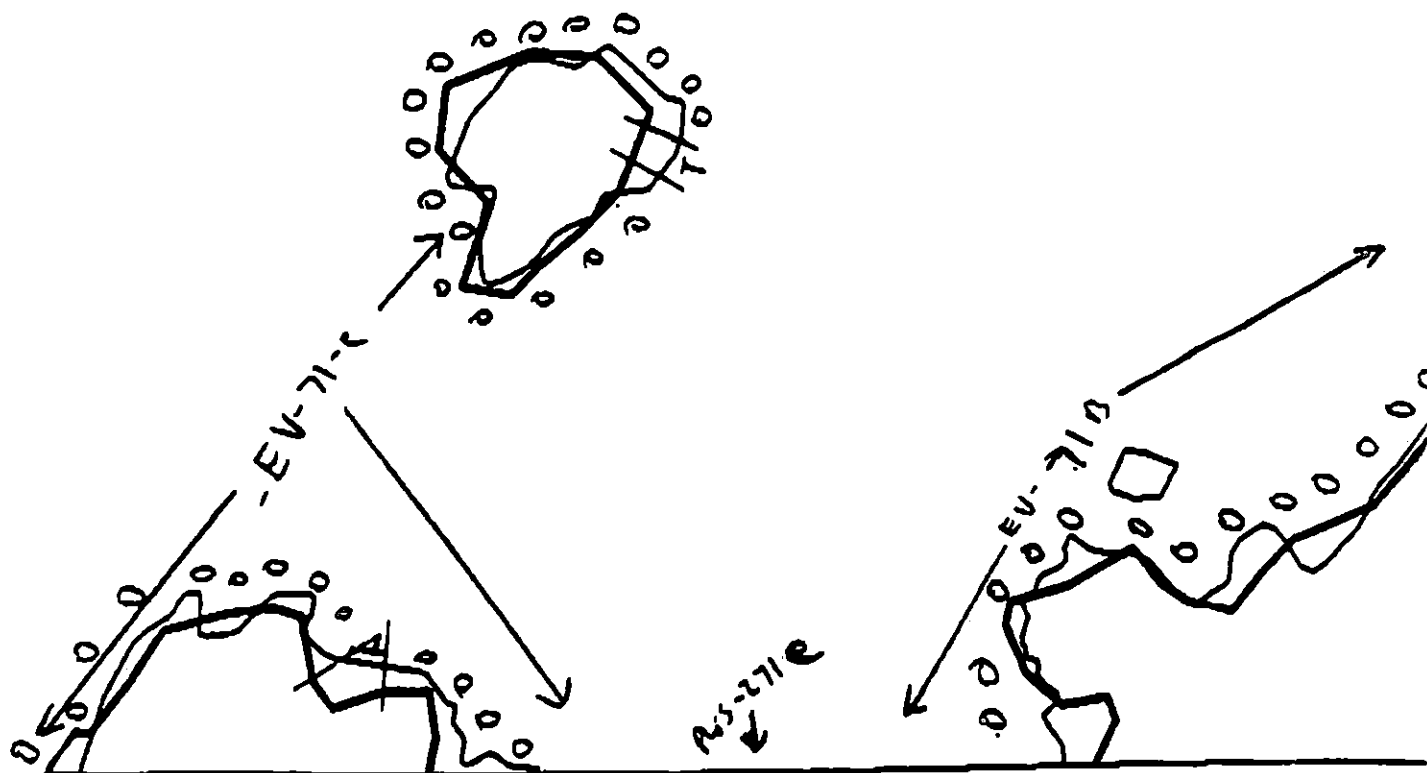
Map Key: PWS-271d

Name: Mike Foyer

Date: 4/1/90

Data Entered:

PWS-271i →



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271b

Name: Mike Fogel

Date: 4/1/90

Data Entered:

← PWS-2714

EV-71B

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

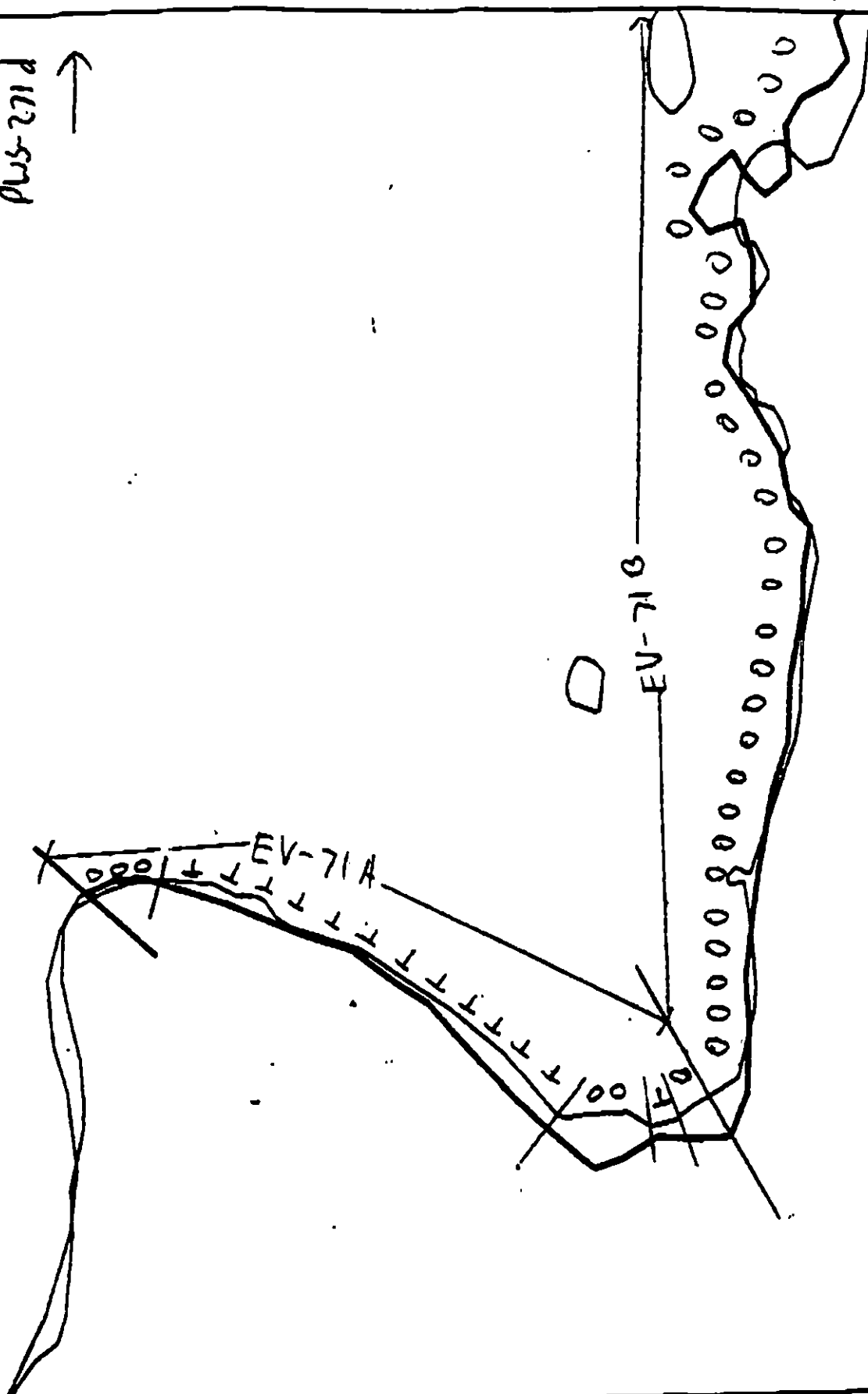
Map Key: PWS-2711

Name: Mike Foye

Date: 4/1/90

Date Entered:

PWS-271a



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-71

ADEC Segment Length: 8115m



Map Key: PWS-271a

Name: Mike Foyet

Date: 4/11/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-72 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
5T Active Bald Eagle nests (3/1 to 9/1) located within 400m
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
Sensitivity code and general time constraints. See attached Ecological sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. (See above)

SHPO SIGNATURE: Rachel Joan Oare DATE: 5/18/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 1898 m: V.Light 1802 m: No Oil 864 m
Subsurface Oil Observed: Yes X No Maximum Depth 10cm

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>X</u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes: 1) Manual removal of tarmats in areas shown on attached sketch maps. Work should be conducted between 6/1 and 8/15 with approval of USFWS regarding eagle nests and consultation with ADF&G regarding specific dates of finfish harvesting.

TAG COMMENTS: BIOREMEDIATION (CUSTOMER) PER AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/17/90

ADEC ART WEINER Art Weiner

ECOM ANDY TGA Andy TGA

USCG G.A. BEITER G.A. Beiter

FOSC W L DATE 6-8-90
Notify CRC after print cleanup

GARY PETRO GARY PETRO

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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, prior to at least July 1 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 Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 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, prior to July 31 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 Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. 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 or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. 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 James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 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 Evelyn Biggs 424-3235
- 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)
 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 (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 Subistence area: Salmon harvesting (5/1 to 9/30)
 7H Finfish harvesting
 Deer harvesting (8/15 to 2/28)
 Invertebrate harvesting
 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 ST1 EV-72 SUBDIVISION: A DATE 26 APRIL

USCG

NAME SHAWN MAAS SIGNATURE DC2 [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

RECOMMEND MANUAL REMOVAL OF ASPHALT/PAVEMENT
PATCHES AND TAR BALLS. BIOREMEDIATION IN 6 ANGLE BEACHS
WHERE SUB SURFACE OILS INTERSECT.
SUBSURFACE OILS PRESENT. FURTHER EVALUATION NEEDED.

ADEC

NAME DAVID M. JALE SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

- ① MANUALLY REMOVE TAR MATS AND TAR BALLS, AND PATCHES
AND ASPHALTS
- ② REMOVE AND/OR CLEAN SEDIMENTS FROM SURFACE TO
DEPTH OF PENETRATION; PARTICULARLY, DO NOT MISS COBBLES
AND SEDIMENTS OILED BETWEEN BOUNGERS. (BEACH FACING 960 E
TO PT. HELEN) (MAP, PP. 2+
- ③ REMOVE OILED SEDIMENTS AND COBBLES OILED ON BEACH. NEXT
TO STREAM AT S. END OF SEGMENT. OIL IN GROUND WATER
THIS BEACH REQUIRES FURTHER TAC EVALUATION.

LAND MANAGER

NAME Don Kompkoff SIGNATURE Donald P. Kompkoff Jr

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 06/12/1

OG R. Marty USCG S. Maas SEGMENT ST/ EV-72
 BIO B. Leman LAND REP D. Humphreys SUBDIVISION A (A of A)
 EXXON J. Casper ADEC D. Sale TIME 08:10 to 10:30
 TEAM NO. 10 TIDE LEVEL -0.5m DATE 25 April 90
 EST. SUBDIVISION LENGTH: 0.75 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 35 % C 35 % D 10 % G 0 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 20 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 1490 m VL 1937 m NO 994 m

SURFACE OIL

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

PAVEMENT H F 22 sq m by 4 onPATTIES / TARBALLS 2 BAGSNEAR SHORE SHEEN? NO BR RW S TL

OILED DEBRIS	NO	AMOUNT		
		SM	MD	LG
Logs	X			
Vegetation	X			
Trash	X			
Debris	X			

on tide pools

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE ALISABAGS 1-2

Photographs:

Roll No. ST/10/15Frames 0-26

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (VAR)	V	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		W	M	W	M	N	VL	W	M	N	VL				
1	20		X				0.2		X			X		X				N		N	SC-S
2	18	X					0.7		X			X		X				N	Y	N	CR-PG
3	35					X			X					X				N		N	PG-PG
4	34					X			X					X				N	N	3/	P-PG
5	25					X			X					X				N		N	C-PCQ
6	45	X					0.52		X			X		X				Y	Y	38	C-GSV

COMMENTS Most of the high oil concentrations are found at or above the HHWS line in the backs of cracks and small pocket beaches.

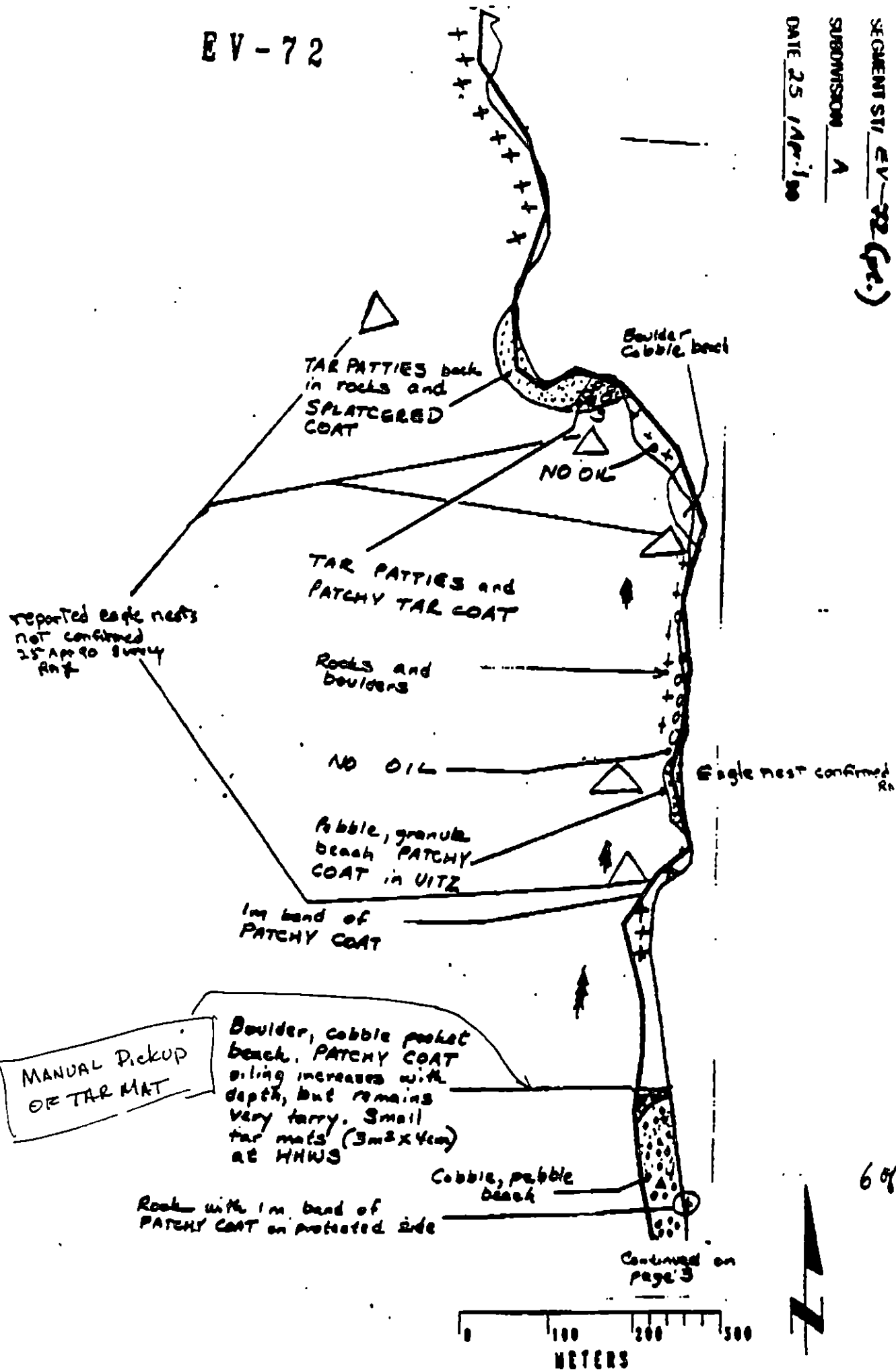
REVIEWED YHDATE 4-28-90

2 of 47

REVISION 04-13-1

REVIEWED GH DATE 4-28-90

EV-72



3 R. Mar

UMENT ST/ EV-72(pt)

DIVISION A

TE 25 Apr 1990

upstream line in the

VITZ

Beach becomes
bouldery

High angle rock

Continued from
page 2

EV-72

Boulder beach
with patchy coat,
2m wide, in VITZ.
The oil is tarry and
becomes heavier
under the surface
boulders. Downward
movement limited by
granules infilling the
interstices.

Well sorted cobble
beach. NO OIL

100 200 300
METERS

Bouldery beach with
PATCHY COAT as
described above.

Cobble, pebble beach
NO OIL

Pebble, Granite, boulder
beach. Fine sediments
are well sorted.

Minor oiled debris -
recovered.

Well sorted pebble,
cobble beach. NO OIL

Boulder beach with
SPLATTERED COAT

Remove TAR MAT

(4m)² area of
ASPHALT. 6 cm thick

Pebble beach. Well
sorted pebbles and
granules.

Rubble with SPLATTERED
COAT

PATCHY STAIN on rocks

PATCHY COAT on rocks:
0.5 m band

PATCHY STAIN on rocks

PATCHY COAT

High angle rock with
a PATCHY BAND of
COAT (0.5m)

Pebble, granite beach.
NO OIL. STZ is snow
covered

Rock with

Rock face with

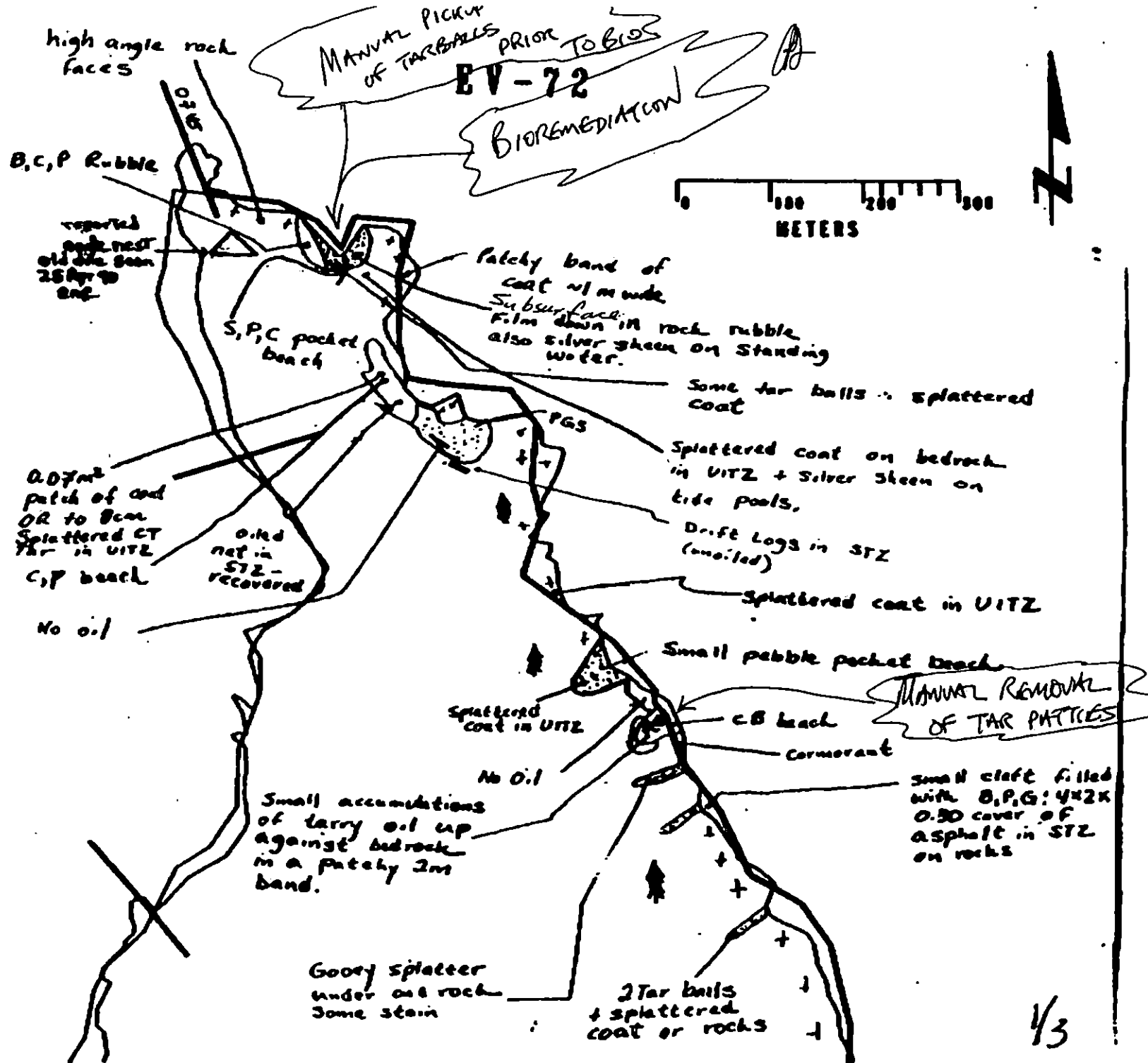
1/4/91

W3 R. Marty

SEGMENT ST/ EV-72A

SUBDIVISION A

DATE 25 April 90



SHORELINE ECOLOGICAL SUMMARY

REVISIONS 002

Segment ST/10/ev 72 Subdivision A Date (mo/day/yr) 4/25/90
 Time (24 hr) 1700-1800 Biologist Lemon

- (A) Substrate type and % of segments:
 (1) Bedrock 90 (2) Boulder 25 (3) Cobble 25 (4) Pebble 10 (5) Sand 10 (6) Silt -
- (B) Overall % cover of biota (% of segment): Dense 90% Moderate 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/10/15

Frames 0-26

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

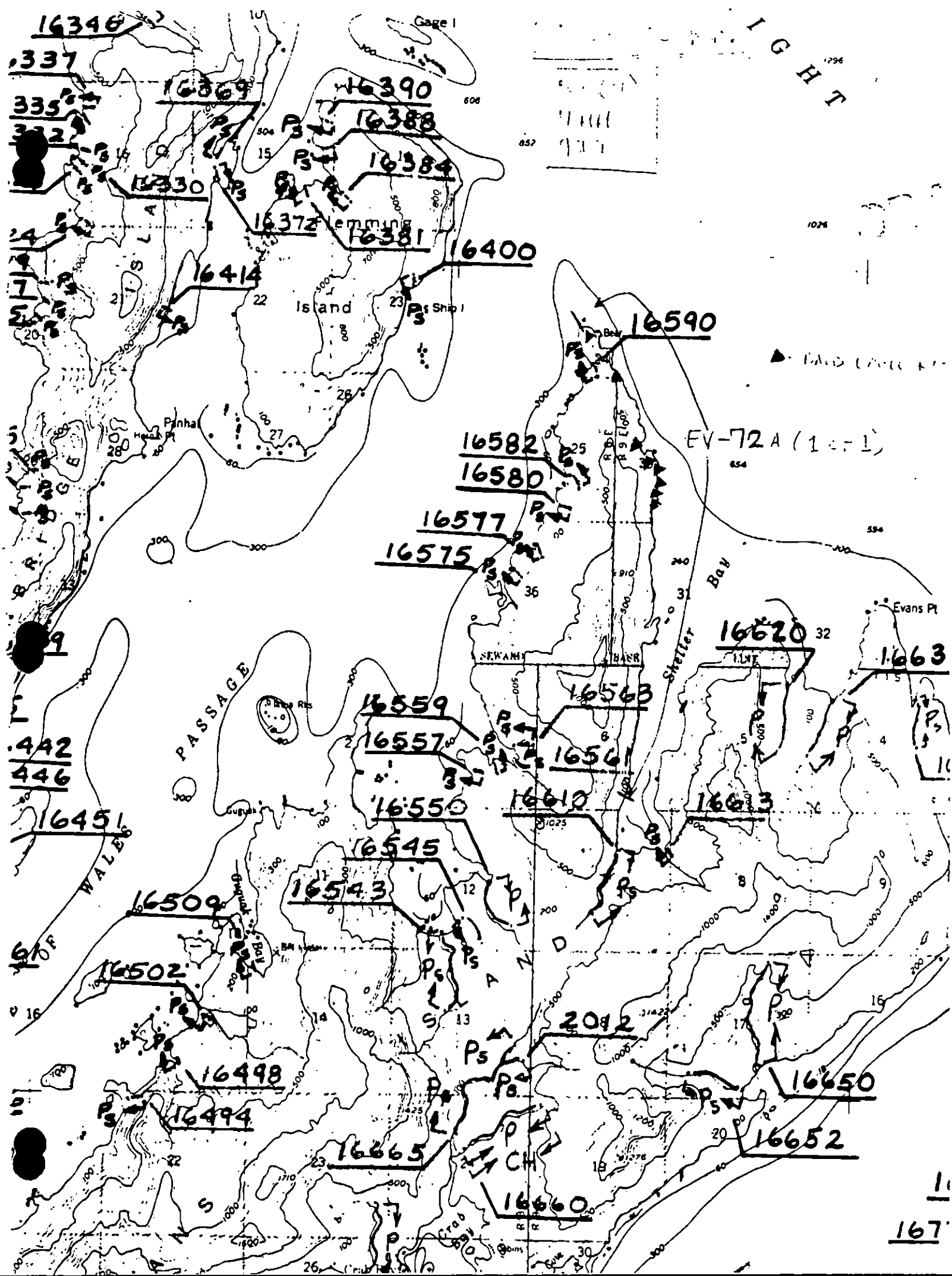
FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments: Fucus reproductive in all zones; lacks density in low zone because of dense mixed reeds. Water column is clearer than in other bays.
 10 waterfowl 2 eagles
 4 gulls 1 live oiled cormorant 1 grabe few days ago. much less in bay.
 4 otters 8 schools minnows 1 humpback whale
 8 sealions 1 loon 2 orca whale

Ecological Considerations: Subsistence. Fintfish and deer harvest area. 7 eagle nests reported, but only 2 were confirmed on 25 Apr 90 surveys see map.

15841



Page 1

LIGHT

1026

PAID (L) 11-11-11

EV-72A (1-1)

654

534

Evans Pt

PASSAGE

SEWAN

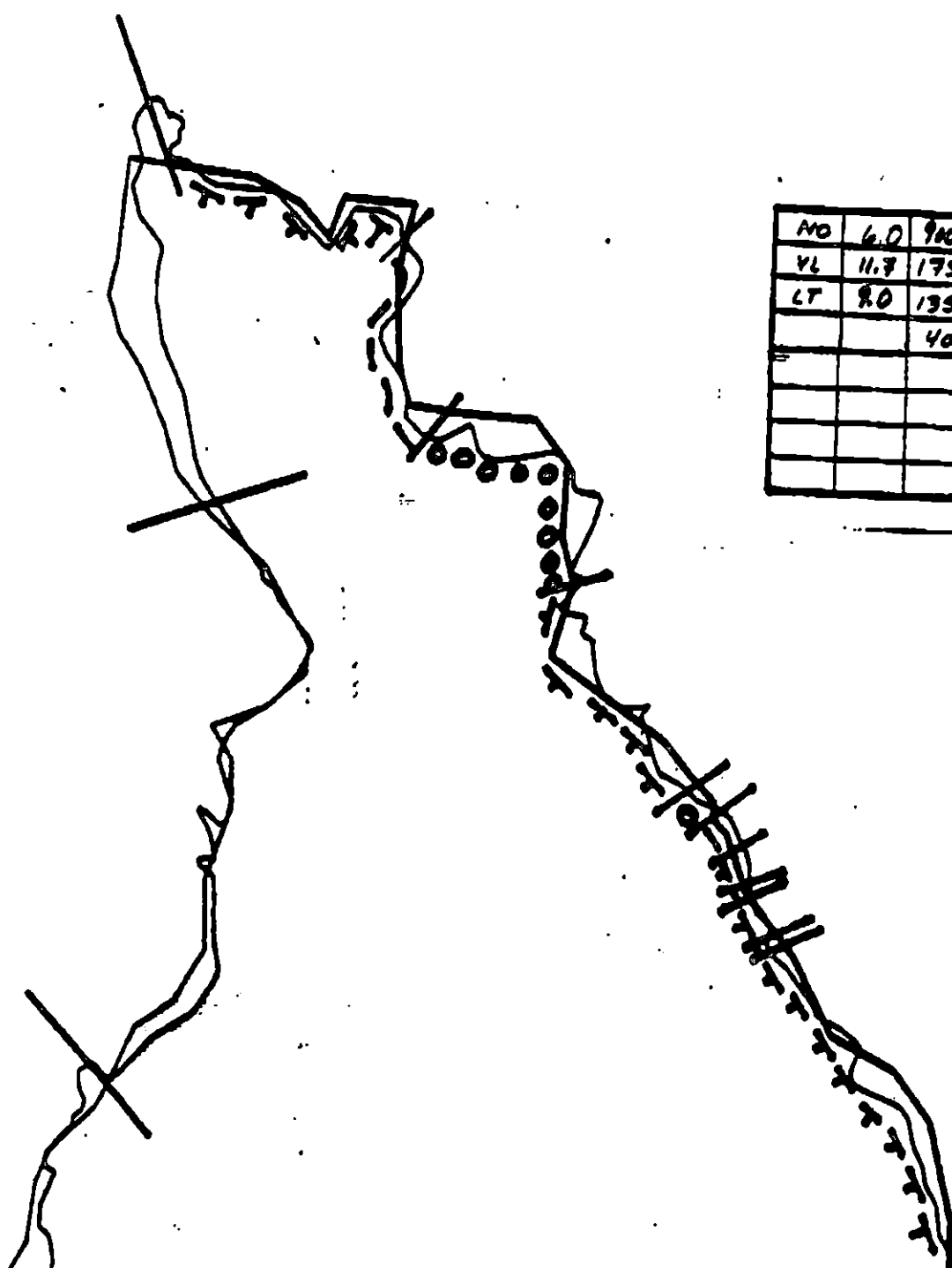
HARR

Shelter Bay

WALE

AND

167



NO	6.0	900	994
VL	11.7	1755	1937
LT	8.0	1350	1490
		4003	4121

80441

1/1

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-72

ADEC Segment Length: 4620m

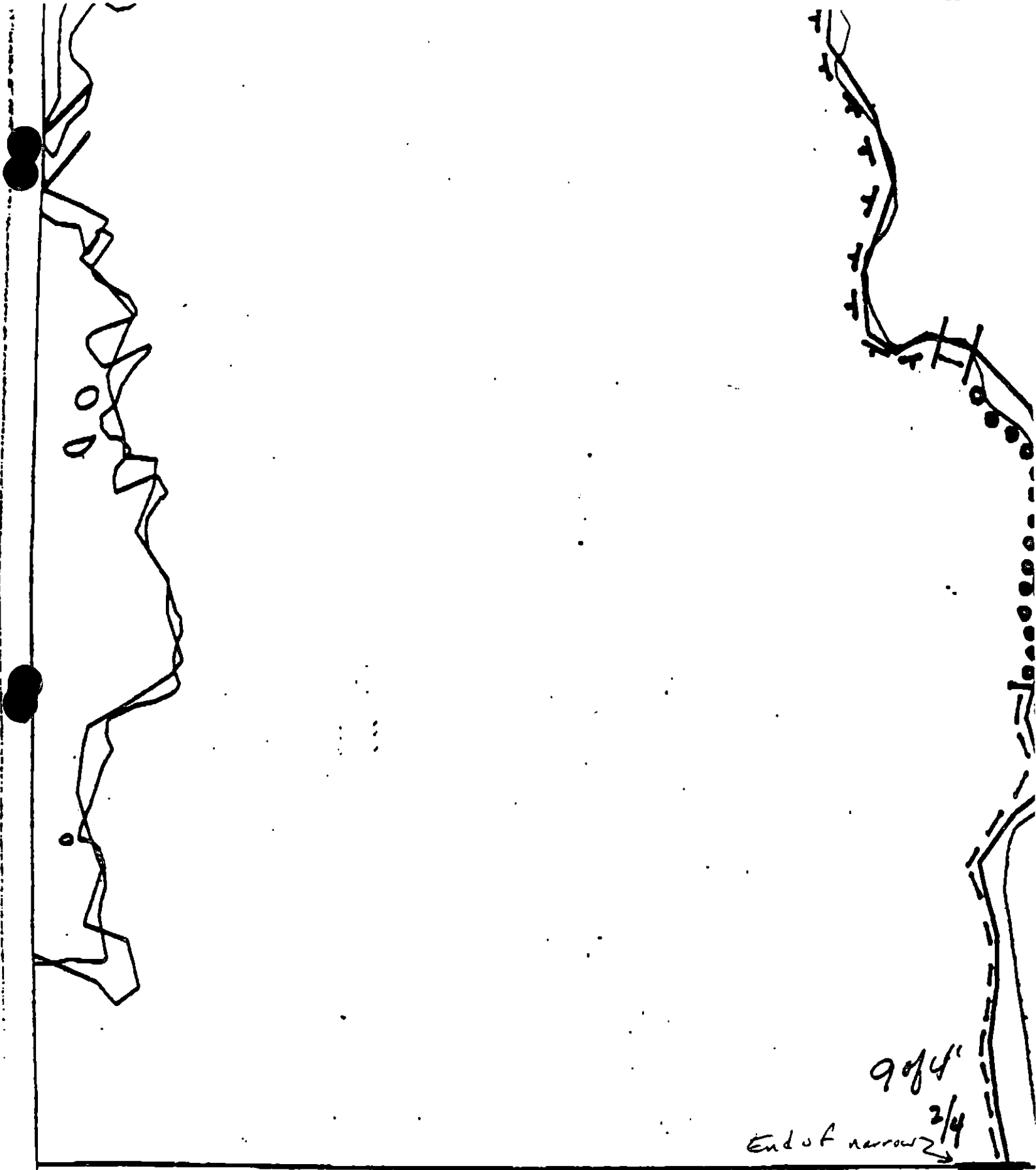


Map Key: PUS-2720

Name: R. Marty

Date: 25 April 1990

Date Entered:



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

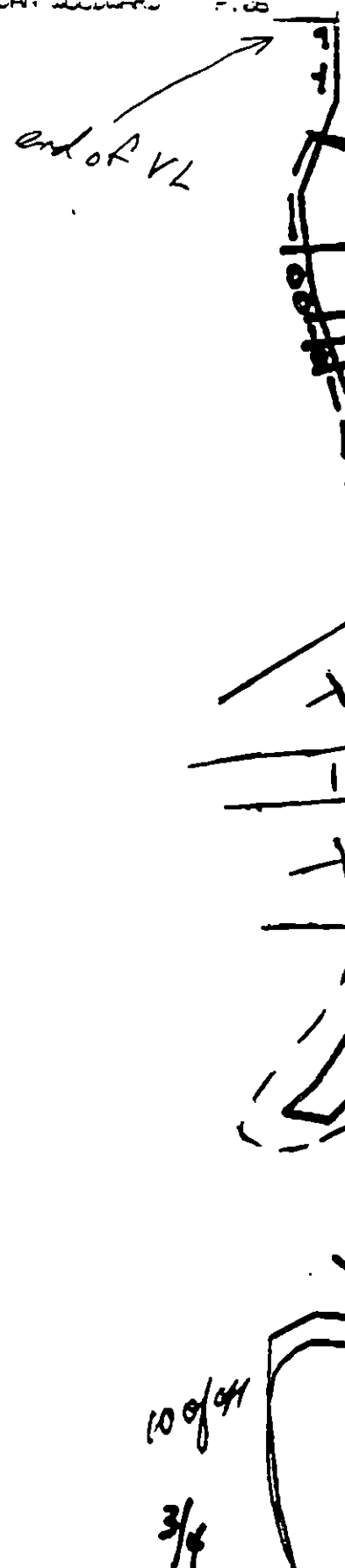
EV-72

ADEC Segment Length: 4420m

0 100 200 300
METERS



Map Key: PWS-272c
Name: R. Marty
Date: 28 April 1996
Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-72

ADEC Segment Length: 4420m



Map Key: PWS-2720

Name: R. Marty

Date: 26 April 1990

Date Entered:

EV-19

il of 41

4/4

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

EV-72

ADEC Segment Length: 4420m

Map Key: PWS-272b

Name: R. Marty

Date: 26 April 1996



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-72 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	WORK PRIOR TO 7/1

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work sites.
7HH	Subsistence: Finfish Harvesting	Closed to bioremediation after 7/1. No constraint to manual pickup and tarmat removal.
7II	Subsistence: Deer Harvesting	Closed to bioremediation after 8/15. No constraint to manual pickup and tarmat removal.

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. Restrict boat and beach disturbance to essential minimum after 7/1. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

[Signature]

Date

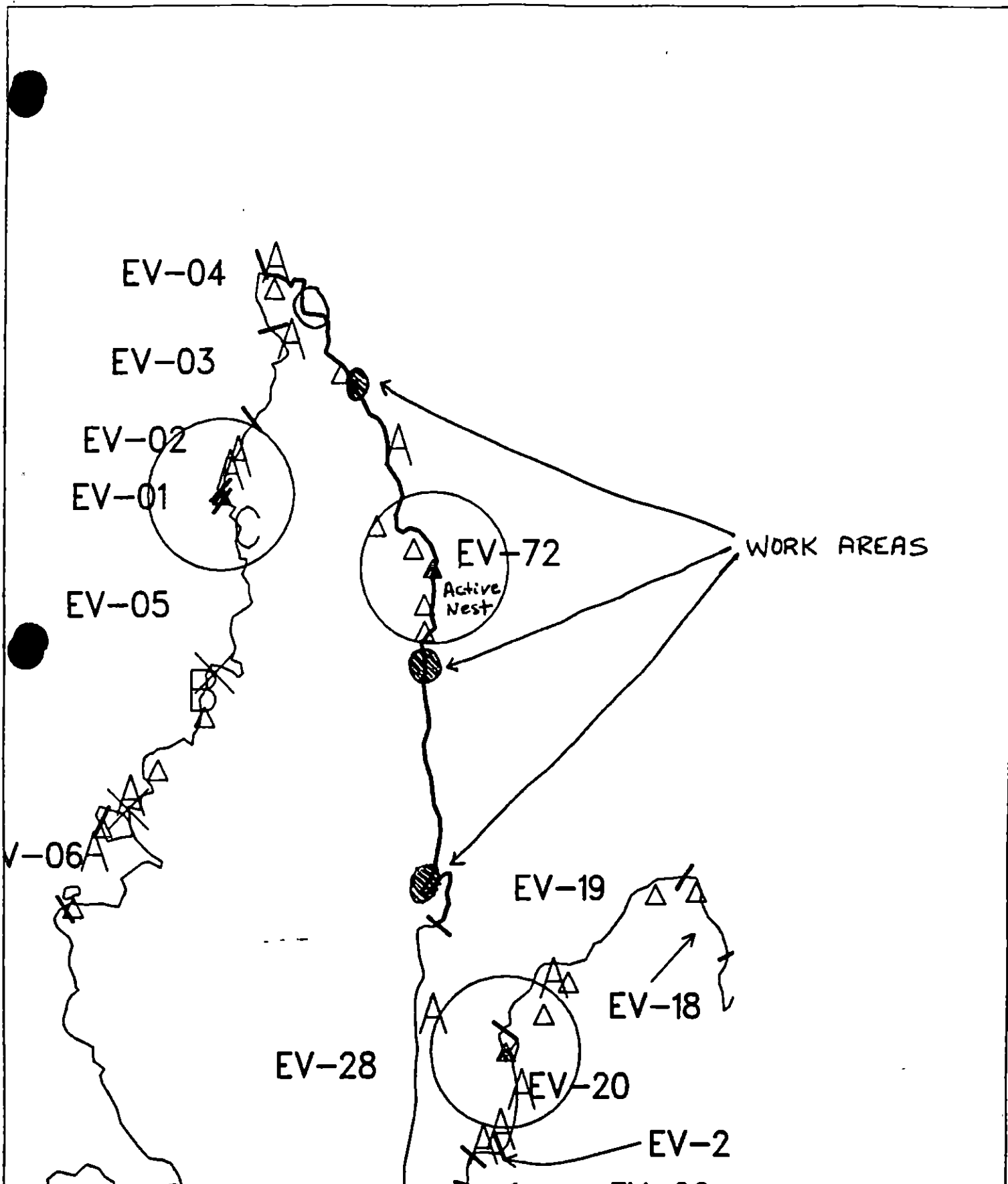
6/16/90

Prepared by

[Signature]

Date

6/14/90



Exxon Company, USA

Map Key: PLS-EV-72

1:000,000

ECOLOGY MAP

SEGMENT EV-72

SUBDIVISION A (1 of 1)

METERS



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

SHORELINE EVALUATION

SEGMENT ST/ EV-100 SUBDIVISION A (1 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Four active Bald Eagle nests (5T) - 3/1 to 6/1; Near Saw-
mill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting (7II)
8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above

SHPO SIGNATURE: Shirley E. Adams DATE: April 6, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 0 m: No Oil 1066m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended
 Treatment Recommended
 Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal
 Bioremediation SPOT WASHING Other
 Wands
 Beach Cleaner

Comments: Recommend no treatment of this subdivision. Very
few traces of light, weathered oil found which appeared to be
diminishing naturally. See Field Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4/6/90

DEC JOHN BAUER
EXXON Amoy Tate
NOAA Byrd Wiggott
USCG G.A. REITER

FOSC:

DATE: 4-19-90

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

G Mike Forest NOAA USCG Gary Shapanka SEGMENT ST/ EV-100
 Richard Ambrose LAND REP SUBDIVISION A
 EXXON Larry Olson ADEC John Hayes TIME 12:00 to 12:30
 TEAM NO.: 11 TIDE LEVEL: 2 to 3 DATE 3/30/90
 EST. SUBDIVISION LENGTH: 1110 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky forested backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 25 % C 35 % P 20 % G 10 % S - % M - % V - %
 SLOPE: Long 30 % Hang 70 % Vert - % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W - m M - m N - m VL - m NO 1110 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	SL	BR	OR	GY	BL	GR	TL	LT	SU	VI	M	U
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			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE -

#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	SL	BR	OR	GY	BL	GR	TL	LT	SU	W	M	U		

COMMENTS

The N. end of the segment contains a Low angle cobble grade beach. Going south the shoreline becomes steeper and consists of - Boulders and Cobble.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST/ EV100 Subdivision A Date (mo / day / yr) 3/30/90

Time (24 hr) 1200 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 25 (3) Cobble 35 (4) Pebble 20 (5) Sand 10 (6) Silt -

(B) Overall % cover of biota (% of segment): Dense 5 Moderate 35 Low 60

(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. -

Frames -

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

Wildlife Observations/ General Comments: *

6 otters, 4 Harlequin ducks, 1 sea lion

Biological Considerations:

FF, 711, 5 T-4: No bald eagles, or nests, seen in this segment.

* Most of the subdivision surveyed by boat; Fucus could be observed

V-100

EV-100A

EV-100B

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

EV-100

ADEC Segment Length: 1239m

Map Key: PWS-178

Name: Mike Fogel

Date: 3/30/96

1. 1... 1.1.1.1.1.1.1...

SHORELINE EVALUATION

SEGMENT ST/ EV-100 SUBDIVISION B (2 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Four active Bald Eagle nests (5T) - 3/1 to 6/1; Near
Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting
(7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

SHPO SIGNATURE: Charles J. Adams DATE: April 6, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 21 m: No Oil 152m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended
 Treatment Recommended
 Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal
 Bioremediation SPOT WASHING Other
 Wands
 Beach Cleaner

Comments: Recommend no treatment of EV-100 B as only sporadic
coat found on lee side of boulders in UITZ. Appears to be
weathering naturally and is very isolated.

TAG COMMENTS:

TAG APPROVAL DATE: 4-6-90
ADEC John Bauer John Bauer
EXXON Andy Teal Andy Teal FOSC: DATE: 4-19-90
NOAA Byrd Wescott Budd Wescott
USCG G.A. REITER G.A. Reiter

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-100 SUBDIVISION: B DATE 3/20/90

USEG NOAA

NAME GARY SHIGENAKA

SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

BOULDER AND LARGE COBBLES. EV-100A SHOWED NO EVIDENCE OF OILING. EV-100B HAD SOME BOULDERS STAINED BY HIGHLY WEATHERED OIL. OCCURRENCE WAS VERY PATCHY, OVER A WIDESPREAD (75-100M) AREA. ONE SMALL (2 CM) TAIL SPOT OBSERVED IN THIS AREA. NO EVIDENCE OF OIL BEYOND THIS INFREQUENT OCCURRENCE ON BOULDERS. LOTS FUCUS AND BARNACLES.

ADEC

NAME John Hayes

SIGNATURE John Hayes

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

We found some intermittent staining on small patches of very weathered oil on lee + underside of boulders in USTR. Oil was in coat form and approx 1 mm thick. very spindly along 10L x 2W band. No treatment recommended oil is naturally weathering and very sparse.

LAND MANAGER

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

CAC Unavailable.

SHORELINE OILING SUMMARY

REVISION NO. 03/2/90

OG Mike Foget NOAA Gary Shigeraka SEGMENT ST/ EV-100
 BIO Richard Ambrose LAND REP — SUBDIVISION B
 EXXON Larry Olson ADEC John Hayes TIME 12:30 to 12:50
 TEAM NO.: 11 TIDE LEVEL: +3' to +5' DATE 3/30/90
 EST. SUBDIVISION LENGTH: 159 m ☒ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock The backshore consists of Rocky forested uplands.
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 40 % B 20 % C 20 % P 15 % G 5 % S — % M — % V — %
 SLOPE: Long 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 15 m NO 144 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IS	SP	BR	BR	FW	SL	TL	TL	TL	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X					X				X			
STAIN																
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			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#BAGS —

Photographs:

Roll No. ST-11-1Frames 2

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			UO	UC	SBL OR	ORL FW	OL SL	ORL TL	TL LIR	SU	U	M	U			
1	30					X	-		X							X						P.G.S
							.															
							.															
							.															
							.															
							.															
							.															

COMMENTS

Oiling is located in the northern end of sub-division EV-100:B in the upper intertidal zone. Two locations were found. 1 boulder had a splattered distribution on the eastern side (facing the water). The oil was highly weathered and dehydrated. Nearby to the north of this boulder was an area of oil with a splattered distribution (15 m x 2 m) located in the upper intertidal zone. This oil was of the same nature. Also a few stains averaging 1 mm in diameter were observed in the HITZ along this subdivision.

REVIEWED SWDATE 3-31-90

OG M/V Fogel

SEGMENT ST/ EV-100

SUBDIVISION B

DATE 3, 30 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Bndry
☐ 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

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 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP

Legend

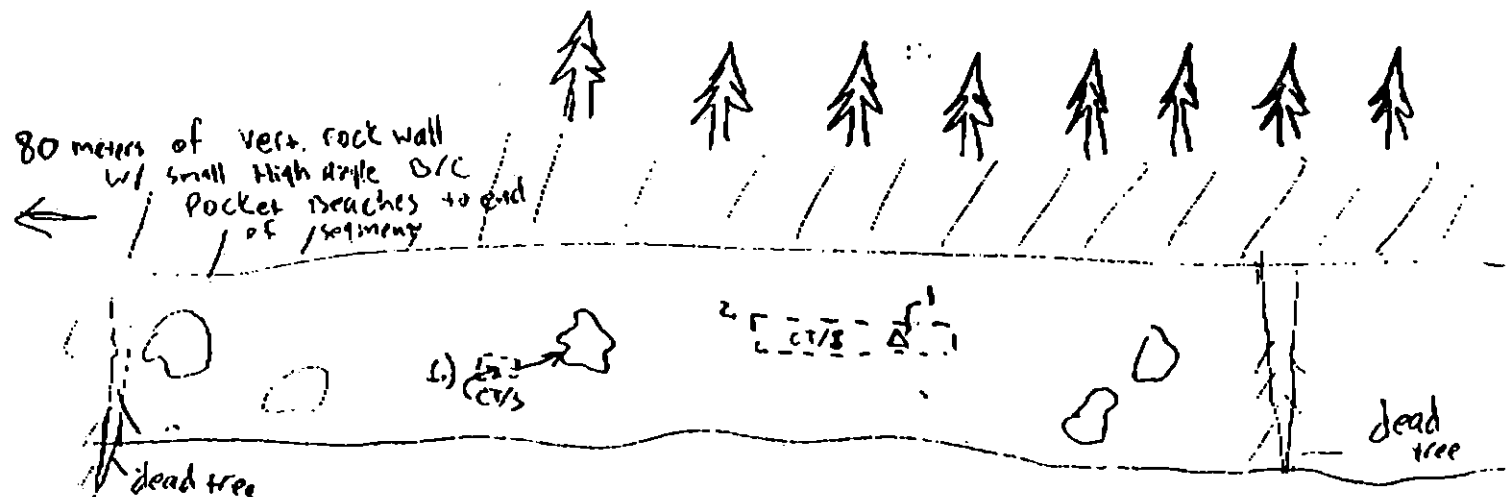
//// - steep rocky backshore

$\uparrow$ - forested

$\circ$ - Large Boulders

scale

15 m



1) splashed distribution of oil in HETZ on 1.0 m Boulder

2) 15m/2m area with a splatter distribution (<10%)

High angle B/C/P Beach

Oil Character Length (m): AP PO CV CT 15 ST MS PT TB FL NO 114

REVISION: 03/2000

SHORELINE ECOLOGICAL SUMMARY

REVISION 002

Segment ST / EV 100 Subdivision B Date (mo / day / yr) 3 / 30 / 77Time (24 hr) 1240 hrs Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 20 (3) Cobble 20 (4) Pebble 15 (5) Sand 5 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 0 Moderate 35 Low 65

(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. -
Frames -

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	2	2	2	2
3	3	3	3	3	3	X	3	3	3	3	3
4	4	4	4	4	4	X	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	X	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

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	2	X	2	2	2	2	2
3	3	3	3	X	3	X	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

Wildlife Observations/ General Comments:

Generally sparser biota than EV 100-A, although Fucus still achieves moderate densities in mid-intertidal. One boulder had oiled barnacles with about 1/3 of the barnacles dead (incl. lower barnacles w/o oil).

Ecological Considerations:

IF 711, 5T-4: No bald eagles, or nests, seen in this segment.

V-100

EV-100A

EV-100B

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-100

ADEC Segment Length: 1259m



METERS

Map Key: PWS-178

Name: Mike Fogst

Date: 3/30/96

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-500 SUBDIVISION A (1 OF 1) DATE 4/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no's: 226-40-16660 (PCH), 226-40-16690 (PS), 226-40-16665 (PS), 226-40-16680 (PS), 226-40-16670 (P).

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

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

5T-1 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: A. David M. Mahan DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 11390 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: 5/1/90
 ADEC Art Weider Art Weider
 EXXON Amy Tate Amy Tate
 NOAA Gary Refino Gary Refino
 USCG Kenneth Keane Kenneth Keane

FOSC: NY DATE: 5-8-80

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

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 Esther Hatchery release (4/15 to 6/1)

1E Main Bay Hatchery release (4/20 to 5/10)

1F Sawmill Bay Hatchery release (4/15 to 8/1)

1G Cannery Creek Hatchery release (4/21 to 8/1)

1H Remote release site

1I Gill net area (8/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (6/11 to 7/25)

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M Herring spawning (4/1 to 6/15)

Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

3N, 3P
3O, 3Q

Harbor seal and sea lion pupping (5/15 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.

5R

Seabird colony (5/1 to 9/1)

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.

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

Anchorage (8/1 to 9/15)

6W

Forest Service cabins (6/1 to 9/15)

6X

Lodge (8/1 to 9/15)

6Y

Special use destination

7Z

Subsistence area: Salmon harvesting (5/1 to 9/30)

7HH

Finfish harvesting

7I

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV-500 SUBDIVISION: A (1061) DATE 4-22

ADEC

NAME Michael Buchman SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME John Hayes SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Walked 90% of segment and skiffed the vertical rock walls. Only oil observed was 1 small asphalt patty that we manually picked up.

Observed band of oil at Port Ashton in the old cannery area. Land rep. who accompanied us stated it was from a fuel spill prior to the Exxon Valdez Spill.

LAND MANAGER

NAME Steve Wagon-chambers SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Only oil observed was from previous spill years ago at port Ashton. All the oil is in immediate cannery area.

SHORELINE OILING SUMMARY

REVISION NO 06/13/90

OG Mike Ege NOAA Mike Duckman SEGMENT ST/ EU-500
 BIO Kathleen Conlin LAND REP Steve Ward CVC SUBDIVISION A (1 OF 1)
 EXXON Larry Olson ADEC John Hayes TIME 15:15 to 19:15
 TEAM NO. 11 TIDE LEVEL +6 → +2 DATE 4 / 27 / 90
 EST. SUBDIVISION LENGTH: 1724 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock Backshore composed of forest w/ some meadows
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 5 % C 30 % P 30 % G 15 % S 5 % M 0 % V 0 %
 SLOPE: Lang 65 % Hang 30 % Vert 5 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 1724 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
M													
NO OIL										X	X	X	X

PAVEMENT H F S 0 sq. m by 0 cm

PATTIES/TARBALLS 1 2m BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE see list

#BAGS 2

Photographs:

Roll No. 0

Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	SHEEN US (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	30	35	40	45	50	SU	U	M	U				
1	40					X	-		X						X					N	30	P, G, S
2	40					X	-		X						X					N	35	P, G, S
3	20					X	-		X						X					N	10	P
4	20					X	-		X						X					N	15	P
5	30					X	-		X						X					N	-	P, G, S, M
6	25					X	-		X						X					N	-	S, P, C

COMMENTS

1 tar pattie was found (see map) and removed. Aside from some oiled debris (see map) collected in the Supra ITZ, no oiling was observed in this segment. The shore zone consists mostly of low angle cobble/pebble beaches w/ a few high angle beaches and some rock outcrops. The only oil observed was a 1m x 100m weathered ST/P distribution on B/R in the Supra ITZ. This was located at Port Ashion and is

REVIEWED AW DATE 4-24-90

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04/12/90

SEGMENT ST/ EV-500 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CE)	BELOW		OIL / FILM COLOR								PIT ZONE				A	N	A	SHEEN (Y/N)	!	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	ST	DR	RP	OT	BL	TR	LR	SU	UI	MI	U						
7	30					X	.		X									X							N	-	P
8	30					X	.		X									X							N	-	P
9	35					X	.		X									X							N	30	P
10	20					X	.		X										X						N	10	P
11	30					X	.		X									X							N	-	P,C
12	30					X	.		X									X							N	-	P,C
13	20					X	.		X									X							N	10	P
14	40					X	.		X									X							N	-	P
							.																				
							.																				
							.																				
							.																				
							.																				
							.																				

COMMENTS

REVIEWED JW DATE 4-24-90

OG Mike Boyet

SEGMENT SV-37

SUBDIVISION A

DATE 4, 22, 90

CHECKLIST

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

LEGEND

1 Δ
Pa - No Subsurface Oil

2 Δ
Pa - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patched Distribution

CT/S
Splashed Distribution

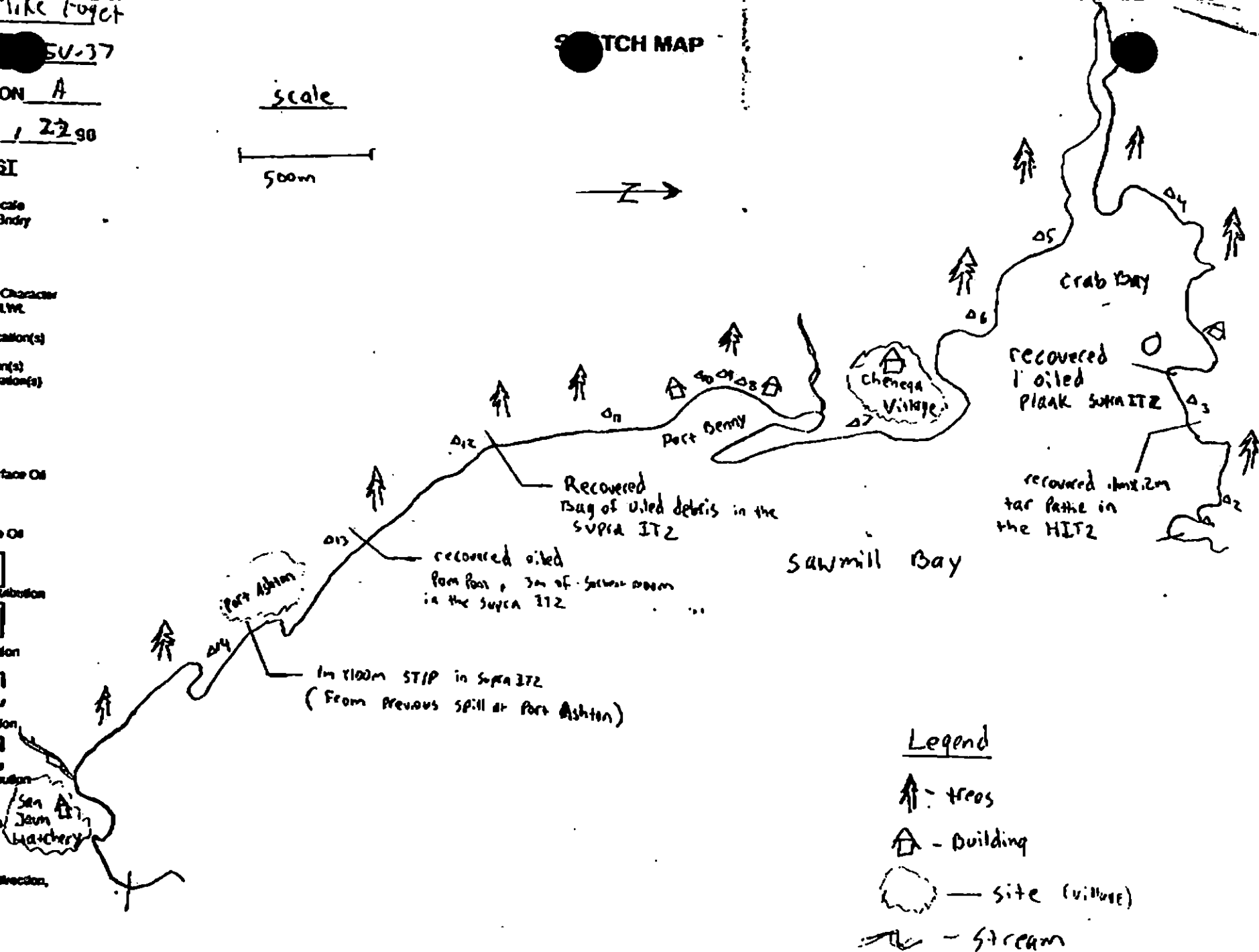
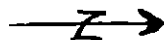
Oiled Vegetation

1 ●
Photo location, direction,
and number

SKETCH MAP

scale

500m



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1724

REVISION: 02/04/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV 500 Subdivision A (1 OF 1) Date (mo / day / yr) 09/22/90Time (24 hr) 1500 - Biologist K. COLLAN

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 5 (3) Cobble 30 (4) Pebble 30 (5) Sand 20 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 10 Moderate 80 Low 10

(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. —Frames —

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
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	

FUCUS

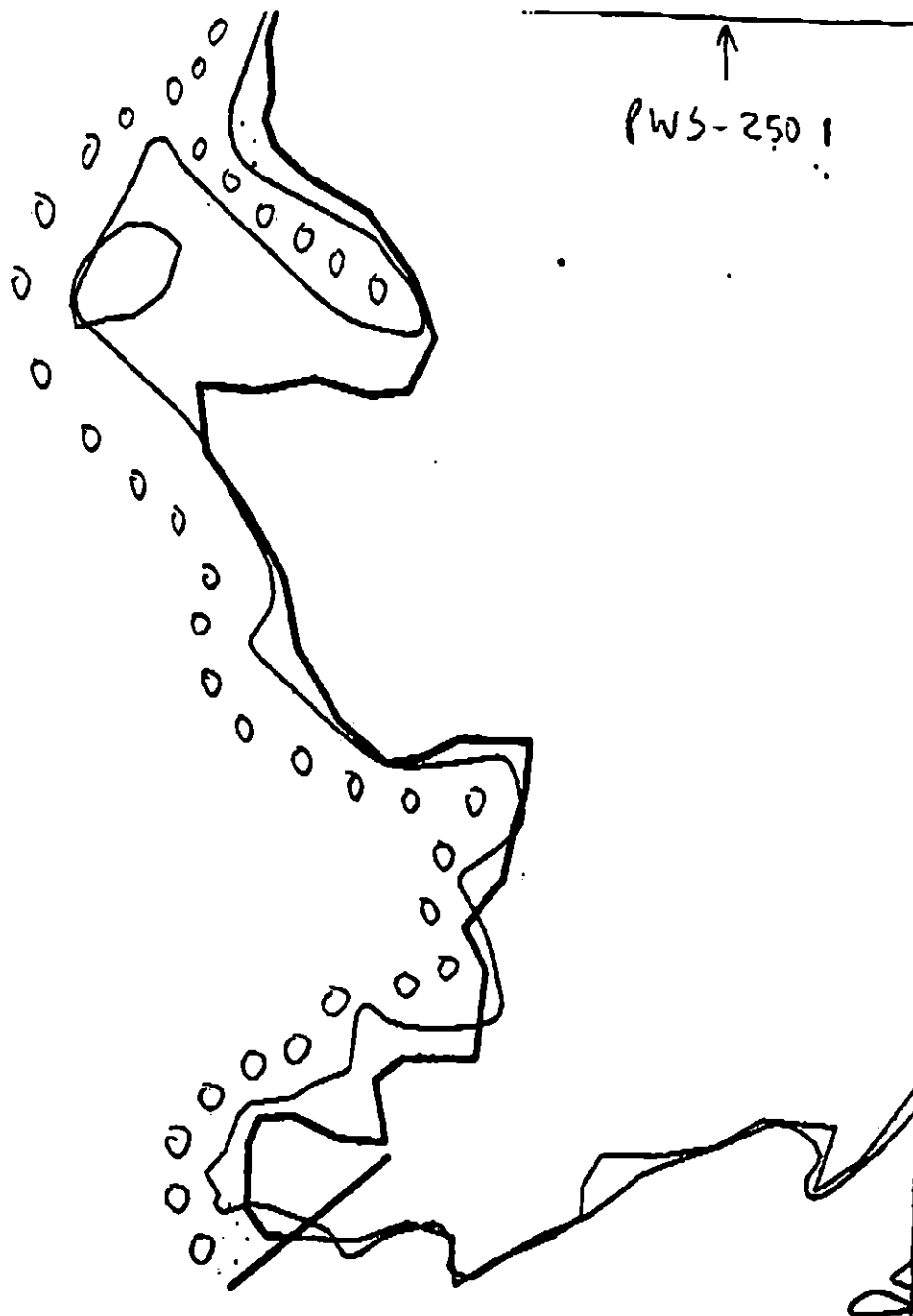
Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	~~2~~	2	2	~~2~~	2	~~2~~	2	2	2	2	2	
3	~~3~~	3	3	~~3~~	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	~~4~~	4	4	4	4	
5	5	5	5	~~5~~	5	5	5	5	5	5	5	
6	6	6	6	~~6~~	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

Ecological Considerations:

3 SEA OTTERS
2 GOLDFEYE
1 BALD EAGLE

GASTROPOD EGGS



PWS-2504

XXXX Wide

EV-500

/// Medium

--- Narrow ADEC Segment Length: 9724m

TTTT Very Light

0000 No Oil



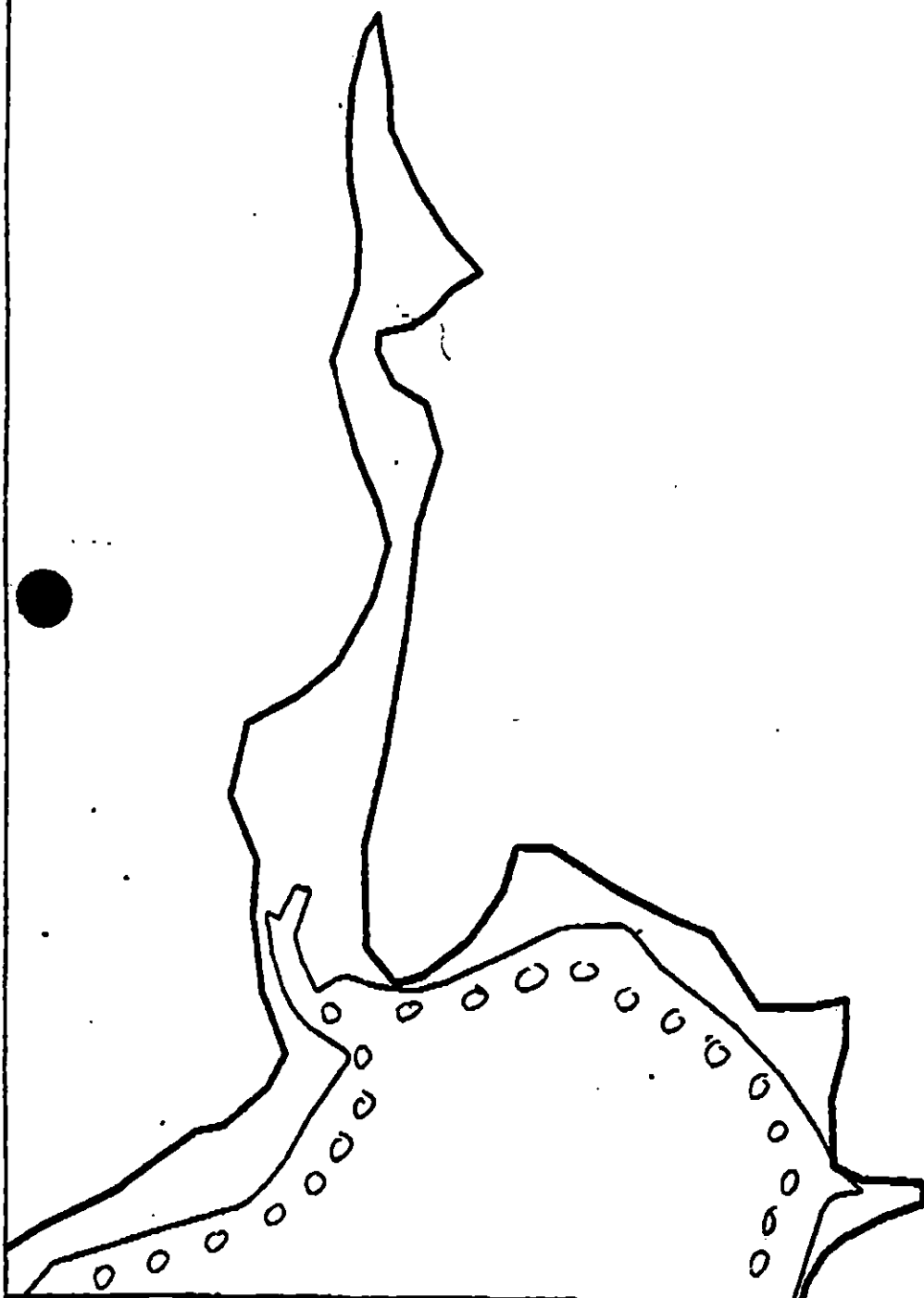
Map Key: PWS-250h

Name: Mike Foyet

Date: 4/22/90

Data Entered:

← PWS-250K



PWS-250h
↓

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-2501

Name: Mike Foye

Date: 4/22/90

Date Entered:

PWS-2501 →

PWS-2509



XXXX Wide

EV-500

/// Medium

--- Narrow

ADEC Segment Length: 9724m

TTTT Very Light

0000 No Oil



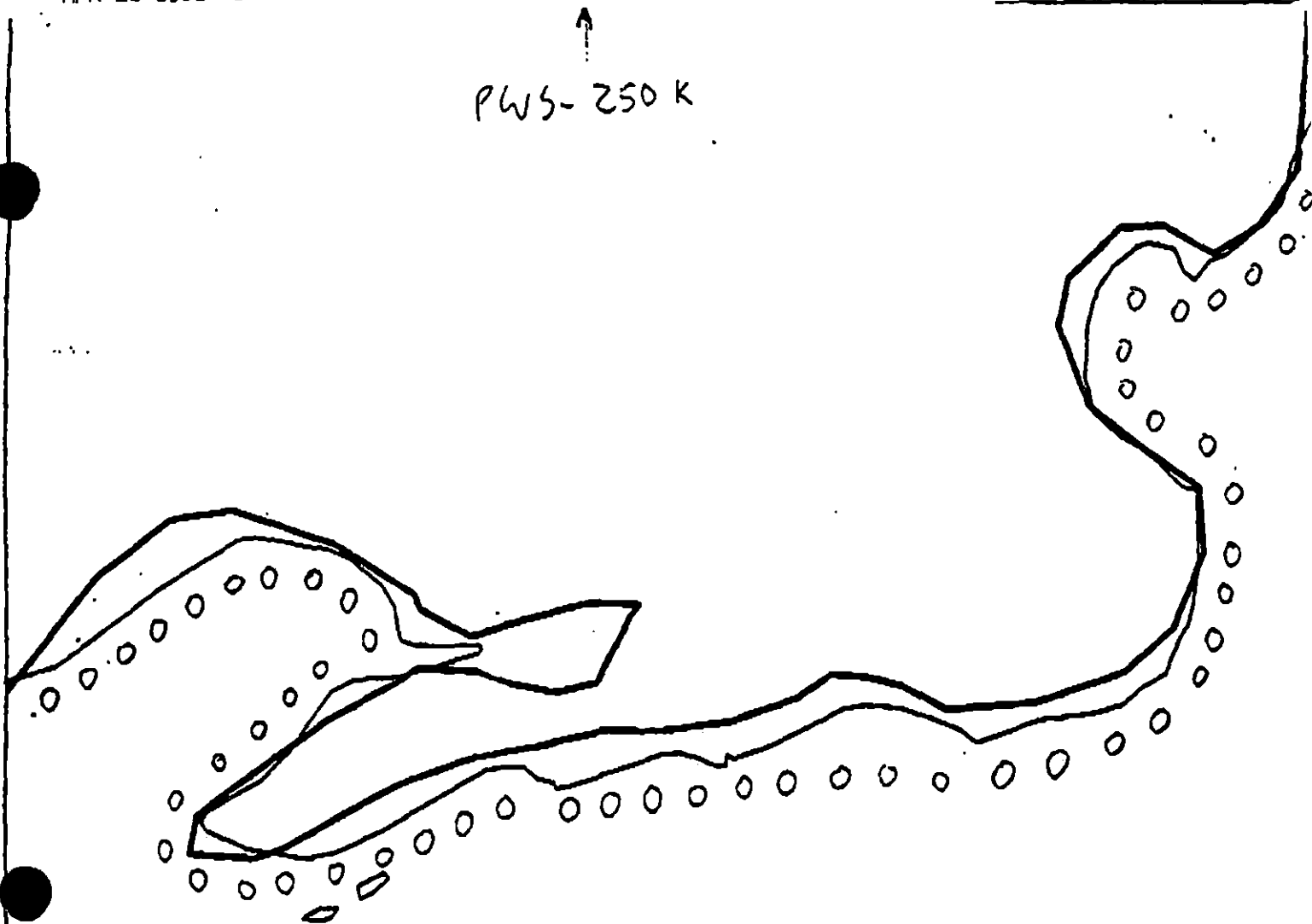
Map Key: PWS-250k

Name: Mike Fogel

Date: 4/22/90

Data Entered:

PWS-250 K



← PWS-250 f

PWS-250 h →

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-500

ADEC Segment Length: 9724m



Map Key: PWS-250g

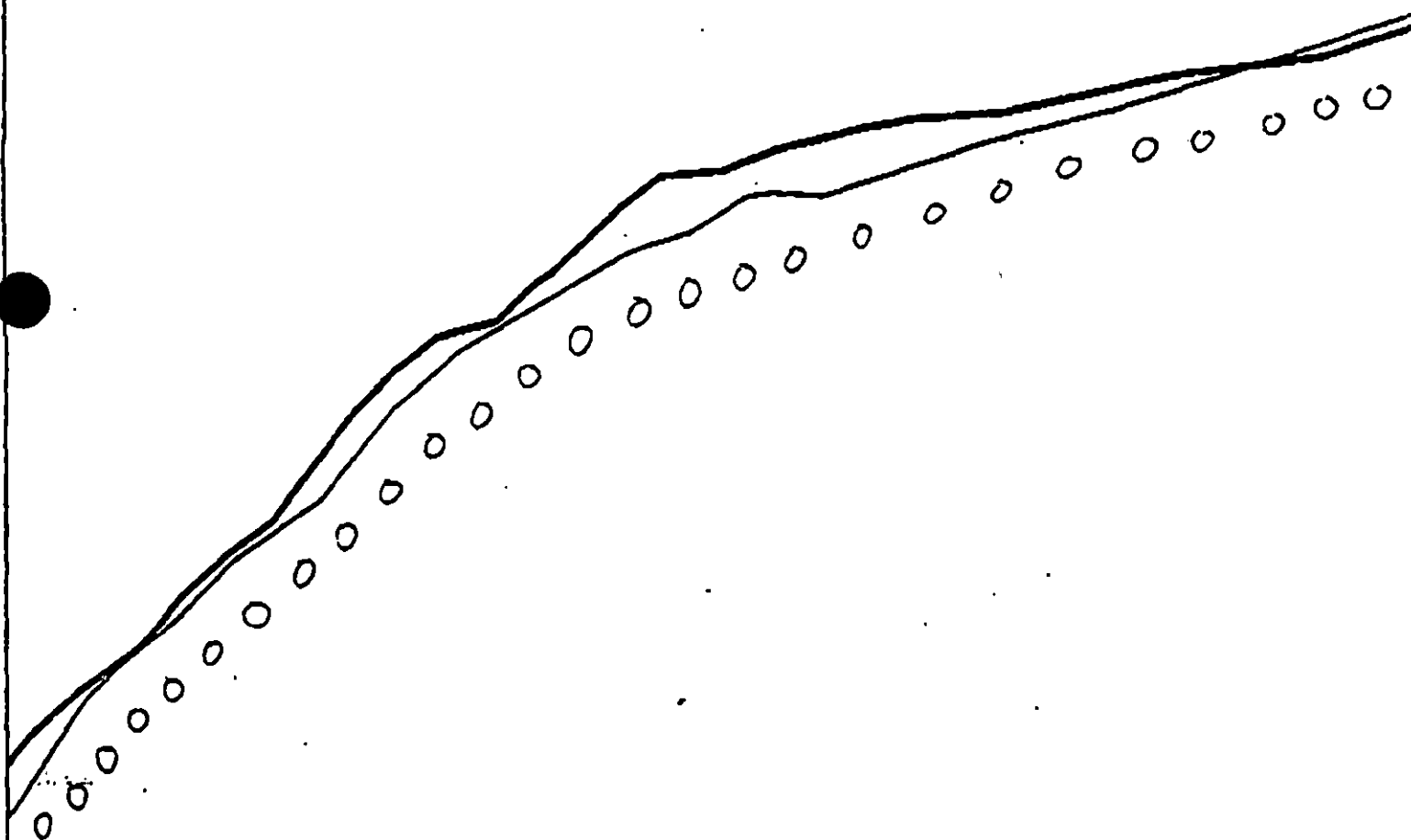
Name: Mike Foget

Date: 4/22/90

Data Entered:

← PWS-250 e

PWS-250 g →



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-500

ADEC Segment Length: 9724m



Map Key: PWS-250f

Name: Mike Fogel

Date: 4/22/90

Data Entered:

PWS-250 f →

PWS-250 a
↓

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-500

ADEC Segment Length: 9724m

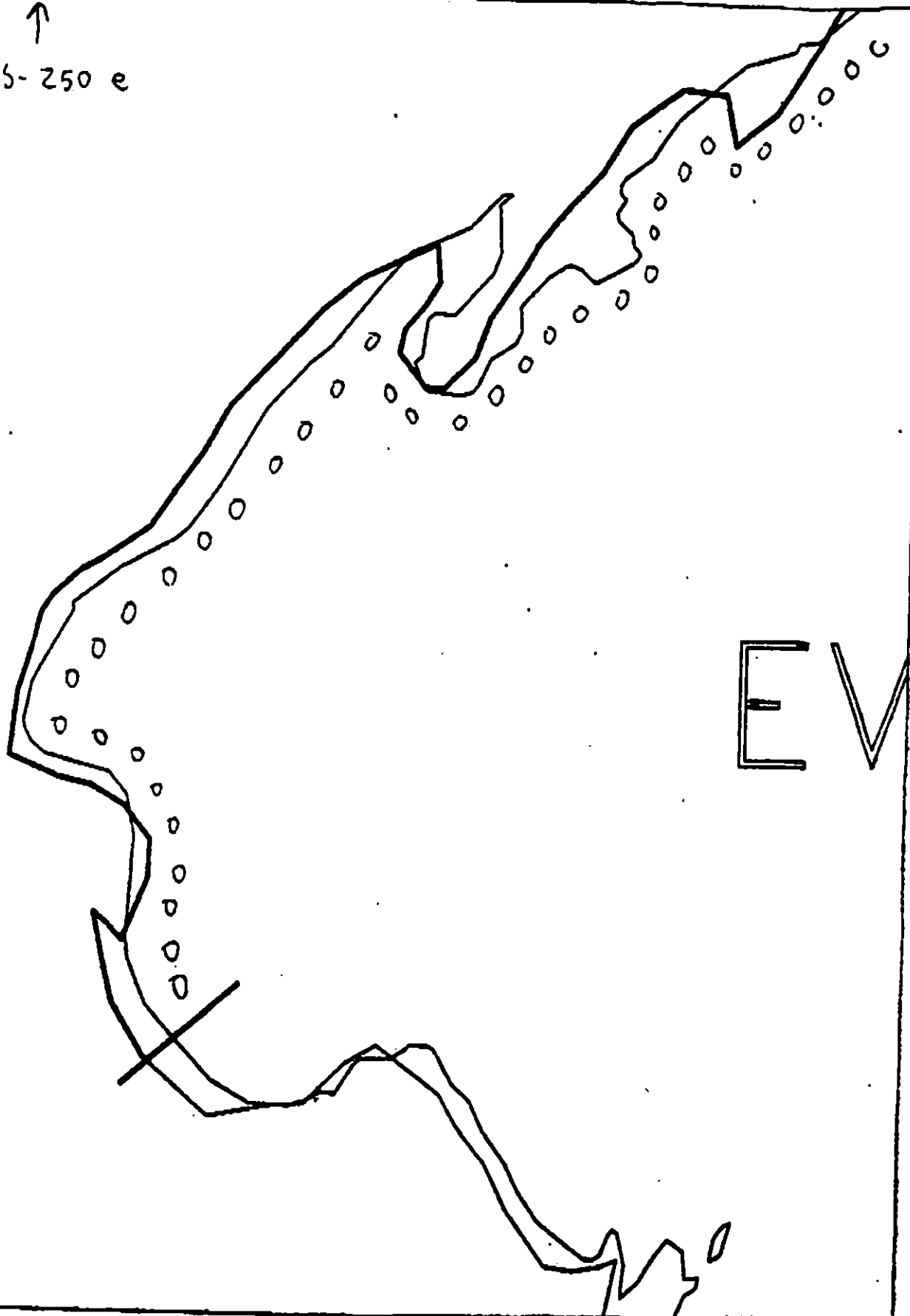

METERS

Map Key: PWS-250e

Name: Mike FoyetDate: 4/22/90

Data Entered:

↑
PWS-250 e



EV

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-500

ADEC Segment Length: 9724m



Map Key: PWS-250a

Name: Mike Fogel

Date: 4/22/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-900 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16650 and 226-40-16652

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 7HH Subsistence area: Finfish harvesting
- 7II Subsistence area: Deer harvesting (8/15 to 2/28)
- 7JJ Subsistence area: Invertebrate harvesting
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)

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 F. Hoffman

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1180 m: No Oil 6718 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: 4/20/90

ADEC ART WENNER
EXXON ROY TEAL
NOAA Bruce Wescott
USCG KENNETH KERR

FOSC:

DATE: 5-1-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 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 Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 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)
 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 9/1)
 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 (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (6/15 to 2/28)
- 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET **DRAFT**

SEGMENT ST / EV-900 SUBDIVISION: DATE 4/8/90

USCG NOAA

NAME GARY SHIGENAKA -

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SEGMENT CONSISTED OF A PORTION OF THE SHORELINE ALONG THE NORTHEASTERN SIDE OF EVANS ISLAND. WITH THE EXCEPTION OF JOHNSON COVE, AT THE SOUTHERN END OF THE SEGMENT NEAR SAWMILL BAY, MOST OF THE COAST WAS EXPOSED SHORELINE TYPIFIED BY ROCKY OUTCROPS AND COBBLE-BOULDER BEACHES. JOHNSON COVE WAS A FAIRLY ENCLOSED EMBAYMENT THAT WOULD BE EXPECTED TO EXPERIENCE LIMITED CIRCULATION. WEATHERED 'BATHTUB RING' AND TAR STAIN WAS OBSERVED ON ROCK FACES AND BOULDERS ALONG THE SOUTHERN APPROACH TO JOHNSON COVE, INTO THE COVE ITSELF. A 1 M DISCONTINUOUS BAND OF TAR SPOTS WAS FOUND IN THE UPPER INTERTIDAL ON BOTH SIDES OF AN ANAEROMOUS STREAM, THE BAND EXTENDING IN TO THE EDGE OF STREAM BANKS. THE DISCONTINUOUS BAND CONTINUED AROUND JOHNSON COVE BUT DISAPPEARED AS THE SHORELINE MADE THE TRANSITION TO A WIDE FLAT PEBBLE BEACH.

ALTHOUGH THIS SEGMENT WAS LISTED AS BEING WIDELY OILED BY THE ADEC MAP, IN GENERAL ONLY. SPORADIC OCCURRENCES OF WEATHERED SPLASH AND STAIN WERE OBSERVED ALONG MOST OF THE REMAINDER OF THE SHORELINE. NEAR THE NORTHERN END OF THE SEGMENT, A SIZEABLE ANAEROMOUS STREAM FED INTO A WIDE EMBAYMENT (A STATE OF ALASKA CENCLA TEST SITE WAS LOCATED HERE). A SOMEWHAT HEAVIER DISTRIBUTION OF STAIN AND COAT (WITH SOME COVER) WAS OBSERVED IN THE UPPER INTERTIDAL ON AND AMONG BOULDERS, BUT THIS WAS LIGHT RELATIVE TO MANY OTHER OILED AREAS. ACCORDING TO THE CUC REPRESENTATIVE, THIS SEGMENT WAS IN FACT FAIRLY EXTENSIVELY OILED, BUT STORM EXPOSURE HAS APPARENTLY WEATHERED MUCH OF WHAT REMAINED.

ADEC

NAME

John Hays

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Oiling observed was still with the exception of some asphalt splatter and light banding of stain in UICZ. Some staining + 1 small asphalt patty was observed in vicinity of an anaeromous stream. The patty was manually broken up and the staining stopped approx 50m from the stream bank. No oil was observed in or near the stream and beaches around both stream on this segment appeared stable. According to local Chugach Village Rep. this stream

LAND MANAGER

NAME JAMES A. BARKER

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

STARTING N. OF SAWMILL BAY SSAT TEAM MOVED N INTO JOHNSON COVE. WE OBSERVED A BATHTUB RING STAIN 3-8cm WIDTH ALONG THE HIGH TIDE MARK. STAIN WAS INTERMITTENT. LENGTH VARIED FROM 1-10m STRETCHES. MOVING N. WEATHERED TAR PATCHES & SPLASHES WERE FOUND IN ISOLATED AREAS. MOST AREAS OF THIS SEGMENT CONTAINED NO TRACE OF OIL. TIDAL ACTION AND WEATHERING HAVE SIGNIFICANTLY CLEANED; REMOVED CONTAMINATED DEBRIS FROM THIS SEGMENT

SHORELINE OILING SUMMARY

REVISION NO. 02/28/90

OG ^{Big} Mike Foges NOAA USCG Gary Shigenaka SEGMENT ST/ EV-900
 BIO Richard Ambrose LAND REP James A Barker SUBDIVISION A
 EXXON Larry Olson ADEC John Hayes TIME 8:30 to 10:00
 TEAM NO. 1 TIDE LEVEL: 4.2 to 4.8 (m) DATE 4/18/90
 EST. SUBDIVISION LENGTH: 7730 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep vertical rocky backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 15 % B 35 % C 30 % P 10 % G 5 % S 5 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 30 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 2100 m NO 5630 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	N	SP	BP	OP	WP	TP	LP	SU	U	M	V
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN				X		X						X		
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X		X	X

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

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED
☒ YES ☐ NO

TYPE (in Cont, 2 plastic containers)

#BAGS 1

Photographs:

Roll No. 0

Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-0.0)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP	BP	OP	WP	TP	LP	SU	U	M	V		
1	20					X	.		X								X				S
2	30					X	.		X										X		P, G, S
3	25					X	.		X									X			P, G, S
4	40					X	.		X									X			S
5	30					X	.		X								X				C, P, G, S
6	15					X	.		X								X				C, P (H, G as 2m)

COMMENTS Oiling was observed in the southern end of the segment as a 0.1m discontinuous splattered stain in the HITZ among Bedrock/Boulders and Cobble. To the North in the cove there was a 2m x 150m discontinuous splattered stain distribution w/ a few tar patties. This was located in the HITZ. This beach was a low orie C/B beach. For the whole segment, most of the shore zone consists of low orie cobble/boulder beach w/ some vertical rocky headlands

REVIEWED JAL DATE 4/13/90

SHORELINE OILING SUMMARY (PAGE 2 of 2)

SEGMENT ST/ EV-900 SUBDIVISION A

Revised

REVISION 03/22/90

SUBSURFACE OIL (CONTINUED)

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		VO	VE	SE	ST	OR	RE	OT	AL	BU	U	M	U		
7	20					X	.		X							X					C, S, C
8	40					X	.		X							X					P
9	30					X	.		X							X					C, P, S
10	20					X	.		X							X					C, P
11	20					X	.		X								X				C, P, S
12	30					X	.		X									X			P, G, S
13	20					X	.		X							X					C, P, G
14	10					X	.		X							X					C, P, C
							.														
							.														
							.														
							.														
							.														
							.														
							.														

COMMENTS

REVIEWED Y W DATE 4/13/90



1. Mike Roget

SEGMENT EV-900

SUBDIVISION A

DATE 4, 8 80

CHECKLIST

- ☒ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ On Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NWTL/WL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pk Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
Pk - No Subsurface Oil
- 2 Δ
Pk - Subsurface Oil
- CT/C

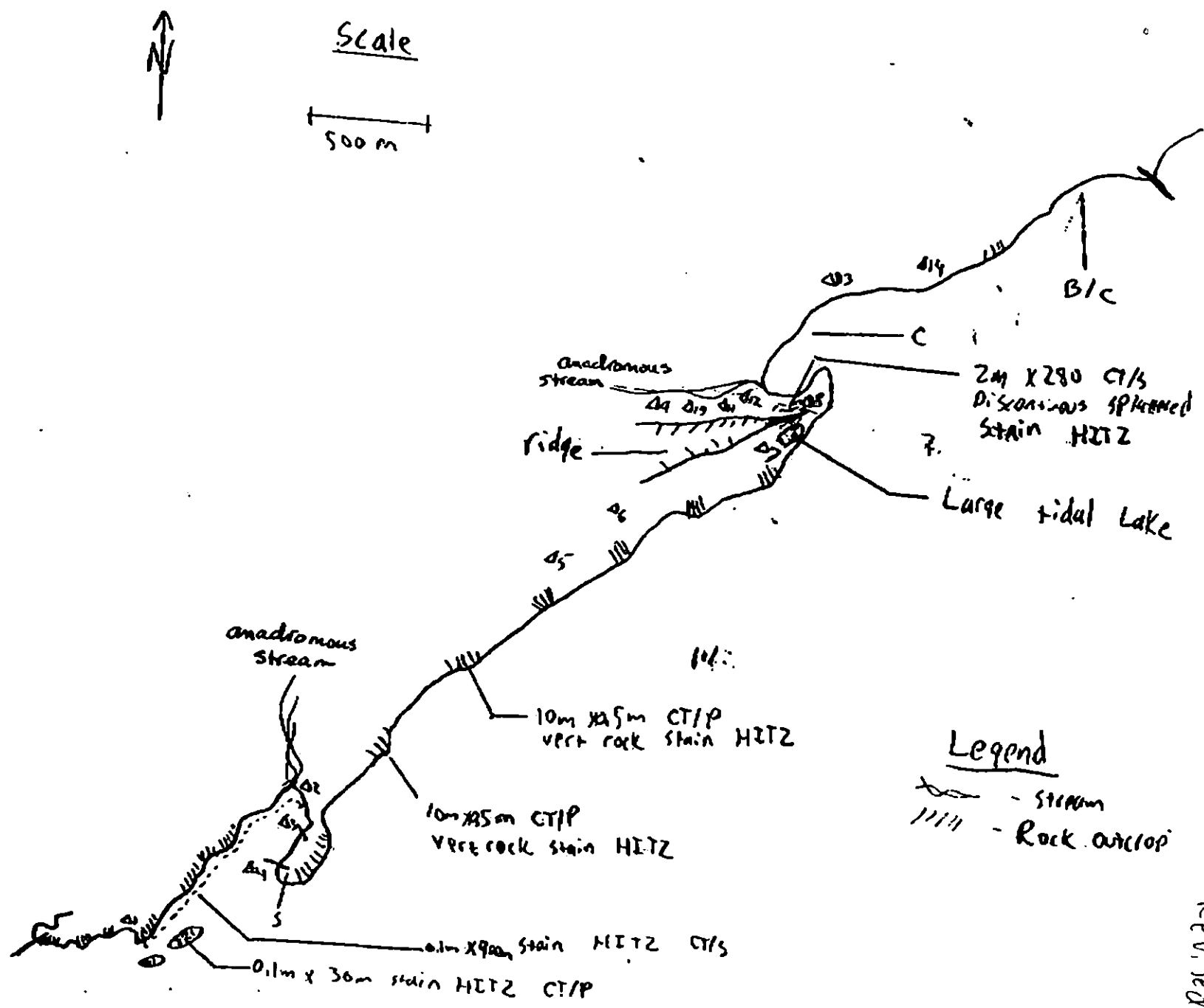
Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- Oiled Vegetation
- 1 $\rightarrow$
Photo location, direction, and number

SKETCH MAP



Legend

- stream
- Rock outcrop

Oil Character Length (m): AP PO CV CT ST 1200 MS PT TB FL NO 6500

Revised

REVISION 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 05/93

 Segment ST/ EV 900 Subdivision A Date (mo/day/yr) 4/8/90

 Time (24 hr) 0830 hrs 1700 hrs Biologist Ambrose

 (A) Substrate type and % of segments:
 (1) Bedrock 15 (2) Boulder 35 (3) Cobble 30 (4) Pebble 10 (5) Sand 10 (6) Silt -

 (B) Overall % cover of biota (% of segment): Dense 15 Moderate 25 Low 60

 (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. -
 Frames -

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	2	2	2	2	NOT PRESENT
3	3	3	X	X	3	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	

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	NOT PRESENT
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	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	

GASTROPODS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	X	2	2	2	2	2	NOT PRESENT
3	3	3	3	3	3	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	

FUCUS

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
3	3	3	3	3	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	

Wildlife Observations/ General Comments: * 14 otters, 2 seals, 12 mergansers, 18 surf scoters, 20ystercatchers, 3 buffleheads, 28 crows, 2 ravens, deer tracks.
 Common bedrock walls and pocket beaches was dense to moderate; in embayments and low beaches cover was generally sparse. Although mussels were sparse overall, they were dense in the few discrete patches in which they occurred.
 Ecological Considerations:

7HH, 7II, 7JJ, 7Z, 1F: No relevant observations.

9 bald eagles seen: 3 pairs of mature eagles plus two other matures and one immature. With one pair, one eagle chased away a third mature eagle. At another site, a mature eagle roosted near a nest while an immature soared nearby.
 Two anadromous streams occur in this segment (see next page).

Revised

EV-900A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-900A

EXXON Segment Length: 7730m

Scale 1" = 1500'

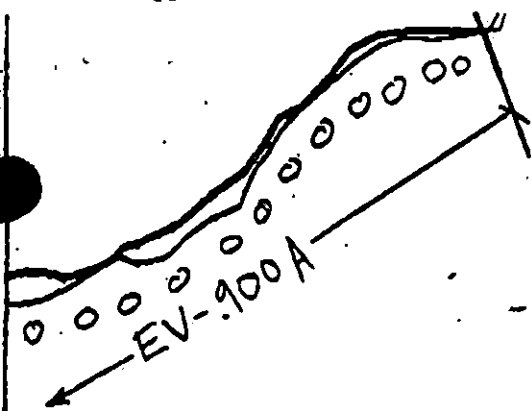


Map Key: PWS-EV-900a

Name: Mike FogesDate: 4/8/90

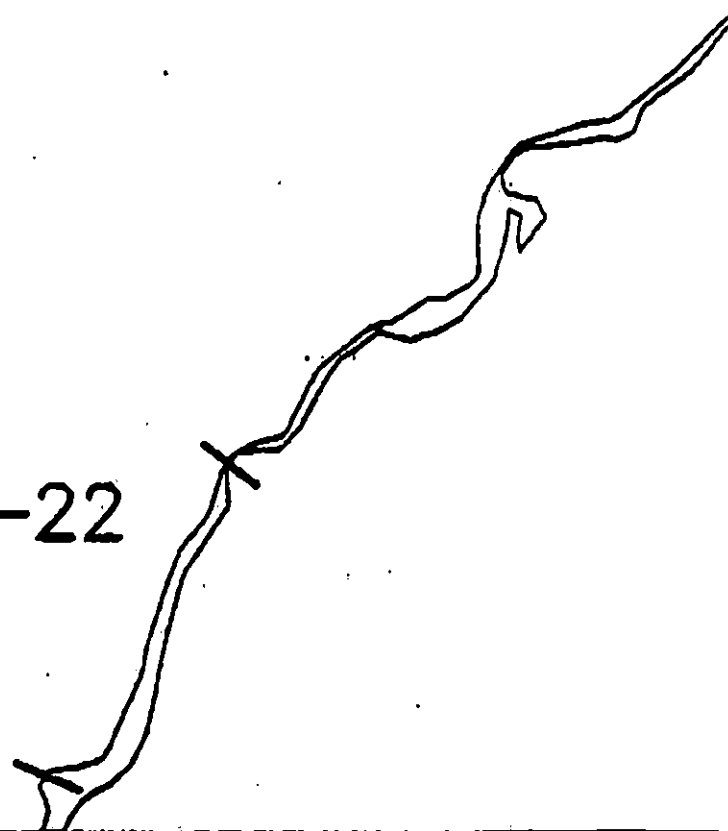
Data Entered:

Revised



LA-21

LA-22



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

EV-900

EXXON Segment Length: 7730m

Scale: 1" = 1500'



Map Key: PWS-EV-900b

Name: Mike Foret

Date: 4/8/90

Date Entered:

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